Chapter 21: Mitigation

A. INTRODUCTION

The preceding chapters of this Draft Supplemental Environmental Impact Statement (DSEIS) discuss the potential for significant adverse environmental impacts to result from the proposed project and potential future development on Lot B. Such potential impacts were identified in the areas of historic resources, community facilities, transportation, and construction. Measures have been examined to minimize or eliminate these anticipated impacts. These mitigation measures are discussed below. This chapter also discusses the potential effect of traffic mitigation measures on air quality and noise.

B. COMMUNITY FACILITIES AND SERVICES

As discussed in Chapter 4, "Community Facilities and Services," the analysis of potential indirect effects on library services finds that the holdings per resident ratio for the combined study area would decrease from 3.03 under the No Action condition to 2.80 with the proposed project in 2032. This ratio would decrease to 5.02 for the Flushing Library and to 0.69 for the Corona Library. For both the Flushing Library and Corona Library, the catchment area population increase would exceed five percent, which may represent a significant adverse impact on library services according to the *CEQR Technical Manual*. However, as noted above, many of the residents in the catchment areas also reside within the catchment areas for other nearby libraries and would also be served by these libraries, residents of the study area would have access to the entire Queens Library system through the inter-library loan system, and would also have access to libraries near their places of work. In consideration of the above, the lead agency, in consultation with the Queens Public Library, has determined that the additional population introduced by the proposed project would impair the delivery of library services in the study area in 2032. Therefore, Phase 2 of the proposed project would result in a significant adverse impact on library services. To mitigate this impact, adequate space[1] within the 125,000 square feet of as-yet-unprogrammed community facility space in the program for Phase 2 would be made available to ~~could potentially~~ be utilized as a branch library or auxiliary facility for the Queens Library system, or additional volumes or programs to accommodate new users could be provided if adequate space in nearby branches exists. Although no developer has yet been designated for Phase 2, the provision of additional library space in Phase 2 would be based on further consultation with Queens Public Library and the lead agency.

As discussed in Chapter 4, the analysis of indirect effects on child care facilities finds that the proposed project may result in significant adverse impacts on publicly funded child care facilities in 2028. Therefore, consistent with the conclusions of the 2008 FGEIS, to mitigate the potential impact on child care facilities that could occur by 2028, the Queens Development

[1] In other projects, 15,000–20,000 square feet of community facility space has been adequate for the operation of a branch library.

Group (i) would consult with ACS to determine the appropriate way to meet demand for child care services generated by ~~development on~~ the proposed project; and (ii) would, as directed by ACS, add capacity to existing facilities or provide a new child care facility within or near the area surrounding the project site. To mitigate the potential impact on child care facilities that could occur by 2032, EDC would require, as part of the developer's agreement, that the designated developer of Phase 2 consult with the New York City Administration for Child Services (ACS) to determine the appropriate way to meet demand for child care services generated by development in the District by 2032 and would, as directed by ACS, add capacity to existing facilities or provide a new child care facility within or near the area surrounding the project site.

Possible mitigation measures, which would be implemented by the developer(s) of Phase 1B and Phase 2, include adding capacity to existing facilities or providing a new child care facility within or near the area surrounding the project site. At this point, however, it is not possible to know exactly which type of mitigation would be most appropriate and when, because several factors may limit the number of children in need of publicly funded child care slots. Families in the study area could make use of alternatives to publicly funded child care facilities, such as homes licensed to provide family child care which families of eligible children could elect to use instead of a public child care center. In addition, parents of eligible children may use ACS vouchers to finance care at private child care centers either within the study area or could use facilities outside of study area.

C. HISTORIC AND CULTURAL RESOURCES

As discussed in Chapter 7, "Historic and Cultural Resources," there are substantial challenges inherent in retaining the historic building located in the District—the Former Empire Millwork Corporation Building—and the proposed project contemplates demolition of this building in Phase 2. A developer for Phase 2 has not yet been selected, and the Queens Development Group may or may not be selected as the designated developer for Phase 2. Before the development of Phase 2, the selected developer will consult with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the New York City Landmarks Preservation Commission (LPC) to evaluate any remaining potential alternatives to demolition. If none are identified, measures to mitigate this adverse impact would be developed in consultation with OPRHP and LPC. The mitigation measures could include recording the building through a Historic American Buildings Survey (HABS)-level photographic documentation and accompanying narrative.

D. TRAFFIC AND PARKING

As discussed in Chapter 14, "Transportation," the proposed project would result in significant adverse traffic impacts at many locations within the study area. The sections below identify the mitigation that may be needed at each location for each phase of development and provide descriptions of mitigation findings at the intersections analyzed and within the highway network. A separate section is then provided describing implementation of the mitigation measures. ~~The effectiveness and feasibility of proposed mitigation measures will be further assessed between the draft and final SEIS.~~ Detailed LOS tables are presented at the end of the chapter.

TRAFFIC—PHASE 1A (2018)

Table 21-1 presents a summary of significant adverse traffic impacts and their ability to be mitigated, and **Table 21-2** summarizes the unmitigated traffic study area locations by time period. Details of the intersection capacity results and traffic mitigation measures are provided in tables at the back of the chapter.

Table 21-1
Traffic Impact Mitigation Summary—Phase 1A (2018)

	Without a Mets Game				With a Mets Game		
Intersection	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Weekday Pre-Game PM	Saturday Pre-Game Midday	Saturday Post-Game PM
No Significant Impact	~~14~~ 17	~~12~~ 16	~~9~~ 12	~~9~~ 12	~~8~~ 9	~~12~~ 13	~~10~~ 11
Fully Mitigated Impact	~~13~~ 12	~~13~~ 12	15	16	~~15~~ 13	~~13~~ 10	~~13~~ 11
Partially Mitigated Impact	~~0~~ 1	1	1	1	~~1~~ 3	~~1~~ 4	~~3~~ 5
Unmitigated Impact	2	3	4	3	~~5~~ 7	~~3~~ 5	~~3~~ 5

Table 21-2
Summary of Unmitigated Intersections—Phase 1A (2018)

	Without a Mets Game				With a Mets Game		
Intersection	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Weekday Pre-Game PM	Saturday Pre-Game Midday	Saturday Post-Game PM
Astoria Boulevard at 108th Street			X		X		
Northern Boulevard at 108th Street							
Northern Boulevard at 114th Street							
Northern Boulevard at 126th Street							
Northern Boulevard at Prince Street	X	X	X	X	X	X	X
Northern Boulevard at Main Street		X	X	X	X		X
Northern Boulevard at Union Street							
Northern Boulevard at Parsons Boulevard							
34th Avenue at 114th Street							
34th Avenue at 126th Street							
Roosevelt Avenue at 108th Street							
Roosevelt Avenue at 111th Street							
Roosevelt Avenue at 114th Street							
Roosevelt Avenue at 126th Street					X	X	
Roosevelt Avenue at College Point Boulevard							
Roosevelt Avenue at Prince Street							
Roosevelt Avenue at Main Street							
Roosevelt Avenue at Union Street	X	X	X	X	X	X	X
Roosevelt Avenue at Parsons Boulevard							
Kissena Boulevard at Main Street							
Sanford Avenue at College Point Boulevard							
Sanford Avenue at Union Street							
Sanford Avenue at Parsons Boulevard							
32nd Avenue at College Point Boulevard							
Northern Boulevard at College Point Boulevard							
Boat Basin Road at Stadium Road							
Boat Basin Road at World's Fair Marina							
Stadium Road at Grand Central Parkway							
Willets Point Boulevard at Northern Boulevard							
126th Street at 36th Avenue					X	X	X
126th Street at 37th Avenue					X	X	X
Northern Boulevard at 126th Place							
Notes: "X" means the intersection would be unmitigated in the corresponding peak hour							

The overall finding of the traffic mitigation analysis is that the majority of locations analyzed under the proposed project would be significantly impacted, and that a broad range of mitigation measures would be needed. Depending on the peak hour, approximately one-half or more of the significantly impacted locations could be fully or partially mitigated with traffic signal operation changes, such as signal phasing and/or timing changes, signalization of an unsignalized intersection, lane re-striping, parking prohibitions, or turn prohibitions (i.e., the prohibition of right turns from southbound College Point Boulevard at Roosevelt Avenue, the prohibition of left turns from westbound Roosevelt Avenue at College Point Boulevard, and the prohibition of left turns from westbound Northern Boulevard at 114th Street).

Three locations—including 126th Street at Northern Boulevard, 126th Street/Grand Central Parkway (GCP) ramp at 34th Avenue, and the GCP exit ramp at West Park Loop/Stadium Road—would require special, more intensive mitigation measures to mitigate the significant impacts in all peak hours. This more intensive mitigation is explained in detail in the following sections. The locations that were fully or partially mitigated during any of the seven peak analysis hours are listed below:

~~The overall finding of the traffic mitigation analysis is that the majority of locations analyzed under the proposed project would be significantly impacted, and that a broad range of mitigation measures would be needed. Depending on the peak hour, approximately one-half or more of the significantly impacted locations could be fully or partially mitigated with traffic signal operation changes, such as signal phasing and/or timing changes, signalization of an unsignalized intersection, lane re-striping, parking prohibitions, or turn prohibitions (i.e., the prohibition of right turns from southbound College Point Boulevard at Roosevelt Avenue, the prohibition of left turns from westbound Roosevelt Avenue at College Point Boulevard, and the prohibition of left turns from westbound Northern Boulevard at 114th Street).~~

~~Three locations—including 126th Street at Northern Boulevard, 126th Street/Grand Central Parkway (GCP) ramp at 34th Avenue, and the GCP exit ramp at West Park Loop/Stadium Road—would require special, more intensive mitigation measures to mitigate the significant impacts in all peak hours. This more intensive mitigation is explained in detail in the following sections. The locations that were fully or partially mitigated during any of the seven peak analysis hours are listed below:~~

- 108th Street at Astoria Boulevard
- 108th Street at Northern Boulevard
- 114th Street at Northern Boulevard
- 126th Street at Northern Boulevard
- Union Street at Northern Boulevard
- Parsons Boulevard at Northern Boulevard
- 114th Street at 34th Avenue
- 126th Street/GCP Ramp at 34th Avenue
- 108th Street at Roosevelt Avenue
- 111th Street at Roosevelt Avenue
- 114th Street at Roosevelt Avenue
- 126th Street at Roosevelt Avenue
- College Point Boulevard at Roosevelt Ave
- Prince Street at Roosevelt Avenue
- Main Street at Roosevelt Avenue
- Parsons Boulevard at Roosevelt Avenue
- Main Street at Kissena Boulevard
- Parsons Boulevard at Sanford Avenue
- Boat Basin Road at Stadium Road
- Boat Basin Road at World's Fair Marina
- GCP Ramp at West Park Loop/Stadium Road

The following intersections could only be partially mitigated or could not be mitigated at all during the following time periods:

- In the weekday non-game AM peak hour, 114th Street at Roosevelt Avenue would be partially mitigated and there would be two unmitigatable intersections—Union Street at Roosevelt Avenue, and Prince Street at Northern Boulevard.
- In the non-game weekday midday peak hour, College Point Boulevard at Roosevelt Avenue would be partially mitigated, and three intersections including the Northern Boulevard intersections at Prince Street and at Main Street, and the intersection of Union Street at Roosevelt Avenue could not be mitigated.
- In the non-game weekday PM peak hour, College Point Boulevard at Roosevelt Avenue would be partially mitigated, and four intersections including 108th Street at Astoria Boulevard, the Northern Boulevard intersections at Prince Street and at Main Street, and the intersection of Union Street at Roosevelt Avenue could not be mitigated.
- In the non-game Saturday midday peak hour, College Point Boulevard at Roosevelt Avenue would be partially mitigated, and three intersections including the Northern Boulevard intersections at Prince Street and at Main Street, and the intersection of Union Street at Roosevelt Avenue could not be mitigated.
- In the weekday pre-game peak hour, 126th Street/GCP Ramp at 34th Avenue, College Point Boulevard at Roosevelt Avenue, and Boat Basin Road at Stadium Road would be partially mitigated, and ~~five~~ seven intersections could not be mitigated, including 108th Street at Astoria Boulevard, the Northern Boulevard intersections at Prince Street and at Main Street, ~~and~~ the Roosevelt Avenue intersections at 126th Street and at Union Street, and the 126th Street intersections at 36th and 37th Avenues.
- In the Saturday pre-game peak hour, 126th Street/GCP Ramp at 34th Avenue, 108th Street at Roosevelt Avenue, 114th Street at Roosevelt Avenue, and ~~126th Street at Roosevelt Avenue~~ College Point Boulevard at Roosevelt Avenue could be partially mitigated, and ~~three~~ five intersections could not be mitigated, including Prince Street at Northern Boulevard, ~~and~~ the Roosevelt Avenue intersections at 126th Street and at Union Street, and the 126th Street intersections at 36th and 37th Avenues.
- In the Saturday post-game peak hour, there would be ~~three~~ five partially mitigated intersections—126th Street at Northern Boulevard, 126th Street/GCP Ramp at 34th Avenue, 114th Street at Roosevelt Avenue, 126th Street at Roosevelt Avenue, and College Point Boulevard at Roosevelt Avenue~~, and Boat Basin Road at Stadium Road~~ —and ~~three~~ five intersections could not be mitigated, including the Northern Boulevard intersections at Prince Street and at Main Street, ~~and~~ the intersection of Union Street at Roosevelt Avenue, and the 126th Street intersections at 36th and 37th Avenues.

A summary of the traffic mitigation findings for each analysis location, including the proposed mitigation measures where applicable, is provided below.

ASTORIA BOULEVARD

The analyzed intersection at 108th Street would be significantly impacted during the non-game weekday PM, weekday pre-game and weekend post-game peak hours. The impacts on the northbound de-facto left turn lane on 108th Street and on the eastbound Astoria Boulevard approach could not be mitigated during the non-game PM and weekday pre-game peak hours. Signal timing modifications at this intersection would not be possible without creating new significant impacts, and geometric modifications to improve capacity would not be feasible, except during the weekend post-game peak hour, where the impact on the westbound left turn lane on Astoria Boulevard could be fully mitigated by modifying the signal timing plan.

NORTHERN BOULEVARD

~~All seven~~ Seven of the eight intersections analyzed along Northern Boulevard would be significantly impacted during the non-game weekday PM, weekday pre-game arrival and weekend post-game departure peak hours. Six of the ~~seven~~ eight intersections analyzed along Northern Boulevard would be significantly impacted during the non-game weekday AM and midday peak hours and the Saturday midday peak hour, and ~~five~~ six would be significantly impacted during the pre-game Saturday midday arrival peak hour.

Northern Boulevard at 108th Street

This intersection would be significantly impacted during all non-game and game day peak hours. This intersection could be fully mitigated by installing "No Standing Anytime" regulations along the east curb and west curb of the northbound and southbound approaches, respectively, for 250 feet from the intersection to allow for two moving lanes, restriping the southbound approach of 108th Street from one 23-foot-wide lane to one 11-foot-wide exclusive left-turn lane and one 12-foot-wide shared through-right lane for 175 feet, and modifying the signal timing plan in all seven time periods.

Northern Boulevard at 114th Street

Mitigation would not be necessary during the non-game weekday and Saturday midday peak hours. Significant adverse impacts would be ~~partially mitigated during the Saturday post-game departure peak hour and~~ fully mitigated during all other peak hours ~~the Saturday pre-game and non-game Saturday midday peak hours~~ by modifying the signal timing plan and by ~~monitoring the westbound Northern Boulevard traffic conditions by Traffic Enforcement Agents (TEAs) who can manually override the traffic signal timing patterns to improve traffic operation for intersection approaches experiencing congestion during the Saturday post-game peak hour. In order to fully mitigate significant impacts in all peak hours, in addition to the signal timing changes, other mitigation measures would include prohibition of~~ prohibiting left turns from westbound Northern Boulevard and diverting them to southbound 114th Street, ~~prohibition of~~ prohibiting parking along the ~~west~~ east side of southbound 114th Street and ~~lane restriping~~ restriping the southbound 114th Street approach as two 11-foot-wide travel lanes and the receiving lanes as two 11-foot-wide moving lanes with parking on both sides.

Northern Boulevard at 126th Street

This intersection would be significantly impacted during all seven peak hours ~~except during the Saturday pre-game peak hour~~. Significant impacts expected on the northbound 126th Street approach and on westbound Northern Boulevard (leading to the intersection from the Van Wyck and Whitestone Expressway off-ramps) could be fully mitigated in all non-game peak hours and during the weekday and Saturday pre-game peak hours and partially mitigated in the Saturday post-game peak hour by modifying the signal timing plan in addition to more intensive measures discussed below. ~~and by having TEAs monitor traffic conditions (i.e., manually override the traffic signal timing patterns to improve traffic operation for intersection approaches experiencing congestion) on the northbound approach. None of the significant impacts expected during the remaining analysis peak hours could be mitigated by applying the above mentioned mitigation measures.~~ Because this intersection is the convergence point of Northern Boulevard, 126th Street, and two highway exit ramps, it would carry significant project-generated traffic volumes. Under existing conditions, consistently long queues are experienced on the westbound Northern Boulevard approach, especially the lane adjacent to the north curb, which receives the traffic volume from the southbound Whitestone Expressway and the northbound Van Wyck

Expressway exit ramps. One of the mitigation measures at 126th Street/GCP Ramp at 34th Avenue includes closure of the eastbound Northern Boulevard ramp to 126th Street and diversion of traffic through this intersection to 126th Place. ~~Therefore,~~ In order to fully mitigate the significant impacts during all seven peak hours, this intersection would require additional cost intensive mitigation measures including installation of ~~quick-curb (i.e., plastic reflective pylons used for channelizing the traffic)~~ Jersey barriers and traffic signal louvers (used on traffic signals to avoid confusion on two closely spaced intersection approaches where approaching motorists may be able to see the signal indication for another approach) on the westbound approach between the right-most lane and the center lane to allow Van Wyck and Whitestone Expressway ramp traffic to operate as free flow through the intersection, plus widening the westbound Northern Boulevard approach by shifting the north and south curbs to allow for a 15-foot-wide right-most lane, modification of signal timing, widening of the eastbound Northern Boulevard approach from two 12-foot-wide lanes to three 10-foot-wide lanes, prohibiting pedestrian crossing in the east crosswalk, channelizing the northbound left-turn lanes to allow for smoother turns onto westbound Northern Boulevard, and implementation of signal timing changes needed to coordinate the northbound 126th Street approach with the upstream signal at the intersection of 126th Street and 34th Avenue.

Northern Boulevard at 126th Place

Significant impacts are not expected during any of the analysis peak hours. However, a traffic signal would be installed to allow pedestrians to cross safely from the south side of Northern Boulevard to the proposed MTA bus stop in the median of Northern Boulevard.

Northern Boulevard at Prince Street

None of the significant impacts expected during the seven analysis peak hours could be mitigated. With impacts occurring on the Northern Boulevard approaches, the geometric complexity and signal timing characteristics of this intersection~~, there is limited~~ limit opportunity for mitigation.

Northern Boulevard at Main Street

Mitigation would not be required during the weekday non-game AM peak hour and the Saturday pre-game arrival peak hour. Significant impacts during the other five peak hours could not be mitigated.

Northern Boulevard at Union Street

This intersection would be significantly impacted during all non-game and game day peak hours with significant impacts expected on eastbound Northern Boulevard during the non-game weekday AM and midday peak hours and the Saturday post-game peak hour, and on both eastbound and westbound Northern Boulevard during the non-game weekday PM, Saturday midday, weekday pre-game, and the Saturday pre-game peak hours. Installing "No Standing 7 AM–10 PM" regulations along the north curb of the westbound Northern Boulevard approach 200 feet from the intersection to allow for one 10-foot-wide daylighted shared through-right lane, and signal timing adjustments, could fully mitigate significant impacts in all seven peak hours.

Northern Boulevard at Parsons Boulevard

This intersection would be significantly impacted during all non-game and game day peak hours. Installing "No Standing Anytime" regulations along the south side of eastbound Northern Boulevard, north side of westbound Northern Boulevard, and west side of southbound Parsons

Boulevard and signal timing adjustments during the non-game weekday AM and PM, and weekday pre-game peak hours could fully mitigate significant impacts in all seven time periods.

34TH AVENUE

The intersection of 34th Avenue at 126th Street (and the Grand Central Parkway and eastbound Northern Boulevard ramps) would be significantly impacted during all seven peak hours since the intersection would be a key gateway to the District. The other intersection, 34th Avenue at 114th Street, would be significantly impacted during all seven peak hours except the non-game weekday AM peak hour.

34th Avenue at 114th Street

Significant impacts are expected during all seven peak hours except the non-game weekday AM peak hour, which could be fully mitigated by modifying the signal timing plan.

34th Avenue at 126th Street

Significant impacts are expected during all seven analysis peak hours. As a key entrance point to the District, this intersection would carry significant volumes of project generated traffic. Its geometric complexity, with approaches from two exit ramps in addition to the 126th Street northbound and 34th Avenue eastbound and westbound approaches, limits traditional capacity improvement options. ~~Signal timing changes would fully mitigate the significant adverse impacts only during the weekday AM peak hour, but would only partially mitigate impacts during the remaining six peak hours.~~ To fully mitigate significant impacts during all non-game peak hours ~~six of the seven~~ and partially mitigate significant impacts during the game day time periods, this intersection would require cost intensive mitigation measures including closure of the existing slip ramp from ~~GCP/Astoria Boulevard~~ eastbound Northern Boulevard to 126th Street and ~~combining it with the existing ramp from eastbound Northern Boulevard to 126th Street~~ diverting traffic to 126th Place, striping the proposed ~~combined~~ widened GCP/Astoria Boulevard ramp as one ~~12-foot-wide shared left-through lane~~ 11-foot-wide left-turn lane and two 11-foot-wide through lanes, ~~one 12-foot-wide exclusive through lane, and one 12-foot-wide exclusive right-turn lane,~~ constructing a channelized right-turn from the GCP/Astoria Boulevard ramp to westbound Shea Road (upstream of the intersection), ~~signalization of the intersection of the Northern Boulevard ramp at GCP/Astoria Boulevard ramp (which currently operates as an unsignalized intersection)~~ widening the westbound 34th Avenue approach to two 11-foot-wide travel lanes and two 11-foot-wide receiving lanes, restriping the northbound 126th Street approach from two 11-foot-wide travel lanes, one 12-foot-wide travel lanes and one 7-foot-wide hatched median to one 12-foot-wide exclusive left-turn lane, two 12-foot-wide travel lanes, and one 5-foot-wide Class II bicycle lane, and modifying the existing signal timing plan.

ROOSEVELT AVENUE

All nine intersections would be significantly impacted during the seven analysis peak hours, except for the intersection of Roosevelt Avenue at 108th Street during the weekday AM peak hour, the intersection at 111th Street during the weekday AM and midday peak hours, the intersection at Prince Street during the weekday midday, non-game Saturday midday and all game day peak hours, the intersection at Main Street during the non-game weekday midday and Saturday pre-game peak hours, and the intersection at Parsons Boulevard during the weekday midday and PM peak hours, and the Saturday pre-game and post-game peak hours. In each time period, the intersection of Roosevelt Avenue at Union Street would be unmitigatable. The intersection of Roosevelt Avenue at College Point Boulevard could be fully mitigated during the non-game weekday AM peak hour and

partially mitigated during the ~~non-game weekday midday, PM and Saturday midday~~ other six peak hours~~, and during the Saturday post-game peak hour~~. The intersection of Roosevelt Avenue at 126th Street could be partially mitigated during ~~all game day~~ the Saturday post-game peak hour~~s~~ and would be unmitigatable during the weekday and Saturday pre-game peak hours, and the intersection at 108th Street could be partially mitigated during the Saturday pre-game arrival peak hour. Limited mitigation options for the Roosevelt Avenue corridor would be possible, due in part to limited space for travel lanes and critical curbside activities, including bus stops, bus layover, and truck loading/unloading, and columns supporting the No. 7 subway line.

Roosevelt Avenue at 108th Street

Significant impacts would occur in all peak hours except during the non-game weekday AM peak hour and could be fully mitigated (except during the Saturday pre-game peak hour when it would be only partially mitigated) by providing "No Standing Anytime" parking regulations within 150 feet of the intersection on the east side of northbound 108th Street and the west side of southbound 108th Street, to allow for one 11-foot-wide left-through lane and one 11-foot-wide right-turn lane.

Roosevelt Avenue at 111th Street

Significant impacts would occur in all peak hours except during non-game weekday AM and midday peak hours and could be fully mitigated by providing "No Standing 10 AM–10 PM" parking regulations within 100 feet of the intersection on the north side of the westbound Roosevelt Avenue approach, to allow for one 11-foot-wide left-through lane and one 10-foot-wide right-turn lane.

Roosevelt Avenue at 114th Street

Significant impacts would occur in all seven peak hours. These impacts could be partially mitigated during the non-game weekday AM and Saturday pre- and post-game peak hours and could be fully mitigated during the remaining four peak hours by shifting the centerline of the southbound 114th Street approach two feet to the east, installing "No Standing Anytime" regulations along the west curb of the southbound 114th Street approach 150 feet from the stop bar to allow for one 12-foot-wide shared left-through lane and one 10-foot-wide right-turn lane, installing "No Standing Anytime" regulations along the south curb of the eastbound Roosevelt Avenue approach 150 feet from the stop bar to allow for one 11-ft-foot-wide left-turn lane and one 11-foot-wide shared through-right lane, shifting the centerline of the westbound Roosevelt Avenue approach eleven feet to the south, and restriping the westbound Roosevelt Avenue approach as one 11-foot-wide left-turn pocket (250 feet long), one 11-foot-wide through lane, and one 11-foot-wide right-turn lane (upstream of the intersection, Roosevelt Avenue would continue to operate as two lanes in each direction). In addition to the above mitigation measures, signal timing changes would be necessary to fully or partially mitigate expected significant impacts during all game and non-game peak hours except during the non-game weekday AM and midday peak hours.

Roosevelt Avenue at 126th Street

Significant impacts would occur in all seven peak hours. These impacts could be fully mitigated during all non-game peak hours, and could be partially mitigated in the Saturday post-game peak hour by restriping the southbound 126th Street approach as one 12-foot-wide right-turn lane and one 11-foot-wide shared left-through lane, and by implementing a new signal phasing and timing plan. The significant impacts that occur during the weekday and Saturday pre-game peak hours could not be mitigated.

Roosevelt Avenue at College Point Boulevard

Significant impacts would occur in all seven peak hours. These impacts could be fully mitigated during the non-game weekday AM peak hour, ~~weekday pre-game and Saturday pre-game peak hours,~~ and could be partially mitigated in the remaining ~~four~~ six peak hours. Measures necessary for the full or partial mitigation of the significant impacts include ~~geometric changes,~~ signal phasing and timing plan changes, turn prohibitions, limited prohibition of parking, and pavement restriping. ~~The geometry of the east leg of the intersection would be changed by removing the 22-foot-wide center median and replacing it with a 9-foot-wide tapered hatched median between the proposed 13-foot-wide westbound left-turn pocket and the westbound through-right lanes.~~ The westbound Roosevelt Avenue ~~through-right~~ travel lanes would be restriped from one 13-foot-wide travel lane and one 17-foot-wide travel lane to ~~one 11-foot-wide~~ two 15-foot-wide travel lane~~s~~ ~~and one 19-foot-wide travel lane for 80 feet~~. Left turns from westbound Roosevelt Avenue to southbound College Point Boulevard would be prohibited and diverted to Janet Place and 39th Avenue. The northbound College Point Boulevard approach would be restriped from one 9-foot-wide exclusive left-turn lane, one 13-foot-wide travel lane, and one 18-foot-wide travel lane with parking to ~~one~~ two 10-foot-wide exclusive left-turn lane~~s~~~~,~~ and two 10-foot-wide ~~through~~ travel lanes~~, and one 10-foot-wide exclusive right-turn lane~~ for 200 feet. The southbound College Point Boulevard approach would be restriped from one 11-foot-wide travel lane and one 19-foot-wide travel lane to three 10-foot-wide travel lanes for 200 feet. The eastbound Roosevelt Avenue approach would be restriped from one 14-foot-wide travel lane and one 12-foot-wide travel lane to two 13-foot-wide travel lanes. Parking prohibitions at this location include installing "No Standing Anytime" regulations along the east curb of the northbound approach of College Point Boulevard for 250 feet and installing "No Standing Anytime" regulations along the west curb of the southbound approach of College Point Boulevard for 200 feet. Southbound right-turn traffic on College Point Boulevard would be diverted to 39th Avenue and Janet Place. Signal phasing and timing plan would be modified.

Roosevelt Avenue at Prince Street

Significant impacts would occur during the non-game weekday AM and PM peak hours and could be fully mitigated by ~~shifting the center line of the eastbound Roosevelt Avenue approach 6 feet to the north, restriping the eastbound Roosevelt Avenue approach from one 11-foot-wide travel lane and one 19-foot-wide travel lane with parking to one 11-foot-wide exclusive left-turn lane, one 11-foot-wide travel lane, one 6-foot-wide hatched buffer, and one 8-foot-wide parking lane for 250 feet, restriping the receiving side of westbound Roosevelt Avenue from one 9-foot-wide travel lane and one 19-foot-wide travel lane to two 11-foot-wide travel lanes for 250 feet and~~ modifying the signal ~~phasing and~~ timing plan.

Roosevelt Avenue at Main Street

This intersection would be significantly impacted during all ~~seven~~ peak hours except for the non-game midday and Saturday pre-game peak hours and could be fully mitigated by modifying the signal timing plan.

Roosevelt Avenue at Union Street

None of the significant impacts expected during all seven peak hours could be mitigated.

Roosevelt Avenue at Parsons Boulevard

Significant impacts are expected during the non-game weekday AM, Saturday midday and weekday pre-game peak hours. Significant impacts during the non-game weekday AM and

weekday pre-game peak hour could be fully mitigated by prohibiting parking between 7 AM–10 AM and 4 PM–7 PM (Monday through Friday) on the northbound approach 75 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane and modifying the signal timing. Significant impacts during the Saturday midday peak hour could be fully mitigated by modifying the signal timing.

SANFORD AVENUE

One of the three intersections analyzed along Sanford Avenue, i.e., Parsons Boulevard at Sanford Avenue, would be significantly impacted during the non-game weekday midday peak hour.

Sanford Avenue at College Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

Sanford Avenue at Union Street

Significant impacts are not expected during any of the analysis peak hours.

Sanford Avenue at Parsons Boulevard

Modifying signal timings would fully mitigate significant impacts expected during the non-game weekday midday peak hour.

OTHER STUDY AREA LOCATIONS

Kissena Boulevard at Main Street

Modifying signal timings would fully mitigate significant impacts during the Saturday midday peak hour.

32nd Avenue at College Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

World's Fair Marina at Boat Basin Road

Significant impacts would occur in all seven peak hours. Significant impacts at this currently unsignalized intersection could be fully mitigated by installing a traffic signal, operating with a 90-second cycle, to provide sufficient gaps for northbound Boat Basin Road left turn traffic toward the entrance ramp to the westbound Grand Central Parkway, striping the westbound approach as one 11-foot-wide left-turn lane and one 11-foot-wide shared left-through lane, and striping the northbound approach as two 10-foot-wide left-turn lanes and one 10-foot-wide right-turn lane.

Northern Boulevard Service Road at College Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

Boat Basin Road at Stadium Road

Significant impacts are expected in all peak hours except during the non-game weekday AM and midday peak hours and could be fully mitigated during the non-game weekday PM, Saturday midday, and Saturday pre-game and post-game peak hours, and could be partially mitigated during the weekday pre-game ~~and Saturday post-game~~ peak hour~~s~~ by installing an actuated signal controller and by modifying the signal phasing and timing plan.

Stadium Road at the Grand Central Parkway Ramp

Significant adverse impacts are expected during non-game weekday midday, Saturday midday, weekday pre-game, and Saturday pre-game peak hours, and could be fully mitigated by

widening the exit ramp from the westbound GCP to add one travel lane in the diverge/weave area, which would be a channelized right-turn lane at the intersection, ~~and~~ installing a traffic signal with a 120-second cycle length, striping the westbound approach ~~for~~ as two 12-foot-wide left-turn lanes and one 12-foot-wide right-turn lane, and adding a 12-foot-wide southbound left-turn lane in the median of Stadium Road. The new westbound approach exiting the Willets West Center would continue to operate at unacceptable LOS D or LOS E during all peak hours except the non-game weekday AM peak hour.

Willets Point Boulevard at Northern Boulevard

Significant impacts are not expected during any of the analysis peak hours.

~~In addition to the study locations analyzed and reported above, the intersections of 126th Street at 36th Avenue, 126th Street at 37th Avenue, and Northern Boulevard at 126th Place are expected to carry a significant amount of project-generated trips in Phase 1A. These three intersections were not analyzed for this Draft SEIS since the majority of project-generated trips from the District were assigned to the adjacent analyzed intersections. Since impacts have been identified for these adjacent intersections, the three intersections listed above will be analyzed for the Final SEIS to determine if they would similarly experience significant adverse impacts. If they are found to be significantly impacted under the With Action condition, mitigation measures such as those typically implemented by NYCDOT would be further explored to address the impacts, or if no practicable mitigation measures can be identified, the impacts would be disclosed as being unmitigatable.~~

126th Street at 36th Avenue

Significant impacts are expected during all game day peak hours and would be unmitigatable.

126th Street at 37th Avenue

Significant impacts are expected during all game day peak hours and would be unmitigatable.

TRAFFIC—PHASE 1B (2028)

Table 21-3 presents a summary of significant adverse traffic impacts and their ability to be mitigated, and **Table 21-4** summarizes the unmitigated traffic study area locations by time period. Details of the intersection capacity results and relevant traffic mitigation measures are provided in tables at the back of this chapter.

Table 21-3
Traffic Impact Mitigation Summary—Phase 1B

Intersection	Without a Mets Game				With a Mets Game		
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Weekday Pre-Game PM	Saturday Pre-Game Midday	Saturday Post-Game PM
No Significant Impact	~~11~~ 14	~~9~~ 12	~~8~~ 12	~~5~~ 9	~~8~~ 11	~~10~~ 12	~~9~~ 10
Fully Mitigated Impact	~~15~~ 14	~~12~~ 13	~~11~~ 9	~~13~~ 12	~~12~~ 10	~~13~~ 12	~~14~~ 11
Partially Mitigated Impact	1	~~6~~ 5	~~6~~ 8	8	~~7~~ 9	~~4~~ 5	4 9
Unmitigated Impact	~~3~~ 4	3	~~5~~ 4	4	3	~~3~~ 4	3

Table 21-4
Summary of Unmitigated Intersections—Phase 1B

Intersection	Without a Mets Game				With a Mets Game		
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Weekday Pre-Game PM	Saturday Pre-Game Midday	Saturday Post-Game PM
Astoria Boulevard at 108th Street			X		X		
Northern Boulevard at 108th Street							
Northern Boulevard at 114th Street							
Northern Boulevard at 126th Street						X	
Northern Boulevard at Prince Street	X						X
Northern Boulevard at Main Street	X	X	X	X	X	X	X
Northern Boulevard at Union Street							
Northern Boulevard at Parsons Boulevard							
34th Avenue at 114th Street							
34th Avenue at 126th Street							
Roosevelt Avenue at 108th Street							
Roosevelt Avenue at 111th Street							
Roosevelt Avenue at 114th Street							
Roosevelt Avenue at 126th Street	X						
Roosevelt Avenue at College Point Boulevard							
Roosevelt Avenue at Prince Street							
Roosevelt Avenue at Main Street			~~X~~				
Roosevelt Avenue at Union Street	X	X	X	X	X	X	X
Astoria Boulevard at 108th Street							
Roosevelt Avenue at Parsons Boulevard							
Kissena Boulevard at Main Street							
Sanford Avenue at College Point Boulevard							
Sanford Avenue at Union Street							
Sanford Avenue at Parsons Boulevard				X			
32nd Avenue at College Point Boulevard							
Northern Boulevard at College Point Boulevard							
Boat Basin Road at Stadium Road		X	X	X		X	
Boat Basin Road at World's Fair Marina							
Stadium Road at Grand Central Parkway							
Willets Point Boulevard at Northern Boulevard							
New Willets Point Boulevard at 126th Street							
126th Street at 36th Avenue							
126th Street at 37th Avenue							
Northern Boulevard at 126th Place							

Notes: "X" means the intersection would be unmitigated in the corresponding peak hour

The overall finding of the traffic mitigation analysis is that the majority of locations analyzed under the proposed project would be significantly impacted, and that the need for a broad range of mitigation measures would be substantial. As noted above for Phase 1A, depending on the peak hour, approximately one-half or more of the significantly impacted locations could be fully or partially mitigated with the same types of measures described for Phase 1A. The locations that were fully or partially mitigated during any of the seven peak analysis hours are listed below:

- 108th Street at Astoria Boulevard
- 108th Street at Northern Boulevard
- 114th Street at Northern Boulevard
- 126th Street at Northern Boulevard
- Prince Street at Northern Boulevard
- Union Street at Northern Boulevard
- Parsons Boulevard at Northern Boulevard
- 114th Street at 34th Avenue
- 126th Street/GCP Ramp at 34th Avenue
- 108th Street at Roosevelt Avenue
- 111th Street at Roosevelt Avenue

- 114th Street at Roosevelt Avenue
- 126th Street at Roosevelt Avenue
- College Point Boulevard at Roosevelt Avenue
- Prince Street at Roosevelt Avenue
- Main Street at Roosevelt Avenue
- Parsons Boulevard at Roosevelt Avenue
- Main Street at Kissena Boulevard
- Parsons Boulevard at Sanford Avenue
- College Point Boulevard at Northern Boulevard Service Road
- Boat Basin Road at Stadium Road
- Boat Basin Road at World's Fair Marina
- Willets Point Boulevard at Northern Boulevard
- GCP Ramp at West Park Loop/Stadium Road
- 126th Street at 36th Avenue
- 126th Street at 37th Avenue

The following intersections could only be partially mitigated or could not be mitigated at all during the following time periods:

- In the weekday non-game AM peak hour, there would be ~~three~~ four unmitigatable intersections including Prince Street at Northern Boulevard, Main Street at Northern Boulevard, 126th Street at Roosevelt Avenue, and Union Street at Roosevelt Avenue, and the intersection of Union Street at Northern Boulevard would be partially mitigated.
- In the non-game weekday midday peak hour, there would be three unmitigatable intersections including Main Street at Northern Boulevard, Union Street at Roosevelt Avenue, and Boat Basin Road at Stadium Road, and ~~six~~ five intersections including the Northern Boulevard intersections at 126th Street, at Prince Street, and at Union Street, ~~126th Street/GCP ramp at 34th Avenue,~~ 126th Street at Roosevelt Avenue, and College Point Boulevard at Roosevelt Avenue~~, and Main Street at Roosevelt Avenue~~ would be partially mitigated.
- In the non-game weekday PM peak hour, there would be ~~five~~ four unmitigatable intersections including 108th Street at Astoria Boulevard, Main Street at Northern Boulevard, ~~Main~~ Street at Roosevelt Avenue, Union Street at Roosevelt Avenue, and Boat Basin Road at Stadium Road, and ~~six~~ eight intersections including the Northern Boulevard intersections at 126th Street, Prince Street, Union Street, and Parsons Boulevard, 126th Street/GCP ramp at 34th Avenue, 126th Street at Roosevelt Avenue, ~~and~~ College Point Boulevard at Roosevelt Avenue, and Main Street at Roosevelt Avenue would be partially mitigated.
- In the non-game Saturday midday peak hour, there would be four unmitigatable intersections including Main Street at Northern Boulevard, Union Street at Roosevelt Avenue, Parsons Boulevard at Sanford Avenue, and Boat Basin Road at Stadium Road, and eight intersections including the Northern Boulevard intersections at 126th Street, Prince Street and Union Street, ~~126th Street/GCP ramp at 34th Avenue,~~ 111th Street at Roosevelt Avenue, 126th Street at Roosevelt Avenue, College Point Boulevard at Roosevelt Avenue, Main Street at Roosevelt Avenue, and Parsons Boulevard at Roosevelt Avenue would be partially mitigated.
- In the weekday pre-game peak hour, there would be three unmitigatable intersections including 108th Street at Astoria Boulevard, Main Street at Northern Boulevard, and Union Street at Roosevelt Avenue, and ~~seven~~ nine intersections including the Northern Boulevard

intersections at 126th Street, Prince Street, Union Street, and Parson Boulevard, 126th Street/GCP ramp at 34th Avenue, 126th Street at Roosevelt Avenue, College Point Boulevard at Roosevelt Avenue, Main Street at Roosevelt Avenue, and Boat Basin Road at Stadium Road would be partially mitigated.

- In the Saturday pre-game peak hour, there would be ~~three~~ four unmitigatable intersections including 126th Street at Northern Boulevard, Main Street at Northern Boulevard, Union Street at Roosevelt Avenue, and Boat Basin Road at Stadium Road, and ~~four~~ five intersections including the Northern Boulevard intersections at Prince Street and Union Street, 126th Street/GCP ramp at 34th Avenue, 126th Street at Roosevelt Avenue, and College Point Boulevard at Roosevelt Avenue would be partially mitigated.
- In the Saturday post-game peak hour, there would be three unmitigatable intersections including Prince and Main Streets at Northern Boulevard, and Union Street at Roosevelt Avenue, and ~~four~~ nine intersections including Northern Boulevard at 126th Street, Northern Boulevard at Union Street, 126th Street/GCP ramp at 34th Avenue, 114th Street at Roosevelt Avenue, 126th Street at Roosevelt Avenue, College Point Boulevard at Roosevelt Avenue, ~~and~~ Main Street at Roosevelt Avenue, 126th Street at 36th Avenue, and 126th Street at 37th Avenue would be partially mitigated.

A summary of the traffic mitigation findings for each analysis location, including the proposed mitigation measures where applicable, is provided below.

ASTORIA BOULEVARD

The analyzed intersection at 108th Street would be significantly impacted during the non-game weekday PM, Saturday midday, weekday pre-game, Saturday pre-game and Saturday post-game peak hours. The impacts on the northbound de-facto left turn lane on 108th Street, and on the eastbound Astoria Boulevard approach could not be mitigated during the non-game weekday PM and weekday pre-game peak hours. Signal timing modifications at this intersection would not be possible without creating new significant impacts, and geometric modifications to improve capacity would not be feasible. The expected significant impacts could be fully mitigated during the Saturday midday, Saturday pre-game and Saturday post-game peak hours by installing "No Standing Saturday 11 AM–10 PM" regulations along the south curb of the eastbound approach for 150 feet from the intersection to allow for an 11-foot-wide daylighted right-turn lane.

NORTHERN BOULEVARD

~~All seven~~ Seven of the eight intersections analyzed along Northern Boulevard would be significantly impacted during all seven peak hours except the intersection of Northern Boulevard at 114th Street in the non-game weekday midday peak hour.

Northern Boulevard at 108th Street

This intersection would be significantly impacted during all non-game and game day peak hours and could be fully mitigated by installing "No Standing Anytime" regulations along the east curb and west curb of the northbound and southbound approaches, respectively, for 250 feet from the intersection to allow for two moving lanes, and restriping the northbound and southbound approaches of 108th Street from one 23-foot-wide lane to one 11-foot-wide exclusive left-turn lane and one 12-foot-wide shared through-right lane for 175 feet. In addition, other measures would be required including modifying the signal timing plan in all peak hours except during the non-game weekday PM peak hour and the weekday pre-game peak hour, and prohibiting parking between 10 AM–9 PM along the north and south curbs of the westbound and eastbound

approaches, respectively, for 150 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane in all peak hours except the non-game weekday AM peak hour.

Northern Boulevard at 114th Street

Mitigation would not be necessary during the non-game weekday midday peak hour. Significant adverse impacts would be ~~only partially mitigated during the non-game weekday AM and Saturday post-game departure~~ fully mitigated during all other peak hours by modifying the signal timing plan and by ~~having TEAs monitor traffic conditions on the westbound Northern Boulevard approach (i.e., manually override the traffic signal to improve traffic operation for intersection approaches experiencing congestion) during the weekend post-game departure peak hour. To fully mitigate all significant impacts during all the seven peak hours and to avoid severely congested conditions, in addition to signal timing modifications, other mitigation measures would be required including prohibition of~~ prohibiting left turns from westbound Northern Boulevard and diverting them to southbound 114th Street, ~~prohibition of~~ prohibiting parking along the ~~west~~ east side of southbound 114th Street and restriping the southbound 114th Street approach as two 11-foot-wide travel lanes and the receiving lanes as two 11-foot-wide moving lanes with parking on both sides.

Northern Boulevard at 126th Street

This intersection would be significantly impacted during all seven peak hours. Significant adverse impacts expected on the northbound 126th Street approach, on eastbound Northern Boulevard, on the eastbound Grand Central Parkway ramp, and on westbound Northern Boulevard (leading to the intersection from the Van Wyck and Whitestone Expressway off-ramps) could be fully mitigated in the weekday ~~pre-game~~ non-game AM peak hour and partially mitigated in ~~the Saturday post-game~~ five of the other six peak hours by modifying the signal timing plan ~~and by having TEAs monitor traffic conditions on the northbound approach (i.e., manually override the traffic signal to improve traffic operation for intersection approaches experiencing congestion). None of the significant impacts expected during the remaining analysis peak hours could be mitigated by applying traditional mitigation measures~~ in addition to more intensive measures discussed below. This intersection is the convergence point of Northern Boulevard, 126th Street, and two highway exit ramps carrying significant project-generated traffic volumes. Under existing conditions, consistently long queues are experienced on the westbound approach, especially the lane adjacent to the north curb, which receives the traffic volume from the southbound Whitestone Expressway and the northbound Van Wyck Expressway exit ramps. One of the mitigation measures at 126th Street/GCP Ramp at 34th Avenue includes closure of the eastbound Northern Boulevard ramp to 126th Street and diversion of traffic through this intersection to 126th Place. ~~Therefore,~~ In order to fully mitigate the significant impacts during ~~all seven peak hours~~ the non-game weekday AM peak hour and partially mitigate the remaining peak hours (except for the Saturday pre-game peak hour), this intersection would require the same ~~cost-intensive~~ additional mitigation measures identified for Phase 1A.

Northern Boulevard at 126th Place

Significant impacts are not expected during any of the analysis peak hours. However, a traffic signal would be installed to allow pedestrians to cross safely from the south side of Northern Boulevard to the proposed MTA bus stop in the median of Northern Boulevard.

Northern Boulevard at Prince Street

This intersection would have significant adverse impacts during all seven peak hours, which would be unmitigatable in the non-game weekday AM peak hour and the Saturday post-game

peak hour, and would be partially mitigated in the remaining peak hours by installing "No Standing 10 AM–7 PM" regulations along the north curb of the westbound Northern Boulevard service road for 100 feet from the intersection to allow for one 10-foot-wide through lane and one 10-foot-wide daylighted right-turn pocket, and reducing the width of the hatched median between the service road and mainline from 8 feet to 6 feet.

Northern Boulevard at Main Street

None of the significant impacts expected during all seven peak hours could be mitigated.

Northern Boulevard at Union Street

This intersection would be significantly impacted during all seven peak hours with significant impacts expected on both Northern Boulevard approaches and could be partially mitigated by installing "No Standing 7 AM–10 PM" regulations along the north curb of the westbound Northern Boulevard approach 200 feet from the intersection to allow for one 10-foot-wide daylighted shared through-right lane. During the non-game weekday AM peak hour and the Saturday post-game peak hour, signal timing modifications would also be ~~also~~ required to partially mitigate the significant impacts.

Northern Boulevard at Parsons Boulevard

Significant impacts are expected during all seven peak hours and would be partially mitigated in the non-game weekday PM and weekday pre-game PM peak hours, and fully mitigated during the remaining five peak hours by installing "No Standing Anytime" regulations along the south side of eastbound Northern Boulevard for 200 feet from the intersection, north side of westbound Northern Boulevard for 150 feet from the intersection, and west side of southbound Parsons Boulevard for 150 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane on each approach, and signal timing adjustments during the non-game weekday AM, midday, and PM, and weekday pre-game peak hours.

34TH AVENUE

The intersection of 34th Avenue at 126th Street (and the Grand Central Parkway and eastbound Northern Boulevard ramps) would be significantly impacted during all seven peak hours since the intersection would be a key gateway to the District. The other intersection, 34th Avenue at 114th Street, would be significantly impacted during all seven peak hours except the non-game weekday AM peak hour.

34th Avenue at 114th Street

Significant impacts are expected during all seven peak hours except the non-game weekday AM peak hour, which could be fully mitigated by modifying the signal timing plan.

34th Avenue at 126th Street

Significant impacts are expected during all seven analysis peak hours. As a key entrance point to the District, this intersection would carry significant volumes of project generated traffic. Its geometric complexity, with approaches from two exit ramps in addition to the 126th Street northbound and 34th Avenue eastbound and westbound approaches, limits traditional capacity improvement options. Therefore, this intersection would require the same standard and cost intensive mitigation measures as those discussed for this intersection in Phase 1A. ~~including reconstructing and merging the Grand Central Parkway and Northern Boulevard ramp approaches to have two 10-foot-wide travel lanes and one 11-foot-wide exclusive right-turn lane, widening the roadway on the east leg of the intersection to 40 feet to provide two 10-foot-wide westbound approach lanes and two 10-foot-~~

~~wide eastbound receiving lanes, restriping the northbound 126th Street approach from two 11-foot-wide travel lanes, one 12-foot-wide travel lane, and one 7-foot-wide hatched median to three 12-foot-wide travel lanes and one 5-foot-wide Class II bicycle lane, and modifying the signal timing and phasing plan.~~ These measures would fully mitigate significant impacts during the non-game weekday AM, midday, and Saturday midday ~~peak hour and all game day~~ peak hours, and would partially mitigate the significant impacts in the remaining peak hours, i.e., the non-game ~~midday and~~ PM peak hour~~s~~ and ~~the Saturday midday~~ all game day peak hours.

ROOSEVELT AVENUE

All nine intersections would be significantly impacted during the seven analysis peak hours, except for the intersection of Roosevelt Avenue at 111th Street during the non-game weekday AM ~~and midday~~ peak hour~~s~~, the intersection at Prince Street during the non-game weekday midday~~, PM,~~ and Saturday midday peak hours and all game day peak hours, and the intersection at Parsons Boulevard during the non-game weekday midday and PM peak hours, and the Saturday pre-game and post-game peak hours. In each time period, the intersection of Roosevelt Avenue at Union Street would be unmitigatable. Limited mitigation options for the Roosevelt Avenue corridor would be possible, due in part to limited space for travel lanes and critical curbside activities, including bus stops, bus layover, and truck loading/unloading, and columns supporting the No. 7 subway line.

Roosevelt Avenue at 108th Street

Significant impacts would occur in all seven peak hours and could be fully mitigated by using the same measures described for Phase 1A.

Roosevelt Avenue at 111th Street

Significant impacts would occur in all peak hours except during the non-game weekday AM peak hour and could be partially mitigated in the Saturday midday peak hour, and fully mitigated in the remaining peak hours by providing the same measures described for Phase 1A.

Roosevelt Avenue at 114th Street

Significant impacts would occur in all seven peak hours. Measures necessary for full mitigation of significant impacts during six of the seven peak hours and partial mitigation during the Saturday post-game peak hour include geometric changes, signal phasing and timing plan changes, limited prohibition of parking, and pavement restriping. The centerline on the westbound approach would be shifted 11 feet to the south and the approach would be restriped from two 11-foot-wide travel lanes to one 11-foot-wide exclusive left-turn lane, one 11-foot-wide through lane, and one 11-foot-wide exclusive right-turn lane (upstream of the intersection, Roosevelt Avenue would continue to operate as two lanes in each direction). The eastbound approach of Roosevelt Avenue would be restriped from two 11-foot-wide travel lanes to one 11-foot-wide exclusive left-turn lane and one 11-foot-wide shared through-right travel lane. The centerline of the northbound 114th Street approach would be shifted 3 feet to the east and the approach would be restriped from one 16-foot-wide travel lane to one 13-foot-wide travel lane. The centerline of the southbound 114th Street approach would be shifted two feet to the east. Parking prohibitions at this location include installing "No Standing Anytime" regulations along the south curb of the eastbound Roosevelt Avenue approach 250 feet from the intersection, installing "No Standing Anytime" regulations along the east curb of the northbound 114th Street approach 250 feet from the intersection, and installing "No Standing 3 PM–7 PM" regulations along the west curb of the southbound 114th Street approach 150 feet from the intersection to allow for one 12-foot-wide left-through lane and one 10-foot-wide right-turn lane. Signal phasing and timing plan would be modified.

Roosevelt Avenue at 126th Street

Significant impacts would occur in all seven peak hours. These impacts would be unmitigated during the non-game weekday AM peak hour and could be ~~fully mitigated during the non-game AM peak hour and~~ partially mitigated in the remaining peak hours by restriping the northbound approach from one wide 25-foot-wide lane to two 12-foot-wide lanes with a 1-foot buffer at the east curb and modifying the signal phasing and timing plan. In addition to these measures, additional mitigation measures would be required during all game-day peak hours including placing cones on the southbound approach to allow for one 12-foot-wide right-turn lane and one 12-foot-wide shared left-through lane during the weekday and Saturday pre-game peak hours, and on the eastbound approach to allow for one left-turn lane and one shared through-right lane during the Saturday post-game peak hour, and having a TEA operate the signal using the suggested signal timing plan.

Roosevelt Avenue at College Point Boulevard

Significant impacts would occur in all seven peak hours. These impacts could be fully mitigated during the non-game weekday AM peak hour and partially mitigated in the remaining six peak hours by using the same measures described for Phase 1A.

Roosevelt Avenue at Prince Street

Significant impacts would occur during the non-game weekday AM and PM peak hours and could be fully mitigated by using the same measures described for Phase 1A. ~~and by installing "No Standing 7 AM–4 PM Monday-Friday" regulations on the north curb of the westbound approach 175 feet from the stop bar to allow for an 11-foot-wide daylighted right-turn pocket, and modifying the signal phasing and timing plan.~~

Roosevelt Avenue at Main Street

This intersection would be significantly impacted during all seven peak hours and could be fully mitigated in the non-game weekday AM and midday peak hours and the Saturday pre-game peak hours, and partially mitigated in the remaining peak hours ~~(except during non-game weekday PM peak hour when it would be unmitigatable)~~ by modifying the signal timing plan.

Roosevelt Avenue at Union Street

None of the significant impacts expected during all seven peak hours could be mitigated.

Roosevelt Avenue at Parsons Boulevard

Significant impacts are expected during the non-game weekday AM and ~~the~~ Saturday midday peak hours, and during the weekday pre-game peak hour. These impacts could be fully mitigated by prohibiting parking between 7 AM–10 AM and 4 PM–7 PM (Monday through Friday) on the northbound approach 75 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane, and modifying the signal timing in the non-game weekday AM and weekday pre-game peak hours. Significant impacts during the Saturday midday peak hour could be partially mitigated by installing "No Standing 10 AM–8 PM, Saturday" regulations on the northbound approach 75 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane and modifying the signal timing.

SANFORD AVENUE

One of the three intersections analyzed along Sanford Avenue, i.e., Parsons Boulevard at Sanford Avenue, would be significantly impacted during the non-game weekday AM, midday, and Saturday midday peak hours and weekday pre-game peak hour.

Sanford Avenue at College Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

Sanford Avenue at Union Street

Significant impacts are not expected during any of the analysis peak hours.

Sanford Avenue at Parsons Boulevard

Modifying signal timings, shifting the northbound centerline one foot to the west to allow for a 20-foot-wide northbound approach, and installing "No Standing 7 AM–7 PM Monday–Friday" regulations on the northbound approach 75 feet from the stop bar to allow for one 10-foot-wide left-through lane and one 10-foot-wide daylighted right-turn pocket would fully mitigate the significant impacts expected during the non-game weekday AM~~,~~ and midday~~, PM~~ peak hours and the weekday pre-game peak hour~~s~~. The intersection would be unmitigated during the Saturday non-game peak hour.

OTHER STUDY AREA LOCATIONS

Kissena Boulevard at Main Street

Modifying signal timings would fully mitigate significant impacts during the Saturday midday peak hour.

32nd Avenue at College Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

World's Fair Marina at Boat Basin Road

Significant impacts would occur in all seven peak hours. Significant impacts at this currently unsignalized intersection could be fully mitigated by using the same measures described for Phase 1A.

Northern Boulevard Service Road at College Point Boulevard

Modifying signal timings would fully mitigate significant impacts during all peak hours except the non-game weekday PM, ~~and~~ weekday pre-game, and Saturday pre-game and post-game peak hours when mitigation is not required.

Boat Basin Road at Stadium Road

Significant impacts are expected in all ~~seven~~ peak hours except the non-game weekday AM peak hour and could be fully mitigated during the ~~non-game weekday AM and the~~ Saturday post-game peak hour~~s~~, and partially mitigated during the weekday pre-game peak hour by installing an actuated signal controller and by modifying the signal phasing and timing plan. None of the significant impacts expected during the non-game weekday midday, PM and Saturday midday and Saturday pre-game peak hours could be mitigated.

Stadium Road at the Grand Central Parkway Ramp

Significant adverse impacts are expected during all peak hours except the non-game weekday AM peak hour, and could be fully mitigated by the same measures described for Phase 1A. The

new westbound approach exiting the Willets West Center would continue to operate at unacceptable LOS D or LOS E during all peak hours except the non-game weekday AM peak hour.

Willets Point Boulevard at Northern Boulevard

Significant impacts are expected during ~~all~~ the Saturday post-game peak hour~~s~~, and could be fully mitigated by installing a traffic signal with a 90 second cycle length.

126th Street at New Willets Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

~~In addition to the study locations analyzed and reported above, the intersections of 126th Street at 36th Avenue, 126th Street at 37th Avenue, and Northern Boulevard at 126th Place are expected to carry a significant amount of project-generated trips in Phase 1B. These three intersections were not analyzed for this Draft SEIS since the majority of project-generated trips from the District were assigned to the adjacent analyzed intersections. Since impacts have been identified for these adjacent intersections, the three intersections listed above will be analyzed for the Final SEIS to determine if they would similarly experience significant adverse impacts. If they are found to be significantly impacted under the With Action condition, mitigation measures such as those typically implemented by NYCDOT would be further explored to address the impacts, or if no practicable mitigation measures can be identified, the impacts would be disclosed as being unmitigatable.~~

126th Street at 36th Avenue

Significant impacts are expected during the Saturday pre-game and post-game peak hours and would be fully mitigated during the Saturday pre-game peak hour by restriping the westbound approach as one 10-foot-wide left-turn lane and one 10-foot-wide right-turn lane. Significant impacts expected during the Saturday post-game peak hour would be partially mitigated.

126th Street at 37th Avenue

Significant impacts are expected during the non-game weekday midday and Saturday post-game peak hours and would be fully mitigated during the non-game weekday midday peak hour and partially mitigated during the Saturday post-game peak hour by restriping the westbound approach as one 10-foot-wide left-turn lane and one 10-foot-wide right-turn lane.

TRAFFIC—PHASE 2 (2032)

Table 21-5 presents a summary of significant adverse traffic impacts and their ability to be mitigated, and **Table 21-6** summarizes the unmitigated traffic study area locations by time period. Details of the intersection capacity results and traffic mitigation measures are provided in tables at the back of this chapter.

Table 21-5
Traffic Impact Mitigation Summary—Phase 2 (2032)

	Without a Mets Game				With a Mets Game		
Intersection	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Weekday Pre-Game PM	Saturday Pre-Game Midday	Saturday Post-Game PM
No Significant Impact	~~9~~ 11	~~5~~ 6	5	~~5~~ 7	6	~~8~~ 9	~~8~~ 9
Fully Mitigated Impact	~~14~~ 13	~~14~~ 12	~~13~~ 14	11	~~11~~ 13	11	~~11~~ 9
Partially Mitigated Impact	~~3~~ 5	~~7~~ 8	~~7~~ 9	~~8~~ 9	9	~~8~~ 7	~~7~~ 9
Unmitigated Impact	5	~~5~~ 8	6	7	~~5~~ 6	4 7	~~5~~ 7

Table 21-6
Summary of Unmitigated Intersections—Phase 2 (2032)

Intersection	Without a Mets Game				With a Mets Game		
	Weekday AM	Weekday Midday	Weekday PM	Saturday Midday	Weekday Pre-Game PM	Saturday Pre-Game Midday	Saturday Post-Game PM
Astoria Boulevard at 108th Street			X	X	X		
Northern Boulevard at 108th Street							
Northern Boulevard at 114th Street							
Northern Boulevard at 126th Street					X	X	
Northern Boulevard at Prince Street	X						X
Northern Boulevard at Main Street	X	X	X	X	X	X	X
Northern Boulevard at Union Street	X						
Northern Boulevard at Parsons Boulevard							
34th Avenue at 114th Street							
34th Avenue at 126th Street							
Roosevelt Avenue at 108th Street							
Roosevelt Avenue at 111th Street			X	X	X	X	X
Roosevelt Avenue at 114th Street							
Roosevelt Avenue at 126th Street							
Roosevelt Avenue at College Point Boulevard							
Roosevelt Avenue at Prince Street		X					
Roosevelt Avenue at Main Street		X	~~X~~				
Roosevelt Avenue at Union Street	X	X	X	X	X	X	X
Roosevelt Avenue at Parsons Boulevard				X	X		
Kissena Boulevard at Main Street							
Sanford Avenue at College Point Boulevard							
Sanford Avenue at Union Street							
Sanford Avenue at Parsons Boulevard							
32nd Avenue at College Point Boulevard							
Northern Boulevard at College Point Boulevard	X	X		X		X	
Boat Basin Road at Stadium Road		X	X	X			X
Boat Basin Road at World's Fair Marina							
Stadium Road at Grand Central Parkway							
Willets Point Boulevard at Northern Boulevard							
New Willets Point Boulevard at 126th Street							
Citi Field/Lot B at Roosevelt Avenue							
126th Street at 36th Avenue		X	X			X	X
126th Street at 37th Avenue		X				X	X
Northern Boulevard at 126th Place							

Notes: "X" means the intersection would be unmitigated in the corresponding peak hour

The overall finding of the traffic mitigation analysis is that the majority of locations analyzed under the proposed project would be significantly impacted, and that the need for a broad range of mitigation measures would be substantial. As noted for Phases 1A and 1B, approximately one-half or more, depending on the peak hour, of the significantly impacted locations could be fully or partially mitigated with the same types of measures described for Phases 1A and 1B. The locations that were fully or partially mitigated during any of the seven peak analysis hours are listed below:

- 108th Street at Astoria Boulevard
- 108th Street at Northern Boulevard
- 114th Street at Northern Boulevard
- 126th Street at Northern Boulevard
- Prince Street at Northern Boulevard
- Union Street at Northern Boulevard
- Parsons Boulevard at Northern Boulevard
- 114th Street at 34th Avenue
- 126th Street/GCP Ramp at 34th Avenue
- 108th Street at Roosevelt Avenue
- 111th Street at Roosevelt Avenue

- 114th Street at Roosevelt Avenue
- 126th Street at Roosevelt Avenue
- College Point Boulevard at Roosevelt Avenue
- Prince Street at Roosevelt Avenue
- Main Street at Roosevelt Avenue
- Parsons Boulevard at Roosevelt Avenue
- Main Street at Kissena Boulevard
- College Point Boulevard at Sanford Avenue
- Parsons Boulevard at Sanford Avenue
- College Point Boulevard at Northern Boulevard Service Road
- Boat Basin Road at Stadium Road
- Boat Basin Road at World's Fair Marina
- Willets Point Boulevard at Northern Boulevard
- GCP Ramp at West Park Loop/Stadium Road
- 126th Street at 36th Avenue
- 126th Street at 37th Avenue

The following intersections could only be partially mitigated or could not be mitigated at all during the following time periods:

- In the weekday non-game AM peak hour, there would be five unmitigatable intersections including Prince Street at Northern Boulevard, Main Street at Northern Boulevard, Union Street at Northern Boulevard, Union Street at Roosevelt Avenue, and College Point Boulevard at the westbound Northern Boulevard service road and ~~three~~ five intersections including 108th Street at Northern Boulevard, 126th Street at Northern Boulevard, Parsons Boulevard at Northern Boulevard, 126th Street/GCP Ramp at 34th Avenue, and 126th Street at Roosevelt Avenue would be partially mitigated.
- In the non-game weekday midday peak hour, there would be ~~five~~ eight unmitigatable intersections including Main Street at Northern Boulevard, Main Street at Roosevelt Avenue, Union Street at Roosevelt Avenue, College Point Boulevard at the westbound Northern Boulevard service road, ~~and~~ Boat Basin Road at Stadium Road, 126th Street at 36th Avenue, and 126th Street at 37th Avenue, and ~~seven~~ eight intersections including the Northern Boulevard intersections at 126th Street, Prince Street, Union Street and at Parsons Boulevard, 126th Street/GCP ramp at 34th Avenue, 126th Street at Roosevelt Avenue, College Point Boulevard at Roosevelt Avenue, and 108th Street at Roosevelt Avenue would be partially mitigated.
- In the non-game weekday PM peak hour, there would be six unmitigatable intersections including 108th Street at Astoria Boulevard, Main Street at Northern Boulevard, 111th Street at Roosevelt Avenue, ~~Main Street at Roosevelt Avenue,~~ Union Street at Roosevelt Avenue, ~~and~~ Boat Basin Road at Stadium Road, and 126th Street at 36th Avenue, and ~~seven~~ nine intersections including the Northern Boulevard intersections at 126th Street, Prince Street, Union Street, and Parsons Boulevard, 126th Street/GCP ramp at 34th Avenue, and the intersections of Roosevelt Avenue at 108th Street, 126th Street, ~~and~~ College Point Boulevard, and Main Street would be partially mitigated.
- In the non-game Saturday midday peak hour, there would be seven unmitigatable intersections including 108th Street at Astoria Boulevard, Main Street at Northern Boulevard, the intersections of Roosevelt Avenue at 111th Street, Union Street, and Parsons Boulevard, College Point Boulevard at the westbound Northern Boulevard service road, and Boat Basin Road at Stadium Road, and ~~eight~~ nine intersections including the Northern Boulevard intersections at 108th Street, 126th Street, Prince Street, and Union Street, 126th

Street/GCP ramp at 34th Avenue, and the intersections of Roosevelt Avenue at 108th Street, 126th Street, College Point Boulevard, and Main Street would be partially mitigated.

- In the weekday pre-game peak hour, there would be ~~five~~ six unmitigatable intersections including 108th Street at Astoria Boulevard, 126th Street at Northern Boulevard, Main Street at Northern Boulevard, 111th Street at Roosevelt Avenue, Union Street at Roosevelt Avenue, and Parsons Boulevard at Roosevelt Avenue, and nine intersections including the Northern Boulevard intersections at Prince Street, Union Street, and Parsons Boulevards, 126th Street/GCP ramp at 34th Avenue, the intersections of Roosevelt Avenue at 114th Street, 126th Street, College Point Boulevard, and Main Street, and Boat Basin Road at Stadium Road would be partially mitigated.
- In the Saturday pre-game peak hour, there would be ~~four~~ seven unmitigatable intersections including 126th Street at Northern Boulevard, Main Street at Northern Boulevard, 111th Street at Roosevelt Avenue, Union Street at Roosevelt Avenue, ~~and~~ College Point Boulevard at the westbound Northern Boulevard service road, 126th Street at 36th Avenue, and 126th Street at 37th Avenue, and ~~eight~~ seven intersections including Northern Boulevard intersections at Prince Street, and Union Street, 126th Street/GCP ramp at 34th Avenue, the intersections of Roosevelt Avenue at 108th Street, 126th Street, and College Point Boulevard, ~~and Main Street,~~ and Boat Basin Road at Stadium Road would be partially mitigated.
- In the Saturday post-game peak hour, there would be ~~five~~ seven unmitigatable intersections including Main Street at Northern Boulevard, Prince Street at Northern Boulevard, 111th Street at Roosevelt Avenue, Union Street at Roosevelt Avenue, ~~and~~ Boat Basin Road at Stadium Road, 126th Street at 36th Avenue, and 126th Street at 37th Avenue, and ~~seven~~ nine intersections including Northern Boulevard intersections at 114th Street, 126th Street, and Union Street, 126th Street/GCP ramp at 34th Avenue, the intersections of Roosevelt Avenue at 108th Street, 114th Street, 126th Street, College Point Boulevard, and Main Street would be partially mitigated.
- A summary of the traffic mitigation findings for each analysis location, including the proposed mitigation measures where applicable, is provided below.

ASTORIA BOULEVARD

The analyzed intersection at 108th Street would be significantly impacted during all seven peak hours ~~except the non-game weekday AM peak hour~~. The impacts on the northbound de-facto left turn lane on 108th Street, and on the eastbound Astoria Boulevard approach could not be mitigated during the non-game weekday PM, Saturday midday and weekday pre-game peak hours. Signal timing modifications at this intersection during the above mentioned peak hours would not be possible without creating new significant impacts, and geometric modifications to improve capacity would not be feasible. The expected significant impacts could be fully mitigated during the non-game weekday midday, Saturday pre-game and Saturday post-game by installing "No Standing 11 AM–2 PM Monday–Friday" and "No Standing 3 PM–10 PM Saturday" regulations along the south curb of the eastbound approach for 150 feet from the intersection to allow for an 11-foot-wide daylighted right-turn lane, and by modifying the signal timing plan during the weekend game-day peak hours.

NORTHERN BOULEVARD

All ~~seven~~ eight intersections analyzed along Northern Boulevard would be significantly impacted during all seven peak hours, except the intersection of Northern Boulevard at 126th

Place which would only be impacted during the non-game weekday PM and weekday pre-game peak hours.

Northern Boulevard at 108th Street

This intersection would be significantly impacted during all non-game and game day peak hours and would be partially mitigated in the non-game weekday AM peak hour and the Saturday midday peak hour, and fully mitigated during the remaining peak hours by installing "No Standing Anytime" regulations along the east curb and west curb of the northbound and southbound approaches, respectively for 250 feet from the intersection to allow for two moving lanes, restriping the northbound approach of 108th Street from one 22-foot-wide lane to one 11-foot-wide exclusive left-turn lane and one 11-foot-wide shared through-right lane for 175 feet, restriping the southbound approach of 108th Street from one 23-foot-wide lane to one 11-foot-wide exclusive left-turn lane and one 12-foot-wide shared through-right lane for 175 feet. In addition to these measures, other measures would be required including modifying the signal timing plan in all peak hours except during the non-game weekday PM and weekday pre-game peak hours, and prohibiting parking between 10 AM–9 PM along the north and south curbs of the westbound and eastbound approaches, respectively for 150 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane in all peak hours except during the non-game weekday AM peak hour.

Northern Boulevard at 114th Street

This intersection would be significantly impacted during all seven peak hours and could not be fully mitigated by applying traditional mitigation measures. Therefore, additional mitigation measures would be required, which would partially mitigate the significant impacts during the Saturday post-game peak hour and fully mitigate significant impacts in the remaining peak hours by prohibiting left turns from westbound Northern Boulevard and diverting them to southbound 114th Street to allow for three exclusive through lanes along westbound Northern Boulevard. Additional mitigation would include prohibiting parking along the ~~west~~ east side of southbound 114th Street and restriping the approach for two 11-foot-wide moving lanes, restriping the southbound 114th Street receiving lanes as two 11-foot-wide moving lanes with parking on both sides, and modifying the signal phasing and timing plan.

Northern Boulevard at 126th Street

This intersection would be significantly impacted during all seven peak hours. Significant adverse impacts are expected on the northbound 126th Street approach, on eastbound Northern Boulevard, on the eastbound Grand Central Parkway ramp, and on westbound Northern Boulevard (leading to the intersection from the Van Wyck and Whitestone Expressway off-ramps). None of the significant impacts expected during the seven peak hours could be mitigated by applying traditional mitigation measures. As noted previously for Phases 1A and 1B, this intersection is the convergence point of Northern Boulevard, 126th Street, and two highway exit ramps carrying significant project-generated traffic volumes, and consistently long queues are experienced on the westbound approach, especially the lane adjacent to the north curb. Therefore, to ~~fully~~ partially mitigate the significant impacts during ~~all~~ five of the seven peak hours, this intersection would require the same cost intensive mitigation measures identified for Phases 1A and 1B. Significant impacts during the weekday and Saturday pre-game peak hours would be unmitigated.

Northern Boulevard at 126th Place

Significant impacts are expected during the non-game weekday PM and weekday pre-game peak hours. These impacts could be fully mitigated by installing a traffic signal with a 120 second cycle.

Northern Boulevard at Prince Street

This intersection would have significant adverse impacts during all seven peak hours, which would be unmitigatable in the non-game weekday AM peak hour and the Saturday post-game peak hour, and partially mitigated in the remaining peak hours by using the same measures described for Phase 1B.

Northern Boulevard at Main Street

None of the significant impacts expected during all seven peak hours could be mitigated.

Northern Boulevard at Union Street

This intersection would be significantly impacted during all seven peak hours with significant impacts expected on both Northern Boulevard approaches, which would be unmitigatable in the non-game weekday AM peak hour, and could be partially mitigated in the remaining six peak hours by installing "No Standing 7 AM–10 PM" regulations along the north curb of the westbound Northern Boulevard approach 200 feet from the intersection to allow for one 10-foot-wide daylighted shared through-right lane. During the Saturday post-game peak hour, signal timing modifications would also be required to partially mitigate the significant impacts.

Northern Boulevard at Parsons Boulevard

Significant adverse impacts are expected during all seven peak hours and would be partially mitigated in the non-game weekday AM, midday, PM and weekday pre-game peak hours, and fully mitigated during the remaining three peak hours by installing "No Standing Anytime" regulations along the south side of eastbound Northern Boulevard for 200 feet from the intersection, north side of westbound Northern Boulevard for 150 feet from the intersection, and west side of southbound Parsons Boulevard for 150 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane on each approach, and signal timing adjustments during all seven peak hours except the non-game weekday midday peak hour. These are the same measures described for Phase 1B.

34TH AVENUE

The intersection of 34th Avenue at 126th Street (and the Grand Central Parkway and eastbound Northern Boulevard ramps) would be significantly impacted during all seven peak hours since the intersection would be a key gateway to the District. The other intersection, 34th Avenue at 114th Street, would be significantly impacted during all seven peak hours except the non-game weekday AM peak hour.

34th Avenue at 114th Street

Significant impacts are expected during all seven peak hours except the non-game weekday AM peak hour and could be fully mitigated by modifying the signal timing plan.

34th Avenue at 126th Street

Significant impacts are expected during all seven analysis peak hours. As noted previously, this is a key entrance point to the District; this intersection would carry significant volumes of

project generated traffic. Its geometric complexity, with approaches from two exit ramps in addition to the 126th Street northbound and 34th Avenue eastbound and westbound approaches, limits traditional capacity improvement options, and would require the same cost intensive mitigation measures described for Phases 1A and 1B. The above mentioned mitigation measures would ~~fully mitigate significant impacts during the non-game weekday AM peak hour, and would~~ partially mitigate significant impacts in ~~the remaining~~ all seven peak hours.

ROOSEVELT AVENUE

All nine intersections would be significantly impacted during all seven peak hours, except for the intersection at Prince Street during the non-game ~~weekday~~ Saturday midday and Saturday pre-game and post-game peak hours, ~~the intersection at Main Street during the non-game weekday PM peak hour, and~~ the intersection at Parsons Boulevard during the ~~Saturday midday, weekday pre-game, and the~~ Saturday pre-game peak hour~~s~~. In each time period, the intersection of Roosevelt Avenue at Union Street would be unmitigatable. Limited mitigation options for the Roosevelt Avenue corridor would be possible, due in part to limited space for travel lanes and critical curbside activities, including bus stops, bus layover, and truck loading/unloading, and columns supporting the No. 7 subway line.

Roosevelt Avenue at 108th Street

Significant impacts would occur in all seven peak hours and could be fully mitigated in the non-game weekday AM and weekday pre-game peak hours, and partially mitigated in the remaining peak hours by installing "No Standing Anytime" regulations along the east curb of the northbound 108th Street approach 150 feet from the intersection to allow for one 11-foot-wide left-through lane and one 11-foot-wide right-turn lane, and installing "No Standing Anytime" regulations along the west curb of the southbound 108th Street approach 150 feet from the intersection to allow for one 11-foot-wide left-through lane and one 11-foot-wide right-turn lane.

Roosevelt Avenue at 111th Street

Significant impacts would occur in all seven peak hours and could be fully mitigated in the non-game weekday AM and midday peak hours by installing "No Standing 7 AM–4 PM Monday–Friday" regulations along the north curb of the westbound Roosevelt Avenue approach 100 feet from the intersection to allow for one 11-foot-wide left-through lane and one 10-foot-wide daylighted right-turn lane. None of the significant impacts in the remaining peak hours could be mitigated.

Roosevelt Avenue at 114th Street

Significant impacts would occur in all seven peak hours. These impacts could be partially mitigated in the weekday pre-game and Saturday post-game peak hours, and fully mitigated in the remaining ~~six~~ five peak hours by using the same measures described for Phase 1B and replacing the "No Standing 3 PM–7 PM" regulations proposed in Phase 1B along the west curb of the southbound 114th Street approach 150 feet from the intersection with "No Standing 4 PM–7PM Monday-Friday" and "No Standing 1PM–9PM Saturday" regulations along the west curb of the southbound 114th Street approach 150 feet from the intersection.

Roosevelt Avenue at 126th Street

Significant impacts would occur in all seven peak hours and would be partially mitigated by reconfiguring all approaches to the intersection. The northbound 126th Street approach would have one 10-foot-wide exclusive left-turn lane and two 10-foot-wide travel lanes. The centerline of the southbound 126th Street approach would be shifted nine feet to the east and the approach

would be restriped from one 11-foot-wide and one 12-foot-wide travel lane to one 11-foot-wide exclusive left-turn lane, one 10-foot-wide through lane, and one 11-foot-wide exclusive right-turn lane for 250 feet. The centerline of the eastbound Roosevelt Avenue approach would be shifted one foot to the north and the approach would be restriped from one 10-foot-wide and 11-foot-wide travel lane to two 11-foot-wide travel lanes. The centerline of the westbound Roosevelt Avenue approach would be shifted one foot to the south and the approach would be restriped from one 11-foot-wide and 10-foot-wide travel lane to two 11-foot-wide travel lanes. In addition, the signal phasing and timing plan would be modified.

Roosevelt Avenue at College Point Boulevard

Significant impacts would occur in all seven peak hours. These impacts could be fully mitigated during the non-game weekday AM peak hour and partially mitigated in the remaining six peak hours by using the same measures described for Phase 1A.

Roosevelt Avenue at Prince Street

This intersection would be significantly impacted during all seven peak hours except during the non-game ~~weekday~~ Saturday midday, Saturday pre-game, and Saturday post-game peak hours and could be fully mitigated during the weekday non-game AM and PM and weekday pre-game PM peaks hours by ~~shifting the center line of the eastbound Roosevelt Avenue approach six feet to the north, restriping the eastbound Roosevelt Avenue approach from one 11-foot-wide travel lane and one 19-foot-wide travel lane with parking to one 11-foot-wide exclusive left-turn lane, one 11-foot-wide travel lane, one six-feet hatched buffer, and one 8-feet parking lane for 250 feet, restriping the westbound Roosevelt Avenue receiving side from one 9-foot-wide travel lane and one 19-foot-wide travel lane to two 11-foot-wide travel lanes for 250 feet, installing "No Standing 7 AM–10 AM 4 PM Monday–Friday" regulations on the north curb of the westbound approach 175 feet from the stop bar to allow for an 11-foot-wide daylighted right-turn pocket during the non-game weekday AM and midday peak hours, and~~ modifying the signal ~~phasing and~~ timing plan. Significant impacts during the non-game weekday midday peak hour would be unmitigatable.

Roosevelt Avenue at Main Street

This intersection would be significantly impacted during all seven peak hours. Significant impacts could be fully mitigated in the non-game weekday AM and Saturday pre-game peak hours, and partially mitigated in the remaining peak hours (except during the non-game weekday midday ~~and PM~~ peak hour~~s~~ when it would be unmitigatable) by modifying the signal timing plan.

Roosevelt Avenue at Union Street

None of the significant impacts expected during all seven peak hours could be mitigated.

Roosevelt Avenue at Parsons Boulevard

Significant impacts are expected during the non-game weekday AM, midday, PM, and Saturday midday, and the weekday pre-game and weekend post-game peak hours. These impacts could be fully mitigated during the non-game weekday AM, midday, and PM, and the Saturday pre-game and Saturday post-game peak hours by modifying the signal timing plan, installing "No Standing 7 AM–10 AM and 4 PM–7 PM, Monday–Friday" and "No Standing 10 AM–9 PM Saturday" regulations on the northbound approach 75 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane. Significant impacts during the non-game Saturday midday and weekday pre-game peak hours would be unmitigatable.

SANFORD AVENUE

Parsons Boulevard at Sanford Avenue would be significantly impacted during all ~~seven~~ peak hours except during the Saturday pre-game peak hour, and College Point Boulevard at Sanford Avenue would be significantly impacted during the non-game weekday PM and the Saturday midday peak hours.

Sanford Avenue at College Point Boulevard

Upgrading to a computerized signal controller, modifying signal timings, and installing "No Standing 4 PM–7 PM, Monday-Friday" regulations on the southbound approach 75 feet from the intersection to allow for a 10-foot-wide daylighted right-turn lane would fully mitigate significant impacts during the non-game weekday PM and the Saturday midday peak hours.

Sanford Avenue at Union Street

Significant impacts are not expected during any of the analysis peak hours.

Sanford Avenue at Parsons Boulevard

Significant impacts are expected during all seven peak hours. Modifying signal timings, shifting the northbound centerline one foot to the west to allow for a 20-foot-wide northbound approach, installing "No Standing Anytime" regulations on the northbound approach 75 feet from the stop bar to allow for one 10-foot-wide left-through lane and one 10-foot-wide daylighted right-turn pocket, installing "No Standing 10 AM–9 PM" regulations on the southbound approach 75 feet from the stop bar to allow for a 10-foot-wide daylighted right-turn lane in all peak hours except the non-game weekday AM peak hour, and installing "No Standing 10 AM–4 PM" regulations on the westbound approach 100 feet from the stop bar to allow for a 10-foot-wide daylighted right-turn lane would fully mitigate the significant impacts expected during all seven peak hours.

OTHER STUDY AREA LOCATIONS

Kissena Boulevard at Main Street

Modifying signal timings would fully mitigate significant impacts during the non-game weekday midday, Saturday midday, and weekend pre-game peak hours.

32nd Avenue at College Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

World's Fair Marina at Boat Basin Road

Significant impacts would occur in all seven peak hours. Significant impacts at this currently unsignalized intersection could be fully mitigated by using the same measures described for Phase 1A.

Northern Boulevard Service Road at College Point Boulevard

Modifying signal timings would fully mitigate the significant impacts expected during the non-game weekday PM and weekday pre-game peak hours. Significant impacts are not expected during the Saturday post-game peak hour. None of the significant impacts in the remaining peak hours could be mitigated.

Boat Basin Road at Stadium Road

Significant impacts are expected in all seven peak hours and could be fully mitigated during the non-game weekday AM peak hour, and partially mitigated during the weekday pre-game and Saturday pre-game peak hours by installing an actuated signal controller and by modifying the

signal phasing and timing plan. None of the significant impacts expected during the non-game weekday midday, PM and Saturday midday, and Saturday post-game peak hours could be mitigated.

Stadium Road at the Grand Central Parkway Ramp

Significant adverse impacts are expected during all peak hours except the non-game weekday AM peak hour, and could be fully mitigated by the same measures described for Phase 1A. The new westbound approach exiting the Willets West Center would continue to operate at unacceptable LOS D, LOS E, or LOS F during all peak hours except the non-game weekday AM peak hour.

Willets Point Boulevard at Northern Boulevard

Significant impacts are expected during all peak hours except the non-game weekday AM peak hour, and could be fully mitigated by installing a traffic signal with a 60 second cycle length, and channelizing the eastbound right-turn traffic and channelizing the eastbound through traffic and the northbound right-turn traffic on the receiving side to allow for concurrent traffic flow.

126th Street at New Willets Point Boulevard

Significant impacts are not expected during any of the analysis peak hours.

CitiField/Lot B at Roosevelt Avenue

Significant impacts are not expected during any of the analysis peak hours.

~~In addition to the study locations analyzed and reported above, the intersections of 126th Street at 36th Avenue, 126th Street at 37th Avenue, and Northern Boulevard at 126th Place are expected to carry a significant amount of project-generated trips in Phase 2. These three intersections were not analyzed for this Draft SEIS since the majority of project-generated trips from the District were assigned to the adjacent analyzed intersections. Since impacts have been identified for these adjacent intersections, the three intersections listed above will be analyzed for the Final SEIS to determine if they would similarly experience significant adverse impacts. If they are found to be significantly impacted under the With Action condition, mitigation measures such as those typically implemented by NYCDOT would be further explored to address the impacts, or if no practicable mitigation measures can be identified, the impacts would be disclosed as being unmitigatable.~~

126th Street at 36th Avenue

Significant impacts are expected during all seven peak hours and would be fully mitigated during the non-game weekday AM and Saturday midday peak hours and during the weekday pre-game peaks hour. Mitigation measures include restriping the westbound approach as one 10-foot-wide left-turn lane and one 10-foot-wide right-turn lane. Significant impacts during the remaining four peak hours would be unmitigatable.

126th Street at 37th Avenue

Significant impacts are expected during all seven peak hours except the non-game weekday AM and Saturday midday peak hours and would be fully mitigated during the non-game weekday PM and weekday pre-game peak hours. Mitigation measures include restriping the westbound approach as one 10-foot-wide left-turn lane and one 10-foot-wide right-turn lane. Significant impacts during the remaining three peak hours would be unmitigatable.

HIGHWAY MITIGATION

As discussed in Chapter 14, "Transportation," the proposed project would result in significant adverse highway impacts at a number of ramps and mainlines within the study area. The detailed traffic simulation analyses show that some of these highway impacts are a result of the extension of congestion or spillback from the surrounding local network intersections which affect highway conditions. This chapter discusses mitigation measures that are aimed at improving the system-wide operation of the roadway network including its highways and local street intersections. In some instances, the proposed mitigation measures may slightly or moderately impact new locations while improving system-wide conditions. One reason for this is that some highway elements that experience lower traffic volumes due to upstream "metering" under future conditions with the proposed project may experience higher volumes with the mitigation measures in place. It is important to note that with the proposed highway and local street mitigation measures, the overall operation of the highway system would improve significantly compared to the With Action condition. Highway mitigation measures and nearby local street intersection mitigation measures that would also improve highway conditions are described below. The need for these measures has also been discussed earlier in this chapter for specific intersections under "Traffic–Phase 1A (2018)," "Traffic–Phase 1B (2028)," and "Traffic–Phase 2 (2032)." Each of these measures is assumed to be in place for all three phases of development. ~~If the mitigation measures outlined below are not implemented, it is expected that significant adverse impacts previously identified in Chapter 14, "Transportation," would remain unmitigated or partially mitigated, including but not necessarily limited to the westbound Grand Central Parkway (the east side, between Roosevelt Avenue and the LIE), the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard, the ramp from the westbound Grand Central Parkway toward Stadium Road and the northbound Whitestone Expressway, and the ramp from eastbound Astoria Boulevard and the Grand Central Parkway to the northbound Whitestone Expressway and eastbound Northern Boulevard.~~

- Grand Central Parkway (GCP) Exit Ramp at West Park Loop/Stadium Road: Widen the Grand Central Parkway off-ramp to West Park Loop/Stadium Road from a single lane to two exit lanes. At the exit ramp's intersection with West Park Loop/Stadium Road, provide three lanes—one left-turn lane, one through lane, and one channelized right-turn lane. Also, reconfigure the southbound Stadium Road approach to provide a southbound left-turn lane in the roadway median, and install a traffic signal at this currently unsignalized intersection. These measures would help prevent spillback of traffic onto the westbound GCP mainline.
- 126th Street/GCP Exit Ramp/34th Avenue: ~~Close the existing ramp from Grand Central Parkway /Astoria Boulevard to 126th Street and combine it with the existing ramp from eastbound Northern Boulevard to 126th Street, and stripe the proposed combined ramp as one shared left-through lane, one exclusive through lane, and one exclusive right-turn lane. Install a new traffic signal at the new intersection of the eastbound Northern Boulevard ramp to 126th Street at its intersection with the GCP/Astoria Boulevard. This new traffic signal would be coordinated with the upstream signals at Northern Boulevard at 126th Street and 34th Avenue at Shea Road. The GCP/Astoria Boulevard ramp would be striped as two through lanes to eastbound Northern Boulevard and one exclusive right-turn lane to the Willets Point District.~~ Close the existing slip ramp from eastbound Northern Boulevard to 126th Street and divert traffic to 126th Place, stripe the proposed widened GCP/Astoria Boulevard ramp as one 11-foot-wide left-turn lane and two 11-foot-wide through lanes. Construct a channelized right-turn from the GCP/Astoria Boulevard ramp to westbound

Shea Road, widen the westbound 34th Avenue approach to two 11-foot-wide travel lanes and two 11-foot-wide receiving lanes, restripe the northbound 126th Street approach from two 11-foot-wide travel lanes, one 12-foot-wide travel lanes and one 7-foot-wide hatched median to one 12-foot-wide exclusive left-turn lane, two 12-foot-wide travel lanes, and one 5-foot-wide Class II bicycle lane, and modify the existing signal timing plan. These measures would improve the efficiency of the signal operation and capacity of the intersection, and would reduce queuing and spillback onto upstream intersections and significantly improve the levels of services at the ramp from eastbound Astoria Boulevard and the GCP to the northbound Whitestone Expressway/eastbound Northern Boulevard.

- Northern Boulevard at 126th Street: Install ~~quick curb channelization (i.e., plastic reflective pylons used for channelizing traffic)~~ Jersey barriers on the westbound Northern Boulevard approach to this intersection, between the right-most lane and the center lane to allow westbound Northern Boulevard traffic (originating from the Van Wyck and Whitestone Expressways) to have uninterrupted flow through the intersection; also, installing louvers (used on traffic signals to avoid confusion on two closely spaced intersection approaches where approaching motorists may be able to see the signal indication for another approach) would be beneficial along the westbound approach. Widen the eastbound Northern Boulevard approach from two 12-foot-wide lanes to three 10-foot-wide lanes and prohibit pedestrian crossing in the east crosswalk. At this intersection, uninterrupted flow of traffic from the Van Wyck and Whitestone Expressway ramps would significantly reduce the queuing of traffic back onto the two highway ramps and potentially the highway mainlines, which currently occurs at times during pre-game peak hours. In addition, modification of the existing signal timing and coordination with the northbound 126th Street approach would be required.
- World's Fair Marina at Boat Basin Road: Install a new traffic signal and implement a new signal timing plan; and restripe the northbound Boat Basin Road and westbound World's Fair Marina approaches. These measures would reduce queuing and spillback onto westbound Northern Boulevard.
- Boat Basin Road at Stadium Road: Install an actuated signal controller and modify the signal phasing and timing plan. These measures would reduce queuing and spillback onto westbound Northern Boulevard.
- Northern Boulevard at 114th Street: Prohibit left turns from westbound Northern Boulevard onto southbound 114th Street to allow for three exclusive through lanes along westbound Northern Boulevard. Westbound left turns would travel through the intersection and make right turns onto northbound 112th Place and then make another right turn onto southbound 114th Street. Prohibit parking along the east side of ~~Restripe~~ the southbound 114th Street approach and re-stripe the approach to provide shared left-through and shared through-right lanes. Modify the existing signal timing plan. These measures would help prevent spillback of westbound Northern Boulevard traffic onto the westbound Grand Central Parkway mainline.

The mitigation measures identified above for the intersections of World's Fair Marina at Boat Basin Road, Boat Basin Road at Stadium Road, and Northern Boulevard at 114th Street have been reviewed and approved by NYCDOT. NYCDOT reviewed and concurs with the operational analysis that was undertaken for the ~~The~~ improvements ~~identified above~~ for the intersections at the Grand Central Parkway westbound exit ramp at West Park Loop/Stadium Road, the intersection of 126th Street/GCP Exit Ramp/34th Avenue, and the intersection of

Northern Boulevard and 126th Street; NYCDOT has given approval for those measures within its jurisdiction (i.e., installation of a traffic signal at the intersection of West Park Loop/Stadium Road). ~~are measures that may call for detailed review by both NYCDOT and NYSDOT and which~~ Final design for construction of those measures which do not fall under the jurisdiction of NYCDOT will be further reviewed by NYSDOT closer to the time of construction. These measures represent preferred improvements that would benefit the overall traffic network. As discussed above, if these mitigation measures are modified or rejected by NYSDOT ~~the review agencies~~, significant adverse impacts identified above ~~would~~ may be unmitigated. ~~Additional evaluations may be needed for the Final SEIS and could identify alternative measures that are deemed preferable to those identified above, in which case additional detailed simulation analyses may determine that projected conditions are better than those depicted in the Draft SEIS, or which could identify some deterioration in conditions and potential for previously identified significant adverse impacts that would be unmitigated or partially mitigated.~~

HIGHWAY MITIGATION—PHASE 1A (2018)

Non-Game Day

Resulting highway traffic densities, speeds, and levels of service are detailed in tables at the back of this chapter. In Phase 1A, implementing the mitigation measures at the key locations mentioned above would mitigate all significant impacts during all time periods except the weekday PM and Saturday midday peak hours.

During the non-game weekday AM peak hour, three locations that would be significantly impacted by the proposed project would be fully mitigated.

During the non-game weekday midday peak hour, two ~~four~~ locations that would be significantly impacted would be fully mitigated.

During the non-game weekday PM peak hour, four locations that would be significantly impacted would be fully mitigated and one location would remain unmitigatable—the southbound Van Wyck Expressway mainline (between Roosevelt Avenue and the LIE).

During the Saturday midday peak hour, of the five ~~six~~ locations that would be significantly impacted, two ~~three~~ locations would be fully mitigated and three locations would remain unmitigatable ~~(although vastly improved from With Action conditions)~~ including the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE), the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard (which would be vastly improved from With Action conditions).

Game Day

Resulting highway traffic densities, speeds, and levels of service are detailed in tables at the back of this chapter. In Phase 1A, implementing the mitigation measures at the key locations mentioned above would mitigate all significant impacts during all time periods except for the ~~following~~ peak hours and locations discussed below.

During the weekday pre-game peak hour, ~~of the five locations that would be significantly impacted,~~ one ~~four~~ location~~s that~~ would be significantly impacted by the proposed project would be fully mitigated. ~~would be fully mitigated and one location would remain unmitigatable—the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place.~~

During the weekend pre-game peak hour, of the two ~~five~~ locations that would be significantly impacted, one ~~three~~ location~~s~~ would be fully mitigated and the other ~~two~~ location~~s~~ would remain unmitigatable (~~one of which would be~~ although vastly improved from With Action conditions) ~~including the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, and~~ – the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. ~~However, due to the proposed measures, one new location would be slightly impacted – the eastbound Grand Central Parkway mainline between Roosevelt Avenue and the LIE.~~

During the weekend post-game peak hour, of the three locations that would be significantly impacted, one location would be fully mitigated and two locations would remain unmitigatable including the ramp from the northbound Whitestone Expressway to the southbound Van Wyck Expressway, and the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard (which would be vastly improved from With Action conditions).

HIGHWAY MITIGATION—PHASE 1B (2028)

Non-Game Day

Resulting highway traffic densities, speeds, and levels of service are detailed in tables at the back of this chapter. In Phase 1B, implementing the mitigation measures at the key locations mentioned above, would mitigate all significant impacts during all time periods except for the ~~following~~ peak hours and locations discussed below.

During the non-game weekday AM peak hour, of the six ~~seven~~ locations that would be significantly impacted, four ~~three~~ locations would be fully mitigated and two ~~four~~ locations would remain unmitigatable ~~(one of which would be vastly improved)~~ including the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE~~, the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place,~~ and the ramp from the northbound Van Wyck Expressway to westbound Northern Boulevard. ~~and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. However, due to the proposed mitigation measures, one new location would be slightly impacted – the eastbound Grand Central Parkway mainline between Roosevelt Avenue and the LIE.~~

During the non-game weekday midday peak hour, of the eight locations that would be significantly impacted, five ~~four~~ locations would be fully mitigated and three ~~four~~ locations would remain unmitigatable (~~all~~ one of which would be vastly improved) including the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, the southbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, ~~the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard, the ramp from the westbound Grand Central Parkway toward Stadium Road and the northbound Whitestone Expressway,~~ and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. However, due to the proposed mitigation measures, one ~~two~~ new location~~s~~ would be slightly impacted - ~~including~~ the eastbound Grand Central Parkway mainline between Roosevelt Avenue and the LIE.~~, and the southbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE.~~

During the non-game weekday PM peak hour, of the nine locations that would be significantly impacted, three ~~six~~ locations would be fully mitigated and six ~~three~~ locations would remain unmitigatable including the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), the southbound Van Wyck Expressway mainline between

Roosevelt Avenue and the LIE, the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway, the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard, and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard (which would be vastly improved from With Action conditions).

~~However, due to the proposed mitigation measures, one new location would be slightly impacted (the southbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE) and one new location would be more heavily impacted (the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway).~~

During the Saturday midday peak hour, of the nine ~~10~~ locations that would be significantly impacted, three ~~four~~ locations would be fully mitigated and six locations would remain unmitigatable (three ~~five~~ of which would be vastly improved) including the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE), the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway, the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard, and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. However, due to the proposed mitigation measures, one new location would be slightly impacted (the southbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE).

Game Day

Resulting highway traffic densities, speeds, and levels of service are detailed in tables at the back of this chapter. In Phase 1B, implementing the mitigation measures at the key locations mentioned above, would mitigate all significant impacts during all time periods except for the ~~following~~ peak hours and locations discussed below.

During the weekday pre-game peak hour, of the three locations that would be significantly impacted, one ~~two~~ location~~s~~ would be fully mitigated and two ~~one~~ locations would remain unmitigatable—the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE and the southbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE. However, due to the proposed mitigation measures, one ~~two~~ new location~~s~~ would be slightly impacted ~~including the eastbound Grand Central Parkway mainline between Roosevelt Avenue and the LIE, and~~ — the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place.

During the weekend pre-game peak hour, ~~of the~~ all seven ~~nine~~ locations that would be significantly impacted~~, five locations would be fully mitigated and all seven four locations~~ would remain unmitigatable ~~(all of which would be vastly improved)~~ including the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE), the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, the ramp from the northbound Van Wyck Expressway to eastbound Northern Boulevard, the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway, the ramp from westbound Grand Central Parkway toward Stadium Road and northbound Whitestone Expressway, and the ramp from the southbound Whitestone Expressway to westbound Northern

Boulevard. ~~However, due to the proposed mitigation measures, one new location would be slightly impacted – the eastbound Grand Central Parkway mainline between Roosevelt Avenue and the LIE.~~

During the weekend post-game peak hour, of the four ~~six~~ locations that would be significantly impacted, three ~~four~~ locations would be fully mitigated and one ~~two~~ location~~s~~ would remain unmitigatable — ~~including~~ the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE.~~, and the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard.~~ However, due to the proposed mitigation measures, one new location would be slightly impacted—the ramp from World's Fair Marina / Boat Basin Road to westbound Grand Central Parkway.~~the northbound Whitestone Expressway to the southbound Van Wyck Expressway.~~

HIGHWAY MITIGATION—PHASE 2 (2032)

Non-Game Day

Resulting highway traffic densities, speeds, and levels of service are detailed in tables at the back of this chapter. In Phase 2, implementing the mitigation measures at the key locations mentioned above would mitigate all significant impacts during all time periods except for the ~~following~~ peak hours and locations discussed below.

During the non-game weekday AM peak hour, of the seven locations that would be significantly impacted, two ~~five~~ locations would be fully mitigated and five ~~two~~ locations would remain unmitigatable including the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, ~~and~~ the southbound ~~Van Wyck~~ Whitestone Expressway mainline between Northern Boulevard and Linden Place ~~Roosevelt Avenue and the LIE~~, the ramp from the northbound Van Wyck Expressway to westbound Northern Boulevard, and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. However, due to the proposed mitigation measures, one new location would be slightly impacted—the southbound Van Wyck Expressway mainline between Roosevelt Avenue and LIE.

During the non-game weekday midday peak hour, of the nine ~~ten~~ locations that would be significantly impacted, four locations would be fully mitigated and five ~~six~~ locations would remain unmitigatable (three ~~two~~ of which would be vastly improved) including ~~the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE),~~ the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place. the ramp from the northbound Van Wyck Expressway to west~~east~~bound Northern Boulevard, the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard, ~~the ramp from the westbound Grand Central Parkway toward Stadium Road and the northbound Whitestone Expressway,~~ and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. However, due to the proposed mitigation measures, two new locations would be slightly impacted including the southbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, and the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway. ~~and one new location would be more heavily impacted including the ramp from the northbound Whitestone Expressway to the southbound Van Wyck Expressway.~~

During the non-game weekday PM peak hour, of the nine locations that would be significantly impacted, three locations would be fully mitigated and six locations would remain unmitigatable

(two ~~all~~ of which would be vastly improved) including ~~the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE),~~ the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway, the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard, and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. However, due to the proposed mitigation measures, two ~~four~~ new locations would be significantly impacted including the eastbound Grand Central Parkway mainline between Roosevelt Avenue and the LIE, and the ramp from the southbound Whitestone Expressway to the westbound Grand Central Parkway.~~the northbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, the ramp from World's Fair Marina/Boat Basin Road to the westbound Grand Central Parkway, and the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway.~~

During the Saturday midday peak hour, of the 10 locations that would be significantly impacted, two locations would be fully mitigated and eight locations would remain unmitigatable (three of which would be vastly improved) including the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE), the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, the ramp from the northbound Van Wyck Expressway to eastbound Northern Boulevard, the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway, the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard, and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard. ~~However, due to the proposed mitigation measures, one new location would be slightly impacted the northbound Whitestone Expressway mainline between Northern Boulevard and Linden Place.~~

Game Day

Resulting highway traffic densities, speeds, and levels of service are detailed in tables at the back of this chapter. In Phase 2, implementing the mitigation measures at the key locations mentioned above would mitigate all significant impacts during all time periods except for the ~~following~~ peak hours and locations discussed below.

During the weekday pre-game peak hour, of the six ~~eight~~ locations that would be significantly impacted, one ~~five~~ location~~s~~ would be fully mitigated and five ~~three~~ locations would remain unmitigatable including the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE), the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), the northbound Van Wyck Expressway mainline between Roosevelt Avenue and LIE, the southbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, and the ramp from the northbound Van Wyck Expressway to eastbound Northern Boulevard.

During the weekend pre-game peak hour, of the six ~~ten~~ locations that would be significantly impacted, two ~~four~~ locations would be fully mitigated and four ~~six~~ locations would remain unmitigatable including the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, ~~the southbound Whitestone Expressway mainline between Northern~~

~~Boulevard and Linden Place,~~ the ramp from the northbound Van Wyck Expressway to eastbound Northern Boulevard, ~~the ramp from the northbound Whitestone Expressway to the southbound Van Wyck Expressway,~~ the ramp from westbound Northern Boulevard to the southbound Van Wyck Expressway, and the ramp from westbound Grand Central Parkway toward Stadium Road and northbound Whitestone Expressway. ~~the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard.~~ However, due to the proposed mitigation measures, two ~~one~~ new locations would be slightly impacted—the eastbound Grand Central Parkway mainline between Roosevelt Avenue and the LIE and the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE).

During the weekend post-game peak hour, of the eight ~~nine~~ locations that would be significantly impacted, four locations would be fully mitigated and four ~~five~~ locations would remain unmitigatable (two of which would be vastly improved) including the westbound Grand Central Parkway mainline (the east side, between Roosevelt Avenue and the LIE), the westbound Grand Central Parkway mainline (the west side, between Roosevelt Avenue and the LIE), the northbound Van Wyck Expressway mainline between Roosevelt Avenue and the LIE, ~~the ramp from the northbound Van Wyck Expressway to eastbound Northern Boulevard,~~ and the ramp from eastbound Astoria Boulevard/Grand Central Parkway to the northbound Whitestone Expressway/eastbound Northern Boulevard.~~, the ramp from the westbound Grand Central Parkway toward Stadium Road and the northbound Whitestone Expressway, and the ramp from the southbound Whitestone Expressway to westbound Northern Boulevard.~~ However, due to the proposed mitigation measures, three ~~two~~ new locations would be significantly impacted including the northbound Whitestone Expressway mainline between Northern Boulevard and Linden Place, the ramp from World's Fair Marina/Boat Basin Road to the westbound Grand Central Parkway, and the ramp from the northbound Whitestone Expressway to the southbound Van Wyck Expressway.

IMPLEMENTATION

Each of the intersection traffic capacity improvements described in this chapter ~~will require~~ has received approval from various divisions of the New York City Department of Transportation (NYCDOT) such as Highway Design, Signals, and ~~possibly~~ others. Overall, these intersection traffic improvements—including signal phasing and timing changes, traffic signal installations, lane additions, lane re-striping, geometric improvements, channelization improvements and parking prohibitions—fall within the range of typical measures employed by NYCDOT in improving traffic conditions in New York City.

Each of the highway network-related improvements described in this chapter beyond the operational improvements which are under NYCDOT jurisdiction would require a collaborative review process between NYCDOT and the New York State Department of Transportation (NYSDOT), and where appropriate, the New York City Department of Parks and Recreation (NYCDPR) closer to the time of construction when the design of those measures is finalized.

With the implementation of the traffic mitigation measures described above, during Phase 1A, new parking prohibitions would result in the removal of approximately ~~60~~ 66 parking or "standing" spaces during various times of the day and days of the week, including 20 parking meters. Northern Boulevard would lose 14 parking meters near Parsons Boulevard and ~~Prince~~ Union Street; Roosevelt Avenue would lose five spaces (including two parking meters~~)~~ at 111th Street); 108th Street would lose about 20 spaces near Northern Boulevard and Roosevelt Avenue; 114th Street would lose about ~~seven~~ nine spaces near Northern Boulevard and

Roosevelt Avenue; College Point Boulevard would lose 11 spaces near Roosevelt Avenue; and Parsons Boulevard would lose three spaces near Roosevelt Avenue.

During Phase 1B, new parking prohibitions would result in the removal of approximately ~~91~~ 87 parking or "standing" spaces during various times of the day and days of the week, including 24 parking meters. Astoria Boulevard would lose two parking spaces near 108th Street; Northern Boulevard would lose 24 parking spaces (including 18 parking meters) near Parsons Boulevard, 108th Street, Prince Street, and Union Street; Roosevelt Avenue would lose ~~14~~ 7 spaces (including two parking meters) at 111th Street and ~~Prince~~ 114th Street; 108th Street would lose about 20 spaces near Northern Boulevard and Roosevelt Avenue; 114th Street would lose about ~~seven~~ 13 spaces near Northern Boulevard and Roosevelt Avenue; College Point Boulevard would lose 11 spaces near Roosevelt Avenue; and Parsons Boulevard would lose 10 spaces in the vicinity of Northern Boulevard, Roosevelt Avenue, and Sanford Avenue.

During Phase 2, new parking prohibitions would result in the removal of approximately ~~105~~ 101 parking or "standing" spaces during various times of the day and days of the week, including 24 parking meters. Astoria Boulevard would lose two parking spaces near 108th Street; Northern Boulevard would lose 24 parking spaces (including 18 parking meters) in the vicinity of Parsons Boulevard, 108th Street, Prince Street, and Union Street; Roosevelt Avenue would lose ~~14~~ 7 spaces (including two parking meters) at 111th Street~~,~~ and 114th Street ~~and Prince Street~~; Sanford Avenue would lose four spaces near Parsons Boulevard; 108th Street would lose about 20 spaces near Northern Boulevard and Roosevelt Avenue; 114th Street would lose about ~~12~~ 18 spaces near Northern Boulevard and Roosevelt Avenue; College Point Boulevard would lose 13 spaces near Roosevelt Avenue and Sanford Avenue; and Parsons Boulevard would lose 13 spaces (including four parking meters) in the vicinity of Northern Boulevard, Roosevelt Avenue, and Sanford Avenue. No designated truck loading/unloading or commercial vehicle zones or bus layover space would be affected by the parking modifications proposed.

Of the traffic mitigation measures discussed above, new traffic signals ~~are proposed~~ have been approved at the following, currently unsignalized, intersections: Boat Basin Road at World's Fair Marina; the intersection of the Grand Central Parkway westbound exit ramp at West Park Loop/Stadium Road; Willets Point Boulevard at Northern Boulevard; New Willets Point Boulevard at 126th Street; ~~and the intersection of the eastbound Northern Boulevard ramp to 126th Street at the eastbound Astoria Boulevard/Grand Central Parkway ramp to eastbound Northern Boulevard;~~ Northern Boulevard at 126th Place; 126th Street at 36th Avenue; and 126th Street at 37th Avenue; and an upgrade to an actuated signal control at the intersection of Boat Basin Road at Stadium Road. Also, it is expected that the intersection of College Point Boulevard at Sanford Avenue would require traffic signal equipment upgrades from the current mechanical systems to computerized systems in order to accommodate variable signal phase green times among the seven analysis time periods. This signal improvement would be similar to NYCDOT's planned upgrade program for various signalized intersections throughout the City. ~~Signal warrant analyses will be prepared for the Final SEIS. Should NYCDOT determine that any of the proposed traffic signals are not warranted, alternative means of mitigating significant adverse impacts at those locations will need to be developed or unmitigated impacts may result and would be identified as such in the Final SEIS.~~

In order to verify the need and effectiveness of the proposed mitigation measures proposed in this SEIS (especially the more cost intensive highway network improvements), the developer, in consultation with the lead agency and NYCDOT, will develop and conduct a detailed traffic monitoring plan at the completion of the buildout of each phase of the proposed project. The

developer will inform NYCDOT and the lead agency of the progress of development and submit for NYCDOT's review and approval a scope of work that would include all locations where significant traffic impacts have been identified and any locations analyzed where NYCDOT believes improvement measures may be warranted, including the intersections of Janet Place at Roosevelt Avenue and 39th Avenue at College Point Boulevard, which could be affected by proposed turn prohibitions at Roosevelt Avenue at College Point Boulevard. Data collection conducted for the monitoring plan would include 24-hour Automatic Traffic Recorder (ATR) machine counts, manual turning movement counts, vehicle classification counts, pedestrian counts, intersection geometry and field information, signal timing and signal progression and any relevant information necessary for conducting the traffic monitoring plan. In the areas where parking prohibitions would be needed to mitigate significant impacts, such as Downtown Flushing and Corona, curbside utilization surveys would be conducted to determine the number of vehicles that would be displaced and where the displaced vehicles would be accommodated. Additionally, the traffic monitoring program would include an origin-destination survey performed for the destination retail component of the project. The traffic monitoring program would also include intersection capacity and level of service analyses, and traffic simulations, to determine whether actual future With Action conditions have, in fact, resulted in significant traffic impacts and verify the need for mitigation measures identified in this SEIS or similar measures identified through the traffic monitoring plan.

The developer will submit to NYCDOT and the lead agency design drawings for any mitigation measures as per American Association of State Highway and Transportation Officials (AASHTO) and NYCDOT specifications. NYCDOT will participate in the review process relating to all future modifications to geometric alignment, striping and signage during the preliminary and final design phases. In addition, as mutually agreed upon, the City and the developer will be responsible for any cost associated with the monitoring effort. The developer of each phase of the project will be responsible for the cost of the design and construction of any or all mitigation measures identified in this SEIS, for that phase. **Tables 21-7 through 21-27** show the various LOS with mitigation implemented.

Table 21-7
Phase 1A (2018) Highway Level of Service Summary With Mitigation
Weekday AM Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~37.0~~ 36.7	~~38.7~~ 39.4	E	~~36.8~~ 36.7	~~38.9~~ 39.1	E	~~36.8~~ 36.7	~~39.5~~ 39.4	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~48.8~~ 49.0	~~22.1~~ 21.8	C	48.7	~~23.2~~ 23.0	C	~~48.6~~ 48.4	~~23.0~~ 23.3	C
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~44.5~~ 44.2	~~36.2~~ 36.7	E	~~44.1~~ 44.3	~~37.2~~ 37.4	E	~~44.1~~ 44.0	~~37.4~~ 37.3	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~34.6~~ 34.5	~~48.1~~ 48.4	F	~~34.5~~ 34.6	~~48.6~~ 48.5	F	~~34.5~~ 34.6	48.6	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~39.4~~ 39.5	25.2	C	~~39.2~~ 38.6	~~28.4~~ 29.1	D	39.3	~~26.8~~ 26.5	C
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	45.2	~~23.4~~ 22.9	C	45.1	~~24.3~~ 23.6	C	45.1	~~23.7~~ 23.6	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~26.6~~ 26.0	~~45.0~~ 46.0	F	~~17.0~~ 17.5	~~68.5~~ 67.2	F	~~26.7~~ 26.6	45.5	F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	34.2	~~18.9~~ 19.0	B	34.3	~~18.5~~ 18.3	B	34.1	~~18.9~~ 19.3	B
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~23.7~~ 23.8	~~33.4~~ 33.2	D	23.7	~~33.4~~ 35.4	D	~~23.7~~ 23.8	~~35.1~~ 34.4	E
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~23.2~~ 23.1	~~33.6~~ 34.4	D	~~23.1~~ 23.2	~~36.2~~ 33.8	E	~~23.2~~ 23.3	~~35.0~~ 34.4	D
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~33.5~~ 33.6	13.1	B	~~33.3~~ 33.4	~~17.1~~ 16.8	B	~~33.0~~ 33.2	~~17.7~~ 17.3	B
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.7	26.3	C	28.7	~~26.5~~ 26.9	C	~~28.5~~ 28.7	~~26.8~~ 26.6	C
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~41.5~~ 41.6	~~5.6~~ 5.5	A	~~41.5~~ 41.6	~~5.8~~ 5.7	A	41.6	5.7	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.5~~ 33.4	~~30.4~~ 30.7	D	~~33.6~~ 33.5	~~29.0~~ 28.9	D	33.6	~~30.3~~ 30.4	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~29.5~~ 29.6	~~17.1~~ 17.3	B	~~29.4~~ 29.3	~~16.4~~ 16.1	B	29.5	~~17.5~~ 17.3	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	29.8	~~28.4~~ 28.2	D	~~29.9~~ 29.8	~~26.1~~ 26.3	C	~~29.9~~ 29.8	~~27.6~~ 27.9	C
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~37.4~~ 37.3	~~20.3~~ 20.0	~~C~~ B	~~37.3~~ 37.1	~~21.6~~ 21.4	C	~~37.2~~ 37.1	~~21.4~~ 21.6	C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~44.5~~ 44.6	7.7	A	~~44.1~~ 44.0	~~11.2~~ 11.1	B	44.1	~~10.9~~ 11.1	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~13.2~~ 15.2	~~60.3~~ 48.6	F	~~3.6~~ 4.5	~~199.6~~ 169.9	F	~~26.1~~ 25.1	~~31.3~~ 33.6	D

Note: Significant Impact

Table 21-8
Phase 1A (2018) Highway Level of Service Summary With Mitigation
Weekday Midday Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	37.2	~~34.7~~ 34.6	D	37.2	~~34.9~~ 36.0	~~D~~ E	37.2	~~35.8~~ 35.5	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~43.0~~ 43.1	19.2	B	~~18.5~~ 42.6	~~44.0~~ 22.9	~~E~~ C	42.6	~~22.7~~ 22.8	C
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~45.2~~ 45.3	~~27.1~~ 27.3	C	~~45.0~~ 45.1	~~29.1~~ 28.8	D	45.1	~~29.2~~ 28.8	D
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	38.9	~~30.2~~ 30.3	D	38.8	~~31.0~~ 31.1	D	~~38.9~~ 38.8	~~31.1~~ 31.0	D
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	38.6	~~25.1~~ 24.9	C	~~38.5~~ 38.8	~~27.0~~ 28.9	~~C~~ D	~~38.5~~ 38.4	~~27.9~~ 28.1	~~C~~ D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~45.4~~ 45.6	20.3	C	~~45.4~~ 45.3	~~18.5~~ 23.8	~~B~~ C	~~45.3~~ 45.5	~~21.4~~ 21.5	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	34.3	24.0	C	~~33.1~~ 34.3	~~25.8~~ 25.0	C	34.3	25.0	C
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	34.4	~~16.5~~ 16.6	B	~~34.3~~ 34.4	~~17.8~~ 17.7	B	~~34.0~~ 33.0	17.9	B
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~23.5~~ 23.4	~~33.8~~ 34.5	D	~~23.5~~ 23.6	~~35.2~~ 33.5	~~E~~ D	23.5	~~34.3~~ 34.7	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~23.5~~ 23.4	~~24.2~~ 24.7	C	23.3	~~27.6~~ 28.4	~~C~~ D	~~23.4~~ 23.3	~~28.2~~ 28.6	D
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~45.3~~ 45.2	~~10.7~~ 10.2	B	~~43.5~~ 43.4	~~15.6~~ 20.2	~~B~~ C	43.5	~~18.0~~ 18.4	B
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.5~~ 28.4	30.4	D	28.4	~~30.2~~ 30.5	D	~~28.5~~ 28.3	~~30.2~~ 30.3	D
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~41.5~~ 41.6	~~7.1~~ 7.2	A	~~41.4~~ 41.5	~~7.7~~ 7.5	A	41.5	~~7.6~~ 7.7	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.7	~~27.6~~ 27.9	C	~~33.6~~ 33.7	~~27.5~~ 27.3	C	~~33.6~~ 33.7	~~27.8~~ 27.4	C
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~28.8~~ 28.6	~~11.5~~ 11.1	B	~~28.6~~ 28.7	~~11.0~~ 11.3	B	~~28.7~~ 28.6	~~11.3~~ 11.1	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	31.2	~~9.9~~ 10.1	~~A~~ B	31.3	~~10.0~~ 10.7	B	31.2	~~10.2~~ 10.4	B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~32.1~~ 32.2	20.5	C	~~4.6~~ 7.1	~~123.3~~ 119.5	F	~~31.9~~ 31.8	~~25.4~~ 25.7	C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	42.3	~~7.2~~ 7.7	A	~~2.3~~ 40.2	~~165.3~~ 19.4	~~F~~ B	~~40.9~~ 41.0	~~17.5~~ 17.6	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.5~~ 30.4	~~14.4~~ 14.5	B	~~3.1~~ 5.2	~~191.3~~ 123.4	F	~~29.4~~ 30.0	~~20.8~~ 20.6	C
Note: Significant Impact									

Table 21-9
Phase 1A (2018) Highway Level of Service Summary With Mitigation
Weekday PM Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~33.0~~ 32.9	~~45.5~~ 45.9	F	~~33.0~~ 32.9	~~46.0~~ 46.4	F	~~32.9~~ 33.0	~~45.5~~ 45.4	F
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	37.7	~~25.1~~ 25.0	C	~~30.9~~ 37.5	~~33.4~~ 28.3	D	~~37.3~~ 37.4	~~28.3~~ 28.4	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~44.5~~ 44.7	32.6	D	~~44.2~~ 44.3	~~34.1~~ 34.6	D	~~44.5~~ 44.3	~~34.4~~ 34.3	D
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	33.6	~~39.9~~ 39.8	E	33.6	~~41.0~~ 40.8	E	~~33.5~~ 33.6	~~41.0~~ 40.9	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~35.5~~ 39.1	~~34.9~~ 31.6	D	~~38.7~~ 33.3	~~34.6~~ 40.1	~~D~~ E	~~38.8~~ 36.9	~~34.4~~ 36.3	~~D~~ E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	35.1	~~49.4~~ 49.5	F	~~35.1~~ 34.9	~~48.6~~ 53.1	F	35.1	~~47.8~~ 48.1	F
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	31.9	34.9	D	~~31.9~~ 31.8	~~35.9~~ 36.0	E	31.9	~~35.9~~ 36.0	E
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.1~~ 34.0	~~19.5~~ 19.6	B	~~33.8~~ 33.7	~~21.2~~ 21.7	C	33.6	21.5	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~23.5~~ 23.3	~~30.2~~ 30.1	D	23.6	~~29.1~~ 29.7	D	~~23.5~~ 23.6	~~29.1~~ 29.4	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	24.2	~~20.8~~ 20.9	C	~~24.2~~ 24.1	~~23.5~~ 24.4	C	24.2	~~23.5~~ 24.2	C
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~39.3~~ 39.5	~~19.8~~ 20.2	~~B~~ C	~~37.5~~ 37.2	~~29.8~~ 32.3	D	~~38.0~~ 37.4	~~28.8~~ 29.9	D
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.4	29.2	D	~~28.4~~ 28.3	~~28.9~~ 29.2	D	~~28.3~~ 28.4	~~29.1~~ 29.3	D
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	39.1	20.0	C	39.0	20.4	C	~~39.0~~ 39.1	18.8	B
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.1	~~33.2~~ 33.3	D	33.1	~~33.0~~ 33.5	D	~~33.1~~ 33.2	~~33.3~~ 33.1	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	31.7	~~16.9~~ 17.2	B	~~31.8~~ 31.7	~~17.6~~ 17.4	B	~~31.8~~ 31.9	~~17.4~~ 17.3	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	32.0	11.0	B	32.0	~~10.8~~ 11.5	B	32.0	~~11.0~~ 11.5	B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~34.7~~ 34.6	~~25.8~~ 26.1	C	~~9.0~~ 9.3	~~104.9~~ 118.7	F	~~34.0~~ 33.9	~~30.1~~ 30.4	D
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~41.3~~ 41.5	~~5.6~~ 5.3	A	~~5.8~~ 39.8	~~71.7~~ 18.8	~~F~~ B	40.0	~~16.3~~ 16.5	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	30.4	~~20.4~~ 20.3	C	~~14.2~~ 13.3	~~59.7~~ 65.3	F	~~28.5~~ 27.7	~~27.3~~ 28.5	~~C~~ D

Note: Significant Impact

Table 21-10
Phase 1A (2018) Highway Level of Service Summary With Mitigation
Saturday Midday Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	37.1	~~44.2~~ 43.9	E	~~37.6~~ 37.4	~~36.9~~ 41.4	E	~~37.1~~ 37.2	~~44.4~~ 43.9	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~38.1~~ 38.0	~~27.0~~ 27.5	C	~~4.9~~ 37.6	~~107.0~~ 32.1	~~F~~ D	~~37.7~~ 37.6	32.2	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~43.8~~ 43.9	~~37.8~~ 37.3	E	~~37.7~~ 43.2	~~48.4~~ 39.8	~~F~~ E	~~43.0~~ 42.7	40.2	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~38.5~~ 38.6	~~35.5~~ 35.4	E	~~38.4~~ 38.5	~~36.4~~ 36.3	E	38.5	~~36.4~~ 36.3	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~40.9~~ 40.8	~~28.7~~ 28.9	D	~~40.8~~ 40.6	~~30.1~~ 31.8	D	40.6	~~31.5~~ 31.9	D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	37.1	~~27.1~~ 27.4	C	~~37.3~~ 36.9	~~20.6~~ 27.8	C	~~37.1~~ 37.0	~~26.6~~ 27.5	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	33.1	30.1	D	~~26.0~~ 28.5	~~39.1~~ 35.5	E	~~33.1~~ 33.0	31.4	D
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.0~~ 33.9	20.4	C	~~33.8~~ 33.6	~~19.8~~ 22.0	B C	33.4	~~21.8~~ 22.1	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	23.4	~~36.2~~ 36.7	E	23.4	~~35.6~~ 35.7	E	~~23.5~~ 23.4	~~35.0~~ 35.4	E
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	26.0	~~17.7~~ 17.9	B	~~21.5~~ 25.7	~~25.8~~ 21.0	C	~~25.9~~ 25.8	~~20.3~~ 21.5	C
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	43.4	~~13.1~~ 13.3	B	~~42.3~~ 41.5	~~16.3~~ 22.8	~~B~~ C	~~41.8~~ 41.9	~~22.6~~ 23.0	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.1	36.6	E	~~28.1~~ 28.0	~~36.6~~ 36.0	E	~~28.1~~ 28.0	~~36.4~~ 36.3	E
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	40.2	~~7.0~~ 6.9	A	~~39.7~~ 39.9	7.3	A	~~40.0~~ 39.7	7.3	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.3	32.2	D	33.3	~~31.9~~ 32.4	D	~~33.4~~ 33.3	~~32.0~~ 32.3	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	31.3	11.7	B	~~31.2~~ 23.6	~~11.5~~ 14.0	B	31.3	11.7	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~39.3~~ 39.2	9.1	A	~~39.6~~ 39.1	~~8.4~~ 9.0	A	~~39.6~~ 39.1	~~9.0~~ 9.3	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~29.7~~ 29.6	~~25.4~~ 25.6	C	~~3.7~~ 5.4	~~134.0~~ 143.4	F	29.2	~~30.0~~ 30.5	D
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~43.5~~ 43.4	~~6.9~~ 7.2	A	~~0.9~~ 26.6	~~198.6~~ 24.8	~~F~~ C	~~42.7~~ 42.6	~~16.1~~ 16.2	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	30.0	~~20.5~~ 19.8	~~C~~ B	~~4.1~~ 4.7	~~160.5~~ 163.5	F	~~25.0~~ 24.1	~~35.3~~ 36.2	E

Note: Significant Impact

Table 21-11
Phase 1A (2018) Highway Level of Service Summary With Mitigation
Weekday Pregame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~38.1~~ 38.0	~~37.6~~ 38.9	E	~~38.3~~ 38.0	~~34.8~~ 39.6	~~D~~ E	~~38.1~~ 38.0	~~38.7~~ 39.3	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~39.3~~ 39.2	~~26.2~~ 26.1	C	~~39.2~~ 39.3	~~28.0~~ 27.8	~~D~~ C	~~39.3~~ 39.3	28.0	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~44.4~~ 44.3	33.9	D	44.5	~~33.8~~ 34.3	D	44.5	~~33.8~~ 34.1	D
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	38.4	35.5	E	~~38.0~~ 38.6	~~34.0~~ 33.4	D	~~38.7~~ 38.6	~~33.3~~ 33.5	D
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~39.3~~ 32.9	~~31.3~~ 37.2	~~D~~ E	~~41.4~~ 36.7	~~25.7~~ 37.5	~~C~~ E	~~35.3~~ 36.2	~~34.8~~ 37.2	D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~40.0~~ 39.9	~~42.4~~ 45.3	~~E~~ F	~~40.2~~ 39.9	~~40.1~~ 46.7	~~E~~ F	~~40.0~~ 39.9	~~43.6~~ 44.2	E
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~8.6~~ 9.1	~~119.5~~ 113.3	F	~~4.5~~ 21.4	~~140.4~~ 53.0	F	~~7.2~~ 12.6	~~131.0~~ 88.2	F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.5~~ 34.4	15.7	B	~~34.7~~ 34.0	~~15.0~~ 19.2	B	~~34.3~~ 34.1	~~15.4~~ 17.9	B
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	23.5	~~30.6~~ 30.4	D	~~23.7~~ 23.5	~~29.7~~ 28.7	D	~~23.6~~ 23.4	~~30.1~~ 29.4	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~25.1~~ 25.0	~~20.2~~ 20.7	C	~~3.6~~ 25.3	~~39.5~~ 15.2	~~E~~ B	25.3	~~12.7~~ 15.0	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~38.8~~ 39.3	~~19.8~~ 21.1	~~B~~ C	~~38.1~~ 37.5	~~24.6~~ 31.2	~~C~~ D	~~37.7~~ 37.8	~~27.4~~ 27.8	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.8~~ 28.9	~~24.5~~ 24.4	C	~~28.7~~ 28.9	~~24.8~~ 25.1	C	~~28.8~~ 28.7	~~24.8~~ 25.1	C
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~38.4~~ 38.6	~~25.5~~ 25.6	C	~~38.5~~ 38.4	~~26.0~~ 26.5	C	~~38.4~~ 38.5	~~25.4~~ 25.5	C
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.7	~~23.7~~ 23.9	C	~~33.8~~ 33.3	~~18.8~~ 30.1	~~B~~ D	~~33.9~~ 33.4	~~21.6~~ 27.4	C
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~31.3~~ 31.7	~~10.4~~ 11.1	B	~~29.7~~ 32.5	~~8.8~~ 12.5	~~A~~ B	~~30.6~~ 32.1	~~9.6~~ 11.8	~~A~~ B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	31.0	8.8	A	~~31.0~~ 30.9	~~6.5~~ 10.0	~~A~~ B	30.9	~~10.2~~ 9.7	~~B~~ A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~9.0~~ 13.9	~~88.5~~ 73.7	F	~~5.8~~ 13.3	~~120.7~~ 85.6	F	~~37.1~~ 37.3	26.4	C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~41.4~~ 41.5	11.4	B	~~4.0~~ 41.0	~~126.7~~ 17.3	~~F~~ B	~~41.1~~ 41.2	~~16.1~~ 15.8	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~6.1~~ 6.0	~~180.3~~ 180.2	F	~~1.6~~ 9.0	~~223.3~~ 153.1	F	~~6.1~~ 8.1	~~178.5~~ 162.6	F

Note: Significant Impact

Table 21-12
Phase 1A (2018) Highway Level of Service Summary With Mitigation
Weekend Pregame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~35.6~~ 35.4	~~40.0~~ 43.6	E	~~35.8~~ 35.4	~~36.2~~ 43.2	E	~~35.4~~ 35.3	~~42.5~~ 44.1	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~19.4~~ 35.6	~~50.8~~ 32.9	~~F~~ D	~~3.4~~ 35.2	~~111.4~~ 33.4	~~F~~ D	35.3	~~33.4~~ 33.5	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	44.1	~~33.6~~ 33.4	D	~~43.4~~ 43.9	~~30.7~~ 33.5	D	43.9	33.4	D
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	35.6	~~38.7~~ 38.6	E	~~35.8~~ 35.7	~~36.7~~ 36.8	E	~~35.8~~ 35.7	~~36.7~~ 36.8	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~46.9~~ 46.8	~~24.7~~ 25.6	C	~~46.9~~ 46.8	~~22.7~~ 25.8	C	46.7	~~27.7~~ 27.2	C
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~39.0~~ 38.8	~~25.2~~ 31.9	~~C~~ D	~~39.0~~ 38.8	~~22.8~~ 32.2	~~C~~ D	38.9	~~29.8~~ 28.6	D
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~34.0~~ 34.0	29.5	D	~~6.3~~ 9.5	~~105.8~~ 84.0	F	~~27.6~~ 33.9	~~36.3~~ 30.5	~~E~~ D
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	34.8	13.5	B	~~34.8~~ 34.9	~~11.2~~ 13.2	B	~~34.5~~ 34.6	~~14.2~~ 14.4	B
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	23.5	33.5	D	~~23.2~~ 23.4	~~35.1~~ 34.0	~~E~~ D	~~23.2~~ 23.3	~~34.1~~ 35.0	~~D~~ E
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~31.3~~ 31.2	~~15.8~~ 16.0	B	~~12.9~~ 31.5	~~30.2~~ 10.4	~~D~~ B	~~31.5~~ 31.6	~~10.6~~ 10.1	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~35.3~~ 35.1	~~13.2~~ 16.7	B	~~34.7~~ 34.0	~~17.8~~ 26.3	~~B~~ C	~~33.7~~ 34.2	~~25.3~~ 22.7	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.2	~~36.2~~ 36.1	E	~~28.1~~ 27.7	~~36.5~~ 37.5	E	~~27.4~~ 28.0	~~37.4~~ 37.0	E
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~39.6~~ 39.7	9.0	A	39.7	9.4	A	39.7	~~7.2~~ 9.4	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.2~~ 33.3	18.5	B	~~33.4~~ 33.3	~~15.2~~ 16.0	B	33.3	~~18.0~~ 18.5	B
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	27.2	17.7	B	~~26.6~~ 26.9	~~15.2~~ 15.8	B	27.2	~~18.3~~ 18.1	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	38.9	~~9.4~~ 9.6	A	~~38.9~~ 38.8	~~6.4~~ 7.9	A	~~38.9~~ 38.8	~~9.9~~ 9.6	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~5.2~~ 8.9	~~120.1~~ 104.9	F	~~4.6~~ 10.5	~~122.4~~ 101.7	F	~~8.7~~ 34.6	~~112.2~~ 27.~~7~~	~~F~~ C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~4.7~~ 43.5	~~103.6~~ 15.1	~~F~~ B	~~0.8~~ 42.1	~~226.2~~ 21.1	~~F~~ C	~~42.4~~ 42.1	~~19.7~~ 20.4	~~B~~ C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~15.7~~ 20.9	~~72.7~~ 55.2	F	~~2.4~~ 5.3	~~208.5~~ 151.7	F	~~7.8~~ 21.2	~~157.1~~ 60.9	F

Note: Significant Impact

Table 21-13
Phase 1A (2018) Highway Level of Service Summary With Mitigation
Weekend Postgame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~29.0~~ 29.1	~~58.4~~ 58.5	F	29.3	~~56.2~~ 54.7	F	~~29.3~~ 29.2	~~56.1~~ 56.2	F
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	35.7	~~28.4~~ 28.6	D	~~35.6~~ 34.3	~~31.1~~ 32.0	D	~~35.5~~ 35.6	~~31.1~~ 31.0	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~42.9~~ 42.8	~~34.9~~ 34.7	D	~~43.4~~ 42.8	~~35.5~~ 36.1	E	~~44.1~~ 43.7	~~35.0~~ 35.6	~~D~~ E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~34.9~~ 35.0	~~35.1~~ 35.2	E	35.0	35.9	E	34.9	36.0	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~47.3~~ 47.4	~~22.9~~ 23.0	C	~~47.3~~ 47.0	~~24.1~~ 25.7	C	47.0	~~25.4~~ 25.0	C
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	38.8	~~34.3~~ 34.9	D	~~38.9~~ 38.7	~~31.7~~ 35.9	~~D~~ E	38.7	~~36.3~~ 36.0	E
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	29.4	28.6	D	~~29.4~~ 29.3	~~29.4~~ 29.5	D	29.4	~~29.4~~ 29.5	D
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~33.4~~ 33.5	~~24.2~~ 24.4	C	~~33.6~~ 33.5	~~24.3~~ 23.2	C	~~33.1~~ 32.8	~~25.0~~ 22.7	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~23.3~~ 23.4	~~33.2~~ 32.1	D	23.5	~~33.2~~ 29.1	D	~~23.5~~ 23.4	~~32.9~~ 33.4	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	31.3	~~11.5~~ 11.9	B	~~31.2~~ 31.1	~~13.3~~ 13.8	B	~~31.2~~ 31.1	~~13.4~~ 14.1	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	26.5	~~29.7~~ 31.0	D	~~25.4~~ 25.3	~~39.8~~ 44.0	E	~~24.2~~ 25.4	~~47.3~~ 43.1	~~F~~ E
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.6~~ 28.8	~~27.4~~ 27.2	C	~~28.4~~ 28.5	~~27.5~~ 24.7	C	~~27.8~~ 28.3	~~28.6~~ 27.5	D
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~39.8~~ 39.6	~~7.4~~ 7.7	A	39.7	7.4	A	39.7	~~7.3~~ 7.6	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~32.8~~ 32.9	~~27.2~~ 27.5	C	32.9	~~27.2~~ 22.0	C	~~32.9~~ 32.8	~~27.2~~ 26.9	C
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~25.0~~ 25.1	~~19.1~~ 19.2	B	~~25.0~~ 25.1	~~19.7~~ 19.9	B	25.0	~~19.2~~ 19.6	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	38.1	~~6.6~~ 6.4	A	~~38.2~~ 38.1	~~5.7~~ 6.0	A	~~38.2~~ 38.0	~~5.8~~ 6.8	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~35.5~~ 35.2	~~28.1~~ 28.4	D	~~8.7~~ 8.1	~~103.8~~ 130.3	F	~~11.9~~ 34.1	~~100.9~~ 33.1	~~F~~ D
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~41.8~~ 41.9	~~9.7~~ 9.6	A	~~3.9~~ 5.9	~~120.5~~ 97.7	F	~~40.3~~ 40.5	~~23.4~~ 23.2	C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	30.8	~~14.9~~ 14.8	B	~~30.0~~ 26.3	~~19.9~~ 20.3	~~B~~ C	~~30.4~~ 30.5	~~19.4~~ 19.8	B

Note: Significant Impact

Table 21-14
Phase 1B (2028) Highway Level of Service Summary With Mitigation
Weekday AM Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~36.6~~ 36.5	40.2	E	~~37.2~~ 36.9	~~32.4~~ 36.7	~~D~~ E	~~36.0~~ 36.2	~~42.3~~ 41.6	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~48.9~~ 48.7	~~22.4~~ 22.5	C	48.2	~~25.0~~ 24.9	C	~~48.3~~ 48.2	~~24.7~~ 25.0	C
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~44.1~~ 43.9	37.7	E	~~43.9~~ 43.7	~~39.0~~ 38.8	E	~~43.5~~ 43.7	~~39.3~~ 38.9	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~34.3~~ 34.4	~~49.8~~ 49.6	F	~~31.1~~ 32.6	~~58.3~~ 56.2	F	~~28.6~~ 29.0	~~63.0~~ 61.9	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~37.9~~ 39.3	~~28.5~~ 27.6	~~D~~ C	~~35.4~~ 35.6	36.3	E	~~39.3~~ 39.1	~~29.6~~ 29.5	D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~45.0~~ 45.1	~~24.1~~ 23.9	C	~~45.1~~ 44.7	~~18.8~~ 26.2	~~B~~ C	~~45.1~~ 44.9	~~24.8~~ 25.0	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~26.6~~ 25.6	~~46.2~~ 47.7	F	~~8.9~~ 8.6	~~126.7~~ 125.4	F	~~25.8~~ 26.5	~~49.1~~ 47.9	F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.1~~ 34.2	~~19.5~~ 19.7	B	~~34.5~~ 34.4	~~18.4~~ 17.1	B	33.8	20.9	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	25.9	~~26.8~~ 26.5	C	~~26.8~~ 26.4	~~30.2~~ 27.8	~~D~~ C	~~26.6~~ 26.4	~~27.5~~ 28.5	C
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~23.3~~ 23.2	~~32.5~~ 33.2	D	~~23.3~~ 23.1	~~35.7~~ 36.3	E	23.2	~~36.8~~ 36.5	E
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~33.6~~ 33.5	~~14.1~~ 14.2	B	~~33.4~~ 32.8	~~12.2~~ 17.7	B	~~33.4~~ 33.3	~~15.9~~ 16.8	B
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.5~~ 28.6	22.8	C	~~28.3~~ 28.4	~~24.7~~ 23.4	C	~~28.3~~ 28.4	~~24.6~~ 23.3	C
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~41.5~~ 41.6	5.7	A	~~41.5~~ 41.6	~~6.2~~ 6.3	A	~~41.6~~ 41.5	6.3	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.3	~~31.7~~ 32.1	D	33.7	~~25.6~~ 23.7	C	~~33.3~~ 33.4	~~32.2~~ 31.8	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~29.7~~ 29.6	~~18.0~~ 17.7	B	~~29.1~~ 13.9	~~15.3~~ 22.3	~~B~~ C	~~29.8~~ 29.7	~~19.0~~ 18.7	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	29.7	~~29.1~~ 28.9	D	29.9	~~23.3~~ 23.7	C	~~29.7~~ 29.6	~~29.5~~ 29.9	D
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~37.5~~ 37.3	~~20.7~~ 20.9	C	~~4.1~~ 5.9	~~124.7~~ 133.3	F	~~37.2~~ 37.0	~~23.5~~ 24.1	C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	44.6	7.7	A	~~1.1~~ 27.3	~~193.6~~ 20.4	~~F~~ C	~~44.0~~ 43.9	~~13.0~~ 13.7	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~9.6~~ 6.1	~~80.0~~ 120.7	F	~~4.0~~ 3.9	~~195.4~~ 197.3	F	~~7.7~~ 14.2	~~125.2~~ 72.7	F

Note: Significant Impact

Table 21-15
Phase 1B (2028) Highway Level of Service Summary With Mitigation
Weekday Midday Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	37.2	~~35.2~~ 34.9	~~E~~ D	~~37.5~~ 37.3	~~30.3~~ 32.7	D	~~36.9~~ 37.0	~~39.5~~ 38.9	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	43.0	19.7	B	~~0.4~~ 5.5	~~160.1~~ 98.4	F	~~42.4~~ 42.3	~~24.7~~ 24.9	C
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~45.1~~ 45.3	~~28.1~~ 28.0	~~D~~ C	~~40.7~~ 44.5	~~36.9~~ 34.2	~~E~~ D	45.0 44.9	30.3 30.1	D
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	38.9	30.9	D	~~20.5~~ 37.9	~~53.4~~ 36.6	~~F~~ E	38.0	36.4	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	38.4	27.1	C	~~38.3~~ 38.2	~~30.7~~ 31.9	D	~~38.1~~ 38.2	~~32.0~~ 32.2	D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	45.4	~~20.9~~ 21.6	C	~~45.8~~ 45.3	~~16.1~~ 21.2	~~B~~ C	45.3	~~23.3~~ 23.9	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	34.3	~~24.5~~ 24.6	C	~~12.2~~ 16.0	~~67.5~~ 53.3	F	~~34.3~~ 34.2	26.6	C
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	34.5	~~16.7~~ 16.5	B	34.0	~~15.4~~ 17.9	B	~~33.8~~ 33.7	~~19.4~~ 20.3	~~B~~ C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	23.6	~~27.3~~ 28.1	~~C~~ D	~~25.6~~ 24.5	~~28.1~~ 29.7	D	~~24.5~~ 24.4	~~29.2~~ 30.0	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~23.6~~ 23.7	~~20.4~~ 19.8	~~C~~ B	~~3.9~~ 23.3	~~111.8~~ 29.5	~~F~~ D	~~23.3~~ 23.4	~~28.9~~ 28.6	D
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	44.9	~~11.1~~ 11.0	B	~~44.7~~ 43.5	~~11.7~~ 16.3	B	43.5	~~17.9~~ 18.2	B
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.4	24.7	C	~~28.0~~ 27.9	~~26.9~~ 27.8	C	~~27.9~~ 27.8	~~27.5~~ 28.1	~~C~~ D
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~41.5~~ 41.6	7.2	A	41.5	~~7.7~~ 8.1	A	~~41.5~~ 41.4	~~8.2~~ 8.1	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.7	~~28.1~~ 27.9	~~D~~ C	33.7	~~26.1~~ 10.8	~~C~~ B	~~33.5~~ 33.7	28.8	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~28.8~~ 28.7	11.3	B	~~28.8~~ 29.1	~~11.7~~ 12.1	B	~~29.5~~ 29.3	~~12.8~~ 12.5	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	31.3	~~9.9~~ 9.8	A	31.2	~~8.1~~ 10.8	~~A~~ B	~~31.2~~ 31.1	~~10.5~~ 11.1	B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~32.1~~ 31.9	~~21.6~~ 22.1	C	~~3.0~~ 4.3	~~134.2~~ 145.6	F	~~18.0~~ 31.4	~~56.0~~ 30.2	~~F~~ D
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~42.4~~ 42.3	~~7.7~~ 7.8	A	~~0.1~~ 1.5	~~247.0~~ 209.3	F	~~18.6~~ 40.8	~~37.2~~ 19.5	~~E~~ B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.8~~ 30.6	~~14.0~~ 14.5	B	~~1.6~~ 3.4	~~208.0~~ 202.3	F	~~21.5~~ 16.3	~~40.7~~ 53.3	~~E~~ F

Note: Significant Impact

Table 21-16
Phase 1B (2028) Highway Level of Service Summary With Mitigation
Weekday PM Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	33.0	45.4	F	~~33.5~~ 33.3	~~35.3~~ 41.6	E	~~33.0~~ 33.1	~~46.2~~ 43.7	~~F~~ E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	37.6	~~25.5~~ 25.7	C	~~1.7~~ 17.5	~~152.0~~ 53.8	F	~~37.3~~ 37.2	~~30.7~~ 30.8	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	44.5	~~33.8~~ 33.6	D	~~34.4~~ 43.2	~~51.2~~ 37.4	~~F~~ E	~~44.2~~ 43.4	~~35.6~~ 37.0	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~33.6~~ 33.5	~~41.1~~ 41.2	E	33.0	46.5	F	33.0	46.5	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~25.1~~ 38.5	~~48.9~~ 33.5	~~F~~ D	~~29.0~~ 38.2	~~48.9~~ 39.5	~~F~~ E	~~27.9~~ 38.5	~~54.4~~ 38.1	~~F~~ E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~35.0~~ 35.1	~~50.1~~ 49.9	F	~~35.4~~ 35.0	~~31.4~~ 48.3	~~D~~ F	~~35.1~~ 35.0	~~48.9~~ 46.1	F
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~31.9~~ 31.8	35.9	E	~~20.3~~ 26.7	~~56.0~~ 43.7	F	~~31.8~~ 31.7	~~37.7~~ 37.8	E
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	33.9	~~20.2~~ 20.1	C	~~33.4~~ 33.1	~~20.8~~ 24.9	C	~~33.1~~ 32.8	~~24.9~~ 25.1	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~23.4~~ 23.1	~~23.9~~ 25.2	C	~~25.5~~ 24.2	~~28.6~~ 26.0	~~D~~ C	~~24.3~~ 24.2	~~25.6~~ 25.9	C
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	24.3	~~17.6~~ 19.3	B	~~13.2~~ 24.1	~~48.7~~ 27.2	~~F~~ C	~~24.0~~ 23.2	~~28.9~~ 27.4	~~D~~ C
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~38.8~~ 39.0	~~20.6~~ 21.1	C	~~47.0~~ 34.0	~~69.4~~ 28.7	~~F~~ D	~~34.0~~ 36.0	~~30.6~~ 30.4	D
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.4	~~23.4~~ 22.9	C	~~26.3~~ 22.2	~~30.5~~ 33.9	D	~~6.9~~ 23.9	~~118.1~~ 32.9	~~F~~ D
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~38.9~~ 39.0	20.8	C	~~3.1~~ 39.0	~~58.9~~ 20.6	~~F~~ C	39.2	~~18.6~~ 19.2	B
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.0~~ 33.1	~~34.4~~ 34.0	D	33.0	~~35.0~~ 35.4	E	32.9	~~35.8~~ 36.0	E
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	31.7	~~16.7~~ 16.8	B	~~31.7~~ 31.8	~~16.8~~ 17.3	B	31.8	~~17.9~~ 17.5	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~32.0~~ 31.9	~~11.1~~ 11.0	B	32.0	~~10.5~~ 12.3	B	32.0	~~11.6~~ 12.1	B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~34.6~~ 34.5	~~26.0~~ 26.3	C	~~1.9~~ 6.0	~~137.9~~ 143.3	F	~~33.8~~ 33.4	~~32.0~~ 33.2	D
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	41.4	~~5.4~~ 5.5	A	~~0.1~~ 2.2	~~224.7~~ 192.5	F	39.9	~~18.0~~ 18.1	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.4~~ 30.1	~~20.8~~ 21.2	C	~~3.9~~ 6.5	~~195.3~~ 143.5	F	~~28.8~~ 26.3	~~32.8~~ 36.2	~~D~~ E

Note: Significant Impact

Table 21-17
Phase 1B (2028) Highway Level of Service Summary With Mitigation
Saturday Midday Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	37.1	~~44.1~~ 44.0	E	~~38.1~~ 37.9	~~29.4~~ 33.4	D	~~37.1~~ 37.2	~~44.0~~ 43.5	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	38.1	~~27.7~~ 28.2	~~C~~ D	~~0.5~~ 4.2	~~184.0~~ 113.8	F	~~37.4~~ 37.5	~~34.4~~ 34.1	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~43.6~~ 43.9	~~39.1~~ 38.3	E	~~33.1~~ 39.3	~~56.2~~ 45.7	F	42.3	~~42.4~~ 42.6	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	38.~~5~~	~~36.4~~ 36.3	E	37.7	~~42.0~~ 41.9	E	~~37.6~~ 37.7	~~42.0~~ 41.8	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~40.7~~ 37.7	~~30.3~~ 32.6	D	~~40.5~~ 40.3	~~32.7~~ 34.9	D	40.3	~~36.1~~ 36.0	E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	37.1	27.3	C	~~37.5~~ 37.2	~~17.6~~ 22.6	~~B~~ C	37.0	~~29.0~~ 29.7	D
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~33.1~~ 33.0	~~30.8~~ 30.9	D	~~7.6~~ 7.9	~~116.5~~ 115.8	F	33.0	33.2	D
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	33.9	~~20.8~~ 20.9	C	~~33.9~~ 33.8	~~15.7~~ 18.8	B	~~33.1~~ 32.9	~~24.6~~ 25.6	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~22.3~~ 22.2	~~30.1~~ 30.5	D	~~24.8~~ 23.4	~~34.5~~ 31.9	D	~~23.3~~ 23.2	~~31.9~~ 32.9	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~26.0~~ 26.1	~~16.2~~ 15.9	B	~~17.5~~ 18.3	~~35.6~~ 35.2	E	~~25.7~~ 25.8	~~23.5~~ 22.7	C
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	43.5	~~13.3~~ 13.5	B	~~42.2~~ 37.3	~~12.6~~ 18.9	B	~~41.4~~ 41.7	~~21.9~~ 22.1	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.0	29.0	D	~~25.9~~ 26.5	~~34.7~~ 34.1	D	~~26.1~~ 25.7	~~34.7~~ 35.0	D
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	40.1	~~6.9~~ 7.0	A	~~39.8~~ 39.7	~~8.1~~ 7.8	A	~~39.9~~ 39.7	~~7.9~~ 8.0	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.2~~ 33.4	~~33.0~~ 32.8	D	~~33.6~~ 33.5	~~26.2~~ 27.2	C	33.2	~~34.4~~ 34.7	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	31.4	11.7	B	~~5.7~~ 30.3	~~23.7~~ 10.1	~~C~~ B	31.5	~~12.2~~ 12.1	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~39.5~~ 39.1	~~9.1~~ 9.3	A	~~39.3~~ 39.0	~~7.6~~ 8.3	A	~~39.1~~ 39.0	~~9.5~~ 10.0	~~A~~ B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	29.6	25.9	C	~~2.9~~ 3.7	~~126.6~~ 146.5	F	~~29.1~~ 28.9	~~33.2~~ 34.1	D
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~43.4~~ 43.3	~~7.1~~ 7.3	A	~~0.2~~ 0.7	~~235.2~~ 227.5	F	42.6	~~20.5~~ 20.8	C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.0~~ 30.2	~~20.7~~ 20.3	C	~~3.5~~ 3.0	~~200.2~~ 207.9	F	~~11.2~~ 14.2	~~95.7~~ 76.2	F

Note: Significant Impact

Table 21-18
Phase 1B (2028) Highway Level of Service Summary With Mitigation
Weekday Pregame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~38.3~~ 38.0	~~35.3~~ 38.4	E	~~38.2~~ 38.0	~~37.1~~ 39.5	E	38.1	~~38.8~~ 38.6	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~39.2~~ 39.3	27.0	C	38.8	~~30.9~~ 31.0	D	38.9	30.8	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	44.4	~~34.7~~ 34.6	D	~~44.1~~ 44.2	~~36.4~~ 36.3	E	~~44.2~~ 44.4	~~36.4~~ 36.2	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	38.4	~~36.3~~ 36.4	E	38.2	~~38.6~~ 38.5	E	38.2	~~38.5~~ 38.6	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~23.1~~ 33.5	~~52.3~~ 35.2	~~F~~ E	~~32.8~~ 35.6	~~43.7~~ 41.1	E	~~35.2~~ 31.1	~~40.4~~ 44.3	E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~40.0~~ 39.9	~~41.6~~ 47.1	~~E~~ F	39.9	~~43.7~~ 45.7	~~E~~ F	40.0	~~43.3~~ 43.4	E
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~8.7~~ 7.8	~~120.0~~ 121.1	F	9.8	~~116.4~~ 114.6	F	~~8.8~~ 8.1	~~123.0~~ 128.8	F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.3~~ 34.5	~~15.5~~ 15.4	B	~~34.3~~ 34.1	~~17.9~~ 18.0	B	34.0	~~17.5~~ 17.4	B
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	22.1	~~26.0~~ 25.2	C	23.0	~~26.1~~ 28.1	~~C~~ D	~~23.0~~ 22.8	~~26.7~~ 28.5	~~C~~ D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~25.0~~ 25.1	19.9	B	25.3	~~14.2~~ 13.8	B	25.3	~~13.7~~ 14.4	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~38.3~~ 38.8	~~19.6~~ 21.4	~~B~~ C	~~36.6~~ 23.9	~~26.5~~ 43.0	~~C~~ E	~~37.5~~ 37.6	~~27.3~~ 26.2	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~27.9~~ 28.9	~~19.9~~ 19.4	B	~~27.1~~ 21.5	~~23.0~~ 28.4	~~C~~ D	~~28.3~~ 27.9	~~22.4~~ 22.5	C
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~38.6~~ 38.5	~~26.2~~ 26.4	C	38.3	~~26.8~~ 27.0	C	38.4	~~25.2~~ 25.4	C
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.7~~ 33.9	~~23.8~~ 23.2	C	~~33.5~~ 33.6	~~25.3~~ 25.6	C	~~33.5~~ 33.8	~~24.5~~ 23.4	C
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~31.4~~ 31.5	~~10.6~~ 10.8	B	~~18.5~~ 32.2	~~17.2~~ 11.8	B	31.8	11.2	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~31.0~~ 31.1	~~9.5~~ 8.8	A	~~30.9~~ 30.8	~~10.0~~ 10.2	B	30.9	~~10.1~~ 10.3	B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~5.7~~ 10.6	~~120.8~~ 92.2	F	~~6.9~~ 18.5	~~114.1~~ 59.0	F	~~37.0~~ 37.3	~~25.4~~ 25.6	C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~41.4~~ 41.2	~~12.1~~ 11.9	B	~~15.7~~ 35.0	~~49.8~~ 23.9	~~F~~ C	~~40.5~~ 40.6	~~19.8~~ 20.0	~~B~~ C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~6.1~~ 3.9	~~179.2~~ 189.6	F	8.7	~~159.1~~ 157.8	F	~~8.0~~ 7.6	~~165.3~~ 168.5	F

Note: Significant Impact

Table 21-19
Phase 1B (2028) Highway Level of Service Summary With Mitigation
Weekend Pregame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~35.8~~ 35.3	~~37.1~~ 43.1	E	~~35.9~~ 35.5	~~34.1~~ 40.8	~~D~~ E	~~35.5~~ 35.6	~~41.2~~ 38.6	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~15.5~~ 35.6	~~63.6~~ 33.7	~~F~~ D	~~4.1~~ 23.7	~~122.7~~ 49.7	F	~~26.1~~ 23.3	~~44.5~~ 48.1	~~E~~ F
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~44.0~~ 44.2	~~36.9~~ 34.4	~~E~~ D	~~40.5~~ 43.3	~~36.4~~ 36.2	E	43.7	~~35.4~~ 34.5	~~E~~ D
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	35.5	39.7	E	~~35.2~~ 35.0	~~42.4~~ 42.5	E	35.3	42.4	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~46.8~~ 46.7	~~25.2~~ 26.5	C	~~46.7~~ 46.6	~~27.3~~ 30.8	~~C~~ D	~~46.6~~ 46.7	~~30.3~~ 29.3	D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~39.1~~ 38.6	~~23.0~~ 31.6	~~C~~ D	~~39.0~~ 38.7	~~19.8~~ 31.9	~~B~~ D	~~39.1~~ 38.8	~~27.4~~ 23.7	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~34.0~~ 33.9	~~30.2~~ 30.3	D	~~14.8~~ 24.9	~~61.2~~ 41.0	~~F~~ E	~~33.4~~ 20.3	~~32.4~~ 50.8	~~D~~ F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.9~~ 34.7	13.7	B	34.6	~~12.6~~ 15.4	B	~~34.4~~ 34.3	~~15.5~~ 15.2	B
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~21.7~~ 21.8	~~28.9~~ 29.3	~~C~~ D	~~32.5~~ 22.2	~~34.1~~ 34.7	D	22.3	~~34.4~~ 35.2	~~D~~ E
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	31.4	14.9	B	~~28.9~~ 31.0	~~12.0~~ 11.4	B	31.2	~~10.9~~ 11.2	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~35.5~~ 35.3	~~11.3~~ 16.5	B	~~2.3~~ 33.0	~~60.0~~ 24.7	~~F~~ C	~~34.7~~ 34.5	~~20.4~~ 22.3	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.2~~ 28.0	~~28.1~~ 28.2	D	~~25.4~~ 19.6	~~34.8~~ 43.9	~~D~~ E	~~24.6~~ 22.1	~~35.1~~ 40.1	E
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~39.7~~ 39.6	~~9.3~~ 9.1	A	~~10.7~~ 39.6	~~27.5~~ 10.3	~~C~~ B	~~39.6~~ 39.7	~~7.5~~ 9.5	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.3~~ 33.2	18.6	B	~~33.2~~ 33.1	~~17.9~~ 18.5	B	~~33.2~~ 33.1	~~19.0~~ 18.5	B
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~27.3~~ 27.2	~~17.7~~ 18.2	B	~~27.1~~ 27.3	~~17.7~~ 19.0	B	~~27.3~~ 27.4	~~19.6~~ 18.2	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~38.9~~ 38.7	9.5	A	~~38.8~~ 38.7	~~8.4~~ 9.4	A	~~38.8~~ 38.9	~~9.6~~ 9.5	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~4.5~~ 6.4	~~119.1~~ 128.4	F	~~3.5~~ 6.4	~~128.2~~ 127.0	F	~~20.1~~ 23.8	~~51.0~~ 37.2	~~F~~ E
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~2.7~~ 43.3	~~146.7~~ 15.6	~~F~~ B	~~1.5~~ 14.1	~~205.7~~ 61.9	F	~~9.2~~ 7.8	~~66.4~~ 70.7	F
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~14.3~~ 16.8	~~81.7~~ 70.1	F	~~6.5~~ 10.2	~~136.7~~ 124.9	F	~~14.1~~ 7.9	~~99.8~~ 165.8	F

Note: Significant Impact

Table 21-20
Phase 1B (2028) Highway Level of Service Summary With Mitigation
Weekend Postgame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	29.2	~~56.8~~ 57.1	F	~~29.2~~ 29.3	56.7	F	~~29.2~~ 29.3	~~57.2~~ 56.6	F
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	35.7	~~29.5~~ 29.2	D	~~21.4~~ 35.3	~~46.9~~ 33.0	~~F~~ D	35.4	~~33.0~~ 32.7	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~43.0~~ 42.6	~~35.7~~ 36.2	E	~~42.2~~ 41.6	~~38.6~~ 38.4	E	43.0	~~37.5~~ 37.7	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~34.8~~ 34.9	36.2	E	34.5	~~40.0~~ 40.2	E	34.6	~~40.1~~ 39.9	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	47.2	~~23.4~~ 23.6	C	~~47.1~~ 46.9	~~24.3~~ 25.0	C	46.9	~~25.6~~ 25.5	C
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	38.8	~~34.8~~ 35.0	D	~~38.8~~ 38.7	~~29.9~~ 36.0	~~D~~ E	~~38.5~~ 38.8	~~39.0~~ 35.9	E
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~29.4~~ 29.3	29.3	D	29.3	30.9	D	~~29.4~~ 29.3	~~30.9~~ 31.0	D
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~33.3~~ 33.4	~~25.2~~ 25.0	C	~~33.5~~ 33.2	~~24.5~~ 27.1	C	~~32.4~~ 32.3	~~30.9~~ 31.9	D
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~21.9~~ 22.0	~~28.5~~ 27.8	~~D~~ C	~~22.8~~ 22.9	~~29.6~~ 29.0	D	~~22.6~~ 22.7	~~29.6~~ 30.3	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~31.4~~ 31.5	~~10.8~~ 10.4	B	~~30.5~~ 30.6	~~19.5~~ 19.4	B	30.6	~~19.7~~ 19.2	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	26.4	~~30.9~~ 31.1	D	~~26.4~~ 26.0	~~27.2~~ 32.1	~~C~~ D	~~26.1~~ 26.2	~~35.3~~ 32.8	~~E~~ D
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.7	~~21.1~~ 21.0	C	~~27.8~~ 27.3	23.3	C	~~27.4~~ 27.1	~~23.3~~ 24.2	C
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	39.7	~~7.3~~ 7.4	A	~~39.7~~ 39.6	~~8.0~~ 8.2	A	39.7	~~8.0~~ 7.8	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	32.8	~~28.0~~ 27.7	C	32.8	~~28.7~~ 28.8	D	32.7	~~28.8~~ 28.7	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~25.1~~ 25.0	~~19.3~~ 19.4	B	~~25.3~~ 25.1	~~23.0~~ 23.9	C	~~25.2~~ 25.3	~~23.2~~ 23.3	C
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~38.2~~ 38.1	~~6.8~~ 6.6	A	38.2	~~6.5~~ 7.2	A	38.0	~~7.6~~ 7.9	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	35.4	~~28.3~~ 28.5	D	~~6.9~~ 9.5	~~114.7~~ 109.3	F	~~10.7~~ 34.7	~~111.3~~ 32.4	~~F~~ D
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	41.9	~~9.9~~ 9.6	A	~~1.3~~ 2.6	~~189.3~~ 170.8	F	~~40.1~~ 40.3	~~26.8~~ 26.4	C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.8~~ 30.7	15.3	B	~~22.1~~ 25.2	~~31.6~~ 29.8	D	~~29.7~~ 29.5	~~24.5~~ 24.4	C

Note: Significant Impact

Table 21-21
Phase 2 (2032) Highway Level of Service Summary With Mitigation
Weekday AM Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	36.5	~~40.5~~ 40.6	E	~~37.8~~ 37.5	~~28.8~~ 32.1	D	~~36.0~~ 36.5	~~42.5~~ 41.3	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	48.8	~~22.7~~ 22.8	C	~~6.7~~ 48.0	~~71.5~~ 26.1	~~F~~ C	~~48.1~~ 48.0	~~25.9~~ 26.0	C
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~44.1~~ 44.0	~~38.1~~ 37.9	E	~~41.2~~ 43.5	~~39.7~~ 40.3	E	~~43.3~~ 43.4	~~40.5~~ 40.3	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~34.3~~ 34.2	~~50.1~~ 50.3	F	~~17.1~~ 17.3	~~94.6~~ 94.1	F	~~17.6~~ 17.4	~~93.0~~ 93.4	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~38.8~~ 39.3	~~28.6~~ 27.8	~~D~~ C	~~35.4~~ 37.0	~~33.2~~ 30.4	D	~~33.9~~ 38.6	~~36.5~~ 35.8	E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~45.1~~ 44.9	~~24.7~~ 24.6	C	~~45.3~~ 44.7	~~15.5~~ 23.7	~~B~~ C	~~44.9~~ 44.8	~~25.5~~ 25.9	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~26.3~~ 26.6	~~47.2~~ 46.7	F	~~20.3~~ 5.2	~~57.9~~ 144.1	F	~~26.6~~ 15.1	~~46.7~~ 84.4	F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.2~~ 34.1	~~19.7~~ 19.9	B	~~34.2~~ 34.6	~~20.4~~ 16.9	~~C~~ B	~~33.8~~ 33.9	~~21.6~~ 20.8	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~25.0~~ 25.8	~~26.5~~ 26.2	C	~~26.5~~ 26.8	~~27.2~~ 26.1	C	~~24.0~~ 26.8	~~28.4~~ 25.6	~~D~~ C
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~23.3~~ 23.2	~~31.8~~ 32.8	D	~~11.6~~ 14.8	~~54.1~~ 53.2	F	~~23.2~~ 23.1	~~34.7~~ 35.8	~~D~~ E
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	33.6	~~14.1~~ 14.0	B	~~33.6~~ 32.8	~~9.8~~ 15.1	~~A~~ B	~~33.0~~ 33.4	~~16.2~~ 17.0	B
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.4	~~23.1~~ 23.0	C	~~27.9~~ 28.0	~~27.5~~ 25.9	C	~~27.0~~ 27.9	~~28.6~~ 25.8	~~D~~ C
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~41.5~~ 41.7	~~5.8~~ 5.7	A	41.5	6.7	A	~~41.6~~ 41.7	~~6.9~~ 6.6	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.4~~ 33.3	~~31.8~~ 32.0	D	~~33.3~~ 33.8	~~30.9~~ 21.0	~~D~~ C	~~33.3~~ 33.5	~~32.2~~ 28.8	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	29.6	~~18.1~~ 18.0	B	~~30.3~~ 28.7	~~19.6~~ 13.9	B	~~29.4~~ 29.7	~~20.5~~ 18.4	~~C~~ B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	29.7	~~28.9~~ 29.2	D	30.0	~~24.6~~ 17.5	~~C~~ B	29.8	~~27.4~~ 27.3	C
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	37.2	~~21.1~~ 21.0	C	~~2.7~~ 4.7	~~132.3~~ 143.3	F	~~37.1~~ 36.9	~~25.1~~ 26.2	C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~44.2~~ 44.6	7.8	A	~~0.1~~ 4.8	~~225.6~~ 108.8	F	~~43.7~~ 43.8	~~15.0~~ 15.6	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~6.0~~ 9.3	~~128.1~~ 85.8	F	~~5.2~~ 2.0	~~105.4~~ 217.9	F	~~29.0~~ 6.0	~~26.6~~ 176.0	~~C~~ F

Note: Significant Impact

Table 21-22
Phase 2 (2032) Highway Level of Service Summary
Weekday Midday Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	37.2	~~35.2~~ 35.0	E	~~38.0~~ 37.8	~~20.2~~ 24.9	C	~~37.2~~ 37.1	~~34.9~~ 36.5	~~D~~ E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~43.0~~ 42.9	~~19.9~~ 19.7	B	~~0.0~~ 1.4	~~191.1~~ 140.9	F	~~24.1~~ 42.2	~~37.5~~ 25.8	~~E~~ C
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	45.1	~~28.3~~ 28.6	D	~~33.0~~ 38.2	~~45.9~~ 43.1	~~F~~ E	~~44.5~~ 44.8	~~31.9~~ 31.5	D
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	38.8	31.4	D	~~9.2~~ 14.3	~~110.8~~ 77.5	F	~~12.9~~ 25.4	~~95.8~~ 56.4	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	38.5	26.8	C	~~38.3~~ 38.4	~~27.5~~ 29.1	~~C~~ D	~~38.1~~ 38.0	~~34.1~~ 35.5	~~D~~ E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	45.4	~~21.9~~ 21.8	C	~~46.0~~ 45.3	~~12.1~~ 15.5	B	45.2	~~23.4~~ 24.9	C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	34.3	24.8	C	~~5.7~~ 4.8	~~110.9~~ 131.1	F	~~30.3~~ 13.5	~~30.7~~ 63.4	~~D~~ F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	34.4	16.8	B	~~34.0~~ 34.2	12.8	B	~~33.7~~ 33.6	~~20.6~~ 21.2	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~23.5~~ 23.6	~~28.5~~ 27.8	~~D~~ C	~~9.8~~ 24.8	~~53.6~~ 28.0	~~F~~ C	~~10.5~~ 24.7	~~58.4~~ 30.8	~~F~~ D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	23.6	20.0	~~B~~ C	2.9	~~93.4~~ 120.5	F	~~23.2~~ 22.7	~~30.6~~ 33.8	D
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~45.0~~ 45.2	~~11.0~~ 11.1	B	~~44.8~~ 44.1	~~8.5~~ 13.2	~~A~~ B	~~3.4~~ 33.9	~~61.0~~ 22.8	~~F~~ C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.4~~ 28.3	24.3	C	~~27.5~~ 26.7	~~27.7~~ 29.0	~~C~~ D	~~26.4~~ 23.2	~~31.6~~ 36.8	~~D~~ E
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	41.5	~~7.4~~ 7.3	A	41.5	~~8.3~~ 8.5	A	~~27.3~~ 41.5	~~13.4~~ 8.3	~~B~~ A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.7	~~28.2~~ 28.4	D	~~33.6~~ 33.7	~~20.7~~ 18.2	~~C~~ B	33.5	~~29.3~~ 27.9	~~D~~ C
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~28.7~~ 28.5	~~11.4~~ 11.1	B	0.1	~~48.0~~ 57.2	F	~~24.8~~ 29.5	~~15.7~~ 13.2	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~31.2~~ 31.3	~~10.0~~ 10.2	B	~~31.3~~ 31.2	~~6.2~~ 6.9	A	~~31.3~~ 31.2	~~10.6~~ 11.1	B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	32.0	~~22.1~~ 22.2	C	~~1.5~~ 1.7	~~144.0~~ 150.4	F	~~5.2~~ 29.3	~~135.9~~ 36.5	~~F~~ E
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~42.4~~ 42.3	7.6	A	~~0.0~~ 0.5	~~241.6~~ 226.8	F	~~11.2~~ 40.8	~~55.2~~ 21.6	~~F~~ C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.9~~ 30.3	14.5	B	~~1.2~~ 1.4	~~226.5~~ 221.6	F	~~5.8~~ 4.1	~~152.2~~ 194.1	F

Note: Significant Impact

Table 21-23
Phase 2 (2032) Highway Level of Service Summary With Mitigation
Weekday PM Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	33.0	~~45.4~~ 45.0	~~F~~ E	~~33.6~~ 33.2	~~35.8~~ 41.2	E	32.9	~~47.6~~ 47.5	F
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~37.7~~ 37.6	~~25.8~~ 25.6	C	~~0.4~~ 3.0	~~194.9~~ 137.1	F	~~36.9~~ 37.2	~~32.0~~ 31.4	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~44.2~~ 44.1	~~34.1~~ 34.4	D	~~35.3~~ 39.8	~~54.0~~ 42.8	~~F~~ E	43.9	~~37.2~~ 37.4	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~33.7~~ 33.6	39.8	E	~~22.4~~ 32.7	~~67.9~~ 49.2	F	~~32.6~~ 32.7	49.2	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~17.3~~ 10.6	~~69.7~~ 107.4	F	38.9	~~36.1~~ 35.6	E	~~38.6~~ 38.8	~~41.5~~ 40.8	E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~35.1~~ 35.0	~~50.1~~ 50.5	F	~~35.5~~ 35.1	~~36.4~~ 46.3	~~E~~ F	~~35.1~~ 34.9	~~52.4~~ 51.7	F
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	31.8	36.2	E	~~11.2~~ 17.4	~~89.6~~ 66.4	F	~~31.6~~ 31.8	~~38.9~~ 38.7	E
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	34.1	~~20.0~~ 19.4	B	~~33.3~~ 33.4	~~18.3~~ 20.3	~~B~~ C	~~33.0~~ 32.8	~~32.9~~ 26.7	~~D~~ C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~23.8~~ 23.6	~~19.1~~ 21.1	~~B~~ C	~~10.4~~ 24.6	~~44.1~~ 23.1	~~F~~ C	~~21.1~~ 24.6	~~26.2~~ 22.6	C
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~24.3~~ 24.4	~~18.1~~ 15.3	B	~~7.2~~ 8.1	~~58.7~~ 39.2	~~F~~ E	~~23.8~~ 23.9	~~31.0~~ 30.4	D
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~19.5~~ 8.9	~~40.5~~ 83.8	~~E~~ F	~~38.6~~ 7.2	~~19.9~~ 76.0	~~B~~ F	~~35.2~~ 36.3	~~31.9~~ 30.6	D
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~14.9~~ 6.1	~~41.2~~ 84.2	~~E~~ F	~~24.6~~ 6.6	~~29.2~~ 115.9	~~D~~ F	~~3.5~~ 3.9	~~197.0~~ 189.2	F
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~38.9~~ 38.8	21.0	C	~~38.9~~ 38.8	~~20.2~~ 20.8	C	~~39.0~~ 38.7	~~20.6~~ 21.0	C
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.1	~~33.9~~ 32.7	D	~~33.1~~ 33.2	~~30.3~~ 29.7	D	32.9	~~35.6~~ 35.4	E
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~31.8~~ 32.0	~~16.9~~ 16.6	B	~~31.7~~ 31.5	~~17.8~~ 17.5	B	~~32.0~~ 32.2	~~22.1~~ 21.7	C
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	32.0	~~11.1~~ 10.6	B	~~32.1~~ 32.0	~~8.7~~ 10.3	~~A~~ B	~~31.9~~ 32.1	~~12.0~~ 11.4	B
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~34.8~~ 31.7	~~25.8~~ 28.7	~~C~~ D	~~3.1~~ 4.3	~~138.6~~ 151.6	F	~~23.8~~ 30.8	~~50.3~~ 36.8	~~F~~ E
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	41.4	~~5.4~~ 5.5	A	~~0.0~~ 1.0	~~235.0~~ 227.5	F	~~40.0~~ 39.7	~~19.3~~ 19.8	B
Ramp from Whitestone Expressway SB to Northern Boulevard WB	30.4	~~20.9~~ 21.6	C	~~3.0~~ 2.6	~~204.6~~ 213.4	F	~~16.2~~ 24.6	~~69.2~~ 42.7	~~F~~ E

Note: Significant Impact

Table 21-24
Phase 2 (2032) Highway Level of Service Summary With Mitigation
Saturday Non-Game Day

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	37.1	~~44.5~~ 44.1	E	38.3	~~26.2~~ 25.5	C	37.2	~~43.7~~ 42.7	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~38.1~~ 38.0	~~28.4~~ 28.5	D	~~0.0~~ 0.9	~~200.2~~ 158.0	F	~~37.4~~ 37.3	~~36.0~~ 36.1	E
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	43.4	39.0	E	~~31.2~~ 27.6	~~48.8~~ 56.1	F	~~42.2~~ 41.8	~~43.7~~ 44.5	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	38.8	32.6	D	~~12.0~~ 28.6	~~105.7~~ 56.1	F	~~12.0~~ 10.9	~~103.7~~ 107.2	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~31.8~~ 29.4	~~38.2~~ 41.0	E	~~34.8~~ 40.9	~~33.8~~ 28.3	D	~~40.2~~ 40.3	~~37.9~~ 36.7	E
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~37.0~~ 37.1	27.8	C	~~37.6~~ 37.3	~~15.0~~ 16.1	B	~~36.7~~ 36.9	~~32.1~~ 30.3	D
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~33.1~~ 33.0	31.2	D	~~4.1~~ 4.3	~~147.2~~ 149.1	F	~~19.7~~ 10.1	~~54.6~~ 102.6	F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	33.8	~~21.1~~ 21.4	C	~~34.0~~ 34.1	~~13.6~~ 14.4	B	~~33.1~~ 33.3	~~24.2~~ 22.3	C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~22.6~~ 22.4	~~24.2~~ 27.3	C	~~7.2~~ 28.6	~~59.2~~ 33.9	~~F~~ D	~~9.4~~ 9.3	~~59.0~~ 60.4	F
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	26.1	~~13.5~~ 13.4	B	~~4.7~~ 7.5	~~77.9~~ 80.6	F	~~25.6~~ 23.6	~~20.9~~ 21.3	C
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~43.5~~ 43.2	~~13.3~~ 13.6	B	~~43.4~~ 43.0	~~9.5~~ 11.9	~~A~~ B	~~37.8~~ 40.7	~~25.8~~ 22.4	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.1~~ 27.4	~~29.2~~ 29.8	D	~~24.2~~ 25.7	~~40.5~~ 35.7	E	~~6.0~~ 7.4	~~150.9~~ 116.9	F
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	40.1	~~7.0~~ 7.1	A	~~39.8~~ 39.7	~~7.9~~ 8.5	A	~~39.9~~ 39.8	~~8.4~~ 8.0	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	33.3	~~32.7~~ 35.5	D	~~33.7~~ 33.8	~~22.7~~ 20.6	C	~~33.3~~ 33.4	~~31.8~~ 25.6	~~D~~ C
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~31.4~~ 31.3	11.7	B	~~30.6~~ 30.1	~~10.8~~ 10.1	B	~~32.5~~ 31.7	~~14.9~~ 12.5	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~39.3~~ 39.0	~~8.9~~ 9.1	A	~~39.6~~ 39.4	~~5.2~~ 6.5	A	39.1	~~9.1~~ 8.9	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	29.6	~~25.9~~ 26.2	C	~~1.8~~ 2.1	~~141.2~~ 135.5	F	~~7.4~~ 18.5	~~130.4~~ 59.5	F
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	43.3	~~7.3~~ 7.5	A	~~0.0~~ 0.4	~~243.5~~ 234.4	F	~~32.8~~ 42.6	~~28.3~~ 22.7	~~D~~ C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.4~~ 30.3	~~21.0~~ 20.9	C	~~1.5~~ 2.0	~~214.8~~ 212.6	F	~~6.4~~ 6.1	~~171.0~~ 170.5	F

Note: Significant Impact

Table 21-25
Phase 2 (2032) Highway Level of Service Summary With Mitigation
Weekday Pregame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~38.4~~ 38.0	~~33.1~~ 38.9	~~D~~ E	~~38.3~~ 38.2	~~35.4~~ 37.7	E	~~38.3~~ 38.2	~~35.0~~ 38.0	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~39.1~~ 39.2	~~27.5~~ 27.4	C	~~26.2~~ 38.7	~~42.5~~ 32.0	~~E~~ D	~~38.8~~ 38.7	~~32.1~~ 32.1	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	44.4	~~34.8~~ 34.9	D	44.1	~~37.7~~ 37.3	E	~~44.1~~ 44.2	~~37.0~~ 37.1	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~22.3~~ 38.4	~~49.6~~ 36.7	~~F~~ E	~~37.7~~ 37.5	~~41.6~~ 42.0	E	~~37.7~~ 37.4	~~41.6~~ 42.1	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~32.4~~ 39.6	~~34.1~~ 31.6	D	41.5	~~29.9~~ 31.8	D	~~40.2~~ 40.9	~~34.4~~ 34.9	D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~40.1~~ 39.8	~~39.8~~ 48.3	~~E~~ F	~~40.0~~ 39.8	~~42.6~~ 48.2	~~E~~ F	~~40.2~~ 39.9	~~38.1~~ 45.1	E
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~5.9~~ 8.2	~~111.5~~ 121.7	F	~~5.3~~ 4.7	~~130.7~~ 141.0	F	~~8.5~~ 7.5	~~121.8~~ 130.6	F
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.6~~ 34.4	~~15.4~~ 15.3	B	~~34.3~~ 34.1	~~17.7~~ 18.0	B	~~33.8~~ 33.5	~~19.6~~ 20.4	~~B~~ C
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~22.0~~ 22.1	~~23.8~~ 26.1	C	22.8	33.6	D	~~22.8~~ 22.6	~~33.7~~ 34.4	D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	~~4.0~~ 25.0	~~54.0~~ 20.3	~~F~~ C	~~22.1~~ 13.6	~~16.6~~ 27.6	~~B~~ C	~~25.2~~ 25.1	~~15.5~~ 16.3	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~39.2~~ 31.6	~~17.7~~ 26.6	~~B~~ C	~~37.1~~ 36.9	~~25.2~~ 28.9	~~C~~ D	~~37.8~~ 37.6	~~22.9~~ 27.1	C
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.8~~ 28.9	~~19.1~~ 19.4	B	~~27.2~~ 27.1	~~25.2~~ 24.3	C	~~27.9~~ 27.3	~~24.1~~ 25.5	C
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~38.3~~ 38.5	~~26.0~~ 26.6	C	~~38.2~~ 38.4	~~27.4~~ 27.2	C	~~38.9~~ 38.3	~~18.4~~ 25.7	~~B~~ C
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.7~~ 33.8	~~22.2~~ 22.4	C	33.7	~~20.9~~ 20.6	C	33.7	~~24.0~~ 22.9	C
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~30.2~~ 31.6	~~10.3~~ 10.8	B	~~31.6~~ 31.1	~~11.8~~ 11.1	B	~~32.4~~ 32.0	~~13.2~~ 12.4	B
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	31.0	~~8.4~~ 9.9	A	~~31.0~~ 30.9	~~7.0~~ 5.3	A	30.9	~~9.7~~ 9.9	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~4.6~~ 10.6	~~126.3~~ 95.1	F	~~6.1~~ 12.5	~~119.6~~ 87.5	F	~~36.9~~ 37.2	~~26.3~~ 27.2	C
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~5.1~~ 41.6	~~51.9~~ 12.1	~~F~~ B	~~7.6~~ 37.0	~~89.2~~ 22.9	~~F~~ C	40.7	~~20.5~~ 20.7	C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~1.3~~ 6.2	~~191.4~~ 177.4	F	~~2.9~~ 1.3	~~205.3~~ 221.0	F	~~8.0~~ 7.5	~~163.5~~ 166.1	F

Note: Significant Impact

Table 21-26
Phase 2 (2032) Highway Level of Service Summary With Mitigation
Weekend Pregame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~36.0~~ 35.8	~~33.0~~ 36.4	~~D~~ E	~~36.2~~ 36.0	~~29.3~~ 33.3	D	~~35.7~~ 35.5	~~37.0~~ 40.7	E
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~3.1~~ 35.5	~~141.4~~ 34.0	~~F~~ D	~~0.7~~ 23.9	~~157.7~~ 32.5	~~F~~ D	~~32.7~~ 35.1	~~39.6~~ 37.7	E
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~38.6~~ 43.7	~~45.9~~ 35.3	~~F~~ E	~~42.2~~ 43.4	~~28.6~~ 36.4	~~D~~ E	~~43.5~~ 43.7	~~36.5~~ 36.1	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	35.5	~~40.2~~ 40.1	E	~~12.3~~ 34.4	~~92.8~~ 47.8	F	~~18.2~~ 34.4	~~82.2~~ 47.9	F
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~46.9~~ 46.8	~~25.2~~ 25.9	C	46.7	~~28.1~~ 27.7	~~D~~ C	46.7	~~29.1~~ 28.2	D
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~39.2~~ 38.8	~~20.8~~ 26.6	C	~~38.9~~ 38.6	~~16.8~~ 22.2	~~B~~ C	~~39.1~~ 39.0	~~18.7~~ 25.0	~~B~~ C
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	33.9	30.7	D	~~18.4~~ 13.9	~~50.1~~ 64.4	F	~~12.4~~ 33.9	~~64.4~~ 30.6	~~F~~ D
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~34.6~~ 34.8	~~11.3~~ 13.7	B	~~34.5~~ 34.6	~~11.5~~ 14.5	B	~~34.5~~ 34.1	~~15.3~~ 17.0	B
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~21.7~~ 21.6	29.9	D	~~7.4~~ 22.6	~~60.2~~ 37.7	~~F~~ E	~~11.0~~ 22.5	~~62.3~~ 38.3	~~F~~ E
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	31.6	~~15.3~~ 14.9	B	~~28.5~~ 27.7	~~10.0~~ 13.8	~~A~~ B	~~19.9~~ 31.1	~~18.9~~ 11.4	B
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~35.8~~ 35.3	~~10.6~~ 13.8	B	~~39.8~~ 30.9	~~67.0~~ 21.1	~~F~~ C	~~0.3~~ 27.8	~~120.0~~ 29.0	~~F~~ D
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	28.2	~~28.3~~ 28.4	D	~~11.8~~ 10.8	~~70.3~~ 77.0	F	~~6.8~~ 15.0	~~122.4~~ 52.8	F
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	39.6	~~9.4~~ 9.3	A	~~2.7~~ 39.7	~~46.0~~ 10.2	~~F~~ B	~~32.9~~ 28.4	~~7.2~~ 16.0	~~A~~ B
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	~~33.3~~ 33.2	~~18.7~~ 19.1	B	33.2	~~17.7~~ 17.6	B	33.2	~~18.2~~ 19.5	B
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~23.2~~ 27.3	~~20.5~~ 17.7	~~C~~ B	~~14.1~~ 27.4	~~28.4~~ 19.9	~~D~~ B	27.5	~~19.5~~ 20.8	~~B~~ C
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	38.8	~~9.6~~ 9.8	A	~~38.9~~ 38.9	~~8.2~~ 7.9	A	~~38.9~~ 38.7	~~8.3~~ 9.9	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~3.6~~ 4.3	~~122.8~~ 142.1	F	~~1.2~~ 4.5	~~133.1~~ 141.9	F	~~4.0~~ 11.9	~~110.7~~ 52.4	F
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~0.9~~ 32.3	~~191.5~~ 20.1	~~F~~ C	~~0.2~~ 5.0	~~235.7~~ 127.6	F	~~4.9~~ 17.1	~~81.1~~ 46.7	F
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~16.7~~ 15.8	~~71.4~~ 75.1	F	~~8.1~~ 6.7	~~98.0~~ 116.8	F	~~3.9~~ 28.1	~~127.7~~ 41.6	~~F~~ E

Note: Significant Impact

Table 21-27
Phase 2 (2032) Highway Level of Service Summary With Mitigation
Weekend Postgame

Mainlines	No Action			With Action			With Mitigation		
	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS	Speed (mph)	Density (pc/mi/ln)	LOS
Grand Central Parkway EB Mainline (between Roosevelt Ave & Long Island Expwy)	~~29.0~~ 29.2	~~59.3~~ 57.1	F	~~29.9~~ 29.5	~~42.6~~ 50.6	~~E~~ F	29.3	~~55.6~~ 56.7	F
Grand Central Parkway WB Mainline (east side) (between Roosevelt Ave & Long Island Expwy)	~~35.7~~ 35.6	~~29.2~~ 29.0	D	~~0.1~~ 6.3	~~179.1~~ 98.5	F	35.3	~~34.5~~ 34.1	D
Grand Central Parkway WB Mainline (west side) (between Roosevelt Ave & Long Island Expwy)	~~42.8~~ 43.0	~~36.7~~ 36.5	E	~~39.2~~ 39.4	~~52.7~~ 45.8	F	~~43.2~~ 42.5	~~38.4~~ 39.2	E
Van Wyck Expressway NB Mainline (between Roosevelt Ave & Long Island Expwy)	~~35.0~~ 34.8	~~36.5~~ 36.6	E	~~33.6~~ 33.8	~~45.0~~ 44.7	E	~~33.8~~ 33.9	~~44.7~~ 44.5	E
Van Wyck Expressway SB Mainline (between Roosevelt Ave & Long Island Expwy)	~~47.2~~ 47.3	~~23.6~~ 23.8	C	~~47.2~~ 47.0	~~24.4~~ 25.2	C	47.0	~~25.8~~ 26.6	C
Whitestone Expressway NB Mainline (between Northern Boulevard and Linden Place)	~~38.8~~ 38.7	~~34.5~~ 34.9	D	~~39.3~~ 38.5	~~21.4~~ 32.1	~~C~~ D	38.5	37.5	E
Whitestone Expressway SB Mainline (between Northern Boulevard and Linden Place)	~~29.4~~ 29.3	~~29.7~~ 29.6	D	~~16.8~~ 15.9	~~52.7~~ 52.3	F	~~29.2~~ 29.3	~~32.0~~ 32.1	D
Ramps									
Ramp from World's Fair Marina / Boat Basin Road to Grand Central Parkway WB	~~33.4~~ 33.5	~~24.6~~ 21.9	C	~~33.4~~ 33.2	~~18.6~~ 23.4	B	~~32.3~~ 32.1	~~29.0~~ 32.1	D
Ramp from Van Wyck Expressway NB to Northern Boulevard EB	~~22.0~~ 21.9	~~28.7~~ 25.4	~~D~~ C	~~19.7~~ 23.0	~~35.3~~ 31.9	~~E~~ D	~~18.4~~ 23.0	~~37.0~~ 30.9	~~E~~ D
Ramp from Van Wyck Expressway NB to Northern Boulevard WB	31.4	~~11.4~~ 10.8	B	~~11.1~~ 12.1	~~44.7~~ 27.4	~~E~~ C	~~30.7~~ 30.4	~~18.9~~ 21.1	~~B~~ C
Ramp from Whitestone Expressway NB to Van Wyck Expressway SB	~~26.4~~ 26.5	~~30.3~~ 29.7	D	~~27.2~~ 26.4	~~16.1~~ 24.1	~~B~~ C	~~12.7~~ 15.6	~~52.4~~ 46.3	F
Ramp from Northern Boulevard WB to Van Wyck Expressway SB	~~28.7~~ 28.4	~~21.3~~ 19.3	~~C~~ B	~~27.3~~ 26.3	~~26.6~~ 26.9	C	~~22.3~~ 24.3	~~31.1~~ 29.3	D
Ramp from Astoria Boulevard EB & Northern Boulevard EB to Whitestone Expressway NB	~~39.6~~ 39.7	~~7.5~~ 7.4	A	~~39.6~~ 39.7	~~9.0~~ 8.5	A	39.7	~~8.8~~ 8.7	A
Ramp from Whitestone Expressway SB to Grand Central Parkway WB	32.8	~~28.6~~ 22.8	~~D~~ C	~~32.9~~ 32.8	~~29.0~~ 28.5	D	32.7	~~29.5~~ 29.4	D
Ramp from Whitestone Expressway SB to Grand Central Parkway EB	~~25.0~~ 25.1	19.8	B	~~25.3~~ 25.2	~~23.5~~ 23.1	C	25.4	~~23.1~~ 24.1	C
Ramp from Northern Boulevard WB and Whitestone Expressway SB to Astoria Boulevard WB	~~38.1~~ 38.2	~~6.3~~ 5.9	A	38.2	~~5.1~~ 5.5	A	~~38.2~~ 38.0	~~7.0~~ 7.8	A
Ramp from Astoria Blvd EB & Grand Central Pkwy to Whitestone Expwy NB / Northern Blvd EB	~~35.5~~ 35.4	~~28.1~~ 28.4	D	~~3.2~~ 5.0	~~129.3~~ 146.3	F	~~10.8~~ 32.7	~~104.9~~ 35.8	~~F~~ E
Ramp from Grand Central Parkway WB toward Stadium Road and Whitestone Expressway NB	~~41.9~~ 41.7	9.7	A	~~0.0~~ 1.1	~~227.9~~ 199.2	F	~~19.7~~ 40.7	~~39.5~~ 22.1	~~E~~ C
Ramp from Whitestone Expressway SB to Northern Boulevard WB	~~30.8~~ 29.4	~~15.4~~ 14.6	B	~~3.7~~ 3.8	~~132.4~~ 131.8	F	29.7	~~28.2~~ 28.4	D

Note: Significant Impact

E. TRANSIT AND PEDESTRIANS

TRANSIT

As discussed in Chapter 14, "Transportation," the proposed project would not result in any significant adverse transit impacts by the 2018 Phase 1A completion. However, it would result in significant adverse bus line-haul impacts on the Q19, Q48, and Q66 bus lines and subway line-haul impacts on the No. 7 subway line by the 2028 Phase 1B completion. Upon the proposed project's full build-out in 2032, significant adverse transit impacts were identified for the Mets-Willets Point subway station stairs, the No. 7 subway line-haul, and Q19, Q48, and Q66 bus line-haul conditions. Potential measures to mitigate these significant adverse impacts are described below.

In addition, it should be noted that if NYCT reverts back to its pre-CitiField station operating plan for the Mets-Willets Point subway station, whereby passage through the station between parking in South Lot/Lot D and the north side of Roosevelt Avenue could be made only within the unpaid zone, additional impacts for the station's street-level connections and the unpaid zone passageway could occur during game days. Because game-day conditions occur on average only approximately 80 ~~40 to 50~~ times a year and are subject to game-day traffic and pedestrian management, such impacts would be intermittent and may not require permanent mitigation measures. Furthermore, since the planning and design of this station reconfiguration has not yet taken place, the specific nature of the potential game-day impacts cannot be ascertained and any mitigation measures that may be deemed feasible to address the potential game-day impacts also cannot be identified at this time. If NYCT decides to proceed with this station reconfiguration, which would take place independent of the proposed project, additional interagency coordination is expected to take place to develop the appropriate game-day management strategies. Between the Draft and Final SEIS, no changes to operating plans were announced by NYCT; therefore, any potential changes that may be considered for future implementation will be addressed outside of this environmental review. For purposes of disclosure in this ~~Draft~~ Final SEIS, any impacts that may be attributed to future passage of a reconfigured Mets-Willets Point subway station may potentially be deemed unmitigatable.

SUBWAY STATION OPERATIONS

2032 Phase 2

The north stairway (S-3) on Roosevelt Avenue would decline from LOS A (v/c = 0.05), LOS A (v/c = 0.26), and LOS A (v/c = 0.38) under the 2032 No Action condition to LOS D (v/c = 1.21), LOS D (v/c = 1.14), and LOS D (v/c = 1.20) under the 2032 With Action condition during the weekday PM non-game, weekday pre-game, and weekend pre-game peak periods respectively. The north stairway (S-2) on Roosevelt Avenue would decline from LOS A (v/c = 0.04) under the 2032 No Action condition to LOS D (v/c = 1.10) under the 2032 With Action condition during the weekday PM non-game peak period, and the north stairway (M-4) that connects to the mezzanine and street level stairways (S-2 and S-3) on Roosevelt Avenue would decline from LOS A (v/c = 0.06), LOS A (v/c = 0.18), and LOS A (v/c = 0.22) under the 2032 No Action condition to LOS E (v/c = 1.34), LOS D (v/c = 1.10), and LOS D (v/c = 1.08) under the 2032 With Action condition during the weekday PM non-game, weekday pre-game, and weekend pre-game peak periods, respectively. According to the *CEQR Technical Manual*, stairway widenings should result in a total effective width that would be a multiple of 30-inch lanes. As ~~shown in **Table 21-28**~~ detailed in the DSEIS, in order to mitigate the above significant adverse stairway impacts, the effective widths of the S-3, S-2, and M-4 stairways would need to be widened from

their current effective widths of 78 inches, 81 inches, and 138 inches to 120 inches, 90 inches, and 210 inches, respectively. In addition, these stairway widenings would need to be accompanied by an Americans with Disabilities Act (ADA)-compliant elevator between the street and mezzanine levels. ~~The feasibility of the stairway widening and elevator installation will be further evaluated between the Draft and Final SEIS. In the event these mitigation measures are determined to be infeasible, the projected significant adverse stairway impacts would be deemed unmitigatable.~~ Subsequent to the certification of the DSEIS, the feasibility of the above stairway widenings was studied. Based on the feasibility study, it was determined that the proposed widening of the M-4 stairway from its effective width of 138 inches to 210 inches would not be feasible due to the existing structures on both sides of the stairway. An alternative mitigation scheme was proposed by widening the S-3 stairway from its current effective width of 78 inches to 120 inches, maintaining the current effective width of the M-4 stairway at 138 inches, and demolishing the existing S-2 stairway and relocating it to the east side of the mezzanine level. The new S-2 stairway would be constructed with an effective width of 90 inches, 9 inches wider than its existing effective width of 81 inches. Relocating the S-2 stairway would divert pedestrian volumes away from the M-4 stairway such that the current effective with of 138 inches would be adequate to accommodate the future projected pedestrian volumes from the widened S-3 stairway. In connection with the relocated and widened S-2 stairway, a new fare array consisting of three turnstiles and one emergency gate would be constructed within the mezzanine level to control access to the new S-2 stairway. The mitigated conditions incorporating this alternative mitigation scheme are summarized in **Table 21-28**. In addition, a street to platform level ADA-compliant elevator would be constructed providing access to the westbound platform of the station. The ADA-compliant elevator would be accompanied by an Autonomous Farecard Access System (AFAS) gate to control access to the station. Furthermore, a manual access gate would be installed at the westbound platform elevator landing to separate the ADA-compliant elevator from the existing turnstiles. The manual access gate would facilitate the current non-game and game day operations at the station. It should be noted that the above proposed mitigation measures could be subject to modification due to NYCT's future master plan for the Mets-Willets Point subway station. Any modifications in conformance with the future master plan would provide equivalent functionalities that would similarly mitigate the stairway impacts identified above. Since the projected impacts that prompted the stairway and elevator feasibility study would not occur until Phase 2 of the proposed project, no funding commitments are in place at this time. The City will coordinate with NYCT and the lead agency to ensure the proper mitigation would be implemented at the appropriate time and would add language to the RFP for Phase 2 of the project as well as to the development agreement and/or other legally binding agreements, requiring the designated developer to fund the implementation of this mitigation. The implementation of these mitigation measures would be coordinated with MTA/NYCT to allow enough time for detailed design and specification approvals by MTA/NYCT and for the construction in order to address the increased demand that would result from development of the proposed project by 2032.

Table 21-28
2032 Mitigated Condition: Subway Station Vertical Circulation Analysis

Mets-Willets Point No. 7 Train Station Vertical Circulation Elements	Width (feet)	Effective Width (feet)	15-Minute Pedestrian Volumes Up	15-Minute Pedestrian Volumes Down	Surging Factor	Friction Factor	V/C Ratio	LOS
Weekday PM Non-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S3 Stair	11.3	10.0	477	528	0.90	0.90	0.79	C
Roosevelt Avenue (North) S2 Stair	8.8	7.5	487	473	0.90	0.90	1.00	D
Roosevelt Avenue (North) M4A/4B Stairs	~~19.0~~ 12.8	~~17.5~~ 11.5	~~964~~ 477	~~1001~~ 528	0.90	0.90	~~0.88~~ 0.69	~~C~~ B
Weekday Pre-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S3 Stair	11.3	10.0	325	604	0.90	0.90	0.74	C
Roosevelt Avenue (North) M4A/4B Stairs	~~19.0~~ 12.8	~~17.5~~ 11.5	~~611~~ 325	~~986~~ 604	0.90	0.90	~~0.72~~ 0.64	~~C~~ B
Weekend Pre-Game								
Street to Mezzanine								
Roosevelt Avenue (North) S3 Stair	11.3	10.0	306	671	0.90	0.90	0.78	C
Roosevelt Avenue (North) M4A/4B Stairs	~~19.0~~ 12.8	~~17.5~~ 11.5	~~589~~ 306	~~975~~ 671	0.90	0.90	~~0.71~~ 0.68	~~C~~ B

Notes:
Capacities were calculated based on rates presented in the *CEQR Technical Manual* (January 2012 edition).
Surging factors are only applied to the exiting pedestrian volume (*CEQR Technical Manual*).
V/C Stairway = [Vin / (150 * We * Sf * Ff)]+ [Vx/ (150 * We * Sf * Ff)]
V/C Passageway = [Vin / (225 * We * Sf * Ff)]+ [Vx/ (225 * We * Sf * Ff)]
Where
Vin = Peak 15-minute entering passenger volume
Vx = Peak 15-minute exiting passenger volume
We = Effective width of stairs/passageways
Sf = Surging factor (if applicable)
Ff = Friction factor (if applicable)

SUBWAY LINE HAUL LEVELS

2028 Phase 1B

The project-generated subway trips would add approximately five passengers per car to the No.7 Manhattan-bound express line at the peak load point during the AM peak period, resulting in a v/c ratio of 1.09. It should be noted that in the event NYCT is able to process one additional express train Manhattan-bound during the AM peak hour, as assumed in the DSEIS, this significant adverse line-haul impact on the No. 7 line would not occur. As discussed in Chapter 14, "Transportation," the City had consulted with the MTA on extending regular LIRR service to Willets Point when the actual demand shows that such service improvement is warranted. The addition of regular LIRR service to Willets Point would provide substantial relief to the No. 7 subway line and may prevent this significant adverse subway impact from materializing. Since there are constraints on what service improvements are available to NYCT, the identified significant line-haul capacity impact on the No. 7 line would likely remain unmitigated absent additional train service or the introduction of new LIRR service to the area.

2032 Phase 2

The project-generated subway trips would add approximately 11 passengers per car to the No. 7 ~~subway line~~ Manhattan-bound express line at the peak load point during the AM peak period, resulting in a v/c ratio of ~~1.20~~ 1.16. As discussed above for the 2028 Phase 1B completion, ~~in~~

~~Chapter 14, "Transportation," the City had consulted with the MTA on extending regular LIRR service to Willets Point when the actual demand shows that such service improvement is warranted. The addition of regular LIRR service to Willets Point would provide substantial relief to the No. 7 subway line and may prevent this significant adverse subway impact from materializing. Since there are constraints on what service improvements are available to NYCT,~~ the identified significant line-haul capacity impact on the No. 7 line would likely remain unmitigated absent the introduction of new LIRR service to the area.

BUS LINE HAUL LEVELS

2028 Phase 1B

The proposed project would result in significant adverse impacts on the eastbound and westbound Q19 and Q66 routes during the AM and PM peak periods and on the eastbound and westbound Q48 during the PM peak period in 2028. More specifically, the Q19 route would experience the following increases in passengers per bus between the 2028 No Action and With Action conditions:

- Eastbound line-haul increasing from 43 to 65 average passengers per bus in the AM peak period;
- Westbound line-haul increasing from 45 to 61 average passengers per bus in the AM peak period;
- Eastbound line-haul increasing from 28 to 69 average passengers per bus in the PM peak period; and
- Westbound line-haul increasing from 33 to 80 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts, both the eastbound and westbound Q19 route would require one additional bus (increasing from three to four total buses) during the AM peak period. During the PM peak period, the eastbound route would require one additional bus (increasing from three to four total buses) and the westbound route would require two additional buses (increasing from three to five total buses).

The Q48 route would experience the following increases in passengers per bus between the 2028 No Action and With Action conditions:

- Eastbound line-haul increasing from 22 to 63 average passengers per bus in the PM peak period; and
- Westbound line-haul increasing from 23 to 79 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts during the PM peak period, the eastbound Q48 route would require one additional bus (increasing from three to four total buses) and the westbound route would require three additional buses (increasing from five to eight total buses).

The Q66 route would experience the following increases in passengers per bus between the 2028 No Action and With Action conditions:

- Eastbound line-haul increasing from 48 to 68 average passengers per bus in the AM peak period;
- Westbound line-haul increasing from 47 to 64 average passengers per bus in the AM peak period;

- Eastbound line-haul increasing from 21 to 78 average passengers per bus in the PM peak period; and
- Westbound line-haul increasing from 21 to 87 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts, the eastbound Q66 route would require four additional buses (increasing from 15 to 19 total buses) and the westbound route would require three additional buses (increasing from 14 to 17 total buses) during the AM peak period. During the PM peak period, the eastbound route would require five additional buses (increasing from 10 to 15 total buses) and the westbound route would require six additional buses (increasing from 10 to 16 total buses).

Table 21-29 summarizes the average hourly passenger volumes for the Q19, Q48, and Q66 bus routes and provides the numbers of buses required to fully mitigate the identified significant adverse bus line-haul impacts.

Table 21-29
2028 Mitigated Condition: Bus Line Haul Levels

Route	Number of Buses per Hour		Passengers per Bus		
	Existing	Mitigation	Without Action	With Action	Mitigation
AM Peak Period					
Q19 EB	3	4	43	65	49
Q19 WB	3	4	45	61	46
Q66 EB	15	19	48	68	54
Q66 WB	14	17	47	64	53
PM Peak Period					
Q19 EB	3	4	28	69	52
Q19 WB	3	5	33	80	48
Q48 EB	3	4	22	63	47
Q48 WB	5	8	23	79	50
Q66 EB	10	15	21	78	52
Q66 WB	10	16	21	87	54

Notes: Q19, Q48 and Q66 operate standard buses with a guideline capacity of 54 passengers per bus.

2032 Phase 2

The proposed project would result in significant adverse impacts on the eastbound and westbound Q19 and Q66 routes during the AM and PM peak periods and on the eastbound and westbound Q48 during the PM peak period in 2032. More specifically, the Q19 route would experience the following increases in passengers per bus between the 2032 No Action and With Action conditions:

- Eastbound line-haul increasing from 44 to 77 average passengers per bus in the AM peak period;
- Westbound line-haul increasing from 45 to 74 average passengers per bus in the AM peak period;
- Eastbound line-haul increasing from 29 to 87 average passengers per bus in the PM peak period; and
- Westbound line-haul increasing from 33 to 100 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts, both the eastbound and westbound Q19 route would require two additional buses (increasing from three to five total buses) during the AM

peak period. During the PM peak period, the eastbound route would require two additional buses (increasing from three to five total buses) and the westbound route would require three additional buses (increasing from three to six total buses).

The Q48 route would experience the following increases in passengers per bus between the 2032 No Action and With Action conditions:

- Eastbound line-haul increasing from 22 to 80 average passengers per bus in the PM peak period; and
- Westbound line-haul increasing from 23 to 103 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts during the PM peak period, the eastbound Q48 route would require two additional buses (increasing from three to five total buses) and the westbound route would require five additional buses (increasing from five to ten total buses).

The Q66 route would experience the following increases in passengers per bus between the 2032 No Action and With Action conditions:

- Eastbound line-haul increasing from 48 to 79 average passengers per bus in the AM peak period;
- Westbound line-haul increasing from 48 to 77 average passengers per bus in the AM peak period;
- Eastbound line-haul increasing from 21 to 103 average passengers per bus in the PM peak period; and
- Westbound line-haul increasing from 21 to 114 average passengers per bus in the PM peak period.

To mitigate these significant adverse impacts, the eastbound Q66 route would require seven additional buses (increasing from 15 to 22 total buses) and the westbound route would require six additional buses (increasing from 14 to 20 total buses) during the AM peak period. During the PM peak period, the eastbound route would require 10 additional buses (increasing from 10 to 20 total buses) and the westbound route would require 12 additional buses (increasing from 10 to 22 total buses).

Table 21-30 summarizes the average hourly passenger volumes for the Q19, Q48, and Q66 bus routes and provides the numbers of buses required to fully mitigate the identified significant adverse bus line-haul impacts.

The above mitigation measures consider potential service improvements to only the bus routes currently serving the immediate vicinity of Willets West and the District. While MTA and NYCT routinely monitor changes in bus ridership and would make the necessary service adjustments where warranted, the projected service demand is significant in magnitude. These service adjustments are subject to the agencies' fiscal and operational constraints and, if implemented, are expected to take place over time.

Table 21-30
2032 Mitigated Condition: Bus Line Haul Levels

Route	Number of Buses per Hour		Passengers per Bus		
	Existing	Mitigation	Without Action	With Action	Mitigation
AM Peak Period					
Q19 EB	3	5	44	77	46
Q19 WB	3	5	45	74	45
Q66 EB	15	22	48	79	54
Q66 WB	14	20	48	77	54
PM Peak Period					
Q19 EB	3	5	29	87	53
Q19 WB	3	6	33	100	50
Q48 EB	3	5	22	80	48
Q48 WB	5	10	23	103	52
Q66 EB	10	20	21	103	52
Q66 WB	10	22	21	114	52

Notes: Q19, Q48 and Q66 operate standard buses with a guideline capacity of 54 passengers per bus.

Recognizing that these improvements may not be operationally viable or adequate in accommodating the projected future demand from developments planned for the District, discussions were initiated with the MTA to explore opportunities to extend existing bus routes from adjacent neighborhoods (e.g., downtown Flushing) and/or creating new bus routes. Potential bus service improvements discussed include: 1) increasing service frequency on the Q19 and providing westbound stop/loop service to Willets Point; 2) extending some or all bus routes that currently terminate in downtown Flushing to Willets Point, including the Q12, Q13, Q15/Q15A, Q16, Q26, and Q28; and 3) possibly extending the limited Q50 along Roosevelt Avenue through Willets Point. These potential service improvements would require new bus stops and layover areas in and around the project site. Between the Draft and Final SEIS, additional discussions were initiated with MTA NYCT regarding the potential bus service improvements discussed above. MTA NYCT considered the Q19 westbound loop to serve Willets West and the District to be unfavorable due to its circuitous routing. The MTA Bus Company would consider extending the Q50 and NYCT would consider extending one of the current bus routes terminating in downtown Flushing to Willets West and the District initially. Additional bus route extensions to Willets West and the District would be considered based on future demand. In addition, several conceptual bus routing options were explored to provide the necessary layover areas and stop locations for the potential bus route extensions. MTA NYCT has found the conceptual bus routing options to be generally reasonable and feasible. While no definitive plans have been made at this time, the City and the applicant will continue ~~is expected~~ to collaborate with the MTA NYCT ~~during and~~ after this environmental review process to ensure that adequate bus service improvements would be implemented~~, no definitive plans have been made at this time~~.

PEDESTRIANS

As discussed in Chapter 14, "Transportation," significant adverse pedestrian impacts were identified for the east crosswalk at the intersection of Northern Boulevard and 126th Street, the north and west crosswalks at the intersection of Roosevelt Avenue and 126th Street, the north, south, and east crosswalks at the intersection of 34th Avenue and 126th Street, ~~the south crosswalk at the intersection of New Willets Point Boulevard and 126th Street~~ the north and south crosswalks at the intersection of 37th Avenue and 126th Street, and the north crosswalk at the intersection of Roosevelt Avenue and Lot B Driveway. Measures that could be implemented

to mitigate these impacts are discussed below. Because traffic mitigation measures, as described under Section D, "Traffic and Parking" have been proposed for these intersections, pedestrian mitigation analyses were prepared for the "Base Option" for which only crosswalk widenings were considered and the "Traffic Mitigation Option" in conjunction with the proposed traffic mitigation measures. At locations where significant adverse pedestrian impacts were not identified but traffic mitigation measures were proposed, an assessment of the effects of the proposed traffic mitigation measures on pedestrian operations was also conducted. Where appropriate, additional pedestrian mitigation measures were recommended to address potential impacts that may be created by proposed traffic mitigation measures. In addition, related pedestrian analyses ~~will be~~ were prepared for the three intersections (126th Street at 36th Avenue, 126th Street at 37th Avenue, and Northern Boulevard at 126th Place) where additional traffic analyses ~~will~~ were also ~~be~~ conducted and are presented in ~~the~~ this Final SEIS. Mitigation measures were recommended where appropriate for the additional three intersections. ~~If additional pedestrian impacts are identified, mitigation measures similar to those described for other impacted pedestrian analysis locations, such as crosswalk widenings and those in conjunction with proposed traffic mitigation measures, would be explored to address the impacts, or if no practicable mitigation measures can be identified, the impacts would be disclosed as being unmitigatable.~~

It should be noted that pedestrian volumes at some of the impacted crosswalks could be substantially lower if an areawide bus service improvement is implemented, with some or all of the bus routes discussed above extended to Willets West and within the District. As a result, some of the projected significant adverse pedestrian impacts may not occur or occur to a lesser extent, requiring no or less mitigation. The reduction of pedestrian volumes at these crosswalk locations could also lessen pedestrian conflicts with turning vehicles, thereby potentially lessening the projected traffic impacts and the required traffic mitigation measures. Similar to the proposed traffic mitigation measures, the eventual implementation of the proposed pedestrian mitigation measures would be subject to a monitoring program undertaken by the developer, in consultation with the lead agency and NYCDOT, to determine actual needs upon completion and occupancy of various components and the three phases of the proposed project.

2018 PHASE 1A

Northern Boulevard and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's east crosswalk, where it would deteriorate to:

- beyond mid-LOS D (15.6 SFP) from a No Action LOS A (5699.3 SFP) during the weekday midday peak period,
- LOS E (14.0 SFP) from a No Action LOS A (5584.8 SFP) during the weekday PM peak period,
- beyond mid-LOS D (16.1 SFP) from a No Action LOS A (625.9 SFP) during the weekday pre-game peak period,
- LOS E (~~11.6~~ 11.7 SFP) from a No Action LOS A (1695.1 SFP) during the weekend midday non-game peak period,
- LOS E (14.7 SFP) from a No Action LOS A (1095.3 SFP) during the weekend pre-game peak period, and

- LOS E (10.7 SFP) from a No Action LOS A (136.4 SFP) during the weekend post-game peak periods.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-31**.

Table 21-31
2018 Mitigated Condition: Pedestrian Level of Service Analysis
Northern Boulevard and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
East Crosswalk—Widening by 10.5 feet from 14 feet to 24.5 feet; may be infeasible, hence impacts could be unmitigatable	WD	Midday	5699.3	A	15.6	~~E~~ D	28.6	C
		PM	5584.8	A	14.0	E	25.7	C
		Pre-Game	625.9	A	16.1	D	29.4	C
	WE	Midday Non-Game	1695.1	A	~~11.6~~ 11.7	E	21.4	D
		Pre-Game	1095.3	A	~~16.1~~ 14.7	~~D~~ E	27.0	C
		Post-Game	136.4	A	~~14.7~~" 10.7	E	19.6	D
Traffic Mitigation Option								
Relocating existing crosswalk to 126th Place and widening to 20.0 feet	WD	Midday	5699.3	A	15.6	D	51.1	B
		PM	5584.8	A	14.0	E	49.9	B
		Pre-Game	625.9	A	16.1	D	56.5	B
	WE	Midday Non-Game	1695.1	A	11.7	E	34.7	C
		Pre-Game	1095.3	A	14.7	E	49.3	B
		Post-Game	136.4	A	10.7	E	51.8	B
~~**Relocating existing crosswalk and designing/constructing new signalized crossing at 126th Place**~~								
Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.								

Base Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of this crosswalk from 14.0 feet to 24.5 feet. Because this widening could be constrained by the physical median along Northern Boulevard, achieving such widening may not be feasible. If determined to be infeasible, the projected significant adverse impacts at this crosswalk would be either partially mitigated or unmitigated.

Traffic Mitigation Option

As part of the proposed traffic mitigation, a quick-curb would be installed on the westbound approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. As a result, pedestrian crossing at this location would need to be eliminated and the existing westbound Northern Boulevard Q66 bus stop relocated. ~~A potential location to which this~~ This bus stop ~~can~~ would be relocated ~~is~~ under the highway overpass approximately 400 feet upstream (east of the existing location) across from 126th Place. Coupled with this bus stop relocation, a new 20.0-foot-wide crosswalk would be installed, ~~pedestrian crossing of appropriate width~~ accompanied by a new signal of adequate crossing time ~~would need to be designed and constructed~~ to facilitate crossing between the south and north sides of Northern Boulevard at 126th Place. The significant adverse pedestrian impacts could be fully mitigated with these measures in place. ~~If the relocated bus stop and/or the new signalized crossing are deemed impractical, westbound Q66 bus riders would need to be shifted to the westbound Q48 bus route along Roosevelt Avenue. This shift would alter the area's pedestrian circulation patterns,~~

~~resulting in new or worse significant adverse pedestrian impacts at other study area analysis locations, and/or significant adverse bus impacts on the westbound Q48 route.~~

Roosevelt Avenue and 126th Street

A significant adverse pedestrian impact was identified for the intersection's west crosswalk, where it would deteriorate to LOS F (-67.6 SFP) from a No Action LOS A (194.6 SFP) during the weekend post-game peak period. Potential measures to mitigate this impact are described below and the mitigated conditions are summarized in **Table 21-32**.

Table 21-32
2018 Mitigated Condition: Pedestrian Level of Service Analysis
Roosevelt Avenue and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
West Crosswalk – Game-day traffic management	WE	Post-Game	194.6	A	-67.6	F	--	--
Traffic Mitigation Option								
West Crosswalk – Traffic mitigation and game-day traffic management	WE	Post-Game	194.6	A	-67.6	F	344.9	A
Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.								

Base Option

No practical crosswalk widening can be implemented to mitigate the above significant adverse pedestrian impact during the weekend post-game peak period. However, game-day traffic management measures—such as the stationing of traffic control officers at this location to facilitate traffic and pedestrian flows, which currently occurs on game days but was not accounted for in the pedestrian analysis—would be in place. Therefore, no mitigation measures are proposed and game-day traffic management is expected to continue to facilitate traffic and pedestrian movements at this location.

Traffic Mitigation Option

This significant adverse pedestrian impact could be fully mitigated by implementing the recommended traffic signal timing adjustments. The recommended signal timing modifications for the remaining peak periods would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

34th ~~avenue~~ Avenue and 126th street

Significant adverse pedestrian impacts were identified for the intersection's north, south, and east crosswalks. The north crosswalk would deteriorate to beyond mid-LOS D (17.9 SFP) from a No Action LOS A (2714.0 SFP) during the weekend midday non-game peak period. The south crosswalk would deteriorate to:

- beyond mid-LOS D (16.5 SFP) from a No Action LOS A (5848.7 SFP) during the weekday midday peak period,
- beyond mid-LOS D (18.1 SFP) from a No Action LOS A (3183.4 SFP) during the weekday PM peak period,
- LOS E (11.8 SFP) from a No Action LOS A (1217.7 SFP) during the weekend midday non-game peak period, and

- LOS E (14.1 SFP) from a No Action LOS D (23.0 SFP) during the weekend pre-game peak period.

The east crosswalk would deteriorate to

- LOS E (10.4 SFP) from a No Action LOS A (80.0 SFP) during the weekday pre-game peak period,
- LOS E (~~14.1~~ 14.3 SFP) from a No Action LOS A (820.4 SFP) during the weekend midday non-game peak period, and
- LOS E (11.4 SFP) from a No Action LOS A (9899.0 SFP) during the weekend pre-game peak period.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-33**.

Table 21-33
2018 Mitigated Condition: Pedestrian Level of Service Analysis
34th Avenue and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
North Crosswalk—Widening by 1.5 feet from 12.5 feet to 14 feet	WE	Midday Non-Game	2714.0	A	17.9	D	20.2	D
South Crosswalk—Widening by 6.5 feet from 10.5 feet to 17 feet	WD	Midday	5848.7	A	16.5	D	27.4	C
		PM	3183.4	A	18.1	D	30.0	C
	WE	Midday Non-Game	1217.7	A	11.8	E	~~14.3~~ 19.8	~~E~~ D
		Pre-Game	23.0	D	14.1	E	23.7	D
East Crosswalk—Widening by 6 feet from 7 feet to 13 feet	WD	Pre-Game	80.0	A	10.4	E	20.4	D
	WE	Midday Non-Game	820.4	A	~~14.1~~ 14.3	E	27.8	C
		Pre-Game	9899.0	A	11.4	E	22.2	D
Traffic Mitigation Option								
East Crosswalk—Widening by ~~7~~ 2.5 feet from 7 feet to ~~14~~ 9.5 feet	WD	Pre-Game	80.0	A	10.4	E	~~28.4~~ 20.5	~~C~~ D
	WE	Midday Non-Game	820.4	A	~~14.1~~ 14.3	E	~~20.5~~ 19.8	D
		Pre-Game	9899.0	A	11.4	E	~~37.1~~ 23.3	~~C~~ D

Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.

Base Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of the north crosswalk from 12.5 feet to 14.0 feet, the south crosswalk from 10.5 feet to 17.0 feet, and the east crosswalk from 7.0 feet to 13.0 feet.

Traffic Mitigation Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of the east crosswalk from 7.0 feet to ~~14.0~~ 9.5 feet in conjunction with the proposed traffic mitigation measures. No crosswalk widening would be required for the north and south crosswalks.

Roosevelt Avenue and 114th Street

No significant adverse pedestrian impacts were identified at this intersection. The recommended signal timing modifications as part of the traffic mitigation would not alter the conclusions made

for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

37th Avenue and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's north and south crosswalks. The north crosswalk would operate at LOS E (8.2 SFP), LOS E (8.6 SFP), and beyond mid-LOS D (18.4 SFP) during the weekday pre-game, weekend pre-game, and weekend post-game peak periods, respectively. The south crosswalk would operate at LOS E (8.6 SFP) and LOS E (9.3 SFP) during the weekday pre-game and weekend pre-game peak periods, respectively. Since no traffic impacts requiring mitigation were identified for this intersection, the significant adverse pedestrian impacts could be fully mitigated under the Base Option, by restriping the width of the north crosswalk from 15.0 feet to 31.0 and the south crosswalk from 15.0 feet to 30.0 feet, as summarized in **Table 21-34**. However, during the game-day conditions, traffic management measures—such as the stationing of traffic control officers to facilitate traffic and pedestrian flows—would be in place. These measures make it unlikely that the physical widening of the north and south crosswalks would be needed. Also, as detailed below under "2028 Phase 1B" and "2032 Phase 2," the north and south crosswalks at this intersection would not be impacted in the later phases because the interim surface parking within the District would have been permanently replaced by the new South Lot/Lot D garages. Therefore, CitiField patrons who in Phase 1A have to cross 126th Street at this intersection's north and south crosswalks to access the stadium would instead access the stadium via the Mets-Willets Point subway station in the later phases.

Table 21-34
2018 Mitigated Condition: Pedestrian Level of Service Analysis
37th Avenue and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
North Crosswalk – Widening by 16 feet from 15 feet to 31 feet; game-day traffic management	WD	Pre-Game	--	--	8.2	E	19.8	D
	WE	Pre-Game	--	--	8.6	E	20.6	D
		Post-Game	--	--	18.4	D	43.6	B
South Crosswalk – Widening by 15 feet from 15 feet to 30 feet; game-day traffic management	WD	Pre-Game	--	--	8.6	E	20.2	D
	WE	Pre-Game	--	--	9.3	E	21.7	D
Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.								

36th Avenue and 126th Street

No significant adverse pedestrian impacts were identified at this intersection; therefore, no mitigation measures are needed.

2028 PHASE 1B

Northern Boulevard and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's east crosswalk, where it would deteriorate to:

- LOS F (4.9 SFP) from a No Action LOS A (5656.4 SFP) during the weekday midday peak period,

- LOS F (4.8 SFP) from a No Action LOS A (5527.5 SFP) during the weekday PM peak period,
- LOS F (6.5 SFP) from a No Action LOS A (584.6 SFP) during the weekday pre-game peak period,
- LOS F (4.7 SFP) from a No Action LOS A (1681.7 SFP) during the weekend midday non-game peak period,
- LOS F (5.7 SFP) from a No Action LOS A (1086.8 SFP) during the weekend pre-game peak period, and
- LOS F (-2.7 SFP) from a No Action LOS A (130.4 SFP) during the weekend post-game peak period.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-~~34~~35**.

Table 21-~~34~~35
2028 Mitigated Condition: Pedestrian Level of Service Analysis
Northern Boulevard and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
East Crosswalk—Widening by 36 feet from 14 feet to 50 feet; may be infeasible, hence impacts could be unmitigatable	WD	Midday	5656.4	A	4.9	F	20.7	D
		PM	5527.5	A	4.8	F	20.0	D
		Pre-Game	584.6	A	6.5	F	26.4	C
	WE	Midday Non-Game	1681.7	A	4.7	F	19.5	D
		Pre-Game	1086.8	A	5.7	F	23.5	D
		Post-Game	130.4	A	-2.7	F	--	--
Traffic Mitigation Option								
Relocating existing crosswalk to 126th Place and widening to 22.5 feet	WD	Midday	5656.4	A	4.9	F	23.5	D
		PM	5527.5	A	4.8	F	24.5	C
		Pre-Game	584.6	A	6.5	F	31.1	C
	WE	Midday Non-Game	1681.7	A	4.7	F	19.8	D
		Pre-Game	1086.8	A	5.7	F	26.3	C
		Post-Game	130.4	A	-2.7	F	29.0	C
~~**Relocating existing crosswalk and designing/construction new signalized crossing at 126th Place**~~								
Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.								

Base Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of this crosswalk from 14.0 feet to 50.0 feet. Because this widening could be constrained by the physical median along Northern Boulevard, as well as available sidewalk landing on each side of Northern Boulevard, achieving such widening may not be feasible. If determined to be infeasible, the projected significant adverse impacts at this crosswalk would be either partially mitigated or unmitigated.

Traffic Mitigation Option

As detailed above under "2018 Phase 1A," as part of the proposed traffic mitigation, pedestrian crossing at this location would need to be eliminated and the existing westbound Northern Boulevard Q66 bus stop relocated. ~~A potential location to which this~~ This bus stop ~~can~~ would be relocated ~~is~~ under the highway overpass approximately 400 feet upstream (east of the existing location) across from 126th Place. Coupled with this bus stop relocation, a new 22.5-foot-wide crosswalk would be installed, ~~pedestrian crossing of appropriate width~~ accompanied by a new signal of adequate crossing time ~~would need to be designed and constructed~~ to facilitate crossing

between the south and north sides of Northern Boulevard at 126th Place. The significant adverse pedestrian impacts could be fully mitigated with these measures in place. ~~If the relocated bus stop and/or the new signalized crossing are deemed impractical, westbound Q66 bus riders would need to be shifted to the westbound Q48 bus route along Roosevelt Avenue. This shift would alter the area's pedestrian circulation patterns, resulting in new or worse significant adverse pedestrian impacts at other study area analysis locations, and/or significant adverse bus impacts on the westbound Q48 route.~~

Roosevelt Avenue and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's west crosswalk, where it would deteriorate to:

- LOS F (~~22.6~~ -40.9 SFP) from a No Action LOS A (152.5 SFP) during the weekday pre-game peak period, and
- LOS F (~~22.4~~ -34.7 SFP) from a No Action LOS A (103.2 SFP) during the weekend pre-game peak period.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-~~35~~36**.

Table 21-~~35~~36
2028 Mitigated Condition: Pedestrian Level of Service Analysis
Roosevelt Avenue and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
West Crosswalk—Game-day traffic management	WD	Pre-Game	152.5	A	~~22.6~~ -40.9	F	--	--
	WE	Pre-Game	103.2	A	~~22.4~~ -34.7	F	--	--
Traffic Mitigation Option								
West Crosswalk—Traffic mitigation and game-day traffic management	WD	Pre-Game	152.5	A	~~22.6~~ -40.9	F	--	--
	WE	Pre-Game	103.2	A	~~22.4~~ -34.7	F	--	--
North Crosswalk—Impacted by traffic mitigation; widening by ~~6.5~~ 4 feet from 16 feet to ~~22.5~~ 20 feet	~~WD~~	~~Midday~~	~~1660.5~~	~~A~~	~~18.3~~	~~D~~	~~27.0~~	~~C~~
		~~PM~~	~~2683.6~~	~~A~~	~~13.4~~	~~E~~	~~19.9~~	~~D~~
	WE	~~Midday Non-Game~~ Post-Game	~~1181.0~~ 545.7	A	~~16.4~~ 15.4	D	~~24.2~~ 19.8	~~C~~ D
Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.								

Base Option

No practical crosswalk widening can be implemented to mitigate the above significant adverse pedestrian impact during the weekday pre-game and weekend pre-game peak periods. However, game-day traffic management measures—such as the stationing of traffic control officers at this location to facilitate traffic and pedestrian flows, which currently occurs on game days but was not accounted for in the pedestrian analysis—would be in place. Therefore, no mitigation measures are proposed and game-day traffic management is expected to continue to facilitate traffic and pedestrian movements at this location.

Traffic Mitigation Option

The recommended traffic signal timing modifications would deteriorate the service levels at the intersection's crosswalks during all time periods and create additional significant adverse

pedestrian impacts for the north crosswalk during the ~~weekday midday, weekday PM, and~~ weekend ~~midday non-game~~ post-game peak period~~s~~. The impact~~s~~ on the north crosswalk could be fully mitigated by restriping the crosswalk from 16.0 feet to ~~22.5~~ 20.0 feet. During game-day conditions, traffic management measures—such as the stationing of traffic control officers at this location to facilitate traffic and pedestrian flows, which currently occurs on game days but was not accounted for in the pedestrian analysis—would be in place. Therefore, no mitigation measures are proposed and game-day traffic management is expected to continue to facilitate traffic and pedestrian movements at this location.

34th Avenue and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's north, south, and east crosswalks. The north crosswalk would deteriorate to:

- beyond mid-LOS D (16.2 SFP) from a No Action LOS A (2139.3 SFP) during the weekday PM peak period, and
- LOS E (13.7 SFP) from a No Action LOS A (2704.6 SFP) during the weekend midday non-game peak period.

The south crosswalk would deteriorate to:

- LOS E (9.9 SFP) from a No Action LOS A (5783.6 SFP) during the weekday midday peak period,
- LOS E (14.7 SFP) from a No Action LOS A (3158.9 SFP) during the weekday PM peak period,
- LOS E (8.4 SFP) from a No Action LOS A (1207.9 SFP) during the weekend midday non-game peak period, and
- beyond mid-LOS D (19.1 SFP) from a No Action LOS D (21.9 SFP) during the weekend pre-game peak period.

The east crosswalk would deteriorate to:

- beyond mid-LOS D (18.8 SFP) from a No Action LOS A (2035.8 SFP) during the weekday AM peak period,
- LOS F (6.2 SFP) from a No Action LOS A (1502.7 SFP) during the weekday midday peak period,
- LOS F (6.9 SFP) from a No Action LOS A (937.3 SFP) during the weekday PM peak period,
- LOS F (3.8 SFP) from a No Action LOS A (78.0 SFP) during the weekday pre-game peak period,
- LOS F (5.3 SFP) from a No Action LOS A (756.1 SFP) during the weekend midday non-game peak period,
- LOS F (4.2 SFP) from a No Action LOS A (9927.5 SFP) during the weekend pre-game peak period, and
- LOS F (5.1 SFP) from a No Action LOS A during the weekend post-game peak period.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-~~36~~37**.

Table 21-~~36~~37
2028 Mitigated Condition: Pedestrian Level of Service Analysis
34th Avenue and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
North Crosswalk—Widening by 5.5 feet from 12.5 feet to 18 feet	WD	PM	2139.3	A	16.2	D	23.6	D
	WE	Midday Non-Game	2704.6	A	13.7	E	20.1	D
South Crosswalk—Widening by 13 feet from 10.5 feet to 23.5 feet	WD	Midday	5783.6	A	9.9	E	23.0	D
		PM	3158.9	A	14.7	E	34.0	C
	WE	Midday Non-Game	1207.9	A	8.4	E	19.6	D
		Pre-Game	21.9	D	19.1	D	45.3	B
East Crosswalk—Widening by 21 feet from 7 feet to 28 feet	WD	AM	2035.8	A	18.8	D	84.5	A
		Midday	1502.7	A	6.2	F	31.7	C
		PM	937.3	A	6.9	F	34.5	C
		Pre-Game	78.0	A	3.8	F	19.8	D
	WE	Midday Non-Game	756.1	A	5.3	F	27.7	C
		Pre-Game	9927.5	A	4.2	F	21.9	D
		Post-Game	N/A	A	5.1	F	25.4	C
Traffic Mitigation Option								
~~South Crosswalk – Widening by 6.5 feet from 10.5 feet to 17 feet~~	~~WD~~	~~Midday~~	~~5783.6~~	~~A~~	~~9.9~~	~~E~~	~~70.1~~	~~A~~
		~~PM~~	~~3158.9~~	~~A~~	~~14.7~~	~~E~~	~~71.4~~	~~A~~
	~~WE~~	~~Midday Non-Game~~	~~1207.9~~	~~A~~	~~8.4~~	~~E~~	~~47.5~~	~~B~~
		~~Pre-Game~~	~~21.9~~	~~D~~	~~19.1~~	~~D~~	~~20.0~~	~~D~~
East Crosswalk—Widening by ~~28~~ 24.5 feet from 7 feet to ~~35~~ 31.5 feet~~; game-day traffic management~~	WD	AM	2035.8	A	18.8	D	~~62.0~~ 80.9	A
		Midday	1502.7	A	6.2	F	~~23.3~~ 20.9	D
		PM	937.3	A	6.9	F	~~25.4~~ 22.6	~~C~~ D
		Pre-Game	78.0	A	3.8	F	~~16.4~~ 26.5	~~D~~ C
	WE	Midday Non-Game	756.1	A	5.3	F	~~19.7~~ 19.8	D
		Pre-Game	9927.5	A	4.2	F	~~15.2~~ 22.9	D
		Post-Game	N/A	A	5.1	F	~~19.4~~ 37.8	~~D~~ C

Notes: SFP = square feet per pedestrian; WD = weekday; WE = weekend.
N/A = Crosswalk volume is zero, and SFP is not calculable. LOS is assumed to be A.

Base Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of the north crosswalk from 12.5 feet to 18.0 feet, the south crosswalk from 10.5 feet to 23.5 feet, and the east crosswalk from 7.0 feet to 28.0 feet.

Traffic Mitigation Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of ~~the south crosswalk from 10.5 feet to 17.0 feet and~~ the east crosswalk from 7.0 feet to ~~35.0~~ 31.5 feet ~~for the non-game conditions and 43.5 feet for the game-day conditions~~ in conjunction with the proposed traffic mitigation measures. ~~During the game-day conditions, traffic management measures – such as the stationing of traffic control officers at this location to facilitate traffic and pedestrian flows, which currently occurs on game days but was not accounted for in the pedestrian analysis – would be in place. These measures make it unlikely that the physical widening of the east crosswalk to 43.5 feet would be needed.~~

Roosevelt Avenue and 114th Street

No significant adverse pedestrian impacts were identified at this intersection. The recommended signal timing modifications as part of the traffic mitigation would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

New Willets Point Boulevard and 126th Street

No significant adverse pedestrian or traffic impacts were identified at this intersection; therefore, no mitigation measures are needed.

37th Avenue and 126th Street

No significant adverse pedestrian impacts were identified at this intersection; therefore, no mitigation measures are needed. The recommended traffic mitigation would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

36th Avenue and 126th Street

No significant adverse pedestrian impacts were identified at this intersection; therefore, no mitigation measures are needed. The recommended traffic mitigation would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

2032 PHASE 2

Northern Boulevard and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's east crosswalk, where it would deteriorate to:

- LOS E (12.0 SFP) from a No Action LOS A (6403.9 SFP) during the weekday AM peak period,
- LOS F (2.3 SFP) from a No Action LOS A (5642.1 SFP) during the weekday midday peak period,
- LOS F (2.2 SFP) from a No Action LOS A (5513.2 SFP) during the weekday PM peak period,
- LOS F (3.5 SFP) from a No Action LOS A (583.0 SFP) during the weekday pre-game peak period,
- LOS F (2.5 SFP) from a No Action LOS A (1672.8 SFP) during the weekend midday non-game peak period,
- LOS F (3.2 SFP) from a No Action LOS A (1083.9 SFP) during the weekend pre-game peak period, and
- LOS F (-2.9 SFP) from a No Action LOS A (129.6 SFP) during the weekend post-game peak period.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-~~37~~38**.

Table 21-~~37~~38
2032 Mitigated Condition: Pedestrian Level of Service Analysis
Northern Boulevard and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
East Crosswalk—Widening by 83 feet from 14 feet to 97 feet; may be infeasible, hence impacts could be unmitigatable	WD	AM	6403.9	A	12.0	E	95.5	A
		Midday	5642.1	A	2.3	F	20.9	D
		PM	5513.2	A	2.2	F	19.6	D
		Pre-Game	583.0	A	3.5	F	29.8	C
	WE	Midday Non-Game	1672.8	A	2.5	F	21.5	D
		Pre-Game	1083.9	A	3.2	F	28.2	C
		Post-Game	129.6	A	-2.9	F	--	--
Traffic Mitigation Option								
Relocating existing crosswalk to 126th Place and widening to 30 feet	WD	AM	6403.9	A	12.0	E	49.9	B
		Midday	5642.1	A	2.3	F	21.5	D
		PM	5513.2	A	2.2	F	22.7	D
		Pre-Game	583.0	A	3.5	F	30.0	C
	WE	Midday Non-Game	1672.8	A	2.5	F	19.9	D
		Pre-Game	1083.9	A	3.2	F	25.9	C
		Post-Game	129.6	A	-2.9	F	28.3	C
~~**Relocating existing crosswalk and designing/constructing new signalized crossing at 126th Place**~~								

Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.

Base Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of this crosswalk from 14.0 feet to 97.0 feet. Because this widening could be constrained by the physical median along Northern Boulevard, as well as available sidewalk landing on each side of Northern Boulevard, achieving such widening may not be feasible. If determined to be infeasible, the projected significant adverse impacts at this crosswalk would be either partially mitigated or unmitigated.

Traffic Mitigation Option

As detailed above under "2018 Phase 1A," as part of the proposed traffic mitigation, pedestrian crossing at this location would need to be eliminated and the existing westbound Northern Boulevard Q66 bus stop relocated. ~~A potential location to which this~~ This bus stop ~~can~~ would be relocated ~~is~~ under the highway overpass approximately 400 feet upstream (east of the existing location) across from 126th Place. Coupled with this bus stop relocation, a new 30.0-foot-wide crosswalk would be installed, ~~pedestrian crossing of appropriate width~~ accompanied by a new signal of adequate crossing time ~~would need to be designed and constructed~~ to facilitate crossing between the south and north sides of Northern Boulevard at 126th Place. The significant adverse pedestrian impacts could be fully mitigated with these measures in place. ~~If the relocated bus stop and/or the new signalized crossing are deemed impractical, westbound Q66 bus riders would need to be shifted to the westbound Q48 bus route along Roosevelt Avenue. This shift would alter the area's pedestrian circulation patterns, resulting in new or worse significant adverse pedestrian impacts at other study area analysis locations, and/or significant adverse bus impacts on the westbound Q48 route.~~

Roosevelt Avenue and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's west and north crosswalks. The west crosswalk would deteriorate to:

- LOS ~~E~~ F (~~8.0~~ 6.7 SFP) from a No Action LOS A (1560.4 SFP) during the weekday midday peak period,
- LOS F (~~4.4~~ 2.6 SFP) from a No Action LOS A (2031.8 SFP) during the weekday PM peak period,
- LOS F (~~-4.8~~ -7.4 SFP) from a No Action LOS A (149.4 SFP) during the weekday pre-game peak period,
- LOS F (~~5.7~~ 4.3 SFP) from a No Action LOS A (1072.1 SFP) during the weekend midday non-game peak period,
- LOS F (~~-4.0~~ -5.4 SFP) from a No Action LOS A (99.5 SFP) during the weekend pre-game peak period, and
- LOS ~~E~~ F (~~9.6~~ 7.8 SFP) from a No Action LOS A (183.4 SFP) during the weekend post-game peak period.

The north crosswalk would deteriorate to:

- beyond mid-LOS D (~~16.4~~ 16.3 SFP) from a No Action LOS A (2680.2 SFP) during the weekday PM peak period, and
- beyond mid-LOS D (~~17.4~~ 17.3 SFP) from a No Action LOS A (537.3 SFP) during the weekend post-game peak period.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-~~38~~39**.

Base Option

The significant adverse pedestrian impacts for the west crosswalk could be fully mitigated by restriping the width of the crosswalk from 13.5 feet to ~~50.5~~ 84.0 feet for the non-game day and the weekend post-game conditions. The feasibility of this widening would be limited by the width of the adjoining sidewalks. If such widening could not be achieved, the projected significant adverse impacts during certain time periods would remain unmitigated or partially mitigated. During game-day conditions, traffic management measures—such as the stationing of traffic control officers at this location to facilitate traffic and pedestrian flows, which currently occurs on game days but was not accounted for in the pedestrian analysis—would be in place. Therefore, game-day traffic management is expected to continue to facilitate traffic and pedestrian movements at this location and in conjunction with the proposed crosswalk widening should mitigate the significant adverse pedestrian impacts during the weekday and weekend pre-game conditions. For the north crosswalk, the projected significant adverse pedestrian impacts could be fully mitigated by restriping the crosswalk from 16.0 feet to 19.0 feet.

Table 21-~~38~~39
2032 Mitigated Condition: Pedestrian Level of Service Analysis
Roosevelt Avenue and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
West Crosswalk—Widening by ~~37~~ 70.5 feet from 13.5 feet to ~~50.5~~ 84 feet; may be infeasible, hence impacts could be unmitigatable; game-day traffic management	WD	Midday	1560.4	A	~~8.0~~ 6.7	~~E~~ F	~~34.8~~ 49.5	~~C~~ B
		PM	2031.8	A	~~4.4~~ 2.6	F	19.6	D
		Pre-Game	149.4	A	~~-4.8~~ -7.4	F	--	--
	WE	Midday Non-Game	1072.1	A	~~5.7~~ 4.3	F	~~25.7~~ 32.5	C
		Pre-Game	99.5	A	~~-4.0~~ -5.4	F	--	--
		Post-Game	183.4	A	~~9.6~~ 7.8	F	~~40.4~~ 55.5	B
North Crosswalk—Widening by 3 feet from 16 feet to 19 feet	WD	PM	2680.2	A	~~16.4~~ 16.3	D	~~20.1~~ 20.0	D
	WE	Post-Game	537.3	A	~~17.4~~ 17.3	D	~~21.1~~ 21.0	D
Traffic Mitigation Option								
West Crosswalk—Widening by ~~15.5~~ 14 feet from 13.5 feet to ~~29~~ 27.5 feet; may be infeasible, hence impacts could be unmitigatable; traffic mitigation and game-day traffic management	WD	Midday	1560.4	A	~~8.0~~ 6.7	~~E~~ F	~~19.8~~ 28.0	~~D~~ C
		PM	2031.8	A	~~4.4~~ 2.6	F	~~21.5~~ 27.0	~~D~~ C
		Pre-Game	149.4	A	~~-4.8~~ -7.4	F	--	--
	WE	Midday Non-Game	1072.1	A	~~5.7~~ 4.3	F	~~23.3~~ 19.6	D
		Pre-Game	99.5	A	~~-4.0~~ -5.4	F	--	--
		Post-Game	183.4	A	~~9.6~~ 7.8	F	~~25.5~~ 25.4	C
North Crosswalk—Impacted by traffic mitigation during the weekday AM, midday and weekend midday non-game and pre-game peak periods; widening by ~~9.5~~ 15 feet from 16 feet to ~~25.5~~ 31 feet	WD	AM	1630.7	A	~~16.6~~ 19.1	D	~~28.5~~ 40.4	~~C~~ B
		Midday	1621.1	A	~~14.4~~ 13.0	E	~~24.7~~ 28.0	C
		PM	2680.2	A	~~16.4~~ 8.9	~~D~~ E	~~19.7~~ 19.6	D
	WE	Midday Non-Game	1158.5	A	~~13.7~~ 13.6	E	~~23.6~~ 29.3	~~D~~ C
		Pre-Game	700.6	A	16.7	D	35.5	C
		Post-Game	537.3	A	~~17.4~~ 10.4	~~D~~ E	~~27.3~~ 21.9	~~C~~ D
~~East Crosswalk – Impacted by traffic mitigation; widening by 2 feet from 14 feet to 16 feet~~	~~WD~~	~~Midday~~	~~2012.3~~	~~A~~	~~17.1~~	~~D~~	~~19.7~~	~~D~~

Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.

Traffic Mitigation Option

The recommended traffic signal timing modifications would create additional adverse pedestrian impacts for the north crosswalk during the weekday AM, weekday midday, ~~and~~ weekend midday non-game, and weekend pre-game peak periods~~ and the east crosswalk during the weekday midday peak period~~. The impacts on the north crosswalk could be fully mitigated by restriping the crosswalk from 16.0 feet to ~~25.5~~ 31.0 feet~~ and the east crosswalk could be fully~~

~~mitigated by restriping the crosswalk from 14.0 feet to 16.0 feet~~. The west crosswalk during non-game conditions could be fully mitigated by restriping the crosswalk from 13.5 feet to ~~29.0~~ 27.5 feet. The feasibility of this widening would be limited by the width of the adjoining sidewalks. If such widening could not be achieved, the projected significant adverse impacts during certain time periods would remain unmitigated or partially mitigated. During game-day conditions, traffic management measures—such as the stationing of traffic control officers at this location to facilitate traffic and pedestrian flows, which currently occurs on game days but was not accounted for in the pedestrian analysis—would be in place.

34th Avenue and 126th Street

Significant adverse pedestrian impacts were identified for the intersection's north, south, and east crosswalks. The north crosswalk would deteriorate to:

- beyond mid-LOS D (16.8 SFP) from a No Action LOS A during the weekday midday peak period,
- LOS E (9.7 SFP) from a No Action LOS A (2131.7 SFP) during the weekday PM peak period, and
- LOS F (8.0 SFP) from a No Action LOS A (2699.8 SFP) during the weekend midday non-game peak period.

The south crosswalk would deteriorate to:

- LOS E (13.9 SFP) from a No Action LOS A (2947.4 SFP) during the weekday AM peak period,
- LOS F (1.9 SFP) from a No Action LOS A (5767.3 SFP) during the weekday midday peak period,
- LOS F (6.8 SFP) from a No Action LOS A (3150.8 SFP) during the weekday PM peak period, and
- LOS F (3.4 SFP) from a No Action LOS A (1204.7 SFP) during the weekend midday non-game peak period.

The east crosswalk would deteriorate to:

- LOS E (10.6 SFP) from a No Action LOS A (2035.8 SFP) during the weekday AM peak period,
- LOS F (4.6 SFP) from a No Action LOS A (1394.7 SFP) during the weekday midday peak period,
- LOS F (4.8 SFP) from a No Action LOS A (937.3 SFP) during the weekday PM peak period,
- LOS F (3.0 SFP) from a No Action LOS A (76.9 SFP) during the weekday pre-game peak period,
- LOS F (3.7 SFP) from a No Action LOS A (755.4 SFP) during the weekend midday non-game peak period,
- LOS F (3.3 SFP) from a No Action LOS A (9908.5 SFP) during the weekend pre-game peak period, and
- LOS F (5.4 SFP) from a No Action LOS A during the weekend post-game peak period.

Potential measures to mitigate these impacts are described below and the mitigated conditions are summarized in **Table 21-~~39~~40**.

Table 21-~~39~~40
2032 Mitigated Condition: Pedestrian Level of Service Analysis
34th Avenue and 126th Street

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
North Crosswalk—Widening by 17.5 feet from 12.5 feet to 30 feet	WD	Midday	N/A	A	16.8	D	41.3	B
		PM	2131.7	A	9.7	E	24.1	C
	WE	Midday Non-Game	2699.8	A	8.0	F	19.8	D
East Crosswalk—Widening by 26 feet from 7 feet to 33 feet	WD	AM	2035.8	A	10.6	E	60.1	A
		Midday	1394.7	A	4.6	F	29.8	C
		PM	937.3	A	4.8	F	30.5	C
		Pre-Game	76.9	A	3.0	F	19.8	D
	WE	Midday Non-Game	755.4	A	3.7	F	24.7	C
		Pre-Game	9908.5	A	3.3	F	21.9	D
		Post-Game	N/A	A	5.4	F	33.4	C
Traffic Mitigation Option								
North Crosswalk—Widening by ~~9.5~~ 0.5 feet from 12.5 feet to ~~22~~ 13 feet	WD	Midday	N/A	A	16.8	D	~~55.6~~ 97.5	~~B~~ A
		PM	2131.7	A	9.7	E	~~69.0~~ 62.2	A
	WE	Midday Non-Game	2699.8	A	8.0	F	~~19.5~~ 65.9	~~D~~ A
South Crosswalk—Traffic mitigation ~~Widening by 18 feet from 10.5 feet to 28.5 feet~~	WD	AM	2947.4	A	13.9	E	~~375.0~~ 193.1	A
		Midday	5767.3	A	1.9	F	~~51.6~~ 55.7	B
		PM	3150.8	A	6.8	F	~~93.6~~ 41.4	~~A~~ B
	WE	Midday Non-Game	1204.7	A	3.4	F	~~19.7~~ 32.9	~~D~~ C
East Crosswalk—Widening by 35 feet from 7 feet to 42 feet; may be infeasible, hence impacts could be unmitigatable	WD	AM	2035.8	A	10.6	E	~~52.0~~ 49.5	B
		Midday	1394.7	A	4.6	F	28.1	C
		PM	937.3	A	4.8	F	~~25.3~~ 27.9	C
		Pre-Game	76.9	A	3.0	F	~~39.1~~ 28.0	C
	WE	Midday Non-Game	755.4	A	3.7	F	~~19.5~~ 19.6	D
		Pre-Game	9908.5	A	3.3	F	~~27.3~~ 26.2	C
		Post-Game	N/A	A	5.4	F	~~42.6~~ 42.2	B

Notes: SFP = square feet per pedestrian; WD = weekday; WE = weekend.
N/A = Crosswalk volume is zero, and SFP is not calculable. LOS is assumed to be A.

Base Option

No practical crosswalk widening can be implemented to mitigate the above significant adverse pedestrian impact on the south crosswalk during the non-game peak periods. However, the significant adverse pedestrian impacts identified on the north and east crosswalks could be fully mitigated by restriping the width of the north crosswalk from 12.5 feet to 30.0 feet and the east crosswalk from 7.0 feet to 33.0 feet.

Traffic Mitigation Option

The significant adverse pedestrian impacts could be fully mitigated by restriping the width of the north crosswalk from 12.5 feet to ~~22.0~~ 13.0 feet~~, the south crosswalk from 10.5 feet to 28.5 feet,~~ and the east crosswalk from 7.0 feet to 42.0 in conjunction with the proposed traffic mitigation measures. The feasibility of these widenings would be limited by the width of the adjoining sidewalks. In particular for the intersection's east crosswalk, if the above widening could not be achieved, the projected significant adverse impacts during certain time periods would remain unmitigated or partially mitigated.

Roosevelt Avenue and 114th Street

No significant adverse pedestrian impacts were identified at this intersection. The recommended signal timing modifications as part of the traffic mitigation would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

New Willets Point Boulevard and 126th Street

No significant adverse pedestrian or traffic impacts were identified at this intersection; therefore, no mitigation measures are needed. ~~A significant adverse pedestrian impact was identified for the intersection's south crosswalk, where it would operate at beyond mid LOS D (18.7 SFP) during the weekday PM peak period. Since no traffic impacts requiring mitigation were identified for this intersection, the significant adverse pedestrian impact could be fully mitigated, under the Base Option, by restriping the width of the south crosswalk from 15.0 feet to 16.0 feet, as summarized in **Table 21-40**.~~

~~**Table 21-40**~~
~~**2032 Mitigated Condition: Pedestrian Level of Service Analysis**~~
~~**New Willets Point Boulevard and 126th Street**~~

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
South Crosswalk – Widening by 1 foot from 15 feet to 16 feet	WD	PM	--	--	18.7	D	20.1	D
Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.								

37th Avenue and 126th Street

No significant adverse pedestrian impacts were identified at this intersection; therefore, no mitigation measures are needed. The recommended traffic mitigation would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

36th Avenue and 126th Street

No significant adverse pedestrian impacts were identified at this intersection; therefore, no mitigation measures are needed. The recommended traffic mitigation would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

Roosevelt Avenue and Lot B Driveway

Significant adverse pedestrian impacts were identified for the north crosswalk, where it would operate at LOS E (~~15.0~~ 14.8 SFP), LOS E (~~13.6~~ 13.3 SFP), LOS ~~E~~ F (~~8.1~~ 7.9 SFP), LOS D (~~15.8~~ 15.3 SFP), LOS E (~~12.1~~ 11.7 SFP), LOS D (~~16.0~~ 15.5 SFP), and LOS D (~~18.3~~ 17.7 SFP) during the weekday AM, weekday midday, weekday PM, weekday pre-game, weekend midday non-game, weekend pre-game, and weekend post-game peak periods, respectively. Since no traffic impacts requiring mitigation were identified for this intersection, the significant adverse pedestrian impacts could be fully mitigated, under the Base Option, by restriping the width of the north crosswalk from 12.5 feet to ~~24.5~~ 25.0 feet, as summarized in **Table 21-41**. Due to the very low projected vehicular activity at the Lot B Driveway during all time periods, the north crosswalk would operate at most times as an extension of the connecting sidewalks with perpetual walk for the majority of the time. Consequently, it is unlikely that the projected significant adverse impacts on the north crosswalk would occur and a lesser widening (i.e., from 12.5 feet to 20.0 feet) would be expected to adequately serve the future pedestrian flow at this location.

Table 21-41
2032 Mitigated Condition: Pedestrian Level of Service Analysis
Roosevelt Avenue and Lot B Driveway

Mitigation Measures	Analysis Time Period		No Action		With Action		Mitigated	
			SFP	LOS	SFP	LOS	SFP	LOS
Base Option								
North Crosswalk—Widening by ~~12~~ 12.5 feet from 12.5 feet to ~~24.5~~ 25 feet	WD	AM	--	--	~~15.0~~ 14.8	E	~~34.2~~ 34.7	C
		Midday	--	--	~~13.6~~ 13.3	E	~~31.2~~ 31.3	C
		PM	--	--	~~8.1~~ 7.9	~~E~~ F	~~19.7~~ 19.8	D
		Pre-Game	--	--	~~15.8~~ 15.3	D	~~35.8~~ 35.7	C
	WE	Midday Non-Game	--	--	~~12.1~~ 11.7	E	~~28.0~~ 27.8	C
		Pre-Game	--	--	~~16.0~~ 15.5	D	~~36.1~~ 35.9	C
		Post-Game	--	--	~~18.3~~ 17.7	D	~~40.8~~ 40.6	B

Note: SFP = square feet per pedestrian; WD = weekday; WE = weekend.

F. AIR QUALITY

EFFECTS OF PROPOSED TRAFFIC MITIGATION MEASURES

Chapter 15, "Air Quality," concludes that the proposed project would not result in significant adverse impacts on air quality. Therefore, no air quality mitigation is required. Since the proposed traffic mitigation measures described above would alter traffic conditions when compared with the proposed project, the localized air quality impacts with mitigation were modeled for each of the analysis sites described in Chapter 15, "Air Quality."

Table 21-42 shows the future maximum predicted 8-hour average CO concentration without the proposed project (No Action), as well as with the proposed project with and without the implementation of the traffic mitigation measures (With Action and With Traffic Mitigation) in

Table 21-42
Phase 1A (2018)
8-Hour Average CO Concentrations with Traffic Mitigation

Analysis Site	Location	Time Period	8-Hour Average Concentration (ppm)				
			No Action	With Action	With Traffic Mitigation	Increment with Traffic Mitigation	*De Minimis with Traffic Mitigation*
2	Boat Basin Road and Shea Road	Weekend non-game day	2.1	2.3	2.3	0.2	3.5
2	Boat Basin Road and Shea Road	Weekend game day	2.3	2.4	2.4	0.1	3.4

Notes: 8-hour standard (NAAQS) is 9 ppm.
Increment with Traffic Mitigation = With Traffic Mitigation – No Action

Phase 1A. Improvements to the traffic mitigation measures at intersection analyzed for Phase 2 (Site 1) were developed between DSEIS and FEIS. The mobile source analysis of CO concentrations at Site 1 reflects changes to traffic mitigation since DSEIS certification. **Table 21-43** shows the effects of traffic mitigation measures on air quality for Phase 2. The results indicate that the proposed project with the traffic mitigation measures would not result in any violations of the 8-hour CO standard (9 ppm) as the 8-hour average concentrations with traffic mitigation (2.3 ppm for the weekend non-game day peak period, and 2.4 ppm for the weekend game day per period in Phase 1A; 2.5 ppm for the weekend non-game day peak period and ~~2.6~~ 2.4 ppm for the game day peak period in Phase 2) would be less than the standard. In addition, the incremental increases in 8-hour average CO concentrations are very small (a maximum of 0.2 ppm for Phase 1A, and a maximum of 0.4 for Phase 2), and consequently would not result in a violation of the CEQR *de minimis* CO criteria, calculated to be 3.5 ppm for the weekend non-game day peak period, and 3.4 ppm for the weekend game day peak period, per the *CEQR Technical Manual* guidance.

Table 21-43
Phase 2 (2032)
8-Hour Average CO Concentrations with Traffic Mitigation

Analysis Site	Location	Time Period	8-Hour Average Concentration (ppm)				
			No Action	With Action	With Traffic Mitigation	Increment with Traffic Mitigation	*De Minimis with Traffic Mitigation*
1	34th Avenue and 126th Street	Weekend non-game day	2.1	2.6	2.5	0.4	3.5
1	34th Avenue and 126th Street	Weekend game day	2.2	2.6	~~2.6~~ 2.4	0.4	3.4

Notes: 8-hour standard (NAAQS) is 9 ppm.
Increment with Traffic Mitigation = With Traffic Mitigation – No Action

Table 21-44 shows the Phase 1A (2018) maximum predicted 24-hour average PM_{10} concentrations without the proposed project, with the proposed project, and with the proposed project and implementation of the traffic mitigation measures (No Action, With Action, With Traffic Mitigation).

Table 21-44
Phase 1A (2018)
24-Hour Average PM_{10} Concentrations with Traffic Mitigation

Analysis Site	Location	Time Period	24-Hour Concentration (µg/m³)[1]		
			No Action	With Action	With Traffic Mitigation
2	Boat Basin Road and Shea Road	Weekend non-game day	57.8	65.2	65.2
2	Boat Basin Road and Shea Road	Weekend game day	65.9	66.4	66.4

Note: [1] NAAQS—24-hour average 150 µg/m³.

As mentioned previously, improvements to the traffic mitigation measures at intersection analyzed for Phase 2 (Site 1) were developed between DSEIS and FSEIS. The mobile source analysis of particulate matter concentrations at Analysis Site 1 reflects changes to traffic mitigation since DSEIS certification, as well as the refined analysis methodology using traffic data from the CORSIM model, as discussed in Chapter 15.

Table 21-45 shows the Phase 2 (2032) maximum predicted 24-hour average PM_{10} concentrations. The results indicate that the implementation of the traffic mitigation measures for the proposed project would not result in any violations of the PM_{10} standard at any of the receptor locations analyzed.

Table 21-45
Phase 2 (2032)
24-Hour Average PM_{10} Concentrations with Traffic Mitigation

Analysis Site	Location	Time Period	24-Hour Concentration (µg/m³)[1]		
			No Action	With Action	With Traffic Mitigation
1	34th Avenue and 126th Street	Weekend non-game day	69.3	70.1	~~69.3~~ 62.6
~~1~~	~~34th Avenue and 126th Street~~	~~Weekend game day~~	~~62.2~~	~~70.6~~	~~70.0~~

Note: [1] NAAQS—24-hour average 150 µg/m³.

Future maximum predicted 24-hour and annual average $PM_{2.5}$ concentrations were determined so that they could be compared with the ~~interim guidance~~ *de minimis* criteria for $PM_{2.5}$. Consistent with current CEQR guidance, $PM_{2.5}$ concentrations are presented as an incremental change in concentrations for both the proposed project without traffic mitigation measures (as compared with the No Action) and for the proposed project with traffic mitigation measures (as compared with the No Action). The maximum predicted localized 24-hour average and neighborhood-scale annual average $PM_{2.5}$ concentration increments are presented in **Tables 21-46** and **21-47**, respectively, for Phase 1A, and in **Tables 21-48** and **21-49**, respectively, for Phase 2. The results show that the maximum daily (24-hour) $PM_{2.5}$ increments with traffic mitigation measures (**Table 21-46** for Phase 1A and **Table 21-48** for Phase 2) are predicted to be below the *de minimis* ~~applicable interim guidance criterion~~ of 4.5 µg/m³, and the maximum annual average $PM_{2.5}$ increments (**Table 21-47** for Phase 1A and **Table 21-49** for Phase 2) are not predicted to exceed the applicable ~~interim guidance~~ *de minimis* criterion of 0.1 µg/m³. Furthermore, implementation of the traffic mitigation measures would lower the predicted ~~neighborhood scale annual~~ 24-hour average $PM_{2.5}$ concentration increment from the proposed project.

Table 21-46
Phase 1A (2018)
24-Hour Average $PM_{2.5}$ Concentration Increments with Traffic Mitigation

Analysis Site	Location	Time Period	Increment ($\mu g/m^3$)	Increment with Traffic Mitigation ($\mu g/m^3$)	*De Minimis*
2	Boat Basin Road and Shea Road	Weekend non-game day	2.31	2.32	4.5
2	Boat Basin Road and Shea Road	Weekend game day	0.93	0.90	4.5

Notes:
EPA has lowered the NAAQS to 35 $\mu g/m^3$, effective December 18, 2006.
The $PM_{2.5}$ *de minimis* criteria superseded the $PM_{2.5}$ interim guidance criteria on June 5, 2013. The 24-hour average~~,~~ interim guidance criteria for $PM_{2.5}$ were as follows – > 2 $\mu g/m^3$ (5 $\mu g/m^3$ not-to-exceed value), based on the magnitude, frequency duration, location, and size of the area of the predicted concentrations.
The $PM_{2.5}$ increments shown are less than the *de minimis* value. These increments were not considered significant when they were compared with the interim guidance criteria in the DSEIS, and are also not significant when compared to the *de minimis* value.

Table 21-47
Phase 1A (2018)
Neighborhood Scale $PM_{2.5}$ Concentration Increments with Traffic Mitigation

Analysis Site	Location	Increment ($\mu g/m^3$)	Increment with Traffic Mitigation ($\mu g/m^3$)
2	Boat Basin Road and Shea Road	0.03	0.05

Notes:
EPA has lowered the NAAQS to 12 $\mu g/m^3$, effective March 2013.
$PM_{2.5}$ ~~interim guidance~~ *de minimis* criteria—annual average (neighborhood scale) 0.1 $\mu g/m^3$. The *de minimis criteria superseded the interim guidance criteria that were used for impact assessment in the DSEIS. For annual increments, the de minimis* criteria are the same as the superseded interim guidance criteria.

Table 21-48
Phase 2 (2032)
24-Hour Average $PM_{2.5}$ Concentration Increments with Traffic Mitigation

Analysis Site	Location	Time Period	Increment ($\mu g/m^3$)	Increment with Traffic Mitigation ($\mu g/m^3$)	*De Minimis*
1	34th Avenue and 126th Street	Weekend non-game day	~~3.50~~ 1.28	~~3.24~~ 1.05	4.5
~~1~~	~~34th Avenue and 126th Street~~	~~Weekend game day~~	~~1.70~~	~~1.83~~	~~4.5~~

Notes:
EPA has lowered the NAAQS to 35 $\mu g/m^3$, effective December 18, 2006.
The $PM_{2.5}$ *de minimis* criteria superseded the $PM_{2.5}$ interim guidance criteria on June 5, 2013. The 24-hour average~~,~~ interim guidance criteria for $PM_{2.5}$ were as follows – > 2 $\mu g/m^3$ (5 $\mu g/m^3$ not-to-exceed value), based on the magnitude, frequency duration, location, and size of the area of the predicted concentrations.
The $PM_{2.5}$ increments shown are less than the *de minimis* value. These increments were not considered significant when they were compared with the interim guidance criteria in the DSEIS, and are also not significant when compared to the *de minimis* value.

Table 21-49
Phase 2 (2032) with Traffic Mitigation
Neighborhood Scale $PM_{2.5}$ Concentration Increments in µg/m^3

Analysis Site	Location	Increment	Increment with Traffic Mitigation	*De Minimis*
1	34th Avenue and 126th Street	~~0.10~~ 0.08	~~0.06~~ 0.10	0.1

Notes:
EPA has lowered the NAAQS to 12 µg/m^3, effective March 2013.
$PM_{2.5}$ ~~interim guidance~~ *de minimis* criteria—annual average (neighborhood scale) 0.1 µg/m^3. The *de minimis criteria superseded the interim guidance criteria that were used for impact assessment in the DSEIS. For annual increments, the de minimis* criteria are the same as the superseded interim guidance criteria.

For Phase 1A, the maximum 24-hour average incremental $PM_{2.5}$ concentration from the proposed project with the traffic mitigation measures was predicted to be 2.32 µg/m^3 (shown in **Table 21-46**) at Site 2, for the non-game analysis period, slightly above the incremental concentration predicted without the mitigation measures. ~~Throughout the five analysis years, 24-hour average $PM_{2.5}$ concentration increments above 2.0 µg/m^3 were predicted to occur four times, and at most once per year. Based on the magnitude, extent, and frequency of 24-hour average $PM_{2.5}$ concentrations above 2.0 µg/m^3, the proposed project with traffic mitigation would not result in significant $PM_{2.5}$ impacts at the analyzed receptor location in Phase 1A. Furthermore, the maximum predicted 24-hour average concentration for Phase 1A with traffic mitigation is 4.52 µg/m^3, which when added to the $PM_{2.5}$ background concentration of 26 µg/m^3 would be less than the corresponding NAAQS of 35 µg/m^3.~~

Additional air quality studies were undertaken between the DSEIS and FSEIS to account for improvements to the traffic mitigation measures that were developed for Analysis Site 1 after DSEIS certification. The refined analysis, using traffic data from the CORSIM model was conducted for the non-game analysis period, which resulted in greatest concentrations at sensitive receptors without the refined modeling. For Phase 2, the maximum 24-hour average incremental $PM_{2.5}$ concentration from the proposed project with the traffic mitigation measures was predicted to be ~~3.24~~ 1.05 µg/m^3 (shown in **Table 21-48**) at Site 1, for the non-game analysis period, which is less than the incremental concentration predicted without the mitigation measures. ~~Assuming non-game day conditions throughout the five analysis years, 24-hour average $PM_{2.5}$ concentration increments above 2.0 µg/m^3 were predicted to occur for at most two times in a year, and at an average of 1.2 times per year, much less frequently than without the traffic mitigation measures. With traffic mitigation, over the five year period, there would be only two occurrences of 24-hour average $PM_{2.5}$ concentration increments above 3.0 µg/m^3, occurring at most once per year and at an average of 0.4 times per year. Based on the magnitude, extent, and frequency of 24-hour average $PM_{2.5}$ concentrations above 2.0 µg/m^3, the proposed project with traffic mitigation measures would not result in significant $PM_{2.5}$ impacts at the analyzed receptor locations. Furthermore, the maximum predicted 24-hour average concentration for Phase 2 with traffic mitigation is 6.36 µg/m^3, which when added to the $PM_{2.5}$ background concentration of 26 µg/m^3 would be less than the corresponding NAAQS of 35 µg/m^3.~~ Therefore, no significant adverse air quality impacts would occur as a result of the proposed traffic mitigation measures. ~~Additional air quality studies may be undertaken between the Draft SEIS and Final SEIS to further refine mitigation mobile source analysis for the Phase 2 analysis year, in consultation with DEP.~~

G. NOISE

Future noise levels with the proposed traffic mitigation measures were calculated for a residential receptor along Janet Place using the methodology described in Chapter 17, "Noise," for 2018, 2028, and 2032 analysis years. This receptor was analyzed, as traffic traveling southbound on College Point Boulevard and turning right on Roosevelt Avenue would be diverted onto 39th Avenue and Janet Place before turning onto Roosevelt Avenue, and traffic traveling west on Roosevelt Avenue and turning left on College Point Boulevard would be diverted north on Janet Place and east on 39th Avenue before making a right onto College Point Boulevard. A proportional model was used to determine that the proposed traffic mitigation measures would not have the potential to increase noise levels at other noise-sensitive receptor locations. A weekday AM peak hour measurement was conducted on February 7, 2013. The TNM was used to estimate noise levels during all time periods and to predict future No Action and With Action values and to assess any potential impacts. No Action and With Action (With Mitigation) values for 2018, 2028, and 2032 analysis years with the proposed traffic mitigation measures in place are shown in **Tables 21-50**, **21-51**, and **21-52**.

Table 21-50
2018 Noise Levels With Traffic Mitigation Measures

Location	Day	Time Period	No Action $L_{eq(1)}$	With Mitigation $L_{eq(1)}$	Mitigation—No Action Increase
Janet Place between 39th and Roosevelt Avenues	Weekday	AM	~~67.7~~ 68.0	~~67.7~~ 68.5	~~0.0~~ 0.5
	Weekday	MD	67.6	~~67.7~~ 68.1	~~0.0~~ 0.5
	Weekday	PM	~~67.7~~ 67.8	~~67.8~~ 68.1	~~0.0~~ 0.3
	Saturday	MD	67.5	~~67.6~~ 67.9	~~0.1~~ 0.4
	Weekday	Pre-Game	67.4	~~67.5~~ 67.8	~~0.1~~ 0.4
	Saturday	Pre-Game	67.5	~~67.5~~ 67.8	~~0.0~~ 0.3
	Saturday	Post-Game	67.5	~~67.5~~ 67.8	~~0.0~~ 0.3

Table 21-51
2028 Noise Levels With Traffic Mitigation Measures

Location	Day	Time Period	No Action $L_{eq(1)}$	With Mitigation $L_{eq(1)}$	Mitigation—No Action Increase
Janet Place between 39th and Roosevelt Avenues	Weekday	AM	~~67.7~~ 68.0	~~67.8~~ 68.6	~~0.1~~ 0.6
	Weekday	MD	67.6	~~67.8~~ 68.1	~~0.2~~ 0.5
	Weekday	PM	~~67.7~~ 67.8	~~67.8~~ 68.1	~~0.1~~ 0.3
	Saturday	MD	67.5	~~67.7~~ 68.0	~~0.2~~ 0.5
	Weekday	Pre-Game	67.4	~~67.5~~ 67.9	~~0.1~~ 0.5
	Saturday	Pre-Game	67.5	~~67.6~~ 67.9	~~0.1~~ 0.5
	Saturday	Post-Game	67.5	~~67.6~~ 67.9	~~0.1~~ 0.5

Table 21-52
2032 Noise Levels With Traffic Mitigation Measures

Location	Day	Time Period	No Action $L_{eq(1)}$	With Mitigation $L_{eq(1)}$	Mitigation—No Action Increase
Janet Place between 39th and Roosevelt Avenues	Weekday	AM	~~67.7~~ 68.1	~~67.9~~ 68.7	~~0.2~~ 0.6
	Weekday	MD	67.6	~~67.9~~ 68.2	~~0.3~~ 0.5
	Weekday	PM	~~67.7~~ 67.8	~~67.9~~ 68.2	~~0.2~~ 0.5
	Saturday	MD	67.5	~~67.7~~ 68.0	~~0.2~~ 0.5
	Weekday	Pre-Game	67.4	~~67.6~~ 68.0	~~0.2~~ 0.6
	Saturday	Pre-Game	67.5	~~67.7~~ 67.9	~~0.2~~ 0.5
	Saturday	Post-Game	67.5	~~67.6~~ 68.0	~~0.1~~ 0.5

In 2032, when the proposed project would be completed, $L_{eq(1)}$ noise levels due to project-generated traffic with the proposed traffic mitigation measures would be less than 1 dBA. Noise level increases of this magnitude would be imperceptible and would not result in any significant adverse noise impacts due to the traffic mitigation measures noise.

H. CONSTRUCTION

There would be temporary inconvenience and disruption arising from the construction of the proposed project throughout the Willets Point/CitiField area. As explained in detail in Chapter 20, "Construction," the proposed project would result in significant adverse construction impacts related to transportation and historic and cultural resources. Potential mitigation for these significant adverse impacts is described below.

HISTORIC AND CULTURAL RESOURCES

As described above, in Section C. "Historic and Cultural Resources," consistent with the findings in the 2008 FGEIS, construction activities related to the development that would occur within the District during Phase 2 of the proposed project would be anticipated to result in the demolition of the former Empire Millwork Corporation Building, which was found by OPRHP to be eligible for listing on the State and National Registers of Historic Places (S/NR). Demolition of this structure would be considered a significant adverse effect on this architectural resource. Potential measures to mitigate this adverse impact are described in Section C above.

TRAFFIC

As detailed in Chapter 20, "Construction," the worst-case analysis of peak Phase 2 construction identified significant adverse traffic impacts during the 6–7 AM and 3–4 PM construction peak hours. All significantly impacted intersections could be fully or partially mitigated, the majority of which would require standard mitigation measures typically implemented by NYCDOT. In addition, two locations—126th Street at Northern Boulevard and 126th Street/Grand Central Parkway Ramp at 34th Avenue—would require special more intensive mitigation measures to mitigate the significant impacts in the 3–4 PM peak construction hour. The recommended mitigation measures would be similar to those proposed to mitigate the intersection impacts associated with the project's build-out and occupancy. In addition, the significant adverse traffic impacts disclosed for the 2032 With Action condition may also occur during peak construction in 2031. Similar mitigation measures as those identified for the 2032 With Action condition are expected to also address the potential traffic impacts during construction. As with the 2032 With Action condition, several of the projected traffic impacts during various analysis peak periods may remain unmitigated.

TRANSIT

The construction worker trips would occur outside of peak periods of transit ridership and would be distributed and dispersed to the nearby transit facilities, and would not result in any significant adverse transit impacts. However, the significant adverse transit impacts disclosed for the 2032 With Action condition may also occur during peak construction in 2031. Similar mitigation measures as those identified for the 2032 With Action condition (i.e., stairway widening at the Mets-Willets Point subway station and bus frequency increase) are expected to also address the potential transit impacts during construction. As with the 2028 and 2032 With Action conditions, the projected subway ~~station and~~ line-haul impacts may remain unmitigated.

PEDESTRIANS

The construction worker pedestrian trips would primarily be concentrated during off-peak hours (6–7 AM and 3–4 PM) and would be distributed among numerous pedestrian facilities (i.e. sidewalks, corner reservoirs, and crosswalks) in the area. Accordingly, there would not be a potential for significant adverse pedestrian impacts attributable to the projected construction worker pedestrian trips. However, the significant adverse pedestrian impacts disclosed for the 2032 With Action condition may also occur during peak construction in 2031. Similar mitigation measures as those identified for the 2032 With Action condition (i.e., crosswalk widening) are expected to also address the potential pedestrian impacts during construction. Where mitigation measures may be deemed impractical to mitigate the projected With Action significant adverse pedestrian impacts, those impacts could similarly be unmitigatable during construction.

Detailed Intersection Level of Service Tables

TABLE 1

2018 (PHASE 1A) SUMMARY OF NON- GAMEDAY MITIGATION MEASURES

INTERSECTION	NON-GAMEDAY WEEKDAY AM PEAK HOUR	NON-GAMEDAY WEEKDAY MIDDAY PEAK HOUR	NON-GAMEDAY WEEKDAY PM PEAK HOUR	NON-GAMEDAY SATURDAY MIDDAY PEAK HOUR
SIGNALIZED INTERSECTIONS				
108th Street at Astoria Boulevard	Mitigation not required.	Mitigation not required.	**Unmitigatable impact.**	Mitigation not required.
108th Street at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 66 s to 68 s; NB/SB green time shifts from 30 s to 28 s].	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 2 s green time from EB/WB left-turn phase to EB/WB phase; shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 71 s to 74 s; EB/WB left-turn phase shifts from 9 s to 7 s; NB/SB phase shifts from 25 s to 24 s].	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 66 s to 70 s; NB/SB phase shifts from 30 s to 26 s].
114th Street at Northern Boulevard (RT. 25A)	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Street and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 7 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 30 s]. Shift 34 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 46 s to 80 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Street and then to SEB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. **[Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Street and then to SEB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Street and then to SEB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. **[Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**
126th Street at Northern Boulevard (RT. 25A)	Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.	Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 2 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase and shift 1 s of green tim from EB GCP/Astoria Blvd ramp phase to NB 126th St phase [EB Northern Blvd green time shifts from 35 s to 37 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 42 s; NB 126th St green time shifts from 25 to 26 s].	Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow throug the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd ramp green time shifts from 55 s to 52 s].	Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow throug the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 1 s of green time from EB GCP/Astoria Blvd ramp phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 26 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 44 s].
Prince Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Main Street at Northern Boulevard (RT. 25A)	Mitigation not required.	**Unmitigatable impact.**	**Unmitigatable Impact.**	**Unmitigatable Impact.**
Union Street at Northern Boulevard (RT. 25A)	Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].	Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].	Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].	Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 3 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 41 s; EB/WB green time shifts from 45 s to 48 s].
Parsons Boulevard at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approacl 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to EB/WB phase [EB/WB green time shifts from 50 s to 51 s; EB/WB protected left-turn green time shifts from 12 s to 11 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approacl 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to NB/SB phase and 2 s green time from EB/WB protected left-turn phase to EB/WB phase [NB/SB green time shifts from 36 s to 37 s; EB/WB protected left-turn green time shifts from 12 s to 9 s; EB/WB green time shifts from 50 s to 52 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
114th Street at 34th Avenue	Mitigation not required.	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
126th Street/GCP Ramp at 34th Avenue	Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-f travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-f travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
108th Street at Roosevelt Avenue	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. **[Measures reflect improvements needed for the Weekday Non-game Midday, Weekday Non-game PM and Saturday Non-game Midday peak periods.]**	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 15(ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 15(ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
111th Street at Roosevelt Avenue	Mitigation not required.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane. **[Measures reflect improvements needed for the Weekday Non-game PM, Saturday Non-game Midday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.
114th Street at Roosevelt Avenue	**Partially mitigated.** Shift the centerline of the SB 114th Street approach 2 feet to the east. Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach 150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared through right lane. Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane.	Shift the centerline of the SB 114th Street approach 2 feet to the east. Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach 150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared through right lane. Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane.	Shift the centerline of the SB 114th Street approach 2 feet to the east. Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach 150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared through-right lane. Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane. Modify Signal Timing: Shift 3 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].	Shift the centerline of the SB 114th Street approach 2 feet to the east. Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach 150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared through-right lane. Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane. Modify Signal Timing: Shift 4 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].
126th Street at Roosevelt Avenue	Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane. New signal phasing and timing plan: Shared EB/WB phase receives 59 s green time; EB lag phase with SB right-turns receives 7 s green time; NB/SB phase receives 39 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane. New signal phasing and timing plan: Shared EB/WB phase receives 55 s green time; EB lag phase with SB right-turns receives 7 s green time; NB/SB phase receives 43 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane. New signal phasing and timing plan: Shared EB/WB phase receives 59 s green time; EB lag phase with SB right-turns receives 7 s green time; NB/SB phase receives 39 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane. New signal phasing and timing plan: Shared EB/WB phase receives 56 s green time; EB lag phase with SB right-turns receives 7 s green time; NB/SB phase receives 42 s green time [each phase will have 3 s amber and 2 s all red time].

TABLE 1

2018 (PHASE 1A) SUMMARY OF NON- GAMEDAY MITIGATION MEASURES

College Point Boulevard at Roosevelt Avenue	Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Poin Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 33 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 17 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-f travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Poin Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 35 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 26 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated** -Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 28 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 27 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue	Modify Signal Timing: Shift 1 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 64 s; SB green time shifts from 47 s to 46 s].	Mitigation not required.	Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].	Mitigation not required.
Main Street at Roosevelt Avenue	Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 47 s; NB/SB green time shifts from 65 s to 63 s].	Mitigation not required.	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Union Street at Roosevelt Avenue	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable Impact.**	**Unmitigatable impact.**
Parsons Boulevard at Roosevelt Avenue	Modify Signal Timing: Shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 56 s; NB/SB green time shifts from 55 s to 54 s. Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.	Mitigation not required.	Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s. Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Weekday Non-game AM and Weekday Pre-game PM peak periods.]**	Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s].
Main Street at Kissena Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
College Point Boulevard at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Union Street at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Parsons Boulevard at Sanford Avenue	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].	Mitigation not required.	Mitigation not required.
College Point Boulevard at 32nd Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Northern Boulevard Service Road	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Boat Basin Road at Stadium Road	Install an actuated controller. Modify signal phasing and timing plan: EB/WB phase will have 40 s green time; NB phase will have 23 s green time; SB phase will have 42 s green time [each phase will have 3 s amber and 2 s all red time]. NB/SB pedestrians will cross during the SB phase. **[Measures reflect improvements needed for the Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**	Install an actuated controller. Modify signal phasing and timing plan: EB/WB phase will have 40 s green time; NB phase will have 23 s green time; SB phase will have 42 s green time [each phase will have 3 s amber and 2 s all red time]. NB/SB pedestrians will cross during the SB phase. **[Measures reflect improvements needed for the Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**	Install an actuated controller. Modify signal phasing and timing plan: EB/WB phase will have 40 s green time; NB phase will have 23 s green time; SB phase will have 42 s green time [each phase will have 3 s amber and 2 s all red time]. NB/SB pedestrians will cross during the SB phase.	Install an actuated controller. Modify signal phasing and timing plan: EB/WB phase will have 47 s green time; NB phase will have 23 s green time; SB phase will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. NB/SB pedestrians will cross during the SB phase. **[Measures reflect improvements needed for the Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**
UNSIGNALIZED INTERSECTIONS				
Willets Point Boulevard at 126th Street	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.
Boat Basin Road at Worlds Fair Marina	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.
Willets Point Boulevard at Northern Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Boat Basin Road at Stadium Road / Citifield Entrance 8	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Mitigation not required. Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 43 s green time; WB will have 25 s green time; NB/SB will have 37 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.
126th Street at 36th Avenue	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
126th Street at 37th Avenue	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
Northern Boulevard at 126th Place	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.

NOTE: This table has been revised for the Final SEIS.

TABLE 2
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.76	59.1	E	DefL	0.80	62.6	E					-Mitigation not required.
		T	0.21	35.5	D	T	0.21	35.5	D					
	SB	LTR	0.35	38.3	D	LTR	0.35	38.3	D					
Astoria Boulevard	EB	TR	0.59	25.4	C	TR	0.61	25.8	C					
	WB	L	0.55	14.3	B	L	0.56	14.8	B					
		TR	0.76	7.8	A	TR	0.77	7.9	A					
Overall Intersection		**-**	**0.76**	**17.6**	**B**	**-**	**0.78**	**18.1**	**B**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.10	100.2	F	LTR	1.20	139.5	F	L	0.55	43.9	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.60	42.5	D	from the intersection to allow for two moving lanes.
	SB	LTR	0.96	77.2	E	LTR	0.97	79.0	E	L	0.30	42.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.62	47.3	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.07	20.8	C	L	0.07	21.4	C	L	0.07	21.4	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.74	20.3	C	TR	0.77	21.1	C	TR	0.77	21.1	C	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.42	20.3	C	L	0.44	21.7	C	L	0.44	21.7	C	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.02	30.5	C	TR	1.03	33.7	C	TR	1.03	33.7	C	and one 12-ft shared through-right lane for 175 ft.
Overall Intersection		**-**	**0.91**	**34.2**	**C**	**-**	**0.94**	**39.0**	**D**	**-**	**0.80**	**31.1**	**C**	
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.46	47.5	D	LTR	0.49	48.2	D	LTR	0.61	43.4	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.86	39.9	D	T	0.89	42.1	D	T	0.51	10.8	B	exclusive through lanes.
		R	0.73	37.7	D	R	0.74	38.4	D	R	0.43	10.3	B	-Divert left-turning turning to NB 112th Street and then to SB 114th Street.
	WB	DefL	0.48	13.6	B	DefL	0.51	16.6	B	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	1.16	89.8	F	T	1.17	94.4	F	T	0.98	21.6	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.30**	**67.8**	**E**	**-**	**1.32**	**70.9**	**E**	**-**	**0.88**	**20.5**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 7 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 30 s]. Shift 34 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 46 s to 80 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.28	41.1	D	L	0.37	42.6	D	L	0.37	42.6	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
		R	0.27	41.2	D	R	0.63	53.5	D	R	0.39	43.3	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
Northern Boulevard	EB	T	0.53	38.0	D	T	0.53	38.0	D	T	0.56	37.9	D	through the intersection.
	WB	T	0.64	10.6	B	T	0.66	10.9	B	T	0.66	10.9	B	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Grand Central Parkway Ramp	EB	T	0.82	40.9	D	T	0.82	40.9	D	T	0.82	40.9	D	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
Van Wyck & Whitestone Expressway Ramp	WB	T	1.09	101.3	F	T	1.20	144.9	F	-	-	-	-	-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.91**	**48.5**	**D**	**-**	**1.07**	**63.2**	**E**	**-**	**0.63**	**28.2**	**C**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.

TABLE 2
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.13	124.0	F	LTR	1.13	124.0	F					-Unmitigatable impact.
	SB	LTR	0.78	52.5	D	LTR	0.78	52.5	D					
Northern Boulevard (Rt. 25A)	EB	L	0.94	89.0	F	L	0.94	89.0	F					
		T	0.79	22.0	C	T	0.80	22.4	C					
	WB	L	0.94	88.4	F	L	0.94	88.4	F					
		T	1.13	85.4	F	T	1.15	90.0	F					
Northern Boulevard Service Rd.	EB	TR	0.44	16.5	B	TR	0.44	16.5	B					
	WB	TR	0.65	18.8	B	TR	0.67	19.2	B					
Overall Intersection		**-**	**1.10**	**57.2**	**E**	**-**	**1.10**	**59.1**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.76	43.1	D	L	0.76	43.1	D					-Mitigation not required.
		R	0.83	52.1	D	R	0.83	52.1	D					
Northern Boulevard (Rt 25A)	EB	T	0.92	37.9	D	T	0.94	39.4	D					
		R	1.14	113.1	F	R	1.14	113.1	F					
	WB	L	0.16	26.4	C	L	0.16	26.4	C					
		T	1.03	34.9	C	T	1.04	40.6	D					
Overall Intersection		**-**	**0.99**	**45.0**	**D**	**-**	**0.99**	**47.8**	**D**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.66	34.6	C	TR	0.66	34.6	C	TR	0.69	36.9	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
	SB	TR	0.87	41.0	D	TR	0.87	41.0	D	TR	0.91	45.5	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Northern Boulevard (Rt. 25A)	EB	L	0.94	61.6	E	L	0.94	61.7	E	L	0.94	61.6	E	
		TR	1.20	131.0	F	TR	1.22	139.0	F	TR	1.17	114.7	F	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB
	WB	L	1.00	71.7	E	L	1.00	71.8	E	L	1.00	71.8	E	green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].
		TR	0.94	37.3	D	TR	0.96	38.8	D	TR	0.92	34.1	C	
Overall Intersection		**-**	**1.05**	**68.1**	**E**	**-**	**1.05**	**71.2**	**E**	**-**	**1.07**	**63.0**	**E**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.91	81.5	F	L	0.91	81.5	F	L	0.91	81.5	F	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.55	39.5	D	TR	0.55	39.5	D	TR	0.55	39.5	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	0.79	45.4	D	LTR	0.79	45.7	D	LTR	0.79	45.7	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	-	-	-	-	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.52	44.7	D	L	0.53	45.1	D	L	0.55	46.0	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.01	53.4	D	TR	1.03	60.8	E	T	0.79	31.8	C	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.37	24.6	C	-Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to EB/WB
	WB	L	0.42	35.3	D	L	0.43	36.4	D	L	0.40	30.6	C	phase [EB/WB green time shifts from 50 s to 51 s; EB/WB protected left-turn green time shifts
		TR	1.10	75.1	E	TR	1.11	83.5	F	TR	1.09	72.7	E	from 12 s to 11 s].
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**1.00**	**62.0**	**E**	**-**	**1.00**	**67.9**	**E**	**-**	**1.01**	**54.8**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.82	37.5	D	L	0.85	39.1	D					-Mitigation not required.
		T	0.31	24.5	C	T	0.33	24.8	C					
34th Avenue	EB	T	0.41	11.8	B	T	0.41	11.8	B					
		R	0.11	8.8	A	R	0.11	8.8	A					
Overall Intersection		**-**	**0.56**	**23.2**	**C**	**-**	**0.57**	**24.0**	**C**					

TABLE 2
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	0.25	22.1	C	L	0.14	19.5	B	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
		LTR	0.17	19.9	B	TR	0.23	20.7	C	TR	0.20	19.8	B	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
Northern Boulevard Ramp	SB	LTR	0.31	22.3	C	LTR	0.39	23.7	C	-	-	-	-	II bicycle lane.
GCP Ramp	SB	LTR	0.81	64.0	E	LTR	1.22	169.9	F	L	0.02	17.9	B	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
		-	-	-	-	-	-	-	-	T	0.14	19.0	B	and two 11-ft EB receiving lanes.
Shea Road	EB	-	-	-	-	-	-	-	-	-	-	-	-	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		LTR	0.46	43.0	D	LTR	0.76	54.2	D	LTR	0.29	21.0	C	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		-	-	-	-	-	-	-	-	DefL	0.40	23.8	C	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
34th Avenue	WB	LTR	0.63	52.9	D	LTR	0.77	65.9	E	TR	0.25	20.9	C	11-ft travel lanes.
														-Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase
	Overall Intersection	**-**	**0.51**	**39.8**	**D**	**-**	**0.68**	**73.5**	**E**	**-**	**0.30**	**20.7**	**C**	will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	0.99	70.3	E	LTR	1.00	73.7	E	LT	0.81	49.4	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.18	35.8	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.05	83.8	F	LTR	1.05	85.2	F	LT	0.83	49.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.29	37.0	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.67	15.6	B	LTR	0.69	16.5	B	LTR	0.69	16.5	B	[Measures reflect improvements needed for the Weekday Non-game Midday, Weekday Non-gam
	WB	LTR	0.80	9.7	A	LTR	0.83	10.7	B	LTR	0.83	10.7	B	PM and Saturday Non-game Midday peak periods.]
	Overall Intersection	**-**	**0.87**	**32.5**	**C**	**-**	**0.89**	**33.5**	**C**	**-**	**0.83**	**23.6**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.97	63.1	E	LTR	0.97	63.1	E					-Mitigation not required.
Roosevelt Avenue	EB	LTR	0.66	15.1	B	LTR	0.69	15.9	B					
	WB	LTR	0.91	16.0	B	LTR	0.93	18.4	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.92**	**24.9**	**C**	**-**	**0.94**	**26.0**	**C**					
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.00	66.8	E	LTR	1.02	72.4	E	LTR	1.02	72.4	E	-Partially mitigated.
	SB	LTR	1.07	90.0	F	LTR	1.20	142.3	F	LT	0.95	58.6	E	-Shift the centerline of the SB 114th Street approach 2 feet to the east.
		-	-	-	-	-	-	-	-	R	0.09	34.7	C	-Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach
Roosevelt Avenue	EB	LTR	0.80	21.5	C	LTR	0.85	24.7	C	L	0.18	8.2	A	150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn
		-	-	-	-	-	-	-	-	TR	0.58	13.1	B	lane.
	WB	LTR	0.55	5.3	A	LTR	0.60	5.7	A	L	0.56	15.2	B	-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
		-	-	-	-	-	-	-	-	T	0.52	5.6	A	approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared
		-	-	-	-	-	-	-	-	R	0.16	7.9	A	through-right lane.
														-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	Overall Intersection	**-**	**0.88**	**27.7**	**C**	**-**	**0.95**	**34.4**	**C**	**-**	**0.70**	**23.5**	**C**	-Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft
														through lane, and one 11-ft right-turn lane.
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.21	36.9	D	LTR	0.21	36.9	D	LTR	0.17	29.7	C	-Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane.
	SB	DefL	1.20	164.2	F	DefL	1.26	187.0	F	LT	1.02	93.1	F	-New signal phasing and timing plan: Shared EB/WB phase receives 59 s green time; EB lag
		TR	0.65	51.6	D	TR	0.69	53.7	D	R	0.28	23.5	C	phase with SB right-turns receives 7 s green time; NB/SB phase receives 39 s green time [each
Roosevelt Avenue	EB	-	-	-	-	-	-	-	-	-	-	-	-	phase will have 3 s amber and 2 s all red time].
		LTR	0.55	12.2	B	LTR	0.58	12.8	B	LTR	0.63	18.4	B	
	WB	LTR	0.61	5.9	A	LTR	0.64	6.4	A	LTR	0.87	30	C	
	Overall Intersection	**-**	**0.75**	**32.9**	**C**	**-**	**0.79**	**36.2**	**D**	**-**	**0.98**	**34.2**	**C**	

TABLE 2
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.38	230.9	F	L	1.45	258.0	F	L	1.19	157.2	F	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		TR	0.72	27.0	C	TR	0.72	27.0	C	TR	0.81	35.2	D	
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
	SB	TR	0.84	42.5	D	TR	0.86	44.1	D	T	0.76	46.1	D	
Roosevelt Avenue	EB	L	0.44	39.9	D	L	0.44	39.9	D	L	0.40	35.3	D	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
		TR	0.96	55.8	E	TR	1.01	66.4	E	TR	0.86	36.4	D	
	WB	L	0.22	45.2	D	L	0.22	45.2	D	-	-	-	-	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
		TR	0.67	44.0	D	TR	0.69	44.9	D	TR	0.46	37.4	D	
	Overall Intersection	-	**1.07**	**65.2**	**E**	-	**1.12**	**71.7**	**E**	-	**0.88**	**55.2**	**E**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes. -Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. -Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. -Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. -Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. -Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. -Modify signal phasing and timing plan: EB/WB will have 33 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 17 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.50	30.7	C	LTR	0.50	30.7	C	LTR	0.51	31.6	C	-Modify Signal Timing: Shift 1 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 64 s; SB green time shifts from 47 s to 46 s].
Roosevelt Avenue	EB	DefL	1.26	165.4	F	DefL	1.27	171.0	F	DefL	1.24	157.6	F	
		TR	0.57	22.7	C	TR	0.59	23.1	C	TR	0.58	22.2	C	
	WB	LTR	0.88	32.0	C	LTR	0.90	33.3	C	LTR	0.88	31.2	C	
	Overall Intersection	-	**0.94**	**63.3**	**E**	-	**0.94**	**64.6**	**E**	-	**0.94**	**60.6**	**E**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.58	21.9	C	T	0.58	21.9	C	T	0.60	23.5	C	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 47 s; NB/SB green time shifts from 65 s to 63 s].
	SB	T	0.44	19.5	B	T	0.44	19.5	B	T	0.45	20.9	C	
Roosevelt Avenue	EB	L	0.41	43.0	D	L	0.43	45.8	D	L	0.38	38.9	D	
		TR	0.56	35.8	D	TR	0.58	36.7	D	TR	0.56	34.4	C	
	WB	L	0.10	25.3	C	L	0.11	25.4	C	L	0.10	24	C	
		TR	0.97	61.5	E	TR	0.99	66.0	E	TR	0.95	54.9	D	
	Overall Intersection	-	**0.74**	**34.5**	**C**	-	**0.76**	**36.1**	**D**	-	**0.75**	**33.5**	**C**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.58	19.6	B	TR	0.58	19.6	B					-Unmitigatable impact.
	SB	LT	1.04	59.4	E	LT	1.04	59.4	E					
		R	0.83	33.6	C	R	0.83	33.6	C					
Roosevelt Avenue	EB	LTR	1.35	196.4	F	LTR	1.41	221.2	F					
	WB	LT	0.97	44.8	D	LT	0.99	49.5	D					
		R	1.08	92.6	F	R	1.08	92.6	F					
	Overall Intersection	-	**1.18**	**69.9**	**E**	-	**1.21**	**75.7**	**E**					

TABLE 2
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	1.09	78.0	E	LTR	1.10	80.2	F	LT	0.98	41.5	D	-Modify Signal Timing: Shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.08	18.9	B	time shifts from 55 s to 56 s; NB/SB green time shifts from 55 s to 54 s.
	SB	LTR	0.79	33.6	C	LTR	0.79	33.6	C	LTR	0.81	35.0	C	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.48	25.5	C	LTR	0.50	26.0	C	LTR	0.49	25.1	C	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	1.12	90.5	F	LTR	1.14	98.7	F	LTR	1.12	88.0	F	
Overall Intersection		**-**	**1.11**	**61.8**	**E**	**-**	**1.12**	**64.9**	**E**	**-**	**1.05**	**51.4**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.71	31.6	C	L	0.71	31.8	C					-Mitigation not required.
		TR	0.68	24.6	C	TR	0.68	24.6	C					
	SB	L	0.63	37.5	D	L	0.63	37.5	D					
		TR	0.38	18.2	B	TR	0.38	18.2	B					
Kissena Boulevard	WB	T	0.72	37.5	D	T	0.72	37.5	D					
Overall Intersection		**-**	**0.71**	**27.1**	**C**	**-**	**0.72**	**27.1**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.20	10.1	B	L	0.20	10.1	B					-Mitigation not required.
		T	0.67	14.7	B	T	0.68	14.8	B					
	SB	TR	0.57	13.0	B	TR	0.58	13.1	B					
Sanford Avenue	WB	L	0.77	43.9	D	L	0.77	43.9	D					
		TR	0.54	29.7	C	TR	0.56	30.2	C					
Overall Intersection		**-**	**0.70**	**18.7**	**B**	**-**	**0.71**	**18.9**	**B**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.68	29.3	C	LTR	0.68	29.3	C					-Mitigation not required.
	SB	LTR	0.59	24.2	C	LTR	0.60	24.3	C					
Sanford Avenue	EB	DefL	0.55	24.8	C	DefL	0.55	25.0	C					
		TR	0.36	15.7	B	TR	0.36	15.7	B					
	WB	LTR	0.86	27.6	C	LTR	0.86	27.6	C					
Overall Intersection		**-**	**0.78**	**24.9**	**C**	**-**	**0.79**	**25.1**	**C**					
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.08	61.9	E	LTR	1.08	62.9	E					-Mitigation not required.
	SB	LTR	0.93	34.1	C	LTR	0.95	36.2	D					
Sanford Avenue	EB	LTR	0.71	26.6	C	LTR	0.71	26.8	C					
	WB	LTR	0.80	29.7	C	LTR	0.82	30.5	C					
Overall Intersection		**-**	**0.95**	**38.8**	**D**	**-**	**0.95**	**39.9**	**D**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.43	23.7	C	T	0.43	23.7	C					-Mitigation not required.
		TR	0.69	31.2	C	TR	0.69	31.2	C					
	SB	L	0.49	36.3	D	L	0.49	36.3	D					
		T	0.58	12.8	B	T	0.58	12.8	B					
32nd Avenue	WB	LTR	0.84	42.1	D	LTR	0.84	42.1	D					
Overall Intersection		**-**	**1.38**	**23.4**	**C**	**-**	**1.38**	**23.3**	**C**					

TABLE 2
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.41	11.7	B	TR	0.41	11.7	B					-Mitigation not required.
	SB	LT	0.85	22.3	C	LT	0.85	22.5	C					
Northern Blvd Service Rd	WB	LR	0.77	35.8	D	LR	0.79	37.2	D					
Overall Intersection		**-**	**0.82**	**21.0**	**C**	**-**	**0.83**	**21.5**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	LTR	0.08	7.3	A	LTR	0.04	7.0	A	LTR	0.11	40.1	D	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Modify signal phasing and timing plan: EB/WB phase will have 40 s green time; NB phase will
		LTR	0.38	9.6	A	LTR	0.55	11.8	B	LTR	0.81	40.8	D	have 23 s green time; SB phase will have 42 s green time [each phase will have 3 s amber and 2 s
Stadium Road	EB	-	-	-	-	-	-	-	-	-	-	-	-	all red time]. NB/SB pedestrians will cross during the SB phase.
		-	-	-	-	LTR	0.19	25.3	C	LTR	0.15	28.2	C	[Measures reflect improvements needed for the Weekday Pre-game, and Saturday Pre- and Post-
	WB	-	-	-	-	-	-	-	-	-	-	-	-	game peak periods.]
		LTR	0.23	25.7	C	LTR	0.62	32.8	C	LTR	0.43	31.5	C	
Overall Intersection		**-**	**0.33**	**12.8**	**B**	**-**	**0.57**	**19.0**	**B**	**-**	**0.51**	**37.1**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.1	A	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Willets Point Boulevard	WB	LR	-	11.1	B	-	-	-	-					
Overall Intersection		**-**	**-**	**10.2**	**B**	**-**	**-**	**-**	**-**					
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	37.4	E	L	-	207.2	F	L	0.06	24.0	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	8.7	A	R	-	8.7	A	R	0.04	2.4	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
		-	-	-	-	-	-	-	-	TR	0.02	35.8	D	and 2 s all red time].
Worlds Fair Marina	WB	LT	-	8.8	A	LT	-	9.6	A	L	0.54	21.3	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.39	18.5	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.9**	**A**	**-**	**-**	**25.1**	**D**	**-**	**0.31**	**19.5**	**B**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	10.3	B	TR	-	10.3	B					-Mitigation not required.
Overall Intersection		**-**	**-**	**10.3**	**B**	**-**	**-**	**10.3**	**B**					
Boat Basin Road at Stadium Road / Citifield Entrance 8														
Citifield Entrance 8	NB	T	-	10.5	B	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Boat Basin Road	SB	LT	-	11.3	B	-	-	-	-					
Stadium Road	EB	LT	-	7.4	A	-	-	-	-					
Overall Intersection		**-**	**-**	**8.5**	**A**	**-**	**-**	**-**	**-**					

TABLE 2
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.05	30.6	C	-Mitigation not required.
	SB	-	-	-	-	LT	-	7.5	A	L	0.21	33.4	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have
		-	-	-	-	-	-	-	-	TR	0.52	37.7	D	25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red
Grand Central Parkway Off-Ramp	EB	L	-	11.3	B	L	-	15.8	C	L	0.11	24.9	C	-Add a right turn lane and channelized right-turn to the GCP off ramp.
		-	-	-	-	T	-	17.1	C	T	0.22	26.3	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		R	-	9.3	A	R	-	9.6	A	-	-	-	-	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
Willets West Center Exit	WB	-	-	-	-	L	-	20.5	C	L	0.21	40.1	D	-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	R	-	8.5	A	R	0.07	38.6	D	
	Overall Intersection	**-**	**-**	**10.8**	**B**	**-**	**-**	**15.4**	**C**	**-**	**0.32**	**34.7**	**C**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.24	20.2	C	TR	0.24	20.2	C	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	LT	0.42	16.4	B	LT	0.42	16.3	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	13.4	B	L	0.03	25.1	C	L	0.03	25.1	C	
		-	-	-	-	R	0.07	18.4	B	R	0.07	18.4	B	
	Overall Intersection	**-**	**-**	**9.0**	**A**	**-**	**0.25**	**18.1**	**B**	**-**	**0.25**	**18.0**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.19	14.3	B	TR	0.19	14.3	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	7.8	A	LT	0.20	7.9	A	LT	0.19	7.9	A	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.3	B	L	0.21	36.9	D	L	0.21	36.9	D	
		-	-	-	-	R	0.11	25.0	C	R	0.11	25.0	C	
	Overall Intersection	**-**	**-**	**11.7**	**B**	**-**	**0.27**	**14.3**	**B**	**-**	**0.27**	**14.3**	**B**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	13.8	B	R	-	14.1	B	R	0.11	7.4	A	-Mitigation not required.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.40	39.3	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
	Overall Intersection	**-**	**-**	**13.8**	**B**	**-**	**-**	**14.1**	**B**	**-**	**0.33**	**8.1**	**A**	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
														-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 3
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.47	26.5	C	DefL	0.57	29.6	C					-Mitigation not required.
		T	0.13	20.1	C	T	0.13	20.1	C					
	SB	LTR	0.17	20.6	C	LTR	0.17	20.6	C					
Astoria Boulevard	EB	TR	0.82	28.6	C	TR	0.88	31.2	C					
	WB	L	0.71	29.8	C	L	0.74	33.8	C					
		TR	0.33	12.3	B	TR	0.35	12.6	B					
Overall Intersection		**-**	**0.69**	**23.3**	**C**	**-**	**0.76**	**25.3**	**C**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.15	119.4	F	LTR	1.47	257.2	F	L	0.61	42.6	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.78	45.0	D	from the intersection to allow for two moving lanes.
	SB	LTR	0.90	65.7	E	LTR	0.92	69.0	E	L	0.46	45.4	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.51	43.0	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.08	22.9	C	L	0.08	25.2	C	L	0.08	22.9	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.86	27.6	C	TR	0.94	34.1	C	TR	0.91	29.9	C	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.69	42.9	D	L	0.75	50.1	D	L	0.73	47.0	D	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	0.99	42.5	D	TR	1.04	57.1	E	TR	1.01	46.2	D	and one 12-ft shared through-right lane for 175 ft.
Overall Intersection		**-**	**0.98**	**45.0**	**D**	**-**	**1.11**	**66.9**	**E**	**-**	**0.90**	**39.5**	**D**	-Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB gree time shifts from 66 s to 68 s; NB/SB green time shifts from 30 s to 28 s].
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.38	44.2	D	LTR	0.44	45.7	D	LTR	0.44	36.1	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.79	26.5	C	T	0.86	29.9	C	T	0.72	17.4	B	exclusive through lanes.
		R	0.45	19.2	B	R	0.48	19.7	B	R	0.40	12.3	B	-Divert left-turning turning to NB 112th Street and then to SB 114th Street.
	WB	DefL	0.49	15.8	B	DefL	0.64	27.0	C	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.73	12.4	B	T	0.76	13.3	B	T	0.68	15.8	B	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.16**	**19.4**	**B**	**-**	**1.24**	**22.1**	**C**	**-**	**0.63**	**17.9**	**B**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. [Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.45	43.8	D	L	0.66	48.9	D	L	0.63	47.3	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
		R	0.32	42.0	D	R	1.51	305.0	F	R	0.51	45.3	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
Northern Boulevard	EB	T	0.78	46.0	D	T	0.78	46.0	D	T	0.78	43.1	D	through the intersection.
	WB	T	0.33	7.1	A	T	0.36	7.3	A	T	0.36	7.7	A	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Grand Central Parkway Ramp	EB	T	0.77	38.2	D	T	0.77	38.2	D	T	0.83	43.3	D	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.75	15.9	B	T	1.02	50.4	D	T	-	-	-	-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.68**	**29.1**	**C**	**-**	**1.13**	**54.9**	**D**	**-**	**0.76**	**35.8**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. -Modify signal timing: shift 2 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase and shift 1 s of green time from EB GCP/Astoria Blvd ramp phase to NB 126th St phase [EB Northern Blvd green time shifts from 35 s to 37 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 42 s; NB 126th St green time shifts from 25 to 26 s].

TABLE 3
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.13	107.5	F	LTR	1.13	107.5	F					-Unmitigatable impact.
	SB	LTR	0.52	41.0	D	LTR	0.52	41.0	D					
Northern Boulevard (Rt. 25A)	EB	L	0.87	69.8	E	L	0.87	69.8	E					
		T	0.92	34.0	C	T	0.95	37.8	D					
	WB	L	0.89	88.0	F	L	0.89	88.0	F					
		T	1.11	92.6	F	T	1.15	108.7	F					
Northern Boulevard Service Rd.	EB	TR	0.60	26.0	C	TR	0.60	26.0	C					
	WB	TR	0.69	34.2	C	TR	0.76	37.5	D					
Overall Intersection		**-**	**1.07**	**61.2**	**E**	**-**	**1.09**	**68.3**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.97	62.8	E	L	0.97	62.8	E					-Unmitigatable impact.
		R	0.66	38.7	D	R	0.66	38.7	D					
Northern Boulevard (Rt 25A)	EB	T	0.95	41.3	D	T	1.00	49.4	D					
		R	1.25	157.1	F	R	1.25	157.1	F					
	WB	L	0.10	25.6	C	L	0.10	25.6	C					
		T	0.74	22.3	C	T	0.79	23.7	C					
Overall Intersection		**-**	**1.00**	**54.3**	**D**	**-**	**1.00**	**56.9**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.76	38.1	D	TR	0.76	38.1	D	TR	0.80	41.2	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
	SB	TR	0.54	32.1	C	TR	0.54	32.1	C	TR	0.57	34.0	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Northern Boulevard (Rt. 25A)	EB	L	0.53	21.3	C	L	0.54	22.7	C	L	0.50	18.1	B	
		TR	1.35	198.2	F	TR	1.41	223.1	F	TR	1.35	193.6	F	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB
	WB	L	1.16	136.0	F	L	1.16	136.3	F	L	1.16	136.4	F	green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].
		TR	0.81	36.7	D	TR	0.88	39.6	D	TR	0.62	30.2	C	
Overall Intersection		**-**	**1.37**	**104.5**	**F**	**-**	**1.37**	**115.3**	**F**	**-**	**1.41**	**101.7**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.70	54.6	D	L	0.71	55.9	E	L	0.68	53.1	D	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.51	38.4	D	TR	0.51	38.4	D	TR	0.51	38.4	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.11	96.7	F	LTR	1.14	108.3	F	LT	0.69	36.2	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.31	32.7	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.78	56.1	E	L	0.81	58.6	E	L	0.81	57.8	E	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.02	57.4	E	TR	1.08	79.0	E	T	0.87	34.9	C	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.35	23.9	C	
	WB	L	0.34	34.3	C	L	0.36	37.5	D	L	0.33	32.2	C	
		TR	1.14	100.2	F	TR	1.22	136.0	F	T	1.02	46.8	D	
		-	-	-	-	-	-	-	-	R	0.35	23.0	C	
Overall Intersection		**-**	**1.12**	**75.5**	**E**	**-**	**1.18**	**98.2**	**F**	**-**	**0.93**	**40.5**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.82	41.7	D	L	0.89	49.2	D	L	0.81	38.0	D	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.22	23.9	C	T	0.31	25.1	C	T	0.28	22.6	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.39	11.6	B	T	0.39	11.6	B	T	0.42	13.5	B	
		R	0.07	8.5	A	R	0.07	8.5	A	R	0.07	9.9	A	
Overall Intersection		**-**	**0.54**	**25.9**	**C**	**-**	**0.57**	**29.8**	**C**	**-**	**0.57**	**25.3**	**C**	

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	0.47	28.5	C	L	0.25	21.3	C	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
		LTR	0.25	20.8	C	TR	0.35	22.3	C	TR	0.32	21.3	C	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
Northern Boulevard Ramp	SB	LTR	0.37	23.5	C	LTR	0.76	36.3	D	-	-	-	-	II bicycle lane.
GCP Ramp	SB	LTR	0.88	72.2	E	LTR	2.04	525.7	F	L	0.02	17.8	B	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
		-	-	-	-	-	-	-	-	T	0.20	19.7	B	and two 11-ft EB receiving lanes.
Shea Road	EB	-	-	-	-	-	-	-	-	DefL	0.51	27.0	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		LTR	0.54	44.5	D	LTR	1.66	354.2	F	TR	0.52	26.4	C	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		-	-	-	-	-	-	-	-	DefL	0.46	25.2	C	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
34th Avenue	WB	LTR	0.63	52.4	D	LTR	1.15	166.1	F	TR	0.31	21.8	C	11-ft travel lanes.
														-Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase
	Overall Intersection	**-**	**0.55**	**40.8**	**D**	**-**	**1.28**	**255.4**	**F**	**-**	**0.42**	**23.1**	**C**	will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.05	90.7	F	LTR	1.09	103.9	F	LT	0.91	59.4	E	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.28	37.3	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.19	132.5	F	LTR	1.20	136.6	F	LT	0.96	53.9	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.33	37.2	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.74	18.2	B	LTR	0.80	21.6	C	LTR	0.80	21.6	C	
	WB	LTR	0.83	21.8	C	LTR	0.92	31.5	C	LTR	0.92	31.5	C	
	Overall Intersection	**-**	**0.92**	**49.7**	**D**	**-**	**1.00**	**55.2**	**E**	**-**	**0.93**	**34.6**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.71	49.8	D	LTR	0.71	49.8	D	LTR	0.71	49.8	D	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.71	16.2	B	LTR	0.79	19.6	B	LTR	0.79	19.4	B	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	0.85	23.7	C	LTR	0.93	32.3	C	LT	0.77	18.0	B	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.11	7.5	A	[Measures reflect improvements needed for the Weekday Non-game PM, Saturday Non-game
	Overall Intersection	**-**	**0.81**	**24.4**	**C**	**-**	**0.87**	**29.4**	**C**	**-**	**0.77**	**22.4**	**C**	Midday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.68	49.6	D	LTR	0.72	52.2	D	LTR	0.72	49.6	D	-Shift the centerline of the SB 114th Street approach 2 feet to the east.
	SB	LTR	0.66	51.1	D	LTR	0.90	77.5	E	LT	0.67	51.5	D	-Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach
		-	-	-	-	-	-	-	-	R	0.10	35.2	D	150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn
Roosevelt Avenue	EB	LTR	0.85	25.2	C	LTR	1.03	58.0	E	L	0.25	9.2	A	lane.
		-	-	-	-	-	-	-	-	TR	0.62	13.9	B	-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
	WB	LTR	0.46	10.5	B	LTR	0.60	12.6	B	L	0.29	9.9	A	approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared
		-	-	-	-	-	-	-	-	T	0.54	12.3	B	through-right lane.
		-	-	-	-	-	-	-	-	R	0.34	9.6	A	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
														-Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft
	Overall Intersection	**-**	**0.80**	**23.5**	**C**	**-**	**0.99**	**36.9**	**D**	**-**	**0.64**	**19.0**	**B**	through lane, and one 11-ft right-turn lane.
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.87	62.0	E	LTR	0.95	75.4	E	LTR	0.82	48.6	D	-Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane.
	SB	DefL	1.17	159.0	F	DefL	1.39	247.9	F	LT	1.08	109.4	F	-New signal phasing and timing plan: Shared EB/WB phase receives 55 s green time; EB lag
		TR	0.61	50.6	D	TR	0.74	57.6	E	R	0.24	20.4	C	phase with SB right-turns receives 7 s green time; NB/SB phase receives 43 s green time [each
Roosevelt Avenue	EB	-	-	-	-	-	-	-	-	-	-	-	-	phase will have 3 s amber and 2 s all red time].
		LTR	0.50	11.3	B	LTR	0.62	13.5	B	LTR	0.74	24.3	C	
	WB	LTR	0.49	11.0	B	LTR	0.59	12.7	B	LTR	0.88	39.9	D	
	Overall Intersection	**-**	**0.67**	**35.2**	**D**	**-**	**0.81**	**47.7**	**D**	**-**	**1.03**	**43.1**	**D**	

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		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.34	204.5	F	L	1.58	310.3	F	L	0.94	73.2	E	-Partially Mitigated
		TR	0.86	29.7	C	TR	0.86	29.7	C	TR	0.89	40.6	D	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	1.18	119.8	F	TR	1.26	155.4	F	T	0.98	67.1	E	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.55	30.2	C	L	0.56	30.5	C	L	0.50	35.6	D	
		TR	1.23	130.9	F	TR	1.38	197.7	F	TR	1.27	154.0	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.27	33.4	C	L	0.27	33.4	C	-	-	-	-	
		TR	0.57	30.1	C	TR	0.63	31.8	C	TR	0.48	37.0	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.33**	**91.2**	**F**	**-**	**1.50**	**128.0**	**F**	**-**	**1.10**	**72.6**	**E**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 35 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 26 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.83	45.0	D	LTR	0.83	45.0	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.93	34.5	C	DefL	0.95	37.3	D					
		TR	0.66	13.9	B	TR	0.71	15.2	B					
	WB	LTR	0.52	11.9	B	LTR	0.56	12.4	B					
	Overall Intersection	**-**	**0.90**	**25.4**	**C**	**-**	**0.91**	**25.9**	**C**					
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.65	24.0	C	T	0.65	24.0	C					-Mitigation not required.
	SB	T	0.51	21.7	C	T	0.51	21.7	C					
Roosevelt Avenue	EB	L	0.29	21.6	C	L	0.31	22.6	C					
		TR	0.73	32.5	C	TR	0.82	38.9	D					
	WB	L	0.13	16.4	B	L	0.14	16.7	B					
		TR	0.82	34.5	C	TR	0.89	40.7	D					
	Overall Intersection	**-**	**0.73**	**27.1**	**C**	**-**	**0.77**	**30.0**	**C**					
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.57	19.2	B	TR	0.57	19.2	B					-Unmitigatable impact.
	SB	LT	0.96	46.3	D	LT	0.96	46.3	D					
		R	3.00+	1000.0+	F	R	3.00+	1000.0+	F					
Roosevelt Avenue	EB	LTR	1.99	480.0	F	LTR	2.18	566.2	F					
	WB	LT	0.61	25.4	C	LT	0.67	27.4	C					
		R	0.91	77.2	E	R	0.91	77.2	E					
	Overall Intersection	**-**	**3.00+**	**478.6**	**F**	**-**	**3.00+**	**492.6**	**F**					

TABLE 3
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.63	23.7	C	LTR	0.65	24.3	C					-Mitigation not required.
	SB	LTR	0.63	23.0	C	LTR	0.63	23.0	C					
Roosevelt Avenue	EB	LTR	0.57	22.8	C	LTR	0.65	25.3	C					
	WB	LTR	0.75	29.4	C	LTR	0.80	32.2	C					
Overall Intersection		**-**	**0.69**	**24.8**	**C**	**-**	**0.72**	**26.2**	**C**					
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.82	45.4	D	L	0.85	48.4	D					-Mitigation not required.
		TR	0.62	21.9	C	TR	0.62	21.9	C					
	SB	L	0.45	20.2	C	L	0.45	20.2	C					
		TR	0.50	19.2	B	TR	0.50	19.2	B					
Kissena Boulevard	WB	T	0.71	26.3	C	T	0.71	26.3	C					
Overall Intersection		**-**	**0.76**	**23.8**	**C**	**-**	**0.78**	**24.2**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.53	21.4	C	L	0.55	23.1	C					-Mitigation not required.
		T	0.65	14.1	B	T	0.66	14.4	B					
	SB	TR	0.75	16.4	B	TR	0.77	17.0	B					
Sanford Avenue	WB	L	0.56	34.3	C	L	0.56	34.3	C					
		TR	0.36	26.9	C	TR	0.42	27.8	C					
Overall Intersection		**-**	**0.69**	**17.7**	**B**	**-**	**0.70**	**18.3**	**B**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.33	20.5	C	LTR	0.33	20.5	C					-Mitigation not required.
	SB	LTR	0.59	23.8	C	LTR	0.60	24.0	C					
Sanford Avenue	EB	DefL	0.40	18.8	B	DefL	0.41	19.3	B					
		TR	0.20	13.6	B	TR	0.20	13.6	B					
	WB	LTR	0.85	27.3	C	LTR	0.85	27.3	C					
Overall Intersection		**-**	**0.74**	**23.4**	**C**	**-**	**0.76**	**24.4**	**C**					
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.10	74.4	E	LTR	1.12	81.2	F	LTR	1.08	64.2	E	-Modify Signal Timing: Shift 1 s of green time from EB/WB phase to NB/SB phase [EB/WB
	SB	LTR	0.69	24.7	C	LTR	0.73	26.1	C	LTR	0.71	24.7	C	green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
Sanford Avenue	EB	LTR	0.55	21.9	C	LTR	0.56	22.3	C	LTR	0.58	23.4	C	
	WB	LTR	0.84	32.2	C	LTR	0.87	34.7	C	LTR	0.89	37.9	D	
Overall Intersection		**-**	**0.98**	**39.8**	**D**	**-**	**1.00**	**42.5**	**D**	**-**	**0.99**	**38.7**	**D**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.71	30.1	C	T	0.71	30.0	C					-Mitigation not required.
		TR	0.79	35.3	D	TR	0.79	35.3	D					
	SB	L	0.73	47.0	D	L	0.73	47.0	D					
		T	0.48	11.5	B	T	0.49	11.6	B					
32nd Avenue	WB	LTR	0.76	38.5	D	LTR	0.76	38.5	D					
Overall Intersection		**-**	**1.28**	**27.4**	**C**	**-**	**1.28**	**27.4**	**C**					

TABLE 3
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.51	12.9	B	TR	0.52	13.0	B					-Mitigation not required.
	SB	LT	0.83	21.6	C	LT	0.84	22.1	C					
Northern Blvd Service Rd	WB	LR	0.77	35.8	D	LR	0.83	39.8	D					
Overall Intersection		**-**	**0.81**	**20.5**	**C**	**-**	**0.84**	**21.7**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	LTR	0.07	7.2	A	LTR	0.15	7.7	A	LTR	0.37	42.6	D	-Install an actuated controller.
	SB	DefL	0.27	9.2	A	-	-	-	-	-	-	-	-	-Modify signal phasing and timing plan: EB/WB phase will have 40 s green time; NB phase will
		TR	0.17	8.0	A	LTR	0.46	10.6	B	LTR	0.61	33.2	C	have 23 s green time; SB phase will have 42 s green time [each phase will have 3 s amber and 2 s
Stadium Road	EB	-	-	-	-	DefL	0.29	28.3	C	-	-	-	-	all red time]. NB/SB pedestrians will cross during the SB phase.
		-	-	-	-	TR	0.36	28.1	C	LTR	0.35	30.5	C	[Measures reflect improvements needed for the Weekday Pre-game, and Saturday Pre- and Post-
	WB	-	-	-	-	DefL	1.59	311.4	F	-	-	-	-	game peak periods.]
		LTR	0.18	25.2	C	TR	0.78	43.1	D	LTR	0.70	37.8	D	
Overall Intersection		**-**	**0.24**	**12.4**	**B**	**-**	**0.81**	**90.1**	**F**	**-**	**0.59**	**35.6**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.3	A	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Willets Point Boulevard	WB	LR	-	12.1	B	-	-	-	-					
Overall Intersection		**-**	**-**	**10.7**	**B**	**-**	**-**	**-**	**-**					
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	18.9	C	L	-	850.5	F	L	0.16	25.0	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	8.4	A	R	-	8.7	A	R	0.05	2.4	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
		-	-	-	-	-	-	-	-	TR	0.09	36.5	D	and 2 s all red time].
Worlds Fair Marina	WB	LT	-	8.2	A	LT	-	9.7	A	L	0.60	22.9	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.42	19.0	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.4**	**A**	**-**	**-**	**165.4**	**F**	**-**	**0.39**	**21.2**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	10.6	B	TR	-	10.6	B					-Mitigation not required.
Overall Intersection		**-**	**-**	**10.6**	**B**	**-**	**-**	**10.6**	**B**					
Boat Basin Road at Stadium Road / Citifield Entrance 8														
Citifield Entrance 8	NB	T	-	11.3	B	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Boat Basin Road	SB	LT	-	11.3	B	-	-	-	-					
Stadium Road	EB	LT	-	7.4	A	-	-	-	-					
Overall Intersection		**-**	**-**	**8.6**	**A**	**-**	**-**	**-**	**-**					

TABLE 3
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.07	30.9	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have
	SB	-	-	-	-	LT	-	7.8	A	L	0.53	41.2	D	25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.48	36.9	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	10.7	B	L	-	31.4	D	L	0.18	25.8	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	192.5	F	T	0.60	34.3	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.2	A	R	-	10.2	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.69	50.0	D	
		-	-	-	-	R	-	8.8	A	R	0.22	41.2	D	
	Overall Intersection	**-**	**-**	**10.2**	**B**	**-**	**-**	**1000.0+**	**F**	**-**	**0.60**	**39.5**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.36	21.8	C	TR	0.36	21.8	C	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	LT	0.58	19.3	B	LT	0.55	18.8	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	14.9	B	L	0.07	25.6	C	L	0.07	25.6	C	
		-	-	-	-	R	0.11	18.9	B	R	0.11	18.9	B	
	Overall Intersection	**-**	**-**	**10.7**	**B**	**-**	**0.36**	**20.5**	**C**	**-**	**0.35**	**20.2**	**C**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.26	15.0	B	TR	0.26	15.0	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.3	A	LT	0.39	9.9	A	LT	0.38	9.7	A	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.5	B	L	0.10	35.1	D	L	0.10	35.1	D	
		-	-	-	-	R	0.29	27.9	C	R	0.29	27.9	C	
	Overall Intersection	**-**	**-**	**10.6**	**B**	**-**	**0.29**	**14.5**	**B**	**-**	**0.28**	**14.4**	**B**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	15.9	C	R	-	16.7	C	R	0.11	39.3	D	-Mitigation not required.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.53	8.6	A	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
	Overall Intersection	**-**	**-**	**15.9**	**C**	**-**	**-**	**16.7**	**C**	**-**	**0.43**	**9.1**	**A**	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. -Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. -Intersection meets NYCDOT Signal Warrant Criteria.

Notes

(1): Control delay is measured in seconds per vehicle.
(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 4
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.56	45.8	D	DefL	0.68	52.5	D					-Unmitigatable impact.
		T	0.21	35.6	D	T	0.21	35.6	D					
	SB	LTR	0.38	38.9	D	LTR	0.38	38.9	D					
Astoria Boulevard	EB	TR	0.88	26.4	C	TR	0.91	27.5	C					
	WB	L	0.71	45.3	D	L	0.71	45.6	D					
		TR	0.33	9.7	A	TR	0.35	9.9	A					
Overall Intersection		**-**	**0.78**	**25.2**	**C**	**-**	**0.84**	**26.3**	**C**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.12	107.1	F	LTR	1.49	267.6	F	L	0.78	51.2	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.89	49.6	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.09	102.2	F	LTR	1.12	112.7	F	L	0.55	48.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.83	51.1	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.15	33.0	C	L	0.15	36.2	D	L	0.17	34.2	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.82	13.5	B	TR	0.87	14.8	B	TR	0.83	11.6	B	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.65	40.5	D	L	0.66	43.0	D	L	0.73	43.6	D	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.12	81.4	F	TR	1.17	104.6	F	TR	1.13	81.8	F	and one 12-ft shared through-right lane for 175 ft.
Overall Intersection		**-**	**1.05**	**52.4**	**D**	**-**	**1.17**	**73.9**	**E**	**-**	**0.99**	**44.4**	**D**	-Modify signal timing: shift 2 s green time from EB/WB left-turn phase to EB/WB phase; shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 71 s to 74 s;
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.38	45.6	D	LTR	0.45	47.2	D	LTR	0.51	37.4	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	1.12	74.4	E	T	1.18	100.1	F	T	1.02	24.7	C	exclusive through lanes.
		R	0.82	17.1	B	R	0.85	17.8	B	R	0.73	8.7	A	-Divert left-turning turning to NB 112th Street and then to SB 114th Street.
	WB	DefL	0.85	55.6	E	DefL	1.03	89.8	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.90	17.0	B	T	0.94	20.1	C	T	0.85	20.1	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.53**	**41.6**	**D**	**-**	**1.61**	**55.1**	**E**	**-**	**0.86**	**21.8**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.42	43.1	D	L	0.62	47.4	D	L	0.62	47.4	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
		R	0.27	41.1	D	R	1.39	251.4	F	R	0.49	44.9	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
Northern Boulevard	EB	T	1.21	154.8	F	T	1.21	154.8	F	T	1.07	94.2	F	through the intersection.
	WB	T	0.39	7.6	A	T	0.43	7.9	A	T	0.43	7.9	A	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Grand Central Parkway Ramp	EB	T	0.73	29.7	C	T	0.73	29.7	C	T	0.77	33.2	C	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.88	23.0	C	T	1.12	83.0	F	-	-	-	-	-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.77**	**48.8**	**D**	**-**	**1.18**	**74.9**	**E**	**-**	**0.81**	**46.6**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. -Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd ramp green time shifts from 55 s to 52 s].

TABLE 4
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2018 PHASE 1A WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.17	122.7	F	LTR	1.17	122.7	F					-Unmitigatable Impact.
	SB	LTR	0.51	41.4	D	LTR	0.51	41.4	D					
Northern Boulevard (Rt. 25A)	EB	L	0.60	45.4	D	L	0.60	45.4	D					
		T	0.95	35.7	D	T	0.99	42.2	D					
	WB	L	0.79	70.6	E	L	0.79	70.6	E					
		T	1.12	98.3	F	T	1.16	113.1	F					
Northern Boulevard Service Rd.	EB	TR	0.64	27.1	C	TR	0.64	27.1	C					
	WB	TR	0.65	34.8	C	TR	0.71	37.6	D					
Overall Intersection		**-**	**1.00**	**62.0**	**E**	**-**	**1.02**	**69.4**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.95	59.2	E	L	0.95	59.2	E					-Unmitigatable Impact.
		R	0.95	71.2	E	R	0.95	71.2	E					
Northern Boulevard (Rt 25A)	EB	T	1.05	59.7	E	T	1.10	78.3	E					
		R	1.16	115.7	F	R	1.16	115.7	F					
	WB	L	0.16	26.7	C	L	0.16	26.7	C					
		T	0.75	22.5	C	T	0.80	23.9	C					
Overall Intersection		**-**	**1.06**	**54.5**	**D**	**-**	**1.06**	**61.7**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.76	37.8	D	TR	0.76	37.8	D	TR	0.80	40.9	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
	SB	TR	0.81	38.7	D	TR	0.81	38.7	D	TR	0.84	42.0	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Northern Boulevard (Rt. 25A)	EB	L	0.75	41.8	D	L	0.75	42.2	D	L	0.75	34.5	C	
		TR	1.11	87.6	F	TR	1.16	108.1	F	TR	1.11	84.3	F	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB
	WB	L	0.84	47.5	D	L	0.84	47.9	D	L	0.84	47.9	D	green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].
		TR	0.90	39.9	D	TR	0.97	45.8	D	TR	0.69	31.1	C	
Overall Intersection		**-**	**0.97**	**59.2**	**E**	**-**	**0.99**	**69.4**	**E**	**-**	**0.98**	**56.4**	**E**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.81	65.4	E	L	0.83	67.6	E	L	0.82	65.6	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.49	35.0	D	TR	0.49	35.0	D	TR	0.47	34.0	C	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.09	86.3	F	LTR	1.12	99.9	F	LT	0.68	34.7	C	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.42	33.4	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.42	44.2	D	L	0.46	45.9	D	L	0.53	48.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	0.98	42.1	D	TR	1.03	55.2	E	TR	0.99	42.0	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	-	-	-	-	-Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to NB/SB
	WB	L	0.35	38.9	D	L	0.35	39.7	D	L	0.41	41.7	D	phase and 2 s green time from EB/WB protected left-turn phase to EB/WB phase [NB/SB green
		TR	1.11	87.4	F	TR	1.18	118.1	F	T	0.96	38.0	D	time shifts from 36 s to 37 s; EB/WB protected left-turn green time shifts from 12 s to 9 s;
		-	-	-	-	-	-	-	-	R	0.31	22.8	C	EB/WB green time shifts from 50 s to 52 s].
Overall Intersection		**-**	**1.05**	**61.8**	**E**	**-**	**1.07**	**79.2**	**E**	**-**	**0.99**	**40.2**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.98	56.6	E	L	1.06	78.2	E	L	0.95	49.6	D	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.39	25.9	C	T	0.47	27.1	C	T	0.42	24.2	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.37	11.3	B	T	0.37	11.3	B	T	0.40	13.2	B	
		R	0.07	8.5	A	R	0.07	8.5	A	R	0.07	9.9	A	
Overall Intersection		**-**	**0.58**	**34.5**	**C**	**-**	**0.61**	**45.4**	**D**	**-**	**0.61**	**32.1**	**C**	

TABLE 4
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	0.35	23.5	C	DefL	0.62	32.5	C	L	0.30	22.1	C	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
		TR	0.27	21.1	C	TR	0.34	22.1	C	TR	0.31	21.1	C	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
Northern Boulevard Ramp	SB	LTR	0.27	21.6	C	LTR	0.42	24.2	C	-	-	-	-	II bicycle lane.
GCP Ramp	SB	LTR	0.74	58.6	E	LTR	1.93	475.9	F	L	0.02	17.9	B	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
		-	-	-	-	-	-	-	-	T	0.16	19.3	B	and two 11-ft EB receiving lanes.
Shea Road	EB	-	-	-	-	DefL	2.01	524.7	F	DefL	0.52	27.4	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		LTR	0.43	42.4	D	TR	1.59	335.8	F	TR	0.34	22.5	C	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		-	-	-	-	-	-	-	-	DefL	0.47	25.5	C	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
34th Avenue	WB	LTR	0.95	86.9	F	LTR	1.22	178.5	F	TR	0.44	24.1	C	11-ft travel lanes.
														-Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase
	Overall Intersection	**-**	**0.59**	**41.8**	**D**	**-**	**1.28**	**253.4**	**F**	**-**	**0.41**	**22.8**	**C**	will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.06	85.6	F	LTR	1.10	99.7	F	LT	0.87	50.1	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.35	37.9	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.15	114.9	F	LTR	1.16	120.0	F	LT	0.90	48.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.38	37.8	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.72	9.3	A	LTR	0.79	11.4	B	LTR	0.79	11.4	B	
	WB	LTR	0.82	17.1	B	LTR	0.92	22.6	C	LTR	0.92	22.6	C	
	Overall Intersection	**-**	**0.91**	**43.2**	**D**	**-**	**0.98**	**47.3**	**D**	**-**	**0.91**	**26.9**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.83	54.4	D	LTR	0.83	54.4	D	LTR	0.83	54.4	D	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.77	10.2	B	LTR	0.85	13.5	B	LTR	0.89	17.2	B	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.20	113.5	F	LTR	1.30	156.4	F	LT	1.06	56.2	E	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.15	7.6	A	
	Overall Intersection	**-**	**1.10**	**67.6**	**E**	**-**	**1.17**	**89.5**	**F**	**-**	**1.00**	**39.8**	**D**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.95	57.8	E	LTR	1.01	71.8	E	LTR	0.92	52.1	D	-Shift the centerline of the SB 114th Street approach 2 feet to the east.
	SB	LTR	1.05	77.6	E	LTR	1.22	144.5	F	LT	0.83	41.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach
		-	-	-	-	-	-	-	-	R	0.12	32.7	C	150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn
Roosevelt Avenue	EB	LTR	0.89	17.4	B	LTR	1.07	57.1	E	L	0.33	12.4	B	lane.
		-	-	-	-	-	-	-	-	TR	0.70	9.8	A	-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
	WB	LTR	0.72	15.0	B	LTR	0.88	22.4	C	L	0.62	18.4	B	approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared
		-	-	-	-	-	-	-	-	T	0.79	20.5	C	through-right lane.
		-	-	-	-	-	-	-	-	R	0.44	12.1	B	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
														-Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft
	Overall Intersection	**-**	**0.94**	**27.6**	**C**	**-**	**1.11**	**49.0**	**D**	**-**	**0.83**	**22.1**	**C**	through lane, and one 11-ft right-turn lane.
														-Modify Signal Timing: Shift 3 s of green time from EB/WB phase to NB/SB phase [EB/WB
														green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.64	52.2	D	LTR	0.71	58.2	E	LTR	0.71	52.7	D	-Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane.
	SB	DefL	1.01	95.7	F	DefL	1.16	143.2	F	LT	1.04	94.2	F	-New signal phasing and timing plan: Shared EB/WB phase receives 59 s green time; EB lag
		TR	0.64	47.1	D	TR	0.76	53.4	D	R	0.37	24.9	C	phase with SB right-turns receives 7 s green time; NB/SB phase receives 39 s green time [each
Roosevelt Avenue	EB	-	-	-	-	DefL	0.75	30.8	C	DefL	0.63	45.4	D	phase will have 3 s amber and 2 s all red time].
		LTR	0.68	7.5	A	TR	0.65	7.4	A	TR	0.74	15.2	B	
	WB	LTR	0.59	12.4	B	LTR	0.67	14.0	B	LTR	0.91	39.7	D	
	Overall Intersection	**-**	**0.77**	**26.0**	**C**	**-**	**0.86**	**34.6**	**C**	**-**	**1.45**	**40.4**	**D**	

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.22	171.2	F	L	1.43	254.8	F	L	0.85	64.6	E	-Partially Mitigated
		TR	0.74	30.5	C	TR	0.74	30.5	C	TR	0.79	35.1	D	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	1.30	181.6	F	TR	1.35	204.5	F	T	1.20	145.2	F	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.47	37.0	D	L	0.49	37.3	D	L	0.47	35.0	C	
		TR	1.18	115.0	F	TR	1.32	179.5	F	TR	1.22	132.5	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.24	43.6	D	L	0.24	43.6	D	-	-	-	-	
		TR	0.44	35.7	D	TR	0.50	37.1	D	TR	0.51	43.1	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.29**	**111.6**	**F**	**-**	**1.43**	**140.3**	**F**	**-**	**1.15**	**91.5**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 28 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 27 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.58	32.6	C	LTR	0.58	32.6	C	LTR	0.61	34.9	C	-Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].
Roosevelt Avenue	EB	DefL	1.07	85.6	F	DefL	1.10	95.6	F	DefL	1.05	78.9	E	
		TR	0.67	24.6	C	TR	0.74	27.2	C	TR	0.72	24.9	C	
	WB	LTR	0.59	20.5	C	LTR	0.64	21.4	C	LTR	0.62	19.9	B	
	Overall Intersection	**-**	**0.86**	**40.3**	**D**	**-**	**0.88**	**42.4**	**D**	**-**	**0.87**	**38.1**	**D**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.50	20.8	C	T	0.50	20.8	C	T	0.53	23.9	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].
	SB	T	0.54	21.9	C	T	0.54	21.9	C	T	0.58	25.2	C	
Roosevelt Avenue	EB	L	0.45	40.3	D	L	0.49	44.8	D	L	0.42	35.6	D	
		TR	0.87	58.2	E	TR	1.01	86.5	F	TR	0.92	62.1	E	
	WB	L	0.19	26.6	C	L	0.21	27.1	C	L	0.18	23.9	C	
		TR	0.99	65.1	E	TR	1.07	89.1	F	TR	0.98	59.3	E	
	Overall Intersection	**-**	**0.72**	**37.2**	**D**	**-**	**0.75**	**48.9**	**D**	**-**	**0.75**	**39.4**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.40	16.5	B	TR	0.40	16.5	B					-Unmitigatable Impact.
	SB	LT	0.88	32.8	C	LT	0.88	32.8	C					
		R	2.48	705.0	F	R	2.48	705.0	F					
Roosevelt Avenue	EB	LTR	1.80	393.4	F	LTR	2.01	484.2	F					
	WB	LT	0.55	24.2	C	LT	0.61	25.9	C					
		R	1.11	133.8	F	R	1.11	133.8	F					
	Overall Intersection	**-**	**2.17**	**211.2**	**F**	**-**	**2.26**	**235.4**	**F**					

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2018 PHASE 1A WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.82	37.6	D	LTR	0.85	40.2	D	LT	0.78	36.3	D	-Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.07	19.4	B	time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s.
	SB	LTR	0.69	29.9	C	LTR	0.69	29.9	C	LTR	0.71	32.2	C	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.49	25.7	C	LTR	0.58	28.4	C	LTR	0.56	26.4	C	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.74	33.9	C	LTR	0.80	37.5	D	LTR	0.77	33.9	C	[Measures reflect improvements needed for the Weekday Non-game AM and Weekday Pre-game
Overall Intersection		**-**	**0.78**	**32.3**	**C**	**-**	**0.83**	**34.3**	**C**	**-**	**0.78**	**32.3**	**C**	PM peak periods.]
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.74	36.2	D	L	0.75	37.1	D					-Mitigation not required.
		TR	0.57	22.1	C	TR	0.57	22.1	C					
	SB	L	0.82	49.5	D	L	0.82	49.5	D					
		TR	0.45	19.2	B	TR	0.45	19.2	B					
Kissena Boulevard	WB	T	0.64	34.9	C	T	0.64	34.9	C					
Overall Intersection		**-**	**0.78**	**28.7**	**C**	**-**	**0.78**	**28.9**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.51	30.5	C	L	0.51	30.5	C					-Mitigation not required.
		T	0.59	13.0	B	T	0.60	13.2	B					
	SB	TR	0.96	29.4	C	TR	0.99	34.9	C					
Sanford Avenue	WB	L	0.75	44.9	D	L	0.75	44.9	D					
		TR	0.35	26.7	C	TR	0.41	27.6	C					
Overall Intersection		**-**	**0.89**	**25.1**	**C**	**-**	**0.91**	**28.1**	**C**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.29	20.0	C	LTR	0.29	20.0	C					-Mitigation not required.
	SB	LTR	0.70	25.9	C	LTR	0.72	26.3	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.31	14.6	B	LTR	0.31	14.6	B					
	WB	LTR	0.66	21.6	C	LTR	0.69	22.4	C					
Overall Intersection		**-**	**0.68**	**21.8**	**C**	**-**	**0.70**	**22.2**	**C**					
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.86	31.2	C	LTR	0.87	32.6	C					-Mitigation not required.
	SB	LTR	0.75	26.2	C	LTR	0.82	30.0	C					
Sanford Avenue	EB	LTR	0.68	25.3	C	LTR	0.70	26.0	C					
	WB	LTR	0.77	28.9	C	LTR	0.80	30.5	C					
Overall Intersection		**-**	**0.81**	**28.0**	**C**	**-**	**0.84**	**29.9**	**C**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.49	25.1	C	T	0.50	25.2	C					-Mitigation not required.
		TR	0.91	44.7	D	TR	0.91	44.7	D					
	SB	L	0.47	34.3	C	L	0.47	34.3	C					
		T	0.42	10.8	B	T	0.43	10.8	B					
32nd Avenue	WB	LTR	0.87	42.4	D	LTR	0.87	42.4	D					
Overall Intersection		**-**	**1.14**	**28.2**	**C**	**-**	**1.14**	**28.1**	**C**					

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.54	13.3	B	TR	0.55	13.4	B					-Mitigation not required.
	SB	LT	0.82	21.4	C	LT	0.83	22.0	C					
Northern Blvd Service Rd	WB	LR	0.71	33.6	C	LR	0.77	36.4	D					
Overall Intersection		**-**	**0.78**	**19.8**	**B**	**-**	**0.81**	**20.7**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	LTR	0.05	7.1	A	LTR	0.22	8.2	A	LTR	0.46	43.5	D	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Modify signal phasing and timing plan: EB/WB phase will have 40 s green time; NB phase will
Stadium Road		LTR	0.22	8.2	A	LTR	0.59	12.1	B	LTR	0.61	33.1	C	have 23 s green time; SB phase will have 42 s green time [each phase will have 3 s amber and 2 s
	EB	-	-	-	-	DefL	0.81	79.1	E	DefL	0.49	34.2	C	all red time]. NB/SB pedestrians will cross during the SB phase.
		-	-	-	-	TR	0.38	28.6	C	TR	0.32	30.2	C	
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.29	26.3	C	LTR	0.95	54.8	D	LTR	0.70	37.3	D	
Overall Intersection		**-**	**0.24**	**14.7**	**B**	**-**	**0.70**	**28.4**	**C**	**-**	**0.61**	**36.0**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.3	A	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Willets Point Boulevard	WB	LR	-	14.7	B	-	-	-	-					
Overall Intersection		**-**	**-**	**12.1**	**B**	**-**	**-**	**-**	**-**					
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	16.2	C	L	-	571.4	F	L	0.19	25.3	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	8.8	A	R	-	9.1	A	R	0.08	2.5	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
		-	-	-	-	-	-	-	-	TR	0.08	36.4	D	and 2 s all red time].
Worlds Fair Marina	WB	LT	-	7.8	A	LT	-	8.9	A	L	0.52	21.0	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.41	18.8	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.0**	**A**	**-**	**-**	**128.9**	**F**	**-**	**0.35**	**19.7**	**B**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.8	A	TR	-	9.9	A					-Mitigation not required.
Overall Intersection		**-**	**-**	**9.8**	**A**	**-**	**-**	**9.9**	**A**					
Boat Basin Road at Stadium Road / Citifield Entrance 8														
Citifield Entrance 8	NB	T	-	10.7	B	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Boat Basin Road	SB	LT	-	11.3	B	-	-	-	-					
Stadium Road	EB	LT	-	7.4	A	-	-	-	-					
Overall Intersection		**-**	**-**	**9.2**	**A**	**-**	**-**	**-**	**-**					

TABLE 4
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.08	31.0	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have
	SB	-	-	-	-	LT	-	7.8	A	L	0.47	39.3	D	25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.54	38.2	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	10.6	B	L	-	24.6	C	L	0.17	25.6	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	105.9	F	T	0.52	32.0	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.4	A	R	-	10.5	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.86	56.4	E	
		-	-	-	-	R	-	9.0	A	R	0.27	42.0	D	
	Overall Intersection	**-**	**-**	**10.0**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.60**	**42.9**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.35	21.6	C	TR	0.35	21.6	C	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	LT	0.46	16.9	B	LT	0.44	16.6	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	11.7	B	L	0.07	25.6	C	L	0.07	25.6	C	
		-	-	-	-	R	0.23	20.6	C	R	0.23	20.6	C	
	Overall Intersection	**-**	**-**	**10.9**	**B**	**-**	**0.30**	**19.4**	**B**	**-**	**0.29**	**19.3**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.27	15.2	B	TR	0.27	15.2	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	LT	0.34	9.2	A	LT	0.33	9.1	A	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.5	B	L	0.10	35.1	D	L	0.10	35.1	D	
		-	-	-	-	R	0.17	25.9	C	R	0.17	25.9	C	
	Overall Intersection	**-**	**-**	**11.0**	**B**	**-**	**0.29**	**13.6**	**B**	**-**	**0.29**	**13.6**	**B**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	18.7	C	R	-	19.9	C	R	0.11	39.3	D	-Mitigation not required.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.60	9.5	A	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
	Overall Intersection	**-**	**-**	**18.7**	**C**	**-**	**-**	**19.9**	**C**	**-**	**0.49**	**9.9**	**A**	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
														-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 5
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.50	27.1	C	DefL	0.62	30.8	C					-Mitigation not required.
		T	0.20	21.0	C	T	0.20	21.0	C					
	SB	LTR	0.25	21.6	C	LTR	0.25	21.6	C					
Astoria Boulevard	EB	TR	0.92	31.8	C	TR	1.00	42.0	D					
	WB	L	0.54	23.2	C	L	0.54	23.9	C					
		TR	0.35	12.5	B	TR	0.38	12.7	B					
Overall Intersection		**-**	**0.73**	**24.6**	**C**	**-**	**0.81**	**30.4**	**C**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.09	97.2	F	LTR	1.50	274.3	F	L	0.68	47.2	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.86	50.3	D	from the intersection to allow for two moving lanes.
	SB	LTR	0.89	63.5	E	LTR	0.93	69.3	E	L	0.50	49.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.62	47.2	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.17	37.8	D	L	0.17	41.3	D	L	0.17	36.5	D	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.92	30.4	C	TR	1.01	45.4	D	TR	0.95	31.2	C	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.69	41.3	D	L	0.76	46.6	D	L	0.71	42.5	D	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.16	101.1	F	TR	1.22	128.0	F	TR	1.15	94.8	F	and one 12-ft shared through-right lane for 175 ft.
Overall Intersection		**-**	**1.06**	**69.5**	**E**	**-**	**1.23**	**102.9**	**F**	**-**	**1.01**	**61.8**	**E**	-Modify signal timing: shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 66 s to 70 s; NB/SB phase shifts from 30 s to 26 s].
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.36	43.4	D	LTR	0.43	45.0	D	LTR	0.52	37.7	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.70	23.3	C	T	0.77	25.6	C	T	0.65	15.5	B	exclusive through lanes.
		R	0.58	22.2	C	R	0.62	23.1	C	R	0.52	14.2	B	-Divert left-turning turning to NB 112th Street and then to SB 114th Street.
	WB	DefL	0.68	17.8	B	DefL	0.91	43.8	D	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.97	23.5	C	T	1.01	33.1	C	T	0.92	22.6	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.29**	**23.6**	**C**	**-**	**1.32**	**31.1**	**C**	**-**	**0.79**	**21.4**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. [Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.43	43.4	D	L	0.65	48.4	D	L	0.63	46.8	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
		R	0.34	42.2	D	R	2.34	670.7	F	R	0.56	45.9	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
Northern Boulevard	EB	T	0.72	42.8	D	T	0.72	42.8	D	T	0.78	44.0	D	through the intersection.
	WB	T	0.30	6.9	A	T	0.34	7.2	A	T	0.34	7.6	A	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Grand Central Parkway Ramp	EB	T	0.83	40.8	D	T	0.83	40.8	D	T	0.84	42.7	D	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.73	14.7	B	T	1.01	46.9	D	-	-	-	-	-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.66**	**29.1**	**C**	**-**	**1.31**	**83.8**	**F**	**-**	**0.77**	**36.3**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. -Modify signal timing: shift 1 s of green time from EB GCP/Astoria Blvd ramp phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 26 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 44 s].

TABLE 5
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.10	91.6	F	LTR	1.10	91.6	F					-Unmitigatable Impact.
	SB	LTR	0.45	36.6	D	LTR	0.45	36.6	D					
Northern Boulevard (Rt. 25A)	EB	L	0.65	49.1	D	L	0.65	49.1	D					
		T	1.04	56.8	E	T	1.09	77.0	E					
	WB	L	0.80	63.5	E	L	0.80	63.5	E					
		T	1.14	102.8	F	T	1.19	121.3	F					
Northern Boulevard Service Rd.	EB	TR	0.61	25.5	C	TR	0.61	25.5	C					
	WB	TR	0.73	34.3	C	TR	0.81	38.5	D					
Overall Intersection		**-**	**1.02**	**69.7**	**E**	**-**	**1.05**	**83.6**	**F**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.92	54.6	D	L	0.92	54.6	D					-Unmitigatable Impact.
		R	0.87	58.7	E	R	0.87	58.7	E					
Northern Boulevard (Rt 25A)	EB	T	0.94	37.8	D	T	0.99	46.3	D					
		R	1.34	192.6	F	R	1.34	192.6	F					
	WB	L	0.08	25.1	C	L	0.08	25.1	C					
		T	0.92	28.1	C	T	0.98	34.5	C					
Overall Intersection		**-**	**1.12**	**56.8**	**E**	**-**	**1.12**	**60.9**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.75	37.3	D	TR	0.75	37.3	D	TR	0.80	41.9	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
	SB	TR	0.63	33.9	C	TR	0.63	33.9	C	TR	0.68	37.4	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Northern Boulevard (Rt. 25A)	EB	L	0.71	32.5	C	L	0.71	32.9	C	L	0.71	31.4	C	
		TR	1.43	229.9	F	TR	1.50	263.0	F	TR	1.40	217.8	F	-Modify Signal Timing: Shift 3 s of green time from NB/SB phase to EB/WB phase [NB/SB
	WB	L	0.85	45.5	D	L	0.85	45.5	D	L	0.85	32.8	C	green time shifts from 44 s to 41 s; EB/WB green time shifts from 45 s to 48 s].
		TR	1.00	49.3	D	TR	1.08	76.8	E	TR	0.76	31.6	C	
Overall Intersection		**-**	**1.08**	**114.1**	**F**	**-**	**1.11**	**136.3**	**F**	**-**	**1.11**	**105.3**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.81	63.9	E	L	0.84	67.3	E	L	0.78	59.4	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.58	40.3	D	TR	0.58	40.3	D	TR	0.58	40.3	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.10	89.9	F	LTR	1.14	106.9	F	LT	0.72	36.2	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.36	33.3	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.49	46.7	D	L	0.52	46.4	D	L	0.52	47.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.06	65.4	E	TR	1.13	97.4	F	T	0.89	33.7	C	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.57	27.8	C	
	WB	L	0.48	43.2	D	L	0.47	44.5	D	L	0.48	41.9	D	
		TR	1.14	96.3	F	TR	1.22	133.2	F	T	1.04	52.5	D	
		-	-	-	-	-	-	-	-	R	0.30	22.3	C	
Overall Intersection		**-**	**1.07**	**76.9**	**E**	**-**	**1.15**	**104.5**	**F**	**-**	**0.93**	**42.5**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.96	57.2	E	L	1.08	90.1	F	L	0.98	57.5	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.33	25.2	C	T	0.42	26.6	C	T	0.38	23.8	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.56	13.8	B	T	0.56	13.8	B	T	0.59	16.2	B	
		R	0.10	8.7	A	R	0.10	8.7	A	R	0.11	10.2	B	
Overall Intersection		**-**	**0.70**	**31.3**	**C**	**-**	**0.74**	**45.4**	**D**	**-**	**0.74**	**33.2**	**C**	

TABLE 5
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	0.38	25.3	C	L	0.22	20.6	-	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
		LTR	0.25	20.8	C	TR	0.35	22.2	C	TR	0.31	21.1	C	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
Northern Boulevard Ramp	SB	LTR	0.35	23.0	C	LTR	0.64	30.2	C	-	-	-	-	II bicycle lane.
GCP Ramp	SB	LTR	0.80	62.9	E	LTR	1.94	483.1	F	L	0.05	18.4	B	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
		-	-	-	-	-	-	-	-	T	0.17	19.4	B	and two 11-ft EB receiving lanes.
Shea Road	EB	-	-	-	-	DefL	2.55	759.9	F	DefL	0.70	34.2	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		LTR	0.61	46.1	D	TR	2.13	571.0	F	TR	0.41	23.6	C	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		-	-	-	-	-	-	-	-	DefL	0.52	27.1	C	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
34th Avenue	WB	LTR	0.79	64.3	E	LTR	0.90	82.3	F	TR	0.41	23.6	C	11-ft travel lanes.
														-Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB phase
	Overall Intersection	**-**	**0.57**	**39.7**	**D**	**-**	**1.43**	**330.6**	**F**	**-**	**0.51**	**24.2**	**C**	will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.16	119.5	F	LTR	1.20	139.1	F	LT	1.03	71.8	E	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.37	37.7	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.11	100.5	F	LTR	1.12	105.3	F	LT	0.98	57.3	E	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.28	36.6	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.69	15.9	B	LTR	0.76	18.8	B	LTR	0.76	18.8	B	
	WB	LTR	0.76	14.5	B	LTR	0.86	17.4	B	LTR	0.86	17.4	B	
	Overall Intersection	**-**	**0.87**	**48.1**	**D**	**-**	**0.95**	**52.0**	**D**	**-**	**0.91**	**31.4**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.03	69.7	E	LTR	1.03	69.7	E	LTR	1.03	69.7	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.83	21.6	C	LTR	0.94	32.7	C	LTR	0.94	33.0	C	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.17	100.6	F	LTR	1.30	158.3	F	LT	1.04	45.5	D	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.18	7.7	A	
	Overall Intersection	**-**	**1.13**	**65.1**	**E**	**-**	**1.23**	**94.6**	**F**	**-**	**1.04**	**42.6**	**D**	
114th Street at Roosevelt Avenue														-Shift the centerline of the SB 114th Street approach 2 feet to the east.
114th Street	NB	LTR	0.99	64.4	E	LTR	1.10	98.5	F	LTR	0.96	54.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach
	SB	LTR	1.06	80.1	F	LTR	1.27	168.9	F	LT	0.93	45.7	D	150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn
		-	-	-	-	-	-	-	-	R	0.05	31.3	C	lane.
Roosevelt Avenue	EB	LTR	1.15	93.9	F	LTR	1.51	254.0	F	L	0.43	12.5	B	-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
		-	-	-	-	-	-	-	-	TR	0.74	16.9	B	approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared
	WB	LTR	0.67	13.9	B	LTR	0.91	24.6	C	L	0.69	23.8	C	through-right lane.
		-	-	-	-	-	-	-	-	T	0.69	17.4	B	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
		-	-	-	-	-	-	-	-	R	0.63	16.5	B	-Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft
	Overall Intersection	**-**	**1.12**	**51.4**	**D**	**-**	**1.44**	**111.6**	**F**	**-**	**0.80**	**24.6**	**C**	through lane, and one 11-ft right-turn lane.
														-Modify Signal Timing: Shift 4 s of green time from EB/WB phase to NB/SB phase [EB/WB
														green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.35	40.1	D	LTR	0.38	41.3	D	LTR	0.33	31.4	C	-Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane.
	SB	DefL	1.08	116.7	F	DefL	1.20	162.9	F	LT	0.92	64.0	E	-New signal phasing and timing plan: Shared EB/WB phase receives 56 s green time; EB lag
		TR	0.52	43.4	D	TR	0.66	48.7	D	R	0.34	22.7	C	phase with SB right-turns receives 7 s green time; NB/SB phase receives 42 s green time [each
Roosevelt Avenue	EB	-	-	-	-	-	-	-	-	DefL	0.64	45.0	D	phase will have 3 s amber and 2 s all red time].
		LTR	0.66	14.3	B	LTR	0.80	19.5	B	TR	0.81	27.9	C	
	WB	LTR	0.47	10.6	B	LTR	0.59	12.3	B	LTR	0.85	35.3	D	
	Overall Intersection	**-**	**0.77**	**30.8**	**C**	**-**	**0.91**	**38.8**	**D**	**-**	**1.43**	**36.6**	**D**	

TABLE 5
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

			No Action			With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.27	172.5	F	L	1.54	288.3	F	L	0.96	75.0	E	-Partially Mitigated
		TR	0.91	32.0	C	TR	0.91	32.0	C	TR	0.88	36.8	D	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	0.99	50.4	D	TR	1.07	75.5	E	T	0.87	48.7	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.56	20.7	C	L	0.57	20.9	C	L	0.55	25.1	-	
		TR	1.21	120.9	F	TR	1.39	200.6	F	TR	1.29	163.4	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.33	34.2	C	L	0.33	34.2	C	-	-	-	-	
		TR	0.48	26.9	C	TR	0.55	28.3	C	TR	0.56	42.3	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.24**	**64.2**	**E**	**-**	**1.39**	**100.6**	**F**	**-**	**1.09**	**67.7**	**E**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.94	54.2	D	LTR	0.94	54.2	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.78	19.1	B	DefL	0.81	20.5	C					
		TR	0.73	15.2	B	TR	0.79	17.2	B					
	WB	LTR	0.56	12.4	B	LTR	0.61	13.3	B					
	Overall Intersection	**-**	**0.83**	**24.1**	**C**	**-**	**0.85**	**24.6**	**C**					
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.74	25.8	C	T	0.74	25.8	C	T	0.83	32.2	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
	SB	T	0.65	24.0	C	T	0.65	24.0	C	T	0.73	28.9	C	
Roosevelt Avenue	EB	L	0.22	19.5	B	L	0.24	20.5	C	L	0.20	16.5	B	
		TR	0.91	47.6	D	TR	1.04	75.3	E	TR	0.93	46.4	D	
	WB	L	0.03	14.8	B	L	0.04	14.9	B	L	0.03	12.6	B	
		TR	0.84	31.3	C	TR	0.93	38.4	D	TR	0.84	28.1	C	
	Overall Intersection	**-**	**0.82**	**30.4**	**C**	**-**	**0.89**	**38.0**	**D**	**-**	**0.89**	**33.3**	**C**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.55	18.8	B	TR	0.55	18.8	B					-Unmitigatable impact.
	SB	LT	1.02	56.1	E	LT	1.02	56.1	E					
		R	2.75	822.2	F	R	2.75	822.2	F					
Roosevelt Avenue	EB	LTR	2.28	607.1	F	LTR	2.55	728.2	F					
	WB	LT	0.54	23.4	C	LT	0.61	25.3	C					
		R	1.29	208.0	F	R	1.29	208.0	F					
	Overall Intersection	**-**	**2.54**	**301.8**	**F**	**-**	**2.66**	**337.9**	**F**					

TABLE 5
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2018 PHASE 1A SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.83	32.2	C	LTR	0.86	34.6	C	LTR	0.89	39.0	D	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	LTR	0.77	26.5	C	LTR	0.77	26.5	C	LTR	0.79	28.1	C	green time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s].
Roosevelt Avenue	EB	LTR	0.73	27.4	C	LTR	0.84	34.2	C	LTR	0.82	31.6	C	
	WB	LTR	0.84	34.3	C	LTR	0.93	45.4	D	LTR	0.90	39.9	D	
Overall Intersection		**-**	**0.84**	**29.9**	**C**	**-**	**0.90**	**34.7**	**C**	**-**	**0.90**	**34.4**	**C**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	1.12	114.7	F	L	1.15	123.2	F	L	1.10	106.9	F	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.67	22.9	C	TR	0.67	22.9	C	TR	0.66	21.8	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.53	21.6	C	L	0.53	21.6	C	L	0.55	22.6	C	
		TR	0.56	19.9	B	TR	0.56	19.9	B	TR	0.54	19.1	B	
Kissena Boulevard	WB	T	0.73	26.4	C	T	0.73	26.4	C	T	0.75	27.9	C	
Overall Intersection		**-**	**0.93**	**32.3**	**C**	**-**	**0.94**	**33.4**	**C**	**-**	**0.93**	**31.5**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.57	25.8	C	L	0.61	30.1	C					-Mitigation not required.
		T	0.72	15.4	B	T	0.73	15.7	B					
	SB	TR	0.83	18.3	B	TR	0.86	19.4	B					
Sanford Avenue	WB	L	0.68	38.5	D	L	0.68	38.5	D					
		TR	0.51	29.1	C	TR	0.59	30.8	C					
Overall Intersection		**-**	**0.78**	**19.9**	**B**	**-**	**0.80**	**20.8**	**C**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.38	21.4	C	LTR	0.38	21.5	C					-Mitigation not required.
	SB	LTR	0.72	26.7	C	LTR	0.74	27.2	C					
Sanford Avenue	EB	DefL	0.46	20.5	C	DefL	0.47	21.1	C					
		TR	0.34	15.4	B	TR	0.34	15.4	B					
	WB	LTR	0.85	27.4	C	LTR	0.85	27.4	C					
Overall Intersection		**-**	**0.79**	**24.3**	**C**	**-**	**0.82**	**25.4**	**C**					
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.88	33.4	C	LTR	0.90	35.1	D					-Mitigation not required.
	SB	LTR	0.82	28.4	C	LTR	0.91	35.8	D					
Sanford Avenue	EB	LTR	0.71	25.9	C	LTR	0.73	26.7	C					
	WB	LTR	0.88	35.1	D	LTR	0.92	39.6	D					
Overall Intersection		**-**	**0.88**	**30.7**	**C**	**-**	**0.92**	**34.6**	**C**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.35	23.1	C	T	0.36	23.2	C					-Mitigation not required.
		TR	0.77	33.5	C	TR	0.77	33.5	C					
	SB	L	0.51	35.7	D	L	0.51	35.7	D					
		T	0.40	10.6	B	T	0.41	10.6	B					
32nd Avenue	WB	LTR	0.52	31.5	C	LTR	0.52	31.5	C					
Overall Intersection		**-**	**1.04**	**23.0**	**C**	**-**	**1.04**	**22.9**	**C**					

TABLE 5
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2018 PHASE 1A SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.53	13.1	B	TR	0.53	13.2	B					-Mitigation not required.
	SB	LT	0.76	19.1	B	LT	0.77	19.5	B					
Northern Blvd Service Rd	WB	LR	0.68	32.0	C	LR	0.76	35.5	D					
Overall Intersection		**-**	**0.73**	**18.6**	**B**	**-**	**0.77**	**19.7**	**B**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	LTR	0.08	7.2	A	LTR	0.22	8.2	A	LTR	0.48	43.7	D	-Install an actuated controller.
	SB	DefL	0.20	8.3	A	-	-	-	-	-	-	-	-	-Modify signal phasing and timing plan: EB/WB phase will have 47 s green time; NB phase will
		TR	0.15	7.8	A	LTR	0.54	11.3	B	LTR	0.72	40.8	D	have 23 s green time; SB phase will have 35 s green time [each phase will have 3 s amber and 2 s
Stadium Road	EB	-	-	-	-	DefL	0.73	52.1	D	DefL	0.74	46.7	D	all red time]. NB/SB pedestrians will cross during the SB phase.
		-	-	-	-	TR	0.48	30.5	C	TR	0.34	25.9	C	
	WB	-	-	-	-	DefL	2.43	686.4	F	-	-	-	-	
		LTR	0.27	26.1	C	TR	1.07	91.1	F	LTR	0.72	33.4	C	
Overall Intersection		**-**	**0.22**	**14.3**	**B**	**-**	**1.13**	**208.2**	**F**	**-**	**0.68**	**37.5**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.5	A	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Willets Point Boulevard	WB	LR	-	15.2	C	-	-	-	-					
Overall Intersection		**-**	**-**	**14.0**	**B**	**-**	**-**	**-**	**-**					
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	16.7	C	L	-	1000.0+	F	L	0.23	25.7	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	8.6	A	R	-	8.9	A	R	0.10	2.6	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
		-	-	-	-	-	-	-	-	TR	0.15	37.2	D	and 2 s all red time].
Worlds Fair Marina	WB	LT	-	7.9	A	LT	-	9.5	A	L	0.60	22.7	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.46	19.7	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.7**	**A**	**-**	**-**	**284.4**	**F**	**-**	**0.41**	**21.0**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.2	A	TR	-	9.2	A					-Mitigation not required.
Overall Intersection		**-**	**-**	**9.2**	**A**	**-**	**-**	**9.2**	**A**					
Boat Basin Road at Stadium Road / Citifield Entrance 8														
Citifield Entrance 8	NB	T	-	12.0	B	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Boat Basin Road	SB	LT	-	-	-	-	-	-	-					
Stadium Road	EB	LT	-	7.5	A	-	-	-	-					
Overall Intersection		**-**	**-**	**7.5**	**A**	**-**	**-**	**-**	**-**					

TABLE 5
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2018 PHASE 1A SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.12	30.0	C	-Install traffic signal with the following timing plan: EB will have 43 s green time; WB will have
	SB	-	-	-	-	LT	-	8.2	A	L	0.64	44.4	D	25 s green time; NB/SB will have 37 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.53	36.6	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	11.1	B	L	-	74.9	F	L	0.25	28.2	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	431.0	F	T	0.70	39.7	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.3	A	R	-	10.5	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.96	73.8	E	
		-	-	-	-	R	-	9.2	A	R	0.33	43.4	D	
	Overall Intersection	**-**	**-**	**10.6**	**B**	**-**	**-**	**1000.0+**	**F**	**-**	**0.74**	**48.3**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.34	21.6	C	TR	0.34	21.6	C	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.3	A	LT	0.52	18.1	B	LT	0.50	17.7	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	13.2	B	L	0.07	25.6	C	L	0.07	25.6	C	
		-	-	-	-	R	0.17	19.8	B	R	0.17	19.8	B	
	Overall Intersection	**-**	**-**	**10.9**	**B**	**-**	**0.33**	**19.8**	**B**	**-**	**0.32**	**19.6**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.25	15.0	B	TR	0.25	15.0	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.1	A	LT	0.38	9.7	A	LT	0.33	9.0	A	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	11.8	B	L	0.10	35.1	D	L	0.10	35.1	D	
		-	-	-	-	R	0.25	27.5	C	R	0.25	27.5	C	
	Overall Intersection	**-**	**-**	**10.9**	**B**	**-**	**0.28**	**14.0**	**B**	**-**	**0.28**	**13.9**	**B**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	16.2	C	R	-	17.2	C	R	0.11	39.3	D	-Mitigation not required.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.56	9.1	A	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
	Overall Intersection	**-**	**-**	**16.2**	**C**	**-**	**-**	**17.2**	**C**	**-**	**0.46**	**9.5**	**A**	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. -Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. -Intersection meets NYCDOT Signal Warrant Criteria.

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 6

2018 (PHASE 1A) SUMMARY OF GAMEDAY MITIGATION MEASURES

INTERSECTION	WEEKDAY PRE-GAME PEAK HOUR	SATURDAY PRE-GAME PEAK HOUR	SATURDAY POST-GAME PEAK HOUR
SIGNALIZED INTERSECTIONS			
108th Street at Astoria Boulevard	**Unmitigatable impact.**	Mitigation not required.	Modify signal timing: shift 1 s green time from EB/WB phase to WB lead phase [EB/WB green time shifts from 34 s to 33 s; WB lead phase shifts from 9 s to 10 s].
108th Street at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 2 s green time from EB/WB left-turn phase to EB/WB phase; shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 71 s to 74 s; EB/WB left-turn phase shifts from 9 s to 7 s; NB/SB phase shifts from 25 s to 24 s].	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 66 s to 70 s; NB/SB phase shifts from 30 s to 26 s].	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 66 s to 70 s; NB/SB phase shifts from 30 s to 26 s].
114th Street at Northern Boulevard (RT. 25A)	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Street and then to SEB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Street and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Street and then to SEB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)	Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd ramp green time shifts from 55 s to 52 s].	Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. '-Modify signal timing: shift 1 s of green time from EB GCP/Astoria Blvd ramp phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 26 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 44 s]. **[Measures reflect improvements needed for the Weekday Non-game AM, midday, PM,**	**Partially mitigated.** Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 1 s of green time from EB GCP/Astoria Blvd ramp phase to NB 126th St phase and 5 s green time from EB Northern Blvd phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 26 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 44
Prince Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Main Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	Mitigation not required.	**Unmitigatable impact.**
Union Street at Northern Boulevard (RT. 25A)	Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].	Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 3 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 41 s; EB/WB green time shifts from 45 s to 48 s].	Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 3 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 41 s; EB/WB green time shifts from 45 s to 48 s].
Parsons Boulevard at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to NB/SB phase and 2 s green time from EB/WB protected left-turn phase to EB/WB phase [NB/SB green time shifts from 36 s to 37 s; EB/WB protected left-turn green time shifts from 12 s to 9 s; EB/WB green time shifts from 50 s to 52 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
114th Street at 34th Avenue	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
126th Street/GCP Ramp at 34th Avenue	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 65 s green time; NB/SB phase will have 45 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 65 s green time; NB/SB phase will have 45 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 45 s green time; NB/SB phase will have 65 s green time [each phase will have 3 s amber and 2 s all red time].
108th Street at Roosevelt Avenue	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	**Partially mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
111th Street at Roosevelt Avenue	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.

114th Street at Roosevelt Avenue	Shift the centerline of the SB 114th Street approach 2 feet to the east. Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach 150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared through-right lane. Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane. Modify Signal Timing: Shift 3 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].	**Partially mitigated.** Shift the centerline of the SB 114th Street approach 2 feet to the east. Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach 150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared through-right lane. Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane. Modify Signal Timing: Shift 4 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].	**Partially Mitigated.** Shift the centerline of the SB 114th Street approach 2 feet to the east. Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach 150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared through-right lane. Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane. Modify Signal Timing: Shift 4 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].
126th Street at Roosevelt Avenue	**Unmitigatable impact.** Restripe SB approach as one 11-ft right-turn lane and one 12-ft shared left-through lane. New signal phasing and timing plan: Shared EB/WB phase receives 67 s green time; EB lag phase with SB right-turns receives 13 s green time; NB/SB phase receives 25 s green time [each phase will have 3 s amber and 2 s all red time]. Traffic Enforcement Agents should monitor traffic conditions and direct traffic accordingly.	**Unmitigatable impact.** Restripe SB approach as one 11-ft right-turn lane and one 12-ft shared left-through lane. New signal phasing and timing plan: Shared EB/WB phase receives 65 s green time; EB lag phase with SB right-turns receives 15 s green time; NB/SB phase receives 25 s green time [each phase will have 3 s amber and 2 s all red time]. Traffic Enforcement Agents should monitor traffic conditions and direct traffic accordingly.	**Partially Mitigated.** Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane. New signal phasing and timing plan: Shared EB/WB phase receives 42 s green time; EB lag phase with SB right-turns receives 7 s green time; NB/SB phase receives 56 s green time [each phase will have 3 s amber and 2 s all red time]. Traffic Enforcement Agents should monitor traffic conditions and direct traffic accordingly.
College Point Boulevard at Roosevelt Avenue	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.	**Partially Mitigated.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College	**Partially Mitigated.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
Prince Street at Roosevelt Avenue	Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s]. **[Measures reflect improvements needed for the Weekday non-game PM peak periods.]**	Mitigation not required.	Mitigation not required.
Main Street at Roosevelt Avenue	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Union Street at Roosevelt Avenue	**Unmitigatable Impact.**	**Unmitigatable Impact.**	**Unmitigatable impact.**
Parsons Boulevard at Roosevelt Avenue	Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s. Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.	Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**	Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**
Main Street at Kissena Boulevard	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**
College Point Boulevard at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
Union Street at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
Parsons Boulevard at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at 32nd Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Northern Boulevard Service Road	Mitigation not required.	Mitigation not required.	Mitigation not required.
Boat Basin Road at Stadium Road	**Partially Mitigated.** Install an actuated controller. Modify signal phasing and timing plan: EB/WB phase will have 39 s green time; NB phase will have 16 s green time; SB phase will have 50 s green time [each phase will have 3 s amber and 2 s all red time]. NB/SB pedestrians will cross during the SB phase.	Install an actuated controller. Modify signal phasing and timing plan: EB/WB phase will have 33 s green time; NB phase will have 14 s green time; SB phase will have 58 s green time [each phase will have 3 s amber and 2 s all red time]. NB/SB pedestrians will cross during the SB phase.	Install an actuated controller. Modify signal phasing and timing plan: EB/WB phase will have 65 s green time; NB phase will have 11 s green time; SB phase will have 29 s green time [each phase will have 3 s amber and 2 s all red time]. NB/SB pedestrians will cross during the SB phase.
UNSIGNALIZED INTERSECTIONS			
Willets Point Boulevard at 126th Street	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.
Boat Basin Road at Worlds Fair Marina	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.
Willets Point Boulevard at Northern Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.
Boat Basin Road at Stadium Road / Citifield Entrance 8	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.	Intersection no longer exists under the Build condition.
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 39 s green time; WB will have 22 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. **[Measures reflect improvements needed for the Weekday Non-game Midday, Saturday Non-game Midday, Weekday Pre-game, and Saturday Pre-game peak periods.]** Intersection meets NYCDOT Signal Warrant Criteria.
126th Street at 36th Avenue	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.

126th Street at 37th Avenue	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
Northern Boulevard at 126th Place	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.

NOTE: This table has been revised for the Final SEIS.

TABLE 7
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.65	50.2	D	DefL	0.77	58.8	E					-Unmitigatable impact.
		T	0.27	36.7	D	T	0.27	36.7	D					
	SB	LTR	0.34	37.8	D	LTR	0.34	37.8	D					
Astoria Boulevard	EB	TR	1.04	46.9	D	TR	1.07	57.4	E					
	WB	L	0.73	49.2	D	L	0.73	49.6	D					
		TR	0.28	9.2	A	TR	0.29	9.3	A					
Overall Intersection		**-**	**0.90**	**40.2**	**D**	**-**	**0.95**	**47.6**	**D**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.12	106.6	F	LTR	1.39	223.3	F	L	0.88	55.9	E	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.66	42.6	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.09	95.6	F	LTR	1.11	104.9	F	L	0.55	45.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.67	44.4	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.18	30.1	C	L	0.18	33.0	C	L	0.20	30.8	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.84	13.8	B	TR	0.87	15.0	B	TR	0.84	11.7	B	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.71	44.0	D	L	0.72	46.3	D	L	0.80	48.8	D	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.04	48.7	D	TR	1.09	66.5	E	TR	1.04	47.0	D	and one 12-ft shared through-right lane for 175 ft.
Overall Intersection		**-**	**1.01**	**39.3**	**D**	**-**	**1.14**	**55.4**	**E**	**-**	**0.97**	**30.7**	**C**	-Modify signal timing: shift 2 s green time from EB/WB left-turn phase to EB/WB phase; shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 71 s to 74 s;
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.75	55.4	E	LTR	0.82	60.2	E	LTR	0.55	37.5	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.98	28.3	C	T	1.03	39.9	D	T	0.89	12.4	B	exclusive through lanes.
		R	0.62	14.6	B	R	0.64	15.0	B	R	0.56	7.6	A	-Divert left-turning turning to NB 112th Street and then to SB 114th Street.
	WB	DefL	0.78	42.8	D	DefL	0.94	66.6	E	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.85	14.2	B	T	0.87	15.5	B	T	0.81	18.6	B	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.47**	**23.1**	**C**	**-**	**1.54**	**29.7**	**C**	**-**	**0.78**	**17.2**	**B**	-Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.46	43.8	D	L	0.62	47.3	D	L	0.62	47.3	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
		R	0.38	43.3	D	R	1.32	220.9	F	R	0.50	45.2	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
Northern Boulevard	EB	T	1.08	106.8	F	T	1.08	106.8	F	T	1.07	94.7	F	through the intersection.
	WB	T	0.79	15.7	B	T	0.85	18.4	B	T	0.85	18.4	B	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Grand Central Parkway Ramp	EB	T	0.87	37.2	D	T	0.87	37.2	D	T	0.92	44.4	D	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.77	13.9	B	T	0.73	12.8	B	-	-	-	-	-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.72**	**35.8**	**D**	**-**	**0.95**	**45.4**	**D**	**-**	**0.89**	**51.9**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. -Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd ramp green time shifts from 55 s to 52 s].

TABLE 7
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.10	92.3	F	LTR	1.10	92.3	F					-Unmitigatable impact.
	SB	LTR	0.58	42.0	D	LTR	0.58	42.0	D					
Northern Boulevard (Rt. 25A)	EB	L	0.95	68.2	E	L	0.95	68.2	E					
		T	1.02	48.9	D	T	1.06	61.6	E					
	WB	L	0.77	67.3	E	L	0.77	67.3	E					
		T	1.08	81.6	F	T	1.12	95.1	F					
Northern Boulevard Service Rd.	EB	TR	0.58	24.8	C	TR	0.58	24.8	C					
	WB	TR	0.77	40.6	D	TR	0.83	44.6	D					
Overall Intersection		**-**	**1.05**	**60.6**	**E**	**-**	**1.07**	**69.9**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.89	51.4	D	L	0.89	51.4	D					-Unmitigatable impact.
		R	0.88	58.6	E	R	0.88	58.6	E					
Northern Boulevard (Rt 25A)	EB	T	1.12	85.5	F	T	1.16	103.9	F					
		R	1.20	124.0	F	R	1.20	124.0	F					
	WB	L	0.22	27.8	C	L	0.22	27.8	C					
		T	0.76	22.6	C	T	0.80	23.9	C					
Overall Intersection		**-**	**1.05**	**63.8**	**E**	**-**	**1.05**	**71.2**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.68	35.3	D	TR	0.68	35.3	D	TR	0.71	37.7	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
	SB	TR	0.68	34.8	C	TR	0.68	34.8	C	TR	0.71	37.1	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Northern Boulevard (Rt. 25A)	EB	L	0.62	30.4	C	L	0.62	30.9	C	L	0.62	27.5	C	
		TR	1.15	104.2	F	TR	1.19	122.4	F	TR	1.14	97.2	F	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [NB/SB
	WB	L	0.78	40.0	D	L	0.78	40.4	D	L	0.78	40.4	D	green time shifts from 44 s to 42 s; EB/WB green time shifts from 45 s to 47 s].
		TR	0.97	48.8	D	TR	1.03	73.4	E	TR	0.73	32.2	C	
Overall Intersection		**-**	**0.93**	**67.9**	**E**	**-**	**0.95**	**82.9**	**F**	**-**	**0.95**	**61.0**	**E**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.85	75.0	E	L	0.87	77.2	E	L	0.87	76.6	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.57	39.9	D	TR	0.57	39.9	D	TR	0.55	38.6	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.15	109.0	F	LTR	1.18	123.4	F	LT	0.72	35.3	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
										R	0.36	32.6	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.46	45.3	D	L	0.50	46.9	D	L	0.58	49.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	0.99	41.1	D	TR	1.03	52.9	D	TR	0.99	39.8	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	-	-	-	-	-Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to NB/SB
	WB	L	0.43	40.3	D	L	0.43	40.8	D	L	0.50	43.0	D	phase and 2 s green time from EB/WB protected left-turn phase to EB/WB phase [NB/SB green
		TR	1.13	101.6	F	TR	1.21	129.4	F	T	0.98	36.0	D	time shifts from 36 s to 37 s; EB/WB protected left-turn green time shifts from 12 s to 9 s;
										R	0.36	23.2	C	EB/WB green time shifts from 50 s to 52 s].
Overall Intersection		**-**	**1.09**	**69.9**	**E**	**-**	**1.10**	**85.9**	**F**	**-**	**1.03**	**39.2**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.03	72.5	E	L	1.11	100.4	F	L	1.01	63.6	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.53	28.5	C	T	0.61	30.5	C	T	0.55	26.8	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.49	12.8	B	T	0.49	12.8	B	TR	0.52	14.9	B	
		R	0.16	9.1	A	R	0.16	9.1	A		0.17	10.6	B	
Overall Intersection		**-**	**0.68**	**37.5**	**D**	**-**	**0.71**	**49.2**	**D**	**-**	**0.71**	**35.4**	**D**	

TABLE 7
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	0.69	59.2	E	-	-	-	-	L	0.52	47.0	D	-Partially mitigated.
		TR	0.35	35.3	D	LTR	0.39	35.8	D	TR	0.27	26.7	C	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
GCP Ramp	SB	LTR	0.72	48.1	D	LTR	1.14	131.2	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
	SB	LTR	1.27	179.6	F	LTR	1.58	311.2	F	L	0.02	23.8	C	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.78	38.4	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	DefL	0.52	35.7	D	-	-	-	-	-	-	-	-	and two 11-ft EB receiving lanes.
		TR	0.32	30.5	C	LTR	2.50	718.3	F	LTR	0.98	50.7	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		-	-	-	-	-	-	-	-	DefL	1.40	233.4	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
34th Avenue	WB	LTR	0.32	30.4	C	LTR	0.72	55.3	E	TR	0.20	14.8	B	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	-	**0.79**	**102.0**	**F**	-	**1.80**	**396.3**	**F**	-	**1.15**	**61.8**	**E**	-Modify signal phasing and timing plan: EB/WB phase will have 65 s green time; NB/SB phase will have 45 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.11	100.8	F	LTR	1.14	111.4	F	LT	0.89	47.8	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.43	38.5	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.11	101.2	F	LTR	1.12	104.5	F	LT	0.93	50.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.29	36.7	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.69	8.1	A	LTR	0.75	9.5	A	LTR	0.75	9.5	A	
	WB	LTR	0.64	12.0	B	LTR	0.72	13.3	B	LTR	0.72	13.3	B	
	Overall Intersection	-	**0.81**	**42.4**	**D**	-	**0.86**	**43.9**	**D**	-	**0.80**	**23.2**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.02	67.5	E	LTR	1.02	67.5	E	LTR	1.02	67.5	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.74	8.9	A	LTR	0.81	11.0	B	LTR	0.81	10.8	B	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.15	91.2	F	LTR	1.24	131.1	F	LT	1.00	31.0	C	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.17	7.6	A	
	Overall Intersection	-	**1.12**	**55.0**	**E**	-	**1.18**	**73.1**	**E**	-	**1.01**	**27.9**	**C**	
114th Street at Roosevelt Avenue														-Shift the centerline of the SB 114th Street approach 2 feet to the east.
114th Street	NB	LTR	0.89	57.0	E	LTR	0.89	57.4	E	LTR	0.90	56.6	E	-Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach
	SB	LTR	1.07	83.6	F	LTR	1.20	137.3	F	LT	0.85	41.8	D	150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn
		-	-	-	-	-	-	-	-	R	0.12	32.7	C	lane.
Roosevelt Avenue	EB	LTR	0.95	20.5	C	LTR	1.12	71.5	E	L	0.23	9.8	A	-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
		-	-	-	-	-	-	-	-	TR	0.82	11.8	B	approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared
	WB	LTR	0.67	13.9	B	LTR	0.87	21.9	C	L	0.79	29.3	C	through-right lane.
		-	-	-	-	-	-	-	-	T	0.56	13.8	B	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
		-	-	-	-	-	-	-	-	R	0.61	16.1	B	-Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane.
	Overall Intersection	-	**0.99**	**29.5**	**C**	-	**1.14**	**54.5**	**D**	-	**0.85**	**22.6**	**C**	-Modify Signal Timing: Shift 3 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.60	56.7	E	LTR	0.28	38.6	D	LTR	0.60	60.0	E	-Unmitigatable impact.
	SB	-	-	-	-	DefL	0.88	47.2	D	LT	1.17	126.9	F	-Restripe SB approach as one 11-ft right-turn lane and one 12-ft shared left-through lane.
		LTR	1.14	108.5	F	TR	0.62	40.0	D	R	0.41	27.7	C	
Roosevelt Avenue	EB	DefL	0.96	48.6	D	DefL	3.00+	1000.0+	F	DefL	1.87	439.1	F	-New signal phasing and timing plan: Shared EB/WB phase receives 67 s green time; EB lag
		TR	0.69	7.7	A	TR	0.76	9.3	A	TR	0.72	5.4	A	phase with SB right-turns receives 13 s green time; NB/SB phase receives 25 s green time [each
	WB	LTR	0.60	12.4	B	LTR	0.80	17.9	B	LTR	0.96	41.2	D	phase will have 3 s amber and 2 s all red time].
														-Traffic Enforcement Agents should monitor traffic conditions and direct traffic accordingly.
	Overall Intersection	-	**1.01**	**40.6**	**D**	-	**2.85**	**258.4**	**F**	-	**1.49**	**120.3**	**F**	

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2018 PHASE 1A WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.26	177.2	F	L	1.37	222.9	F	L	1.19	152.0	F	-Partially Mitigated
		TR	0.68	28.5	C	TR	0.68	28.5	C	TR	0.73	32.5	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	0.87	46.2	D	TR	0.91	49.1	D	T	0.85	51.0	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.49	37.1	D	L	0.50	37.4	D	L	0.48	35.0	D	
		TR	1.22	132.0	F	TR	1.33	180.0	F	TR	1.24	137.0	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.31	44.8	D	L	0.31	44.8	D	-	-	-	-	
		TR	0.48	36.2	D	TR	0.53	37.5	D	TR	0.54	43.5	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.20**	**75.5**	**E**	**-**	**1.28**	**94.1**	**F**	**-**	**1.13**	**77.6**	**E**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 28 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 27 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.51	30.7	C	LTR	0.51	30.7	C	LTR	0.54	32.7	C	-Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].
Roosevelt Avenue	EB	DefL	0.78	30.9	C	DefL	0.80	32.3	C	DefL	0.76	28.4	C	
		TR	0.78	28.0	C	TR	0.85	31.5	C	TR	0.82	28.4	C	[Measures reflect improvements needed for the Weekday non-game PM peak periods.]
	WB	LTR	0.59	21.2	C	LTR	0.63	22.0	C	LTR	0.61	20.4	C	
	Overall Intersection	**-**	**0.67**	**27.2**	**C**	**-**	**0.70**	**28.7**	**C**	**-**	**0.70**	**27.0**	**C**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.62	23.2	C	T	0.62	23.2	C	T	0.66	26.8	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].
	SB	T	0.54	21.9	C	T	0.54	21.9	C	T	0.58	25.2	C	
Roosevelt Avenue	EB	L	0.34	35.3	D	L	0.36	37.2	D	L	0.31	30.8	C	
		TR	0.91	62.2	E	TR	1.02	85.3	F	TR	0.93	61.0	E	
	WB	L	0.19	28.1	C	L	0.21	29.0	C	L	0.18	25.3	C	
		TR	0.87	52.8	D	TR	0.94	61.4	E	TR	0.85	47.1	D	
	Overall Intersection	**-**	**0.73**	**35.8**	**D**	**-**	**0.82**	**42.8**	**D**	**-**	**0.82**	**43.8**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.53	18.6	B	TR	0.53	18.6	B					-Unmitigatable Impact.
	SB	LT	1.23	128.1	F	LT	1.23	128.1	F					
		R	1.87	417.7	F	R	1.87	417.7	F					
Roosevelt Avenue	EB	LTR	2.26	595.0	F	LTR	2.48	696.8	F					
	WB	LT	0.79	31.5	C	LT	0.85	35.7	D					
		R	0.78	46.0	D	R	0.78	46.0	D					
	Overall Intersection	**-**	**2.04**	**224.7**	**F**	**-**	**2.15**	**253.7**	**F**					

TABLE 7
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.78	35.4	D	LTR	0.79	35.8	D	LT	0.71	33.0	C	-Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.07	19.6	B	time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s.
	SB	LTR	0.76	32.5	C	LTR	0.76	32.5	C	LTR	0.79	35.3	D	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.67	30.7	C	LTR	0.77	35.8	D	LTR	0.74	32.8	C	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.90	43.2	D	LTR	0.97	55.5	E	LTR	0.93	45.6	D	
Overall Intersection		**-**	**0.84**	**35.6**	**D**	**-**	**0.88**	**40.0**	**D**	**-**	**0.86**	**36.6**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.71	34.5	C	L	0.71	34.8	C					-Mitigation not required.
		TR	0.57	21.9	C	TR	0.57	21.9	C					
	SB	L	0.85	51.6	D	L	0.85	51.6	D					
		TR	0.49	19.9	B	TR	0.49	19.9	B					
Kissena Boulevard	WB	T	0.71	37.1	D	T	0.71	37.1	D					
Overall Intersection		**-**	**0.77**	**29.1**	**C**	**-**	**0.77**	**29.2**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.36	14.2	B	L	0.37	14.9	B					-Mitigation not required.
		T	0.73	15.6	B	T	0.74	15.8	B					
	SB	TR	0.73	15.5	B	TR	0.75	15.8	B					
Sanford Avenue	WB	L	0.79	46.9	D	L	0.79	46.9	D					
		TR	0.46	28.3	C	TR	0.53	29.5	C					
Overall Intersection		**-**	**0.75**	**19.2**	**B**	**-**	**0.76**	**19.6**	**B**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.37	21.3	C	LTR	0.37	21.3	C					-Mitigation not required.
	SB	LTR	0.68	25.4	C	LTR	0.69	25.7	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.28	14.2	B	LTR	0.28	14.2	B					
	WB	LTR	0.88	29.1	C	LTR	0.90	31.5	C					
Overall Intersection		**-**	**0.79**	**24.2**	**C**	**-**	**0.81**	**25.1**	**C**					
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.98	39.7	D	LTR	0.99	42.2	D					-Mitigation not required.
	SB	LTR	0.68	24.2	C	LTR	0.74	26.6	C					
Sanford Avenue	EB	LTR	0.60	23.1	C	LTR	0.61	23.5	C					
	WB	LTR	0.74	27.3	C	LTR	0.77	28.8	C					
Overall Intersection		**-**	**0.86**	**29.3**	**C**	**-**	**0.88**	**30.9**	**C**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.38	23.6	C	T	0.39	23.7	C					-Mitigation not required.
		TR	0.26	22.0	C	TR	0.26	22.0	C					
	SB	L	0.44	33.2	C	L	0.44	33.2	C					
		T	0.40	10.5	B	T	0.40	10.5	B					
32nd Avenue	WB	LTR	0.72	36.8	D	LTR	0.72	36.8	D					
Overall Intersection		**-**	**1.09**	**20.9**	**C**	**-**	**1.09**	**20.9**	**C**					

TABLE 7
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.48	12.5	B	TR	0.48	12.5	B					-Mitigation not required.
	SB	LT	0.81	20.2	C	LT	0.82	20.5	C					
Northern Blvd Service Rd	WB	LR	0.70	33.1	C	LR	0.76	35.4	D					
Overall Intersection		-	**0.77**	**19.2**	**B**	-	**0.80**	**19.9**	**B**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	-	-	-	-	-Partially Mitigated.
		LTR	0.52	43.3	D	LTR	0.97	83.4	F	LTR	0.70	54.7	D	-Install an actuated controller.
	SB	LTR	0.87	33.0	C	LTR	0.98	48.1	D	LTR	0.91	42.4	D	-Modify signal phasing and timing plan: EB/WB phase will have 39 s green time; NB phase will
		-	-	-	-	-	-	-	-	-	-	-	-	have 16 s green time; SB phase will have 50 s green time [each phase will have 3 s amber and 2 s
Stadium Road	EB	-	-	-	-	DefL	0.74	57.6	E	DefL	0.65	44.2	D	all red time]. NB/SB pedestrians will cross during the SB phase.
		-	-	-	-	TR	0.33	24.0	C	TR	0.34	31.1	C	
	WB	LTR	0.85	31.7	C	LTR	0.88	34.2	C	LTR	0.75	37.8	D	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		-	**0.82**	**33.2**	**C**	-	**0.94**	**46.9**	**D**	-	**0.82**	**42.0**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.1	A	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Willets Point Boulevard	WB	LR	-	11.9	B	-	-	-	-					
Overall Intersection		-	-	**11.9**	**B**	-	-	-	-					
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	45.9	E	L	-	145.2	F	L	0.17	25.1	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	8.6	A	R	-	8.9	A	R	0.08	2.5	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
Worlds Fair Marina	EB	TR	-	-	-	-	-	-	-	TR	0.13	37.0	D	and 2 s all red time].
	WB	LT	-	11.8	B	LT	-	11.6	B	L	0.94	46.6	D	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.66	24.7	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		-	-	**12.8**	**B**	-	-	**25.6**	**D**	-	**0.58**	**34.1**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.5	A	TR	-	8.9	A					-Mitigation not required.
Overall Intersection		-	-	**9.5**	**A**	-	-	**8.9**	**A**					
Boat Basin Road at Stadium Road / Citifield Entrance 8														
Citifield Entrance 8	NB	-	-	-	-	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Boat Basin Road	SB	LT	-	8.3	A	-	-	-	-					
Stadium Road	EB	LT	-	28.9	D	-	-	-	-					
		TR	-	27.8	D	-	-	-	-					
Citifield Entrance 9	WB	R	-	10.3	B	-	-	-	-					
Overall Intersection		-	-	**27.2**	**D**	-	-	-	-					

TABLE 7
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.07	30.9	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have
	SB	-	-	-	-	LT	-	7.8	A	L	0.46	39.0	D	25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.56	38.6	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	30.9	D	L	-	37.9	E	L	0.23	26.6	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	12.0	B	T	0.48	31.0	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.6	A	R	-	9.6	A	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	11.1	B	L	0.79	54.6	D	
		-	-	-	-	R	-	8.9	A	R	0.24	41.5	D	
	Overall Intersection	**-**	**-**	**28.3**	**D**	**-**	**-**	**34.4**	**D**	**-**	**0.58**	**40.8**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.75	37.7	D	TR	0.75	37.7	D	-Unmitigatable impact.
	SB	-	-	-	-	DefL	0.99	61.8	E	DefL	0.99	61.8	E	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.3	A	T	1.01	45.7	D	T	1.01	45.7	D	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	16.8	C	L	0.01	37.8	D	L	0.01	37.8	D	
		-	-	-	-	R	0.05	13.1	B	R	0.05	13.1	B	
	Overall Intersection	**-**	**-**	**12.0**	**B**	**-**	**1.21**	**46.4**	**D**	**-**	**1.21**	**46.4**	**D**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	1.28	170.0	F	TR	1.28	170.0	F	-Unmitigatable impact.
	SB	-	-	-	-	DefL	1.18	137.4	F	DefL	1.18	137.4	F	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	T	0.49	7.3	A	T	0.49	7.3	A	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	15.3	C	L	0.02	41.9	D	L	0.02	41.9	D	
		-	-	-	-	R	0.11	16.6	B	R	0.11	16.6	B	
	Overall Intersection	**-**	**-**	**12.3**	**B**	**-**	**1.82**	**120.1**	**F**	**-**	**1.82**	**120.1**	**F**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	20.1	C	R	-	19.1	C	R	0.11	39.3	D	-Mitigation not required.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.66	10.5	B	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
	Overall Intersection	**-**	**-**	**20.1**	**C**	**-**	**-**	**19.1**	**C**	**-**	**0.54**	**10.9**	**B**	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
														-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 8
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.45	25.7	C	DefL	0.52	27.5	C					-Mitigation not required.
		T	0.19	20.9	C	T	0.19	20.9	C					
	SB	LTR	0.22	21.4	C	LTR	0.22	21.4	C					
Astoria Boulevard	EB	TR	0.74	26.3	C	TR	0.78	27.5	C					
	WB	L	0.76	33.5	C	L	0.80	38.7	D					
		TR	0.29	11.9	B	TR	0.30	12.0	B					
Overall Intersection		-	**0.65**	**22.5**	**C**	-	**0.70**	**23.7**	**C**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.11	99.6	F	LTR	1.37	213.5	F	L	0.89	54.9	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.73	43.7	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.04	84.0	F	LTR	1.07	92.5	F	L	0.50	45.2	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.76	48.6	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.09	34.1	C	L	0.09	36.8	D	L	0.09	31.4	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.95	32.8	C	TR	1.01	45.7	D	TR	0.96	31.0	C	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.79	45.4	D	L	0.85	49.9	D	L	0.80	45.2	D	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.14	90.5	F	TR	1.18	109.0	F	TR	1.11	76.9	E	and one 12-ft shared through-right lane for 175 ft.
Overall Intersection		-	**1.08**	**67.4**	**E**	-	**1.19**	**90.8**	**F**	-	**1.01**	**53.6**	**D**	-Modify signal timing: shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 66 s to 70 s; NB/SB phase shifts from 30 s to 26 s].
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.60	49.0	D	LTR	0.67	51.8	D	LTR	0.59	38.8	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.74	24.2	C	T	0.79	25.9	C	T	0.67	15.7	B	exclusive through lanes.
		R	0.77	27.9	C	R	0.80	29.3	C	R	0.67	17.2	B	-Divert left-turning turning to NB 112th Street and then to SB 114th Street.
	WB	DefL	0.79	31.7	C	DefL	0.95	58.9	E	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.83	15.0	B	T	0.86	16.1	B	T	0.79	18.3	B	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		-	**1.28**	**22.4**	**C**	-	**1.34**	**26.0**	**C**	-	**0.73**	**19.7**	**B**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.61	46.5	D	L	0.75	51.2	D	L	0.72	49.2	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
		R	0.32	41.7	D	R	1.32	220.3	F	R	0.44	42.8	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
Northern Boulevard	EB	T	0.54	38.0	D	T	0.54	38.0	D	T	0.72	41.6	D	through the intersection.
	WB	T	0.67	12.3	B	T	0.72	13.9	B	T	0.73	14.7	B	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Grand Central Parkway Ramp	EB	T	0.86	42.9	D	T	0.86	42.9	D	T	0.88	45.3	D	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.72	12.5	B	T	0.70	11.9	B	-	-	-	-	-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		-	**0.69**	**26.3**	**C**	-	**0.86**	**36.9**	**D**	-	**0.79**	**37.4**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. -Modify signal timing: shift 1 s of green time from EB GCP/Astoria Blvd ramp phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 26 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 44 s].

TABLE 8
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.08	85.5	F	LTR	1.08	85.5	F					-Unmitigatable impact.
	SB	LTR	0.50	37.4	D	LTR	0.50	37.4	D					
Northern Boulevard (Rt. 25A)	EB	L	0.97	78.9	E	L	0.97	78.9	E					
		T	0.95	36.7	D	T	0.99	42.2	D					
	WB	L	0.95	94.7	F	L	0.95	94.7	F					
		T	1.11	90.1	F	T	1.14	103.7	F					
Northern Boulevard Service Rd.	EB	TR	0.50	22.9	C	TR	0.50	22.9	C					
	WB	TR	0.73	34.7	C	TR	0.79	37.5	D					
Overall Intersection		-	**1.07**	**60.3**	**E**	-	**1.09**	**67.0**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.85	47.3	D	L	0.85	47.3	D					-Mitigation not required.
		R	0.92	64.0	E	R	0.92	64.0	E					
Northern Boulevard (Rt 25A)	EB	T	0.94	38.3	D	T	0.98	43.7	D					
		R	1.31	177.6	F	R	1.31	177.6	F					
	WB	L	0.16	26.5	C	L	0.16	26.5	C					
		T	0.86	25.6	C	T	0.91	27.9	C					
Overall Intersection		-	**1.13**	**53.4**	**D**	-	**1.13**	**55.4**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.68	35.1	D	TR	0.68	35.1	D	TR	0.73	38.8	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
	SB	TR	0.59	32.8	C	TR	0.59	32.8	C	TR	0.63	35.9	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Northern Boulevard (Rt. 25A)	EB	L	0.68	33.9	C	L	0.68	34.4	C	L	0.68	29.4	C	
		TR	1.25	150.1	F	TR	1.29	170.6	F	TR	1.21	131.9	F	-Modify Signal Timing: Shift 3 s of green time from NB/SB phase to EB/WB phase [NB/SB
	WB	L	0.96	63.8	E	L	0.96	64.1	E	L	0.96	64.3	E	green time shifts from 44 s to 41 s; EB/WB green time shifts from 45 s to 48 s].
		TR	0.96	43.2	D	TR	1.02	55.0	D	TR	0.71	30.8	C	
Overall Intersection		-	**0.97**	**80.4**	**F**	-	**0.99**	**91.9**	**F**	-	**0.99**	**70.8**	**E**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.66	49.3	D	L	0.67	49.8	D	L	0.65	48.6	D	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.53	38.7	D	TR	0.53	38.7	D	TR	0.53	38.7	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.10	91.0	F	LTR	1.13	103.2	F	LT	0.64	34.7	C	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.33	32.9	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.41	42.8	D	L	0.42	44.2	D	L	0.43	42.4	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.10	83.3	F	TR	1.16	108.0	F	T	0.97	37.8	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.36	23.5	C	
	WB	L	0.44	43.6	D	L	0.43	44.4	D	L	0.44	42.7	D	
		TR	1.04	59.1	E	TR	1.11	85.8	F	T	0.91	34.5	C	
										R	0.35	23.4	C	
Overall Intersection		-	**1.08**	**68.1**	**E**	-	**1.09**	**88.6**	**F**	-	**0.85**	**36.3**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.01	66.0	E	L	1.08	87.6	F	L	0.98	54.7	D	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.53	28.4	C	T	0.61	30.2	C	T	0.55	26.6	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.42	11.9	B	T	0.42	11.9	B	T	0.45	13.8	B	
		R	0.11	8.8	A	R	0.11	8.8	A	R	0.12	10.2	B	
Overall Intersection		-	**0.63**	**37.5**	**D**	-	**0.65**	**47.6**	**D**	-	**0.65**	**33.6**	**C**	

TABLE 8
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	1.34	227.6	F	DefL	1.05	160.2	F	L	0.85	91.5	F	-Partially mitigated.
		TR	0.57	40.1	D	TR	0.64	42.2	D	TR	0.43	29.1	C	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.63	45.1	D	LTR	1.32	203.4	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	1.26	171.3	F	LTR	1.57	307.9	F	L	0.02	23.8	C	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.81	39.8	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	-	-	-	-	-	-	-	-	and two 11-ft EB receiving lanes.
		LTR	0.45	32.3	C	LTR	1.99	487.6	F	LTR	0.97	39.8	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		-	-	-	-	-	-	-	-	DefL	1.49	248.4	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
34th Avenue	WB	LTR	0.45	31.7	C	LTR	0.91	46.5	D	TR	0.28	14.9	B	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	**-**	**0.98**	**110.2**	**F**	**-**	**1.65**	**284.4**	**F**	**-**	**1.23**	**60.1**	**E**	-Modify signal phasing and timing plan: EB/WB phase will have 65 s green time; NB/SB phase will have 45 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.14	111.7	F	LTR	1.16	119.9	F	LT	0.99	57.8	E	-Partially mitigated.
		-	-	-	-	-	-	-	-	R	0.40	38.0	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
	SB	LTR	1.14	109.3	F	LTR	1.14	112.6	F	LT	1.01	64.2	E	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.34	37.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
Roosevelt Avenue	EB	LTR	0.76	18.3	B	LTR	0.82	21.3	C	LTR	0.82	21.3	C	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	WB	LTR	0.97	25.1	C	LTR	1.07	53.4	D	LTR	1.07	53.4	D	
	Overall Intersection	**-**	**1.02**	**50.9**	**D**	**-**	**1.09**	**63.1**	**E**	**-**	**1.04**	**44.4**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.03	67.8	E	LTR	1.03	67.8	E	LTR	1.03	67.8	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.84	21.1	C	LTR	0.91	26.8	C	LTR	0.90	25.9	C	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.18	101.2	F	LTR	1.26	138.9	F	LT	0.99	29.9	C	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.19	7.7	A	
	Overall Intersection	**-**	**1.13**	**63.4**	**E**	**-**	**1.20**	**81.1**	**F**	**-**	**1.01**	**33.7**	**C**	
														-Partially mitigated.
114th Street at Roosevelt Avenue														-Shift the centerline of the SB 114th Street approach 2 feet to the east.
114th Street	NB	LTR	1.06	75.7	E	LTR	1.09	87.8	F	LTR	1.10	91.6	F	-Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach
	SB	LTR	1.08	84.0	F	LTR	1.16	119.6	F	LT	0.74	37.5	D	150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn
		-	-	-	-	-	-	-	-	R	0.26	33.5	C	lane.
Roosevelt Avenue	EB	LTR	1.20	110.9	F	LTR	1.43	215.2	F	L	0.42	11.4	B	-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
		-	-	-	-	-	-	-	-	TR	0.71	15.2	B	approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared
	WB	LTR	0.58	12.3	B	LTR	0.74	16.0	B	L	0.60	20.2	C	through-right lane.
		-	-	-	-	-	-	-	-	T	0.52	13.6	B	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
		-	-	-	-	-	-	-	-	R	0.56	15.3	B	-Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane.
	Overall Intersection	**-**	**1.16**	**64.9**	**E**	**-**	**1.35**	**102.6**	**F**	**-**	**0.84**	**28.3**	**C**	-Modify Signal Timing: Shift 4 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.73	66.4	E	LTR	0.59	51.3	D	LTR	0.65	60.3	E	-Unmitigatable impact.
	SB	-	-	-	-	-	-	-	-	LT	1.00	70.2	E	-Restripe SB approach as one 11-ft right-turn lane and one 12-ft shared left-through lane.
		LTR	1.12	101.8	F	LTR	0.93	48.2	D	R	0.72	33.4	C	
Roosevelt Avenue	EB	DefL	1.13	116.6	F	DefL	3.00+	1000.0+	F	DefL	1.75	388.7	F	-New signal phasing and timing plan: Shared EB/WB phase receives 65 s green time; EB lag
		TR	0.54	12.2	B	TR	0.60	13.5	B	TR	0.57	10.5	B	phase with SB right-turns receives 15 s green time; NB/SB phase receives 25 s green time [each
	WB	LTR	0.65	13.2	B	LTR	0.77	16.7	B	LTR	0.96	41.4	D	phase will have 3 s amber and 2 s all red time].
														-Traffic Enforcement Agents should monitor traffic conditions and direct traffic accordingly.
	Overall Intersection	**-**	**1.13**	**47.4**	**D**	**-**	**2.87**	**262.4**	**F**	**-**	**1.32**	**107.3**	**F**	

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CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.29	177.8	F	L	1.41	230.4	F	L	1.10	116.0	F	-Partially Mitigated
		TR	0.81	26.7	C	TR	0.81	26.7	C	TR	0.79	32.4	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	1.19	122.2	F	TR	1.24	144.1	F	T	0.92	50.2	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.48	28.8	C	L	0.49	28.9	C	L	0.47	36.3	D	
		TR	1.21	122.4	F	TR	1.32	171.4	F	TR	1.23	135.6	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.28	33.3	C	L	0.28	33.3	C	-	-	-	-	
		TR	0.54	28.0	C	TR	0.59	29.2	C	TR	0.57	42.5	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.34**	**89.7**	**F**	**-**	**1.45**	**112.5**	**F**	**-**	**1.12**	**68.2**	**E**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.79	40.5	D	LTR	0.79	40.5	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.76	17.7	B	DefL	0.77	18.4	B					
		TR	0.63	12.8	B	TR	0.68	13.6	B					
	WB	LTR	0.61	13.0	B	LTR	0.64	13.6	B					
	Overall Intersection	**-**	**0.77**	**19.9**	**B**	**-**	**0.78**	**20.1**	**C**					
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.66	23.9	C	T	0.66	23.9	C	T	0.74	28.9	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
	SB	T	0.63	23.8	C	T	0.63	23.9	C	T	0.71	28.6	C	
Roosevelt Avenue	EB	L	0.25	20.2	C	L	0.27	20.9	C	L	0.23	16.9	B	
		TR	0.73	31.8	C	TR	0.81	36.9	D	TR	0.73	28.5	C	
	WB	L	0.07	15.5	B	L	0.07	15.6	B	L	0.06	13.1	B	
		TR	0.83	37.8	D	TR	0.89	43.5	D	TR	0.79	31.8	C	
	Overall Intersection	**-**	**0.74**	**27.9**	**C**	**-**	**0.77**	**30.2**	**C**	**-**	**0.77**	**29.0**	**C**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.45	17.2	B	TR	0.45	17.2	B					-Unmitigatable impact.
	SB	LT	0.97	47.8	D	LT	0.97	47.8	D					
		R	2.58	746.9	F	R	2.58	746.9	F					
Roosevelt Avenue	EB	LTR	1.89	433.8	F	LTR	2.04	500.4	F					
	WB	LT	0.56	24.1	C	LT	0.61	25.5	C					
		R	1.19	174.2	F	R	1.19	174.2	F					
	Overall Intersection	**-**	**2.26**	**239.8**	**F**	**-**	**2.33**	**257.7**	**F**					

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.71	26.4	C	LTR	0.72	26.8	C	LTR	0.74	28.8	C	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	LTR	0.72	25.2	C	LTR	0.72	25.2	C	LTR	0.74	26.6	C	green time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s].
Roosevelt Avenue	EB	LTR	0.44	19.7	B	LTR	0.51	21.2	C	LTR	0.50	20.2	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
	WB	LTR	0.61	23.6	C	LTR	0.66	25.3	C	LTR	0.65	23.9	C	
Overall Intersection		**-**	**0.67**	**24.2**	**C**	**-**	**0.69**	**24.9**	**C**	**-**	**0.69**	**25.3**	**C**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.84	48.5	D	L	0.85	49.1	D	L	0.82	44.0	D	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.58	21.1	C	TR	0.58	21.1	C	TR	0.57	20.1	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.50	21.0	C	L	0.50	21.0	C	L	0.52	22.0	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
		TR	0.52	19.4	B	TR	0.52	19.4	B	TR	0.51	18.6	B	
Kissena Boulevard	WB	T	0.64	24.0	C	T	0.64	24.0	C	T	0.66	25.3	C	
Overall Intersection		**-**	**0.74**	**23.6**	**C**	**-**	**0.74**	**23.6**	**C**	**-**	**0.74**	**23.0**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.48	19.3	B	L	0.50	20.5	C					-Mitigation not required.
		T	0.80	17.4	B	T	0.81	17.6	B					
	SB	TR	0.80	17.4	B	TR	0.82	17.9	B					
Sanford Avenue	WB	L	0.85	51.8	D	L	0.85	51.8	D					
		TR	0.50	29.0	C	TR	0.55	30.0	C					
Overall Intersection		**-**	**0.82**	**21.3**	**C**	**-**	**0.83**	**21.8**	**C**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.45	23.3	C	LTR	0.45	23.3	C					-Mitigation not required.
	SB	LTR	0.90	32.6	C	LTR	0.91	33.5	C					
Sanford Avenue	EB	DefL	0.55	23.2	C	DefL	0.56	23.8	C					
		TR	0.32	15.0	B	TR	0.32	15.0	B					
	WB	LTR	0.73	22.8	C	LTR	0.75	23.7	C					
Overall Intersection		**-**	**0.80**	**26.0**	**C**	**-**	**0.82**	**26.7**	**C**					
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.82	29.6	C	LTR	0.82	30.1	C					-Mitigation not required.
	SB	LTR	0.71	25.1	C	LTR	0.78	28.3	C					
Sanford Avenue	EB	LTR	0.61	22.9	C	LTR	0.62	23.2	C					
	WB	LTR	0.83	31.3	C	LTR	0.87	34.0	C					
Overall Intersection		**-**	**0.82**	**27.4**	**C**	**-**	**0.85**	**29.2**	**C**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.35	23.2	C	T	0.36	23.2	C					-Mitigation not required.
		TR	0.57	25.8	C	TR	0.57	25.8	C					
	SB	L	0.57	37.6	D	L	0.57	37.6	D					
		T	0.44	11.0	B	T	0.45	11.0	B					
32nd Avenue	WB	LTR	0.45	29.8	C	LTR	0.45	29.8	C					
Overall Intersection		**-**	**1.03**	**21.7**	**C**	**-**	**1.03**	**21.6**	**C**					

TABLE 8
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.53	13.2	B	TR	0.54	13.2	B					-Mitigation not required.
	SB	LT	0.88	23.8	C	LT	0.89	24.2	C					
Northern Blvd Service Rd	WB	LR	0.70	32.3	C	LR	0.75	34.3	C					
Overall Intersection		-	**0.81**	**20.7**	**C**	-	**0.84**	**21.4**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	-	-	-	-	-Install an actuated controller.
		LTR	0.66	48.6	D	LTR	0.75	53.0	D	LTR	0.62	53.2	D	-Modify signal phasing and timing plan: EB/WB phase will have 33 s green time; NB phase will
	SB	LTR	0.76	25.0	C	LTR	1.07	69.3	E	LTR	0.70	25.7	C	have 14 s green time; SB phase will have 58 s green time [each phase will have 3 s amber and 2 s
		-	-	-	-	-	-	-	-	-	-	-	-	all red time]. NB/SB pedestrians will cross during the SB phase.
Stadium Road	EB	-	-	-	-	DefL	0.85	74.2	E	DefL	0.57	40.8	D	
		-	-	-	-	TR	0.48	29.7	C	TR	0.50	37.5	D	
	WB	LTR	0.93	35.6	D	LTR	0.82	32.2	C	DefL	0.80	44.0	D	
		-	-	-	-	-	-	-	-	TR	0.77	41.9	D	
Overall Intersection		-	**0.80**	**31.3**	**C**	-	**0.95**	**56.4**	**E**	-	**0.72**	**35.1**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.8	A	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Willets Point Boulevard	WB	LR	-	10.5	B	-	-	-	-					
Overall Intersection		-	-	**10.7**	**B**	-	-	-	-					
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	36.1	E	L	-	98.9	F	L	0.16	25.0	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	8.7	A	R	-	8.9	A	R	0.10	2.6	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
Worlds Fair Marina	EB	TR	-	-	-	-	-	-	-	TR	0.12	26.8	C	and 2 s all red time].
	WB	LT	-	10.8	B	LT	-	11.0	B	L	0.90	40.6	D	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.70	25.9	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		-	-	**11.6**	**B**	-	-	**20.1**	**C**	-	**0.55**	**30.9**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.1	A	TR	-	8.7	A					-Mitigation not required.
Overall Intersection		-	-	**9.1**	**A**	-	-	**8.7**	**A**					
Boat Basin Road at Stadium Road / Citifield Entrance 8														
Citifield Entrance 8	NB	-	-	-	-	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Boat Basin Road	SB	LT	-	7.7	A	-	-	-	-					
Stadium Road	EB	LT	-	62.2	F	-	-	-	-					
		TR	-	30.1	D	-	-	-	-					
Citifield Entrance 9	WB	R	-	9.3	A	-	-	-	-					
Overall Intersection		-	-	**42.5**	**E**	-	-	-	-					

TABLE 8
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.09	31.1	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have
	SB	-	-	-	-	LT	-	9.3	A	L	0.51	40.9	D	25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.39	35.3	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	30.8	D	L	-	38.0	E	L	0.32	28.0	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	288.3	F	T	0.51	31.9	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.1	A	R	-	12.5	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.70	50.2	D	
		-	-	-	-	R	-	10.3	B	R	0.24	41.5	D	
	Overall Intersection	**-**	**-**	**28.5**	**D**	**-**	**-**	**1000.0+**	**F**	**-**	**0.56**	**38.5**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	1.02	70.5	E	TR	1.02	70.5	E	-Unmitigatable impact.
	SB	-	-	-	-	DefL	0.98	63.2	E	DefL	0.98	63.2	E	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	9.4	A	T	1.12	80.8	F	T	1.12	80.8	F	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	23.4	C	L	0.01	41.8	D	L	0.01	41.8	D	
		-	-	-	-	R	0.10	16.2	B	R	0.10	16.2	B	
	Overall Intersection	**-**	**-**	**16.4**	**C**	**-**	**1.35**	**73.2**	**E**	**-**	**1.35**	**73.2**	**E**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	1.27	165.2	F	TR	1.27	165.2	F	-Unmitigatable impact.
	SB	-	-	-	-	DefL	1.01	80.9	F	DefL	1.01	80.9	F	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.8	A	T	0.72	11.7	B	T	0.72	11.7	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	16.7	C	L	0.01	41.8	D	L	0.01	41.8	D	
		-	-	-	-	R	0.17	17.5	B	R	0.17	17.5	B	
	Overall Intersection	**-**	**-**	**14.1**	**B**	**-**	**1.22**	**97.0**	**F**	**-**	**1.22**	**97.0**	**F**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	15.3	C	R	-	16.0	C	R	0.11	39.3	D	-Mitigation not required.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.55	8.9	A	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
														-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**15.3**	**C**	**-**	**-**	**16.0**	**C**	**-**	**0.45**	**9.4**	**A**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

Notes
(1): Control delay is measured in seconds per vehicle.
(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".
(4): This table has been revised for the Final SEIS.

TABLE 9
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2018 PHASE 1A SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.52	27.3	C	DefL	0.60	30.0	C	DefL	0.60	30.0	C	-Modify signal timing: shift 1 s green time from EB/WB phase to WB lead phase [EB/WB green
		T	0.21	21.2	C	T	0.21	21.2	C	T	0.21	21.2	C	time shifts from 34 s to 33 s; WB lead phase shifts from 9 s to 10 s].
	SB	LTR	0.19	20.8	C	LTR	0.19	20.8	C	LTR	0.19	20.8	C	
Astoria Boulevard	EB	TR	0.67	25.0	C	TR	0.70	25.8	C	TR	0.73	27.0	C	
	WB	L	0.88	44.3	D	L	0.92	51.8	D	L	0.88	45.3	D	
		TR	0.30	12.0	B	TR	0.31	12.1	B	TR	0.31	12.1	B	
Overall Intersection		**-**	**0.67**	**23.2**	**C**	**-**	**0.74**	**24.5**	**C**	**-**	**0.69**	**24.4**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.14	115.6	F	LTR	1.39	221.9	F	L	0.67	46.6	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.88	49.9	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.13	109.5	F	LTR	1.17	123.3	F	L	0.64	45.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.75	45.3	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.14	35.1	D	L	0.14	38.3	D	L	0.14	33.3	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.94	32.3	C	TR	1.00	43.0	D	TR	0.94	30.0	C	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.95	59.5	E	L	1.02	76.3	E	L	0.95	59.0	E	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.11	78.7	E	TR	1.16	102.5	F	TR	1.10	71.4	E	and one 12-ft shared through-right lane for 175 ft.
														-Modify signal timing: shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green
Overall Intersection		**-**	**1.10**	**66.3**	**E**	**-**	**1.21**	**91.2**	**F**	**-**	**1.02**	**51.7**	**D**	time shifts from 66 s to 70 s; NB/SB phase shifts from 30 s to 26 s].
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.46	45.6	D	LTR	0.50	46.6	D	LTR	0.69	41.7	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.65	22.2	C	T	0.69	23.3	C	T	0.58	14.3	B	exclusive through lanes.
		R	0.65	24.2	C	R	0.67	24.9	C	R	0.56	15.2	B	-Divert left-turning turning to NB 112th Street and then to SB 114th Street.
	WB	DefL	1.22	125.9	F	DefL	1.40	206.2	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	1.17	96.3	F	T	1.21	110.8	F	T	1.13	83.1	F	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
														-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to
Overall Intersection		**-**	**1.82**	**74.3**	**E**	**-**	**2.14**	**91.0**	**F**	**-**	**0.99**	**57.9**	**E**	SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	1.14	112.8	F	L	2.39	674.7	F	L	1.93	463.0	F	-Partially mitigated.
		R	0.63	43.9	D	R	2.20	589.5	F	R	0.64	39.9	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	0.55	38.2	D	T	0.55	38.2	D	T	0.66	43.7	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.31	6.9	A	T	0.33	7.1	A	T	0.36	9.6	A	through the intersection.
Grand Central Parkway Ramp	EB	T	0.90	46.3	D	T	0.90	46.3	D	T	0.92	49.4	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.62	11.6	B	T	0.82	18.4	B	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.74**	**45.3**	**D**	**-**	**1.17**	**274.2**	**F**	**-**	**1.14**	**191.6**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 1 s of green time from EB GCP/Astoria Blvd ramp phase to NB 126th St phase and 5 s green time from EB Northern Blvd phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 26 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 44 s].

TABLE 9
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2018 PHASE 1A SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.10	93.5	F	LTR	1.10	93.5	F					-Unmitigatable impact.
	SB	LTR	0.40	38.5	D	LTR	0.40	38.5	D					
Northern Boulevard (Rt. 25A)	EB	L	0.87	63.3	E	L	0.87	63.3	E					
		T	1.01	45.3	D	T	1.05	58.3	E					
	WB	L	0.88	86.1	F	L	0.88	86.1	F					
		T	0.97	45.8	D	T	0.99	51.1	D					
Northern Boulevard Service Rd.	EB	TR	0.44	21.7	C	TR	0.44	21.7	C					
	WB	TR	0.53	28.7	C	TR	0.58	30.0	C					
Overall Intersection		**-**	**0.98**	**47.5**	**D**	**-**	**1.04**	**54.4**	**D**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.84	47.2	D	L	0.84	47.2	D					-Unmitigatable impact.
		R	0.72	40.8	D	R	0.72	40.8	D					
Northern Boulevard (Rt 25A)	EB	T	1.03	56.7	E	T	1.08	74.1	E					
		R	1.15	112.5	F	R	1.15	112.5	F					
	WB	L	0.11	25.9	C	L	0.11	25.9	C					
		T	0.68	20.8	C	T	0.72	21.5	C					
Overall Intersection		**-**	**0.95**	**50.1**	**D**	**-**	**0.95**	**57.0**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.65	34.4	C	TR	0.65	34.4	C	TR	0.70	37.9	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
	SB	TR	0.66	34.3	C	TR	0.66	34.3	C	TR	0.71	37.8	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Northern Boulevard (Rt. 25A)	EB	L	0.72	31.5	C	L	0.72	34.6	C	L	0.68	20.6	C	
		TR	1.21	134.7	F	TR	1.27	158.1	F	TR	1.18	120.3	F	-Modify Signal Timing: Shift 3 s of green time from NB/SB phase to EB/WB phase [NB/SB
	WB	L	0.98	75.5	E	L	0.98	78.1	E	L	0.98	78.7	E	green time shifts from 44 s to 41 s; EB/WB green time shifts from 45 s to 48 s].
		TR	0.83	38.0	D	TR	0.88	40.3	D	TR	0.61	29.6	C	
Overall Intersection		**-**	**0.92**	**76.0**	**E**	**-**	**0.97**	**86.5**	**F**	**-**	**0.95**	**69.2**	**E**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.72	54.5	D	L	0.73	55.7	E	L	0.73	55.7	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.58	38.0	D	TR	0.58	38.0	D	TR	0.58	38.0	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.10	88.8	F	LTR	1.13	100.6	F	LT	0.69	35.5	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.32	32.8	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.44	42.9	D	L	0.49	44.5	D	L	0.49	42.2	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.13	91.5	F	TR	1.18	117.7	F	T	0.98	38.2	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.42	24.0	C	
	WB	L	0.51	45.7	D	L	0.51	46.6	D	L	0.51	45.4	D	
		TR	1.10	79.8	E	TR	1.15	104.0	F	T	0.95	35.6	D	
		-	-	-	-	-	-	-	-	R	0.32	22.6	C	
Overall Intersection		**-**	**1.08**	**78.9**	**E**	**-**	**1.10**	**98.8**	**F**	**-**	**0.92**	**37.2**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.15	106.1	F	L	1.21	131.0	F	L	1.10	85.7	F	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.34	24.9	C	T	0.41	25.8	C	T	0.37	23.2	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.43	12.1	B	T	0.43	12.1	B	T	0.46	14.1	B	
		R	0.06	8.4	A	R	0.06	8.4	A	R	0.06	9.8	A	
Overall Intersection		**-**	**0.70**	**62.5**	**E**	**-**	**0.72**	**75.8**	**E**	**-**	**0.72**	**52.5**	**D**	

TABLE 9
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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	2.19	571.1	F	L	1.56	286.8	F	-Partially mitigated.
		LTR	0.44	19.8	B	TR	1.48	250.8	F	TR	0.89	30.2	C	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.16	16.7	B	LTR	0.35	19.6	B	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.96	92.7	F	LTR	1.95	490.2	F	L	0.07	15.2	B	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.13	13.7	B	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	DefL	3.14	1016.0	F	DefL	1.56	313.4	F	DefL	0.77	43.2	D	and two 11-ft EB receiving lanes.
		TR	1.80	420.2	F	TR	0.74	65.5	E	TR	0.19	25.8	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		-	-	-	-					-	-	-	-	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
34th Avenue	WB	LTR	0.86	79.0	E	LTR	0.88	81.3	F	LTR	0.48	30.9	C	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	**-**	**1.22**	**289.6**	**F**	**-**	**1.98**	**324.6**	**F**	**-**	**1.24**	**93.0**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 45 s green time; NB/SB phase will have 65 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.12	104.0	F	LTR	1.14	113.2	F	LT	1.09	89.3	F	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.27	36.4	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.16	120.9	F	LTR	1.17	124.3	F	LT	1.05	77.3	E	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.34	37.3	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.62	14.4	B	LTR	0.67	15.8	B	LTR	0.67	15.8	B	
	WB	LTR	0.91	18.7	B	LTR	0.99	26.6	C	LTR	0.99	26.6	C	
	Overall Intersection	**-**	**0.97**	**50.5**	**D**	**-**	**1.03**	**54.3**	**D**	**-**	**1.02**	**39.5**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.03	69.2	E	LTR	1.03	69.2	E	LTR	1.03	69.2	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.72	16.8	B	LTR	0.78	19.4	B	LTR	0.80	20.9	C	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.19	107.1	F	LTR	1.28	145.8	F	LT	0.98	25.2	C	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.24	8.0	A	
	Overall Intersection	**-**	**1.15**	**69.8**	**E**	**-**	**1.21**	**88.5**	**F**	**-**	**0.99**	**31.0**	**C**	
114th Street at Roosevelt Avenue														-Partially Mitigated.
114th Street	NB	LTR	0.66	45.2	D	LTR	0.70	47.8	D	LTR	0.66	42.7	D	-Shift the centerline of the SB 114th Street approach 2 feet to the east.
	SB	LTR	1.08	82.8	F	LTR	1.19	132.9	F	LT	0.74	37.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB 114th Street approach
		-	-	-	-	-	-	-	-	R	0.27	33.5	C	150-ft from the stop bar to allow for one 12-ft shared left-through lane and one 10-ft right-turn
Roosevelt Avenue	EB	LTR	1.24	129.7	F	LTR	1.55	270.4	F	L	0.50	12.8	B	lane.
		-	-	-	-	-	-	-	-	TR	0.61	13.6	B	-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
	WB	LTR	0.77	16.3	B	LTR	1.12	79.8	E	L	0.45	14.1	B	approach 150-ft from the stop bar to allow for one 11-ft left-turn lane and one 11-ft shared
		-	-	-	-	-	-	-	-	T	0.66	16.1	B	through-right lane.
		-	-	-	-	-	-	-	-	R	1.44	230.0	F	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	Overall Intersection	**-**	**1.19**	**58.2**	**E**	**-**	**1.44**	**131.8**	**F**	**-**	**1.21**	**70.0**	**E**	-Restripe WB Roosevelt Avenue approach as one 11-ft left-turn pocket (250 feet long), one 11-ft through lane, and one 11-ft right-turn lane.
														-Modify Signal Timing: Shift 4 s of green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.20	37.0	D	LTR	0.60	63.3	E	LTR	0.11	18.5	B	-Partially Mitigated.
	SB	DefL	1.22	153.7	F	-	-	-	-	LT	1.05	83.5	F	-Restripe SB approach as one 12-ft right-turn lane and one 11-ft shared left-through lane.
		TR	0.50	29.9	C	LTR	1.63	324.4	F	R	1.36	193.8	F	-New signal phasing and timing plan: Shared EB/WB phase receives 42 s green time; EB lag
Roosevelt Avenue	EB	-	-	-	-	-	-	-	-	-	-	-	-	phase with SB right-turns receives 7 s green time; NB/SB phase receives 56 s green time [each
		LTR	0.60	22.5	C	LTR	0.70	25.5	C	LTR	0.82	36.3	D	phase will have 3 s amber and 2 s all red time].
	WB	LTR	0.49	20.0	B	LTR	0.56	21.3	C	LTR	0.85	45.1	D	-Traffic Enforcement Agents should monitor traffic conditions and direct traffic accordingly.
	Overall Intersection	**-**	**0.87**	**52.7**	**D**	**-**	**1.11**	**174.6**	**F**	**-**	**1.17**	**98.4**	**F**	

TABLE 9
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2018 PHASE 1A SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.00	81.3	F	L	1.14	126.1	F	L	0.77	58.7	E	-Partially Mitigated
		TR	0.76	25.3	C	TR	0.76	25.3	C	TR	0.69	29.5	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	0.87	38.7	D	TR	0.92	43.0	D	T	0.57	40.9	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.57	30.3	C	L	0.61	31.0	C	L	0.57	38.5	D	
		TR	1.21	118.3	F	TR	1.33	172.1	F	TR	1.31	169.2	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.24	32.7	C	L	0.24	32.7	C	-	-	-	-	
		TR	0.41	25.7	C	TR	0.46	26.4	C	TR	0.45	40.1	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.14**	**56.8**	**E**	**-**	**1.21**	**76.7**	**E**	**-**	**1.02**	**73.7**	**E**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.70	36.2	D	LTR	0.70	36.2	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.76	17.9	B	-	-	-	-					
		TR	0.81	17.3	B	LTR	0.78	15.0	B					
	WB	LTR	0.59	12.1	B	LTR	0.64	13.0	B					
	Overall Intersection	**-**	**0.77**	**19.6**	**B**	**-**	**0.76**	**18.3**	**B**					
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.66	23.9	C	T	0.66	23.9	C	T	0.74	28.8	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
	SB	T	0.54	22.0	C	T	0.54	22.0	C	T	0.60	26.1	C	
Roosevelt Avenue	EB	L	0.25	19.1	B	L	0.26	19.6	B	L	0.22	16.0	B	
		TR	0.93	45.6	D	TR	1.02	67.1	E	TR	0.93	42.3		
	WB	L	0.19	17.2	B	L	0.22	18.0	B	L	0.18	14.7	B	
		TR	0.84	34.8	C	TR	0.89	39.2	D	TR	0.80	29.1	C	
	Overall Intersection	**-**	**0.80**	**30.4**	**C**	**-**	**0.85**	**37.1**	**D**	**-**	**0.85**	**31.2**	**C**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.44	17.1	B	TR	0.44	17.1	B					-Unmitigatable impact.
	SB	LT	1.17	109.2	F	LT	1.17	109.2	F					
		R	1.85	417.1	F	R	1.85	417.1	F					
Roosevelt Avenue	EB	LTR	1.92	446.6	F	LTR	2.09	521.5	F					
	WB	LT	0.71	29.8	C	LT	0.77	33.0	C					
		R	1.41	258.7	F	R	1.41	258.7	F					
	Overall Intersection	**-**	**1.88**	**210.1**	**F**	**-**	**1.96**	**233.8**	**F**					

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.91	36.6	D	LTR	0.92	37.4	D	LTR	0.95	43.2	D	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	LTR	0.74	25.9	C	LTR	0.74	25.9	C	LTR	0.76	27.3	C	green time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s].
Roosevelt Avenue	EB	LTR	0.69	25.6	C	LTR	0.79	30.5	C	LTR	0.77	28.5	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
	WB	LTR	0.73	27.3	C	LTR	0.78	30.1	C	LTR	0.76	28.1	C	
Overall Intersection		**-**	**0.82**	**29.2**	**C**	**-**	**0.85**	**31.0**	**C**	**-**	**0.86**	**32.0**	**C**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.66	29.8	C	L	0.66	30.0	C	L	0.64	28.0	C	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.65	22.4	C	TR	0.65	22.4	C	TR	0.64	21.3	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.43	19.5	B	L	0.43	19.5	B	L	0.44	20.4	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
		TR	0.47	18.7	B	TR	0.47	18.7	B	TR	0.46	17.9	B	
Kissena Boulevard	WB	T	0.64	23.9	C	T	0.64	23.9	C	T	0.65	25.1	C	
Overall Intersection		**-**	**0.65**	**21.7**	**C**	**-**	**0.65**	**21.7**	**C**	**-**	**0.65**	**21.3**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.23	12.5	B	L	0.24	13.1	B					-Mitigation not required.
		T	0.55	12.4	B	T	0.56	12.5	B					
	SB	TR	0.78	16.7	B	TR	0.80	17.4	B					
Sanford Avenue	WB	L	0.56	34.0	C	L	0.56	34.0	C					
		TR	0.33	26.4	C	TR	0.38	27.1	C					
Overall Intersection		**-**	**0.71**	**17.1**	**B**	**-**	**0.72**	**17.6**	**B**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.41	21.9	C	LTR	0.41	21.9	C					-Mitigation not required.
	SB	LTR	0.79	28.6	C	LTR	0.80	29.1	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.23	13.7	B	LTR	0.23	13.7	B					
	WB	LTR	0.68	21.7	C	LTR	0.70	22.4	C					
Overall Intersection		**-**	**0.73**	**23.3**	**C**	**-**	**0.74**	**23.6**	**C**					
Parsons Boulevard at Sanford Avenue		8.5x11												
Parsons Boulevard	NB	LTR	0.89	32.7	C	LTR	0.90	33.9	C					-Mitigation not required.
	SB	LTR	0.72	25.2	C	LTR	0.80	29.2	C					
Sanford Avenue	EB	LTR	0.79	28.6	C	LTR	0.79	29.1	C					
	WB	LTR	0.79	30.0	C	LTR	0.82	31.7	C					
Overall Intersection		**-**	**0.84**	**29.1**	**C**	**-**	**0.86**	**30.9**	**C**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.43	23.8	C	T	0.44	23.9	C					-Mitigation not required.
		TR	0.34	22.8	C	TR	0.36	23.0	C					
	SB	L	0.27	27.3	C	L	0.27	27.3	C					
		T	0.29	9.5	A	T	0.29	9.5	A					
32nd Avenue	WB	LTR	0.29	26.7	C	LTR	0.29	26.7	C					
Overall Intersection		**-**	**0.85**	**19.4**	**B**	**-**	**0.85**	**19.5**	**B**					

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.50	12.7	B	TR	0.51	12.8	B					-Mitigation not required.
	SB	LT	0.53	13.6	B	LT	0.54	13.7	B					
Northern Blvd Service Rd	WB	LR	0.55	28.7	C	LR	0.59	29.8	C					
Overall Intersection		**-**	**0.53**	**15.6**	**B**	**-**	**0.56**	**16.0**	**B**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	L	1.76	375.0	F	DefL	0.86	73.6	E	-	-	-	-	-Install an actuated controller.
		TR	1.38	202.4	F	TR	0.27	19.7	B	LTR	0.88	75.8	E	-Modify signal phasing and timing plan: EB/WB phase will have 65 s green time; NB phase will
	SB	LTR	0.29	20.0	C	LTR	0.74	27.6	C	LTR	0.66	43.3	D	have 11 s green time; SB phase will have 29 s green time [each phase will have 3 s amber and 2 s
		-	-	-	-	-	-	-	-	-	-	-	-	all red time]. NB/SB pedestrians will cross during the SB phase.
Stadium Road	EB	-	-	-	-	DefL	1.20	186.4	F	DefL	0.82	56.6	E	
		-	-	-	-	TR	0.18	12.8	B	TR	0.17	14.0	B	
	WB	LTR	0.30	13.6	B	LTR	1.07	63.7	E	LTR	0.79	24.5	C	
Overall Intersection		**-**	**0.94**	**221.9**	**F**	**-**	**1.06**	**51.9**	**D**	**-**	**0.78**	**36.1**	**D**	
UNSIGNALIZED INTERSECTIONS														
Willets Point Boulevard at 126th Street														
126th Street	SB	LT	-	8.0	A	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Willets Point Boulevard	WB	LR	-	9.8	A	-	-	-	-					
Overall Intersection		**-**	**-**	**9.8**	**A**	**-**	**-**	**-**	**-**					
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	79.7	F	L	-	813.1	F	L	0.50	29.5	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	12.9	B	R	-	9.2	A	R	0.14	2.8	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.12	36.8	D	and 2 s all red time].
		-	-	-	-	-	-	-	-	L	0.36	18.0	B	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
	WB	LT	-	7.7	A	LT	-	8.4	A	LT	0.86	35.0	D	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**43.0**	**E**	**-**	**-**	**370.1**	**F**	**-**	**0.64**	**27.4**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.1	A	TR	-	8.8	A					-Mitigation not required.
Overall Intersection		**-**	**-**	**9.1**	**A**	**-**	**-**	**8.8**	**A**					
Boat Basin Road at Stadium Road / Citifield Entrance 8														
Citifield Entrance 8	NB	-	-	-	-	-	-	-	-					-Intersection would no longer exist under the With Action condition.
Boat Basin Road	SB	-	-	-	-	-	-	-	-					
Stadium Road	EB	LT	-	64.2	F	-	-	-	-					
		-	-	-	-	-	-	-	-					
Citifield Entrance 9	WB	R	-	50.9	F	-	-	-	-					
Overall Intersection		**-**	**-**	**62.4**	**F**	**-**	**-**	**-**	**-**					

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.02	24.3	C	-Install traffic signal with the following timing plan: EB will have 39 s green time; WB will have
	SB	-	-	-	-	LT	-	7.7	A	L	0.29	28.6	C	22 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.86	44.2	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	46.3	E	L	-	49.9	E	L	0.30	31.7	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	60.6	F	T	0.40	33.5	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	21.5	C	R	-	13.2	B	-	-	-	-	[Measures reflect improvements needed for the Weekday Non-game Midday, Saturday Non-game
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.87	63.7	E	Midday, Weekday Pre-game, and Saturday Pre-game peak periods.]
		-	-	-	-	R	-	8.8	A	R	0.26	44.5	D	-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**36.9**	**E**	**-**	**-**	**1000.0+**	**F**	**-**	**0.69**	**45.6**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	1.32	186.8	F	TR	1.32	186.8	F	-Unmitigatable impact.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	LT	0.60	34.0	C	LT	0.60	34.0	C	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	12.9	B	L	0.62	22.7	C	L	0.62	22.7	C	
		-	-	-	-	R	1.34	190.6	F	R	1.34	190.6	F	
	Overall Intersection	**-**	**-**	**12.6**	**B**	**-**	**1.33**	**144.5**	**F**	**-**	**1.33**	**144.5**	**F**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	1.04	94.3	F	TR	1.04	94.3	F	-Unmitigatable impact.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	LT	1.30	184.6	F	LT	1.30	184.6	F	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	16.3	C	L	0.58	18.5	B	L	0.58	18.5	B	
		-	-	-	-	R	1.66	322.6	F	R	1.66	322.6	F	
	Overall Intersection	**-**	**-**	**15.2**	**C**	**-**	**1.61**	**177.5**	**F**	**-**	**1.61**	**177.5**	**F**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	16.1	C	R	-	17.0	C	R	0.11	39.3	D	-Mitigation not required.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.50	8.4	A	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
	Overall Intersection	**-**	**-**	**16.1**	**C**	**-**	**-**	**17.0**	**C**	**-**	**0.41**	**8.9**	**A**	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. -Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. -Intersection meets NYCDOT Signal Warrant Criteria.

Notes

(1): Control delay is measured in seconds per vehicle.
(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.
(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 10

2028 (PHASE 1B) SUMMARY OF NON-GAMEDAY MITIGATION MEASURES

INTERSECTION	NON-GAMEDAY WEEKDAY AM PEAK HOUR	NON-GAMEDAY WEEKDAY MIDDAY PEAK HOUR	NON-GAMEDAY WEEKDAY PM PEAK HOUR	NON-GAMEDAY SATURDAY MIDDAY PEAK HOUR
SIGNALIZED INTERSECTIONS				
108th Street at Astoria Boulevard	Mitigation not required.	Mitigation not required.	**Unmitigatable impact.**	Install "No Standing Saturday 11 AM - 10 PM" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
108th Street at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft fror the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify Signal Timing: Shift 2 s of green time from EB/WB left-turn phase EB/WB phase [EB/WB left-turn green time shifts from 9 s to 7 s; EB/WB green time shifts from 71 s to 73 s].	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft fror the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 30 s to 28 s; EB/WB left-turn green time shifts from 9 s to 11 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 10(ft from the intersection to allow for a 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft fror the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane anc one 12-ft shared through-right lane for 175 ft. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 10(ft from the intersection to allow for a 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft fror the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane anc one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 30 s to 28 s; EB/WB left-turn green time shifts from 9 s to 11 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 10(ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SEB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 7 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 30 s]. Shift 34 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 46 s to 80 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SEB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. **[Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)	Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 3 s of green time from EB Northern Blvd phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 28 s; EB Northern Blvd green time shifts from 35 s to 32 s].	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 2 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 37 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 43 s].	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 1 s green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase and 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 54 s; NB 126th St green time shifts from 25 s to 23 s].	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 37 s; NB 126th St green time shifts from 25 s to 23 s].
Prince Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-fi	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-fi
Main Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Union Street at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 44 s to 43 s; EB/WB green time shifts from 45 s to 46 s].	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Parsons Boulevard at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 2 s green time from EB/WB protected left-turn phase to EB/WB phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s; NB/SB green time shifts from 36 s to 37 s; LPI shifts from 7 s to 6 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s of green time from EB/WB phase to EB/WB protected left-turn phase [EB/WB green time shifts from 52 s to 51 s; EB/WB protected left-turn green time shifts from 10 s to 11 s].	**Partially Mitigated.** Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 2 s of green time from EB/WB protected left-turn phase to EB/WB phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
114th Street at 34th Avenue	Mitigation not required.	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
126th Street/GCP Ramp at 34th Avenue	Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to three 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 49 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 49 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to three 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 56 s green time; NB/SB lead left-turn phase will have 12 s green time; NB/SB phase will have 37 s green time [each phase wil have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to three 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 53 s green time; NB/SB lead left-turn phase will have 15 s green time; NB/SB phase will have 37 s green time [each phase will have 3 s amber and 2 s all red time].	Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to three 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB lead left-turn phase will have 10 s green time; NB/SB phase will have 40 s green time [each phase will have 3 s amber and 2 s all red time].
108th Street at Roosevelt Avenue	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
111th Street at Roosevelt Avenue	Mitigation not required.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	**Partially Mitigated.** Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.
114th Street at Roosevelt Avenue	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s]. Install "No Standing 3 PM - 7 PM" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 5 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 75 s; NB/SB green time shifts from 30 s to 35 s].

TABLE 10
2028 (PHASE 1B) SUMMARY OF NON-GAMEDAY MITIGATION MEASURES

126th Street at Roosevelt Avenue	Modify signal phasing and timing plan: EB lead phase will have 9 s green time; EB/WB phase will have 52 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 32 s green time; [each phase will have 3 s amber and 2 s all red time].B22 Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb.	**Partially mitigated.** Modify signal phasing and timing plan: EB lead phase will have 8 s green time; EB/WB phase will have 55 s green time; WB lag phase will have 8 s green time; NB/SB phase will have 29 s green time; [each phase will have 3 s amber and 2 s all red time]. Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb.	**Unmitigated impact** Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 59 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 29 s green time; [each phase will have 3 s amber and 2 s all red time]. Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb.	**Partially mitigated.** Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 55 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s green time; [each phase will have 3 s amber and 2 s all red time]. Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb.
College Point Boulevard at Roosevelt Avenue	Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and tw 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 33 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 17 s green time; NB/SB phase will have 30 s gree time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and tw 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 35 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 26 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and tw 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 24 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 30 s gree time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and tw 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Modify signal phasing and timing plan: WB-lead/NB right phase will have 10 s green time; EB/WB will have 28 s green time; EB-lag right phase will have 12 s green time; NB/SB phase will have 26 s green time; NB lag phase will have 19 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue	Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].	Mitigation not required.	Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].	Mitigation not required.
Main Street at Roosevelt Avenue	Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 47 s; NB/SB green time shifts from 65 s to 63 s].	**Partially Mitigated.** -Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 41 s; NB/SB green time shifts from 41 s to 39 s].	**Partially mitigated.** Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].	**Partially mitigated.** Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Union Street at Roosevelt Avenue	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Parsons Boulevard at Roosevelt Avenue	Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s]. Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.	Mitigation not required.	Modify Signal Timing: Shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 59 s; NB/SB green time shifts from 55 s to 51 s. Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Weekday Pre-game PM peak period.]**	**Partially mitigated.** Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s]. Install "No Standing 10AM - 8PM, Saturday" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
Main Street at Kissena Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
College Point Boulevard at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Union Street at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Parsons Boulevard at Sanford Avenue	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 38 s; NB/SB green time shifts from 40 s to 42 s].	**Unmitigatable impact.**
College Point Boulevard at 32nd Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Northern Boulevard Service Road	Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s].	Modify Signal Timing: Shift 3 s of green time from NB/SB phase to WB phase [NB/SB green time shifts from 51 s to 48 s; WB green time shifts from 29 s to 32 s].	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s].
Boat Basin Road at Stadium Road	Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 26 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 60 s green time; [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 21 s green time; WB lag phase will have 10 s green time; NB/SB phase will have 62 s green time; [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 21 s green time; WB lag phase will have 15 s green time; NB/SB phase will have 57 s green time; [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 21 s green time; WB lag phase will have 14 s green time; NB/SB phase will have 58 s green time; [each phase will have 3 s amber and 2 s all red time].
UNSIGNALIZED INTERSECTIONS				
Boat Basin Road at Worlds Fair Marina	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.
Willets Point Boulevard at Northern Boulevard	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB will have 25 s green time; NB/SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB will have 25 s green time; NB/SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB will have 25 s green time; NB/SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB will have 25 s green time; NB/SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Mitigation not required. Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.
126th Street at 36th Avenue	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
126th Street at 37th Avenue	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
Northern Boulevard at 126th Place	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.
NEW (WITH ACTION) SIGNALIZED INTERSECTION				
126th Street at New Willets Point Boulevard	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria.

NOTE: This table has been revised for the Final SEIS.

TABLE 11
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.78	61.4	E	DefL	0.81	64.8	E					-Mitigation not required.
		T	0.21	35.6	D	T	0.21	35.6	D					
	SB	LTR	0.36	38.5	D	LTR	0.36	38.5	D					
Astoria Boulevard	EB	TR	0.60	25.7	C	TR	0.65	26.6	C					
		-	-	-	-	-	-	-	-					
	WB	L	0.57	14.9	B	L	0.60	16.4	B					
		TR	0.78	8.1	A	TR	0.80	8.4	A					
Overall Intersection		**-**	**0.78**	**18.0**	**B**	**-**	**0.81**	**18.8**	**B**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.14	113.7	F	LTR	1.23	154.6	F	L	0.57	44.3	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.61	42.6	D	from the intersection to allow for two moving lanes.
	SB	LTR	0.98	81.6	F	LTR	0.99	83.6	F	L	0.31	42.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.63	47.8	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.08	22.6	C	L	0.08	25.5	C	L	0.09	23.1	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.76	20.8	C	TR	0.84	24.2	C	TR	0.82	21.9	C	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.44	21.5	C	L	0.49	27.2	C	L	0.51	26.5	C	and one 12-ft shared through-right lane for 175 ft.
		TR	1.05	39.0	D	TR	1.09	55.7	E	TR	1.06	41.6	D	-Modify Signal Timing: Shift 2 s of green time from EB/WB left-turn phase EB/WB phase
		-	-	-	-	-	-	-	-	-	-	-	F	[EB/WB left-turn green time shifts from 9 s to 7 s; EB/WB green time shifts from 71 s to 73 s].
Overall Intersection		**-**	**0.94**	**40.3**	**D**	**-**	**1.00**	**53.2**	**D**	**-**	**0.84**	**35.9**	**D**	
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.47	47.8	D	LTR	0.50	48.5	D	LTR	0.63	43.7	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.87	41.1	D	T	0.99	56.5	E	T	0.57	11.6	B	exclusive through lanes.
		R	0.74	38.5	D	R	0.76	39.2	D	R	0.44	10.5	B	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.50	15.4	B	DefL	0.55	22.8	C	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	1.19	102.1	F	T	1.23	121.8	F	T	1.03	35.0	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.31**	**75.5**	**E**	**-**	**1.37**	**90.6**	**F**	**-**	**0.92**	**28.7**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 7 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 30 s]. Shift 34 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 46 s to 80 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.28	41.1	D	L	0.71	51.1	D	L	0.63	45.9	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
		R	0.27	41.3	D	R	1.16	166.6	F	R	0.38	40.8	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
Northern Boulevard	EB	T	0.54	38.2	D	T	0.57	38.9	D	T	0.70	43.6	D	through the intersection.
	WB	T	0.66	10.9	B	T	0.69	11.5	B	T	0.71	13.5	B	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Grand Central Parkway Ramp	EB	T	0.83	42.0	D	T	0.85	43.2	D	T	0.85	43.2	D	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
Van Wyck & Whitestone Expressway Ramp	WB	T	1.12	111.2	F	T	1.35	206.5	F	-	-	-	-	-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.93**	**51.7**	**D**	**-**	**1.30**	**88.5**	**F**	**-**	**0.75**	**32.1**	**C**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. -Modify signal timing: shift 3 s of green time from EB Northern Blvd phase to NB 126th St phase [NB 126th St green time shifts from 25 s to 28 s; EB Northern Blvd green time shifts from 35 s to 32 s].

TABLE 11
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.15	132.8	F	LTR	1.15	132.8	F					-Unmitigatable impact.
	SB	LTR	0.80	53.5	D	LTR	0.80	53.5	D					
Northern Boulevard (Rt. 25A)	EB	L	0.96	94.8	F	L	0.96	94.8	F					
		T	0.81	22.5	C	T	0.84	23.8	C					
	WB	L	0.96	92.6	F	L	0.96	92.6	F					
		T	1.16	96.2	F	T	1.18	106.9	F					
Northern Boulevard Service Rd.	EB	TR	0.45	16.7	B	TR	0.45	16.7	B					
	WB	TR	0.67	19.1	B	TR	0.76	21.9	C					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**1.12**	**62.5**	**E**	**-**	**1.14**	**66.9**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.77	43.7	D	L	0.77	43.7	D					-Unmitigatable impact.
		R	0.85	55.0	D	R	0.85	55.0	E					
Northern Boulevard (Rt 25A)	EB	T	0.94	39.8	D	T	0.98	46.4	D					
		R	1.17	124.0	F	R	1.17	124.0	F					
	WB	L	0.17	26.4	C	L	0.17	26.4	C					
		T	1.05	44.3	D	T	1.10	63.8	E					
Overall Intersection		**-**	**1.01**	**50.8**	**D**	**-**	**1.01**	**60.8**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.67	35.0	C	TR	0.67	35.0	C	TR	0.69	36.1	D	-Partially Mitigated.
	SB	TR	0.89	42.3	D	TR	0.90	43.0	D	TR	0.92	45.6	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.96	65.4	E	L	0.96	65.7	E	L	0.96	65.8	E	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.23	141.8	F	TR	1.28	166.5	F	TR	1.25	153.1	F	
	WB	L	1.02	78.5	E	L	1.02	77.6	E	L	1.02	77.6	E	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB phase [NB/SB
		TR	0.96	39.5	D	TR	1.01	49.1	D	TR	0.99	42.8	D	green time shifts from 44 s to 43 s; EB/WB green time shifts from 45 s to 46 s].
Overall Intersection		**-**	**1.12**	**72.8**	**E**	**-**	**1.11**	**84.3**	**F**	**-**	**1.12**	**78.3**	**E**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.96	92.2	F	L	0.97	95.4	F	L	0.93	84.6	F	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.56	39.8	D	TR	0.56	39.8	D	TR	0.55	38.6	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	0.82	47.6	D	LTR	0.84	48.6	D	LTR	0.81	45.8	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	-	-	-	-	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.53	45.4	D	L	0.55	46.5	D	L	0.61	48.5	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.03	60.9	E	TR	1.11	88.5	F	T	0.84	32.7	C	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.38	24.1	C	-Modify Signal Timing: Shift 2 s green time from EB/WB protected left-turn phase to EB/WB
	WB	L	0.44	36.7	D	L	0.46	39.7	D	L	0.44	33.9	C	phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB
		TR	1.12	86.5	F	TR	1.18	110.3	F	TR	1.13	88.3	F	protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s
		-	-	-	-	-	-	-	-	-	-	-	-	NB/SB green time shifts from 36 s to 37 s; LPI shifts from 7 s to 6 s].
Overall Intersection		**-**	**1.02**	**69.9**	**E**	**-**	**1.03**	**88.8**	**F**	**-**	**1.04**	**62.4**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.84	38.8	D	L	0.87	40.7	D					-Mitigation not required.
		T	0.31	24.6	C	T	0.34	25.0	C					
34th Avenue	EB	T	0.42	12.0	B	T	0.42	12.0	B					
		R	0.11	8.8	A	R	0.12	8.9	A					
Overall Intersection		**-**	**0.57**	**23.8**	**C**	**-**	**0.58**	**24.6**	**C**					

TABLE 11
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	0.36	24.8	C	L	0.21	16.9	B	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
		LTR	0.17	19.9	B	TR	0.33	22.1	C	TR	0.32	25.0	C	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
Northern Boulevard Ramp	SB	LTR	0.32	22.4	C	LTR	0.54	27.1	C	-	-	-	-	II bicycle lane.
GCP Ramp	SB	LTR	0.82	65.2	E	LTR	2.52	738.7	F	L	0.35	19.0	B	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
		-	-	-	-	-	-	-	-	T	0.30	24.6	C	and two 11-ft EB receiving lanes.
Shea Road	EB	-	-	-	-	-	-	-	-	-	-	-	-	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		LTR	0.47	43.1	D	LTR	1.52	291.3	F	LTR	0.58	30.1	C	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		-	-	-	-					DefL	0.68	38.7	D	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
34th Avenue	WB	LTR	0.64	53.4	D	LTR	3.00+	1000.0+	F	TR	0.65	34.4	C	11-ft travel lanes.
	Overall Intersection	**-**	**0.52**	**40.2**	**D**	**-**	**1.75**	**468.8**	**F**	**-**	**0.53**	**28.2**	**C**	-Modify signal phasing and timing plan: EB/WB phase will have 49 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 49 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.03	81.3	F	LTR	1.05	88.8	F	LT	0.86	52.3	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.20	36.1	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.10	100.9	F	LTR	1.10	104.3	F	LT	0.88	53.5	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.30	37.2	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.69	16.3	B	LTR	0.77	19.3	B	LTR	0.77	19.3	B	
	WB	LTR	0.82	10.6	B	LTR	0.90	15.1	B	LTR	0.90	15.1	B	
	Overall Intersection	**-**	**0.90**	**37.4**	**D**	**-**	**0.96**	**40.4**	**D**	**-**	**0.90**	**26.6**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.00	69.6	E	LTR	1.00	69.6	E					-Mitigation not required.
Roosevelt Avenue	EB	LTR	0.67	15.4	B	LTR	0.75	18.1	B					
	WB	LTR	0.93	18.7	B	LTR	1.01	32.4	C					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.95**	**27.5**	**C**	**-**	**1.00**	**34.0**	**C**					
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.03	76.1	E	LTR	1.05	83.3	F	LTR	0.70	40.8	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.12	111.0	F	LTR	1.32	196.4	F	LTR	1.03	74.0	E	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	-	-	-	-	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	0.82	22.7	C	LTR	0.93	34.6	C	L	0.21	9.7	A	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.59	14.3	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.57	5.4	A	LTR	0.65	6.4	A	L	0.68	22.2	C	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.59	8.0	A	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.20	9.3	A	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**0.91**	**31.6**	**C**	**-**	**1.04**	**43.9**	**D**	**-**	**0.79**	**22.3**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].

TABLE 11
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.22	37.1	D	LTR	0.23	37.3	D	LTR	0.12	33.7	C	-Unmitigatable impact.
		-	-	-	-	-	-	-	-	-	-	-	-	-Modify signal phasing and timing plan: EB lead phase will have 9 s green time; EB/WB phase
	SB	DefL	1.22	173.6	F	DefL	1.64	351.1	F	DefL	1.52	295.4	F	will have 52 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 32 s
		TR	0.67	52.5	D	TR	0.93	79.3	E	TR	0.86	65.8	E	green time; [each phase will have 3 s amber and 2 s all red time].
Roosevelt Avenue	EB	-	-	-	-	DefL	0.75	29.2	C	DefL	0.82	41.1	D	-Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the
		LTR	0.56	12.5	B	TR	0.55	12.6	B	TR	0.67	23.2	C	east curb.
	WB	LTR	0.62	6.1	A	LTR	0.79	9.7	A	LTR	0.99	42.4	D	
	Overall Intersection	**-**	**0.77**	**34.2**	**C**	**-**	**1.00**	**64.4**	**E**	**-**	**1.49**	**73.2**	**E**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.41	244.3	F	L	1.61	327.8	F	L	1.30	204.0	F	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane
		TR	0.73	27.4	C	TR	0.73	27.4	C	TR	0.82	35.9	D	to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane
	SB	TR	0.85	43.4	D	TR	0.96	55.3	E	T	0.77	46.6	D	to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.44	40.0	D	L	0.47	40.6	D	L	0.42	35.9	D	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-
		TR	0.98	60.1	E	TR	1.10	94.9	F	TR	0.93	45.3	D	ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and
	WB	L	0.22	45.2	D	L	0.22	45.2	D	-	-	-	-	two 10-ft travel lanes lanes for 200 ft.
		TR	0.68	44.5	D	TR	0.75	47.4	D	TR	0.49	37.9	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft
	Overall Intersection	**-**	**1.10**	**67.8**	**E**	**-**	**1.20**	**90.4**	**F**	**-**	**0.95**	**64.7**	**E**	travel lane to three 10-ft travel lanes for 200 ft.
														-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one
														NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB
														20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef
														turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east.
														Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College
														Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College
														Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 33 s green time; EB-lag phase will
														have 20 s green time; NB lead-phase will have 17 s green time; NB/SB phase will have 30 s
														green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.52	31.0	C	LTR	0.52	31.0	C	LTR	0.54	33.0	C	-Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green
Roosevelt Avenue	EB	DefL	1.28	175.3	F	DefL	1.32	191.1	F	DefL	1.26	163.1	F	time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].
		TR	0.59	23.1	C	TR	0.64	24.5	C	TR	0.61	22.6	C	
	WB	LTR	0.90	33.9	C	LTR	0.94	38.8	D	LTR	0.91	33.4	C	
		-	-	-	-	-	-	-	-	-	-	-	-	
	Overall Intersection	**-**	**0.96**	**66.2**	**E**	**-**	**0.98**	**70.3**	**E**	**-**	**0.96**	**61.7**	**E**	

TABLE 11
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

			No Action			With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.60	22.3	C	T	0.60	22.3	C	T	0.61	23.9	C	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	T	0.45	19.7	B	T	0.45	19.7	B	T	0.46	21.1	C	green time shifts from 45 s to 47 s; NB/SB green time shifts from 65 s to 63 s].
Roosevelt Avenue	EB	L	0.43	45.8	D	L	0.47	50.3	D	L	0.44	45.3	D	
		TR	0.57	36.2	D	TR	0.64	38.9	D	TR	0.61	36.3	D	
	WB	L	0.12	25.6	C	L	0.13	25.9	C	L	0.12	24.4	C	
		TR	1.00	68.1	E	TR	1.05	83.4	F	TR	1.01	68.6	E	
	Overall Intersection	**-**	**0.77**	**36.6**	**D**	**-**	**0.79**	**41.9**	**D**	**-**	**0.79**	**38.1**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.60	20.0	B	TR	0.60	20.0	B					-Unmitigatable impact.
	SB	LT	1.09	75.8	E	LT	1.09	75.8	E					
		R	0.85	35.3	D	R	0.85	35.3	D					
Roosevelt Avenue	EB	LTR	1.40	220.7	F	LTR	1.58	296.9	F					
	WB	LT	1.00	51.1	D	LT	1.06	69.3	E					
		R	1.12	106.5	F	R	1.12	106.5	F					
	Overall Intersection	**-**	**1.23**	**80.1**	**F**	**-**	**1.31**	**99.5**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	1.14	96.6	F	LTR	1.14	99.0	F	LT	1.05	62.8	E	-Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.09	19.5	B	time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s].
	SB	LTR	0.81	34.6	C	LTR	0.81	34.7	C	LTR	0.84	38.0	D	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.49	25.8	C	LTR	0.55	27.2	C	LTR	0.53	25.3	C	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	1.15	104.6	F	LTR	1.21	130.7	F	LTR	1.16	106.8	F	
	Overall Intersection	**-**	**1.14**	**71.4**	**E**	**-**	**1.18**	**80.3**	**F**	**-**	**1.11**	**63.3**	**E**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.75	34.0	C	L	0.75	34.7	C					-Mitigation not required.
		TR	0.69	25.1	C	TR	0.69	25.1	C					
	SB	L	0.65	38.3	D	L	0.65	38.3	D					
		TR	0.39	18.3	B	TR	0.39	18.3	B					
Kissena Boulevard	WB	T	0.73	38.3	D	T	0.73	38.3	D					
	Overall Intersection	**-**	**0.74**	**27.8**	**C**	**-**	**0.75**	**27.8**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.21	10.2	B	L	0.21	10.4	B					-Mitigation not required.
		T	0.68	14.9	B	T	0.70	15.2	B					
	SB	TR	0.59	13.2	B	TR	0.60	13.4	B					
Sanford Avenue	WB	L	0.79	45.6	D	L	0.79	45.6	D					
		TR	0.55	30.0	C	TR	0.62	31.5	C					
	Overall Intersection	**-**	**0.72**	**19.1**	**B**	**-**	**0.73**	**19.6**	**B**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.70	30.1	C	LTR	0.70	30.3	C					-Mitigation not required.
	SB	LTR	0.61	24.7	C	LTR	0.62	24.9	C					
Sanford Avenue	EB	DefL	0.57	25.6	C	DefL	0.58	26.6	C					
		TR	0.37	15.8	B	TR	0.37	15.8	B					
	WB	LTR	0.88	29.1	C	LTR	0.91	31.6	C					
	Overall Intersection	**-**	**0.80**	**25.7**	**C**	**-**	**0.82**	**26.8**	**C**					

TABLE 11
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.10	73.7	E	LTR	1.12	78.7	E	LT	0.85	21.2	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.11	14.1	B	-Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the
	SB	LTR	0.96	38.1	D	LTR	0.99	43.4	D	LTR	0.99	42.9	D	intersection to allow for a 10-ft daylighted right-turn lane.
Sanford Avenue	EB	LTR	0.72	27.2	C	LTR	0.73	27.7	C	LTR	0.75	29.5	C	-Modify Signal Timing: Shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green
	WB	LTR	0.82	31.0	C	LTR	0.86	33.4	C	LTR	0.88	36.2	D	time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
Overall Intersection		**-**	**0.97**	**43.6**	**D**	**-**	**0.99**	**47.0**	**D**	**-**	**0.99**	**32.8**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.44	23.8	C	T	0.45	24.0	C					-Mitigation not required.
		TR	0.71	31.7	C	TR	0.71	31.7	C					
	SB	L	0.51	36.8	D	L	0.51	36.8	D					
		T	0.59	12.9	B	T	0.60	13.1	B					
32nd Avenue	WB	LTR	0.87	44.3	D	LTR	0.87	44.3	D					
Overall Intersection		**-**	**1.40**	**23.9**	**C**	**-**	**1.40**	**23.9**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.42	11.8	B	TR	0.42	11.8	B	TR	0.43	12.5	B	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green
	SB	LT	0.87	23.9	C	LT	0.89	25.1	C	LT	0.91	27.7	C	time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s].
Northern Blvd Service Rd	WB	LR	0.79	36.8	D	LR	0.90	46.3	D	LR	0.87	42.0	D	
Overall Intersection		**-**	**0.84**	**22.0**	**C**	**-**	**0.89**	**24.9**	**C**	**-**	**0.89**	**25.4**	**C**	
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.07	15.7	B	-Install an actuated controller.
		LTR	0.09	7.3	A	LTR	0.04	7.0	A	TR	0.05	15.4	B	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
	SB	-	-	-	-	DefL	0.59	14.3	B	DefL	0.71	27.0	C	will have 26 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 60 s
		LTR	0.39	9.7	A	TR	0.68	16.3	B	TR	0.84	34.8	C	green time; [each phase will have 3 s amber and 2 s all red time].
Stadium Road	EB	-	-	-	-	-	-	-	-	DefL	0.24	30.4	C	
		-	-	-	-	LTR	0.27	26.3	C	TR	0.23	30.4	C	
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.24	25.8	C	LTR	0.81	40.4	D	LTR	0.66	37.3	D	
Overall Intersection		**-**	**0.34**	**12.8**	**B**	**-**	**0.72**	**23.7**	**C**	**-**	**0.92**	**32.5**	**C**	

TABLE 11
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	40.2	E	L	-	1000.0+	F	L	0.09	24.3	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.7	A	R	-	8.7	A	R	0.04	2.4	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.02	35.8	D	
	WB	LT	-	8.9	A	LT	-	11.2	B	L	0.69	25.8	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.55	21.4	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**10.2**	**B**	**-**	**-**	**987.9**	**F**	**-**	**0.40**	**23.1**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	10.3	B	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.20	8.0	A	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	12.5	B	T	0.08	24.4	C	
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**10.3**	**B**	**-**	**-**	**12.5**	**B**	**-**	**0.16**	**9.4**	**A**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.05	30.6	C	-Mitigation not required.
	SB	-	-	-	-	LT	-	7.5	A	L	0.21	33.4	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.59	39.4	D	
Grand Central Parkway Off-Ramp	EB	L	-	11.4	B	L	-	19.3	C	L	0.19	26.0	C	-Add a right turn lane and channelized right-turn to the GCP off ramp.
		-	-	-	-	T	-	17.7	C	T	0.22	26.3	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		R	-	9.4	A	R	-	9.8	A	-	-	-	-	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
Willets West Center Exit	WB	-	-	-	-	L	-	20.9	C	L	0.21	40.1	D	-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	R	-	8.5	A	R	0.07	38.6	D	
Overall Intersection		**-**	**-**	**10.9**	**B**	**-**	**-**	**18.0**	**C**	**-**	**0.34**	**35.0**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.27	15.2	B	TR	0.27	15.2	B	-Mitigation not required.
	SB	-	-	-	-	DefL	0.72	17.4	B	DefL	0.67	15.4	B	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	T	0.49	9.2	A	T	0.47	9.0	A	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	13.5	B	L	0.06	38.4	D	L	0.06	38.4	D	
		-	-	-	-	R	0.17	26.0	C	R	0.17	26.0	C	
Overall Intersection		**-**	**-**	**9.1**	**A**	**-**	**0.77**	**14.0**	**B**	**-**	**0.71**	**13.5**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.23	14.7	B	TR	0.23	14.7	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	7.8	A	LT	0.44	10.5	B	LT	0.42	10.1	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.5	B	L	0.22	37.1	D	L	0.22	37.1	D	
		-	-	-	-	R	0.20	26.6	C	R	0.20	26.6	C	
Overall Intersection		**-**	**-**	**11.8**	**B**	**-**	**0.36**	**15.0**	**B**	**-**	**0.36**	**14.9**	**B**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	14.1	B	R	-	15.5	C	R	0.21	40.9	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.47	8.1	A	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		**-**	**-**	**14.1**	**B**	**-**	**-**	**15.5**	**C**	**-**	**0.41**	**9.2**	**A**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 11

CITIFIELD - WILLETS POINT DEVELOPMENT STUDY

2028 PHASE 1B WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.39	19.5	B					-Mitigation not required.
	SB	-	-	-	-	-	-	-	-					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	LT	0.32	9.0	A					
New Willets Point Boulevard	WB	-	-	-	-	L	0.24	37.3	D					
		-	-	-	-	R	0.15	22.8	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.43**	**16.7**	**B**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 12
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.48	26.8	C	DefL	0.58	29.9	C					-Mitigation not required.
		T	0.13	20.1	C	T	0.13	20.1	C					
	SB	LTR	0.18	20.7	C	LTR	0.18	20.7	C					
Astoria Boulevard	EB	TR	0.84	29.3	C	TR	0.95	37.1	D					
		-	-	-	-	-	-	-	-					
	WB	L	0.74	32.4	C	L	0.76	37.7	D					
		TR	0.34	12.4	B	TR	0.40	13.0	B					
Overall Intersection		**-**	**0.70**	**23.9**	**C**	**-**	**0.80**	**28.5**	**C**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.20	139.0	F	LTR	1.50	273.2	F	L	0.63	43.0	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.79	45.2	D	from the intersection to allow for two moving lanes.
	SB	LTR	0.93	70.1	E	LTR	0.95	74.0	E	L	0.48	46.1	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.53	43.3	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.08	23.9	C	L	0.09	30.3	C	L	0.08	22.7	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.88	28.8	C	TR	1.04	56.7	E	T	0.92	31.6	C	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	R	0.12	13.2	B	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.72	45.5	D	L	0.85	62.9	E	L	0.74	50.2	D	and one 12-ft shared through-right lane for 175 ft.
		TR	1.02	47.9	D	TR	1.14	94.0	F	T	0.93	31.3	C	-Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB left-turn phase
		-	-	-	-	-	-	-	-	R	0.30	15.2	B	[NB/SB green time shifts from 30 s to 28 s; EB/WB left-turn green time shifts from 9 s to 11 s].
Overall Intersection		**-**	**1.01**	**49.7**	**D**	**-**	**1.19**	**91.5**	**F**	**-**	**0.90**	**33.3**	**C**	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.40	44.5	D	LTR	0.46	46.0	D	LTR	0.45	36.3	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.81	27.1	C	T	0.97	41.4	D	T	0.81	20.3	C	exclusive through lanes.
		R	0.46	19.4	B	R	0.49	19.9	B	R	0.41	12.4	B	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.51	16.9	B	DefL	0.73	42.7	D	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.75	12.8	B	T	0.83	15.6	B	T	0.73	17.0	B	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.18**	**20.0**	**B**	**-**	**1.36**	**28.3**	**C**	**-**	**0.70**	**19.5**	**B**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. [Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.46	44.0	D	L	1.05	97.8	F	L	1.05	97.8	F	-Partially mitigated.
		R	0.32	42.1	D	R	3.00+	1000.0+	F	R	0.68	51.5	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	0.80	46.8	D	T	0.81	47.5	D	T	0.90	50.5	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.33	7.1	A	T	0.38	7.5	A	T	0.38	7.5	A	through the intersection.
Grand Central Parkway Ramp	EB	T	0.79	38.8	D	T	0.80	39.6	D	T	0.84	43.3	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.77	16.7	B	T	1.16	100.9	F	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.70**	**29.6**	**C**	**-**	**2.44**	**246.6**	**F**	**-**	**0.94**	**46.6**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. -Modify signal timing: shift 2 s of green time from EB GCP/Astoria Blvd ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 37 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 43 s].

TABLE 12
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mitigation Measure**
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.19	129.9	F	LTR	1.19	129.9	F	LTR	1.19	129.9	F	-Partially Mitigated.
	SB	LTR	0.54	41.3	D	LTR	0.54	41.3	D	LTR	0.54	41.3	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.89	72.8	E	L	0.89	72.8	E	L	0.89	72.8	E	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	0.93	35.6	D	T	1.01	49.0	D	T	1.01	49.0	D	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.90	91.0	F	L	0.90	91.0	F	L	0.90	91.0	F	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.13	101.0	F	T	1.19	126.0	F	T	1.19	126.0	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.62	26.4	C	TR	0.62	26.4	C	TR	0.62	26.4	C	
	WB	TR	0.71	35.1	D	TR	0.90	49.8	D	T	0.66	32.2	C	
		-	-	-	-	-	-	-	-	R	0.14	21.5	C	
Overall Intersection		**-**	**1.10**	**66.1**	**E**	**-**	**1.13**	**80.0**	**E**	**-**	**1.13**	**78.6**	**E**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.98	64.9	E	L	0.98	64.9	E					-Unmitigatable impact.
		R	0.68	39.6	D	R	0.68	39.6	D					
Northern Boulevard (Rt 25A)	EB	T	0.97	44.1	D	T	1.06	68.9	E					
		R	1.28	168.4	F	R	1.28	168.4	F					
	WB	L	0.10	25.7	C	L	0.10	25.7	C					
		T	0.76	22.8	C	T	0.86	26.3	C					
Overall Intersection		**-**	**1.02**	**57.3**	**E**	**-**	**1.02**	**65.7**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.78	38.8	D	TR	0.78	38.8	D	TR	0.78	38.8	D	-Partially Mitigated.
	SB	TR	0.56	32.4	C	TR	0.56	32.4	C	TR	0.56	32.4	C	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.55	22.0	C	L	0.55	27.0	C	L	0.55	21.1	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.38	209.8	F	TR	1.50	262.2	F	TR	1.50	262.2	F	
	WB	L	1.18	142.7	F	L	1.17	126.0	F	L	1.17	126.0	F	
		TR	0.83	37.5	D	TR	0.96	46.9	D	TR	0.71	33.2	C	
Overall Intersection		**-**	**1.42**	**109.6**	**F**	**-**	**1.40**	**132.8**	**F**	**-**	**1.40**	**128.7**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.72	57.4	E	L	0.75	60.0	E	L	0.72	56.5	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.52	38.8	D	TR	0.52	38.8	D	TR	0.52	38.8	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.16	118.2	F	LTR	1.21	139.4	F	LT	0.68	35.9	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.34	33.0	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.80	57.9	E	L	0.86	63.5	E	L	0.82	59.1	E	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.04	64.4	E	TR	1.18	117.1	F	T	0.98	45.5	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.37	24.9	C	-Modify Signal Timing: Shift 1 s of green time from EB/WB phase to EB/WB protected left-turn
	WB	L	0.36	35.7	D	L	0.39	41.9	D	L	0.36	37.3	D	phase [EB/WB green time shifts from 52 s to 51 s; EB/WB protected left-turn green time shifts
		TR	1.17	113.2	F	TR	1.34	185.4	F	T	1.14	97.1	F	from 10 s to 11 s].
		-	-	-	-	-	-	-	-	R	0.38	24.1	C	
Overall Intersection		**-**	**1.19**	**85.2**	**F**	**-**	**1.28**	**134.3**	**F**	**-**	**1.00**	**62.4**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.84	43.2	D	L	0.91	51.8	D	L	0.82	39.2	D	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.23	24.0	C	T	0.31	25.3	C	T	0.28	22.7	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.40	11.7	B	T	0.40	11.7	B	T	0.43	13.6	B	
		R	0.07	8.5	A	R	0.07	8.5	A	R	0.07	9.9	A	
Overall Intersection		**-**	**0.55**	**26.5**	**C**	**-**	**0.58**	**31.0**	**C**	**-**	**0.58**	**25.9**	**C**	

TABLE 12
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	1.17	144.7	F	L	0.74	38.5	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
		LTR	0.25	20.9	C	TR	0.55	25.9	C	TR	0.76	43.4	D	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
Northern Boulevard Ramp	SB	LTR	0.38	23.7	C	LTR	1.05	85.0	F	-	-	-	-	II bicycle lane.
GCP Ramp	SB	LTR	0.89	74.3	E	LTR	3.00+	1000.0+	F	L	0.57	32.5	C	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
		-	-	-	-	-	-	-	-	T	0.67	40.2	D	and two 11-ft EB receiving lanes.
Shea Road	EB	-	-	-	-	DefL	2.58	784.7	F	-	-	-	-	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		LTR	0.56	45.0	D	TR	3.00+	1000.0+	F	LTR	0.83	35.8	D	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		-	-	-	-	-	-	-	-	DefL	0.87	54.8	D	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
34th Avenue	WB	LTR	0.66	54.6	D	LTR	3.00+	1000.0+	F	TR	0.60	27.4	C	11-ft travel lanes.
														-Modify signal phasing and timing plan: EB/WB phase will have 56 s green time; NB/SB lead
	Overall Intersection	**-**	**0.57**	**41.6**	**D**	**-**	**2.30**	**770.8**	**F**	**-**	**0.84**	**38.6**	**D**	left-turn phase will have 12 s green time; NB/SB phase will have 37 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.08	100.1	F	LTR	1.14	122.3	F	LT	0.95	66.5	E	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.31	37.7	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.23	150.3	F	LTR	1.25	158.9	F	LT	1.01	64.3	E	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.34	37.3	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.75	18.8	B	LTR	0.89	28.3	C	LTR	0.88	27.6	C	
	WB	LTR	0.84	22.8	C	LTR	1.04	57.4	E	LTR	0.95	35.1	D	
	Overall Intersection	**-**	**0.95**	**54.8**	**D**	**-**	**1.10**	**71.8**	**E**	**-**	**0.97**	**39.6**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.72	50.9	D	LTR	0.72	50.9	D	LTR	0.72	50.9	D	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.73	16.7	B	LTR	0.89	26.0	C	LTR	0.88	25.7	C	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	0.87	25.3	C	LTR	1.03	55.0	D	LT	0.85	22.9	C	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.11	7.5	A	
	Overall Intersection	**-**	**0.83**	**25.5**	**C**	**-**	**0.95**	**42.4**	**D**	**-**	**0.84**	**26.9**	**C**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.70	50.7	D	LTR	0.74	53.6	D	LTR	0.48	38.3	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	0.68	52.8	D	LTR	0.92	82.2	F	LTR	0.72	51.2	D	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	-	-	-	-	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	0.88	28.5	C	LTR	1.22	130.3	F	L	0.33	12.4	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.64	16.2	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.47	10.6	B	LTR	0.71	15.0	B	L	0.38	13.6	B	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.64	16.5	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.49	13.8	B	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**0.83**	**25.0**	**C**	**-**	**1.14**	**60.7**	**E**	**-**	**0.67**	**20.4**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].

TABLE 12
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.90	65.1	E	LTR	1.36	224.5	F	DefL	0.59	47.5	D	-Partially mitigated.
		-	-	-	-	-	-	-	-	TR	0.46	41.6	D	-Modify signal phasing and timing plan: EB lead phase will have 8 s green time; EB/WB phase
	SB	DefL	1.21	171.5	F	DefL	2.11	563.1	F	DefL	2.09	552.0	F	will have 55 s green time; WB lag phase will have 8 s green time; NB/SB phase will have 29 s
		TR	0.63	51.1	D	TR	1.28	193.1	F	TR	1.33	215.5	F	green time; [each phase will have 3 s amber and 2 s all red time].
Roosevelt Avenue	EB	-	-	-	-	DefL	0.78	36.5	D	DefL	0.80	42.0	D	-Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the
		LTR	0.52	11.6	B	TR	0.68	15.8	B	TR	0.81	28.8	C	east curb.
	WB	LTR	0.50	11.1	B	LTR	0.80	19.2	B	LTR	0.96	42.2	D	
	Overall Intersection	**-**	**0.69**	**37.1**	**D**	**-**	**1.12**	**120.3**	**F**	**-**	**1.74**	**121.8**	**F**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.35	212.5	F	L	1.78	398.6	F	L	1.06	102.3	F	-Partially Mitigated
		TR	0.88	31.0	C	TR	0.88	31.0	C	TR	0.91	42.4	D	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane
		-	-	-	-	-	-	-	-	-	-	-	-	to two 15-ft travel lanes.
	SB	TR	1.20	128.1	F	TR	1.42	226.4	F	T	1.00	71.4	E	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane
Roosevelt Avenue	EB	L	0.56	30.4	C	L	0.59	31.0	C	L	0.53	36.6	D	to two 13-ft travel lanes.
		TR	1.26	143.8	F	TR	1.55	276.0	F	TR	1.38	202.9	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-
	WB	L	0.28	33.5	C	L	0.28	33.5	C	-	-	-	-	ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and
		TR	0.58	30.4	C	TR	0.70	34.3	C	TR	0.53	37.9	D	two 10-ft travel lanes lanes for 200 ft.
	Overall Intersection	**-**	**1.29**	**97.0**	**F**	**-**	**1.70**	**177.2**	**F**	**-**	**1.23**	**89.4**	**F**	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
														-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 35 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 26 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.86	47.3	D	LTR	0.86	47.3	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.95	37.2	D	DefL	0.98	44.9	D					
		TR	0.67	14.3	B	TR	0.79	17.7	B					
	WB	LTR	0.53	12.0	B	LTR	0.61	13.3	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.92**	**26.7**	**C**	**-**	**0.94**	**28.6**	**C**					

TABLE 12
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.67	24.4	C	T	0.67	24.4	C	T	0.71	26.8	C	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 41 s; NB/SB green time shifts from 41 s to 39 s].
	SB	T	0.52	21.9	C	T	0.52	21.9	C	T	0.55	23.9	C	
Roosevelt Avenue	EB	L	0.31	22.1	C	L	0.35	24.7	C	L	0.32	21.8	C	
		TR	0.74	33.3	C	TR	0.94	54.6	D	TR	0.89	44.4	D	
	WB	L	0.13	16.5	B	L	0.16	17.1	B	L	0.14	15.6	B	
		TR	0.84	35.9	D	TR	0.98	55.1	E	TR	0.93	43.5	D	
	Overall Intersection	**-**	**0.75**	**27.7**	**C**	**-**	**0.82**	**37.2**	**D**	**-**	**0.82**	**33.5**	**C**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.58	19.4	B	TR	0.58	19.4	B					-Unmitigatable impact.
	SB	LT	0.99	52.8	D	LT	0.99	52.8	D					
		R	3.00+	1000.0+	F	R	3.00+	1000.0+	F					
Roosevelt Avenue	EB	LTR	2.04	503.2	F	LTR	2.45	683.8	F					
	WB	LT	0.62	25.8	C	LT	0.74	30.6	C					
		R	0.93	82.4	F	R	0.93	82.4	F					
	Overall Intersection	**-**	**3.00+**	**492.8**	**F**	**-**	**3.00+**	**525.6**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.65	24.6	C	LTR	0.69	25.8	C					-Mitigation not required.
		-	-	-	-	-	-	-	-					
	SB	LTR	0.65	23.6	C	LTR	0.65	23.6	C					
Roosevelt Avenue	EB	LTR	0.59	23.2	C	LTR	0.77	30.8	C					
	WB	LTR	0.77	30.3	C	LTR	0.88	39.0	D					
	Overall Intersection	**-**	**0.71**	**25.5**	**C**	**-**	**0.78**	**30.0**	**C**					
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.86	51.1	D	L	0.89	54.8	D					-Mitigation not required.
		TR	0.63	22.2	C	TR	0.63	22.2	C					
	SB	L	0.46	20.4	C	L	0.46	20.4	C					
		TR	0.52	19.4	B	TR	0.52	19.4	B					
Kissena Boulevard	WB	T	0.72	27.1	C	T	0.72	27.1	C					
	Overall Intersection	**-**	**0.79**	**24.7**	**C**	**-**	**0.80**	**25.1**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.56	23.6	C	L	0.62	28.3	C					-Mitigation not required.
		T	0.66	14.4	B	T	0.68	14.8	B					
	SB	TR	0.76	16.8	B	TR	0.80	18.1	B					
Sanford Avenue	WB	L	0.57	34.8	C	L	0.57	34.8	C					
		TR	0.37	27.0	C	TR	0.48	28.8	C					
	Overall Intersection	**-**	**0.70**	**18.1**	**B**	**-**	**0.73**	**19.3**	**B**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.34	20.8	C	LTR	0.34	20.8	C					-Mitigation not required.
	SB	LTR	0.61	24.2	C	LTR	0.62	24.4	C					
Sanford Avenue	EB	DefL	0.42	19.5	B	DefL	0.45	20.5	C					
		TR	0.21	13.7	B	TR	0.21	13.7	B					
	WB	LTR	0.88	29.3	C	LTR	0.93	34.9	C					
	Overall Intersection	**-**	**0.76**	**24.4**	**C**	**-**	**0.79**	**26.8**	**C**					

TABLE 12
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2028 PHASE 1B WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.15	94.1	F	LTR	1.18	107.5	F	LT	0.96	29.6	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.13	14.8	B	-Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the
	SB	LTR	0.71	25.1	C	LTR	0.80	29.4	C	LTR	0.81	30.0	C	intersection to allow for a 10-ft daylighted right-turn lane.
Sanford Avenue	EB	LTR	0.56	22.2	C	LTR	0.58	22.8	C	LTR	0.58	22.8	C	
	WB	LTR	0.87	34.4	C	LTR	0.93	41.4	D	LTR	0.93	41.4	D	
Overall Intersection		**-**	**1.01**	**46.0**	**D**	**-**	**1.06**	**52.2**	**D**	**-**	**0.94**	**31.5**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.71	30.0	C	T	0.70	29.8	C					-Mitigation not required.
		TR	0.80	36.0	D	TR	0.80	36.0	D					
	SB	L	0.75	48.2	D	L	0.75	48.2	D					
		T	0.49	11.6	B	T	0.50	11.8	B					
32nd Avenue	WB	LTR	0.78	39.6	D	LTR	0.78	39.6	D					
Overall Intersection		**-**	**1.29**	**27.8**	**C**	**-**	**1.29**	**27.8**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.53	13.1	B	TR	0.54	13.3	B	TR	0.57	15.4	B	-Modify Signal Timing: Shift 3 s of green time from NB/SB phase to WB phase [NB/SB green
	SB	LT	0.86	23.5	C	LT	0.88	25.1	C	LT	0.95	35.9	D	time shifts from 51 s to 48 s; WB green time shifts from 29 s to 32 s].
Northern Blvd Service Rd	WB	LR	0.79	37.0	D	LR	0.98	59.8	E	LR	0.89	41.8	D	
Overall Intersection		**-**	**0.83**	**21.6**	**C**	**-**	**0.92**	**27.7**	**C**	**-**	**0.93**	**29.0**	**C**	
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	-	-	-	-	-Unmitigatable impact.
		LTR	0.07	7.2	A	LTR	0.15	7.7	A	LTR	0.18	15.5	B	-Install an actuated controller.
	SB	DefL	0.27	9.2	A	DefL	0.75	21.7	C	DefL	0.89	44.9	D	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		TR	0.18	8.1	A	TR	0.42	10.4	B	TR	0.49	19.3	B	will have 21 s green time; WB lag phase will have 10 s green time; NB/SB phase will have 62 s
Stadium Road	EB	-	-	-	-	DefL	0.57	42.7	D	DefL	0.51	37.9	D	green time; [each phase will have 3 s amber and 2 s all red time].
		-	-	-	-	TR	0.40	28.9	C	TR	0.41	36.1	D	
	WB	-	-	-	-	DefL	1.62	325.7	F	-	-	-	-	
		LTR	0.19	25.2	C	TR	1.41	231.4	F	LTR	0.98	68.8	E	
Overall Intersection		**-**	**0.25**	**12.5**	**B**	**-**	**1.02**	**130.1**	**F**	**-**	**1.00**	**44.1**	**D**	

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		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	19.5	C	L	-	1000.0+	F	L	0.28	26.3	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-
		R	-	8.5	A	R	-	8.7	A	R	0.05	2.4	A	Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.09	36.5	D	and 2 s all red time].
	WB	LT	-	8.2	A	LT	-	11.1	B	L	0.77	29.1	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.56	21.7	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.4**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.51**	**25.3**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	10.6	B	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.29	8.6	A	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have
Northern Boulevard Service Road	EB	-	-	-	-	T	-	14.6	B	T	0.10	24.6	C	55 s green time [each phase will have 3 s amber and 2 s all red time].
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**10.6**	**B**	**-**	**-**	**14.6**	**B**	**-**	**0.23**	**9.9**	**A**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.08	31.0	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have
	SB	-	-	-	-	LT	-	7.8	A	L	0.53	41.3	D	25 s green time; NB/SB will have 35 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	-	-	-	-	TR	0.64	40.7	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	10.7	B	L	-	51.6	F	L	0.22	26.5	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	243.2	F	T	0.60	34.3	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.2	A	R	-	10.8	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.69	50.0	D	
		-	-	-	-	R	-	8.8	A	R	0.22	41.2	D	
	Overall Intersection	**-**	**-**	**10.2**	**B**	**-**	**-**	**1000.0+**	**F**	**-**	**0.63**	**40.2**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.47	17.9	B	TR	0.47	17.9	B	-Mitigation not required.
	SB	-	-	-	-	DefL	0.83	29.3	C	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	T	0.76	15.6	B	LT	0.80	16.7	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	16.0	C	L	0.14	39.6	D	L	0.14	39.6	D	
		-	-	-	-	R	0.38	30.3	C	R	0.38	30.3	C	
	Overall Intersection	**-**	**-**	**11.1**	**B**	**-**	**1.07**	**19.8**	**B**	**-**	**0.63**	**18.6**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.38	16.5	B	TR	0.38	16.5	B	-Intersection meets NYCDOT Signal Warrant Criteria.
	SB	-	-	-	-	DefL	0.90	55.2	E	DefL	0.78	36.0	D	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
		LT	-	8.3	A	T	0.58	13.0	B	T	0.58	13.0	B	
37th Avenue	WB	LR	-	12.7	B	L	0.11	35.3	D	L	0.11	35.3	D	
		-	-	-	-	R	0.61	38.1	D	R	0.61	38.1	D	
	Overall Intersection	**-**	**-**	**10.7**	**B**	**-**	**1.00**	**24.6**	**C**	**-**	**0.89**	**21.1**	**C**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	16.2	C	R	-	18.5	C	R	0.17	40.1	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.63	10.1	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB
														phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**16.2**	**C**	**-**	**-**	**18.5**	**C**	**-**	**0.53**	**10.7**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 12

CITIFIELD - WILLETS POINT DEVELOPMENT STUDY

2028 PHASE 1B WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
NEW (WITH ACTION) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.60	23.8	C					-Mitigation not required.
	SB	-	-	-	-	DefL	0.67	18.9	B					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	T	0.38	9.9	A					
New Willets Point Boulevard	WB	-	-	-	-	L	0.55	44.6	D					
		-	-	-	-	R	0.57	33.4	C					
	Overall Intersection	**-**	**-**	**-**	**-**	-	**0.79**	**23.5**	**C**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 13
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.57	46.6	D	DefL	0.70	53.7	D					-Unmitigatable impact.
		T	0.22	35.7	D	T	0.22	35.7	D					
	SB	LTR	0.40	39.4	D	LTR	0.40	39.4	D					
Astoria Boulevard	EB	TR	0.91	27.3	C	TR	0.95	30.2	C					
		-	-	-	-	-	-	-	-					
	WB	L	0.72	47.0	D	L	0.72	47.5	D					
		TR	0.34	9.8	A	TR	0.39	10.2	B					
Overall Intersection		**-**	**0.81**	**25.9**	**C**	**-**	**0.87**	**27.9**	**C**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.17	129.2	F	LTR	1.55	294.2	F	L	0.76	49.7	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.76	44.9	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.13	116.0	F	LTR	1.15	125.9	F	L	0.53	46.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.69	45.2	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.15	34.4	C	L	0.15	43.1	D	L	0.15	34.5	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.84	14.1	B	TR	0.93	17.8	B	TR	0.93	17.8	B	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.67	42.2	D	L	0.67	44.2	D	L	0.67	44.2	D	and one 12-ft shared through-right lane for 175 ft.
		TR	1.15	92.0	F	TR	1.27	147.2	F	T	1.05	51.0	D	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for
		-	-	-	-	-	-	-	-	R	0.31	12.5	B	150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
Overall Intersection		**-**	**1.08**	**59.1**	**E**	**-**	**1.25**	**93.9**	**F**	**-**	**0.97**	**33.7**	**C**	-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.39	45.8	D	LTR	0.45	47.3	D	LTR	0.52	37.6	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	1.15	85.9	F	T	1.27	142.3	F	T	1.10	58.8	E	exclusive through lanes.
		R	0.84	17.6	B	R	0.87	18.4	B	R	0.75	8.9	A	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.87	58.5	E	DefL	1.05	96.0	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.92	18.5	B	T	1.01	34.6	C	T	0.92	23.3	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.56**	**46.9**	**D**	**-**	**1.73**	**77.9**	**E**	**-**	**0.92**	**35.8**	**D**	-Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.42	43.2	D	L	1.02	87.1	F	L	1.11	117.5	F	-Partially mitigated.
		R	0.28	41.2	D	R	3.00+	1000.0+	F	R	0.64	50.8	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	1.23	165.1	F	T	1.27	182.1	F	T	1.19	142.2	F	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.40	7.7	A	T	0.45	8.2	A	T	0.44	7.3	A	through the intersection.
Grand Central Parkway Ramp	EB	T	0.74	30.3	C	T	0.78	31.6	C	T	0.79	32.9	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.90	25.2	C	T	1.24	131.8	F	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.79**	**51.4**	**D**	**-**	**2.29**	**218.4**	**F**	**-**	**0.97**	**71.8**	**E**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 1 s green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase and 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 54 s; NB 126th St green time shifts from 25 s to 23 s].

TABLE 13
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.23	148.9	F	LTR	1.23	148.9	F	LTR	1.23	148.9	F	-Partially Mitigated.
	SB	LTR	0.53	41.7	D	LTR	0.53	41.7	D	LTR	0.53	41.7	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.62	45.8	D	L	0.62	45.8	D	L	0.62	45.8	D	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	0.97	38.1	D	T	1.04	57.9	E	T	1.04	57.9	E	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.81	72.6	E	L	0.81	72.6	E	L	0.81	72.6	E	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.14	106.9	F	T	1.20	129.5	F	T	1.20	129.5	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.66	27.5	C	TR	0.66	27.5	C	TR	0.66	27.5	C	
	WB	TR	0.66	35.4	D	TR	0.83	45.8	D	T	0.61	32.6	C	
		-	-	-	-	-	-	-	-	R	0.13	23.3	C	
Overall Intersection		**-**	**1.03**	**67.1**	**E**	**-**	**1.06**	**82.2**	**F**	**-**	**1.06**	**81.4**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.96	61.0	E	L	0.96	61.0	E					-Unmitigatable impact.
		R	0.97	76.1	E	R	0.97	76.1	E					
Northern Boulevard (Rt 25A)	EB	T	1.07	67.4	E	T	1.16	104.8	F					
		R	1.19	127.1	F	R	1.19	127.1	F					
	WB	L	0.17	26.8	C	L	0.17	26.8	C					
		T	0.77	23.0	C	T	0.86	26.2	C					
Overall Intersection		**-**	**1.08**	**59.3**	**E**	**-**	**1.08**	**73.9**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.78	38.5	D	TR	0.78	38.5	D	TR	0.78	38.5	D	-Partially Mitigated.
	SB	TR	0.82	39.5	D	TR	0.82	39.5	D	TR	0.82	39.5	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.77	43.4	D	L	0.78	44.9	D	L	0.78	43.4	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.13	97.5	F	TR	1.22	136.8	F	TR	1.22	136.8	F	
	WB	L	0.86	49.4	D	L	0.86	50.2	D	L	0.56	50.2	D	
		TR	0.93	41.4	D	TR	1.04	63.4	E	TR	0.77	34.2	C	
Overall Intersection		**-**	**0.98**	**63.9**	**E**	**-**	**1.02**	**86.6**	**F**	**-**	**1.02**	**78.7**	**E**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.84	70.0	E	L	0.86	73.5	E	L	0.85	71.1	E	-Partially Mitigated.
		TR	0.50	35.3	D	TR	0.50	35.3	D	TR	0.49	34.3	C	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
	SB	LTR	1.12	98.5	F	LTR	1.16	116.5	F	LT	0.65	34.1	C	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.44	33.7	C	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.43	44.7	D	L	0.47	46.9	D	L	0.52	48.6	D	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		TR	1.01	47.4	D	TR	1.10	82.0	F	TR	1.06	62.6	E	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		-	-	-	-	-	-	-	-	-	-	-	-	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	WB	L	0.36	39.5	D	L	0.36	41.2	D	L	0.40	42.2	D	-Modify Signal Timing: Shift 2 s of green time from EB/WB protected left-turn phase to EB/WB
		TR	1.14	99.2	F	TR	1.27	157.9	F	T	1.04	57.1	E	phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB
		-	-	-	-	-	-	-	-	R	0.32	23.0	C	protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s
Overall Intersection		**-**	**1.06**	**69.4**	**E**	**-**	**1.13**	**106.2**	**F**	**-**	**0.98**	**55.3**	**E**	LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.00	62.0	E	L	1.08	85.9	F	L	0.98	53.7	D	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.40	26.1	C	T	0.48	27.3	C	T	0.43	24.4	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.39	11.5	B	T	0.39	11.5	B	T	0.41	13.3	B	
		R	0.07	8.5	A	R	0.07	8.5	A	R	0.07	9.9	A	
Overall Intersection		**-**	**0.60**	**37.0**	**D**	**-**	**0.63**	**49.0**	**D**	**-**	**0.63**	**34.0**	**C**	

TABLE 13
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	0.36	23.8	C	DefL	1.56	297.0	F	L	0.78	44.0	D	-Partially mitigated.
		TR	0.27	21.2	C	TR	0.53	25.4	C	TR	0.71	41.2	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.28	21.7	C	LTR	0.61	29.3	C	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.76	59.9	E	LTR	3.00+	1000.0+	F	L	0.44	25.1	C	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.49	35.5	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	DefL	3.00+	1000.0+	F	DefL	1.07	115.1	F	and two 11-ft EB receiving lanes.
		LTR	0.44	42.6	D	TR	2.31	649.5	F	TR	0.59	29.4	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		-	-	-	-					-	-	-	-	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
34th Avenue	WB	LTR	0.99	96.6	F	LTR	3.00+	1000.0+	F	TR	0.92	46.1	D	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	-	**0.61**	**43.7**	**D**	-	**2.83**	**787.7**	**F**	-	**0.93**	**45.3**	**D**	-Modify signal phasing and timing plan: EB/WB phase will have 53 s green time; NB/SB lead left-turn phase will have 15 s green time; NB/SB phase will have 37 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.11	103.1	F	LTR	1.15	121.5	F	LT	0.93	55.3	E	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.38	38.2	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.18	128.7	F	LTR	1.19	135.8	F	LT	0.95	52.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.39	38.0	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.74	9.9	A	LTR	0.86	15.8	B	LTR	0.86	15.8	B	
	WB	LTR	0.83	17.7	B	LTR	1.01	38.3	D	LTR	1.01	38.3	D	
	Overall Intersection	-	**0.93**	**48.9**	**D**	-	**1.06**	**59.0**	**E**	-	**0.99**	**34.8**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.86	56.9	E	LTR	0.86	56.9	E	LTR	0.86	56.9	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.79	10.8	B	LTR	0.93	20.4	C	LTR	0.99	33.5	C	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.24	129.8	F	LTR	1.42	210.1	F	LT	1.17	99.4	F	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.16	7.6	A	
	Overall Intersection	-	**1.13**	**76.2**	**E**	-	**1.27**	**118.7**	**F**	-	**1.08**	**65.7**	**E**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.98	63.6	E	LTR	1.04	80.2	F	LTR	0.72	40.0	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.08	87.8	F	LTR	1.24	156.6	F	LT	0.87	43.6	D	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.13	33.5	-	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	0.91	20.4	C	LTR	1.27	149.1	F	L	0.40	14.3	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.67	8.1	A	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.74	15.5	B	LTR	1.04	52.4	D	L	0.68	20.9	C	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.85	23.7	C	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.62	15.3	B	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	-	**0.96**	**30.5**	**C**	-	**1.26**	**89.1**	**F**	-	**0.86**	**21.7**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s]. -Install "No Standing 3 PM - 7 PM" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 13
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.67	54.4	D	LTR	1.34	242.5	F	DefL	1.33	260.3	F	-Partially mitigated
		-	-	-	-	-	-	-	-	TR	0.24	40.4	D	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
	SB	DefL	1.03	99.7	F	DefL	1.65	351.9	F	-	-	-	-	will have 59 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 29 s
		TR	0.65	47.4	D	TR	1.50	281.7	F	LTR	1.91	462.3	F	green time; [each phase will have 3 s amber and 2 s all red time].
Roosevelt Avenue	EB	-	-	-	-	DefL	1.24	161.9	F	DefL	1.19	165.7	F	-Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the
		LTR	0.69	7.9	A	TR	0.67	7.7	A	TR	0.76	16.1	B	east curb.
	WB	LTR	0.60	12.7	B	LTR	0.85	21.6	C	LTR	0.97	41.4	D	
Overall Intersection		**-**	**0.79**	**26.8**	**C**	**-**	**1.35**	**119.5**	**F**	**-**	**1.93**	**168.9**	**F**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.24	174.8	F	L	1.55	305.4	F	L	0.88	66.2	E	-Partially Mitigated
		TR	0.75	31.1	C	TR	0.75	31.1	C	TR	0.74	30.7	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane
		-	-	-	-	-	-	-	-	-	-	-	-	to two 15-ft travel lanes.
	SB	TR	1.32	190.5	F	TR	1.45	246.0	F	T	1.10	100.3	F	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane
Roosevelt Avenue	EB	L	0.48	37.1	D	L	0.51	37.9	D	L	0.53	38.3	D	to two 13-ft travel lanes.
		TR	1.21	128.8	F	TR	1.44	232.3	F	TR	1.42	223.2	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-
	WB	L	0.25	43.7	D	L	0.25	43.7	D	-	-	-	-	ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and
		TR	0.45	35.9	D	TR	0.55	38.3	D	TR	0.55	43.9	D	two 10-ft travel lanes lanes for 200 ft.
Overall Intersection		**-**	**1.32**	**117.5**	**F**	**-**	**1.56**	**170.9**	**F**	**-**	**96.2**	**1.23**	**A**	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
														-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 24 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.60	33.2	C	LTR	0.60	33.2	C	LTR	0.63	35.5	D	-Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green
Roosevelt Avenue	EB	DefL	1.09	94.6	F	DefL	1.14	112.8	F	DefL	1.09	93.6	F	time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].
		TR	0.69	25.3	C	TR	0.82	31.1	C	TR	0.79	28.2	C	
	WB	LTR	0.60	20.7	C	LTR	0.68	22.3	C	LTR	0.66	20.6	C	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**0.88**	**42.8**	**D**	**-**	**0.91**	**46.9**	**D**	**-**	**0.90**	**42.0**	**D**	

TABLE 13
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

			No Action			With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.51	21.1	C	T	0.51	21.1	C	T	0.55	24.2	C	-Partially mitigated.
	SB	T	0.56	22.2	C	T	0.56	22.2	C	T	0.59	25.5	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.48	42.6	D	L	0.57	52.2	D	L	0.47	39.6	D	green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].
		TR	0.89	61.0	E	TR	1.14	127.8	F	TR	1.04	90.0	F	
	WB	L	0.20	26.8	C	L	0.24	28.1	C	L	0.21	24.6	C	
		TR	1.01	69.7	E	TR	1.14	115.9	F	TR	1.04	75.8	E	
	Overall Intersection	**-**	**0.74**	**38.8**	**D**	**-**	**0.79**	**64.6**	**E**	**-**	**0.88**	**78.4**	**E**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.42	16.7	B	TR	0.42	16.7	B					-Unmitigatable impact.
	SB	LT	0.92	36.8	D	LT	0.92	36.8	D					
		R	2.58	751.0	F	R	2.58	751.0	F					
Roosevelt Avenue	EB	LTR	1.84	408.5	F	LTR	2.19	566.7	F					
	WB	LT	0.56	24.4	C	LT	0.66	27.8	C					
		R	1.14	146.0	F	R	1.14	146.0	F					
	Overall Intersection	**-**	**2.23**	**222.0**	**F**	**-**	**2.40**	**265.8**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.85	40.0	D	LTR	0.88	43.3	D	LT	0.86	44.4	D	-Modify Signal Timing: Shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.07	20.6	C	time shifts from 55 s to 59 s; NB/SB green time shifts from 55 s to 51 s.
	SB	LTR	0.71	30.6	C	LTR	0.71	30.6	C	LTR	0.76	35.8	D	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.50	26.0	C	LTR	0.66	31.4	C	LTR	0.61	26.9	C	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.75	34.5	C	LTR	0.87	43.3	D	LTR	0.80	34.2	C	[Measures reflect improvements needed for the Weekday Pre-game PM peak period.]
	Overall Intersection	**-**	**0.80**	**33.4**	**C**	**-**	**0.87**	**37.3**	**D**	**-**	**0.83**	**35.3**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.77	38.8	D	L	0.78	39.5	D					-Mitigation not required.
		TR	0.58	22.4	C	TR	0.58	22.4	C					
	SB	L	0.84	51.7	D	L	0.84	51.7	D					
		TR	0.46	19.3	B	TR	0.46	19.3	B					
Kissena Boulevard	WB	T	0.66	35.5	D	T	0.66	35.5	D					
	Overall Intersection	**-**	**0.80**	**29.6**	**C**	**-**	**0.81**	**29.6**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.52	31.5	C	L	0.52	31.5	C					-Mitigation not required.
		T	0.60	13.2	B	T	0.62	13.5	B					
	SB	TR	0.98	32.5	C	TR	1.02	42.8	D					
Sanford Avenue	WB	L	0.77	46.6	D	L	0.77	46.6	D					
		TR	0.36	26.8	C	TR	0.46	28.4	C					
	Overall Intersection	**-**	**0.91**	**26.9**	**C**	**-**	**0.94**	**32.5**	**C**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.30	20.1	C	LTR	0.30	20.1	C					-Mitigation not required.
	SB	LTR	0.73	26.6	C	LTR	0.74	27.2	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.32	14.7	B	LTR	0.32	14.7	B					
	WB	LTR	0.68	22.2	C	LTR	0.72	23.8	C					
	Overall Intersection	**-**	**0.70**	**22.3**	**C**	**-**	**0.73**	**23.0**	**C**					

TABLE 13
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.89	33.8	C	LTR	0.91	35.9	D	LT	0.65	21.0	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.14	14.0	B	-Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the
	SB	LTR	0.77	27.2	C	LTR	0.90	37.5	D	LTR	0.95	43.5	D	intersection to allow for a 10-ft daylighted right-turn lane.
Sanford Avenue	EB	LTR	0.70	26.0	C	LTR	0.73	27.1	C	LTR	0.77	30.6	C	-Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green
	WB	LTR	0.78	29.7	C	LTR	0.84	33.3	C	LTR	0.89	39.8	D	time shifts from 40 s to 38 s; NB/SB green time shifts from 40 s to 42 s].
Overall Intersection		**-**	**0.84**	**29.3**	**C**	**-**	**0.87**	**33.7**	**C**	**-**	**0.92**	**33.7**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.50	25.2	C	T	0.52	25.6	C					-Mitigation not required.
		TR	0.93	46.9	D	TR	0.93	46.9	D					
	SB	L	0.49	34.8	C	L	0.49	34.8	C					
		T	0.43	10.9	B	T	0.44	11.0	B					
32nd Avenue	WB	LTR	0.89	44.7	D	LTR	0.89	44.7	D					
Overall Intersection		**-**	**1.15**	**29.1**	**C**	**-**	**1.15**	**29.1**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.56	13.5	B	TR	0.57	13.7	B					-Mitigation not required.
	SB	LT	0.86	23.4	C	LT	0.88	24.9	C					
Northern Blvd Service Rd	WB	LR	0.73	34.2	C	LR	0.88	44.8	D					
Overall Intersection		**-**	**0.81**	**20.7**	**C**	**-**	**0.88**	**23.8**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	-	-	-	-	-Unmitigatable impact.
		LTR	0.05	7.1	A	LTR	0.23	8.3	A	LTR	0.25	18.9	B	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	DefL	0.85	42.2	D	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		LTR	0.23	8.2	A	LTR	0.74	15.4	B	TR	0.62	24.7	C	will have 21 s green time; WB lag phase will have 15 s green time; NB/SB phase will have 57 s
Stadium Road	EB	-	-	-	-	DefL	1.06	148.7	F	DefL	0.53	38.6	D	green time; [each phase will have 3 s amber and 2 s all red time].
		-	-	-	-	TR	0.41	29.2	C	TR	0.42	36.2	D	
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.30	26.4	C	LTR	1.48	253.5	F	LTR	1.01	70.2	E	
Overall Intersection		**-**	**0.25**	**14.8**	**B**	**-**	**0.97**	**111.7**	**F**	**-**	**0.98**	**46.7**	**D**	

TABLE 13
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	16.6	C	L	-	1000.0+	F	L	0.37	27.5	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.8	A	R	-	9.1	A	R	0.08	2.5	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.08	36.4	D	
	WB	LT	-	7.8	A	LT	-	9.6	A	L	0.65	24.4	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.57	21.9	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.1**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.48**	**23.1**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.9	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.25	8.4	A	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	14.1	B	T	0.09	24.5	C	
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.9**	**A**	**-**	**-**	**14.1**	**B**	**-**	**0.20**	**9.7**	**A**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.07	27.4	C	-Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time].
	SB	-	-	-	-	LT	-	7.8	A	L	0.41	34.0	C	
		-	-	-	-	-	-	-	-	TR	0.69	38.7	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	10.7	B	L	-	36.0	E	L	0.23	29.9	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	157.1	F	T	0.58	37.3	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.4	A	R	-	11.6	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.86	59.4	E	
		-	-	-	-	R	-	9.0	A	R	0.27	42.0	D	
Overall Intersection		**-**	**-**	**10.0**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.69**	**43.0**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.49	18.3	B	TR	0.49	18.3	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	LT	0.65	11.8	B	LT	0.60	10.7	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	12.1	B	L	0.13	39.5	D	L	0.13	39.5	D	
		-	-	-	-	R	0.56	36.2	D	R	0.56	36.2	D	
Overall Intersection		**-**	**-**	**11.2**	**B**	**-**	**0.54**	**17.4**	**B**	**-**	**0.52**	**17.1**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.44	17.3	B	TR	0.44	17.3	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	LT	0.61	13.3	B	LT	0.57	12.6	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	13.1	B	L	0.10	35.2	D	L	0.10	35.2	D	
		-	-	-	-	R	0.41	31.5	C	R	0.41	31.5	C	
Overall Intersection		**-**	**-**	**11.4**	**B**	**-**	**0.48**	**17.0**	**B**	**-**	**0.45**	**16.7**	**B**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	19.2	C	R	-	24.2	C	R	0.20	40.6	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.71	11.4	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		**-**	**-**	**19.2**	**C**	**-**	**-**	**24.2**	**C**	**-**	**0.59**	**12.0**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

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2028 PHASE 1B WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.56	22.7	C					-Mitigation not required.
	SB	-	-	-	-	DefL	0.54	15.2	B					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	T	0.42	10.5	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.69	50.0	D					
		-	-	-	-	R	0.67	36.7	D					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.84**	**25.1**	**C**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.51	27.4	C	DefL	0.63	31.2	C	DefL	0.63	31.2	C	-Install "No Standing Saturday 11 AM - 10 PM" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
		T	0.20	21.1	C	T	0.20	21.1	C	T	0.20	21.1	C	
	SB	LTR	0.25	21.7	C	LTR	0.25	21.7	C	LTR	0.25	21.7	C	
Astoria Boulevard	EB	TR	0.94	33.6	C	TR	1.08	68.0	E	T	0.95	33.8	C	
		-	-	-	-	-	-	-	-	R	0.27	20.1	C	
	WB	L	0.56	23.9	C	L	0.56	25.1	C	L	0.56	24.4	C	
		TR	0.36	12.6	B	TR	0.42	13.2	B	TR	0.42	13.2	B	
Overall Intersection		**-**	**0.75**	**25.6**	**C**	**-**	**0.86**	**43.9**	**D**	**-**	**0.80**	**25.8**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.12	109.4	F	LTR	1.54	290.6	F	L	0.63	44.2	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.81	46.9	D	
	SB	LTR	0.92	67.4	E	LTR	0.95	73.8	E	L	0.45	45.4	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.59	44.7	D	
Northern Boulevard (Rt. 25A)	EB	L	0.18	39.5	D	L	0.18	44.2	D	L	0.16	38.4	D	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft.
		TR	0.94	32.6	C	TR	1.11	81.8	F	T	0.97	36.1	D	
		-	-	-	-	-	-	-	-	R	0.16	13.6	B	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft.
	WB	L	0.71	42.9	D	L	0.77	49.2	D	L	0.69	45.7	D	
		TR	1.19	113.2	F	TR	1.32	170.7	F	T	1.11	75.8	E	-Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 30 s to 28 s; EB/WB left-turn green time shifts from 9 s to 11 s].
		-	-	-	-	-	-	-	-	R	0.29	14.6	B	
Overall Intersection		**-**	**1.09**	**76.9**	**E**	**-**	**1.30**	**135.8**	**F**	**-**	**1.00**	**52.2**	**D**	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.36	43.6	D	LTR	0.43	45.2	D	LTR	0.54	38.0	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes.
Northern Boulevard (Rt. 25A)	EB	T	0.71	23.7	C	T	0.86	29.9	C	T	0.73	17.4	B	
		R	0.59	22.5	C	R	0.63	23.5	C	R	0.53	14.4	B	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.71	20.6	C	DefL	1.03	77.7	E	-	-	-	-	-Prohibit parking along east curb of SB 114th Street and restripe as two 11-ft moving lanes.
		T	0.99	27.7	C	T	1.09	60.3	E	T	0.98	28.8	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.31**	**26.1**	**C**	**-**	**1.56**	**48.5**	**D**	**-**	**0.84**	**25.2**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.44	43.6	D	L	1.01	85.2	F	L	1.10	115.2	F	-Partially mitigated.
		R	0.35	42.4	D	R	3.00+	1000.0+	F	R	0.75	55.8	E	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection.
Northern Boulevard	EB	T	0.73	43.4	D	T	0.76	44.6	D	T	0.85	46.0	D	
	WB	T	0.31	6.9	A	T	0.36	7.3	A	T	0.35	6.5	A	
Grand Central Parkway Ramp	EB	T	0.84	41.8	D	T	0.89	45.2	D	T	0.89	45.2	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.75	15.3	B	T	1.15	96.0	F	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.68**	**29.7**	**C**	**-**	**2.47**	**265.6**	**F**	**-**	**0.92**	**50.3**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 37 s; NB 126th St green time shifts from 25 s to 23 s].

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.13	105.2	F	LTR	1.13	105.2	F	LTR	1.13	105.2	F	-Partially Mitigated.
	SB	LTR	0.47	36.9	D	LTR	0.47	36.9	D	LTR	0.47	36.9	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.66	49.6	D	L	0.66	49.6	D	L	0.66	49.6	D	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	1.06	64.0	E	T	1.15	103.1	F	T	1.15	103.1	F	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.82	65.3	E	L	0.82	65.3	E	L	0.82	65.3	E	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.16	112.3	F	T	1.23	138.9	F	T	1.23	138.9	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.62	25.8	C	TR	0.62	25.8	C	TR	0.62	25.8	C	
	WB	TR	0.75	35.0	D	TR	0.95	54.3	D	T	0.72	33.0	C	
		-	-	-	-	-	-	-	-	R	0.13	21.3	C	
Overall Intersection		**-**	**1.04**	**76.4**	**E**	**-**	**1.09**	**100.8**	**F**	**-**	**1.09**	**99.2**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.93	56.1	E	L	0.93	56.1	E					-Unmitigatable impact.
		R	0.89	62.7	E	R	0.89	62.7	E					
Northern Boulevard (Rt 25A)	EB	T	0.96	39.9	D	T	1.05	65.0	E					
		R	1.38	209.6	F	R	1.38	209.6	F					
	WB	L	0.08	25.2	C	L	0.08	25.2	C					
		T	0.94	29.8	C	T	1.04	53.4	D					
Overall Intersection		**-**	**1.16**	**60.5**	**E**	**-**	**1.16**	**75.7**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.76	37.9	D	TR	0.76	37.9	D	TR	0.76	37.9	D	-Partially Mitigated.
	SB	TR	0.65	34.4	C	TR	0.65	34.4	C	TR	0.65	34.4	C	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.73	33.0	C	L	0.72	34.1	C	L	0.73	32.0	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.45	242.3	F	TR	1.58	301.0	F	TR	1.58	301.0	F	
	WB	L	0.86	46.6	D	L	0.86	46.6	D	L	0.86	46.6	D	
		TR	1.03	56.1	E	TR	1.16	113.0	F	TR	0.86	36.0	D	
Overall Intersection		**-**	**1.10**	**120.9**	**F**	**-**	**1.15**	**163.5**	**F**	**-**	**1.15**	**139.0**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.84	68.1	E	L	0.87	73.0	E	L	0.82	64.0	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.60	40.8	D	TR	0.60	40.8	D	TR	0.60	40.8	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.13	102.6	F	LTR	1.18	124.3	F	LT	0.69	35.6	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.38	33.5	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.50	47.3	D	L	0.54	48.5	D	L	0.55	45.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.08	75.0	E	TR	1.22	135.8	F	T	0.97	39.6	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.59	28.2	C	
	WB	L	0.49	44.0	D	L	0.49	46.0	D	L	0.49	44.4	D	
		TR	1.16	107.8	F	TR	1.31	175.2	F	T	1.12	89.3	F	
		-	-	-	-	-	-	-	-	R	0.31	22.4	C	
Overall Intersection		**-**	**1.09**	**86.1**	**F**	**-**	**1.19**	**137.0**	**F**	**-**	**0.95**	**58.4**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.98	62.0	E	L	1.10	97.2	F	L	0.99	61.8	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.34	25.3	C	T	0.43	26.7	C	T	0.38	23.9	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.57	14.0	B	T	0.57	14.0	B	T	0.60	16.5	B	
		R	0.11	8.7	A	R	0.11	8.7	A	R	0.11	10.2	B	
Overall Intersection		**-**	**0.71**	**33.3**	**C**	**-**	**0.75**	**48.3**	**D**	**-**	**0.75**	**35.0**	**C**	

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	0.86	58.0	E	L	0.57	27.8	C	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
		LTR	0.26	20.9	C	TR	0.53	25.3	C	TR	0.64	37.0	D	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
Northern Boulevard Ramp	SB	LTR	0.36	23.1	C	LTR	1.02	75.4	E	-	-	-	-	II bicycle lane.
GCP Ramp	SB	LTR	0.81	64.6	E	LTR	3.00+	1000.0+	F	L	0.68	36.1	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
		-	-	-	-	-	-	-	-	T	0.51	34.0	C	and two 11-ft EB receiving lanes.
Shea Road	EB	-	-	-	-	DefL	3.00+	1000.0+	F	DefL	0.84	47.7	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		LTR	0.63	46.6	D	TR	3.00+	1000.0+	F	TR	0.70	31.4	C	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		-	-	-	-	-	-	-	-	DefL	0.75	39.7	D	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
34th Avenue	WB	LTR	0.81	66.8	E	LTR	3.00+	1000.0+	F	TR	0.82	38.8	D	11-ft travel lanes.
	Overall Intersection	**-**	**0.58**	**40.5**	**D**	**-**	**3.00+**	**938.2**	**F**	**-**	**0.78**	**36.4**	**D**	-Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB lead left-turn phase will have 10 s green time; NB/SB phase will have 40 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.19	134.9	F	LTR	1.26	163.4	F	LT	1.09	91.2	F	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.41	38.1	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.16	118.8	F	LTR	1.18	127.6	F	LT	1.04	73.4	E	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.29	36.7	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.70	16.4	B	LTR	0.84	23.5	C	LTR	0.84	23.5	C	
	WB	LTR	0.78	15.0	B	LTR	0.96	24.7	C	LTR	0.96	24.7	C	
	Overall Intersection	**-**	**0.89**	**54.3**	**D**	**-**	**1.04**	**61.9**	**E**	**-**	**1.00**	**39.3**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.05	77.4	E	LTR	1.05	77.4	E	LTR	1.05	77.4	E	-Partially Mitigated.
Roosevelt Avenue	EB	LTR	0.85	22.9	C	LTR	1.04	56.6	E	LTR	1.07	66.5	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
	WB	LTR	1.21	118.3	F	LTR	1.45	223.5	F	LT	1.17	99.4	F	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
		-	-	-	-	-	-	-	-	R	0.19	7.8	A	ft right-turn lane.
	Overall Intersection	**-**	**1.17**	**74.9**	**E**	**-**	**1.34**	**134.4**	**F**	**-**	**1.14**	**79.0**	**E**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.02	72.1	E	LTR	1.11	101.8	F	LTR	0.69	38.1	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.09	91.5	F	LTR	1.30	179.8	F	LTR	1.06	73.9	E	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	-	-	-	-	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	1.20	115.0	F	LTR	1.82	390.6	F	L	0.55	15.6	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.73	17.1	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.69	14.3	B	LTR	1.05	55.9	E	L	0.86	42.7	D	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.78	21.3	C	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.81	25.3	C	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**1.17**	**60.0**	**E**	**-**	**1.66**	**165.8**	**F**	**-**	**0.93**	**29.4**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 5 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 75 s; NB/SB green time shifts from 30 s to 35 s].

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.35	40.3	D	LTR	0.50	46.8	D	DefL	0.30	40.0	D	-Partially mitigated.
		-	-	-	-	-	-	-	-	TR	0.16	35.6	D	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
	SB	DefL	1.10	125.2	F	DefL	1.81	425.3	F	DefL	1.72	381.3	F	will have 55 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s
		TR	0.53	43.8	D	TR	1.08	114.6	F	TR	1.04	101.5	F	green time; [each phase will have 3 s amber and 2 s all red time].
Roosevelt Avenue	EB	-	-	-	-	DefL	1.25	163.7	F	DefL	1.34	224.1	F	-Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the
		LTR	0.68	14.8	B	TR	0.71	16.2	B	TR	0.85	31.3	C	east curb.
	WB	LTR	0.48	10.8	B	LTR	0.78	18.0	B	LTR	0.95	41.4	D	
	Overall Intersection	**-**	**0.79**	**32.2**	**C**	**-**	**1.40**	**98.7**	**F**	**-**	**2.09**	**108.6**	**F**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.29	181.9	F	L	1.72	367.7	F	L	1.07	104.9	F	-Partially Mitigated
		TR	0.93	34.4	C	TR	0.93	34.4	C	TR	0.90	38.5	D	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane
		-	-	-	-	-	-	-	-	-	-	-	-	to two 15-ft travel lanes.
	SB	TR	1.01	55.4	E	TR	1.21	132.9	F	T	0.89	49.9	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane
Roosevelt Avenue	EB	L	0.57	20.8	C	L	0.60	21.2	C	L	0.58	25.6	C	to two 13-ft travel lanes.
		TR	1.24	132.8	F	TR	1.53	262.2	F	TR	1.42	219.6	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-
	WB	L	0.34	34.3	C	L	0.34	34.3	C	-	-	-	-	ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and
		TR	0.49	27.0	C	TR	0.61	29.7	C	TR	0.61	43.3	D	two 10-ft travel lanes lanes for 200 ft.
	Overall Intersection	**-**	**1.26**	**69.1**	**E**	**-**	**1.50**	**139.3**	**F**	**-**	**1.17**	**84.4**	**F**	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
														-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.96	58.3	E	LTR	0.96	58.3	E					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.79	19.8	B	DefL	0.83	22.4	C					
		TR	0.75	15.7	B	TR	0.86	20.1	C					
	WB	LTR	0.57	12.6	B	LTR	0.65	14.2	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.85**	**25.4**	**C**	**-**	**0.89**	**26.6**	**C**					

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.76	26.4	C	T	0.76	26.4	C	T	0.86	33.4	C	-Partially mitigated.
	SB	T	0.66	24.4	C	T	0.66	24.4	C	T	0.74	29.6	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.22	19.6	B	L	0.26	21.7	C	L	0.22	17.2	B	green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
		TR	0.93	50.1	D	TR	1.14	111.3	F	TR	1.03	68.4	E	
	WB	L	0.03	14.8	B	L	0.04	15.0	B	L	0.03	12.7	B	
		TR	0.86	32.3	C	TR	1.00	51.4	D	TR	0.90	32.1	C	
	Overall Intersection	**-**	**0.84**	**31.3**	**C**	**-**	**0.95**	**49.4**	**D**	**-**	**0.95**	**39.6**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.56	19.2	B	TR	0.56	19.2	B					-Unmitigatable impact.
	SB	LT	1.07	71.4	E	LT	1.07	71.4	E					
		R	2.83	856.2	F	R	2.83	856.2	F					
Roosevelt Avenue	EB	LTR	2.33	630.2	F	LTR	2.79	836.4	F					
	WB	LT	0.55	23.8	C	LT	0.67	27.5	C					
		R	1.35	233.5	F	R	1.35	233.5	F					
	Overall Intersection	**-**	**2.60**	**315.8**	**F**	**-**	**2.81**	**379.3**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.86	34.8	C	LTR	0.90	38.5	D	LT	0.87	36.6	D	-Partially mitigated.
		-	-	-	-	-	-	-	-	R	0.05	15.4	B	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	LTR	0.79	27.2	C	LTR	0.79	27.3	C	LTR	0.83	30.9	C	green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s].
Roosevelt Avenue	EB	LTR	0.75	28.3	C	LTR	0.95	49.1	D	LTR	0.90	39.1	D	-Install "No Standing 10AM - 8PM, Saturday" regulations on the NB approach 75 feet from the
	WB	LTR	0.87	37.2	D	LTR	1.04	70.8	E	LTR	0.97	51.1	D	intersection to allow for a 10-ft daylighted right-turn lane.
	Overall Intersection	**-**	**0.87**	**31.6**	**C**	**-**	**0.97**	**45.9**	**D**	**-**	**0.92**	**38.9**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	1.18	136.5	F	L	1.20	144.1	F	L	1.16	127.6	F	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.69	23.4	C	TR	0.69	23.4	C	TR	0.68	22.3	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.55	21.9	C	L	0.55	21.9	C	L	0.56	22.9	C	
		TR	0.57	20.2	C	TR	0.57	20.2	C	TR	0.56	19.3	B	
Kissena Boulevard	WB	T	0.75	27.2	C	T	0.75	27.2	C	T	0.77	28.8	C	
	Overall Intersection	**-**	**0.97**	**35.0**	**D**	**-**	**0.98**	**36.0**	**D**	**-**	**0.97**	**34.0**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.63	31.0	C	L	0.71	42.2	D					-Mitigation not required.
		T	0.74	15.8	B	T	0.76	16.4	B					
	SB	TR	0.85	19.2	B	TR	0.89	21.3	C					
Sanford Avenue	WB	L	0.69	39.1	D	L	0.69	39.1	D					
		TR	0.52	29.4	C	TR	0.65	32.4	C					
	Overall Intersection	**-**	**0.80**	**20.5**	**C**	**-**	**0.83**	**22.4**	**C**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.39	21.8	C	LTR	0.40	21.8	C					-Mitigation not required.
	SB	LTR	0.74	27.4	C	LTR	0.76	28.0	C					
Sanford Avenue	EB	DefL	0.48	21.2	C	DefL	0.50	22.3	C					
		TR	0.35	15.5	B	TR	0.35	15.5	B					
	WB	LTR	0.87	28.8	C	LTR	0.93	34.2	C					
	Overall Intersection	**-**	**0.81**	**25.1**	**C**	**-**	**0.85**	**27.4**	**C**					

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.92	37.8	D	LTR	0.95	41.9	D					-Unmitigatable impact.
		-	-	-	-	-	-	-	-					
	SB	LTR	0.85	29.6	C	LTR	1.01	54.2	D					
Sanford Avenue	EB	LTR	0.73	26.6	C	LTR	0.75	27.5	C					
	WB	LTR	0.91	38.6	D	LTR	0.98	50.6	D					
Overall Intersection		**-**	**0.92**	**33.1**	**C**	**-**	**1.00**	**44.6**	**D**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.36	23.2	C	T	0.38	23.5	C					-Mitigation not required.
		TR	0.79	34.4	C	TR	0.79	34.4	C					
	SB	L	0.52	36.1	D	L	0.52	36.1	D					
		T	0.41	10.7	B	T	0.42	10.8	B					
32nd Avenue	WB	LTR	0.54	31.9	C	LTR	0.54	31.9	C					
Overall Intersection		**-**	**1.05**	**23.3**	**C**	**-**	**1.05**	**23.3**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.54	13.3	B	TR	0.55	13.4	B	TR	0.56	14.1	B	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green
	SB	LT	0.79	20.2	C	LT	0.81	21.3	C	LT	0.83	23.1	C	time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s].
Northern Blvd Service Rd	WB	LR	0.69	32.5	C	LR	0.90	46.4	D	LR	0.87	42.2	D	
Overall Intersection		**-**	**0.75**	**19.2**	**B**	**-**	**0.84**	**23.3**	**C**	**-**	**0.85**	**23.3**	**C**	
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	-	-	-	-	-Unmitigatable impact.
		LTR	0.08	7.2	A	LTR	0.24	8.4	A	LTR	0.27	18.5	B	-Install an actuated controller.
	SB	DefL	0.20	8.4	A	-	-	-	-	DefL	0.87	44.5	D	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		TR	0.16	7.9	A	LTR	0.71	14.8	B	TR	0.62	24.3	C	will have 21 s green time; WB lag phase will have 14 s green time; NB/SB phase will have 58 s
Stadium Road	EB	-	-	-	-	DefL	1.71	397.1	F	DefL	0.85	68.8	E	green time; [each phase will have 3 s amber and 2 s all red time].
		-	-	-	-	TR	0.53	31.6	C	TR	0.54	38.1	D	
	WB	-	-	-	-	DefL	2.49	711.0	F	-	-	-	-	
		LTR	0.28	26.2	C	TR	1.69	351.7	F	LTR	1.04	79.2	E	
Overall Intersection		**-**	**0.23**	**14.4**	**B**	**-**	**1.27**	**266.8**	**F**	**-**	**1.03**	**51.1**	**D**	

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	17.2	C	L	-	1000.0+	F	L	0.36	27.3	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 40 s green time; NB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.6	A	R	-	8.9	A	R	0.10	2.6	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.16	37.3	D	
	WB	LT	-	7.9	A	LT	-	10.8	B	L	0.76	29.0	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.61	23.0	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.9**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.55**	**25.1**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.2	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.29	8.7	A	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	14.4	B	T	0.06	24.1	C	
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.2**	**A**	**-**	**-**	**14.4**	**B**	**-**	**0.22**	**9.4**	**A**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.11	27.9	C	-Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red
	SB	-	-	-	-	LT	-	8.2	A	L	0.59	39.9	D	
		-	-	-	-	-	-	-	-	TR	0.64	37.0	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	11.2	B	L	-	177.8	F	L	0.34	31.7	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	516.2	F	T	0.76	44.8	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.3	A	R	-	11.3	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.96	73.8	E	
		-	-	-	-	R	-	9.2	A	R	0.33	43.4	D	
	Overall Intersection	**-**	**-**	**10.7**	**B**	**-**	**-**	**1000.0+**	**F**	**-**	**0.76**	**48.1**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.43	17.3	B	TR	0.43	17.3	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	LT	0.76	14.8	B	LT	0.70	12.9	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	13.4	B	L	0.13	39.5	D	L	0.13	39.5	D	
		-	-	-	-	R	0.48	33.2	C	R	0.48	33.2	C	
	Overall Intersection	**-**	**-**	**11.0**	**B**	**-**	**0.59**	**17.7**	**B**	**-**	**0.55**	**16.8**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.35	16.2	B	TR	0.35	16.2	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.1	A	LT	0.64	14.0	B	LT	0.60	13.0	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.0	B	L	0.10	35.2	D	L	0.10	35.2	D	
		-	-	-	-	R	0.51	34.6	C	R	0.51	34.6	C	
	Overall Intersection	**-**	**-**	**11.0**	**B**	**-**	**0.54**	**17.4**	**B**	**-**	**0.51**	**17.0**	**B**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	16.6	C	R	-	20.4	C	R	0.20	40.8	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.69	11.2	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**16.6**	**C**	**-**	**-**	**20.4**	**C**	**-**	**0.58**	**11.9**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 14
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
NEW (WITH ACTION) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.57	23.0	C					-Mitigation not required.
	SB	-	-	-	-	DefL	0.57	15.7	B					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	T	0.43	10.5	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.52	43.4	D					
		-	-	-	-	R	0.36	26.6	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.80**	**21.4**	**C**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 15
2028 (PHASE 1B) SUMMARY OF GAMEDAY MITIGATION MEASURES

INTERSECTION	WEEKDAY PRE-GAME PEAK HOUR	SATURDAY PRE-GAME PEAK HOUR	SATURDAY POST-GAME PEAK HOUR
SIGNALIZED INTERSECTIONS			
108th Street at Astoria Boulevard	**Unmitigatable impact.**	Install "No Standing Saturday 11 AM - 10 PM" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.	Install "No Standing Saturday 11 AM - 10 PM" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
108th Street at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 30 s to 28 s; EB/WB left-turn green time shifts from 9 s to 11 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 2 s green time from NB/SB phase to EB/WB left-turn phase [EB/WB left-turn green time shifts from 9 s to 11 s; NB/SB phase shifts from 30 s to 28 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along west curb of SB 114th Street and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 8 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 33 s]. Shift 14 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 77 s].
126th Street at Northern Boulevard (RT. 25A)	**Unmitigated impact.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 1 s green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase and 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 54 s; NB 126th St green time shifts from 25 s to 23 s].	**Unmitigated impact.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 37 s; NB 126th St green time shifts from 25 s to 23 s].	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 2 s green time from EB Northern Blvd phase to NB 126th St phase and 1 s green time from EB Northern Blvd phase to EB GCP/Astoria Blvd ramp phase [EB Northern Blvd green time shifts from 35 s to 32 s; NB 126th St green time shifts from 25 s to 27 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 45 s].
Prince Street at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.	**Unmitigatable Impact.**
Main Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Union Street at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 44 s to 43 s; EB/WB left-turn green time shifts from 15 s to 16 s].
Parsons Boulevard at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 2 s of green time from EB/WB protected left-turn phase to EB/WB phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s; LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
114th Street at 34th Avenue	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
126th Street/GCP Ramp at 34th Avenue	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to three 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 61 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 37 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to three 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes an two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 63 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 35 s green time [each phase will have s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to three 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes an two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 43 s green time [each phase will have s amber and 2 s all red time].
108th Street at Roosevelt Avenue	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 15 ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 15 ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 15 ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
111th Street at Roosevelt Avenue	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenu approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.

TABLE 15
2028 (PHASE 1B) SUMMARY OF GAMEDAY MITIGATION MEASURES

114th Street at Roosevelt Avenue	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s]. Install "No Standing 3 PM - 7 PM" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s]. Install "No Standing 3 PM - 7 PM" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.	**Partially mitigated.** Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green tim shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].
126th Street at Roosevelt Avenue	**Partially Mitigated.** Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the eas curb. Place cones on SB approach to allow for one 12-ft right-turn lane and one 12-ft shared left-through lane during the pre-game peak hour. Traffic Enforcement Agent should be present to operate the signal. Modify signal phasing (to be followed by Traffic Enforcement Agent): EB + SB right-turn lead phase will have 11 s green time; EB/WB phase will have 69 s green time; NB/SB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated.** Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb. Place cones on SB approach to allow for one 12-ft right-turn lane and one 12-ft shared left-through lane during the pre-game peak hour. Traffic Enforcement Agent should be present to operate the signal. Modify signal phasing (to be followed by Traffic Enforcement Agent): EB + SB right-turn lead phase will have 16 s green time; EB/WB phase will have 64 s green time; NB/SB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated.** Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb. Place cones on EB approach to allow for one left-turn lane and one shared through-right lane durin the post-game peak hour. Traffic Enforcement Agent should be present to operate the signal. Modify signal phasing (to be followed by Traffic Enforcement Agent): EB lead phase will have 19 s green time; EB/WB phase will have 52 s green time; NB/SB phase will have 34 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue	**Partially Mitigated.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft t the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 24 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. - Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue	Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s]. **[Measures reflect improvements needed for the Weekday non-game PM peak periods.]**	Mitigation not required.	Mitigation not required.
Main Street at Roosevelt Avenue	**Partially mitigated.** Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].	**Partially mitigated.** Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Union Street at Roosevelt Avenue	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Parsons Boulevard at Roosevelt Avenue	Modify Signal Timing: Shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 59 s; NB/SB green time shifts from 55 s to 51 s. Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Weekday Non-game AM and Weekday Pre-game PM peak periods.]**	Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s]. Install "No Standing 10AM - 8PM, Saturday" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**	Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s]. Install "No Standing 10AM - 8PM, Saturday" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**
Main Street at Kissena Boulevard	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**
College Point Boulevard at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
Union Street at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
Parsons Boulevard at Sanford Avenue	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 38 s; NB/SB green time shifts from 40 s to 42 s].	Mitigation not required.	Mitigation not required.
College Point Boulevard at 32nd Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Northern Boulevard Service Road	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**	Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s]. **[Measures reflect improvements needed for the Saturday Non-game peak period.]**
Boat Basin Road at Stadium Road	**Partially Mitigated.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 21 s green time; WB lag phase will have 13 s green time; NB/SB phase will have 59 s green time; [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 21 s green time; WB lag phase will have 12 s green time; NB/SB phase will have 60 s green time; [each phase will have 3 s amber and 2 s all red time].	Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 22 s green time; EB/WB phase wi have 25 s green time; WB lag phase will have 11 s green time; NB/SB phase will have 42 s green time; [each phase will have 3 s amber and 2 s all red time].
UNSIGNALIZED INTERSECTIONS			
Boat Basin Road at Worlds Fair Marina	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 45 s green time; NB will have 20 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 45 s green time; NB will have 20 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 45 s green time; NB will have 20 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.

Willets Point Boulevard at Northern Boulevard	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB will have 25 s green time; NB/SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB will have 25 s green time; NB/SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB will have 25 s green time; NB/SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 30 s green time; WB will have 25 s green time; NB/SB will have 50 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.
126th Street at 36th Avenue	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Partially mitigated.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
126th Street at 37th Avenue	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Partially mitigated.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
Northern Boulevard at 126th Place	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.
NEW (WITH ACTION) SIGNALIZED INTERSECTION			
126th Street at New Willets Point Boulevard	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria.

NOTE: This table has been revised for the Final SEIS.

TABLE 16
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.67	51.7	D	DefL	0.79	61.3	E					-Unmitigatable impact.
		T	0.28	36.8	D	T	0.28	36.8	D					
	SB	LTR	0.35	38.0	D	LTR	0.35	38.0	D					
Astoria Boulevard	EB	TR	1.07	58.1	E	TR	1.11	76.7	E					
		-	-	-	-	-	-	-	-					
	WB	L	0.74	51.1	D	L	0.74	51.2	D					
		TR	0.28	9.3	A	TR	0.32	9.6	A					
Overall Intersection		**-**	**0.92**	**48.0**	**D**	**-**	**0.98**	**60.6**	**E**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.17	125.0	F	LTR	1.44	245.2	F	L	0.85	53.5	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.65	41.8	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.12	108.4	F	LTR	1.15	118.5	F	L	0.53	44.5	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.66	43.6	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.19	32.3	C	L	0.19	37.0	D	L	0.18	29.7	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.86	14.4	B	TR	0.93	18.0	B	TR	0.93	18.0	B	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.73	45.9	D	L	0.73	47.6	D	L	0.73	47.6	D	and one 12-ft shared through-right lane for 175 ft.
		TR	1.07	58.3	E	TR	1.15	95.2	F	T	0.94	26.5	C	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for
		-	-	-	-	-	-	-	-	R	0.30	12.5	B	150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
Overall Intersection		**-**	**1.04**	**45.2**	**D**	**-**	**1.16**	**69.1**	**E**	**-**	**1.01**	**25.2**	**C**	-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.77	56.7	E	LTR	0.91	69.8	E	LTR	0.58	38.1	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	1.00	33.3	C	T	1.10	69.2	E	T	0.96	16.5	B	exclusive through lanes.
		R	0.63	14.9	B	R	0.74	17.1	B	R	0.64	8.6	A	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.82	48.9	D	DefL	0.96	71.8	E	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.87	15.1	B	T	0.93	19.0	B	T	0.86	20.2	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.51**	**25.7**	**C**	**-**	**1.65**	**42.7**	**D**	**-**	**0.84**	**19.4**	**B**	-Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.47	44.0	D	L	0.96	73.7	E	L	1.05	97.3	F	-Partially Mitigated.
		R	0.39	43.6	D	R	3.00+	1000.0+	F	R	0.64	50.8	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	1.11	115.5	F	T	1.14	126.9	F	T	1.11	111.5	F	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.81	16.5	B	T	0.89	21.2	C	T	0.87	18.4	B	through the intersection.
Grand Central Parkway Ramp	EB	T	0.89	38.9	D	T	0.92	41.9	D	T	0.94	44.8	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.79	14.5	B	T	0.79	14.5	B	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.73**	**37.9**	**D**	**-**	**1.50**	**107.5**	**F**	**-**	**1.01**	**61.8**	**E**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 1 s green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase and 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 28 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 54 s; NB 126th St green time shifts from 25 s to 23 s].

TABLE 16
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.12	102.0	F	LTR	1.12	102.0	F	LTR	1.12	102.0	F	-Partially Mitigated.
	SB	LTR	0.59	42.3	D	LTR	0.59	42.3	D	LTR	0.59	42.3	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.97	73.3	E	L	0.97	73.3	E	L	0.97	73.3	E	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	1.04	55.8	E	T	1.10	81.0	F	T	1.10	81.0	F	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.78	69.0	E	L	0.78	69.0	E	L	0.78	69.0	E	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.10	89.8	F	T	1.15	109.8	F	T	1.15	109.8	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.59	25.1	C	TR	0.59	25.1	C	TR	0.59	25.1	C	
	WB	TR	0.79	41.6	D	TR	0.94	59.7	E	T	0.66	34.0	C	
		-	-	-	-	-	-	-	-	R	0.18	24.0	C	
Overall Intersection		**-**	**1.08**	**66.7**	**E**	**-**	**1.10**	**83.5**	**F**	**-**	**1.10**	**81.7**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.90	52.7	D	L	0.90	52.7	D					-Unmitigatable impact.
		R	0.91	62.7	E	R	0.91	62.7	E					
Northern Boulevard (Rt 25A)	EB	T	1.14	95.9	F	T	1.22	128.5	F					
		R	1.23	137.5	F	R	1.23	137.5	F					
	WB	L	0.23	28.0	C	L	0.23	28.0	C					
		T	0.78	23.2	C	T	0.85	25.9	C					
Overall Intersection		**-**	**1.07**	**69.8**	**E**	**-**	**1.07**	**83.0**	**F**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.70	35.8	D	TR	0.70	35.8	D	TR	0.70	35.8	D	-Partially Mitigated.
	SB	TR	0.69	35.3	D	TR	0.69	35.3	D	TR	0.69	35.3	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.64	31.6	C	L	0.64	32.5	C	L	0.64	30.4	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.18	115.2	F	TR	1.25	147.1	F	TR	1.25	147.1	F	
	WB	L	0.79	41.1	D	L	0.79	41.8	D	L	0.79	41.8	D	
		TR	1.00	63.2	E	TR	1.11	102.9	F	TR	0.82	35.5	D	
Overall Intersection		**-**	**0.95**	**76.7**	**E**	**-**	**0.98**	**102.5**	**F**	**-**	**0.98**	**82.6**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.88	79.4	E	L	0.90	84.6	F	L	0.91	85.4	F	-Partially Mitigated.
		TR	0.58	40.4	D	TR	0.58	40.4	D	TR	0.57	39.2	D	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
	SB	LTR	1.18	122.9	F	LTR	1.22	142.7	F	LT	0.73	35.7	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
										R	0.39	33.0	C	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.47	45.9	D	L	0.52	47.3	D	L	0.58	49.6	D	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		TR	1.01	47.4	D	TR	1.09	75.9	E	TR	1.05	56.9	E	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		-	-	-	-	-	-	-	-	-	-	-	-	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	WB	L	0.44	40.9	D	L	0.44	41.9	D	L	0.49	43.0	D	-Modify Signal Timing: Shift 2 s of green time from EB/WB protected left-turn phase to EB/WB
		TR	1.18	113.9	F	TR	1.29	163.9	F	T	1.04	55.0	D	phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB
										R	0.38	23.4	C	protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s;
Overall Intersection		**-**	**1.11**	**78.3**	**E**	**-**	**1.18**	**109.7**	**F**	**-**	**1.05**	**52.7**	**D**	LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.05	79.9	E	L	1.13	108.9	F	L	1.03	69.1	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.54	28.9	C	T	0.81	38.6	D	T	0.73	32.0	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.50	13.0	B	T	0.50	13.0	B	T	0.54	15.2	B	
		R	0.16	9.2	A	R	0.16	9.2	A	R	0.17	10.6	B	
Overall Intersection		**-**	**0.70**	**40.3**	**D**	**-**	**0.73**	**53.2**	**D**	**-**	**0.73**	**38.1**	**D**	

TABLE 16
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	0.82	78.7	E	DefL	1.41	278.1	F	L	0.56	35.3	D	-Partially mitigated.
		TR	0.38	37.3	D	TR	0.65	43.2	D	TR	0.51	35.9	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.78	54.5	D	LTR	1.73	286.1	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	1.35	212.5	F	LTR	1.54	295.1	F	L	0.53	39.3	D	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.71	41.1	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	DefL	0.50	32.9	C	DefL	1.73	383.7	F	DefL	0.68	29.9	C	and two 11-ft EB receiving lanes.
		TR	0.31	28.2	C	TR	2.20	586.6	F	TR	0.83	37.5	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		-	-	-	-	-	-	-	-	DefL	0.84	46.6	D	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
34th Avenue	WB	LTR	0.30	28.0	C	LTR	1.43	248.8	F	TR	0.41	20.0	C	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
														11-ft travel lanes.
	Overall Intersection	**-**	**0.82**	**118.2**	**F**	**-**	**1.88**	**317.1**	**F**	**-**	**0.80**	**35.5**	**D**	-Modify signal phasing and timing plan: EB/WB phase will have 61 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 37 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.16	119.5	F	LTR	1.20	138.7	F	LT	0.94	52.0	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.48	39.1	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.17	126.6	F	LTR	1.19	134.0	F	LT	1.00	60.3	E	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.30	36.9	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.71	8.4	A	LTR	0.82	11.9	B	LTR	0.82	11.9	B	
	WB	LTR	0.66	12.3	B	LTR	0.81	15.3	B	LTR	0.81	15.3	B	
	Overall Intersection	**-**	**0.83**	**50.6**	**D**	**-**	**0.92**	**53.4**	**D**	**-**	**0.87**	**26.1**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.05	77.5	E	LTR	1.05	77.5	E	LTR	1.05	77.5	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.76	9.4	A	LTR	0.88	15.1	B	LTR	0.88	14.7	B	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.19	108.0	F	LTR	1.36	180.9	F	LT	1.10	67.7	E	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.17	7.6	A	
	Overall Intersection	**-**	**1.15**	**64.3**	**E**	**-**	**1.27**	**98.0**	**F**	**-**	**1.09**	**45.5**	**D**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.91	59.6	E	LTR	0.91	60.1	E	LTR	0.80	47.5	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.10	94.4	F	LTR	1.50	269.0	F	LT	1.13	103.8	F	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.13	33.5	C	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	0.99	26.8	C	LTR	1.26	141.5	F	L	0.26	9.7	A	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.78	9.3	A	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.69	14.3	B	LTR	0.98	35.5	D	L	0.88	39.5	D	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.61	14.2	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.73	19.8	B	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**1.02**	**33.4**	**C**	**-**	**1.33**	**101.4**	**F**	**-**	**0.96**	**30.4**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s]. -Install "No Standing 3 PM - 7 PM" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 16
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.64	60.2	E	LTR	1.13	186.8	F	DefL	0.57	71.4	E	-Partially mitigated
		-	-	-	-	-	-	-	-	TR	0.25	42.5	D	-Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb.
	SB	-	-	-	-	-	-	-	-	LT	1.56	301.4	F	
		LTR	1.17	122.0	F	LTR	1.91	454.5	F	R	1.95	465.7	F	-Place cones on SB approach to allow for one 12-ft right-turn lane and one 12-ft shared left-through lane during the pre-game peak hour.
Roosevelt Avenue	EB	DefL	1.02	64.4	E	DefL	1.84	417.4	F	DefL	1.22	149.8	F	
		TR	0.71	8.0	A	TR	0.78	9.9	A	TR	0.74	5.8	A	-Traffic Enforcement Agent should be present to operate the signal.
	WB	LTR	0.62	12.8	B	LTR	0.79	17.5	B	LTR	0.98	42.3	D	-Modify signal phasing (to be followed by Traffic Enforcement Agent): EB + SB right-turn lead phase will have 11 s green time; EB/WB phase will have 69 s green time; NB/SB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		**-**	**1.06**	**45.7**	**D**	**-**	**1.86**	**191.7**	**F**	**-**	**1.92**	**164.5**	**F**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.29	188.9	F	L	1.48	272.0	F	L	1.22	162.6	F	-Partially Mitigated
		TR	0.69	29.0	C	TR	0.69	29.0	C	TR	0.69	28.7	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	0.89	47.6	D	TR	0.99	62.3	E	T	0.78	45.8	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.50	37.4	D	L	0.52	37.8	D	L	0.54	38.2	D	
		TR	1.26	147.7	F	TR	1.45	232.6	F	TR	1.43	226.9	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.31	44.9	D	L	0.31	44.9	D	-	-	-	-	
		TR	0.48	36.4	D	TR	0.57	38.6	D	TR	0.58	44.3	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
Overall Intersection		**-**	**1.21**	**80.6**	**F**	**-**	**1.37**	**116.7**	**F**	**-**	**1.21**	**97.9**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 24 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.52	31.0	C	LTR	0.52	31.0	C	LTR	0.55	33.1	C	-Modify Signal Timing: Shift 2 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 65 s; SB green time shifts from 47 s to 45 s].
Roosevelt Avenue	EB	DefL	0.81	32.4	C	DefL	0.84	35.6	D	DefL	0.80	30.9	C	
		TR	0.80	29.0	C	TR	0.91	37.5	D	TR	0.88	32.8	C	[Measures reflect improvements needed for the Weekday non-game PM peak periods.]
	WB	LTR	0.61	21.5	C	LTR	0.67	23.0	C	LTR	0.65	21.2	C	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**0.69**	**27.9**	**C**	**-**	**0.75**	**31.6**	**C**	**-**	**0.75**	**29.2**	**C**	

TABLE 16
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.63	23.6	C	T	0.63	23.6	C	T	0.68	27.2	C	-Partially mitigated.
	SB	T	0.55	22.2	C	T	0.55	22.2	C	T	0.59	25.5	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.35	35.9	D	L	0.40	40.7	D	L	0.33	32.5	C	green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].
		TR	0.93	65.4	E	TR	1.11	113.0	F	TR	1.01	79.1	E	
	WB	L	0.21	28.8	C	L	0.26	31.0	C	L	0.22	26.5	C	
		TR	0.90	55.6	E	TR	1.00	74.9	E	TR	0.91	53.9	D	
	Overall Intersection	**-**	**0.75**	**37.2**	**D**	**-**	**0.86**	**52.1**	**D**	**-**	**0.82**	**42.8**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.54	18.8	B	TR	0.54	18.8	B					-Unmitigatable impact.
	SB	LT	1.27	146.5	F	LT	1.27	146.5	F					
		R	1.91	437.2	F	R	1.91	437.2	F					
Roosevelt Avenue	EB	LTR	2.32	624.7	F	LTR	2.70	796.8	F					
	WB	LT	0.81	33.0	C	LT	0.91	43.0	D					
		R	0.82	50.1	D	R	0.82	50.1	D					
	Overall Intersection	**-**	**2.10**	**238.1**	**F**	**-**	**2.27**	**289.0**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.81	37.3	D	LTR	0.83	39.2	D	LT	0.80	39.8	D	-Modify Signal Timing: Shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.08	20.8	C	time shifts from 55 s to 59 s; NB/SB green time shifts from 55 s to 51 s.
	SB	LTR	0.78	33.3	C	LTR	0.78	33.4	C	LTR	0.85	40.1	D	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.69	31.8	C	LTR	0.88	45.0	D	LTR	0.81	36.0	D	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.92	47.0	D	LTR	1.05	78.5	E	LTR	0.96	49.9	D	[Measures reflect improvements needed for the Weekday Non-game AM and Weekday Pre-game
	Overall Intersection	**-**	**0.87**	**37.4**	**D**	**-**	**0.94**	**49.3**	**D**	**-**	**0.91**	**41.2**	**D**	PM peak periods.]
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.74	37.6	D	L	0.75	38.3	D					-Mitigation not required.
		TR	0.59	22.2	C	TR	0.59	22.2	C					
	SB	L	0.87	54.4	D	L	0.87	54.4	D					
		TR	0.50	20.1	C	TR	0.50	20.1	C					
Kissena Boulevard	WB	T	0.73	38.0	D	T	0.73	38.0	D					
	Overall Intersection	**-**	**0.80**	**30.1**	**C**	**-**	**0.80**	**30.2**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.38	15.1	B	L	0.41	16.4	B					-Mitigation not required.
		T	0.75	16.0	B	T	0.76	16.4	B					
	SB	TR	0.75	15.9	B	TR	0.78	16.7	B					
Sanford Avenue	WB	L	0.81	49.2	D	L	0.81	49.2	D					
		TR	0.47	28.5	C	TR	0.58	30.6	C					
	Overall Intersection	**-**	**0.77**	**19.7**	**B**	**-**	**0.79**	**20.6**	**C**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.39	21.7	C	LTR	0.39	21.7	C					-Mitigation not required.
	SB	LTR	0.70	25.9	C	LTR	0.71	26.3	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.29	14.3	B	LTR	0.29	14.3	B					
	WB	LTR	0.90	31.4	C	LTR	0.95	36.9	D					
	Overall Intersection	**-**	**0.81**	**25.2**	**C**	**-**	**0.84**	**27.4**	**C**					

TABLE 16
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.03	51.7	D	LTR	1.04	56.9	E	LT	0.77	22.4	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.13	13.7	B	-Install "No Standing 7 AM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the
	SB	LTR	0.70	25.0	C	LTR	0.81	30.5	C	LTR	0.84	31.7	C	intersection to allow for a 10-ft daylighted right-turn lane.
Sanford Avenue	EB	LTR	0.61	23.6	C	LTR	0.63	24.1	C	LTR	0.66	26.8	C	-Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green
	WB	LTR	0.76	28.3	C	LTR	0.81	31.3	C	LTR	0.85	36.3	D	time shifts from 40 s to 38 s; NB/SB green time shifts from 40 s to 42 s].
Overall Intersection		**-**	**0.89**	**33.2**	**C**	**-**	**0.93**	**36.8**	**D**	**-**	**0.85**	**29.1**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.39	23.7	C	T	0.41	23.9	C					-Mitigation not required.
		TR	0.27	22.0	C	TR	0.27	22.0	C					
	SB	L	0.45	33.5	C	L	0.45	33.5	C					
		T	0.41	10.6	B	T	0.42	10.7	B					
32nd Avenue	WB	LTR	0.74	37.8	D	LTR	0.74	37.8	D					
Overall Intersection		**-**	**1.10**	**21.1**	**C**	**-**	**1.10**	**21.1**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.49	12.6	B	TR	0.50	12.7	B					-Mitigation not required.
	SB	LT	0.84	21.6	C	LT	0.86	22.6	C					
Northern Blvd Service Rd	WB	LR	0.72	33.7	C	LR	0.87	43.3	D					
Overall Intersection		**-**	**0.80**	**19.9**	**B**	**-**	**0.86**	**22.7**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.53	23.9	C	-Partially Mitigated.
		LTR	0.54	43.8	D	LTR	0.99	88.7	F	TR	0.25	17.8	B	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	DefL	1.23	153.0	F	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		LTR	0.89	34.7	C	LTR	1.15	105.2	F	TR	0.99	59.6	E	will have 21 s green time; WB lag phase will have 13 s green time; NB/SB phase will have 59 s
Stadium Road	EB	-	-	-	-	DefL	1.30	231.2	F	DefL	0.65	44.3	D	green time; [each phase will have 3 s amber and 2 s all red time].
		-	-	-	-	TR	0.35	24.4	C	TR	0.43	36.5	D	
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.87	32.6	C	DefL	1.30	231.2	F	LTR	0.90	44.2	D	
Overall Intersection		**-**	**0.84**	**34.5**	**C**	**-**	**1.19**	**96.3**	**F**	**-**	**1.20**	**67.4**	**E**	

TABLE 16
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	52.2	F	L	-	781.3	F	L	0.32	30.6	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 45 s green time; NB will have 20 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.6	A	R	-	8.9	A	R	0.08	2.5	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.14	37.0	D	
	WB	LT	-	12.2	B	LT	-	13.6	B	L	0.95	43.6	D	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.68	21.7	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**13.4**	**B**	**-**	**-**	**491.1**	**F**	**-**	**0.67**	**32.3**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.5	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.28	8.5	A	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	13.8	B	T	0.06	24.1	C	
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.5**	**A**	**-**	**-**	**13.8**	**B**	**-**	**0.21**	**9.3**	**A**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.07	27.4	C	-Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red
	SB	-	-	-	-	LT	-	9.2	A	L	0.40	33.8	C	
		-	-	-	-	-	-	-	-	TR	0.83	44.9	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	34.1	D	L	-	186.4	F	L	0.30	31.0	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	461.7	F	T	0.54	36.0	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.6	A	R	-	242.3	F	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.79	54.6	D	
		-	-	-	-	R	-	10.2	B	R	0.24	41.5	D	
	Overall Intersection	**-**	**-**	**31.1**	**D**	**-**	**-**	**1000.0+**	**F**	**-**	**0.71**	**43.4**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.31	15.7	B	TR	0.31	15.7	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.3	A	LT	0.82	17.0	B	LT	0.79	15.4	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	17.3	C	L	0.12	39.4	D	L	0.12	39.4	D	
		-	-	-	-	R	0.31	28.7	C	R	0.31	28.7	C	
	Overall Intersection	**-**	**-**	**12.2**	**B**	**-**	**0.66**	**17.8**	**B**	**-**	**0.63**	**16.6**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.28	15.3	B	TR	0.28	15.3	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	LT	0.77	17.2	B	LT	0.74	16.1	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	15.7	C	L	0.10	35.2	D	L	0.10	35.2	D	
		-	-	-	-	R	0.32	29.2	C	R	0.32	29.2	C	
	Overall Intersection	**-**	**-**	**12.6**	**B**	**-**	**0.57**	**17.8**	**B**	**-**	**0.55**	**17.1**	**B**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	20.7	C	R	-	24.7	C	R	0.17	40.1	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.73	11.9	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**20.7**	**C**	**-**	**-**	**24.7**	**C**	**-**	**0.60**	**12.4**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

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		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.42	20.1	C					-Mitigation not required.
	SB	-	-	-	-	-	-	-	-					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	LT	0.70	15.0	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.65	48.3	D					
		-	-	-	-	R	0.37	27.4	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.67**	**21.4**	**C**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 17
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.46	25.9	C	DefL	0.53	27.8	C	DefL	0.53	27.8	C	-Install "No Standing Saturday 11 AM - 10 PM" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
		T	0.20	21.0	C	T	0.20	21.0	C	T	0.20	21.0	C	
	SB	LTR	0.22	21.4	C	LTR	0.22	21.4	C	LTR	0.22	21.4	C	
Astoria Boulevard	EB	TR	0.75	26.8	C	TR	0.84	29.5	C	T	0.74	26.3	C	
		-	-	-	-	-	-	-	-	R	0.21	19.6	B	
	WB	L	0.79	37.1	D	L	0.82	45.5	D	L	0.82	40.7	D	
		TR	0.29	11.9	B	TR	0.33	12.3	B	TR	0.33	12.3	B	
Overall Intersection		**-**	**0.66**	**23.1**	**C**	**-**	**0.73**	**25.1**	**C**	**-**	**0.68**	**23.0**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.15	117.0	F	LTR	1.42	234.5	F	L	0.82	49.0	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.69	41.8	D	
	SB	LTR	1.08	96.6	F	LTR	1.10	104.9	F	L	0.45	42.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.73	46.0	D	
Northern Boulevard (Rt. 25A)	EB	L	0.09	35.8	D	L	0.09	43.4	D	L	0.08	32.5	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.97	36.3	D	TR	1.10	78.2	E	T	0.96	33.4	C	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	R	0.17	13.7	B	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.83	47.7	D	L	0.88	53.8	D	L	0.80	47.9	D	and one 12-ft shared through-right lane for 175 ft.
		TR	1.16	101.9	F	TR	1.27	148.7	F	T	1.04	47.4	D	-Modify signal timing: shift 2 s of green time from NB/SB phase to EB/WB left-turn phase
		-	-	-	-	-	-	-	-	R	0.33	15.1	B	[NB/SB green time shifts from 30 s to 28 s; EB/WB left-turn green time shifts from 9 s to 11 s].
Overall Intersection		**-**	**1.11**	**76.0**	**E**	**-**	**1.26**	**121.8**	**F**	**-**	**0.96**	**39.9**	**D**	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.62	49.6	D	LTR	0.75	55.8	E	LTR	0.62	39.5	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.76	24.7	C	T	0.88	29.8	C	T	0.74	17.3	B	exclusive through lanes.
		R	0.79	28.8	C	R	0.90	37.6	D	R	0.76	20.2	C	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.82	36.4	D	DefL	1.07	96.1	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street and restripe as two 11-ft moving lanes.
		T	0.85	15.8	B	T	0.92	20.0	B	T	0.85	20.1	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.31**	**23.4**	**C**	**-**	**1.66**	**32.9**	**C**	**-**	**0.77**	**21.4**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.62	46.9	D	L	1.10	109.7	F	L	1.19	148.4	F	-Unmitigated impact.
		R	0.33	41.9	D	R	3.00+	1000.0+	F	R	0.60	48.8	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	0.55	38.2	D	T	0.57	38.7	D	T	0.73	40.6	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.68	12.6	B	T	0.77	15.4	B	T	0.75	13.7	B	through the intersection.
Grand Central Parkway Ramp	EB	T	0.88	44.4	D	T	0.91	47.6	D	T	0.91	47.6	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.74	12.9	B	T	0.76	13.6	B	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.71**	**26.9**	**C**	**-**	**1.85**	**156.0**	**F**	**-**	**0.91**	**56.6**	**E**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 2 s green time from NB 126th St phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 37 s; NB 126th St green time shifts from 25 s to 23 s].

TABLE 17
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.11	98.7	F	LTR	1.11	98.7	F	LTR	1.11	98.7	F	-Partially Mitigated.
	SB	LTR	0.51	37.7	D	LTR	0.51	37.7	D	LTR	0.51	37.7	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	1.00	84.9	F	L	1.00	84.9	F	L	1.00	84.9	F	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	0.97	39.4	D	T	1.04	57.0	E	T	1.04	57.0	E	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.97	99.7	F	L	0.97	99.7	F	L	0.97	99.7	F	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.13	99.3	F	T	1.18	120.4	F	T	1.18	120.4	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.51	23.1	C	TR	0.51	23.1	C	TR	0.51	23.1	C	
	WB	TR	0.75	35.5	D	TR	0.91	48.8	D	T	0.66	31.1	C	
		-	-	-	-	-	-	-	-	R	0.16	21.7	C	
Overall Intersection		**-**	**1.10**	**65.6**	**E**	**-**	**1.12**	**79.4**	**E**	**-**	**1.12**	**78.2**	**E**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.86	48.1	D	L	0.86	48.1	D					-Unmitigatable impact.
		R	0.95	68.8	E	R	0.95	68.8	E					
Northern Boulevard (Rt 25A)	EB	T	0.96	40.5	D	T	1.03	58.5	E					
		R	1.34	192.7	F	R	1.34	192.7	F					
	WB	L	0.16	26.6	C	L	0.16	26.6	C					
		T	0.88	26.6	C	T	0.97	34.0	C					
Overall Intersection		**-**	**1.16**	**56.6**	**E**	**-**	**1.16**	**64.0**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.69	35.6	D	TR	0.69	35.6	D	TR	0.69	35.6	D	-Partially Mitigated.
	SB	TR	0.60	33.1	C	TR	0.60	33.1	C	TR	0.60	33.1	C	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.69	34.9	C	L	0.69	35.8	D	L	0.69	33.8	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.27	160.6	F	TR	1.36	202.7	F	TR	1.36	202.7	F	
	WB	L	0.98	67.7	E	L	0.98	53.9	D	L	0.98	53.9	D	
		TR	0.98	46.9	D	TR	1.09	84.0	F	TR	0.81	34.9	C	
Overall Intersection		**-**	**0.99**	**85.5**	**F**	**-**	**1.03**	**113.2**	**F**	**-**	**1.03**	**97.3**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.68	50.8	D	L	0.70	52.2	D	L	0.68	50.8	D	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.54	39.1	D	TR	0.54	39.1	D	TR	0.54	39.1	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.13	103.0	F	LTR	1.18	126.8	F	LT	0.66	35.1	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.36	33.3	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.41	43.3	D	L	0.46	46.2	D	L	0.46	44.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.13	94.5	F	TR	1.24	145.1	F	T	1.04	57.2	E	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.38	23.7	C	
	WB	L	0.44	44.2	D	L	0.44	45.8	D	L	0.44	44.6	D	
		TR	1.07	68.9	E	TR	1.20	124.2	F	T	0.99	42.4	D	
										R	0.36	23.6	C	
Overall Intersection		**-**	**1.10**	**77.1**	**E**	**-**	**1.14**	**119.6**	**F**	**-**	**0.91**	**46.0**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.03	72.3	E	L	1.11	96.4	F	L	1.00	60.0	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.54	28.6	C	T	0.80	37.4	D	T	0.72	31.3	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.43	12.0	B	T	0.43	12.0	B	T	0.46	14.0	B	
		R	0.11	8.8	A	R	0.11	8.8	A	R	0.12	10.2		
Overall Intersection		**-**	**0.64**	**40.2**	**D**	**-**	**0.69**	**52.0**	**D**	**-**	**0.67**	**36.6**	**D**	

TABLE 17
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	1.20	168.9	F	DefL	1.56	337.1	F	L	0.86	77.9	E	-Partially mitigated.
		TR	0.53	37.1	D	TR	0.83	48.5	D	TR	0.54	37.4	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.59	41.1	D	LTR	1.93	472.7	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	1.47	267.9	F	LTR	1.71	372.2	F	L	0.66	52.0	D	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.81	47.2	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	-	-	-	-	-	-	-	-	and two 11-ft EB receiving lanes.
		LTR	0.45	31.6	C	LTR	1.70	358.7	F	LTR	0.90	32.4	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		-	-	-	-					DefL	1.47	244.0	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
34th Avenue	WB	LTR	0.44	31.0	C	LTR	2.55	737.7	F	TR	0.56	19.5	B	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	-	**0.98**	**141.1**	**F**	-	**2.11**	**361.4**	**F**	-	**1.17**	**58.5**	**E**	-Modify signal phasing and timing plan: EB/WB phase will have 63 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 35 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.18	127.3	F	LTR	1.23	149.0	F	LT	1.04	72.5	E	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.44	38.6	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.17	125.8	F	LTR	1.19	134.5	F	LT	1.07	82.4	F	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.35	37.4	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.78	19.4	B	LTR	0.90	28.3	C	LTR	0.88	26.0	C	
	WB	LTR	1.00	31.3	C	LTR	1.18	104.4	F	LTR	1.02	35.3	D	
	Overall Intersection	-	**1.05**	**58.8**	**E**	-	**1.20**	**92.0**	**F**	-	**1.02**	**42.8**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.06	76.7	E	LTR	1.06	76.7	E	LTR	1.06	76.7	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.86	22.9	C	LTR	1.00	44.5	D	LTR	1.00	42.3	D	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.22	120.1	F	LTR	1.40	199.0	F	LT	1.11	72.7	E	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.20	7.8	A	
	Overall Intersection	-	**1.17**	**73.7**	**E**	-	**1.30**	**115.1**	**F**	-	**1.10**	**57.8**	**E**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.09	89.3	F	LTR	1.12	99.5	F	LTR	0.94	45.9	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.11	96.2	F	LTR	1.36	206.9	F	LT	0.90	41.6	D	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.27	33.6	C	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	1.24	130.9	F	LTR	1.67	321.0	F	L	0.49	12.3	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.69	14.8	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.60	12.6	B	LTR	0.85	21.1	C	L	0.72	28.4	C	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.58	14.7	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.70	19.9	B	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	-	**1.20**	**75.4**	**E**	-	**1.58**	**152.8**	**F**	-	**0.79**	**24.6**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s]. -Install "No Standing 3 PM - 7 PM" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 17
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.83	80.5	F	LTR	1.76	437.6	F	DefL	0.60	67.7	E	-Partially Mitigated.
		-	-	-	-	-	-	-	-	TR	0.26	42.1	D	-Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb.
	SB	-	-	-	-	-	-	-	-	LT	1.52	283.4	F	
		LTR	1.15	114.7	F	LTR	2.00	497.3	F	R	1.86	425.0	F	-Place cones on SB approach to allow for one 12-ft right-turn lane and one 12-ft shared left-through lane during the pre-game peak hour.
Roosevelt Avenue	EB	DefL	1.19	138.6	F	DefL	2.28	616.6	F	DefL	1.36	215.6	F	
		TR	0.55	12.4	B	TR	0.62	13.8	B	TR	0.58	10.7	B	-Traffic Enforcement Agent should be present to operate the signal.
	WB	LTR	0.66	13.6	B	LTR	0.83	18.9	B	LTR	0.98	42.5	D	-Modify signal phasing (to be followed by Traffic Enforcement Agent): EB + SB right-turn lead phase will have 16 s green time; EB/WB phase will have 64 s green time; NB/SB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**1.18**	**53.5**	**D**	**-**	**2.20**	**241.0**	**F**	**-**	**2.08**	**165.8**	**F**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.32	190.6	F	L	1.55	292.6	F	L	1.21	159.3	F	-Partially Mitigated
		TR	0.83	27.7	C	TR	0.83	27.7	C	TR	0.81	33.2	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	1.22	132.3	F	TR	1.37	200.7	F	T	0.94	51.9	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.49	28.9	C	L	0.52	29.4	C	L	0.50	37.0	D	
		TR	1.24	132.9	F	TR	1.47	235.6	F	TR	1.36	195.0	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.28	33.4	C	L	0.28	33.4	C	-	-	-	-	
		TR	0.55	28.3	C	TR	0.65	30.9	C	TR	0.62	43.5	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.37**	**96.2**	**F**	**-**	**1.61**	**150.8**	**F**	**-**	**1.22**	**87.4**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.80	41.4	D	LTR	0.80	41.4	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.77	18.3	B	DefL	0.80	20.0	B					
		TR	0.65	13.1	B	TR	0.74	14.9	B					
	WB	LTR	0.61	13.2	B	LTR	0.68	14.6	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.78**	**20.3**	**C**	**-**	**0.80**	**21.0**	**C**					

TABLE 17
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.67	24.3	C	T	0.67	24.3	C	T	0.76	29.5	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	T	0.65	24.1	C	T	0.65	24.1	C	T	0.73	29.1	C	green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Roosevelt Avenue	EB	L	0.26	20.4	C	L	0.29	22.2	C	L	0.24	17.5	B	
		TR	0.74	32.7	C	TR	0.91	47.4	D	TR	0.81	33.8	C	
	WB	L	0.07	15.5	B	L	0.08	15.8	B	L	0.07	13.3	B	
		TR	0.85	40.1	D	TR	0.97	56.6	E	TR	0.87	37.7	D	
	Overall Intersection	**-**	**0.76**	**28.8**	**C**	**-**	**0.82**	**35.7**	**D**	**-**	**0.82**	**31.7**	**C**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.46	17.3	B	TR	0.46	17.3	B					-Unmitigatable impact.
	SB	LT	1.01	55.9	E	LT	1.01	55.9	E					
		R	2.65	781.7	F	R	2.65	781.7	F					
Roosevelt Avenue	EB	LTR	1.93	450.8	F	LTR	2.23	586.8	F					
	WB	LT	0.57	24.3	C	LT	0.67	27.5	C					
		R	1.27	204.8	F	R	1.27	204.8	F					
	Overall Intersection	**-**	**2.31**	**251.7**	**F**	**-**	**2.45**	**289.8**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.73	27.4	C	LTR	0.76	29.0	C	LT	0.74	29.4	C	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB
		-	-	-	-	-	-	-	-	R	0.03	15.3	B	green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s].
	SB	LTR	0.74	25.8	C	LTR	0.74	25.8	C	LTR	0.78	28.9	C	-Install "No Standing 10AM - 8PM, Saturday" regulations on the NB approach 75 feet from the
Roosevelt Avenue	EB	LTR	0.46	20.0	B	LTR	0.60	23.5	C	LTR	0.57	21.3	C	intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.63	24.2	C	LTR	0.73	28.1	C	LTR	0.69	25.0	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
	Overall Intersection	**-**	**0.68**	**24.9**	**C**	**-**	**0.75**	**26.7**	**C**	**-**	**0.73**	**26.4**	**C**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.89	56.5	E	L	0.90	59.1	E	L	0.87	51.3	D	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.60	21.4	C	TR	0.60	21.4	C	TR	0.59	20.5	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.52	21.3	C	L	0.52	21.3	C	L	0.53	22.3	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
		TR	0.54	19.6	B	TR	0.54	19.6	B	TR	0.52	18.8	B	
Kissena Boulevard	WB	T	0.66	24.5	C	T	0.66	24.5	C	T	0.67	25.8	C	
	Overall Intersection	**-**	**0.77**	**24.6**	**C**	**-**	**0.78**	**24.9**	**C**	**-**	**0.77**	**24.0**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.52	21.8	C	L	0.58	26.0	C					-Mitigation not required.
		T	0.82	18.0	B	T	0.84	18.7	B					
	SB	TR	0.82	18.0	B	TR	0.85	19.3	B					
Sanford Avenue	WB	L	0.87	54.6	D	L	0.87	54.6	D					
		TR	0.51	29.2	C	TR	0.61	31.3	C					
	Overall Intersection	**-**	**0.84**	**22.1**	**C**	**-**	**0.86**	**23.3**	**C**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.46	23.6	C	LTR	0.47	23.7	C					-Mitigation not required.
	SB	LTR	0.92	35.0	C	LTR	0.94	36.5	D					
Sanford Avenue	EB	DefL	0.57	24.1	C	DefL	0.59	25.4	C					
		TR	0.33	15.1	B	TR	0.33	15.1	B					
	WB	LTR	0.74	23.5	C	LTR	0.79	25.3	C					
	Overall Intersection	**-**	**0.82**	**27.3**	**C**	**-**	**0.86**	**28.6**	**C**					

TABLE 17
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.85	31.7	C	LTR	0.87	34.0	C					-Mitigation not required.
		-	-	-	-	-	-	-	-					
	SB	LTR	0.73	25.8	C	LTR	0.87	34.6	C					
Sanford Avenue	EB	LTR	0.63	23.4	C	LTR	0.65	24.0	C					
	WB	LTR	0.85	33.0	C	LTR	0.91	38.9	D					
Overall Intersection		**-**	**0.85**	**28.6**	**C**	**-**	**0.89**	**33.3**	**C**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.36	23.3	C	T	0.38	23.5	C					-Mitigation not required.
		TR	0.59	26.1	C	TR	0.59	26.1	C					
	SB	L	0.58	38.1	D	L	0.58	38.1	D					
		T	0.45	11.1	B	T	0.46	11.2	B					
32nd Avenue	WB	LTR	0.46	30.1	C	LTR	0.46	30.1	C					
Overall Intersection		**-**	**1.04**	**21.9**	**C**	**-**	**1.04**	**21.9**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.55	13.3	B	TR	0.55	13.4	B	TR	0.56	14.2	B	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green
	SB	LT	0.91	26.5	C	LT	0.93	28.7	C	LT	0.95	33.0	C	time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s].
Northern Blvd Service Rd	WB	LR	0.71	32.9	C	LR	0.87	42.5	D	LR	0.84	38.9	D	[Measures reflect improvements needed for the Saturday Non-game peak period.]
Overall Intersection		**-**	**0.84**	**22.0**	**C**	**-**	**0.91**	**25.2**	**C**	**-**	**0.91**	**26.5**	**C**	
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.24	17.5	B	-Unmitigatable impact.
		LTR	0.49	49.3	D	LTR	0.76	53.5	D	TR	0.22	17.0	B	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	DefL	1.07	88.5	F	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		LTR	0.67	33.0	C	LTR	1.40	210.4	F	TR	1.01	66.2	E	will have 21 s green time; WB lag phase will have 12 s green time; NB/SB phase will have 60 s
Stadium Road	EB	-	-	-	-	DefL	1.20	179.1	F	DefL	0.78	56.6	E	green time; [each phase will have 3 s amber and 2 s all red time].
		-	-	-	-	TR	0.45	26.1	C	TR	0.56	38.8	D	
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.87	29.2	C	LTR	0.94	35.5	D	LTR	0.91	43.1	D	
Overall Intersection		**-**	**0.83**	**32.9**	**C**	**-**	**1.23**	**135.6**	**F**	**-**	**1.15**	**56.5**	**E**	

TABLE 17
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	39.3	E	L	-	700.9	F	L	0.33	30.8	C	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 45 s green time; NB will have 20 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.7	A	R	-	8.9	A	R	0.10	2.6	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.12	36.8	D	
	WB	LT	-	11.1	B	LT	-	12.9	B	L	0.93	40.1	D	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.74	24.2	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**12.0**	**B**	**-**	**-**	**428.5**	**F**	**-**	**0.66**	**30.8**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.2	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.22	8.1	A	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	12.3	B	T	0.04	23.9	C	
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.2**	**A**	**-**	**-**	**12.3**	**B**	**-**	**0.16**	**8.7**	**A**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.09	27.6	C	-Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time].
	SB	-	-	-	-	LT	-	9.4	A	L	0.45	35.2	D	
		-	-	-	-	-	-	-	-	TR	0.69	38.4	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	34.2	D	L	-	191.9	F	L	0.40	33.1	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	520.6	F	T	0.58	37.2	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.1	A	R	-	314.1	F	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.70	50.2	D	
		-	-	-	-	R	-	10.3	B	R	0.24	41.5	D	
Overall Intersection		**-**	**-**	**31.5**	**D**	**-**	**-**	**1000.0+**	**F**	**-**	**0.65**	**39.6**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.43	17.2	B	TR	0.43	17.2	B	-Intersection meets NYCDOT Signal Warrant Criteria.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
		LT	-	9.5	A	LT	1.04	51.6	D	LT	0.99	38.0	D	
36th Avenue	WB	LR	-	24.8	C	L	0.13	39.5	D	L	0.13	39.5	D	
		-	-	-	-	R	0.48	32.9	C	R	0.48	32.9	C	
Overall Intersection		**-**	**-**	**17.2**	**C**	**-**	**0.83**	**40.5**	**D**	**-**	**0.79**	**31.7**	**C**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.34	16.0	B	TR	0.34	16.0	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.8	A	LT	1.01	44.9	D	LT	0.97	35.8	D	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	17.4	C	L	0.10	35.2	D	L	0.10	35.2	D	
		-	-	-	-	R	0.73	45.0	D	R	0.73	45.0	D	
Overall Intersection		**-**	**-**	**14.6**	**B**	**-**	**0.90**	**38.0**	**D**	**-**	**0.87**	**32.1**	**C**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	15.6	C	R	-	18.2	C	R	0.19	40.6	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.63	10.1	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		**-**	**-**	**15.6**	**C**	**-**	**-**	**18.2**	**C**	**-**	**0.53**	**10.9**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 17

CITIFIELD - WILLETS POINT DEVELOPMENT STUDY

2028 PHASE 1B SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
NEW (WITH ACTION) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.52	22.1	C					-Mitigation not required.
	SB	-	-	-	-	-	-	-	-					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	LT	0.72	15.9	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.70	50.4	D					
		-	-	-	-	R	0.52	31.9	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.70**	**23.4**	**C**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 18
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.53	27.6	C	DefL	0.62	30.4	C	DefL	0.62	30.4	C	-Install "No Standing Saturday 11 AM - 10 PM" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
		T	0.21	21.2	C	T	0.21	21.2	C	T	0.21	21.2	C	
	SB	LTR	0.19	20.9	C	LTR	0.19	20.9	C	LTR	0.19	20.9	C	
Astoria Boulevard	EB	TR	0.68	25.4	C	TR	0.75	27.0	C	T	0.64	24.5	C	
		-	-	-	-	-	-	-	-	R	0.25	20.2	C	
	WB	L	0.92	51.3	D	L	0.99	73.4	E	L	0.92	51.4	D	
		TR	0.30	12.0	B	TR	0.35	12.4	B	TR	0.35	12.4	B	
Overall Intersection		**-**	**0.72**	**24.1**	**C**	**-**	**0.84**	**26.9**	**C**	**-**	**0.75**	**23.6**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.18	132.0	F	LTR	1.43	241.2	F	L	0.60	43.5	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.84	46.7	D	
	SB	LTR	1.18	129.8	F	LTR	1.21	144.6	F	L	0.58	42.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.72	43.4	D	
Northern Boulevard (Rt. 25A)	EB	L	0.14	36.5	D	L	0.14	44.3	D	L	0.12	34.7	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft.
		TR	0.97	35.5	D	TR	1.09	72.1	E	T	0.96	34.5	C	
		-	-	-	-	-	-	-	-	R	0.13	13.3	B	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft.
	WB	L	0.99	68.6	E	L	1.06	90.3	F	L	0.96	62.8	E	
		TR	1.13	89.5	F	TR	1.25	141.1	F	T	1.04	49.1	D	-Modify signal timing: shift 2 s green time from NB/SB phase to EB/WB left-turn phase [EB/WB left-turn green time shifts from 9 s to 11 s; NB/SB phase shifts from 30 s to 28 s].
		-	-	-	-	-	-	-	-	R	0.30	14.7	B	
Overall Intersection		**-**	**1.13**	**75.4**	**E**	**-**	**1.28**	**121.1**	**F**	**-**	**0.99**	**42.0**	**D**	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.47	45.9	D	LTR	0.51	46.8	D	LTR	0.74	45.2	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes.
Northern Boulevard (Rt. 25A)	EB	T	0.67	22.6	C	T	0.76	25.4	C	T	0.62	14.1	B	
		R	0.66	24.6	C	R	0.68	25.4	C	R	0.56	14.1	B	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	1.27	149.3	F	DefL	1.55	279.0	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street and restripe as two 11-ft moving lanes.
		T	1.20	108.6	F	T	1.28	144.5	F	T	1.17	96.4	F	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.91**	**83.5**	**F**	**-**	**2.52**	**116.5**	**F**	**-**	**1.04**	**65.8**	**E**	-Modify signal timing: Eliminate WB lead phase. Shift 8 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 33 s]. Shift 14 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 77 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	1.17	124.2	F	L	2.45	698.6	F	L	2.26	615.5	F	-Partially mitigated.
		R	0.65	44.2	D	R	3.00+	1000.0+	F	R	1.49	268.9	F	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection.
Northern Boulevard	EB	T	0.56	38.4	D	T	0.58	39.0	D	T	0.72	43.8	D	
	WB	T	0.31	6.9	A	T	0.35	7.2	A	T	0.36	8.1	A	
Grand Central Parkway Ramp	EB	T	0.92	48.4	D	T	0.95	53.4	D	T	0.93	49.4	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.64	11.9	B	T	0.91	26.5	C	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.76**	**48.2**	**D**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.21**	**261.5**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 2 s green time from EB Northern Blvd phase to NB 126th St phase and 1 s green time from EB Northern Blvd phase to EB GCP/Astoria Blvd ramp phase [EB Northern Blvd green time shifts from 35 s to 32 s; NB 126th St green time shifts from 25 s to 27 s; EB GCP/Astoria Blvd ramp green time shifts from 45 s to 45 s].

TABLE 18
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.13	109.9	F	LTR	1.13	109.9	F					-Unmitigatable Impact.
	SB	LTR	0.41	38.7	D	LTR	0.41	38.7	D					
Northern Boulevard (Rt. 25A)	EB	L	0.89	66.0	E	L	0.89	66.0	E					
		T	1.03	51.1	D	T	1.10	80.0	E					
	WB	L	0.90	89.7	F	L	0.90	89.7	F					
		T	0.98	49.4	D	T	1.02	59.5	E					
Northern Boulevard Service Rd.	EB	TR	0.45	21.8	C	TR	0.45	21.8	C					
	WB	TR	0.54	29.1	C	TR	0.67	33.1	C					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**1.04**	**52.1**	**D**	**-**	**1.08**	**67.1**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.85	47.9	D	L	0.85	47.9	D					-Unmitigatable impact.
		R	0.74	42.2	D	R	0.74	42.2	D					
Northern Boulevard (Rt 25A)	EB	T	1.05	64.2	E	T	1.14	99.7	F					
		R	1.18	124.2	F	R	1.18	124.2	F					
	WB	L	0.12	25.9	C	L	0.12	25.9	C					
		T	0.70	21.1	C	T	0.76	22.8	C					
Overall Intersection		**-**	**0.98**	**54.6**	**D**	**-**	**0.98**	**68.8**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.66	34.8	C	TR	0.66	34.8	C	TR	0.68	35.9	D	-Partially Mitigated.
	SB	TR	0.68	34.8	C	TR	0.68	34.8	C	TR	0.70	35.9	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.74	34.3	C	L	0.74	36.0	D	L	0.71	29.6	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.24	145.9	F	TR	1.34	189.3	F	TR	1.34	189.3	F	
	WB	L	1.00	69.1	E	L	1.00	83.5	F	L	0.96	71.1	E	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB left-turn phase
		TR	0.85	38.9	D	TR	0.94	46.4	D	TR	0.70	33.3	C	[NB/SB green time shifts from 44 s to 43 s; EB/WB left-turn green time shifts from 15 s to 16 s].
Overall Intersection		**-**	**0.97**	**80.4**	**F**	**-**	**0.97**	**101.2**	**F**	**-**	**1.02**	**97.0**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.74	57.2	E	L	0.76	59.1	E	L	0.76	59.1	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.59	38.4	D	TR	0.59	38.4	D	TR	0.59	38.4	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.13	100.4	F	LTR	1.17	119.2	F	LT	0.71	35.8	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.34	33.1	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.45	43.5	D	L	0.52	46.0	D	L	0.52	44.8	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.15	102.7	F	TR	1.26	153.0	F	T	1.06	61.2	E	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.43	24.1	C	
	WB	L	0.52	46.2	D	L	0.51	43.6	D	L	0.52	46.7	D	
		TR	1.12	91.0	F	TR	1.23	139.8	F	T	1.02	49.5	D	
		-	-	-	-	-	-	-	-	R	0.33	22.8	C	
Overall Intersection		**-**	**1.09**	**88.3**	**F**	**-**	**1.16**	**127.3**	**F**	**-**	**0.92**	**50.3**	**D**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.17	117.3	F	L	1.23	142.7	F	L	1.13	95.4	F	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.35	25.1	C	T	0.42	26.0	C	T	0.38	23.3	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.45	12.2	B	T	0.45	12.2	B	T	0.47	14.3	B	
		R	0.06	8.4	A	R	0.06	8.4	A	R	0.06	9.8	A	
Overall Intersection		**-**	**0.72**	**68.3**	**E**	**-**	**0.74**	**81.8**	**F**	**-**	**0.74**	**57.6**	**E**	

TABLE 18
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	0.89	69.2	E	-	-	-	-	L	0.87	55.3	E	-Partially mitigated.
		TR	0.68	39.5	D	LTR	2.32	636.5	F	TR	1.32	187.3	F	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.26	32.5	C	LTR	2.98	957.7	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.65	47.7	D	LTR	2.17	577.3	F	L	0.65	47.0	D	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.37	29.4	C	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	DefL	1.83	419.6	F	DefL	2.84	876.3	F	DefL	1.32	184.8	F	and two 11-ft EB receiving lanes.
		TR	0.97	70.0	E	TR	0.92	59.5	E	TR	0.41	22.7	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
		-	-	-	-	-	-	-	-	-	-	-	-	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
34th Avenue	WB	LTR	0.56	40.3	D	LTR	1.27	186.3	F	TR	0.36	22.0	C	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	**-**	**1.17**	**125.9**	**F**	**-**	**2.69**	**602.8**	**F**	**-**	**1.30**	**125.2**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 43 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.16	118.2	F	LTR	1.20	135.5	F	LT	1.14	113.1	F	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.29	36.7	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.21	140.7	F	LTR	1.22	146.1	F	LT	1.11	100.6	F	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.36	37.5	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.64	14.9	B	LTR	0.75	18.4	B	LTR	0.74	18.1	B	
	WB	LTR	0.92	19.7	B	LTR	1.09	64.8	E	LTR	1.03	38.5	D	
	Overall Intersection	**-**	**0.99**	**57.1**	**E**	**-**	**1.12**	**75.8**	**E**	**-**	**1.06**	**50.3**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.06	78.8	E	LTR	1.06	78.8	E	LTR	1.06	78.8	E	-Install "No Standing 10 AM - 10 PM" regulations along the north curb of the WB Roosevelt
Roosevelt Avenue	EB	LTR	0.74	17.8	B	LTR	0.87	24.9	C	LTR	0.92	30.9	C	Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-
	WB	LTR	1.23	124.7	F	LTR	1.40	199.9	F	LT	1.08	59.5	E	ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.24	8.1	A	
	Overall Intersection	**-**	**1.18**	**80.2**	**F**	**-**	**1.31**	**117.2**	**F**	**-**	**1.08**	**50.0**	**D**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.67	45.8	D	LTR	0.72	48.8	D	LTR	0.50	36.0	D	-Partially mitigated.
	SB	LTR	1.11	95.2	F	LTR	1.23	148.0	F	LTR	1.04	65.7	E	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
Roosevelt Avenue	EB	LTR	1.29	154.7	F	LTR	1.82	389.8	F	L	0.59	14.4	B	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
		-	-	-	-	-	-	-	-	TR	0.59	13.3	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
	WB	LTR	0.79	17.0	B	LTR	1.25	137.2	F	L	0.52	16.2	B	left-turn lane and one 11-ft travel lane.
		-	-	-	-	-	-	-	-	T	0.73	18.0	B	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	R	1.65	322.7	F	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
														-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**1.24**	**66.8**	**E**	**-**	**1.64**	**195.0**	**F**	**-**	**1.45**	**96.4**	**F**	-Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection.
														-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection.
														-Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].

TABLE 18
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
126th Street at Roosevelt Avenue														
126th Street	NB	LTR	0.22	37.4	D	LTR	0.24	38.1	D	DefL	0.26	40.2	D	-Partially Mitigated.
		-	-	-	-	-	-	-	-	TR	0.11	32.6	C	-Restripe NB approach from one wide 25-ft lane to two 12-ft wide lanes with a 1-ft buffer at the east curb.
	SB	DefL	1.25	163.9	F	DefL	0.89	57.2	D	-	-	-	-	
		TR	0.51	30.2	C	TR	0.81	43.5	D	LTR	1.23	158.2	F	-Place cones on EB approach to allow for one left-turn lane and one shared through-right lane during the post-game peak hour.
Roosevelt Avenue	EB	-	-	-	-	DefL	3.00+	1000.0+	F	L	3.00+	1000.0+	F	
		LTR	0.61	22.8	C	TR	1.06	75.7	E	TR	0.90	30.2	C	-Traffic Enforcement Agent should be present to operate the signal.
	WB	LTR	0.50	20.1	C	LTR	0.74	26.5	C	LTR	0.90	43.4	D	-Modify signal phasing (to be followed by Traffic Enforcement Agent): EB lead phase will have 19 s green time; EB/WB phase will have 52 s green time; NB/SB phase will have 34 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**0.89**	**55.2**	**E**	**-**	**3.00+**	**996.9**	**F**	**-**	**3.00+**	**359.7**	**F**	
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.04	91.6	F	L	1.32	194.3	F	L	0.84	63.4	E	-Partially Mitigated
		TR	0.78	26.0	C	TR	0.78	26.0	C	TR	0.75	31.5	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	0.89	39.8	D	TR	1.03	65.9	E	T	0.69	43.7	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.58	30.5	C	L	0.64	31.6	C	L	0.62	39.7	D	
		TR	1.24	129.6	F	TR	1.44	222.7	F	TR	1.38	199.1	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.24	32.8	C	L	0.24	32.8	C	-	-	-	-	
		TR	0.42	25.8	C	TR	0.51	27.4	C	TR	0.50	41.1	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.14**	**60.9**	**E**	**-**	**1.40**	**102.8**	**F**	**-**	**1.08**	**84.5**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. -Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. -Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. -Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. -Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. -Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. -Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.72	37.1	D	LTR	0.72	37.1	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.77	18.7	B	-	-	-	-					
		TR	0.83	18.2	B	LTR	0.82	16.3	B					
	WB	LTR	0.60	12.3	B	LTR	0.68	13.9	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.79**	**20.3**	**C**	**-**	**0.79**	**19.2**	**B**					

TABLE 18
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2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.67	24.3	C	T	0.67	24.3	C	T	0.76	29.5	C	-Partially mitigated.
	SB	T	0.55	22.3	C	T	0.55	22.3	C	T	0.62	26.4	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.26	19.4	B	L	0.29	20.6	C	L	0.24	16.6	B	green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
		TR	0.95	49.7	D	TR	1.12	97.9	F	TR	1.02	60.9	E	
	WB	L	0.20	17.3	B	L	0.26	19.3	B	L	0.21	15.3	B	
		TR	0.86	36.2	D	TR	0.95	47.9	D	TR	0.85	32.5	C	
	Overall Intersection	**-**	**0.82**	**31.8**	**C**	**-**	**0.90**	**47.5**	**D**	**-**	**0.90**	**37.1**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.45	17.3	B	TR	0.45	17.3	B					-Unmitigatable impact.
	SB	LT	1.21	127.2	F	LT	1.21	127.2	F					
		R	1.90	439.9	F	R	1.90	439.9	F					
Roosevelt Avenue	EB	LTR	1.97	469.0	F	LTR	2.29	608.9	F					
	WB	LT	0.74	31.0	C	LT	0.84	38.4	D					
		R	1.49	293.1	F	R	1.49	293.1	F					
	Overall Intersection	**-**	**1.93**	**224.5**	**F**	**-**	**2.08**	**269.2**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.95	41.6	D	LTR	0.97	46.2	D	LT	0.91	37.5	D	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB
		-	-	-	-	-	-	-	-	R	0.08	15.7	B	green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s].
	SB	LTR	0.77	26.9	C	LTR	0.77	26.9	C	LTR	0.89	38.0	D	-Install "No Standing 10AM - 8PM, Saturday" regulations on the NB approach 75 feet from the
Roosevelt Avenue	EB	LTR	0.71	26.3	C	LTR	0.88	37.9	D	LTR	0.84	32.2	C	intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.74	28.1	C	LTR	0.84	34.7	C	LTR	0.80	29.5	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
	Overall Intersection	**-**	**0.84**	**31.1**	**C**	**-**	**0.93**	**36.6**	**D**	**-**	**0.73**	**34.0**	**C**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.68	31.6	C	L	0.70	32.7	C	L	0.68	30.2	C	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.67	22.8	C	TR	0.67	22.8	C	TR	0.66	21.8	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.44	19.7	B	L	0.44	19.7	B	L	0.45	20.6	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
		TR	0.48	18.8	B	TR	0.48	18.8	B	TR	0.47	18.1	B	
Kissena Boulevard	WB	T	0.65	24.4	C	T	0.65	24.4	C	T	0.67	25.7	C	
	Overall Intersection	**-**	**0.67**	**22.1**	**C**	**-**	**0.68**	**22.2**	**C**	**-**	**0.67**	**21.8**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.24	12.9	B	L	0.27	14.4	B					-Mitigation not required.
		T	0.56	12.6	B	T	0.58	12.8	B					
	SB	TR	0.80	17.2	B	TR	0.84	18.6	B					
Sanford Avenue	WB	L	0.58	34.6	C	L	0.58	34.6	C					
		TR	0.34	26.5	C	TR	0.42	27.8	C					
	Overall Intersection	**-**	**0.73**	**17.5**	**B**	**-**	**0.75**	**18.5**	**B**					
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.42	22.2	C	LTR	0.42	22.2	C					-Mitigation not required.
	SB	LTR	0.81	29.6	C	LTR	0.82	30.2	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.24	13.7	B	LTR	0.24	13.8	B					
	WB	LTR	0.70	22.3	C	LTR	0.73	23.6	C					
	Overall Intersection	**-**	**0.75**	**23.8**	**C**	**-**	**0.77**	**24.5**	**C**					

TABLE 18
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.92	35.9	D	LTR	0.94	39.2	D					-Mitigation not required.
		-	-	-	-	-	-	-	-					
	SB	LTR	0.74	26.1	C	LTR	0.88	35.8	D					
Sanford Avenue	EB	LTR	0.81	29.8	C	LTR	0.82	30.7	C					
	WB	LTR	0.82	31.5	C	LTR	0.86	35.1	D					
Overall Intersection		**-**	**0.87**	**30.8**	**C**	**-**	**0.90**	**35.2**	**D**					
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.44	24.0	C	T	0.46	24.2	C					-Mitigation not required.
		TR	0.35	22.9	C	TR	0.36	23.1	C					
	SB	L	0.28	27.7	C	L	0.28	27.8	C					
		T	0.30	9.6	A	T	0.30	9.6	A					
32nd Avenue	WB	LTR	0.30	26.8	C	LTR	0.30	26.8	C					
Overall Intersection		**-**	**0.86**	**19.5**	**B**	**-**	**0.86**	**19.7**	**B**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.51	12.8	B	TR	0.53	13.1	B	TR	0.54	13.8	B	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to WB phase [NB/SB green
	SB	LT	0.55	14.0	B	LT	0.57	14.3	B	LT	0.58	15.2	B	time shifts from 51 s to 50 s; WB green time shifts from 29 s to 30 s].
Northern Blvd Service Rd	WB	LR	0.56	29.0	C	LR	0.70	33.2	C	LR	0.67	31.5	C	[Measures reflect improvements needed for the Saturday Non-game peak period.]
Overall Intersection		**-**	**0.55**	**15.8**	**B**	**-**	**0.61**	**17.3**	**B**	**-**	**0.62**	**17.6**	**B**	
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	L	1.82	401.9	F	DefL	1.29	220.0	F	DefL	0.63	39.2	D	-Install an actuated controller.
		TR	1.42	218.7	F	TR	0.28	19.7	B	TR	0.31	28.7	C	-Modify signal phasing and timing plan: EB lead phase will have 22 s green time; EB/WB phase
	SB	-	-	-	-	-	-	-	-	-	-	-	-	will have 25 s green time; WB lag phase will have 11 s green time; NB/SB phase will have 42 s
		LTR	0.30	20.1	C	LTR	1.00	55.7	E	LTR	0.82	42.6	D	green time; [each phase will have 3 s amber and 2 s all red time].
Stadium Road	EB	-	-	-	-	DefL	2.84	867.4	F	DefL	1.26	170.7	F	
		-	-	-	-	TR	0.53	17.5	B	TR	0.62	27.7	C	
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.31	13.7	B	LTR	0.77	21.8	C	LTR	0.87	43.9	D	
Overall Intersection		**-**	**0.97**	**238.6**	**F**	**-**	**2.17**	**159.5**	**F**	**-**	**1.53**	**61.6**	**E**	

TABLE 18
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	95.0	F	L	-	1000.0+	F	L	0.69	38.1	D	-Install traffic signal with the following timing plan: EB will have 10 s green time; WB + NB-Right will have 45 s green time; NB will have 20 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	13.2	B	R	-	10.7	B	R	0.32	3.8	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.12	36.8	D	
	WB	LT	-	7.7	A	LT	-	8.9	A	L	0.42	15.8	B	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.86	30.8	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**50.1**	**F**	**-**	**-**	**1000.0+**	**F**	**-**	**0.71**	**25.2**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.1	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.19	7.9	A	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	49.4	E	T	0.69	37.5	D	
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.1**	**A**	**-**	**-**	**49.4**	**E**	**-**	**0.35**	**21.8**	**C**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.52	27.5	C	-Install traffic signal with the following timing plan: EB will have 30 s green time; WB will have 25 s green time; NB/SB will have 50 s green time [each phase will have 3 s amber and 2 s all red
	SB	-	-	-	-	LT	-	13.0	B	L	0.65	43.4	D	
		-	-	-	-	-	-	-	-	TR	0.54	28.2	C	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	51.0	F	L	-	179.9	F	L	0.44	41.4	D	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	701.8	F	T	0.52	43.2	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	22.5	C	R	-	11.5	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.76	53.0	D	
		-	-	-	-	R	-	13.3	B	R	0.23	41.3	D	
	Overall Intersection	**-**	**-**	**40.1**	**E**	**-**	**-**	**1000.0+**	**F**	**-**	**0.64**	**36.6**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.94	34.0	C	TR	0.94	34.0	C	-Partially mitigated.
	SB	-	-	-	-	DefL	0.68	50.5	D	DefL	0.56	38.7	D	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	T	0.52	9.8	A	T	0.51	9.5	A	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	13.2	B	L	0.11	39.2	D	L	0.11	39.2	D	
		-	-	-	-	R	0.85	59.3	E	R	0.85	59.3	E	
	Overall Intersection	**-**	**-**	**12.9**	**B**	**-**	**1.08**	**32.0**	**C**	**-**	**1.06**	**31.5**	**C**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	1.08	72.8	E	TR	1.08	72.8	E	-Partially mitigated.
	SB	-	-	-	-	DefL	0.68	51.0	D	DefL	0.56	39.8	D	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	T	0.46	11.0	B	T	0.46	11.0	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	16.8	C	L	0.18	36.4	D	L	0.18	36.4	D	
		-	-	-	-	R	0.35	29.8	C	R	0.35	29.8	C	
	Overall Intersection	**-**	**-**	**15.6**	**C**	**-**	**1.07**	**56.8**	**E**	**-**	**1.07**	**56.4**	**E**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	16.4	C	R	-	19.5	C	R	0.19	40.5	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.59	9.5	A	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**16.4**	**C**	**-**	**-**	**19.5**	**C**	**-**	**0.50**	**10.3**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 18
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2028 PHASE 1B SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
NEW (WITH ACTION) SIGNALIZED INTERSECTION														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.96	44.6	D					-Mitigation not required.
	SB	-	-	-	-	DefL	0.54	35.0	D					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	T	0.46	11.0	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.40	40.4	D					
		-	-	-	-	R	0.36	27.0	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**1.02**	**35.6**	**D**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 19
2032 (PHASE 2) NON-GAMEDAY MITIGATION MEASURES

INTERSECTION	NON-GAMEDAY WEEKDAY AM PEAK HOUR	NON-GAMEDAY WEEKDAY MIDDAY PEAK HOUR	NON-GAMEDAY WEEKDAY PM PEAK HOUR	NON-GAMEDAY SATURDAY MIDDAY PEAK HOUR
SIGNALIZED INTERSECTIONS				
108th Street at Astoria Boulevard	Modify Signal Timing: Shift 1 s of green time from WB lead phase to NB/SB phase [WB lead phase green time shifts from 18 s to 17 s; NB/SB green time shifts from 32 s to 33 s].	Install "No Standing 11 AM - 2 PM Mon-Fri" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.	**Unmitigatable impact.**	**Unmitigatable impact.**
108th Street at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify Signal Timing: Shift 2 s of green time from EB/WB left-turn phase EB/WB phase [EB/WB left-turn green time shifts from 9 s to 7 s; EB/WB green time shifts from 71 s to 73 s].	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from th intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 4 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 30 s to 26 s; EB/WB left-turn green time shifts from 9 s to 13 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.	**Partially mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 1 s of green time from NB/SB phase to EB/WB left-turn phase and shift 2 s green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 30 s to 27 s; EB/WB left-turn green time shifts from 9 s to 10 s; EB/WB green time shifts from 66 s to 68 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 7 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 30 s]. Shift 34 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 46 s to 80 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. **[Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]**	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 2 s of green time from EB Northern Blvd phase to EB GCP/Astoria Blvd Ramp phase [EB GCP/Astoria Blvd Ramp green time shifts from 45 s to 47 s; EB Northern Blvd green time shifts from 35 s to 33 s].	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 3 s of green time from NB phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 38 s; NB green time shifts from 25 s to 22 s].	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 4 s of green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 29 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 51 s].	**Partially mitigated.** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase [EB GCP/Astoria Blvd Ramp green time shifts from 45 s to 42 s; EB Northern Blvd green time shifts from 35 s to 38 s].
Prince Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.
Main Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Union Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
Parsons Boulevard at Northern Boulevard (RT. 25A)	**Partially mitigated.** Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 2 s green time from EB/WB protected left-turn phase to EB/WB phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s; NB/SB green time shifts from 36 s to 37 s; LPI shifts from 7 s to 6 s].	**Partially mitigated.** Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.	**Partially Mitigated.** Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. -Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to EB/WB phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB protected left-turn green time shifts from 12 s to 11 s; EB/WB green time shifts from 50 s to 51 s; LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s green time from EB/WB protected left-turn phase to EB/WB phase [EB/WB protected left-turn green time shifts from 10 s to 9 s; EB/WB green time shifts from 52 s to 53 s].
114th Street at 34th Avenue	Mitigation not required.	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
126th Street/GCP Ramp at 34th Avenue	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 56 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 42 s green time [each phase will have s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 53 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 45 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 46 s green time; NB/SB lead left-turn phase will have 15 s green time; NB/SB phase will have 44 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 49 s green time; NB/SB lead left-turn phase will have 14 s green time; NB/SB phase will have 42 s green time [each phase will have 3 s amber and 2 s all red time].
108th Street at Roosevelt Avenue	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	**Partially mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	**Partially mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	**Partially mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
111th Street at Roosevelt Avenue	Install "No Standing 7 AM - 4 PM Mon - Fri" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	Install "No Standing 7 AM - 4 PM Mon - Fri" regulations along the north curb of the WB Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane and one 10-ft right-turn lane.	**Unmitigatable impact.**	**Unmitigatable impact.**
114th Street at Roosevelt Avenue	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s]. Install "No Standing 4 PM - 7 PM Monday-Friday" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Install "No Standing 1 PM - 9 PM Saturday" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

126th Street at Roosevelt Avenue	**Partially mitigated.** Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes. Shift centerline of SB 126th Street approach 9 ft to the east. Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft. Shift centerline of EB Roosevelt Avenue approach 1 ft to north. Shift centerline of WB Roosevelt Avenue approach 1 ft to south. Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB will have 63 s green time; EB-lag/SB right phase will have 7 s green time; NB/SB phase will have 35 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes. Shift centerline of SB 126th Street approach 9 ft to the east. Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft. Shift centerline of EB Roosevelt Avenue approach 1 ft to north. Shift centerline of WB Roosevelt Avenue approach 1 ft to south. Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB will have 62 s green time; EB-lag/SB right phase will have 8 s green time; NB/SB phase will have 35 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes. Shift centerline of SB 126th Street approach 9 ft to the east. Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft. Shift centerline of EB Roosevelt Avenue approach 1 ft to north. Shift centerline of WB Roosevelt Avenue approach 1 ft to south. Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB will have 57 s green time; EB-lag/SB right phase will have 7 s green time; NB/SB phase will have 41 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes. Shift centerline of SB 126th Street approach 9 ft to the east. Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft. Shift centerline of EB Roosevelt Avenue approach 1 ft to north. Shift centerline of WB Roosevelt Avenue approach 1 ft to south. Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB will have 64 s green time; EB-lag/SB right phase will have 7 s green time; NB/SB phase will have 34 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue	Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.	**Partially Mitigated** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
Prince Street at Roosevelt Avenue	Modify Signal Timing: Shift 3 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 66 s; SB green time shifts from 47 s to 44 s].	**Unmitigatable impact.**	Modify Signal Timing: Shift 3 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 66 s; SB green time shifts from 47 s to 44 s].	Mitigation not required.
Main Street at Roosevelt Avenue	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].	**Unmitigatable impact.**	**Partially mitigated.** Modify Signal Timing: Shift 5 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 50 s; NB/SB green time shifts from 65 s to 60 s].	**Partially mitigated.** Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Union Street at Roosevelt Avenue	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Parsons Boulevard at Roosevelt Avenue	Modify Signal Timing: Shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 59 s; NB/SB green time shifts from 55 s to 51 s]. Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.	Modify Signal Timing: Shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s].	Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s. Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.	**Unmitigatable impact.** Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s]. Install "No Standing 10AM - 9PM, Saturday" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Saturday post-game peak period.]**
Main Street at Kissena Boulevard	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
College Point Boulevard at Sanford Avenue	Mitigation not required. Upgrade to computerized signal controller with the following timing plan: WB phase will have 26 s green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s all red time]. **[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game peak periods.]**	Mitigation not required. Upgrade to computerized signal controller with the following timing plan: WB phase will have 25 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. **[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game peak periods.]**	Upgrade to computerized signal controller with the following timing plan: WB phase will have 26 green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s all red time]. Install "No Standing 4 PM - 7 PM, Mon-Fri" regulations on the SB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.	Upgrade to computerized signal controller with the following timing plan: WB phase will have 25 green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s all red time].
Union Street at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Parsons Boulevard at Sanford Avenue	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket. Modify Signal Timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 40 s to 38 s; NB/SB green time shifts from 40 s to 42 s].	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket. Install "No Standing 10 AM - 4 PM" regulations on the WB approach 100 feet from the stop bar to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar to allow for a 10-ft daylighted right-turn lane.	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket. Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar to allow for a 10-ft daylighted right-turn lane.	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket. Install "No Standing 10 AM - 4 PM" regulations on the WB approach 100 feet from the stop bar to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar to allow for a 10-ft daylighted right-turn lane.
College Point Boulevard at 32nd Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Northern Boulevard Service Road	**Unmitigatable impact.**	**Unmitigatable impact.**	Modify Signal Timing: Shift 3 s of green time from NB/SB phase to WB phase [NB/SB green time shifts from 51 s to 48 s; WB green time shifts from 29 s to 32 s].	**Unmitigatable impact.**
Boat Basin Road at Stadium Road	Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 25 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s green time; SB lag phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 25 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s green time SB lag phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 25 s green time; WB lag phase will have 11 s green time; NB/SB phase will have 37 s green time; SB lag phase will have 15 s green time [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 30 s green time; WB lag phase will have 8 s green time; NB/SB phase will have 32 s green time; SB lag phase will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
UNSIGNALIZED INTERSECTIONS				
Boat Basin Road at Worlds Fair Marina	Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.	Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.
Willets Point Boulevard at Northern Boulevard	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB/NB right-turn will have 25 s green time; NB/SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB/NB right-turn will have 25 s green time; NB/SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB/NB right-turn will have 25 s green time; NB/SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB/NB right-turn will have 25 s green time; NB/SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Mitigation not required. Install traffic signal with the following timing plan: EB will have 38 s green time; WB will have 23 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road.	Install traffic signal with the following timing plan: EB will have 38 s green time; WB will have 23 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 38 s green time; WB will have 23 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.
126th Street at 36th Avenue	Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
126th Street at 37th Avenue	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	Mitigation not required. Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
Northern Boulevard at 126th Place	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS				
126th Street at New Willets Point Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.
Citi Field/Lot B at Roosevelt Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.	Mitigation not required.

NOTE: This table has been revised for the Final SEIS.

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.79	62.6	E	DefL	0.83	66.7	E	DefL	0.80	61.7	E	-Modify Signal Timing: Shift 1 s of green time from WB lead phase to NB/SB phase [WB lead
		T	0.21	35.6	D	T	0.21	35.6	D	T	0.21	34.7	C	phase green time shifts from 18 s to 17 s; NB/SB green time shifts from 32 s to 33 s].
	SB	LTR	0.36	38.5	D	LTR	0.36	38.5	D	LTR	0.35	37.5	D	
Astoria Boulevard	EB	TR	0.61	25.8	C	TR	0.68	27.3	C	TR	0.68	27.3	C	
		-	-	-	-	-	-	-	-	-	-	-	-	
	WB	L	0.58	15.3	B	L	0.62	17.7	B	L	0.65	18.8	B	
		TR	0.79	8.2	A	TR	0.82	8.8	A	TR	0.83	9.7	A	
Overall Intersection		**-**	**0.79**	**18.2**	**B**	**-**	**0.82**	**19.4**	**B**	**-**	**0.82**	**19.7**	**B**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.17	125.6	F	LTR	1.26	165.1	F	L	0.58	44.5	D	-Partially Mitigated.
		-	-	-	-	-	-	-	-	TR	0.62	42.7	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
	SB	LTR	1.00	85.5	F	LTR	1.00	86.6	F	L	0.31	42.8	D	from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.64	48.1	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
Northern Boulevard (Rt. 25A)	EB	L	0.08	23.2	C	L	0.08	29.6	C	L	0.09	26.6	C	from the intersection to allow for two moving lanes.
		TR	0.77	21.0	C	TR	0.90	28.4	C	TR	0.88	25.2	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		-	-	-	-	-	-	-	-	-	-	-	-	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.45	22.1	C	L	0.53	32.6	C	L	0.56	32.1	C	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.06	43.2	D	TR	1.13	75.0	E	TR	1.10	59.8	E	and one 12-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	-	-	-	-	-Modify Signal Timing: Shift 2 s of green time from EB/WB left-turn phase EB/WB phase
Overall Intersection		**-**	**0.95**	**43.8**	**D**	**-**	**1.05**	**65.8**	**E**	**-**	**0.89**	**47.2**	**D**	[EB/WB left-turn green time shifts from 9 s to 7 s; EB/WB green time shifts from 71 s to 73 s].
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.48	47.9	D	LTR	0.51	48.8	D	LTR	0.64	44.0	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.88	41.7	D	T	1.08	84.8	F	T	0.62	12.4	B	exclusive through lanes.
		R	0.75	38.9	D	R	0.76	39.5	D	R	0.44	10.5	B	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.50	16.0	B	DefL	0.57	26.3	C	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	1.20	107.2	F	T	1.28	144.2	F	T	1.07	51.3	D	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.32**	**78.8**	**E**	**-**	**1.41**	**110.6**	**F**	**-**	**0.95**	**38.6**	**D**	-Modify signal timing: Eliminate WB lead phase. Shift 7 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 30 s]. Shift 34 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 46 s to 80 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.28	41.2	D	L	1.09	112.5	F	L	1.09	112.5	F	-Partially mitigated.
		R	0.27	41.3	D	R	2.21	622.0	F	R	0.49	45.5	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	0.54	38.3	D	T	0.62	40.2	D	T	0.76	45.0	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.66	11.0	B	T	0.72	12.2	B	T	0.72	12.2	B	through the intersection.
Grand Central Parkway Ramp	EB	T	0.84	42.4	D	T	0.93	51.4	D	T	0.89	45.1	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	1.13	115.7	F	T	1.48	265.0	F	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.94**	**53.2**	**D**	**-**	**1.64**	**133.6**	**F**	**-**	**0.90**	**44.0**	**D**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 2 s of green time from EB Northern Blvd phase to EB GCP/Astoria Blvd Ramp phase [EB GCP/Astoria Blvd Ramp green time shifts from 45 s to 47 s; EB Northern Blvd green time shifts from 35 s to 33 s].

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.17	140.0	F	LTR	1.17	140.0	F					-Unmitigatable impact.
	SB	LTR	0.81	54.1	D	LTR	0.81	54.1	D					
Northern Boulevard (Rt. 25A)	EB	L	0.97	96.9	F	L	0.97	96.9	F					
		T	0.82	22.8	C	T	0.87	25.2	C					
	WB	L	0.96	94.1	F	L	0.96	94.1	F					
		T	1.17	100.6	F	T	1.22	120.8	F					
Northern Boulevard Service Rd.	EB	TR	0.45	16.7	B	TR	0.45	16.7	B					
	WB	TR	0.67	19.3	B	TR	0.86	26.4	C					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**1.13**	**64.9**	**E**	**-**	**1.16**	**73.3**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.78	43.8	D	L	0.78	43.8	D					-Unmitigatable impact.
		R	0.86	56.1	E	R	0.86	56.1	E					
Northern Boulevard (Rt 25A)	EB	T	0.95	40.7	D	T	1.02	55.7	E					
		R	1.18	128.3	F	R	1.18	128.3	F					
	WB	L	0.17	26.5	C	L	0.17	26.5	C					
		T	1.06	48.5	D	T	1.15	86.7	F					
Overall Intersection		**-**	**1.02**	**53.3**	**D**	**-**	**1.02**	**73.9**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.68	35.2	D	TR	0.68	35.2	D					-Unmitigatable impact.
	SB	TR	0.90	43.3	D	TR	0.92	44.8	D					-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.97	68.6	E	L	0.97	69.1	E					approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.24	145.7	F	TR	1.33	188.3	F					
	WB	L	1.03	79.7	E	L	1.02	78.9	E					
		TR	0.97	40.7	D	TR	1.06	67.3	E					
Overall Intersection		**-**	**1.13**	**74.6**	**E**	**-**	**1.13**	**98.4**	**F**					
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.97	95.3	F	L	1.00	104.0	F	L	0.96	91.6	F	-Partially mitigated.
		TR	0.57	39.9	D	TR	0.57	39.9	D	TR	0.55	38.7	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
	SB	LTR	0.83	48.1	D	LTR	0.87	51.1	D	LTR	0.84	47.5	D	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	-	-	-	-	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
Northern Boulevard (Rt. 25A)	EB	L	0.54	45.6	D	L	0.57	47.7	D	L	0.63	49.9	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		TR	1.04	64.3	E	TR	1.17	115.0	F	T	0.89	35.1	D	-Modify Signal Timing: Shift 2 s green time from EB/WB protected left-turn phase to EB/WB
		-	-	-	-	-	-	-	-	R	0.38	24.1	C	phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB
	WB	L	0.44	37.1	D	L	0.47	41.9	D	L	0.46	36.7	D	protected left-turn green time shifts from 12 s to 10 s; EB/WB green time shifts from 50 s to 52 s
		TR	1.13	91.8	F	TR	1.23	135.4	F	TR	1.18	112.0	F	NB/SB green time shifts from 36 s to 37 s; LPI shifts from 7 s to 6 s].
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**1.03**	**73.4**	**E**	**-**	**1.07**	**108.6**	**F**	**-**	**1.05**	**74.6**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.85	39.3	D	L	0.87	41.3	D					-Mitigation not required.
		T	0.32	24.6	C	T	0.35	25.0	C					
34th Avenue	EB	T	0.43	12.0	B	T	0.43	12.0	B					
		R	0.11	8.8	A	R	0.14	9.0	A					
Overall Intersection		**-**	**0.58**	**24.0**	**C**	**-**	**0.58**	**24.6**	**C**					

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	0.59	33.6	C	L	0.42	25.4	C	-Partially mitigated
		LTR	0.17	19.9	B	TR	0.46	24.3	C	TR	0.54	33.8	C	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.33	22.5	C	LTR	0.68	32.1	C	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.83	66.1	E	LTR	3.00+	1000.0+	F	L	0.92	76.5	E	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.48	31.9	C	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	-	-	-	-	-	-	-	-	and two 11-ft EB receiving lanes.
		LTR	0.48	43.4	D	LTR	2.46	712.5	F	LTR	0.78	32.8	C	-Close the ramp from EB Northern Blvd ramp to 126th Street.
34th Avenue	WB	-	-	-	-	-	-	-	-	DefL	0.98	79.5	E	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		LTR	0.67	55.9	E	LTR	3.00+	1000.0+	F	TR	0.99	65.5	E	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
														11-ft travel lanes.
	Overall Intersection	**-**	**0.53**	**40.7**	**D**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**0.95**	**45.7**	**D**	-Modify signal phasing and timing plan: EB/WB phase will have 56 s green time; NB/SB lead
														left-turn phase will have 7 s green time; NB/SB phase will have 42 s green time [each phase will
														have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.04	83.4	F	LTR	1.08	97.3	F	LT	0.87	53.7	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.22	36.3	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.12	108.7	F	LTR	1.13	116.0	F	LT	0.91	56.6	E	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.30	37.2	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.69	16.3	B	LTR	0.82	22.6	C	LTR	0.82	22.6	C	
	WB	LTR	0.83	10.8	B	LTR	0.96	21.3	C	LTR	0.96	21.3	C	
	Overall Intersection	**-**	**0.91**	**39.2**	**D**	**-**	**1.00**	**45.8**	**D**	**-**	**0.94**	**30.2**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.02	73.8	E	LTR	1.02	73.8	E	LTR	1.02	73.8	E	-Install "No Standing 7 AM - 4 PM Mon - Fri" regulations along the north curb of the WB
Roosevelt Avenue	EB	LTR	0.67	15.6	B	LTR	0.81	21.0	C	LTR	0.80	20.9	C	Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane
	WB	LTR	0.94	20.2	C	LTR	1.07	51.9	D	LT	0.91	15.6	B	and one 10-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.08	7.2	A	
	Overall Intersection	**-**	**0.96**	**29.2**	**C**	**-**	**1.05**	**44.2**	**D**	**-**	**0.94**	**27.5**	**C**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.04	79.3	E	LTR	1.08	94.1	F	LTR	0.72	41.3	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.15	121.3	F	LTR	1.44	246.0	F	LTR	1.11	103.7	F	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	-	-	-	-	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	0.83	23.4	C	LTR	1.01	52.9	D	L	0.23	10.1	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.64	15.6	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.57	5.5	A	LTR	0.70	7.2	A	L	0.76	28.6	C	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.64	8.7	A	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.23	9.6	A	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**0.92**	**33.3**	**C**	**-**	**1.13**	**55.5**	**E**	**-**	**0.87**	**26.2**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach
														250 ft from the intersection.
														Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
														approach 250 ft from the intersection.
														-Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green
														time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street at Roosevelt Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	0.21	35.9	D	-Partially mitigated.
		LTR	0.22	37.1	D	LTR	3.00+	1000.0+	F	TR	0.10	31.2	C	-Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes.
	SB	DefL	1.23	175.4	F	-	-	-	-	L	1.20	155.2	F	
		TR	0.67	52.7	D	LTR	3.00+	1000.0+	F	T	0.88	59.3	E	-Shift centerline of SB 126th Street approach 9 ft to the east.
		-	-	-	-	-	-	-	-	R	0.58	33.2	C	-Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft.
Roosevelt Avenue	EB	-	-	-	-	DefL	1.13	117.7	F	DefL	0.73	44.2	D	
		LTR	0.57	12.6	B	TR	0.62	14.1	B	TR	0.57	15.3	B	-Shift centerline of EB Roosevelt Avenue approach 1 ft to north.
	WB	LTR	0.63	6.2	A	LTR	1.05	45.3	D	LTR	1.04	58.0	E	-Shift centerline of WB Roosevelt Avenue approach 1 ft to south.
	Overall Intersection	**-**	**0.77**	**34.5**	**C**	**-**	**1.86**	**479.4**	**F**	**-**	**1.54**	**86.7**	**F**	-Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. -Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. -Modify signal phasing and timing plan: EB/WB will have 63 s green time; EB-lag/SB right phase will have 7 s green time; NB/SB phase will have 35 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.43	252.6	F	L	1.79	410.8	F	L	1.37	228.7	F	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		TR	0.74	27.7	C	TR	0.74	27.7	C	TR	0.83	36.4	D	
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
	SB	TR	0.86	43.8	D	TR	1.06	81.2	F	T	0.80	48.7	D	
Roosevelt Avenue	EB	L	0.44	40.0	D	L	0.49	41.3	D	L	0.44	36.5	D	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
		TR	0.99	61.8	E	TR	1.19	132.2	F	TR	1.01	62.8	E	
	WB	L	0.23	45.3	D	L	0.23	45.3	D	-	-	-	-	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
		TR	0.69	44.8	D	TR	0.81	51.0	D	TR	0.53	38.5	D	
	Overall Intersection	**-**	**1.10**	**69.3**	**E**	**-**	**1.37**	**118.0**	**F**	**-**	**1.02**	**71.7**	**E**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes. -Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. -Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. -Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. -Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. -Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. -Modify signal phasing and timing plan: EB/WB will have 33 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 18 s green time; NB/SB phase will have 29 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.52	31.1	C	LTR	0.52	31.1	C	LTR	0.56	34.3	C	-Modify Signal Timing: Shift 3 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 66 s; SB green time shifts from 47 s to 44 s].
Roosevelt Avenue	EB	DefL	1.30	180.6	F	DefL	1.37	211.9	F	DefL	1.27	167.7	F	
		TR	0.59	23.3	C	TR	0.67	25.8	C	TR	0.64	22.8	C	
	WB	LTR	0.91	34.7	C	LTR	0.99	47.4	D	LTR	0.94	36.0	D	
		-	-	-	-	-	-	-	-	-	-	-	-	
	Overall Intersection	**-**	**0.96**	**67.7**	**E**	**-**	**1.01**	**77.2**	**E**	**-**	**0.98**	**62.3**	**E**	

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.60	22.4	C	T	0.60	22.4	C	T	0.64	25.8	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	T	0.45	19.8	B	T	0.45	19.8	B	T	0.49	22.7	C	green time shifts from 45 s to 49 s; NB/SB green time shifts from 65 s to 61 s].
Roosevelt Avenue	EB	L	0.44	46.6	D	L	0.47	50.3	D	L	0.43	43.3	D	
		TR	0.57	36.4	D	TR	0.70	41.3	D	TR	0.64	35.7	D	
	WB	L	0.12	25.7	C	L	0.14	26.1	C	L	0.12	23.1	C	
		TR	1.01	69.5	E	TR	1.11	101.5	F	TR	1.02	68.7	E	
	Overall Intersection	**-**	**0.77**	**37.1**	**D**	**-**	**0.81**	**48.0**	**D**	**-**	**0.81**	**39.3**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.61	20.1	C	TR	0.61	20.1	C					-Unmitigatable impact.
	SB	LT	1.10	80.0	E	LT	1.10	80.0	F					
		R	0.85	35.8	D	R	0.85	35.8	D					
Roosevelt Avenue	EB	LTR	1.43	231.1	F	LTR	1.75	372.1	F					
	WB	LT	1.01	53.8	D	LT	1.12	93.7	F					
		R	1.13	111.6	F	R	1.13	111.6	F					
	Overall Intersection	**-**	**1.25**	**83.9**	**F**	**-**	**1.40**	**121.8**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	1.15	104.8	F	LTR	1.17	112.0	F	LT	1.14	102.5	F	-Modify Signal Timing: Shift 4 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.09	20.7	C	time shifts from 55 s to 59 s; NB/SB green time shifts from 55 s to 51 s].
	SB	LTR	0.82	35.1	D	LTR	0.82	35.1	D	LTR	0.9	44.5	D	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.50	26.0	C	LTR	0.58	28.4	C	LTR	0.54	24.5	C	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	1.17	112.5	F	LTR	1.28	161.7	F	LTR	1.17	111.6	F	
	Overall Intersection	**-**	**1.16**	**76.1**	**E**	**-**	**1.23**	**94.0**	**F**	**-**	**1.16**	**75.7**	**E**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.75	34.6	C	L	0.78	36.7	D					-Mitigation not required.
		TR	0.70	25.4	C	TR	0.70	25.4	C					
	SB	L	0.66	38.7	D	L	0.66	38.7	D					
		TR	0.39	18.4	B	TR	0.39	18.4	B					
Kissena Boulevard	WB	T	0.74	38.9	D	T	0.74	38.9	D					
	Overall Intersection	**-**	**0.75**	**28.1**	**C**	**-**	**0.76**	**28.4**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														-Mitigation not required.
College Point Boulevard	NB	L	0.22	10.4	B	L	0.23	10.7	B	L	0.23	10.2	B	-Upgrade to computerized signal controller with the following timing plan: WB phase will have
		T	0.69	15.0	B	T	0.71	15.6	B	T	0.70	14.8	B	26 s green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s
	SB	TR	0.59	13.2	B	TR	0.62	13.8	B	TR	0.61	13.1	B	all red time].
		-	-	-	-	-	-	-	-	-	-	-	-	[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game
Sanford Avenue	WB	L	0.79	46.2	D	L	0.79	46.2	D	L	0.80	46.5	D	peak periods.]
		TR	0.56	30.1	C	TR	0.67	33.0	C	TR	0.68	33.2	C	
	Overall Intersection	**-**	**0.72**	**19.3**	**B**	**-**	**0.74**	**20.2**	**C**	**-**	**0.73**	**19.7**	**B**	
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.71	31.0	C	LTR	0.72	31.5	C					-Mitigation not required.
	SB	LTR	0.62	24.8	C	LTR	0.63	25.3	C					
Sanford Avenue	EB	DefL	0.58	26.4	C	DefL	0.60	28.0	C					
		TR	0.37	15.8	B	TR	0.37	15.8	B					
	WB	LTR	0.90	30.1	C	LTR	0.94	35.7	D					
	Overall Intersection	**-**	**0.81**	**26.3**	**C**	**-**	**0.84**	**28.7**	**C**					

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.12	79.7	E	LTR	1.14	88.9	F	LT	0.88	21.7	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.11	13.6	B	-Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow
	SB	LTR	0.97	39.3	D	LTR	1.00	47.4	D	LTR	0.99	40.3	D	for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket.
		-	-	-	-	-	-	-	-	-	-	-	-	-Modify Signal Timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green
Sanford Avenue	EB	LTR	0.73	27.5	C	LTR	0.75	28.5	C	LTR	0.79	32.2	C	time shifts from 40 s to 38 s; NB/SB green time shifts from 40 s to 42 s].
	WB	LTR	0.83	31.7	C	LTR	0.89	36.1	D	LTR	0.93	43.6	D	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**0.98**	**45.8**	**D**	**-**	**1.02**	**51.7**	**D**	**-**	**0.96**	**34.5**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.44	23.9	C	T	0.47	24.2	C					-Mitigation not required.
		TR	0.71	31.8	C	TR	0.71	31.8	C					
	SB	L	0.52	37.2	D	L	0.52	37.2	D					
		T	0.60	13.0	B	T	0.61	13.2	B					
32nd Avenue	WB	LTR	0.88	44.9	D	LTR	0.88	44.9	D					
Overall Intersection		**-**	**1.41**	**24.0**	**C**	**-**	**1.41**	**24.1**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.42	11.8	B	TR	0.43	12.0	B					-Unmitigatable impact.
	SB	LT	0.89	25.0	C	LT	0.91	27.7	C					
Northern Blvd Service Rd	WB	LR	0.79	37.0	D	LR	1.01	66.9	E					
Overall Intersection		**-**	**0.85**	**22.6**	**C**	**-**	**0.95**	**31.1**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.12	29.3	C	-Install an actuated controller.
		LTR	0.09	7.3	A	LTR	0.04	7.0	A	TR	0.09	28.9	C	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
	SB	-	-	-	-	DefL	0.91	32.9	C	DefL	0.90	44.4	D	will have 25 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s
		LTR	0.39	9.8	A	TR	0.69	16.4	B	TR	0.85	37.4	D	green time; SB lag phase will have 25 s green time [each phase will have 3 s amber and 2 s all re
Stadium Road	EB	-	-	-	-	-	-	-	-	DefL	0.29	30.6	C	time].
		-	-	-	-	LTR	0.37	27.8	C	TR	0.30	30.6	C	
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.24	25.8	C	LTR	0.97	59.9	E	LTR	0.77	40.8	D	
Overall Intersection		**-**	**0.34**	**12.8**	**B**	**-**	**0.93**	**35.1**	**D**	**-**	**1.39**	**39.5**	**D**	

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	41.2	E	L	-	1000.0+	F	L	0.14	30.1	C	-Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.7	A	R	-	8.7	A	R	0.04	1.7	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.03	38.7	D	
	WB	LT	-	8.9	A	LT	-	14.6	B	L	0.69	19.0	B	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.59	16.2	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**10.2**	**B**	**-**	**-**	**585.7**	**F**	**-**	**0.50**	**18.0**	**B**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	10.3	B	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.58	15.3	B	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	21.6	C	T	0.11	11.0	B	
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**10.3**	**B**	**-**	**-**	**21.6**	**C**	**-**	**0.34**	**14.9**	**B**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														-Mitigation not required.
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.04	24.5	C	-Install traffic signal with the following timing plan: EB will have 38 s green time; WB will have 23 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red
	SB	-	-	-	-	LT	-	7.5	A	L	0.17	26.5	C	
		-	-	-	-	-	-	-	-	TR	0.54	32.0	C	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	11.5	B	L	-	26.6	D	L	0.32	32.9	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	18.5	C	T	0.26	31.7	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.4	A	R	-	10.2	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	22.5	C	L	0.23	41.9	D	
		-	-	-	-	R	-	8.5	A	R	0.08	40.3	D	
Overall Intersection		**-**	**-**	**10.9**	**B**	**-**	**-**	**19.7**	**C**	**-**	**0.39**	**32.8**	**C**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.34	16.1	B	TR	0.34	16.1	B	-Intersection meets NYCDOT Signal Warrant Criteria.
	SB	-	-	-	-	DefL	0.88	45.3	D	-	-	-	-	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
		LT	-	8.2	A	T	0.71	13.7	B	LT	0.79	16.3	B	
36th Avenue	WB	LR	-	13.6	B	L	0.06	38.5	D	L	0.06	38.5	D	
		-	-	-	-	R	0.28	28.2	C	R	0.28	28.2	C	
Overall Intersection		**-**	**-**	**9.1**	**A**	**-**	**1.08**	**21.4**	**C**	**-**	**0.61**	**17.1**	**B**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.29	15.4	B	TR	0.29	15.4	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	7.8	A	LT	0.62	13.6	B	LT	0.59	12.9	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.5	B	L	0.23	37.2	D	L	0.23	37.2	D	
		-	-	-	-	R	0.31	28.9	C	R	0.31	28.9	C	
Overall Intersection		**-**	**-**	**11.9**	**B**	**-**	**0.50**	**16.5**	**B**	**-**	**0.48**	**16.2**	**B**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	14.1	B	R	-	18.4	C	R	0.33	43.4	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.56	9.1	A	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		**-**	**-**	**14.1**	**B**	**-**	**-**	**18.4**	**C**	**-**	**0.51**	**10.8**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 20
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME AM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.60	23.8	C					-Mitigation not required.
	SB	-	-	-	-	-	-	-	-					
		-	-	-	-	LT	0.51	13.8	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.63	43.3	D					
		-	-	-	-	R	0.21	23.8	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.72**	**23.0**	**C**					
Citi Field/Lot B at Roosevelt Avenue														
Citi Field/Lot B	SB	LR	-	-	-	LR	0.02	34.0	C					-Mitigation not required.
Roosevelt Avenue	EB	LT	-	-	-	LT	0.43	10.0	B					
	WB	TR	-	-	-	TR	0.48	10.7	B					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.35**	**10.5**	**B**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 21
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.48	26.9	C	DefL	0.58	30.1	C	DefL	0.58	30.1	C	-Install "No Standing 11 AM - 2 PM Mon-Fri" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
		T	0.13	20.1	C	T	0.13	20.1	C	T	0.13	20.1	C	
	SB	LTR	0.18	20.7	C	LTR	0.18	20.7	C	LTR	0.18	20.7	C	
Astoria Boulevard	EB	TR	0.84	29.6	C	TR	1.00	45.7	D	T	0.87	30.6	C	
		-	-	-	-	-	-	-	-	R	0.26	20.2	C	
	WB	L	0.75	33.5	C	L	0.77	38.5	D	L	0.77	38.0	D	
		TR	0.34	12.4	B	TR	0.43	13.4	B	TR	0.43	13.4	B	
Overall Intersection		**-**	**0.71**	**24.2**	**C**	**-**	**0.82**	**32.8**	**C**	**-**	**0.76**	**24.8**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.21	144.5	F	LTR	1.52	282.2	F	L	0.71	46.3	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.86	48.9	D	
	SB	LTR	0.94	71.9	E	LTR	0.96	76.2	E	L	0.56	51.8	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.57	46.1	D	
Northern Boulevard (Rt. 25A)	EB	L	0.08	24.3	C	L	0.09	34.3	C	L	0.08	24.9	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft.
		TR	0.89	29.3	C	TR	1.12	87.4	F	T	1.00	44.2	D	
		-	-	-	-	-	-	-	-	R	0.12	13.2	B	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft.
	WB	L	0.73	46.6	D	L	0.86	66.4	E	L	0.71	50.7	D	
		TR	1.03	50.7	D	TR	1.22	127.3	F	T	1.00	43.4	D	-Modify signal timing: shift 4 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 30 s to 26 s; EB/WB left-turn green time shifts from 9 s to 13 s].
		-	-	-	-	-	-	-	-	R	0.30	15.3	B	
Overall Intersection		**-**	**1.02**	**51.7**	**D**	**-**	**1.25**	**117.4**	**F**	**-**	**1.00**	**43.0**	**D**	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.40	44.5	D	LTR	0.46	46.1	D	LTR	0.45	36.4	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes.
Northern Boulevard (Rt. 25A)	EB	T	0.82	27.5	C	T	1.06	65.4	E	T	0.89	24.3	C	
		R	0.46	19.5	B	R	0.49	20.0	B	R	0.41	12.4	B	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.52	17.5	B	DefL	0.77	50.8	D	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.75	13.0	B	T	0.88	18.3	B	T	0.78	18.2	B	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.19**	**20.2**	**C**	**-**	**1.46**	**39.3**	**D**	**-**	**0.75**	**21.5**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s]. [Measures reflect improvements needed for the Weekday Non-game AM and PM, Saturday, Weekday Pre-game, and Saturday Pre- and Post-game peak periods.]
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.46	44.1	D	L	1.43	248.4	F	L	1.62	336.4	F	-Partially mitigated.
		R	0.33	42.2	D	R	3.00+	1000.0+	F	R	0.96	84.2	F	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection.
Northern Boulevard	EB	T	0.80	47.3	D	T	0.84	49.7	D	T	0.90	49.9	D	
	WB	T	0.33	7.1	A	T	0.41	7.8	A	T	0.39	6.5	A	
Grand Central Parkway Ramp	EB	T	0.79	39.1	D	T	0.87	44.0	D	T	0.87	44.0	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.78	17.0	B	T	1.32	166.2	F	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.71**	**29.8**	**C**	**-**	**2.94**	**367.8**	**F**	**-**	**1.04**	**102.6**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 3 s of green time from NB phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 35 s to 38 s; NB green time shifts from 25 s to 22 s].

TABLE 21
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.21	141.8	F	LTR	1.21	141.8	F	LTR	1.21	141.8	F	-Partially Mitigated.
	SB	LTR	0.54	41.4	D	LTR	0.54	41.4	D	LTR	0.54	41.4	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.90	73.8	E	L	0.90	73.8	E	L	0.90	73.8	E	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	0.94	36.3	D	T	1.05	63.7	E	T	1.05	63.7	E	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.91	93.1	F	L	0.91	93.1	F	L	0.91	93.1	F	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.14	104.5	F	T	1.23	141.1	F	T	1.23	141.1	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.62	26.5	C	TR	0.62	26.5	C	TR	0.62	26.5	C	
	WB	TR	0.71	35.3	D	TR	1.03	77.1	E	T	0.77	37.3	D	
		-	-	-	-	-	-	-	-	R	0.14	21.5	C	
Overall Intersection		**-**	**1.11**	**68.3**	**E**	**-**	**1.15**	**92.9**	**F**	**-**	**1.15**	**90.5**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.98	66.1	E	T	0.98	66.1	E					-Unmitigatable impact.
		R	0.69	40.0	D	R	0.69	40.0	D					
Northern Boulevard (Rt 25A)	EB	T	0.98	45.5	D	T	1.12	90.6	F					
		R	1.29	173.4	F	R	1.29	173.4	F					
	WB	L	0.11	25.7	C	L	0.11	25.7	C					
		T	0.77	23.0	C	T	0.91	30.0	C					
Overall Intersection		**-**	**1.03**	**58.7**	**E**	**-**	**1.03**	**74.8**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.79	39.1	D	TR	0.79	39.1	D	TR	0.79	39.1	D	-Partially Mitigated.
	SB	TR	0.56	32.5	C	TR	0.56	32.5	C	TR	0.56	32.5	C	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.55	22.2	C	L	0.56	28.3	C	L	0.56	25.0	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.39	214.5	F	TR	1.57	294.1	F	TR	1.57	294.1	F	
	WB	L	1.19	146.1	F	L	1.18	144.3	F	L	1.18	144.3	F	
		TR	0.84	37.8	D	TR	1.03	64.7	E	TR	0.77	34.6	C	
Overall Intersection		**-**	**1.44**	**111.6**	**F**	**-**	**1.42**	**152.0**	**F**	**-**	**1.42**	**143.0**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.74	59.0	E	L	0.78	63.7	E	L	0.73	58.0	E	-Partially mitigated.
		TR	0.53	39.0	D	TR	0.53	39.0	D	TR	0.53	39.0	D	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
	SB	LTR	1.19	127.7	F	LTR	1.27	166.5	F	LT	0.69	36.1	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.38	33.5	C	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.80	58.0	E	L	0.91	64.9	E	L	0.92	70.5	E	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		TR	1.06	68.8	E	TR	1.25	151.0	F	T	1.03	57.3	E	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		-	-	-	-	-	-	-	-	R	0.37	24.3	C	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	WB	L	0.36	36.3	D	L	0.39	43.1	D	L	0.39	40.6	D	
		TR	1.19	118.2	F	TR	1.43	229.3	F	T	1.20	126.7	F	
		-	-	-	-	-	-	-	-	R	0.38	23.4	C	
Overall Intersection		**-**	**1.20**	**89.6**	**F**	**-**	**1.36**	**166.7**	**F**	**-**	**0.96**	**78.1**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.84	43.9	D	L	0.92	52.8	D	L	0.83	39.7	D	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.23	24.0	C	T	0.31	25.3	C	T	0.28	22.7	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.41	11.8	B	T	0.41	11.8	B	T	0.43	13.7	B	
		R	0.07	8.5	A	R	0.07	8.5	A	R	0.07	9.9	A	
Overall Intersection		**-**	**0.56**	**26.9**	**C**	**-**	**0.59**	**31.4**	**C**	**-**	**0.59**	**26.1**	**C**	

TABLE 21
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	2.26	615.4	F	L	1.67	363.1	F	-Partially mitigated.
		LTR	0.26	20.9	C	TR	0.76	32.2	C	TR	0.87	44.5	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.39	23.7	C	LTR	1.46	251.0	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.90	75.7	E	LTR	3.00+	1000.0+	F	L	1.54	316.5	F	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.77	38.3	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	DefL	3.00+	1000.0+	F	-	-	-	-	and two 11-ft EB receiving lanes.
		LTR	0.57	45.1	D	TR	3.00+	1000.0+	F	LTR	1.28	170.5	F	-Close the ramp from EB Northern Blvd ramp to 126th Street.
34th Avenue	WB	-	-	-	-	-	-	-	-	DefL	1.81	419.0	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		LTR	0.67	54.9	D	LTR	3.00+	1000.0+	F	TR	0.86	44.1	D	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
														11-ft travel lanes.
	Overall Intersection	**-**	**0.58**	**42.0**	**D**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.91**	**141.4**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 53 s green time; NB/SB lead
														left-turn phase will have 7 s green time; NB/SB phase will have 45 s green time [each phase will
														have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.11	109.2	F	LTR	1.19	140.3	F	LT	0.97	69.9	E	-Partially mitigated.
		-	-	-	-	-	-	-	-	R	0.34	38.2	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
	SB	LTR	1.24	157.6	F	LTR	1.27	170.9	F	LT	1.02	66.6	E	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.35	37.5	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
Roosevelt Avenue	EB	LTR	0.76	19.3	B	LTR	0.96	39.6	D	LTR	0.95	38.0	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	WB	LTR	0.85	23.9	C	LTR	1.14	96.3	F	LTR	1.03	55.7	E	
	Overall Intersection	**-**	**0.96**	**58.0**	**E**	**-**	**1.18**	**93.6**	**F**	**-**	**1.03**	**51.1**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.73	51.2	D	LTR	0.73	51.2	D	LTR	0.73	51.2	D	-Install "No Standing 7 AM - 4 PM Mon - Fri" regulations along the north curb of the WB
Roosevelt Avenue	EB	LTR	0.73	16.9	B	LTR	0.96	37.0	D	LTR	0.96	36.3	D	Roosevelt Avenue approach 100-ft from the intersection to allow for one 11-ft left-through lane
	WB	LTR	0.88	26.2	C	LTR	1.11	83.4	F	LT	0.93	30.2	C	and one 10-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.11	7.5	A	
	Overall Intersection	**-**	**0.84**	**26.1**	**C**	**-**	**1.01**	**60.1**	**E**	**-**	**0.90**	**34.5**	**C**	
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.71	51.1	D	LTR	0.82	61.2	E	LTR	0.52	39.6	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	0.70	53.9	D	LTR	0.98	95.7	F	LTR	0.77	55.2	E	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	-	-	-	-	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	0.89	29.9	C	LTR	1.39	204.3	F	L	0.39	13.7	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.71	18.1	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.48	10.7	B	LTR	0.81	19.0	B	L	0.44	15.5	B	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.70	18.2	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.63	17.5	B	-Shift center line of SB 114th Street approach 2 ft to the east.
														Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach
	Overall Intersection	**-**	**0.84**	**25.6**	**C**	**-**	**1.28**	**87.2**	**F**	**-**	**0.73**	**22.3**	**C**	250 ft from the intersection.
														Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue
														approach 250 ft from the intersection.
														-Modify signal timing: Shift 4 s green time from EB/WB phase to NB/SB phase [EB/WB green
														time shifts from 80 s to 76 s; NB/SB green time shifts from 30 s to 34 s].

TABLE 21
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
126th Street at Roosevelt Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	1.15	144.5	F	-Partially mitigated.
		LTR	0.91	67.9	E	LTR	3.00+	1000.0+	F	TR	0.43	35.2	D	-Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes.
	SB	DefL	1.22	176.1	F	DefL	3.00+	1000.0+	F	L	2.19	589.8	F	-Shift centerline of SB 126th Street approach 9 ft to the east.
		TR	0.63	51.4	D	TR	3.00+	1000.0+	F	T	0.71	44.9	D	-Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft.
		-	-	-	-	-	-	-	-	R	0.90	55.8	E	-Shift centerline of EB Roosevelt Avenue approach 1 ft to north.
Roosevelt Avenue	EB	-	-	-	-	DefL	1.28	181.8	F	DefL	0.88	72.6	E	-Shift centerline of WB Roosevelt Avenue approach 1 ft to south.
		LTR	0.53	11.6	B	TR	0.74	17.9	B	TR	0.71	19.4	B	-Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes.
	WB	LTR	0.51	11.2	B	LTR	1.09	73.9	E	LTR	1.29	165.7	F	-Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes.
	Overall Intersection	**-**	**0.69**	**37.9**	**D**	**-**	**2.98**	**831.5**	**F**	**-**	**1.99**	**149.2**	**F**	-Modify signal phasing and timing plan: EB/WB will have 62 s green time; EB-lag/SB right phase will have 8 s green time; NB/SB phase will have 35 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.37	217.4	F	L	2.01	500.9	F	L	1.20	152.9	F	-Partially Mitigated
		TR	0.89	31.5	C	TR	0.89	31.5	C	TR	0.91	43.2	D	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
	SB	TR	1.20	129.9	F	TR	1.57	292.4	F	T	1.01	73.4	E	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
Roosevelt Avenue	EB	L	0.56	30.4	C	L	0.61	31.4	C	L	0.55	37.1	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
		TR	1.27	148.2	F	TR	1.73	355.4	F	TR	1.54	272.9	F	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
	WB	L	0.28	33.5	C	L	0.28	33.5	C	-	-	-	-	-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
		TR	0.58	30.6	C	TR	0.77	38.1	D	TR	0.58	38.9	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
	Overall Intersection	**-**	**1.29**	**98.9**	**F**	**-**	**1.90**	**229.3**	**F**	**-**	**1.34**	**114.3**	**F**	-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 35 s green time; EB-lag phase will have 20 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 26 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.86	47.9	D	LTR	0.86	47.9	D					-Unmitigatable impact.
Roosevelt Avenue	EB	DefL	0.96	38.2	D	DefL	1.01	52.2	D					
		TR	0.68	14.4	B	TR	0.85	20.9	C					
	WB	LTR	0.54	12.1	B	LTR	0.65	14.2	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.93**	**27.1**	**C**	**-**	**0.96**	**31.0**	**C**					

TABLE 21
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.67	24.6	C	T	0.67	24.6	C					-Unmitigatable impact.
	SB	T	0.53	22.1	C	T	0.53	22.1	C					
Roosevelt Avenue	EB	L	0.31	22.1	C	L	0.39	27.1	C					
		TR	0.76	34.2	C	TR	1.06	84.9	F					
	WB	L	0.15	16.7	B	L	0.19	18.1	B					
		TR	0.84	36.3	D	TR	1.06	78.5	E					
	Overall Intersection	**-**	**0.76**	**28.0**	**C**	**-**	**0.92**	**50.3**	**D**					
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.58	19.5	B	TR	0.58	19.5	B					-Unmitigatable impact.
	SB	LT	1.01	59.5	E	LT	1.01	59.5	E					
		R	3.00+	1000.0+	F	R	3.00+	1000.0+	F					
Roosevelt Avenue	EB	LTR	2.05	505.0	F	LTR	2.70	797.9	F					
	WB	LT	0.62	25.9	C	LT	0.82	35.3	D					
		R	0.95	88.1	F	R	0.95	88.1	F					
	Overall Intersection	**-**	**3.00+**	**496.8**	**F**	**-**	**3.00+**	**553.9**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.66	24.8	C	LTR	0.72	27.4	C	LTR	0.75	29.4	C	-Modify Signal Timing: Shift 1 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	-	-	-	-	time shifts from 40 s to 41 s; NB/SB green time shifts from 40 s to 39 s].
	SB	LTR	0.66	23.8	C	LTR	0.66	23.9	C	LTR	0.67	25.1	C	
Roosevelt Avenue	EB	LTR	0.59	23.3	C	LTR	0.88	40.0	D	LTR	0.85	36.6	D	
	WB	LTR	0.77	30.6	C	LTR	0.95	50.1	D	LTR	0.92	44.2	D	
	Overall Intersection	**-**	**0.72**	**25.7**	**C**	**-**	**0.84**	**36.0**	**D**	**-**	**0.84**	**34.2**	**C**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.88	54.1	D	L	0.92	61.0	E	L	0.88	53.4	D	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.64	22.5	C	TR	0.64	22.5	C	TR	0.63	21.4	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.47	20.5	C	L	0.47	20.5	C	L	0.48	21.4	C	
		TR	0.52	19.5	B	TR	0.52	19.5	B	TR	0.51	18.7	B	
Kissena Boulevard	WB	T	0.73	27.4	C	T	0.73	27.4	C	T	0.75	29.0	C	
	Overall Intersection	**-**	**0.80**	**25.2**	**C**	**-**	**0.82**	**26.0**	**C**	**-**	**0.82**	**25.0**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														-Mitigation not required.
College Point Boulevard	NB	L	0.57	24.1	C	L	0.66	33.1	C	L	0.62	27.7	C	-Upgrade to computerized signal controller with the following timing plan: WB phase will have
		T	0.67	14.5	B	T	0.70	15.3	B	T	0.68	13.7	B	25 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s
	SB	TR	0.77	16.9	B	TR	0.83	19.2	B	TR	0.80	16.9	B	all red time].
		-	-	-	-	-	-	-	-	-	-	-	-	[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game
Sanford Avenue	WB	L	0.57	35.0	C	L	0.57	35.0	C	L	0.60	37.2	D	peak periods.]
		TR	0.38	27.1	C	TR	0.53	29.9	C	TR	0.56	31.4	C	
	Overall Intersection	**-**	**0.70**	**18.2**	**B**	**-**	**0.75**	**20.3**	**C**	**-**	**0.74**	**18.8**	**B**	
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.34	20.8	C	LTR	0.34	20.8	C					-Mitigation not required.
	SB	LTR	0.61	24.3	C	LTR	0.63	24.6	C					
Sanford Avenue	EB	DefL	0.43	19.7	B	DefL	0.46	20.9	C					
		TR	0.21	13.7	B	TR	0.21	13.7	B					
	WB	LTR	0.89	29.7	C	LTR	0.96	38.8	D					
	Overall Intersection	**-**	**0.76**	**24.6**	**C**	**-**	**0.81**	**28.6**	**C**					

TABLE 21
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.17	102.6	F	LTR	1.22	124.5	F	LT	1.07	60.9	E	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.13	14.8	B	-Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow
	SB	LTR	0.72	25.4	C	LTR	0.85	32.9	C	LT	0.62	22.7	C	for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket.
		-	-	-	-	-	-	-	-	R	0.25	16.5	B	-Install "No Standing 10 AM - 4 PM" regulations on the WB approach 100 feet from the stop bar
Sanford Avenue	EB	LTR	0.56	22.3	C	LTR	0.59	23.1	C	LTR	0.60	23.4	C	to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.87	34.7	C	LTR	0.95	45.1	D	LT	0.69	24.1	C	-Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar
		-	-	-	-	-	-	-	-	R	0.24	16.3	B	to allow for a 10-ft daylighted right-turn lane.
Overall Intersection		**-**	**1.02**	**48.5**	**D**	**-**	**1.09**	**58.6**	**E**	**-**	**0.88**	**31.2**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.71	29.9	C	T	0.71	29.7	C					-Mitigation not required.
		TR	0.81	36.4	D	TR	0.81	36.4	D					
	SB	L	0.75	48.8	D	L	0.75	48.8	D					
		T	0.50	11.7	B	T	0.51	11.9	B					
32nd Avenue	WB	LTR	0.79	40.6	D	LTR	0.79	40.6	D					
Overall Intersection		**-**	**1.30**	**28.1**	**C**	**-**	**1.30**	**28.0**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.53	13.2	B	TR	0.55	13.4	B					-Unmitigatable impact.
	SB	LT	0.87	24.4	C	LT	0.90	27.2	C					
Northern Blvd Service Rd	WB	LR	0.79	37.3	D	LR	1.11	98.3	F					
Overall Intersection		**-**	**0.84**	**22.0**	**C**	**-**	**0.98**	**38.2**	**D**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	-	-	-	-	-Unmitigatable impact.
		LTR	0.07	7.2	A	LTR	0.15	7.6	A	LTR	0.32	33.4	C	-Install an actuated controller.
	SB	DefL	0.28	9.3	A	DefL	1.12	93.8	F	DefL	1.07	93.4	F	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		TR	0.18	8.1	A	TR	0.42	10.4	B	TR	0.53	22.2	C	will have 25 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s
Stadium Road	EB	-	-	-	-	DefL	1.11	163.7	F	DefL	0.56	37.4	D	green time; SB lag phase will have 25 s green time [each phase will have 3 s amber and 2 s all re
		-	-	-	-	TR	0.47	30.3	C	TR	0.43	33.6	C	time].
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.19	25.3	C	LTR	2.01	492.1	F	LTR	1.51	274.4	F	
Overall Intersection		**-**	**0.25**	**12.5**	**B**	**-**	**1.40**	**247.5**	**F**	**-**	**1.22**	**151.4**	**F**	

TABLE 21
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	19.7	C	L	-	1000.0+	F	L	0.48	34.7	C	-Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.5	A	R	-	8.7	A	R	0.05	1.8	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.14	40.0	D	
	WB	LT	-	8.2	A	LT	-	14.4	B	L	0.76	21.8	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.94	38.0	D	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.5**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.76**	**30.8**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	10.6	B	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.78	20.0	B	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	73.0	F	T	0.24	12.2	B	
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**10.6**	**B**	**-**	**-**	**73.0**	**F**	**-**	**0.51**	**18.9**	**B**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.06	24.7	C	-Install traffic signal with the following timing plan: EB will have 38 s green time; WB will have 23 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red time].
	SB	-	-	-	-	LT	-	7.8	A	L	0.42	31.4	C	
		-	-	-	-	-	-	-	-	TR	0.63	34.2	C	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	10.8	B	L	-	122.9	F	L	0.34	33.3	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	293.0	F	T	0.71	43.7	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.2	A	R	-	11.6	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.75	54.4	D	
		-	-	-	-	R	-	8.8	A	R	0.24	43.2	D	
	Overall Intersection	**-**	**-**	**10.3**	**B**	**-**	**-**	**1000.0+**	**F**	**-**	**0.69**	**40.2**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.66	21.8	C	TR	0.66	21.8	C	-Unmitigatable impact.
	SB	-	-	-	-	DefL	1.24	157.5	F	DefL	1.04	85.6	F	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	T	1.07	63.9	E	T	1.02	47.9	D	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	16.2	C	L	0.16	40.0	D	L	0.16	40.0	D	
		-	-	-	-	R	0.65	40.3	D	R	0.65	40.3	D	
	Overall Intersection	**-**	**-**	**11.1**	**B**	**-**	**1.79**	**58.3**	**E**	**-**	**1.50**	**41.4**	**D**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.53	18.9	B	TR	0.53	18.9	B	-Unmitigatable impact.
	SB	-	-	-	-	DefL	1.33	208.7	F	DefL	1.11	124.7	F	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.3	A	T	0.84	22.8	C	T	0.84	22.8	C	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.7	B	L	0.13	35.6	D	L	0.13	35.6	D	
		-	-	-	-	R	0.85	58.0	E	R	0.85	58.0	E	
	Overall Intersection	**-**	**-**	**10.7**	**B**	**-**	**1.61**	**53.7**	**D**	**-**	**1.40**	**38.9**	**D**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	16.3	C	R	-	22.2	C	R	0.24	41.4	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.77	13.0	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**16.3**	**C**	**-**	**-**	**22.2**	**C**	**-**	**0.65**	**13.7**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 21

CITIFIELD - WILLETS POINT DEVELOPMENT STUDY

2032 PHASE 2 WEEKDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	1.30	172.2	F					-Mitigation not required.
	SB	-	-	-	-	DefL	1.33	212.6	F					
		-	-	-	-	T	0.58	15.7	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.96	75.3	E					
		-	-	-	-	R	0.79	46.2	D					
Overall Intersection		**-**	**-**	**-**	**-**	-	**1.48**	**115.5**	**F**					
Citi Field/Lot B at Roosevelt Avenue														
Citi Field/Lot B	SB	LR	-	-	-	LR	0.03	34.2	C					-Mitigation not required.
Roosevelt Avenue	EB	LT	-	-	-	LT	0.51	11.1	B					
	WB	TR	-	-	-	TR	0.57	11.9	B					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.42**	**11.7**	**B**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.58	47.0	D	DefL	0.71	54.7	D					-Unmitigatable impact.
		T	0.22	35.7	D	T	0.22	35.7	D					
	SB	LTR	0.40	39.4	D	LTR	0.40	39.4	D					
Astoria Boulevard	EB	TR	0.91	27.7	C	TR	0.98	33.2	C					
		-	-	-	-	-	-	-	-					
	WB	L	0.73	48.0	D	L	0.73	48.7	D					
		TR	0.34	9.8	A	TR	0.41	10.5	B					
Overall Intersection		**-**	**0.81**	**26.3**	**C**	**-**	**0.89**	**29.8**	**C**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.19	134.6	F	LTR	1.56	302.4	F	L	0.78	50.3	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.77	45.2	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.15	124.9	F	LTR	1.18	135.2	F	L	0.55	47.5	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.70	45.3	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.15	35.0	C	L	0.15	45.1	D	L	0.15	39.8	D	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.85	14.3	B	TR	0.98	23.2	C	TR	0.98	23.2	C	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.67	42.9	D	L	0.67	45.1	D	L	0.67	45.1	D	and one 12-ft shared through-right lane for 175 ft.
		TR	1.16	97.1	F	TR	1.35	183.7	F	T	1.13	82.8	F	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for
		-	-	-	-	-	-	-	-	R	0.31	12.5	B	150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
Overall Intersection		**-**	**1.09**	**62.1**	**E**	**-**	**1.30**	**111.6**	**F**	**-**	**0.97**	**47.7**	**D**	-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.40	46.1	D	LTR	0.47	47.9	D	LTR	0.53	37.8	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	1.16	90.5	F	T	1.35	179.3	F	T	1.17	90.9	F	exclusive through lanes.
		R	0.85	17.8	B	R	0.87	18.6	B	R	0.76	9.0	A	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.88	52.4	D	DefL	1.06	100.3	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.93	19.2	B	T	1.08	56.5	E	T	0.97	28.4	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.58**	**48.7**	**D**	**-**	**1.78**	**102.1**	**F**	**-**	**0.97**	**50.2**	**D**	-Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.43	43.3	D	L	1.41	240.8	F	L	1.41	240.8	F	-Partially mitigated.
		R	0.28	41.2	D	R	3.00+	1000.0+	F	R	0.73	52.7	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	1.24	169.6	F	T	1.35	214.2	F	T	1.26	171.0	F	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.41	7.7	A	T	0.47	8.4	A	T	0.47	8.4	A	through the intersection.
Grand Central Parkway Ramp	EB	T	0.75	30.5	C	T	0.84	34.9	C	T	0.91	42.9	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.91	26.2	C	T	1.35	179.7	F	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.80**	**52.6**	**D**	**-**	**2.70**	**317.1**	**F**	**-**	**1.12**	**108.4**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 4 s of green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 29 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 51 s].

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.25	159.4	F	LTR	1.25	159.4	F	LTR	1.25	159.4	F	-Partially Mitigated.
	SB	LTR	0.53	41.8	D	LTR	0.53	41.8	D	LTR	0.53	41.8	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.62	46.0	D	L	0.62	46.0	D	L	0.62	46.0	D	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	0.97	39.4	D	T	1.10	81.2	F	T	1.10	81.2	F	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.82	73.7	E	L	0.82	73.7	E	L	0.82	73.7	E	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.15	110.5	F	T	1.23	141.9	F	T	1.23	141.9	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.66	27.6	C	TR	0.66	27.6	C	TR	0.66	27.6	C	
	WB	TR	0.67	35.7	D	TR	0.93	58.8	E	T	0.69	35.7	D	
		-	-	-	-	-	-	-	-	R	0.13	23.3	C	
Overall Intersection		**-**	**1.05**	**69.4**	**E**	**-**	**1.10**	**96.2**	**F**	**-**	**1.10**	**95.3**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.97	62.1	E	T	0.97	62.1	E					-Unmitigatable impact.
		R	0.99	79.7	E	R	0.99	79.7	E					
Northern Boulevard (Rt 25A)	EB	T	1.08	70.7	E	T	1.23	135.3	F					
		R	1.20	132.4	F	R	1.20	132.4	F					
	WB	L	0.17	26.9	C	L	0.17	26.9	C					
		T	0.78	23.2	C	T	0.90	29.0	C					
Overall Intersection		**-**	**1.10**	**61.5**	**E**	**-**	**1.10**	**87.6**	**F**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.79	38.9	D	TR	0.79	38.9	D	TR	0.79	38.9	D	-Partially Mitigated.
	SB	TR	0.83	39.9	D	TR	0.83	40.0	D	TR	0.83	40.0	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.78	44.3	D	L	0.79	46.1	D	L	0.79	44.5	D	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.14	101.5	F	TR	1.29	167.3	F	TR	1.29	167.3	F	
	WB	L	0.86	50.4	D	L	0.86	39.9	D	L	0.86	39.9	D	
		TR	0.94	42.2	D	TR	1.10	86.6	F	TR	0.81	35.4	D	
Overall Intersection		**-**	**0.99**	**65.9**	**E**	**-**	**1.06**	**106.3**	**F**	**-**	**1.06**	**92.2**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.86	72.5	E	L	0.88	77.4	E	L	0.87	74.8	E	-Partially Mitigated.
		TR	0.50	35.4	D	TR	0.50	35.4	D	TR	0.49	34.4	C	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
	SB	LTR	1.13	100.8	F	LTR	1.19	128.1	F	LT	0.65	34.2	C	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.46	34.1	C	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.44	45.0	D	L	0.50	47.8	D	L	0.54	49.4	D	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		TR	1.02	50.0	D	TR	1.18	114.1	F	TR	1.15	103.0	F	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		-	-	-	-	-	-	-	-	-	-	-	-	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	WB	L	0.37	39.8	D	L	0.36	42.8	D	L	0.38	43.3	D	-Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to EB/WB
		TR	1.15	103.4	F	TR	1.34	189.1	F	T	1.13	93.0	F	phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB
		-	-	-	-	-	-	-	-	R	0.34	23.8	C	protected left-turn green time shifts from 12 s to 11 s; EB/WB green time shifts from 50 s to 51 s
Overall Intersection		**-**	**1.07**	**72.2**	**E**	**-**	**1.18**	**132.0**	**F**	**-**	**0.99**	**84.7**	**F**	LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.01	64.3	E	L	1.09	89.3	F	L	0.98	55.6	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.41	26.1	C	T	0.48	27.4	C	T	0.44	24.4	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.39	11.5	B	T	0.39	11.5	B	T	0.41	13.4	B	
		R	0.07	8.5	A	R	0.07	8.5	A	R	0.07	9.9		
Overall Intersection		**-**	**0.61**	**38.2**	**D**	**-**	**0.63**	**50.5**	**D**	**-**	**0.63**	**34.9**	**C**	

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	0.36	23.9	C	DefL	3.00+	961.3	F	L	1.35	213.3	F	-Partially mitigated.
		TR	0.27	21.2	C	TR	0.74	31.1	C	TR	0.85	42.9	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.28	21.7	C	LTR	0.86	45.8	D	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.76	60.2	E	LTR	3.00+	1000.0+	F	L	0.83	49.1	D	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.55	32.0	C	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	DefL	3.00+	1000.0+	F	DefL	1.41	254.1	F	and two 11-ft EB receiving lanes.
		LTR	0.45	42.8	D	TR	3.00+	1000.0+	F	TR	1.03	84.8	F	-Close the ramp from EB Northern Blvd ramp to 126th Street.
34th Avenue	WB	-	-	-	-	-	-	-	-	DefL	1.32	203.2	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		LTR	1.00	99.0	F	LTR	3.00+	1000.0+	F	TR	1.65	336.0	F	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	**-**	**0.62**	**44.1**	**D**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.59**	**146.7**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 46 s green time; NB/SB lead left-turn phase will have 15 s green time; NB/SB phase will have 44 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.13	113.2	F	LTR	1.19	138.5	F	LT	0.95	58.8	E	-Partially mitigated.
		-	-	-	-	-	-	-	-	R	0.40	38.6	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
	SB	LTR	1.20	138.5	F	LTR	1.22	147.9	F	LT	0.97	55.9	E	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.40	38.1	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
Roosevelt Avenue	EB	LTR	0.75	10.1	B	LTR	0.93	21.9	C	LTR	0.93	21.9	C	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	WB	LTR	0.84	18.3	B	LTR	1.10	68.9	E	LTR	1.10	68.9	E	
	Overall Intersection	**-**	**0.94**	**52.6**	**D**	**-**	**1.13**	**75.8**	**E**	**-**	**1.06**	**49.0**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	0.86	57.2	E	LTR	0.86	57.2	E					-Unmitigatable impact.
Roosevelt Avenue	EB	LTR	0.79	11.1	B	LTR	0.99	33.0	C					
	WB	LTR	1.25	133.7	F	LTR	1.51	251.7	F					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.14**	**78.3**	**E**	**-**	**1.33**	**144.1**	**F**					
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	0.99	64.9	E	LTR	1.09	96.1	F	LTR	0.72	39.5	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.09	91.4	F	LTR	1.27	167.8	F	LT	0.87	42.9	D	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.13	32.8	-	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	0.93	22.7	C	LTR	1.53	265.6	F	L	0.55	22.3	C	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.74	10.1	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.74	15.7	B	LTR	1.23	130.0	F	L	0.78	28.4	C	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.93	32.6	C	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.91	32.2	C	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**0.98**	**31.7**	**C**	**-**	**1.45**	**162.8**	**F**	**-**	**0.91**	**28.4**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s]. -Install "No Standing 4 PM - 7 PM Mon-Fri" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
126th Street at Roosevelt Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	0.76	54.6	D	-Partially mitigated.
		LTR	0.68	55.0	D	LTR	3.00+	1000.0+	F	TR	0.51	33.0	C	-Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes.
	SB	DefL	1.03	100.7	F	DefL	3.00+	1000.0+	F	L	2.29	633.1	F	
		TR	0.66	48.0	D	TR	3.00+	1000.0+	F	T	0.41	32.1	C	-Shift centerline of SB 126th Street approach 9 ft to the east.
		-	-	-	-	-	-	-	-	R	1.24	156.4	F	-Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft.
Roosevelt Avenue	EB	-	-	-	-	DefL	1.85	425.1	F	DefL	1.32	217.6	F	
		LTR	0.70	8.0	A	TR	0.71	8.5	A	TR	0.77	18.1	B	-Shift centerline of EB Roosevelt Avenue approach 1 ft to north.
	WB	LTR	0.60	12.7	B	LTR	1.11	81.6	F	LTR	1.37	202.8	F	-Shift centerline of WB Roosevelt Avenue approach 1 ft to south.
														-Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes.
	Overall Intersection	**-**	**0.79**	**27.1**	**C**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**2.15**	**181.8**	**F**	-Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes.
														-Modify signal phasing and timing plan: EB/WB will have 57 s green time; EB-lag/SB right phase will have 7 s green time; NB/SB phase will have 41 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.25	176.0	F	L	1.70	368.8	F	L	0.97	79.5	E	-Partially Mitigated
		TR	0.76	31.3	C	TR	0.76	31.3	C	TR	0.75	30.9	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	1.33	193.8	F	TR	1.53	284.5	F	T	1.11	103.6	F	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.48	37.2	D	L	0.53	38.4	D	L	0.55	38.8	D	
		TR	1.22	133.8	F	TR	1.61	307.1	F	TR	1.58	295.6	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.25	43.7	D	L	0.25	43.7	D	-	-	-	-	
		TR	0.45	35.9	D	TR	0.60	39.7	D	TR	0.58	44.7	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.33**	**119.6**	**F**	**-**	**1.71**	**207.8**	**F**	**-**	**1.34**	**116.3**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
														-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
														-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
														-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 24 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.61	33.3	C	LTR	0.61	33.3	C	LTR	0.65	36.9	D	-Modify Signal Timing: Shift 3 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 66 s; SB green time shifts from 47 s to 44 s].
Roosevelt Avenue	EB	DefL	1.10	97.0	F	DefL	1.18	126.9	F	DefL	1.10	95.5	F	
		TR	0.69	25.4	C	TR	0.89	36.6	D	TR	0.84	30.7	C	
	WB	LTR	0.61	20.9	C	LTR	0.72	23.2	C	LTR	0.69	20.7	C	
		-	-	-	-	-	-	-	-	-	-	-	-	
	Overall Intersection	**-**	**0.89**	**43.4**	**D**	**-**	**0.93**	**50.9**	**D**	**-**	**0.92**	**42.6**	**D**	

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.51	21.2	C	T	0.51	21.2	C	T	0.56	25.1	C	-Partially mitigated.
	SB	T	0.56	22.3	C	T	0.56	22.3	C	T	0.61	26.6	C	-Modify Signal Timing: Shift 5 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.48	43.1	D	L	0.63	61.8	E	L	0.49	41.1	D	green time shifts from 45 s to 50 s; NB/SB green time shifts from 65 s to 60 s].
		TR	0.90	61.9	E	TR	1.28	181.9	F	TR	1.14	122.1	F	
	WB	L	0.20	26.8	C	L	0.29	29.6	C	L	0.23	24.5	C	
		TR	1.02	73.9	E	TR	1.22	147.6	F	TR	1.09	90.1	F	
	Overall Intersection	**-**	**0.75**	**39.9**	**D**	**-**	**0.85**	**85.8**	**F**	**-**	**0.85**	**61.5**	**E**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.42	16.8	B	TR	0.42	16.8	B					-Unmitigatable impact.
	SB	LT	0.93	37.9	D	LT	0.93	37.9	D					
		R	2.61	765.5	F	R	2.61	765.5	F					
Roosevelt Avenue	EB	LTR	1.86	416.9	F	LTR	2.39	657.4	F					
	WB	LT	0.57	24.6	C	LT	0.72	30.2	C					
		R	1.17	155.3	F	R	1.17	155.3	F					
	Overall Intersection	**-**	**2.26**	**226.3**	**F**	**-**	**2.51**	**295.7**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.86	41.1	D	LTR	0.92	49.2	D	LT	0.86	42.1	D	-Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green
		-	-	-	-	-	-	-	-	R	0.07	19.4	B	time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s.
	SB	LTR	0.71	30.8	C	LTR	0.71	30.8	C	LTR	0.74	33.3	C	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
Roosevelt Avenue	EB	LTR	0.50	26.1	C	LTR	0.75	35.8	D	LTR	0.72	32.8	C	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.76	35.2	D	LTR	0.94	53.3	D	LTR	0.89	44.9	D	
	Overall Intersection	**-**	**0.81**	**34.0**	**C**	**-**	**0.93**	**42.4**	**D**	**-**	**0.87**	**38.0**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.78	40.5	D	L	0.80	42.4	D					-Mitigation not required.
		TR	0.59	22.6	C	TR	0.59	22.6	C					
	SB	L	0.85	52.7	D	L	0.85	52.7	D					
		TR	0.46	19.4	B	TR	0.46	19.4	B					
Kissena Boulevard	WB	T	0.67	35.8	D	T	0.67	35.8	D					
	Overall Intersection	**-**	**0.81**	**30.0**	**C**	**-**	**0.82**	**30.3**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.54	32.5	C	L	0.54	32.5	C	L	0.54	32.1	C	-Upgrade to computerized signal controller with the following timing plan: WB phase will have
		T	0.61	13.3	B	T	0.63	13.8	B	T	0.62	13.1	B	26 s green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s
	SB	TR	0.99	33.9	C	TR	1.06	55.2	E	T	0.96	28.5	C	all red time].
		-	-	-	-	-	-	-	-	R	0.07	7.6	A	-Install "No Standing 4 PM - 7 PM, Mon-Fri" regulations on the SB approach 75 feet from the
Sanford Avenue	WB	L	0.78	47.6	D	L	0.78	47.6	D	L	0.78	47.9	D	intersection to allow for a 10-ft daylighted right-turn lane.
		TR	0.37	26.9	C	TR	0.50	29.1	C	TR	0.50	29.2	C	
	Overall Intersection	**-**	**0.92**	**27.8**	**C**	**-**	**0.97**	**39.2**	**D**	**-**	**0.90**	**24.9**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.31	20.3	C	LTR	0.31	20.3	C					-Mitigation not required.
	SB	LTR	0.73	26.8	C	LTR	0.75	27.5	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.32	14.7	B	LTR	0.32	14.7	B					
	WB	LTR	0.68	22.4	C	LTR	0.74	24.5	C					
	Overall Intersection	**-**	**0.71**	**22.4**	**C**	**-**	**0.75**	**23.4**	**C**					

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.90	35.5	D	LTR	0.93	39.3	D	LT	0.79	27.6	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.15	15.2	B	-Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow
	SB	LTR	0.78	27.5	C	LTR	0.97	49.0	D	LT	0.82	30.9	C	for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket.
		-	-	-	-	-	-	-	-	R	0.22	16.1	B	-Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar
Sanford Avenue	EB	LTR	0.71	26.3	C	LTR	0.74	27.8	C	LTR	0.74	27.8	C	to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.79	30.0	C	LTR	0.87	35.8	D	LTR	0.87	35.8	D	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**0.85**	**30.0**	**C**	**-**	**0.92**	**38.6**	**D**	**-**	**0.84**	**29.4**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.50	25.3	C	T	0.54	25.9	C					-Mitigation not required.
		TR	0.93	47.3	D	TR	0.93	47.3	D					
	SB	L	0.49	34.9	C	L	0.49	35.0	C					
		T	0.44	10.9	B	T	0.46	11.1	B					
32nd Avenue	WB	LTR	0.90	45.6	D	LTR	0.90	45.6	D					
Overall Intersection		**-**	**1.16**	**29.4**	**C**	**-**	**1.16**	**29.3**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.56	13.6	B	TR	0.58	13.8	B	TR	0.61	16.1	B	-Modify Signal Timing: Shift 3 s of green time from NB/SB phase to WB phase [NB/SB green
	SB	LT	0.87	24.2	C	LT	0.90	27.4	C	LT	0.98	41.6	D	time shifts from 51 s to 48 s; WB green time shifts from 29 s to 32 s].
Northern Blvd Service Rd	WB	LR	0.74	34.7	C	LR	0.98	60.6	E	LR	0.88	42.3	D	
Overall Intersection		**-**	**0.82**	**21.1**	**C**	**-**	**0.93**	**28.4**	**C**	**-**	**0.94**	**31.0**	**C**	
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.51	37.3	D	-Unmitigatable impact.
		LTR	0.05	7.1	A	LTR	0.21	8.1	A	TR	0.44	33.8	C	-Install an actuated controller.
	SB	-	-	-	-	DefL	0.94	41.1	D	DefL	0.87	44.5	D	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		LTR	0.23	8.2	A	TR	0.71	15.6	B	TR	0.91	42.6	D	will have 25 s green time; WB lag phase will have 11 s green time; NB/SB phase will have 37 s
Stadium Road	EB	-	-	-	-	DefL	1.16	179.7	F	DefL	0.58	38.5	D	green time; SB lag phase will have 15 s green time [each phase will have 3 s amber and 2 s all re
		-	-	-	-	TR	0.46	30.0	C	TR	0.41	33.4	C	time].
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.30	26.4	C	LTR	2.00	487.5	F	LTR	1.52	279.6	F	
Overall Intersection		**-**	**0.25**	**14.8**	**B**	**-**	**1.27**	**231.2**	**F**	**-**	**1.45**	**145.5**	**F**	

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	16.7	C	L	-	1000.0+	F	L	0.73	41.9	D	-Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.8	A	R	-	9.1	A	R	0.08	1.9	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.11	39.7	D	
	WB	LT	-	7.8	A	LT	-	10.8	B	L	0.63	17.3	B	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.60	16.3	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.1**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.61**	**23.0**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.9	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.67	16.9	B	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	1000.0+	F	T	0.78	23.8	C	
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.9**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.72**	**19.5**	**B**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.06	24.7	C	-Install traffic signal with the following timing plan: EB will have 38 s green time; WB will have 23 s green time; NB/SB will have 44 s green time [each phase will have 3 s amber and 2 s all red time].
	SB	-	-	-	-	LT	-	7.8	A	L	0.37	30.3	C	
		-	-	-	-	-	-	-	-	TR	0.86	44.2	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	10.7	B	L	-	68.2	F	L	0.29	32.2	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	235.7	F	T	0.61	39.8	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.4	A	R	-	13.3	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.93	70.8	E	
		-	-	-	-	R	-	9.0	A	R	0.29	44.2	D	
Overall Intersection		**-**	**-**	**10.0**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.78**	**47.7**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.74	24.1	C	TR	0.74	24.1	C	-Unmitigatable impact.
	SB	-	-	-	-	DefL	0.80	41.9	D	DefL	0.65	26.2	C	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	T	0.88	23.4	C	T	0.85	20.5	C	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	12.1	B	L	0.14	39.6	D	L	0.14	39.6	D	
		-	-	-	-	R	0.77	49.6	D	R	0.77	49.6	D	
Overall Intersection		**-**	**-**	**11.2**	**B**	**-**	**1.21**	**27.7**	**C**	**-**	**1.18**	**25.5**	**C**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.66	21.6	C	TR	0.66	21.6	C	-Intersection meets NYCDOT Signal Warrant Criteria.
	SB	-	-	-	-	DefL	0.90	51.7	D	DefL	0.74	31.3	C	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
		LT	-	8.2	A	T	0.78	19.1	B	T	0.78	19.1	B	
37th Avenue	WB	LR	-	13.1	B	L	0.11	35.3	D	L	0.11	35.3	D	
		-	-	-	-	R	0.61	38.9	D	R	0.61	38.9	D	
Overall Intersection		**-**	**-**	**11.4**	**B**	**-**	**1.12**	**25.1**	**C**	**-**	**1.03**	**23.1**	**C**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	19.4	C	R	-	38.4	E	R	0.36	43.9	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.85	15.6	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		**-**	**-**	**19.4**	**C**	**-**	**-**	**38.4**	**E**	**-**	**0.74**	**16.6**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 22
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY NON-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	1.28	162.7	F					-Mitigation not required.
	SB	-	-	-	-	DefL	1.00	99.2	F					
		-	-	-	-	T	0.61	16.4	B					
New Willets Point Boulevard	WB	-	-	-	-	L	1.08	108.5	F					
		-	-	-	-	R	1.04	92.9	F					
	Overall Intersection	-	-	-	-	-	**1.53**	**108.9**	**F**					
Citi Field/Lot B at Roosevelt Avenue														
Citi Field/Lot B	SB	LR	-	-	-	LR	0.02	28.3	C					-Mitigation not required.
Roosevelt Avenue	EB	LT	-	-	-	LT	0.60	16.5	B					
	WB	TR	-	-	-	TR	0.82	22.9	C					
	Overall Intersection	-	-	-	-	-	**0.54**	**20.3**	**C**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 23
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.52	27.6	C	DefL	0.63	31.5	C					-Unmitigatable impact.
		T	0.21	21.1	C	T	0.21	21.1	C					
	SB	LTR	0.26	21.7	C	LTR	0.26	21.7	C					
Astoria Boulevard	EB	TR	0.95	34.5	C	TR	1.13	89.4	F					
		-	-	-	-	-	-	-	-					
	WB	L	0.57	24.3	C	L	0.57	26.0	C					
		TR	0.37	12.6	B	TR	0.44	13.5	B					
Overall Intersection		**-**	**0.75**	**26.1**	**C**	**-**	**0.88**	**55.1**	**E**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.13	112.4	F	LTR	1.55	294.2	F	L	0.68	46.2	D	-Partially mitigated.
		-	-	-	-	-	-	-	-	TR	0.85	49.1	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
	SB	LTR	0.94	70.3	E	LTR	0.97	77.5	E	L	0.50	48.5	D	from the intersection to allow for two moving lanes.
		-	-	-	-	-	-	-	-	TR	0.61	46.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
Northern Boulevard (Rt. 25A)	EB	L	0.18	40.1	D	L	0.18	45.4	D	L	0.17	41.4	D	from the intersection to allow for two moving lanes.
		TR	0.95	33.6	C	TR	1.20	119.4	F	T	1.02	46.7	D	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		-	-	-	-	-	-	-	-	R	0.16	12.6	B	and one 11-ft shared through-right lane for 175 ft.
	WB	L	0.72	43.4	D	L	0.77	50.6	D	L	0.73	47.6	D	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
		TR	1.20	118.1	F	TR	1.39	205.0	F	T	1.14	90.5	F	and one 12-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	R	0.28	13.5	B	-Modify signal timing: shift 1 s of green time from NB/SB phase to EB/WB left-turn phase and
Overall Intersection		**-**	**1.11**	**79.9**	**E**	**-**	**1.35**	**164.9**	**F**	**-**	**1.01**	**62.3**	**E**	shift 2 s green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 30 s to
														27 s; EB/WB left-turn green time shifts from 9 s to 10 s; EB/WB green time shifts from 66 s to
														-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for
														150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for
														100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.38	43.8	D	LTR	0.45	45.6	D	LTR	0.55	38.2	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.72	23.9	C	T	0.95	38.1	D	T	0.80	19.7	B	exclusive through lanes.
		R	0.60	22.7	C	R	0.63	23.7	C	R	0.53	14.5	B	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.73	22.1	C	DefL	1.13	116.6	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	1.00	30.1	C	T	1.15	86.0	F	T	1.03	41.3	D	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.33**	**27.5**	**C**	**-**	**1.93**	**66.3**	**E**	**-**	**0.87**	**32.5**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to
														SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to
														EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.45	43.6	D	L	1.38	229.1	F	L	1.38	229.1	F	-Partially mitigated.
		R	0.35	42.4	D	R	3.00+	1000.0+	F	R	0.83	58.7	E	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	0.74	43.7	D	T	0.82	47.6	D	T	0.89	47.9	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.31	6.9	A	T	0.39	7.6	A	T	0.39	7.6	A	through the intersection.
Grand Central Parkway Ramp	EB	T	0.85	42.3	D	T	1.01	65.9	E	T	1.08	90.7	F	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.75	15.6	B	T	1.30	159.2	F	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.68**	**29.9**	**C**	**-**	**2.89**	**366.6**	**F**	**-**	**1.08**	**88.3**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at
														126th Place at Northern Boulevard.
														-Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd Ramp phase to EB
														Northern Blvd phase [EB GCP/Astoria Blvd Ramp green time shifts from 45 s to 42 s; EB
														Northern Blvd green time shifts from 35 s to 38 s].

TABLE 23
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.14	108.9	F	LTR	1.14	108.9	F	LTR	1.14	108.9	F	-Partially Mitigated.
	SB	LTR	0.47	36.9	D	LTR	0.47	36.9	D	LTR	0.47	36.9	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.67	49.9	D	L	0.67	49.9	D	L	0.67	49.9	D	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	1.07	67.0	E	T	1.21	128.1	F	T	1.21	128.1	F	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.83	66.0	E	L	0.83	66.0	E	L	0.83	66.0	E	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.17	116.5	F	T	1.26	154.3	F	T	1.26	154.3	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.63	26.0	C	TR	0.63	26.0	C	TR	0.63	26.0	C	
	WB	TR	0.76	35.4	D	TR	1.09	91.9	F	T	0.84	38.9	D	
		-	-	-	-	-	-	-	-	R	0.13	21.3	C	
Overall Intersection		-	**1.05**	**79.2**	**E**	-	**1.13**	**118.3**	**F**	-	**1.13**	**114.9**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.94	56.9	E	T	0.94	56.9	E					-Unmitigatable impact.
		R	0.90	63.9	E	R	0.90	63.9	E					
Northern Boulevard (Rt 25A)	EB	T	0.96	40.9	D	T	1.11	87.7	F					
		R	1.40	216.1	F	R	1.40	216.1	F					
	WB	L	0.08	25.2	C	L	0.08	25.2	C					
		T	0.95	30.6	C	T	1.11	79.1	E					
Overall Intersection		-	**1.17**	**62.1**	**E**	-	**1.17**	**93.2**	**F**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.77	38.2	D	TR	0.77	38.2	D	TR	0.77	38.2	D	-Partially Mitigated.
	SB	TR	0.66	34.6	C	TR	0.66	34.7	C	TR	0.66	34.7	C	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.74	33.5	C	L	0.74	25.7	C	L	0.74	32.9	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.47	247.2	F	TR	1.66	336.0	F	TR	1.66	336.0	F	
	WB	L	0.87	47.0	D	L	0.87	47.0	D	L	0.87	47.0	D	
		TR	1.04	59.6	E	TR	1.25	149.3	F	TR	0.92	38.3	D	
Overall Intersection		-	**1.10**	**123.8**	**F**	-	**1.19**	**190.0**	**F**	-	**1.19**	**154.2**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.86	70.4	E	L	0.90	77.8	E	L	0.84	66.6	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.61	41.1	D	TR	0.61	41.1	D	TR	0.61	41.1	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.14	108.0	F	LTR	1.22	140.7	F	LT	0.70	35.7	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.41	33.9	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.51	47.6	D	L	0.58	49.2	D	L	0.62	50.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.09	79.2	E	TR	1.30	172.1	F	T	1.02	51.8	D	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.58	27.4	C	-Modify Signal Timing: Shift 1 s green time from EB/WB protected left-turn phase to EB/WB
	WB	L	0.50	44.2	D	L	0.49	43.9	D	L	0.52	46.2	D	phase [EB/WB protected left-turn green time shifts from 10 s to 9 s; EB/WB green time shifts
		TR	1.18	113.1	F	TR	1.40	215.1	F	T	1.18	115.2	F	from 52 s to 53 s].
		-	-	-	-	-	-	-	-	R	0.30	21.8	C	
Overall Intersection		-	**1.10**	**90.3**	**F**	-	**1.26**	**168.2**	**F**	-	**1.04**	**72.7**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	0.99	63.9	E	L	1.11	100.9	F	L	1.00	64.2	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.35	25.4	C	T	0.43	26.8	C	T	0.39	23.9	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.57	14.2	B	T	0.57	14.2	B	T	0.61	16.6	B	
		R	0.11	8.8	A	R	0.11	8.8	A	R	0.12	10.2	B	
Overall Intersection		-	**0.72**	**34.0**	**C**	-	**0.76**	**49.7**	**D**	-	**0.76**	**35.9**	**D**	

TABLE 23
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	DefL	1.59	317.1	F	L	0.91	52.2	D	-Partially mitigated.
		LTR	0.26	20.9	C	TR	0.72	30.5	C	TR	0.84	44.1	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.37	23.3	C	LTR	1.72	365.2	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.82	65.2	E	LTR	3.00+	1000.0+	F	L	1.30	187.3	F	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.66	36.2	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	DefL	3.00+	1000.0+	F	DefL	1.36	223.0	F	and two 11-ft EB receiving lanes.
		LTR	0.64	46.9	D	TR	3.00+	1000.0+	F	TR	1.29	176.4	F	-Close the ramp from EB Northern Blvd ramp to 126th Street.
34th Avenue	WB	-	-	-	-	-	-	-	-	DefL	1.65	346.2	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		LTR	0.82	68.5	E	LTR	3.00+	1000.0+	F	TR	1.43	240.1	F	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	**-**	**0.59**	**40.8**	**D**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.67**	**142.1**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 49 s green time; NB/SB lead left-turn phase will have 14 s green time; NB/SB phase will have 42 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.22	145.5	F	LTR	1.30	183.3	F	LT	1.12	104.3	F	-Partially mitigated.
		-	-	-	-	-	-	-	-	R	0.43	38.5	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
	SB	LTR	1.17	125.0	F	LTR	1.19	135.8	F	LT	1.06	78.9	E	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.29	36.8	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
Roosevelt Avenue	EB	LTR	0.71	16.8	B	LTR	0.92	30.7	C	LTR	0.92	30.7	C	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	WB	LTR	0.79	15.1	B	LTR	1.05	48.9	D	LTR	1.05	48.9	D	
	Overall Intersection	**-**	**0.90**	**57.5**	**E**	**-**	**1.12**	**75.6**	**E**	**-**	**1.07**	**51.7**	**D**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.06	81.0	F	LTR	1.06	81.0	F					-Unmitigatable impact.
Roosevelt Avenue	EB	LTR	0.86	23.7	C	LTR	1.13	89.1	F					
	WB	LTR	1.23	124.6	F	LTR	1.57	277.3	F					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.18**	**78.6**	**E**	**-**	**1.43**	**172.2**	**F**					
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.03	74.0	E	LTR	1.14	116.1	F	LTR	0.85	46.7	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.11	96.6	F	LTR	1.32	191.9	F	LT	1.09	88.3	F	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.07	34.4	C	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	1.22	124.1	F	LTR	2.15	537.9	F	L	0.54	13.2	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.76	15.0	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.69	14.4	B	LTR	1.21	118.9	F	L	0.86	40.1	D	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.79	19.0	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.95	39.0	D	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**1.19**	**63.6**	**E**	**-**	**1.90**	**241.4**	**F**	**-**	**0.99**	**32.3**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Install "No Standing 1 PM - 9 PM Saturday" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 23
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
126th Street at Roosevelt Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	0.64	59.9	E	-Partially mitigated.
		LTR	0.37	40.7	D	LTR	3.00+	1000.0+	F	TR	0.33	35.2	D	-Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes.
	SB	DefL	1.11	127.6	F	DefL	3.00+	1000.0+	F	L	2.14	570.7	F	-Shift centerline of SB 126th Street approach 9 ft to the east.
		TR	0.53	44.0	D	TR	3.00+	1000.0+	F	T	0.66	45.1	D	-Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft.
		-	-	-	-	-	-	-	-	R	1.33	203.0	F	-Shift centerline of EB Roosevelt Avenue approach 1 ft to north.
Roosevelt Avenue	EB	-	-	-	-	DefL	2.02	497.5	F	DefL	1.22	168.3	F	-Shift centerline of WB Roosevelt Avenue approach 1 ft to south.
		LTR	0.68	15.0	B	TR	0.75	17.9	B	TR	0.69	17.7	B	-Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes.
	WB	LTR	0.49	10.8	B	LTR	1.05	58.8	E	LTR	1.18	120.3	F	-Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes.
	Overall Intersection	**-**	**0.80**	**32.6**	**C**	**-**	**3.00+**	**853.2**	**F**	**-**	**1.92**	**157.9**	**F**	-Modify signal phasing and timing plan: EB/WB will have 64 s green time; EB-lag/SB right phase will have 7 s green time; NB/SB phase will have 34 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.30	185.0	F	L	1.93	464.3	F	L	1.15	131.0	F	-Partially Mitigated
		TR	0.94	35.6	D	TR	0.94	35.6	D	TR	0.91	39.4	D	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
	SB	TR	1.02	57.0	E	TR	1.35	194.4	F	T	0.93	53.8	D	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
Roosevelt Avenue	EB	L	0.57	20.9	C	L	0.63	21.6	C	L	0.60	26.0	-	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
		TR	1.25	138.1	F	TR	1.69	335.2	F	TR	1.57	288.3	F	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes.
	WB	L	0.34	34.4	C	L	0.34	34.4	C	-	-	-	-	-Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes.
		TR	0.49	27.1	C	TR	0.67	31.4	C	TR	0.65	44.3	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft.
	Overall Intersection	**-**	**1.26**	**71.0**	**E**	**-**	**1.78**	**185.7**	**F**	**-**	**1.31**	**105.4**	**F**	-Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
														-Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place.
														-Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue.
														-Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 29 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.97	60.6	E	LTR	0.97	60.6	E					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.80	20.3	C	DefL	0.87	25.2	C					
		TR	0.75	15.9	B	TR	0.91	23.9	C					
	WB	LTR	0.58	12.8	B	LTR	0.70	15.4	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.86**	**26.1**	**C**	**-**	**0.93**	**28.8**	**C**					

TABLE 23
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

			No Action			With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.77	26.7	C	T	0.77	26.7	C	T	0.86	34.0	C	-Partially mitigated.
	SB	T	0.67	24.5	C	T	0.67	24.5	C	T	0.75	29.8	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.22	19.7	B	L	0.29	23.5	C	L	0.24	18.0	B	green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
		TR	0.94	52.8	D	TR	1.25	153.9	F	TR	1.12	99.1	F	
	WB	L	0.03	14.8	B	L	0.05	15.2	B	L	0.04	12.8	B	
		TR	0.86	32.6	C	TR	1.07	73.3	E	TR	0.96	40.1	D	
	Overall Intersection	**-**	**0.85**	**32.1**	**C**	**-**	**1.00**	**65.0**	**E**	**-**	**1.00**	**48.9**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.57	19.2	B	TR	0.57	19.2	B					-Unmitigatable impact.
	SB	LT	1.08	75.2	E	LT	1.08	75.2	E					
		R	2.83	856.2	F	R	2.83	856.2	F					
Roosevelt Avenue	EB	LTR	2.35	641.1	F	LTR	3.00+	941.2	F					
	WB	LT	0.55	23.9	C	LT	0.74	30.1	C					
		R	1.40	254.6	F	R	1.40	254.6	F					
	Overall Intersection	**-**	**2.61**	**319.9**	**F**	**-**	**2.92**	**414.5**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.88	36.2	D	LTR	0.93	44.3	D	LT	0.91	41.8	D	-Unmitigatable impact.
		-	-	-	-	-	-	-	-	R	0.05	15.4	B	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	LTR	0.79	27.6	C	LTR	0.79	27.6	C	LTR	0.84	31.4	C	green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s].
Roosevelt Avenue	EB	LTR	0.76	28.8	C	LTR	1.05	73.6	E	LTR	0.99	55.9	E	-Install "No Standing 10AM - 9PM, Saturday" regulations on the NB approach 75 feet from the
	WB	LTR	0.88	37.9	D	LTR	1.12	99.2	F	LTR	1.05	71.7	E	intersection to allow for a 10-ft daylighted right-turn lane.
														[Measures reflect improvements needed for the Saturday post-game peak period.]
	Overall Intersection	**-**	**0.88**	**32.4**	**C**	**-**	**1.03**	**61.3**	**E**	**-**	**0.98**	**49.9**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	1.21	147.6	F	L	1.25	163.4	F	L	1.20	143.0	F	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.70	23.6	C	TR	0.70	23.6	C	TR	0.68	22.5	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.55	22.1	C	L	0.55	22.1	C	L	0.57	23.1	C	
		TR	0.58	20.3	C	TR	0.58	20.3	C	TR	0.56	19.4	B	
Kissena Boulevard	WB	T	0.76	27.4	C	T	0.76	27.4	C	T	0.78	29.1	C	
	Overall Intersection	**-**	**0.98**	**36.3**	**D**	**-**	**1.00**	**38.5**	**D**	**-**	**0.99**	**36.1**	**D**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.64	32.2	C	L	0.78	54.4	D	L	0.71	41.2	D	-Upgrade to computerized signal controller with the following timing plan: WB phase will have
		T	0.74	15.9	B	T	0.78	17.0	B	T	0.75	15.1	B	25 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s
	SB	TR	0.86	19.5	B	TR	0.92	23.6	C	TR	0.89	19.9	B	all red time].
		-	-	-	-	-	-	-	-	-	-	-	-	
Sanford Avenue	WB	L	0.71	39.9	D	L	0.71	39.9	D	L	0.74	43.2	D	
		TR	0.52	29.5	C	TR	0.70	34.0	C	TR	0.73	36.2	D	
	Overall Intersection	**-**	**0.81**	**20.8**	**C**	**-**	**0.85**	**24.1**	**C**	**-**	**0.84**	**22.1**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.40	21.8	C	LTR	0.40	21.8	C					-Mitigation not required.
	SB	LTR	0.75	27.7	C	LTR	0.77	28.6	C					
Sanford Avenue	EB	DefL	0.49	21.6	C	DefL	0.52	23.2	C					
		TR	0.36	15.6	B	TR	0.36	15.6	B					
	WB	LTR	0.89	29.9	C	LTR	0.96	38.9	D					
	Overall Intersection	**-**	**0.83**	**25.7**	**C**	**-**	**0.88**	**29.4**	**C**					

TABLE 23
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.94	40.0	D	LTR	0.98	47.7	D	LT	0.87	32.6	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.13	15.0	B	-Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow
	SB	LTR	0.85	30.1	C	LTR	1.07	74.6	E	LT	0.81	28.6	C	for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket.
		-	-	-	-	-	-	-	-	R	0.32	17.1	B	-Install "No Standing 10 AM - 4 PM" regulations on the WB approach 100 feet from the stop bar
Sanford Avenue	EB	LTR	0.74	26.9	C	LTR	0.76	28.1	C	LTR	0.77	28.6	C	to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.91	39.1	D	LTR	1.01	57.2	E	LT	0.77	27.1	C	-Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar
		-	-	-	-	-	-	-	-	R	0.20	15.9	B	to allow for a 10-ft daylighted right-turn lane.
Overall Intersection		**-**	**0.93**	**34.0**	**C**	**-**	**1.04**	**54.0**	**D**	**-**	**0.82**	**27.2**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.36	23.3	C	T	0.39	23.6	C					-Mitigation not required.
		TR	0.79	34.6	C	TR	0.79	34.6	C					
	SB	L	0.53	36.4	D	L	0.53	36.4	D					
		T	0.42	10.7	B	T	0.44	10.9	B					
32nd Avenue	WB	LTR	0.54	32.0	C	LTR	0.54	32.0	C					
Overall Intersection		**-**	**1.05**	**23.4**	**C**	**-**	**1.05**	**23.3**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.55	13.3	B	TR	0.56	13.6	B					-Unmitigatable impact.
	SB	LT	0.80	20.8	C	LT	0.84	22.9	C					
Northern Blvd Service Rd	WB	LR	0.69	32.7	C	LR	1.04	75.5	E					
Overall Intersection		**-**	**0.76**	**19.5**	**B**	**-**	**0.91**	**31.4**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.56	42.9	D	-Unmitigatable impact.
		LTR	0.08	7.2	A	LTR	0.21	8.1	A	TR	0.52	38.5	D	-Install an actuated controller.
	SB	DefL	0.20	8.4	A	DefL	1.07	73.7	E	DefL	0.99	69.1	E	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		TR	0.16	7.9	A	TR	0.63	13.8	B	TR	0.85	36.6	D	will have 30 s green time; WB lag phase will have 8 s green time; NB/SB phase will have 32 s
Stadium Road	EB	-	-	-	-	DefL	1.83	449.5	F	DefL	0.92	77.1	E	green time; SB lag phase will have 18 s green time [each phase will have 3 s amber and 2 s all re
		-	-	-	-	TR	0.63	34.4	C	TR	0.50	31.3	C	time].
	WB	-	-	-	-	DefL	2.72	817.4	F	DefL	1.68	357.6	F	
		LTR	0.28	26.2	C	TR	2.26	607.5	F	TR	1.73	371.8	F	
Overall Intersection		**-**	**0.23**	**14.4**	**B**	**-**	**1.59**	**356.2**	**F**	**-**	**1.82**	**195.6**	**F**	

TABLE 23
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	17.4	C	L	-	1000.0+	F	L	0.62	37.8	D	-Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.6	A	R	-	8.9	A	R	0.10	1.9	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.23	41.4	D	
	WB	LT	-	8.0	A	LT	-	13.9	B	L	0.77	22.3	C	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.66	17.9	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		-	-	**10.0**	**A**	-	-	**1000.0+**	**F**	-	**0.69**	**23.3**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.2	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.86	23.5	C	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	713.5	F	T	0.46	14.9	B	
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		-	-	**9.2**	**A**	-	-	**713.5**	**F**	-	**0.66**	**21.6**	**C**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.11	27.9	C	-Install traffic signal with the following timing plan: EB will have 40 s green time; WB will have 25 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time].
	SB	-	-	-	-	LT	-	8.2	A	L	0.59	39.9	D	
		-	-	-	-	-	-	-	-	TR	0.80	43.4	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	11.2	B	L	-	407.6	F	L	0.43	33.6	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	620.9	F	T	0.76	44.8	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.3	A	R	-	12.4	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.96	73.8	E	
		-	-	-	-	R	-	9.2	A	R	0.33	43.4	D	
Overall Intersection		-	-	**10.7**	**B**	-	-	**1000.0+**	**F**	-	**0.82**	**49.2**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.60	20.4	C	TR	0.60	20.4	C	-Intersection meets NYCDOT Signal Warrant Criteria.
	SB	-	-	-	-	DefL	0.95	56.2	E	-	-	-	-	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
		LT	-	8.4	A	T	0.97	35.7	D	LT	0.99	40.5	D	
36th Avenue	WB	LR	-	13.5	B	L	0.14	39.6	D	L	0.14	39.6	D	
		-	-	-	-	R	0.65	40.9	D	R	0.65	40.9	D	
Overall Intersection		-	-	**11.1**	**B**	-	**1.34**	**32.8**	**C**	-	**0.86**	**32.8**	**C**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.50	18.4	B	TR	0.50	18.4	B	-Mitigation not required.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.2	A	LT	0.94	32.6	C	LT	0.88	24.5	C	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	12.0	B	L	0.11	35.3	D	L	0.11	35.3	D	
		-	-	-	-	R	0.69	43.6	D	R	0.69	43.6	D	
Overall Intersection		-	-	**11.0**	**B**	-	**0.84**	**28.6**	**C**	-	**0.79**	**24.4**	**C**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	16.6	C	R	-	29.3	D	R	0.34	43.5	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.88	17.4	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		-	-	**16.6**	**C**	-	-	**29.3**	**D**	-	**0.76**	**18.4**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 23

CITIFIELD - WILLETS POINT DEVELOPMENT STUDY

2032 PHASE 2 SATURDAY NON-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	1.22	138.5	F					-Mitigation not required.
	SB	-	-	-	-	DefL	1.03	103.7	F					
		-	-	-	-	T	0.64	17.0	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.96	73.8	E					
		-	-	-	-	R	0.61	34.4	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**1.47**	**85.5**	**F**					
Citi Field/Lot B at Roosevelt Avenue														
Citi Field/Lot B	SB	LR	-	-	-	LR	0.04	34.3	C					-Mitigation not required.
Roosevelt Avenue	EB	LT	-	-	-	LT	0.60	13.0	B					
	WB	TR	-	-	-	TR	0.63	12.5	B					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.47**	**12.9**	**B**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 24
2032 (PHASE 2) GAMEDAY MITIGATION MEASURES

INTERSECTION	WEEKDAY PRE-GAME PEAK HOUR	SATURDAY PRE-GAME PEAK HOUR	SATURDAY POST-GAME PEAK HOUR
SIGNALIZED INTERSECTIONS			
108th Street at Astoria Boulevard	**Unmitigatable impact.**	Install "No Standing 3 PM - 10 PM Saturday" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane. Modify signal timing: shift 1 s of green time from EB/WB phase to WB lead phase [EB/WB green time shifts from 34 s to 33 s; WB lead green time shifts from from 9 s to 10 s].	Install "No Standing 3 PM - 10 PM Saturday" regulations along the south curb of the EB approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane. Modify signal timing: shift 1 s of green time from EB/WB phase to WB lead phase [EB/WB green time shifts from 34 s to 33 s; WB lead green time shifts from from 9 s to 10 s].
108th Street at Northern Boulevard (RT. 25A)	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 1 s of green time from NB/SB phase to EB/WB left-turn phase and shift 2 s green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 30 s to 27 s; EB/WB left-turn green time shifts from 9 s to 10 s; EB/WB green time shifts from 66 s to 68 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.	Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft from the intersection to allow for two moving lanes. Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft from the intersection to allow for two moving lanes. Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane and one 11-ft shared through-right lane for 175 ft. Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane and one 12-ft shared through-right lane for 175 ft. Modify signal timing: shift 1 s of green time from NB/SB phase to EB/WB left-turn phase and shift 2 s green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 30 s to 27 s; EB/WB left-turn green time shifts from 9 s to 10 s; EB/WB green time shifts from 66 s to 68 s]. Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for 150-ft from the intersection to allow for a 10-ft daylighted right-turn lane. Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].	Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].	**Partially mitigated.** Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three exclusive through lanes. Divert left-turning turning to NB 112th Place and then to SB 114th Street. Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft moving lanes. Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides. Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)	**Unmitigated Impact** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 4 s of green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 29 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 51 s].	**Unmitigated Impact** Install quick-curb on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase [EB GCP/Astoria Blvd Ramp green time shifts from 45 s to 42 s; EB Northern Blvd green time shifts from 35 s to 38 s].	**Partially mitigated.** Install Jersey barriers on WB approach between the right-most lane and center lane to allow the Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow through the intersection. Close the ramp from EB Northern Blvd ramp to 126th Street. Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave. Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes. Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard. Modify signal timing: shift 1 s of green time from EB Northern Blvd phase to NB 126th St phase [EB Northern Blvd green time shifts from 35 s to 34 s; NB 126th St green time shifts from 25 s to 26 s].
Prince Street at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.	**Partially Mitigated.** Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through lane and one 10-ft daylighted right-turn pocket. Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-ft.	**Unmitigatable Impact.**
Main Street at Northern Boulevard (RT. 25A)	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Union Street at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.	**Partially Mitigated.** Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane. Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB left-turn phase [NB/SB green time shifts from 44 s to 43 s; EB/WB left-turn green time shifts from 15 s to 16 s].
Parsons Boulevard at Northern Boulevard (RT. 25A)	**Partially Mitigated.** Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150 ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to EB/WB phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB protected left-turn green time shifts from 12 s to 11 s; EB/WB green time shifts from 50 s to 51 s; LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150 ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s green time from EB/WB protected left-turn phase to EB/WB phase [EB/WB protected left-turn green time shifts from 10 s to 9 s; EB/WB green time shifts from 52 s to 53 s].	Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach 150 ft from the intersection to allow for one 10-ft daylighted right-turn lane. Modify Signal Timing: Shift 1 s green time from EB/WB protected left-turn phase to EB/WB phase [EB/WB protected left-turn green time shifts from 10 s to 9 s; EB/WB green time shifts from 52 s to 53 s].
114th Street at 34th Avenue	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].	Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
126th Street/GCP Ramp at 34th Avenue	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB lead left-turn phase will have 12 s green time; NB/SB phase will have 38 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 53 s green time; NB/SB lead left-turn phase will have 11 s green time; NB/SB phase will have 41 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one 7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class II bicycle lane. Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes and two 11-ft EB receiving lanes. Close the ramp from EB Northern Blvd ramp to 126th Street. Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road. Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB phase will have 48 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 50 s green time [each phase will have 3 s amber and 2 s all red time].

TABLE 24
2032 (PHASE 2) GAMEDAY MITIGATION MEASURES

108th Street at Roosevelt Avenue	Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	**Partially mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.	**Partially mitigated.** Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane. Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach 150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
111th Street at Roosevelt Avenue	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
114th Street at Roosevelt Avenue	**Partially mitigated.** Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s]. Install "No Standing 4 PM - 7 PM Monday-Friday" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.	Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s]. Install "No Standing 3 PM - 7 PM" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.	**Partially mitigated.** Shift center line of WB Roosevelt Avenue approach 11 ft to the south. Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane. Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive left-turn lane and one 11-ft travel lane. Shift centerline of NB 114th Street approach 3 ft to the east. Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane Shift center line of SB 114th Street approach 2 ft to the east. Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s]. Install "No Standing 1 PM - 9 PM Saturday" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.
126th Street at Roosevelt Avenue	**Partially mitigated.** Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes. Shift centerline of SB 126th Street approach 9 ft to the east. Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft. Shift centerline of EB Roosevelt Avenue approach 1 ft to north. Shift centerline of WB Roosevelt Avenue approach 1 ft to south. Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB will have 68 s green time; EB-lag/SB right phase will have 8 s green time; NB/SB phase will have 29 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes. Shift centerline of SB 126th Street approach 9 ft to the east. Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft. Shift centerline of EB Roosevelt Avenue approach 1 ft to north. Shift centerline of WB Roosevelt Avenue approach 1 ft to south. Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB will have 61 s green time; EB-lag/SB right phase will have 14 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially mitigated.** Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes. Shift centerline of SB 126th Street approach 9 ft to the east. Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft. Shift centerline of EB Roosevelt Avenue approach 1 ft to north. Shift centerline of WB Roosevelt Avenue approach 1 ft to south. Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. Modify signal phasing and timing plan: EB/WB will have 59 s green time; EB-lag/SB right phase will have 16 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue	**Partially Mitigatable.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.	**Partially Mitigatable.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.	**Partially Mitigated.** Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes. Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes. Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft. Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft. Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft.
Prince Street at Roosevelt Avenue	Modify Signal Timing: Shift 3 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 66 s; SB green time shifts from 47 s to 44 s].	Mitigation not required.	Mitigation not required.
Main Street at Roosevelt Avenue	**Partially Mitigated.** Modify Signal Timing: Shift 5 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 45 s to 50 s; NB/SB green time shifts from 65 s to 60 s].	Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].	**Partially Mitigated.** Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Union Street at Roosevelt Avenue	**Unmitigatable impact.**	**Unmitigatable impact.**	**Unmitigatable impact.**
Parsons Boulevard at Roosevelt Avenue	**Unmitigatable impact.** Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s. Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Weekday Non-game AM and Weekday Pre-game PM peak periods.]**	Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s]. Install "No Standing 10AM - 9PM, Saturday" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane. **[Measures reflect improvements needed for the Saturday post-game peak period.]**	Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s]. Install "No Standing 10AM - 9PM, Saturday" regulations on the NB approach 75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
Main Street at Kissena Boulevard	Mitigation not required.	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].	Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase [WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s]. **[Measures reflect improvements needed for the Saturday Non-game and Saturday Pre-game peak periods.]**
College Point Boulevard at Sanford Avenue	Mitigation not required. Upgrade to computerized signal controller with the following timing plan: WB phase will have 26 s green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s all red time]. **[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game peak periods.]**	Mitigation not required. Upgrade to computerized signal controller with the following timing plan: WB phase will have 26 s green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s all red time]. **[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game peak periods.]**	Mitigation not required. Upgrade to computerized signal controller with the following timing plan: WB phase will have 25 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s all red time]. **[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game peak periods.]**
Union Street at Sanford Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.

TABLE 24
2032 (PHASE 2) GAMEDAY MITIGATION MEASURES

Parsons Boulevard at Sanford Avenue	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket. Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar to allow for a 10-ft daylighted right-turn lane.	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket. Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar to allow for a 10-ft daylighted right-turn lane.	Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach. Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket. Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar to allow for a 10-ft daylighted right-turn lane.
College Point Boulevard at 32nd Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.
College Point Boulevard at Northern Boulevard Service Road	Modify Signal Timing: Shift 3 s of green time from NB/SB phase to WB phase [NB/SB green time shifts from 51 s to 48 s; WB green time shifts from 29 s to 32 s].	**Unmitigatable impact.**	Mitigation not required.
Boat Basin Road at Stadium Road	**Partially Mitigated.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 24 s green time; WB lag phase will have 9 s green time; NB/SB phase will have 45 s green time; SB lag phase will have 10 s green time [each phase will have 3 s amber and 2 s all red time].	**Partially Mitigated.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase will have 34 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s green time; SB lag phase will have 16 s green time [each phase will have 3 s amber and 2 s all red time].	**Unmitigatable impact.** Install an actuated controller. Modify signal phasing and timing plan: EB lead phase will have 14 s green time; EB/WB phase will have 37 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 29 s green time; SB lag phase will have 8 s green time [each phase will have 3 s amber and 2 s all red time].
UNSIGNALIZED INTERSECTIONS			
Boat Basin Road at Worlds Fair Marina	Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time]. Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane. Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane. Intersection meets NYCDOT Signal Warrant Criteria.
Willets Point Boulevard at Northern Boulevard	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB/NB right-turn will have 25 s green time; NB/SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB/NB right-turn will have 25 s green time; NB/SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.	Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow. Install traffic signal with the following timing plan: EB/NB right-turn will have 30 s green time; NB/SB will have 20 s green time [each phase will have 3 s amber and 2 s all red time]. Intersection meets NYCDOT Signal Warrant Criteria.
Grand Central Parkway Ramp at West Park Loop/Stadium Road	Install traffic signal with the following timing plan: EB will have 35 s green time; WB will have 20 s green time; NB/SB will have 50 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 20 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.	Install traffic signal with the following timing plan: EB will have 35 s green time; WB will have 20 s green time; NB/SB will have 50 s green time [each phase will have 3 s amber and 2 s all red time]. Add a right turn lane and channelized right-turn to the GCP off ramp. Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane. Add a 12-ft SB left-turn lane in the median of Stadium Road. Intersection meets NYCDOT Signal Warrant Criteria.
126th Street at 36th Avenue	Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
126th Street at 37th Avenue	Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.	**Unmitigatable impact.** Intersection meets NYCDOT Signal Warrant Criteria. Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
Northern Boulevard at 126th Place	Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.	Mitigation not required. Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes. Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time]. Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median. Intersection meets NYCDOT Signal Warrant Criteria.
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS			
126th Street at New Willets Point Boulevard	Mitigation not required.	Mitigation not required.	Mitigation not required.
Citi Field/Lot B at Roosevelt Avenue	Mitigation not required.	Mitigation not required.	Mitigation not required.

NOTE: This table has been revised for the Final SEIS.

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.67	51.9	D	DefL	0.79	61.7	E					-Unmitigatable impact.
		T	0.28	36.8	D	T	0.28	36.8	D					
	SB	LTR	0.35	38.1	D	LTR	0.35	38.1	D					
Astoria Boulevard	EB	TR	1.08	62.7	E	TR	1.13	87.2	F					
		-	-	-	-	-	-	-	-					
	WB	L	0.75	49.2	D	L	0.75	51.5	D					
		TR	0.29	9.3	A	TR	0.33	9.7	A					
	Overall Intersection	**-**	**0.93**	**51.1**	**D**	**-**	**1.00**	**67.5**	**E**					
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.18	128.9	F	LTR	1.45	250.0	F	L	0.87	54.7	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.66	41.9	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.14	115.9	F	LTR	1.16	126.3	F	L	0.54	44.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.67	43.7	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.19	32.9	C	L	0.19	40.4	D	L	0.19	33.4	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.87	14.7	B	TR	0.97	22.3	C	TR	0.97	22.3	C	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	-	-	-	-	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.74	46.8	D	L	0.74	48.5	D	L	0.74	48.5	D	and one 12-ft shared through-right lane for 175 ft.
		TR	1.08	62.9	E	TR	1.21	119.6	F	T	0.99	33.7	C	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for
		-	-	-	-	-	-	-	-	R	0.31	12.5	B	150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
	Overall Intersection	**-**	**1.07**	**47.8**	**D**	**-**	**1.20**	**80.5**	**F**	**-**	**1.02**	**29.6**	**C**	-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for 100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.78	57.6	E	LTR	0.92	72.3	E	LTR	0.59	38.2	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	1.01	35.8	D	T	1.16	94.0	F	T	1.01	25.3	C	exclusive through lanes.
		R	0.64	14.9	B	R	0.75	17.4	B	R	0.65	8.7	A	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.84	51.2	D	DefL	0.97	74.3	E	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.87	15.5	B	T	0.97	24.2	C	T	0.89	21.8	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
	Overall Intersection	**-**	**1.52**	**26.9**	**C**	**-**	**1.72**	**54.2**	**D**	**-**	**0.87**	**23.2**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 12 s green time from WB lead phase to SB phase [SB green time shifts from 23 s to 35 s]. Shift 10 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 65 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.47	44.1	D	L	1.16	134.2	F	L	1.16	134.2	F	-Unmitigated Impact
		R	0.40	43.6	D	R	3.00+	1000.0+	F	R	0.70	51.4	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	1.12	118.9	F	T	1.19	149.3	F	T	1.16	129.8	F	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.82	16.8	B	T	0.92	24.2	C	T	0.92	24.2	C	through the intersection.
Grand Central Parkway Ramp	EB	T	0.90	39.6	D	T	0.98	51.5	D	T	1.05	75.3	E	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.80	14.8	B	T	0.83	16.3	B	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
	Overall Intersection	**-**	**0.74**	**38.7**	**D**	**-**	**2.30**	**217.0**	**F**	**-**	**1.11**	**85.1**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 4 s of green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase [EB Northern Blvd green time shifts from 25 s to 29 s; EB GCP/Astoria Blvd Ramp green time shifts from 55 s to 51 s].

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.13	107.6	F	LTR	1.13	107.6	F	LTR	1.13	107.6	F	-Partially Mitigated.
	SB	LTR	0.60	42.5	D	LTR	0.60	42.5	D	LTR	0.60	42.5	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	0.98	75.2	E	L	0.98	75.2	E	L	0.98	75.2	E	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	1.05	58.9	E	T	1.15	102.0	F	T	1.15	102.0	F	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.79	69.4	E	L	0.79	69.4	E	L	0.79	69.4	E	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.11	93.3	F	T	1.17	119.4	F	T	1.17	119.4	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.59	25.2	C	TR	0.59	25.2	C	TR	0.59	25.2	C	
	WB	TR	0.80	42.3	D	TR	1.03	80.6	F	T	0.73	36.9	D	
		-	-	-	-	-	-	-	-	R	0.19	24.0	C	
Overall Intersection		**-**	**1.09**	**69.4**	**E**	**-**	**1.11**	**96.3**	**F**	**-**	**1.11**	**94.0**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	L	0.91	53.1	D	L	0.91	53.1	D					-Unmitigatable impact.
		R	0.92	64.7	E	R	0.92	64.7	E					
Northern Boulevard (Rt 25A)	EB	T	1.15	99.8	F	T	1.28	153.5	F					
		R	1.24	143.2	F	R	1.24	143.2	F					
	WB	L	0.23	28.0	C	L	0.23	28.0	C					
		T	0.79	23.4	C	T	0.89	27.7	C					
Overall Intersection		**-**	**1.08**	**72.1**	**E**	**-**	**1.08**	**94.5**	**F**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.70	36.0	D	TR	0.70	36.0	D	TR	0.70	36.0	D	-Partially Mitigated.
	SB	TR	0.70	35.5	D	TR	0.70	35.5	D	TR	0.70	35.5	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.64	31.9	C	L	0.64	33.5	C	L	0.64	31.1	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.19	119.7	F	TR	1.30	172.6	F	TR	1.30	172.6	F	
	WB	L	0.80	41.8	D	L	0.80	31.9	C	L	0.80	31.9	C	
		TR	1.01	65.7	E	TR	1.16	124.9	F	TR	0.82	36.6	D	
Overall Intersection		**-**	**0.95**	**79.4**	**E**	**-**	**1.01**	**120.4**	**F**	**-**	**1.01**	**94.1**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.90	84.4	F	L	0.93	91.7	F	L	0.94	92.8	F	-Partially Mitigated.
		TR	0.59	40.4	D	TR	0.59	40.4	D	TR	0.57	39.2	D	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
	SB	LTR	1.19	129.2	F	LTR	1.25	155.8	F	LT	0.74	35.9	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
										R	0.41	33.3	C	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.48	46.2	D	L	0.54	47.8	D	L	0.58	48.9	D	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		TR	1.02	50.3	D	TR	1.15	101.6	F	TR	1.13	90.6	F	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		-	-	-	-	-	-	-	-	-	-	-	-	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	WB	L	0.45	41.1	D	L	0.44	42.9	D	L	0.47	43.5	D	-Modify Signal Timing: Shift 1 s of green time from EB/WB protected left-turn phase to EB/WB
		TR	1.19	118.8	F	TR	1.34	189.1	F	T	1.11	85.6	F	phase; shift 1 s green time from LPI phase (east and west crosswalks) to NB/SB phase [EB/WB
										R	0.40	24.3	C	protected left-turn green time shifts from 12 s to 11 s; EB/WB green time shifts from 50 s to 51 s;
Overall Intersection		**-**	**1.11**	**81.9**	**F**	**-**	**1.22**	**130.7**	**F**	**-**	**1.05**	**77.0**	**E**	LPI shifts from 7 s to 6 s; NB/SB green time shifts from 36 s to 37 s].
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.06	83.8	F	L	1.15	113.7	F	L	1.04	72.3	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.55	29.0	C	T	0.81	39.0	D	T	0.73	32.3	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.51	13.0	B	T	0.51	13.0	B	T	0.54	15.2	B	
		R	0.16	9.2	A	R	0.16	9.2	A	R	0.17	10.7	B	
Overall Intersection		**-**	**0.70**	**41.9**	**D**	**-**	**0.73**	**55.0**	**E**	**-**	**0.73**	**39.4**	**D**	

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	0.74	64.0	E	DefL	2.60	790.1	F	L	0.88	58.9	E	-Partially mitigated.
		TR	0.36	35.5	D	TR	0.84	50.3	D	TR	0.68	39.4	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.74	49.8	D	LTR	2.47	720.2	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	1.47	266.5	F	LTR	1.99	498.3	F	L	0.85	68.9	E	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.81	45.0	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	DefL	0.50	33.0	C	DefL	2.59	768.4	F	DefL	1.00	83.2	F	and two 11-ft EB receiving lanes.
		TR	0.31	28.3	C	TR	2.63	781.7	F	TR	1.17	128.0	F	-Close the ramp from EB Northern Blvd ramp to 126th Street.
34th Avenue	WB	-	-	-	-					DefL	1.45	254.4	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		LTR	0.30	28.1	C	LTR	3.00+	1000.0+	F	TR	0.79	36.9	D	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
														11-ft travel lanes.
	Overall Intersection	**-**	**0.82**	**140.5**	**F**	**-**	**2.90**	**656.4**	**F**	**-**	**1.17**	**82.5**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 55 s green time; NB/SB lead left-turn phase will have 12 s green time; NB/SB phase will have 38 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.18	128.0	F	LTR	1.23	150.8	F	LT	0.97	55.6	E	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.49	39.2	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	SB	LTR	1.19	132.8	F	LTR	1.20	140.2	F	LT	1.01	65.0	E	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
		-	-	-	-	-	-	-	-	R	0.31	36.9	D	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
Roosevelt Avenue	EB	LTR	0.71	8.6	A	LTR	0.86	14.6	B	LTR	0.86	14.6	B	
	WB	LTR	0.67	12.4	B	LTR	0.86	17.0	B	LTR	0.86	17.0	B	
	Overall Intersection	**-**	**0.84**	**53.3**	**D**	**-**	**0.96**	**56.5**	**E**	**-**	**0.91**	**28.3**	**C**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.05	78.7	E	LTR	1.05	78.7	E					-Unmitigatable impact.
Roosevelt Avenue	EB	LTR	0.77	9.7	A	LTR	0.94	20.2	C					
	WB	LTR	1.21	115.3	F	LTR	1.43	216.0	F					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.17**	**67.8**	**E**	**-**	**1.33**	**115.9**	**F**					
114th Street at Roosevelt Avenue														-Partially mitigated.
114th Street	NB	LTR	0.91	60.5	E	LTR	0.92	62.1	E	LTR	0.74	42.9	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.12	100.8	F	LTR	1.52	280.3	F	LT	1.09	89.3	F	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.12	32.7	C	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	1.00	31.0	C	LTR	1.42	213.5	F	L	0.29	10.7	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.83	11.6	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.69	14.5	B	LTR	1.12	83.5	F	L	1.00	68.2	E	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.66	15.9	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.97	47.9	D	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**1.04**	**35.8**	**D**	**-**	**1.45**	**145.1**	**F**	**-**	**1.00**	**30.2**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection.
														Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection.
														-Modify signal timing: Shift 3 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 77 s; NB/SB green time shifts from 30 s to 33 s].
														-Install "No Standing 4 PM - 7 PM Mon-Fri" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street at Roosevelt Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	0.40	45.8	D	-Partially mitigated.
		LTR	0.66	61.7	E	LTR	3.00+	1000.0+	F	TR	0.30	38.2	D	-Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes.
	SB	-	-	-	-	DefL	3.00	946.9	F	L	2.01	499.5	F	
		LTR	1.18	126.0	F	TR	3.00+	1000.0+	F	T	0.47	39.3	D	-Shift centerline of SB 126th Street approach 9 ft to the east.
		-	-	-	-	-	-	-	-	R	3.01	942.4	F	-Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft.
Roosevelt Avenue	EB	DefL	1.04	70.9	E	DefL	2.53	727.5	F	DefL	1.15	142.0	F	
		TR	0.71	8.1	A	TR	0.82	11.3	B	TR	0.75	8.2	A	-Shift centerline of EB Roosevelt Avenue approach 1 ft to north.
	WB	LTR	0.63	12.9	B	LTR	0.94	29.4	C	LTR	0.99	45.0	D	-Shift centerline of WB Roosevelt Avenue approach 1 ft to south.
	Overall Intersection	**-**	**1.08**	**47.4**	**D**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.77**	**298.5**	**F**	-Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. -Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. -Modify signal phasing and timing plan: EB/WB will have 68 s green time; EB-lag/SB right phase will have 8 s green time; NB/SB phase will have 29 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.30	194.3	F	L	1.56	307.3	F	L	1.28	190.1	F	-Partially Mitigated
		TR	0.70	29.2	C	TR	0.70	29.2	C	TR	0.69	28.9	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	0.90	48.2	D	TR	1.05	80.1	F	T	0.79	46.0	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.50	37.4	D	L	0.53	38.1	D	L	0.55	38.6	D	
		TR	1.27	153.5	F	TR	1.56	285.5	F	TR	1.55	279.3	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.31	45.0	D	L	0.31	45.0	D	-	-	-	-	
		TR	0.49	36.5	D	TR	0.61	39.8	D	TR	0.61	45.0	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.23**	**82.7**	**F**	**-**	**1.54**	**139.3**	**F**	**-**	**1.29**	**116.0**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. -Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. -Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. -Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. -Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. -Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. -Modify signal phasing and timing plan: EB/WB will have 27 s green time; EB-lag phase will have 24 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.53	31.2	C	LTR	0.53	31.2	C	LTR	0.57	34.4	C	-Modify Signal Timing: Shift 3 s of green time from SB phase to EB/WB phase [EB/WB green time shifts from 63 s to 66 s; SB green time shifts from 47 s to 44 s].
Roosevelt Avenue	EB	DefL	0.82	33.2	C	DefL	0.87	38.3	D	DefL	0.81	30.6	C	
		TR	0.81	29.4	C	TR	0.97	45.5	D	TR	0.92	35.9	D	
	WB	LTR	0.61	21.6	C	LTR	0.70	23.8	C	LTR	0.67	21.1	C	
		-	-	-	-	-	-	-	-	-	-	-	-	
	Overall Intersection	**-**	**0.70**	**28.3**	**C**	**-**	**0.78**	**35.2**	**D**	**-**	**0.78**	**30.4**	**C**	

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				
				Control				Control				Control		Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.64	23.7	C	T	0.64	23.7	C	T	0.70	28.4	C	-Partially mitigated.
	SB	T	0.56	22.3	C	T	0.56	22.3	C	T	0.61	26.6	C	-Modify Signal Timing: Shift 5 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.35	36.2	D	L	0.43	43.7	D	L	0.34	32.2	C	green time shifts from 45 s to 50 s; NB/SB green time shifts from 65 s to 60 s].
		TR	0.94	66.9	E	TR	1.19	143.2	F	TR	1.06	91.9	F	
	WB	L	0.22	28.9	C	L	0.29	32.8	C	L	0.23	26.4	C	
		TR	0.90	56.5	E	TR	1.04	87.0	F	TR	0.93	55.8	E	
	Overall Intersection	**-**	**0.76**	**37.7**	**D**	**-**	**0.86**	**62.1**	**E**	**-**	**0.86**	**47.0**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.55	18.9	B	TR	0.55	18.9	B					-Unmitigatable impact.
	SB	LT	1.28	154.0	F	LT	1.28	154.0	F					
		R	1.93	447.1	F	R	1.93	447.1	F					
Roosevelt Avenue	EB	LTR	2.34	633.4	F	LTR	2.88	873.9	F					
	WB	LT	0.82	33.3	C	LT	0.96	50.7	D					
		R	0.83	52.0	D	R	0.83	52.0	D					
	Overall Intersection	**-**	**2.12**	**242.7**	**F**	**-**	**2.37**	**315.8**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.82	38.4	D	LTR	0.86	42.5	D	LT	0.79	37.4	D	-Unmitigatable impact.
		-	-	-	-	-	-	-	-	R	0.08	19.6	B	-Modify Signal Timing: Shift 2 s green time from NB/SB phase to EB/WB phase [EB/WB green
	SB	LTR	0.80	34.2	C	LTR	0.80	34.2	C	LTR	0.83	37.4	D	time shifts from 55 s to 57 s; NB/SB green time shifts from 55 s to 53 s.
Roosevelt Avenue	EB	LTR	0.70	32.1	C	LTR	0.95	56.6	E	LTR	0.91	48.4	D	-Install "No Standing 7 AM - 10 AM, 4 PM - 7 PM, Mon-Fri" regulations on the NB approach
	WB	LTR	0.94	49.9	D	LTR	1.12	103.4	F	LTR	1.07	81.8	F	75 feet from the intersection to allow for a 10-ft daylighted right-turn lane.
	Overall Intersection	**-**	**0.88**	**38.7**	**D**	**-**	**0.99**	**59.8**	**E**	**-**	**0.95**	**51.5**	**D**	[Measures reflect improvements needed for the Weekday Non-game AM and Weekday Pre-game PM peak periods.]
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.76	38.9	D	L	0.78	41.1	D					-Mitigation not required.
		TR	0.59	22.4	C	TR	0.59	22.4	C					
	SB	L	0.88	55.5	E	L	0.88	55.5	E					
		TR	0.51	20.2	C	TR	0.51	20.2	C					
Kissena Boulevard	WB	T	0.73	38.2	D	T	0.73	38.2	D					
	Overall Intersection	**-**	**0.81**	**30.5**	**C**	**-**	**0.82**	**30.8**	**C**					
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.40	15.8	B	L	0.46	18.9	B	L	0.44	17.7	B	-Mitigation not required.
		T	0.76	16.2	B	T	0.78	16.9	B	T	0.77	16	B	-Upgrade to computerized signal controller with the following timing plan: WB phase will have
	SB	TR	0.76	16.1	B	TR	0.80	17.5	B	TR	0.79	16.5	B	26 s green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s
		-	-	-	-	-	-	-	-	-	-	-	-	all red time].
Sanford Avenue	WB	L	0.82	50.2	D	L	0.82	50.2	D	L	0.82	50.7	D	[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game
		TR	0.48	28.6	C	TR	0.61	31.6	C	TR	0.62	31.7	C	peak periods.]
	Overall Intersection	**-**	**0.78**	**20.0**	**B**	**-**	**0.81**	**21.3**	**C**	**-**	**0.80**	**20.6**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.39	21.7	C	LTR	0.39	21.7	C					-Mitigation not required.
	SB	LTR	0.71	26.3	C	LTR	0.72	26.7	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.29	14.3	B	LTR	0.29	14.4	B					
	WB	LTR	0.91	32.4	C	LTR	0.97	40.7	D					
	Overall Intersection	**-**	**0.82**	**25.7**	**C**	**-**	**0.86**	**28.9**	**C**					

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	1.05	58.4	E	LTR	1.08	68.6	E	LT	0.96	37.0	D	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.14	14.9	B	-Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow
	SB	LTR	0.70	25.1	C	LTR	0.85	34.1	C	LT	0.72	26.4	C	for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket.
		-	-	-	-	-	-	-	-	R	0.20	15.9	B	-Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar
Sanford Avenue	EB	LTR	0.61	23.6	C	LTR	0.63	24.2	C	LTR	0.63	24.2	C	to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.76	28.5	C	LTR	0.83	32.5	C	LTR	0.83	32.5	C	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**0.90**	**35.3**	**D**	**-**	**0.95**	**41.3**	**D**	**-**	**0.89**	**29.2**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.40	23.8	C	T	0.42	24.1	C					-Mitigation not required.
		TR	0.27	22.0	C	TR	0.27	22.0	C					
	SB	L	0.45	33.6	C	L	0.45	33.6	C					
		T	0.41	10.6	B	T	0.42	10.8	B					
32nd Avenue	WB	LTR	0.75	38.4	D	LTR	0.75	38.4	D					
Overall Intersection		**-**	**1.10**	**21.2**	**C**	**-**	**1.10**	**21.2**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.49	12.7	B	TR	0.50	12.8	B	TR	0.54	14.9	B	-Modify Signal Timing: Shift 3 s of green time from NB/SB phase to WB phase [NB/SB green
	SB	LT	0.85	22.5	C	LT	0.88	24.3	C	LT	0.95	34.9	C	time shifts from 51 s to 48 s; WB green time shifts from 29 s to 32 s].
Northern Blvd Service Rd	WB	LR	0.72	33.9	C	LR	0.95	54.5	D	LR	0.86	39.7	D	
Overall Intersection		**-**	**0.81**	**20.4**	**C**	**-**	**0.91**	**26.1**	**C**	**-**	**0.92**	**28.2**	**C**	
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.70	45.5	D	-Partially Mitigated.
		LTR	0.54	43.9	D	LTR	0.98	85.0	F	TR	0.32	26.9	C	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	DefL	1.23	148.5	F	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		LTR	0.90	35.6	D	LTR	1.27	154.9	F	TR	0.99	58.0	E	will have 24 s green time; WB lag phase will have 9 s green time; NB/SB phase will have 45 s
Stadium Road	EB	-	-	-	-	DefL	1.35	247.7	F	DefL	0.68	44.9	D	green time; SB lag phase will have 10 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	TR	0.38	24.9	C	TR	0.43	34.3	C	time].
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.88	33.1	C	LTR	1.43	225.2	F	LTR	1.40	225.0	F	
Overall Intersection		**-**	**0.85**	**35.2**	**D**	**-**	**1.29**	**169.0**	**F**	**-**	**1.58**	**133.9**	**F**	

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	54.8	F	L	-	1000.0+	F	L	0.50	35.2	D	-Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.6	A	R	-	8.9	A	R	0.08	1.9	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.20	41.0	D	
	WB	LT	-	12.4	B	LT	-	16.6	C	L	0.94	38.1	D	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.71	19.5	B	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**13.7**	**B**	**-**	**-**	**420.1**	**F**	**-**	**0.77**	**29.8**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.6	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.53	14.7	B	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	463.3	F	T	0.72	21.0	C	
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.6**	**A**	**-**	**-**	**463.3**	**F**	**-**	**0.62**	**17.3**	**B**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.05	21.0	C	-Install traffic signal with the following timing plan: EB will have 35 s green time; WB will have 20 s green time; NB/SB will have 50 s green time [each phase will have 3 s amber and 2 s all red
	SB	-	-	-	-	LT	-	9.2	A	L	0.32	25.3	C	
		-	-	-	-	-	-	-	-	TR	0.80	36.1	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	35.6	E	L	-	326.9	F	L	0.38	36.2	D	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	547.0	F	T	0.61	42.1	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.6	A	R	-	334.7	F	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.99	86.3	F	
		-	-	-	-	R	-	10.2	B	R	0.30	47.1	D	
	Overall Intersection	**-**	**-**	**32.4**	**D**	**-**	**-**	**1000.0+**	**F**	**-**	**0.77**	**47.2**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.45	17.6	B	TR	0.45	17.6	B	-Intersection meets NYCDOT Signal Warrant Criteria.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
		LT	-	8.3	A	LT	1.07	63.4	E	LT	1.02	44.6	D	
36th Avenue	WB	LR	-	17.5	C	L	0.13	39.5	D	L	0.13	39.5	D	
		-	-	-	-	R	0.44	32.4	C	R	0.44	32.4	C	
	Overall Intersection	**-**	**-**	**12.3**	**B**	**-**	**0.84**	**48.1**	**D**	**-**	**0.80**	**35.8**	**D**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.41	16.9	B	TR	0.41	16.9	B	-Intersection meets NYCDOT Signal Warrant Criteria.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
		LT	-	8.2	A	LT	1.04	55.7	E	LT	1.00	42.4	D	
37th Avenue	WB	LR	-	15.9	C	L	0.11	35.3	D	L	0.11	35.3	D	
		-	-	-	-	R	0.45	32.6	C	R	0.45	32.6	C	
	Overall Intersection	**-**	**-**	**12.6**	**B**	**-**	**0.82**	**43.4**	**D**	**-**	**0.78**	**34.6**	**C**	
Northern Boulevard at 126th Place														
126th Place	NB	R	-	21.0	C	R	-	34.5	D	R	0.28	42.3	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.84	15.2	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**21.0**	**C**	**-**	**-**	**34.5**	**D**	**-**	**0.71**	**16.0**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 25
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 WEEKDAY PRE-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	Mvt.	V/C	Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.86	36.7	D					-Mitigation not required.
	SB	-	-	-	-	-	-	-	-					
		-	-	-	-	LT	0.97	40.6	D					
New Willets Point Boulevard	WB	-	-	-	-	L	0.96	75.2	E					
		-	-	-	-	R	0.56	32.4	C					
	Overall Intersection	-	-	-	-	-	**0.99**	**44.6**	**D**					
Citi Field/Lot B at Roosevelt Avenue														
Citi Field/Lot B	SB	LR	-	-	-	LR	0.01	33.9	C					-Mitigation not required.
Roosevelt Avenue	EB	LT	-	-	-	LT	0.56	11.8	B					
	WB	TR	-	-	-	TR	1.02	46.0	D					
	Overall Intersection	-	-	-	-	-	**0.75**	**34.4**	**C**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.46	25.9	C	DefL	0.53	27.8	C	DefL	0.53	27.8	C	-Install "No Standing 3 PM - 10 PM Saturday" regulations along the south curb of the EB
		T	0.20	21.0	C	T	0.20	21.0	C	T	0.20	21.0	C	approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
	SB	LTR	0.23	21.4	C	LTR	0.23	21.4	C	LTR	0.23	21.4	C	-Modify signal timing: shift 1 s of green time from EB/WB phase to WB lead phase [EB/WB
Astoria Boulevard	EB	TR	0.76	27.0	C	TR	0.88	31.2	C	T	0.80	28.5	C	green time shifts from 34 s to 33 s; WB lead green time shifts from from 9 s to 10 s].
		-	-	-	-	-	-	-	-	R	0.22	20.4	C	
	WB	L	0.81	39.4	D	L	0.84	47.7	D	L	0.78	39.2	D	
		TR	0.30	12.0	B	TR	0.36	12.5	B	TR	0.36	12.5	B	
Overall Intersection		**-**	**0.66**	**23.4**	**C**	**-**	**0.75**	**26.1**	**C**	**-**	**0.71**	**23.9**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.16	121.8	F	LTR	1.43	238.6	F	L	0.89	54.4	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.72	42.9	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.09	101.6	F	LTR	1.12	110.3	F	L	0.49	44.3	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.76	47.9	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.09	36.4	D	L	0.09	44.3	D	L	0.09	34.9	C	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.98	38.1	D	TR	1.18	109.1	F	T	1.00	39.2	D	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	R	0.16	12.7	B	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	0.84	48.6	D	L	0.88	54.9	D	L	0.84	50.7	D	and one 12-ft shared through-right lane for 175 ft.
		TR	1.17	106.4	F	TR	1.34	179.4	F	T	1.07	59.3	E	-Modify signal timing: shift 1 s of green time from NB/SB phase to EB/WB left-turn phase and
		-	-	-	-	-	-	-	-	R	0.33	14.0	B	shift 2 s green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 30 s to
Overall Intersection		**-**	**1.12**	**79.4**	**E**	**-**	**1.30**	**146.8**	**F**	**-**	**1.04**	**46.9**	**D**	27 s; EB/WB left-turn green time shifts from 9 s to 10 s; EB/WB green time shifts from 66 s to
														-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for
														150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for
														100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.62	49.9	D	LTR	0.76	56.5	E	LTR	0.63	39.7	D	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
Northern Boulevard (Rt. 25A)	EB	T	0.76	24.9	C	T	0.95	36.2	D	T	0.79	19.1	B	exclusive through lanes.
		R	0.80	29.3	C	R	0.91	38.6	D	R	0.77	20.5	C	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
	WB	DefL	0.84	39.0	D	DefL	1.16	132.3	F	-	-	-	-	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
		T	0.86	16.1	B	T	0.97	26.1	C	T	0.89	21.9	C	-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.32**	**23.8**	**C**	**-**	**2.05**	**39.9**	**D**	**-**	**0.80**	**22.7**	**C**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	0.63	47.0	D	L	1.43	249.8	F	L	1.43	249.8	F	-Unmitigated Impact
		R	0.33	41.9	D	R	3.00+	1000.0+	F	R	0.65	48.5	D	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	0.55	38.3	D	T	0.62	39.9	D	T	0.80	42.5	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.68	12.7	B	T	0.81	17.5	B	T	0.81	17.5	B	through the intersection.
Grand Central Parkway Ramp	EB	T	0.89	45.0	D	T	1.02	68.1	E	T	1.09	93.8	F	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.74	13.1	B	T	0.83	16.3	B	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.72**	**27.2**	**C**	**-**	**2.12**	**216.3**	**F**	**-**	**1.07**	**94.4**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at 126th Place at Northern Boulevard.
														-Modify signal timing: shift 3 s of green time from EB GCP/Astoria Blvd Ramp phase to EB Northern Blvd phase [EB GCP/Astoria Blvd Ramp green time shifts from 45 s to 42 s; EB Northern Blvd green time shifts from 35 s to 38 s].

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.12	101.5	F	LTR	1.12	101.5	F	LTR	1.12	101.5	F	-Partially Mitigated.
	SB	LTR	0.51	37.8	D	LTR	0.51	37.8	D	LTR	0.51	37.8	D	-Install "No Standing 10 AM - 7 PM" regulations along the north curb of the WB Northern
Northern Boulevard (Rt. 25A)	EB	L	1.01	87.7	F	L	1.01	87.7	F	L	1.01	87.7	F	Boulevard Service Road approach for 100-ft from the intersection to allow for one 10-ft through
		T	0.98	40.8	D	T	1.08	73.6	E	T	1.08	73.6	E	lane and one 10-ft daylighted right-turn pocket.
	WB	L	0.98	102.3	F	L	0.98	102.3	F	L	0.98	102.3	F	-Reduce the width of the hatched median between the Service Road and Mainline from 8-ft to 6-
		T	1.14	103.1	F	T	1.21	134.4	F	T	1.21	134.4	F	ft.
Northern Boulevard Service Rd.	EB	TR	0.51	23.2	C	TR	0.51	23.2	C	TR	0.51	23.2	C	
	WB	TR	0.76	35.9	D	TR	1.03	73.7	E	T	0.76	34.9	C	
		-	-	-	-	-	-	-	-	R	0.16	21.8	C	
Overall Intersection		**-**	**1.11**	**67.8**	**E**	**-**	**1.14**	**92.1**	**F**	**-**	**1.14**	**89.7**	**F**	
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	T	0.87	48.5	D	T	0.87	48.5	D					-Unmitigatable impact.
		R	0.96	71.5	E	R	0.96	71.5	E					
Northern Boulevard (Rt 25A)	EB	T	0.96	41.6	D	T	1.08	76.5	E					
		R	1.36	200.0	F	R	1.36	200.0	F					
	WB	L	0.17	26.6	C	L	0.17	26.6	C					
		T	0.89	27.0	C	T	1.02	47.2	D					
Overall Intersection		**-**	**1.17**	**58.2**	**E**	**-**	**1.17**	**75.2**	**E**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.70	35.8	D	TR	0.70	35.8	D	TR	0.70	35.8	D	-Partially Mitigated.
	SB	TR	0.61	33.3	C	TR	0.61	33.4	C	TR	0.61	33.4	C	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.70	35.5	D	L	0.70	37.2	D	L	0.70	35.0	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.28	165.0	F	TR	1.43	230.1	F	TR	1.43	230.1	F	
	WB	L	0.99	69.8	E	L	0.99	70.1	E	L	0.99	70.1	E	
		TR	0.99	48.6	D	TR	1.17	115.5	F	TR	0.87	36.5	D	
Overall Intersection		**-**	**0.95**	**87.7**	**F**	**-**	**1.06**	**135.0**	**F**	**-**	**1.06**	**109.0**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.69	51.0	D	L	0.71	53.5	D	L	0.69	51.3	D	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.54	39.2	D	TR	0.54	39.2	D	TR	0.54	39.2	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.14	107.6	F	LTR	1.23	144.6	F	LT	0.66	35.2	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.39	33.6	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.42	43.5	D	L	0.48	46.9	D	L	0.52	47.0	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.14	99.2	F	TR	1.32	177.2	F	T	1.09	75.3	E	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.37	23.0	C	-Modify Signal Timing: Shift 1 s green time from EB/WB protected left-turn phase to EB/WB
	WB	L	0.45	44.5	D	L	0.45	47.0	D	L	0.47	46.5	D	phase [EB/WB protected left-turn green time shifts from 10 s to 9 s; EB/WB green time shifts
		TR	1.08	72.9	E	TR	1.28	160.4	F	T	1.04	57.7	E	from 52 s to 53 s].
										R	0.36	22.9	C	
Overall Intersection		**-**	**1.11**	**80.7**	**F**	**-**	**1.20**	**147.8**	**F**	**-**	**0.93**	**58.1**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.04	74.5	E	L	1.11	99.3	F	L	1.01	61.7	E	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.55	28.8	C	T	0.80	37.8	D	T	0.72	31.5	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.43	12.1	B	T	0.43	12.1	B	T	0.46	14.1	B	
		R	0.11	8.8	A	R	0.12	8.8	A	R	0.12	10.3	B	
Overall Intersection		**-**	**0.65**	**41.2**	**D**	**-**	**0.67**	**53.1**	**D**	**-**	**0.67**	**37.2**	**D**	

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	DefL	1.03	104.7	F	DefL	2.12	570.6	F	L	1.06	101.7	F	-Partially mitigated.
		TR	0.48	33.4	C	TR	0.97	62.9	E	TR	0.85	45.0	D	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.54	36.6	D	LTR	2.82	871.0	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	2.09	545.7	F	LTR	3.00+	982.6	F	L	1.44	251.6	F	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.83	44.0	D	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	-	-	-	-	-	-	-	-	-	-	-	-	and two 11-ft EB receiving lanes.
		LTR	0.41	28.4	C	LTR	1.89	443.0	F	LTR	1.48	251.0	F	-Close the ramp from EB Northern Blvd ramp to 126th Street.
34th Avenue	WB	-	-	-	-	-	-	-	-	DefL	3.00+	1000.0+	F	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		LTR	0.41	28.0	C	LTR	3.00+	1000.0+	F	TR	1.02	50.9	D	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two 11-ft travel lanes.
	Overall Intersection	**-**	**0.97**	**241.8**	**F**	**-**	**3.00+**	**738.5**	**F**	**-**	**2.81**	**214.2**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 53 s green time; NB/SB lead left-turn phase will have 11 s green time; NB/SB phase will have 41 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.20	137.9	F	LTR	1.27	165.8	F	LT	1.07	82.2	F	-Partially mitigated.
		-	-	-	-	-	-	-	-	R	0.47	38.9	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
	SB	LTR	1.20	136.6	F	LTR	1.22	147.5	F	LT	1.10	93.5	F	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.36	37.5	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
Roosevelt Avenue	EB	LTR	0.79	19.6	B	LTR	0.96	38.0	D	LTR	0.94	33.1	C	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	WB	LTR	1.01	33.5	C	LTR	1.28	149.3	F	LTR	1.10	66.7	E	
	Overall Intersection	**-**	**1.07**	**63.3**	**E**	**-**	**1.28**	**116.6**	**F**	**-**	**1.09**	**58.5**	**E**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.07	80.2	F	LTR	1.07	80.2	F					-Unmitigatable impact.
Roosevelt Avenue	EB	LTR	0.87	23.3	C	LTR	1.07	64.9	E					
	WB	LTR	1.23	126.6	F	LTR	1.50	244.9	F					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.19**	**77.3**	**E**	**-**	**1.37**	**143.7**	**F**					
114th Street at Roosevelt Avenue														
114th Street	NB	LTR	1.10	94.5	F	LTR	1.14	109.7	F	LTR	1.05	72.4	E	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.12	100.4	F	LTR	1.38	216.1	F	LT	0.95	45.8	D	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.29	35.3	D	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	1.26	137.8	F	LTR	1.88	417.9	F	L	0.52	11.8	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.73	14.4	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.61	12.7	B	LTR	0.96	33.5	C	L	0.78	33.4	C	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.61	14.4	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	0.83	26.7	C	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**1.22**	**79.1**	**E**	**-**	**1.73**	**187.4**	**F**	**-**	**0.90**	**29.0**	**C**	Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection. Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection. -Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s]. -Install "No Standing 1 PM - 9 PM Saturday" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
126th Street at Roosevelt Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	0.56	51.8	D	-Partially mitigated.
		LTR	0.84	83.3	F	LTR	3.00+	1000.0+	F	TR	0.35	38.1	D	-Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes.
	SB	-	-	-	-	-	-	-	-	L	1.88	442.8	F	
		LTR	1.16	119.6	F	LTR	3.00+	1000.0+	F	T	0.52	39.5	D	-Shift centerline of SB 126th Street approach 9 ft to the east.
		-	-	-	-	-	-	-	-	R	2.60	758.7	F	-Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft.
Roosevelt Avenue	EB	DefL	1.22	150.9	F	DefL	3.00+	1000.0+	F	DefL	1.14	139.1	F	
		TR	0.56	12.5	B	TR	0.65	14.6	B	TR	0.60	13.3	B	-Shift centerline of EB Roosevelt Avenue approach 1 ft to north.
	WB	LTR	0.67	13.7	B	LTR	1.03	48.4	D	LTR	1.25	149.6	F	-Shift centerline of WB Roosevelt Avenue approach 1 ft to south.
	Overall Intersection	**-**	**1.21**	**56.0**	**E**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.85**	**277.6**	**F**	-Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. -Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. -Modify signal phasing and timing plan: EB/WB will have 61 s green time; EB-lag/SB right phase will have 14 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.33	195.3	F	L	1.69	352.9	F	L	1.25	173.8	F	-Partially Mitigated
		TR	0.84	28.1	C	TR	0.84	28.1	C	TR	0.82	33.6	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	1.23	136.8	F	TR	1.49	252.2	F	T	0.98	58.5	E	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.50	29.0	C	L	0.55	29.8	C	L	0.53	37.5	D	
		TR	1.25	140.1	F	TR	1.60	296.4	F	TR	1.49	251.3	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.29	33.5	C	L	0.29	33.5	C	-	-	-	-	
		TR	0.55	28.4	C	TR	0.71	32.8	C	TR	0.66	44.5	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.38**	**99.4**	**F**	**-**	**1.77**	**187.7**	**F**	**-**	**1.30**	**104.2**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive lef turn lanes, and three SB 10-ft travel lanes. -Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. -Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. -Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. -Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. -Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. -Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 29 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.81	42.3	D	LTR	0.81	42.3	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.78	18.6	B	DefL	0.83	21.7	C					
		TR	0.66	13.2	B	TR	0.78	16.3	B					
	WB	LTR	0.63	13.4	B	LTR	0.73	15.8	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.79**	**20.7**	**C**	**-**	**0.82**	**22.0**	**C**					

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

			No Action			With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.68	24.5	C	T	0.68	24.5	C	T	0.76	29.7	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
	SB	T	0.65	24.3	C	T	0.65	24.3	C	T	0.73	29.4	C	green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
Roosevelt Avenue	EB	L	0.28	20.9	C	L	0.34	24.6	C	L	0.28	18.8	B	
		TR	0.75	33.1	C	TR	0.98	61.8	E	TR	0.88	40.2	D	
	WB	L	0.07	15.6	B	L	0.09	16.1	B	L	0.08	13.5	B	
		TR	0.86	40.9	D	TR	1.03	72.3	E	TR	0.92	44.9	D	
	Overall Intersection	**-**	**0.77**	**29.1**	**C**	**-**	**0.87**	**42.6**	**D**	**-**	**0.85**	**34.9**	**C**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.46	17.3	B	TR	0.46	17.3	B					-Unmitigatable impact.
	SB	LT	1.01	57.9	E	LT	1.01	57.9	E					
		R	2.67	789.3	F	R	2.67	789.3	F					
Roosevelt Avenue	EB	LTR	1.95	459.4	F	LTR	2.42	672.2	F					
	WB	LT	0.58	24.4	C	LT	0.73	29.7	C					
		R	1.29	215.3	F	R	1.29	215.3	F					
	Overall Intersection	**-**	**2.33**	**255.8**	**F**	**-**	**2.55**	**316.9**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.74	28.0	C	LTR	0.80	31.3	C	LT	0.73	28.5	C	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB
		-	-	-	-	-	-	-	-	R	0.03	15.3	B	green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s].
	SB	LTR	0.75	26.1	C	LTR	0.75	26.1	C	LTR	0.79	29.4	C	-Install "No Standing 10AM - 9PM, Saturday" regulations on the NB approach 75 feet from the
Roosevelt Avenue	EB	LTR	0.46	20.1	C	LTR	0.67	25.8	C	LTR	0.63	23.1	C	intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.64	24.4	C	LTR	0.78	30.8	C	LTR	0.74	27.0	C	[Measures reflect improvements needed for the Saturday post-game peak period.]
	Overall Intersection	**-**	**0.69**	**25.2**	**C**	**-**	**0.79**	**28.5**	**C**	**-**	**0.76**	**27.1**	**C**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.91	60.1	E	L	0.94	65.9	E	L	0.90	57.5	E	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.60	21.5	C	TR	0.60	21.5	C	TR	0.59	20.6	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.52	21.4	C	L	0.52	21.4	C	L	0.54	22.4	C	
		TR	0.54	19.7	B	TR	0.54	19.7	B	TR	0.53	18.9	B	
Kissena Boulevard	WB	T	0.66	24.8	C	T	0.66	24.8	C	T	0.68	26.1	C	
	Overall Intersection	**-**	**0.79**	**25.0**	**C**	**-**	**0.80**	**25.7**	**C**	**-**	**0.79**	**24.7**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.53	22.5	C	L	0.62	30.3	C	L	0.60	27.5	C	-Mitigation not required.
		T	0.83	18.3	B	T	0.86	19.7	B	T	0.85	18.5	B	-Upgrade to computerized signal controller with the following timing plan: WB phase will have
	SB	TR	0.83	18.3	B	TR	0.87	20.5	C	TR	0.86	19.2	B	26 s green time; NB/SB phase will have 54 s green time [each phase will have 3 s amber and 2 s
		-	-	-	-	-	-	-	-	-	-	-	-	all red time].
Sanford Avenue	WB	L	0.88	56.5	E	L	0.88	56.5	E	L	0.89	57.0	E	[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game
		TR	0.52	29.3	C	TR	0.65	32.5	C	TR	0.66	32.7	C	peak periods.]
	Overall Intersection	**-**	**0.85**	**22.6**	**C**	**-**	**0.88**	**24.5**	**C**	**-**	**0.87**	**23.5**	**C**	
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.49	24.4	C	LTR	0.49	24.5	C					-Mitigation not required.
	SB	LTR	0.93	36.0	D	LTR	0.95	38.3	D					
Sanford Avenue	EB	DefL	0.58	24.6	C	DefL	0.61	26.6	C					
		TR	0.33	15.1	B	TR	0.33	15.1	B					
	WB	LTR	0.75	23.8	C	LTR	0.81	26.5	C					
	Overall Intersection	**-**	**0.83**	**28.0**	**C**	**-**	**0.87**	**29.8**	**C**					

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	**Mvt.**	**V/C**	**Control Delay**	**LOS**	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.86	32.6	C	LTR	0.91	37.6	D	LT	0.79	28.2	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.13	15.0	B	-Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow
	SB	LTR	0.74	26.0	C	LTR	0.94	43.9	D	LT	0.77	28.2	C	for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket.
		-	-	-	-	-	-	-	-	R	0.23	16.2	B	-Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar
Sanford Avenue	EB	LTR	0.63	23.5	C	LTR	0.66	24.2	C	LTR	0.66	24.2	C	to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.86	33.3	C	LTR	0.93	41.9	D	LTR	0.93	41.9	D	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**0.86**	**29.0**	**C**	**-**	**0.94**	**37.7**	**D**	**-**	**0.86**	**29.9**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.37	23.3	C	T	0.39	23.7	C					-Mitigation not required.
		TR	0.59	26.1	C	TR	0.59	26.1	C					
	SB	L	0.58	38.3	D	L	0.58	38.3	D					
		T	0.46	11.1	B	T	0.47	11.3	B					
32nd Avenue	WB	LTR	0.47	30.3	C	LTR	0.47	30.3	C					
Overall Intersection		**-**	**1.05**	**21.9**	**C**	**-**	**1.05**	**21.9**	**C**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.55	13.4	B	TR	0.57	13.6	B					-Unmitigatable impact.
	SB	LT	0.92	28.0	C	LT	0.96	32.7	C					
Northern Blvd Service Rd	WB	LR	0.72	33.2	C	LR	0.98	59.5	E					
Overall Intersection		**-**	**0.85**	**22.7**	**C**	**-**	**0.97**	**30.8**	**C**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	-	-	-	-	-	-	-	-	DefL	0.62	50.0	D	-Partially Mitigated.
		LTR	0.68	49.6	D	LTR	0.76	53.5	D	TR	0.44	37.9	D	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	DefL	1.34	200.1	F	-Modify signal phasing and timing plan: EB lead phase will have 7 s green time; EB/WB phase
		LTR	0.77	24.6	C	LTR	1.44	225.7	F	TR	1.20	139.7	F	will have 34 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 31 s
Stadium Road	EB	-	-	-	-	DefL	1.69	390.8	F	DefL	0.84	60.3	E	green time; SB lag phase will have 16 s green time [each phase will have 3 s amber and 2 s all re
		-	-	-	-	TR	0.63	34.6	C	TR	0.46	28.2	C	time].
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	1.00	45.6	D	LTR	1.43	227.5	F	LTR	0.96	42.1	D	
Overall Intersection		**-**	**0.83**	**35.1**	**D**	**-**	**1.43**	**205.0**	**F**	**-**	**1.50**	**102.3**	**F**	

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	41.4	E	L	-	1000.0+	F	L	0.46	34.3	C	-Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	8.7	A	R	-	9.0	A	R	0.10	1.9	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.17	40.6	D	
	WB	LT	-	11.2	B	LT	-	17.8	C	L	0.98	45.0	D	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.82	24.7	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**12.2**	**B**	**-**	**-**	**435.9**	**F**	**-**	**0.78**	**33.7**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.2	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.69	17.3	B	-Install traffic signal with the following timing plan: EB will have 25 s green time; SB will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	T	-	83.7	F	T	0.30	12.8	B	
														-Intersection meets NYCDOT Signal Warrant Criteria.
Overall Intersection		**-**	**-**	**9.2**	**A**	**-**	**-**	**83.7**	**F**	**-**	**0.49**	**16.5**	**B**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.09	27.6	C	-Install traffic signal with the following timing plan: EB will have 45 s green time; WB will have 20 s green time; NB/SB will have 40 s green time [each phase will have 3 s amber and 2 s all red time].
	SB	-	-	-	-	LT	-	9.5	A	L	0.45	35.2	D	
		-	-	-	-	-	-	-	-	TR	0.82	44.2	D	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	35.9	E	L	-	368.4	F	L	0.43	30.2	C	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	592.1	F	T	0.51	31.9	C	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	9.2	A	R	-	406.7	F	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.87	66.6	E	
		-	-	-	-	R	-	10.3	B	R	0.30	47.1	D	
Overall Intersection		**-**	**-**	**33.1**	**D**	**-**	**-**	**1000.0+**	**F**	**-**	**0.7**	**43.9**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	0.62	23.7	C	TR	0.62	23.7	C	-Unmitigatable impact.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	9.5	A	LT	1.30	159.7	F	LT	1.23	129.3	F	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	25.2	D	L	0.14	39.6	D	L	0.14	39.6	D	
		-	-	-	-	R	0.59	34.0	C	R	0.59	34.0	C	
Overall Intersection		**-**	**-**	**17.4**	**C**	**-**	**1.09**	**107.6**	**F**	**-**	**1.03**	**88.0**	**F**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	0.43	17.3	B	TR	0.43	17.3	B	-Unmitigatable impact.
	SB	-	-	-	-	-	-	-	-	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.9	A	LT	1.19	112.7	F	LT	1.13	89.0	F	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	17.7	C	L	0.11	35.3	D	L	0.11	35.3	D	
		-	-	-	-	R	0.89	64.0	E	R	0.89	64.0	E	
Overall Intersection		**-**	**-**	**14.8**	**B**	**-**	**1.10**	**81.3**	**F**	**-**	**1.06**	**66.4**	**E**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	15.7	C	R	-	23.5	C	R	0.31	42.8	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.78	13.5	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
Overall Intersection		**-**	**-**	**15.7**	**C**	**-**	**-**	**23.5**	**C**	**-**	**0.68**	**14.6**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 26
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY PRE-GAME MIDDAY NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	0.90	39.8	D					-Mitigation not required.
	SB	-	-	-	-	-	-	-	-					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	LT	1.03	55.9	E					
New Willets Point Boulevard	WB	-	-	-	-	L	0.99	81.7	F					
		-	-	-	-	R	0.68	34.7	C					
	Overall Intersection	**-**	**-**	**-**	**-**	-	**1.00**	**53.2**	**D**					
Citi Field/Lot B at Roosevelt Avenue														
Citi Field/Lot B	SB	LR	-	-	-	LR	0.03	34.0	C					-Mitigation not required.
Roosevelt Avenue	EB	LT	-	-	-	LT	0.50	11.0	B					
	WB	TR	-	-	-	TR	1.05	56.0	E					
	Overall Intersection	**-**	**-**	**-**	**-**	-	**0.77**	**42.2**	**D**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
SIGNALIZED INTERSECTIONS														
ASTORIA BOULEVARD														
108th Street at Astoria Boulevard														
108th Street	NB	DefL	0.53	27.8	C	DefL	0.62	30.7	C	DefL	0.62	30.7	C	-Install "No Standing 3 PM - 10 PM Saturday" regulations along the south curb of the EB
		T	0.22	21.3	C	T	0.22	21.3	C	T	0.22	21.3	C	approach for 150-ft from the intersection to allow for an 11-ft daylighted right-turn lane.
	SB	LTR	0.19	20.9	C	LTR	0.19	20.9	C	LTR	0.19	20.9	C	-Modify signal timing: shift 1 s of green time from EB/WB phase to WB lead phase [EB/WB
Astoria Boulevard	EB	TR	0.69	25.5	C	TR	0.79	28.0	C	T	0.69	26.1	C	green time shifts from 34 s to 33 s; WB lead green time shifts from from 9 s to 10 s].
		-	-	-	-	-	-	-	-	R	0.26	21.1	C	
	WB	L	0.93	54.4	D	L	1.04	88.4	F	L	0.92	53.5	D	
		TR	0.31	12.1	B	TR	0.37	12.7	B	TR	0.37	12.7	B	
Overall Intersection		**-**	**0.73**	**24.5**	**C**	**-**	**0.90**	**28.6**	**C**	**-**	**0.74**	**24.4**	**C**	
NORTHERN BOULEVARD														
108th Street at Northern Boulevard (RT. 25A)														
108th Street	NB	LTR	1.19	135.2	F	LTR	1.44	247.2	F	L	0.66	45.7	D	-Install "No Standing Anytime" regulations along the east curb of the NB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.87	48.9	D	from the intersection to allow for two moving lanes.
	SB	LTR	1.19	134.3	F	LTR	1.23	149.3	F	L	0.64	44.7	D	-Install "No Standing Anytime" regulations along the west curb of the SB approach for 250-ft
		-	-	-	-	-	-	-	-	TR	0.75	44.7	D	from the intersection to allow for two moving lanes.
Northern Boulevard (Rt. 25A)	EB	L	0.14	37.1	D	L	0.14	44.8	D	L	0.13	37.5	D	-Restripe NB approach of 108th Street from one 22-ft lane to one 11-ft exclusive left-turn lane
		TR	0.97	36.9	D	TR	1.16	102.8	F	T	1.00	41.2	D	and one 11-ft shared through-right lane for 175 ft.
		-	-	-	-	-	-	-	-	R	0.12	12.3	B	-Restripe SB approach of 108th Street from one 23-ft lane to one 11-ft exclusive left-turn lane
	WB	L	1.01	73.8	E	L	1.07	95.4	F	L	1.02	77.2	E	and one 12-ft shared through-right lane for 175 ft.
		TR	1.15	94.1	F	TR	1.33	174.5	F	T	1.08	62.9	E	-Modify signal timing: shift 1 s of green time from NB/SB phase to EB/WB left-turn phase and
		-	-	-	-	-	-	-	-	R	0.29	13.7	B	shift 2 s green time from NB/SB phase to EB/WB phase [NB/SB green time shifts from 30 s to
														27 s; EB/WB left-turn green time shifts from 9 s to 10 s; EB/WB green time shifts from 66 s to
Overall Intersection		**-**	**1.14**	**78.8**	**E**	**-**	**1.33**	**146.9**	**F**	**-**	**1.06**	**50.7**	**D**	-Install "No Standing 10 AM - 9 PM" regulations along the north curb of the WB approach for
														150-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
														-Install "No Standing 10 AM - 9 PM" regulations along the south curb of the EB approach for
														100-ft from the intersection to allow for a 10-ft daylighted right-turn lane.
114th Street at Northern Boulevard (RT. 25A)														
114th Street	SB	LTR	0.48	46.0	D	LTR	0.52	47.1	D	LTR	0.71	42.5	D	-Partially mitigated.
Northern Boulevard (Rt. 25A)	EB	T	0.67	22.7	C	T	0.82	27.9	C	T	0.69	16.6	B	-Prohibit left-turns from WB Northern Boulevard onto SB 114th Street to allow for three
		R	0.67	24.9	C	R	0.69	25.6	C	R	0.58	15.6	B	exclusive through lanes.
	WB	DefL	1.29	159.4	F	DefL	1.68	342.4	F	-	-	-	-	-Divert left-turning turning to NB 112th Place and then to SB 114th Street.
		T	1.21	113.3	F	T	1.34	171.6	F	T	1.25	133.5	F	-Prohibit parking along east curb of SB 114th Street for 200 ft and restripe as two 11-ft lanes.
														-Restripe SB 114th Street receiving lanes as two 11-ft moving lanes with parking on both sides.
Overall Intersection		**-**	**1.95**	**87.2**	**F**	**-**	**2.98**	**137.1**	**F**	**-**	**1.08**	**87.8**	**F**	-Modify signal timing: Eliminate WB lead phase. Shift 10 s green time from WB lead phase to
														SB phase [SB green time shifts from 25 s to 35 s]. Shift 12 s green time from WB lead phase to
														EB/WB phase [EB/WB green time shifts from 63 s to 75 s].
126th Street at Northern Boulevard (RT. 25A)														
126th Street	NB	L	1.18	129.3	F	L	2.80	859.2	F	L	2.69	809.8	F	-Partially mitigated.
		R	0.66	44.3	D	R	3.00+	1000.0+	F	R	1.69	358.9	F	-Install Jersey barriers on WB approach between the right-most lane and center lane to allow the
Northern Boulevard	EB	T	0.57	38.6	D	T	0.63	40.2	D	T	0.76	43.8	D	Van Wyck and Whitestone Expressway Ramp to bypass the signal and operate as free flow
	WB	T	0.32	6.9	A	T	0.37	7.4	A	T	0.38	7.8	A	through the intersection.
Grand Central Parkway Ramp	EB	T	0.93	49.4	D	T	1.05	78.2	E	T	1.05	78.2	E	-Close the ramp from EB Northern Blvd ramp to 126th Street.
Van Wyck & Whitestone Expressway Ramp	WB	T	0.64	12.1	B	T	1.03	50.9	D	-	-	-	-	-Divert traffic from the closed ramp through the intersection to SB 126th Pl to 34th Ave.
														-Widen the EB Northern approach from two 12-ft lanes to three 10-ft lanes.
Overall Intersection		**-**	**0.76**	**49.6**	**D**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.36**	**351.9**	**F**	-Prohibit pedestrian crossing in the east crosswalk and divert pedestrians to the new crossing at
														126th Place at Northern Boulevard.
														-Modify signal timing: shift 1 s of green time from EB Northern Blvd phase to NB 126th St
														phase [EB Northern Blvd green time shifts from 35 s to 34 s; NB 126th St green time shifts from
														25 s to 26 s].

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
Prince Street at Northern Boulevard (RT. 25A)														
Prince Street	NB	LTR	1.15	115.1	F	LTR	1.15	115.1	F					-Unmitigatable Impact.
	SB	LTR	0.41	38.7	D	LTR	0.41	38.7	D					
Northern Boulevard (Rt. 25A)	EB	L	0.91	67.7	E	L	0.91	67.7	E					
		T	1.03	53.8	D	T	1.15	102.8	F					
	WB	L	0.90	90.6	F	L	0.90	90.6	F					
		T	0.99	51.1	D	T	1.05	68.2	E					
Northern Boulevard Service Rd.	EB	TR	0.45	21.9	C	TR	0.45	21.9	C					
	WB	TR	0.55	29.3	C	TR	0.76	37.6	D					
		-	-	-	-	-	-	-	-					
Overall Intersection		**-**	**1.05**	**54.1**	**D**	**-**	**1.12**	**79.9**	**E**					
Main Street at Northern Boulevard (RT. 25A)														
Main Street	NB	T	0.86	48.2	D	T	0.86	48.2	D					-Unmitigatable impact.
		R	0.75	42.6	D	R	0.75	42.6	D					
Northern Boulevard (Rt 25A)	EB	T	1.06	67.3	E	T	1.20	125.9	F					
		R	1.20	131.0	F	R	1.20	131.0	F					
	WB	L	0.12	26.0	C	L	0.12	26.0	C					
		T	0.71	21.3	C	T	0.81	24.3	C					
Overall Intersection		**-**	**0.99**	**56.7**	**E**	**-**	**0.99**	**80.6**	**F**					
Union Street at Northern Boulevard (RT. 25A)														
Union Street	NB	TR	0.67	34.9	C	TR	0.67	34.9	C	TR	0.68	36.1	D	-Partially Mitigated.
	SB	TR	0.68	35.0	C	TR	0.69	35.0	D	TR	0.70	36.2	D	-Install "No Standing 7AM - 10PM" regulations along the north curb of the WB Northern Blvd
Northern Boulevard (Rt. 25A)	EB	L	0.75	35.7	D	L	0.76	37.5	D	L	0.72	34.2	C	approach 200-ft from the intersection to allow for one 10-ft daylighted shared through-right lane.
		TR	1.25	149.8	F	TR	1.40	218.9	F	TR	1.40	218.9	F	
	WB	L	1.01	69.8	E	L	1.01	84.6	F	L	0.96	71.9	E	-Modify Signal Timing: Shift 1 s of green time from NB/SB phase to EB/WB left-turn phase
		TR	0.86	39.4	D	TR	1.00	68.9	E	TR	0.74	34.3	C	[NB/SB green time shifts from 44 s to 43 s; EB/WB left-turn green time shifts from 15 s to 16 s].
Overall Intersection		**-**	**0.98**	**82.1**	**F**	**-**	**1.04**	**120.1**	**F**	**-**	**1.05**	**109.8**	**F**	
Parsons Boulevard at Northern Boulevard (RT. 25A)														
Parsons Boulevard	NB	L	0.76	58.2	E	L	0.78	62.0	E	L	0.78	61.4	E	-Install "No Standing Anytime" regulations along the north curb of the WB Northern Blvd
		TR	0.60	38.6	D	TR	0.60	38.6	D	TR	0.60	38.6	D	approach 150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
	SB	LTR	1.13	104.3	F	LTR	1.20	132.9	F	LT	0.71	35.9	D	-Install "No Standing Anytime" regulations along the south curb of the EB Northern Blvd
		-	-	-	-	-	-	-	-	R	0.37	33.4	C	approach 200-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
Northern Boulevard (Rt. 25A)	EB	L	0.46	43.7	D	L	0.56	47.4	D	L	0.59	47.0	D	-Install "No Standing Anytime" regulations along the west curb of the SB Parsons Blvd approach
		TR	1.16	107.4	F	TR	1.34	187.9	F	T	1.11	82.4	F	150-ft from the intersection to allow for one 10-ft daylighted right-turn lane.
		-	-	-	-	-	-	-	-	R	0.42	23.5	C	-Modify Signal Timing: Shift 1 s green time from EB/WB protected left-turn phase to EB/WB
	WB	L	0.52	46.4	D	L	0.51	47.1	D	L	0.55	47.0	D	phase [EB/WB protected left-turn green time shifts from 10 s to 9 s; EB/WB green time shifts
		TR	1.14	96.4	F	TR	1.31	173.6	F	T	1.07	67.8	E	from 52 s to 53 s].
		-	-	-	-	-	-	-	-	R	0.33	22.1	C	
Overall Intersection		**-**	**1.10**	**92.4**	**F**	**-**	**1.22**	**155.0**	**F**	**-**	**0.94**	**64.4**	**E**	
34TH AVENUE														
114th Street at 34th Avenue														
114th Street	SB	L	1.18	121.6	F	L	1.24	147.1	F	L	1.14	99.2	F	-Modify Signal Timing: Shift 3 s of green time from EB phase to SB phase [EB green time shifts
		T	0.36	25.1	C	T	0.42	26.0	C	T	0.38	23.4	C	from 52 s to 49 s; SB green time shifts from 28 s to 31 s].
34th Avenue	EB	T	0.45	12.3	B	T	0.45	12.3	B	T	0.48	14.4	B	
		R	0.06	8.4	A	R	0.06	8.5	A	R	0.07	9.8	A	
Overall Intersection		**-**	**0.72**	**70.5**	**E**	**-**	**0.75**	**84.0**	**F**	**-**	**0.75**	**59.5**	**E**	

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
126th Street/GCP Ramp at 34th Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	1.14	123.6	F	-Partially mitigated.
		LTR	0.58	29.3	C	LTR	2.06	513.6	F	TR	1.28	164.6	F	-Restripe the NB 126th Street approach from two 11-ft travel lanes, one 12-ft travel lane, and one
Northern Boulevard Ramp	SB	LTR	0.20	24.2	C	LTR	3.00+	1000.0+	F	-	-	-	-	7-ft hatched median to one 12-ft exclusive left-turn lane, two 12-ft travel lanes and one 5-ft Class
GCP Ramp	SB	LTR	0.94	87.3	F	LTR	3.00+	1000.0+	F	L	1.49	287.1	F	II bicycle lane.
		-	-	-	-	-	-	-	-	T	0.41	25.7	C	-Widen roadway on the east leg of the intersection to 44 ft to have two 11-ft WB approach lanes
Shea Road	EB	DefL	1.98	488.9	F	DefL	3.00+	1000.0+	F	DefL	2.15	562.5	F	and two 11-ft EB receiving lanes.
		TR	1.07	99.8	F	TR	1.66	345.3	F	TR	0.84	40.1	D	-Close the ramp from EB Northern Blvd ramp to 126th Street.
34th Avenue	WB	-	-	-	-	-	-	-	-	DefL	0.79	51.8	D	-Construct a channelized right-turn from the GCP/EB Astoria Blvd ramp to WB Shea Road.
		LTR	0.60	43.4	D	LTR	3.00+	1000.0+	F	TR	1.26	166.5	F	-Reconstruct the GCP/EB Astoria Blvd ramp to have one 11-ft exclusive left-turn lane and two
														11-ft travel lanes.
	Overall Intersection	**-**	**1.15**	**141.6**	**F**	**-**	**3.00+**	**976.2**	**F**	**-**	**2.23**	**175.9**	**F**	-Modify signal phasing and timing plan: EB/WB phase will have 48 s green time; NB/SB lead left-turn phase will have 7 s green time; NB/SB phase will have 50 s green time [each phase will have 3 s amber and 2 s all red time].
ROOSEVELT AVENUE														
108th Street at Roosevelt Avenue														
108th Street	NB	LTR	1.18	129.9	F	LTR	1.23	152.2	F	LT	1.17	126.9	F	-Partially mitigated.
		-	-	-	-	-	-	-	-	R	0.32	37.0	D	-Install "No Standing Anytime" regulations along the east curb of the NB 108th Street approach
	SB	LTR	1.22	146.9	F	LTR	1.24	154.2	F	LT	1.13	109.0	F	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
		-	-	-	-	-	-	-	-	R	0.36	37.6	D	-Install "No Standing Anytime" regulations along the west curb of the SB 108th Street approach
Roosevelt Avenue	EB	LTR	0.65	15.1	B	LTR	0.80	21.0	C	LTR	0.79	20.7	C	150-ft from the intersection to allow for one 11-ft left-through lane and one 11-ft right-turn lane.
	WB	LTR	0.94	20.4	C	LTR	1.18	104.2	F	LTR	1.11	71.5	E	
	Overall Intersection	**-**	**1.01**	**60.5**	**E**	**-**	**1.20**	**95.1**	**F**	**-**	**1.13**	**65.9**	**E**	
111th Street at Roosevelt Avenue														
111th Street	NB	LTR	1.08	85.9	F	LTR	1.08	85.9	F					-Unmitigatable impact.
Roosevelt Avenue	EB	LTR	0.75	17.9	B	LTR	0.93	32.0	C					
	WB	LTR	1.24	130.2	F	LTR	1.49	242.3	F					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**1.20**	**84.4**	**F**	**-**	**1.38**	**140.7**	**F**					
114th Street at Roosevelt Avenue														-Partially mitigated.
114th Street	NB	LTR	0.69	46.6	D	LTR	0.74	50.3	D	LTR	0.54	38.5	D	-Shift center line of WB Roosevelt Avenue approach 11 ft to the south.
	SB	LTR	1.11	97.5	F	LTR	1.24	153.3	F	LT	0.80	40.2	D	-Restripe the WB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	R	0.30	35.3	D	left-turn lane, one 11-ft through lane, and one 11-ft exclusive right-turn lane.
Roosevelt Avenue	EB	LTR	1.33	170.5	F	LTR	2.14	534.2	F	L	0.64	14.5	B	-Restripe the EB Roosevelt Avenue approach from two 11-ft travel lanes to one 11-ft exclusive
		-	-	-	-	-	-	-	-	TR	0.63	12.9	B	left-turn lane and one 11-ft travel lane.
	WB	LTR	0.80	17.4	B	LTR	1.39	200.3	F	L	0.56	16.7	B	-Shift centerline of NB 114th Street approach 3 ft to the east.
		-	-	-	-	-	-	-	-	T	0.77	18.4	B	-Restripe the NB 114th Street approach from one 16-ft travel lane to one 13-ft travel lane
		-	-	-	-	-	-	-	-	R	1.84	404.6	F	-Shift center line of SB 114th Street approach 2 ft to the east.
	Overall Intersection	**-**	**1.26**	**71.4**	**E**	**-**	**1.87**	**266.7**	**F**	**-**	**1.51**	**116.4**	**F**	-Install "No Standing Anytime" regulations along the east curb of the NB 114th Street approach 250 ft from the intersection.
														-Install "No Standing Anytime" regulations along the south curb of the EB Roosevelt Avenue approach 250 ft from the intersection.
														-Modify signal timing: Shift 2 s green time from EB/WB phase to NB/SB phase [EB/WB green time shifts from 80 s to 78 s; NB/SB green time shifts from 30 s to 32 s].
														-Install "No Standing 1 PM - 9 PM Saturday" regulations along the west curb of the SB 114th Street approach 150-ft from the intersection to allow for one 12-ft left-through lane and one 10-ft right-turn lane.

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
126th Street at Roosevelt Avenue														
126th Street	NB	-	-	-	-	-	-	-	-	L	0.27	40.4	D	-Partially mitigated.
		LTR	0.22	37.4	D	LTR	2.83	889.5	D	TR	0.25	36.8	D	-Reconfigure NB 126th Street approach to have one 10-ft exclusive left-turn and two 10-ft travel lanes.
	SB	DefL	1.25	167.0	F	DefL	1.90	456.2	D	L	1.83	434.7	F	
		TR	0.52	30.4	C	TR	1.96	476.0	F	T	0.45	41.5	D	-Shift centerline of SB 126th Street approach 9 ft to the east.
		-	-	-	-	-	-	-	-	R	1.15	125.9	F	-Restripe the SB 126th Street approach from one 11-ft and one 12-ft travel lane to one 11-ft exclusive left-turn lane, one 10-ft through lane, and one 11-ft exclusive right-turn lane for 250 ft.
Roosevelt Avenue	EB	-	-	-	-	DefL	3.00+	1000.0+	F	DefL	3.06	970.5	F	
		LTR	0.62	23.0	C	TR	1.12	95.9	F	TR	0.86	23.6	C	-Shift centerline of EB Roosevelt Avenue approach 1 ft to north.
	WB	LTR	0.51	20.2	C	LTR	1.01	57.7	E	LTR	0.93	42.8	D	-Shift centerline of WB Roosevelt Avenue approach 1 ft to south.
	Overall Intersection	**-**	**0.89**	**56.0**	**E**	**-**	**3.00+**	**1000.0+**	**F**	**-**	**1.83**	**336.8**	**F**	-Restripe the EB Roosevelt Avenue approach from one 10-ft and 11-ft travel lane to two 11-ft travel lanes. -Restripe the WB Roosevelt Avenue approach from one 11-ft and 10-ft travel lane to two 11-ft travel lanes. -Modify signal phasing and timing plan: EB/WB will have 59 s green time; EB-lag/SB right phase will have 16 s green time; NB/SB phase will have 30 s green time [each phase will have 3 s amber and 2 s all red time].
College Point Boulevard at Roosevelt Avenue														
College Point Boulevard	NB	L	1.05	93.9	F	L	1.47	260.9	F	L	0.89	66.9	E	-Partially Mitigated
		TR	0.78	26.3	C	TR	0.78	26.3	C	TR	0.76	31.8	C	-Restripe the WB Roosevelt Avenue approach from one 13-ft travel lane and one 17-ft travel lane to two 15-ft travel lanes.
		-	-	-	-	-	-	-	-	-	-	-	-	
	SB	TR	0.89	40.4	D	TR	1.14	105.3	F	T	0.72	45.2	D	-Restripe the EB Roosevelt Avenue approach from one 14-ft travel lane and one 12-ft travel lane to two 13-ft travel lanes.
Roosevelt Avenue	EB	L	0.59	30.5	C	L	0.67	32.0	C	L	0.64	40.3	D	
		TR	1.25	134.7	F	TR	1.55	272.4	F	TR	1.48	246.4	F	-Restripe the NB College Point Boulevard approach from one 9-ft exclusive left-turn lane, one 13-ft travel lane, and one 18-ft travel lane with parking to two 10-ft exclusive left-turn lanes, and two 10-ft travel lanes lanes for 200 ft.
	WB	L	0.25	32.9	C	L	0.25	32.9	C	-	-	-	-	
		TR	0.42	25.8	C	TR	0.55	28.3	C	TR	0.53	41.7	D	-Restripe the SB College Point Boulevard approach from one 11-ft travel lane and one 19-ft travel lane to three 10-ft travel lanes for 200 ft.
	Overall Intersection	**-**	**1.14**	**62.6**	**E**	**-**	**1.53**	**133.7**	**F**	**-**	**1.17**	**100.0**	**F**	-Restripe the NB/SB lanes in the Roosevelt Avenue median from one NB 24-ft travel lane, one NB 11-ft travel lane, one NB 10-ft exclusive left-turn lane, one SB 10-ft travel lane and one SB 20-ft travel lane to one NB 15-ft travel lane, one NB 10-ft travel lane, two NB 10-ft exclusive left-turn lanes, and three SB 10-ft travel lanes. -Extend median on the north leg 3 ft to the east and shift NB receiving lanes 3 ft to the east. Taper 45 ft to meet existing lanes. -Install "No Standing Anytime" regulations along the east curb of the NB approach of College Point Boulevard for 250 ft. -Install "No Standing Anytime" regulations along the west curb of the SB approach of College Point Boulevard for 200 ft. -Divert SB right-turn traffic on College Point Boulevard to 39th Avenue and Janet Place. -Divert WB left-turn traffic on Roosevelt Avenue to Janet Place and 39th Avenue. -Modify signal phasing and timing plan: EB/WB will have 29 s green time; EB-lag phase will have 23 s green time; NB lead-phase will have 19 s green time; NB/SB phase will have 29 s green time [each phase will have 3 s amber and 2 s all red time].
Prince Street at Roosevelt Avenue														
Prince Street	SB	LTR	0.73	37.4	D	LTR	0.73	37.4	D					-Mitigation not required.
Roosevelt Avenue	EB	DefL	0.78	19.0	B	-	-	-	-					
		TR	0.84	18.7	B	LTR	0.86	17.6	B					
	WB	LTR	0.60	12.4	B	LTR	0.72	14.7	B					
		-	-	-	-	-	-	-	-					
	Overall Intersection	**-**	**0.80**	**20.5**	**C**	**-**	**0.82**	**20.1**	**C**					

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Main Street at Roosevelt Avenue														
Main Street	NB	T	0.68	24.5	C	T	0.68	24.5	C	T	0.76	29.7	C	-Partially mitigated.
	SB	T	0.56	22.4	C	T	0.56	22.4	C	T	0.62	26.6	C	-Modify Signal Timing: Shift 4 s of green time from NB/SB phase to EB/WB phase [EB/WB
Roosevelt Avenue	EB	L	0.26	19.5	B	L	0.31	21.6	C	L	0.26	17.1	B	green time shifts from 39 s to 43 s; NB/SB green time shifts from 41 s to 37 s].
		TR	0.96	50.8		TR	1.19	127.5	F	TR	1.08	81.7	F	
	WB	L	0.20	17.4	B	L	0.32	21.5	C	L	0.23	16.0	B	
		TR	0.87	37.3		TR	1.01	61.7	E	TR	0.91	37.8	D	
	Overall Intersection	**-**	**0.82**	**32.3**	**C**	**-**	**0.94**	**59.3**	**E**	**-**	**0.94**	**44.3**	**D**	
Union Street at Roosevelt Avenue														
Union Street	NB	TR	0.46	17.4	B	TR	0.46	17.4	B					-Unmitigatable impact.
	SB	LT	1.23	134.3	F	LT	1.23	134.3	F					
		R	1.93	453.3	F	R	1.93	453.3	F					
Roosevelt Avenue	EB	LTR	2.00	480.3	F	LTR	2.47	690.8	F					
	WB	LT	0.75	31.8	C	LT	0.91	46.5	D					
		R	1.53	309.9	F	R	1.53	309.9	F					
	Overall Intersection	**-**	**1.96**	**231.5**	**F**	**-**	**2.17**	**300.2**	**F**					
Parsons Boulevard at Roosevelt Avenue														
Parsons Boulevard	NB	LTR	0.96	43.7	D	LTR	1.00	54.3	D	LT	0.94	42.1	D	-Modify Signal Timing: Shift 2 s of green time from NB/SB phase to EB/WB phase [EB/WB
		-	-	-	-	-	-	-	-	R	0.08	15.7	B	green time shifts from 40 s to 42 s; NB/SB green time shifts from 40 s to 38 s].
	SB	LTR	0.77	27.2	C	LTR	0.77	27.2	C	LTR	0.90	39.6	D	-Install "No Standing 10AM - 9PM, Saturday" regulations on the NB approach 75 feet from the
Roosevelt Avenue	EB	LTR	0.72	26.9	C	LTR	0.96	50.4	D	LTR	0.92	40.9	D	intersection to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.76	28.8	C	LTR	0.91	41.8	D	LTR	0.85	33.9	C	
	Overall Intersection	**-**	**0.86**	**32.1**	**C**	**-**	**0.98**	**43.6**	**D**	**-**	**0.93**	**38.7**	**D**	
KISSENA BOULEVARD														
Main Street at Kissena Boulevard														
Main Street	NB	L	0.70	32.8	C	L	0.72	34.4	C	L	0.70	31.5	C	-Modify Signal Timing: Shift 1 s of green time from WB Kissena Blvd phase to NB/SB phase
		TR	0.68	23.0	C	TR	0.68	23.0	C	TR	0.66	21.9	C	[WB green time shifts from 40 s to 39 s; NB/SB green time shifts from 40 s to 41 s].
	SB	L	0.44	19.8	B	L	0.44	19.8	B	L	0.45	20.7	C	[Measures reflect improvements needed for the Saturday Non-game and Saturday Pre-game peak
		TR	0.49	18.9	B	TR	0.49	18.9	B	TR	0.47	18.1	B	periods.]
Kissena Boulevard	WB	T	0.66	24.6	C	T	0.66	24.6	C	T	0.68	25.9	C	
	Overall Intersection	**-**	**0.68**	**22.4**	**C**	**-**	**0.69**	**22.5**	**C**	**-**	**0.69**	**22.0**	**C**	
SANFORD AVENUE														
College Point Boulevard at Sanford Avenue														
College Point Boulevard	NB	L	0.24	13.2	B	L	0.29	15.8	B	L	0.27	13.6	B	-Mitigation not required.
		T	0.57	12.7	B	T	0.59	13.1	B	T	0.57	11.7	B	-Upgrade to computerized signal controller with the following timing plan: WB phase will have
	SB	TR	0.80	17.4	B	TR	0.86	19.9	B	TR	0.83	17.4	B	25 s green time; NB/SB phase will have 55 s green time [each phase will have 3 s amber and 2 s
		-	-	-	-	-	-	-	-	-	-	-	-	all red time].
Sanford Avenue	WB	L	0.58	34.8	C	L	0.58	34.8	C	L	0.61	37.0	D	[Measures reflect improvements needed for the weekday Non-game PM and Saturday Non-game
		TR	0.34	26.6	C	TR	0.46	28.5	C	TR	0.49	29.8	C	peak periods.]
	Overall Intersection	**-**	**0.73**	**17.6**	**B**	**-**	**0.77**	**19.4**	**B**	**-**	**0.76**	**17.9**	**B**	
Union Street at Sanford Avenue														
Union Street	NB	LTR	0.42	22.2	C	LTR	0.42	22.2	C					-Mitigation not required.
	SB	LTR	0.82	30.1	C	LTR	0.83	30.9	C					
Sanford Avenue	EB	-	-	-	-	-	-	-	-					
		LTR	0.24	13.8	B	LTR	0.24	13.8	B					
	WB	LTR	0.70	22.4	C	LTR	0.75	24.2	C					
	Overall Intersection	**-**	**0.75**	**24.1**	**C**	**-**	**0.79**	**25.0**	**C**					

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
INTERSECTION & APPROACH		Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	Mvt.	V/C	Control Delay	LOS	
Parsons Boulevard at Sanford Avenue														
Parsons Boulevard	NB	LTR	0.94	38.6	D	LTR	0.97	45.6	D	LT	0.86	31.3	C	-Shift NB centerline 1-ft to the west to allow for a 20-ft NB approach.
		-	-	-	-	-	-	-	-	R	0.12	14.9	B	-Install "No Standing Anytime" regulations on the NB approach 75-ft from the stopbar to allow
	SB	LTR	0.75	26.4	C	LTR	0.95	44.6	D	LT	0.78	28.7	C	for one 10-ft left-through lane and one 10-ft daylighted right-turn pocket.
		-	-	-	-	-	-	-	-	R	0.25	16.4	B	-Install "No Standing 10 AM - 9 PM" regulations on the SB approach 75 feet from the stop bar
Sanford Avenue	EB	LTR	0.81	30.1	C	LTR	0.83	31.5	C	LTR	0.83	31.5	C	to allow for a 10-ft daylighted right-turn lane.
	WB	LTR	0.83	32.5	C	LTR	0.89	38.3	D	LTR	0.89	38.3	D	
		-	-	-	-	-	-	-	-	-	-	-	-	
Overall Intersection		**-**	**0.88**	**31.9**	**C**	**-**	**0.93**	**40.1**	**D**	**-**	**0.88**	**31.0**	**C**	
WHITESTONE EXPRESSWAY / 32ND AVENUE														
College Point Boulevard at 32nd Avenue														
College Point Boulevard	NB	T	0.45	24.0	C	T	0.48	24.4	C					-Mitigation not required.
		TR	0.35	22.9	C	TR	0.37	23.1	C					
	SB	L	0.28	27.8	C	L	0.28	28.0	C					
		T	0.30	9.6	A	T	0.31	9.7	A					
32nd Avenue	WB	LTR	0.31	26.9	C	LTR	0.31	26.9	C					
Overall Intersection		**-**	**0.86**	**19.6**	**B**	**-**	**0.86**	**19.8**	**B**					
NORTHERN BOULEVARD SERVICE ROAD														
College Point Boulevard at Northern Boulevard Service Road														
College Point Boulevard	NB	TR	0.51	12.9	B	TR	0.54	13.2	B					-Mitigation not required.
	SB	LT	0.55	14.0	B	LT	0.58	14.6	B					
Northern Blvd Service Rd	WB	LR	0.57	29.2	C	LR	0.80	38.3	D					
Overall Intersection		**-**	**0.56**	**15.9**	**B**	**-**	**0.66**	**18.9**	**B**					
STADIUM ROAD														
Boat Basin Road at Stadium Road														
Boat Basin Road	NB	L	2.39	663.8	F	DefL	1.37	256.3	F	DefL	0.56	43.5	D	-Unmitigatable impact.
		TR	1.90	438.3	F	TR	0.35	26.3	C	TR	0.44	39.3	D	-Install an actuated controller.
	SB	-	-	-	-	-	-	-	-	DefL	1.39	236.8	F	-Modify signal phasing and timing plan: EB lead phase will have 14 s green time; EB/WB phase
		LTR	0.41	27.7	C	LTR	1.75	374.9	F	TR	0.70	37.1	D	will have 37 s green time; WB lag phase will have 7 s green time; NB/SB phase will have 29 s
Stadium Road	EB	-	-	-	-	DefL	3.00+	1000.0+	F	DefL	1.88	443.2	F	green time; SB lag phase will have 8 s green time [each phase will have 3 s amber and 2 s all red
		-	-	-	-	TR	0.49	12.2	B	TR	0.62	25.3	C	time].
	WB	-	-	-	-	-	-	-	-	-	-	-	-	
		LTR	0.27	9.3	A	LTR	0.81	18.2	B	LTR	0.93	44.9	D	
Overall Intersection		**-**	**0.98**	**431.4**	**F**	**-**	**2.84**	**276.7**	**F**	**-**	**3.00+**	**125.6**	**F**	

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

INTERSECTION & APPROACH		No Action Mvt.	No Action V/C	No Action Control Delay	No Action LOS	With Action Mvt.	With Action V/C	With Action Control Delay	With Action LOS	Mitigation Mvt.	Mitigation V/C	Mitigation Control Delay	Mitigation LOS	Mitigation Measure
UNSIGNALIZED INTERSECTIONS														
Boat Basin Road at Worlds Fair Marina														
Boat Basin Road	NB	L	-	103.5	F	L	-	1000.0+	F	L	0.89	52.9	D	-Install traffic signal with the following timing plan: EB will have 7 s green time; WB + NB-Right will have 50 s green time; NB will have 18 s green time [each phase will have 3 s amber and 2 s all red time].
		R	-	13.4	B	R	-	10.7	B	R	0.31	2.9	A	
Worlds Fair Marina	EB	-	-	-	-	-	-	-	-	TR	0.18	40.7	D	
	WB	LT	-	7.8	A	LT	-	9.8	A	L	0.49	14.2	B	-Stripe WB approach as one 11-ft left-turn lane and one 11-ft shared left-through lane.
		-	-	-	-	-	-	-	-	LT	0.91	32.0	C	-Stripe NB approach as two 10-ft left-turn lanes and one 10-ft right-turn lane.
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**54.1**	**F**	**-**	**-**	**1000.0+**	**F**	**-**	**0.83**	**29.0**	**C**	
Willets Point Boulevard at Northern Boulevard														
Willets Point Boulevard	NB	TR	-	9.1	A	-	-	-	-	-	-	-	-	-Channelize EB through receiving and NB right-turn receiving to allow concurrent traffic flow.
New Van Wyck Expressway Ramp	SB	-	-	-	-	-	-	-	-	T	0.73	22.3	C	-Install traffic signal with the following timing plan: EB will have 30 s green time; SB will have 20 s green time [each phase will have 3 s amber and 2 s all red time].
Northern Boulevard Service Road	EB	-	-	-	-	TR	-	1000.0+	F	T	0.77	19.2	B	
														-Intersection meets NYCDOT Signal Warrant Criteria.
	Overall Intersection	**-**	**-**	**9.1**	**A**	**-**	**-**	**1000.0+**	**F**	**-**	**0.76**	**20.9**	**C**	
Grand Central Parkway Ramp at West Park Loop/Stadium Road														
Stadium Road	NB	-	-	-	-	-	-	-	-	T	0.53	27.6	C	-Install traffic signal with the following timing plan: EB will have 35 s green time; WB will have 20 s green time; NB/SB will have 50 s green time [each phase will have 3 s amber and 2 s all red
	SB	-	-	-	-	LT	-	13.1	B	L	0.66	44.0	D	
		-	-	-	-	-	-	-	-	TR	0.67	31.3	C	-Add a right turn lane and channelized right-turn to the GCP off ramp.
Grand Central Parkway Off-Ramp	EB	L	-	53.2	F	L	-	333.6	F	L	0.46	37.9	D	-Stripe the WB approach as two 12-ft left-turn lanes and one 12-ft right-turn lane.
		-	-	-	-	T	-	761.5	F	T	0.44	37.5	D	-Add a 12-ft SB left-turn lane in the median of Stadium Road.
		R	-	22.8	C	R	-	12.5	B	-	-	-	-	-Intersection meets NYCDOT Signal Warrant Criteria.
Willets West Center Exit	WB	-	-	-	-	L	-	1000.0+	F	L	0.95	78.8	E	
		-	-	-	-	R	-	13.4	B	R	0.29	46.8	D	
	Overall Intersection	**-**	**-**	**41.7**	**E**	**-**	**-**	**1000.0+**	**F**	**-**	**0.65**	**41.4**	**D**	
126th Street at 36th Avenue														
126th Street	NB	-	-	-	-	TR	1.08	70.3	E	TR	1.08	70.3	E	-Unmitigatable impact.
	SB	-	-	-	-	DefL	0.89	82.2	F	DefL	0.71	57.0	E	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	T	0.71	14.0	B	T	0.69	13.2	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
36th Avenue	WB	LR	-	13.3	B	L	0.13	39.5	D	L	0.13	39.5	D	
		-	-	-	-	R	1.12	128.9	F	R	1.12	128.9	F	
	Overall Intersection	**-**	**-**	**13.0**	**B**	**-**	**1.33**	**62.1**	**E**	**-**	**1.30**	**61.2**	**E**	
126th Street at 37th Avenue														
126th Street	NB	-	-	-	-	TR	1.10	80.8	F	TR	1.10	80.8	F	-Unmitigatable impact.
	SB	-	-	-	-	DefL	0.89	82.0	F	DefL	0.72	55.9	E	-Intersection meets NYCDOT Signal Warrant Criteria.
		LT	-	8.4	A	T	0.64	14.5	B	T	0.64	14.5	B	-Restripe the WB approach as one 10-ft left-turn lane and one 10-ft right-turn lane.
37th Avenue	WB	LR	-	17.0	C	L	0.20	36.7	D	L	0.20	36.7	D	
		-	-	-	-	R	0.52	34.7	C	R	0.52	34.7	C	
	Overall Intersection	**-**	**-**	**15.7**	**C**	**-**	**1.23**	**61.2**	**E**	**-**	**1.23**	**59.8**	**E**	
Northern Boulevard at 126th Place														-Mitigation not required.
126th Place	NB	R	-	16.6	C	R	-	26.5	D	R	0.33	43.2	D	-Restripe the NB approach as one 12-ft right-turn lane and two 10-ft receiving lanes.
Northern Boulevard	EB	-	-	-	-	-	-	-	-	TR	0.72	11.8	B	-Install traffic signal with the following timing plan: EB phase will have 85 s green time; NB phase will have 25 s green time [each phase will have 3 s amber and 2 s all red time].
	Overall Intersection	**-**	**-**	**16.6**	**C**	**-**	**-**	**26.5**	**D**	**-**	**0.63**	**13.0**	**B**	-Install a crosswalk across the EB Northern Blvd approach to allow pedestrian access to a new bus stop in the WB Northern Blvd median.
														-Intersection meets NYCDOT Signal Warrant Criteria.

TABLE 27
CITIFIELD - WILLETS POINT DEVELOPMENT STUDY
2032 PHASE 2 SATURDAY POST-GAME PM NO ACTION VS WITH ACTION TRAFFIC LEVELS OF SERVICE COMPARISON

		No Action				With Action				Mitigation				Mitigation Measure
				Control				Control				Control		
INTERSECTION & APPROACH		**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	**Mvt.**	**V/C**	**Delay**	**LOS**	
NEW (WITH ACTION) SIGNALIZED INTERSECTIONS														
126th Street at New Willets Point Boulevard														
126th Street	NB	-	-	-	-	TR	1.34	188.1	F					-Mitigation not required.
	SB	-	-	-	-	DefL	0.78	69.6	E					-Intersection meets NYCDOT Signal Warrant Criteria.
		-	-	-	-	T	0.63	16.7	B					
New Willets Point Boulevard	WB	-	-	-	-	L	0.76	49.8	D					
		-	-	-	-	R	0.52	30.9	C					
Overall Intersection		**-**	**-**	**-**	**-**	-	**1.47**	**119.0**	**F**					
Citi Field/Lot B at Roosevelt Avenue														
Citi Field/Lot B	SB	LR	-	-	-	LR	0.02	33.9	C					-Mitigation not required.
Roosevelt Avenue	EB	LT	-	-	-	LT	1.07	61.4	E					
	WB	TR	-	-	-	TR	0.55	11.6	B					
Overall Intersection		**-**	**-**	**-**	**-**	-	**0.78**	**43.9**	**D**					

Notes

(1): Control delay is measured in seconds per vehicle.

(2): Overall intersection V/C ratio is the critical lane groups' V/C ratio.

(3): V/C ratios above 1.20 represent saturated conditions and, at several locations, result in predicted average vehicle delays in the 1,000 to 4,000+ second range for signalized intersections and 1,000 to 10,000+ second range for unsignalized intersections. These are theoretical HCM-generated outputs that may, in fact, overestimate delays for such conditions. Lane groups reflecting these conditions are presented in the tables as having delays of "1,000+" seconds and v/c ratios of approximately "3.00+".

(4): This table has been revised for the Final SEIS.