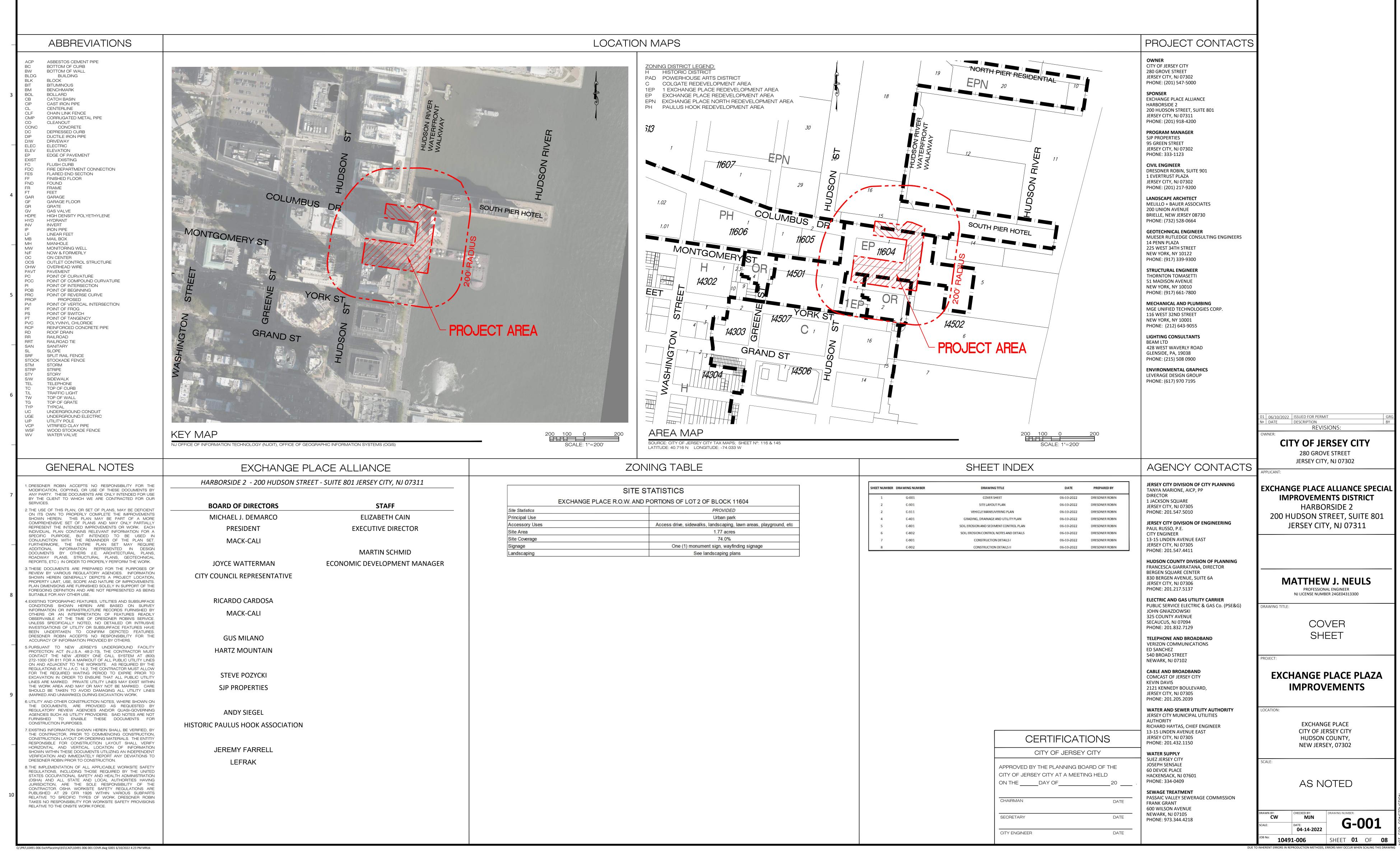
# PRELIMNARY/FINAL SITE PLAN

# EXCHANGE PLACE IMPROVEMENTS

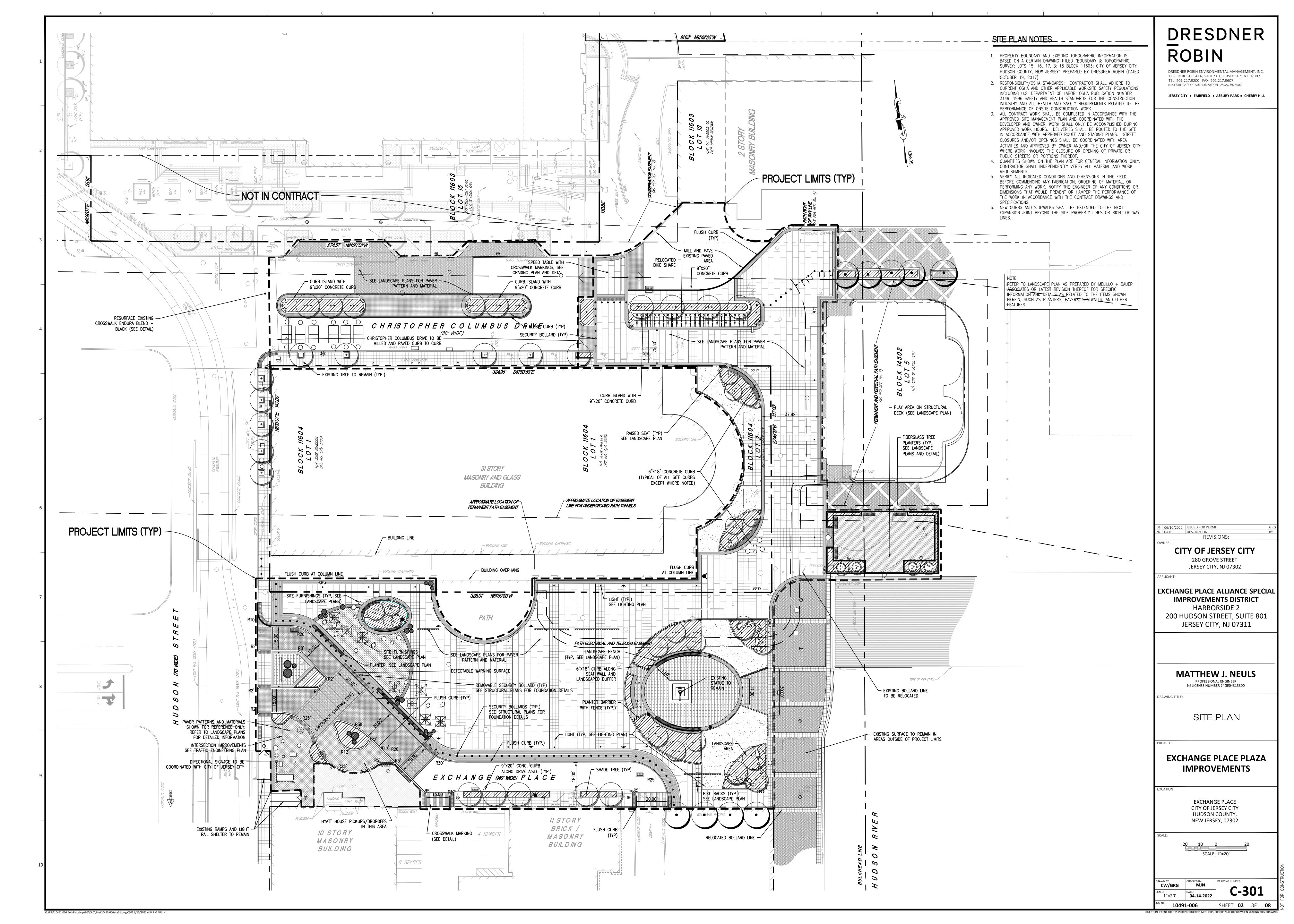
LOT 2, BLOCK 11604 AND EXCHANGE PLACE (PUBLIC R.O.W.) CITY OF JERSEY CITY, COUNTY OF HUDSON, NEW JERSEY 07302

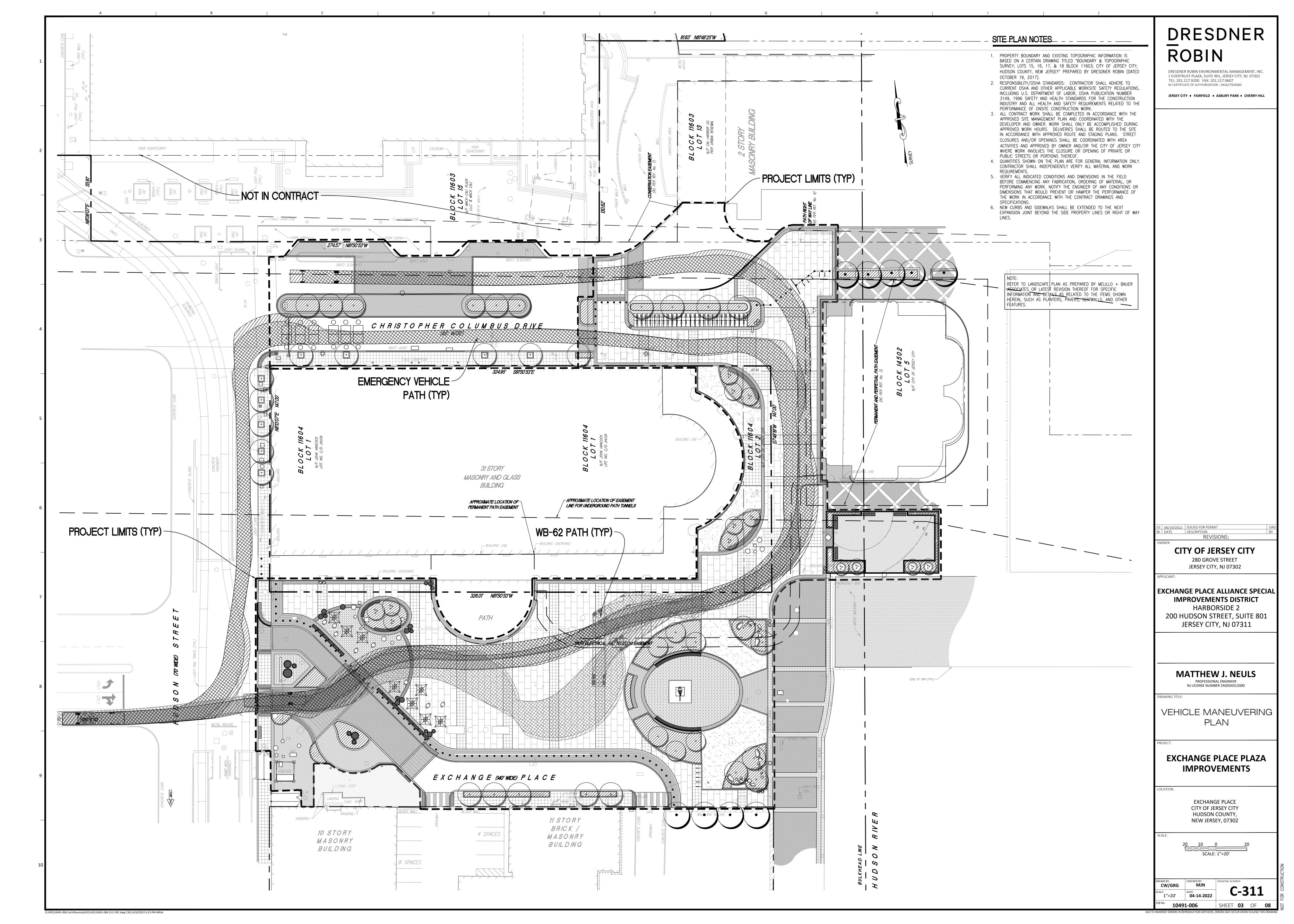


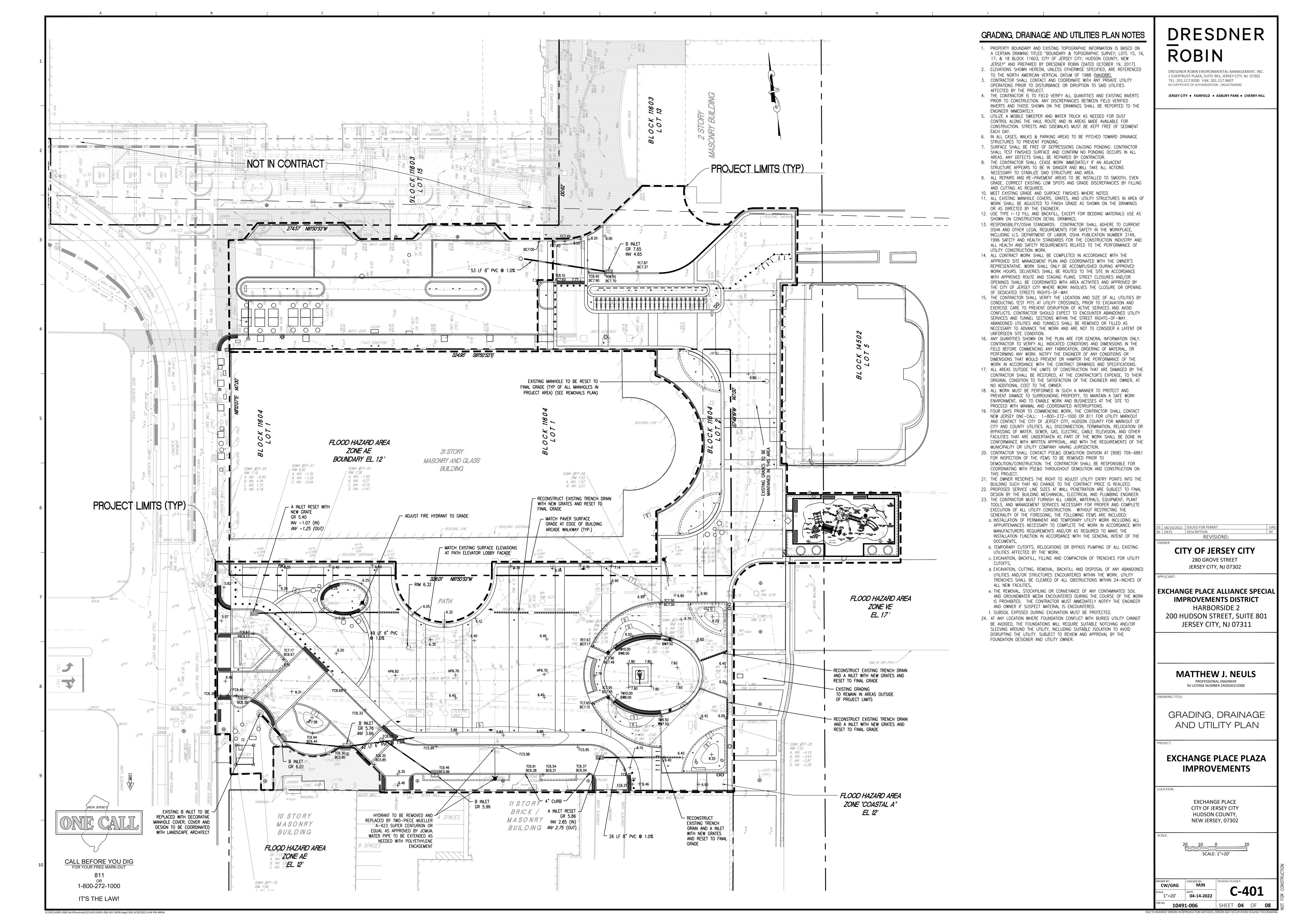
# DRESDNER ROBIN

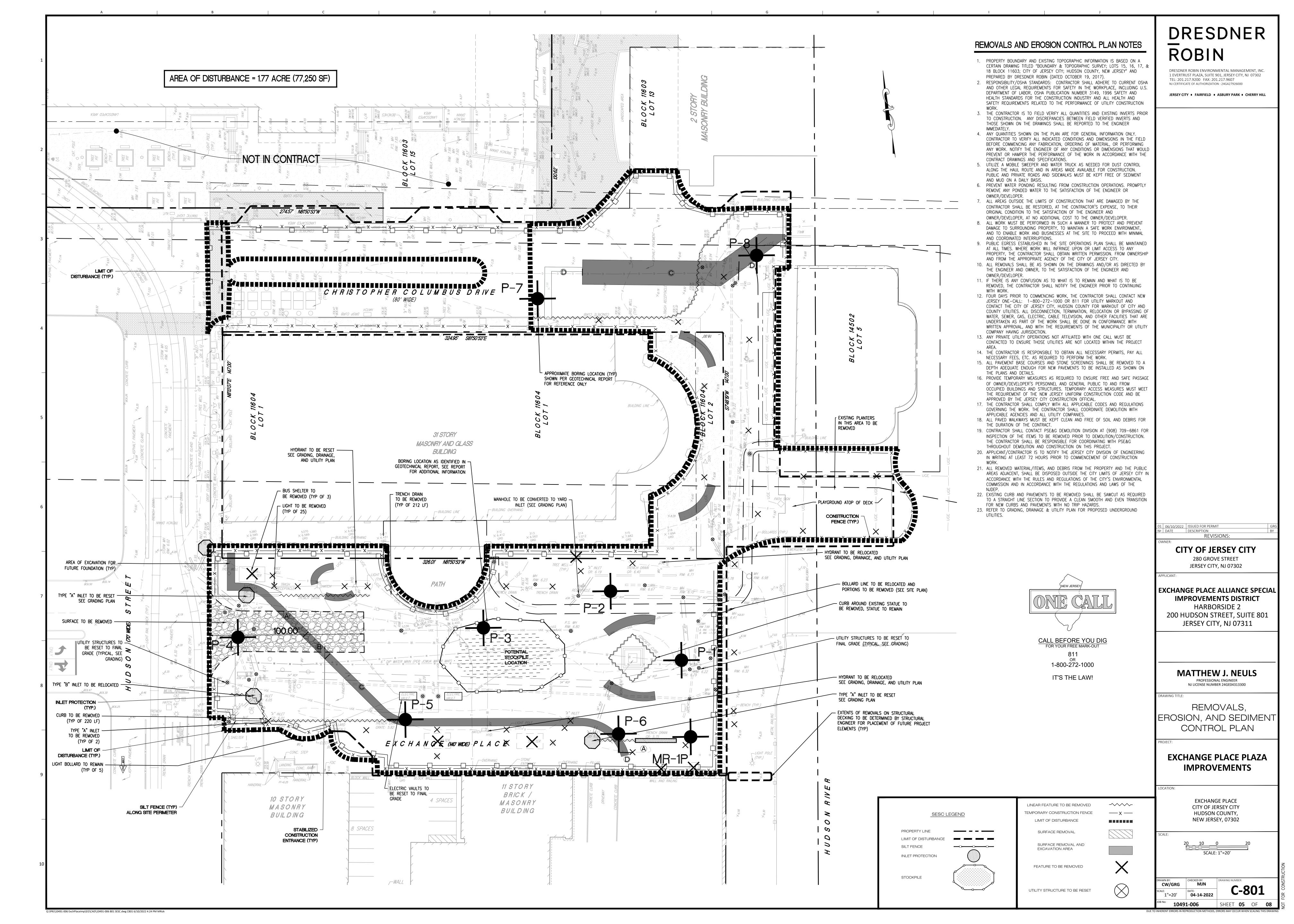
DRESDNER ROBIN ENVIRONMENTAL MANAGEMENT, IN 1 EVERTRUST PLAZA, SUITE 901, JERSEY CITY, NJ 07302 TEL: 201.217.9200 FAX: 201.217.9607 NJ CERTIFICATE OF AUTHORIZATION: 24GA27926000

JERSEY CITY 
FAIRFIELD 
ASBURY PARK 
CHERRY H









#### HUDSON ESSEX PASSAIC - SOIL CONSERVATION DISTRICT - SOIL EROSION AND SEDIMENT CONTROL NOTES

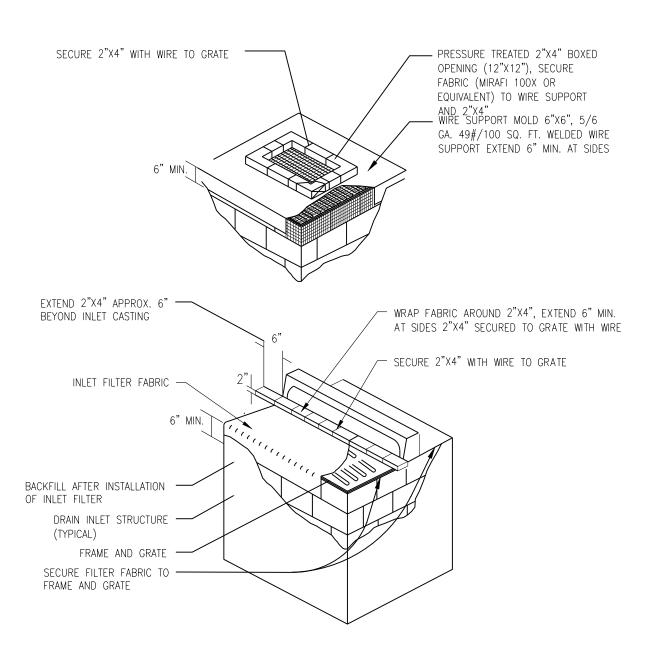
- 1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7TH EDITION LAST REVISED JULY 2017, EFFECTIVE DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 2. SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, MAY BE REQUIRED TO BE BE TEMPORARILY MULCHED, AND SEEDED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER PER APPENDIX A3. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED..
- 3. <u>SEEDING DATES:</u> THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO BEST ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCD: SPRING -3/1-5/15 AND FALL -8/15-10/1
- 4. SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED. 5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS, AND PROTECTION SHALL REMAIN UNTIL
- PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET POINTS SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL. 6. MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL
- 7. ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- 8. THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. <u>FAX - (862) 333-4507</u> OR EMAIL - INFORMATION@HEPSCD.ORG
- 9. THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE MUNICIPALITY, NJ DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 862-333-4505 TO REQUEST A FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER
- 10. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN, WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT
- 11. ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL PRIOR TO RE-SEEDING, SODDING OR PLANTING. A DEPTH OF 5.0 INCHES, FIRMED IN PLACE, IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, EFFECTIVE DECEMBER 2017. 12. ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.
- 13. A CRUSHED STONE WHEEL CLEANING TRACKING-PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2 ½ -1"CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF 50 FEET AND MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.

14. STEEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION MEASURES. THESE "SPECIAL" MEASURES SHALL BE DESIGNED BY THE

APPLICANT'S ENGINEER AND BE APPROVED BY THE SOIL CONSERVATION DISTRICT.

15. THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED, IN WRITING, FOR THE SALE OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS. NEW OWNERS: INFORMATION SHALL BE PROVIDED. ADDITIONAL MEASURES DEEMED NECESSARY BY DISTRICT OFFICIALS SHALL BE IMPLEMENTED AS CONDITIONS WARRANT.

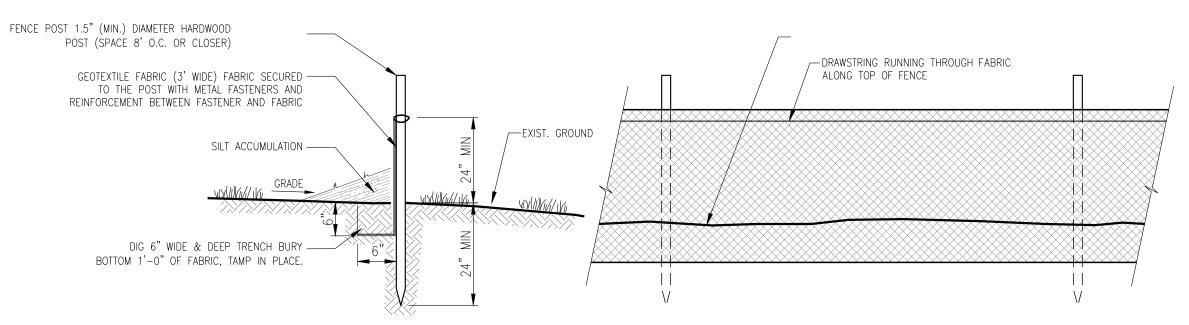
	SEQUENCE OF CONSTRUCTION	DURATION
1.	CONTACT THE COUNTY SOIL CONSERVATION DISTRICT, IN WRITING, 72 HOURS PRIOR TO ANY LAND DISTURBANCE.	3 DAYS
2.	INSTALL SILT FENCE AND INLET PROTECTION.	1 WEEK
3.	REMOVE EXISTING FEATURES TO CONSTRUCT IMPROVEMENTS.	1 MONTHS
4.	INSTALL UNDERGROUND UTILITIES	3 MONTHS
5.	INSTALL LIGHTING AND LANDSCAPING.	4 MONTHS
6.	REMOVE THE SOIL EROSION MEASURES AND STABILIZE THE ENTIRE SITE.	1 WEEK
7.	CONTACT THE COUNTY SOIL CONSERVATION DISTRICT TO SCHEDULE AN INSPECTION AND OBTAIN A REPORT OF COMPLIANCE.	3 DAYS



1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
2. CONTRACTOR TO REMOVE FABRIC AND MESH JUST PRIOR TO PAVING. 3. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER

# INLET FILTER BARRIER PROTECTION

SOIL COMPACTION EXEMPTION NOTE: AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PA1). UNDER EXISTING CONDITIONS. THE SITE IS NOT COVERED IN WOODY VEGETATION NOR REGROWTH. IN ACCORDANCE WITH NEW JERSEY STANDARD FOR LAND GRADING (REVISED 2017), NON WOODY VEGETATED PA1 AREAS FALL UNDER THE SOIL COMPACTION EXEMPTION LIST AS A "URBAN REDEVELOPMENT" AND IS DEFINED BY NJDEP AS "PREVIOUSLY DEVELOPED".



NOTES:

1. FENCE POSTS SHALL BE SPACED 8 FEET ON CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 ½ INCHES.

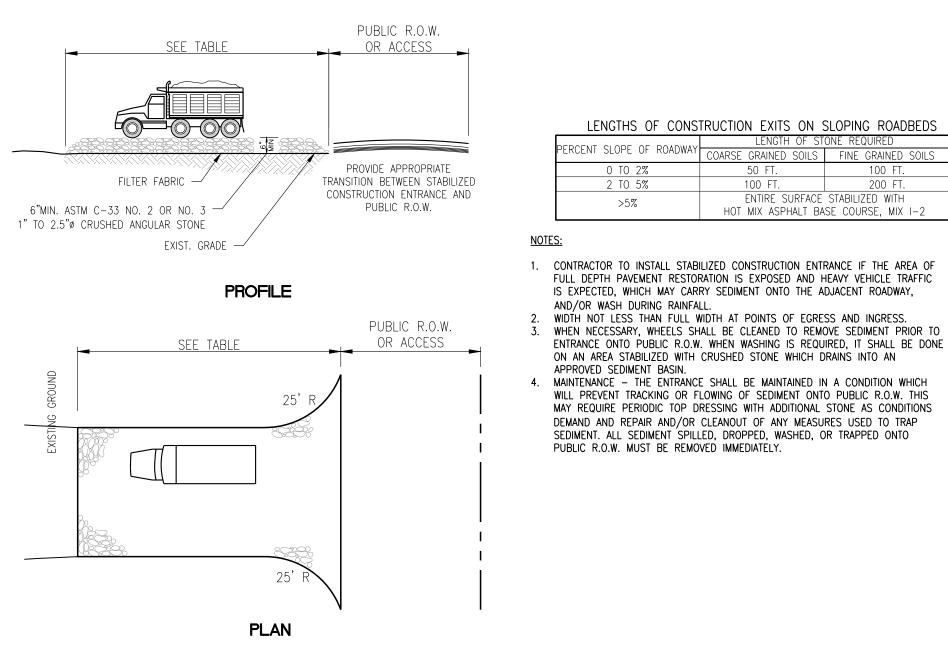
2. A METAL FENCE WITH 6 INCH OPENING OR SMALLER AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED. 3. A GEOTEXTILE FABRIC RECOMMENDED FOR SUCH USE BY THE MANUFACTURER SHALL BE BURIED AT LEAST 6 INCHES IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL

MAINTENANCE:

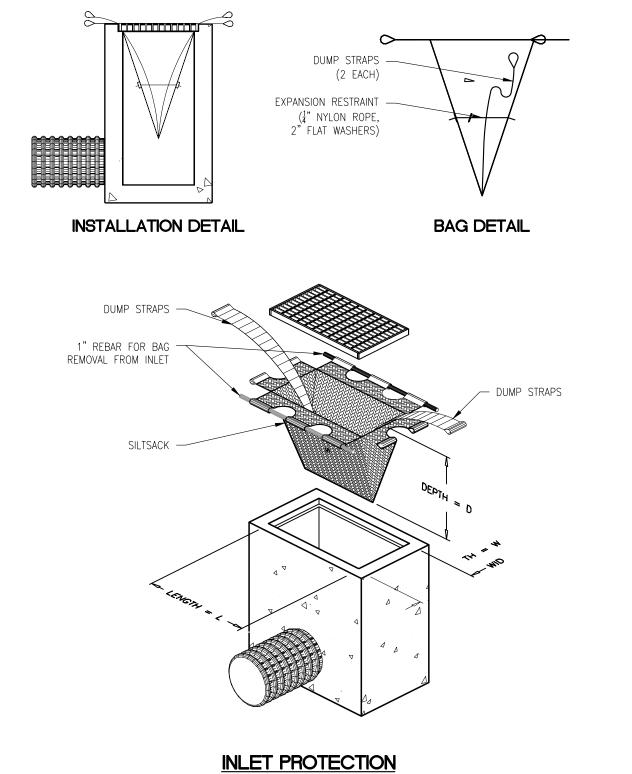
1. SILT FENCE SHALL BE INSPECTED AFTER EVERY RAIN EVENT. ANY DAMAGE MUST BE REPAIRED IMMEDIATELY. SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE UPSTREAM SIDE OF THE SILT FENCE WHEN IT ACCUMULATES TO THE EXTENT THAT VISIBLE BULGES DEVELOP IN THE FENCE OR REACHES 3. SILT FENCE SHALL ONLY BE REMOVED AFTER VEGETATIVE GROWTH OR OTHER STABILIZATION MEASURES HAVE BEEN ACHIEVED.

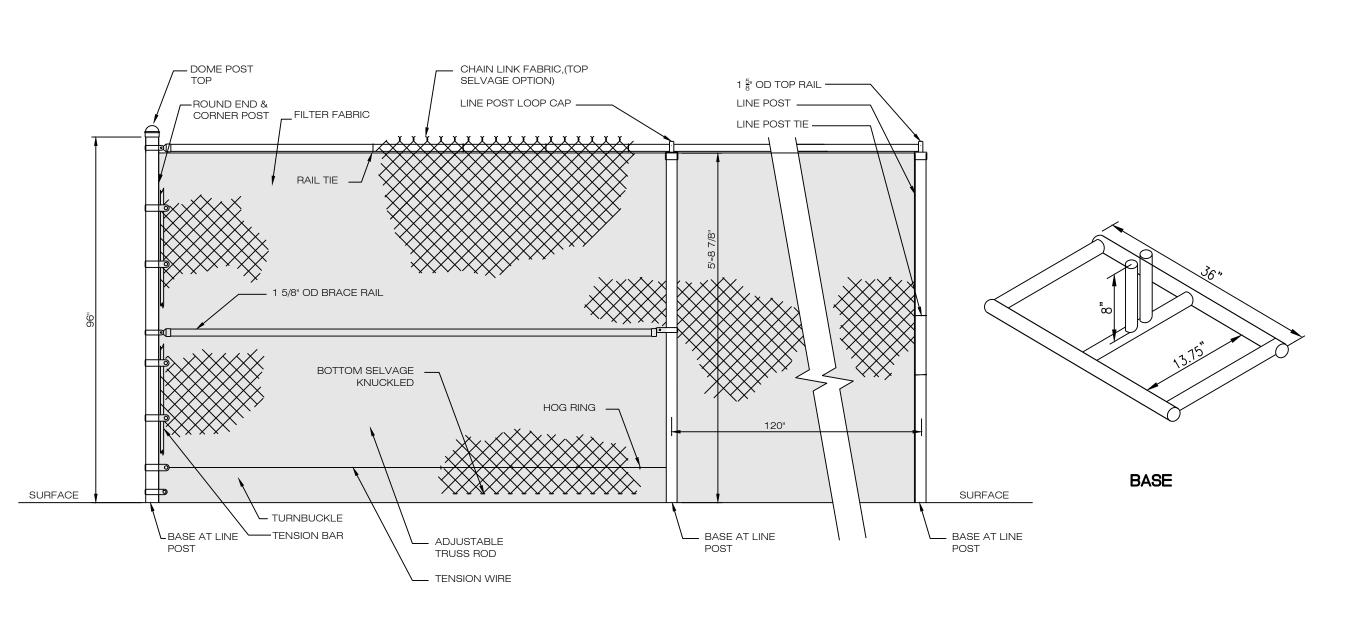
INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

### SILT FENCE

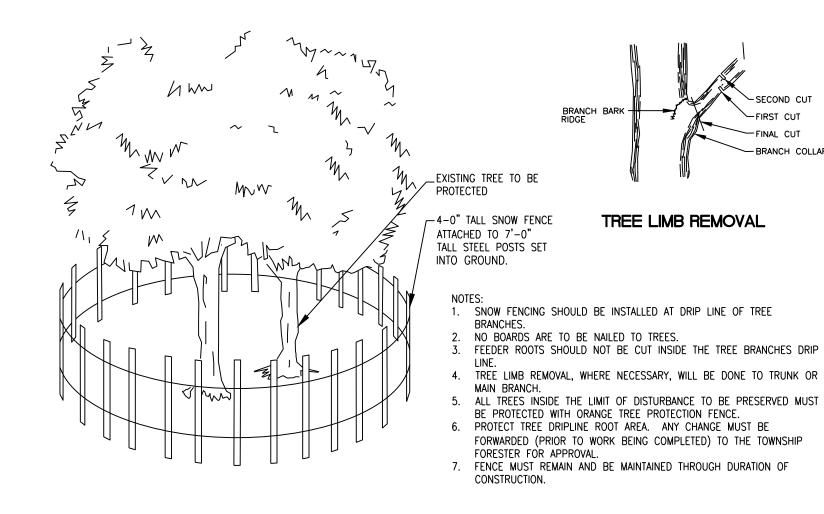


## STABILIZED CONSTRUCTION ACCESS

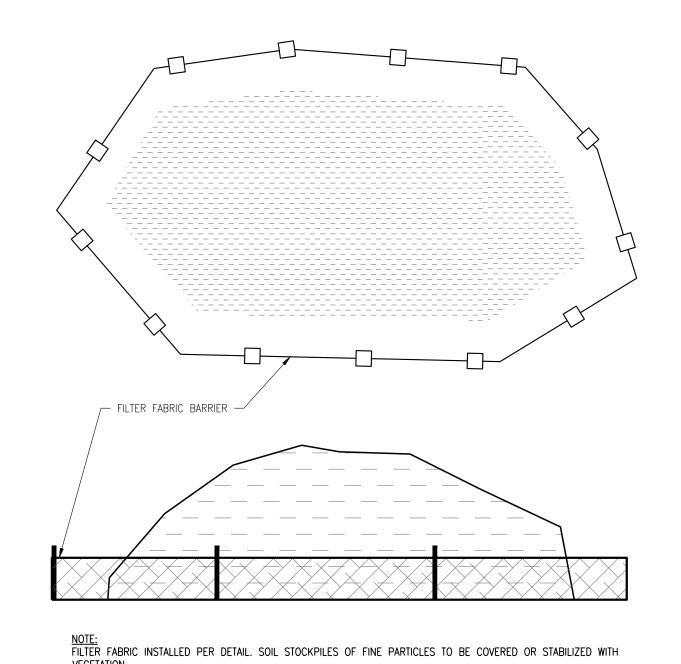




TEMPORARY CONSTRUCTION FENCE



#### TREE PROTECTION



**STOCKPILE** 

# 01 06/10/2022 ISSUED FOR PERMIT № DATE DESCRIPTION **REVISIONS:**

DRESDNER

DRESDNER ROBIN ENVIRONMENTAL MANAGEMENT, INC. 1 EVERTRUST PLAZA, SUITE 901, JERSEY CITY, NJ 07302

JERSEY CITY ■ FAIRFIELD ■ ASBURY PARK ■ CHERRY HILL

TEL: 201.217.9200 FAX: 201.217.9607

NJ CERTIFICATE OF AUTHORIZATION: 24GA27926000

#### **CITY OF JERSEY CITY** 280 GROVE STREET JERSEY CITY, NJ 07302

### EXCHANGE PLACE ALLIANCE SPECIAL **IMPROVEMENTS DISTRICT** HARBORSIDE 2

200 HUDSON STREET, SUITE 801 JERSEY CITY, NJ 07311

# **MATTHEW J. NEULS**

PROFESSIONAL ENGINEER NJ LICENSE NUMBER 24GE04313300

SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

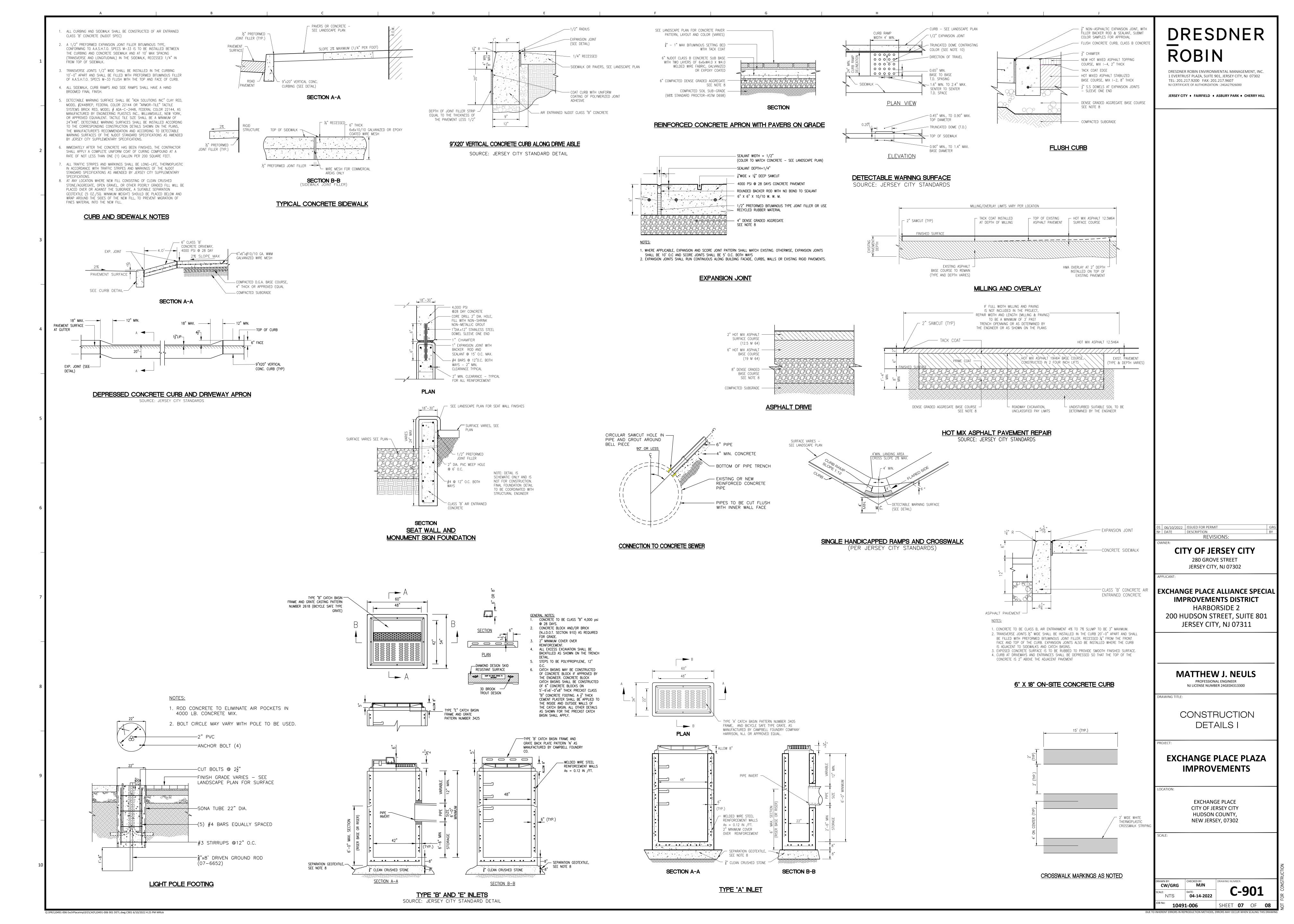
# **EXCHANGE PLACE PLAZA IMPROVEMENTS**

OCATION:

**EXCHANGE PLACE** CITY OF JERSEY CITY HUDSON COUNTY, NEW JERSEY, 07302

CW/GRG DATE: 04-14-2022

10491-006



#### WATER DISTRIBUTION SYSTEM STANDARDS

- 1. WATER MAINS SHALL BE PSI CLASS 350, CEMENT LINED, DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL BE IN CONFORMANCE WITH A.N.S.I. STANDARD A21.5-1976 (A.W.W.A. C151-76) 2. A SOLID DUCTILE IRON TAPPING SLEEVE SUCH AS MULLER H-615 TAPPING SLEEVE OR APPROVED EQUAL (PSI TEST REFER TO ITEM #13).
- 3. GATE VALVE SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD DOUBLE DISC GATES METRO OF CLOW AND OR AN APPROVED EQUAL C500-80 AND SHALL BE JERSEY CITY STANDARD VALVES, M&H METROPOLITAN MECHANICAL JOINT VALVES AS MANUFACTURED BY DRESSER COMPANY OR APPROVED EQUAL. VALVES SHALL BE NON-RISING STEM, MECHANICAL JOINT SHALL BE FURNISHED WITH A (2") SQUARE OPERATING NUT SHALL OPEN BY TURNING TO THE RIGHT. GATE VALVES (16") AND OVER SHALL BE FURNISHED WITH BY-PASS. VALVE SHALL BE 100% SOLID HEAT CURED EPOXY COATED HOLIDAY-FREE IN THE WATERWAY.
- 4. BUTTERFLY VALVES SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD C504-80. BUTTERFLY VALVES SHALL BE CLASS 1508, MECHANICAL JOINT, WITH RUBBER SEAT MOUNTED ON THE DISC, SHALL BE FURNISHED WITH A (2") INCH SQUARE OPERATING NUT AND SHALL OPEN BY TURNING TO THE RIGHT. THE VALVE SHALL BE 100% SOLID HEAT CURED EPOXY COATED HOLIDAY-FREE IN THE WATERWAY. THE USE OF BUTTERFLY VALVES WILL NOT BE PERMITTED IN MAINS (16") AND UNDER.
- 5. VALVES BOXES SHALL BE JERSEY CITY "STANDARD" AS MANUFACTURED BY BINGHAM AND TAYLOR, OR APPROVED EQUAL. BOXES SHALL HAVE A MINIMUM OF 9-1/2 INCH DIAMETER AND SHALL BE AN ADJUSTABLE SCREW TYPE WITH THE BOX EXTENDING FROM THE SURFACE TO (3") INCHES ABOVE THE VALVE BONNET BASE. VALVE BOX SHALL BE CAST IRON WITH A STANDARD COAL TAR FOUNDRY DIP WITH CAST IRON WATER DROP COVER AND THE WORD "WATER" CAST IN COVER. VALVE BOX COVER SHALL BE INSTALLED FLUSH WITH THE EXISTING GRADE ELEVATION. 6. CONCRETE FOR VALVE SEATS AND THRUST BLOCKS SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 3000 PSI.
- 7. SELECT GRANULAR BACKFILL MATERIAL SHALL BE SOIL AGGREGATE TYPE I-6 (POROUS FILL, CLEAN SAND, GRAVEL OR STONE) OBTAINED FROM DRY SOURCES AND SHALL BE FREE FROM STUMPS, BRUSH, WEEDS, ROOTS, RUBBISH, WOOD AND OTHER MATERIAL THAT MAY DECAY. GRADUATION SHALL CONFORM TO TABLE 901-2, FOR TYPE I-6 IN ARTICLE 901.09 OF THE (N.J.D.O.T.) NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED IN TWELVE (12") INCH LIFTS.
- 8. TIE RODS SHALL BE THREE QUARTER (3/4) INCH DIAMETER THREADED STEEL BARS. RODS SHALL HAVE A MINIMUM YIELD STRESS OF 36,000 PSI.
- 9. COUPLINGS SHALL BE DRESSER STYLE NUMBER 153 FOR PIPE SIZES THROUGH (30") INCH DIAMETER. FOR LARGER DIAMETER PIPE, DRESSER STYLE NUMBER 38 STEEL COUPLINGS SHALL BE
- 10. SHEETING, SHORING AND BRACING SHALL BE CLOSED VERTICAL SHEETING. TONGUE AND GROOVE WHICH IS BRACED TO PREVENT THE CAVE-IN OF TRENCHES. ALL LABOR EQUIPMENT, MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. MATERIALS FOR SHEETING SHALL BE TONGUE AND GROOVE WOODEN PLANKS AND TIMBER OR STEEL CONFOMING TO THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION TIMBER SHALL BE A MINIMUM OF 3" THICK.
- 11. BROKEN STONE FOUNDATION CUSHION SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING HAS DEEMED THE SOIL CONDITIONS INFERIOR. BROKEN STONE SHALL CONFORM TO ARTICLE 901.03 OF THE STANDARD SPECIFICATIONS AS CURRENTLY AMENDED. THE SIZE OF BROKEN STONE SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER FOR SIZE NUMBER 2, 4, 5, OR 6 AS SHOWN IN TABLE 901-1. STANDARD SIZES OF COARSE AGGREGATES OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD
- 12. FILTER CLOTH SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING HAS DEEMED THE SOIL CONDITIONS INFERIOR.
- 13. AFTER THE ENGINEER HAS INSPECTED THE COMPLETED INSTALLATION OF VALVES, AND WATER MAIN, AND BEFORE BACKFILLING THE EXCAVATIONS, THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO PRESSURE TEST THE PIPE. THE PIPE SHALL BE PRESSURIZED TO 1.5 X THE WORKING PRESSURE FOR A PERIOD OF TWO (2) HOURS. THERE SHALL BE NO PRESSURE DROP IN ANY VARIATIONS. THE VALVED SECTION OF PIPE SHALL BE FILLED WITH WATER SLOWLY, AND THE TEST PRESSURE SHALL BE APPLIED BY MEAN'S OF A PUMP CONNECTED TO THE PIPE IN A MANNER SATISFACTORY TO THE ENGINEER, BEFORE APPLYING THE TEST PRESSURE, AIR SHALL BE EXPELLED COMPLETELY FROM THE PIPE BY INSTALLING CORPORATION COCKS. AT SUCH POINTS SO THAT THE AIR CAN BE EXPELLED AS THE LINE IS FILLED WITH WATER. IF THE JOINTS LEAK, REPAIRS OR REPLACEMENTS SHALL BE MADE. TESTING SHALL BE IN CONFORMANCE WITH A.W.W.A. STANDARD C600-77.
- 14. THE CONTRACTOR SHALL DISINFECT ALL WATER MAINS IN ACCORDANCE WITH A.W.W.A. STANDARD FOR "DISINFECTING WATER MAINS" DESIGNATION C-601. COMMERCIAL PRODUCTS SUCH AS "HTH", "PERCHLARON", AND "MAXOXHLOR" MAY BE USED IN FLAKE OR CRYSTAL FORM BUT IN NO INSTANCE WILL TABLETS BE PERMITTED TO BE USED IN THE DISINFECTION OF WATER MAINS. THE COLORINE DOSAGE SHALL INITIALLY PRODUCE 50 PPM RESIDUAL TO THE WATER AND MAINTAIN A MINIMUM RESIDUAL OF 25 PPM AFTER 24 HOURS. AFTER SATISFACTORY DISINFECTION OF THE TEST SECTION, THE LINE SHALL BE CONTINUOUSLY FLUSHED UNTIL THE RESULTANT CHLORINE RESIDUAL EQUALS ONE PPM OR THE RESIDUAL OF THE SYSTEM, WHICHEVER IS GREATER. AFTER FINAL FLUSHING AND BEFORE THE WATER MAIN IS PLACED IN SERVICE SAMPLES SHALL BE COLLECTED FROM EACH END OF THE MAIN AND TESTED FOR BACTERIOLOGIC QUALITY. IF THE INITIAL DISINFECTION FAILS TO PRODUCE SATISFACTORY SAMPLES, DISINFECTION SHALL BE REPEATED UNTIL SATISFACTORY SAMPLES HAVE BEEN OBTAINED.
- 15. AIR RELEASE VALVES SHALL BE INSTALLED AT THE HIGH POINTS OF THE WATER MAINS.

SHEETING SHALL BE LEFT IN PLACE. SHORING AND BRACING SHALL BE REMOVED.

- 16. ALL WATER MAINS WILL BE AT LEAST 8" IN DIAMETER. TEN (10") AND 14" DIAMETER MAINS SHALL NOT BE USED.
- 17. THRUST BLOCKS AND TIE RODS SHALL BE INSTALLED AT ALL BENDS AND FITTINGS.
- 18. ALL FIRE HYDRANTS SHALL BE TWO (2) PIECE "JERSEY CITY STANDARD" HYDRANTS, WHEN ORDERING ASK FOR NEW YORK STD. AP SMITH FIRE HYDRANT SERIES MANUFACTURED BY US PIPE FOUNDRY COMPANY, EAST PEARL STREET, BURLINGTON, NEW JERSEY 08016. PHONE 1-609-387-6000.
- 19. FOR EITHER NEW CONSTRUCTION OR RELOCATION OF THE FOLLOWING SHALL BE REQUIRED:

DEPARTMENT SHALL INSPECT AND CERTIFY THE ABANDONED SERVICES.

- A. FIRE HYDRANT SPACING SHALL BE A MAXIMUM OF 250 FEET MEASURED CENTER TO CENTER. B. HYDRANTS SHALL BE LOCATED NO CLOSER THAN 20 FEET FROM THE POINT OF TENGENCY OR CURVATURE AT INTERSECTIONS. C. ALL ONE PIECE FIRE HYDRANT SHALL BE REMOVED AND AND DELIVERED TO JERSEY CITY MUA'S AUTHORIZED AGENT. TWO PIECE FIRE HYDRANT MAY BE REUSED AFTER JERSEY CITY MUA'S BUREAU OF ENGINEERING AFTER INSPECTION MADE ON CONDITION OF FIRE HYDRANT. A NEW HYDRANT WILL BE SUPPLIED BY JCMUA OF AUTHORIZED AGENTS FOR INSTALLATION FOR APPROVED PROJECT
- F. NEW GATE VALVES AND BOXES ARE REQUIRED AT THE BASE OF RELOCATED HYDRANTS WHEN MORE THAN (10") FEET OF PIPE IS REQUIRED. 20. EXISTING WATER SERVICE LINES SHALL BE SHUT-OFF AND CAPPED AT THE MAIN PRIOR TO THE INSTALLATION OF NEW WATER SERVICES. PRIOR TO NEW SERVICE TAP THE JERSEY CITY WATER

DRIVEWAYS ARE EXPANDED OR NEWLY CONSTRUCTED, THE OWNER SHALL BE RESPONSIBLE FOR THE RELOCATION OF AN EXISTING HYDRANT IF ABOVE REQUIREMENTS ARE VIOLATED.

D. HYDRANTS SHALL BE NO CLOSER THAN TEN (10") FEET FROM THE EDGE OF A RESIDENTIAL DRIVEWAY OR (20") FEET FROM THE EDGE OF COMMERCIAL DRIVEWAY. IN THE CASE WHERE

21. WATER MAINS TO BE ABANDONED SHALL BE CUT AND PLUGGED WITH REQUIRED FITTINGS, RODS AND CONCRETE AS CLOSE TO THE EXISTING MAIN IN SERVICE AS POSSIBLE.

E. ALL SINGLE GATED HYDRANTS ON (16") INCH OR LARGER MAINS SHALL REQUIRE A NEW VALVE AT THE BASE OF THE RELOCATED HYDRANT.

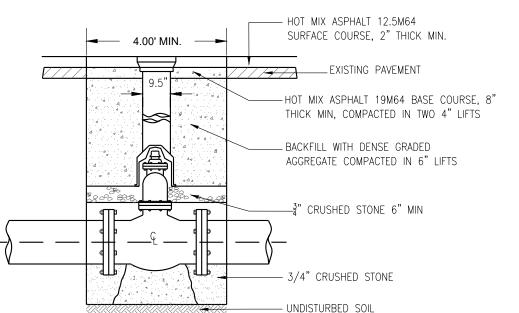
- 22. ALL VALVES SHALL BE OPERATED BY JERSEY CITY MUA OR AUTHORIZED AGENTS PERSONNEL. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE ANY VALVES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING, FIVE (5) DAYS IN ADVANCE OF VALVE OPERATING REQUIREMENTS.
- 23. FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS WILL RESULT IN THE IMMEDIATE SHUTDOWN OF THE PROJECT.

#### STANDARD REQUIREMENTS FOR NEW SANITARY AND STORM SEWERS AND SERVICE LATERALS

- BEDDING AND BACKFILL MATERIAL SHALL COMPLY WITH THE REQUIREMENT OF THE NJDOT'S STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, AND THE DESIGN AND CONSTRUCTION OF URBAN STORMWATER MANAGEMENT SYSTEMS, ASCE MANUALS AND REPORTS OF ENGINEERING PRACTICE No.77, 1993, AS APPLICABLE.
- ALL SEWER SERVICE CONNECTIONS 6-INCHES IN SIZE OR SMALLER MUST BE MADE DIRECTLY TO THE SEWER MAIN AND ALL CONNECTIONS 8-INCHES IN SIZE OR LAGER MUST BE MADE TO A MANHOLE. WHERE A CONNECTION TO A MANHOLE IS REQUIRED, MANHOLE BENCH AND CHANNEL MAY REQUIRE MODIFICATION.
- 3. THE JCMUA REQUIRES THAT SEWER SERVICE CONNECTIONS TO BE RE-USED BE TELEVISED TO VERIFY THEIR INTEGRITY AND THAT THE PIPE IS FREE FROM ANY DEFECTS. 4. EACH BUILDING CONNECTION REQUIRES A CURB CLEANOUT (REFER TO ATTACHED DETAIL DRAWINGS). T-WYE CLEANOUTS WHICH ENABLE CLEANING IN BOTH DIRECTIONS SHOULD BE
- INSTALLED ON BOTH THE STORM AND SANITARY LATERAL. PROPOSED SEWER LATERAL CONNECTION TO JCMUA'S SEWER MAIN SHALL BE MADE ABOVE HORIZONTAL CENTER LINE OF PIPE (REFER TO ATTACHED SEWER SERVICE CONNECTION
- THE SIZE, MATERIAL, DEPTH, CONDITION, DIRECTION OF FLOW AND ANY OTHER RELEVANT CONDITIONS OF THE EXISTING JCMUA SEWER TO WHICH YOU PLAN TO CONNECT MUST BE
- FIELD VERIFIED BY DEVELOPER TO DETERMINE IF SAID CONNECTION IS PHYSICALLY POSSIBLE AND PRACTICAL. IN ADDITION, MANHOLE INVERTS AND RIM ELEVATIONS MUST BE SHOWN ON PLANS. THIS VERIFICATION IS TO BE INCLUDED ON THE PLANS FOR THE PROJECT. CIRCULAR HOLE SAWS WHICH ARE APPROXIMATELY SIZED OR HAND DRILLS MUST BE USED TO MAKE THE OPENINGS IN THE EXISTING SEWER TO RECEIVE THE LATERALS. JACKHAMMERS, SLEDGEHAMMERS AND OTHER UNSUITABLE TOOLS OR MACHINERY WHICH MAY DAMAGE THE JCMUA'S SEWER MAIN ARE NOT ALLOWED TO BE USED TO MAKE THE
- LATERAL OPENINGS. ALL DEBRIS MUST BE REMOVED AND NOT ALLOWED TO FALL INTO PIPE. 8. A DETAIL OF ANY PROPOSED MANHOLE OR CATCH BASIN SHOWING ALL DIMENSIONS IN ADDITION TO RIM, GRATE AND INVERT ELEVATIONS OF THE STRUCTURE AND ALL PIPES CONNECTED TO THE STRUCTURE MUST BE SHOWN ON PLANS. REFER TO JCMUA STANDARD DETAIL DRAWINGS FOR MANHOLES AND CATCH BASINS.
- PROPOSED MANHOLES CONSTRUCTED IN THE PUBLIC R.O.W. ON EXISTING OR PROPOSED JCMUA SEWERS SHALL BE FURNISHED WITH CONCENTRIC MANHOLE COVERS AS MANUFACTURED BY CAMPBELL FOUNDRY CO. PATTERN #4428 OR EQUAL WITH OUTSIDE COVER DIAMETER OF 3134" INCHES AND INSIDE COVER DIAMETER OF 24 INCHES. THE LETTERS "JCMUA" AND "SEWER" SHALL BE CAST IN THE INSIDE COVER. MANHOLE FRAMES SHALL BE CAMPBELL FOUNDRY CO. PATTERN #4428 (FOR 30-INCH OPENING) OR #1206 (FOR 41-INCH OPENING) OR EQUAL FURNISHED WITH A PATTERN #4428 CONCENTRIC COVER AS SPECIFIED IN THE PRECEDING PARAGRAPH
- REFER TO THE JCMUA'S STANDARD DETAIL FOR MANHOLE FRAMES AND COVERS. 10 STORM INLETS WHICH ARE CONNECTED DIRECTLY TO JCMUA COMBINED SEWER MUST BE FURNISHED WITH A SUMP AND TRAP AS PER JCMUA STANDARD DETAILS.
- 11. THE JCMUA HAS A COMBINED SEWER SYSTEM WHICH SURCHARGES DURING WET-WEATHER PERIODS RESULTING IN POSSIBLE SEWAGE BACK-UPS THROUGH PLUMBING FIXTURES (SINKS, TOILETS, FLOOR DRAINS, ETC.) BELOW STREET LEVEL. THIS POSSIBILITY MUST BE ADDRESSED DURING THE DESIGN/CONSTRUCTION PHASE.
- 12. A DROP MANHOLE CONNECTION SHALL BE USED WHERE THERE IS A DIFFERENCE IN ELEVATION OF TWO (2) FEET OR GREATER BETWEEN THE INVERT OF A SANITARY OR COMBINED INLET PIPE TO MANHOLE AND THE CROWN OF THE OUTLET PIPE FROM MANHOLE. REFER TO ATTACHED JCMUA'S STANDARDS DETAIL FOR DROP MANHOLE CONNECTION WHICH MUST BE SHOWN ON SITE PLAN IF REQUIRED.
- 13. TEST PITS MUST BE PERFORMED AT THE DEVELOPER'S EXPENSE DURING THE <u>DESIGN</u> PHASE OF THE PROJECT TO ENSURE THAT PROPOSED SEWERS AND SEWER SERVICES MAY BE CONSTRUCTED AS PROPOSED WITHOUT CONFLICTING WITH OTHER UNDERGROUND UTILITIES OR STRUCTURES.
- 14. ALL EXISTING SEWER MAINS AND SANITARY LATERALS TO BE ABANDONED MUST BE FILLED WITH CONCRETE SLURRY OR REMOVED FROM THE GROUND. CATCH BASINS AND MANHOLES MUST BE REMOVED FROM THE GROUND. CONNECTIONS MUST BE CUT AND SEALED AT THE MAIN AND PRECAUTIONS MUST BE UNDERTAKEN BY THE CONTRACTOR TO ENSURE CONCRETE AND OTHER MATERIALS DO NOT ENTER THE MAIN AND CREATE OBSTRUCTION(S).
- 15. ALL PROPOSED INLETS/CATCH BASINS MUST BE CONSTRUCTED WITH A BICYCLE SAFE GRATE AND CAMPBELL FOUNDRY CO. TYPE 'N' CURBPIECE WHERE REQUIRED.
- 17. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING PERMITS FOR STREET OPENINGS FROM THE JERSEY CITY BUILDING DEPARTMENT LOCATED AT 30 MONTGOMERY STREET, JERSEY
- CITY, N.J. AND ALL OTHER APPLICABLE PERMITS FROM AGENCIES HAVING JURISDICTION. THE SYSTEM DESIGNER IS ALSO RESPONSIBLE FOR COMPLIANCE WITH THE APPLICABLE REGULATIONS OF THE NEW JERSEY ADMINISTRATIVE CODE. NJDEP RULES AND REGULATIONS GOVERNING TREATMENT WORKS APPROVAL PROGRAM, LOCAL CODES AND ORDINANCES, FEDERAL AND STATE REGULATIONS, ETC. IN ADDITION TO OTHER REQUIREMENTS THAT MAY BE

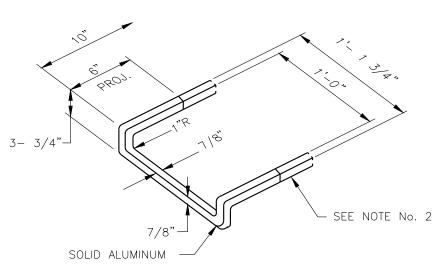
JCMUA NOVEMBER 3, 2005

16. PROPOSED WATER SERVICES REQUIRE THE REVIEW AND APPROVAL OF THE DIVISION OF WATER ENGINEERING.



1. BOXES SHELL BE JERSEY CITY STANDARDS MANUFACTURED BY BINGHAM & TAYLOR PATTERN NO. 50001 AND SHALL BE A THREE PIECE ADJUSTABLE SCREW TYPE WITH THE WORD "WATER" CAST IN THE COVER OR APPROVED EQUAL (9\frac{1}{2}" I.D.) 2. BOX MUST BE PLUMB AND CENTERED OVER VALVE 3. BOX MUST NOT BEAR ON VALVE TUBE, PIPE OR STOP 4. INTERMEDIATE BOX SECTIONS MAY BE REQUIRED ON DEEP VALVE SETTINGS

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- ALUMINUM STEPS SHALL BE EXTRUDED ALUMINUM 6061-T6 ALLOY DROP FRONT DESIGN OR APPROVED FOUAL 2. THE PORTION TO BE IMBEDDED IN THE CONCRETE SHALL BE COATED WITH COAL TAR PITCH OR OTHER APPROVED MATERIAL AND SHALL BE IN ACCORDANCE WITH THE LATEST O.S.H.A. STANDARDS (3" MINIMUM
- 3. ALL MANHOLE STEPS TO MEET OR EXCEED ASTM AND O.S.H.A. REQUIREMENTS 4. FOR ROADWAY LOCATIONS STEPS SHALL BE ORIENTED TO ALLOW VIEWING

OF ONCOMING TRAFFIC WHEN EXITING STRUCTURE.

#### REQUIREMENTS FOR FIRE AND DOMESTIC WATER LINE AND METER INSTALLATIONS

- 1. ALL FIRE SERVICE APPLICATIONS AND ALL DOMESTIC SERVICE APPLICATIONS TWO (2) INCHES AND LARGER MUST BE SUBMITTED TO THE JCMUA'S BUREAU OF WATER ENGINEERING FOR APPROVAL. FIVE (5) SETS OF PLANS SHALL BE SUBMITTED FOR APPROVAL. ALL PLANS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT LICENSED TO PRACTICE IN NEW JERSEY.
- 2. SUBMITTED PLANS SHALL BE STANDARD ENGINEERING DRAWINGS, SIZE 24 INCHES X 36 INCHES. INCLUDED SHALL BE A SITE PLAN SHOWING ADJACENT STREET WITH WATER MAIN, SERVICE, AND DETAILS INDICATED. ALSO INCLUDED SHALL BE A KEY MAP SHOWING GENERAL LOCATION WITHIN THE CITY. 3. INDICATED ON THE SUBMITTED PLANS SHALL BE THE SIZE OF TAP, LOCATION OF TAPPING AND THE CURB GATE VALVES, DETAILED METER SET-UP, AND SIZE OF FACILITY'S METER. ALSO INDICATED ON THE PLANS SHALL BE THE TYPE OF OCCUPANCY OF THE FACILITY RECEIVING THE WATER SERVICE. (I.E. HOSPITAL, WAREHOUSE, APARTMENTS BUILDING, ECT.)
- 4. ALL EXISTING WATER SERVICE LINES TO BE ABANDONED SHALL BE CUT AND CAPPED AT THE MAIN, IN ACCORDANCE WITH JCMUA STANDARDS, AND INSPECTED WITHIN 24 HOURS AFTER INSTALLATION OF NEW TAP. THE MAXIMUM OF ONE (1) TAP SHALL BE MADE FOR BOTH DOMESTIC AND FIRE SERVICE PER FACILITY. THE TAP SHALL BE THE MAXIMUM OF ONE (1) SIZE SMALLER THAN THE CITY'S WATER MAIN. NO TAPPING SHALL BE DONE BY ANYONE EXCEPT BY UNITED WATER JERSEY CITY (UWJC) UNLESS SPECIFICALLY APPROVED BY JCMUA.
- 5. ONLY ONE DOMESTIC/FIRE SERVICE IS ALLOWED FOR EACH FACILITY. APPLICANT MAY INSTALL CHECK METERS ON INDIVIDUAL BRANCH CONNECTIONS DOWNSTREAM OF DOMESTIC METER SETUP WHERE THERE IS MORE THEN ONE OWNER/TENANT FOR A FACILITY, HOWEVER, ONLY ONE WATER BILL WILL BE
- 6. A SOLID DUCTILE IRON TAPPING SLEEVE SUCH AS MUELLER H-615 TAPPING SLEEVE OR APPROVED EQUAL SHALL BE UTILIZED FOR ALL TAPS 2-INCHES AND LARGER. THE TAPPING SLEEVE SHALL PASS PRESSURE TESTING BASED ON AWWA STANDARDS BEFORE TAP IS MADE. 7. FOR ALL SERVICES INCLUDED HEREIN, TWO (2) GATE VALVES ARE REQUIRED THAT ARE TO BE INSTALLED BY THE APPLICANT; A TAPPING VALVE, LOCATED AT THE TAP AND CURB VALVE, LOCATED IN THE SIDEWALK BEFORE THE METER. TAPPING GATES SHALL BE FURNISHED OPENED RIGHT. ALL TAPPING AND CURB VALVES SHALL BE DOUBLE DISC GATE VALVES AND MEET AWWA STANDARDS. THE WET TAP UP TO 12 INCHES SHALL BE PERFORMED BY UWJC.
- 8. FOR TAPS OFF MAINS SIXTEEN (16) INCHES AND LARGER, THE CONTRACTOR SHALL FURNISH AND INSTALL AN ADDITIONAL GATE VALVE ADJACENT TO THE TAPPING VALVE. NO TAPS SHALL BE PERMITTED ON MAINS LARGER THAN TWENTY (20) INCHES UNLESS THERE IS NO ALTERNATIVE WATER SOURCE, AND SPECIAL WRITTEN APPROVAL IS ISSUED BY THE JCMUA.
- 9. VALVE BOX PARTS FOR ALL VALVES SHALL BE PROVIDED BY THE CONTRACTOR. ALL TAPPING GATE VALVES LARGER THAN 2-INCHES AND ALL CURB VALVES/STOPS REGARDLESS OF SIZE REQUIRE A VALVE BOX WITH THE WORD "WATER" CAST IN THE COVER. BURIED CORPORATION VALVES/ STOPS SHALL BE USED AT THE TAP FOR CLASS K COPPER SERVICES 2-INCHES AND SMALLER. 10. ALL SERVICE PIPES, SIZES 2-INCHES THROUGH 12-INCHES, SHALL BE PRESSURE CLASS 350 PSI, CEMENT-LINED DUCTILE IRON PIPE WITH MECHANICAL

11. THE APPLICANT SHALL INSTALL THE METER INSIDE THE BUILDING. IF THE BUILDING LINE IS IN EXCESS OF 75 FT. FROM THE MAIN, THE APPLICANT SHALL

PLACE THE METER IN A PIT NEAR THE SIDEWALK OR STREET IN CLOSE PROXIMITY TO THE TAP. 12.FOR A REGULAR FIRE SUPPRESSION SYSTEM, A COMBINED REDUCED PRESSURE DETECTOR ASSEMBLY (WATTS 909 RPDA\*) SHALL BE INSTALLED ON THE MAIN FIRE SERVICE LINE AND A REDUCED PRESSURE BACKFLOW PREVENTOR ON THE BYPASS (AMES 400SS OR WATTS 909\*). ON THE LIMITED FIRE SUPPRESSION SYSTEM, A FIRE LINE DETECTOR CHECK WITH A SINGLE CHECK VALVE (AMES 1000DCV\*) SHALL BE INSTALLED ON THE MAIN FIRE LINE AND A REDUCED PRESSURE BACKFLOW PREVENTER (WATTS 909\*) SHALL BE INSTALLED DOWNSTREAM OF THE BYPASS. ALL FIRE SERVICES MUST HAVE OS&Y VALVES INSTALLED. THE FIRE UNIT SHALL BE FURNISHED WITH A 5/8 INCH x INCH METERED BYPASS. BYPASS METERS SHALL BE JERSEY CITY STANDARD.

SINGLE DISPLACEMENT SENSUS METERS WITH TOUCHPAD AND RADIO READ CAPABILITIES. THE SAME RADIO MXU UNIT SHALL BE USED FOR A COMBINED

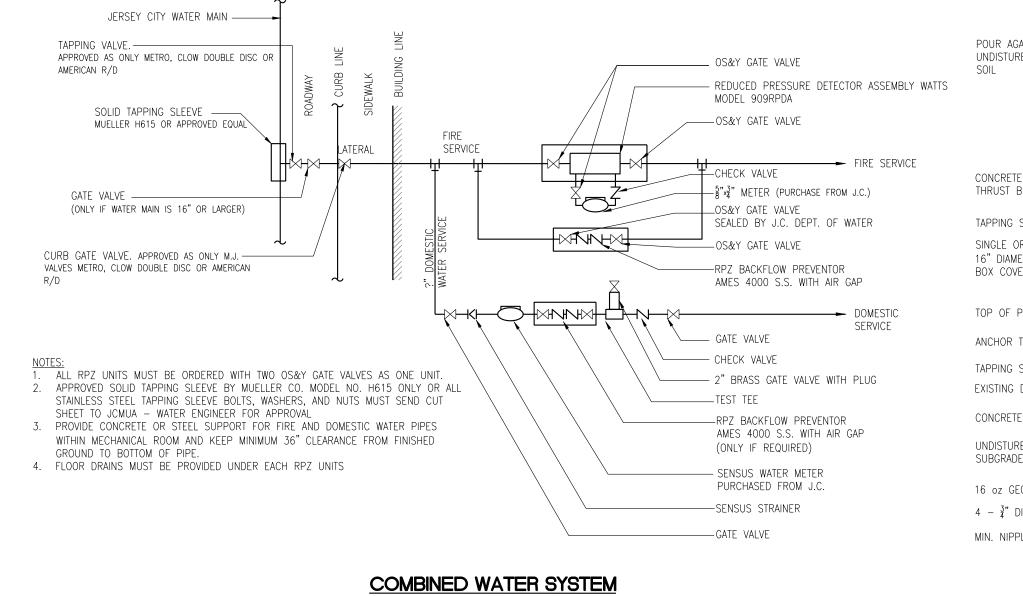
- 13.FOR DOMESTIC SERVICE, AN APPROVED REDUCED PRESSURE BACKFLOW PREVENTER (AMES 4000SS OR WATTS 909\*) IS REQUIRED WHEN THE JCMUA DETERMINES THAT THERE IS A CROSS-CONNECTION HAZARD AND THE FACILITY PRESENTS A THREAT TO THE CITY'S DISTRIBUTION SYSTEM WATER QUALITY IN ACCORDANCE WITH THE PLUMBING SUB CODE OF THE NEW JERSEY STATE UNIFORM CONSTRUCTION CODE, NJAC 5:23-3.15 AND THE NEW JERSEY SAFE DRINKING WATER ACT NJAC 7:10-10 PHYSICAL CONNECTIONS AND CROSS CONNECTIONS CONTROL BY CONTAINMENT. SOME SERVICES, WHICH REQUIRE SUCH DEVICES INCLUDE: A HOSPITAL, SCHOOL, CHEMICAL PLANT, FACTORY, AND A FACILITY WITH SEWAGE EJECTORS.
- 14.IF A REDUCED PRESSURE BACKFLOW PREVENTER IS NOT REQUIRED ON THE DOMESTIC SERVICE, A CHECK VALVE SHOULD BE INSTALLED DOWNSTREAM OF THE TEST TEE. 15. ALL METERS SIZES 2 INCHES THROUGH 6 INCHES SHALL BE SINGLE COMPOUND METERS AND ALL METERS 8 INCHES AND LARGER SHALL BE DUPLEX
- 16. ALL METERS SHALL BE ADEQUATELY RESTRAINED WITH METAL BRACKETS FASTENED TO THE FLOOR OR WALL OR OTHER APPROVED MEANS SUCH AS UNIFLANGES WHERE INTERNAL PIPE PRESSURE AND FLOW WARRANT SUCH RESTRAINTS. METERS, DETECTOR CHECKS, AND VALVES MAY BE SEATED ON CONCRETE BLOCK AND TAPERED SHIMS TO PROVIDE ADEQUATE SUPPORT. METERS SHALL BE INSTALLED APPROXIMATELY 36" ABOVE FLOOR GRADE.
- 17. ALL METER INSTALLATIONS IN METER PIT OR VAULT SHALL BE PRE-APPROVED BY JCMUA AND HAVE PROPER ACCESS OPENINGS FOR METER READING AND REPLACEMENT. 18.EACH COMPOUND METER SHALL HAVE STRAINER INSTALLED ON THE INLET SIDE IMMEDIATELY BEFORE THE METER. ALL STRAINERS MUST BE PURCHASED
- 19.ALL METERS 2" AND LARGER SHALL BE FURNISHED WITH SENSUS ECR/WP REMOTE TOUCH PAD MODULES AND RADIO MXU UNITS FOR BOTH TYPES OF READING CAPABILITIES.
- 20.REMOTE TOUCH PAD MODULE WIRE SHALL BE CONNECTED TO THE METER REGISTER UTILIZING A GEL CAP FOR WATERTIGHT SEALING OF ALL TERMINAL CONNECTIONS. TOUCH PADS MAY BE WALL MOUNTED OR LID MOUNTED WHERE A METER PIT IS UTILIZED. TOUCH PADS ARE TO BE INSTALLED ON EXTERIOR BUILDING WALL FACING THE STREET AND LOCATED AS CLOSE AS POSSIBLE TO STREET. THE RADIO MXU UNIT MUST BE INSTALLED WITH MOUNTING BRACKET AND LIKEWISE IS TO BE INSTALLED IN PROXIMITY TO STREET
- 21.ALL INSTALLATIONS OF EQUIPMENT AND COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 22.ALL METERS INCLUDING TOUCH PAD MODULES, AND RADIO MXU UNITS SHALL BE PURCHASED THROUGH THE PERMIT CLERK AT JCMUA OFFICE, APPROVED PLANS MUST BE SUBMITTED TO THE PERMIT CLERK FOR ISSUANCE OF REQUIRED PERMITS. 23.AFTER OBTAINING THE REQUIRED PERMITS (STREET OPENING, TAP, AND METER) THE APPLICANT SHALL CALL JCMUA AT (201) 239-1108 TO SCHEDULE THE TAP. THE EXCAVATION SHALL BE COMPLETED TWENTY-FOUR (24) HOURS PRIOR TO THE SCHEDULED TAP, AND VERIFIED BY JCMUA OR ITS
- 24.UPON COMPLETION OF THE INSTALLATION, THE APPLICANT SHALL SUBMIT THREE (3) SETS OF "AS BUILT" PLANS, TO THE JCMUA'S BUREAU OF WATER ENGINEERING. THE JCMUA WILL AUTHORIZE SUPPLY WATER UPON ACCEPTANCE OF THE "AS BUILT" DRAWINGS. \* SPECIFIED MODEL OR APPROVED EQUAL.

AUTHORIZED AGENT BEFORE THE TAP WILL BE INSTALLED. EXCAVATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS FOR SHEETING

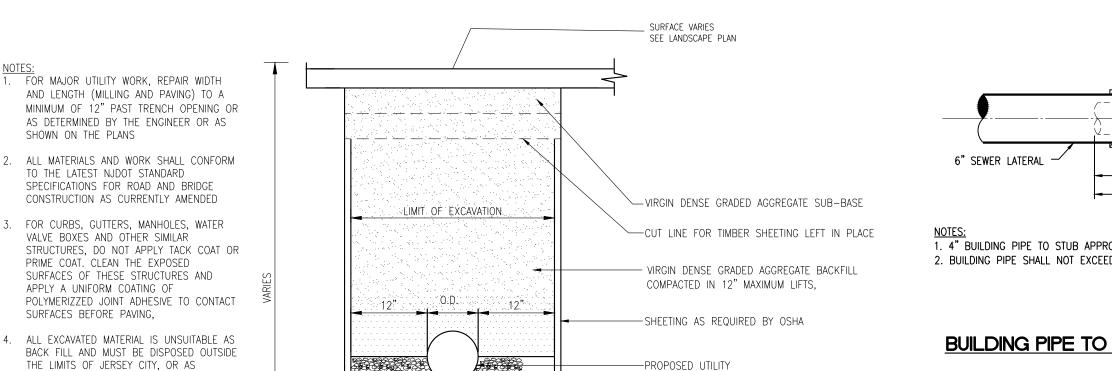
JCMUA REVISED JUNE 28, 2006

COMPOUND MANIFOLD METERS.

FROM JCMUA OR ITS AUTHORIZED AGENT.



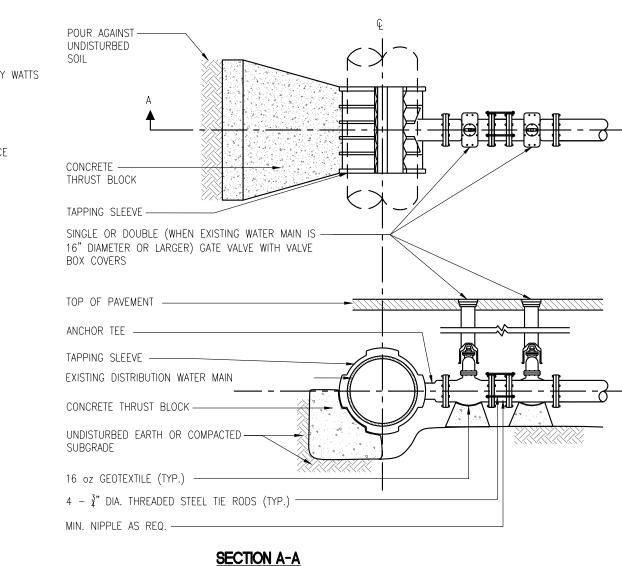
# SOURCE: JERSEY CITY STANDARD DETAIL



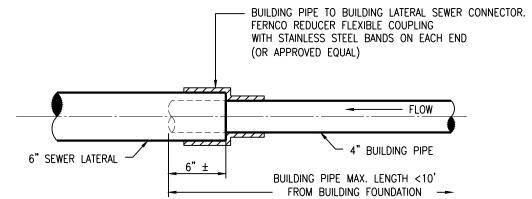
 $-\frac{3}{4}$ " CLEAN CRUSHED STONE

SOURCE: JERSEY CITY STANDARDS

DIRECTED BY JERSEY CITY ENGINEERING

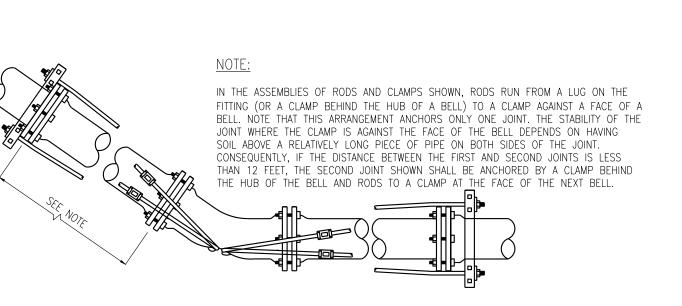


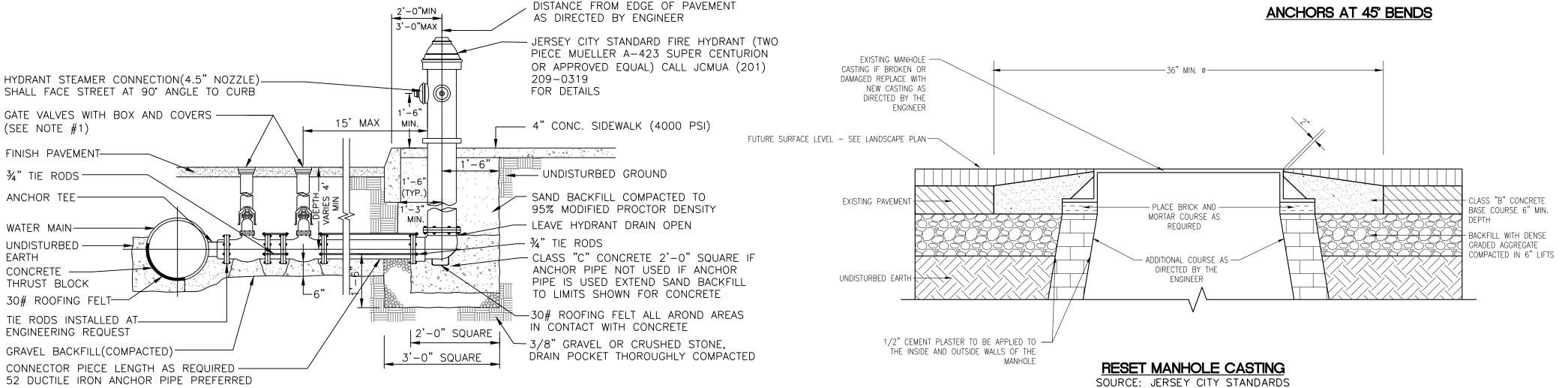
#### WATER MAIN CONNECTION



1. 4" BUILDING PIPE TO STUB APPROXIMATELY 6" INTO 6" BUILDING LATERAL SEWER 2. BUILDING PIPE SHALL NOT EXCEED MORE THAN 10' FROM EXTERIOR OF BUILDING FOUNDATION.

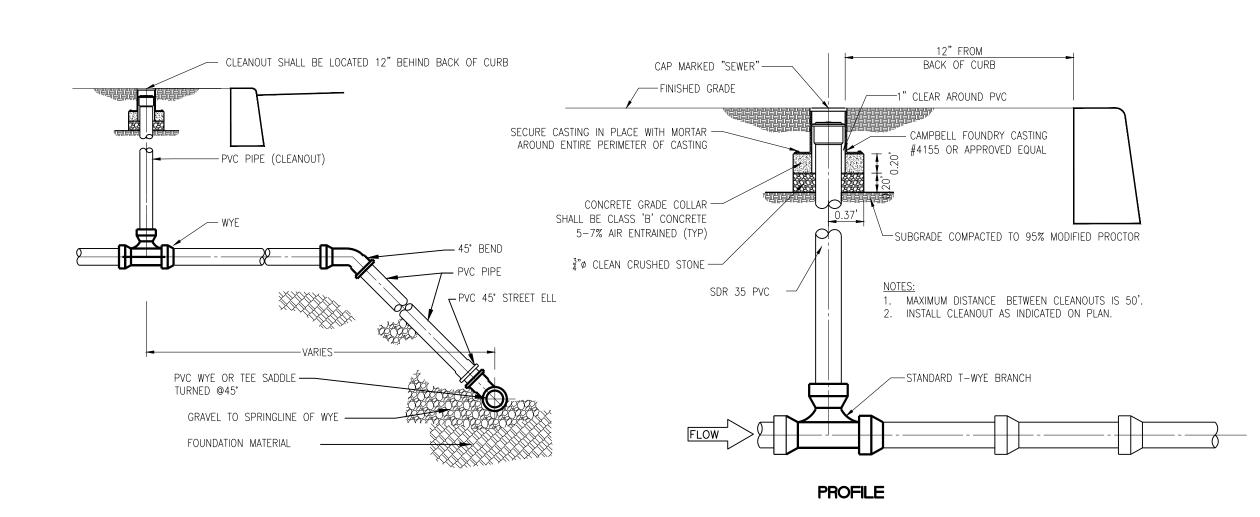
# BUILDING PIPE TO BUILDING LATERAL SEWER CONNECTION





1. DOUBLE GATE VALVE REQUIRED WHEN EXISTING WATER MAIN IS 16" DIAMETER OR LARGER.

# SOURCE: JERSEY CITY STANDARD DETAIL



		THRUST BL	OCK TABLE		
	UP TO 22.5° BEND	UP TO 45° BEND	UP TO 90° BEND	TEES AND PLUGS	DEAD END TEE AN
DIAMETER (d) OF PIPE (INCHES)	22.5	45.0°	90.0°	d HANN	
	CONTACT BEARIN	G AREA OF THRUST BLOCK	WITH UNDISTURBED EARTH	I (SQUARE FEET)	
4		1.2	2.1	1.5	A: 1.5 B: 0.6
6	1.2	2.4	4.5	3.3	A: 3.3 B: 1.2
8	2.1	4.2	8.1	5.7	A: 5.7 B: 2.4
10	3.3	6.9	12.6	8.7	A: 8.7 B: 3.9
12	5.1	9.9	18.0	12.6	A: 12.6 B: 5.4
16	8.7	17.4	32.1	22.5	A: 22.5 B 9.6
20	13.8	27.0	50.1	35.4	A: 35.4 B: 14.7
24	19.8	39.0	72.0	51.0	A: 51.0 B: 21.0

## **CONSTRUCTION NOTES:**

- 1. BEARING AREA FOR THRUST BLOCKS ARE BASED ON THE UNDISTURBED SOIL WITH BEARING CAPACITY OF 1000 LBS. PER SQUARE FOOT. FOR SOIL OF LESS BEARING CAPACITY THE AREAS SHALL BE ADJUSTED ACCORDINGLY (FIGURE 14, ASCE "PIPELINE DESIGN FOR WATER AND WASTEWATER, 1975")
- 2. ALL CONCRETE FOR TRUST BLOCKS SHALL BE NJDOT, CLASS C
- 3. DIMENSIONS OF THRUST BLOCKS SHALL BE APPROXIMATELY SQUARE, AND THE TRUST BLOCKS SHALL BE POURED FROM FITTING SUCH THAT THEY BEAR ON THE UNDISTURBED WALL OF THE TRENCH.
- 4. THE TABULATED CONTACT BEARING AREAS LISTED ARE FOR HORIZONTAL AND DOWNWARD THRUST ONLY, AND ARE NOT ACCEPTABLE FOR UPWARD THRUST.
- 5. SIZE AND BEARING AREA FOR THRUST BLOCKS SHALL CONFORM TO "CURRENT AWWA STANDARDS" AND SHALL BE DESIGNATED ON THE PLANS.

THRUST BLOCKS SOURCE: JERSEY CITY STANDARD DETAIL

DRESDNER

DRESDNER ROBIN ENVIRONMENTAL MANAGEMENT, INC.

JERSEY CITY ■ FAIRFIELD ■ ASBURY PARK ■ CHERRY HILL

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NJ CERTIFICATE OF AUTHORIZATION: 24GA27926000

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> 280 GROVE STREET JERSEY CITY, NJ 07302

**EXCHANGE PLACE ALLIANCE SPECIAL IMPROVEMENTS DISTRICT** HARBORSIDE 2 200 HUDSON STREET, SUITE 801 JERSEY CITY, NJ 07311

> **MATTHEW J. NEULS** PROFESSIONAL ENGINEER

> > NJ LICENSE NUMBER 24GE04313300

RAWING TITLE:

CONSTRUCTION DETAILS II

**EXCHANGE PLACE PLAZA IMPROVEMENTS** 

> **EXCHANGE PLACE** CITY OF JERSEY CITY HUDSON COUNTY, NEW JERSEY, 07302

CW/GRG NTS 04-14-2022

WATER MAIN VALVE AND BOX

**ALUMINUM STEP** 

SEWER LATERAL