

Table of Contents

Executive Summary.....	S-1
1: Project Description.....	1-1
A. Introduction.....	1-1
B. Project Identification.....	1-2
C. Purpose and Need	1-3
Background and History.....	1-3
Existing Zoning	1-6
Planning Context for the Comprehensive Rezoning	1-7
Planning Principles and Goals.....	1-7
D. Summary of the Proposed Actions	1-9
City Actions.....	1-9
State Actions	1-11
E. Description of the Proposed Actions	1-11
Mapping Actions	1-11
Zoning Map Changes	1-13
Map Changes Outside the Special Coney Island District.....	1-15
Zoning Text Amendments.....	1-15
State Approvals	1-21
F. Reasonable Worst Case Development Scenario	1-22
Overview	1-22
General Criteria for Determining Development Sites.....	1-23
The Future Without the Proposed Actions (No Build Scenario).....	1-24
The Future With the Proposed Actions Condition (Build Scenario).....	1-24
G. Public Review Process.....	1-27
City Environmental Quality Review	1-27
Uniform Land Use Review Procedure (ULURP).....	1-28
Zoning Resolution	1-29
2: Land Use, Zoning, and Public Policy.....	2-1
A. Introduction.....	2-1
B. Background and Development History.....	2-2
C. Existing Conditions.....	2-4
Land Use	2-4
Zoning	2-8
Public Policy	2-11
D. The Future Without the Proposed Actions.....	2-14
Land Use	2-14
Zoning	2-18
Public Policy	2-18

Coney Island Rezoning

E. Probable Impacts of the Proposed Actions.....	2-19
Land Use.....	2-19
Zoning and City Map.....	2-25
Public Policy.....	2-31
3: Socioeconomic Conditions.....	3-1
A. Introduction	3-1
B. Methodology, Data Sources, and Study Area Definition	3-1
CEQR Overview.....	3-1
Determining Whether a Socioeconomic Assessment is Appropriate	3-2
Analysis Format.....	3-3
Study Area	3-4
Data Sources	3-4
C. Preliminary Assessment	3-6
Direct Residential Displacement	3-6
Indirect Residential Displacement.....	3-6
Direct Business and Institutional Displacement	3-8
Indirect Business and Institutional Displacement.....	3-11
Adverse Effects On Specific Industries	3-17
D. Detailed Analysis if Indirect Residential Displacement.....	3-18
Existing Conditions	3-18
The Future Without the Proposed Actions	3-34
The Future With the Proposed Actions.....	3-35
E. Detailed Analysis of Direct Business Displacement.....	3-37
Existing Conditions	3-37
The Future Without the Proposed Actions	3-50
The Future With the Proposed Actions.....	3-51
F. Conclusions	3-55
Direct Residential Displacement	3-55
Indirect Residential Displacement.....	3-55
Direct Business and Institutional Displacement	3-56
Indirect Business and Institutional Displacement.....	3-57
Adverse Effects on Specific Industries.....	3-57
4: Community Facilities.....	4-1
A. Introduction	4-1
B. Screening-Level Assessment.....	4-1
Public Schools	4-2
Libraries.....	4-2
Day Care Facilities	4-2
Health Care Facilities	4-3
Police and Fire Protection.....	4-3
C. Public Schools	4-3
Methodology.....	4-3
Existing Conditions	4-4
The Future Without the Proposed Actions	4-6
Probable Impacts of the Proposed Actions	4-8

Table of Contents

D.	Libraries	4-10
	Methodology	4-10
	Existing Conditions	4-10
	The Future Without the Proposed Actions	4-11
	Probable Impacts of the Proposed Actions.....	4-12
E.	Day Care Facilities.....	4-12
	Methodology	4-12
	Existing Conditions	4-13
	The Future Without the Proposed Actions	4-15
	Probable Impacts of the Proposed Actions.....	4-16
F.	Health Care Facilities.....	4-17
	Existing Conditions	4-18
	The Future Without the Proposed Actions	4-18
	Probable Impacts of the Proposed Actions.....	4-19
G.	Police Protection	4-20
	Methodology	4-20
	Existing Conditions	4-20
	The Future Without the Proposed Actions	4-20
	Probable Impacts of the Proposed Actions.....	4-21
H.	Fire Protection and Emergency Services	4-21
	Methodology	4-21
	Existing Conditions	4-21
	The Future Without the Proposed Actions	4-22
	Probable Impacts of the Proposed Actions.....	4-22
I.	Conclusions.....	4-23
5:	Open Space.....	5-1
A.	Introduction.....	5-1
B.	Initial Quantitative Assessment	5-1
C.	Methodology	5-2
	Study Areas	5-3
	Inventory of Open Space Resources	5-3
	Adequacy of Open Space Resources.....	5-4
D.	Existing Conditions.....	5-5
	Study Area Population	5-5
	Inventory of Open Space Resources	5-7
	Adequacy of Open Spaces.....	5-12
E.	The Future Without the Proposed Actions.....	5-15
	Study Area Population	5-15
	Study Area Open Spaces	5-15
	Adequacy of Open Spaces.....	5-16
F.	Probable Impacts of the Proposed Actions	5-18
	Study Area Population	5-18
	Study Area Open Spaces	5-19
	Adequacy of Open Spaces.....	5-19
	Impact Significance.....	5-21

Coney Island Rezoning

G. Conclusions	5-23
Direct Effects	5-23
Indirect Effects	5-24
6: Shadows	6-1
A. Introduction	6-1
B. Daily and Seasonal Variations in Shadows	6-1
C. Methodology	6-1
D. Screening Analysis	6-3
E. Resources of Concern	6-3
Open Spaces	6-3
Historic Resources	6-4
Important Natural Features	6-4
F. Assessment of Incremental Shadows	6-4
Coney Island Beach and Riegelmann Boardwalk	6-5
Steeplechase Plaza	6-6
Luna Park Playground	6-7
Gerald J. Carey Gardens	6-7
Santos White Community Garden	6-8
Our Lady of Solace R.C. Church	6-8
Proposed Open Spaces	6-9
G. Conclusions	6-10
7: Historic Resources	7-1
A. Introduction	7-1
B. Methodology	7-1
Archaeological Resources	7-1
Architectural Resources	7-2
C. Existing Conditions	7-3
Rezoning Area	7-3
Study Area	7-11
D. The Future Without the Proposed Actions	7-15
Overview	7-15
Direct Effects from Closure of Astroland Amusement Park	7-16
Potential Effects from Known Development Projects	7-16
Potential Direct Effects from Reasonable Worst-Case Development Scenario (RWCDS) Projects	7-16
E. Probable Impacts of the Proposed Actions	7-17
Overview	7-17
Potential Direct Impacts	7-17
Potential Visual and Contextual Impacts	7-20
F. Conclusions	7-22
8: Urban Design and Visual Resources	8-1
A. Introduction	8-1
B. Methodology	8-1

Table of Contents

C.	Existing Conditions.....	8-2
	Proposed Rezoning Area.....	8-2
	Study Area.....	8-11
D.	Future Without the Proposed Actions.....	8-16
E.	Probable Impacts of the Proposed Actions	8-17
	Proposed Rezoning Area.....	8-17
	Study Area.....	8-30
F.	Conclusions.....	8-32
	Urban Design.....	8-32
	Visual Resources.....	8-33
9:	Neighborhood Character	9-1
A.	Introduction.....	9-1
B.	Methodology	9-1
	Study Areas	9-1
	Neighborhood Character Components	9-1
C.	Existing Conditions.....	9-2
	Rezoning Area.....	9-2
	Immediately Adjacent Neighborhoods.....	9-5
D.	The Future Without the Proposed Actions.....	9-5
	Rezoning Area.....	9-5
	Immediately Adjacent Neighborhoods.....	9-6
E.	Probable Impacts of the Proposed Actions	9-7
	Rezoning Area.....	9-7
	Immediately Adjacent Neighborhoods.....	9-11
F.	Conclusions.....	9-14
10:	Natural Resources.....	10-1
A.	Introduction.....	10-1
B.	Methodology	10-2
	Regulatory Context	10-2
	Impact Assessment.....	10-4
C.	Existing Conditions.....	10-7
	Site History.....	10-7
	Groundwater.....	10-7
	Floodplains	10-8
	Wetlands.....	10-8
	Terrestrial Resources.....	10-9
	Aquatic Resources.....	10-17
	Threatened, Endangered Species, or Special Concern Species.....	10-26
	Essential Fish Habitat.....	10-29
D.	The Future Without the Proposed Actions.....	10-31
	Groundwater.....	10-31
	Floodplains	10-31
	Terrestrial Resources.....	10-32
	Water Quality, Aquatic Resources, and Wetlands	10-32
	Threatened, Endangered Species or Special Concern Species.....	10-35
	Essential Fish Habitat.....	10-36

Coney Island Rezoning

E.	Probable Impacts of the Proposed Actions.....	10-36
	Groundwater	10-37
	Floodplains and Wetlands.....	10-38
	Terrestrial Resources	10-41
	Aquatic Resources	10-43
	Endangered, Threatened, and Special Concern Species	10-44
	Essential Fish Habitat	10-45
F.	Conclusions	10-45
	Groundwater	10-45
	Floodplains and Wetlands.....	10-45
	Terrestrial Resources	10-46
	Aquatic Resources	10-46
	Endangered, Threatened, and Special Concern Species	10-46
	Essential Fish Habitat	10-46
11:	Hazardous Materials	11-1
A.	Introduction	11-1
B.	Existing Conditions	11-2
	Subsurface Conditions	11-2
	Hazardous Materials Assessment	11-2
	Summary.....	11-20
C.	The Future Without the Proposed Actions.....	11-22
D.	Probable Impacts of the Proposed Actions.....	11-22
E.	Conclusions	11-25
12:	Waterfront Revitalization Program.....	12-1
A.	Introduction	12-1
	Overview	12-1
B.	Consistency of Proposed Action With the Waterfront Revitalization Program Policies..	12-2
C.	Conclusions	12-9
13:	Infrastructure.....	13-1
A.	Introduction	13-1
B.	Methodology	13-1
C.	Existing Conditions	13-1
	Water Supply	13-1
	Sanitary Sewage	13-3
	Stormwater Sewers	13-5
D.	The Future Without the Proposed Actions	13-6
	Water Supply	13-7
	Sanitary Sewage	13-8
	Stormwater.....	13-8
E.	Probable Impacts of the Proposed Actions	13-9
	Water Supply	13-9
	Sanitary Sewage	13-10
	Stormwater.....	13-10
	Hydraulic Study	13-11
F.	Conclusions	13-19

Table of Contents

14: Solid Waste and Sanitation Services	14-1
A. Introduction.....	14-1
B. Methodology	14-1
C. Existing Conditions.....	14-1
Description of Current Sanitation Services	14-1
Solid Waste Generation.....	14-2
D. The Future Without the Proposed Actions.....	14-3
E. Probable Impacts of the Proposed Actions	14-4
F. Conclusions.....	14-5
15: Energy.....	15-1
A. Introduction.....	15-1
B. Methodology	15-1
C. Existing Conditions.....	15-1
Energy Providers	15-1
Energy Initiatives	15-2
Existing Demands	15-3
D. The Future Without the Proposed Actions.....	15-3
E. Probable Impacts of the Proposed Actions	15-5
F. Conclusions.....	15-6
16: Traffic and Parking.....	16-1
A. Introduction.....	16-1
Analysis Overview	16-1
B. Existing Conditions.....	16-2
Roadway Network and Traffic Study Area.....	16-2
Existing Traffic Volumes and Levels of Service	16-4
Parking	16-7
C. The Future Without the Proposed Actions.....	16-9
Background Developments and Trip Generation.....	16-9
No Build Volumes and Levels of Service	16-10
Parking	16-14
D. Probable Impacts of the Proposed Actions	16-17
Trip Generation and Modal Split.....	16-17
Trip Distribution and Assignment.....	16-27
New Roadway Design	16-29
Traffic Diversions	16-30
Project-Generated Traffic Volumes	16-30
Traffic Levels of Service and Impacts	16-31
Parking	16-34
Traffic and Safety	16-34
E. Conclusions.....	16-37
17: Transit and Pedestrians	17-1
A. Introduction.....	17-1
B. Methodology	17-1
Transit and Pedestrian Study Areas.....	17-1
Operational Analysis Methodology.....	17-3

Coney Island Rezoning

C.	Existing Conditions.....	17-6
	Subway Station Operations.....	17-7
	Bus Line Haul Levels	17-9
	Street-Level Pedestrian Operations	17-9
D.	The Future Without the Proposed Actions.....	17-17
	Transit and Pedestrian Volume Projections.....	17-17
	Subway Station Operations.....	17-18
	Bus Line Haul Levels	17-19
	Street-Level Pedestrian Operations	17-20
E.	Probable Impacts of the Proposed Actions.....	17-28
	Trip Distribution and Assignment	17-28
	Changes to the Street-Level Pedestrian Environment	17-29
	Subway Station Operations.....	17-30
	Bus Line Haul Levels	17-32
	Street-Level Pedestrian Operations	17-33
F.	Conclusions	17-41
18:	Air Quality.....	18-1
A.	Introduction.....	18-1
B.	Pollutants for Analysis	18-1
	Carbon Monoxide	18-1
	Nitrogen Oxides, VOCs, and Ozone.....	18-2
	Lead	18-2
	Respirable Particulate Matter—PM ₁₀ and PM _{2.5}	18-3
	Sulfur Dioxide	18-3
	Air Toxics	18-4
C.	Air Quality Regulations, Standards, and Benchmarks	18-4
	National and State Air Quality Standards.....	18-4
	NAAQS Attainment Status and State Implementation Plans	18-5
	Determining the Significance of Air Quality Impacts	18-6
D.	Methodology for Predicting Pollutant Concentrations.....	18-8
	Mobile Sources	18-8
	Parking Facilities	18-12
	Stationary Sources	18-13
E.	Existing Conditions	18-16
	Existing Monitored Air Quality Conditions	18-16
	Calculated Existing Co Concentrations	18-17
F.	The Future Without the Proposed Actions.....	18-18
	Mobile Sources Analysis	18-18
	Stationary Source Analysis	18-18
G.	Probable Impacts of the Proposed Actions.....	18-19
	Mobile Sources Analysis	18-19
	Stationary Sources	18-20
H.	Conclusions	18-24
19:	Noise	19-1
A.	Introduction	19-1

Table of Contents

B.	Noise Fundamentals.....	19-1
	“A”-Weighted Sound Level (dBA)	19-1
	Ability to Perceive Changes in Noise Levels.....	19-2
C.	Noise Standards and Criteria	19-3
	New York City Noise Control Code	19-3
	New York CEQR Noise Criteria.....	19-4
	New York State Department of Transportation Environmental Procedures Manual	19-5
D.	Impact Definition.....	19-5
E.	Noise Prediction Methodology	19-5
	Introduction	19-5
	Mobile Noise Sources	19-5
	Proportional Modeling	19-6
	Tnm Model.....	19-6
	Amusement Noise Sources.....	19-7
	Analysis Procedure.....	19-8
F.	Existing Conditions.....	19-9
	Site Description.....	19-9
	Selection of Noise Receptor Locations	19-9
	Noise Monitoring	19-10
	Equipment Used During Noise Monitoring	19-10
	Results of Existing Noise Levels.....	19-10
G.	The Future Without the Proposed Actions.....	19-10
H.	Probable Impacts of the Proposed Actions	19-13
	2019 Build Analysis	19-13
	Acceptability of Ambient Noise Levels in the Proposed Highland View Park.....	19-15
I.	Building Attenuation for RWCDS Buildings	19-15
J.	Mechanical Systems	19-17
K.	Conclusions.....	19-17
20:	Construction Impacts	20-1
A.	Introduction.....	20-1
B.	Overview of Construction Activities	20-1
	General Construction Practices	20-2
	Construction Methods	20-4
	Estimated Construction Worker and Truck Intensities	20-8
C.	Probable Impacts of the Proposed Actions	20-9
	Land Use and Neighborhood Character	20-9
	Socioeconomic Conditions.....	20-10
	Historic Resources.....	20-10
	Hazardous Materials.....	20-12
	Natural Resources, Water Quality, and Floodplains	20-13
	Traffic and Parking.....	20-14
	Transit and Pedestrians.....	20-17
	Air Quality.....	20-17
	Noise	20-20
	Rodent Control	20-23
21:	Public Health.....	21-1

Coney Island Rezoning

22: Mitigation.....	22-1
A. Introduction	22-1
B. Community Facilities	22-1
C. Traffic and Parking.....	22-1
Surf Avenue Corridor	22-2
Mermaid Avenue Corridor	22-6
Neptune Avenue Corridor.....	22-7
Cropsey Avenue Corridor.....	22-7
Ocean Parkway Corridor	22-8
Implementation.....	22-8
D. Transit and Pedestrians.....	22-9
Bus Line Haul Operations	22-9
Street-Level Pedestrian Operations	22-10
E. Air Quality	22-11
Effects of Traffic Mitigation Measures on Air Quality	22-11
F. Noise	22-12
23: Alternatives.....	23-1
A. Introduction	23-1
B. No Action Alternative	23-1
Description.....	23-1
No Action Alternative Compared With the Proposed Actions	23-2
C. Lesser Density Alternative	23-12
Description.....	23-12
Lesser Density Alternative Compared With the Proposed Actions	23-13
D. 15-Acre Mapped Amusement Parkland Alternative	23-21
Description.....	23-21
15-Acre Mapped Amusement Parkland Alternative Compared With the Proposed Actions	23-23
E. No Demapping and Mapping Action Alternative	23-32
Description.....	23-32
No Mapping Action Alternative Compared With the Proposed Actions	23-33
F. Conclusions	23-41
24: Unavoidable Significant Adverse Impacts.....	24-1
A. Introduction	24-1
B. Community Facilities	24-1
C. Historic Resources.....	24-1
D. Traffic.....	24-2
E. Noise	24-2
25: Growth-Inducing Aspects of the Proposed Actions	25-1
26: Irreversible and Irretrievable Commitment of Resources.....	26-1

APPENDICES (CD Only)

- Appendix A: Special Coney Island District Zoning Text
- Appendix B: Historic Resources Agency Correspondence
- Appendix C: Natural Resources Photographs and Bibliography

Table of Contents

- Appendix D: WRP Consistency Form
- Appendix E: Hydraulic Study
- Appendix F: Traffic and Parking
- Appendix G: Pedestrian Volume Maps
- Appendix H: Noise analysis summary tables
- Appendix I: Mitigation

List of Tables

1-1	Tax Blocks and Lots in the Proposed Rezoning Area.....	1-2
1-2	Summary of Existing and Proposed Allowable Densities – Special Coney Island District....	1-13
1-3	Proposed Inclusionary Housing Zoning – Special Coney Island District	1-17
1-4	Summary Proposed Height Regulations – Special Coney Island District.....	1-18
1-5	Summary Proposed Parking Regulations – Special Coney Island District	1-19
1-6	Proposed City Acquisition Sites.....	1-20
1-7	Proposed UDAAP Designation and Project Approval Sites	1-20
1-8	Proposed City-Owned Disposition Sites	1-21
1-9	Summary of No Build Development Sites (Future Without the Proposed Actions).....	1-24
1-10	Summary of Total and Net Incremental Development (Projected Development Sites) Coney East Subdistrict Future With the Proposed Actions (Build).....	1-25
1-11	Summary of Total and Net Incremental Development On Projected Development Sites Coney West, Coney North, and Mermaid Avenue Subdistricts Future With the Proposed Actions (Build).....	1-26
2-1	Existing Zoning Districts in the Primary and Secondary Study Areas	2-9
2-2	Summary of RWCDS (Projected Development Sites) Future Without the Proposed Actions (No Build)	2-16
2-3	Planned Developments in the Future Without the Proposed Actions	2-17
2-4	Summary of Total and Net Incremental Development Coney East Subdistrict Future With the Proposed Actions (Build)	2-19
2-5	Summary of Total and Net Incremental Development On Projected Development Sites in the Proposed Coney West, Coney North, and Mermaid Avenue Subdistricts Future With the Proposed Actions (Build)	2-20
2-6	Proposed Zoning Districts.....	2-26
2-7	Inclusionary Housing Program Floor Area Ratios Mermaid Avenue, Coney West, and Coney North Subdistricts	2-28
3-1	Businesses Located On Projected Development Sites Under the Proposed Actions (As of November 2008).....	3-10
3-2	2000 Employment By Industry Sector: 1/2-Mile Study Area, Brooklyn, and New York City	3-12
3-3	Change in Total Establishments and Employees in Zipcode 11224 from 2000 to 2006..	3-13
3-4	1990 and 2000 Population.....	3-19
3-5	Age Distribution 1990 & 2000.....	3-19
3-6	Income Characteristics	3-20
3-7	Income Distribution, Year 1999.....	3-21

List of Tables

3-8	Household Characteristics	3-21
3-9	Housing Units	3-21
3-10	Housing Units By Year Built in 2000.....	3-22
3-11	Tenure and Occupancy	3-22
3-12	Housing Value Characteristics.....	3-23
3-13	Units Per Structure.....	3-23
3-14	Unprotected Units	3-29
3-15	Unprotected Housing Units By Census Tract.....	3-30
3-16	Average Household Income for Renters in Small Buildings, Buildings With 5 or More Units, and All Renter-Occupied Buildings in Brooklyn, 1999	3-31
3-17	Population and Housing Growth: No Build Scenario, 2007- 2019.....	3-34
3-18	Population and Housing Growth: Build Scenario, 2019.....	3-35
3-19	Brooklyn Private Sector Employment: 1960-2002	3-38
3-20	3rd Quarter 2007 Employment By Industry	3-39
3-21	Total Establishments By Industry in Zipcode 11224 from 1998 to 2006.....	3-40
3-22	Completed Sales in Coney Island Study Area	3-41
3-23	Coney Island Rezoning Area Establishments	3-44
3-24	Origin of Visitors to Coney Island Amusement Area.....	3-45
3-25	Visitor Attractions in Coney Island Amusement Area	3-45
3-26	Visitor Mode of Transportation	3-46
3-27	Visitor Spending Potential	3-46
3-28	Age of Visitors to Coney Island Amusement Area.....	3-46
3-29	Household Income of Visitors to Coney Island Amusement Area.....	3-47
3-30	Visitors to Coney Island Amusement Area-Level of Education.....	3-47
3-31	Summary of Total and Net Incremental Development Coney West, Coney North, and Mermaid Avenue Subdistricts Future With the Proposed Actions (Build).....	3-52
3-32	Summary of Total and Net Incremental Development Coney East Subdistrict Future With the Proposed Actions (Build).....	3-52
4-1	Preliminary Screening Analysis Thresholds	4-2
4-2	Public Elementary School Utilization, Capacity, and Enrollment Figures: 2006-2007 School Year.....	4-4
4-3	Public Intermediate School Utilization, Capacity, and Enrollment Figures: 2006-2007 School Year.....	4-5
4-4	Public High School Utilization, Capacity, and Enrollment Figures: 2006-2007 School Year.....	4-6
4-5	RWCDS Future Without the Proposed Actions: Projected New Housing Units and Estimated Number of Students	4-7
4-6	Projected Public Elementary/Intermediate School Enrollment, Capacity, and Utilization: 2019 Future Without the Proposed Actions.....	4-7
4-7	Projected Public High School Enrollment, Capacity, and Utilization: 2019 Future Without the Proposed Actions	4-8

Coney Island Rezoning

4-8	RWCDS Future With the Proposed Actions: Projected New Housing Units and Estimated Number of Students.....	4-8
4-9	Projected Public Elementary/Intermediate School Enrollment, Capacity, and Utilization: 2019 Future With the Proposed Actions	4-9
4-10	Projected Public High School Enrollment, Capacity, and Utilization: 2019 Future With the Proposed Actions.....	4-10
4-11	Libraries Within ¾ Mile of the Rezoning Area.....	4-11
4-12	Library Demand in the Study Area	4-12
4-13	Public Day Care Centers Within One Mile of the Rezoning Area.....	4-14
4-13a	ACS Funded Family Day Care Networks in Brooklyn.....	4-15
4-14	Children Eligible for Publicly Funded Day Care Future Without the Proposed Actions .	4-16
4-15	Children Eligible for Publicly Funded Day Care Introduced By the Proposed Actions... <td>4-16</td>	4-16
4-16	Increased Demand for Publicly Funded Day Care Facilities—2019	4-16
4-17	Hospitals and Emergency Rooms Within 1 Mile of the Rezoning Area.....	4-18
4-18	Outpatient Health Care Facilities Within 1 Mile of the Rezoning Area	4-19
4-19	Police Services in the 60th Precinct	4-20
4-20	Fire Protection Services	4-21
5-1	Initial Quantitative Assessment of Publicly Accessible Open Space Resources in the Non-Residential and Residential Study Areas	5-2
5-2	Non-Residential Study Area Population By Age	5-5
5-3	Residential Study Area Population By Age	5-6
5-4	Inventory of Open Space Resources	5-8
5-5	Existing Conditions: Adequacy of Open Space Resources.....	5-12
5-6	2019 Future Without the Proposed Actions: Adequacy of Open Space Resources	5-17
5-7	2019 Future Without the Proposed Actions: Open Space Ratios Summary	5-17
5-8	2019 Future With the Proposed Actions: Adequacy of Open Space Resources	5-20
5-9	2019 Future With the Proposed Actions: Open Space Ratios Summary	5-20
6-1	RWCDS Incremental Shadow Durations	6-5
7-1	Architectural Resources Within the Rezoning Area	7-4
7-2	Additional Surveyed Properties Within the Rezoning Area.....	7-7
7-3	Architectural Resources Within the Study Area	7-11
7-4	Additional Surveyed Properties Within the Study Area.....	7-13
10-1	Plant Species Observed At Project Site During December 2007 Site Visit	10-12
10-2	Bird Species With the Potential to Occur At or Adjacent to the Project Site (Coney Island, Brooklyn, NY).....	10-14
10-3	New York State Water Quality Standards for Use Classifications SB and I	10-18
10-4	2006 DEP Water Quality Data for the Brooklyn N-9 Station, Lower New York Harbor.	10-20
10-5	Mean Water Quality Data for Coney Island Creek Stations 1-8	10-21
10-6	Essential Fish Habitat Designated Species for the Lower New York Bay.....	10-30
10-7	Essential Fish Habitat Designated Species for Coney Island Creek Coordinates	10-30

List of Tables

11-1	Project Site Tax Block and Lot Numbers	11-1
11-2	Coney North / Mermaid Avenue Historical Land Uses.....	11-5
11-3	Coney North / Mermaid Avenue Petroleum Storage Tanks	11-7
11-4	Coney West Historical Land Uses	11-9
11-5	Coney West Petroleum Storage Tanks	11-12
11-6	Coney East Historical Land Uses	11-15
11-7	Coney East Petroleum Storage Tanks.....	11-18
11-8	Potential Impacts.....	11-21
13-1	Existing Water Usage/Sewage Generation of Projected Development Sites.....	13-2
13-2	Actual Flows At Coney Island WPCP	13-3
13-3	Future Without the Proposed Actions: Water Usage/Sewage Generation On Projected Development Sites	13-7
13-4	Future With the Proposed Actions: Water Usage/Sewage Generation On Projected Development Sites	13-9
14-1	Existing Solid Waste Generation On the Projected Development Sites	14-3
14-2	Incremental Solid Waste Generation With the Proposed Actions	14-4
15-1	Existing Estimated Annual Energy Consumption On Projected Development Sites ..	15-3
15-2	Future Without the Proposed Actions: Estimated Annual Energy Consumption On Projected Development Sites (No Build).....	15-4
13-3	Future With the Proposed Actions: Estimated Energy Consumption On Projected Development Sites (Build).....	15-6
16-1	Existing Intersection Level of Service Summary	16-5
16-2	Inventory of Existing Public Parking Facilities (Weekday)	16-8
16-3	Inventory of Existing Public Parking Facilities (Saturday)	16-8
16-4	Background Development Projects.....	16-11
16-5	Projected Vehicle Trip Generation from Background Development Projects.....	16-11
16-6	Intersection Level of Service Summary Comparison Existing Conditions Vs. 2019 No Build Scenario (Weekday).....	16-12
16-7	Intersection Level of Service Summary Comparison Existing Conditions Vs. 2019 No Build Scenario (Saturday).....	16-13
16-8	2019 No Build Public Parking Facilities Occupancy (Weekday).....	16-15
16-9	2019 No Build Public Parking Facilities Occupancy (Saturday).....	16-15
16-10	Weekday Parking Accumulation - No Build As-of-Right Developments	16-16
16-11	Saturday Parking Accumulation - No Build As-of-Right Developments	16-16
16-12	Weekday Travel Demand Characteristics: Build Scenario.....	16-18
16-13	Weekday Travel Demand Characteristics: Build Scenario (cont.)	16-19
16-14	Saturday Travel Demand Characteristics: Build Scenario.....	16-20
16-15	Saturday Travel Demand Characteristics: Build Scenario (cont.)	16-21
16-16	2019 Build Vehicle Trip Generation - Coney East.....	16-26
16-17	2019 Build Vehicle Trip Generation - Coney West.....	16-26

Coney Island Rezoning

16-18	2019 Build Vehicle Trip Generation - Coney North.....	16-26
16-19	2019 Build Vehicle Trip Generation - Total	16-26
16-20	Intersection Level of Service Summary Comparison 2019 No Build vs. 2019 Build Scenarios (Weekday).....	16-32
16-21	Intersection Level of Service Summary Comparison 2019 No Build vs. 2019 Build Scenarios (Saturday)	16-32
16-22	Weekday Parking Accumulation - 2019 Build Scenario.....	16-35
16-23	Saturday Parking Accumulation - 2019 Build Scenario.....	16-35
16-24	Accident Data.....	16-36
17-1	Local and Express Bus Routes Serving the Study Area.....	17-3
17-2	Level of Service Criteria for Subway Station Elements.....	17-4
17-3	Level of Service Criteria for Pedestrian Elements	17-6
17-4	2006 Existing Conditions: Subway Station Control Area Analysis.....	17-7
17-5	2006 Existing Conditions: Subway Station Stairway Analysis.....	17-8
17-6	2006 Existing Conditions: Bus Line Haul Analysis At Peak Load Points.....	17-9
17-7	2006 Existing Conditions: Weekday AM Peak Period Sidewalk Analysis	17-10
17-8	2006 Existing Conditions: Weekday Midday Peak Period Sidewalk Analysis.....	17-11
17-9	2006 Existing Conditions: Weekday PM Peak Period Sidewalk Analysis	17-12
17-10	2006 Existing Conditions: Saturday Midday Peak Period Sidewalk Analysis	17-13
17-11	2006 Existing Conditions: Saturday PM Peak Period Sidewalk Analysis	17-14
17-12	2006 Existing Conditions: Weekday Peak Period Corner Reservoir Analysis	17-15
17-13	2006 Existing Conditions: Saturday Peak Period Corner Reservoir Analysis	17-15
17-14	2006 Existing Conditions: Weekday Peak Period Crosswalk Analysis.....	17-16
17-15	2006 Existing Conditions: Saturday Peak Period Crosswalk Analysis.....	17-17
17-16	2019 No Build Scenario: Subway Station Control Area Analysis	17-18
17-17	2019 No Build Scenario: Subway Station Stairway Analysis.....	17-19
17-18	2019 No Build Scenario: Bus Line Haul Analysis At Peak Load Points	17-20
17-19	2019 No Build Scenario: Weekday AM Peak Period Sidewalk Analysis.....	17-21
17-20	2019 No Build Scenario: Weekday Midday Peak Period Sidewalk Analysis.....	17-22
17-21	2019 No Build Scenario: Weekday PM Peak Period Sidewalk Analysis	17-23
17-22	2019 No Build Scenario: Saturday Midday Peak Period Sidewalk Analysis	17-24
17-23	2019 No Build Scenario: Saturday PM Peak Period Sidewalk Analysis	17-25
17-24	2019 No Build Scenario: Weekday Peak Period Corner Reservoir Analysis	17-26
17-25	2019 No Build Scenario: Saturday Peak Period Corner Reservoir Analysis	17-26
17-26	2019 No Build Scenario: Weekday Peak Period Crosswalk Analysis	17-27
17-27	2019 No Build Scenario: Saturday Peak Period Crosswalk Analysis	17-28
17-28	2019 Build Scenario: Subway Station Control Area Analysis.....	17-30
17-29	2019 Build Scenario: Subway Station Stairway Analysis.....	17-31
17-30	2019 Build Scenario: Bus Line Haul Analysis At Peak Load Points.....	17-32

List of Tables

17-31	2019 Build Scenario: Weekday AM Peak Period Sidewalk Analysis	17-34
17-32	2019 Build Scenario: Weekday Midday Peak Period Sidewalk Analysis	17-35
17-33	2019 Build Scenario: Weekday PM Peak Period Sidewalk Analysis.....	17-36
17-34	2019 Build Scenario: Saturday Midday Peak Period Sidewalk Analysis	17-37
17-35	2019 Build Scenario: Saturday PM Peak Period Sidewalk Analysis.....	17-38
17-36	2019 Build Scenario: Weekday Peak Period Corner Reservoir Analysis.....	17-39
17-37	2019 Build Scenario: Saturday Peak Period Corner Reservoir Analysis.....	17-39
17-38	2019 Build Scenario: Weekday Peak Period Crosswalk Analysis	17-40
17-39	2019 Build Scenario: Saturday Peak Period Crosswalk Analysis	17-41
18-1	National Ambient Air Quality Standards (NAAQS)	18-5
18-2	Mobile Source Analysis Intersection Locations	18-11
18-3	Parking Garage—Analyzed Sites	18-12
18-4	Stack Parameters and Emission Rates for Potential Development Site C	18-14
18-5	Background Pollutant Concentrations	18-15
18-6	Representative Monitored Ambient Air Quality Data.....	18-17
18-7	Maximum Predicted Existing 8-Hour Average CO Concentrations for 2008	18-17
18-8	Future (2019) Maximum Predicted 8-Hour Average Carbon Monoxide No Build Concentrations	18-18
18-9	Future (2019) Maximum Predicted No Build 24-Hour PM ₁₀ Concentrations	18-18
18-10	Future (2019) Maximum Predicted 8-Hour Average No Build and Build Carbon Monoxide Concentrations.....	18-19
18-11	Future (2019) Maximum Predicted 24-Hour Average PM ₁₀ Concentrations	18-19
18-12	Future (2019) Maximum Predicted 24-Hour Average PM _{2.5} Concentrations.....	18-20
18-13	Future (2019) Maximum Predicted Annual Average PM _{2.5} Concentrations	18-20
18-14	Site C HVAC System Total Predicted Pollutant Concentrations (µg/m ³)	18-21
18-15	Maximum Predicted Stationary Source PM _{2.5} Incremental Concentrations	18-22
18-16	Cumulative Impacts from HVAC Sources Total Predicted Pollutant Concentrations (µg/m ³)	18-23
19-1	Common Noise Levels.....	19-2
19-2	Average Ability to Perceive Changes in Noise Levels	19-3
19-3	New York City Noise Codes.....	19-3
19-4	Noise Exposure Guidelines for Use in City Environmental Impact Review	19-4
19-5	Required Attenuation Values to Achieve Acceptable Interior Noise Levels.....	19-4
19-6	Noise Receptor Locations	19-9
19-7	Existing Noise Levels (in dBA)	19-11
19-8	The Future Without the Proposed Actions Noise Levels (in dBA)	19-12
19-9	The Future With the Proposed Actions Noise Levels (in dBA).....	19-14
19-10	Building Attenuation (in dBA): Year 2019	19-16
20-1	Conceptual Construction Schedule.....	20-2

Coney Island Rezoning

20-2	Daily Numbers of Construction Workers and Delivery Trucks	20-8
20-3	Peak Construction Trip Projections 2017.....	20-15
20-4	Comparison of Vehicle Trips—Construction Phase vs. Full Build-Out Conditions..	20-16
20-5	Typical Noise Emission Levels for Construction Equipment	20-21
22-1	Traffic Impact Mitigation Summary	22-2
22-2	2017 Mitigated Build Condition: Bus Line Haul Levels.....	22-10
22-3	Future (2019) Maximum Predicted 8-Hour Average No Build and Build With Traffic Mitigation Co Concentrations	22-12
23-1	Conditions Under No Action Alternative.....	23-2
23-2	Development Projected Under Lesser Density Alternative AND Proposed Actions.	23-13
23-3	Person-Trip Comparisons: Lesser Density Alternative Vs. Proposed Actions	23-19
23-4	Vehicle-Trip Comparisons: Lesser Density Alternative Vs. Proposed Actions.....	23-19
23-5	Development Projected Under 15-Acre Mapped Amusement Parkland Alternative AND Proposed Actions.....	23-23
23-6	Person-Trip Comparisons: 15-Acre Mapped Amusement Parkland Alt. Vs. Proposed Actions	23-30
23-7	Vehicle-Trip Comparisons: 15-Acre Mapped Amusement Parkland Alt. Vs. Proposed Actions	23-30
23-8	Development Projected Under No Demapping AND Mapping Action Alternative ..	23-33
23-9	Person-Trip Comparisons: No Demapping AND Mapping Action Alternative Vs. Proposed Actions.....	23-39
23-10	Vehicle-Trip Comparisons: No Demapping AND Mapping Action Alternative Vs. Proposed Actions.....	23-40

List of Figures

	<i>following page</i>	
1-1	Project Location.....	1-2
1-2	Project Area Blocks and Lots	1-2
1-3	Proposed Zoning Subdistricts	1-2
1-4	Project Area Existing Conditions.....	1-4
1-5	Existing Zoning.....	1-6
1-6	Proposed Zoning	1-6
1-7	Proposed Network of Publicly Accessible Parks.....	1-8
1-8	Illustrative Development Site Plan	1-10
1-9	Illustrative Rendering of the RWCDS	1-10
1-10	Illustrative Rendering of the RWCDS	1-10
1-11	Illustrative Rendering of the RWCDS	1-10
1-12	Illustrative Rendering of the RWCDS	1-10
1-13	Illustrative Rendering of the RWCDS	1-10
1-14	Proposed Mapped and Demapped Parkland	1-12
1-15	Proposed Street Demapping.....	1-12
1-16	Proposed Street Mapping.....	1-12
1-17	Proposed City Acquisition Sites	1-20
1-18	Proposed UDAAP Designation and Project Approval Sites.....	1-20
1-19	Proposed City-Owned Disposition Sites.....	1-22
1-20	RWCDS Proposed and Potential Development Sites	1-24
2-1	Study Area Boundaries	2-2
2-2	Primary Study Area Land Use	2-4
2-3	Project Area Blocks and Lots	2-6
2-4	Secondary Study Area Land Use	2-8
2-5	Existing Zoning.....	2-8
2-6	Urban Renewal Areas	2-12
2-7	Planned Developments	2-14
2-8	RWCDS Illustrative Site Plan.....	2-20
2-9	RWCDS Development Sites	2-20
2-10	Proposed Zoning	2-26
3-1	Socioeconomic Study Area.....	3-4
3-2	Socioeconomic Study Area Housing Unit Construction by Year Built.....	3-22

Coney Island Rezoning

4-1	Public Schools	4-4
4-2	Public Libraries	4-12
4-3	Public Day Care Centers and Head Start Programs	4-14
4-4	Hospitals and Health Care Facilities	4-18
4-5	Emergency Services	4-20
5-1	Open Space Study Area.....	5-6
5-2	Existing Open Spaces.....	5-8
6-1	Shadows March 21 / Sept. 21 - 9:30 AM EDT	6-10
6-2	Shadows March 21 / Sept. 21 - 10:30 AM EDT	6-10
6-3	Shadows March 21 / Sept. 21 - 5:00 PM EDT	6-10
6-4	Shadows May 6 / August 6 - 9:30 AM EDT.....	6-10
6-5	Shadows May 6 / August 6 - 10:30 AM EDT.....	6-10
6-6	Shadows May 6 / August 6 - 5:00 PM EDT.....	6-10
6-7	Shadows June 21 - 7:45 AM EDT	6-10
6-8	Shadows June 21 - 5:00 PM EDT	6-10
6-9	Shadows June 21 - 6:15 PM EDT	6-10
6-10	Shadows December 21 - 9:30 AM EST	6-10
6-11	2019 No Build Traffic Levels of Service Weekday PM Peak Hour	6-10
6-12	Shadows December 21 - 2:30 PM EST	6-10
6-13	Shadows - Axonometric View Northeast December 21 - 9:00 AM EST	6-10
6-14	Shadows - Axonometric View Northeast December 21 - 10:00 AM EST.....	6-10
6-15	Shadows - Axonometric View Northeast December 21 - 11:00 AM EST.....	6-10
6-16	Shadows - Axonometric View Northeast December 21 - 12:00 PM EST	6-10
6-17	Shadows - Axonometric View Northeast December 21 - 1:00 PM EST	6-10
6-18	Shadows - Axonometric View Northeast December 21 - 2:00 PM EST	6-10
7-1	Historic Resources.....	7-4
7-2	Architectural Resources Rezoning Area	7-4
7-3	Architectural Resources Rezoning Area	7-4
7-4	Architectural Resources Rezoning Area	7-6
7-5	Architectural Resources Rezoning Area	7-6
7-6	Architectural Resources Rezoning Area	7-6
7-7	Architectural Resources Rezoning Area	7-6
7-8	Architectural Resources Rezoning Area	7-8
7-9	Additional Surveyed Properties Rezoning Area	7-8
7-10	Additional Surveyed Properties Rezoning Area	7-8
7-11	Additional Surveyed Properties Rezoning Area	7-8
7-12	Additional Surveyed Properties Rezoning Area	7-10
7-13	Additional Surveyed Properties Rezoning Area	7-10
7-14	Additional Surveyed Properties Rezoning Area	7-10

List of Figures

7-15	Additional Surveyed Properties Rezoning Area	7-10
7-16	Additional Surveyed Properties Rezoning Area	7-12
7-17	Architectural Resources Study Area.....	7-12
7-18	Architectural Resources Study Area.....	7-12
7-19	Architectural Resources Study Area.....	7-12
7-20	Additional Surveyed Properties Study Area.....	7-14
7-21	Additional Surveyed Properties Study Area.....	7-14
7-22	Additional Surveyed Properties Study Area.....	7-14
7-23	Additional Surveyed Properties Study Area.....	7-14
7-24	Architectural Resources and RWCDs Development Sites.....	7-18
8-1	Urban Design and Visual Resources.....	8-2
8-2	Urban Design and Visual Resources Views from Riegelmann Boardwalk.....	8-2
8-3	Urban Design and Visual Resources Views from Riegelmann Boardwalk.....	8-2
8-4	Urban Design and Visual Resources Views of Amusement Area in Coney East.....	8-2
8-5	Urban Design and Visual Resources Views of Amusement Area in Coney East.....	8-2
8-6	Urban Design and Visual Resources Views of Coney East.....	8-2
8-7	Urban Design and Visual Resources Views of Coney East.....	8-2
8-8	Urban Design and Visual Resources Views of Coney West.....	8-2
8-9	Urban Design and Visual Resources Views of Coney West.....	8-2
8-10	Urban Design and Visual Resources Views of Abe Stark Ice Skating Rink and KeySpan Park.....	8-2
8-11	Urban Design and Visual Resources Views of Coney North	8-2
8-12	Urban Design and Visual Resources Views of Mermaid Avenue	8-2
8-13	Urban Design and Visual Resources Views of Visual Resources in Coney East and Coney North.....	8-2
8-14	Urban Design and Visual Resources Views of Study Area	8-6
8-15	Urban Design and Visual Resources Views of Study Area	8-12
8-16	Urban Design and Visual Resources Views of Study Area	8-12
8-17	Urban Design and Visual Resources Views of Study Area	8-14
8-18	Urban Design and Visual Resources.....	8-14
10-1	USGS 7.5 Minute Topographic Map - Coney Island Quad.....	10-2
10-2	Current Land Cover	10-2
10-3	FEMA Flood Hazard Areas	10-8
10-4	NYSDEC Tidal Wetlands	10-8
10-5	National Wetlands Inventory	10-8
10-6	Coney Island Creek Water Quality Sampling Stations.....	10-22
12-1	Coastal Zone Boundary	12-2
13-1	Existing Sanitary Sewers and Approximate Catchment Areas.....	13-4
13-2	Existing Storm Sewers and Approximate Catchment Areas	13-6

Coney Island Rezoning

13-3	Sanitary Sewer Hydraulic Study Results.....	13-12
13-4	Storm Sewer Hydraulic Study Results	13-12
13-5	Sanitary and Storm Sewer Capacity Limitations	13-14
16-1	Traffic Study Area.....	16-4
16-2	Existing Traffic Levels of Service Weekday AM Peak Hour	16-6
16-3	Existing Traffic Levels of Service Weekday Midday Peak Hour	16-6
16-4	Existing Traffic Levels of Service Weekday PM Peak Hour.....	16-6
16-5	Existing Traffic Levels of Service Saturday Midday Peak Hour	16-6
16-6	Existing Traffic Levels of Service Saturday PM Peak Hour.....	16-6
16-7	Parking Study Area	16-8
16-8	Background Development Projects	16-10
16-9	2019 No Build Traffic Levels of Service Weekday AM Peak Hour.....	16-12
16-10	2019 No Build Traffic Levels of Service Weekday Midday Peak Hour.....	16-12
16-11	2019 No Build Traffic Levels of Service Weekday PM Peak Hour	16-12
16-12	2019 No Build Traffic Levels of Service Saturday Midday Peak Hour.....	16-12
16-13	2019 No Build Traffic Levels of Service Saturday PM Peak Hour	16-12
16-14	2019 Build Condition Roadway Network and Parking Facilities	16-28
16-15	2019 Build Traffic Levels of Service Weekday AM Peak Hour.....	16-32
16-16	2019 Build Traffic Levels of Service Weekday Midday Peak Hour.....	16-32
16-17	2019 Build Traffic Levels of Service Weekday PM Peak Hour	16-32
16-18	2019 Build Traffic Levels of Service Saturday Midday Peak Hour	16-32
16-19	2019 Build Traffic Levels of Service Saturday PM Peak Hour	16-32
17-1	Study Area Transit Network	17-2
17-2	Pedestrian Analysis Locations	17-2
18-1	Parking Facilities Analyzed for Air Quality.....	18-12
18-2	E - Designation Locations	18-24
19-1	Noise Monitoring Locations.....	19-10
20-1	Conceptual Construction Phasing Diagram	20-2
20-2	Conceptual Construction Schedule	20-2
22-1	Traffic Mitigation Overview Weekday AM Peak Hour.....	22-2
22-2	Traffic Mitigation Overview Weekday Midday Peak Hour.....	22-2
22-3	Traffic Mitigation Overview Weekday PM Peak Hour	22-2
22-4	Traffic Mitigation Overview Saturday Midday Peak Hour.....	22-2
22-5	Traffic Mitigation Overview Saturday PM Peak Hour	22-2

*