

Arlington County Department of
Environmental Services
DES

**Construction Standard Details
2020**

**Update #1
February 2023**



The following Standard Details are modified or added to the 2020 DES Construction Standard Details:

Detail M-3.0 Pipe Bedding Details for Trench Conditions [*Modification*]

- Added Detectible Marking Tape

Detail M-9.0 Tracer Wire Sample Plan [*New Detail*]

- New Detail

Detail M-9.1 Tracer Wire Lateral Detail [*New Detail*]

- New Detail

Detail M-9.2 Tracer Wire Access in Inlet or Manhole for Paved Areas [*New Detail*]

- New Detail

Detail R-1.4 Typical Section, Divided Thoroughfare [*Modification*]

- Updated median subgrade call out from “Note 5” to “Note 6”

Detail R-2.4A Concrete Driveway Entrance [*Modification*]

- Removed Reference to R-2.4A Sheet 2
- Revised Typical Width of Utility Strip to 6’0”

Detail R-2.4B Concrete Driveway Entrance (Depressed) [*Modification*]

- Removed Reference to R-2.4A Sheet 2
- Revised Typical Utility Strip Width to 6’0”

Detail R-2.4C Concrete Driveway Entrance (Mountable Curb) [*Modification*]

- Removed Reference to R-2.4A Sheet 2
- Revised Typical Sidewalk Width to 6’

Detail R-3.3 Trail Railing [*Modification*]

- Removed Numbered Notes

Detail R-4.0 Mortar Rubble Retaining Wall Level Backfill [*Modification*]

- Removed Reference “(For Def., See Drawing R-1.0)”

Detail R-4.1 Mortar Rubble Retaining Wall with Concrete Base, Level Backfill
[*Modification*]

- Removed Reference “(For Def., See Drawing R-1.0)”

Detail R-4.2 Mortar Rubble Retaining Wall Infinite Surcharge or Deck Surcharge
[Modification]

- Removed Reference “(For Def., See Drawing R-1.0)”

Detail R-4.3 Mortar Rubble Retaining Wall With Concrete Base and Infinite Surcharge or Deck Surcharge [Modification]

- Removed Reference “(For Def., See Drawing R-1.0)”
- Revised Note 2 reference to R-4.1 to R-4.0

Detail D-3.4 Storm Sewer Manhole, MH-3 For Pipe Sizes Greater than 54” [Modification]

- Updated Reference Number from “M-3.4” to “D-3.4”

Detail W-8.2 Water Service Connections 6 Inch and 8 Inch by Developer [Modification]

- Number Change
- Changed Number from M-8.2 to W-8.2

Detail W-9.3 3 Inch Water Service by Developer [Modification]

- References to “F” changed to “FLG”
- Reference to MEGALUGS removed from Note 4
- Concrete Thrust Blocks are darker

Detail W-9.4 4 Inch Water Service by Developer [Modification]

- Title Updated to Read “4 Inch Water Service by Developer”
- References to “F” changed to “FLG”
- Reference to MEGALUGS removed from Note 4
- Note 6 Updated to replace ‘3” FLG’ with ‘4”FLG’
- Concrete Thrust Blocks are bolder

Detail W-9.5 Water Meter Installation 6 Inch Service by Developer [Modification]

- Updated ‘2 - 6” FLG x O.S.&Y. FLG Valves’ to ‘2- 6” FLGxFLG OSY Valves’
- Reference to MEGALUGS removed from Note 4
- Concrete Thrust Blocks are bolder

Detail W-9.6 Water Meter Installation 8 Inch Service by Developer [Modification]

- Updated ‘2 - 8” FLG x O.S.&Y. FLG Valves’ to ‘2 - 8” FLGxFLG OSY Valves’
- Reference to MEGALUGS removed from Note 4
- Concrete Thrust Blocks are bolder

Detail W-10.0 Water Meter Fact Sheet [Deletion]

- This detail is removed

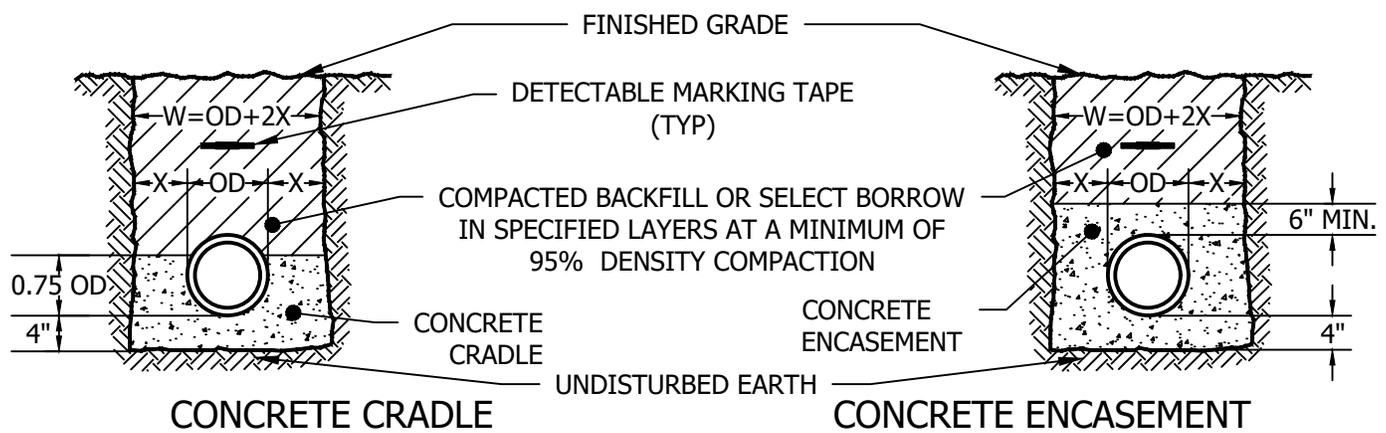
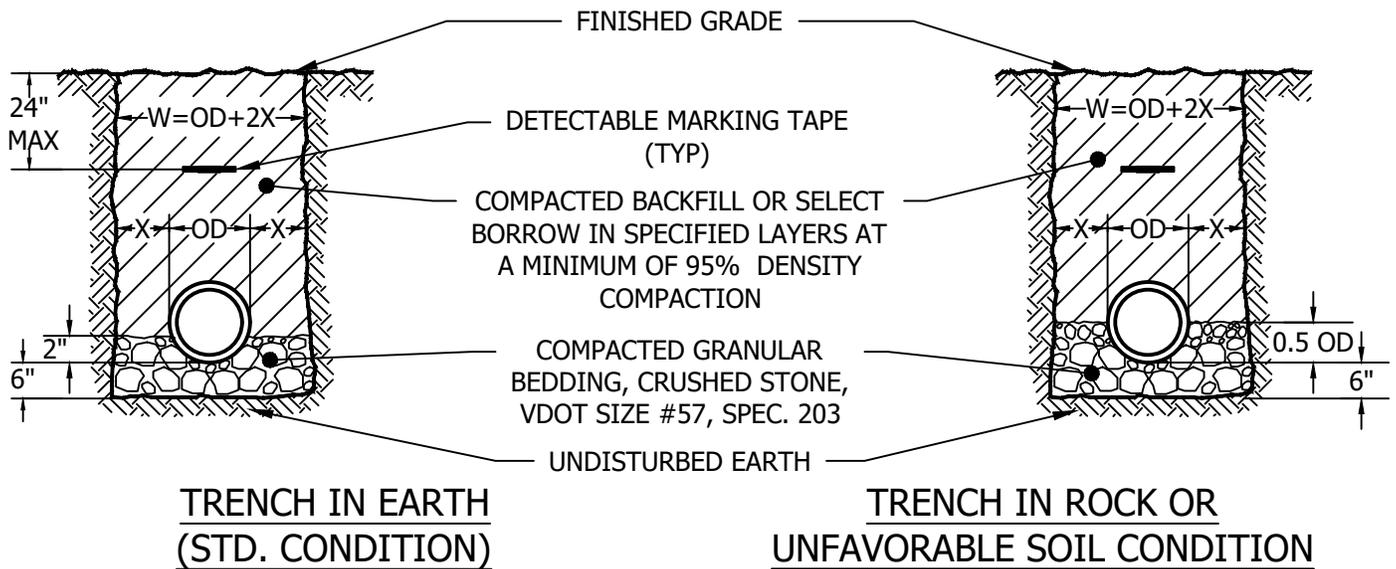


TABLE 3

PIPE SIZE	X
12" & LESS	**
12" - 30"	12"
33" - 42"	15"
48" & LARGER	18"

** TRENCH WIDTH (W) SHALL BE 3'-0" MAX.

WIDTH OF TRENCH (W) = OD+2X WHERE X IS DISTANCE FROM OUTSIDE OF PIPE TO EDGE OF TRENCH

NOTES:

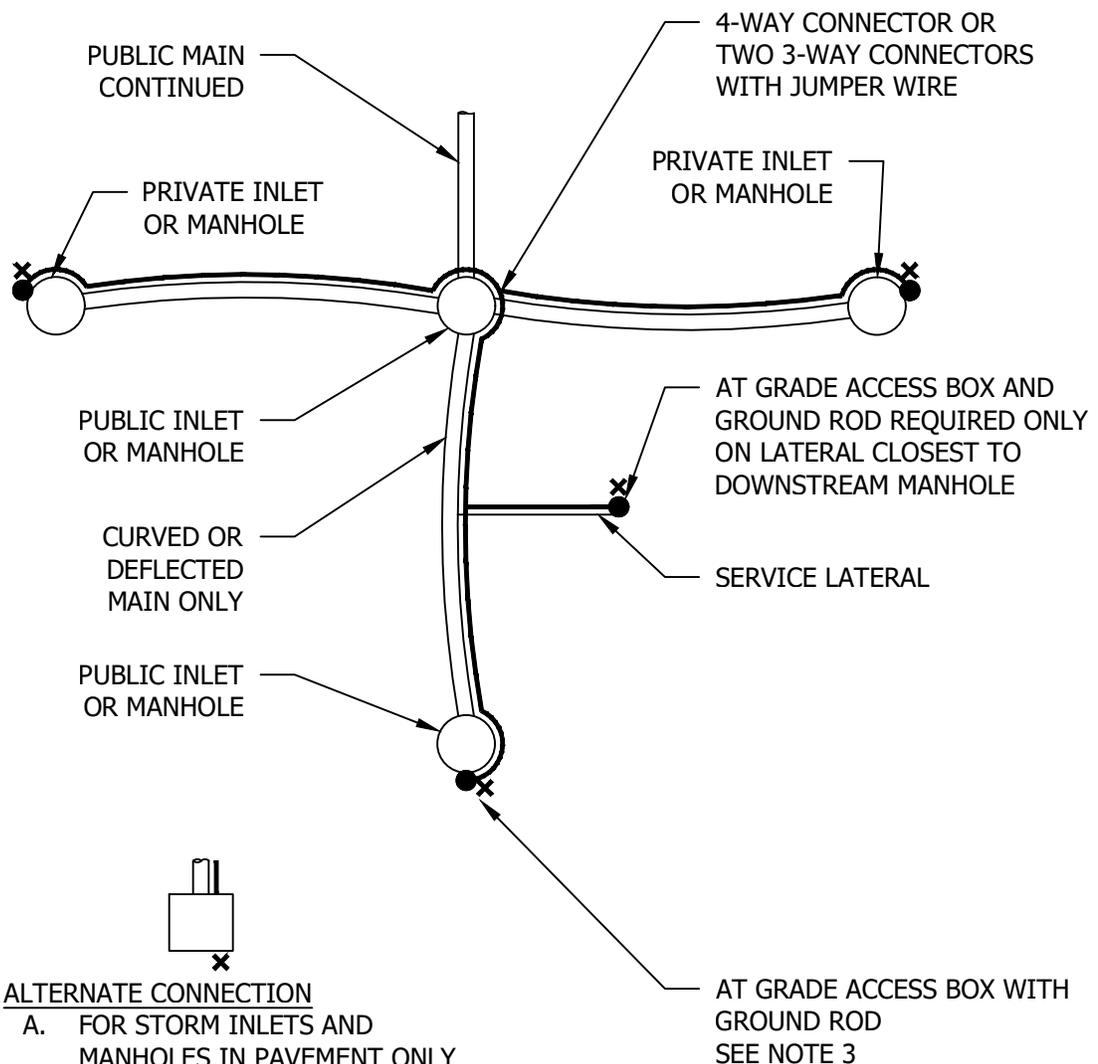
1. CONCRETE FOR CRADLES AND ENCASEMENTS TO HAVE $f'_c = 3,000$ PSI AT 28 DAYS.
2. POUR CONCRETE AGAINST UNDISTURBED EARTH.
3. FOR CONTINUOUS CONDUIT IN TRENCH CONDITIONS THE WIDTH OF TRENCH (W) SHALL BE OD+2X (MAX.).
4. THE WIDTH OF TRENCH FOR ALL OTHER PIPE DIAMETERS SHALL BE ACCORDING TO TABLE 3.
5. FOR PAVEMENT RESTORATION SEE M-6.0.
6. DETECTABLE MARKING TAPE TO BE INSTALLED WITH ALL UTILITIES AS SPECIFIED IN THE DES CONSTRUCTION SPECIFICATIONS.

**PIPE AND BEDDING DETAILS
FOR TRENCH CONDITIONS**



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ISSUED	9/14/2020
DRAWING NO.	
M-3.0	



ALTERNATE CONNECTION

- A. FOR STORM INLETS AND MANHOLES IN PAVEMENT ONLY
- B. ACCESS PROVIDED IN MANHOLE/INLET
- C. GROUND ROD REQUIRED
- D. SEE M-9.2

LEGEND

- AT GRADE ACCESS POINT
- ✕ GROUND ROD

NOTES:

1. TRACER WIRE REQUIRED FOR NONMETALLIC PIPE ONLY.
2. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE TOP OF THE PIPE. THE WIRE SHALL BE FASTENED AS PER THE ARLINGTON COUNTY CONSTRUCTION SPECIFICATIONS.
3. TRACER WIRE FOR INLETS MAY TERMINATE INSIDE OF THE INLET BOX BELOW THE ACCESS (SEE DETAIL M-9.2) OR A GRADE LEVEL IN GROUND ACCESS BOX MUST BE USED (OPTION REQUIRES COUNTY APPROVAL IN PAVED AREAS). DRIVE-IN GROUND ROD MUST BE USED FOR EITHER OPTION

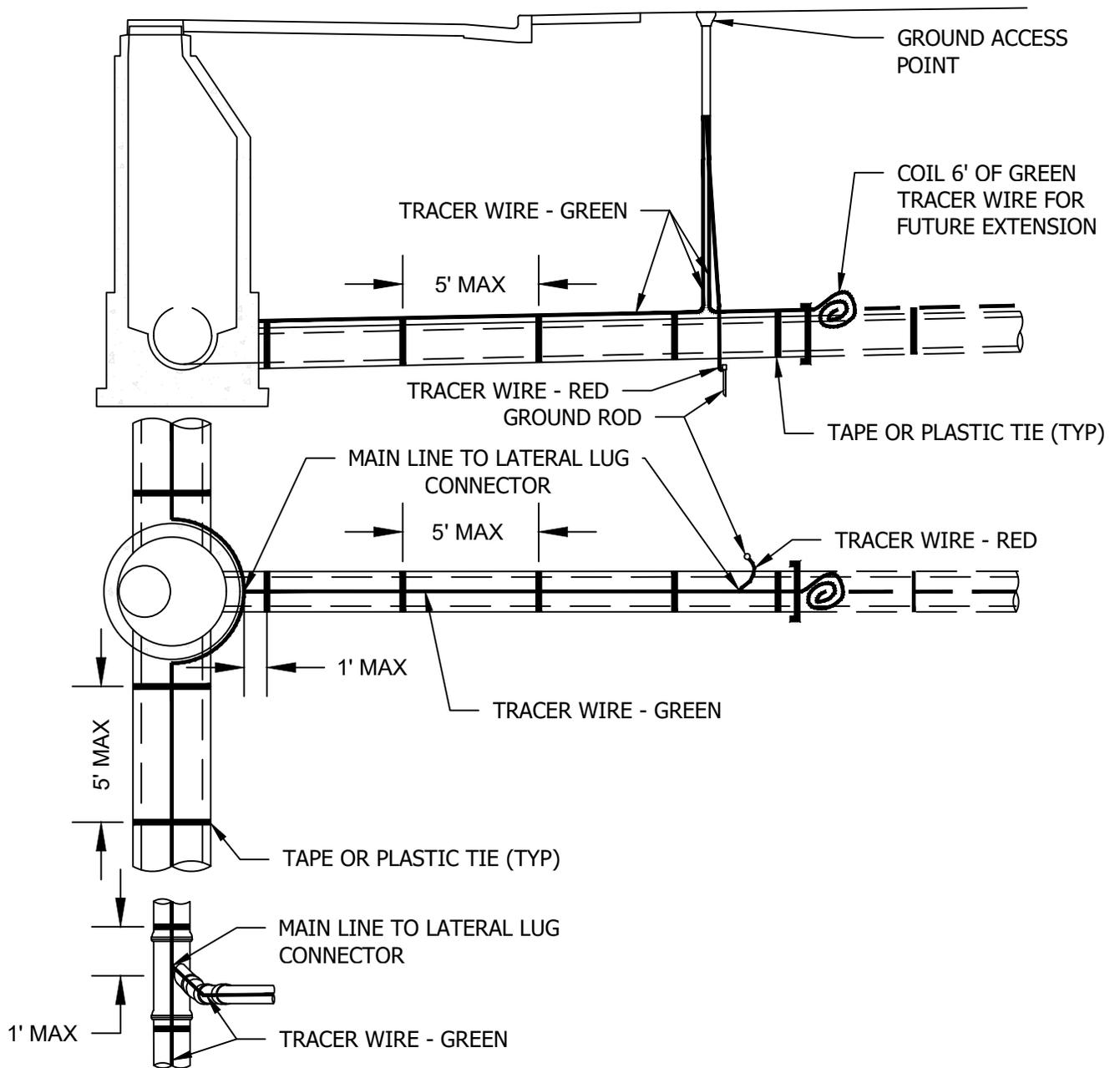
TRACER WIRE SAMPLE PLAN



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ISSUED 2/28/2023

DRAWING NO.
M-9.0



NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE SERVICE PIPE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.
2. TRACER WIRE NOT REQUIRED FOR REHABILITATION PROJECTS.
3. GRADE LEVEL IN-GROUND TRACER WIRE ACCESS BOX TO BE INSTALLED DIRECTLY OVER THE UTILITY LINE NEAR THE RIGHT OF WAY LINE
4. ACCESS BOX REQUIRED AT UPSTREAM TERMINAL LATERAL AND AT EVERY STREET INTERSECTION WHERE A LATERAL OR INLET WILL EXIST
5. COUNTY APPROVAL IS REQUIRED FOR ALL ACCESS BOX LOCATIONS

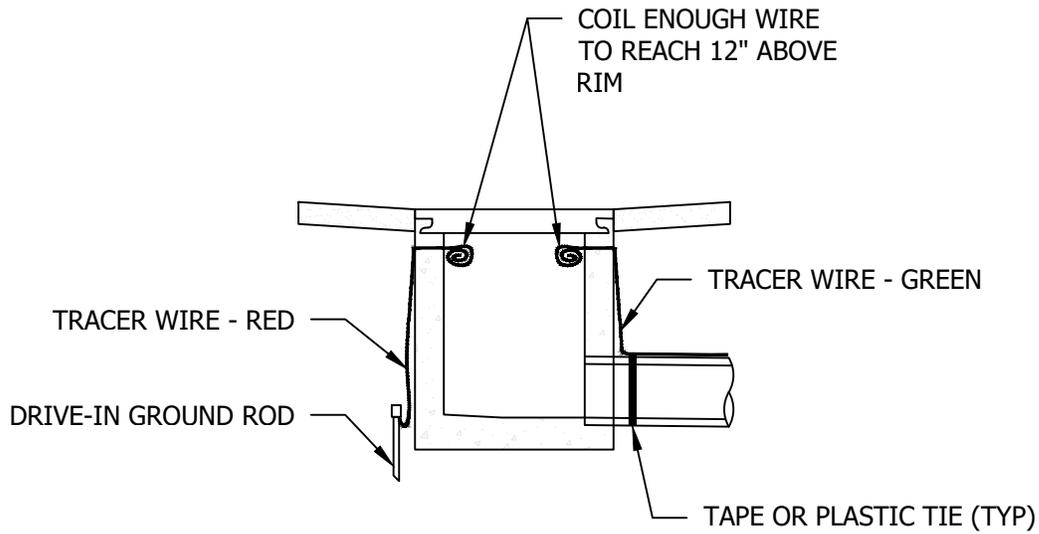
TRACER WIRE LATERAL DETAIL



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ISSUED 9/14/2020

DRAWING NO.
M-9.1



NOTES:

1. RECOMMENDED FOR INLETS OR MANHOLES IN A PARKING LOT WHERE A LEVEL IN-GROUND TRACER WIRE ACCESS BOX HAS POTENTIAL TO BE COVERED BY ASPHALT OVERLAY. THIS OPTION REQUIRES COUNTY APPROVAL AND MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS.

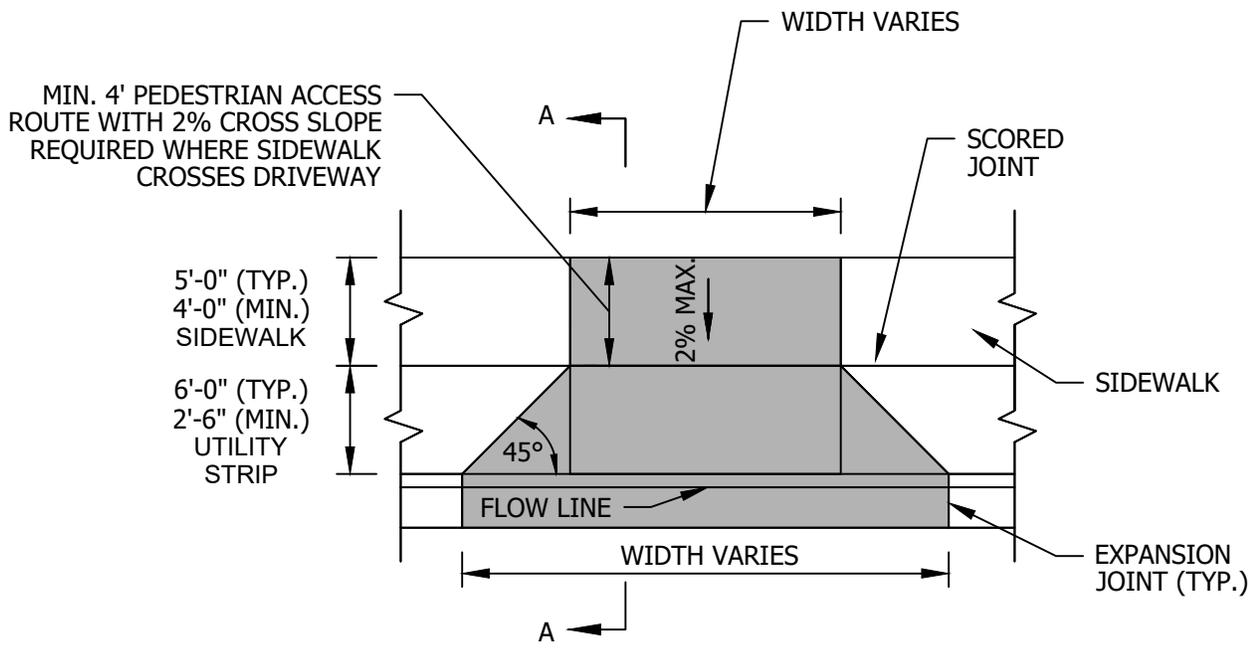
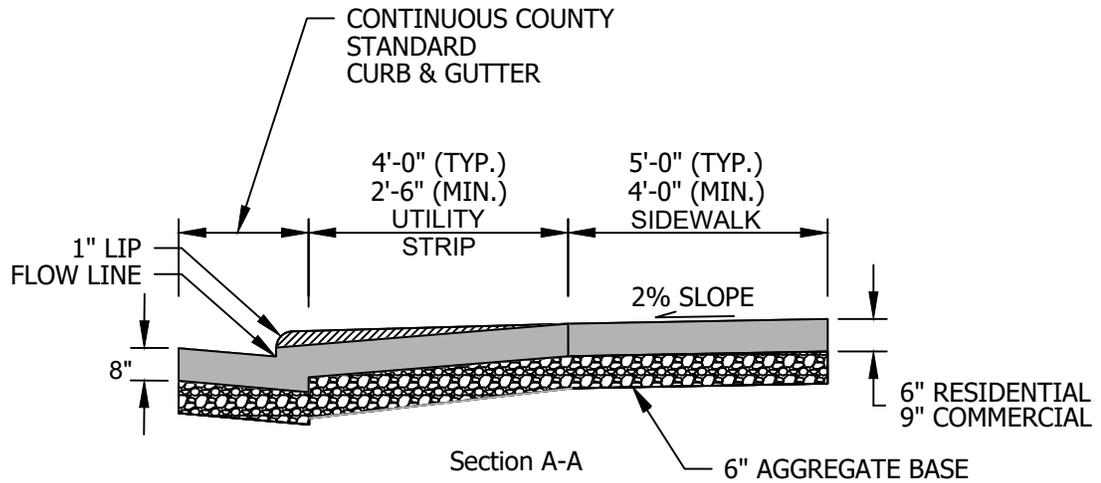
TRACER WIRE ACCESS IN INLET OR MANHOLE FOR PAVED AREAS



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ISSUED 9/14/2020

DRAWING NO.
M-9.2

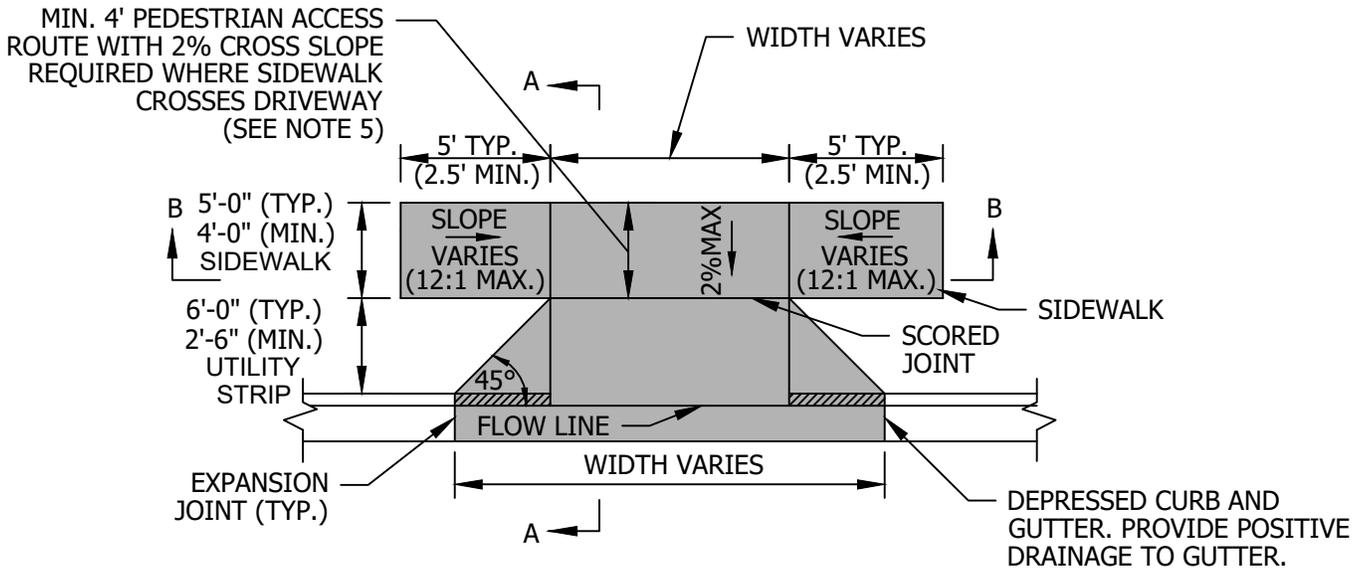
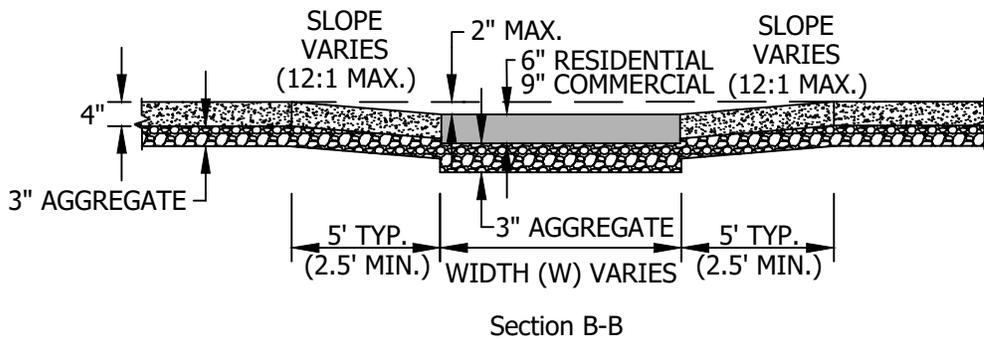
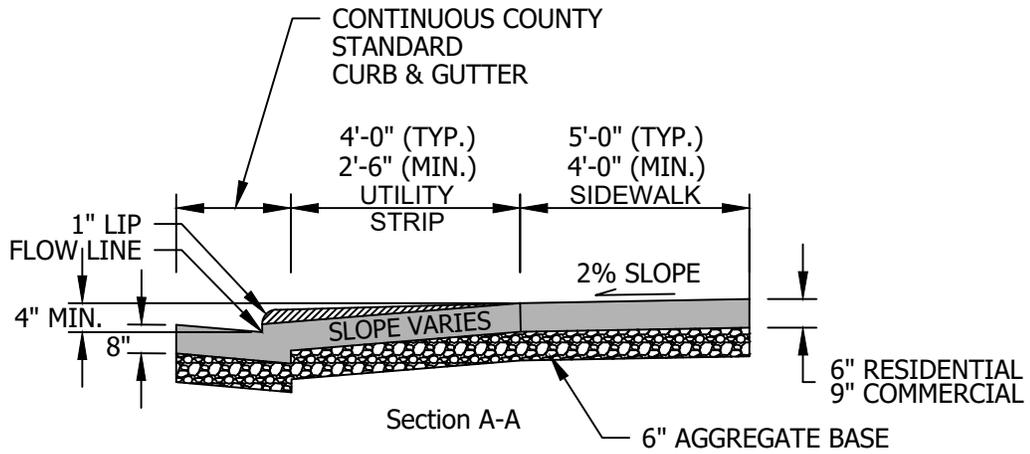


CONCRETE DRIVEWAY ENTRANCE



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	2/28/2023
ISSUED	9/14/2020
DRAWING NO. R-2.4A	



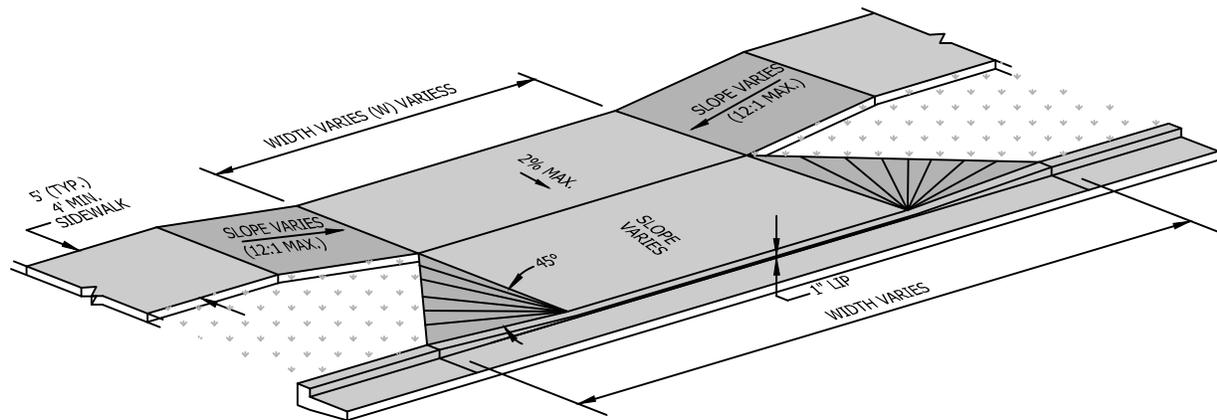
CONCRETE DRIVEWAY ENTRANCE (DEPRESSED)



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1 2/28/2023
ISSUED 9/14/2020

DRAWING NO.
R-2.4B
SHEET 1 OF 2



NOTES:

1. WHEN DRIVEWAY WIDTH EXCEEDS 16' A $\frac{3}{4}$ " MIN. DEPTH SCORED JOINT SHALL BE PLACED ON CENTERLINE OF DRIVEWAY ENTRANCE OR EVERY 10'.
2. CONCRETE DRIVEWAY ENTRANCE SHALL BE POURED MONOLITHICALLY.
3. FOR GRAVEL DRIVEWAY, 4' OF 4" THICK ASPHALT SHALL BE PLACED AT BACK OF THE CONCRETE APRON FOR THE WIDTH OF THE DRIVE.
4. PROVIDE 6" MINIMUM AGGREGATE BASE HAVING MINIMUM CBR-30 UNDER DRIVEWAY ENTRANCE.
5. OWNER SHALL DEDICATE ALL PERMANENT EASEMENTS NECESSARY TO PROVIDE ADA COMPLIANT DRIVEWAY ENTRANCE AND SIDEWALK IF EXISTING OR PROPOSED SIDEWALK INTERSECTS DRIVEWAY.
6. OWNER/DEVELOPER SHALL SUBMIT HYDRAULIC CALCULATIONS TO VERIFY THAT 10 YR. STORM RUNOFF WILL BE RETAINED WITHIN THE GUTTER AND WILL NOT OVERTOP DEPRESSED DRIVEWAY/PEDESTRIAN ACCESS ROUTE. OVERLAND RELIEF AWAY FROM STRUCTURES SHALL BE DEMONSTRATED FOR STORMS IN EXCESS OF 10 YRS.
7. DETAIL R-2.4B SHALL ONLY BE USED WHEN R-2.4A WOULD INHIBIT VEHICULAR USE OF THE DRIVEWAY.

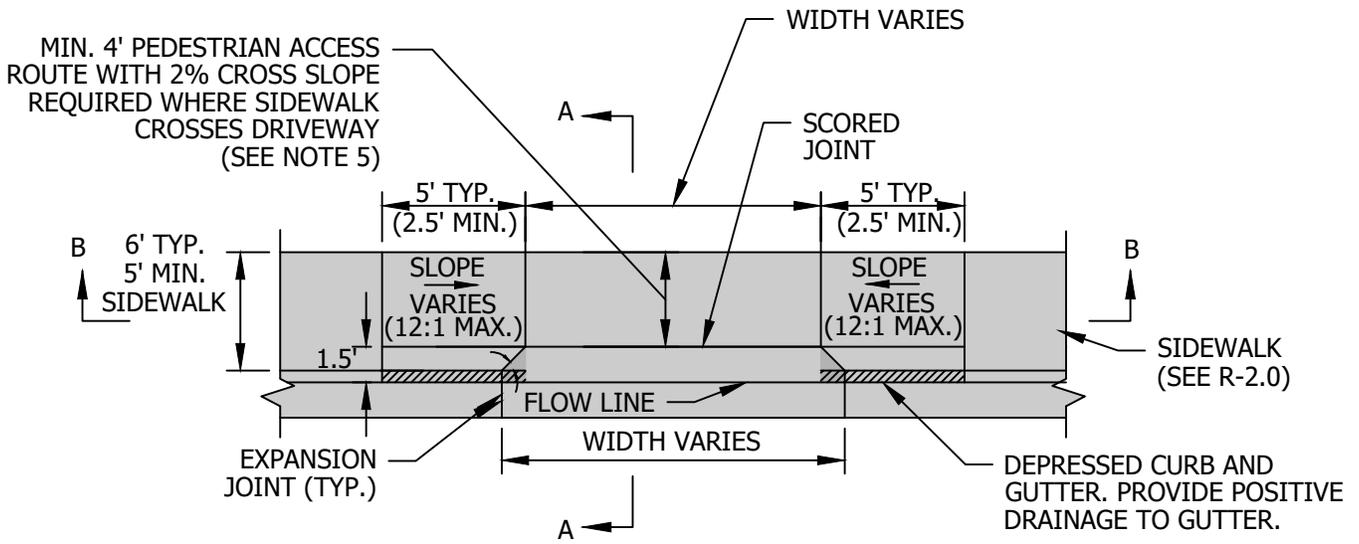
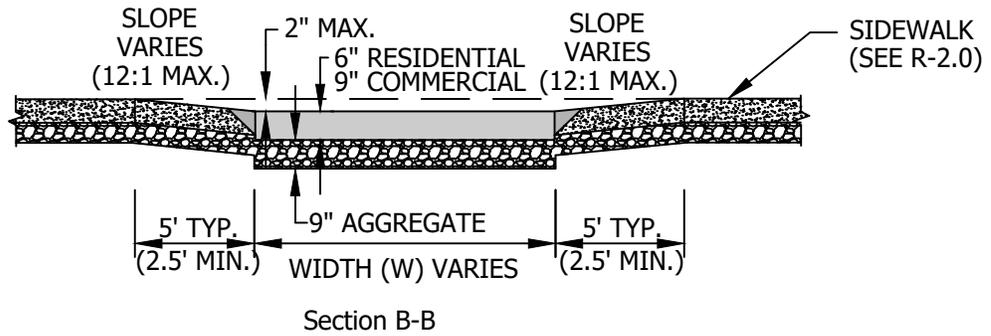
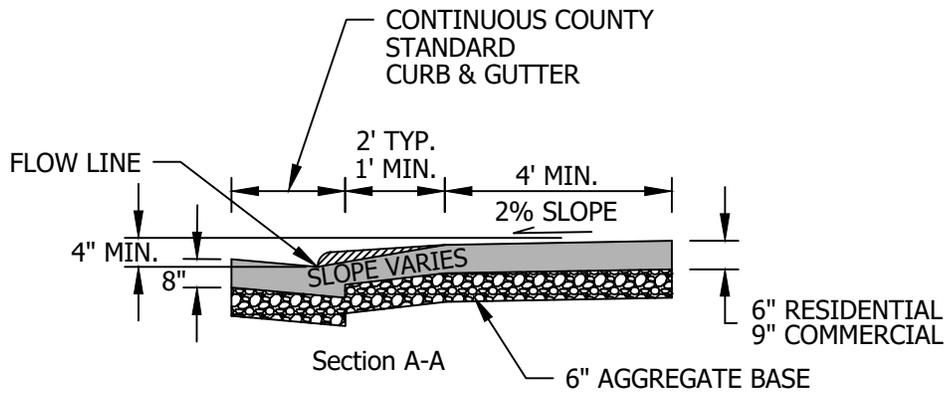
CONCRETE DRIVEWAY ENTRANCE (DEPRESSED)



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ISSUED 9/14/2020

DRAWING NO.
R-2.4B
SHEET 2 OF 2

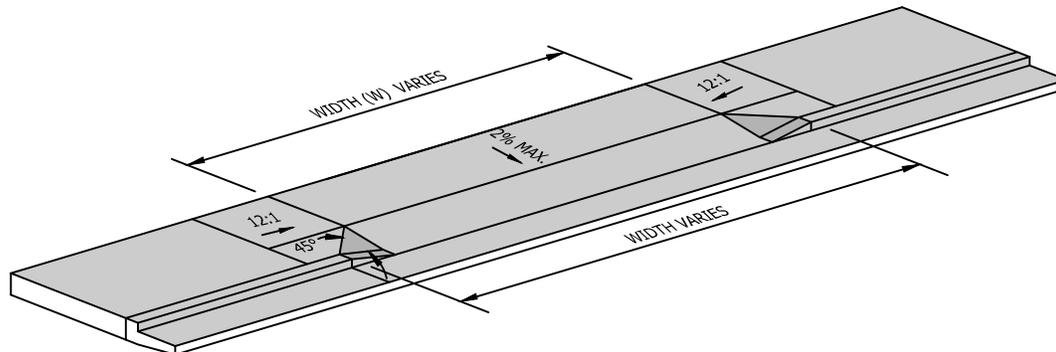


CONCRETE DRIVEWAY ENTRANCE (MOUNTABLE CURB)



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	10/7/2021
ISSUED	9/14/2020
DRAWING NO.	
R-2.4C	
SHEET 1 OF 2	



NOTES:

1. WHEN DRIVEWAY WIDTH EXCEEDS 16' A 3/4" MIN. DEPTH SCORED JOINT SHALL BE PLACED ON CENTERLINE OF DRIVEWAY ENTRANCE OR EVERY 10'.
2. CONCRETE DRIVEWAY ENTRANCE SHALL BE POURED MONOLITHICALLY.
3. FOR GRAVEL DRIVEWAY, 4' OF 4" THICK ASPHALT SHALL BE PLACED AT BACK OF THE CONCRETE APRON FOR THE WIDTH OF THE DRIVE.
4. PROVIDE 6" MINIMUM AGGREGATE BASE HAVING MINIMUM CBR-30 UNDER DRIVEWAY ENTRANCE.
5. OWNER SHALL DEDICATE ALL PERMANENT EASEMENTS NECESSARY TO PROVIDE ADA COMPLIANT DRIVEWAY ENTRANCE AND SIDEWALK IF EXISTING OR PROPOSED SIDEWALK INTERSECTS DRIVEWAY.
6. OWNER/DEVELOPER SHALL SUBMIT HYDRAULIC CALCULATIONS TO VERIFY THAT 10 YR. STORM RUNOFF WILL BE RETAINED WITHIN THE GUTTER AND WILL NOT OVERTOP DEPRESSED DRIVEWAY/PEDESTRIAN ACCESS ROUTE. OVERLAND RELIEF AWAY FROM STRUCTURES SHALL BE DEMONSTRATED FOR STORMS IN EXCESS OF 10 YRS.
7. DETAIL R-2.4C SHALL ONLY BE USED WHEN R-2.4A OR R-2.4B WOULD INHIBIT VEHICULAR USE OF THE DRIVEWAY.

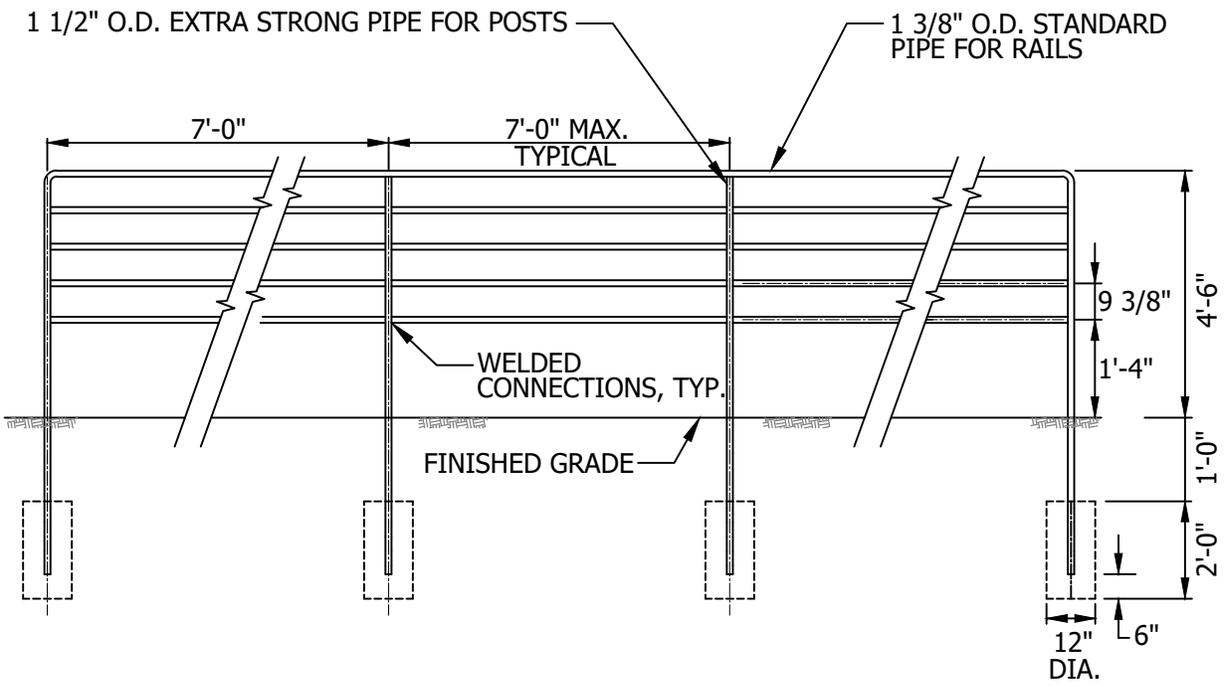
CONCRETE DRIVEWAY ENTRANCE (MOUNTABLE CURB)



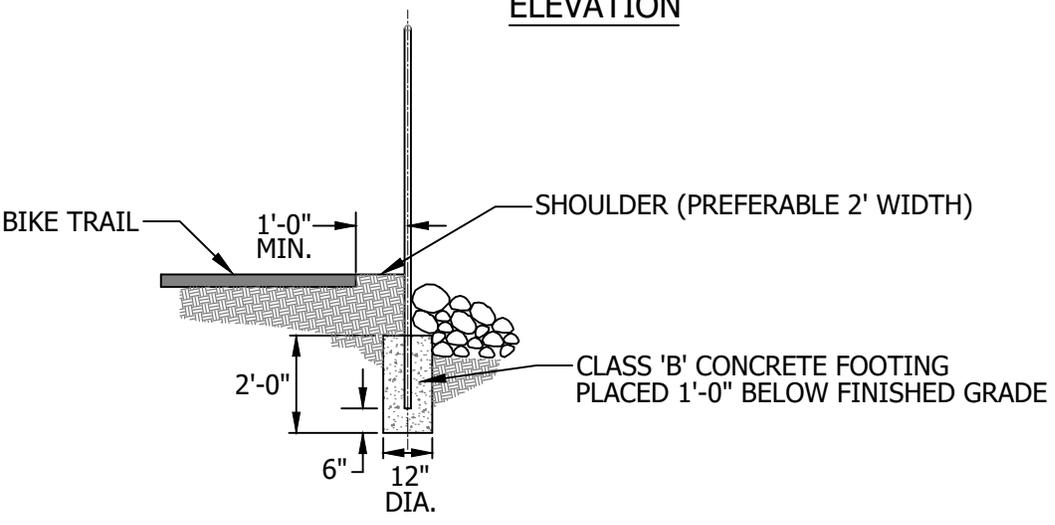
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ISSUED 9/14/2020

DRAWING NO.
R-2.4C
SHEET 2 OF 2



ELEVATION



TRAIL RAILING

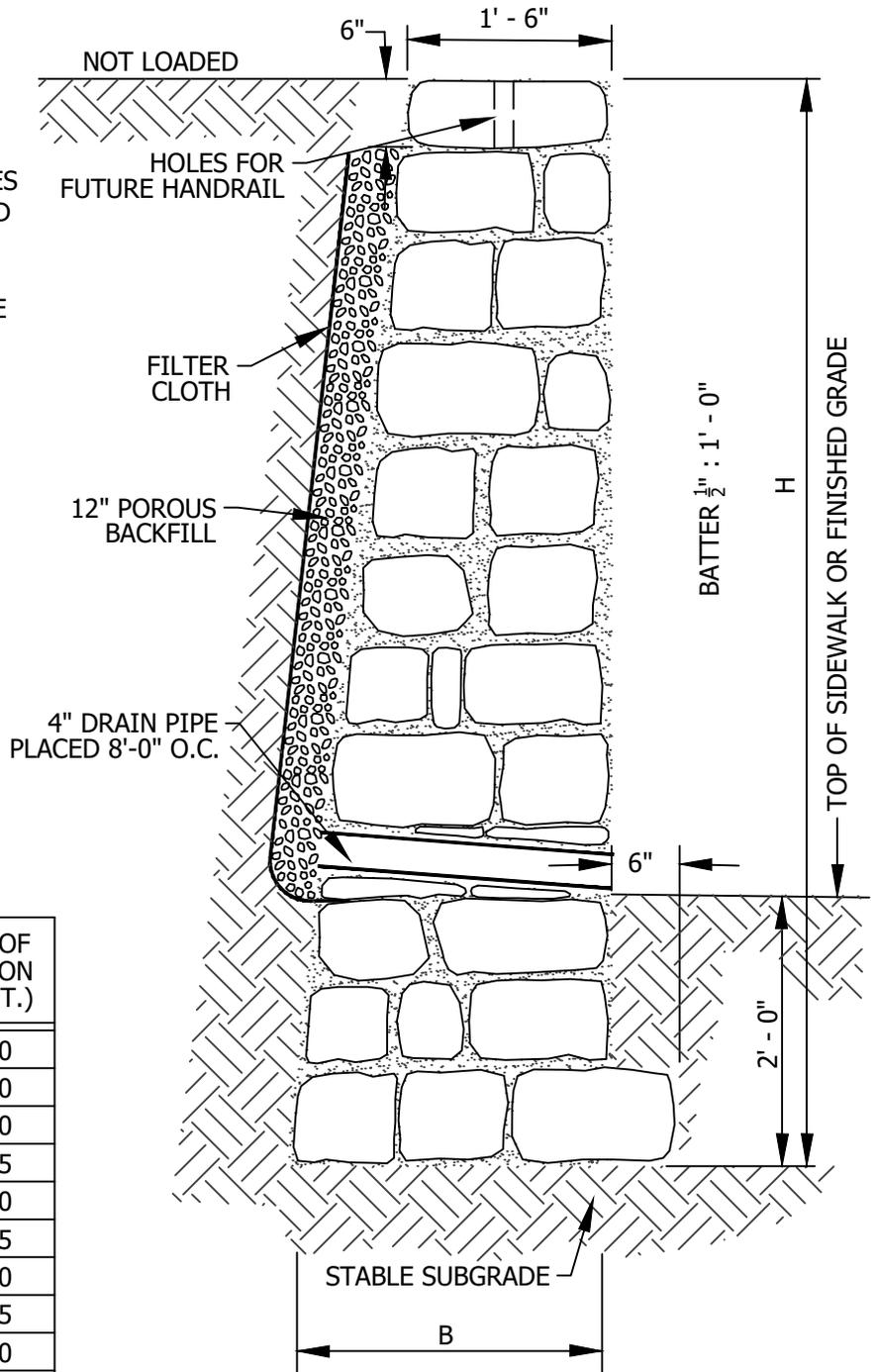


ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	10/7/2021
ISSUED	9/14/2020
DRAWING NO.	
R-3.3	

NOTES:

- HOLES ARE TO BE LEFT IN THE TOP OF THE WALL, 15" DEEP FOR FUTURE HANDRAIL. MAXIMUM SPACING FOR HOLES IS 10' ON CENTERS. (6' ON CENTERS FOR WALLS CONSTRUCTED ON A RADIUS.) WHERE HANDRAILS ARE NOT INSTALLED WITH WALL, HOLES ARE TO BE FILLED WITH SAND AND COVERED WITH 1" OF CEMENT MORTAR.
- DEPTH OF WALL IN GROUND TO BE DETERMINED BY EXISTING FIELD CONDITIONS. DEPTH TO BE NOT LESS THAN 2'-0".



HEIGHT OF WALL "H" IN FT.	THICKNESS AT BASE "B" = 0.4H	AREA OF SECTION (SQ. FT.)
2	1' - 6"	3.50
3	1' - 6"	5.00
4	1' - 7 1/4"	6.70
5	2' - 0"	9.25
6	2' - 4 3/4"	12.20
7	2' - 9 1/2"	15.55
8	3' - 2 1/2"	19.30
9	3' - 7 1/4"	23.45
10	4' - 0"	28.00
11	4' - 4 3/4"	32.95
12	4' - 9 1/2"	38.30
13	5' - 2 1/2"	44.05
14	5' - 7 1/4"	50.20
15	6' - 0"	55.75

H = HEIGHT IN FEET
 BASE = 0.4H (MIN. 1' - 6")
 WT. CU. FT. EARTH = 100 LBS.
 RUBBLE = 150 LBS. PER CU. FT.
 ANGLE OF REPOSE = 1 1/2 : 1

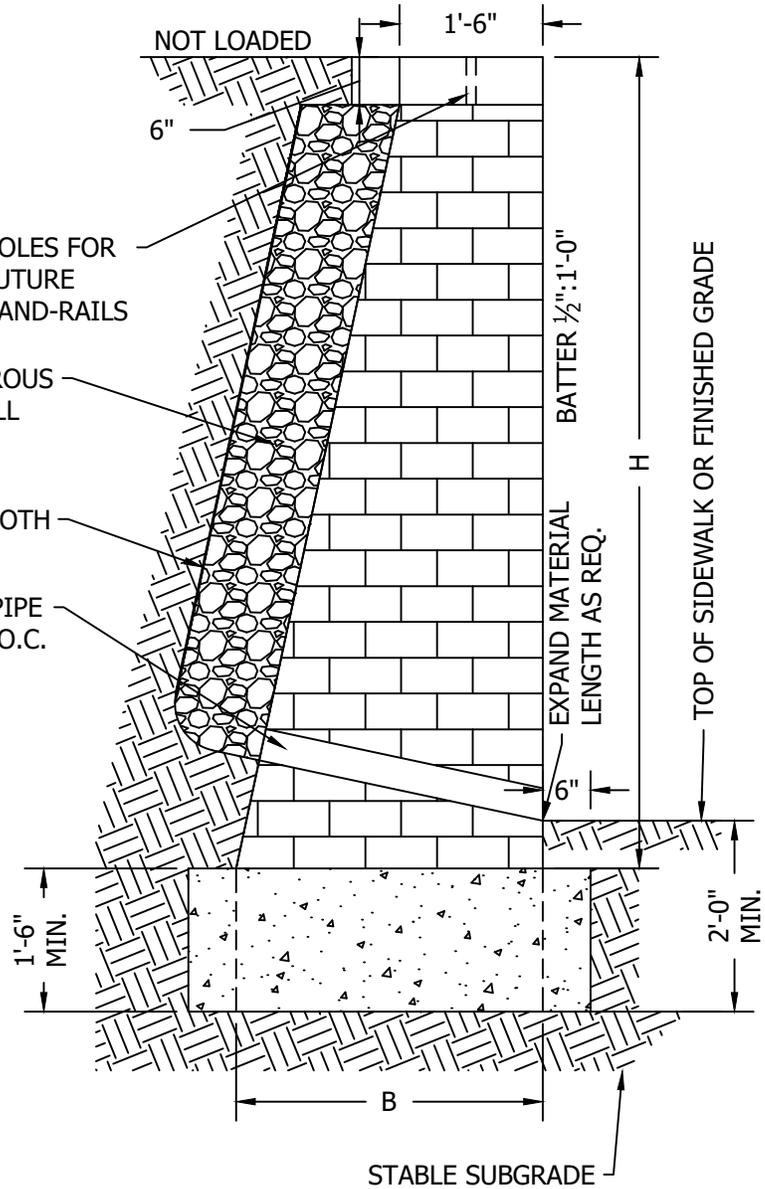
**MORTAR RUBBLE RETAINING WALL
 LEVEL BACKFILL**



ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

1 10/7/2021
 ISSUED 9/14/2020

DRAWING NO.
R-4.0



HEIGHT OF WALL "H" IN FT.	THICKNESS AT BASE "B" = 0.4H	AREA OF SECTION (SQ. FT.)*
2	1'-6"	3.00
3	1'-6"	4.50
4	1'-7 ¼"	6.20
5	2'-0"	8.75
6	2'-4 ¾"	11.70
7	2'-9 ½"	15.05
8	3'-2 ½"	18.80
9	3'-7 ¼"	22.95
10	4'-0"	27.50
11	4'-4 ¾"	32.45
12	4'-9 ½"	37.80
13	5'-2 ½"	43.55
14	5'-7 ¼"	49.70
15	6'-0"	55.25

H = HEIGHT IN FEET
 BASE = 0.4H (MIN. 1'-6")
 WT. CU. FT. EARTH = 100 LBS.
 RUBBLE = 150 LBS. PER CU. FT.
 ANGLE OF REPOSE = 1½:1

*EXCLUDING CONCRETE BASE

NOTES:

1. BASE MAY BE CLASS A3 CONCRETE.
2. BOTTOM COURSE OF STONES SHALL BE KEYED INTO CONCRETE BASE OR TIE BARS, PLACES AS DIRECTED BY THE ENGINEER.
3. FOR ADDITIONAL NOTES AND DIMENSIONS, SEE DRAWING R-4.0.

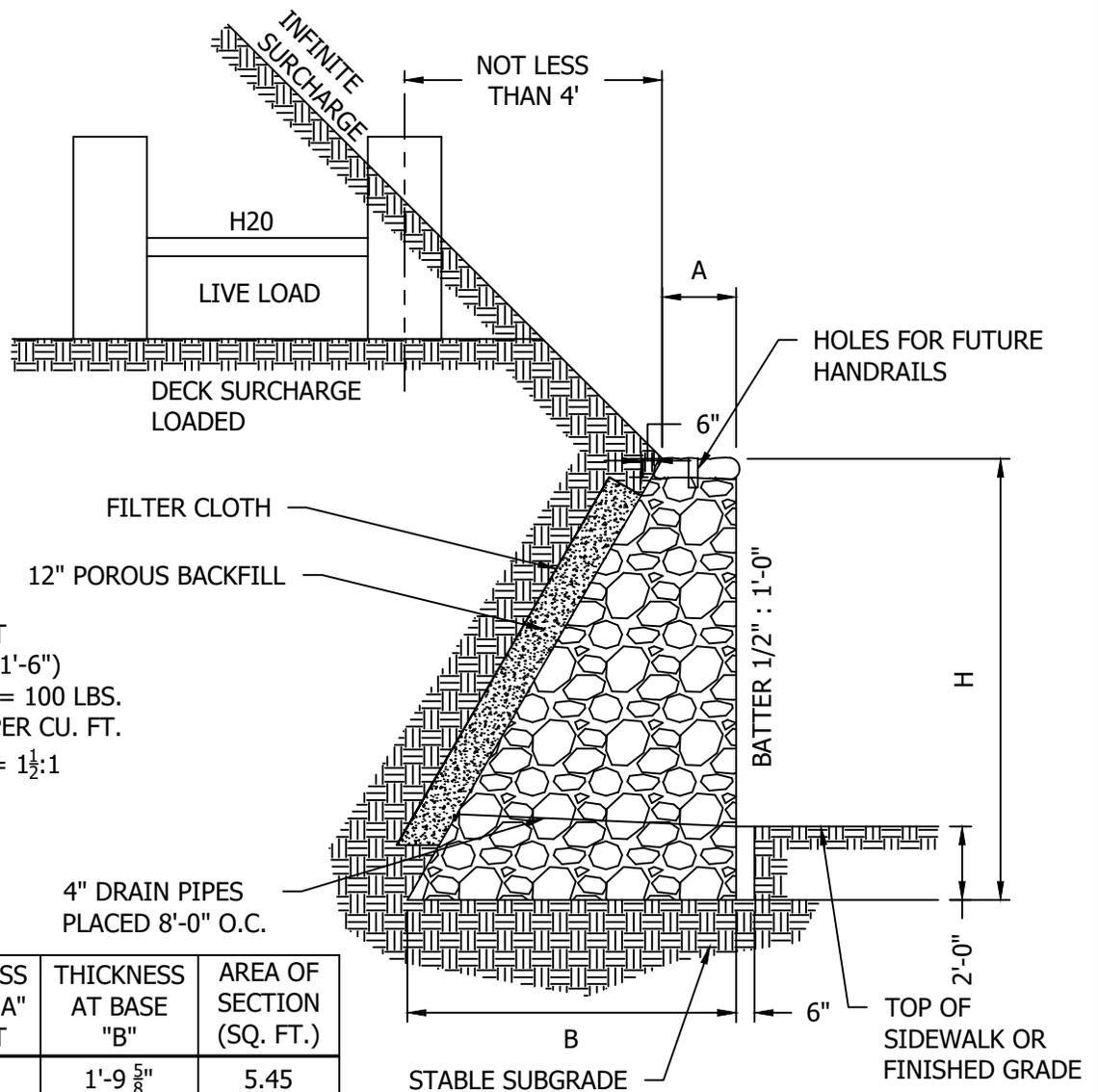
**MORTAR RUBBLE RETAINING WALL
 WITH CONCRETE BASE, LEVEL BACKFILL**



ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

1 10/7/2021
 ISSUED 9/14/2020

DRAWING NO.
R-4.1



H = HEIGHT IN FEET
 BASE = 0.6 H (MIN. 1'-6")
 WT. CU. FT. EARTH = 100 LBS.
 RUBBLE - 150 LBS. PER CU. FT.
 ANGLE OF REPOSE = 1½:1

HEIGHT OF WALL "H" IN FT.	THICKNESS AT TOP "A" IN FEET	THICKNESS AT BASE "B"	AREA OF SECTION (SQ. FT.)
3	1'-6"	1'-9 5/8"	5.45
4	1'-6"	2'-4 7/8"	8.30
5	1'-6"	3'-0"	11.75
6	1'-8"	3'-7 1/4"	16.30
7	1'-8"	4'-2 3/8"	21.04
8	1'-9"	4'-9 5/8"	26.70
9	1'-9"	5'-4 7/8"	32.68
10	1'-10"	6'-0"	39.67
11	1'-10"	6'-7 1/4"	46.89
12	1'-11"	7'-2 3/8"	55.21
13	1'-11"	7'-9 5/8"	63.67
14	2'-0"	8'-4 7/8"	73.30
15	2'-0"	9'-0"	83.00

NOTES:
 1. FOR ADDITIONAL NOTES AND DRAWINGS, SEE DRAWING R-4.0

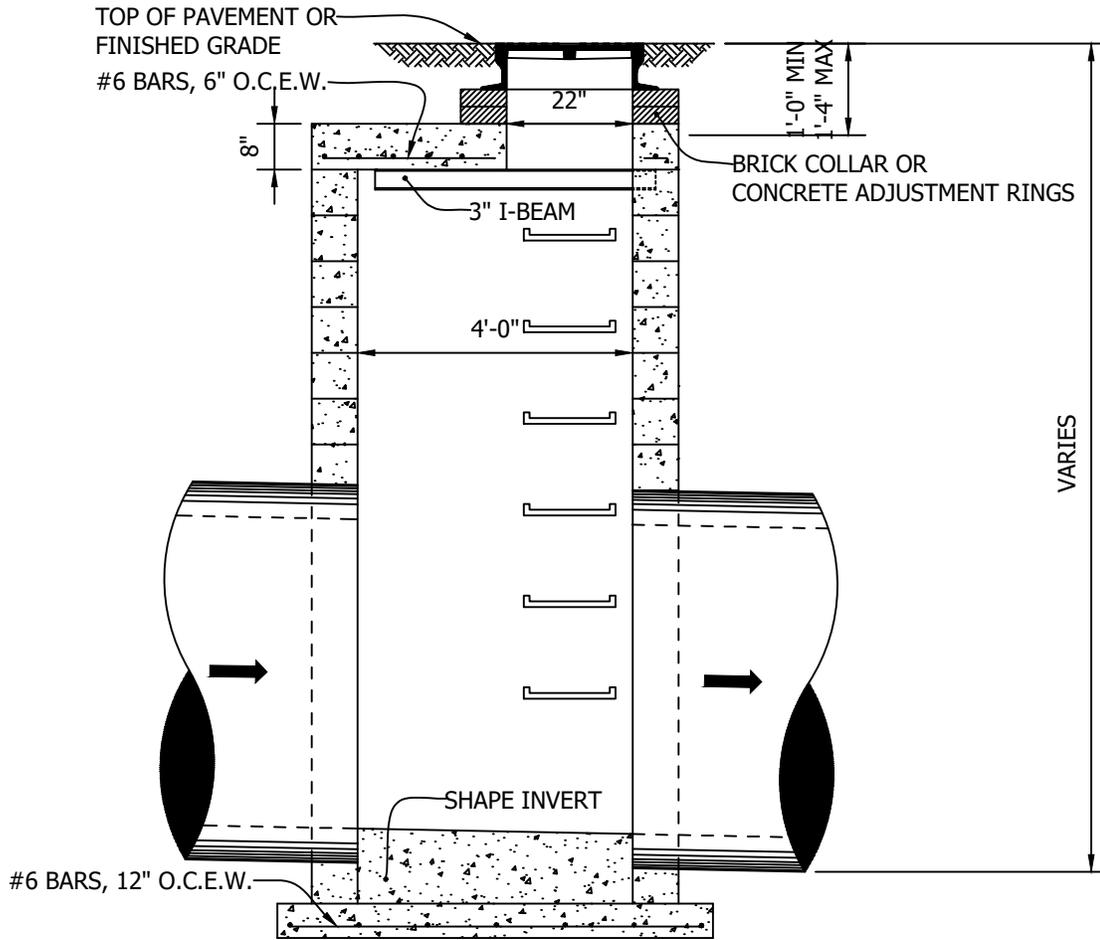
**MORTAR RUBBLE RETAINING WALL
 WITH INFINITE SURCHARGE OR DECK SURCHARGE**



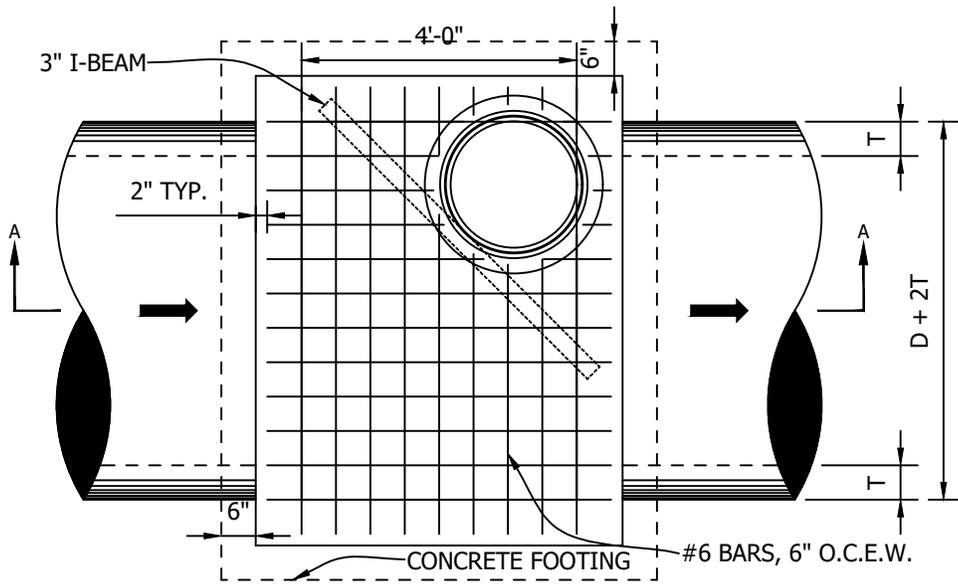
ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

1 10/7/2021
 ISSUED 9/14/2020

DRAWING NO.
R-4.2



SECTION A-A



PLAN

NOTES:

1. FOR ADDITIONAL NOTES SEE DRAWING D-3.0

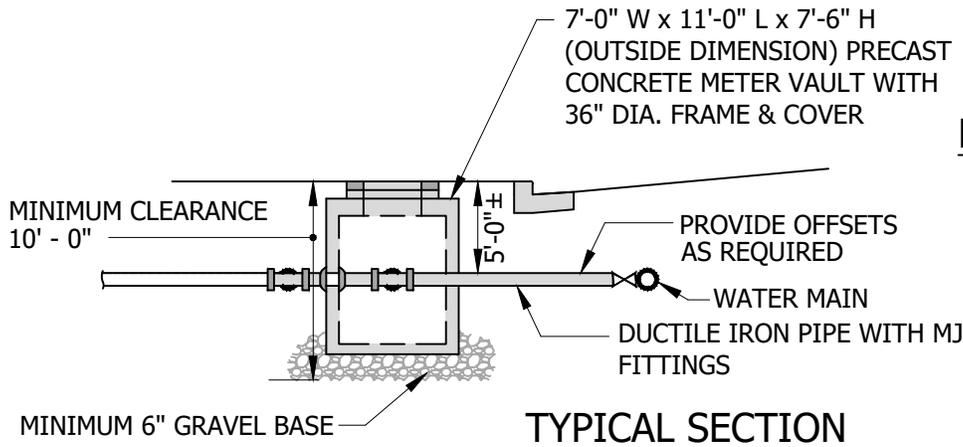
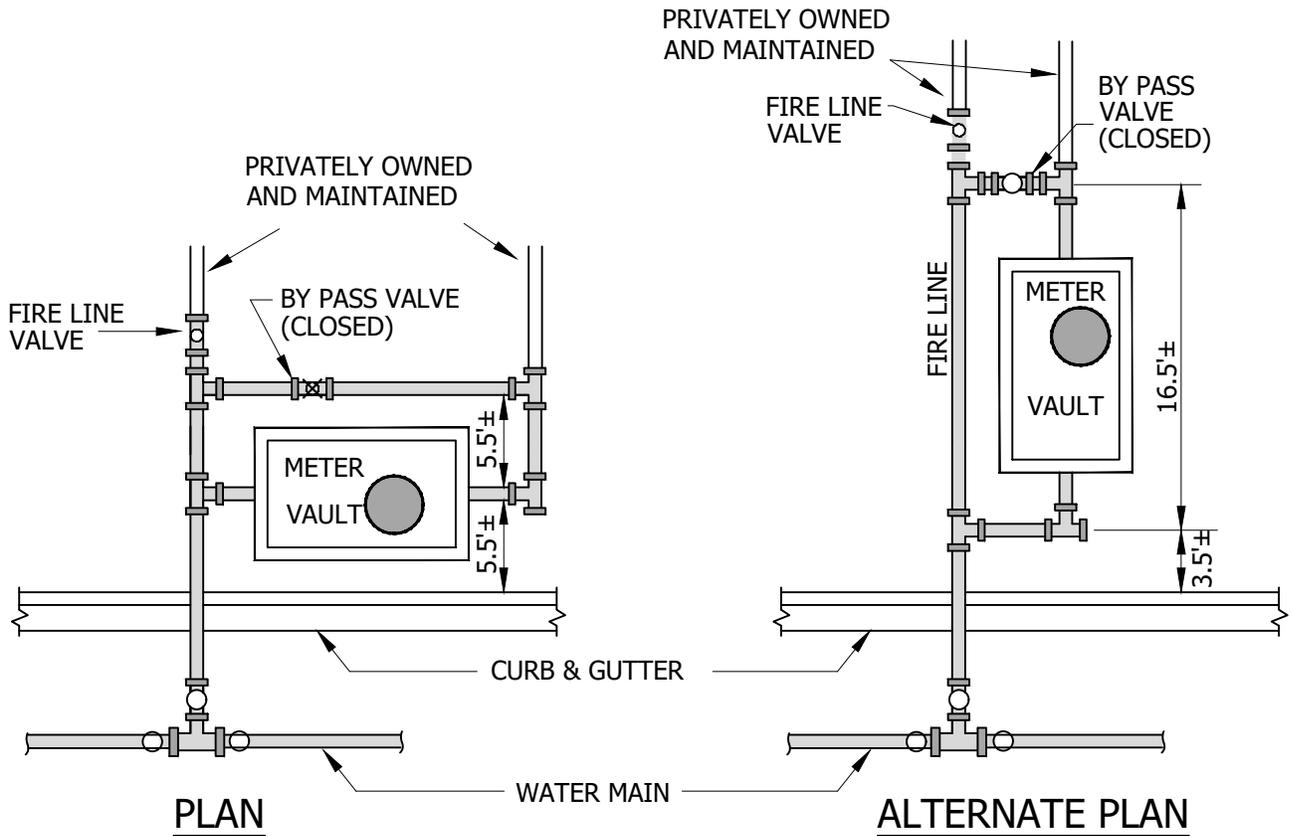
**STORM SEWER MANHOLE, MH-3
FOR PIPE SIZES GREATER THAN 54"**



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	4/3/2021
ISSUED	9/14/2020

DRAWING NO.
D-3.4



REFERENCE DRAWINGS

1. VAULT - W-8.3
2. PIPING - W-9.5 & W-9.6
3. FRAME & COVER - W-9.9

NOTES :

1. METER WILL BE INSTALLED BY COUNTY AFTER ALL FEES HAVE BEEN PAID AND ALL SITE CONDITIONS FOR SETTING THE METER HAVE BEEN MET.
2. THE DEVELOPER SHALL BE RESPONSIBLE FOR INSTALLING VAULT AND PIPING EXCEPT COUNTY PORTION AS OUTLINED IN DRAWING W-9.5 & W-9.6.
3. FIRE LINE AND FIRE LINE VALVE WILL BE OMITTED IF NO FIRE LINE IS REQUIRED.
4. SEPARATE FIRE LINE INSTALLATION SHALL BE SIMILAR TO THE ONE SHOWN IN W-8.0.
5. ALTERNATE PIPING CONFIGURATION WILL BE INSTALLED AS NECESSARY FOR SPECIAL SITUATIONS AS APPROVED.
6. A PERMANENT CLEAR SPACE 25' X 20' X 10' DEEP SHALL BE PROVIDED BEHIND THE CURB FOR WATER METER VAULT AND BY PASS.

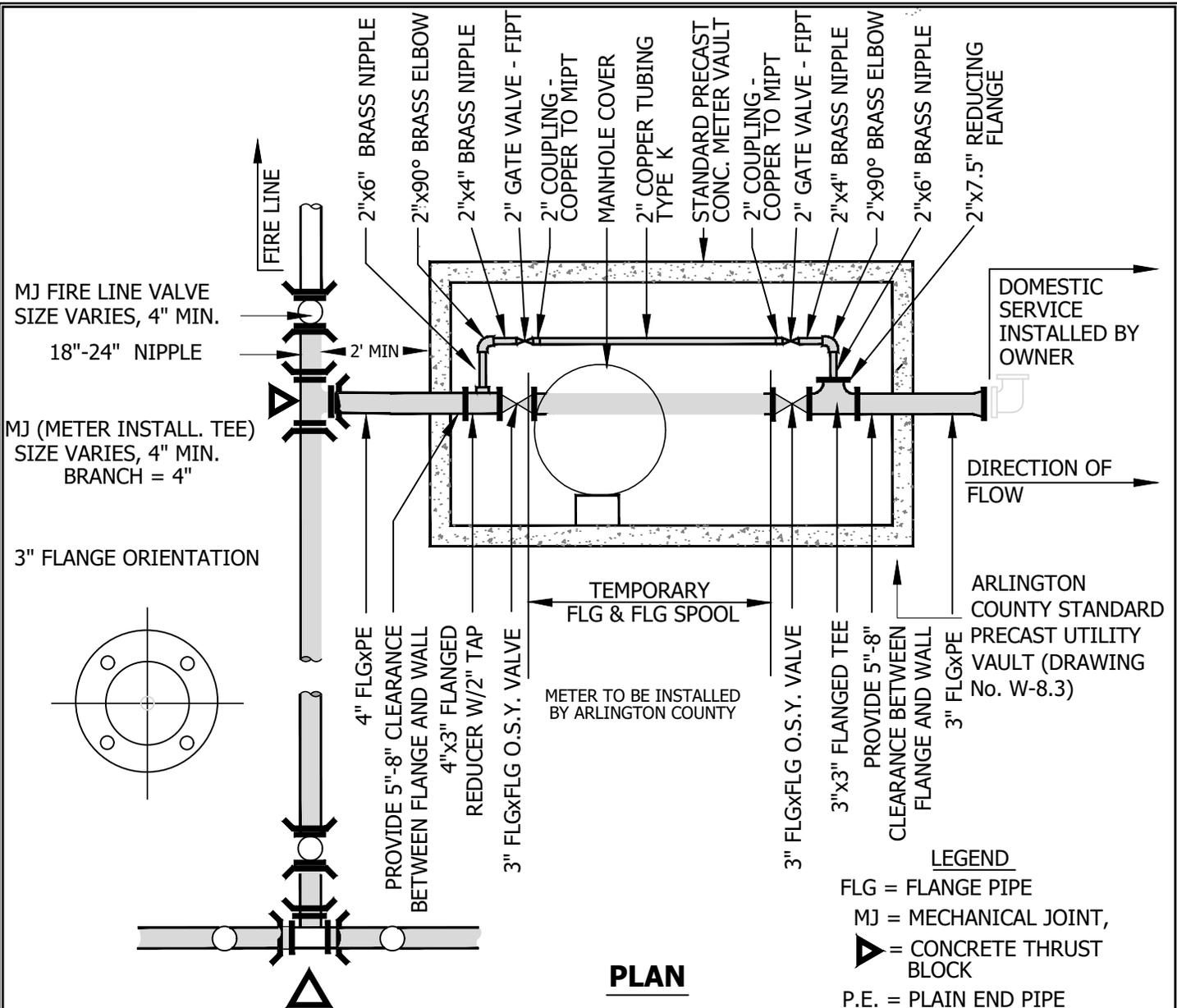
WATER SERVICE CONNECTIONS 6 INCH AND 8 INCH BY DEVELOPER



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	10/7/2021
ISSUED	9/14/2020

DRAWING NO.
W-8.2



PLAN

LEGEND

- FLG = FLANGE PIPE
- MJ = MECHANICAL JOINT,
- ▲ = CONCRETE THRUST BLOCK
- P.E. = PLAIN END PIPE
- } = MEGALUG

NOTES:

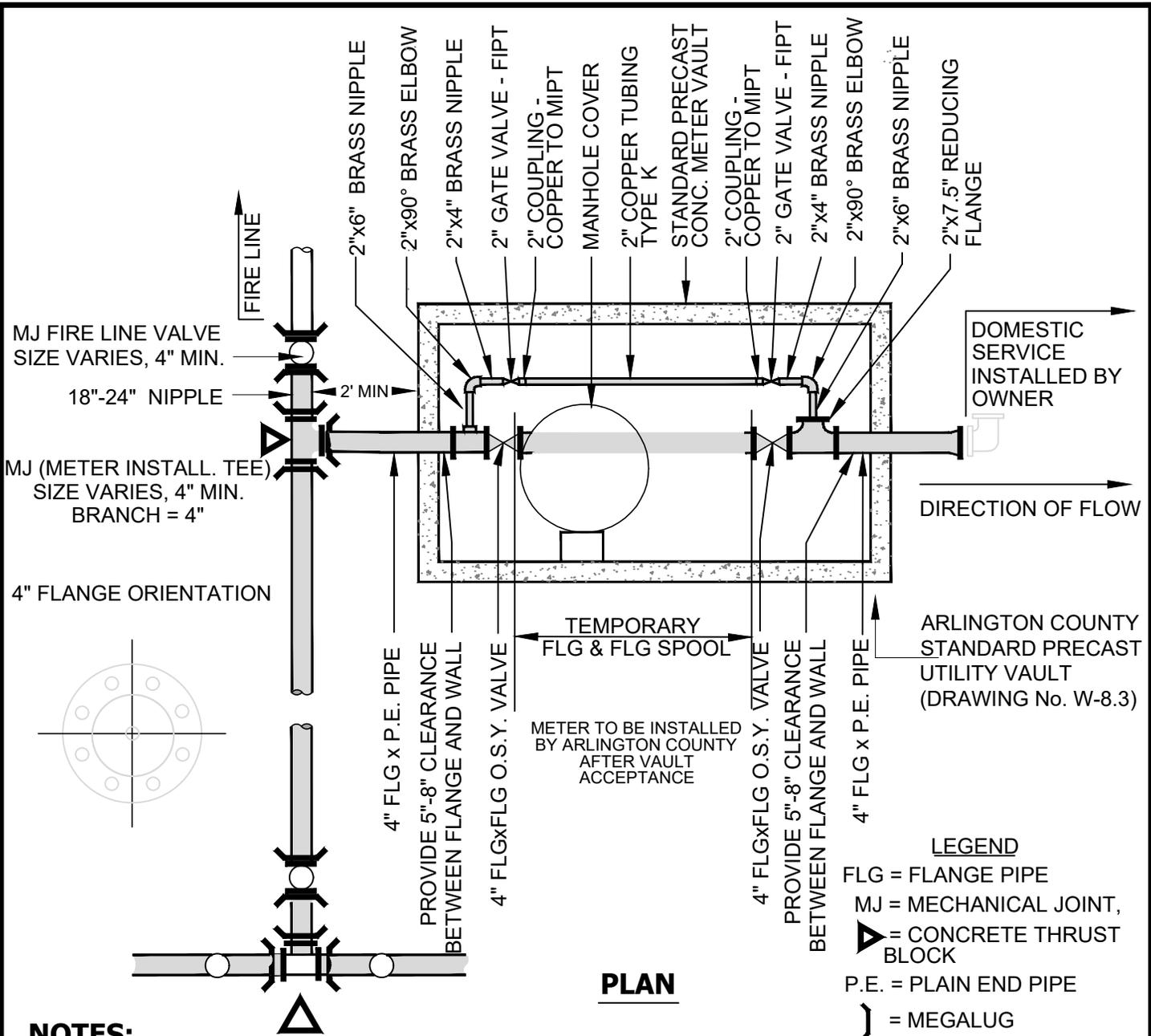
1. FOR OTHER WATER SERVICE DETAILS SEE DRAWING NO. W-8.1, W-8.3 AND W-9.9.
2. PIPE DIAMETER FROM MAIN TO METER INSTALLATION TEE AND FIRE LINE VALVE SHALL BE A MINIMUM OF 4".
3. ALL BURIED PIPE AND FITTINGS 3" AND LARGER, SHALL BE DUCTILE IRON WITH POLYETHYLENE ENCASEMENT (8-MILS).
4. PROVIDE THRUST RESTRAINTS FOR ALL PIPES, VALVES AND FITTINGS. THRUST RESTRAINT SHALL INCLUDE BOTH CONCRETE THRUST BLOCKS, AS PER DRAWING No. W-2.0, W-2.1 AND W-2.2 AS WELL AS JOINT RESTRAINTS.
5. WHEN LOOKING IN THE DIRECTION OF FLOW, VAULT STEPS SHALL BE LOCATED ON THE RIGHT HAND SIDE OF VAULT.
6. CONTRACTOR TO TEMPORARILY FURNISH AND INSTALL A 3" FLG x FLG SPOOL SECTION OF PIPE INSIDE THE VAULT TO FACILITATE CONTRACTOR'S HYDROSTATIC TESTING AND ASSURE PROPER ALIGNMENT OF FLANGES FOR FUTURE METER INSTALLATION.

3 INCH WATER SERVICE INSTALLATION BY DEVELOPER



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	2/28/2023
ISSUED	9/14/2020
DRAWING NO.	
W-9.3	



PLAN

NOTES:

1. FOR OTHER WATER SERVICE DETAILS SEE DRAWING NO. W-8.1, W-8.3 AND W-9.9.
2. PIPE DIAMETER FROM MAIN TO METER INSTALLATION TEE AND FIRE LINE VALVE SHALL BE A MINIMUM OF 4".
3. ALL BURIED PIPES AND FITTINGS 3" AND LARGER SHALL BE DUCTILE IRON WITH POLYETHYLENE ENCASUREMENT (8-MILS).
4. PROVIDE THRUST RESTRAINTS FOR ALL PIPES, VALVES AND FITTINGS. THRUST RESTRAINT SHALL INCLUDE BOTH CONCRETE THRUST BLOCKS AS PER DRAWING No. W-2.0, W-2.1 AND W-2.2, AS WELL AS JOINT RESTRAINTS.
5. WHEN LOOKING IN THE DIRECTION OF FLOW, VAULT STEPS SHALL BE LOCATED ON THE RIGHT HAND SIDE OF VAULT.
6. CONTRACTOR TO TEMPORARILY FURNISH AND INSTALL A 4" FLG x FLG SPOOL SECTION OF PIPE INSIDE THE VAULT TO FACILITATE CONTRACTOR'S HYDROSTATIC TESTING AND ASSURE PROPER ALIGNMENT OF FLANGES FOR FUTURE METER INSTALLATION.

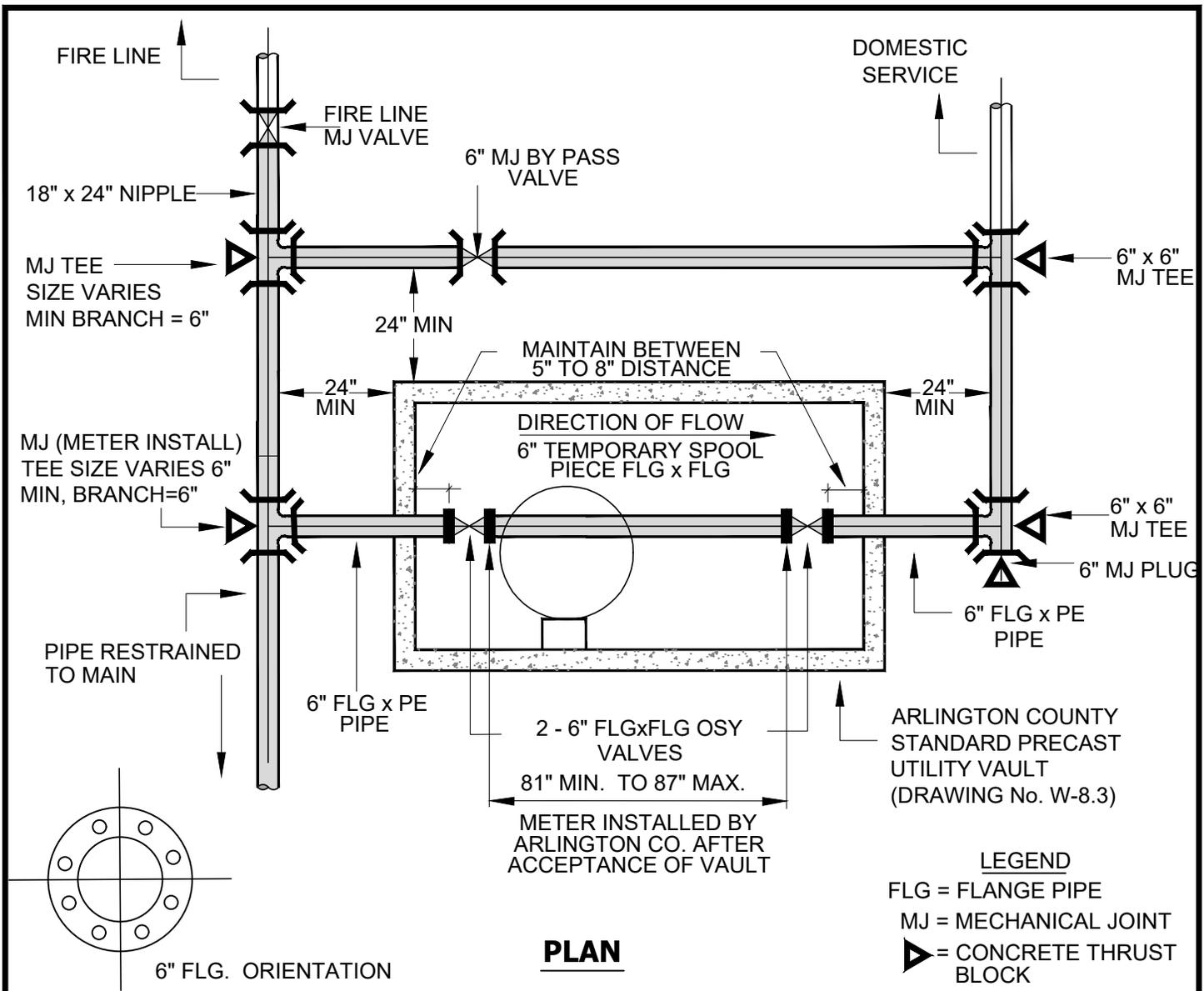
LEGEND
 FLG = FLANGE PIPE
 MJ = MECHANICAL JOINT,
 ▲ = CONCRETE THRUST BLOCK
 P.E. = PLAIN END PIPE
) = MEGALUG

4 INCH WATER SERVICE INSTALLATION BY DEVELOPER



ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

1	2/28/2023
ISSUED	9/14/2020
DRAWING NO.	
W-9.4	



- LEGEND**
- FLG = FLANGE PIPE
 - MJ = MECHANICAL JOINT
 - ▶ = CONCRETE THRUST BLOCK
 - P.E. = PLAIN END PIPE
 - } = MEGALUG

NOTES:

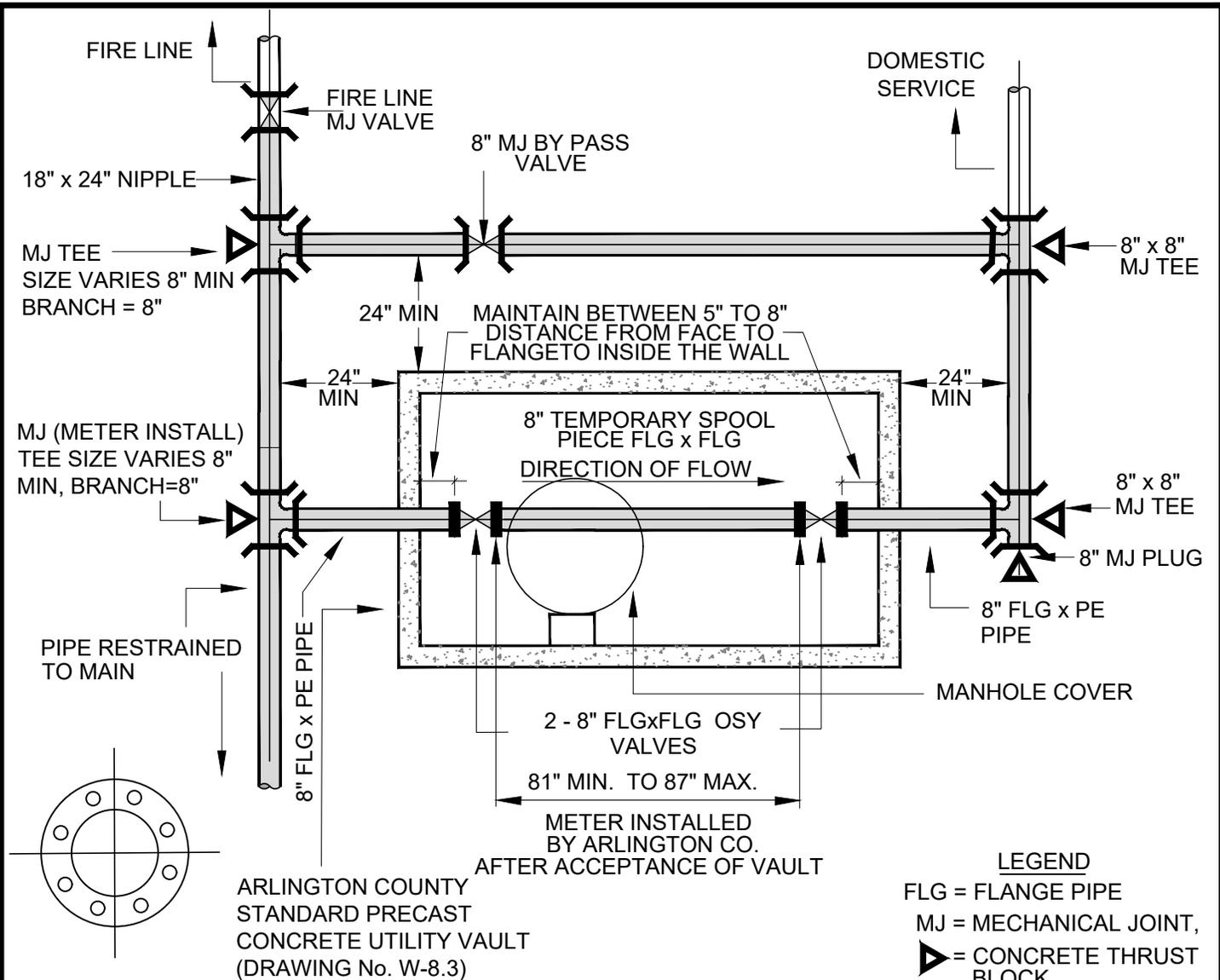
1. FOR OTHER WATER UTILITY VAULT DETAILS SEE DRAWING No. W-8.2, W-8.3 AND W-9.9.
2. O S & Y VALVE REQUIREMENTS: REFER TO SECTION 02550, PART 2.4-C OF THE ARLINGTON COUNTY CONSTRUCTION STANDARDS SPECIFICATIONS.
3. ALL BURIED PIPE AND FITTING SHALL BE DUCTILE IRON WITH POLYETHYLENE ENCASEMENT.
4. PROVIDE THRUST RESTRAINT FOR ALL PIPES, VALVES AND FITTINGS. THRUST RESTRAINT SHALL INCLUDE BOTH CONCRETE THRUST BLOCKS, AS PER DRAWINGS No. W-2.0, W-2.1 AND W-2.2 AS WELL AS JOINT RESTRAINT.
5. WHEN LOOKING IN THE DIRECTION OF FLOW, VAULT STEPS SHALL BE LOCATED ON THE RIGHT HAND SIDE OF VAULT.
6. CONTRACTOR TO TEMPORARY FURNISH AND INSTALL A 6\"/>

**WATER METER INSTALLATION
6 INCH SERVICE BY DEVELOPER**



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	2/28/2023
ISSUED	9/14/2020
DRAWING NO. W-9.5	



8" FLG. ORIENTATION

ARLINGTON COUNTY
STANDARD PRECAST
CONCRETE UTILITY VAULT
(DRAWING No. W-8.3)

PLAN

- LEGEND**
- FLG = FLANGE PIPE
 - MJ = MECHANICAL JOINT,
 - ▶ = CONCRETE THRUST BLOCK
 - P.E. = PLAIN END PIPE
 - } = MEGALUG

NOTES:

1. FOR OTHER WATER UTILITY VAULT DETAILS SEE DRAWING No. W-8.2, W-8.3 AND W-9.9
2. O S & Y VALVE REQUIREMENTS: REFER TO SECTION 02550, PART 2.4-C OF THE ARLINGTON COUNTY CONSTRUCTION STANDARDS SPECIFICATIONS.
3. ALL BURIED PIPE AND FITTING SHALL BE DUCTILE IRON WITH POLYETHYLENE ENCASEMENT.
4. PROVIDE THRUST RESTRAINT FOR ALL PIPE, VALVES AND FITTINGS. THRUST RESTRAINT SHALL INCLUDE BOTH CONCRETE THRUST BLOCKS, AS PER DRAWINGS No. W-2.0, W-2.1 AND W-2.2 AS WELL AS JOINT RESTRAINT.
5. WHEN LOOKING IN THE DIRECTION OF FLOW, VAULT STEPS SHALL BE LOCATED ON THE RIGHT HAND SIDE OF VAULT.
6. CONTRACTOR TO TEMPORARY FURNISH AND INSTALL A 8" FLG x FLG SPOOL SECTION OF PIPE INSIDE THE VAULT TO FACILITATE CONTRACTOR'S HYDROSTATIC TESTING AND TO ASSURE PROPER ALIGNMENT OF FLANGES FOR FUTURE METER INSTALLATION.

**WATER METER INSTALLATION
8 INCH SERVICE BY DEVELOPER**



ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

1	2/28/2023
ISSUED	9/14/2020
DRAWING NO. W-9.6	