

PRELIMINARY AND FINAL SITE PLAN

PREPARED FOR

VOSE APTS. URBAN RENEWAL, LLC

LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006
SOUTH ORANGE AVENUE REDEVELOPMENT
VILLAGE OF SOUTH ORANGE
ESSEX COUNTY, NEW JERSEY

SITE DATA CHART					
OWNER & APPLICANT:	VOSE APTS. URBAN RENEWAL LLC 447 NORTHFIELD AVENUE, SUITE 220 WEST ORANGE, NJ 07052				
PROPERTY:	LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 AREA = 1.403± ACRES (61,147 SF)				
ZONE: VOSE+ TAYLOR REDEVELOPMENT PLAN					
EXISTING USE: MIXED USE		PROPOSED USE: MIXED USE			
DESCRIPTION	CODE (CBD)	EXISTING	PROPOSED	COMPLIANCE	
AREA YARD AND BULK REGULATIONS					
DWELLING UNITS	110 MAX.	-	111 UNITS	YES*	
AFFORDABLE HOUSING	20% OR 22 UNITS	-	22 UNITS	YES	
OFF-SITE AFFORDABLE HOUSING	50% MAX.	-	11 UNITS	YES	
COMMERCIAL SPACE	24,000 SF MAX.	-	19,915 SF	YES	
MIN. LOT AREA	47,000 SF	61,147 SF	61,147 SF	YES	
MINIMUM LOT WIDTH	230 FT	208.1 FT	208.1 FT	NO	
MINIMUM LOT DEPTH	260 FT	284.4 FT	284.4 FT	YES	
MAX. IMPERVIOUS COVERAGE	95%	91.8%	100%	NO	
MAX. BUILDING COVERAGE	95%	-	84.1 %	YES	
MIN. SETBACK - SOUTH ORANGE AVE	8 FT	-	9.1 FT	YES	
MAX. SETBACK - SOUTH ORANGE AVE	22 FT	-	21.1 FT	YES	
MAX. BUILDING HEIGHT	5 STORIES/66 FT	-	5 STORIES/65.58 FT	YES	
PARKING AND LOADING					
MIN. PARKING SPACES	180 SPACES	59 PUBLIC SPACES	205 SPACES**	YES	
MAX. PARKING SPACES	198 SPACES	59 PUBLIC SPACES	205 SPACES**	NO	
MIN. BICYCLE SPACES	66 SPACES	-	66 SPACES	YES	
SMALL CAR STALL %	25%	-	25%	YES	
STALL SIZE	9'X18" (REG.)	-	9'X18" 5'X16" (60)	YES YES	
ADA STALLS	5 STANDARD 1 VAN	-	5 STANDARD 1 VAN	YES YES	

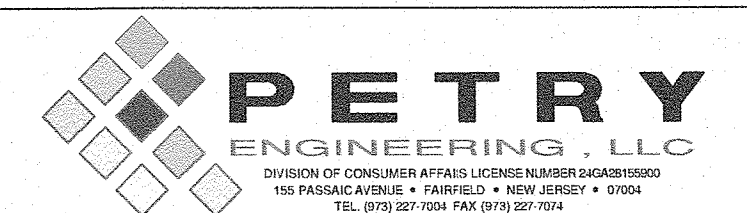
* ONE UNIT RESERVED FOR BUILDING OPERATIONS STAFF SHALL NOT BE COUNTED AS PART OF THE OVERALL RESIDENTIAL DENSITY

OPEN SPACE	COMPLIANCE	SIDEWALKS	COMPLIANCE
ADA Compliant sidewalks - On Site	YES	Sidewalks are provided along imposed streets	YES
ADA Compliant sidewalks - Roadway	NO	Sidewalks are 12' wide Min	NO
Ped Connection to Scotland Rd. accessible 24 7	YES	PED-BESTIAL CROSSINGS	
Alleyway Differentiated from public walkway using S. Orange Ave.	YES	Ped crossings are provided at	
Design Promotes Passive Activities	YES	S. Orange Ave & Scotland Road	NO
SL 11.11.11 18-24 inches Depth 15 in. Min	YES	Scotling Avenue & Vose Avenue	NO
Height 18-24 inches Depth 15 in. Min	YES	Taylor Place & Scotland Road	NO
Aligned to face each other	YES	Taylor Place & Vose Avenue	YES
SIGNAGE		Minimized ped crossing distance	YES
Regulations governing wall mounted signs 185-142.01	YES	Curb extended at corners to minimize crossing distance	YES
Regulations governing projecting signs 185-142.02	YES	Materials	
Regulations governing canopy signs 185-142.06	YES	High quality pavers	YES
Regulations governing temporary signs 185-142.09	NO	Crosswalk treatment designed for maximum visibility	YES
		Warning signs are installed	YES
LIGHTING		Crosswalks are 10' wide	YES
Lights at all intervals	YES	CURB/BIFFLIGHT	
Light height NHTL 20'	YES	Ped ramps should be extended horizontally to the extent practical	YES
Lights present up and spillage	YES	Decorals installed where curb is flush with roadway	YES
Lights are 11D lamps providing "warm-white" light	YES	Illuminated bollards are installed at crosswalks	YES
Lights provide not less than 1 horizontal foot-candle average	YES	LANDSCAPING	
Durable lights and able to be controlled by timer	YES	Street trees have cast iron grates	NO
Pathways to be lit for pedestrians	YES	Black pavers are installed around perimeter of tree pits	YES
Lights directed away from adjacent lots	YES	Shade trees are planted along the street at 25' intervals	NO
Architectural and accent is on structures and will be off between 11-5	YES	Trees are 3-5" caliper iron	YES
Suilen lighting is provided on structures	YES	Plant material here are installed	YES
Light fixtures are modern, human-oriented and imaginative	YES	1 foundation landscaping is provided at building setbacks	YES
Color lights are not incorporated into plan	YES	Shrubs planted at a max of 2'6" on center	YES
Lighting at crosswalks is maximized	NO		
STREETSCAPE			
Licensed Landscape Architect prepared streetscape	YES		
UTILITIES			
Streetscape and facade were designed to indicate clear zones of entry to building	YES		
Path from street to building is clear and welcoming	YES		

5	REVISED PER PROFESSIONAL COMMENTS	8/20/2020	AH4
4	REVISED PER REVIEW COMMENTS	8/5/2020	AH4
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/10/2020	JMP
2	REVISED FOR SESC SUBMISSION	6/18/2020	AH4
1	REVISED FOR PRELIMINARY SUBMISSION	5/28/2020	AH4
REVISION	DESCRIPTION	DATE	BY

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LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006
SOUTH ORANGE AVENUE REDEVELOPMENT
VILLAGE OF SOUTH ORANGE
ESSEX COUNTY, NEW JERSEY

TITLE SHEET



J. MICHAEL PETRY-PE,PP,RA
M. PROFESSIONAL ENGINEER LIC. No. 36662 DATED: 04/29/2020

By: JPM
 Date: 11/11/2011
 No.: 19-0078
 IS NOTED
 SP-1

ADDRESS		PROPERTY (OWNER)		APPLICANT		REMARKS	
ZONING DISTRICT		ADDRESS		NAME		REMARKS	
ZONING DISTRICT		ADDRESS		NAME		REMARKS	
1005	17 TAYLOR PLACE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1006	84 SCOTLAND ROAD	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1007	55 SCOTLAND ROAD	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1008	40 VOON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1009	50 VOON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1010	60 VOON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1011	50 TAYLOR PLACE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1012	40 TAYLOR PLACE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1013	60 TAYLOR PLACE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1014	13 SCOTLAND ROAD	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1015	9-11 SCOTLAND ROAD	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1016	78 SOUTH CANNON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1017	71 SOUTH CANNON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1018	47-49 SOUTH CANNON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1019	63 SOUTH CANNON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1020	59 SOUTH CANNON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1021	57 SOUTH CANNON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				
1022	53 SOUTH CANNON AVENUE	154	CONTRACTOR OF SOUTH CANNONVILLE VILLAGE				

[illegible]

CHINA DISTRICT	ADDRESS	BRANCH	LISTING	APPLICANT	LANDFILL	DATE	ISSN
1589	31 VONNE AVENUE	15C	UNITED STATES POST OFFICE 21 VONNE AVENUE				
1912	10 VILLAGE FLORA	5A	VILLAGE FLORA BOWLING MILLERS 95 LANCASTER DRIVE			07079	
1912	50 SOUTH CHANDLER AVENUE	4A	VILLAGE FLORA BOWLING MILLERS 95 LANCASTER DRIVE			07078	
1912	VILLAGE FLORA	15C	SPORTS OF 90 SOUTH CHANDLER 90 CHANDLER, MI			07079	
2032	76 SOUTH CHANDLER AVENUE	6A	SOUTH CHANDLER SHOPPING, LLC 76 SOUTH CHANDLER AVENUE SOUTH CHANDLER, MI 48183			07078	
2092	66 SOUTH CHANDLER AVENUE	15C	KORSHEN'S OF SOUTH CHANDLER VILLAGE HILLS SOUTH CHANDLER, MI 48183			07079	

UTILITIES

1. **Now Jersey American Water**
167 John F. Kennedy Pkwy – Bldg A
Short Hills, New Jersey 07078
2. **Public Service Electric & Gas Co.**
Manager – Corporate Properties
80 Park Place, T8B
Newark, New Jersey 07102
3. **Verizon**
540 Broad Street
Newark, New Jersey 07101
4. **CABLEVISION**
186 West Mark Street
Newark, New Jersey 07103

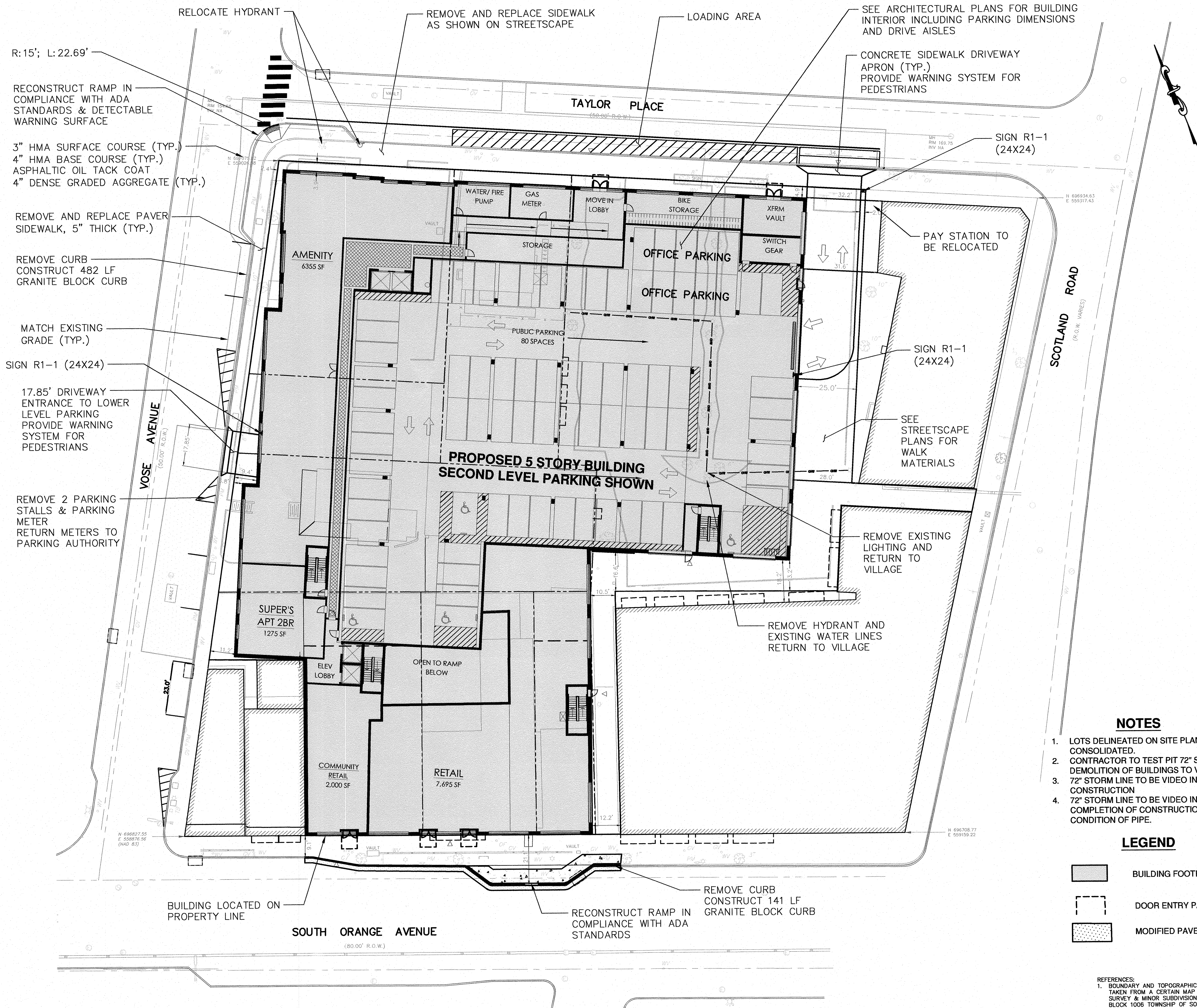
LIST OF APPROVALS REQUIRED:

1. ESSEX COUNTY SITE PLAN APPROVAL
2. SOIL EROSION AND SEDIMENT CONTROL
3. NJDEP DIVISION OF WATER QUALITY APPROVAL
4. NJDEP TREATMENT WORKS APPROVAL

LIST OF DRAWINGS		
SHEET NO.	NAME	PREPARED BY
SP-1	TITLE SHEET	PETRY ENGINEERING, LLP
SP-2	LAYOUT PLAN	PETRY ENGINEERING, LLP
SP-2A	DEMOLITION PLAN	PETRY ENGINEERING, LLP
SP-3	GRADING AND DRAINAGE PLAN SHOWING CURBS, LEVEL, PAVING	PETRY ENGINEERING, LLP
SP-4	GRADING OF SECOND FLOOR PARKING	PETRY ENGINEERING, LLP
SP-4A	DETAILED GRADING PLAN	PETRY ENGINEERING, LLP
SP-5	SOIL EROSION SEDIMENT CONTROL PLAN	PETRY ENGINEERING, LLP
SP-6	SOIL EROSION SEDIMENT CONTROL DETAILS	PETRY ENGINEERING, LLP
SP-7	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLP
SP-8	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLP
SP-9	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLP
SP-10	CONSTRUCTION DETAILS	PETRY ENGINEERING, LLP
C1 - A10	ARCHITECTURAL PLANS	MARCHETTO/HIGGINS STONE
L-001 - L-503	LANDSCAPING PLANS	ARTERIAL, LLC

1. SITE PLAN OF VOSE APTS. URBAN RENEWAL.
 LOTS 1,2,3,9,10,11,13,14 BLOCK 1006 ZONE: VOSE+ TAYLOR REDEVELOPMENT PLAN
 DATE: AUGUST 5, 2020 SCALE: AS NOTED
 APPLICANT: VOSE APTS. JRBAN RENEWAL, LLC
 2. I CONSENT TO THE FILING OF THIS SITE PLAN WITH THE PLANNING BOARD OF VOSE APTS. URBAN RENEWAL, LLC
 ADDRESS: 447 NORTHFIELD AVENUE, SUITE 200 WEST ORANGE NJ 07052
 PHONE: 973-731-2600
 DATE: AUGUST 5, 2020
 3. I HEREBY CERTIFY THAT I HAVE PREPARED THIS SITE PLAN AND THAT ALL DIMENSIONS AND INFORMATION ARE CORRECT
 NAME: J. MICHAEL PETRY
 ADDRESS: 155 PASSAIC AVENUE FAIRFIELD NJ 07004
 TITLE & LICENSE: PROJECT ENGINEER, 35852
 4. I HAVE REVIEWED THIS SITE PLAN AND CERTIFY THAT IT MEETS ALL CODES AND ORDINANCES UNDER MY JURISDICTION.
 _____ (DATE) _____
 (VILLAGE ENGINEER)
 5. I HEREBY CERTIFY THAT ALL THE REQUIRED IMPROVEMENTS HAVE BEEN INSTALLED OR A BOND POSTED IN COMPLIANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
 (IF IMPROVEMENTS INSTALLED)
 _____ (DATE) _____
 (VILLAGE ENGINEER)
 (IF BOND POSTED)
 _____ (DATE) _____
 (VILLAGE CLERK) BUILDING PERMIT ISSUED
 6. APPROVED BY THE PLANNING BOARD
 PRELIMINARY _____ FINAL _____
 (CHAIRMAN) (DATE)

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.



- NOTES:**
- 1.) UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE PLOTTED USING FIELD DATA, UTILITY MARKINGS AND/OR RECORDS FURNISHED BY VARIOUS AGENCIES. PETRY ENGINEERING, LLC MAKES NO GUARANTEES, EXPRESS OR IMPLIED, REGARDING THE UTILITY LOCATIONS AS PLOTTED ON THIS PLAN. THIS PLAN DOES NOT IMPLY THAT NO OTHER UTILITIES MAY BE PRESENT ON THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY GROUND DISTURBANCE.
 - 2.) AT EXISTING DRIVEWAY APRONS TO BE ABANDONED, EXISTING APRONS AND DEPRESSED CURBS SHALL BE REMOVED. NEW CONCRETE SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CONCRETE SIDEWALK DETAIL" AND THE DEPRESSED CURBS SHALL BE REPLACED WITH NEW GRANITE BLOCK CURB, NEW CURBS SHALL MATCH EXISTING CURBS.
 - 3.) SEE MEP PLAN FOR ROOF LEADERS SHALL BE CONNECTED TO THE STORM SEWER DETENTION SYSTEM.

NOTES

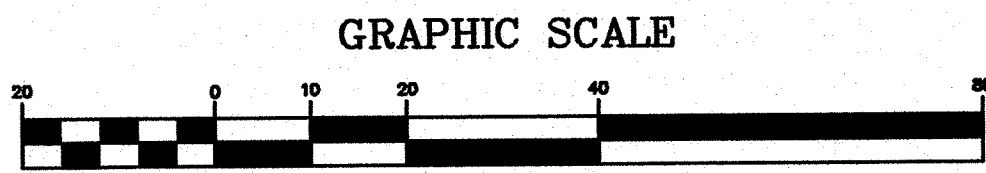
1. LOTS DELINEATED ON SITE PLAN TO BE CONSOLIDATED.
2. CONTRACTOR TO TEST PIT 72" STORM PIPE AFTER DEMOLITION OF BUILDINGS TO VERIFY LOCATION.
3. 72" STORM LINE TO BE VIDEO INSPECTED PRIOR TO CONSTRUCTION
4. 72" STORM LINE TO BE VIDEO INSPECTED UPON COMPLETION OF CONSTRUCTION TO VERIFY CONDITION OF PIPE.

LEGEND

- BUILDING FOOTPRINT
- DOOR ENTRY PAD
- MODIFIED PAVEMENT AREA

REFERENCES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006, TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.L.S.# 37605 DATED 08/04/20.
2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/16/2020.



4	REVISED PER REVIEW COMMENTS	8/5/2020	AHH
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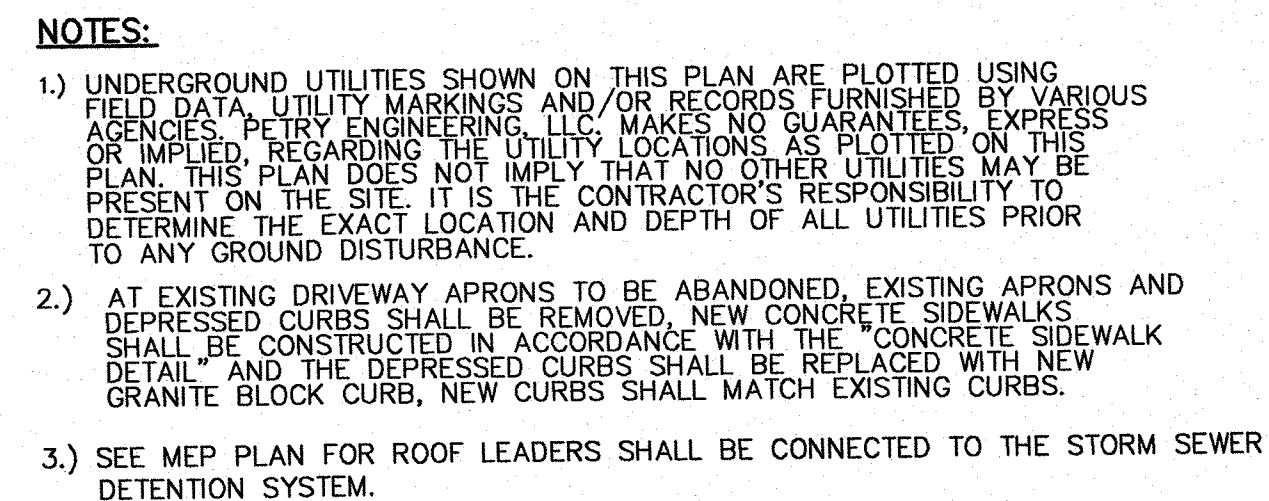
LAYOUT SHEET



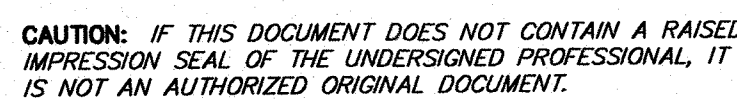
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. No. 36662
DATED: 04/29/2020

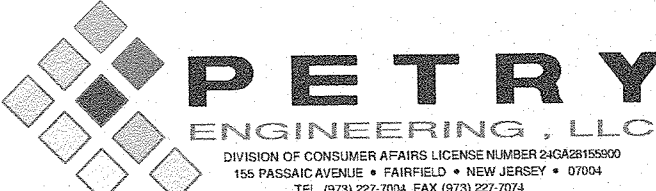

Designer: JMP
Draftsman: AHH
Checked By: JMP
Project No.: 19-0078
Scale: 1:20
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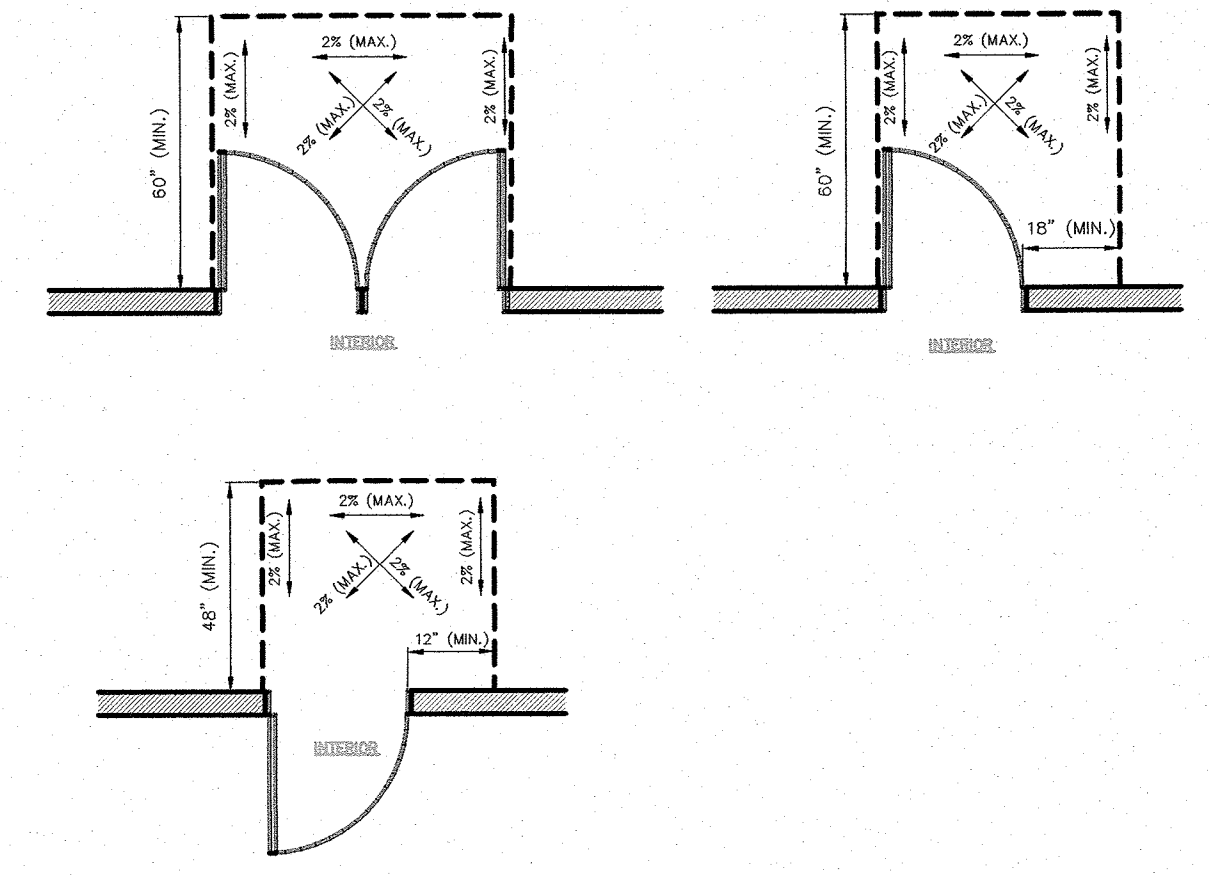
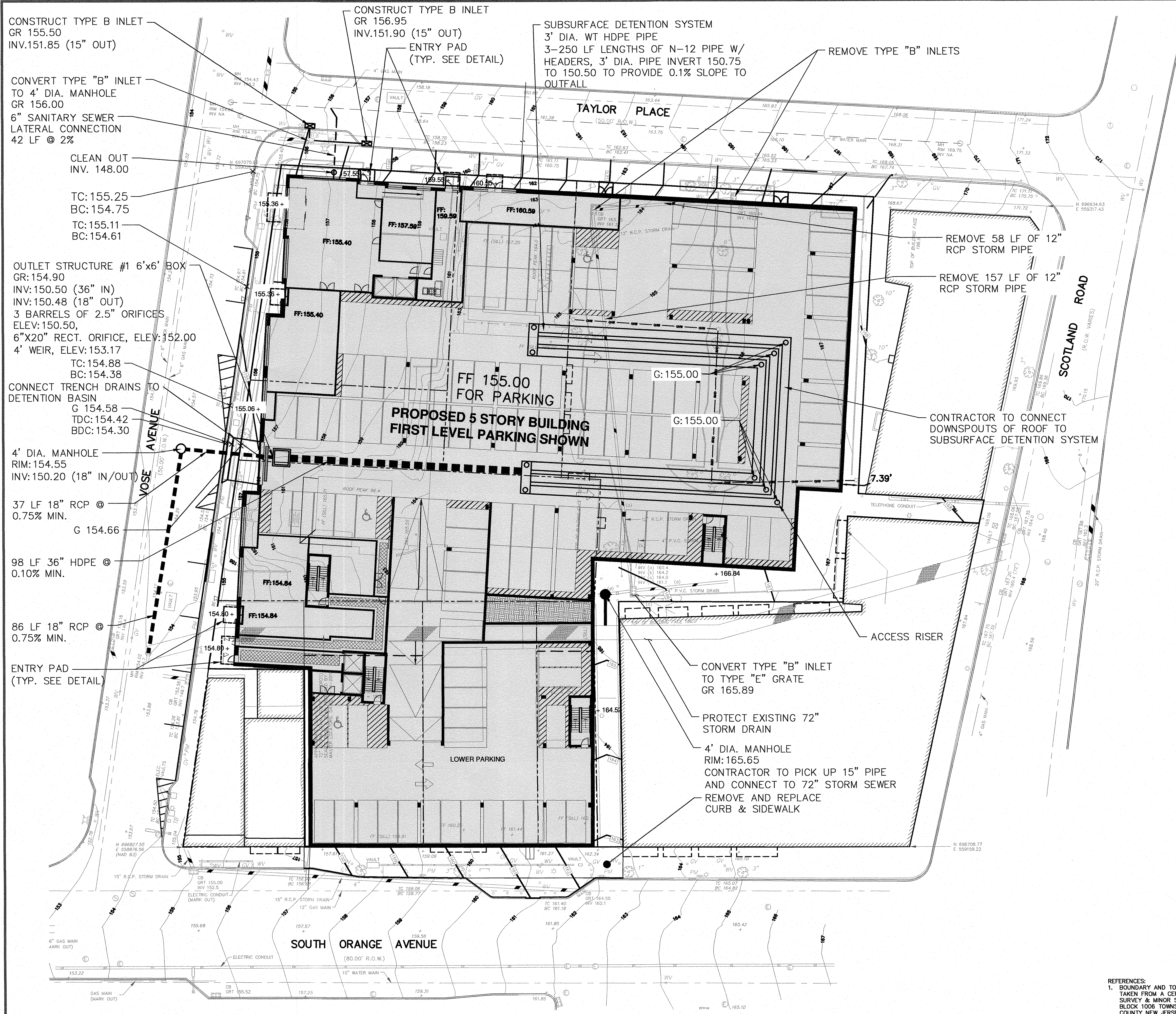
CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.



- 1) THE LOCATION OF EXISTING SUBSTRUCTURES AND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON FIELD OBSERVATIONS OF SURFACE EVIDENCE AND CERTAIN INFORMATION CONTAINED IN THE PUBLIC RECORD, AND RECORD DATA PROVIDED BY OWNER. THIS PLAN IN NO WAY REPRESENTS ANY GUARANTEE, EXPRESS OR IMPLIED, AS TO THE ACCURACY OF THESE PLOTTED LOCATIONS. ADDITIONALLY, THIS PLAN MAKES NO GUARANTEE THAT UTILITIES AND OTHER SUBSURFACE UTILITIES AND OTHER SUBSURFACE STRUCTURES SHOWN ON THIS PLAN ARE THE ONLY SUBSURFACE STRUCTURES WHICH MAY BE ENCOUNTERED DURING THE DEMOLITION OR SUBSEQUENT CONSTRUCTION ASSOCIATED WITH THIS OR ANY OTHER PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ANY SUPPLEMENTAL OR VERIFYING INVESTIGATIONS RELATED TO THE LOCATION, SIZE AND NATURE OF UNDERGROUND STRUCTURES WHICH MAY IMPACT THE WORK ON OR NEAR THIS SITE.
- 2) DISCONNECTION OF EXISTING UTILITY SERVICES SHALL BE COORDINATED WITH OWNER AND IN ACCORDANCE WITH THE REGULATIONS OF THE UTILITY AUTHORITY CONCERNED. THE CONTRACTOR WILL PROVIDE THE OWNER WITH WRITTEN CONFIRMATION FROM UTILITY COMPANIES THAT ALL SERVICE TO THE SITE HAS BEEN TERMINATED PRIOR TO THE CAPPING, ABANDONMENT, OR REMOVAL OF ANY SUCH UTILITIES.
- 3) EXISTING BUILDINGS, STRUCTURES, CURBS, UTILITIES, SIGNS, LANDSCAPING AND ANY OTHER IMPROVEMENTS NOT DESIGNATED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE. SHOULD DAMAGES OCCUR, THE OWNER SHALL BE NOTIFIED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- 4) ALL CONCRETE SLABS, FLOORS, BARRIERS, CURBS AND SIDEWALKS DESIGNATED FOR DEMOLITION SHALL BE COMPLETELY REMOVED FROM THE SITE.
- 5) WALLS, BEAMS, COLUMNS, FLOORS, SLABS, PAVEMENTS, RAMPS, FOOTINGS AND ALL OTHER BUILDING COMPONENTS OR APPURTENANCES DESIGNATED FOR REMOVAL SHALL BE COMPLETELY REMOVED FROM THE SITE. THE RESULTING DEPRESSIONS SHALL BE FILLED AND COMPACTED AS DIRECTED, USING ONLY SUITABLE MATERIAL FROM ON-SITE OR APPROVED MATERIAL FROM OFF-SITE. NO DEBRIS FROM DEMOLITION OR OTHER UNSUITABLE MATERIAL SHALL BE USED. IN SPECIAL CASES, DEEP SEATED CONCRETE OR MASONRY STRUCTURES WHICH WILL NOT INTERFERE WITH SUBSEQUENT CONSTRUCTION MAY REMAIN IN PLACE IF SO APPROVED BY THE OWNER'S ENGINEER.
- 6) FOLLOWING THE DEMOLITION AND REMOVAL OF ALL IMPROVEMENTS SO DESIGNATED, THE DISTURBED AREA SHALL BE GRADED, AS DIRECTED BY THE OWNER'S ENGINEER, SO THAT THE RESULTING LANDFORM WILL NOT ALLOW FOR PONDING OR THE FORMATION OF GULLIES RESULTING FROM STORMWATER RUN-OFF.
- 7) CONTRACTOR SHALL SECURE ALL PERMITS REQUIRED FOR THE WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL MATERIAL.
- 8) CONTRACTOR TO COORDINATE REMOVAL OF ANY EXISTING SITE LIGHTING WITH THE APPROPRIATE UTILITY COMPANY. LIGHT POLES SHALL BE REMOVED AND DISPOSED OF AS REQUIRED.
- 9) AT EXISTING DRIVEWAY APRONS TO BE ABANDONED, EXISTING APRONS AND DEPRESSED CURBS SHALL BE REMOVED, NEW CONCRETE SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "CONCRETE SIDEWALKS DETAIL" AND THE DEPRESSED CURBS SHALL BE REPLACED WITH NEW GRANITE BLOCK CURB, NEW CURBS SHALL MATCH EXISTING CURBS.



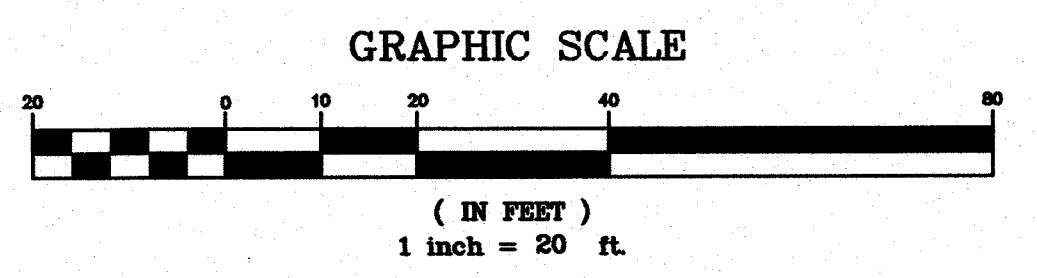
REVISION	DESCRIPTION	DATE	BY
<p>PREPARED FOR</p> <p>VOSE APTS. URBAN RENEWAL, LLC</p> <p>LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 SOUTH ORANGE AVENUE REDEVELOPMENT VILLAGE OF SOUTH ORANGE ESSEX COUNTY, NEW JERSEY</p>			
<p>DEMOLITION PLAN</p>			
 <p>PETRY ENGINEERING, LLC DIVISION OF CONSUMERS AFFAIRS LICENSE NUMBER 000490009 150 PARKWAY AVE. FARMFIELD, CT 06424 TEL. (878) 227-1024 FAX (878) 227-1014</p>			Designer: JMP Draftsman: ANH Checked by: JMP Project No.: 19-0078
 <p>J. MICHAEL PETRY-PE,PP,RA</p> <p>J.P. PROFESSIONAL ENGINEER, INC. No. 36562</p>			Scale: 1:20 Sheet: <p>SP-2A</p>
DATED: 08/20/2020			



DOOR ENTRY PAD DETAIL
(SIZE AND SLOPE MIN/MAX)
N.T.S.

LEGEND

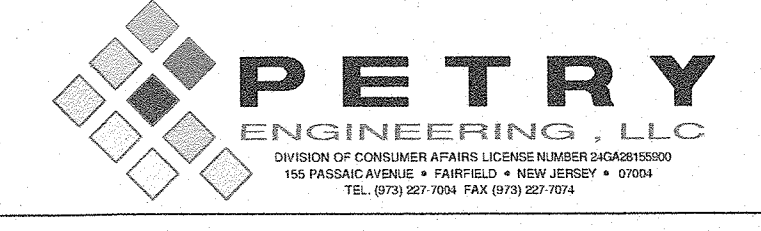
- BUILDING FOOTPRINT
- DOOR ENTRY PAD



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4	REVISED PER REVIEW COMMENTS	6/5/2020	AHH
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GRADING, DRAINAGE & UTILITY PLAN

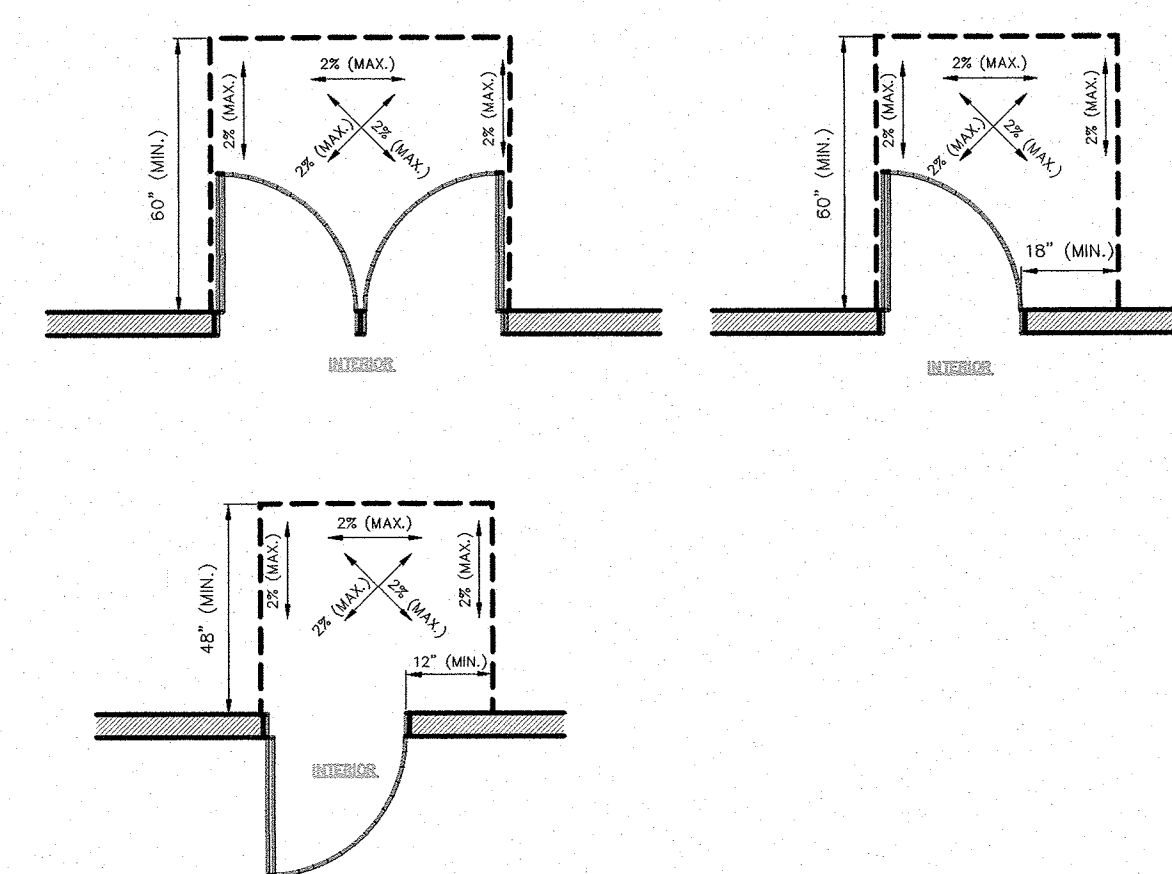
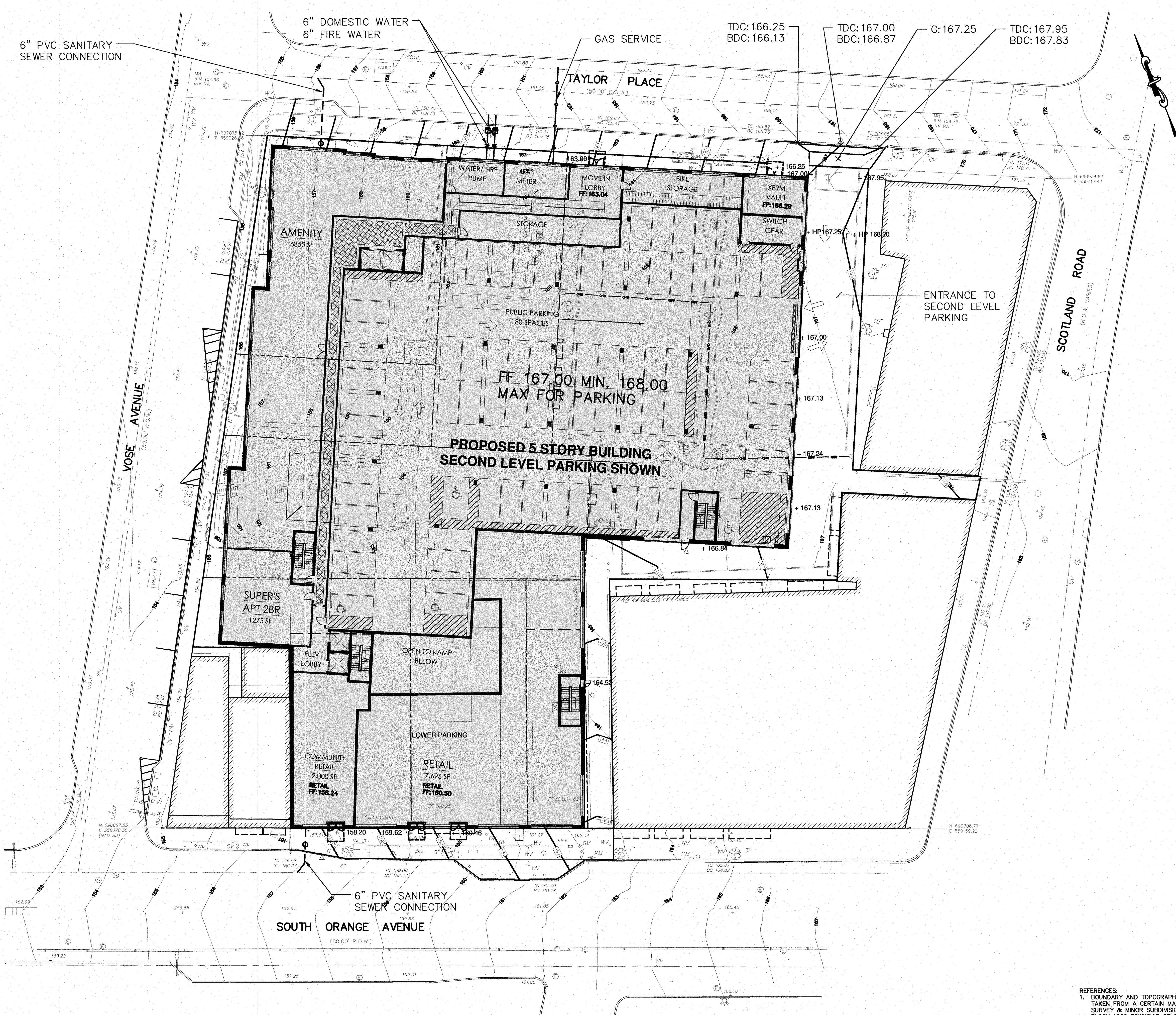


J. MICHAEL PETRY-PE, PP, RA
NJ PROFESSIONAL ENGINEER LIC. NO. 36662 DATED: 04/29/2020

Designer: JMP
Draftsman: AHH
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Project No.: 19-0078
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SP-3

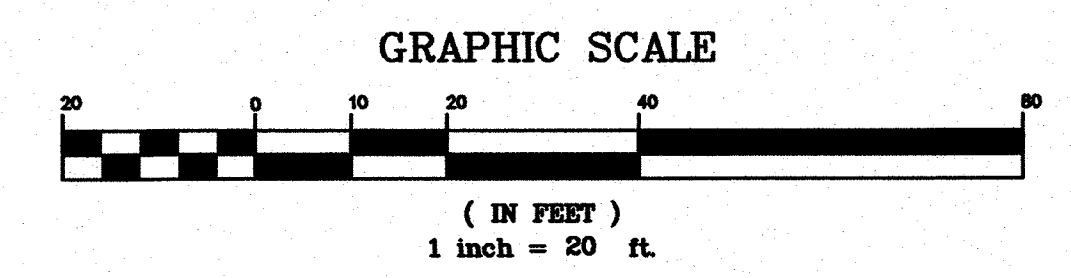
REFERENCES:
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.L.S.# 37605 DATED 08/04/20.
2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/06/2020.

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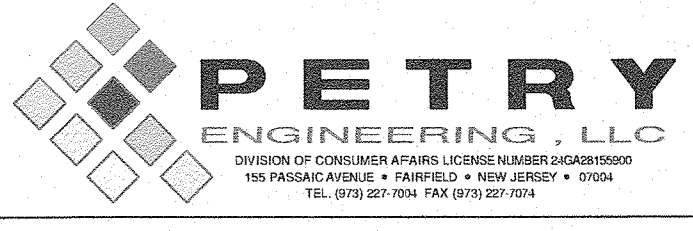

DOOR ENTRY PAD DETAIL
(SIZE AND SLOPE MIN/MAX)
N.T.S.

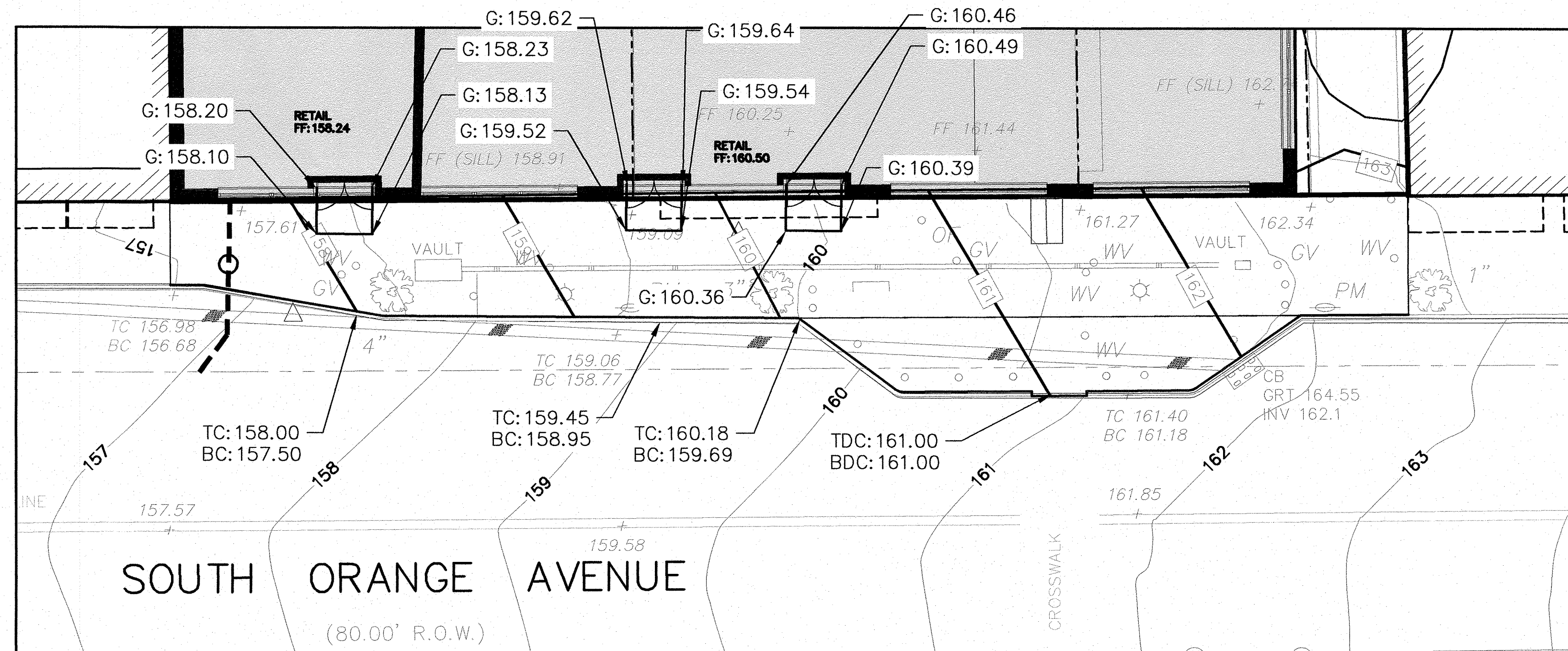
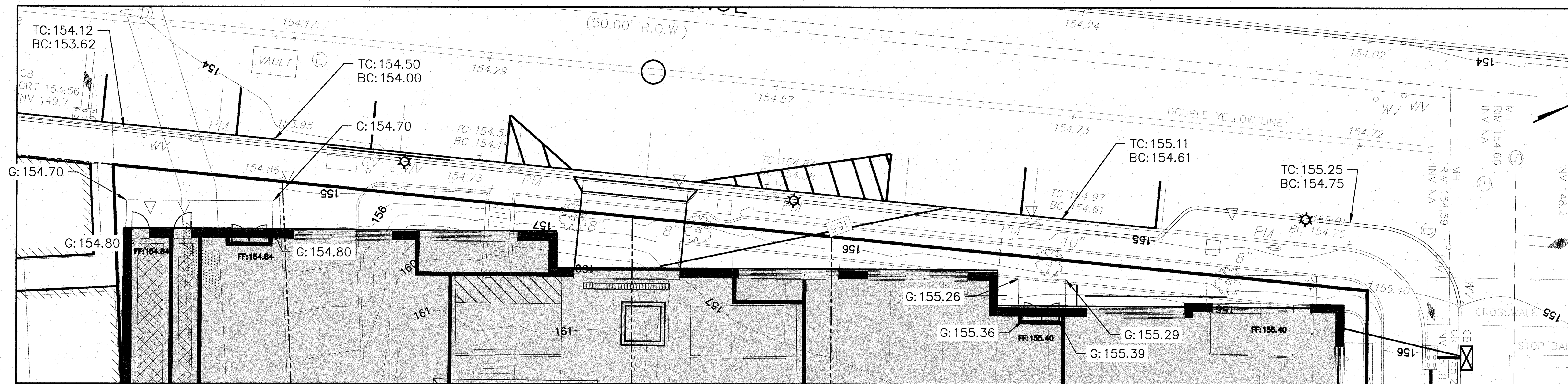
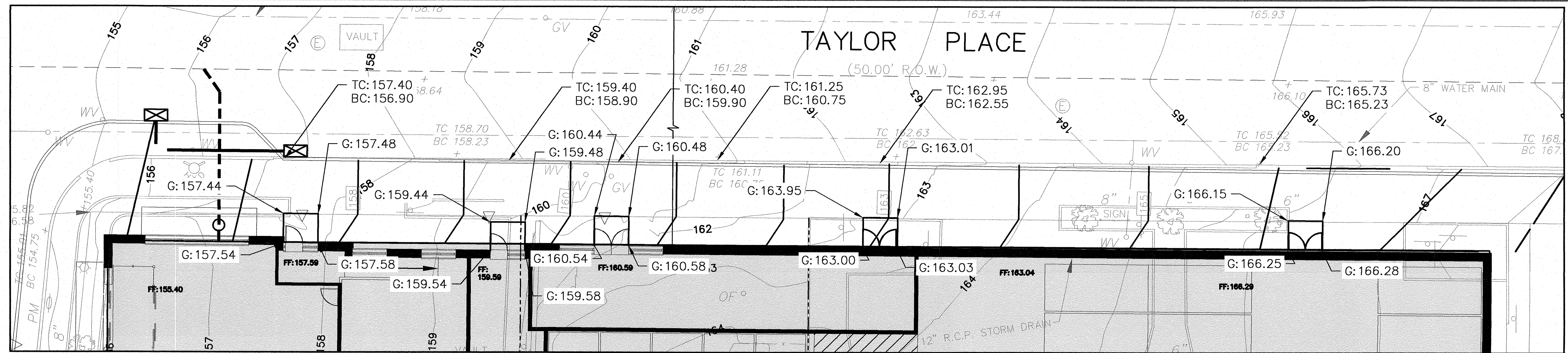
- LEGEND**
- BUILDING FOOTPRINT
 - DOOR ENTRY PAD TO BE UTILIZED AT EACH ENTRANCE



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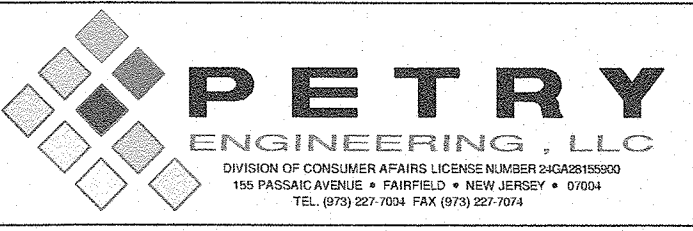
REFERENCES:
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.S.# 37605 DATED 08/04/20.
2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/06/2020.

REVISION	DESCRIPTION	DATE	BY
PREPARED FOR VOSE APTS. URBAN RENEWAL, LLC LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 SOUTH ORANGE AVENUE REDEVELOPMENT VILLAGE OF SOUTH ORANGE ESSEX COUNTY, NEW JERSEY			
GRADING OF SECOND FLOOR PARKING			
 DIVISION OF CONCRETE APARTMENTS LICENSE NUMBER 004800000 100 PARADISE AVENUE • FARMERS • NEW JERSEY • 07004 TEL: (973) 227-7004 FAX: (973) 227-7004		Designer: J.M.P. Draftsman: A.M.H. Checked By: J.M.P. Project No.: 19-0078 Scale: 1:20 Sheet:	
 J. MICHAEL PETRY-PE, PP, RA NJ PROFESSIONAL ENGINEER LIC. NO. 36692		DATED: 08/05/2020 SP-4	



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- REFERENCES:
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.S.J. 37605 DATED 08/04/20.
 2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/06/2020.

REVISION	DESCRIPTION	DATE	BY
PREPARED FOR VOSE APTS. URBAN RENEWAL, LLC LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 SOUTH ORANGE AVENUE REDEVELOPMENT VILLAGE OF SOUTH ORANGE ESSEX COUNTY, NEW JERSEY			
DETAILED GRADING PLAN			
 PETRY ENGINEERING, LLC <small>DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 360800000 100 PASSAIC AVENUE • FRANKFORD • NEW JERSEY • 07004 TEL: (973) 927-7554 FAX: (973) 927-7554</small>			Designer: JMP Draftsman: AHM Checked By: JMP Project No.: 19-0078 Scale: 1/20 Sheet:
J. MICHAEL PETRY-PE,PP,RA <small>NJ PROFESSIONAL ENGINEER LIC. NO. 36662</small>			SP-4A <small>DATED: 08/20/2020</small>

SOIL EROSION AND SEDIMENT CONTROL NOTES
(To be included on the signed erosion control plan sheet)

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 temporarily mulched, seeded or otherwise provided with vegetative cover as per Appendix A3. This temporary cover shall be maintained until such time whereby permanent stabilization is established.

3. **Seeding Dates:** The following seeding dates are recommended to best establish permanent vegetative cover within most locations in the HEPCSD: 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 Conservation District.

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. Fax - (862)333-4507 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 stabilization 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.

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 control bags.

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 1/2 - 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.**

TEMPORARY STABILIZATION

SOILS EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, SHALL BE SEEDING & HAY MULCHED AND STABILIZED WITH TEMPORARY VEGETATIVE COVER OR OTHER APPROVED.

- STREETS, DRIVEWAYS AND PARKING AREAS NOT SCHEDULED FOR PAVING WITHIN THE ALLOTTED TIME FRAME SHALL BE STABILIZED USING PAVEMENT SUBBASE COURSE. THIS SUBBASE COURSE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMINARY GRADING.
- ALL AREAS NOT SCHEDULED FOR PAVING SHALL RECEIVE A TEMPORARY SEEDING IMMEDIATELY FOLLOWING FOLLOWING ROUGH GRADING.
- APPLY FERTILIZER AT A RATE OF 500 LBS./ACRE OR 11 LBS./1,000 SF. OF 10-20-10 EQUIVALENT. APPLY LIME AT A RATE OF 2 TONS/ACRES.
- WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES UNTIL UNIFORM.
- TEMPORARY SEEDING WILL BE A MIX OF ANNUAL RYEGRASS OR PERENNIAL RYEGRASS AT A RATE OF 100 LBS./ACRE OR 1 LB./1,000 SF.
- UN-ROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS./1,000 SF).

PERMANENT STABILIZATION

- ALL AREAS NOT SCHEDULED FOR CONSTRUCTION OR LANDSCAPING TO BE STABILIZED USING SEED MIXTURE NO. 13 CONSISTING OF HARD FESCUE AND/OR CHEWING FESCUE AT A RATE OF 175 LBS./ACRE (4 LBS./1,000 SF), STRONG CREEPING RED FESCUE PERENNIAL RYEGRASS & KENTUCKY BLUEGRASS (BLEND), BOTH AT A RATE OF 45 LBS./ACRE (1LB/1000 SF)
- UNIFORMLY APPLY GROUND LIME AND FERTILIZER TO SPREAD TOPSOIL AT A RATE OF 500 LBS./ACRE OR 11 LBS./1,000 SF OF 10-10-10 EQUIVALENT.
- WORK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES UNTIL UNIFORM.
- REMOVE ALL SURFACE DEBRIS AND STONES 2 INCHES OR LARGER.
- UN-ROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT A RATE OF 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS./1,000 SF).
- INSPECT SEEDBED JUST BEFORE SEEDING IF TRAFFIC HAS LEFT THE SOIL COMPACTED. THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
- A DEPTH OF 5 INCHES OF TOPSOIL (FIRMED IN PLACE) IS REQUIRED FOR ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER.

SEQUENCE OF CONSTRUCTION

- INSTALL SEDIMENT FILTER FENCE. (DURATION: APPROX. 2 DAYS)
- CONSTRUCTION IN ACCORDANCE WITH ARCHITECTURAL AND CIVIL DESIGN PLANS (DURATION: APPROX. 2 YEARS)
- REMOVE AND REINSTALL FILTER FABRIC AS NEEDED TO ACCOMMODATE CONSTRUCTION SEQUENCING. (DURATION: APPROX. 1 DAY)
- FINAL GRADING AND STABILIZATION (DURATION: APPROX. 2 DAYS)
- UPON STABILIZATION OF ALL AREAS, REMOVE ALL SOIL EROSION DEVICES AND CLEAN ENTIRE DRAINAGE SYSTEM. (DURATION: APPROX. 1 DAY)

SOIL EROSION LEGEND

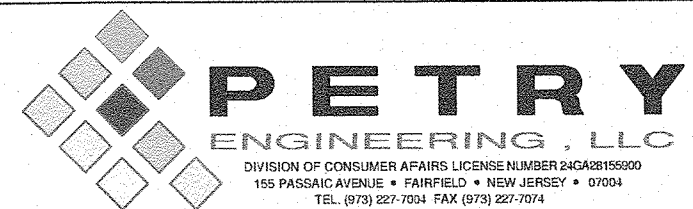
--- FILTER FABRIC FENCING & LIMIT OF DISTURBANCE

TOTAL AREA OF DISTURBANCE:
76,373 SQ.FT. OR 1.75± AC.

5	REVISED PER SEC SUB REVIEW COMMENTS	8/13/2020	AHH
4	REVISED PER REVIEW COMMENTS	8/5/2020	AHH
3	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
2	REVISED FOR SEC SUBMISSION	6/18/2020	AHH
1	REVISED FOR PRELIMINARY SUBMISSION	5/28/2020	AHH
REVISION	DESCRIPTION	DATE	BY

PREPARED FOR
VOSE APTS. URBAN RENEWAL, LLC
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006
SOUTH ORANGE AVENUE REDEVELOPMENT
VILLAGE OF SOUTH ORANGE
ESSEX COUNTY, NEW JERSEY

SOIL EROSION SEDIMENT CONTROL

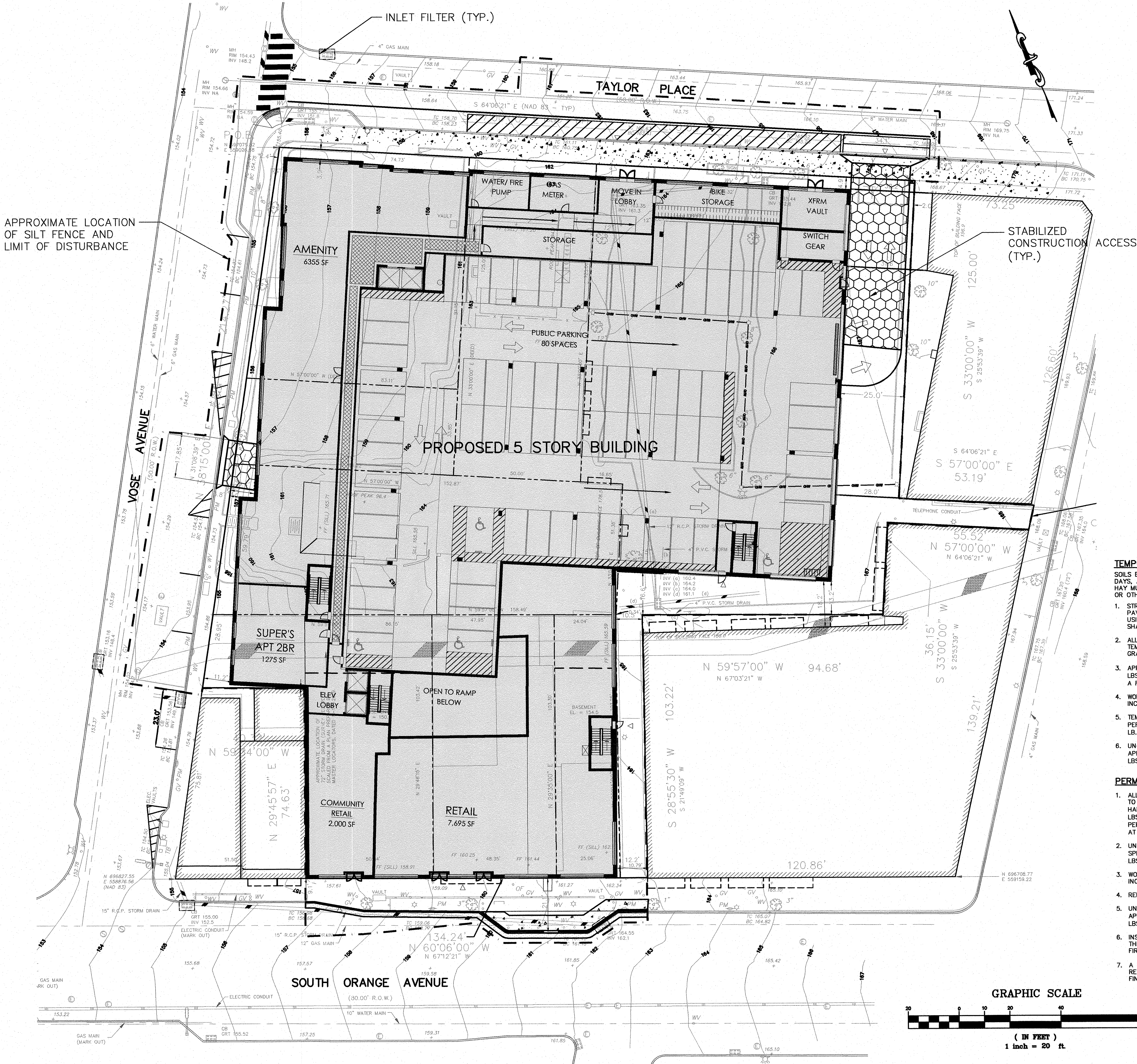


J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. NO. 36562
DATED: 04/29/2020

Designer: JMP
Draftsman: AHH
Checked By: JMP
Project No: 19-0078
Scale: 1:20
Sheet:
SP-5

REFERENCES:
1. BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A CERTAIN MAP ENTITLED TOPOGRAPHIC SURVEY & MINOR SUBDIVISION, FOR LOTS 1-3 & 9-17, BLOCK 1006 TOWNSHIP OF SOUTH ORANGE VILLAGE, ESSEX COUNTY NEW JERSEY SIGNED BY MICHAEL PRONESTI, N.J.S.# 37805 DATED 08/04/20.
2. ARCHITECTURAL INFORMATION TAKEN FROM PLANS FROM MARCHETTO HIGGINS STEVE ARCHITECTS DATED 08/06/2020.

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THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST

- | MATERIAL | WATER DILUTION | TYPE OF NOZZEL | APPLY GALLONS/ACRE |
|---|--|----------------|--------------------|
| ANIONIC ASPHALT EMULSION | 7:1 | COARSE SORAY | 1200 |
| LATEX EMULSION | 12.5:1 | FINE SPRAY | 235 |
| RESIN IN WATER | 4:1 | FINE SPRAY | 300 |
| POLYACRYLAMIDE (PAM) SPRAY ON/DRY SPRAY | APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1) | | |
| ACIDULATED SOY BEAN SOAP STICK | NONE | COARSE SPRAY | 1200 |



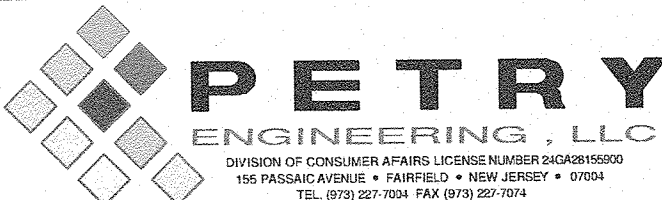

ANTI-TRACKING PAD DETAIL
SCALE N.T.S.

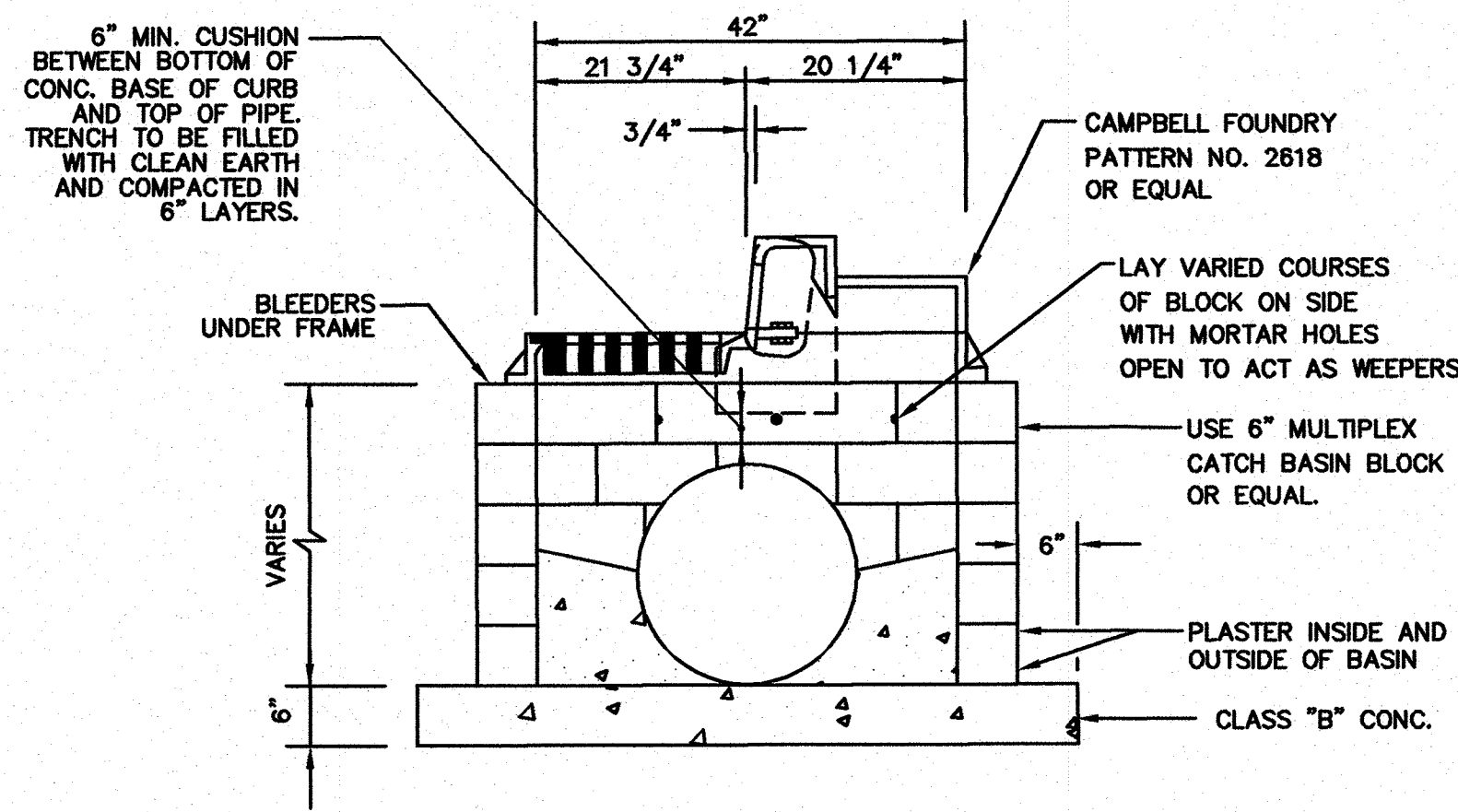


- SOIL COMPACTION EXEMPTION NOTE

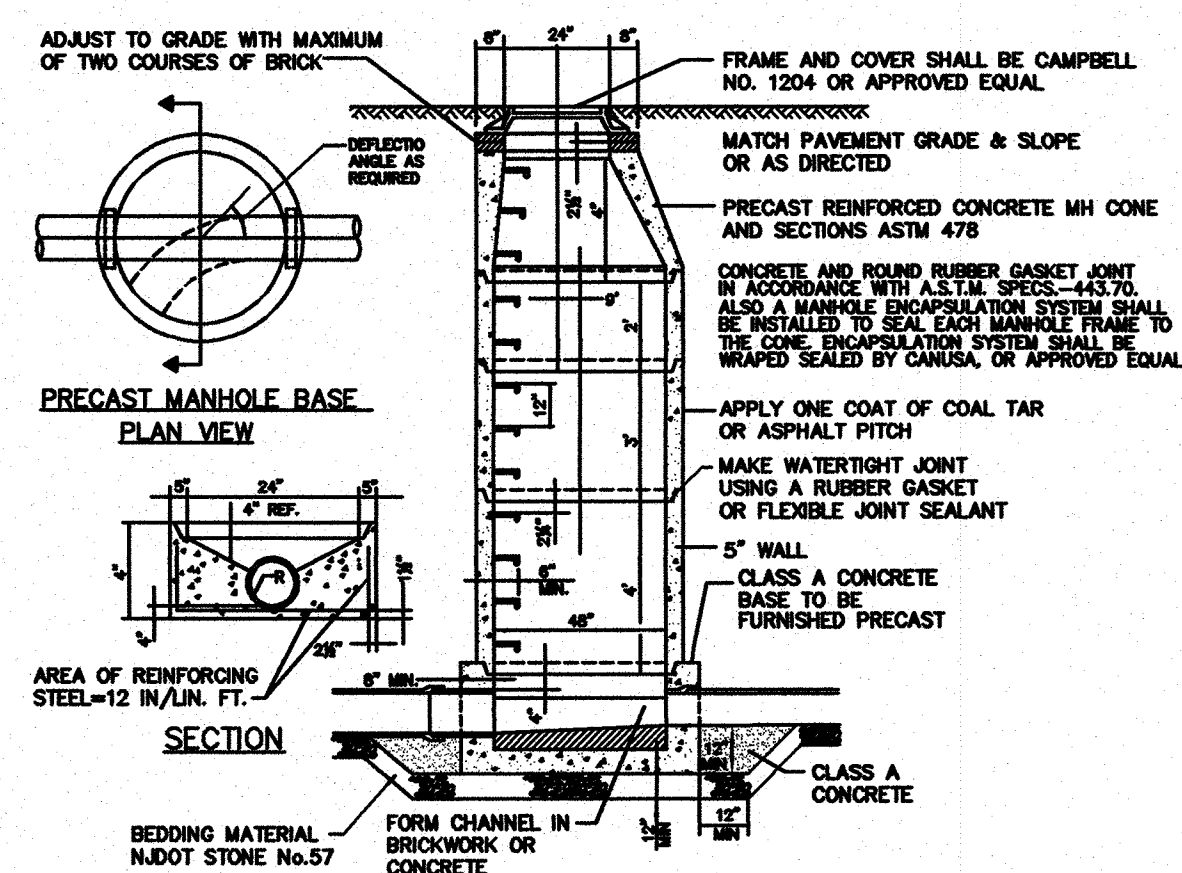
AS DETERMINED BY THE STATE POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PA1). UNDER EXISTING CONDITIONS, THE SITE IS NOT COVERED IN WOODY VEGETATION NOR REGROWTH. IN ACCORDANCE WITH NEW JERSEY STANDARD FOR LAND GRADING (REVISED 2017), NON WOODY VEGETATED PA1 AREAS FALL UNDER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

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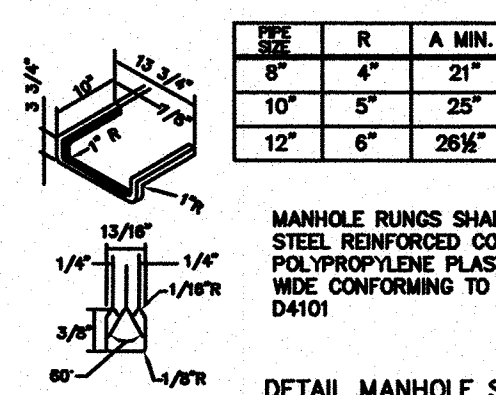
REVISION	DESCRIPTION	DATE	BY
<p>PREPARED FOR</p> <p>VOSE APTS. URBAN RENEWAL, LLC</p> <p>LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 SOUTH ORANGE AVENUE REDEVELOPMENT VILLAGE OF SOUTH ORANGE ESSEX COUNTY, SOUTH JERSEY</p>			
<p>SOIL EROSION SEDIMENT CONTROL DETAILS</p>			
			Designer: JMP Draftsman: AHH Checked By: JMP Project No.: 10-0078 Scale: 1:20 Sheet:
 J. MICHAEL PETRY-PE, PP, RA PROFESSIONAL ENGINEER, P.E. No. 348888 DATE: 06/16/2020			SP-6



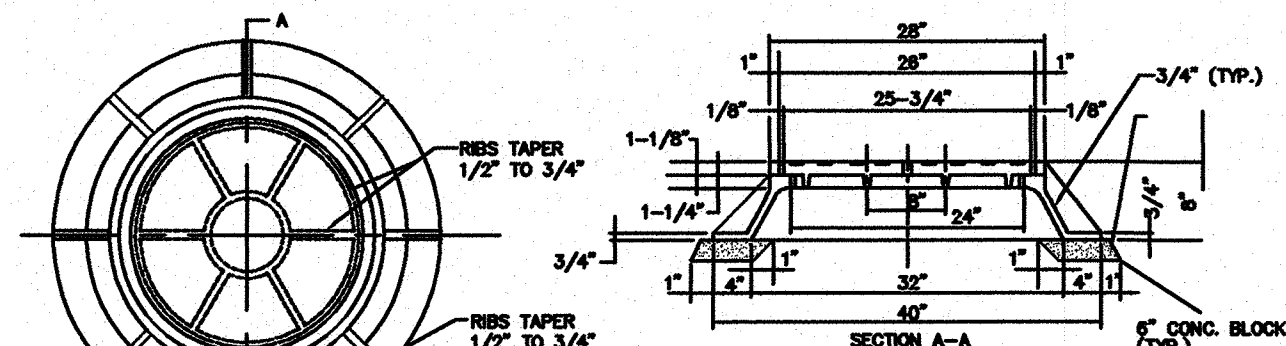
TYPE 'B' INLET DETAIL
(NOT TO SCALE)



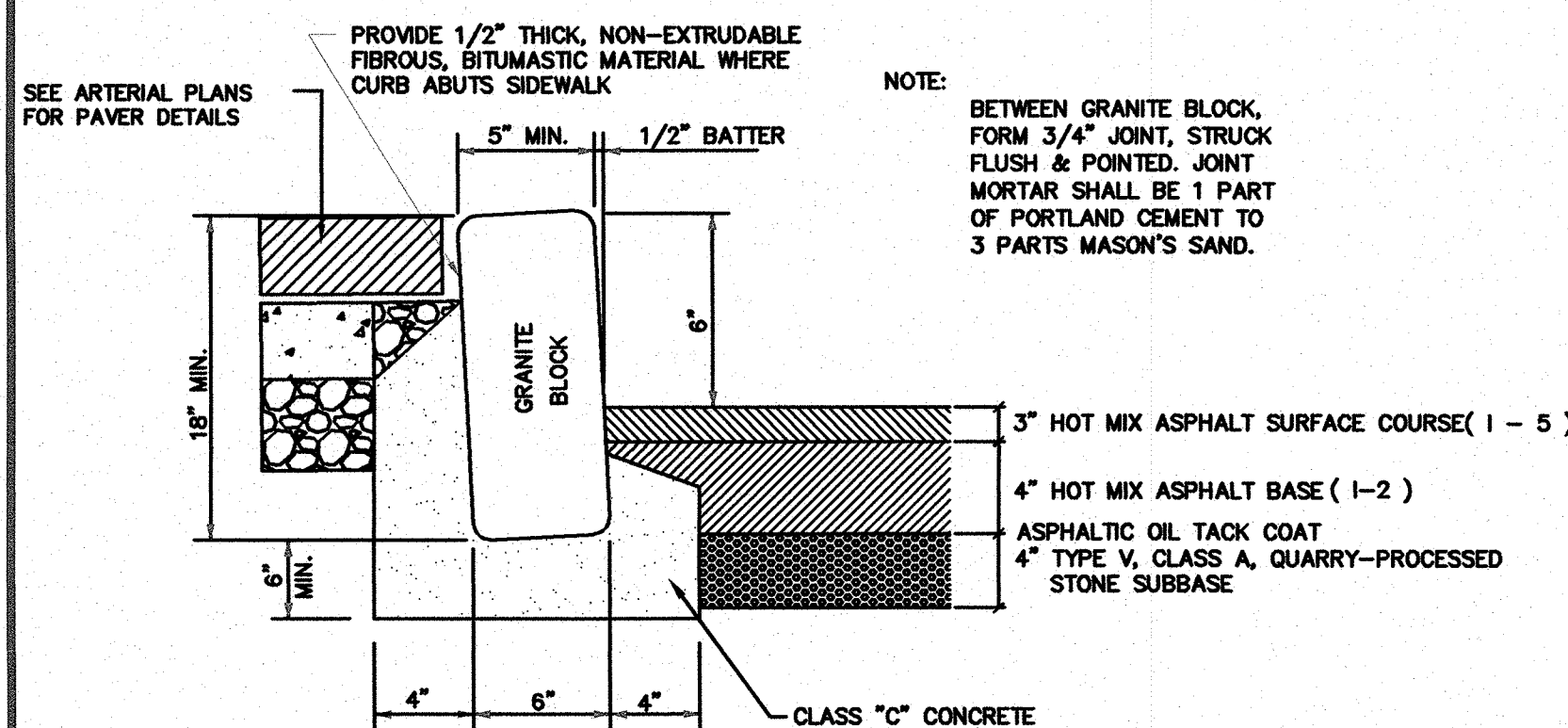
48" PRECAST CONCRETE MANHOLE



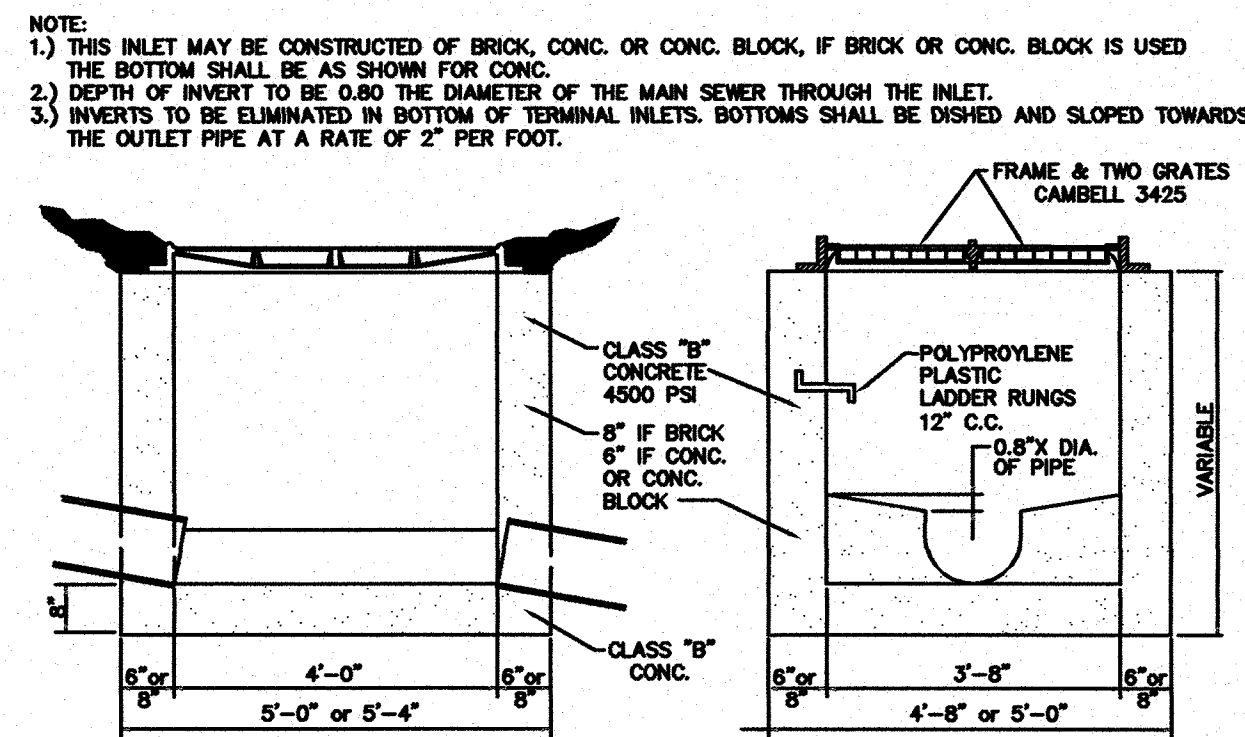
DETAIL MANHOLE STEP



STANDARD MANHOLE FRAME & COVER DETAIL
SCALE - NOT TO SCALE



GRANITE BLOCK CURB & PAVEMENT DETAIL
SCALE N.T.S.



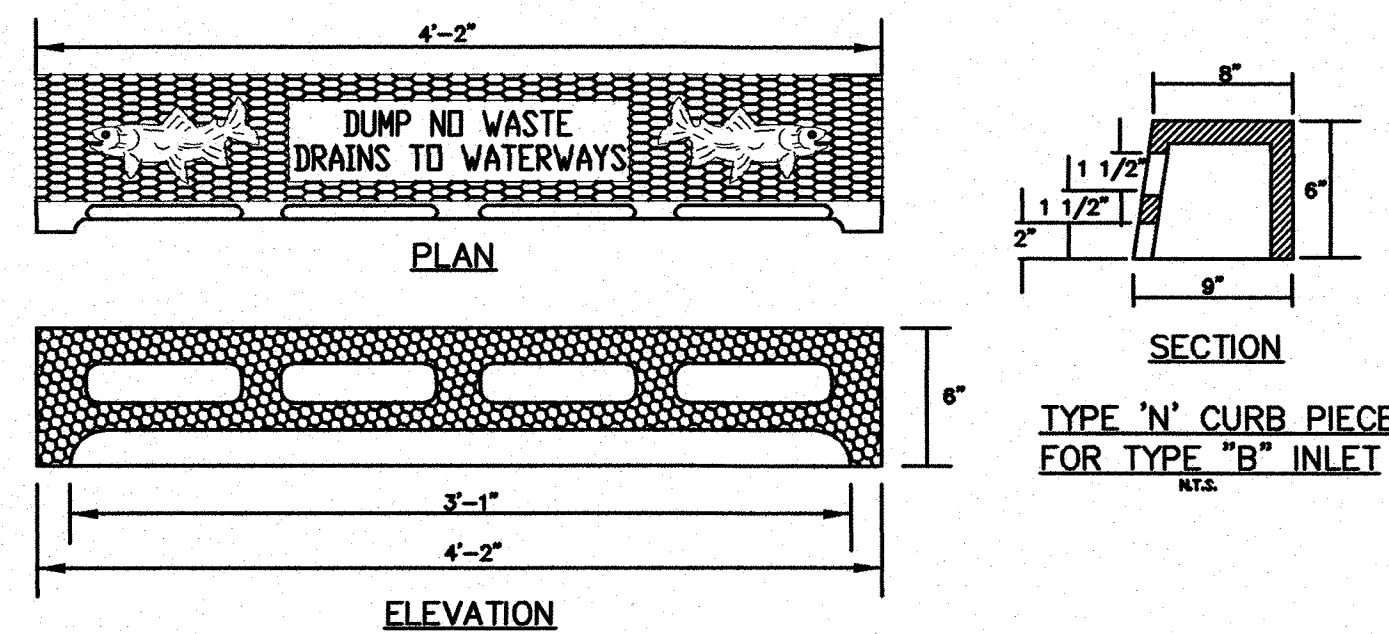
INLET TYPE "E" DETAIL
SCALE N.T.S.

- GENERAL NOTES**
- INLETS MAY BE CONSTRUCTED OF BRICK, CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. WALLS SHALL BE 8 INCHES THICK IF BRICK AND 6 INCHES THICK IF CONCRETE, CONCRETE BLOCK OR PRECAST CONCRETE. INLET FOUNDATIONS AND INVERTS SHALL BE CLASS B CONCRETE.
 - CORRELLING OF INLET WALLS WILL BE PERMITTED AT THE RATE OF 1/2 INCH PER 8 INCHES OF HEIGHT; MAXIMUM CORREL 6 INCHES PER WALL.
 - EXCEPT FOR INLETS TYPE A AND C, FOUNDATIONS AND INVERTS SHALL BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS SHALL BE 8 INCHES BELOW THE OUTER WALL OF THE LOWEST PIPE IN THE INLET.
 - WHEN THE DEPTH OF AN INLET THAT IS NOT PRECAST EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, WALLS BELOW A DEPTH OF 8 FEET SHALL BE 12 INCHES THICK AND THE DEPTH OF FOUNDATION INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
 - INLET FOUNDATIONS WHICH ARE PRECAST SHALL BE PLACED ON A 6 INCH THICK BED OF COMPACTED COARSE AGGREGATE SIZE NO. 57. THE COARSE AGGREGATE SHALL EXTEND 6 INCHES BEYOND THE HORIZONTAL LIMITS OF THE INLET FOUNDATION.
 - CASTINGS FOR PRECAST INLETS SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12 INCHES MAXIMUM.
 - WHEN THE DEPTH OF A PRECAST INLET EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION SHALL BE INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION SHALL NOT BE INCREASED.
 - MINIMUM WALL REINFORCEMENT FOR PRECAST INLETS TYPES A, B, C, E, D-1, D-2 AND B MODIFIED:

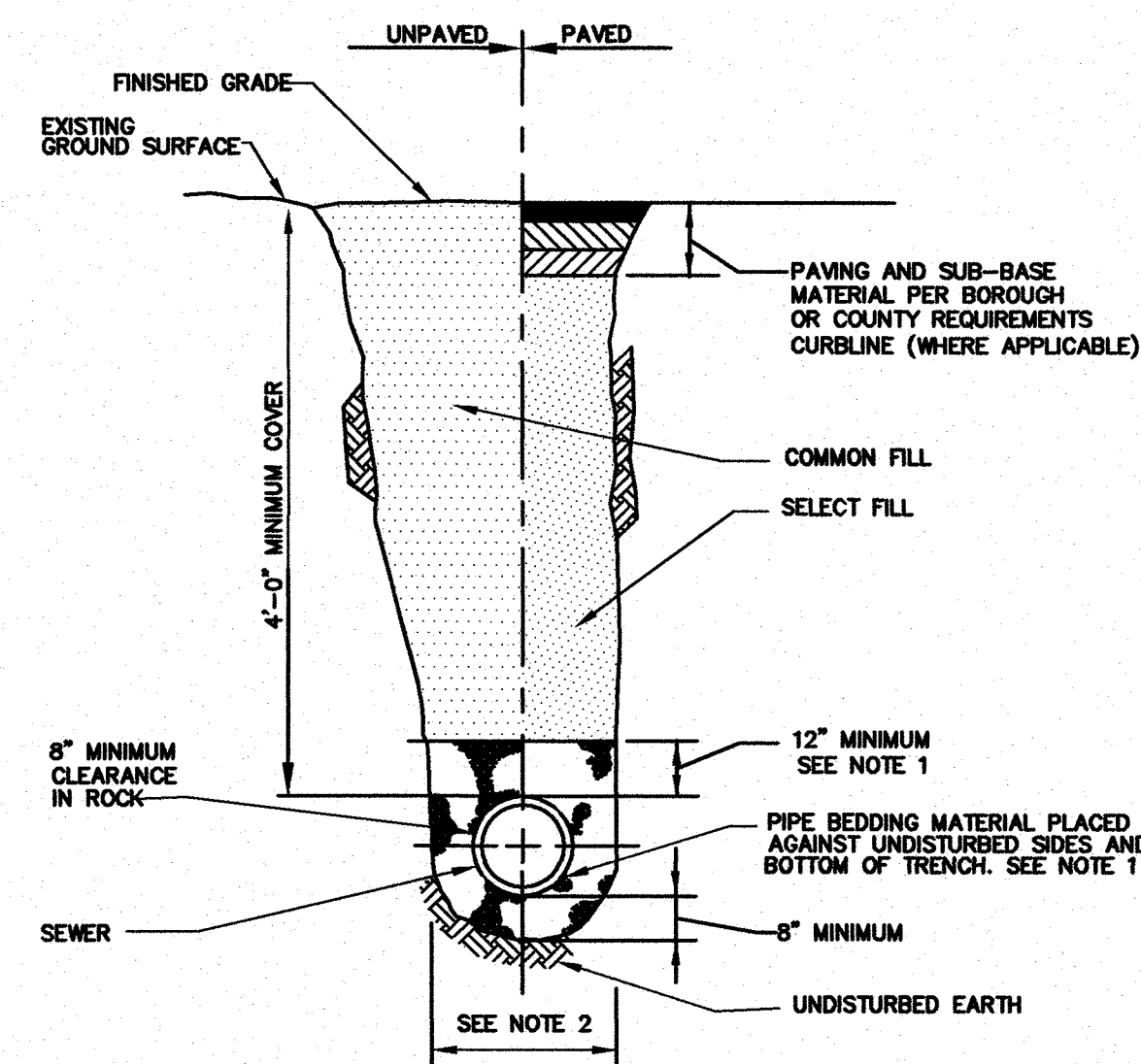
DEPTH BELOW TOP OF GRATE	HORIZONTAL REINF.	VERTICAL REINF.
0' TO 10'-0"	#13 @ 10' C.C.	#13 @ 18" C.C.
10'-1" TO 15'-0"	#13 @ 8' C.C.	#13 @ 18" C.C.
15'-1" TO 20'-0"	#13 @ 6' C.C.	#13 @ 18" C.C.

 REINFORCING SHOWN FOR PRECAST INLETS IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING FOR HANDLING IS THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALTERNATE REINFORCEMENT

DEPTH BELOW TOP OF GRATE	WIRE SPACING
0' TO 10'-0"	WVF 3 x 6 W6 WIRES SPACED AT 3" TO RUN HORIZONTAL IN ALL CASES.
10'-1" TO 15'-0"	WVF 3 x 6 W6 ADD #10 BAR @ 18" HORIZONTAL.
15'-1" TO 20'-0"	WVF 3 x 6 W6 ADD #10 BAR @ 9" HORIZONTAL OR ADD #13 BAR AT 15" HORIZONTAL.
 - ALL INLETS AND MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ITS AMENDMENTS.
 - FOR CAST IRON CLASS 308 ONLY. ANY OTHER CLASS OF CAST IRON OR TYPE OF MATERIAL MUST BE ON THE BUREAU OF MATERIALS APPROVED PRODUCTS LIST OR NEW TECHNOLOGIES AND PRODUCTS APPROVED PRODUCTS LIST.

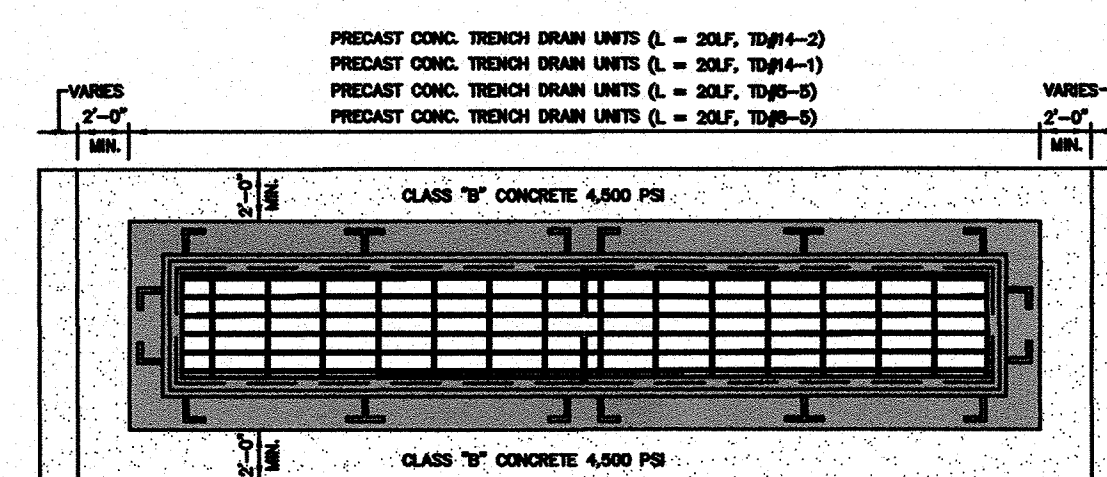


TRENCH DRAIN DETAIL
SCALE - N.T.S.

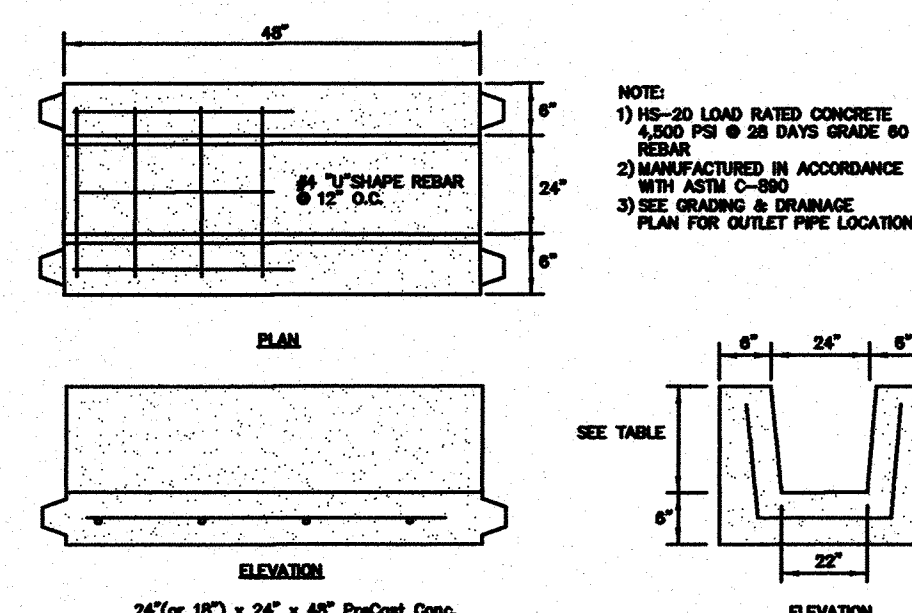


- NOTES:**
- FOR PIPES OTHER THAN PVC, SELECT FILL MAY BE USED FROM MID-DIAMETER OF PIPE TO 12" ABOVE TOP OF PIPE.
 - PIPE TRENCH WIDTH SHALL BE PIPE OD +2'-0" MAXIMUM FOR PIPES 12" AND LARGER, FOR PIPES LESS THAN 12", TOTAL PIPE TRENCH WIDTH SHALL BE 3'-0".
 - TRENCHES LOCATED ON ROAD SHOULDER SHALL BE TREATED THE SAME AS STREET EXCEPT FOR PAVING.
 - PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE OR EVERY 300 FT. WHICHEVER IS LESS.

TYPICAL TRENCH DETAIL FOR 6" PVC
SDR-35 SEWER PIPE
N.T.S.

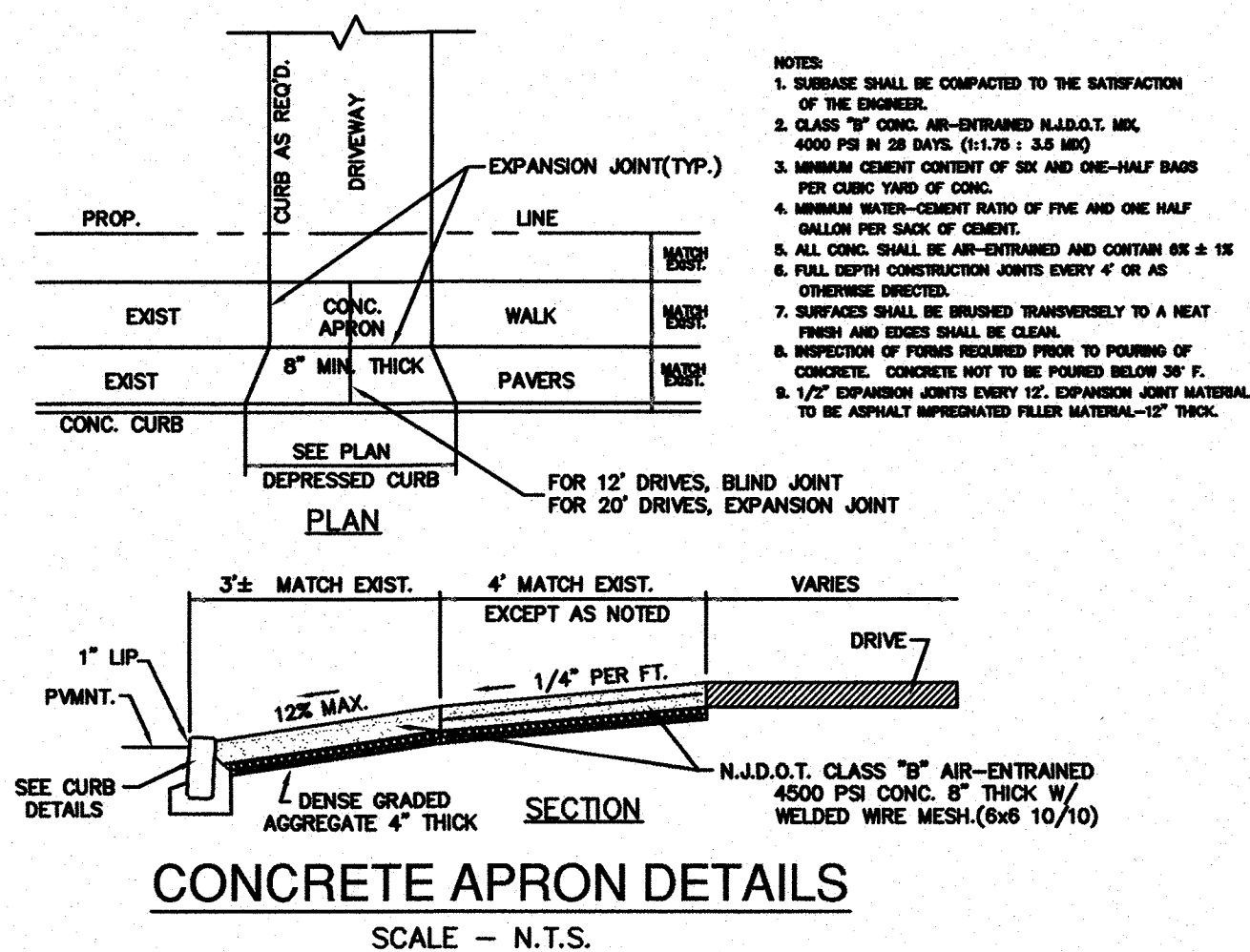


TRENCH DRAIN DETAIL
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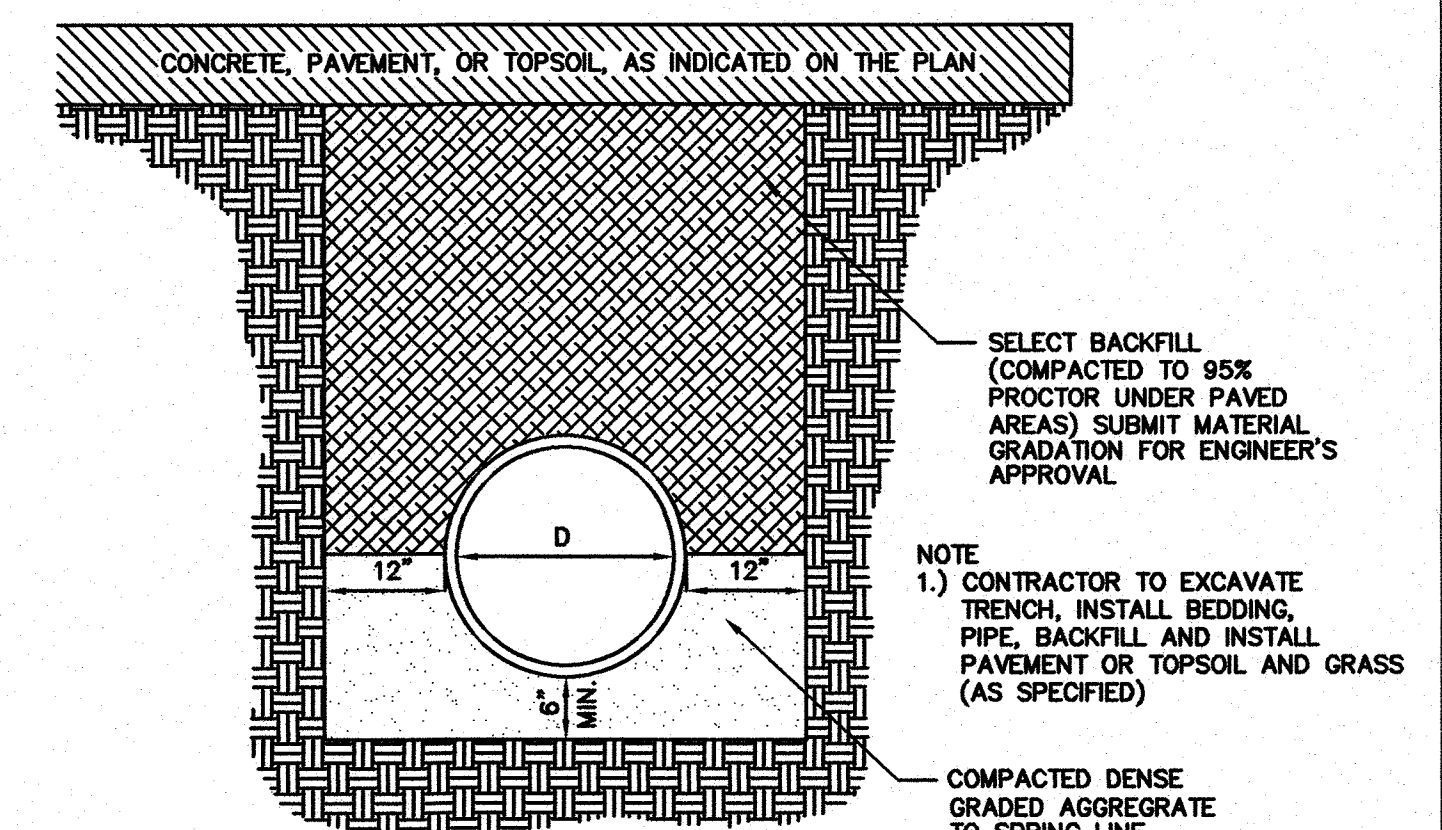


TRENCH DRAIN DETAIL
SCALE - N.T.S.

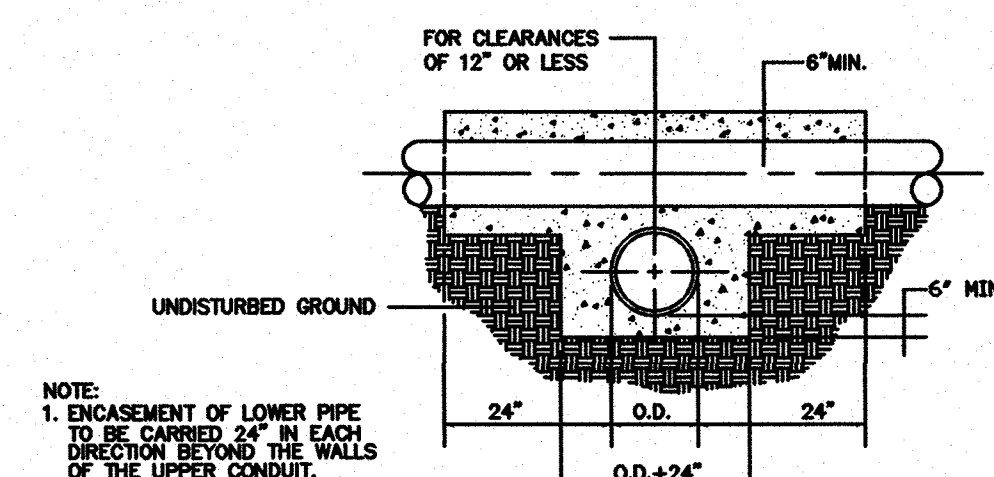
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CONCRETE APRON DETAILS
SCALE - N.T.S.



PIPE TRENCH DETAIL WITHIN SITE
N.T.S.

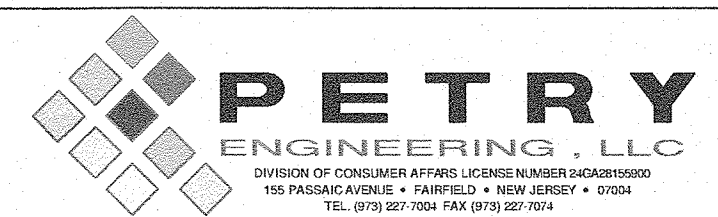


UTILITY CROSSING
SCALE - N.T.S.

4	REVISED PER PROFESSIONAL COMMENTS	8/20/2020	AHH
3	REVISED PER PROFESSIONAL COMMENTS	8/6/2020	JMP
2	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
1	REVISED FOR SESC SUBMISSION	6/18/2020	AHH
REVISION	DESCRIPTION	DATE	BY

PREPARED FOR
VOSE APTS. URBAN RENEWAL, LLC
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006
SOUTH ORANGE AVENUE REDEVELOPMENT
VILLAGE OF SOUTH ORANGE
ESSEX COUNTY, NEW JERSEY

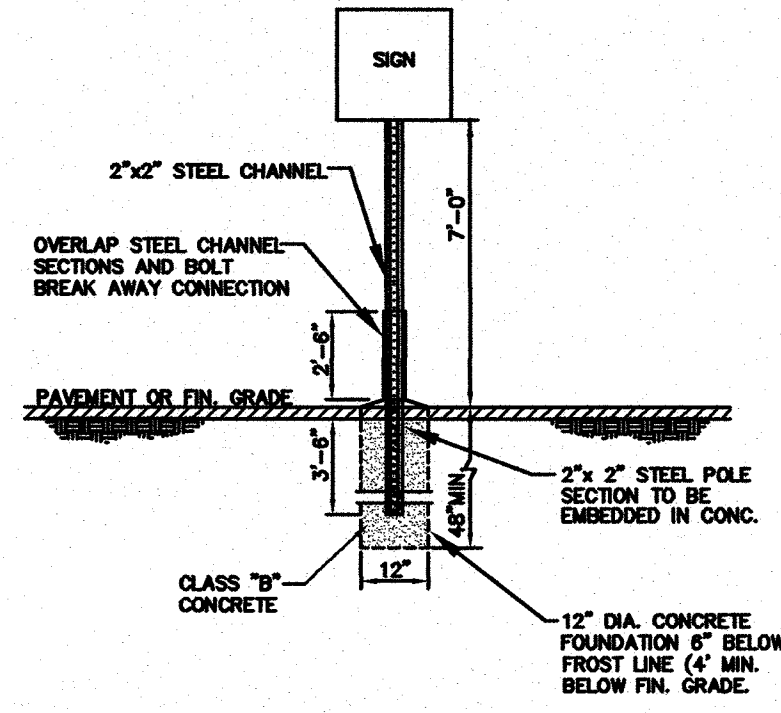
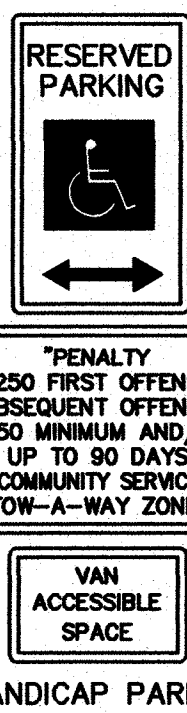
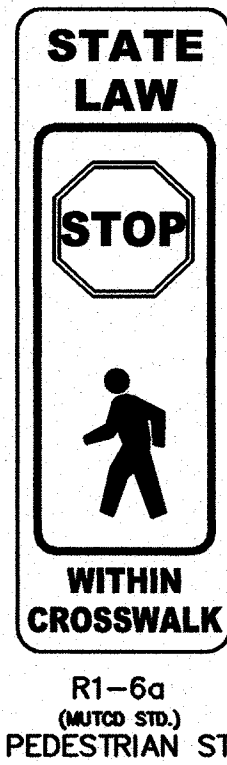
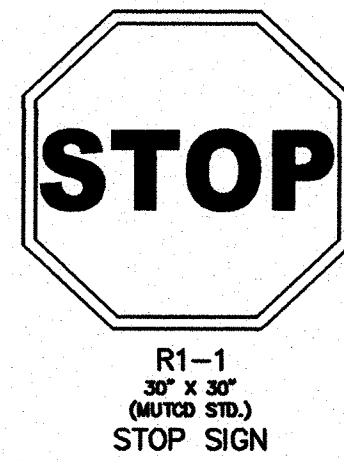
CONSTRUCTION DETAILS



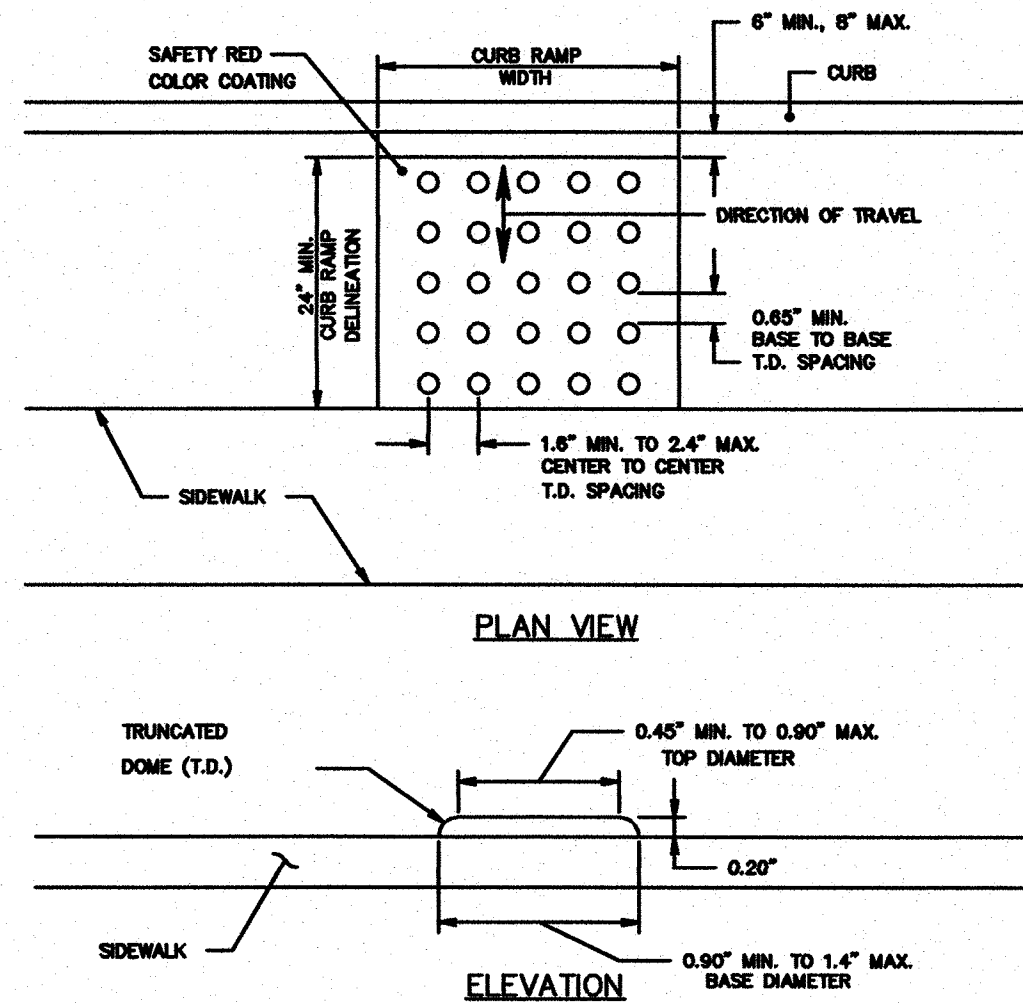
J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. NO. 36662
DATED: 04/29/2020

Designer: JMP
Draftsman: AJH
Checked By: JMP
Project No.: 19-0078
Scale: AS NOTED
Sheet:

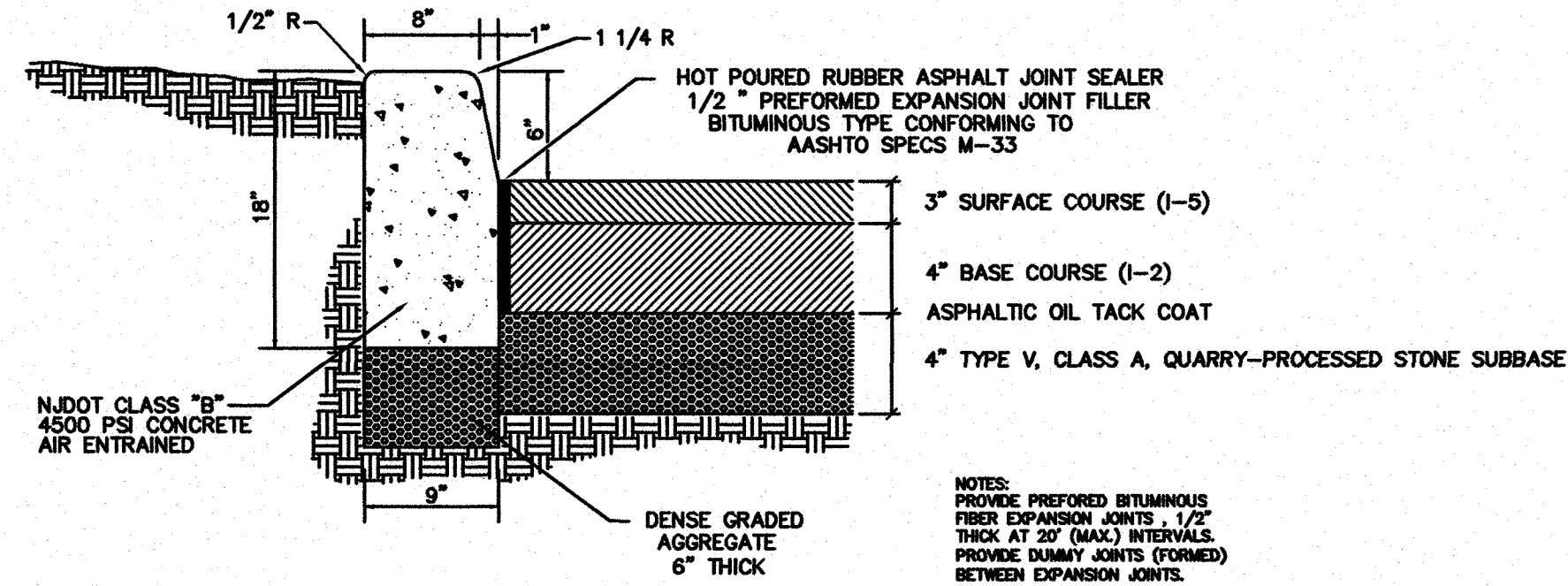
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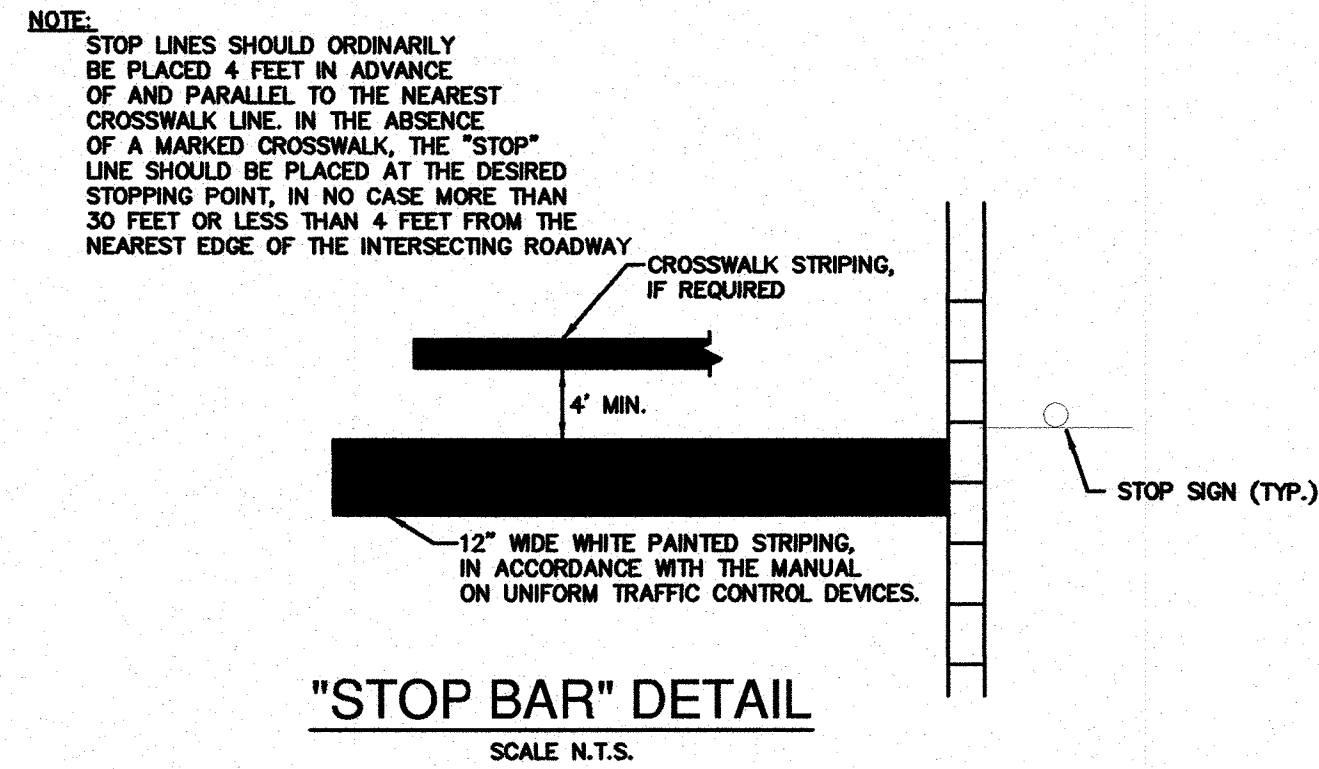
STD. SIGN DETAIL
SCALE - N.T.S.



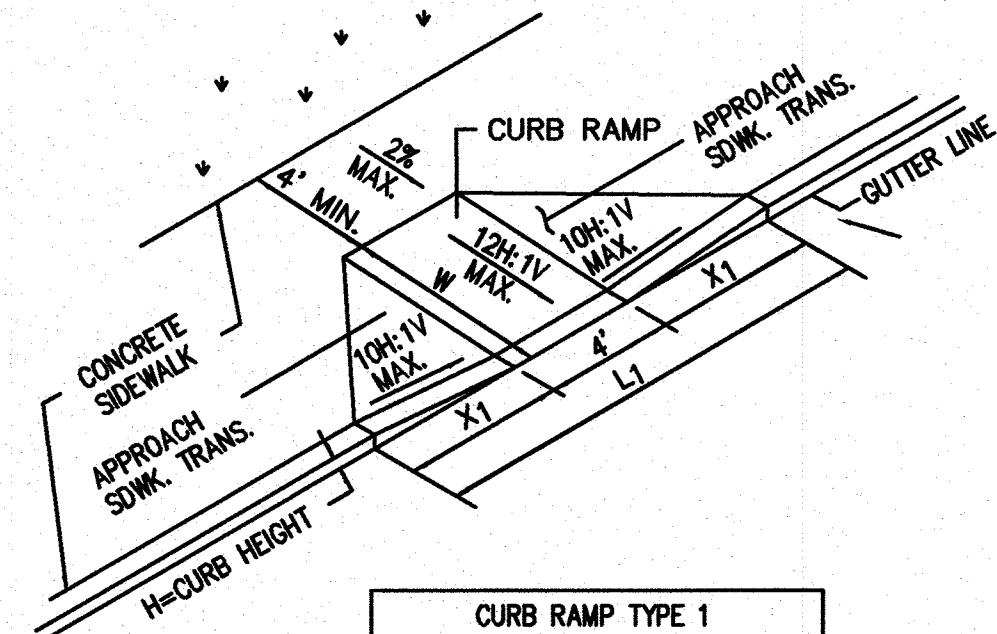
DETECTABLE WARNING SURFACE



CONCRETE CURB AND FULL DEPTH PAVEMENT
SCALE N.T.S.

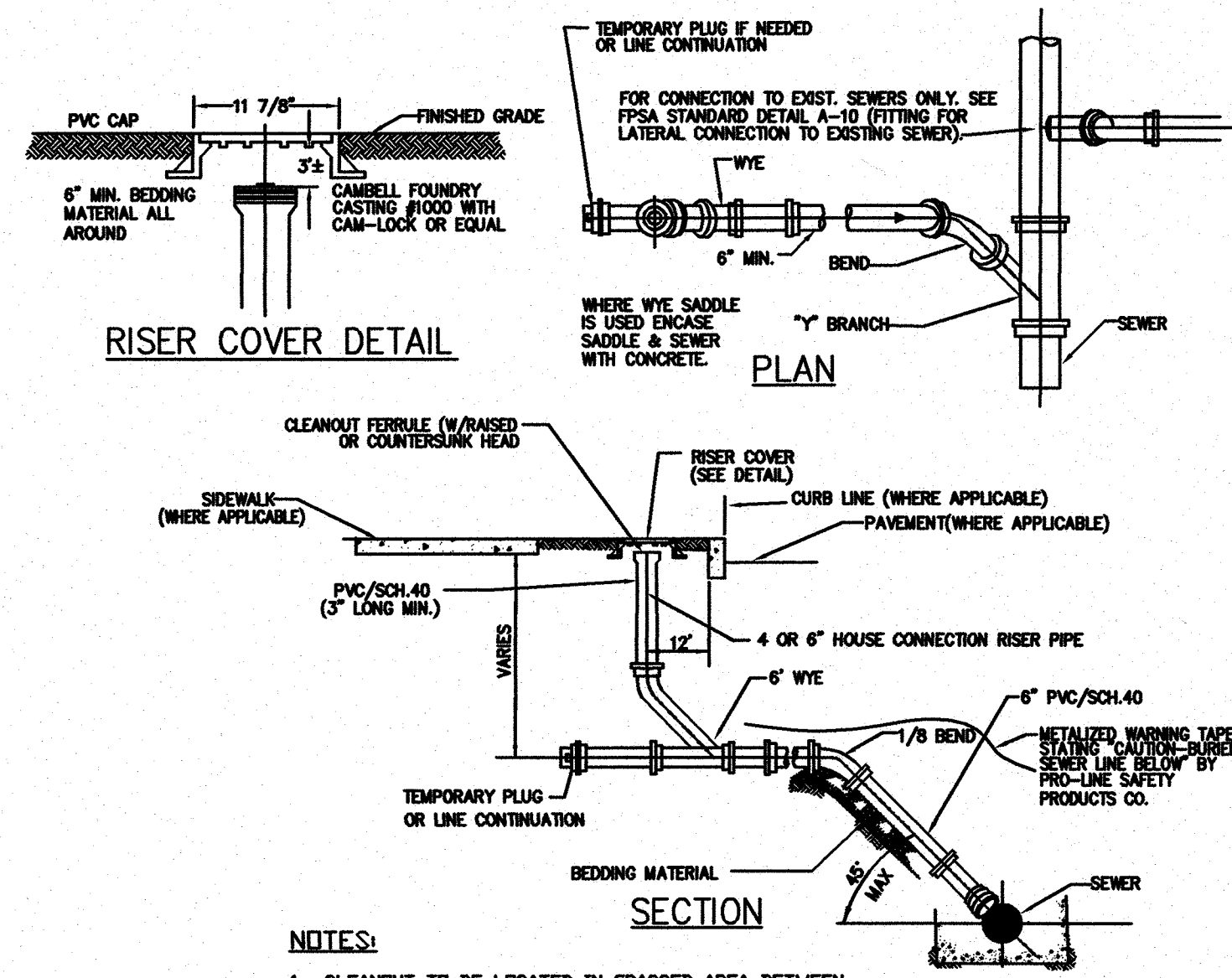


"STOP BAR" DETAIL
SCALE N.T.S.



CURB RAMP TYPE 1			
H INCHES	X1 FEET	X2 FEET	W FEET
3	2.5	9.0	3
4	3.3	10.6	4
5	4.2	12.4	5
6	5.0	14.0	6
7	5.8	15.6	7
8	6.7	17.4	8
9	7.5	19.0	9

HANDICAP
CURB RAMP TYPE 1



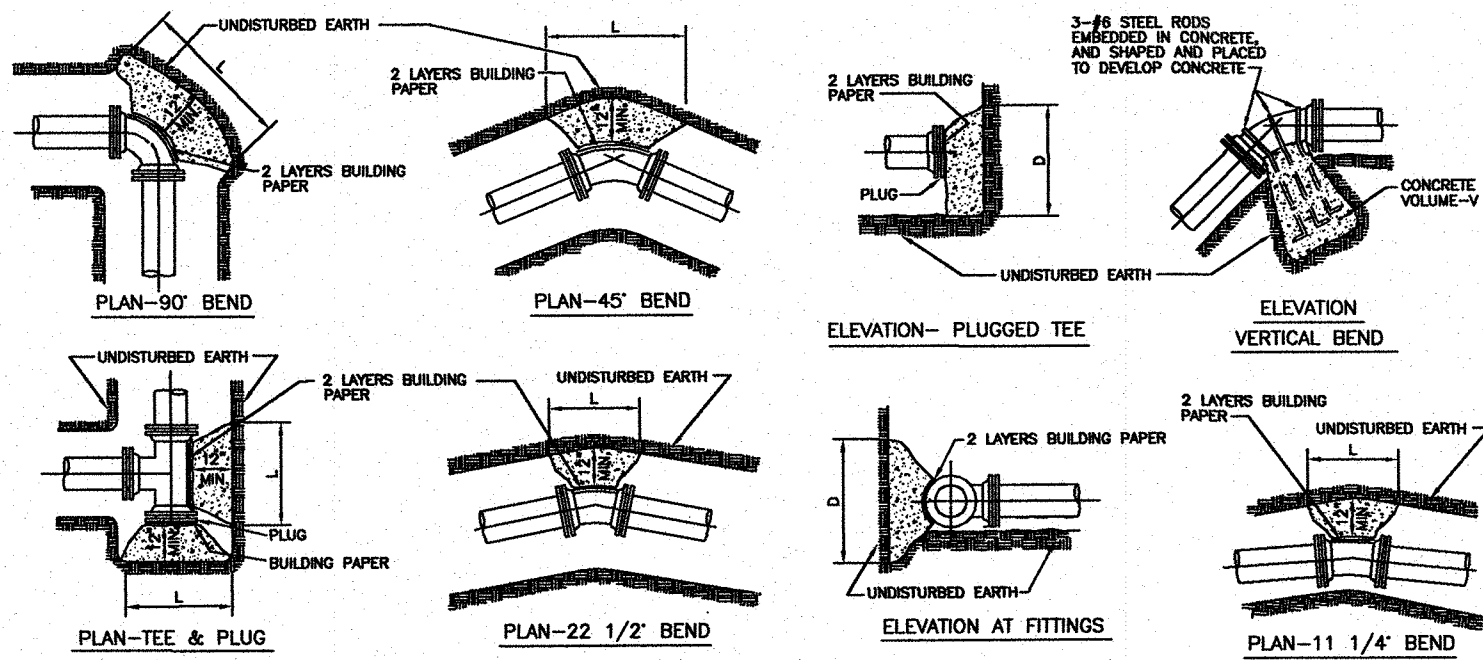
- NOTES:
- CLEANOUT TO BE LOCATED IN GRASSY AREA BETWEEN SIDEWALK AND CURB. CLEANOUTS WILL NOT BE PERMITTED IN DRIVEWAYS OR SIDEWALKS.
 - LATERAL TO BE SAME SIZE FOR ENTIRE LENGTH FROM BUILDING TO SEWER. 6" PVC SCH. 40.
 - IN EASEMENT AREAS, RISER PIPE SHALL BE LOCATED AS CLOSE TO EASEMENT LINE AS POSSIBLE.

SANITARY
SEWER DETAIL
SCALE - N.T.S.

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

REVISION	DESCRIPTION	DATE	BY
PREPARED FOR VOSE APTS. URBAN RENEWAL, LLC LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006 SOUTH ORANGE AVENUE REDEVELOPMENT VILLAGE OF SOUTH ORANGE ESSEX COUNTY, NEW JERSEY			
CONSTRUCTION DETAILS			
 DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 000000000 100 PASSAIC AVENUE • FAIRFIELD • NEW JERSEY • 07004 TEL: 973.257.2004 FAX: 973.257.2004			Designer: JMP
			Draftsman: AHH
			Checked By: JMP
			Project No.: 19-0078
 J. MICHAEL PETRY-PE,PP,RA NJ PROFESSIONAL ENGINEER LIC. NO. 36662			Scale: AS NOTED
			Sheet: SP-8

DATED: 08/20/2020

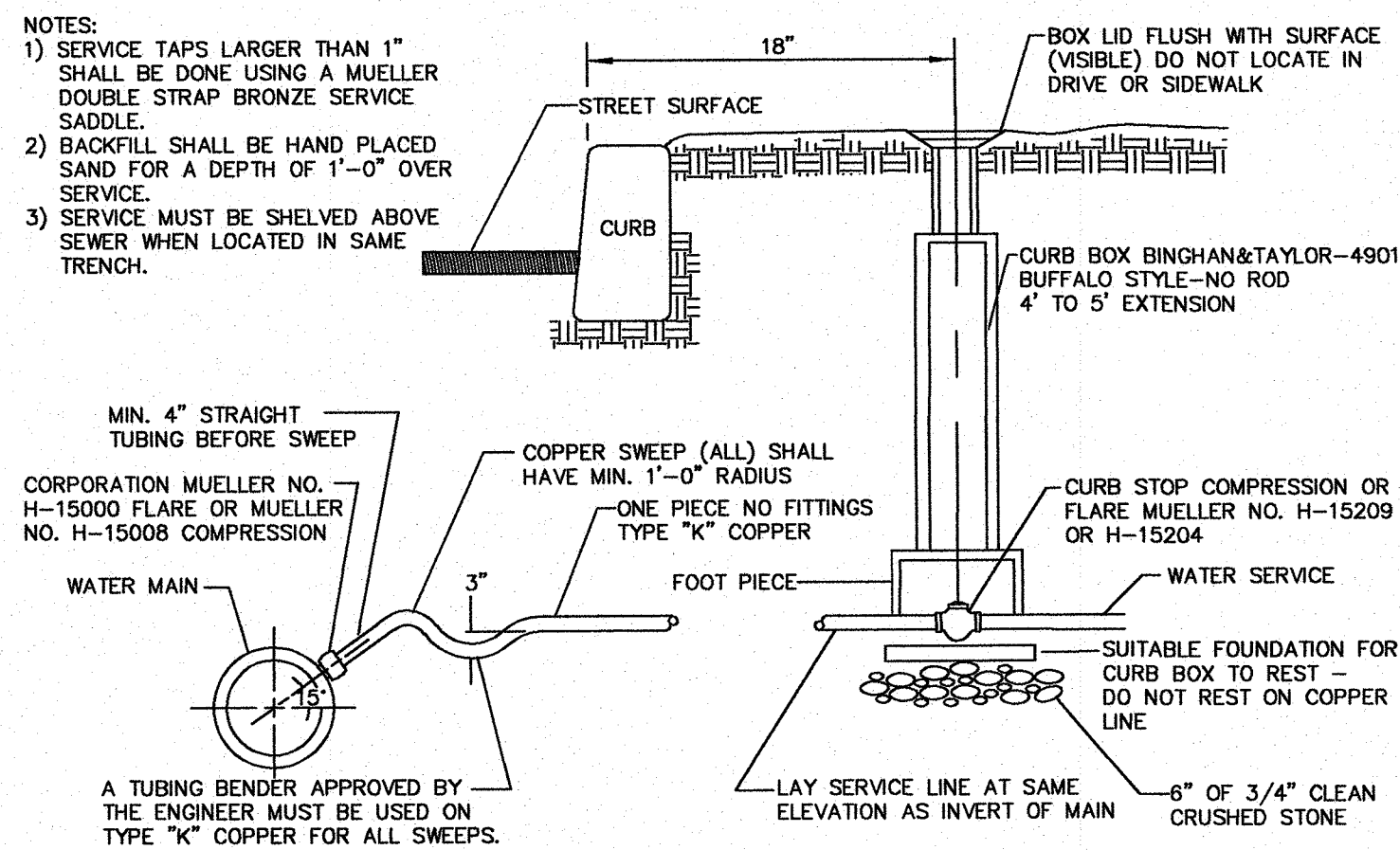


- NOTES:
1. DIMENSIONS FOR REACTION BACKING ARE BASED ON AN ALLOWABLE SOIL BEARING OF 2,000 P.S.F. AND A PROPOSED PRESSURE OF 200 P.S.I.
 2. CONCRETE THRUST BLOCKS TO BE CONSTRUCTED WHERE CONDITIONS PRELUDE THE USE OF RESTRAINED JOINT PIPE, OR WHERE ADDITIONAL RESTRAINT MAY BE REQUIRED, AT ALL 90° ELBS. INSTALL CAP WITH METALLIC RETAINER GLAND AND CONSTRUCT CONCRETE THRUST BLOCK.
 3. CONCRETE SHALL BE 3,500 P.S.I.
 4. ALL FITTINGS AND VALVES CONSTRUCTED WITH THRUST BLOCKS WILL BE INSTALLED WITH POLYETHYLENE ENCASEMENT AND PROPERLY TIED TO PROTECT BOLTS AND NUTS FROM CONCRETE.

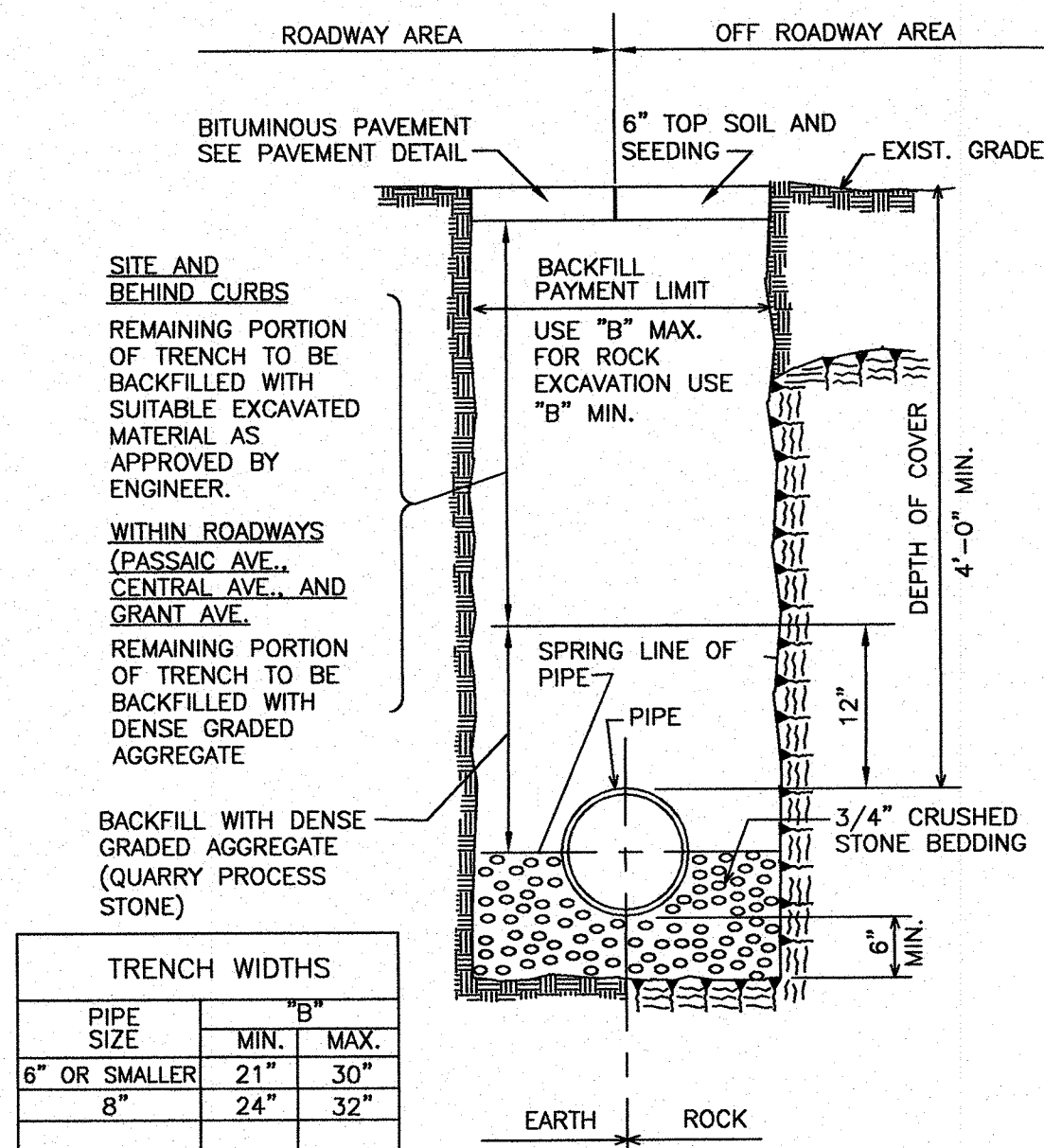
REACTION BACKING SCHEDULE									
TEE OR PLUG	90° BEND	45° BEND	22 1/2° OR 11 1/4° BEND	TEE OR PLUG	90° BEND	45° BEND	22 1/2° OR 11 1/4° BEND	TEE OR PLUG	90° BEND
SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE
4"	2'-0"	2'-0"	2'-0"	4"	2'-0"	2'-0"	2'-0"	4"	2'-0"
6"	2'-0"	2'-0"	2'-0"	6"	2'-0"	2'-0"	2'-0"	6"	2'-0"
8"	2'-0"	2'-0"	2'-0"	8"	2'-0"	2'-0"	2'-0"	8"	2'-0"
10"	2'-0"	2'-0"	2'-0"	10"	2'-0"	2'-0"	2'-0"	10"	2'-0"

* REQUIRES SPECIAL ANCHORAGE, SEE CONTRACT PLANS

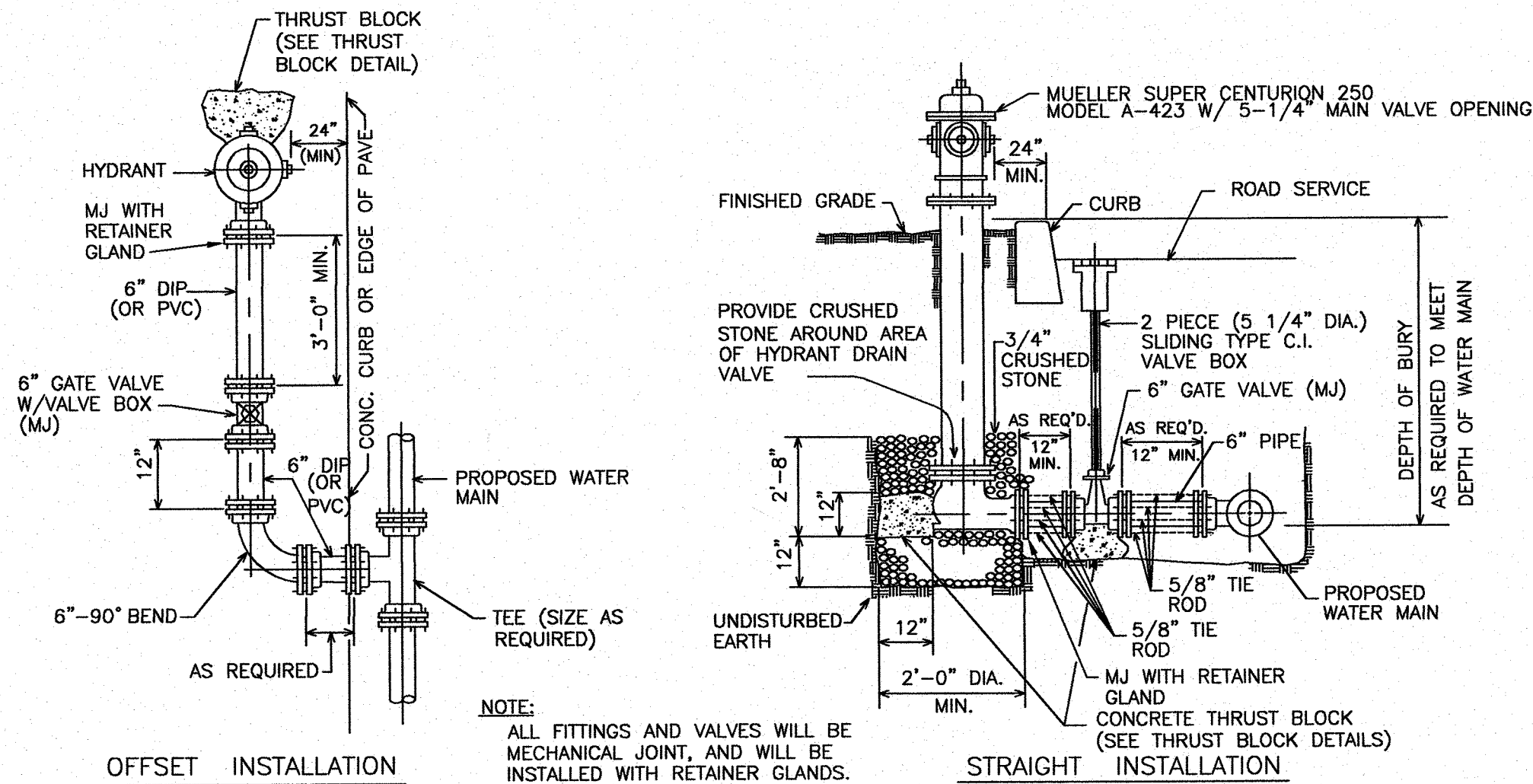
THRUST BLOCK DETAILS
N.T.S.



WATER SERVICE CONNECTION (IF REQUIRED)
SCALE N.T.S.



TRENCH DETAILS
N.T.S.



TYPICAL HYDRANT DETAILS
N.T.S.

Fitting	Restraint Length (ft)							
	4" DIP	4" PVC	6" DIP	6" PVC	8" DIP	8" PVC	10" DIP	10" PVC
90°	14	19	20	27	26	35	32	42
45°	6	8	9	11	11	15	13	18
22.5°	3	4	4	6	6	7	7	9
11.25°	2	2	2	3	3	4	4	5

Fitting	Restraint Length (ft)	
	DIP	PVC
4"	20	36
6"	28	51
8"	37	68
10"	44	82

Fitting	Restraint Length (ft)	
	DIP	PVC
6" x 4"	15	27
8" x 4"	27	49
8" x 6"	16	29
10" x 4"	36	66
10" x 6"	27	50
10" x 8"	15	28

Fitting	Restraint Length (ft)	
	DIP	PVC
4" x 4" x 4"	12	21
6" x 6" x 4"	8	14
6" x 6" x 6"	20	36
8" x 8" x 4"	4	8
8" x 8" x 6"	17	32
8" x 8" x 8"	29	53
10" x 10" x 4"	1	1
10" x 10" x 6"	15	27
10" x 10" x 8"	27	49
10" x 10" x 10"	36	66

NOTES:

1. RESTRAINED JOINT LENGTHS BASED ON PRESSURE OF 200 PSI
2. IF STRAIGHT RUN OF PIPE ON SMALL SIDE OF REDUCER EXCEEDS LENGTH GIVEN IN TABLE, NO RESTRAINED JOINTS ARE REQUIRED.
3. CONTRACTOR SHALL USE THE ABOVE SCHEDULE AND THE CONTRACT PLAN AND PROFILE SHEETS TO DETERMINE ACTUAL RESTRAINED LENGTHS REQUIRED. FITTINGS IN CLOSE PROXIMITY TO ONE ANOTHER MAY REQUIRE ADDITIONAL RESTRAINT. FOR EXAMPLE, TWO (2) 22 1/2° BENDS LOCATED WITHIN SEVERAL FEET OF EACH OTHER WILL HAVE THE SAME REINFORCEMENT AS A 45° BEND AND, AS SUCH, WILL REQUIRE THE LENGTHS OF RESTRAINT SHOWN FOR A 45° BEND.

RESTRAINING LENGTH SCHEDULE
NOT TO SCALE

GENERAL CONSTRUCTION NOTES:

CONTRACTOR SHALL PROVIDE SAFETY FENCING AROUND THE PERIMETER OF THE JOB SITE AND ENSURE THAT THE AREA IS GATED AND LOCKED UPON COMPLETION OF EACH DAY OF WORK. ALL AREAS SHALL BE LEFT NEAT AND ORDERLY THROUGHOUT CONSTRUCTION AT THE END OF EACH DAY. SAFE PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES AT THE SIDEWALK ALONG PASSAIC, GRANT AND CENTRAL AVE.

CONTRACTOR SHALL COORDINATE ANY TRAFFIC CONTROL WITH THE BOROUGH OF EAST NEWARK POLICE DEPT. ANY WORK PERFORMED OUTSIDE OF THE RIGHT OF WAY SHALL BE COORDINATED WITH THE HUDSON COUNTY ENGINEERING DEPT.

CONTRACTOR MUST PROVIDE/MAINTAIN SAFE PEDESTRIAN ACCESS ALONG THE EXISTING SIDEWALK ALONG PASSAIC, GRANT AND CENTRAL AVENUE DURING CONSTRUCTION. CONTRACTOR SHALL REPAIR ANY LOOSE, BROKEN OR UNEVEN SECTIONS OF THE EXISTING SIDEWALK TO THE SATISFACTION OF THE ENGINEER.

GENERAL WATER MAIN CONSTRUCTION NOTES:

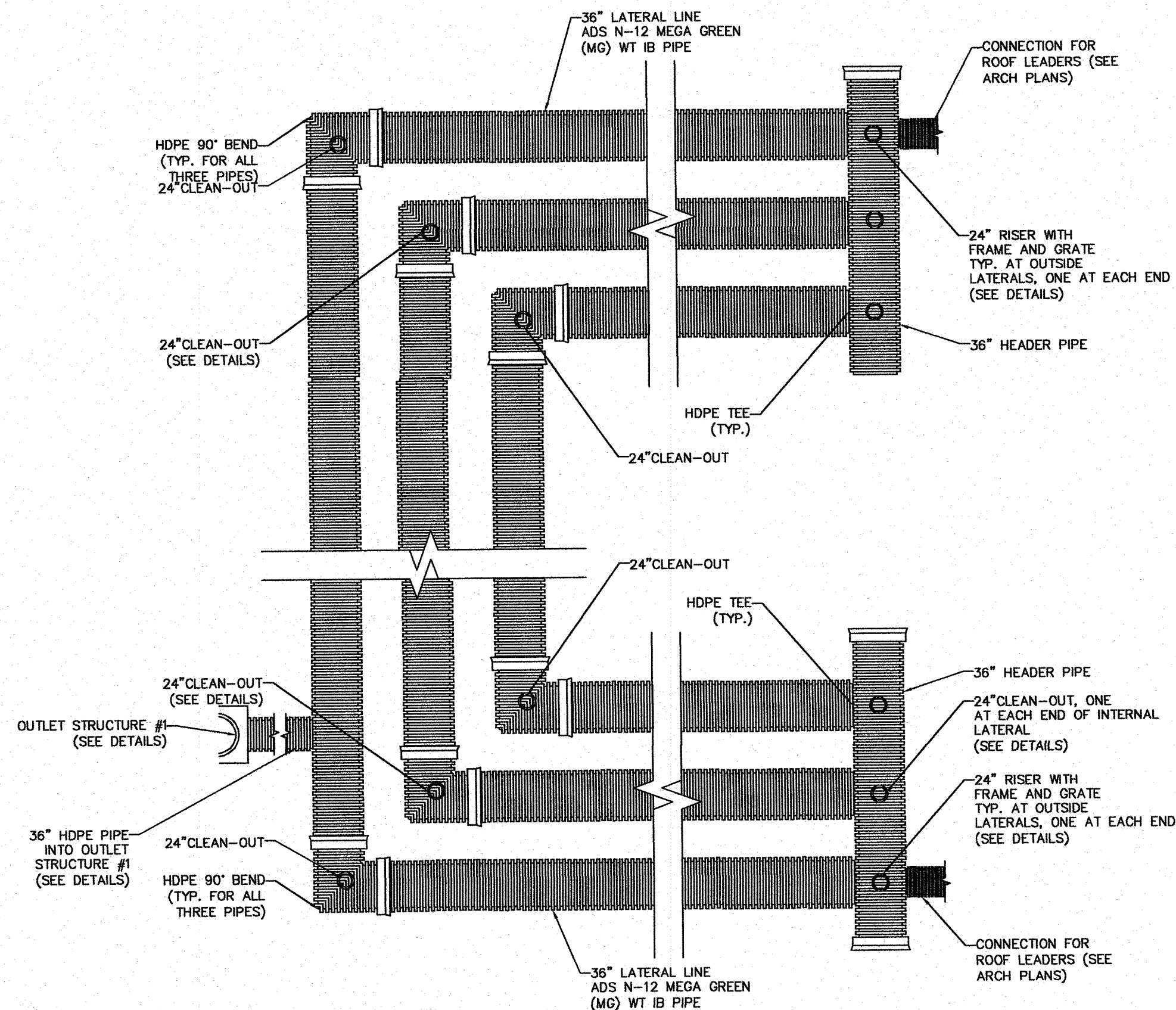
1. WATER MAINS SHALL BE BLUE BRUTE (C900) PIPE.
2. WATER METERS (MAKE AND MODEL) SHALL BE COORDINATED WITH THE BOROUGH OF EAST NEWARK WATER DEPARTMENT TO ENSURE COMPATIBILITY WITH EXISTING EQUIPMENT. WATER METERS ARE TO BE PROVIDED AND INSTALLED BY THE APPLICANT UNDER THE SUPERVISION OF THE BOROUGH.
3. ALL WATER MAINS AND SERVICE LINES SHALL HAVE A MINIMUM OF 4 FEET OF COVER.
4. GATE VALVES SHALL BE INSTALLED AT EACH LEG OF ANY INTERSECTION OF WATER MAIN PIPING. GATE VALVE INTERIOR AND EXTERIOR SHALL BE FUSION EPOXY COATED. THE OPERATING NUT SHALL BE 2 INCH SQUARE, AN ARROW SHOWING THE DIRECTION OF OPENING AND THE WORK "OPEN" SHALL BE CAST IN THE FLANGE OF THE OPERATING NUT. VALVES SHALL BE SUITABLE FOR WATER OPERATING PRESSURES OF 250 PSI. BURIED VALVES SHALL OPEN LEFT - COUNTER CLOCKWISE. GATE VALVES SHALL BE RESILIENT SEAT GATE VALVES, CATALOG NO. A-2380 AS MANUFACTURED BY THE MUELLER COMPANY.
6. ALL WATER MAINS SHALL BE PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS. TESTING AND DISINFECTION SHALL BE WITNESSED BY AUTHORIZED BOROUGH PERSONNEL.
7. THE CONTRACTOR WILL SUPPLY AND ERECT NECESSARY WARNING SIGNS AND PROPER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE EAST NEWARK POLICE DEPARTMENT. THE WORK WHICH MAY BE AFFECTED BY HIS OPERATIONS, ALL COST ASSOCIATED WITH THIS WORK WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
8. THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE PROPER BRACING OF EXISTING UTILITIES AS MAY BE REQUIRED TO PREVENT DAMAGE DUE TO CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL ARRANGE FOR PROPER BRACING OF ALL EXISTING UTILITIES, UTILITY POLES, AND OTHER STRUCTURES WITHIN THE VICINITY OF THE WORK WHICH MAY BE AFFECTED BY HIS OPERATIONS. ALL COST ASSOCIATED WITH THIS WORK WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
9. THE CONTRACTOR WILL INSTALL TEMPORARY AIR RELEASE TAPS AND SAMPLING TAPS WITH COPPER SAMPLING PIPE FOR TESTING AND DISINFECTION AS NEEDED OR AS REQUIRED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE THE SAMPLING PIPE AND CLOSE OFF THE TAP AT THE MAIN AFTER ALL TESTING HAS BEEN COMPLETED AND WHEN APPROVED BY THE ENGINEER. THE FURNISHING, INSTALLATION, AND REMOVAL OF TAPS AND PIPE WILL BE INCLUDED IN UNIT PRICE BID FOR TESTING AND DISINFECTION.
10. THE CONTRACTOR WILL BACKFILL AND PAVE THE TRENCH AT THE END OF EACH DAY AND WILL TAKE ANY NECESSARY PRECAUTION TO PROVIDE A SAFE AND ACCESSIBLE WORK AREA FOR VEHICULAR AND PEDESTRIAN TRAFFIC.
11. THE GENERAL LOCATION OF FIRE HYDRANTS AND CURB BOXES ARE SHOWN ON THE DRAWINGS. HYDRANTS AND CURB BOXES WILL BE LOCATED IN THE FIELD BY THE WATER DEPARTMENT PRIOR TO CONSTRUCTING THE WATER MAIN, DUE TO FUTURE ROAD RECONSTRUCTION WHICH WILL RESULT IN RELOCATION OF EXISTING CURB AND CHANGES IN THE GRADE. THE FINISHED GRADE ELEVATION FOR SETTING THE HYDRANT AND VALVE BOX WILL BE PROVIDED BY THE WATER DEPARTMENT.
12. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING VEHICLE ACCESS TO ALL DRIVEWAYS, BUILDING ENTRANCES, AND SIDE STREETS ALONG THE CONSTRUCTION ROUTE TO THE MAXIMUM PRACTICAL.
13. THE CONTRACTOR WILL BE RESPONSIBLE TO EXCAVATE IN ADVANCE OF PIPE WORK TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, AND DEPTH OF EXISTING UTILITY NOTED ON THE DRAWINGS PRIOR TO THE CONSTRUCTION OF THE NEW WATER MAIN. EXCEPT FOR THE EXCAVATION OF TEST PITS AS NOTED ON THE DRAWINGS OR WHEN DIRECTED BY THE ENGINEER, NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK, BUT WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
14. THE CONTRACTOR WILL BRACE AND SUPPORT ALL EXISTING CURB IN THE IMMEDIATE VICINITY OF THE CONSTRUCTION WORK. PLANKS WILL BE PLACED OVER CURBS TO PREVENT DAMAGE BY THE CONTRACTOR'S EQUIPMENT. ANY CURB WHICH IS DAMAGED, DISTURBED, OR REMOVED IN AREAS OTHER THAN WHERE THE PIPELINE CROSSES EXISTING CURBS, AS SHOWN ON THE DRAWINGS, WILL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. CURB WILL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE DRAWINGS.
15. THE DRAWINGS SHOW THE EXISTING CONDITIONS WHICH ARE LIKELY TO AFFECT THE PROSECUTION OF THE WORK INsofar AS THEY HAVE BEEN DETERMINED. THESE DRAWINGS SHOULD NOT BE USED FOR SCALING OF DIMENSIONS OR FOR DETERMINING RIGHT-OF-WAY AND PROPERTY LIMITS.
16. ANY EXISTING FIRE HYDRANTS TO BE REMOVED SHALL BE DELIVERED TO THE WATER DEPT. YARD.
17. WORK PERFORMED ON COUNTY ROADS WILL BE LIMITED TO THE HOURS OF 9:00 A.M. TO 4:00 P.M., UNLESS OTHERWISE PERMITTED BY THE COUNTY OR BY THE ENGINEER.
18. THE APPROXIMATE LOCATION OF WATER SERVICE CONNECTIONS ARE SHOWN ON THE DRAWINGS. EXACT LOCATION TO BE DETERMINED IN THE FIELD BY OWNER.
19. CONSTRUCTION AND TRANSFER OF SERVICES WILL BE PERFORMED ONLY AFTER MAIN HAS BEEN TESTED AND DISINFECTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THIS INCLUDES THE INSTALLATION OF THE SERVICE CORPORATIONS.
20. WHERE EXISTING MAINS ARE TO BE ABANDONED IN PLACES, ALL OPENINGS FROM CUT PORTIONS WILL BE COMPLETELY SEALED WITH NON-SHRINK QUICK SETTING CEMENT, AS APPROVED BY THE ENGINEER. DO NOT BACKFILL UNTIL CEMENT IS CURED.

GENERAL NOTES:

1. LOCATIONS OF THE EXISTING UTILITIES ARE APPROXIMATE AND NOT NECESSARILY COMPLETE. THE CONTRACTOR IS CAUTIONED THAT THERE MAY BE UNDERGROUND UTILITIES OTHER THAN THOSE SHOWN ON THE DRAWINGS, AND THE CONTRACTOR WILL NOTIFY ALL UTILITY COMPANIES PRIOR TO THE START OF WORK AND REQUEST FIELD LOCATION OF ALL UNDERGROUND UTILITIES.
2. THE MINIMUM EARTH COVER OVER ALL NEW WATER MAINS WILL BE FOUR (4) FEET UNLESS OTHERWISE INDICATED ON DRAWINGS. PIPE WILL BE DUCTILE IRON, CEMENT-LINED WITH RESTRAINED OR PUSH-ON JOINTS, UNLESS OTHERWISE INDICATED. PIPE CLASSIFICATION FOR THE WATER MAINS WILL BE CLASS 52. ALL FITTINGS WILL BE DUCTILE IRON CEMENT-LINED WITH MECHANICAL JOINTS, WITH RETAINER GLANDS, CLASS 350, UNLESS OTHERWISE INDICATED ON DRAWINGS OR REQUIRED BY THE ENGINEER. ALL PIPE AND FITTINGS WILL BE POLYETHYLENE ENCASEMENT.
3. EXCESS EXCAVATED MATERIAL WILL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR WILL MAKE ARRANGEMENTS TO DISPOSE OF THE MATERIAL AT A SUITABLE LOCATION. DISPOSAL OF ALL MATERIAL, GRADING AND RESTORING THE DISPOSAL SITES, AND OBTAINING ANY PERMITS WILL BE PERFORMED AT THE SOLE COST OF THE CONTRACTOR.
4. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR PVC PIPE WILL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS AND AWWA STANDARDS.
5. PROVIDE A MINIMUM VERTICAL CLEARANCE OF 12 INCHES BETWEEN WATER LINES AND UTILITIES OR OBSTRUCTIONS, UNLESS OTHERWISE SHOWN.
6. NOTIFY THE ENGINEER, WATER, AND, FIRE DEPARTMENTS 48 HOURS PRIOR TO MAKING CONNECTIONS TO EXISTING WATER MAINS.
7. THE CONTRACTOR WILL SUPPLY AND ERECT NECESSARY WARNING SIGNS AND PROPER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE EAST NEWARK POLICE DEPARTMENT. THE WORK WHICH MAY BE AFFECTED BY HIS OPERATIONS, ALL COST ASSOCIATED WITH THIS WORK WILL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE CONTRACT WORK.
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REVISION	DESCRIPTION	DATE	BY
<p>PREPARED FOR VOSE APTS. URBAN RENEWAL, LLC LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1008 SOUTH ORANGE AVENUE REDEVELOPMENT VILLAGE OF SOUTH ORANGE ESSEX COUNTY, NEW JERSEY</p>			
<p>CONSTRUCTION DETAILS</p>			
<p>PETRY ENGINEERING, LLC DIVISION OF CONSUMER AFFAIRS LICENSE NUMBER 1404000000 100 PASSAIC STREET • HAWTHORNE • NEW JERSEY 07040 TEL. (973) 227-7024 FAX (973) 227-7074</p>			<p>Designer: J.M.P. Draftsman: A.H.H. Checked By: J.M.P. Project No.: 19-0078 Scale: AS NOTED Sheet:</p>
<p>J. MICHAEL PETRY-PE, PP, RA NJ PROFESSIONAL ENGINEER LIC. No. 36662</p>			<p>SP-9</p>

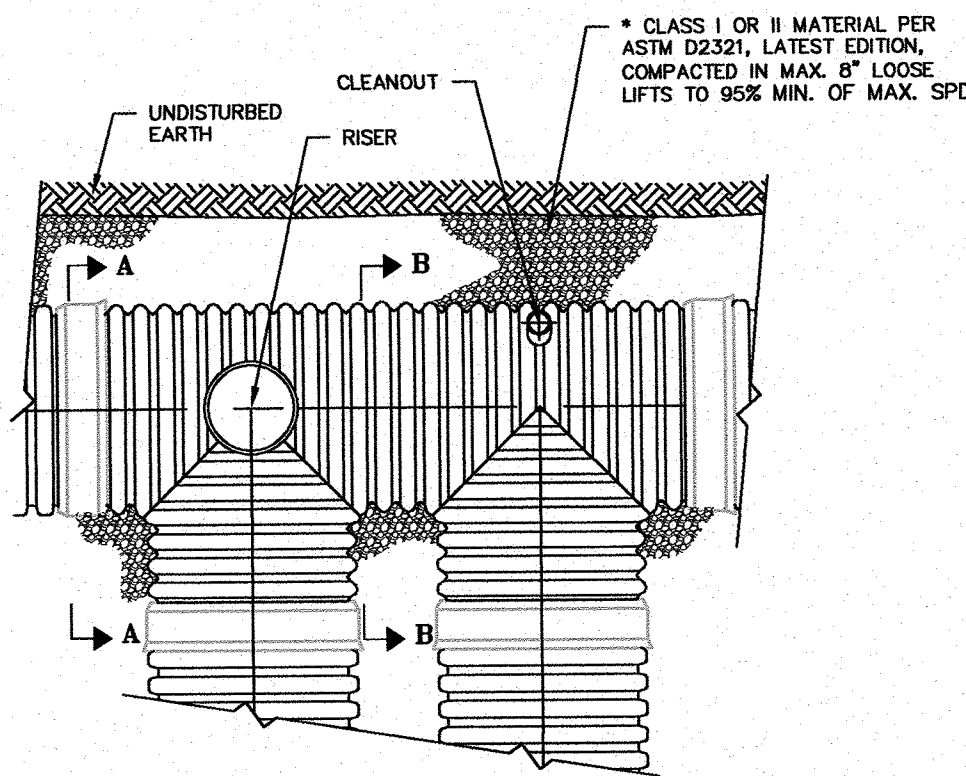
CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.



GENERAL DESIGN NOTE:
ALL UNDERGROUND DETENTION STRUCTURES SHALL MEET AT A MINIMUM H20S16 LOADING. THE MANUFACTURER SHALL CERTIFY THAT THE MINIMUM DESIGN CRITERIA HAS BEEN MET, AND SUBMIT SHOP DRAWINGS FOR REVIEW TO THE ENGINEER AND THE CITY OF NEWARK PRIOR TO ANY INSTALLATION OF THE PROPOSED UNDERGROUND DETENTION SYSTEM STRUCTURES.

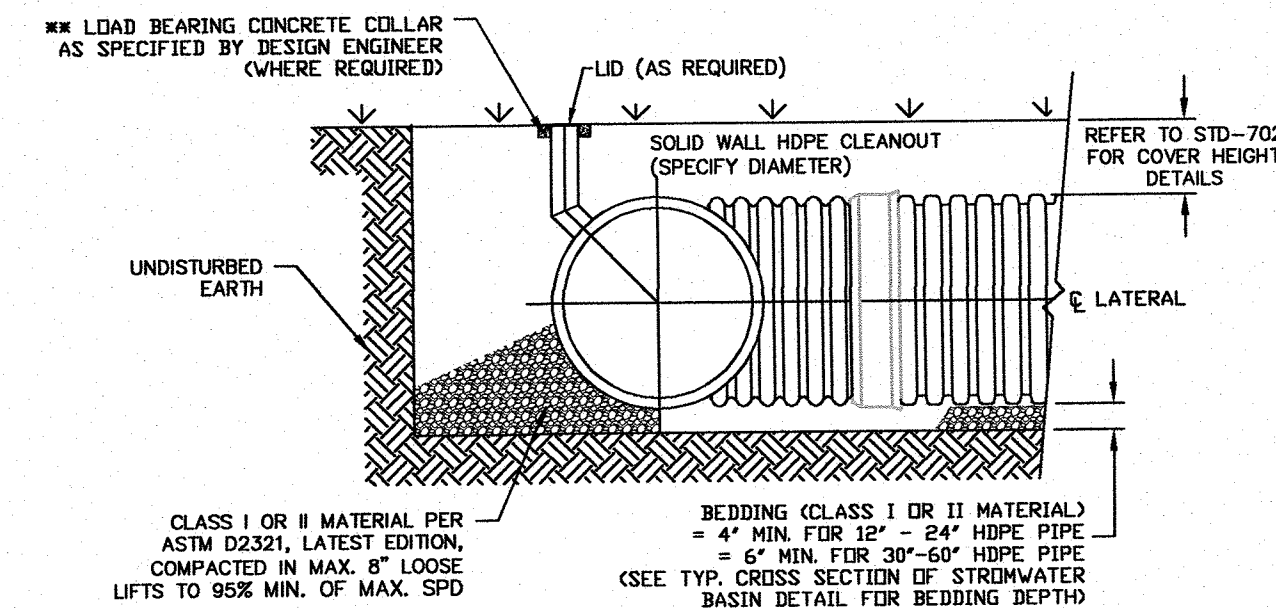
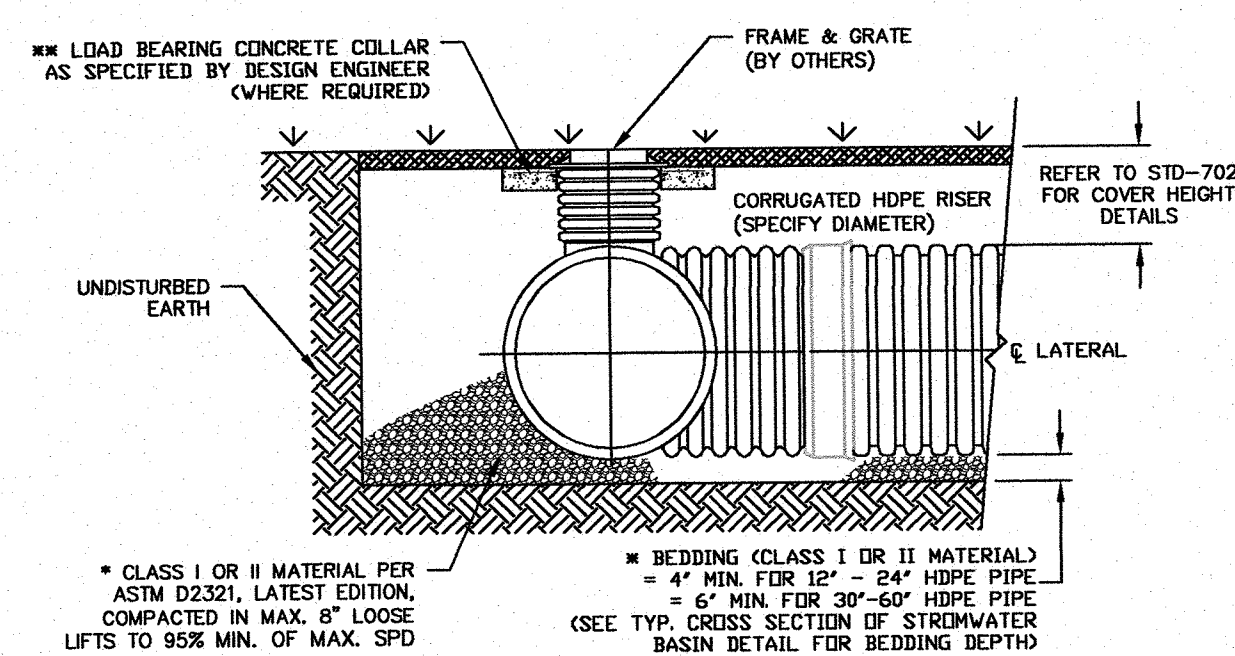
TYPICAL PLAN & ELEVATION VIEW OF SUBSURFACE DETENTION BASIN

SCALE: N.T.S.



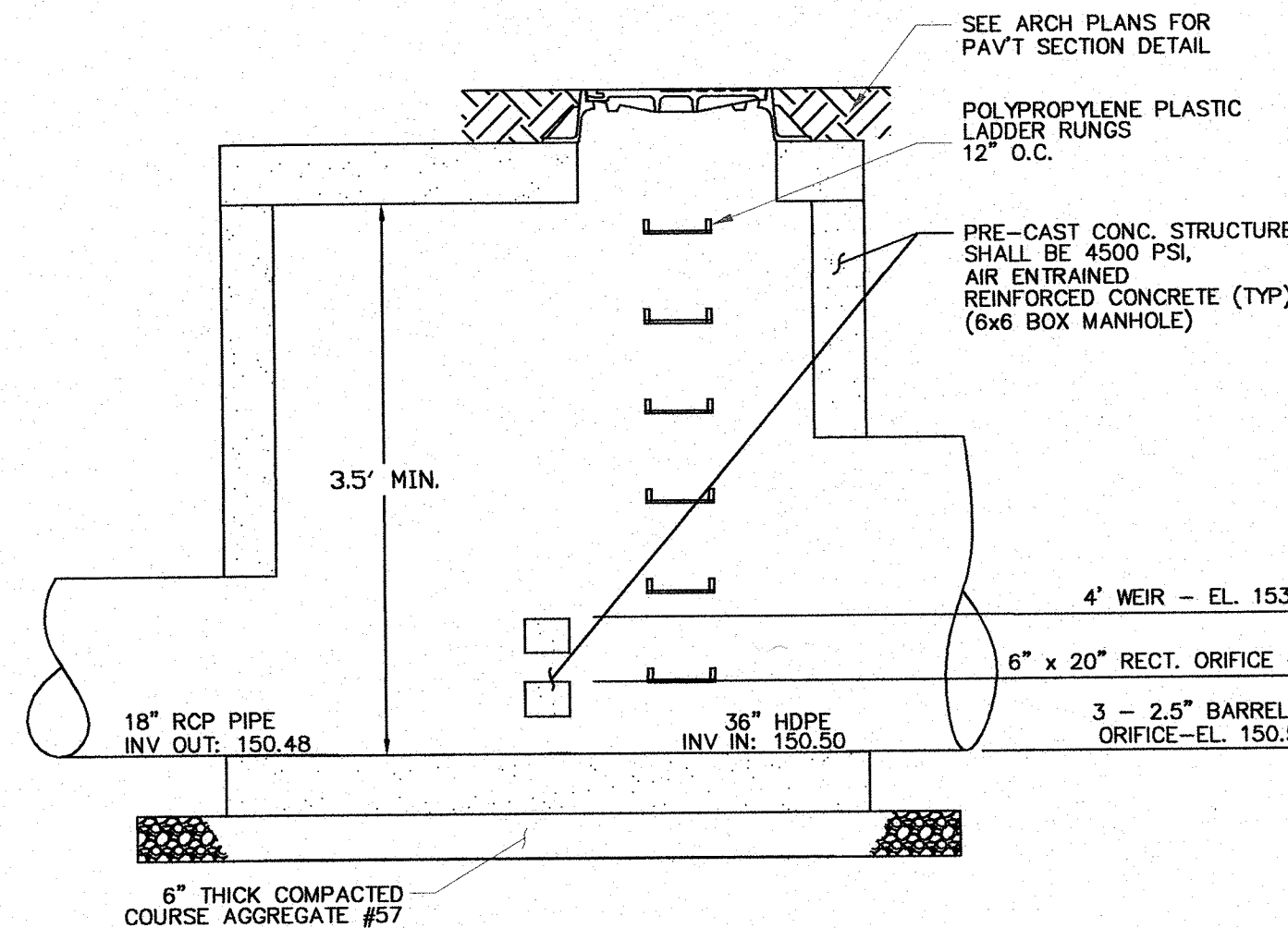
TYPICAL RISER/CLEANOUT (C.O.) DETAIL

SCALE: N.T.S.

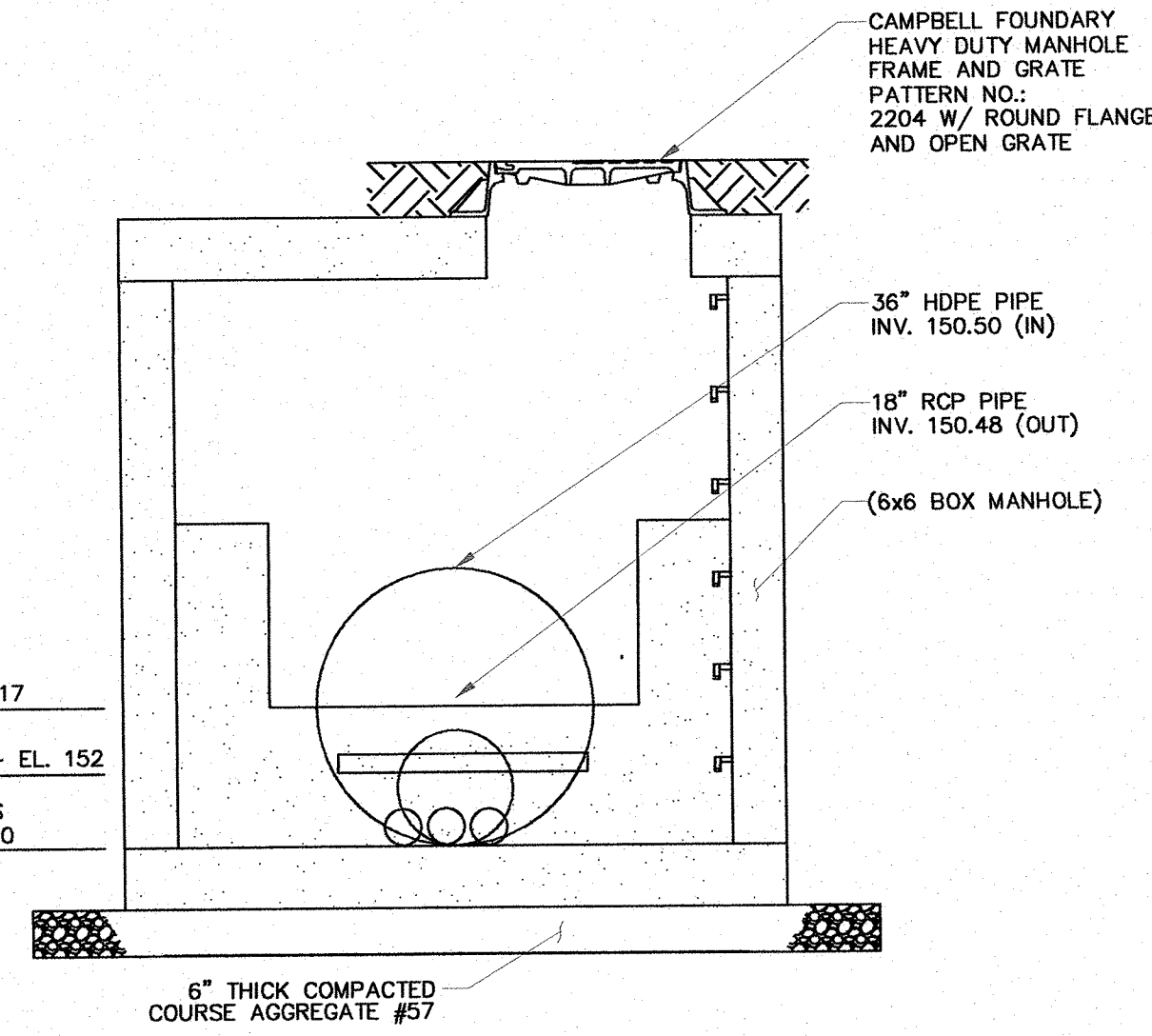


SECTION B-B

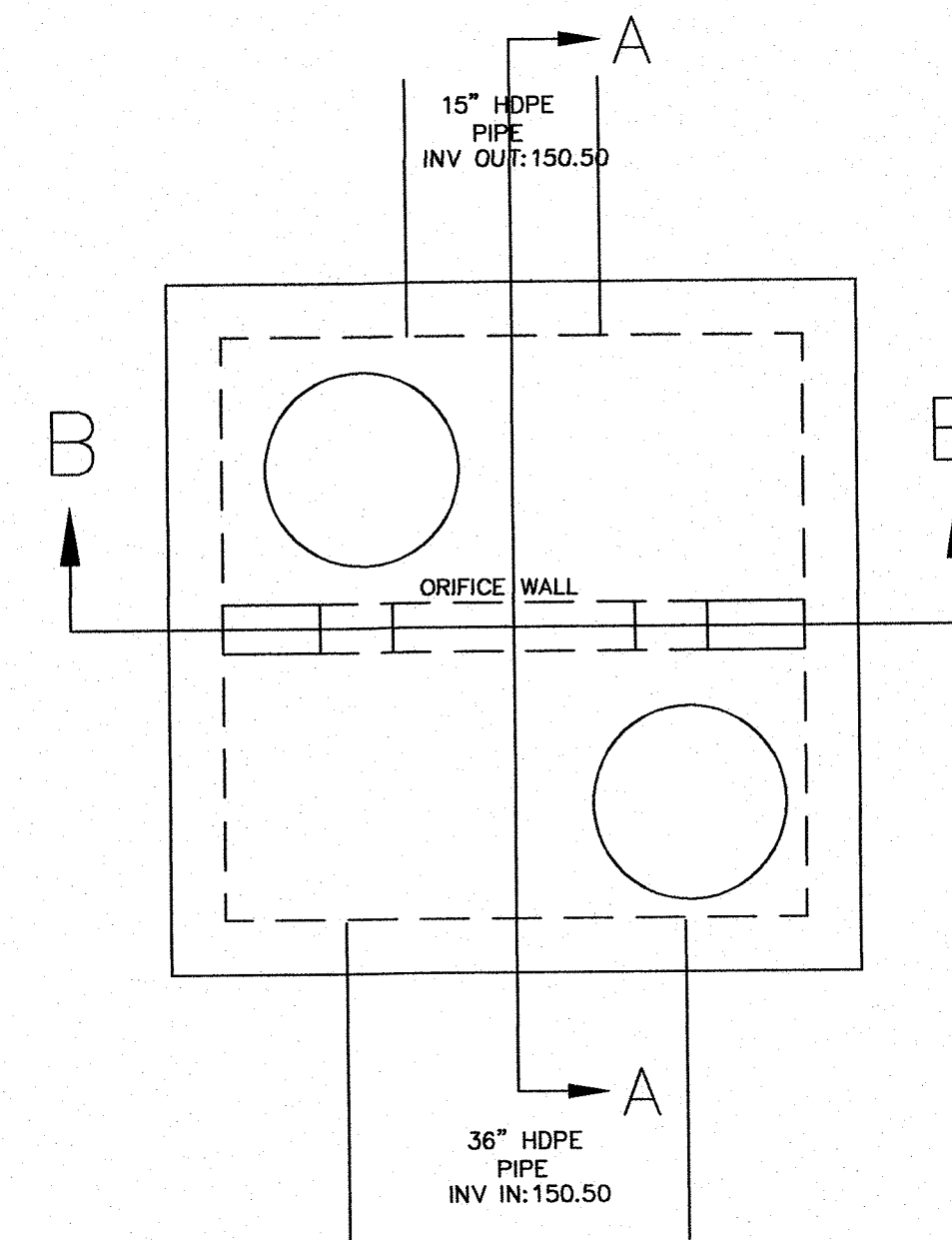
*** CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS
*** LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.



SECTION A-A



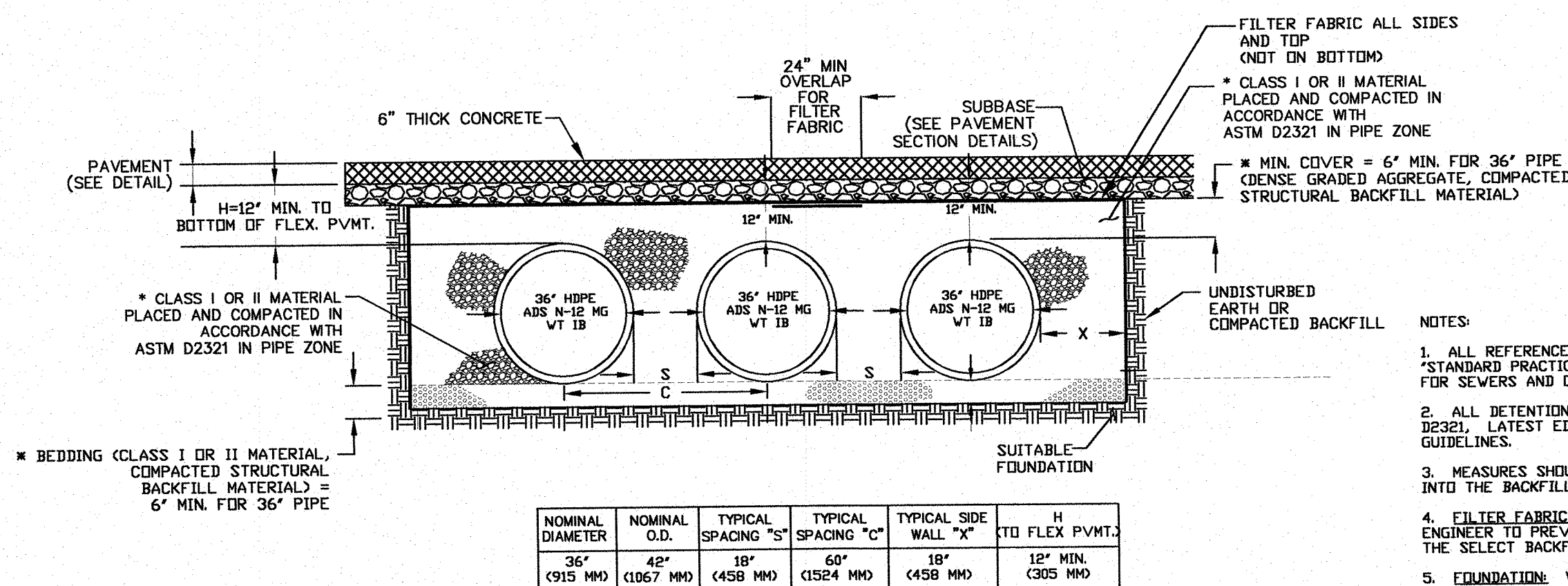
SECTION B-B



PLAN VIEW

OUTLET STRUCTURE #1 6x6 BOX MANHOLE

SCALE: N.T.S.



TYPICAL CROSS SECTION OF STORMWATER BASIN

SCALE: N.T.S.

NOTES:

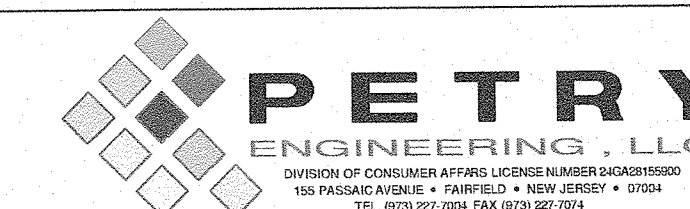
1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE: 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. MINIMUM COVER: MINIMUM COVER OVER ALL DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOODING. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	H TO FLEX P.V.M.T.
36"	42"	18"	60"	18"	12" MIN.
(915 MM)	(1067 MM)	(458 MM)	(1524 MM)	(458 MM)	(305 MM)

REVISION	DESCRIPTION	DATE	BY
4	REVISED PER PROFESSIONAL COMMENTS	8/20/2020	AHH
3	REVISED PER PROFESSIONAL COMMENTS	8/5/2020	JMP
2	ISSUED FOR PLANNING BOARD SUBMITTAL	7/6/2020	JMP
1	REVISED FOR SESC SUBMISSION	6/18/2020	AHH

PREPARED FOR
VOSE APTS. URBAN RENEWAL, LLC
LOT 1, 2, 3, 9, 10, 11, 13 & 14 BLOCK 1006
SOUTH ORANGE AVENUE REDEVELOPMENT
VILLAGE OF SOUTH ORANGE
ESSEX COUNTY, NEW JERSEY

CONSTRUCTION DETAILS



J. MICHAEL PETRY-PE,PP,RA
NJ PROFESSIONAL ENGINEER LIC. NO. 36862
DATED: 04/29/2020

Designer: JMP
Draftsman: AHH
Checked By: JMP
Project No.: 19-0078
Scale: AS NOTED
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