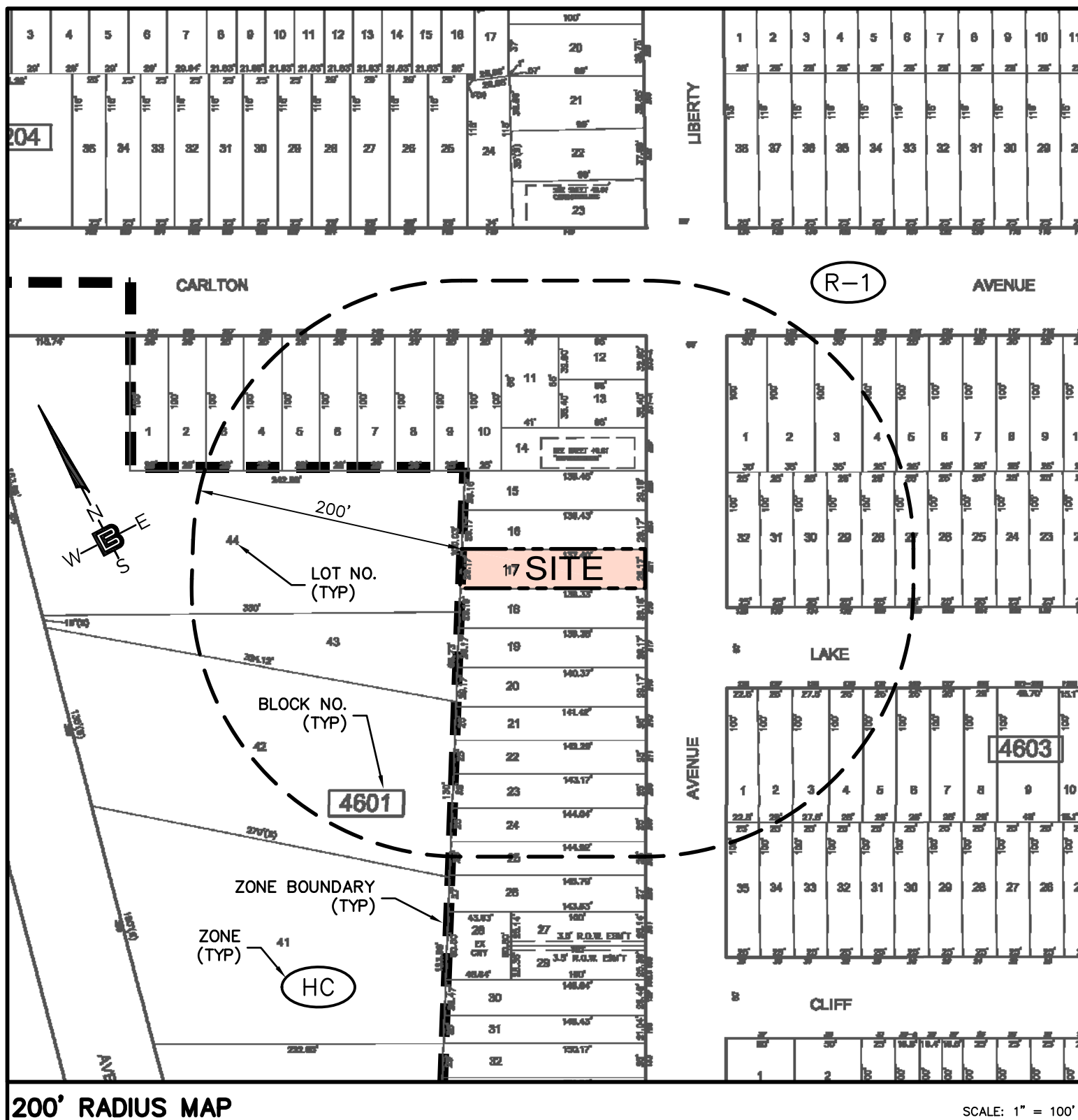


PRELIMINARY & FINAL SITE PLAN

PROPOSED 3-FAMILY BUILDING

BLOCK 4601, LOT 17
221 LIBERTY AVENUE
CITY OF JERSEY CITY
HUDSON COUNTY, NEW JERSEY



ZONING NOTES

- OWNER/APPLICANT: G.N. MANAGEMENT INC.
101 HUDSON STREET, SUITE 2100
JERSEY CITY, NJ 07302
 - LOCATION: 221 LIBERTY AVENUE
CITY OF JERSEY CITY, HUDSON COUNTY, NEW JERSEY
BLOCK 4601, LOT 17, TAX MAPS #46 & 42
 - ZONE: R-1 (ONE AND TWO FAMILY HOUSING DISTRICT)
 - USE (SECTION 345-40B): EXISTING - TWO FAMILY DWELLING (PERMITTED)
PROPOSED - THREE FAMILY DWELLING (NOT PERMITTED)
 - BULK REQUIREMENTS (SCHEDULE OF AREA, YARD AND HEIGHT REQUIREMENTS):

	REQUIRED	EXISTING	PROPOSED
MIN. LOT SIZE (SF):	2,500	4020.5	NC
MIN. LOT WIDTH (FT):	25	29.17	NC
MIN. LOT DEPTH (FT):	100	137.9	NC
MIN. FRONT/REAR YARD TOTAL (FT):	35	72.17	(BUILDING) 42.72 (BALCONY) 38.5
MIN. SIDE YARD (ONE/BOTH) (FT):	2/5.08	2.3/5.9	2.05/5.15
MAX. BUILDING HEIGHT (STY/FT):	3/41	2/30.39	3/35.5
MAX. BUILDING COVERAGE (%):	60	43.4	56.7
MAX. LOT COVERAGE (%):	85	53.1	75.2
MAX. ACCESSORY BUILDING HEIGHT (FT):	15	COMPLIES	N/A
MIN. ACCESSORY BUILDING REAR YARD (FT):	7.5	23.1	N/A
MIN. ACCESSORY BUILDING SIDE YARD (FT):	2	6.4	N/A
 - OFF-STREET PARKING REQUIREMENTS (SECTION 345-40B):

MIN. REQUIRED PARKING:	0	0	2
MAX. WIDTH OF LOT FOR GARAGE (FT):	<30	29.17	NC
MAX. CURB CUT WIDTH (FT):	10	N/A	13(V)
MAX. DRIVEWAY WIDTH (FT):	10	N/A	10
MAX. GARAGE DIMENSIONS (FT):	13X44	N/A	17X36(V)
- (E) INDICATES AN EXISTING NON-CONFORMITY
(V) INDICATES A VARIANCE IS REQUIRED
N/A INDICATES NOT APPLICABLE

DRAWING LIST

DWG. #	DRAWING TITLE	DATED/ LAST REVISED	REV. #
C1.1	COVER SHEET	3-23-22	0
C2.1	DEMOLITION & SOIL EROSION CONTROL PLAN	3-23-22	0
C2.2	SITE PLAN	3-23-22	0
C2.3	GRADING, UTILITY & SOIL EROSION CONTROL PLAN	3-23-22	0
C3.1	UTILITY DETAILS	3-23-22	0

APPROVED BY THE _____ OF THE
CITY OF JERSEY CITY AT A MEETING HELD ON _____, 20__

BOARD CHAIRMAN _____ DATE _____

BOARD SECRETARY _____ DATE _____

CITY ENGINEER _____ DATE _____

OWNERS' CONSENT _____ DATE _____

66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6688
F 201.670.9788
www.bertinengineering.com

BERTIN
ENGINEERING

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER

CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

Eric M. Hough
REGISTERED PROFESSIONAL ENGINEER

DRAWING TITLE
COVER SHEET

PROJECT
**PROPOSED
3-FAMILY BUILDING**

BLOCK 4601, LOT 17
221 LIBERTY AVENUE
CITY OF JERSEY CITY
COUNTY OF HUDSON, NJ

CLIENT
G.N. MANAGEMENT
INC.
101 HUDSON STREET, SUITE #2100
JERSEY CITY, NJ 07302

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00002800

DRAWN BY S.H.C. CHECKED BY J.A.

SCALE AS SHOWN PROJECT NO. 22-147

DATE 3-23-22 REVISION NO. 0

DRAWING NO.

C1.1

© Bertin Engineering Associates, Inc. 1182.108 16 218E Job Files\2022\22-147 Liberty NJ\Design\22-147-PL\working.dwg Mar 31, 2022 - 10:51am User

HUDSON-ESSEX-PASSAIC COUNTIES
SOIL EROSION AND SEDIMENT CONTROL NOTES

- 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 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.
- ALL SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, WILL BE TEMPORARILY SEEDED AND HAY MULCHED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
- SEEDING DATES:** THE FOLLOWING SEEDING DATES ARE BEST RECOMMENDED TO ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPCSD:
SPRING - MARCH 1 - MAY 15
FALL - AUGUST 15 - OCTOBER 1
- SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
- 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.
- MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 70-90 POUNDS PER 1,000 SQUARE FEET (1.5-2.0 TONS/ACRE) 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 CONSERVATION DISTRICT.
- ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX - (862) 333-4507 EMAIL - INFORMATION@HEPCSD.ORG
- 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 OR HYDRO-SEED.
- 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 THE REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.
- ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL TO RE-SEEDING, SODDING OR PLANTING. A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, LAST REVISED DECEMBER 2017.
- ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.
- A CRUSHED STONE WHEEL CLEANING TRACKING-PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2 1/2"-1" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM LENGTH OF AT LEAST 50 FEET AND A MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.
- 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.
- 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.

PRE CONSTRUCTION NOTES:

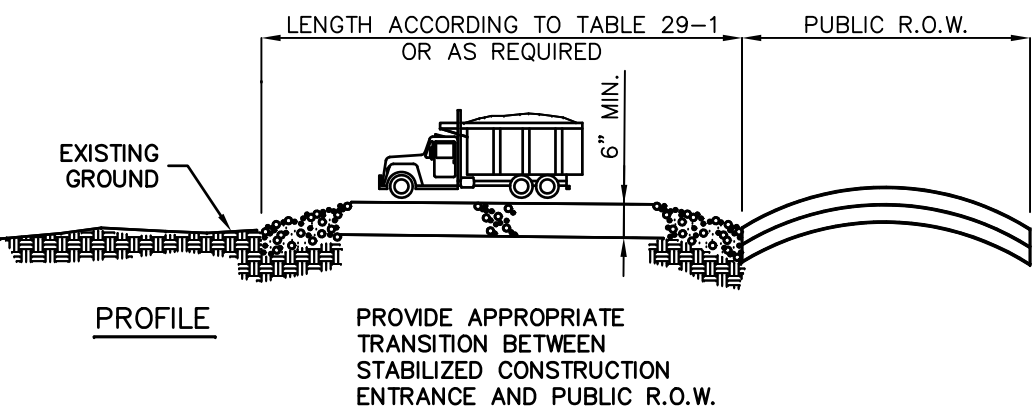
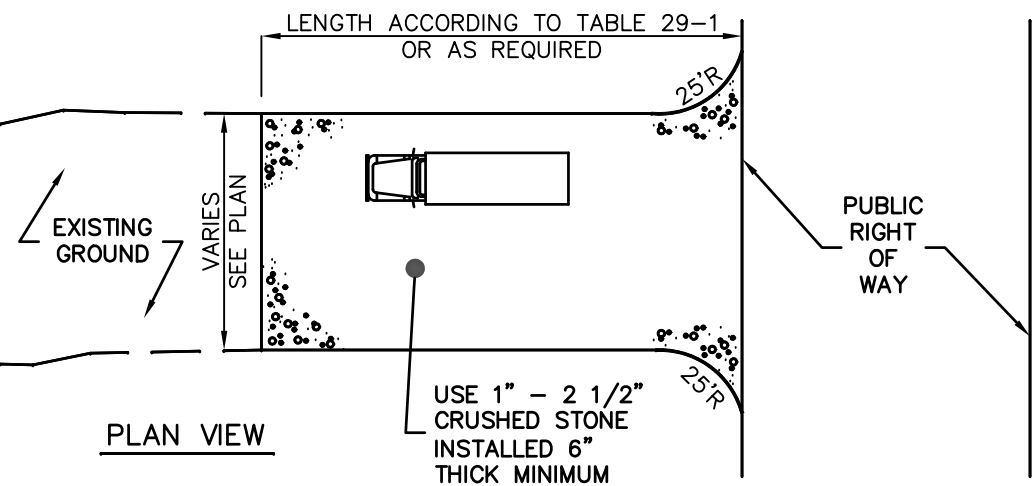
- UTILITY LOCATIONS SHOWN ON PLANS ARE FOR REFERENCE ONLY AND MUST BE VERIFIED IN FIELD PRIOR TO CONSTRUCTION. ON SITE UTILITIES
- LOCATIONS ARE BASED ON FIELD OBSERVATION AND RECORD DRAWINGS. ACTUAL CONDITIONS MAY VARY.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL:
A) THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE CONDITIONS;
B) REVIEW THE SURVEY & SITE PLANS FOR INCONSISTENCIES WITH ACTUAL CONDITIONS;
C) VERIFY FINISHED FLOOR ELEVATIONS OF EXIST. STRUCTURES TO REMAIN WITH RESPECT TO STREET ELEVATIONS SHOWN;
D) VERIFY LOCATION, DEPTH & ELEVATION OF UTILITY CONNECTIONS.
E) CONFIRM SIZE & MATERIAL OF ALL PROPOSED & EXISTING WATER & SEWER UTILITIES.
- STAKE OUT NEW BUILDING & VERIFY ITS LOCATION TO PROPERTY LINES WITH RESPECT TO DIMENSIONS SHOWN ON PLANS.
- MARK LIMIT OF SOIL DISTURBANCE & TAG ALL TREES TO BE REMOVED
- REVIEW ALL LOCAL, COUNTY & STATE PERMIT REQUIREMENTS FOR THE PROJECT
- ALL DEMOLITION MATERIAL AND DEBRIS AND ALL ITEMS REMOVED FROM THE PROPERTY AND THE ADJACENT PUBLIC AREAS, SHALL BE DISPOSED OUTSIDE OF THE CITY LIMITS OF JERSEY CITY IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE CITY'S ENVIRONMENTAL COMMISSION AND IN ACCORDANCE WITH THE REGULATIONS AND LAWS OF THE NJDEP.

SOIL RESTORATION NOTE

- THIS PROJECT IS EXEMPT FROM SOIL COMPACTION TESTING AND REMEDIATION UNDER EXEMPTION 6 ON PAGE 19-2 OF THE LAND GRADING STANDRAD AS IT IS LOCATED IN AN METROPOLITAN PLANNING AREA (PA-1) AND IS PREVIOUSLY DEVELOPED.

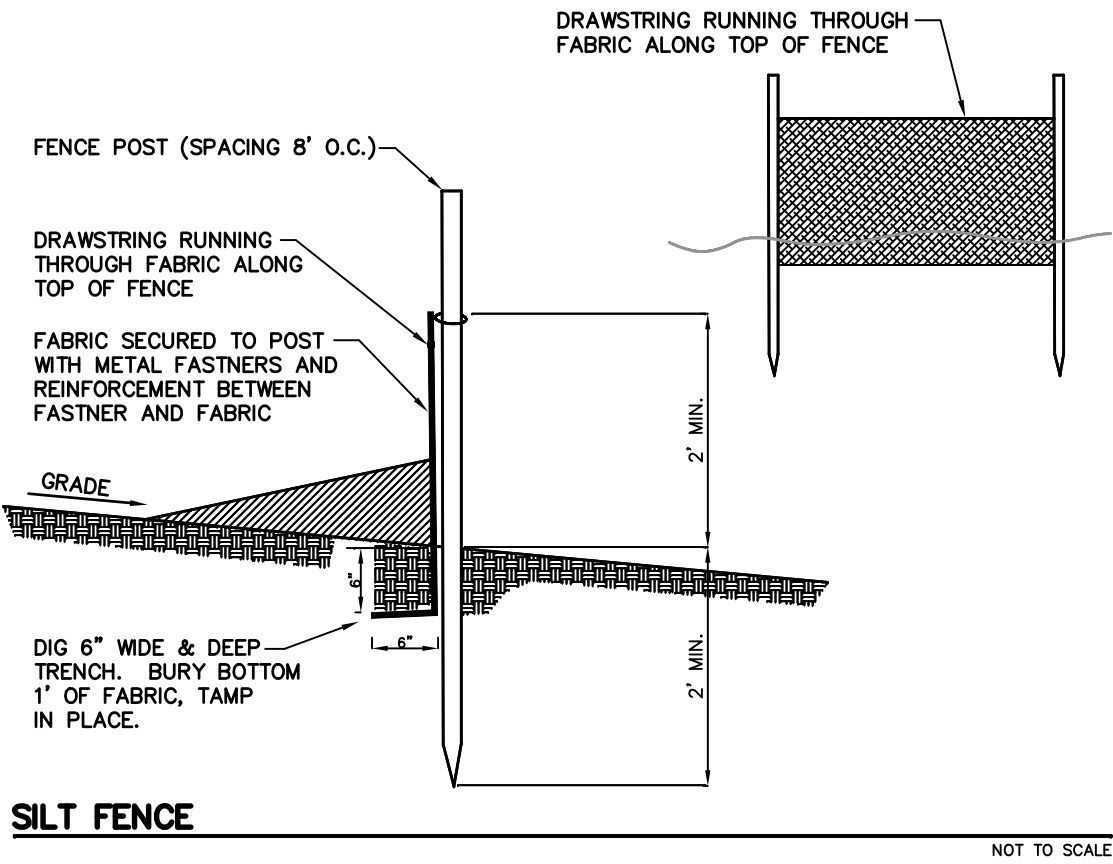
SEQUENCE OF CONSTRUCTION

	TIME
1. INSTALL SILT FENCE.	1-2 DAYS
2. DEMOLISH EXISTING STRUCTURES.	2 WEEKS
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE.	1 DAY
4. ROUGH GRADE SITE.	2 WEEKS
5. INSTALL BUILDING FOUNDATION.	1-2 MONTHS
6. INSTALL UNDERGROUND UTILITIES.	2 WEEKS
7. CONSTRUCT BUILDING.	8-9 MONTHS
8. INSTALL DRIVEWAYS, CONCRETE CURBS & SIDEWALKS.	2 WEEKS
9. FINISH GRADING OF THE SITE.	1 WEEK
10. INSTALL LANDSCAPING.	1 WEEK
11. REMOVE SOIL EROSION CONTROL DEVICES.	1 DAY
12. CONSTRUCTION TO LAST APPROXIMATELY 12-15 MONTHS.	

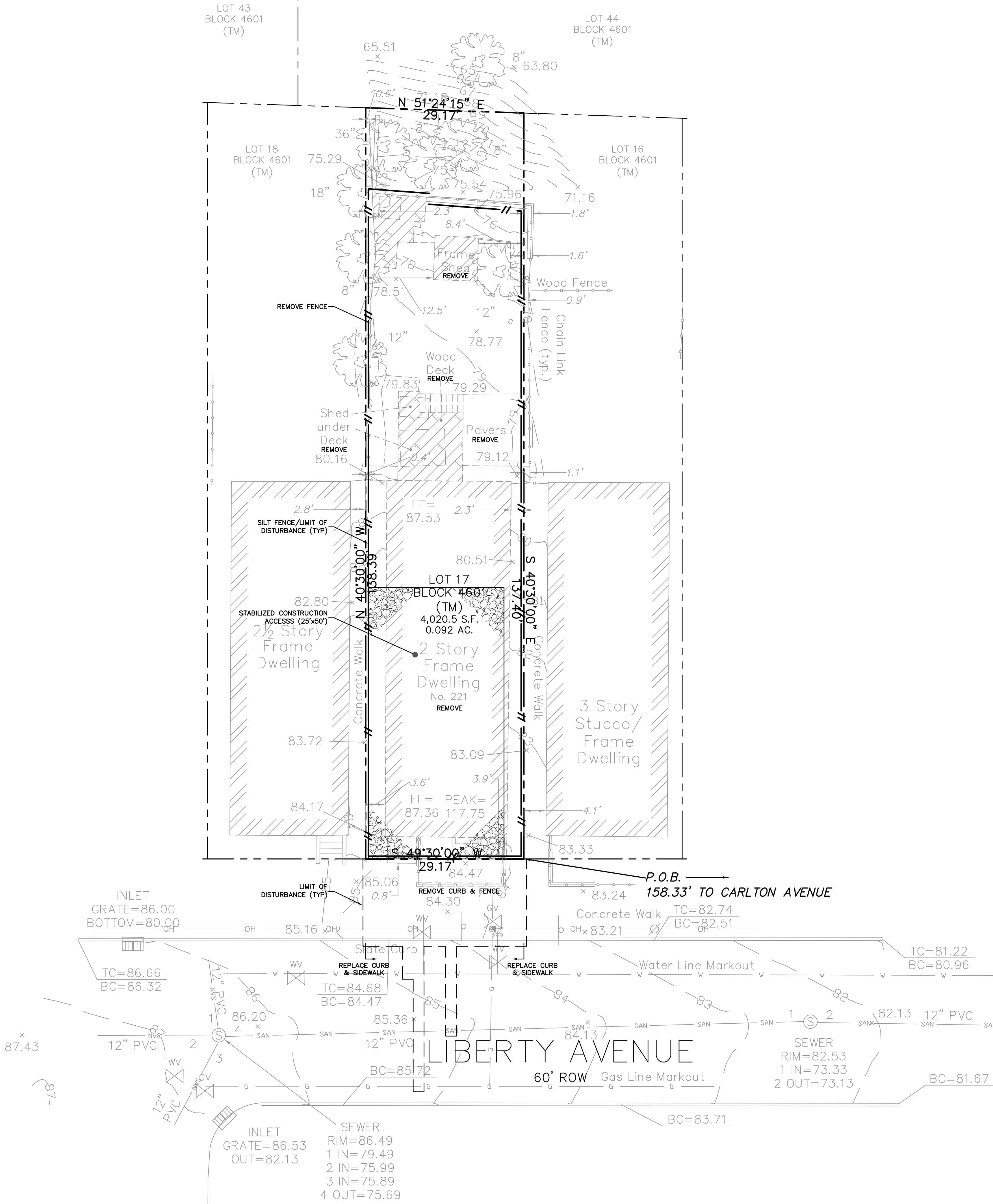


PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2 TO 5%	100 FT	200 FT
> 5%	ENTIRE SURFACE STABILIZED WITH FABC BASE COURSE	

STABILIZED CONSTRUCTION ACCESS



SILT FENCE



66 GLEN AVENUE
GLEN ROCK, NJ 07452
P 201.670.6688
F 201.670.9788
www.bertinengineering.com

BERTIN
ENGINEERING

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

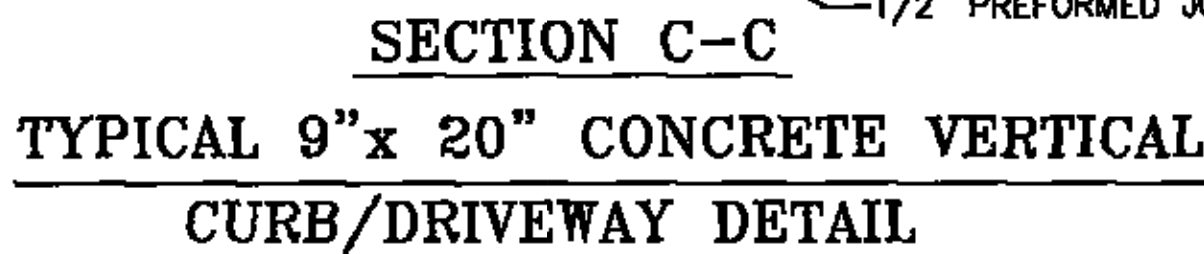
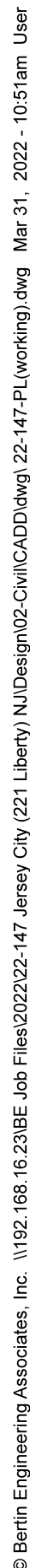
DRAWING TITLE
DEMOLITION & SOIL EROSION CONTROL PLAN

PROJECT
PROPOSED 3-FAMILY BUILDING
BLOCK 4601, LOT 17
221 LIBERTY AVENUE
CITY OF JERSEY CITY
COUNTY OF HUDSON, NJ

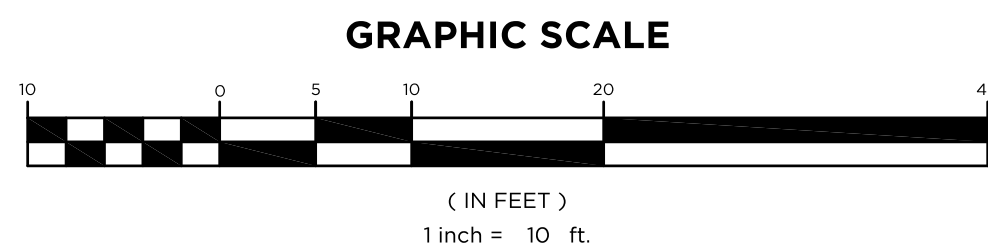
CLIENT
G.N. MANAGEMENT INC.
101 HUDSON STREET, SUITE #2100
JERSEY CITY, NJ 07302

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 21MH00002800
DRAWN BY: M.B.L. CHECKED BY: J.A.
SCALE: 1"=10' PROJECT NO: 22-147
DATE: 3-23-22 REVISION NO: 0

C2.1



- ## **CURB & SIDEWALK NOTES:**
1. ALL CURBING AND SIDEWALK SHALL BE CONSTRUCTED OF AIR ENTRAINED CLASS II CONCRETE, 4,000 PSI, #5 REBAR.
 2. A 12" PREPARED EXPANSION JOINT FILLER SHALL BE INSTALLED IN THE CURBING AND SIDEWALKS AT 10' INTERVALS, AND AT THE INTERSECTIONS OF THE CURBING AND CONCRETE SIDEWALKS AND AT 10' MAX. SPACING THEREAFTER. THE JOINT FILLER SHALL BE PLACED IN THE JOINTS, COMPRESSED 5" IN FROM THE TOP OF SIDEWALK.
 3. TRANSVERSE JOINTS 12" WIDE SHALL BE INSTALLED IN THE CURBING AND SIDEWALKS AND SHALL BE FILLED WITH FIBERFILL. THE JOINTS SHALL BE 1/2" DEEPER THAN THE SURFACE OF THE TOP AND FACE OF CURB.
 4. COST OF EXPANSION JOINTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SIDEWALKS AND CURBING.
 5. ALL SIDEWALK, CURB RAISING AND SIDEWALKS SHALL HAVE A HARD BROOMED FINISH.
 6. THE NORMAL PRESENT SIDEWALK PROFILE SHALL BE MAINTAINED THROUGHOUT THE AREA OF THE CURB RAISING.
 7. COST OF ANY DEPTH SPINDED ASPHALT/GRASS SEEDING FOR CURB AND SIDEWALK CONSTRUCTION WILL BE PAID FOR UNDER THE ITEM DATA.
 8. CONCRETE CURB SHALL NOT BE CONSTRUCTED FROM NOVEMBER 1 TO MARCH 15 UNLESS WRITTEN APPROVAL IS RECEIVED.
 9. IMMEDIATELY AFTER THE CONCRETE HAS BEEN FINISHED, THE CONTRACTOR SHALL APPLY A COMPLETE UNIFORM COAT OF CURB COMPOUND AT A RATE OF NOT LESS THAN ONE (1) GALLON PER SQUARE YARD.
 10. DETECTABLE WARNING SURFACE SHALL BE PERSON-TACTILE (INGRANED) CONCRETE OR CAST-IN-PLACE DETECTABLE WARNING SURFACE, IN MANHOLE AREA, NEW YORK, TELEPHONE BOX, 1-800-452-0823 OR APPROVED EQUIVALENT. THE DETECTABLE WARNING SHALL BE A MINIMUM OF 24" IN LENGTH AND 12" IN WIDTH. THE DETECTABLE WARNING SURFACES SHALL BE INSTALLED ACCORDING TO THE DETECTABLE WARNING SURFACE CONSTRUCTION DETAILS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCORDING TO SUBSECTION 607.16 IN CHAPTER 6 DETECTABLE WARNING SURFACES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSPORT BY JERSEY CITY SUPPLY MATERIALS OR EQUIPMENT.
 11. ALL TRAFFIC SIGNS AND MARKINGS SHALL BE LONG-LEAVE, THERMOPLASTIC IN ACCORDANCE WITH SECTION 618 - TRAFFIC MARKINGS AND SIGNS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSPORT BY JERSEY CITY SUPPLY MATERIALS OR EQUIPMENT.



- ## GENERAL NOTES
1. PLAN BASED ON: "TOPOGRAPHIC SURVEY OF PROPERTY" PREPARED BY LAKELAND SURVEYING, JEFFREY S. GRUNN, NJPLS LIC. NO. 24GS04339900, PROJECT NO. 213964, DATED 10/29/21.
 2. ALL FEATURES ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED.
PROPOSED FEATURES AS SHOWN IN FULL TONE
EXISTING FEATURES ARE SHOWN IN HALF TONE
EXISTING FEATURES TO BE REMOVED ARE SHOWN AS DASHED, OR ARE NOTED.
 3. LOCATION OF ALL UNDERGROUND UTILITIES IS APPROXIMATE AND SHOULD BE VERIFIED BEFORE EXCAVATION OR CONSTRUCTION BEGINS. CALL DIG HOTLINE 1-800-272-1000.
 4. ALL UTILITY CONNECTIONS ARE TO BE IN ACCORDANCE WITH LOCAL CODE.
 5. THE SITE PLAN(S) SUPERSEDES ALL STANDARD DRAWINGS.
 6. REINSTALL DISTURBED PAVEMENT MARKINGS AND TRAFFIC SIGNS UPON COMPLETION OF CONSTRUCTION.
 7. G.C. TO NOTIFY THE JERSEY CITY DEPARTMENT OF ADMINISTRATION, DIVISION OF ENGINEERING, TRAFFIC & TRANSPORTATION IN WRITING AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 8. G.C. TO COORDINATE TREE PIT DESIGN WITH JERSEY CITY ARBORIST IN THE DEPARTMENT OF PUBLIC WORKS, DIVISION OF FORESTRY.
 9. ALL EXISTING UTILITY SERVICES THAT ARE TO BE ABANDONED SHALL BE DECOMMISSIONED PURSUANT TO APPLICABLE UTILITY COMPANY REQUIREMENTS.



BERTIN
ENGINEERING

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

LGH

WHITE PLAN

PROPOSED FAMILY BUILDING

BLOCK 4601, LOT 17
 LIBERTY AVENUE
 CITY OF JERSEY CITY
 COUNTY OF HUDSON, NJ

NT
N. MANAGEMENT
IC.
HUDSON STREET, SUITE #210
ERSEY CITY, NJ 07302

CERTIFICATE OF AUTHORIZATION 24GA28068900 / 21MH00002800	
DRAWN BY M.B.L.	CHECKED BY J.A.
SCALE 1"=10'	PROJECT NO. 22-147
DATE 3-23-22	REVISION NO. 0

C2.2



C2.3

Bertin Engineering Associates, Inc. \\192.168.16.23\BE Job Files\2022\22-147 Jersey City (221 Liberty) NJ\Design\02-Civil\CADD\dwg\ 22-147-PL(working).dwg Mar 31, 2022 - 10:52am User

THE JERSEY CITY MUNICIPAL UTILITIES AUTHORITY WATER DISTRIBUTION SYSTEM STANDARDS

1. WATER MAINS SHALL BE CLASS 53, CEMENT LINED, DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL BE IN CONFORMANCE WITH A.N.S.I. STANDARD A21.5-1978 (A.W.W.A. C151-76). ALL WATER MAINS WILL BE AT LEAST 8" IN DIAMETER. TEN (10") AND 14" DIAMETER MAINS SHALL NOT BE USED.
2. GATE VALVES SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD C500-80 AND SHALL BE JERSEY CITY STANDARD VALVES, MAH 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 OPENED WITH BY-PASS. VALVE SHALL BE 100% SODD HEAT CURED EPOXY COATED HOLIDAY-FREE IN THE WATERWAY.
3. BUTTERFLY VALVES SHALL BE IN CONFORMANCE WITH A.N.S.I./A.W.W.A. STANDARD C504-80. BUTTERFLY VALVES SHALL BE CLASS 150#, 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% SODD HEAT CURED EPOXY COATED HOLIDAY-FREE IN THE WATERWAY. THE USE OF BUTTERFLY VALVES WILL NOT BE PERMITTED IN MAINS (16") AND UNDER.
4. VALVES BOXES SHALL BE JERSEY CITY "STANDARD" AS MANUFACTURED BY BINGHAM AND TAYLOR, OR APPROVED EQUAL. BOXES SHALL HAVE A MINIMUM OF 8-1/4 INCH DIAMETER AND SHALL BE AN ADJUSTABLE SCREW TYPE WITH THE GATE 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 WORK "WATER" CAST IN COVER. VALVE BOX COVER SHALL BE INSTALLED FLUSH WITH THE EXISTING GRADE ELEVATION.
5. CONCRETE FOR VALVE SEATS AND THRUST BLOCKS SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI.
6. SELECT GRANULAR BACKFILL MATERIAL SHALL BE SOIL AGGREGATE TYPE I-B (POROUS FILL, CLEAN SAND, GRAVEL OR STONE) OBTAINED FROM A QUALIFIED SOURCE 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-B IS IN ARTICLE 901.09 OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED IN TWELVE (12) INCH LIFTS.
7. THE RODS SHALL BE THREE QUARTER (3/4) INCH DIAMETER THREADED STEEL BARS. RODS SHALL BE MINIMUM YIELD STRESS OF 36,000 PSI. THRUST BLOCKS AND THE RODS SHALL BE INSTALLED AT ALL BENDS AND FITTINGS.
8. 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 USED.
9. SHEETING, SHORING AND BRACING SHALL BE CLOSED VERTICAL SHEETING, TONGUE AND GROOVE THAT IS BRACED TO PREVENT THE CAME-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 CONFORMING TO THE REQUIREMENTS OF THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION. TIMBER SHALL BE A MINIMUM OF 3" THICK. SHEETING SHALL BE LEFT IN PLACE. SHORING AND BRACING SHALL BE REMOVED.
10. BROKEN STONE FOUNDATION CUSHION SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING HAS DEMAED 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 SPECIFICATIONS.
11. FILTER CLOTH SHALL BE PLACED IN THOSE AREAS WHERE THE DIRECTOR, DEPARTMENT OF ENGINEERING HAS DEMAED THE SOIL CONDITIONS INFERIOR.
12. AFTER THE ENGINEER HAS INSPECTED THE COMPLETED INSTALLATION OF VALVES, AND WATER MAIN, AND BEFORE BACKFILLING THE EXCAVATIONS, THE CONTRACTOR SHALL FURNISH AS A BOR, 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. PRESSURE SHALL NOT VARY MORE THAN FIVE (5) PSI. THE VALVED SECTION OF PIPE SHALL BE FILLED WITH WATER SLOWLY, AND THE TEST PRESSURE SHALL BE APPLIED BY MEANS OF A PUMP CONNECTED TO THE WATER MAIN. THE TEST PRESSURE SHALL BE MAINTAINED FOR A PERIOD OF TWO (2) HOURS. AFTER THE TEST PRESSURE, 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. 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.
13. THE CONTRACTOR SHALL DISINFECT ALL WATER MAINS IN ACCORDANCE WITH A.W.W.A. STANDARD FOR "DISINFECTING WATER MAINS" C-601. COMMERCIAL PRODUCTS SUCH AS "HTH", "PERCHLORON", AND "MAXOXHOLR" 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 CHLORINE 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 FINISH FLUSHING AND BEFORE THE WATER MAIN IS PLACED IN SERVICE SAMPLES SHALL BE COLLECTED FROM EACH OF THE RELOCATED HYDRANT. E. NEW GATE VALVES AND BOXES ARE REQUIRED AT THE BASE OF RELOCATED HYDRANTS WHEN MORE THAN (10') FEET OF PIPE IS REQUIRED.
14. AIR RELEASE VALVES SHALL BE INSTALLED AT THE HIGH POINTS OF THE WATER MAINS.
15. ALL WATER MAINS WILL BE AT LEAST 8" IN DIAMETER. TEN (10") AND 14" DIAMETER MAINS SHALL NOT BE USED.
16. THRUST BLOCKS AND TIE RODS SHALL BE INSTALLED AT ALL BENDS AND FITTINGS.
17. HYDRANTS SHALL BE TWO (2) PIECE "JERSEY CITY STANDARD" HYDRANTS AS MANUFACTURED BY A.P. SMITH OR APPROVED EQUAL. HYDRANT SPACING SHALL BE A MAXIMUM 300 FEET MEASURED CENTER TO CENTER.
18. FOR EITHER NEW CONSTRUCTION OR RELOCATION OF THE FOLLOWING SHALL BE REQUIRED:
A. HYDRANTS SHALL BE LOCATED NO CLOSER THAN 20 FEET FROM THE POINT OF TANGENCY OR CURVATURE AT INTERSECTIONS.
B. ALL ONE PIECE OR HYDRANTS NOT MANUFACTURED BY A.P. SMITH THAT ARE TO BE RELOCATED SHALL BE REMOVED AND DELIVERED TO JERSEY CITY DIVISION OF WATER DISTRIBUTION. A NEW HYDRANT WILL BE SUPPLIED BY THE CITY FOR INSTALLATION.
C. 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 DRIVEWAYS ARE EXPANDED OR NEWLY CONSTRUCTED, THE OWNER SHALL BE RESPONSIBLE FOR THE RELOCATION OF AN EXISTING HYDRANT IF ABOVE REQUIREMENTS ARE VIOLATED.
D. ALL SINGLE GATED HYDRANTS ON (16") INCH OR LARGER MAINS SHALL REQUIRE A NEW VALVE AT THE BASE OF THE RELOCATED HYDRANT. E. NEW GATE VALVES AND BOXES ARE REQUIRED AT THE BASE OF RELOCATED HYDRANTS WHEN MORE THAN (10') FEET OF PIPE IS REQUIRED.
19. 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 DEPARTMENT SHALL INSPECT AND CERTIFY THE ABANDONED SERVICES.
20. WATER MAINS TO ABANDON SHALL BE CUT AND PLUGGED WITH REQUIRED FITTINGS, RODS AND CONCRETE AS CLOSE TO THE EXISTING MAIN IN SERVICE AS POSSIBLE.
21. ALL VALVES SHALL BE OPERATED BY JERSEY CITY WATER DEPARTMENT 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.
22. FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS WILL RESULT IN THE IMMEDIATE SHUT-DOWN OF THE PROJECT.

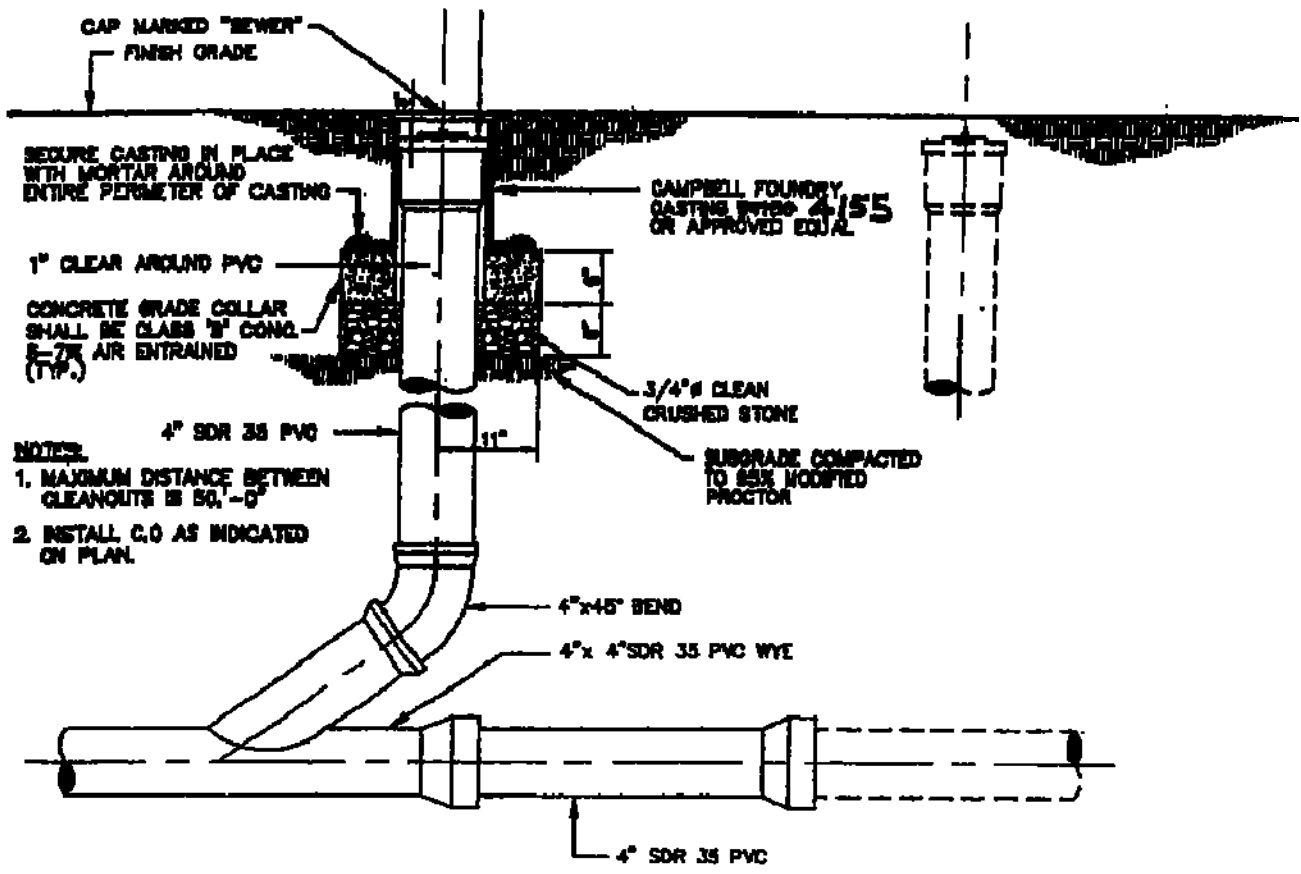
06/27/07

THE JERSEY CITY MUNICIPAL UTILITIES AUTHORITY 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 JOMUA'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 STREETS 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 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, APARTMENT BUILDING, ETC.)
- 4) ALL EXISTING WATER SERVICE LINES TO BE ABANDONED SHALL BE CUT AND CAPPED AT THE MAIN, IN ACCORDANCE WITH JOMUA 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 JOMUA.
- 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 THAN ONE OWNER/ TENANT FOR A FACILITY. HOWEVER, ONLY ONE WATER BILL WILL BE ISSUED FOR THE FACILITY.
- 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.
- 9) FOR TAPS OFF MAINS SIXTEEN (16) INCHES AND LARGER, THE APPLICANT 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 JOMUA.
- 9) VALVE BOX PARTS FOR ALL VALVES SHALL BE PROVIDED BY THE APPLICANT. 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 JOINTS.
- 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 (COMBINED SERVICE LINE LARGER THAN 2"), A COMBINED REDUCED PRESSURE DETECTOR ASSEMBLY (AMES 5000 SS, AMES 5000 RPDA OR WATTS 909 RPDA) SHALL BE INSTALLED ON THE MAIN FIRE SERVICE LINE AND A REDUCED PRESSURE BACKFLOW PREVENTER ON THE BYPASS (AMES 4000 SS OR WATTS 909) (REFER TO FIGURE 1). ON THE LIMITED FIRE SUPPRESSION SYSTEM (COMBINED SERVICE LINE 2" OR SMALLER) A FIRE LINE DETECTOR CHECK WITH A SINGLE CHECK VALVE (AMES 1000 DCV) SHALL BE INSTALLED ON THE MAIN FIRE LINE AND A REDUCED PRESSURE BACKFLOW PREVENTER (AMES 4000 SS OR WATTS 909) SHALL BE INSTALLED DOWNSTREAM OF THE BYPASS (REFER TO FIGURE 2). ALL REGULAR FIRE SUPPRESSION SYSTEMS MUST HAVE OS&Y VALVES. HOWEVER, LIMITED FIRE SUPPRESSION SYSTEMS MAY USE BALL VALVES (NOMINAL SIZE 7/8" PRELCOOK) INSTEAD OF OS&Y VALVES. THE FIRE UNIT SHALL BE FURNISHED WITH A 5/8 INCH X 3/4 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 DOMESTIC AND FIRE SERVICE.
- 13) FOR DOMESTIC SERVICE, AN APPROVED REDUCED PRESSURE BACKFLOW PREVENTER (AMES 4000 SS) IS REQUIRED WHEN THE JOMUA 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 DISBURGING SUBCODE 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 CONTAMINANT. 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 COMPOUND MANIFOLD METERS.
- 16) ALL METERS SHALL BE ADEQUATELY RESTRAINED WITH METAL BRACKETS FASTENED TO THE FLOOR OR WALL OR OTHER APPROVED MEANS SUCH AS UNFLANGES 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 JOMUA 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 FROM JOMUA OR ITS AUTHORIZED AGENT.
- 19) ALL METERS 2" AND LARGER SHALL BE FURNISHED WITH SENSUS EOR/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 JOMUA 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 UWJC 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 JOMUA OR ITS AUTHORIZED AGENT BEFORE THE TAP WILL BE INSTALLED. EXCAVATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS FOR SHEETING AND SAFETY.
- 24) UPON COMPLETION OF THE INSTALLATION, THE APPLICANT SHALL SUBMIT THREE (3) SETS OF "AS BUILT" PLANS TO THE JOMUA'S BUREAU OF WATER ENGINEERING. THE JOMUA WILL AUTHORIZE SUPPLY WATER UPON ACCEPTANCE OF THE "AS BUILT" DRAWINGS.

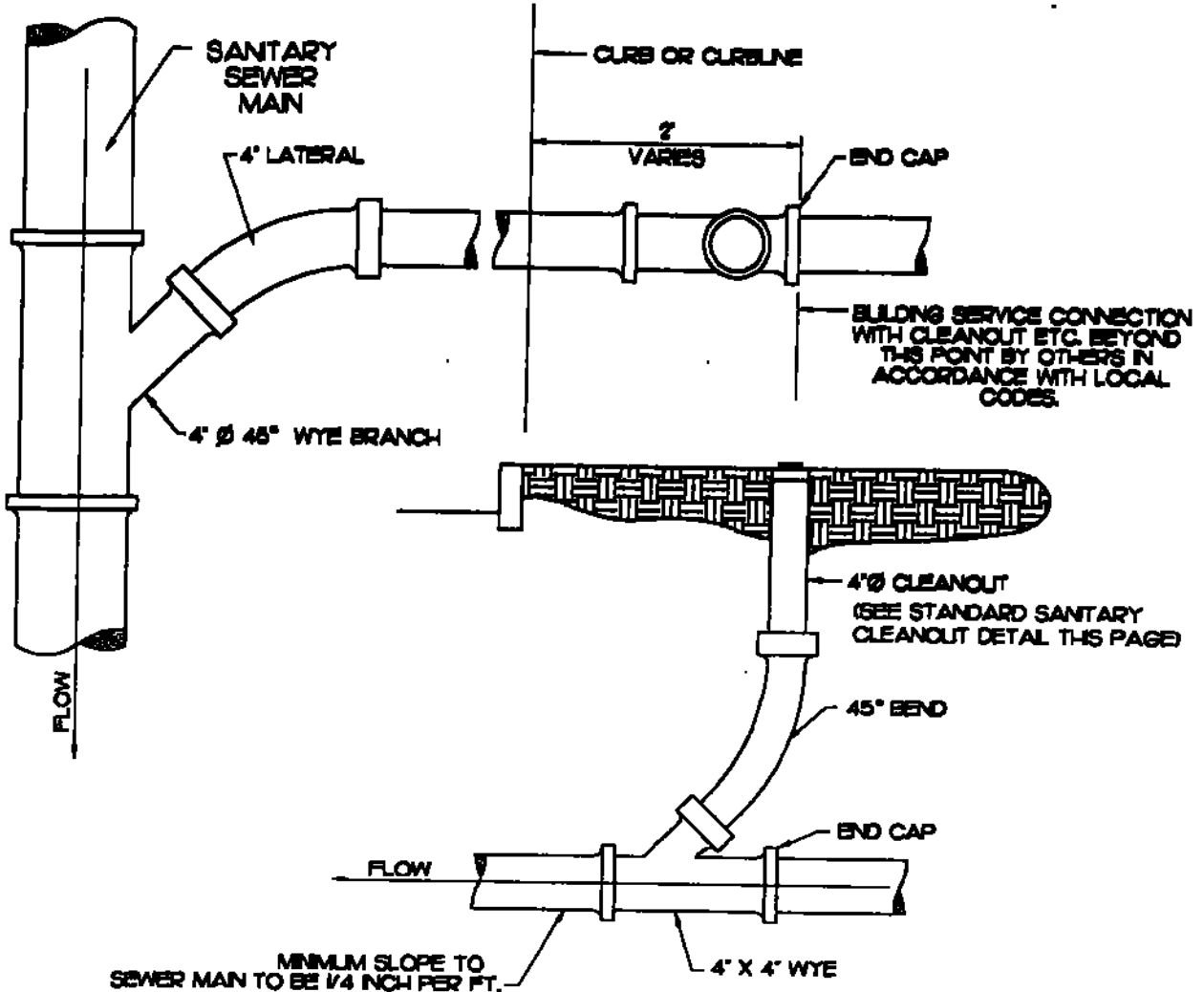
* SPECIFIED MODEL OR APPROVED EQUAL.

06/28/06



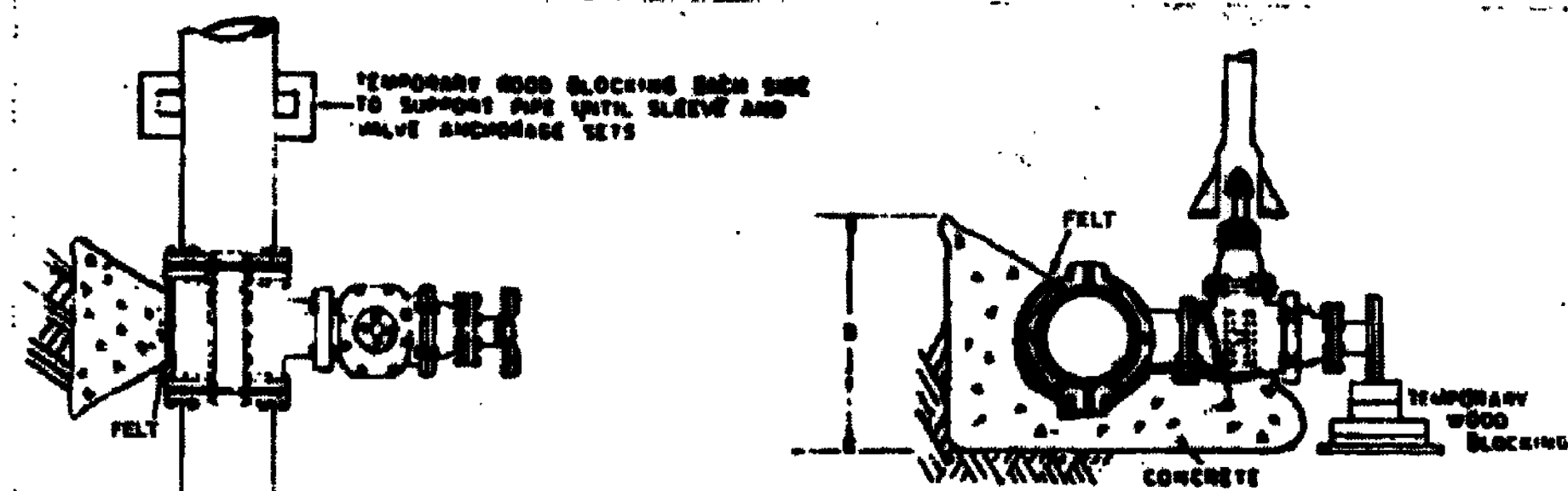
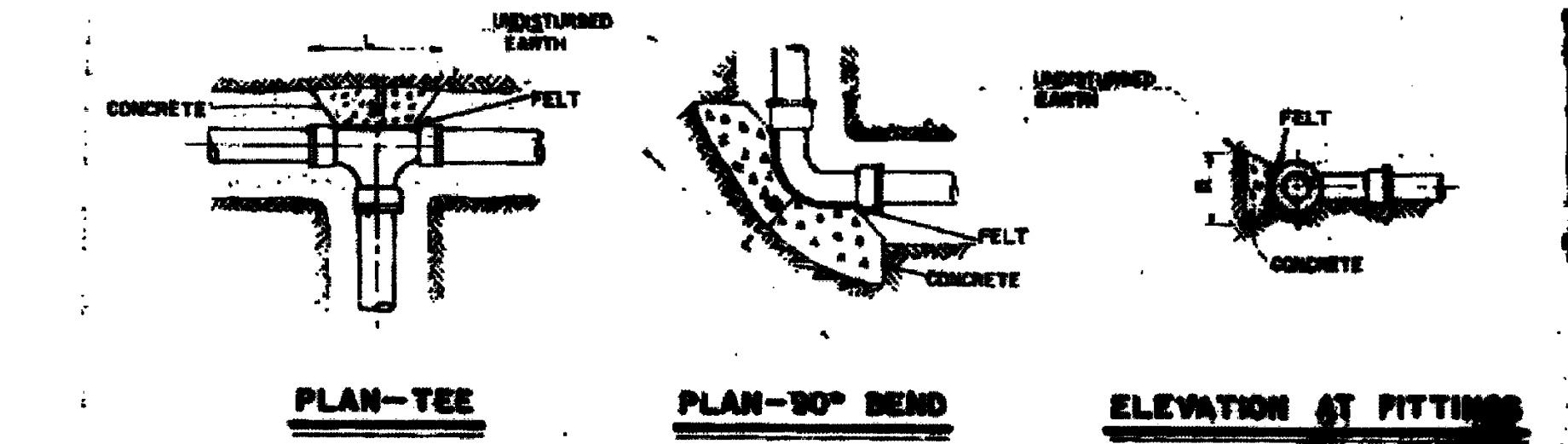
STANDARD SANITARY CLEANOUT

NOT TO SCALE



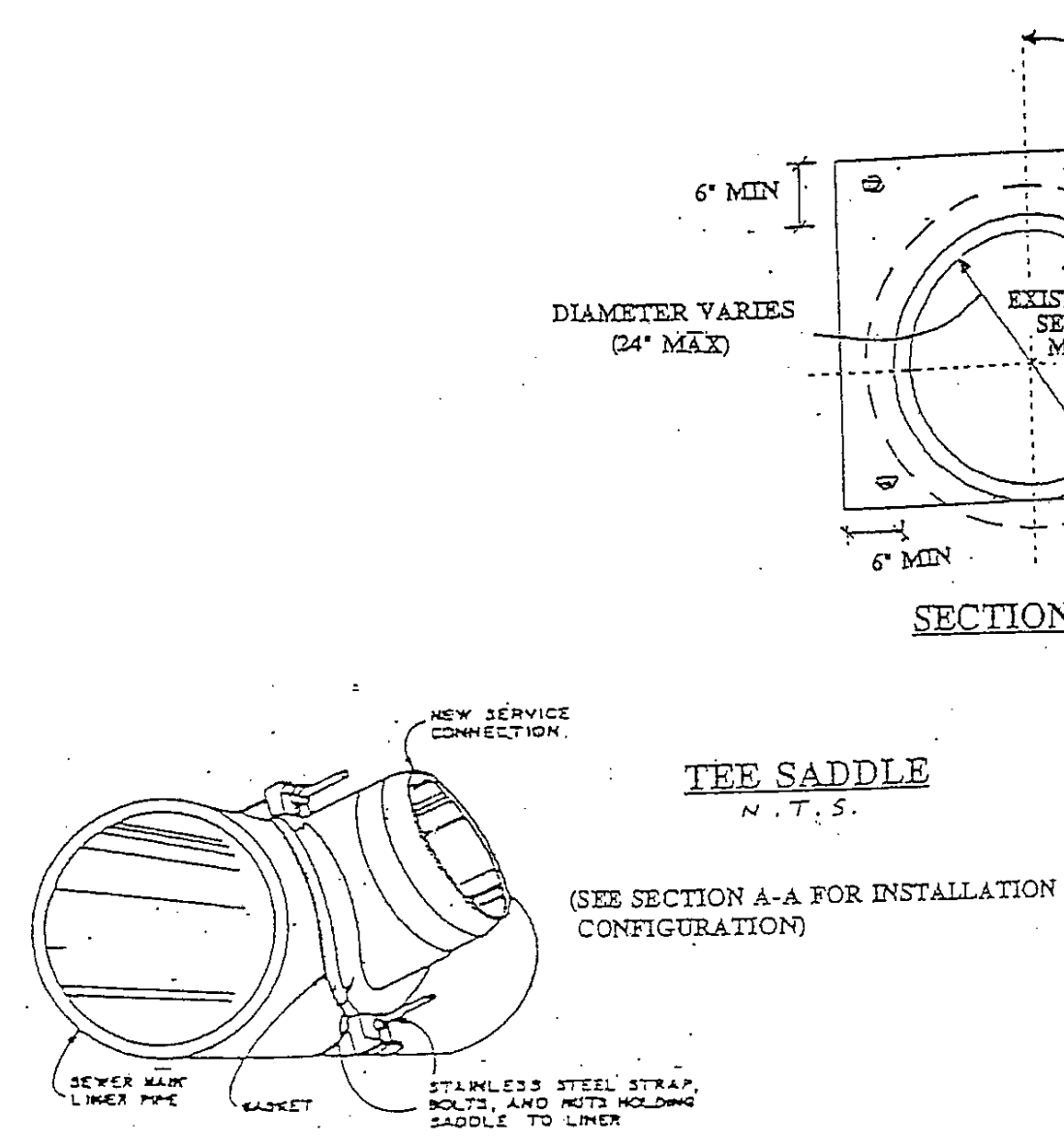
SANITARY SEWER SERVICE LATERAL DETAIL

NOT TO SCALE



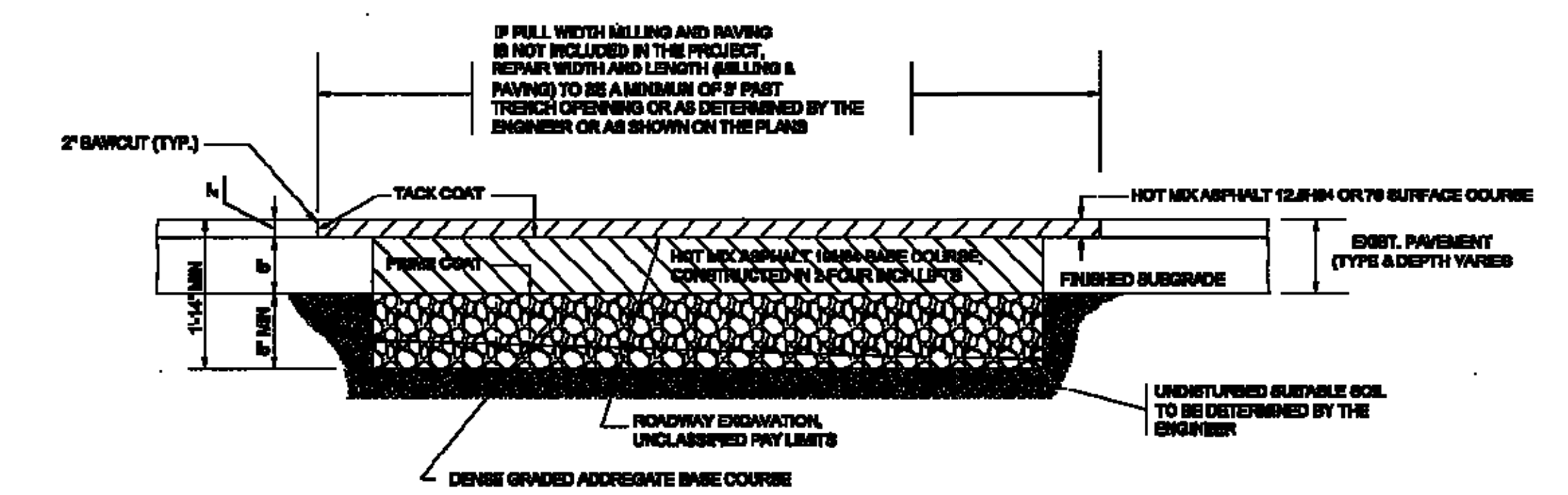
TAPPING SLEEVE AND TAPPING VALVE DETAIL

NOT TO SCALE



SEWER CONNECTION TO CLAY SEWER DETAIL

NOT TO SCALE



HOT MIX ASPHALT PAVEMENT REPAIR DETAIL

NOT TO SCALE

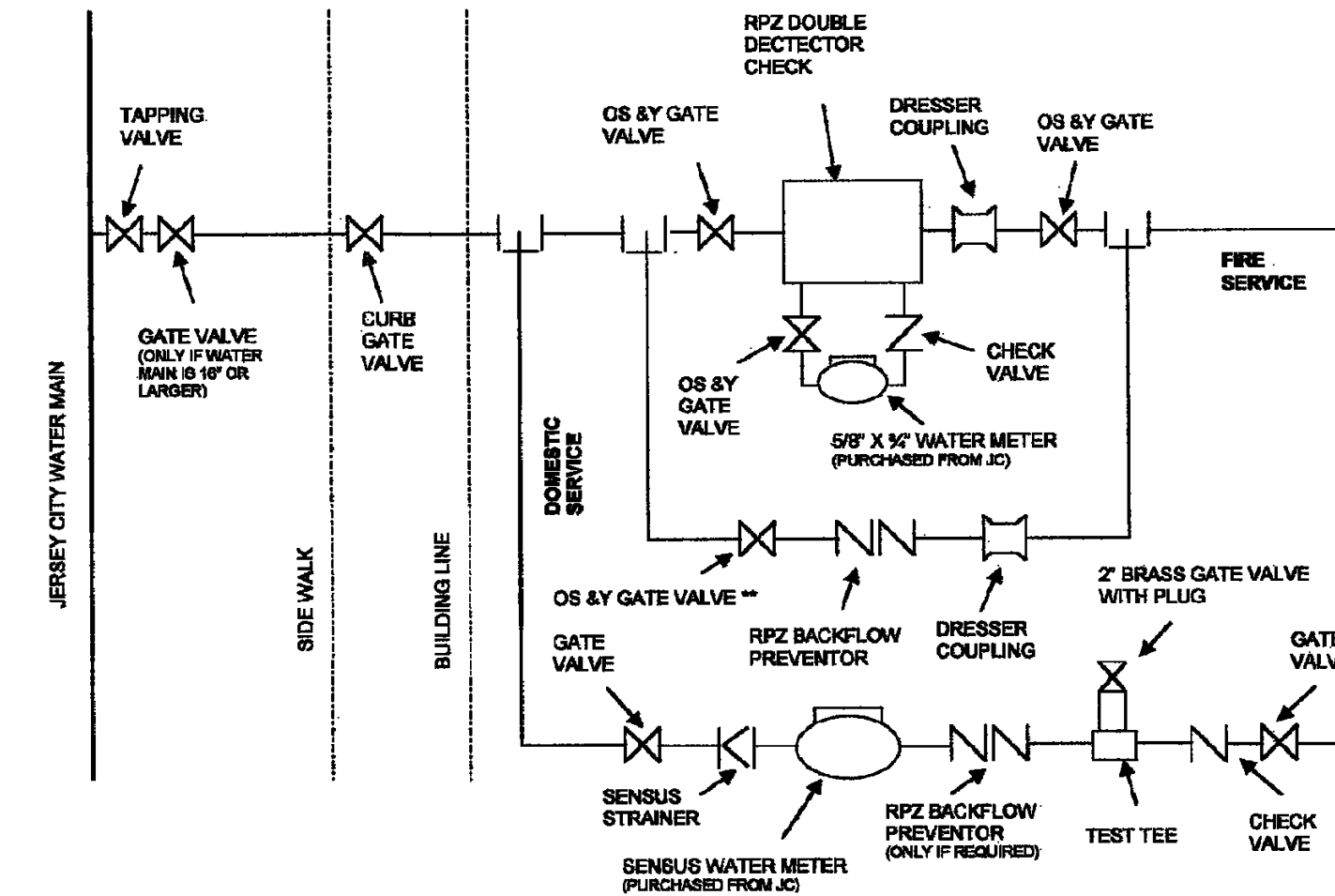
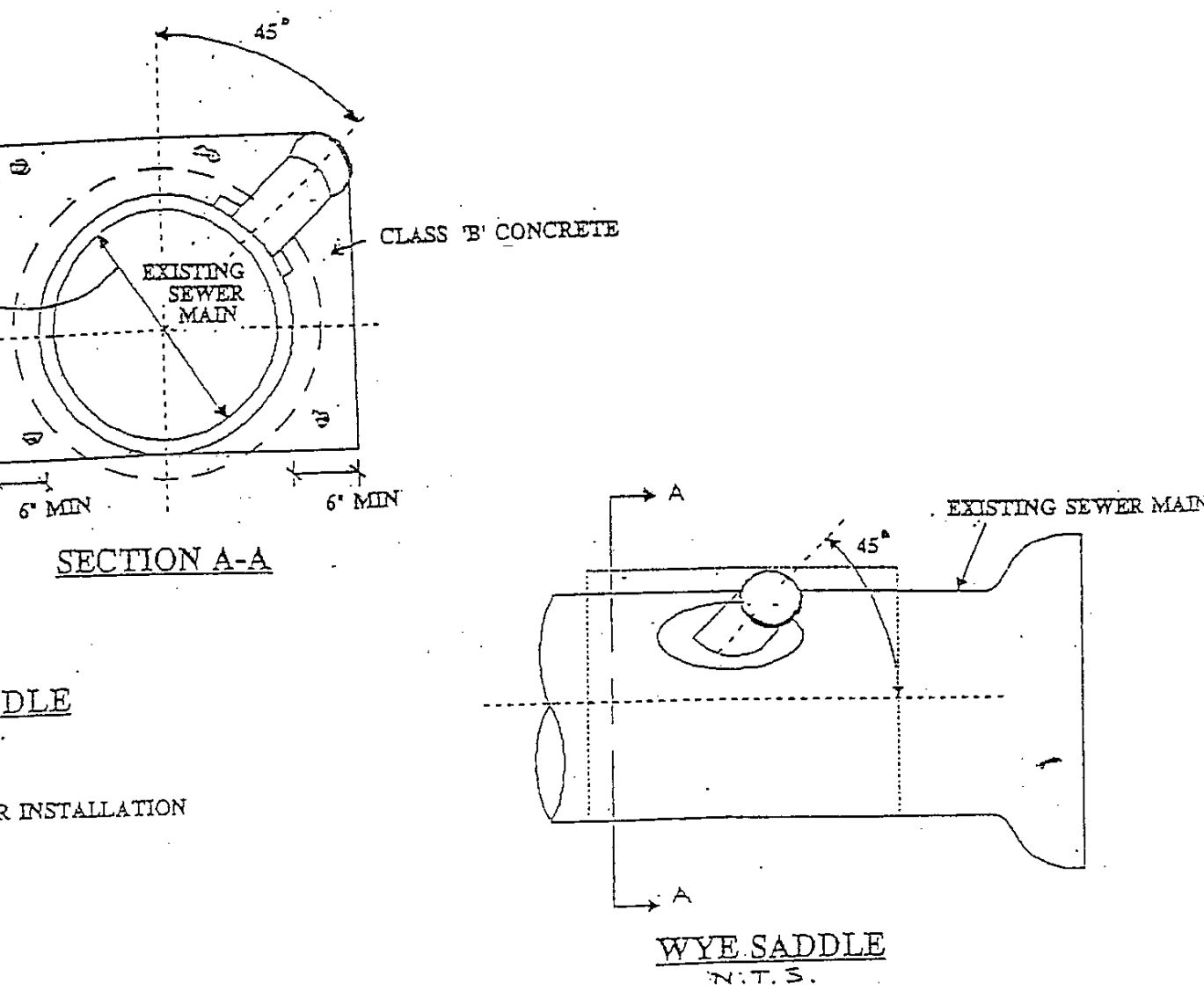


FIGURE 1. J.C.M.U.A. REQUIREMENTS FOR FIRE AND DOMESTIC WATER LINE AND METER INSTALLATIONS



TYPICAL TRENCH DETAIL

NOT TO SCALE

**BERTIN
ENGINEERING**

CIVIL • SURVEYING • TRAFFIC • STRUCTURAL • ENVIRONMENTAL • MECHANICAL • LANDSCAPE

66 GLEN AVENUE
GLEN ROCK, NJ 070452
P 201.670.6888
F 201.670.9788
www.bertinengineering.com

CALISTO J. BERTIN, P.E.
PROFESSIONAL ENGINEER
CT LIC. NO. 12950 NJ LIC. NO. 28845
MA LIC. NO. 40595 NY LIC. NO. 60022
NH LIC. NO. 9368 RI LIC. NO. 6694

ERIC M. HOUGH, P.E.
PROFESSIONAL ENGINEER
NJ LIC. NO. 51893

DRAWING TITLE
UTILITY DETAILS

PROJECT
**PROPOSED
3-FAMILY BUILDING**
BLOCK 4601, LOT 17
221 LIBERTY AVENUE
CITY OF JERSEY CITY
COUNTY OF HUDSON, NJ

CLIENT
**G.N. MANAGEMENT
INC.**
101 HUDSON STREET, SUITE #2100
JERSEY CITY, NJ 07302

CERTIFICATE OF AUTHORIZATION
24GA28068900 / 2/14/000002800

DRAWN BY M.B.L.	CHECKED BY J.A.
SCALE AS SHOWN	PROJECT NO. 22-147
DATE 3-23-22	REVISION NO. 0

DRAWING NO.
C3.1