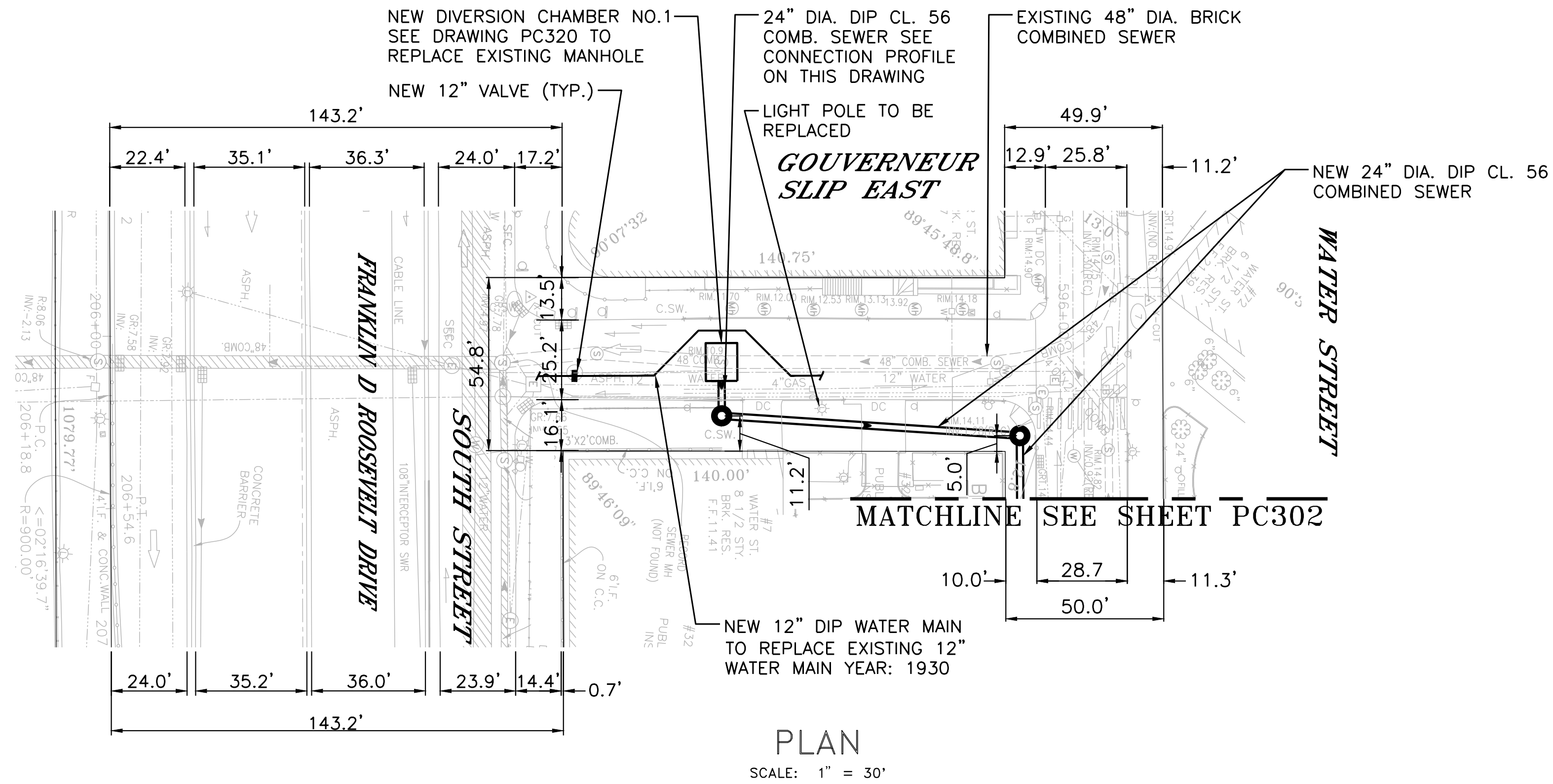
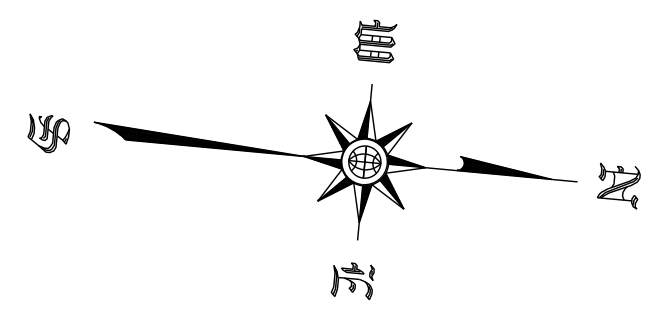


**Appendix C1j**  
**Preferred Alternative - Parallel Conveyance**  
**Civil Plan and Profile**

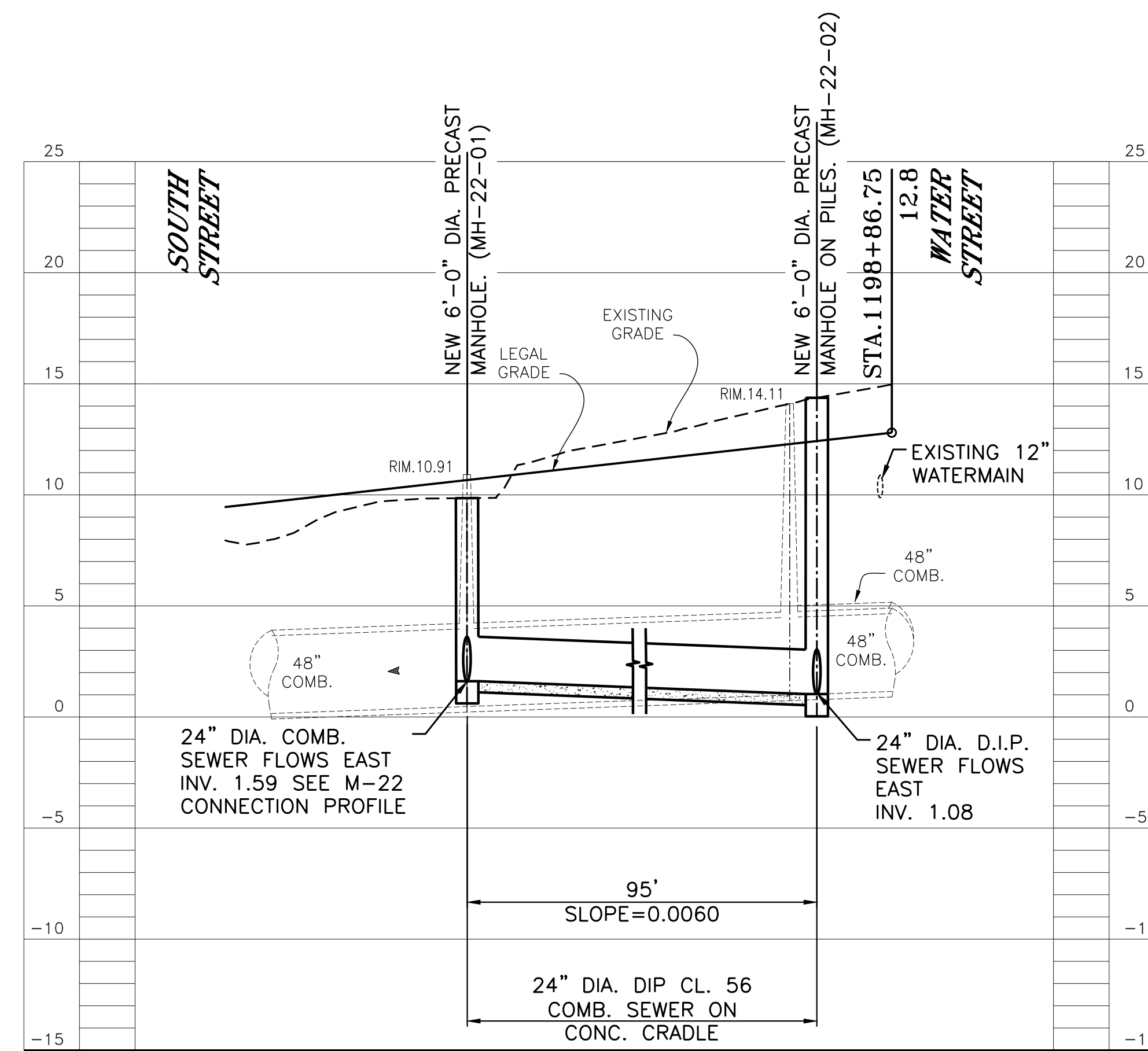
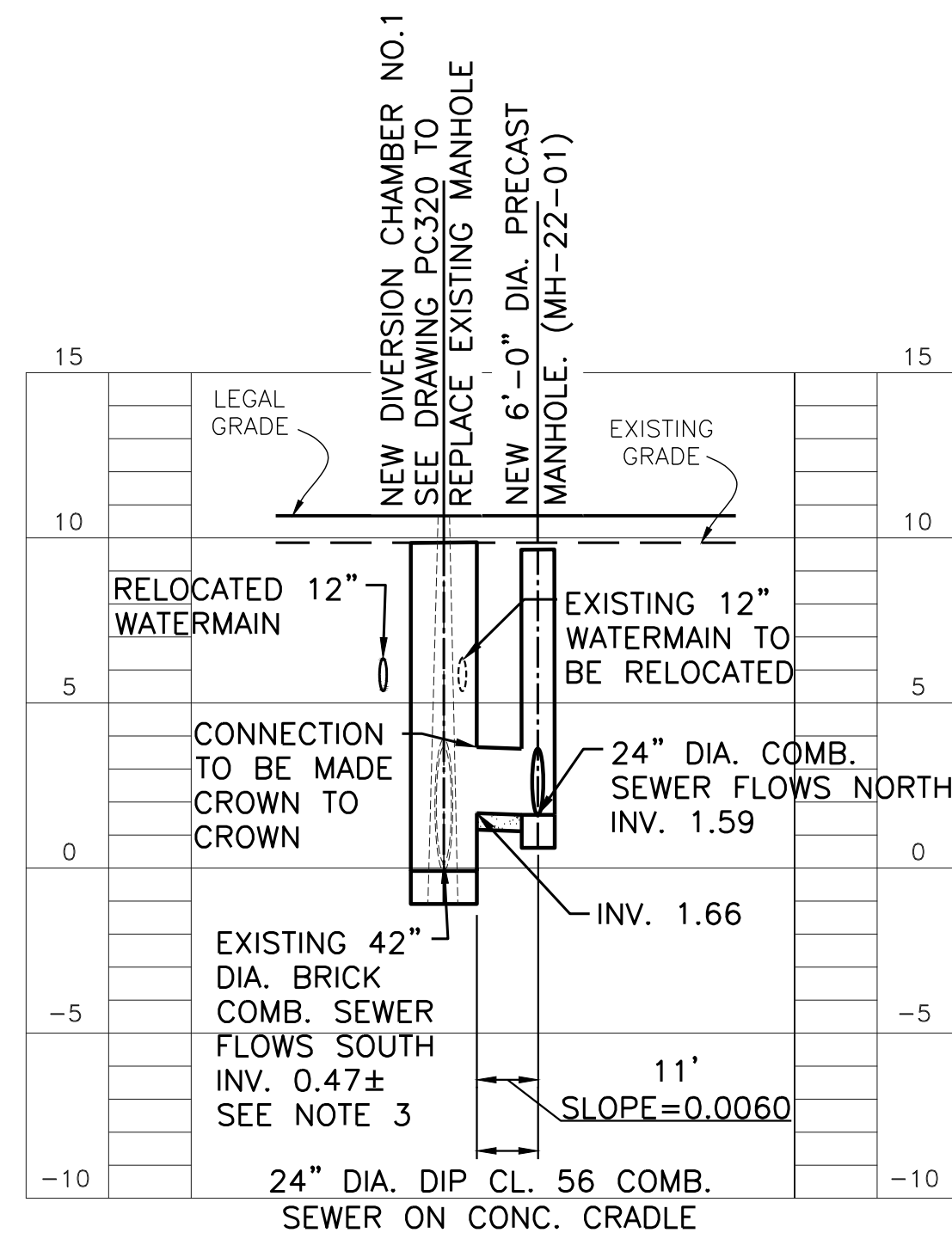
TABLE OF CONTENTS

SHEET NO.	DRAWING NO.	SHEET TITLE
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PC302	SANDRESM1-PC302-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATORS M-22 & M-23 SHEET 2 OF 3
PC303	SANDRESM1-PC303-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATORS M-22 & M-23 SHEET 3 OF 3
PC304	SANDRESM1-PC304-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATORS M-27 & M-28
PC305	SANDRESM1-PC305-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATORS M-31
PC307	SANDRESM1-PC307-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE EAST 10TH STREET
PC309	SANDRESM1-PC309-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATORS M-37 & M-38
PC310	SANDRESM1-PC310-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATORS M-28 & M-38A
PC311	SANDRESM1-PC311-00.DWG	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATORS M-38B & M-39



**NOTES:**

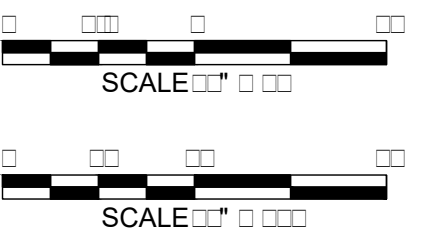
1. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
2. THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWERS IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
3. EXISTING 42" DIAMETER BRICK COMBINED SEWER IS EXISTING 48" COMBINED SEWER WITH DIAMETER PREVIOUSLY GUNITED THREE INCHES REDUCING THE EFFECTIVE DIAMETER TO 42".
4. THE SURVEYED PLAN AND PROFILES ON THIS SHEET DO NOT INCLUDE STATIONING.



NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

**CONCEPTUAL\***  
SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.



TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR  
INFORMATION SEE SURVEY SET SUI00 DRAWINGS SERIES

FINAL DESIGN SUBMITTED BY:  
**AKRF KSE**  
The AKRF-KSE JV

FINAL DESIGN PREPARED BY:  
**Hazen**  
HAZEN AND SAWYER, D.P.C.  
NAME OF CONSULTANT

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

PARALLEL CONVEYANCE  
CIVIL PLAN & PROFILE  
REGULATORS M-22 & M-23 SHEET 1 OF 3  
HAZEN AND SAWYER  
DRAWN BY SANDRESM1-PC301-00.DWG  
CADD FILE

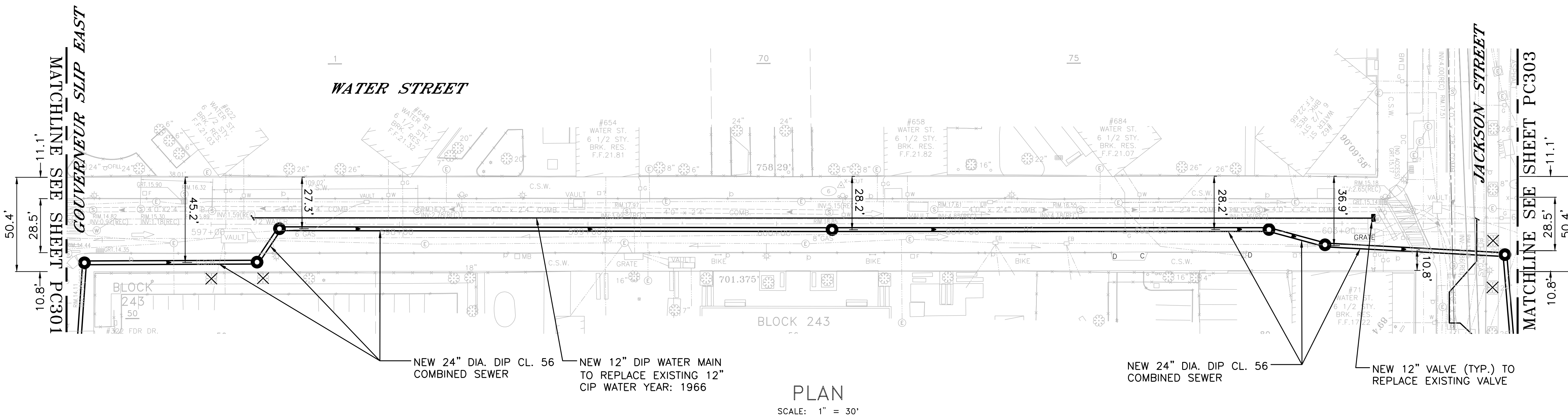
INSTALLATION OF  
EAST SIDE COASTAL RESILIENCY  
BOROUGH OF MANHATTAN

NO.	DATE	DESCRIPTIONS	BY	APPR'D

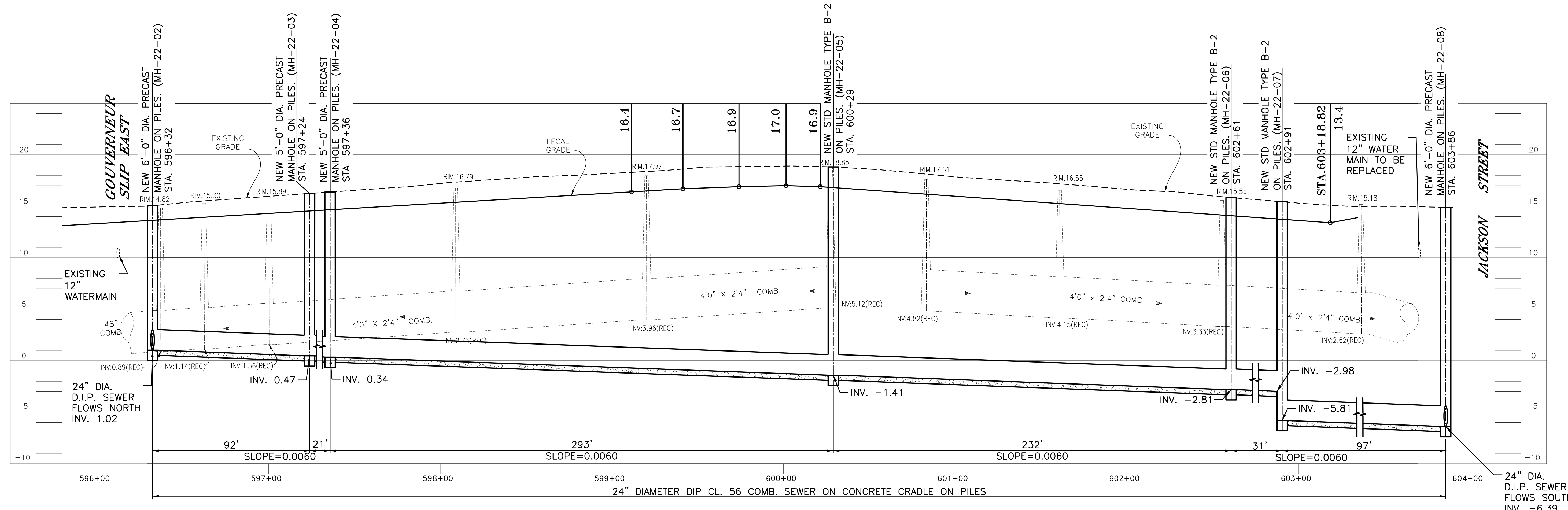
CAPITAL PROJECT NO. SANDRESM1 1/31/19 SHEET 406 OF 811 PC301



CONCEPTUAL REDESIGN SUBMISSION 1/31/2019



PLAN  
SCALE: 1" = 30'



PROFILE - WATER STREET  
SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'

NOTES:

- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
- THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWERS IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
- STATIONING IS FOR ROADWAY CENTER REFERENCE ONLY. CONTRACTOR TO USE DIMENSIONS SHOWN FOR CONSTRUCTION OF PARALLEL CONVEYANCE STRUCTURES.

NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

**CONCEPTUAL\***  
SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.

TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR  
INFORMATION SEE SURVEY SET SU100 DRAWINGS SERIES

FINAL DESIGN SUBMITTED BY:  
**AKRF KSE**  
The AKRF-KSE JV

FINAL DESIGN PREPARED BY:  
**Hazen**  
HAZEN AND SAWYER, D.P.C.  
NAME OF CONSULTANT

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

PARALLEL CONVEYANCE  
CIVIL PLAN & PROFILE  
REGULATORS M-22 & M-23 SHEET 2 OF 3  
HAZEN AND SAWYER  
DRAWN BY SANDRESM1-PC302-00.DWG  
CADD FILE

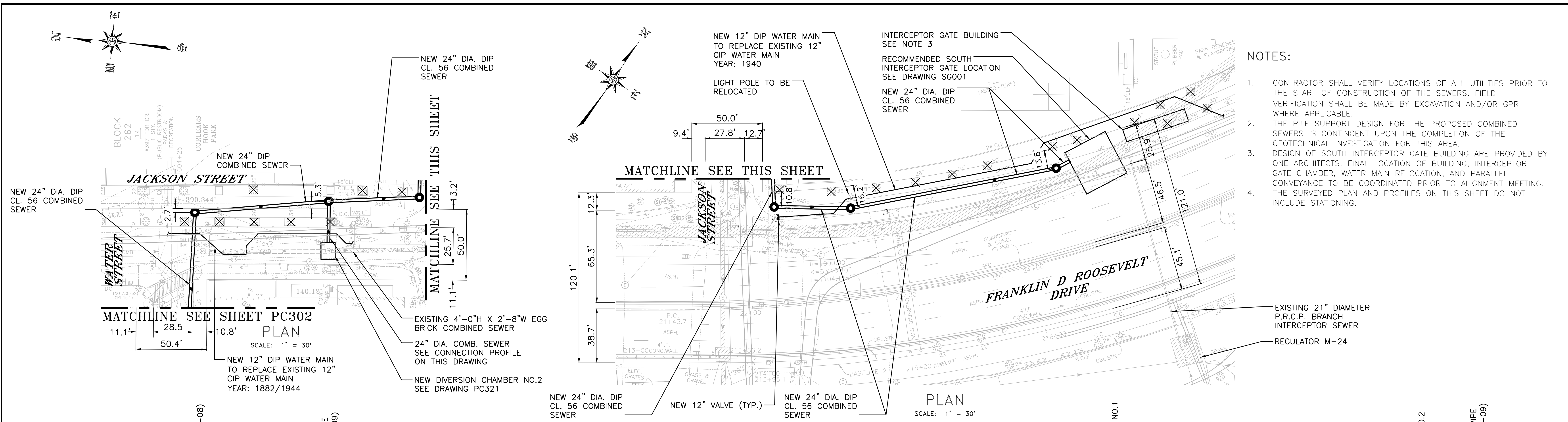
NO.	DATE	DESCRIPTIONS REVISIONS	BY	APPR'D

INSTALLATION OF  
EAST SIDE COASTAL RESILIENCY  
BOROUGH OF MANHATTAN

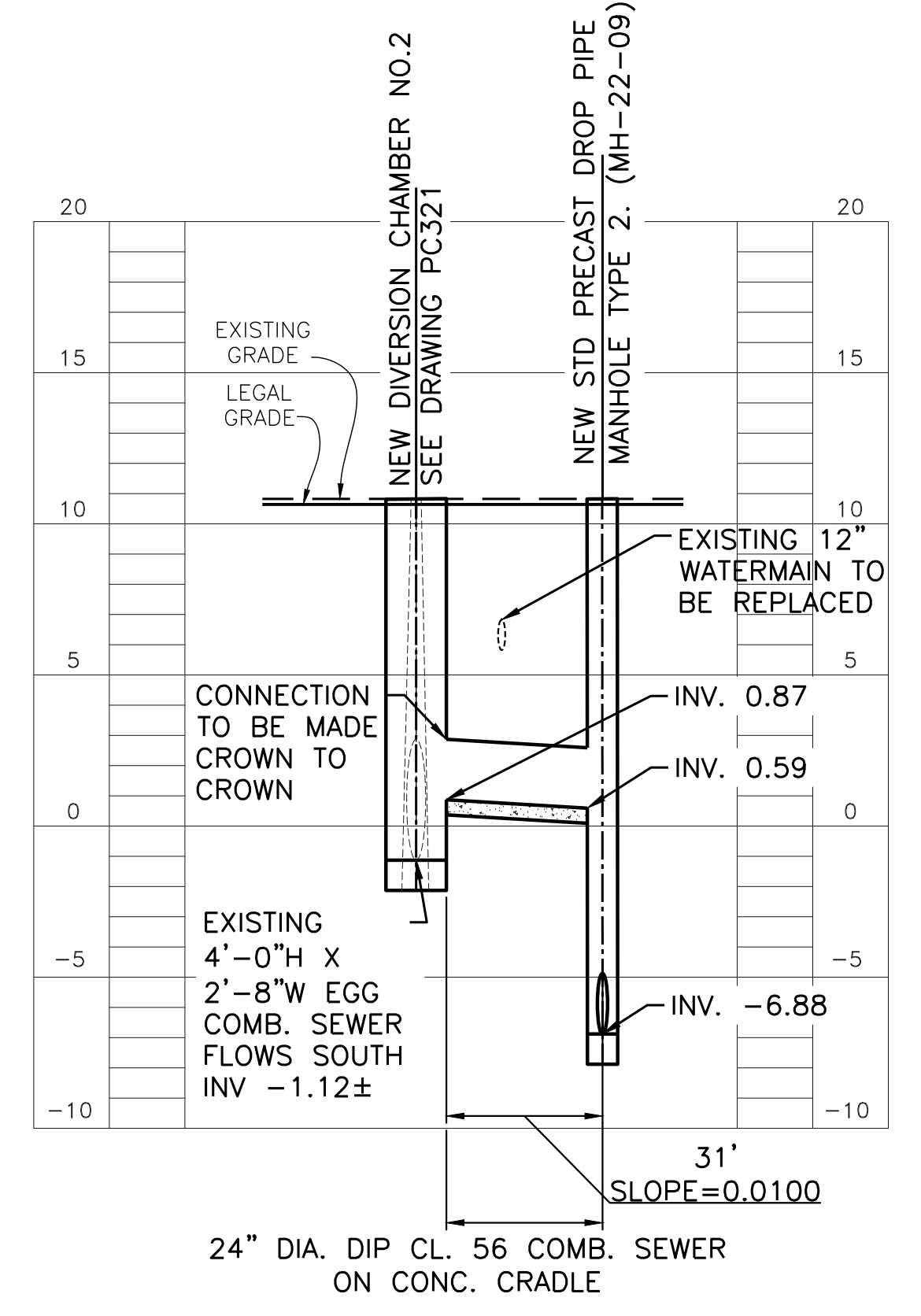
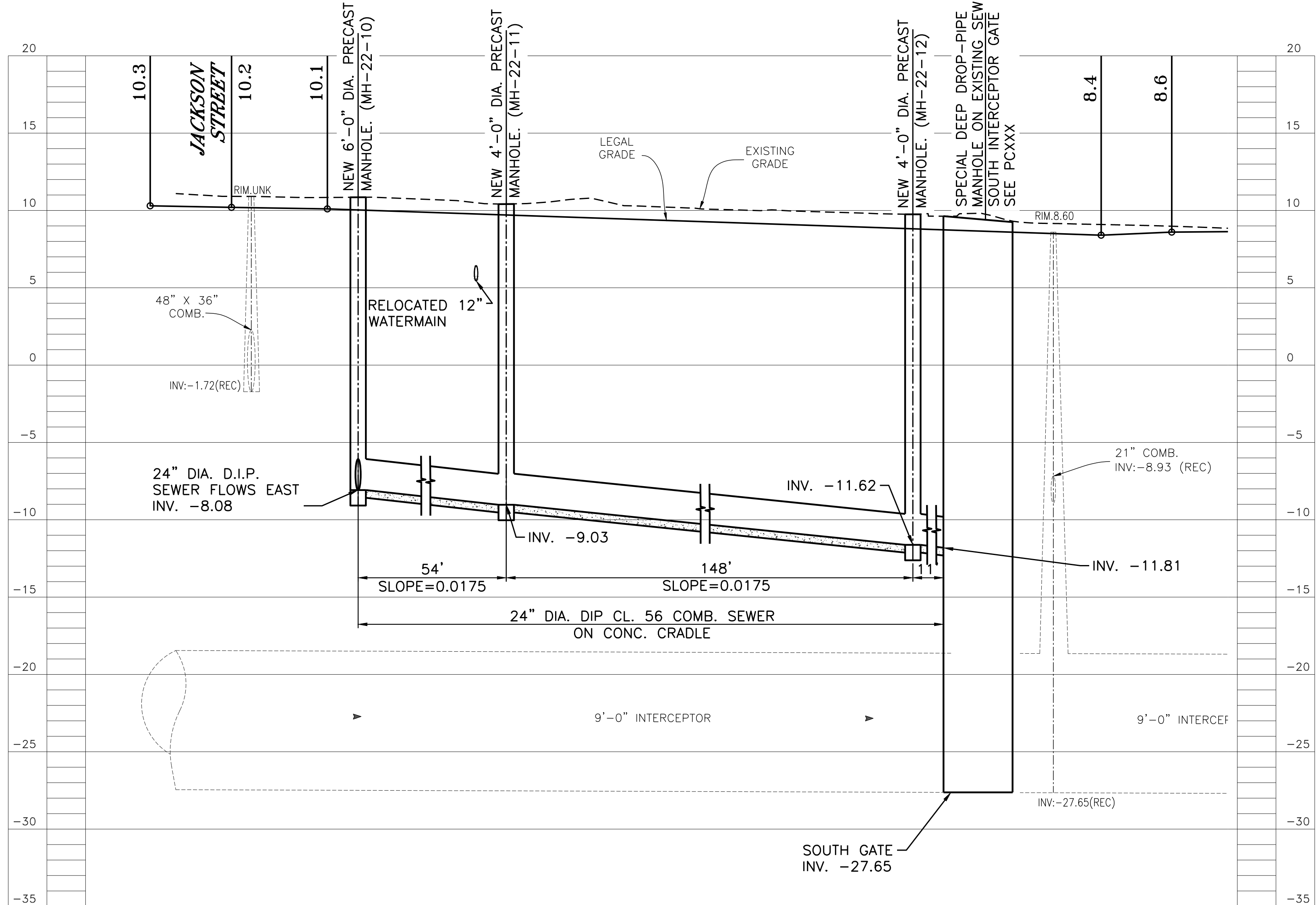
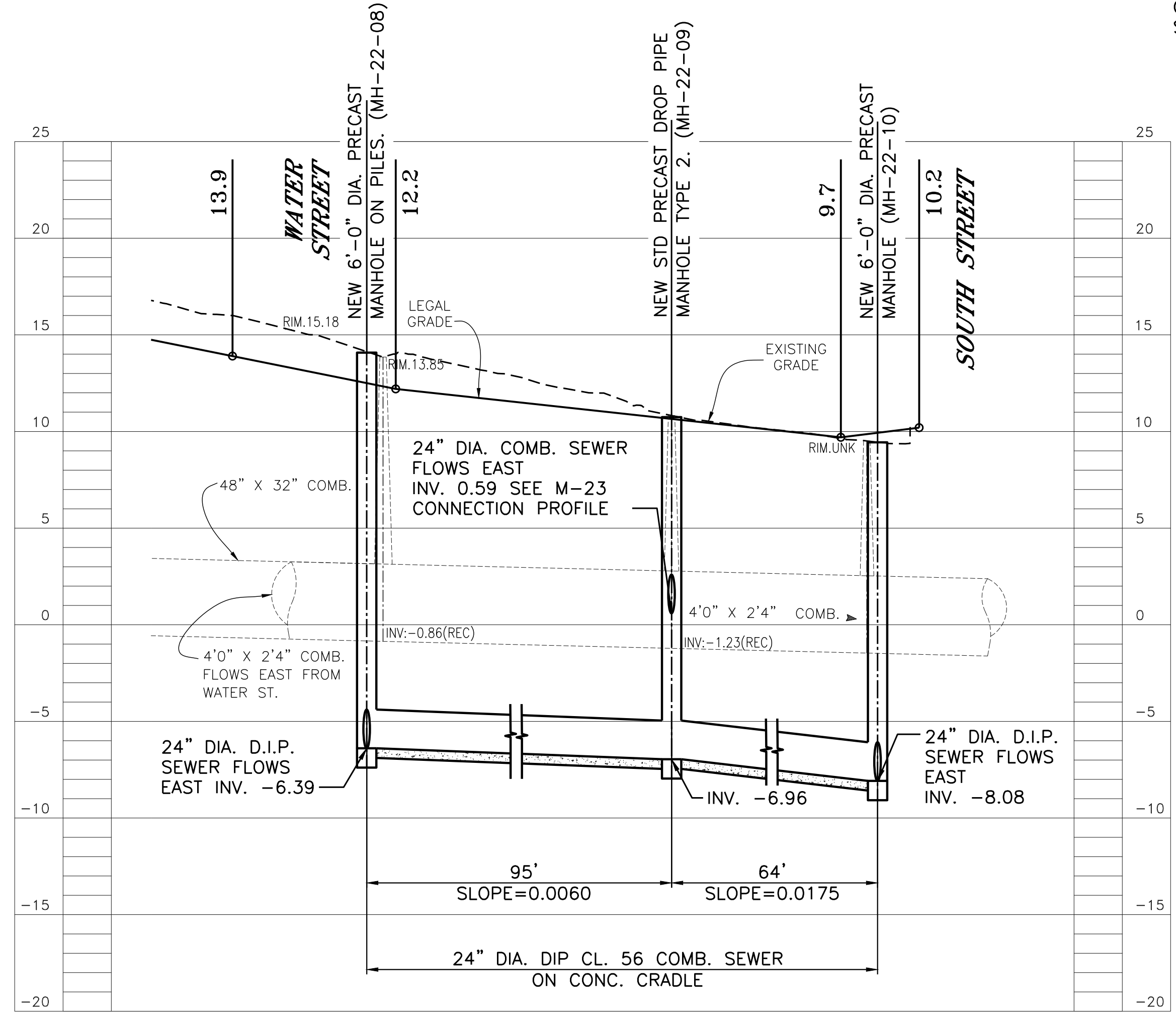
CAPITAL PROJECT NO. SANDRESM1 1/31/19  
SHEET 407 OF 811  
PC302



CONCEPTUAL REDESIGN SUBMISSION 1/31/2019



- NOTES:**
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
  - THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWERS IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
  - DESIGN OF SOUTH INTERCEPTOR GATE BUILDING ARE PROVIDED BY ONE ARCHITECTS. FINAL LOCATION OF BUILDING, INTERCEPTOR GATE CHAMBER, WATER MAIN RELOCATION, AND PARALLEL CONVEYANCE TO BE COORDINATED PRIOR TO ALIGNMENT MEETING. THE SURVEYED PLAN AND PROFILES ON THIS SHEET DO NOT INCLUDE STATIONING.



**CONCEPTUAL\***  
SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.

TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR INFORMATION SEE SURVEY SET S0100 DRAWINGS SERIES

NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

FINAL DESIGN SUBMITTED BY:  
**AKRF KSE**  
THE AKRF-KSE JV

FINAL DESIGN PREPARED BY:  
**Hazen**  
HAZEN AND SAWYER, D.P.C.  
NAME OF CONSULTANT

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

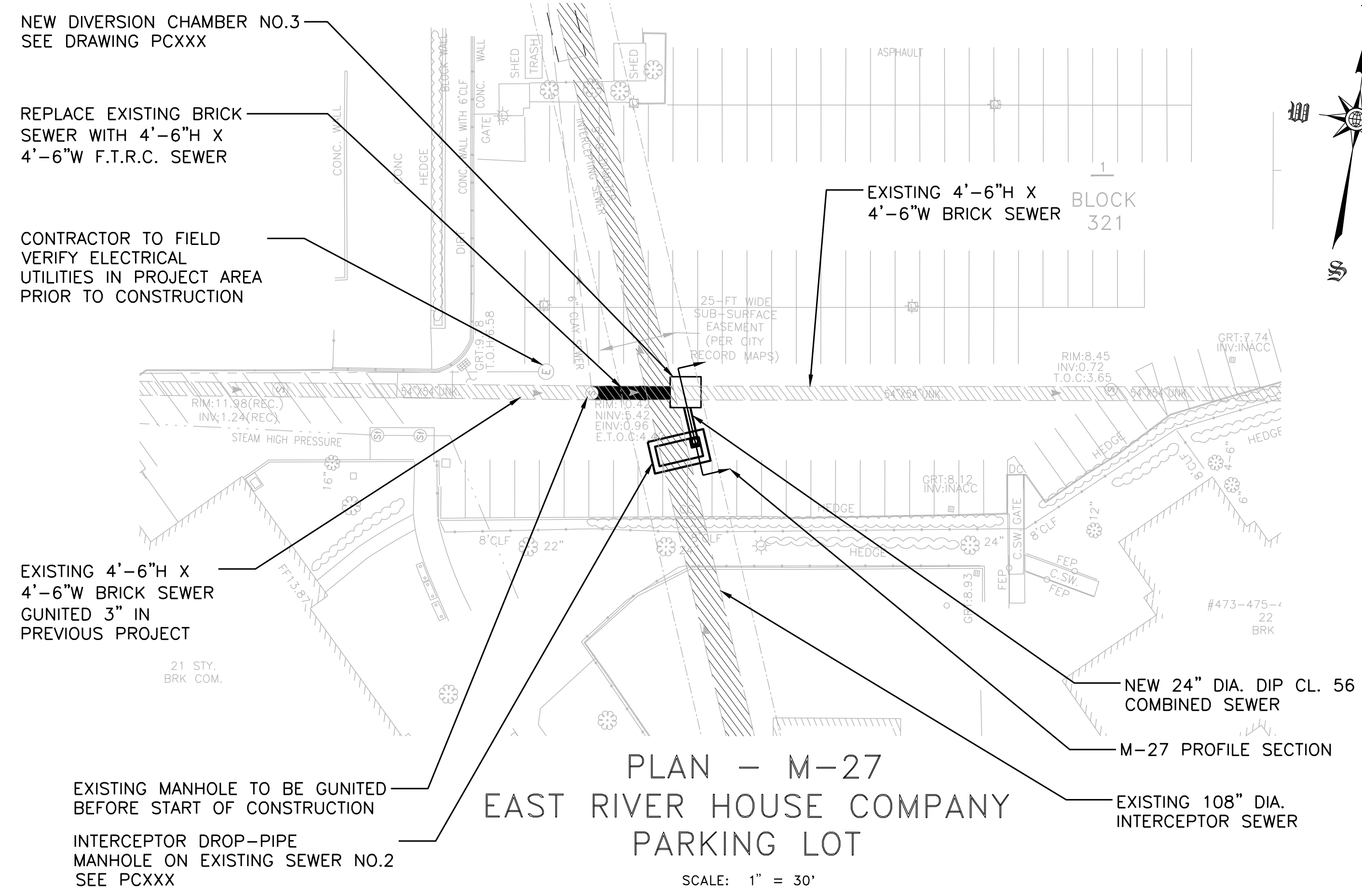
PARALLEL CONVEYANCE  
CIVIL PLAN & PROFILE  
REGULATORS M-22 & M-23 SHEET 3 OF 3  
HAZEN AND SAWYER  
DRAWN BY  
SANDRESM1-PC303-00.DWG  
CADD FILE

NO.	DATE	DESCRIPTIONS REVISIONS	BY	APPR'D

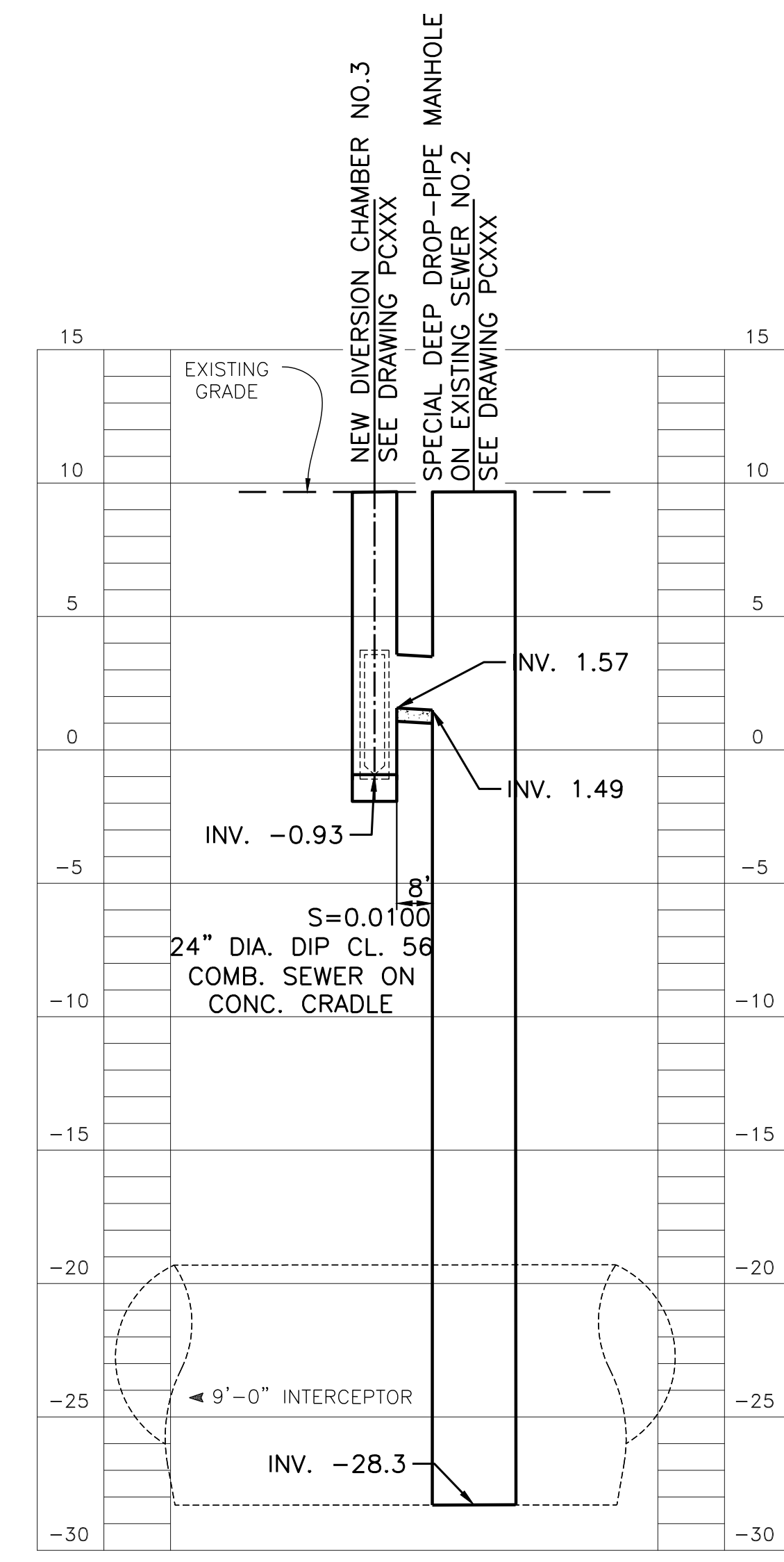
CAPITAL PROJECT NO. SANDRESM1 1/31/19  
SHEET 408 OF 811  
PC303



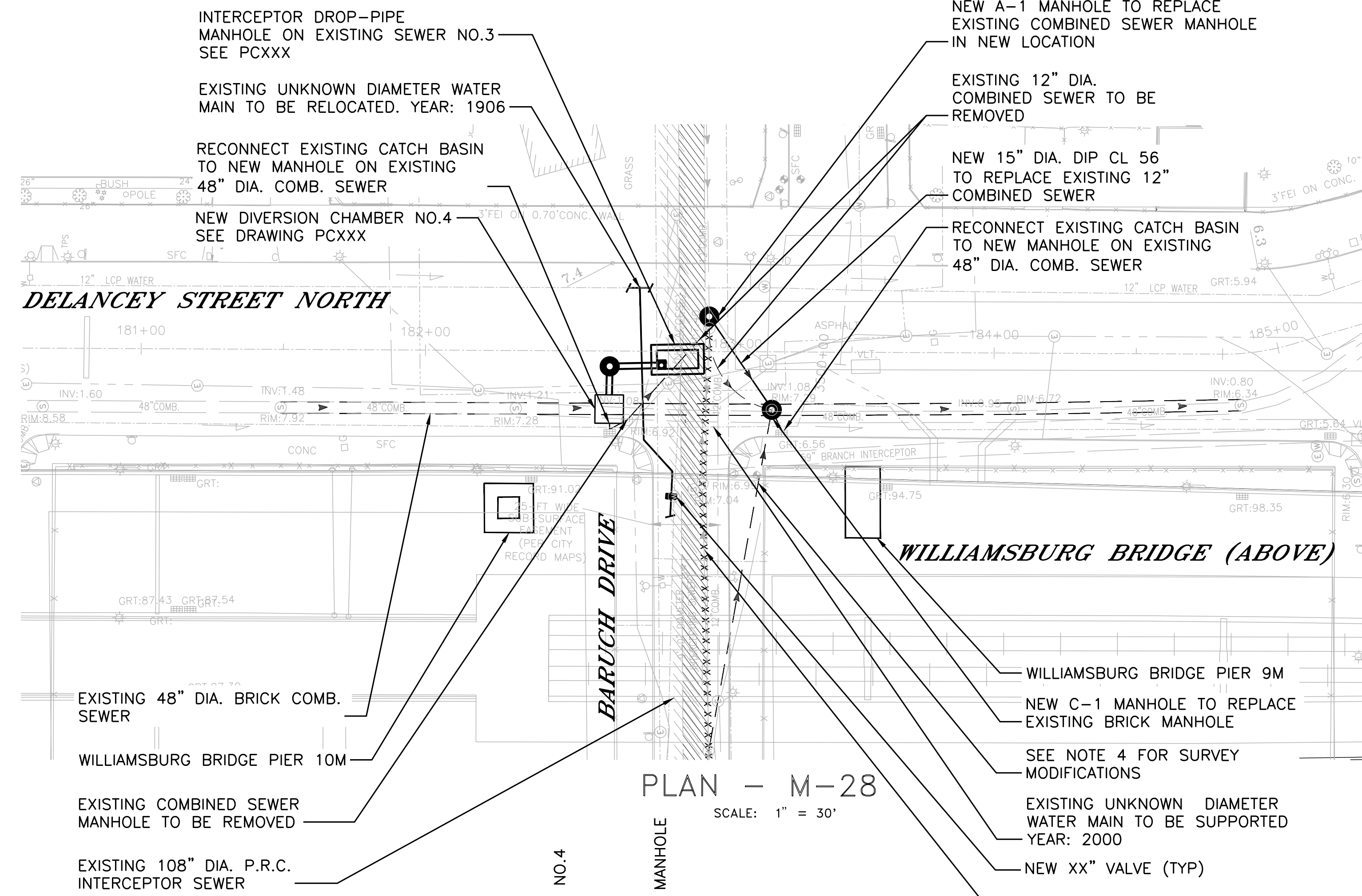
CONCEPTUAL REDESIGN SUBMISSION 1/31/2019



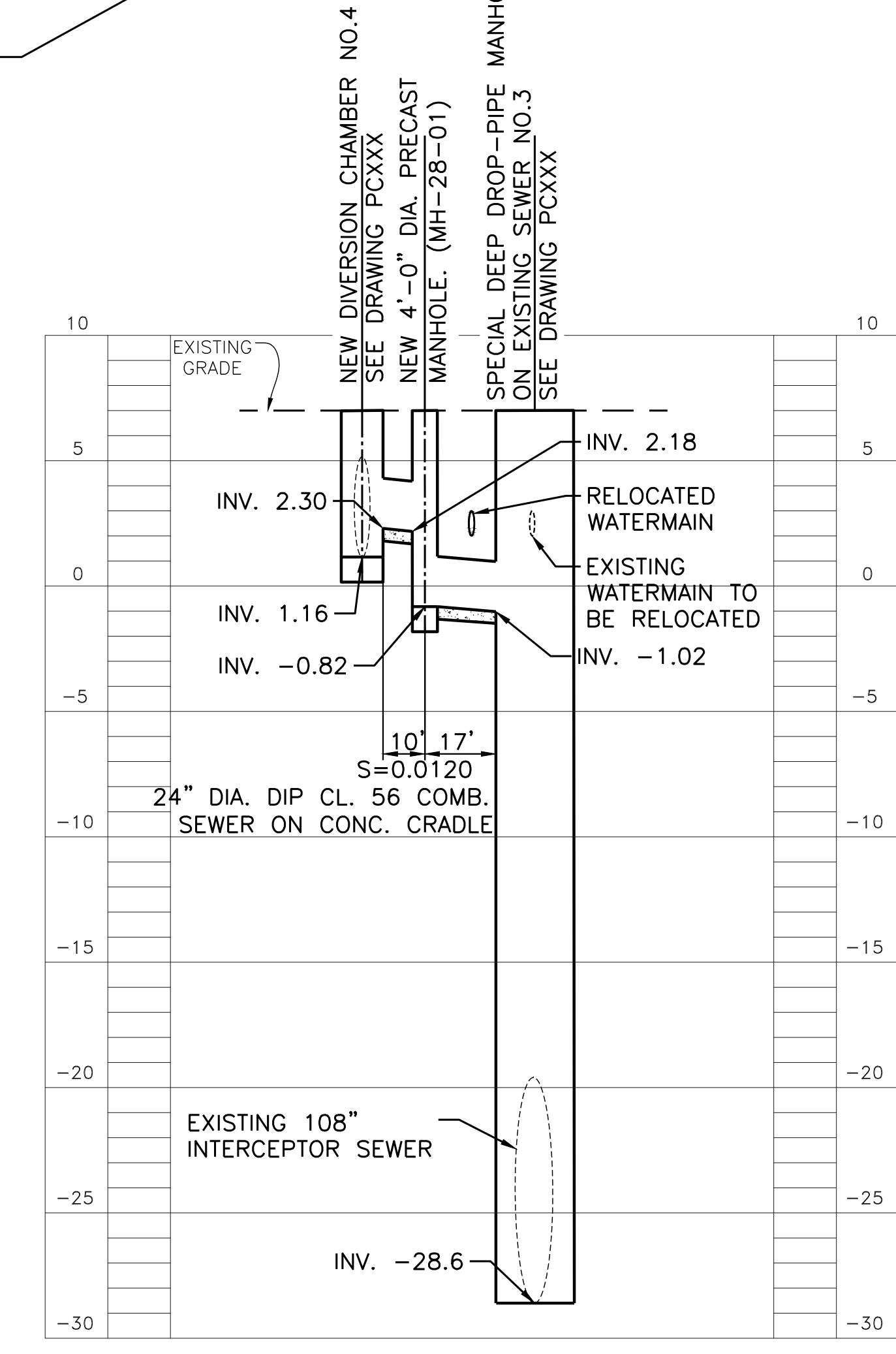
**PLAN - M-27**  
EAST RIVER HOUSE COMPANY  
PARKING LOT  
SCALE: 1" = 30'



**M-27 PROFILE SECTION**  
EAST RIVER HOUSE COMPANY PARKING LOT  
SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'



**PLAN - M-28**  
DELANCEY STREET NORTH  
SCALE: 1" = 30'



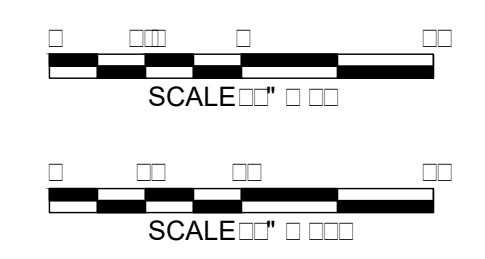
**PIPE CENTERLINE PROFILE - DELANCEY STREET NORTH**  
SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'

**NOTES:**

- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
- THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWER IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
- DESIGN OF SPECIAL DEEP DROP-PIPE MANHOLE ON EXISTING SEWER NO.2 AND NO.3 WILL BE PROVIDED WITH THE NEXT SUBMITTAL.
- SURVEY DRAWINGS HAVE BEEN MODIFIED FOR THE 48" DIAMETER COMBINED SEWER AND ADJACENT 12" DIAMETER V.C.P. COMBINED SEWER. ALIGNMENTS WERE VERIFIED WITH THE FOLLOWING:
  - NYCDOT RECORD AS-BUILT DRAWING: CONTRACT NO.BRC 253 C, SHEET 517, DATE: 5/02/2006
  - NYCDEP RECORD DRAWING: CONTRACT NO.4 SOUTH BRANCH INTERCEPTING SEWER - EAST SIDE DELANCEY STREET - BARUCH PL. TO RIVER PROMENADE, SHEET 20, DATE: 6/30/1967
- THE M-27 SEWER ALIGNMENT IS LOCATED IN THE PARKING LOT OF THE EAST RIVER HOUSING CORPORATION. STREETS WEST AND EAST ARE LEWIS STREET AND FDR DRIVE, RESPECTIVELY. STREETS NORTH AND SOUTH ARE DELANCEY STREET AND GRAND STREET, RESPECTIVELY.
- THE M-27 AND M-28 PROFILE IS THE PIPE CENTERLINE PROFILE.

**CONCEPTUAL\***  
SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.



TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR INFORMATION SEE SURVEY SET SUI00 DRAWINGS SERIES

NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

FINAL DESIGN SUBMITTED BY:  
**AKRF KSE**  
The AKRF-KSE JV

FINAL DESIGN PREPARED BY:  
**Hazen**  
HAZEN AND SAWYER, D.P.C.  
NAME OF CONSULTANT  
SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

PARALLEL CONVEYANCE  
CIVIL PLAN & PROFILE  
REGULATORS M-27 & M-28  
HAZEN AND SAWYER  
DRAWN BY SANDRESM1-PC304-00.DWG  
CADD FILE

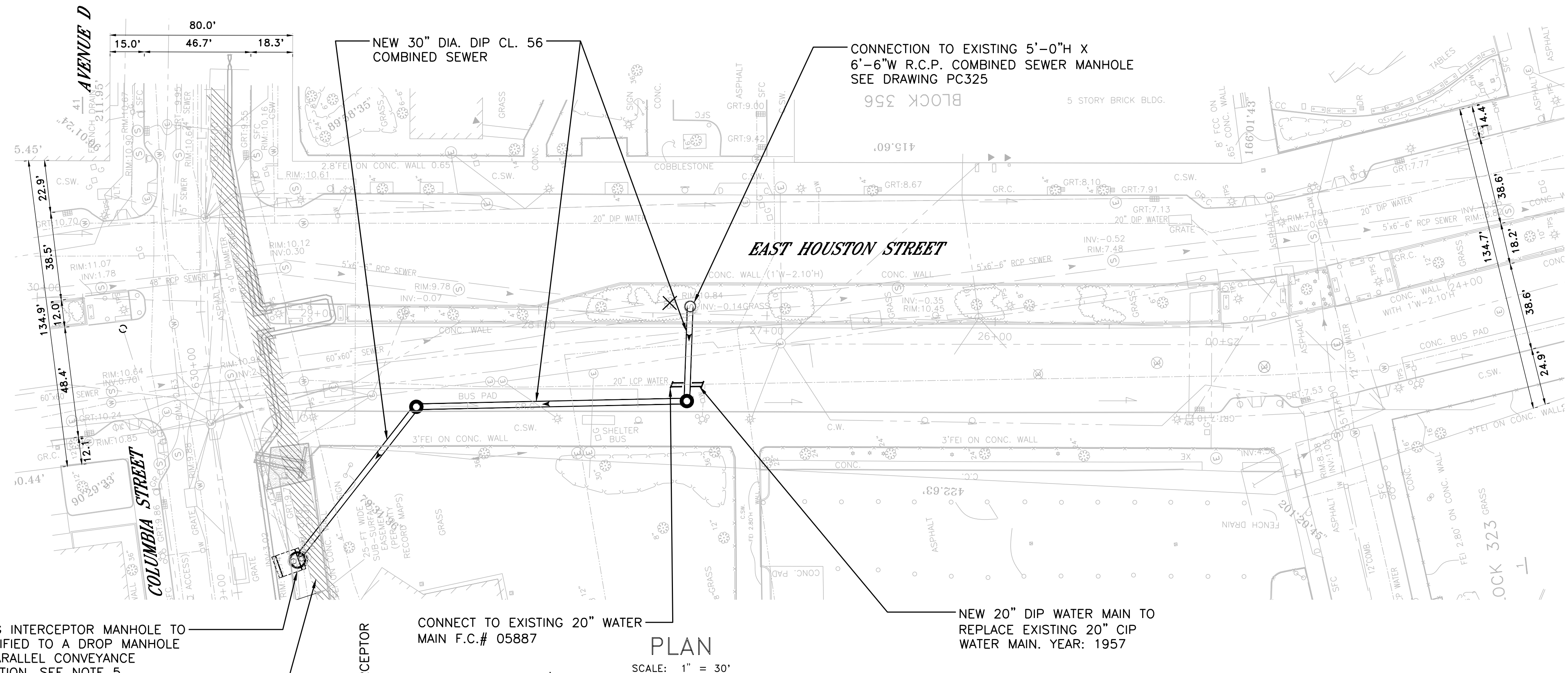
NO.	DATE	DESCRIPTIONS REVISIONS	BY	APPR'D

INSTALLATION OF  
EAST SIDE COASTAL RESILIENCY  
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 1/31/19 SHEET 409 OF 811 PC304



CONCEPTUAL REDESIGN SUBMISSION 1/31/2019



EXISTING INTERCEPTOR MANHOLE TO BE MODIFIED TO A DROP MANHOLE WITH PARALLEL CONVEYANCE CONNECTION. SEE NOTE 5

EXISTING 108" INTERCEPTOR SEWER

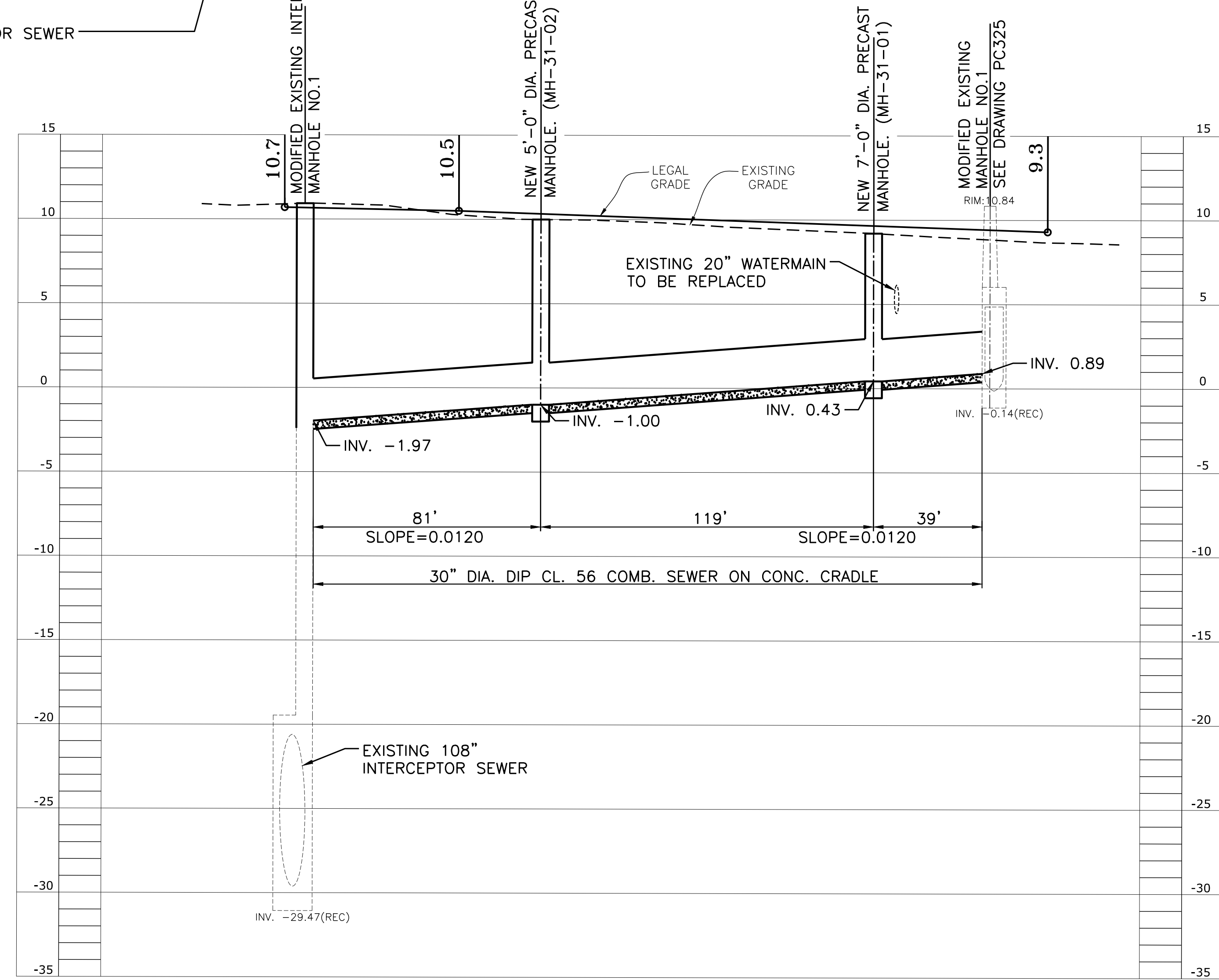
CONNECT TO EXISTING 20" WATER MAIN F.C.# 05887

NEW 30" DIA. DIP CL. 56 COMBINED SEWER

CONNECTION TO EXISTING 5'-0" X 6'-6" W R.C.P. COMBINED SEWER MANHOLE SEE DRAWING PC325

NEW 20" DIP WATER MAIN TO REPLACE EXISTING 20" CIP WATER MAIN. YEAR: 1957

**PLAN**  
SCALE: 1" = 30'



PIPE CENTERLINE PROFILE – EAST HOUSTON STREET AND COLUMBIA STREET/AVENUE D

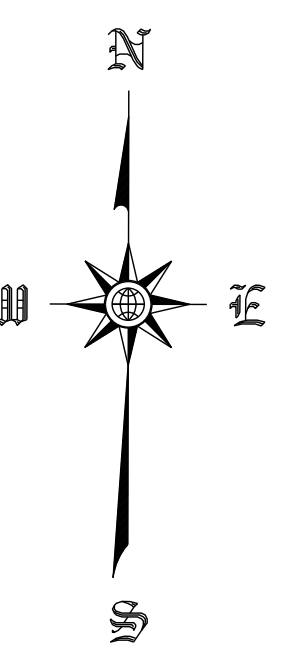
SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'

**NOTES:**

1. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
2. THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWER IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
3. COMBINED SEWER DESIGN WILL REQUIRE RESTORATION OF A MTA BUS STOP.
4. COMBINED SEWER DESIGN WILL REQUIRE RESTORATION OF THE MEDIAN
5. CONTRACTOR TO FIELD VERIFY ORIENTATION OF INTERCEPTOR MANHOLE STRUCTURE PRIOR TO CONSTRUCTION DUE TO THE MANHOLES NOT ALIGNING WITH AS-BUILT DRAWINGS
6. DESIGN OF MODIFIED EXISTING INTERCEPTOR MANHOLE NO.1 WILL BE PROVIDED WITH THE NEXT SUBMITTAL.
7. DESIGN OF MANHOLE CONNECTION ON EXISTING SEWER WILL BE PROVIDED WITH THE NEXT SUBMITTAL.
8. THE M-31 PROFILE IS A PIPE CENTERLINE PROFILE.
9. AN ALTERNATE ALIGNMENT FOR M-31 IS CURRENTLY UNDER EVALUATION TO REMOVE THE NEED FOR EASEMENT IN NYCHA BARUCH HOUSES LOT.

**CONCEPTUAL\***  
SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.



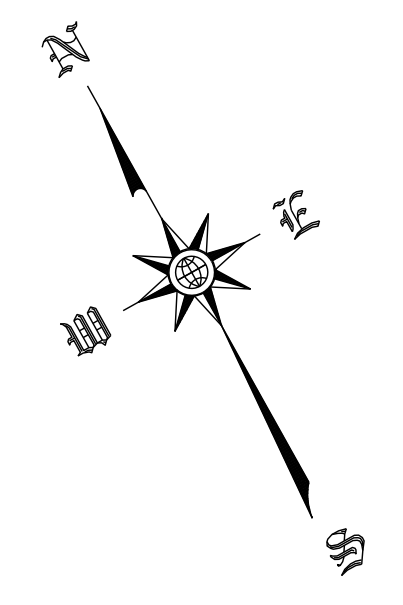
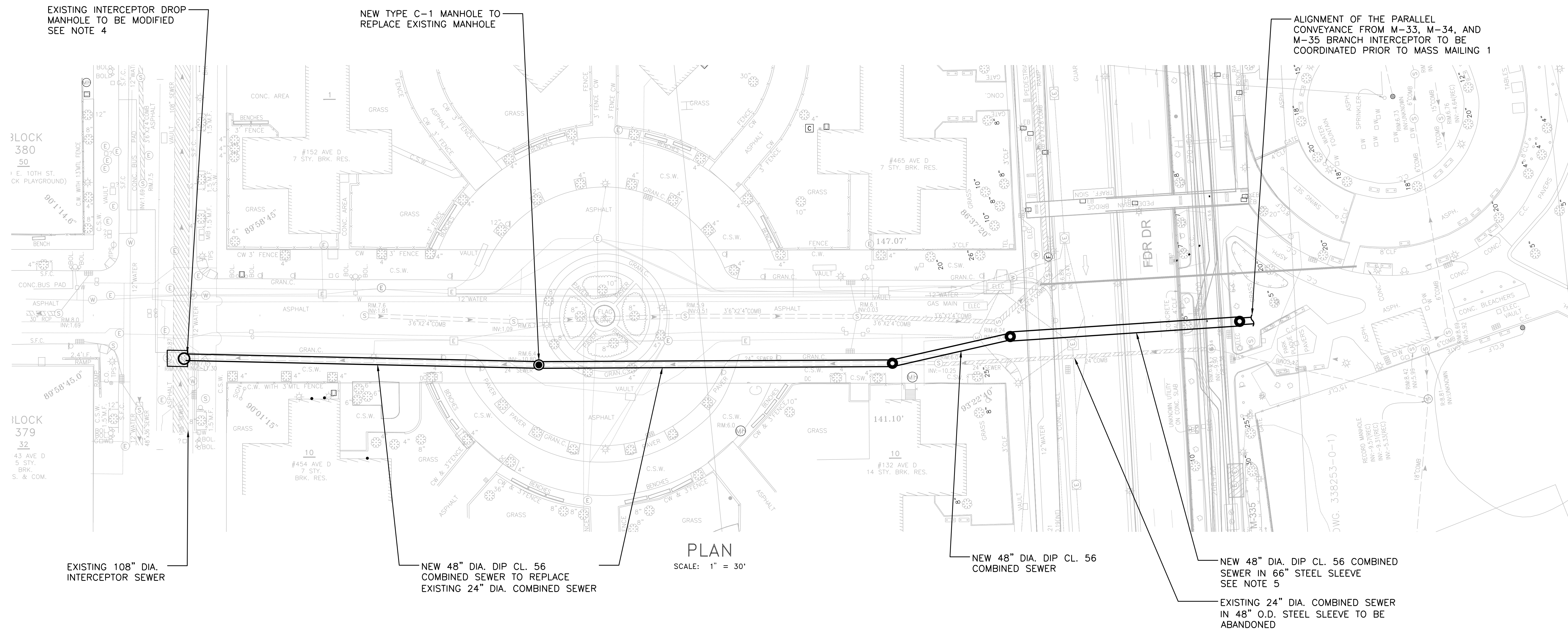
TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR INFORMATION SEE SURVEY SET SU100 DRAWINGS SERIES

NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

FINAL DESIGN SUBMITTED BY:  The AKRF-KSE JV	FINAL DESIGN PREPARED BY:  HAZEN AND SAWYER, D.P.C. NAME OF CONSULTANT	CITY OF NEW YORK DEPARTMENT OF DESIGN + CONSTRUCTION DIVISION OF INFRASTRUCTURE BUREAU OF DESIGN	PARALLEL CONVEYANCE CIVIL PLAN & PROFILE REGULATOR M-31 HAZEN AND SAWYER DRAWN BY: SANDRESM1-PC305-00.DWG CADD FILE	INSTALLATION OF EAST SIDE COASTAL RESILIENCY BOROUGH OF MANHATTAN CAPITAL PROJECT NO. SANDRESM1 1/31/19 SHEET 410 OF 811 PC305										
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NO.	DATE	DESCRIPTIONS	BY	APPR'D										



CONCEPTUAL REDESIGN SUBMISSION 1/31/2019

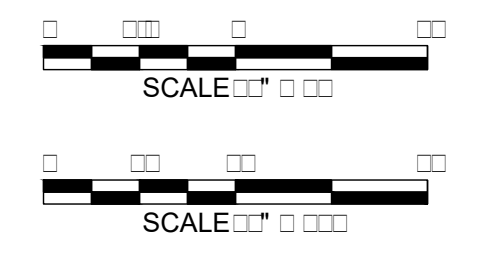


PLAN  
SCALE: 1" = 30'

**NOTES:**

1. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
2. THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWER IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
3. CONTRACTOR TO FIELD VERIFY ORIENTATION OF INTERCEPTOR MANHOLE STRUCTURE PRIOR TO CONSTRUCTION DUE TO THE MANHOLES NOT ALIGNING WITH AS-BUILT DRAWINGS
4. DESIGN OF MODIFIED EXISTING INTERCEPTOR MANHOLE NO.3 AND PROFILE WILL BE PROVIDED WITH THE NEXT SUBMITTAL.
5. SEWER UNDERNEATH FDR DRIVE SHALL BE INSTALLED USING MICROTUNNELING. CONSTRUCTION SHAFT LOCATIONS TO BE COORDINATED PRIOR TO MASS MAILING 1.

**CONCEPTUAL\***  
SUBMITTED DATE: 01/31/2019



NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR  
INFORMATION SEE SURVEY SET SU100 DRAWINGS SERIES

FINAL DESIGN SUBMITTED BY: <b>AKRF KSE</b> The AKRF-KSE JV	FINAL DESIGN PREPARED BY: <b>Hazen</b> HAZEN AND SAWYER, D.P.C. NAME OF CONSULTANT	SIGNATURE _____ DATE _____
--	---	-------------------------------

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

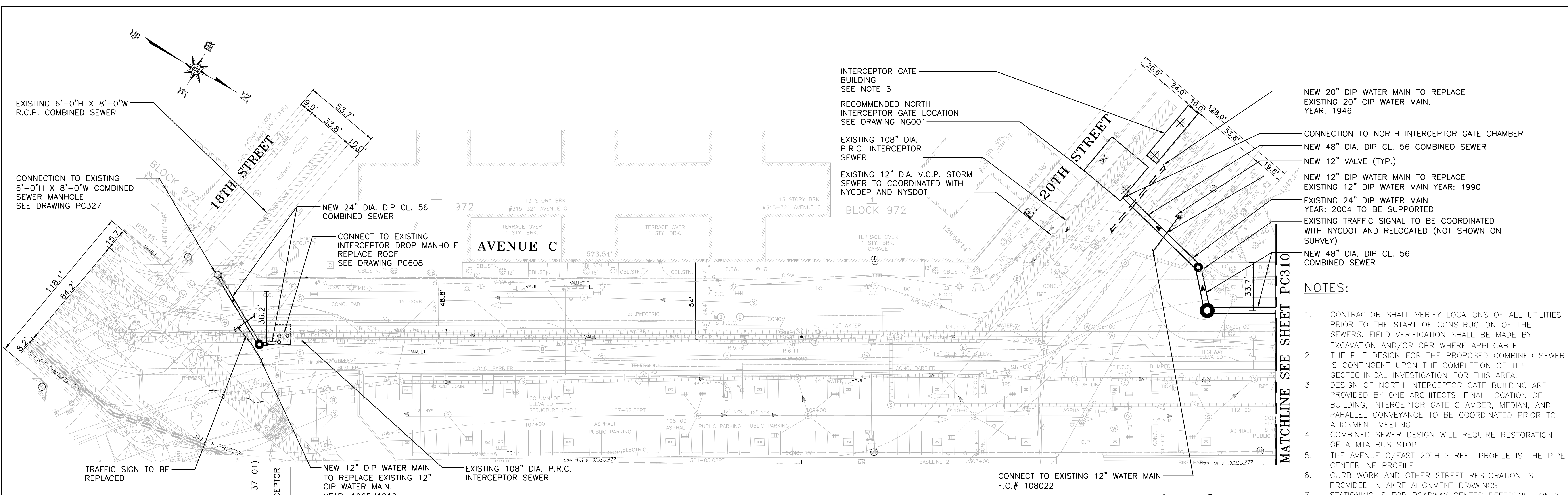
BRANCH INTERCEPTOR REPLACEMENT  
CIVIL PLAN  
EAST 10TH STREET  
HAZEN AND SAWYER  
DRAWN BY SANDRESM1-PC307-00.DWG  
CADD FILE

NO.	DATE	DESCRIPTIONS REVISIONS	BY	APPR'D

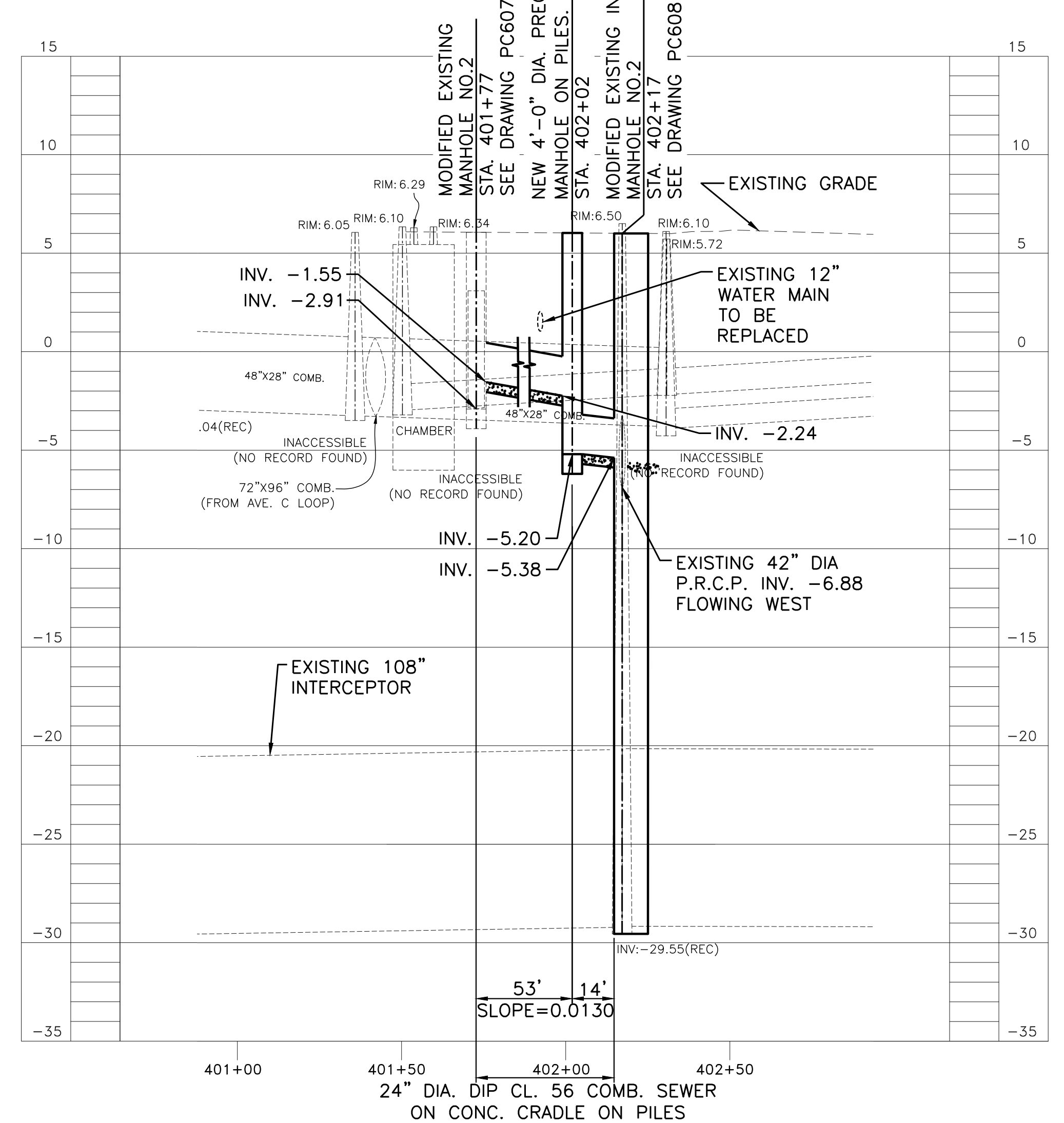
INSTALLATION OF  
EAST SIDE COASTAL RESILIENCY  
BOROUGH OF MANHATTAN  
CAPITAL PROJECT NO. SANDRESM1 1/31/19  
SHEET 411 OF 811  
PC307



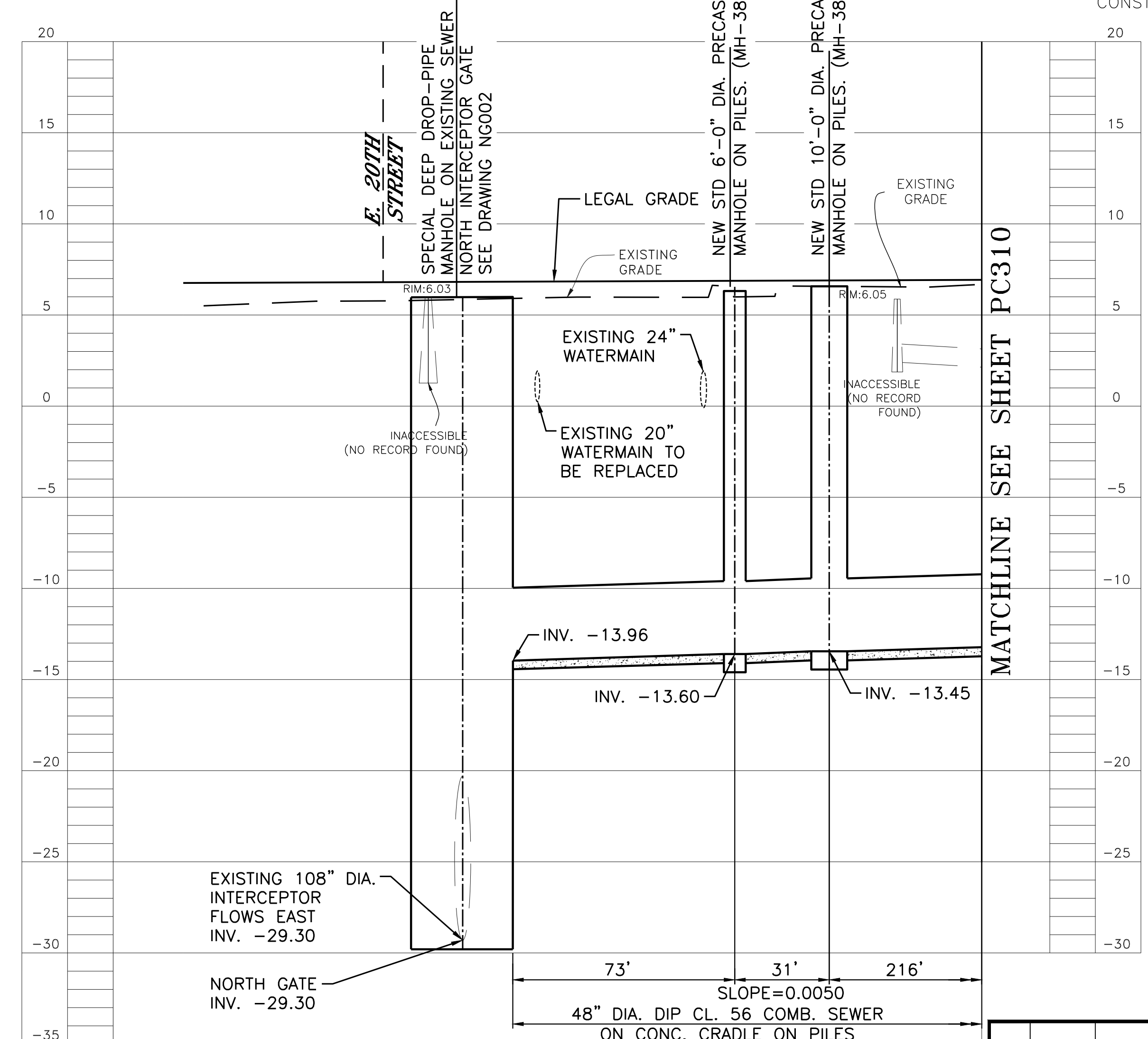
CONCEPTUAL REDESIGN SUBMISSION 1/31/2019



- NOTES:**
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
  - THE PILE DESIGN FOR THE PROPOSED COMBINED SEWER IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
  - DESIGN OF NORTH INTERCEPTOR GATE BUILDING ARE PROVIDED BY ONE ARCHITECTS. FINAL LOCATION OF BUILDING, INTERCEPTOR GATE CHAMBER, MEDIAN, AND PARALLEL CONVEYANCE TO BE COORDINATED PRIOR TO ALIGNMENT MEETING.
  - COMBINED SEWER DESIGN WILL REQUIRE RESTORATION OF A MTA BUS STOP.
  - THE AVENUE C/EAST 20TH STREET PROFILE IS THE PIPE CENTERLINE PROFILE.
  - CURB WORK AND OTHER STREET RESTORATION IS PROVIDED IN AKRF ALIGNMENT DRAWINGS.
  - STATIONING IS FOR ROADWAY CENTER REFERENCE ONLY. CONTRACTOR TO USE DIMENSIONS SHOWN FOR CONSTRUCTION OF PARALLEL CONVEYANCE STRUCTURES.



PROFILE - EAST 18TH STREET AND AVENUE C



PIPE CENTERLINE PROFILE - AVENUE C/EAST 20TH STREET

**CONCEPTUAL\***  
SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.

TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR INFORMATION SEE SURVEY SET SU100 DRAWINGS SERIES

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FINAL DESIGN SUBMITTED BY: **AKRF KSE**  
HAZEN AND SAWYER, D.P.C.  
NAME OF CONSULTANT

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

PARALLEL CONVEYANCE  
CIVIL PLAN & PROFILE  
REGULATORS M-37 & M-38 COMBINED  
HAZEN AND SAWYER  
DRAWN BY SANDRESM1-PC309-00.DWG  
CADD FILE

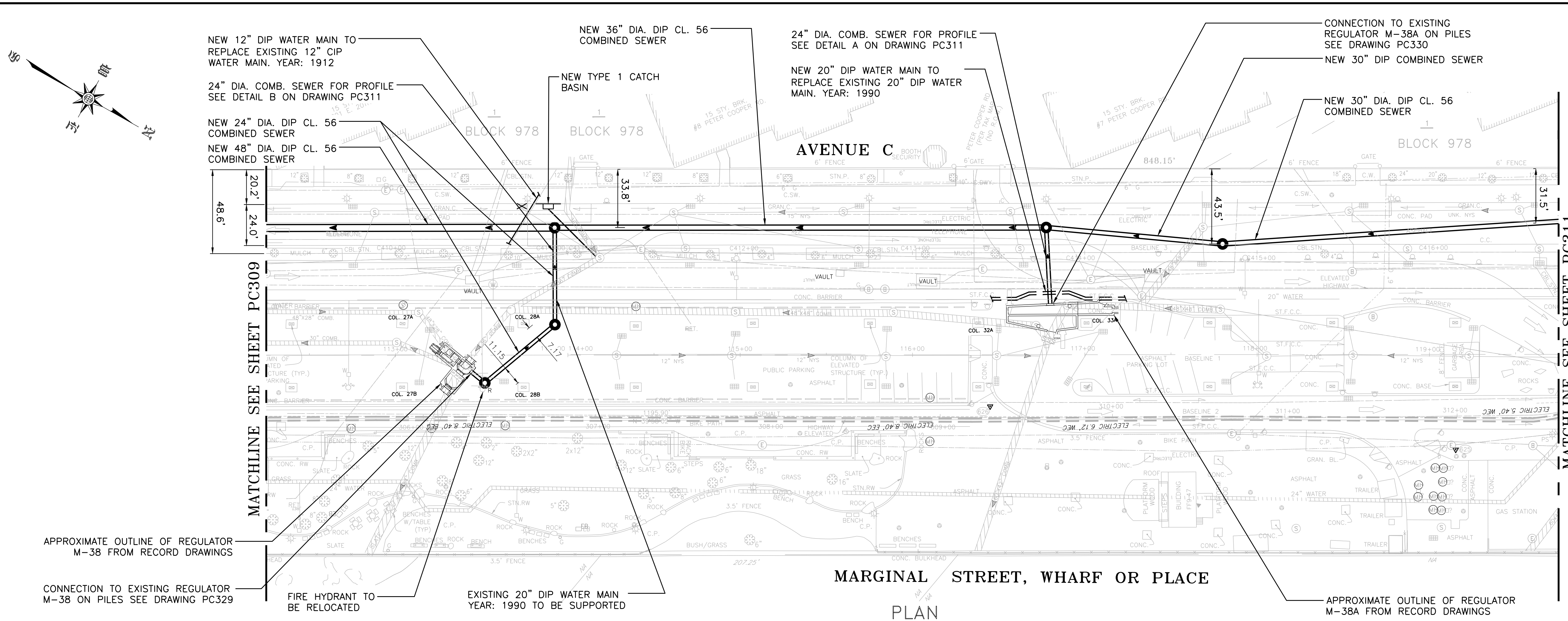
INSTALLATION OF  
EAST SIDE COASTAL RESILIENCY  
BOROUGH OF MANHATTAN

NO.	DATE	DESCRIPTIONS	BY	APPR'D

CAPITAL PROJECT NO. SANDRESM1 1/31/19 SHEET 412 OF 811 PC309



CONCEPTUAL REDESIGN SUBMISSION 1/31/2019

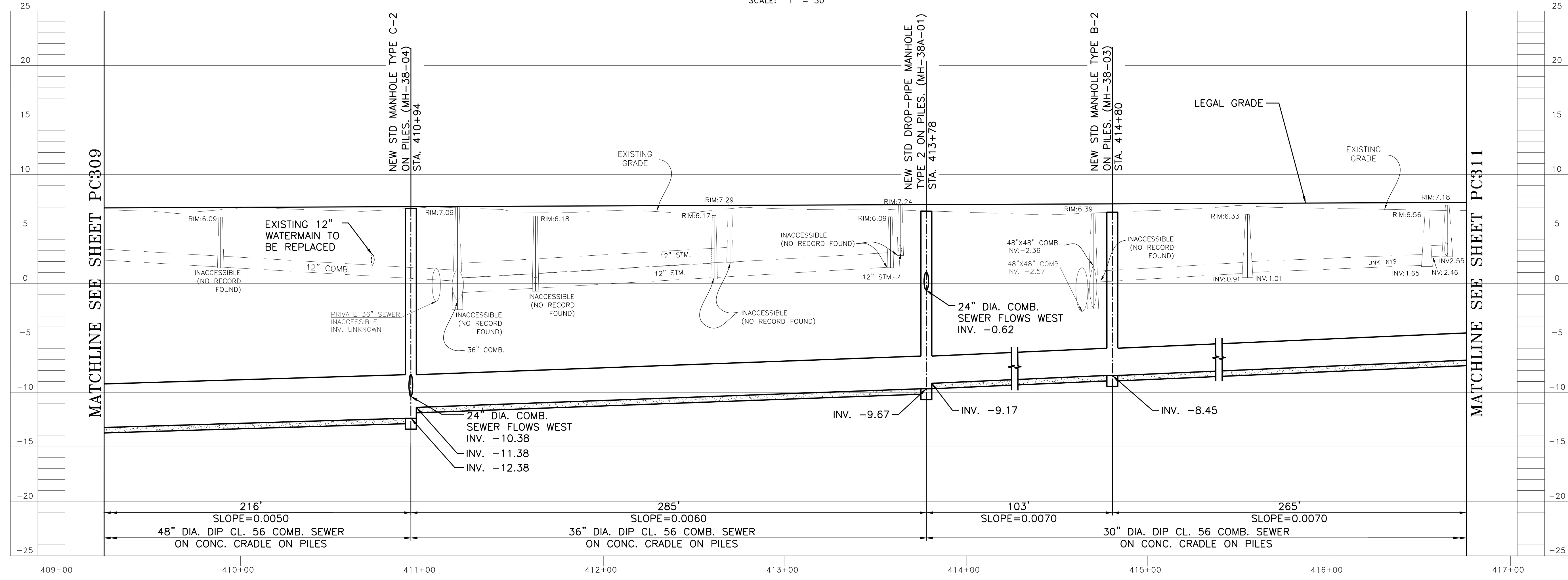


- NOTES:**
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
  - THE LOCATION AND LAYOUT OF THE REGULATORS SHOWN ON THIS DRAWING ARE APPROXIMATE AND NOT DRAWN BY SURVEYOR. CONTRACTOR SHALL VERIFY LOCATION AND LAYOUT OF REGULATORS PRIOR TO CONSTRUCTION.
  - THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWERS IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
  - COMBINED SEWER DESIGN WILL REQUIRE RESTORATION OF A MTA BUS STOP.
  - STATIONING IS FOR ROADWAY CENTER REFERENCE ONLY. CONTRACTOR TO USE DIMENSIONS SHOWN FOR CONSTRUCTION OF PARALLEL CONVEYANCE STRUCTURES.

**CONCEPTUAL\***

SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.



**PROFILE - AVENUE C**

SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'

TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR  
INFORMATION SEE SURVEY SET SUI00 DRAWINGS SERIES

NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

NO.	DATE	DESCRIPTIONS	BY	APPR'D

FINAL DESIGN SUBMITTED BY:

The AKRF-KSE JV

FINAL DESIGN PREPARED BY:

HAZEN AND SAWYER, D.P.C.  
NAME OF CONSULTANT

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

PARALLEL CONVEYANCE  
CIVIL PLAN & PROFILE  
REGULATORS M-38 & M-38A

HAZEN AND SAWYER  
DRAWN BY SANDRESM1-PC310-00.DWG  
CADD FILE

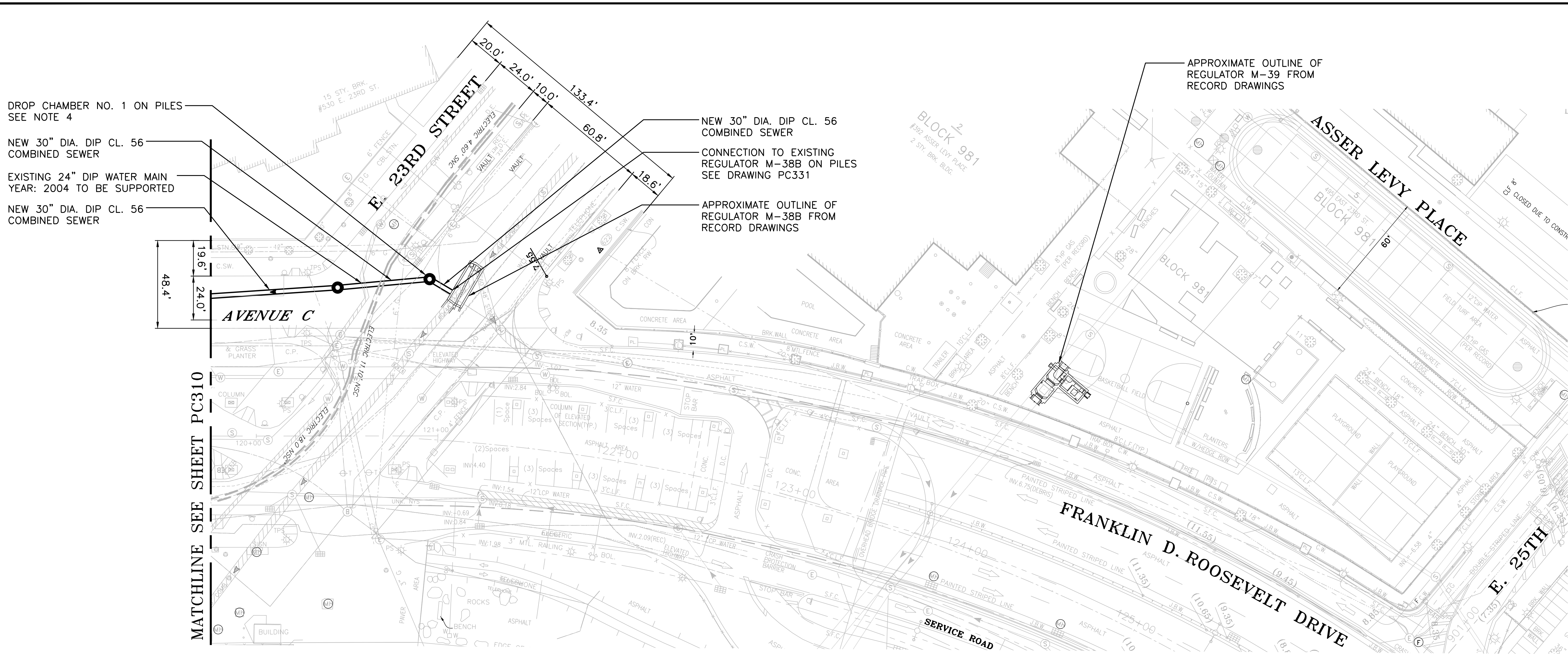
INSTALLATION OF  
EAST SIDE COASTAL RESILIENCY  
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 1/31/19

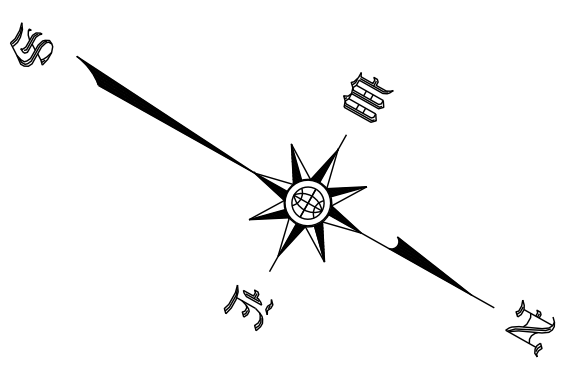
SHEET	413	OF	811	PC310
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CONCEPTUAL REDESIGN SUBMISSION 1/31/2019



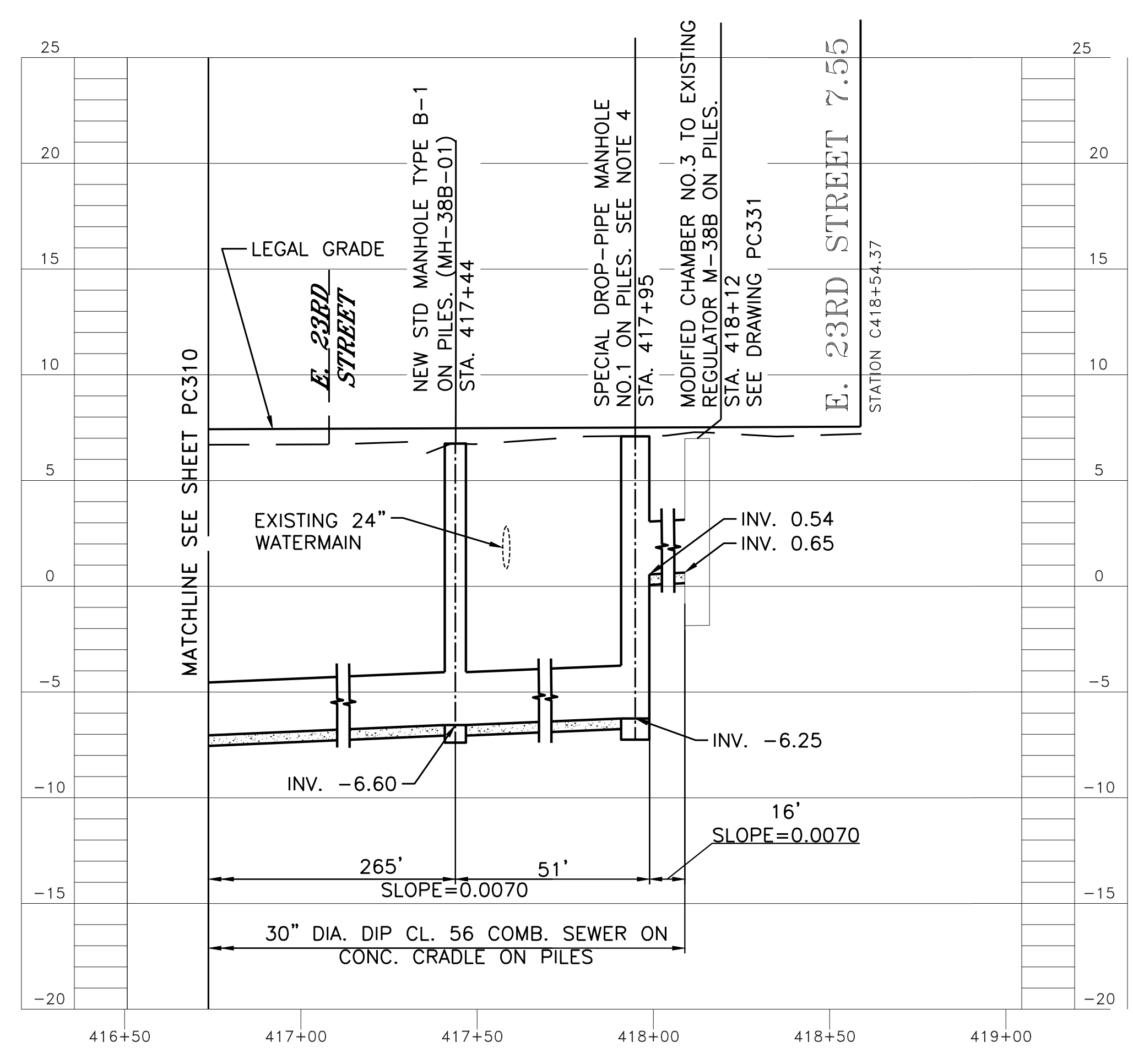
- NOTES:**
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION OF THE SEWERS. FIELD VERIFICATION SHALL BE MADE BY EXCAVATION AND/OR GPR WHERE APPLICABLE.
  - THE LOCATION AND LAYOUT OF THE REGULATORS SHOWN ON THIS DRAWING ARE APPROXIMATE WERE NOT SURVEYOR. CONTRACTOR SHALL VERIFY LOCATION AND LAYOUT OF REGULATORS PRIOR TO CONSTRUCTION.
  - THE PILE SUPPORT DESIGN FOR THE PROPOSED COMBINED SEWER IS CONTINGENT UPON THE COMPLETION OF THE GEOTECHNICAL INVESTIGATION FOR THIS AREA.
  - DESIGN OF SPECIAL DROP-PIPE MANHOLE NO.1 WILL BE PROVIDED WITH THE NEXT SUBMITTAL.
  - THE AVENUE C PROFILE (DETAIL A) AND AVENUE C PROFILE (DETAIL B) IS BOTH THE PIPE CENTERLINE PROFILES.
  - STATIONING IS FOR ROADWAY CENTER REFERENCE ONLY. CONTRACTOR TO USE DIMENSIONS SHOWN FOR CONSTRUCTION OF PARALLEL CONVEYANCE STRUCTURES.



**CONCEPTUAL\***

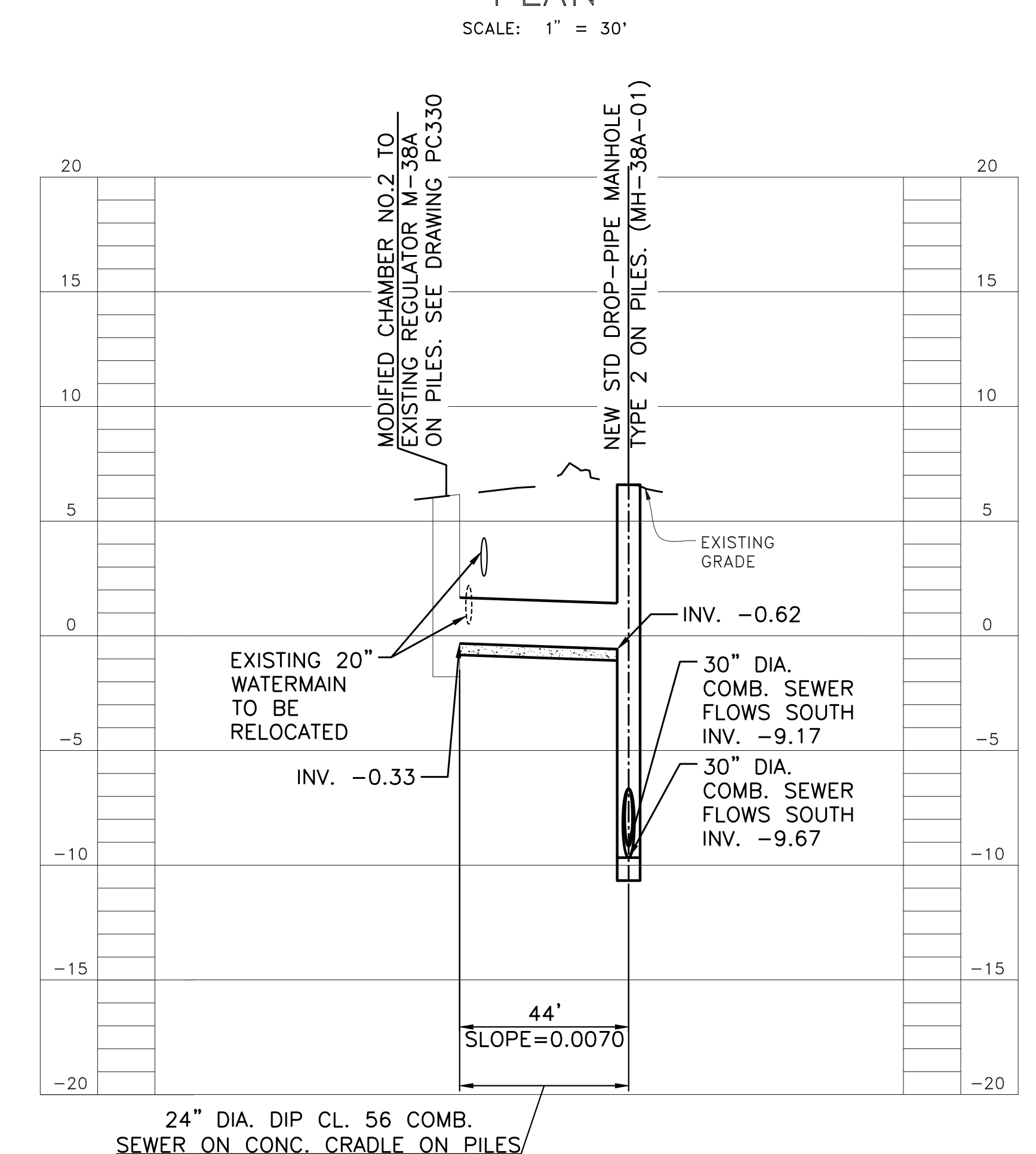
SUBMITTED DATE: 01/31/2019

\*PROGRESS PRINT REFLECTING ADVANCED PRELIMINARY DESIGN, INCORPORATING COMMENTS FROM THREE PRE-ALIGNMENT MEETINGS.



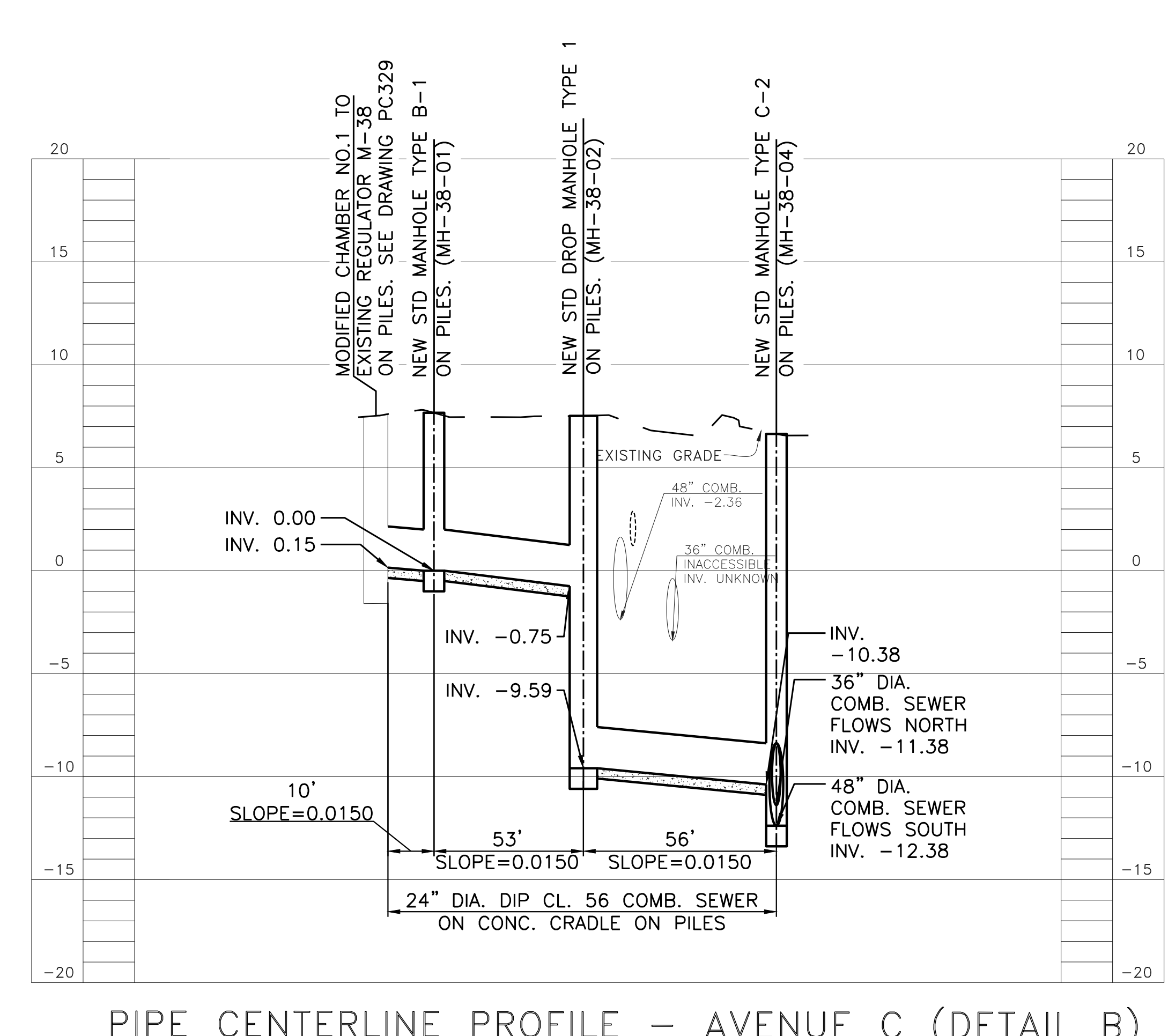
**PROFILE - AVENUE C**

SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'



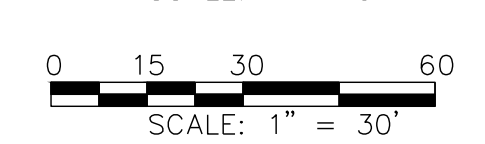
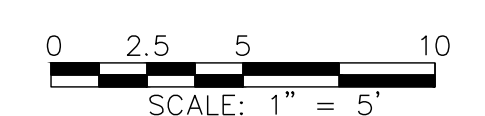
**PIPE CENTERLINE PROFILE - AVENUE C (DETAIL A)**

FOR PLAN SEE DRAWING PC310  
SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'



**PIPE CENTERLINE PROFILE - AVENUE C (DETAIL B)**

FOR PLAN SEE DRAWING PC310  
SCALE:  
VERT.: 1" = 5'  
HORIZ.: 1" = 30'



TOPOGRAPHIC SURVEY PREPARED BY: FOR SURVEYOR  
INFORMATION SEE SURVEY SET S0100 DRAWINGS SERIES

NOTE: ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO MANHATTAN DATUM, SUBTRACT 1.652 FEET FROM EACH ELEVATION

FINAL DESIGN SUBMITTED BY:  
**AKRF KSE**  
The AKRF-KSE JV

FINAL DESIGN PREPARED BY:  
**Hazen**  
HAZEN AND SAWYER, D.P.C.  
NAME OF CONSULTANT

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

CITY OF NEW YORK  
DEPARTMENT OF DESIGN + CONSTRUCTION  
DIVISION OF INFRASTRUCTURE  
BUREAU OF DESIGN

PARALLEL CONVEYANCE  
CIVIL PLAN & PROFILE  
REGULATORS M-38B & M-39  
HAZEN AND SAWYER  
DRAWN BY SANDRESM1-PC311-00.DWG  
CADD FILE

NO.	DATE	DESCRIPTIONS	BY	APPR'D

INSTALLATION OF  
EAST SIDE COASTAL RESILIENCY  
BOROUGH OF MANHATTAN

CAPITAL PROJECT NO. SANDRESM1 1/31/19    SHEET 414 OF 811    PC311