

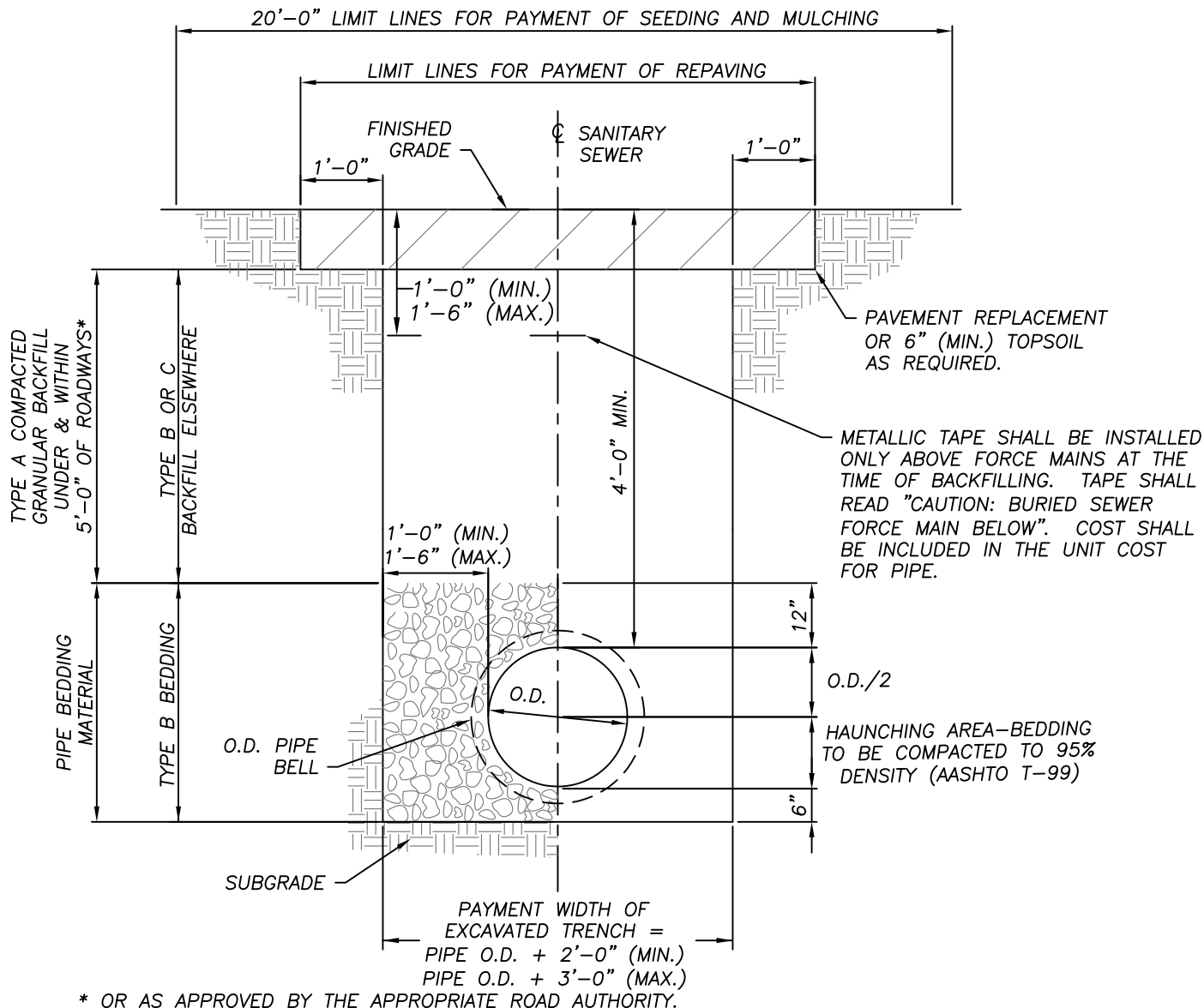
FAIRFIELD COUNTY
STANDARD CONSTRUCTION DRAWINGS
SANITARY SEWER

Fairfield County Standard Construction Drawings
Sanitary Sewer

<u>DESCRIPTION</u>	<u>NO. OF SHEETS</u>	<u>DRAWING NUMBER</u>
Typical Trench for PVC Pipe, DIP or Concrete Sanitary Sewers	2	Sa.S-1
Precast Concrete Manhole, Sanitary Doghouse Manhole	2	Sa.S-2
24" Manhole Frame and Cover Casting	1	Sa.S-3
Precast Manhole Steps	1	Sa.S-4
Encased Drop Pipe at Manhole	2	Sa.S-5
6" Sanitary Sewer Service	2	Sa.S-6
Service Tap for Existing Sanitary Sewer	1	Sa.S-7
Typical Service Riser Detail	1	Sa.S-8
Typical Cleanout Detail	1	Sa.S-9
Casing Pipe	1	Sa.S-10
Concrete Encasement Detail	1	Sa.S-11
Stream Crossing Detail	1	Sa.S-12
Anti-Seep Collar Detail	1	Sa.S-13
Drain Tile Replacement	1	Sa.S-14
Concrete Sidewalk Replacement	1	Sa.S-15
Temporary Pavement Replacement	1	Sa.S-16
Permanent Pavement Replacement	1	Sa.S-17
Driveway Pavement Replacement	1	Sa.S-18
Driveway Culvert Details	1	Sa.S-19
Forcemain Typical Air Release ¾" Thru 2"	1	Sa.S-20
Sanitary Sewer Service for Existing Homes	3	Sa.S-21
Grease Trap	1	Sa.S-22
Air and Vacuum Valve	1	Sa.S-23
Sanitary Forcemain Cleanout	1	Sa.S-24
Grinder Pump Installation	1	Sa.S-25

NOTES:

1. BACKFILL ITEM NUMBERS REFER TO STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS.
2. TYPE A BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL AS SPECIFIED IN ITEM 304. TYPE A OR THE AGGREGATE FOR BEDDING GRANULAR MATERIAL SHALL BE USED AROUND ALL MANHOLES, STRUCTURES, AND CLEANOUTS.
3. TYPE B BACKFILL SHALL BE ITEM 703.16, TYPE B AGGREGATE.
4. TYPE C BACKFILL SHALL BE NATURAL SOIL FREE FROM STONES LARGER THAN TWO INCHES ACROSS THEIR GREATEST DIMENSION, TOPSOIL, VEGETATION, DEBRIS, RUBBISH OR FROZEN MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM LABORATORY DRY WEIGHT.
5. AGGREGATE FOR BEDDING SHALL MEET ITEM 304, TYPE B REQUIREMENTS FOR MATERIAL.
6. THE EXCAVATED TRENCH WIDTH TWENTY-FOUR INCHES (24") ABOVE THE CONDUIT MAY BE INCREASED WITHOUT EXTRA COMPENSATION.
7. RIGID PIPE SHALL INCLUDE DUCTILE IRON OR CONCRETE.
8. ENCASEMENT SHALL BE CLASS QC4 CONCRETE.
9. TRENCH DAMS ARE REQUIRED PER THE GENERAL NOTES AND CONSTRUCTION AND MATERIAL SPECIFICATIONS.
10. SECTIONS ARE SYMMETRICAL ABOUT THE CENTERLINE.



* OR AS APPROVED BY THE APPROPRIATE ROAD AUTHORITY.

APPROVED

APPROVAL DATE

REVISION DATE

TYPICAL TRENCH FOR PVC PIPE SANITARY SEWERS

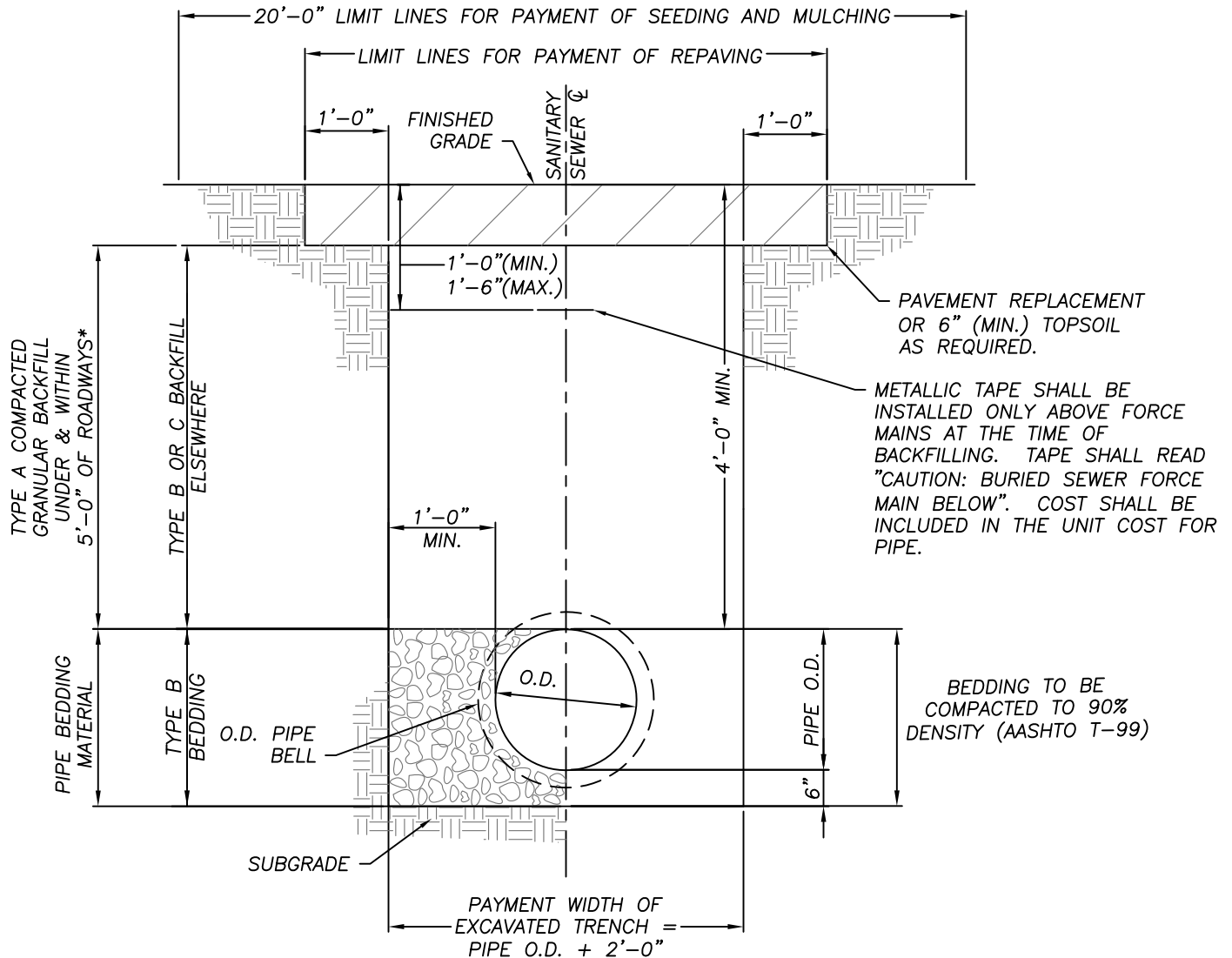
FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-1

1/2

1. BACKFILL ITEM NUMBERS REFER TO STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS.
2. TYPE A BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL AS SPECIFIED IN ITEM 304. TYPE A OR THE AGGREGATE FOR BEDDING GRANULAR MATERIAL SHALL BE USED AROUND ALL MANHOLES, STRUCTURES, AND CLEANOUTS.
3. TYPE B BACKFILL SHALL BE ITEM 703.16, TYPE B AGGREGATE.
4. TYPE C BACKFILL SHALL BE NATURAL SOIL FREE FROM STONES LARGER THAN TWO INCHES ACROSS THEIR GREATEST DIMENSION, TOPSOIL, VEGETATION, DEBRIS, RUBBISH OR FROZEN MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM LABORATORY DRY WEIGHT.
5. AGGREGATE FOR BEDDING SHALL MEET ITEM 304, TYPE B REQUIREMENTS FOR MATERIAL.
6. THE EXCAVATED TRENCH WIDTH TWENTY-FOUR INCHES (24") ABOVE THE CONDUIT MAY BE INCREASED WITHOUT EXTRA COMPENSATION.
7. RIGID PIPE SHALL INCLUDE DUCTILE IRON OR CONCRETE.
8. ENCASEMENT SHALL BE CLASS QC4 CONCRETE.
9. TRENCH DAMS ARE REQUIRED PER THE GENERAL NOTES AND CONSTRUCTION AND MATERIAL SPECIFICATIONS.
10. SECTIONS ARE SYMMETRICAL ABOUT THE CENTERLINE.



APPROVED

APPROVAL DATE

REVISION DATE

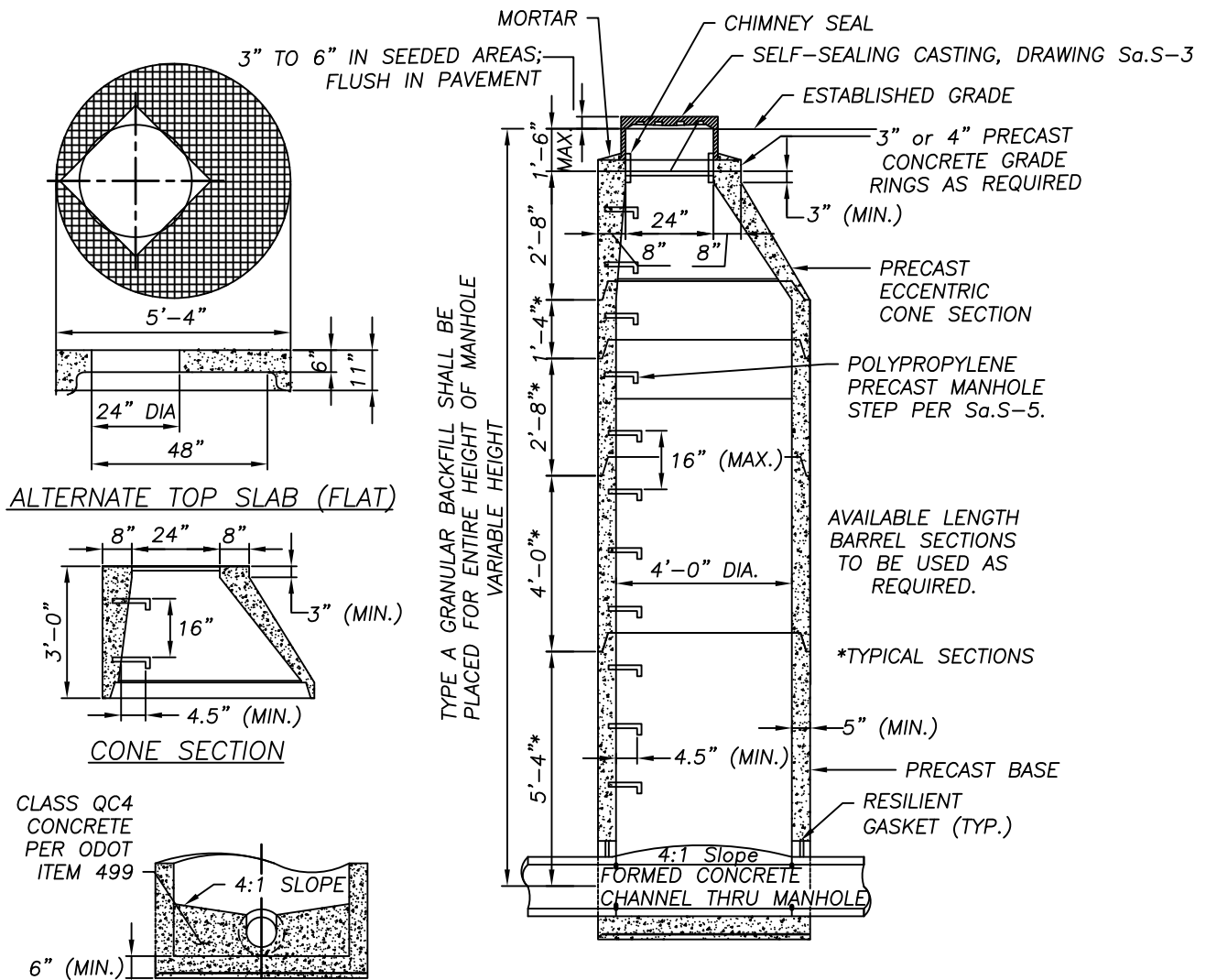
TYPICAL TRENCH FOR DIP OR CONCRETE SANITARY SEWERS

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sq.S-1

2/2



NOTES:

1. SEWER PIPE SHALL BE SECURED THROUGH THE MANHOLE WALL BY "KOR-N-SEAL" BOOT, "PRESS WEDGE II" GASKET, OR AN APPROVED EQUIVALENT, MEETING ASTM C923.
2. ALL CONSTRUCTION AND MATERIAL SHALL CONFORM TO ASTM C478 UNLESS OTHERWISE SHOWN.
3. ALL FIELD CUT OPENINGS SHALL BE DONE ONLY AS DIRECTED BY THE COUNTY.
4. PRECAST CONCRETE GRADE RINGS, GROUTED IN PLACE, SHALL BE USED IF NEEDED BETWEEN THE SLAB OR CONE TOP AND THE ACCESS FRAME CASTING AND COVER. NO MANHOLE BRICK SHALL BE PERMITTED FOR USE.
5. WHEN SHOWN IN TRAFFIC AREAS, THE ALTERNATE TOP SLAB SHALL BE DESIGNED FOR TRAFFIC LOADINGS.
6. TOP OF CASTING SHALL BE FLUSH WITH FINAL GRADE IN PAVEMENT AREAS AND BE 2" MIN. TO 4" MAX. ABOVE FINAL GRADE IN NON-PAVEMENT AREAS.
7. ALL MANHOLE SECTIONS CONCRETE GRADE RINGS AND FRAME CASTINGS SHALL BE SEALED WITH CONSEAL CS-202 OR EQUAL.
8. CORROSION PROTECTION SHALL BE REQUIRED WHEN RECEIVING PUMP STATION FLOWS OR AS DIRECTED BY THE COUNTY.

APPROVED

APPROVAL DATE

REVISION DATE

PRECAST CONCRETE MANHOLE

FAIRFIELD COUNTY
OHIO

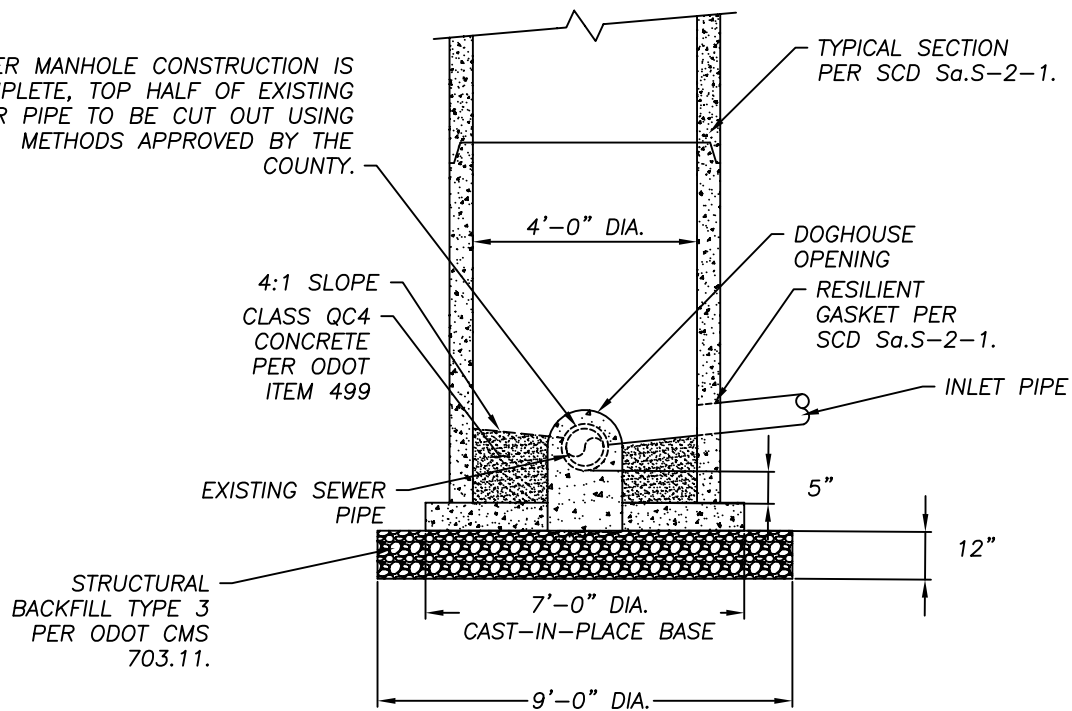
STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-2

1/2

AFTER MANHOLE CONSTRUCTION IS COMPLETE, TOP HALF OF EXISTING SEWER PIPE TO BE CUT OUT USING METHODS APPROVED BY THE COUNTY.



NOTES:

1. NEW SEWER PIPE SHALL BE SECURED THROUGH THE MANHOLE WALL BY "KOR-N-SEAL" BOOT, "PRESS WEDGE II" GASKET, OR AN APPROVED EQUIVALENT, MEETING ASTM C923.
2. ALL CONSTRUCTION AND MATERIAL SHALL CONFORM TO ASTM C478 UNLESS OTHERWISE SHOWN.
3. ALL FIELD CUT OPENINGS SHALL BE DONE ONLY AS DIRECTED BY THE COUNTY.
4. REFER TO SCD Sa.S-2-1 FOR MANHOLE CONSTRUCTION ABOVE DOGHOUSE STRUCTURE.
5. DOGHOUSE OPENING FOR EXISTING SEWER PIPE SHALL BE OUTSIDE DIAMETER OF THE PIPE PLUS 6 INCHES.
6. ANNULAR AREA BETWEEN DOGHOUSE OPENING AND EXISTING PIPE SHALL BE FILLED WITH MORTAR MEETING THE REQUIREMENTS OF ODOT CMS ITEM 705.22.
7. BASE SHALL BE CAST-IN-PLACE CONCRETE MEETING ODOT CMS 499 FOR CLASS QC4 CONCRETE.
8. CORROSION PROTECTION SHALL BE REQUIRED WHEN RECEIVING PUMP STATION FLOWS OR AS DIRECTED BY THE COUNTY.

APPROVED

APPROVAL DATE

REVISION DATE

SANITARY DOGHOUSE MANHOLE

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

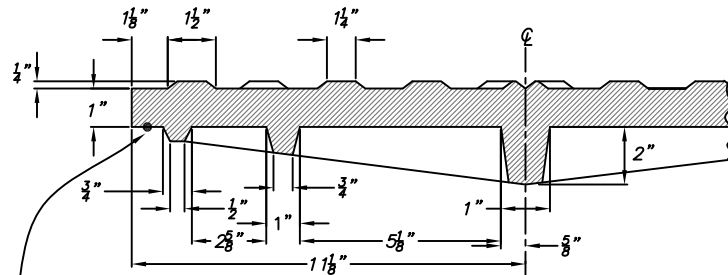
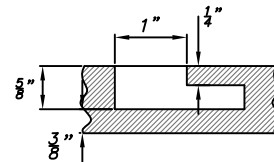
Sa.S-2

2/2

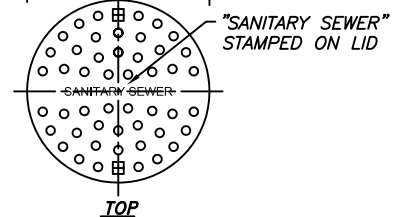
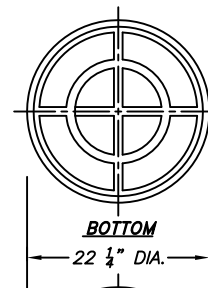
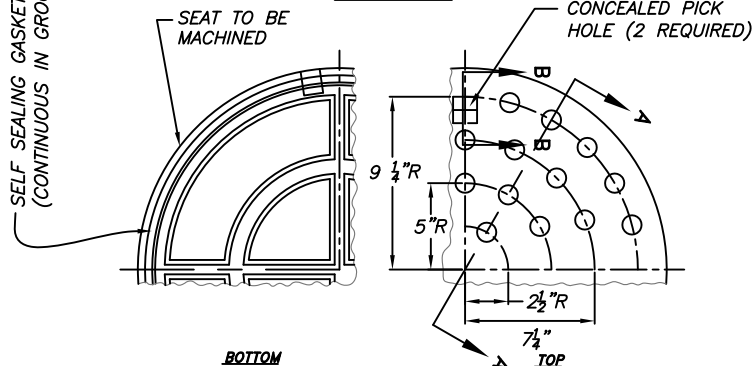


GROUND RIM DETAIL

FOUNDRY NAME SHALL BE CAST ON THE
UNDERNEATH OR UNEXPOSED SURFACE



SECTION A-A
LID DETAIL

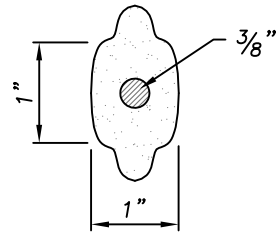
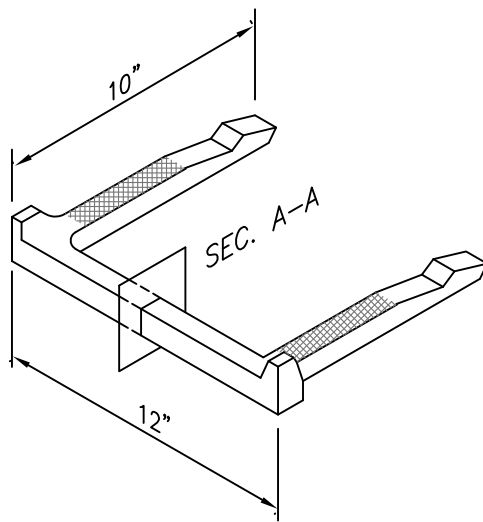


1/4 LID

NOTES:

1. STANDARD MANHOLE FRAME AND COVER SHALL BE NEENAH R-1762-A2 OR EAST JORDAN IRON WORKS 1661-Z1 WITH SELF SEALING GASKETS.
2. BOLT DOWN WATERTIGHT LIDS REQUIRED ON ALL MANHOLES LOCATED IN FLOODPLAIN OR FLOODPRONE AREAS. USE NEENAH R-1915-H OR EAST JORDAN IRON WORKS V-2358 WATERTIGHT FRAME WITH BOLTED LIDS MARKED "SANITARY SEWER".

APPROVED	<div>24" MANHOLE FRAME AND COVER CASTING</div>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. Sa.S-3



SEC. A-A

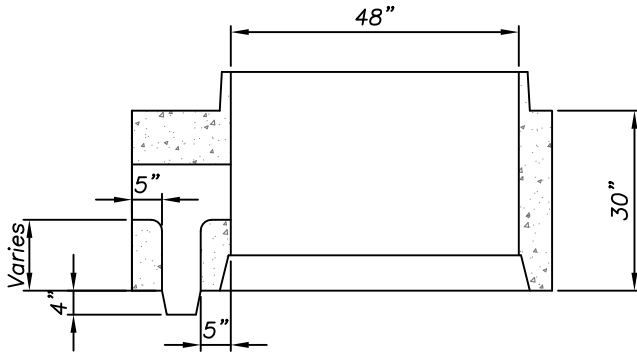
POLYPROPYLENE STEP
 ODOT ITEM 711.31

NOTE:
 STEPS SHALL BE POLYPROPYLENE CAREFULLY DRIVEN INTO THE BARREL BY
 PRESSURE OR VIBRATION BEFORE INITIAL SET OCCURS, OR CAST IN PLACE.

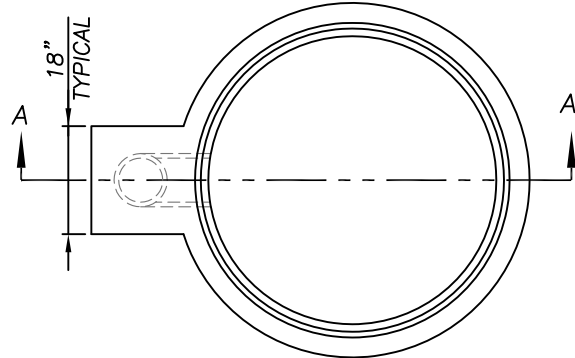
APPROVED	<p>PRECAST MANHOLE STEPS</p>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. Sa.S-4

NOTES:

1. FOR SECTIONS ABOVE THE DROP BARREL SECTION, SEE STANDARD DRAWING Sa.S-2
2. SEWER PIPE SHALL BE SECURED THROUGH THE MANHOLE WALL BY "KOR-N-SEAL" BOOT, "PRESS WEDGE II" GASKETS, OR AN APPROVED EQUIVALENT, MEETING ASTM C925.
3. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO ASTM C478, UNLESS OTHERWISE SHOWN
4. FOR MANHOLE STEPS, SPACING AND DETAILING, SEE STANDARD DRAWINGS Sa.S.-2 and Sa.S-4.



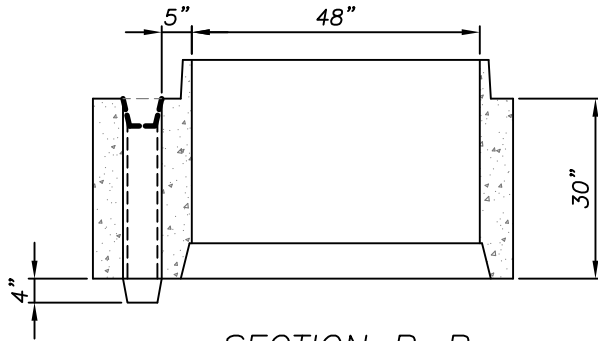
SECTION A-A



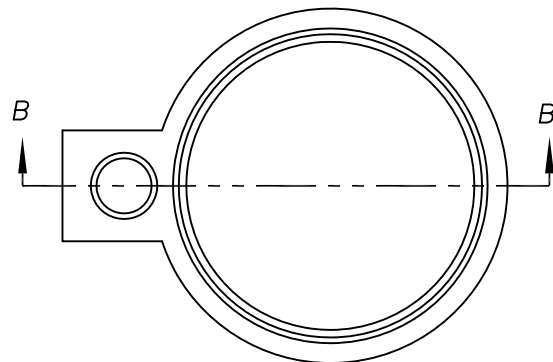
PRECAST DROP BARREL

NOTE:

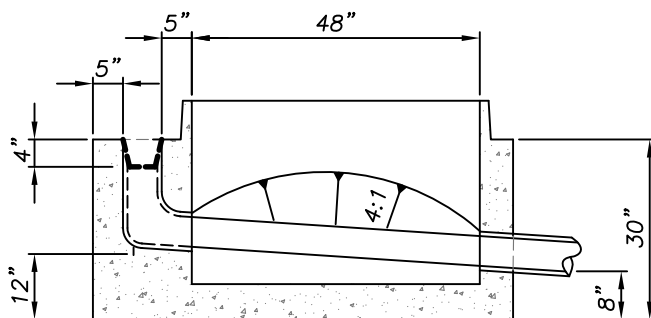
FOR DROP PIPE SIZE REQUIREMENTS SEE CHART ON SHEET 2 OF 2, Sa.S.-6



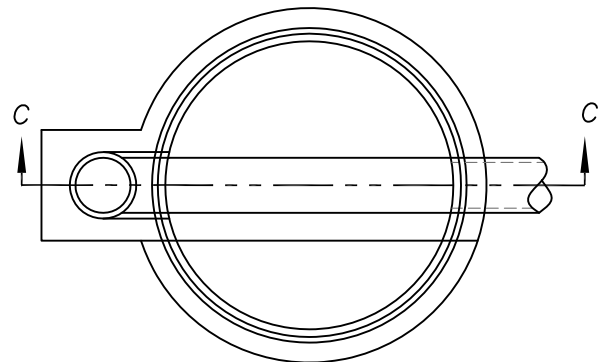
SECTION B-B



PRECAST CENTER DROP



SECTION C-C

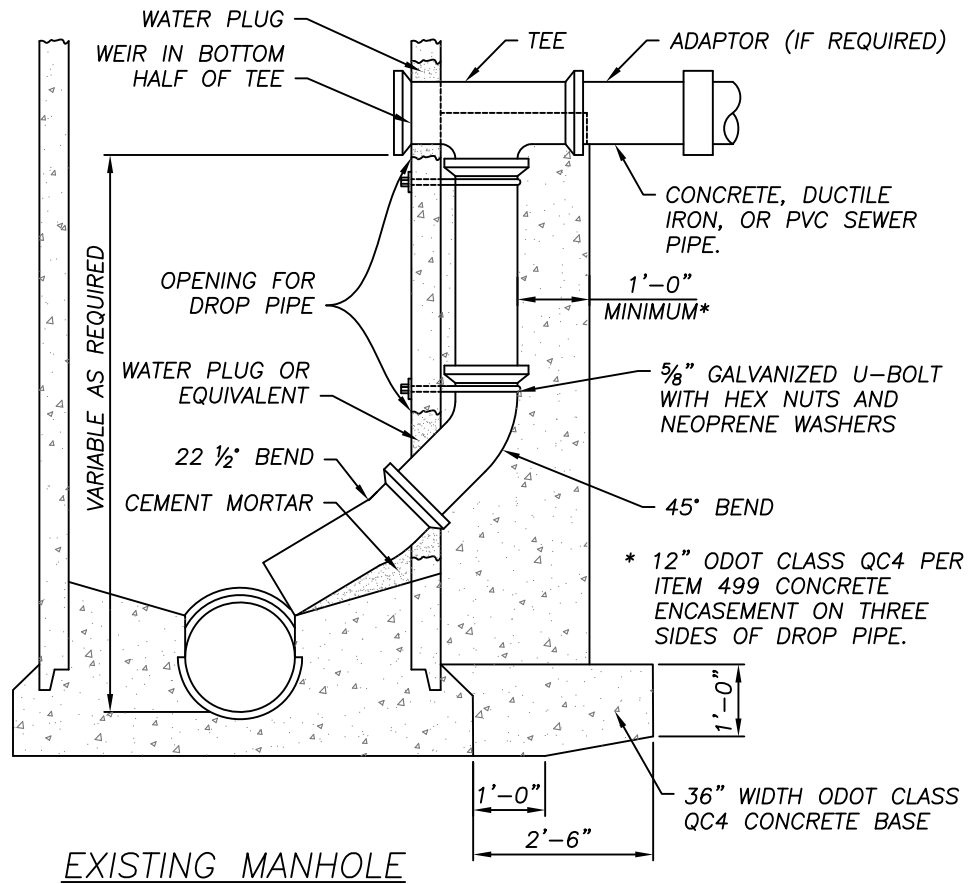


PRECAST BASE DROP

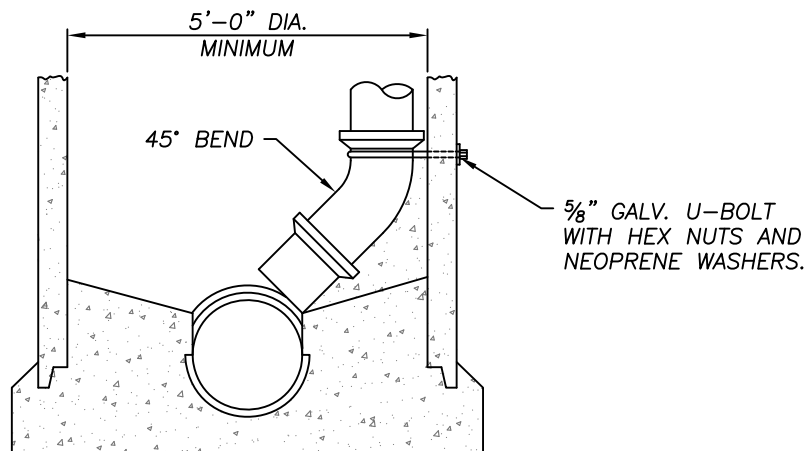
APPROVED	ENCASED DROP PIPE AT MANHOLE	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. Sa.S-5	SHEET NO. 1/2

NOTES:

1. CONCRETE ENCASEMENT SHALL BE USED ONLY WITH NON-REINFORCED CONCRETE, OR REINFORCED CONCRETE PIPE. COMPACTED GRANULAR MATERIAL SHALL BE USED ON ALL OTHER PIPE MATERIAL. AGGREGATE SHALL BE MATERIAL SUITABLE FOR CLASS B BEDDING.
2. SEALS THROUGH THE MANHOLE WALL SHALL BE WATER PLUG OR APPROVED EQUIVALENT FOR CONCRETE ENCASEMENT OR THE PIPE SEAL DESCRIBED IN Sa.S-2 WHEN GRANULAR MATERIAL IS USED.



SIZE REQUIREMENTS	
SEWER PIPE	DROP PIPE
8"	8"
10"	8"
12"	8"
14"	10"
15"	10"
16"	10"
18"	10"
21"	12"
24"	12"



APPROVED

APPROVAL DATE

REVISION DATE

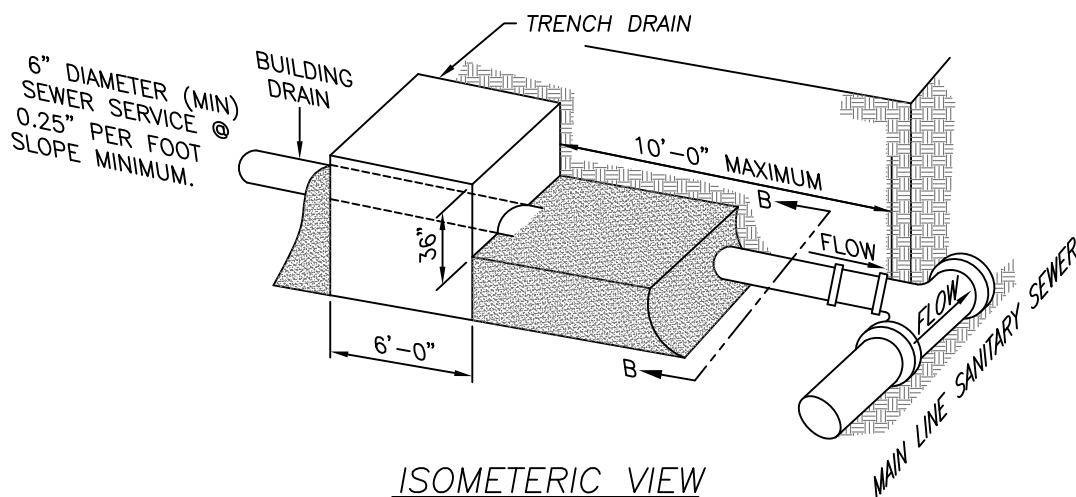
ENCASED DROP PIPE AT MANHOLE

FAIRFIELD COUNTY
OHIO

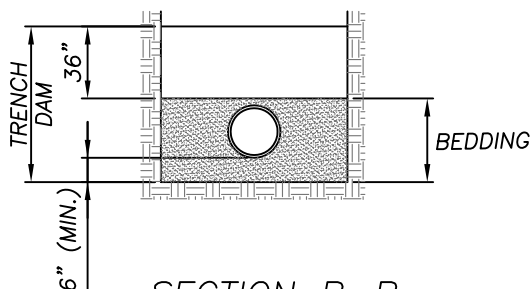
STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-5

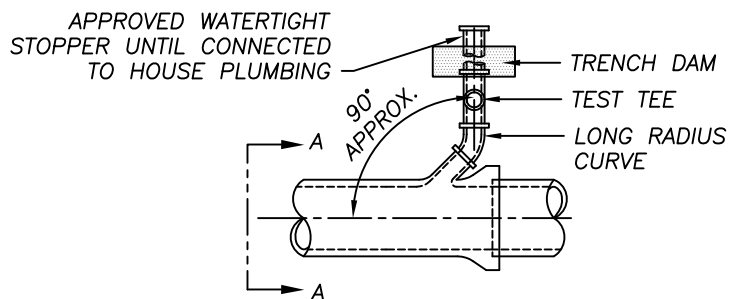
SHEET NO.
2/2



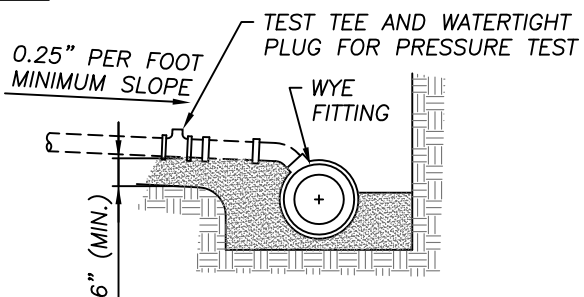
ISOMETERIC VIEW



SECTION B-B



PLAN VIEW



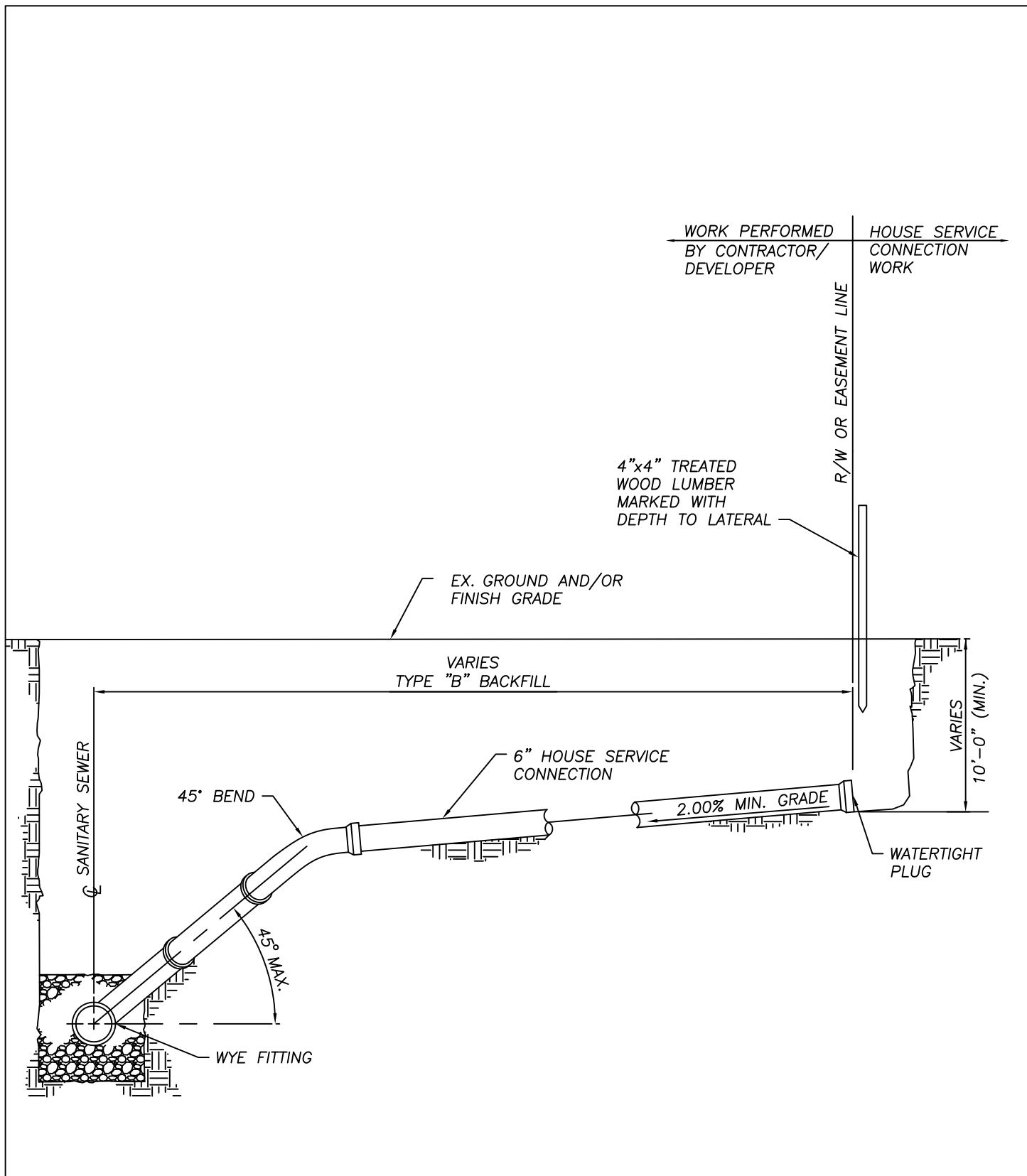
BEDDING AND BACKING
(SEE DRAWING Sa.S.-1)

SECTION A-A

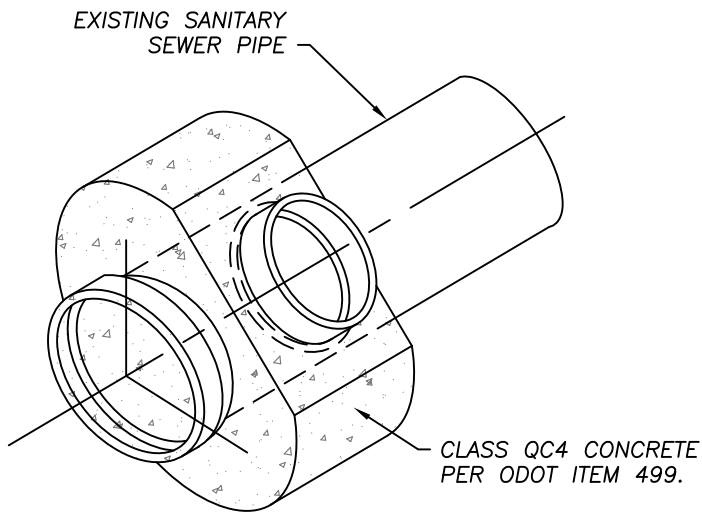
NOTES:

1. TRENCH DAMS ARE REQUIRED AND SHALL BE CONSTRUCTED TO 36" OVER THE PIPE.
2. SANITARY HOUSE CONNECTION SERVICE SHALL BE CONNECTED TO THE EXISTING SEWER WITH THE SAME MATERIAL FITTING OR WITH A COMPATIBLE ADAPTOR, AS APPROVED BY THE COUNTY
3. WHEN A WYE BRANCH IS NOT AVAILABLE IN THE MAIN LINE SEWER, THE MAINLINE MAY BE TAPPED AS SHOWN ON STANDARD DWG. Sa.S.-8 OR AS APPROVED BY THE COUNTY.
4. NO TAP SHALL BE MADE INTO ANY SANITARY SEWER UNTIL ALL PERMITS HAVE BEEN OBTAINED, ALL FEES PAID AND THE COUNTY NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK.

APPROVED	6" SANITARY SEWER SERVICE	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. Sa.S-6	1/2



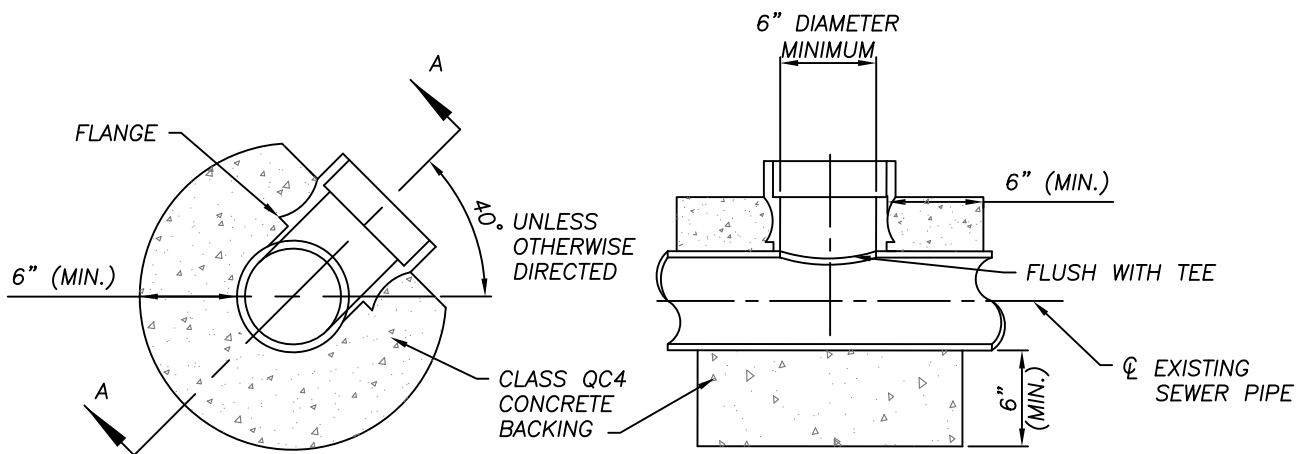
APPROVED	6" SANITARY SEWER SERVICE	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. Sa.S-6	2/2



ISOMETRIC

NOTES:

1. USE WITH ALL SANITARY SEWER PIPE WITH FITTINGS AND ADAPTERS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THE EXISTING PIPE MATERIAL.
2. A 6-INCH HOLE SHALL BE SAWED IN THE SEWER WITH A PROPERLY SIZED HOLE SAW.
3. PUNCHING OR CHIPPING THE HOLE INTO THE PIPE IS NOT PERMITTED.
4. ONLY APPROVED TAP CONNECTIONS (INSERT-A-TEE TYPE) MAY BE USED.
5. IF CONNECTION TO THE HOUSE IS NOT MADE IMMEDIATELY, A WATERTIGHT PLUG SHALL BE PROVIDED.



SECTION A-A

APPROVED

APPROVAL DATE

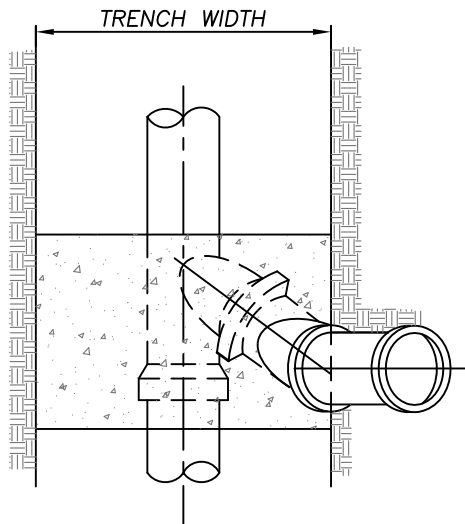
REVISION DATE

SERVICE TAP FOR EXISTING SANITARY SEWER

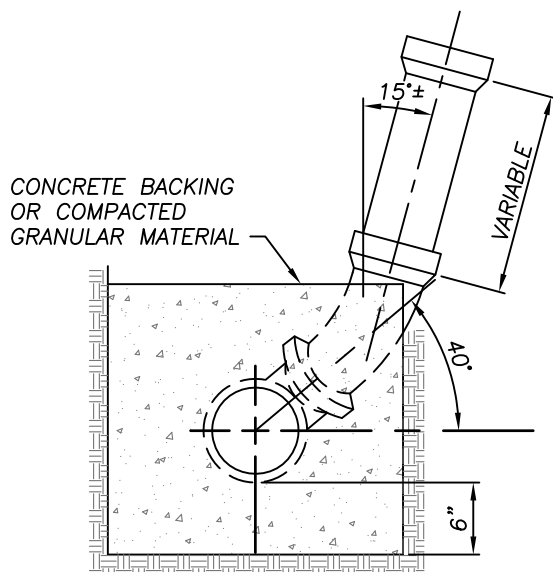
FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

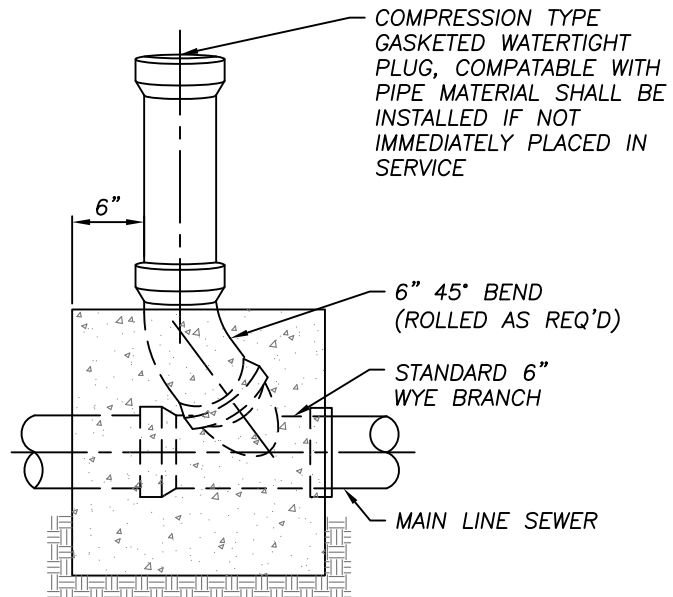
DRAWING NO.
Sa.S-7



PLAN VIEW



END VIEW



SIDE VIEW

NOTES:

1. FOR WYE BRANCH INSTALLATION, SEE STANDARD DRAWING Sa.S.-6
2. CONCRETE BACKING SHALL BE USED ONLY WITH NON-REINFORCED CONCRETE OR REINFORCED CONCRETE PIPE. COMPACTED GRANULAR MATERIAL SHALL BE USED ON ALL OTHER PIPE MATERIAL. AGGREGATE SHALL BE MATERIAL SUITABLE FOR CLASS B BEDDING.
3. ONLY 22 1/2° AND 45° BENDS ARE PERMITTED ON RISERS AND SERVICE CONNECTIONS.

APPROVED

APPROVAL DATE

REVISION DATE

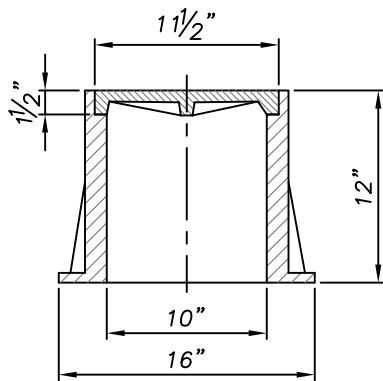
TYPICAL
SERVICE RISER
DETAIL

FAIRFIELD COUNTY
OHIO

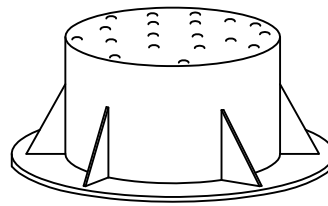
STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-8



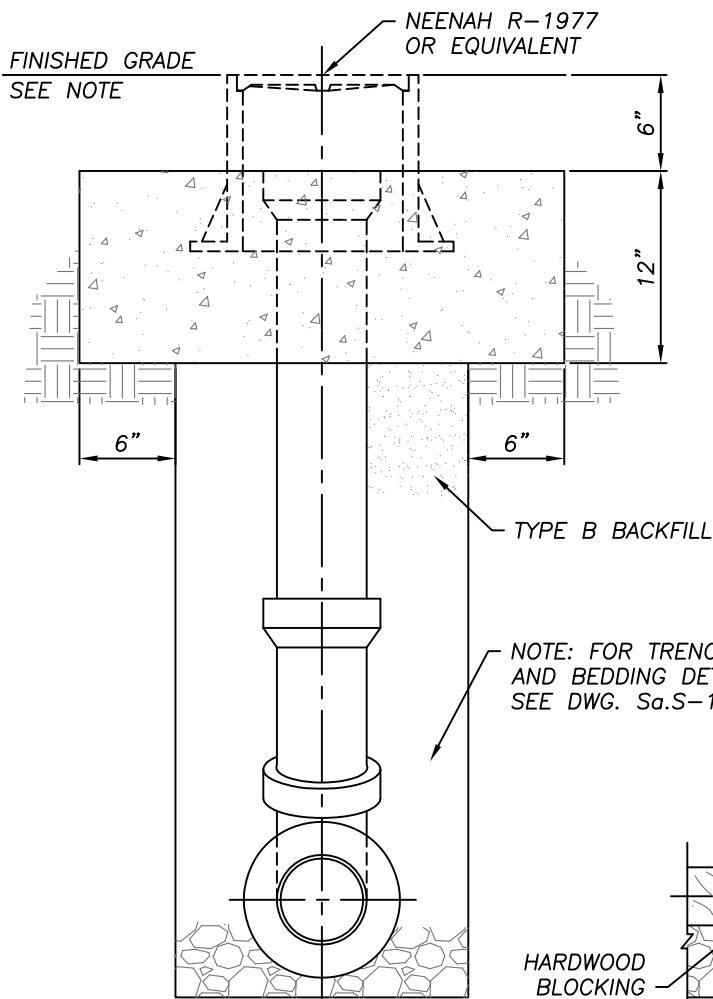
SECTION VIEW



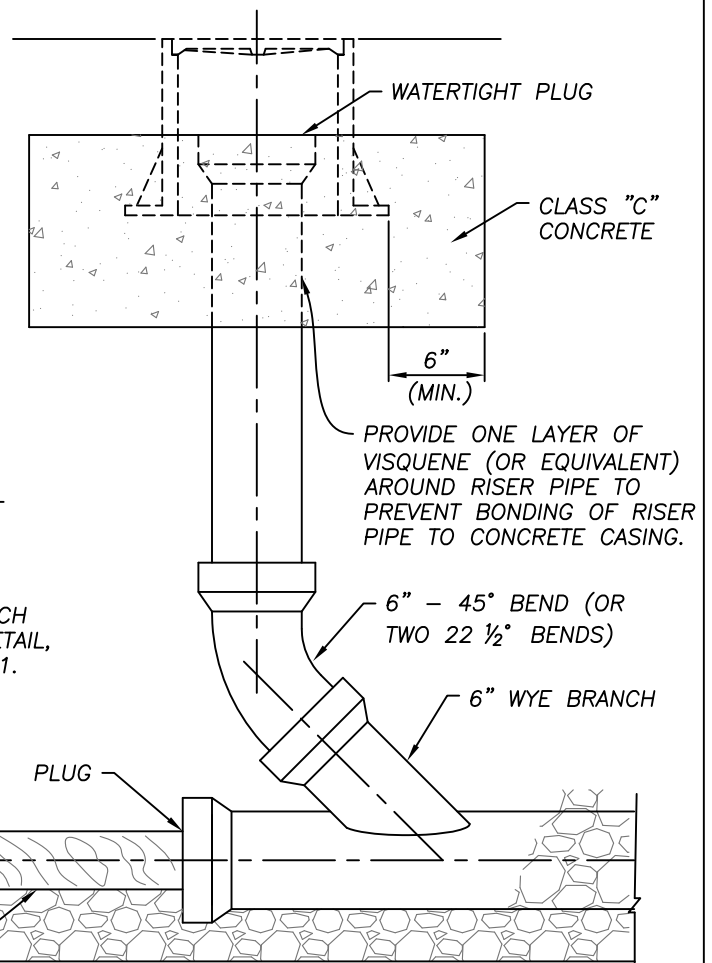
ISOMETRIC VIEW
(APPROX. WT. 110 lbs)

NOTE: CLEANOUT TOP OF CASTING SHALL BE SET FLUSH WITH FINISHED GRADE IN PAVEMENT AREAS AND 3" MIN. TO 6" MAX. ABOVE FINISHED GRADE IN NON-PAVED AREAS.

CLEANOUT FRAME & LID



END ELEVATION



SIDE ELEVATION

APPROVED

APPROVAL DATE

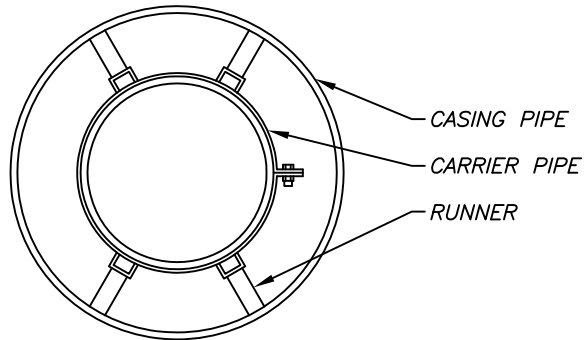
REVISION DATE

TYPICAL CLEANOUT DETAIL

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-9



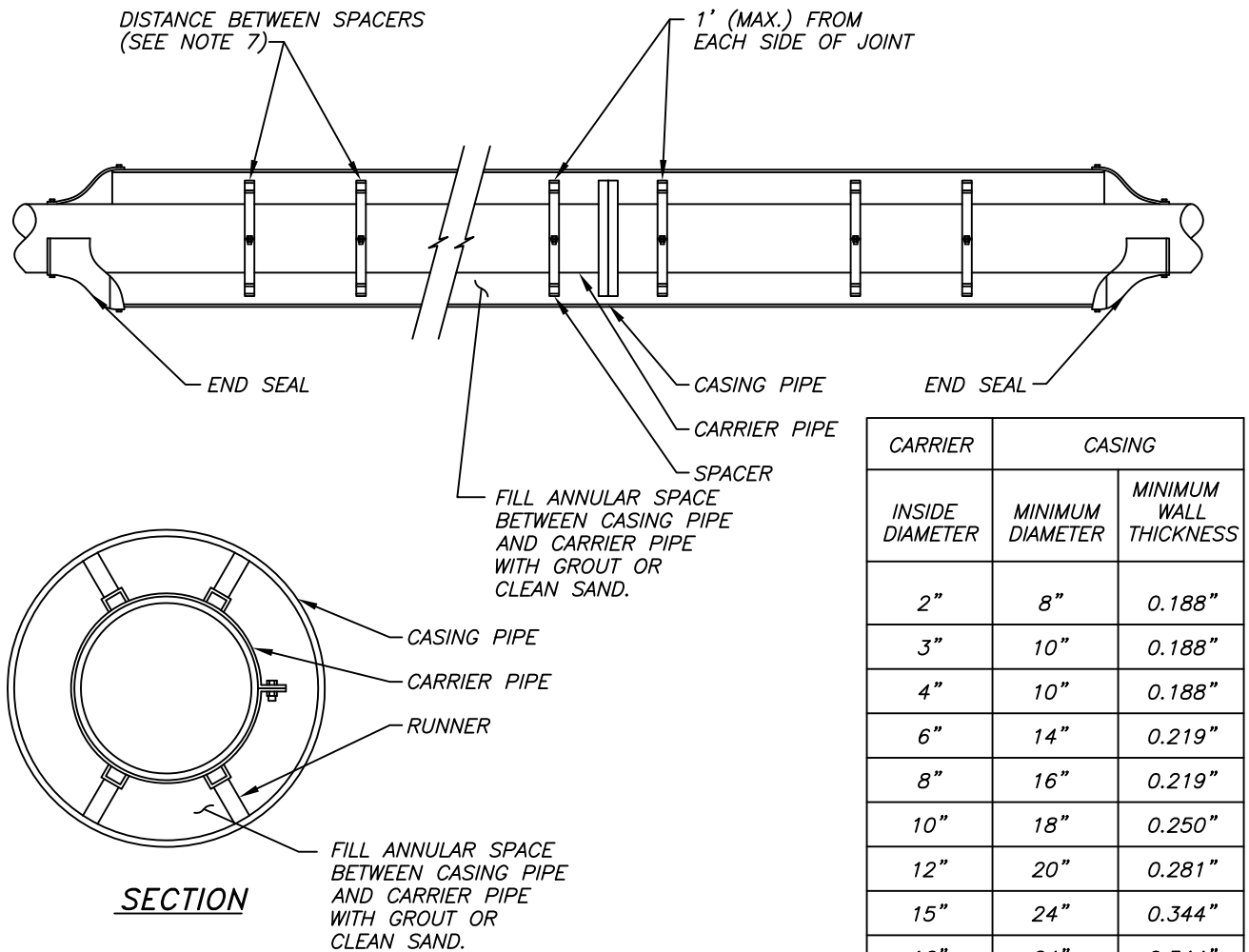
SECTION

NOTES:

1. CASING PIPE SHALL BE INSTALLED BY JACKING, WITH A MINIMUM WALL THICKNESS AS SHOWN IN THE TABLE.
2. CASING SPACERS TO BE CCI, STAINLESS STEEL BAND CASING SPACERS, MODEL CSS8 OR APPROVED EQUAL. END SEALS TO BE CCI, CASING END SEAL, MODEL ESW OR APPROVED EQUAL.
3. NO FILLING OF CASING PIPE VOID REQUIRED.
4. CASING PIPE SHALL BE 12" GREATER THAN THE MAXIMUM PIPE BELL O.D.
5. CASING MATERIAL SHALL BE IN ACCORDANCE WITH FAIRFIELD COUNTY CMS ITEMS 211 AND 214, ASTM A139, GRADE B BITUMINOUS COATED GALVANIZED.
6. STEEL FOR CASING PIPE SHALL BE 35K PSI YIELD STRENGTH, 60K TENSILE STRENGTH.
7. DIMENSIONS BETWEEN SPACERS FOR PVC PIPE SHALL BE 6 FEET MAXIMUM. DIMENSIONS BETWEEN SPACERS FOR DUCTILE IRON PIPE SHALL BE 8 FEET MAXIMUM.
8. THE QUANTITY OF RUNNERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CARRIER	CASING	
	INSIDE DIAMETER	MINIMUM WALL THICKNESS
2"	8"	0.188"
3"	10"	0.188"
4"	10"	0.188"
6"	14"	0.219"
8"	16"	0.219"
10"	18"	0.250"
12"	20"	0.281"
15"	24"	0.344"
16"	24"	0.344"
18"	28"	0.406"
20"	28"	0.406"
24"	36"	0.469"
27"	42"	0.500"
30"	42"	0.500"
36"	48"	0.675"

APPROVED	CASING PIPE (OPTION #1)	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. Sa.S.-10	1/2



CARRIER INSIDE DIAMETER	CASING	
	MINIMUM DIAMETER	MINIMUM WALL THICKNESS
2"	8"	0.188"
3"	10"	0.188"
4"	10"	0.188"
6"	14"	0.219"
8"	16"	0.219"
10"	18"	0.250"
12"	20"	0.281"
15"	24"	0.344"
16"	24"	0.344"
18"	28"	0.406"
20"	28"	0.406"
24"	36"	0.469"
27"	42"	0.500"
30"	42"	0.500"
36"	48"	0.675"

NOTES:

1. CASING PIPE SHALL BE INSTALLED BY JACKING, WITH A MINIMUM WALL THICKNESS AS SHOWN IN THE TABLE.
2. CASING SPACERS TO BE CCI, STAINLESS STEEL BAND CASING SPACERS, MODEL CSS8 OR APPROVED EQUAL. END SEALS TO BE CCI, CASING END SEAL, MODEL ESW OR APPROVED EQUAL.
3. FILL ANNULAR SPACE WITH GROUT MEETING THE REQUIREMENTS OF ODOT ITEM 613 OR CLEAN SAND MEETING THE REQUIREMENTS OF ODOT ITEM 703.03.
4. CASING PIPE SHALL BE 12" GREATER THAN THE MAXIMUM PIPE BELL O.D.
5. CASING MATERIAL SHALL BE IN ACCORDANCE WITH FAIRFIELD COUNTY CMS ITEMS 211 AND 214, ASTM A139, GRADE B BITUMINOUS COATED GALVANIZED.
6. STEEL FOR CASING PIPE SHALL BE 35K PSI YIELD STRENGTH, 60K TENSILE STRENGTH.
7. DIMENSIONS BETWEEN SPACERS FOR PVC PIPE SHALL BE 6 FEET MAXIMUM. DIMENSIONS BETWEEN SPACERS FOR DUCTILE IRON PIPE SHALL BE 8 FEET MAXIMUM.
8. THE QUANTITY OF RUNNERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

APPROVED

APPROVAL DATE

REVISION DATE

CASING PIPE (OPTION #2)

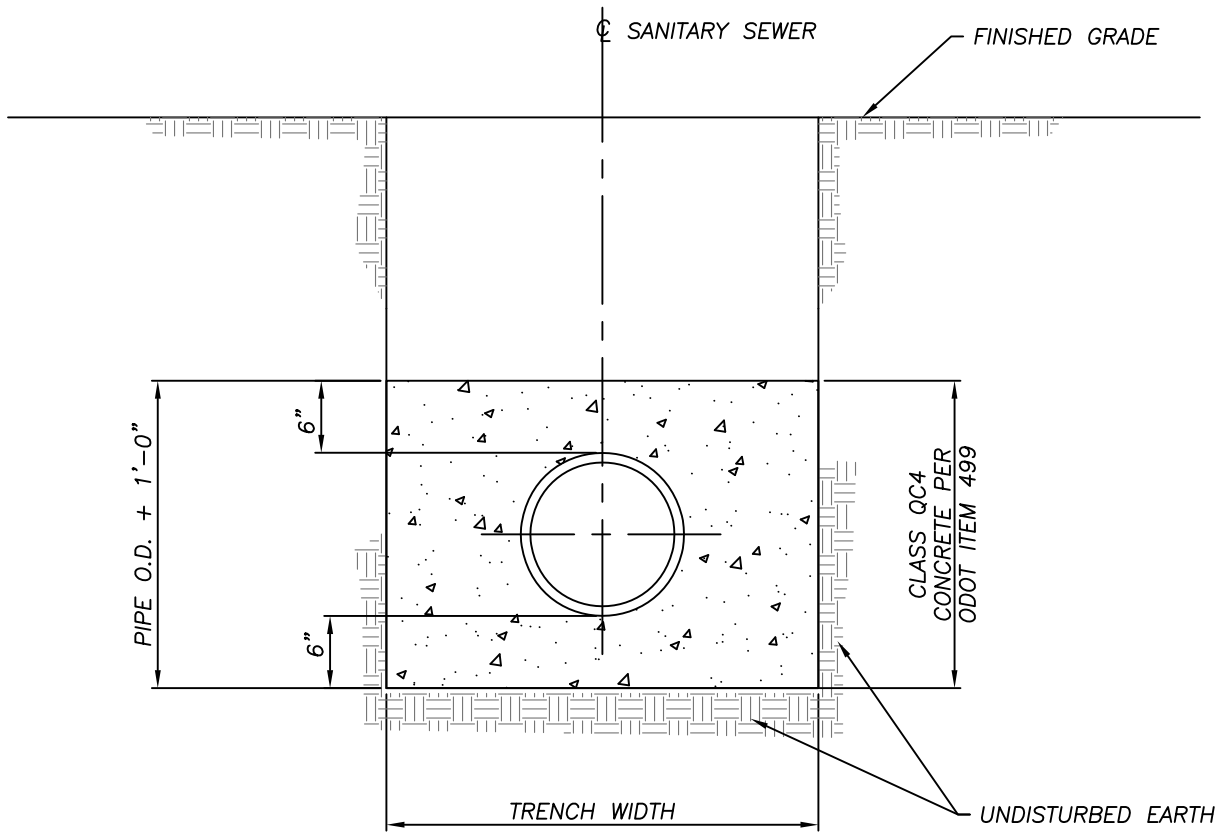
FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-10

2/2



APPROVED

APPROVAL DATE

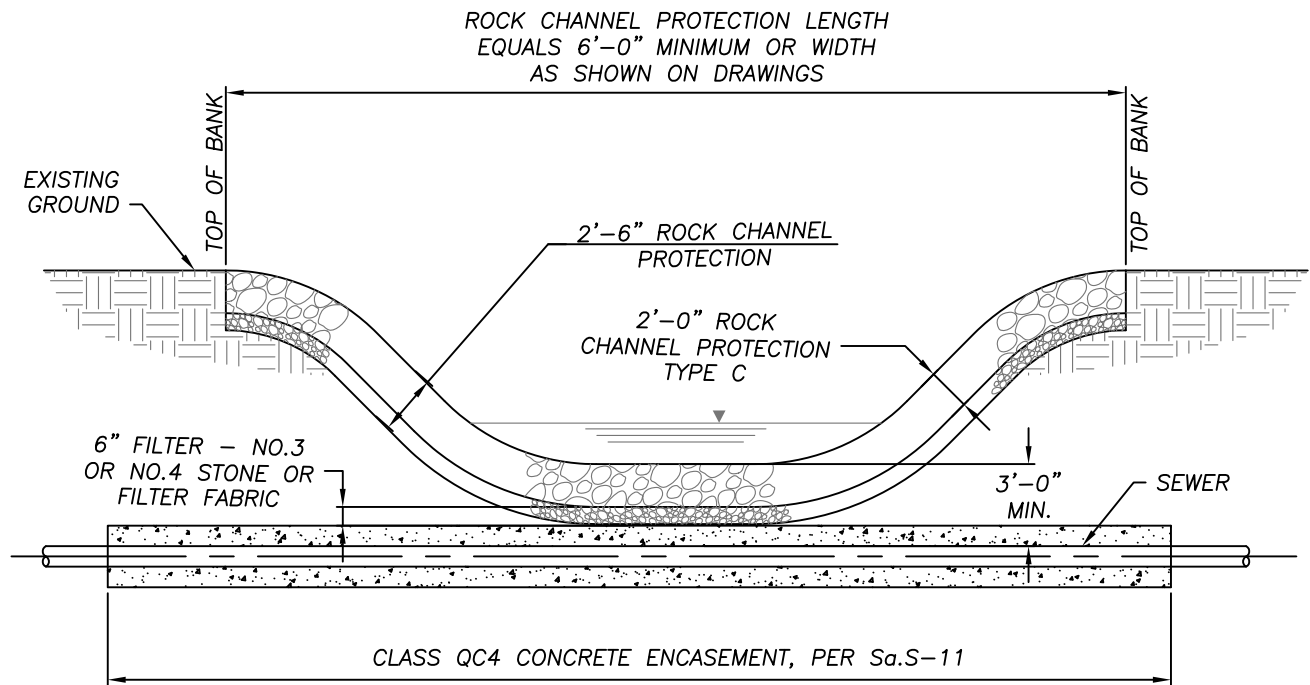
REVISION DATE

CONCRETE ENCASEMENT DETAIL

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-11



APPROVED

APPROVAL DATE

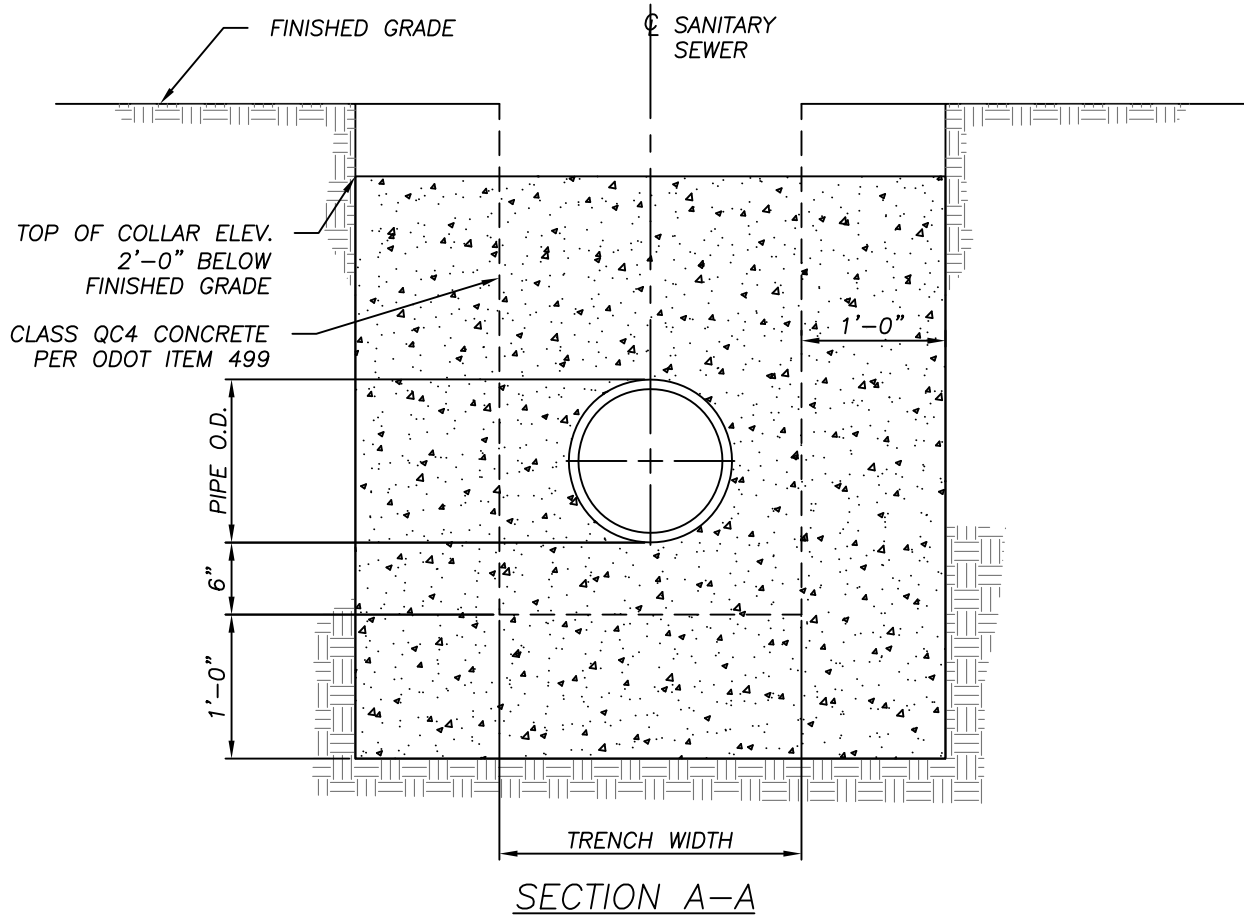
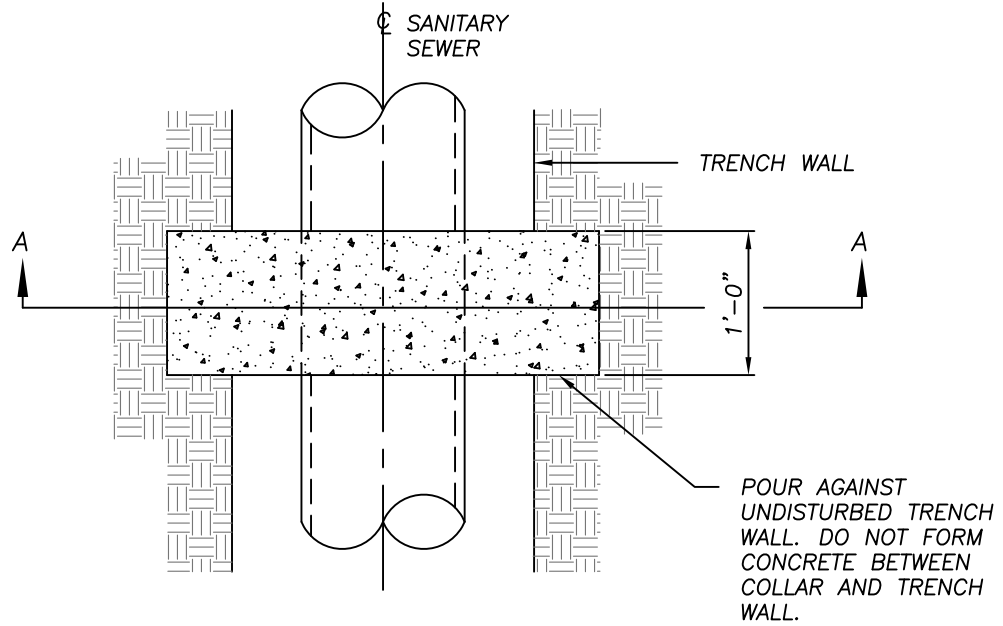
REVISION DATE

STREAM CROSSING DETAIL

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-12



APPROVED

APPROVAL DATE

REVISION DATE

ANTI-SEEP COLLAR DETAIL

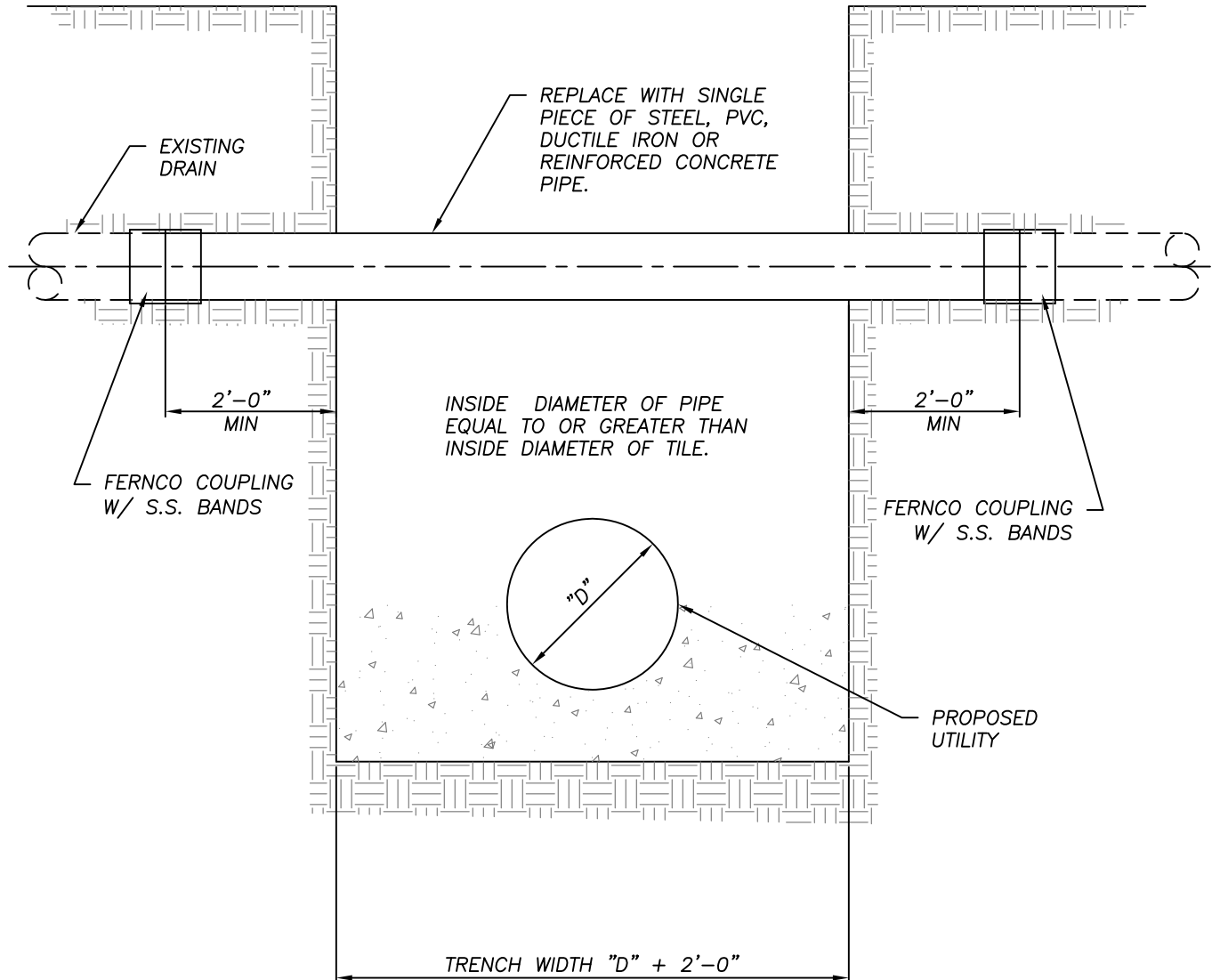
FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-13

MINIMUM REPLACEMENT MATERIAL SHALL BE:
PVC: ASTM D2241, SDR 26
DUCTILE IRON: AWWA C151, CLASS 50
STEEL PIPE: ASTM A139-B
POLYETHYLENE: ODOT 707
CONCRETE: ODOT 706.02



*LARGE DIAMETER OR DISSIMILAR MATERIALS SHALL BE COUPLED AT EACH END PER DIRECTION OF THE COUNTY.

APPROVED

APPROVAL DATE

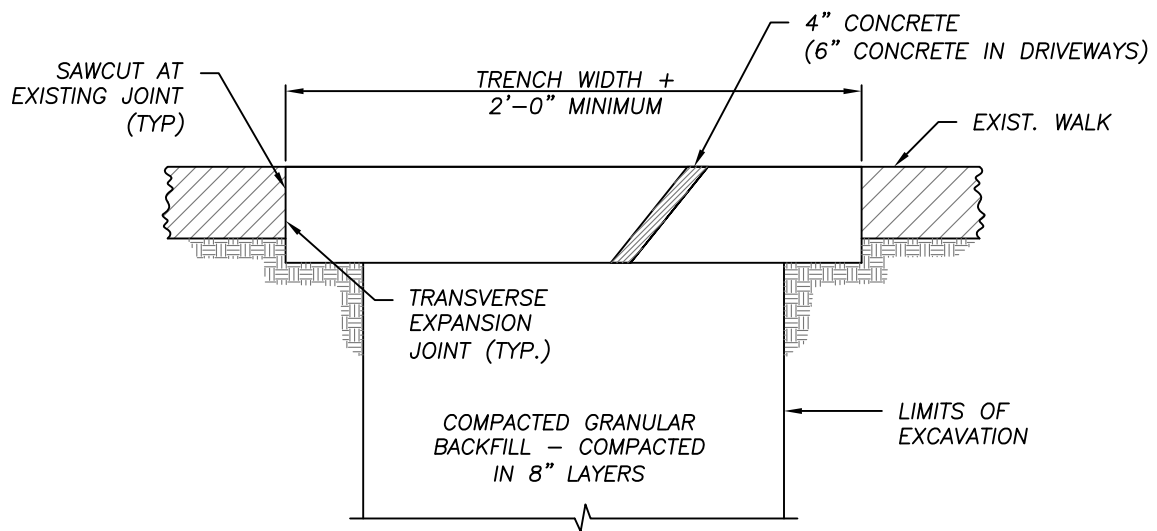
REVISION DATE

DRAIN TILE REPLACEMENT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-14



APPROVED

APPROVAL DATE

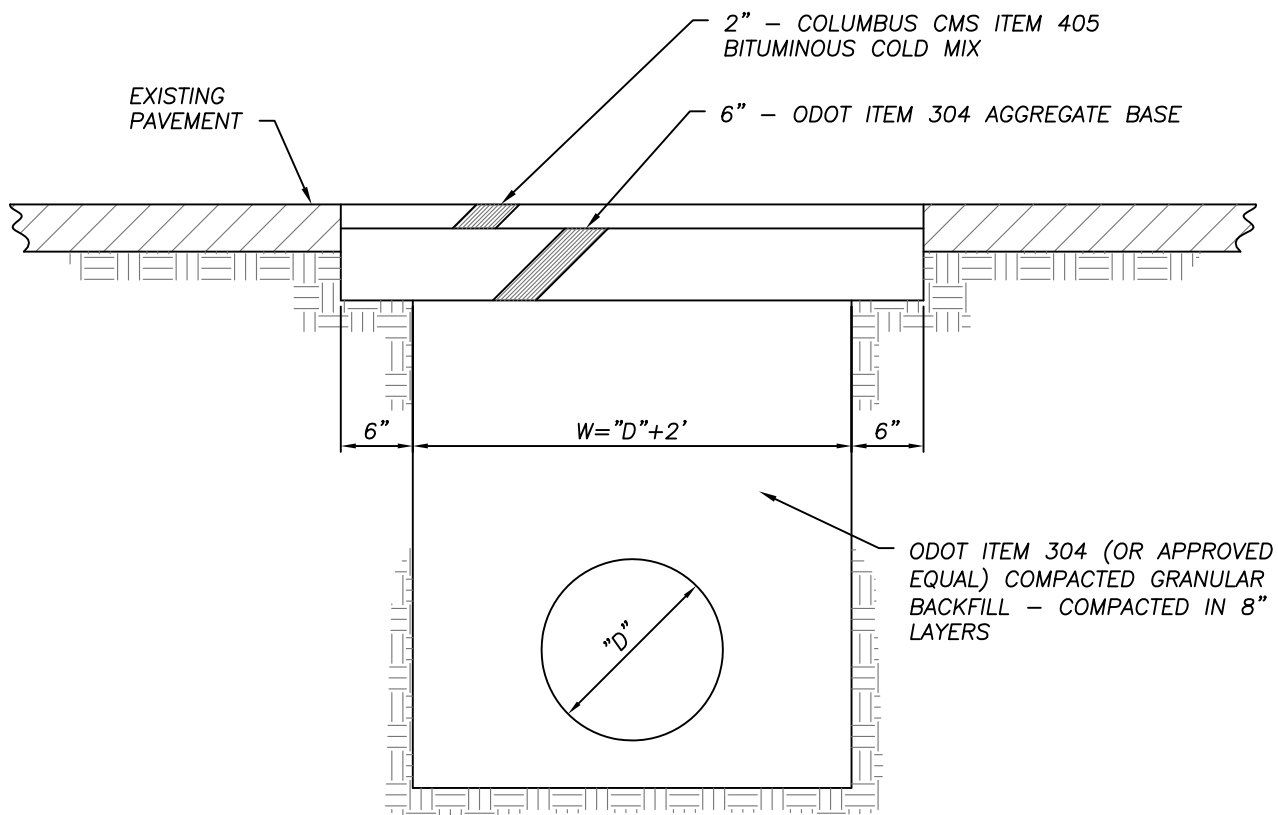
REVISION DATE

CONCRETE SIDEWALK REPLACEMENT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-15



NOTES:

1. UNLESS OTHERWISE APPROVED BY THE COUNTY, TEMPORARY PAVEMENT IS TO BE PLACED ON THE SAME DAY THE ORIGINAL PAVEMENT IS REMOVED.
2. TEMPORARY PAVEMENT TO BE REMOVED PRIOR TO INSTALLING PERMANENT PAVEMENT REPLACEMENT.
3. MAXIMUM PAY WIDTH IS TRENCH WIDTH (W) PLUS 1'-0". TRENCH WIDTH IS MEASURED 12" ABOVE THE TOP OF THE PIPE. TRENCH WIDTH MAY BE WIDER ABOVE THIS LINE BUT PAY WIDTH WILL NOT EXCEED $W + 1' - 0"$.

APPROVED

APPROVAL DATE

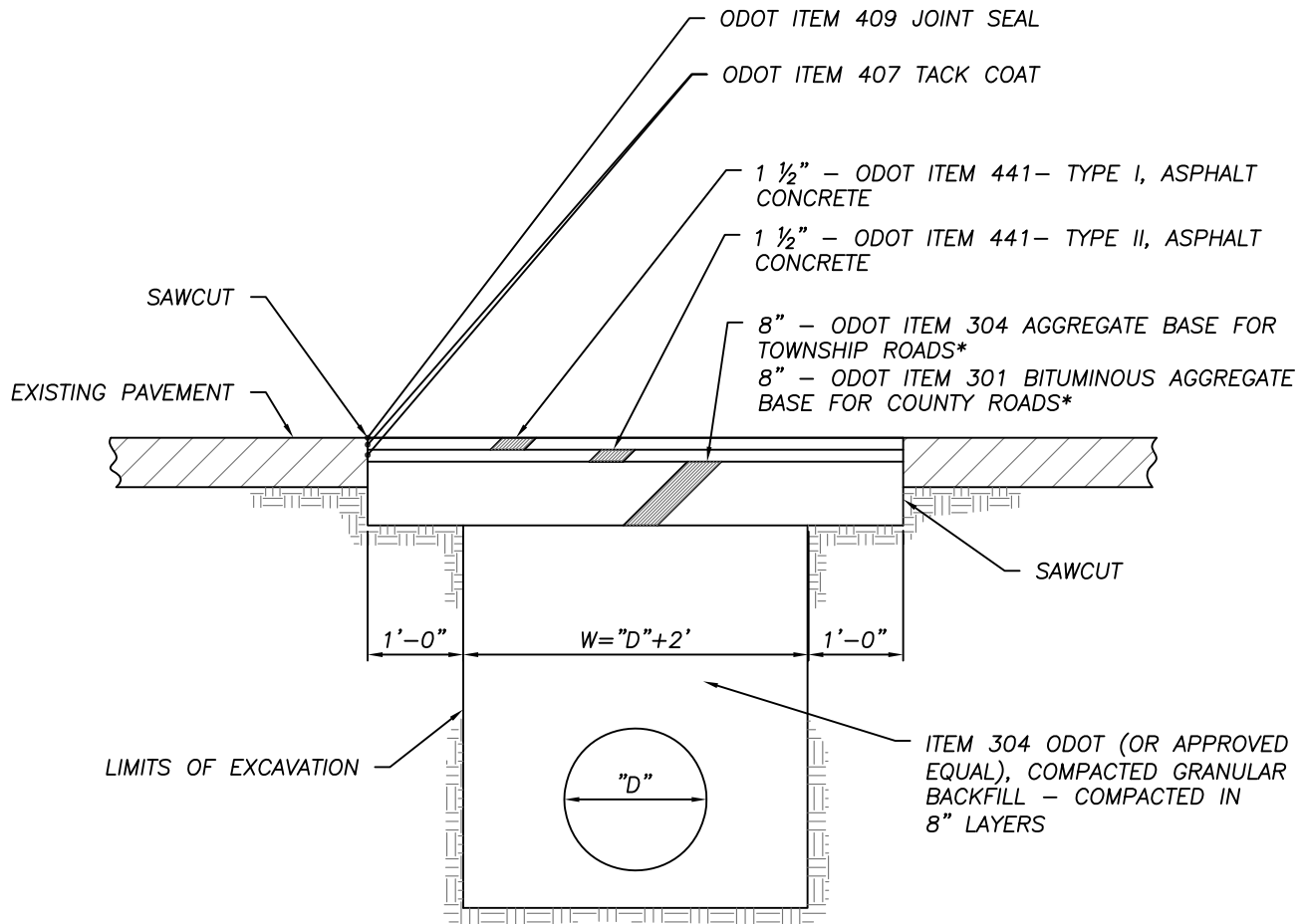
REVISION DATE

TEMPORARY PAVEMENT REPLACEMENT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-16



MAXIMUM PAY WIDTH IS TRENCH WIDTH (W) PLUS 2'-0".
TRENCH WIDTH IS MEASURED 12" ABOVE THE TOP OF
THE PIPE. TRENCH WIDTH MAY BE WIDER ABOVE THIS
LINE BUT PAY WIDTH WILL NOT EXCEED $W + 2'$.

TOWNSHIP/COUNTY ROADS
ASPHALT & CHIP/SEAL ROADWAYS*

*OR AS REQUIRED BY THE LOCAL ROAD AUTHORITY.

APPROVED

APPROVAL DATE

REVISION DATE

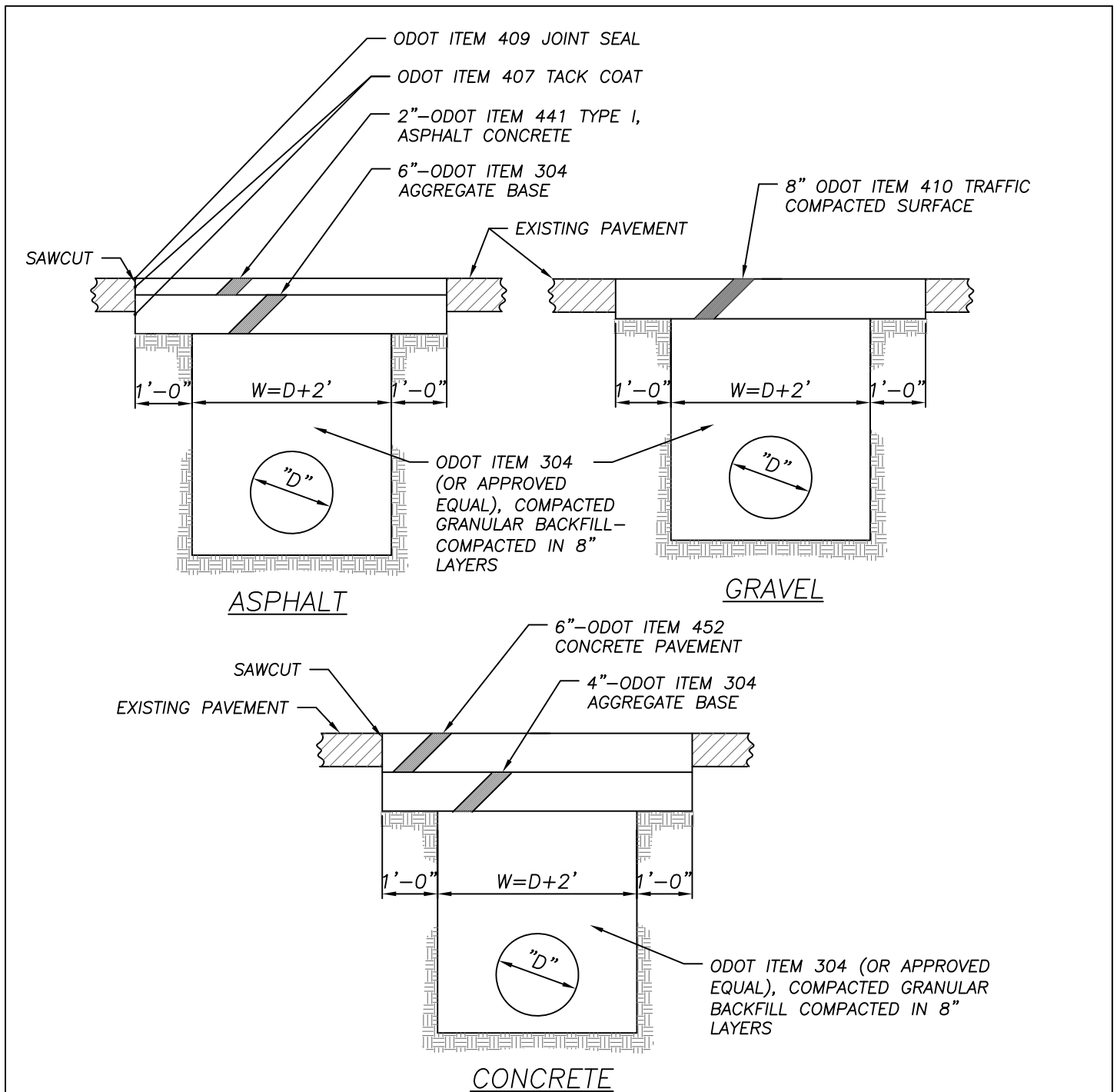
PERMANENT PAVEMENT REPLACEMENT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

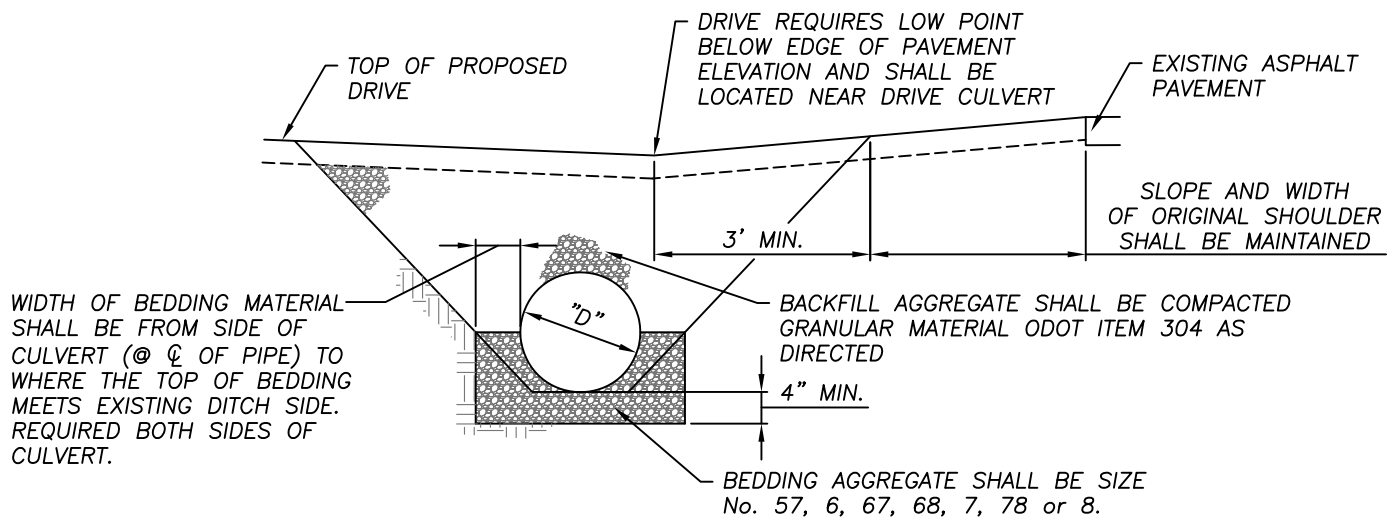
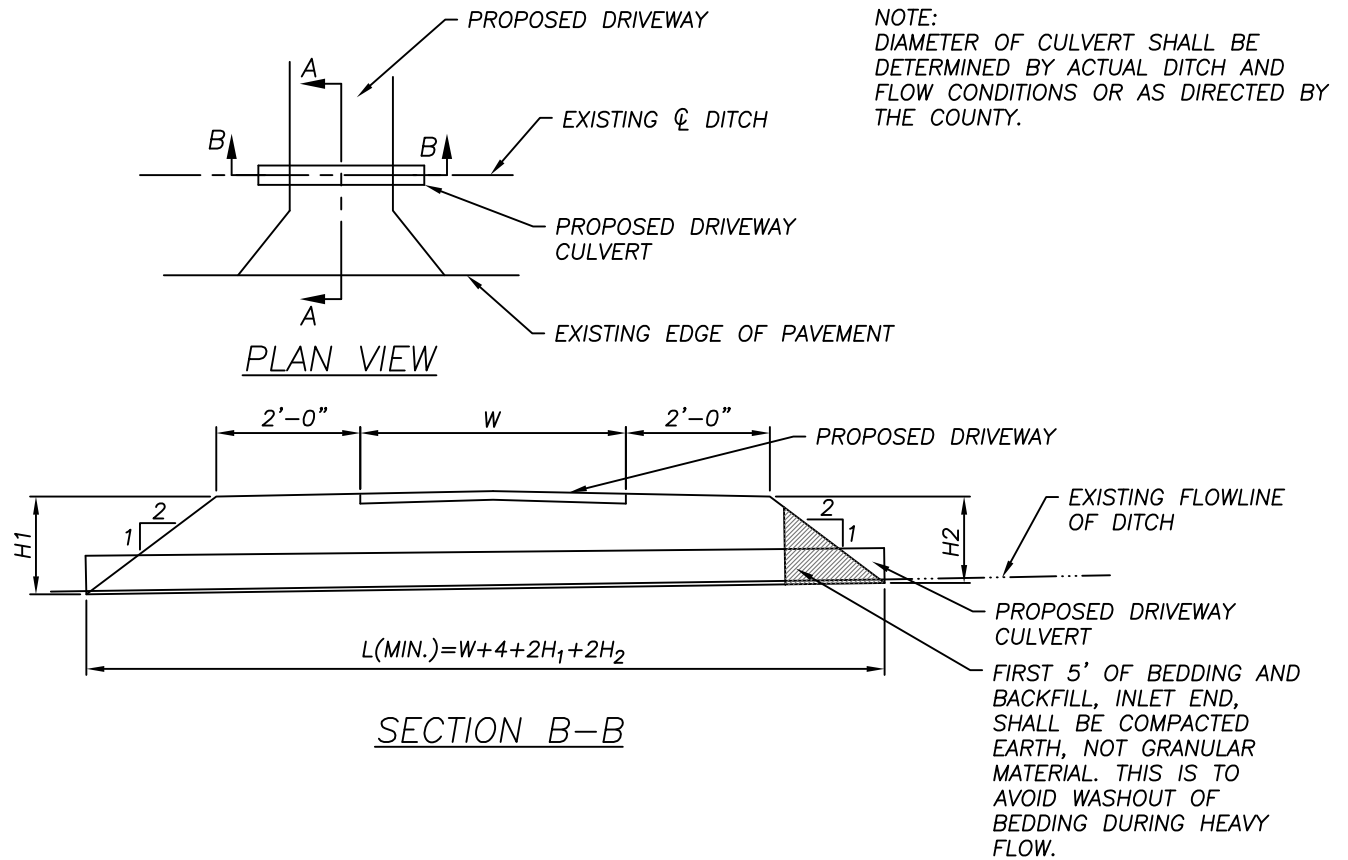
Sa.S-17



NOTES:

1. SAWCUT EXISTING PAVEMENT PRIOR TO PLACEMENT OF NEW PAVEMENT
2. MAXIMUM PAY WIDTH IS TRENCH WIDTH (W) PLUS 2'-0". TRENCH WIDTH IS MEASURED 12" ABOVE THE TOP OF THE PIPE. TRENCH WIDTH MAY BE WIDER ABOVE THIS LINE BUT PAY WIDTH WILL NOT EXCEED W+2'-0".

APPROVED	<div>DRIVEWAY PAVEMENT REPLACEMENT</div>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. Sa.S-18



SECTION A-A

APPROVED

APPROVAL DATE

REVISION DATE

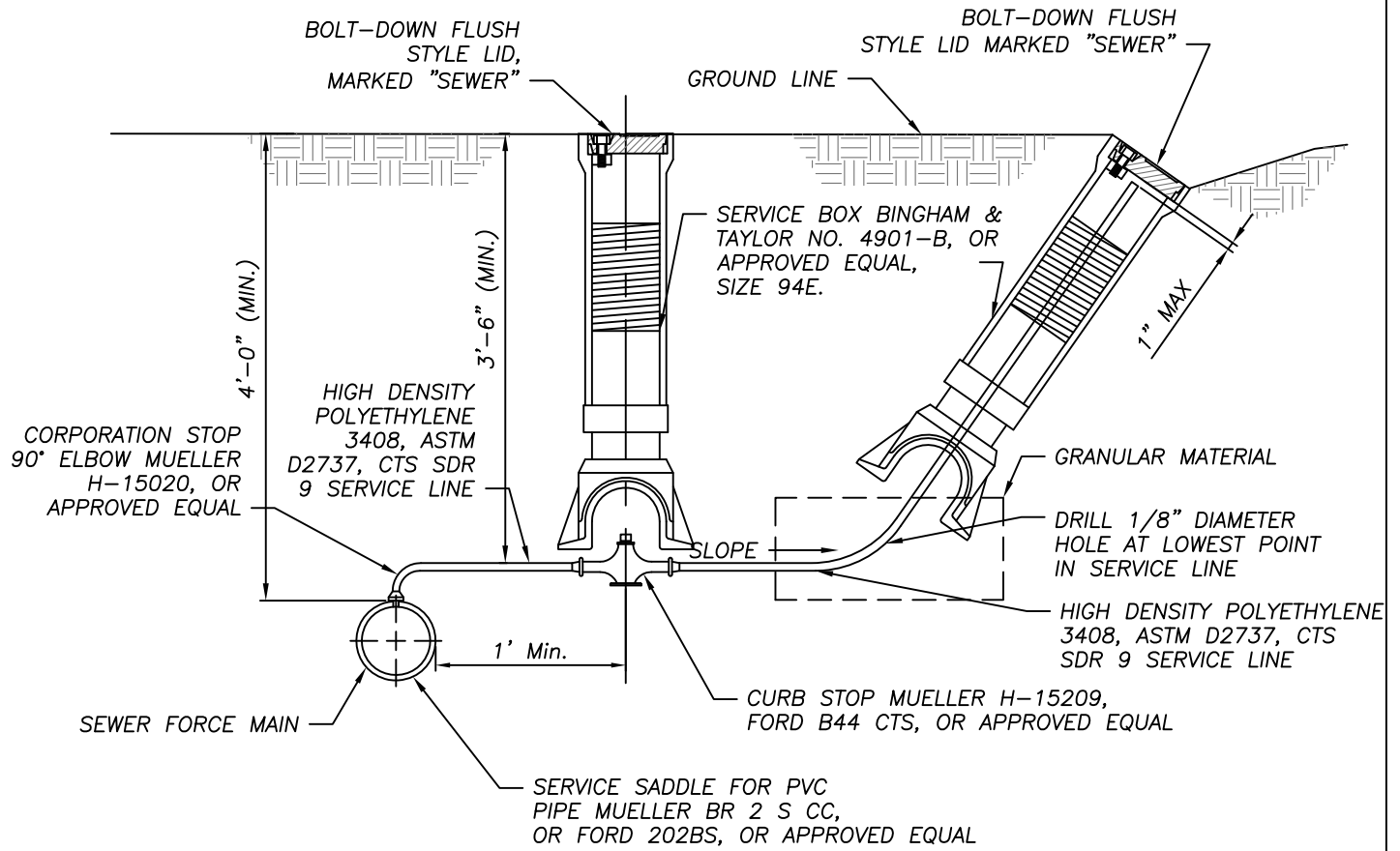
DRIVEWAY CULVERT DETAILS

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-19



NOTE:
STAINLESS STEEL NON-SEAMED INSERT
STIFFENERS SHALL BE USED FOR ALL
COMPRESSION AND PACKED JOINT FITTINGS.

APPROVED

APPROVAL DATE

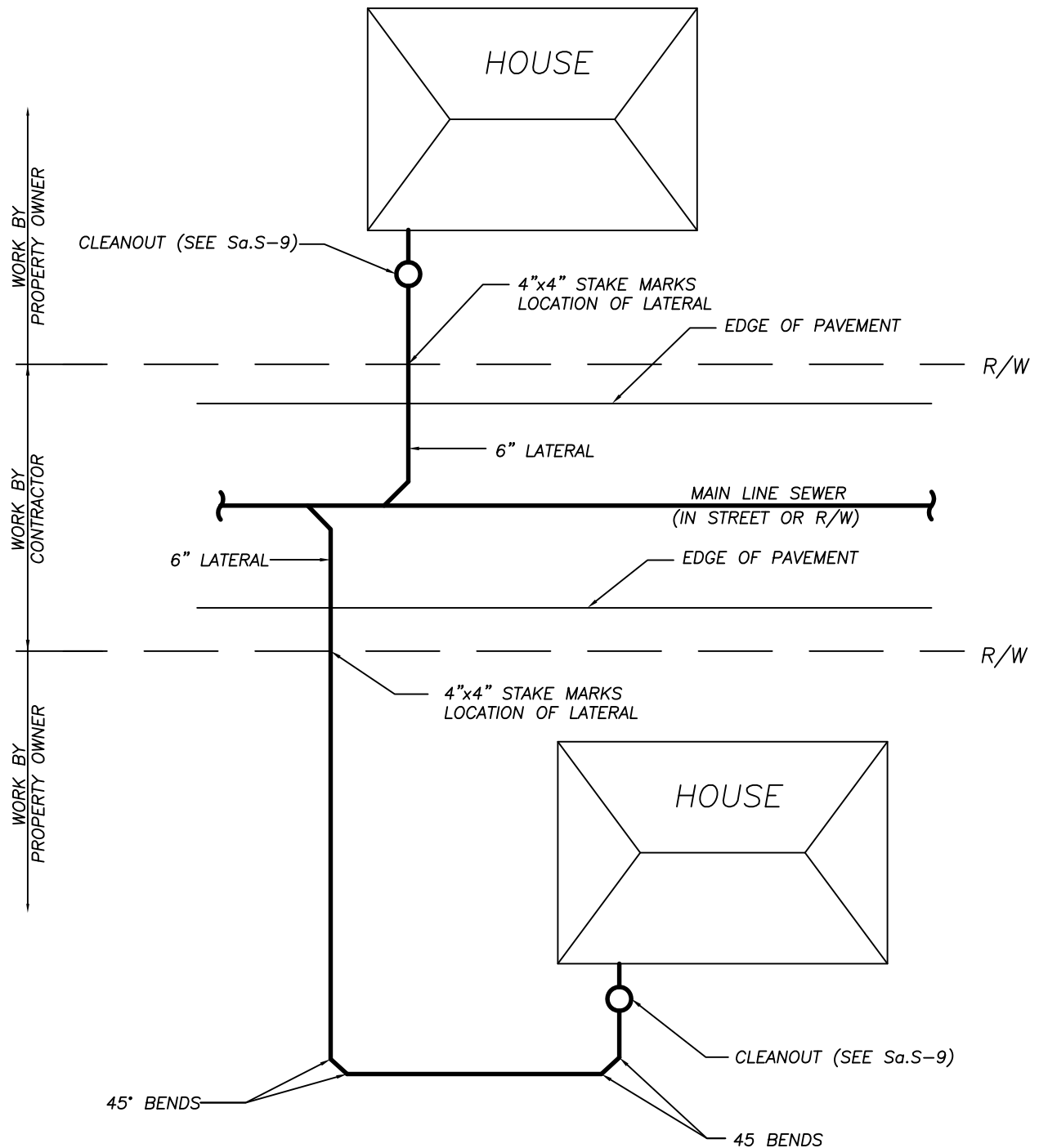
REVISION DATE

FORCEMAIN TYPICAL AIR RELEASE 3/4" THRU 2"

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

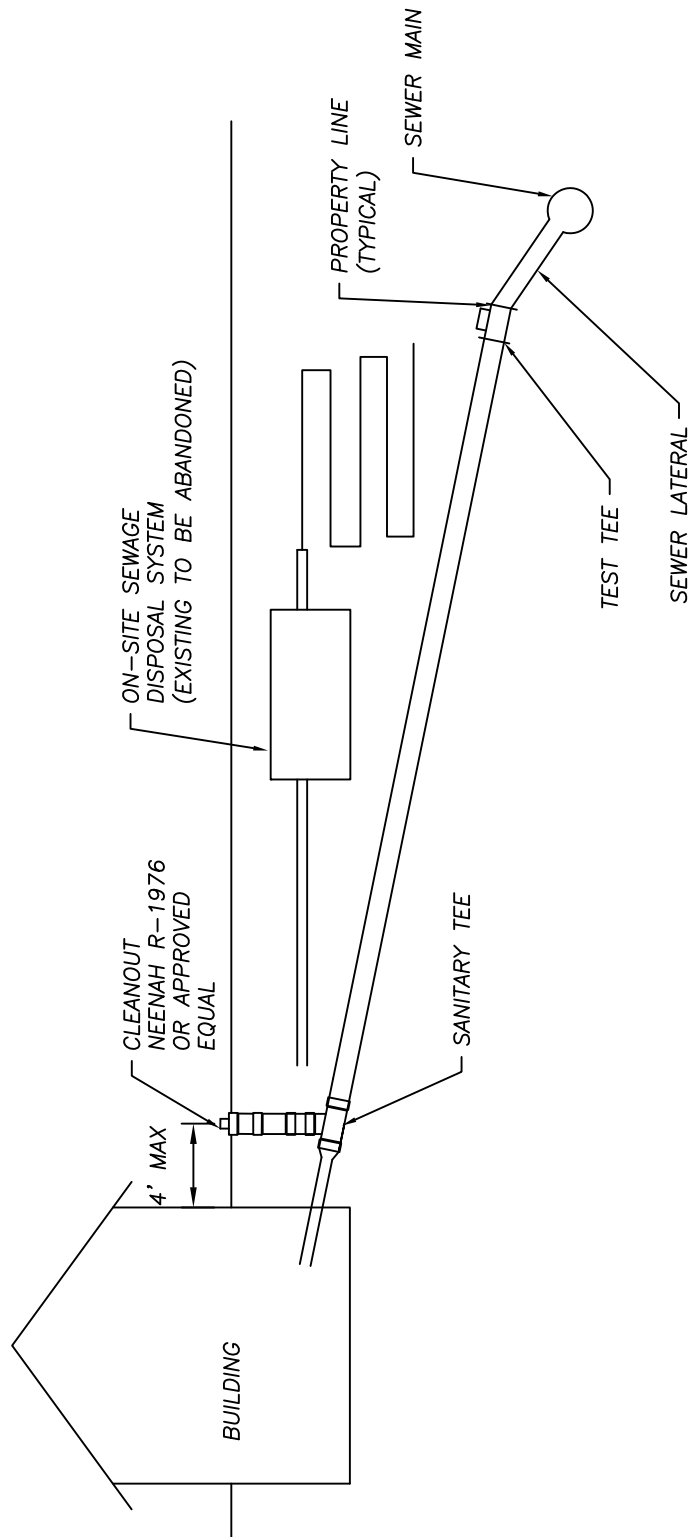
DRAWING NO.
Sa.S-20



NOTE: 90° ELBOWS/BENDS ARE NOT ACCEPTABLE

APPROVED	SANITARY SEWER SERVICE FOR EXISTING HOMES	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. Sa.S-21	1/3

ILLUSTRATION OF TYPICAL INSTALLATION



APPROVED

APPROVAL DATE

REVISION DATE

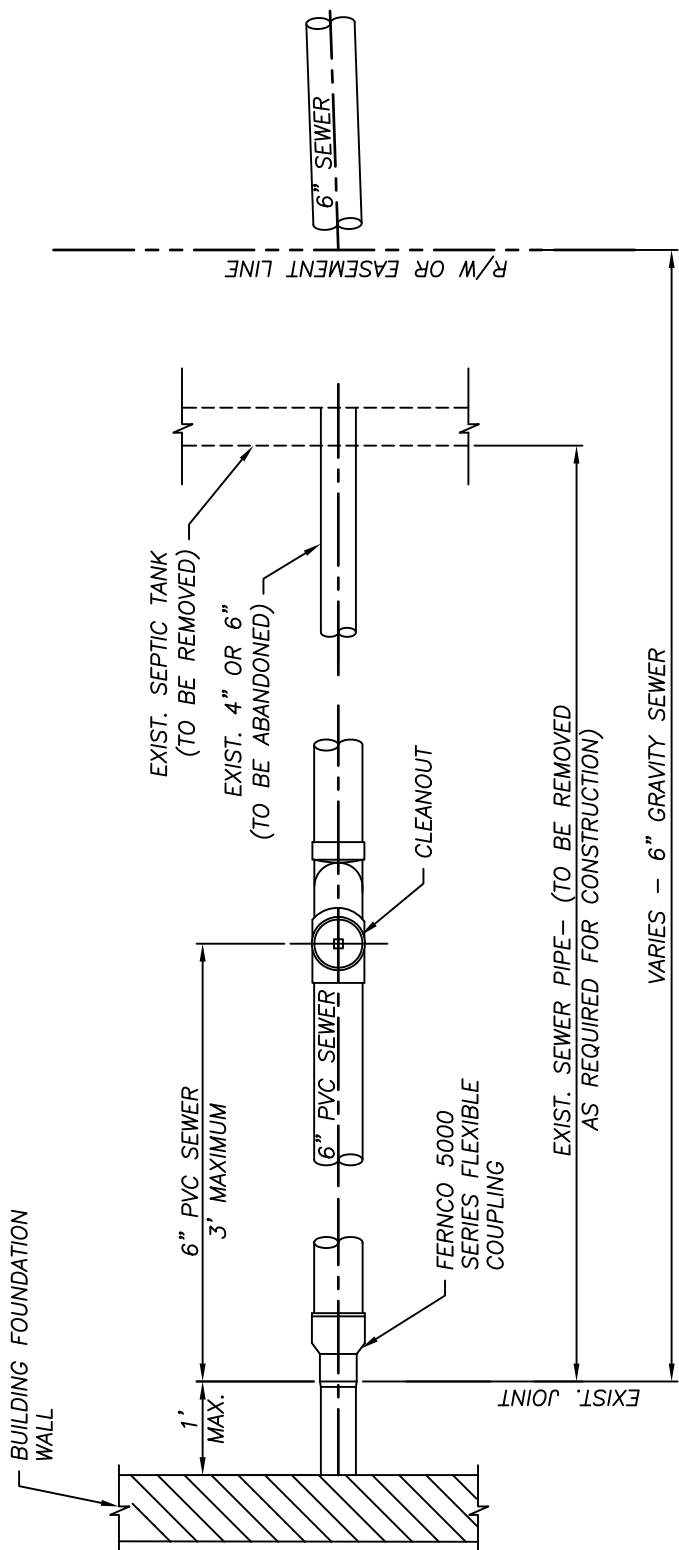
SANITARY SEWER SERVICE FOR EXISTING HOMES

FAIRFIELD COUNTY
OHIO

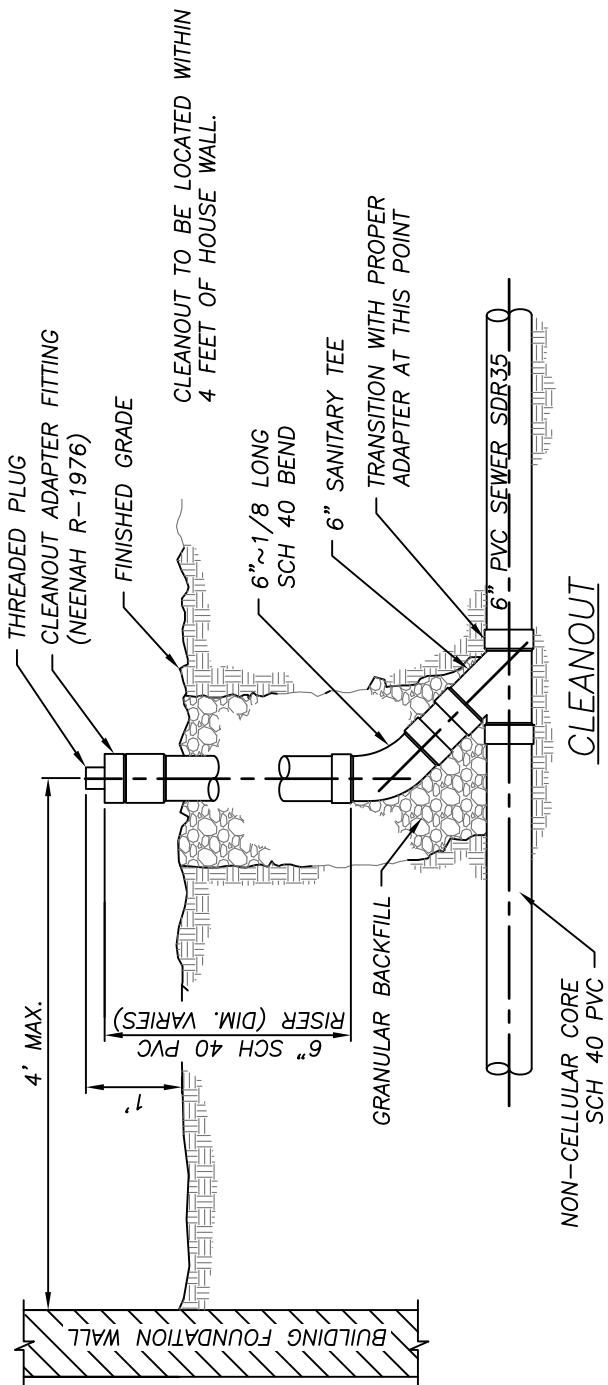
STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-21

2/3



HOUSE SERVICE CONNECTION



APPROVED

APPROVAL DATE

REVISION DATE

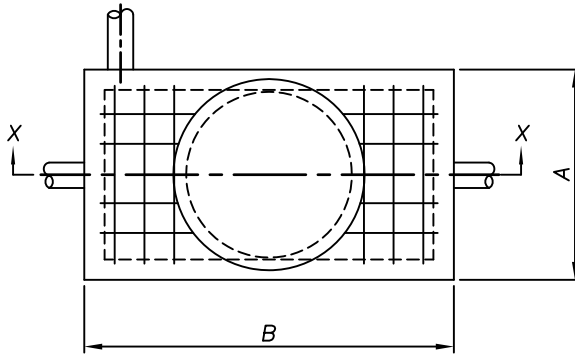
SANITARY SEWER SERVICE FOR EXISTING HOMES

FAIRFIELD COUNTY
OHIO

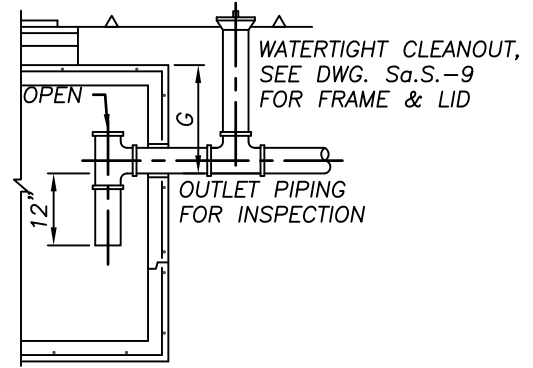
STANDARD
CONSTRUCTION DWG.

DRAWING NO.
Sa.S-21

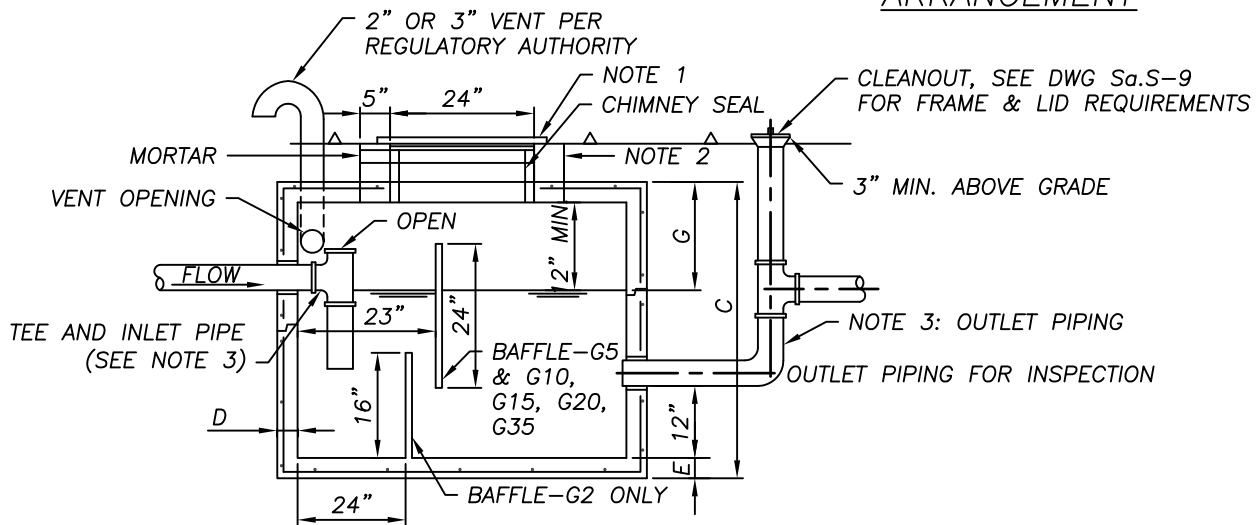
3/3



PLAN



ALTERNATE
OUTLET
ARRANGEMENT



SECTION X-X

NOTES:

1. OPTIONAL FRAME & COVER, HEAVY DUTY O-RING NEENAH R6461EH (WT. 195 lbs). ALLOW 3/4" ABOVE RISER TO TOP OF FRAME & COVER.
2. RISER RINGS TO BE ORDERED IN 2, 3, & 6 INCH DEPTHS. CRETEX CHIMNEY SEALS REQUIRED WITH RISER RINGS
3. OUTLET AND/OR INLET TEES TO BE INSTALLED. PIPE SIZE AS REQUIRED BY FIXTURE LOAD.
4. CONSEAL CS-202 REQUIRED AT ALL JOINTS.

G 35	G 20	G 15	MODEL	G 2	G 5	G 10
3500	2000	1500	CAPACITY(gal)	208	500	1000
82	66	66	A	31	40	49
154	126	126	B	55	78	96
95	88	62	C	47	64	68
5	3	3	D	2-1/2	2-1/2	2-1/2
4	4	4	E	3	3	3
16	14	14	F	14	12	13
16	14	14	G	14	12	13
		32.0	MAX LOAD IN 1000lbs	23.3	23.3	23.3
8	8	8	J	-	8	8
8'x14'	7'x12'	7'x12'	EXCAVATE	4'x6'	4'x8'	5'x9'

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE INDICATED

APPROVED

APPROVAL DATE

REVISION DATE

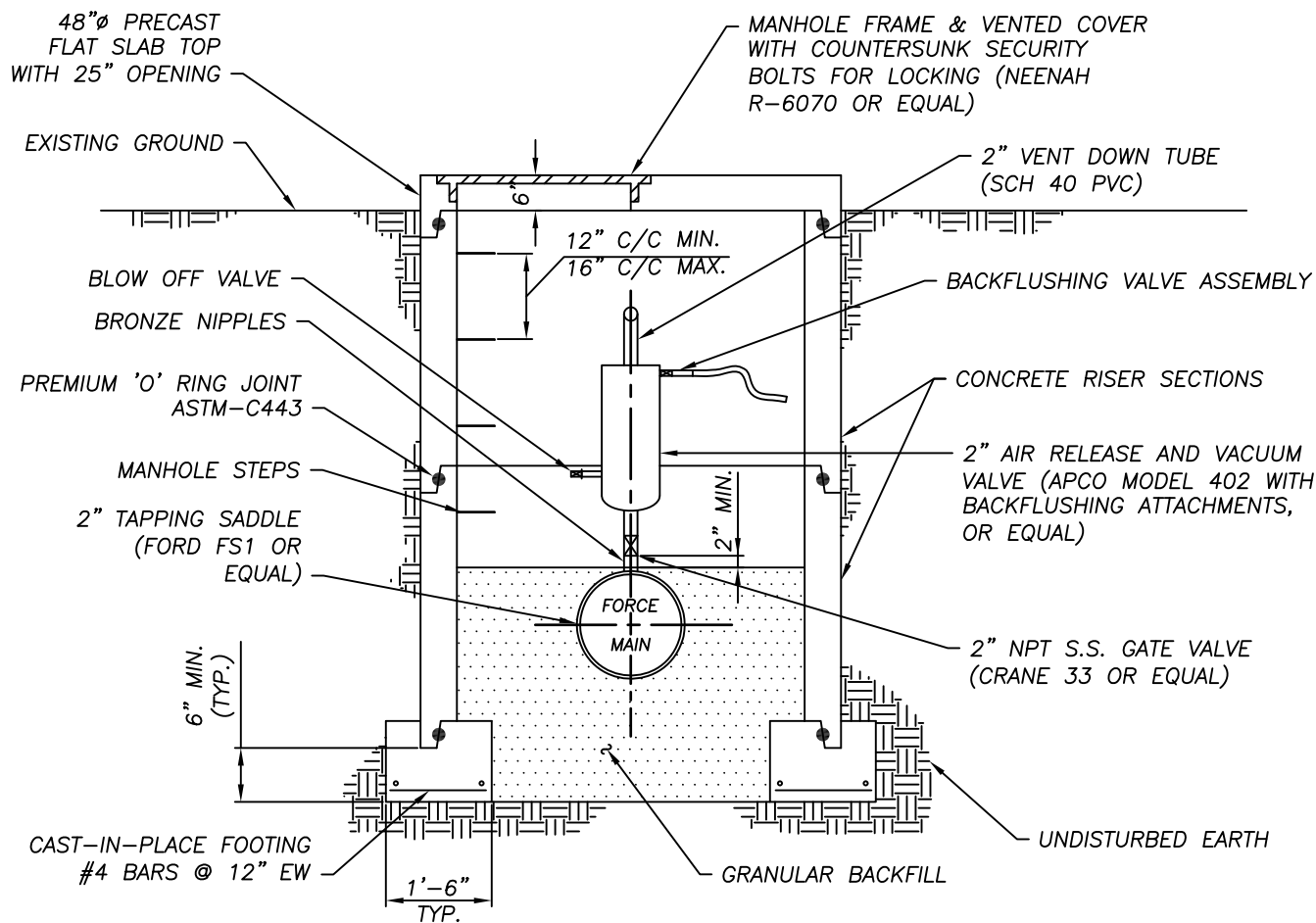
GREASE TRAP

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-22



APPROVED

APPROVAL DATE

REVISION DATE

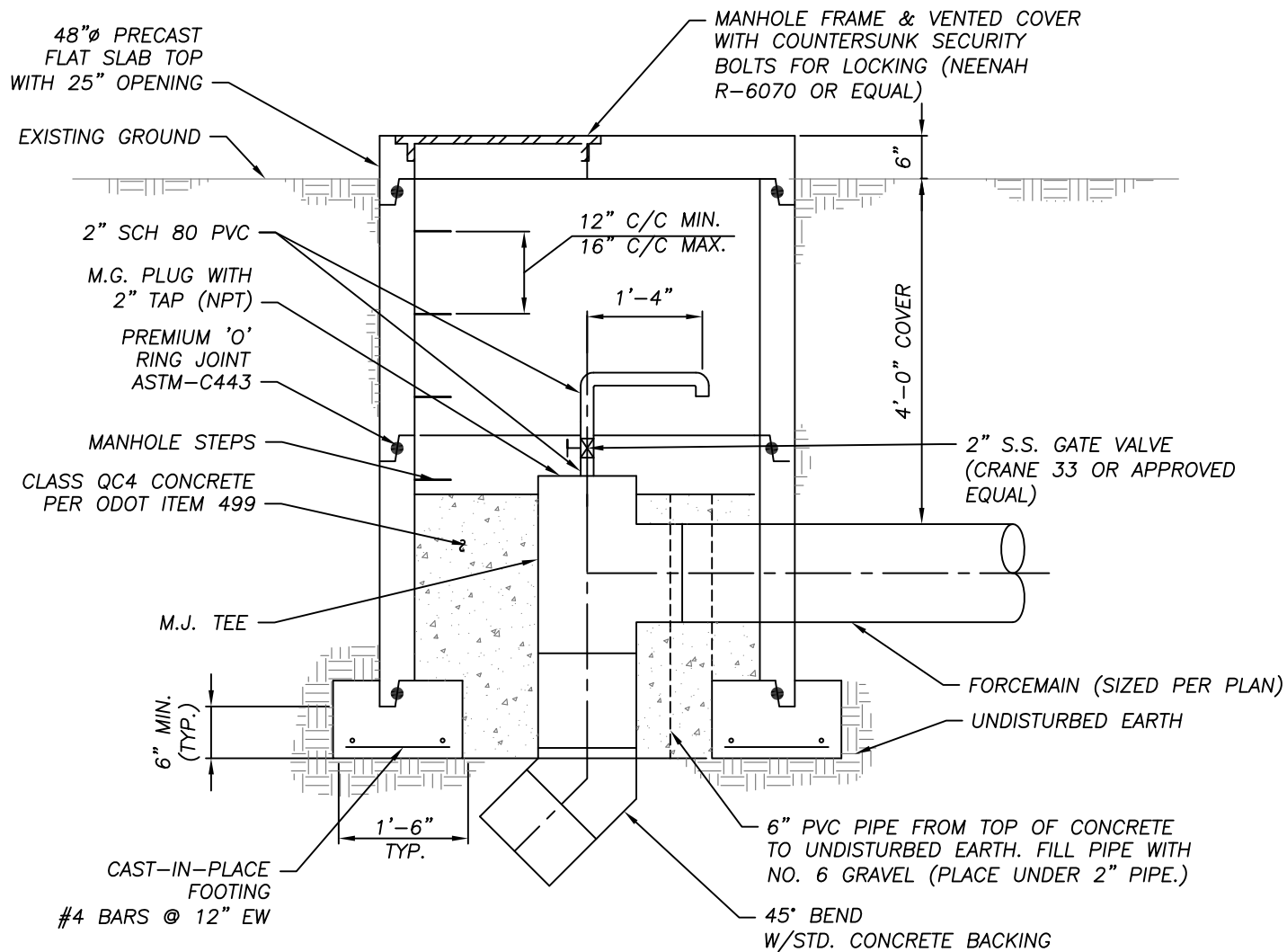
AIR AND VACUUM VALVE

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-23



APPROVED

APPROVAL DATE

REVISION DATE

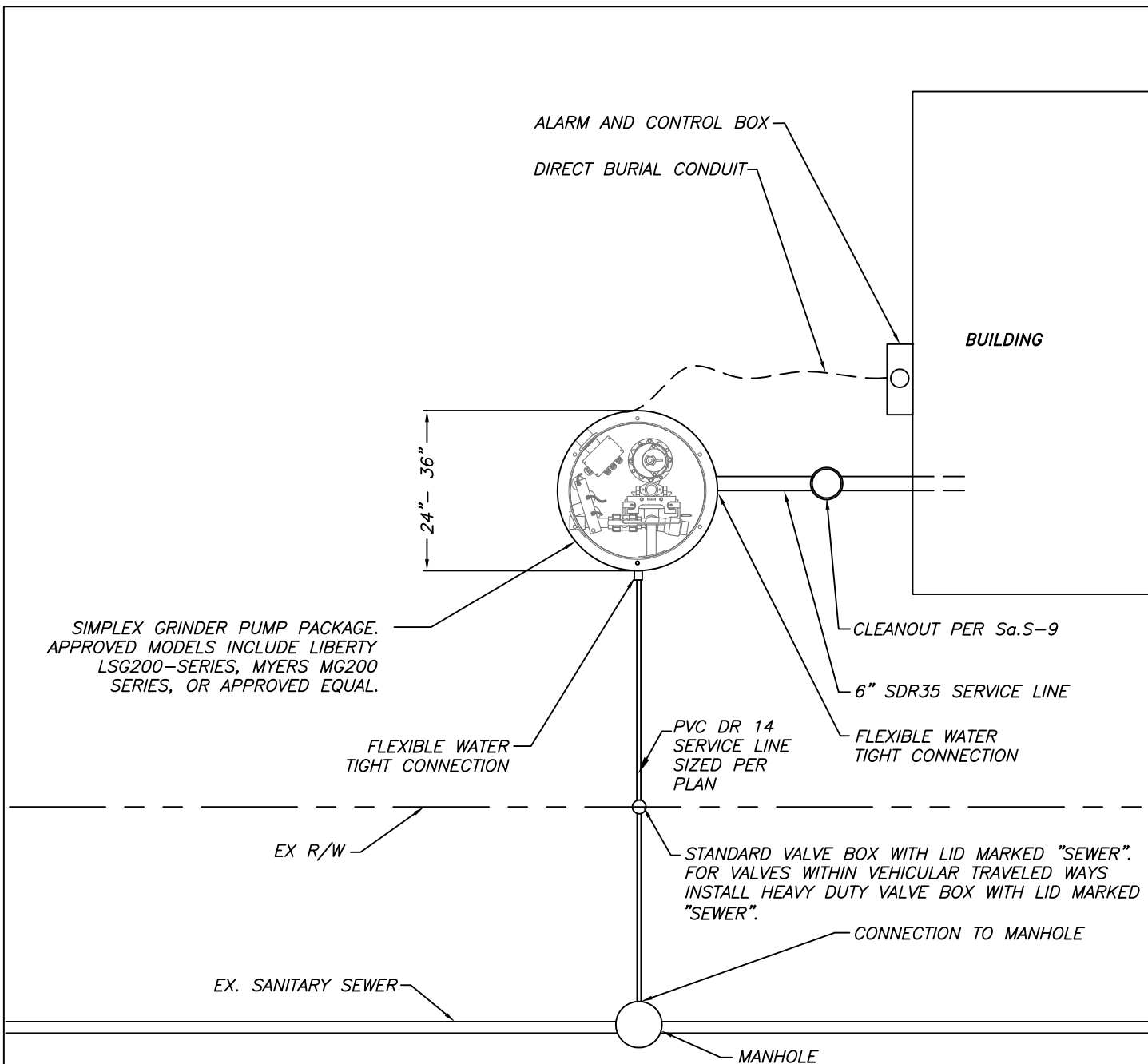
SANITARY FORCEMAIN CLEANOUT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

Sa.S-24



NOTES:

1. POWER SUPPLY OF 240V, SINGLE PHASE, 60 Hz PROVIDED TO THE ALARM AND CONTROL BOX BY PROPERTY OWNER.
2. DUPLEX GRINDER UNIT MAY BE REQUIRED FOR COMMERCIAL INSTALLATION OR AT HOMEOWNER'S DISCRETION.
3. OPERATION AND MAINTENANCE INCLUDING ELECTRICAL COSTS ARE RESPONSABILITY OF THE PROPERTY OWNER.
4. ALARM AND CONTROL BOX SHALL CONTAIN AT A MINIMUM AN AUDIBLE AND VISUAL ALARM.
5. EACH INSTALLATION SHALL BE REVIEWED AND APPROVED BY THE COUNTY.

APPROVED	GRINDER PUMP INSTALLATION	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. Sa.S-25

FAIRFIELD COUNTY
STANDARD CONSTRUCTION DRAWINGS
WATER

Fairfield County Standard Construction Drawings

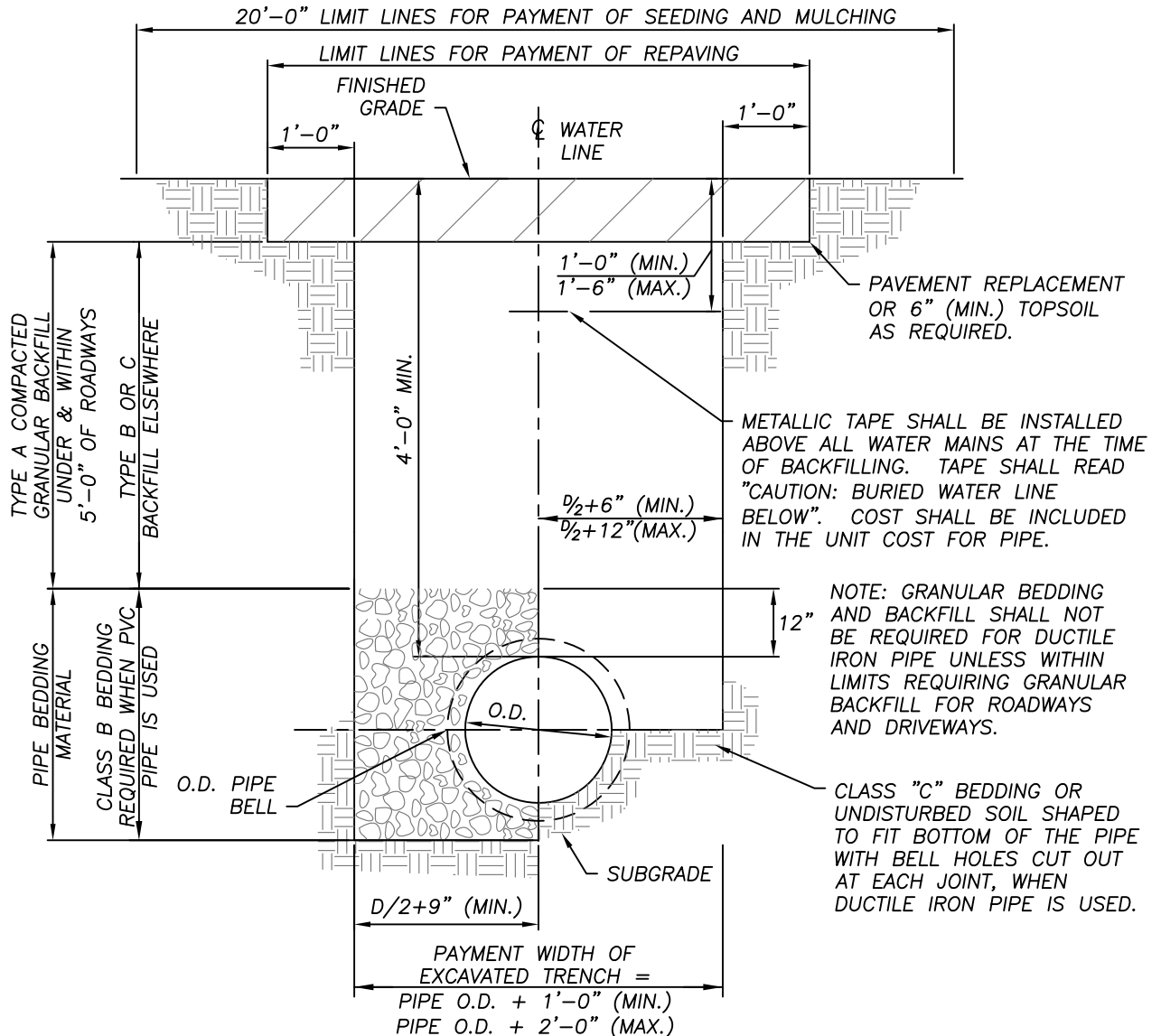
Water

<u>DESCRIPTION</u>	<u>NO. OF SHEETS</u>	<u>DRAWING NUMBER</u>
Typical Trench for Water Mains	1	W-1
Table of Allowable Leakage per Hour	1	W-2
Backing for Tees	1	W-3
Backing for Bends	1	W-4
Backing for Vertical Bends	1	W-5
Concrete Valve Supports	1	W-6
Thrust Block Detail for End of Pipe	1	W-7
Typical Waterline Lowering	1	W-10
Casing Pipe	1	W-11
Drain Tile Replacement	1	W-12
Standard Valve Box	1	W-14
Heavy Duty Valve Box (Traffic Type)	1	W-15
Concrete Encasement Detail	1	W-16
Stream Crossing Detail	1	W-17
Anti-Seep Collar Detail	1	W-18
Standard Fire Hydrant Detail	3	W-20
Typical Fire Hydrant Setting (Type "A")	1	W-21
Typical Fire Hydrant Setting (Type "A Modified")	1	W-22
Typical Fire Hydrant Setting (Type "B" & "B Modified")	1	W-23
Fire Hydrant Location Detail	2	W-24
Standard 90 ^o Bend for Fire Hydrant	1	W-25
Anchoring Tee	1	W-26
Standard Water Service	2	W-30
Typical Air Release – ¾" Thru 2"	1	W-31
Pressure Reducing Valve Vault	2	W-34

<i>DESCRIPTION</i>	<i>NO. OF SHEETS</i>	<i>DRAWING NUMBER</i>
Standard Master Meter Vault	1	W-35
Exterior Meter Box (3/4" and 1" Meter Sizes)	1	W-36
Typical Water Meter Setting (Basement Installation)	1	W-37
Typical Water Meter Setting (Trailer Installation)	1	W-38
Concrete Sidewalk Replacement	1	W-39
Temporary Pavement Replacement	1	W-40
Permanent Pavement Replacement	1	W-41
Driveway Pavement Replacement	1	W-42
Driveway Culvert Details	1	W-43

1. BACKFILL ITEM NUMBERS REFER TO STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS.

2. TYPE A BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL AS SPECIFIED IN ITEM 304. TYPE A OR THE AGGREGATE FOR BEDDING GRANULAR MATERIAL SHALL BE USED AROUND ALL MANHOLES, STRUCTURES, HYDRANTS, AND VALVES.
3. TYPE B BACKFILL SHALL BE No. 57, 6, 67, 68, 7, 78, OR 8 ROUND GRAVEL AGGREGATE.
4. TYPE C BACKFILL SHALL BE NATURAL SOIL FREE FROM STONES LARGER THAN TWO INCHES ACROSS THEIR GREATEST DIMENSION, TOPSOIL, VEGETATION, DEBRIS, RUBBISH OR FROZEN MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM LABORATORY DRY WEIGHT.
5. AGGREGATE FOR BEDDING IS NO. 57, 6, 67, 68, 7, 78, OR 8.
6. THE EXCAVATED TRENCH WIDTH TWELVE INCHES (12") ABOVE THE CONDUIT MAY BE INCREASED WITHOUT EXTRA COMPENSATION.
7. RIGID PIPE SHALL BE DUCTILE IRON, THICKNESS CLASS 53, PRESSURE RATING 350. FLEXIBLE PIPE SHALL BE PVC AWWA C-900 DR14 FOR SIZES UP TO 12" AND PVC AWWA C-905 DR18 FOR 14" AND LARGER SIZES.
8. ENCASEMENT SHALL BE CLASS QC4 CONCRETE.
9. SECTIONS ARE SYMMETRICAL ABOUT THE CENTERLINE.



APPROVED	<div>TYPICAL TRENCH FOR WATER MAINS</div>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. W-1

Number Of Joints	Gallons per Hour		
	6" Pipe	8" Pipe	12" Pipe
1	0.01	0.01	0.02
2	0.02	0.03	0.04
3	0.03	0.04	0.06
4	0.04	0.05	0.08
5	0.05	0.07	0.10
6	0.06	0.08	0.12
7	0.07	0.09	0.14
8	0.08	0.11	0.16
9	0.09	0.12	0.18
10	0.10	0.13	0.20
11	0.11	0.15	0.22
12	0.12	0.16	0.24
13	0.13	0.17	0.26
14	0.14	0.19	0.28
15	0.15	0.20	0.30
16	0.16	0.21	0.32
17	0.17	0.23	0.34
18	0.18	0.24	0.36
19	0.19	0.25	0.38
20	0.20	0.26	0.40
21	0.21	0.28	0.42
22	0.22	0.29	0.44
23	0.23	0.30	0.46
24	0.24	0.32	0.48
25	0.25	0.33	0.50
26	0.26	0.34	0.52
27	0.27	0.36	0.54
28	0.28	0.37	0.56
29	0.29	0.38	0.58
30	0.30	0.40	0.60
31	0.31	0.41	0.62
32	0.32	0.42	0.64
33	0.33	0.44	0.66
34	0.34	0.45	0.68
35	0.35	0.46	0.70
36	0.36	0.48	0.71
37	0.37	0.49	0.73
38	0.38	0.50	0.75
39	0.39	0.52	0.77
40	0.40	0.53	0.79
41	0.41	0.54	0.81
42	0.42	0.56	0.83
43	0.43	0.57	0.85
44	0.44	0.58	0.87
45	0.45	0.60	0.89
46	0.46	0.61	0.91
47	0.47	0.62	0.93
48	0.48	0.64	0.95
49	0.49	0.65	0.97
50	0.50	0.66	0.99

Number Of Joints	Gallons per Hour		
	6" Pipe	8" Pipe	12" Pipe
51	0.51	0.67	1.01
52	0.52	0.69	1.03
53	0.53	0.70	1.05
54	0.54	0.71	1.07
55	0.55	0.73	1.09
56	0.56	0.74	1.11
57	0.57	0.75	1.13
58	0.58	0.77	1.15
59	0.59	0.78	1.17
60	0.60	0.79	1.19
61	0.61	0.81	1.21
62	0.62	0.82	1.23
63	0.63	0.83	1.25
64	0.64	0.85	1.27
65	0.65	0.86	1.29
66	0.66	0.87	1.31
67	0.67	0.89	1.33
68	0.68	0.90	1.35
69	0.69	0.91	1.37
70	0.70	0.93	1.39
71	0.71	0.94	1.41
72	0.72	0.95	1.43
73	0.73	0.97	1.45
74	0.74	0.98	1.47
75	0.75	0.99	1.49
76	0.76	1.01	1.51
77	0.77	1.02	1.53
78	0.78	1.03	1.55
79	0.79	1.05	1.57
80	0.80	1.06	1.59
81	0.81	1.07	1.61
82	0.82	1.09	1.63
83	0.83	1.10	1.65
84	0.84	1.11	1.67
85	0.85	1.13	1.69
86	0.86	1.14	1.71
87	0.87	1.15	1.73
88	0.88	1.17	1.75
89	0.89	1.18	1.77
90	0.90	1.19	1.79
91	0.91	1.20	1.81
92	0.92	1.22	1.83
93	0.93	1.23	1.85
94	0.94	1.24	1.87
95	0.95	1.26	1.89
96	0.96	1.27	1.91
97	0.97	1.28	1.93
98	0.98	1.30	1.95
99	0.99	1.31	1.97
100	1.00	1.32	1.99

Number Of Joints	Gallons per Hour		
	6" Pipe	8" Pipe	12" Pipe
100	1.00	1.32	1.99
200	1.99	2.65	3.97
300	2.98	3.97	5.96
400	3.97	5.30	7.94
500	4.97	6.62	9.93

$$\text{FORMULA: } L = \frac{ND\sqrt{P}}{7400}$$

WHERE: L = Leakage (gal./hr.)

N = Number of Joints

D = Nominal diameter (in.)

P = Test Pressure (150psi)

These Calculations Based on
the Current AWWA C600
Specifications, Section 4,
Hydrostatic Testing.

APPROVED

APPROVAL DATE

REVISION DATE

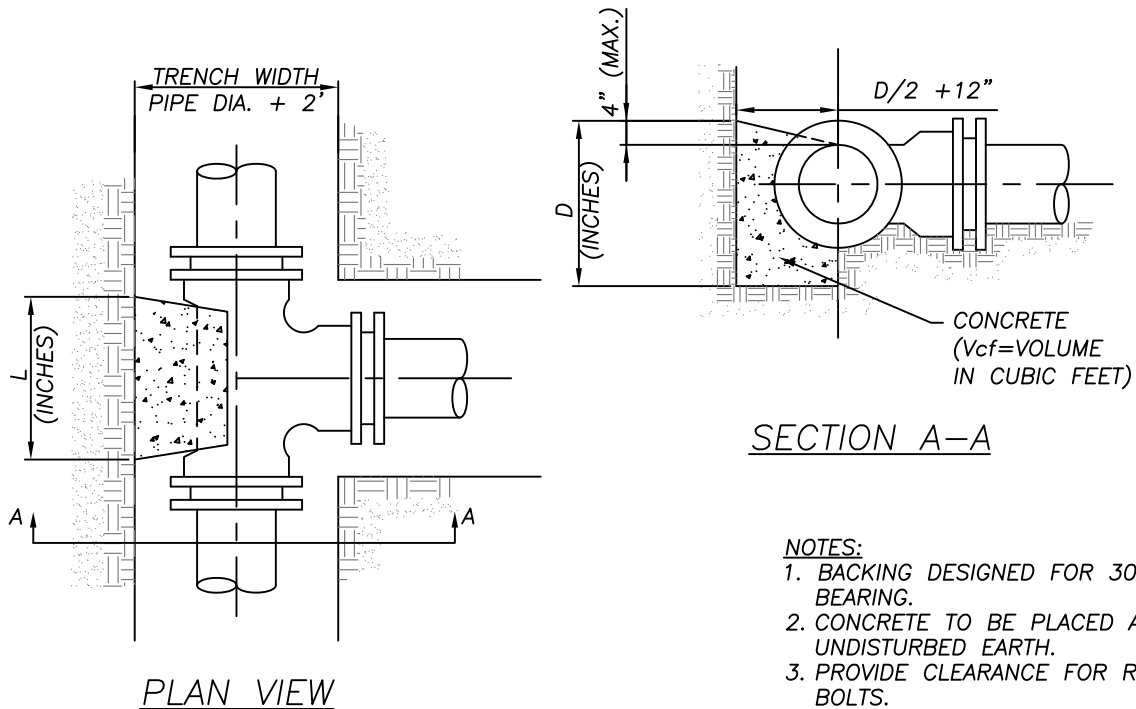
TABLE OF
ALLOWABLE LEAKAGE
PER HOUR
(For Mech. Joint and Slip Joint Pipe)

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
W-2

R U N	3"			4"			6"			8"			10"			12"			16"			20"			24"		
	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf			
3"	12	5	0.5																								
4"	10	6	0.5	11	8	0.8																					
6"	9	7	0.5	11	8	0.8	18	12	1.9																		
8"	8	8	0.5	10	9	0.7	18	12	1.9	23	16	3.5															
10"	7	10	0.6	9	11	0.8	18	12	1.9	23	16	3.5	32	18	7.3												
12"	6	12	0.6	8	12	0.8	18	12	1.9	23	16	3.5	30	20	7.6	38	22	8.7									
16"	6	16	0.8	6	16	0.8	14	16	2.0	20	18	3.3	26	22	7.6	36	23	8.7	49	30	13.6						
20"	6	20	1.0	6	20	1.0	11	20	1.9	18	20	3.3	24	24	8.0	35	24	8.7	46	32	13.6	60	38	26.5			
24"	6	24	1.2	6	24	1.2	9	24	1.9	15	24	3.3	22	26	8.3	30	28	8.7	42	36	14.0	54	42	26.3	68	48	45.4



NOTES:

1. BACKING DESIGNED FOR 3000 PSF SOIL BEARING.
2. CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH.
3. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.
4. CONCRETE FOR BACKING SHALL BE CLASS QC4 PER ODOT ITEM 499.
5. REINFORCING STEEL SHALL BE PLACED AS DIRECTED BY THE COUNTY.

APPROVED

APPROVAL DATE

REVISION DATE

BACKING
FOR
TEES

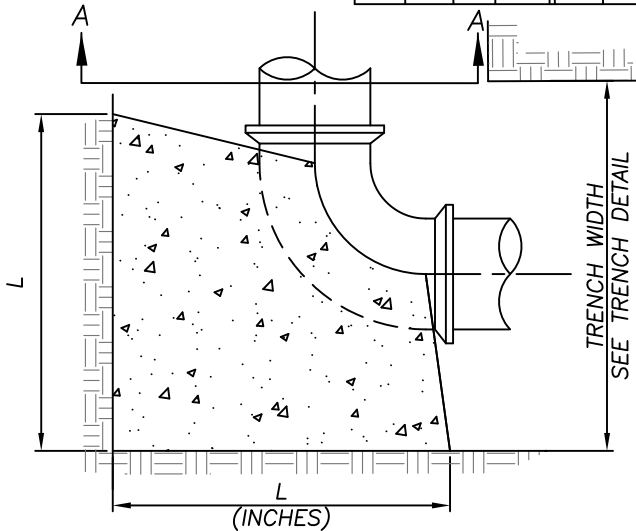
FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

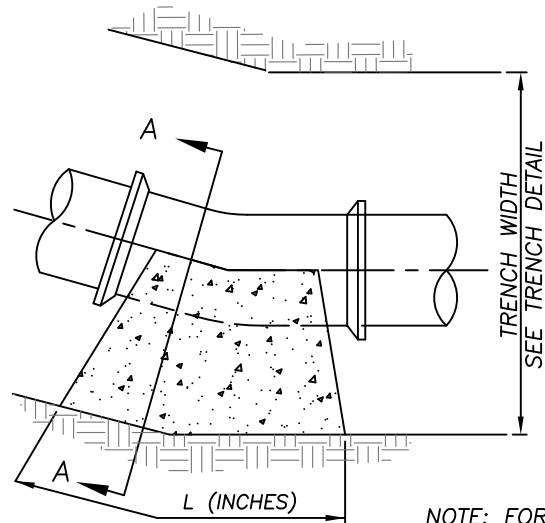
DRAWING NO.

W-3

SIZE OF PIPE	DEGREE OF BEND											
	11 1/2°			22 1/2°			45°			90°		
	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf	L"	D"	Vcf
3"	4	3	0.1	6	4	0.2	10	4	0.3	10	4	0.3
4"	5	4	0.2	9	5	0.4	14	5	0.6	14	5	0.6
6"	8	6	0.5	12	7	0.7	20	8	1.4	18	9	1.7
8"	9	8	0.7	16	9	1.4	24	12	2.7	25	11	4.0
10"	12	10	1.3	20	12	2.5	30	15	4.8	28	15	6.8
12"	14	12	1.8	24	14	3.6	36	18	6.8	32	18	10.7
16"	18	16	3.4	32	18	6.7	36	32	13.4	41	26	25.4
20"	25	20	6.4	30	30	11.5	49	36	20.5	50	32	46.5
24"	27	24	9.0	39	34	18.4	60	42	35.0	58	40	77.7



90° BENDS

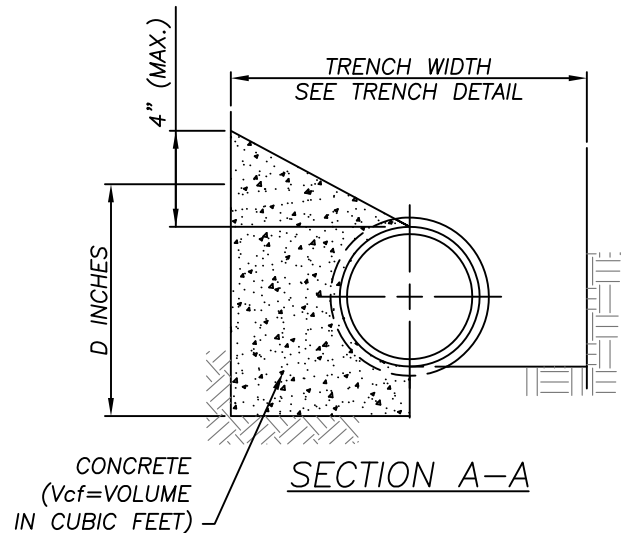


BENDS LESS THAN 90°

PLAN VIEWS

NOTES:

1. BACKING DESIGNED FOR 3000 PSF SOIL BEARING.
2. CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH.
3. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.
4. CONCRETE FOR BACKING SHALL BE CLASS QC4 PER ODOT ITEM 499.
5. REINFORCING STEEL SHALL BE USED AS DIRECTED BY THE COUNTY.
6. CONCRETE THRUST BLOCK AND JOINT RESTRAINT MAY BE REQUIRED BY THE COUNTY ON FITTINGS.



SECTION A-A

APPROVED

APPROVAL DATE

REVISION DATE

BACKING
FOR
BENDS

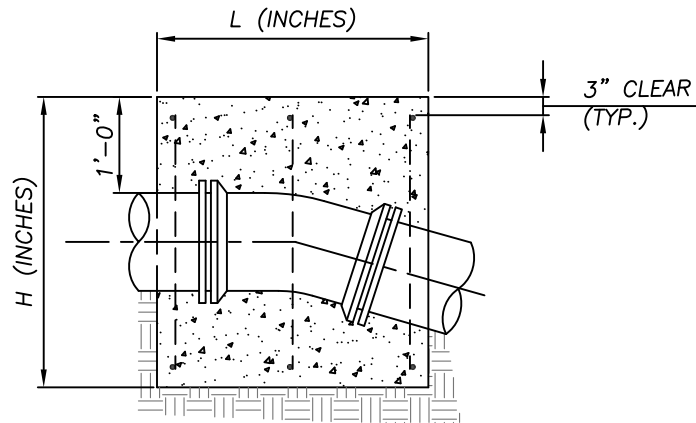
FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-4

SIZE OF PIPE	DEGREE OF BEND															
	11.25°				22.5°				45°				90°			
	L"	W"	H"	Vcf	L"	W"	H"	Vcf	L"	W"	H"	Vcf	L"	W"	H"	Vcf
3"	12	27	27	5.1	13	27	27	5.5	18	30	27	8.4	25	30	27	11.7
4"	12	28	28	5.4	16	30	28	7.8	22	36	28	12.8	27	48	28	36.0
6"	12	43	30	9.0	16	52	30	14.4	30	48	30	25.0	37	54	36	41.6
8"	12	63	32	14.0	18	60	32	20.0	36	57	33	39.2	47	60	46	75.0
10"	16	60	34	18.9	27	60	34	31.9	42	60	42	51.1	56	63	56	114.4
12"	20	54	36	22.6	37	62	37	49.0	48	62	51	87.9	66	66	66	166.4
16"	31	65	38	44.3	60	65	39	88.1	65	65	65	159.2	72	96	72	288.0
20"	45	70	40	72.8	66	70	60	136.2	72	76	78	247.0	86	108	84	451.8
24"	41	72	54	92.3	67	74	69	198.0	88	84	84	359.1	96	120	96	640.0

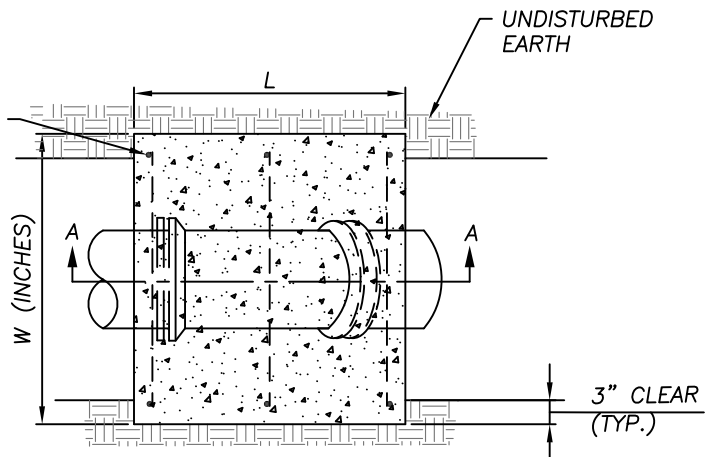


SECTION A-A

NOTES:

1. BACKING SHALL BE CENTERED HORIZONTALLY ON BEND.
2. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
3. CONCRETE FOR BACKING SHALL BE CLASS QC4 PER ODOT ITEM 499.
4. REINFORCING STEEL SHALL BE USED AS DIRECTED BY THE COUNTY.
5. RESTRAINED JOINTS REQUIRED FOR IDENTIFIED SIZES IN TABLE (SHADED).

#4@12",
MINIMUM
2 PER BLOCK



PLAN VIEW

APPROVED

APPROVAL DATE

REVISION DATE

BACKING FOR
VERTICAL BENDS
(OVER BENDS ONLY)

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

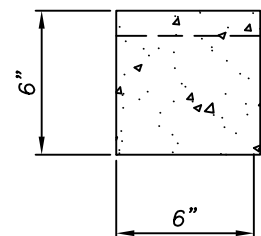
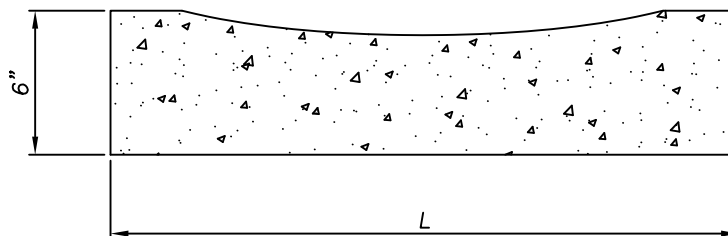
DRAWING NO.

W-5

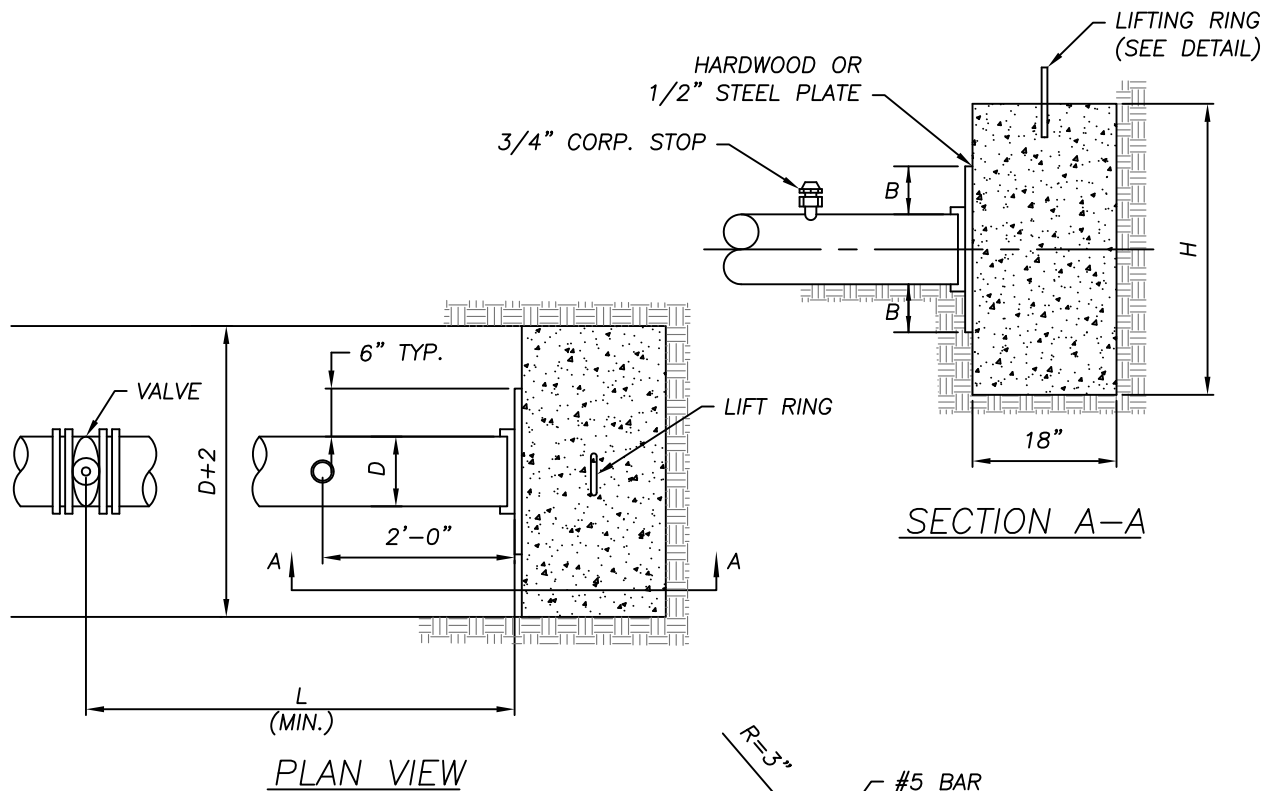
	SIZE OF VALVE	L	REQUIRED CONCRETE VOLUME CUBIC FT
RESILIENT WEDGE VALVES	3"	15"	0.31
	4"	16"	0.33
	6"	17"	0.36
	8"	20"	0.42
	12"	24"	0.50
	16"	30"	0.63
BUTTERFLY VALVES	20"	36"	0.75
	24"	42"	0.88
	30"	48"	1.00

NOTES:

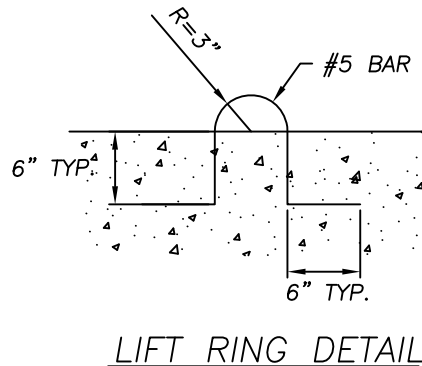
1. ALL CONCRETE SHALL BE CLASS QC4 PER ODOT ITEM 499.
2. BACKING SHALL BE DESIGNED FOR 3000 PSF SOIL BEARING.
3. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED EARTH.
4. PROVIDE CLEARANCE FOR REMOVAL OF BOLTS.



APPROVED	CONCRETE VALVE SUPPORTS	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. W-6



PIPE DIA.	H	B	L
6"	8"	1"	10'
8"	10"	1"	10'
10"	14"	2"	18'
12"	18"	3"	18'



NOTES:

1. BACKING SHALL BE DESIGNED FOR 4000 PSF SOIL BEARING.
2. END OF PIPE SHALL BE A WATERTIGHT CAP OR PLUG.
3. STEEL PLATE SHALL BE GREASED WHERE IN CONTACT WITH CONCRETE BACKER.
4. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL.
5. THOROUGHLY COMPACT BACKFILL BETWEEN VALVE AND END OF PIPE.
6. CONCRETE FOR BACKING SHALL BE CLASS QC4 PER ODOT ITEM 499.
7. A #5 BAR SHALL BE INSTALLED AT THE END OF ALL LINES ON THE CENTERLINE OF THE THRUST BLOCK. THE #5 BAR SHALL BE INSTALLED FROM TOP OF THRUST BLOCK TO FINAL GRADE.

APPROVED

APPROVAL DATE

REVISION DATE

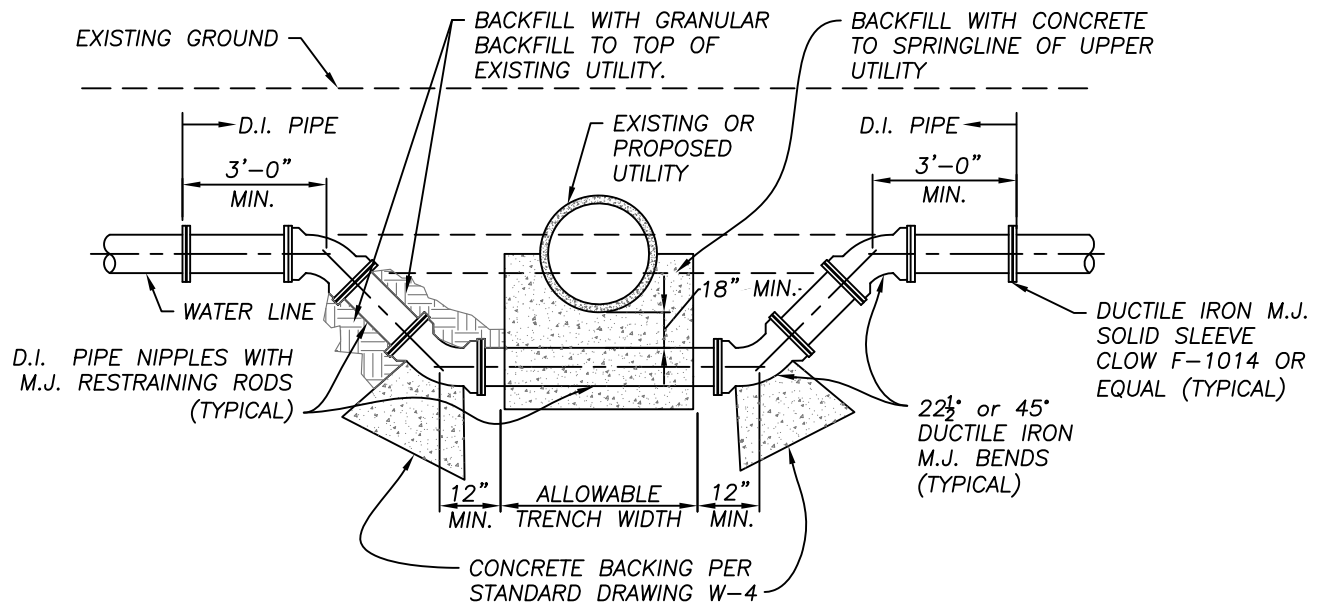
THRUST BLOCK DETAIL FOR END OF PIPE

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-7



NOTES:

1. TIME AND DURATION OF SHUT DOWN SHALL BE DETERMINED BY THE COUNTY.
2. THE CONTRACTOR SHALL NOTIFY ALL WATER CUSTOMERS EFFECTED BY THE PROPOSED WORK AT LEAST 24 HOURS IN ADVANCE OF SHUT DOWN.
3. ALL BENDS SHALL BE SECURED BY RETAINING GLANDS IN BOTH DIRECTIONS, RODDING OR OTHER METHODS AS APPROVED BY THE COUNTY TO RESTORE THE MAIN TO SERVICE AS SOON AS POSSIBLE.
4. THE RELOCATED LINES SHALL BE LAID TO THE NEW LINE AND GRADE, TESTED AND DISINFECTED PRIOR TO SHUT DOWN OF EXISTING MAIN AND CONNECTION OF THE RELOCATED LINES TO THE EXISTING MAIN.
5. ALL WATER LINES SHALL BE DISINFECTED BY SWABBING WITH A 5 PERCENT HYPOCHLORITE SOLUTION IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF AWWA C-651.

APPROVED

APPROVAL DATE

REVISION DATE

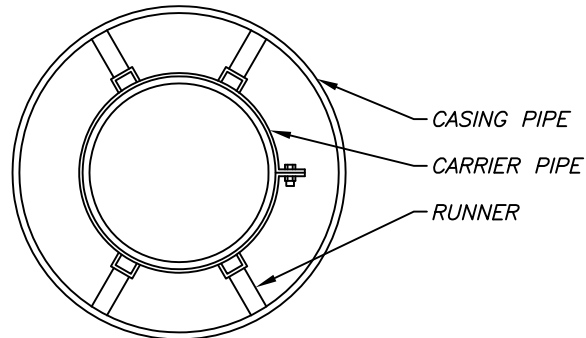
TYPICAL WATERLINE LOWERING

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-10



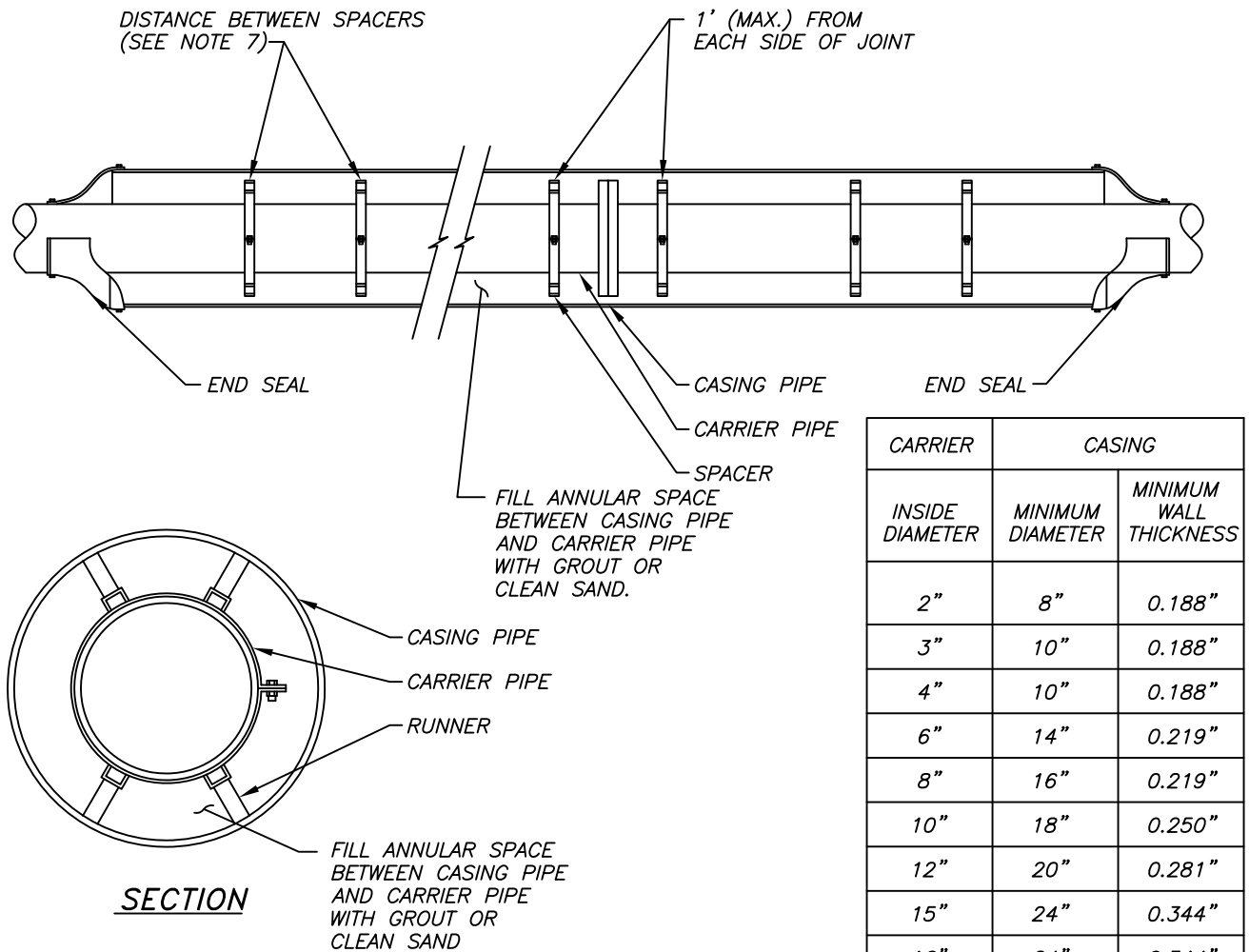
SECTION

NOTES:

1. CASING PIPE SHALL BE INSTALLED BY JACKING, WITH A MINIMUM WALL THICKNESS AS SHOWN IN THE TABLE.
2. CASING SPACERS TO BE CCI, STAINLESS STEEL BAND CASING SPACERS, MODEL CSS8 OR APPROVED EQUAL. END SEALS TO BE CCI, CASING END SEAL, MODEL ESW OR APPROVED EQUAL.
3. NO FILLING OF CASING PIPE VOID REQUIRED.
4. CASING PIPE SHALL BE 12" GREATER THAN THE MAXIMUM PIPE BELL O.D.
5. CASING MATERIAL SHALL BE IN ACCORDANCE WITH FAIRFIELD COUNTY CMS ITEMS 211 AND 214, ASTM A139, GRADE B BITUMINOUS COATED GALVANIZED.
6. STEEL FOR CASING PIPE SHALL BE 35K PSI YIELD STRENGTH, 60K TENSILE STRENGTH.
7. DIMENSIONS BETWEEN SPACERS FOR PVC PIPE SHALL BE 6 FEET MAXIMUM. DIMENSIONS BETWEEN SPACERS FOR DUCTILE IRON PIPE SHALL BE 8 FEET MAXIMUM.
8. THE QUANTITY OF RUNNERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CARRIER	CASING	
	INSIDE DIAMETER	MINIMUM WALL THICKNESS
2"	8"	0.188"
3"	10"	0.188"
4"	10"	0.188"
6"	14"	0.219"
8"	16"	0.219"
10"	18"	0.250"
12"	20"	0.281"
15"	24"	0.344"
16"	24"	0.344"
18"	28"	0.406"
20"	28"	0.406"
24"	36"	0.469"
27"	42"	0.500"
30"	42"	0.500"
36"	48"	0.675"

APPROVED	CASING PIPE (OPTION #1)	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. W-11	1/2



CARRIER	CASING	
INSIDE DIAMETER	MINIMUM DIAMETER	MINIMUM WALL THICKNESS
2"	8"	0.188"
3"	10"	0.188"
4"	10"	0.188"
6"	14"	0.219"
8"	16"	0.219"
10"	18"	0.250"
12"	20"	0.281"
15"	24"	0.344"
16"	24"	0.344"
18"	28"	0.406"
20"	28"	0.406"
24"	36"	0.469"
27"	42"	0.500"
30"	42"	0.500"
36"	48"	0.675"

NOTES:

1. CASING PIPE SHALL BE INSTALLED BY JACKING, WITH A MINIMUM WALL THICKNESS AS SHOWN IN THE TABLE.
2. CASING SPACERS TO BE CCI, STAINLESS STEEL BAND CASING SPACERS, MODEL CSS8 OR APPROVED EQUAL. END SEALS TO BE CCI, CASING END SEAL, MODEL ESW OR APPROVED EQUAL.
3. FILL ANNULAR SPACE WITH GROUT MEETING THE REQUIREMENTS OF ODOT ITEM 613 OR CLEAN SAND MEETING THE REQUIREMENTS OF ODOT ITEM 703.03.
4. CASING PIPE SHALL BE 12" GREATER THAN THE MAXIMUM PIPE BELL O.D.
5. CASING MATERIAL SHALL BE IN ACCORDANCE WITH FAIRFIELD COUNTY CMS ITEMS 211 AND 214, ASTM A139, GRADE B BITUMINOUS COATED GALVANIZED.
6. STEEL FOR CASING PIPE SHALL BE 35K PSI YIELD STRENGTH, 60K TENSILE STRENGTH.
7. DIMENSIONS BETWEEN SPACERS FOR PVC PIPE SHALL BE 6 FEET MAXIMUM. DIMENSIONS BETWEEN SPACERS FOR DUCTILE IRON PIPE SHALL BE 8 FEET MAXIMUM.
8. THE QUANTITY OF RUNNERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

APPROVED

APPROVAL DATE

REVISION DATE

CASING PIPE
(OPTION #2)

FAIRFIELD COUNTY
OHIO

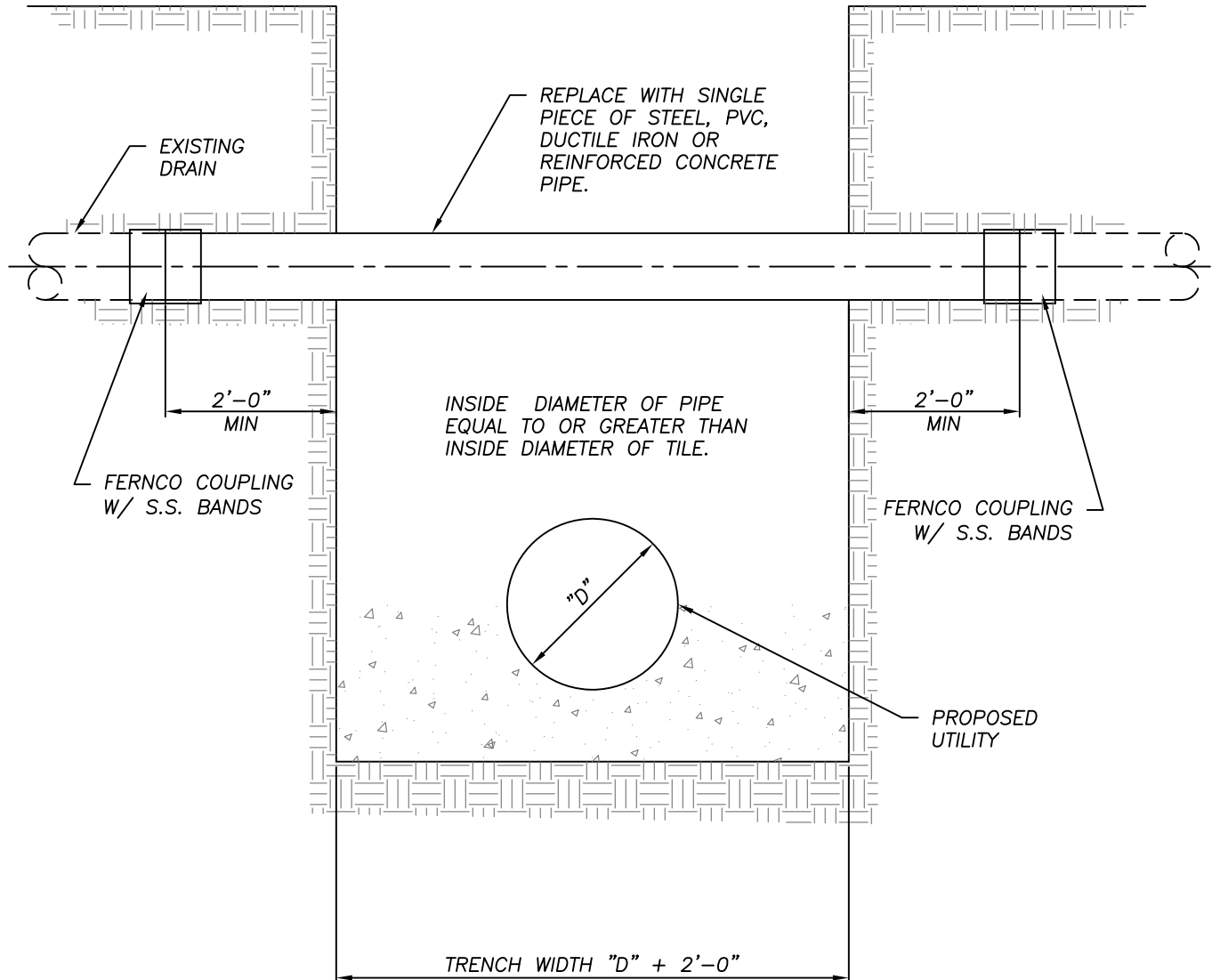
STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-11

2/2

MINIMUM REPLACEMENT MATERIAL SHALL BE:
PVC: ASTM D2241, SDR 26
DUCTILE IRON: AWWA C151, CLASS 50
STEEL PIPE: ASTM A139-B
POLYETHYLENE: ODOT 707
CONCRETE: ODOT 706.02



*LARGE DIAMETER OR DISSIMILAR MATERIALS SHALL BE COUPLED AT
EACH END PER DIRECTION OF THE COUNTY.

APPROVED

APPROVAL DATE

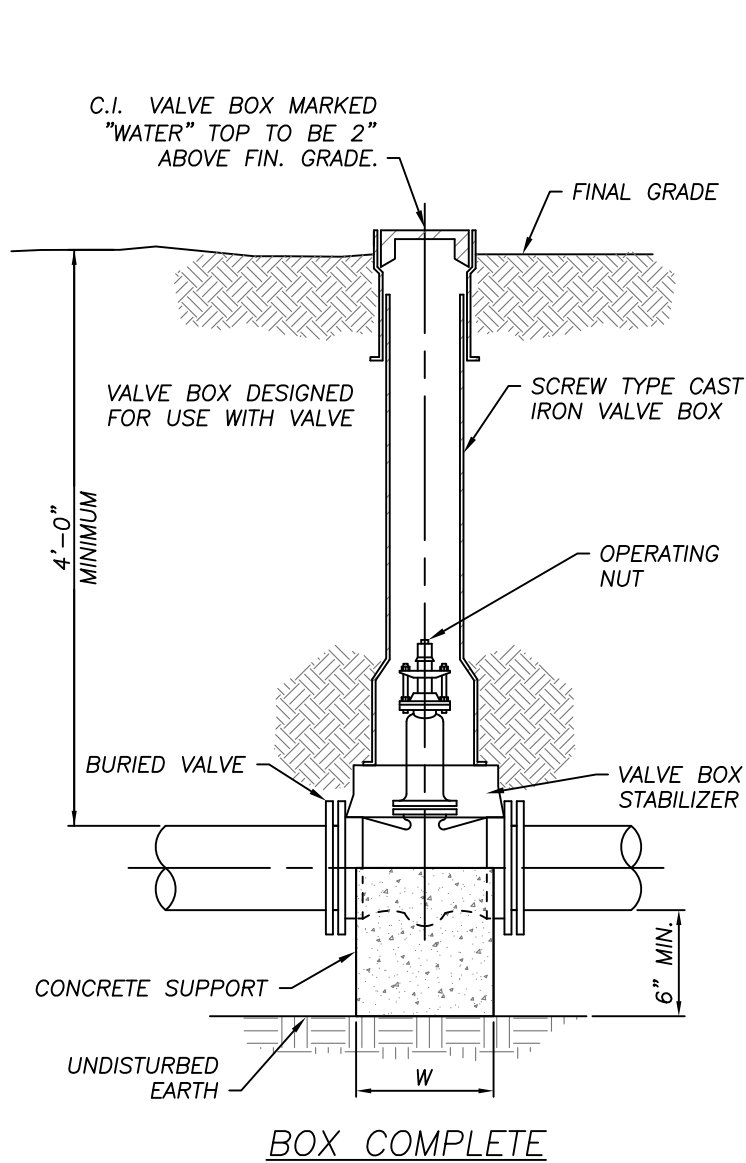
REVISION DATE

DRAIN TILE REPLACEMENT

FAIRFIELD COUNTY
OHIO

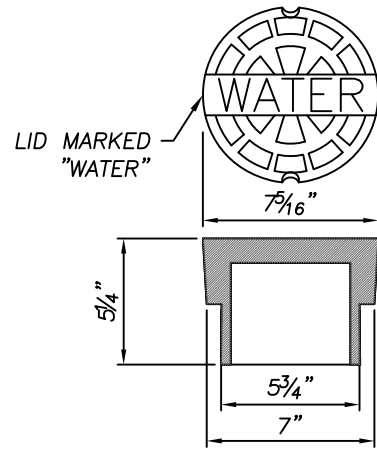
STANDARD
CONSTRUCTION DWG.

DRAWING NO.
W-12

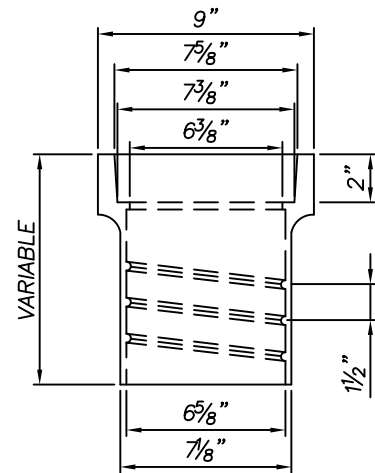


NOTES:

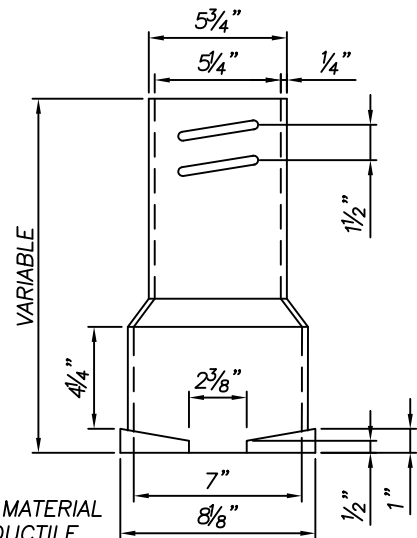
1. VALVE BOX STABILIZER SHALL BE BINGHAM & TAYLOR MODEL ADP5001006S OR APPROVED EQUAL.
2. INSTALL METALLIC TAPE/TRACER WIRE AS SHOWN IN SCD W-1. ENSURE TRACER WIRE IS CONTINUOUS AROUND VALVE BOX.



DROP LID



TOP



BOTTOM

VALVE BOX MATERIAL SHALL BE DUCTILE IRON

APPROVED

APPROVAL DATE

REVISION DATE

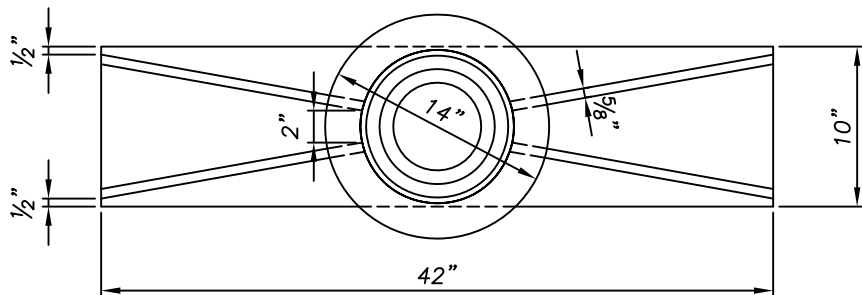
STANDARD VALVE BOX

FAIRFIELD COUNTY
OHIO

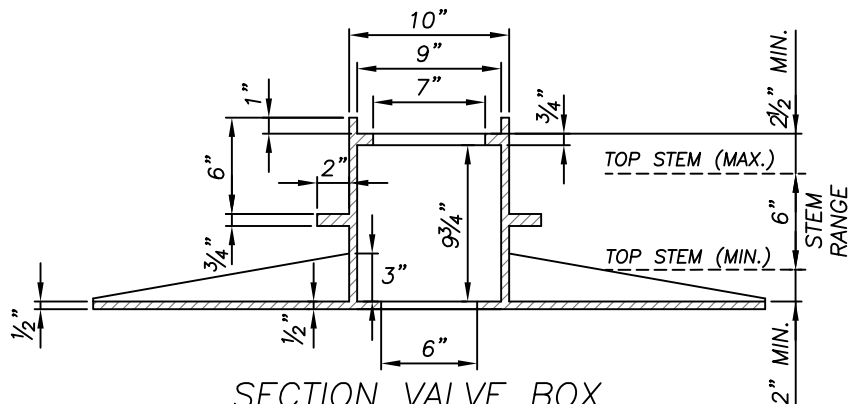
STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-14

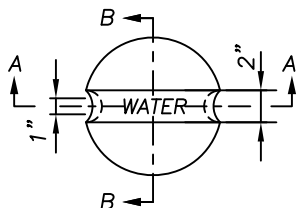


PLAN



SECTION VALVE BOX

133 LBS.

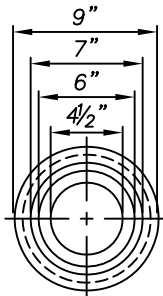


SECTION A-A

SECTION B-B

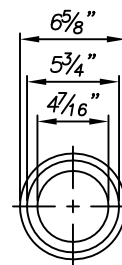
VALVE BOX LID

15 LBS.



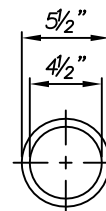
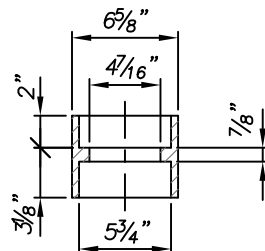
VALVE BOX BASE

41 LBS.



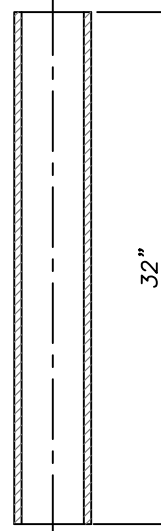
VALVE STEM SLEEVE

14 LBS.



VALVE STEM

65 LBS.



NOTE: AVERAGE WEIGHTS TO NEAREST EVEN LB.
CALCULATED USING 0.26 Lbs./Cu.In.

APPROVED

APPROVAL DATE

REVISION DATE

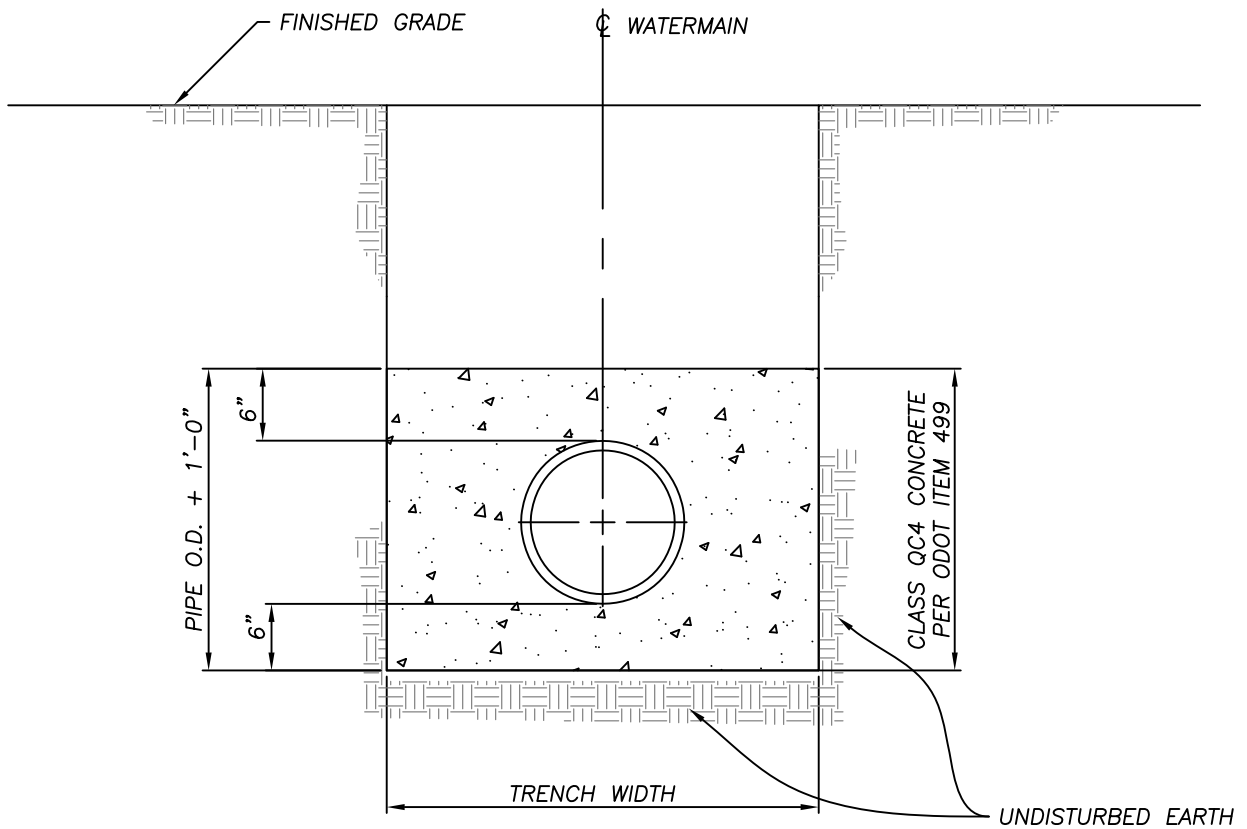
HEAVY DUTY VALVE BOX (TRAFFIC TYPE)

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-15



APPROVED

APPROVAL DATE

REVISION DATE

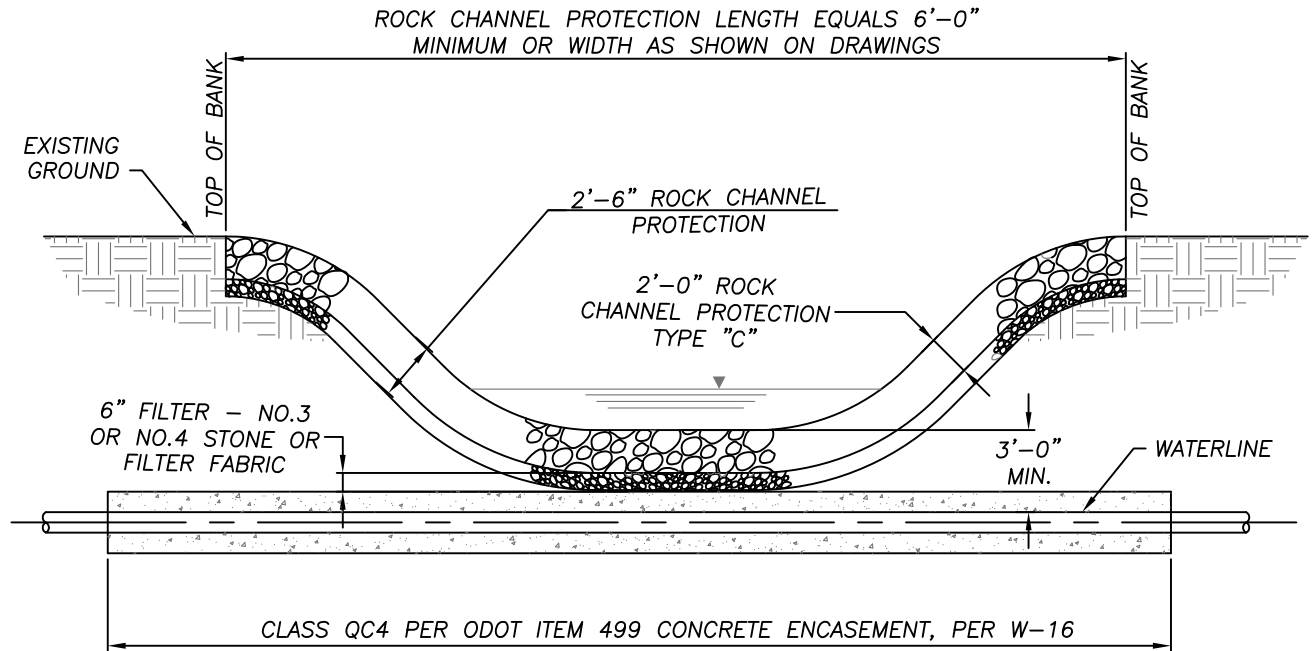
CONCRETE ENCASEMENT DETAIL

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-16



APPROVED

APPROVAL DATE

REVISION DATE

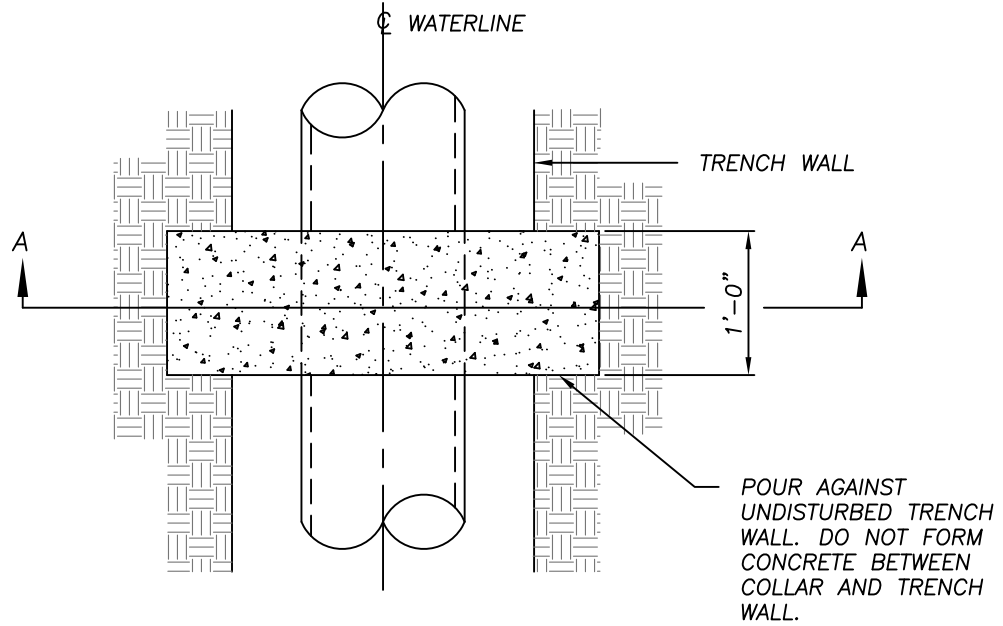
STREAM CROSSING DETAIL

FAIRFIELD COUNTY
OHIO

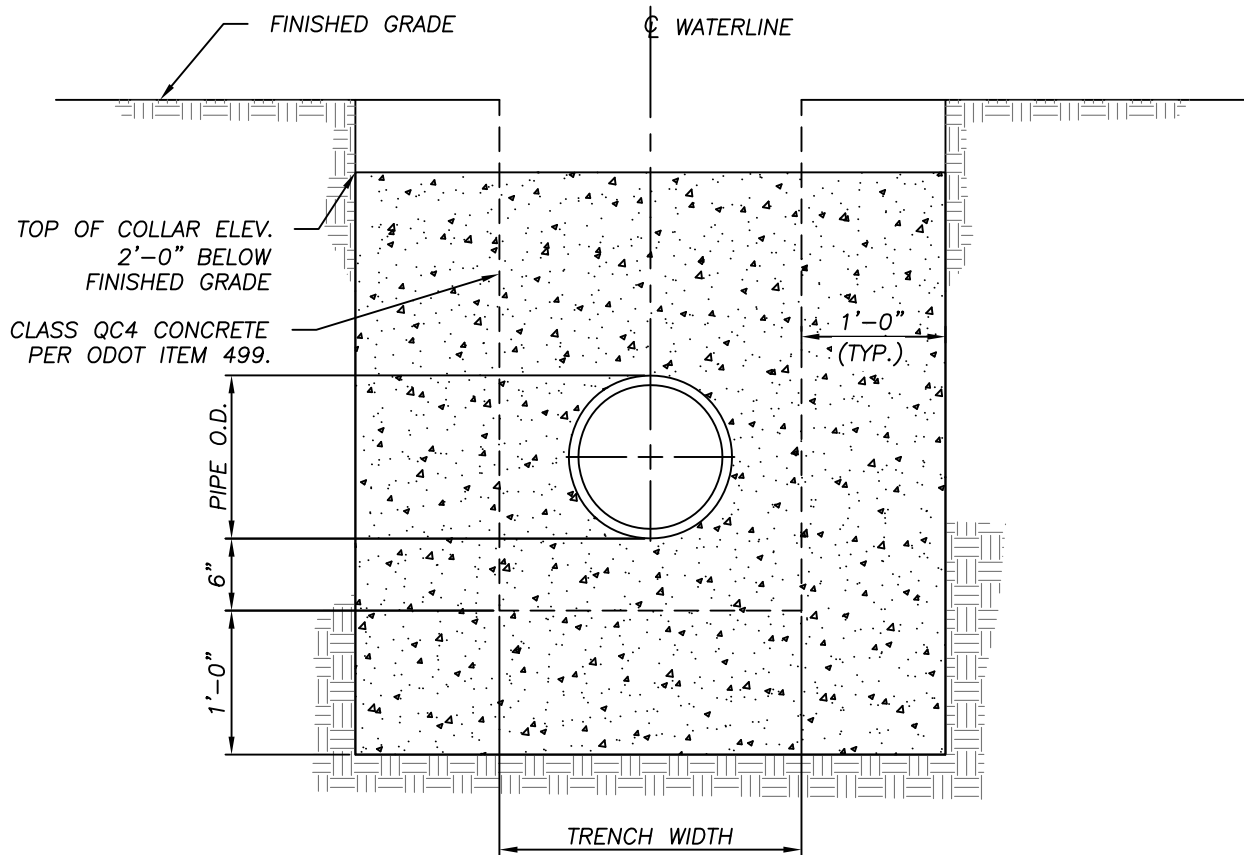
STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-17



PLAN



SECTION A-A

APPROVED

APPROVAL DATE

REVISION DATE

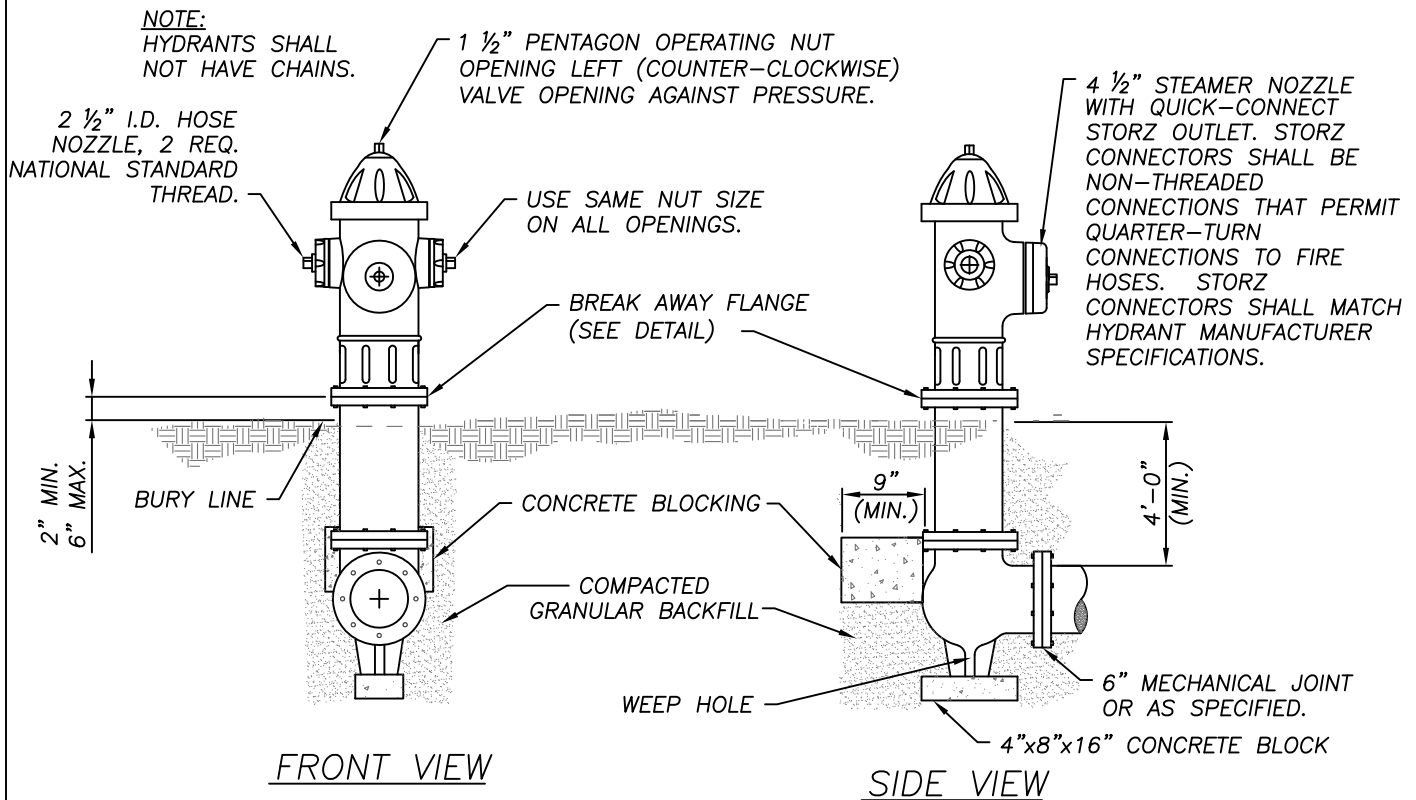
ANTI-SEEP COLLAR DETAIL

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

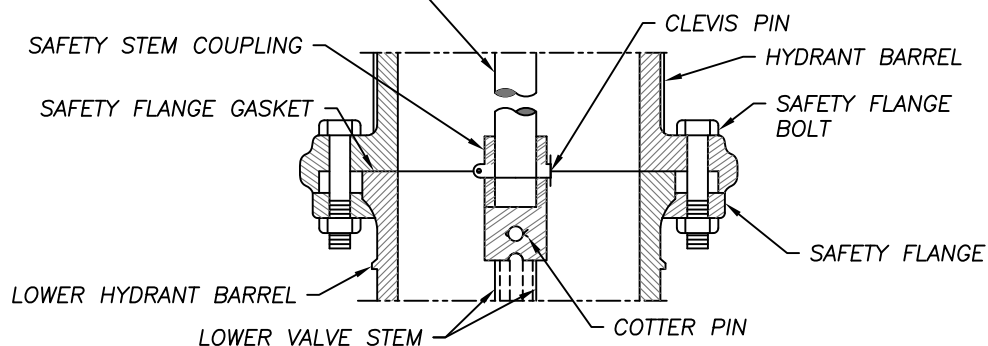
W-18



BACKFILL SHALL CONSIST OF GRANULAR MATERIAL CONFORMING TO ITEM 304 OR APPROVED EQUAL, POWER TAMPED IN LAYERS NOT EXCEEDING 4 INCHES IN THICKNESS, LOOSE MEASUREMENT. THIS GRANULAR BACKFILL SHALL EXTEND FROM THE BOTTOM OF THE PIT OR TRENCH TO 6-INCHES BELOW THE EXISTING OR PROPOSED SURFACE OF THE SURROUNDING AREA. THE COST OF FURNISHING AND PLACING THIS BACKFILL SHALL BE INCLUDED IN THE PRICE BID FOR EACH FIRE HYDRANT.

ALL FIRE HYDRANTS SHALL BE INSTALLED WITH CONCRETE BLOCKING AGAINST UNDISTURBED EARTH.

VALVE STEMS SHALL BE NO LESS THAN 1 1/4" IN DIAMETER



BREAK-AWAY FLANGE & SAFETY COUPLING SECTION

APPROVED	STANDARD FIRE HYDRANT DETAIL	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. W-20	SHEET NO. 1/3

TYPE OF HYDRANT: THE HYDRANT SHALL BE THE POST TYPE TRAFFIC MODEL MADE OF CAST IRON AS SHOWN HEREON. IT SHALL HAVE A BREAKING CONNECTION THAT PREVENTS LOSS OF WATER WHEN THE UPPER AND LOWER SECTIONS ARE SEPARATED BY A SMASHING IMPACT. THE HYDRANT SHALL BE OF THE COMPRESSION TYPE WITH THE VALVE OPENING IN A COUNTER-CLOCKWISE DIRECTION AGAINST THE PRESSURE AND CLOSING WITH THE PRESSURE. THE VALVE END OF THE STEM OR VALVE ROD SHALL BE SO CONSTRUCTED AS TO ELIMINATE CONTACT OF DISSIMILAR METALS IN THE PRESENCE OF MOISTURE.

THE STEM OR VALVE ROD SHALL BE CONSTRUCTED IN ONE CONTINUOUS LENGTH FROM THE VALVE TO THE BREAKING COUPLING OR TO THE BOTTOM OF THE EXTENSION PIECE WHERE EXTENSIONS ARE REQUIRED. THE STEM OR VALVE ROD BETWEEN THE VALVE AND OPERATING NUT SHALL BE MADE OF STEEL STOCK AND HAVE A 1 ¼" MINIMUM DIAMETER AFTER MACHINING. THE BREAKING COUPLING SHALL FIT OVER THE VALVE ROD AND BE LOCATED AT THE PROPER POINT TO CONFORM TO THE BREAKING CONNECTION IN THE STANDPIPE.

THE BARREL SHALL HAVE AN AREA OF NOT LESS THEN 120 PERCENT OF THE VALVE OPENING. THE TYPE OF VALVE SHALL BE RUBBER WITH THE DIAMETER OF THE PORT IN THE SEAL RING BEING A MINIMUM OF 4 ¼". APPROVED HYDRANTS ARE MUELLER SUPERCENTURION 250, MODEL A-421, OR AMERICAN FLOW CONTROL, MODEL MK-73.

ALL INTERIOR WORKING PARTS OF THE HYDRANT INCLUDING VALVE AND VALVE SEAT SHALL BE SUCH THAT THEY CAN BE REMOVED THROUGH THE TOP OF THE STANDPIPE WITHOUT EXCAVATION. THE UPPER SECTION OF THE STANDPIPE ABOVE THE GROUND LINE SHALL BE ADJUSTED SO THAT THE NOZZLE CAN BE ROTATED TO ANY DESIRED POSITION.

REFERENCE SPECIFICATIONS: ALL FIRE HYDRANTS SHALL CONFORM WITH THE LATEST AMERICAN WATER WORKS ASSOCIATION STANDARDS, C-502, AND THE REQUIREMENTS OF FAIRFIELD COUNTY. ALL SPECIFICATIONS SHALL REFER TO THE LATEST EFFECTIVE EDITIONS.

APPROVALS AND CERTIFICATION: THE SUPPLIER OR MANUFACTURER SHALL SUBMIT TO THE COUNTY FOUR (4) COPIES OF THE RESULTS OF CERTIFIED FLOW TESTS, RUN BY AN INDEPENDENT TESTING LABORATORY, AND SHOP DRAWINGS WITH DIMENSIONS, MATERIAL AND NOMENCLATURE OF PARTS FOR EACH TYPE OR MODEL OF HYDRANT PROPOSED FOR USE IN THE COUNTY.

UPON APPROVAL OF THE ABOVE INFORMATION BY THE COUNTY, IT SHALL REMAIN ON FILE WITH THE COUNTY. SUBMISSION OF THE ABOVE MATERIALS WITH EACH ORDER OF FIRE HYDRANTS IS NOT NECESSARY IF APPROVED MATERIAL IS ALREADY ON FILE. SUBMISSION OF NEW MATERIAL IS REQUIRED WHEN A DEVIATION IN THE PRODUCT, ITS MANUFACTURER, OR THE STANDARDS IS MADE OR REQUESTED.

ANY FIRE HYDRANT, DELIVERED TO THE PROJECT WITHIN THE COUNTY WHICH FAILS TO CONFORM TO THE REQUIREMENTS HEREIN OR APPROVED INFORMATION ON FILE WITH THE COUNTY SHALL BE REJECTED.

WITH EACH DELIVERY SHIPMENT OF FIRE HYDRANTS, THE HYDRANT MANUFACTURER SHALL CERTIFY THAT THE HYDRANTS CONFORM TO THE INFORMATION APPROVED AND ON FILE WITH THE COUNTY. THE CERTIFICATE SHALL INCLUDE THE MODEL OR IDENTIFICATION NUMBERS OF THE HYDRANTS BEING DELIVERED AND APPROVAL DATE OF THE INFORMATION ON FILE WITH THE COUNTY. THIS DOCUMENTATION DOES NOT CONSTITUTE APPROVAL OR FINAL ACCEPTANCE OF THE SPECIFIC HYDRANTS DELIVERED.

APPROVED	STANDARD FIRE HYDRANT DETAIL	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. W-20	SHEET NO. 2/3

INSPECTION: PRIOR TO INSTALLATION, ALL FIRE HYDRANTS SHALL BE INSPECTED BY THE COUNTY REPRESENTATIVE. THE HYDRANTS SHALL RECEIVE EITHER A CONDITIONAL ACCEPTANCE OR A REJECTION. CONDITIONAL ACCEPTANCE SHALL MEAN THAT THE HYDRANTS MAY BE INSTALLED.

UPON INSTALLATION, EACH HYDRANT SHALL BE TESTED FOR OPERATION AND LEAKS WITH A COUNTY REPRESENTATIVE PRESENT DURING THE TEST, AND SHALL RECEIVE EITHER OPERATIONAL ACCEPTANCE OR A REJECTION.

THE COUNTY RESERVES THE RIGHT TO REJECT ANY AND ALL FIRE HYDRANTS FOUND TO BE IN NON-COMPLIANCE WITH ANY OF THE REQUIREMENTS STATED HEREIN AT ANY TIME DURING THE ACCEPTANCE, OR ABOVE DESCRIBED APPROVAL PROCESS. ANY FIRE HYDRANTS WHICH ARE REJECTED AND WHICH CAN NOT BE BROUGHT INTO COMPLIANCE WITH THE REQUIREMENTS AS STATED HEREIN SHALL BE REMOVED FROM THE PROJECT SITE, STORAGE SITE, OR THE WORK AT NO EXPENSE TO THE COUNTY.

THE FINAL FIELD ACCEPTANCE SHALL GOVERN OVER ANY DOCUMENT APPROVAL AND SHALL BE BASED ON ALL WORK BEING COMPLETE; INCLUDING INSTALLATION, TESTING AND OPERATION, LUBRICATION AND PAINTING.

INSTALLATION: THE FIRE HYDRANTS SHALL BE INSTALLED AS SPECIFIED HEREIN AND IN ACCORDANCE WITH THE FAIRFIELD COUNTY STANDARD DRAWINGS: STANDARD FIRE HYDRANT DETAIL (W-20), TYPICAL FIRE HYDRANT SETTING TYPE "A" (W-21), TYPICAL FIRE HYDRANT SETTING TYPE "A MODIFIED" (W-22), TYPICAL FIRE HYDRANT SETTING TYPE "B" AND "B MODIFIED" (W-23), FIRE HYDRANT LOCATION DETAIL (W-24), OR AS SPECIFIED BY THE COUNTY.

THE BASE SECTION OF ALL FIRE HYDRANTS SHALL BE SET TO AN ELEVATION WHICH WILL BE CORRECT FOR THE PROPOSED GRADE OF THE STREET. THE ELEVATION IS AT THE ESTABLISHED OR PROPOSED FINISHED GRADE, AS INDICATED ON THE CONSTRUCTION DRAWINGS, THROUGH THE INSTALLATION OF HYDRANT EXTENSION SECTIONS, AS NEEDED.

PRIOR TO OPERATIONAL ACCEPTANCE, THE HYDRANT NOZZLE SHALL BE TURNED AWAY FROM THE STREET. UPON RECEIVING OPERATIONAL ACCEPTANCE, THE HYDRANT SHALL BE TURNED WITH THE STEAMER NOZZLE FACING THE ROAD OR STREET AND THE HYDRANT EXERCISED TO CHECK THE OPERATION AND FOR LEAKS.

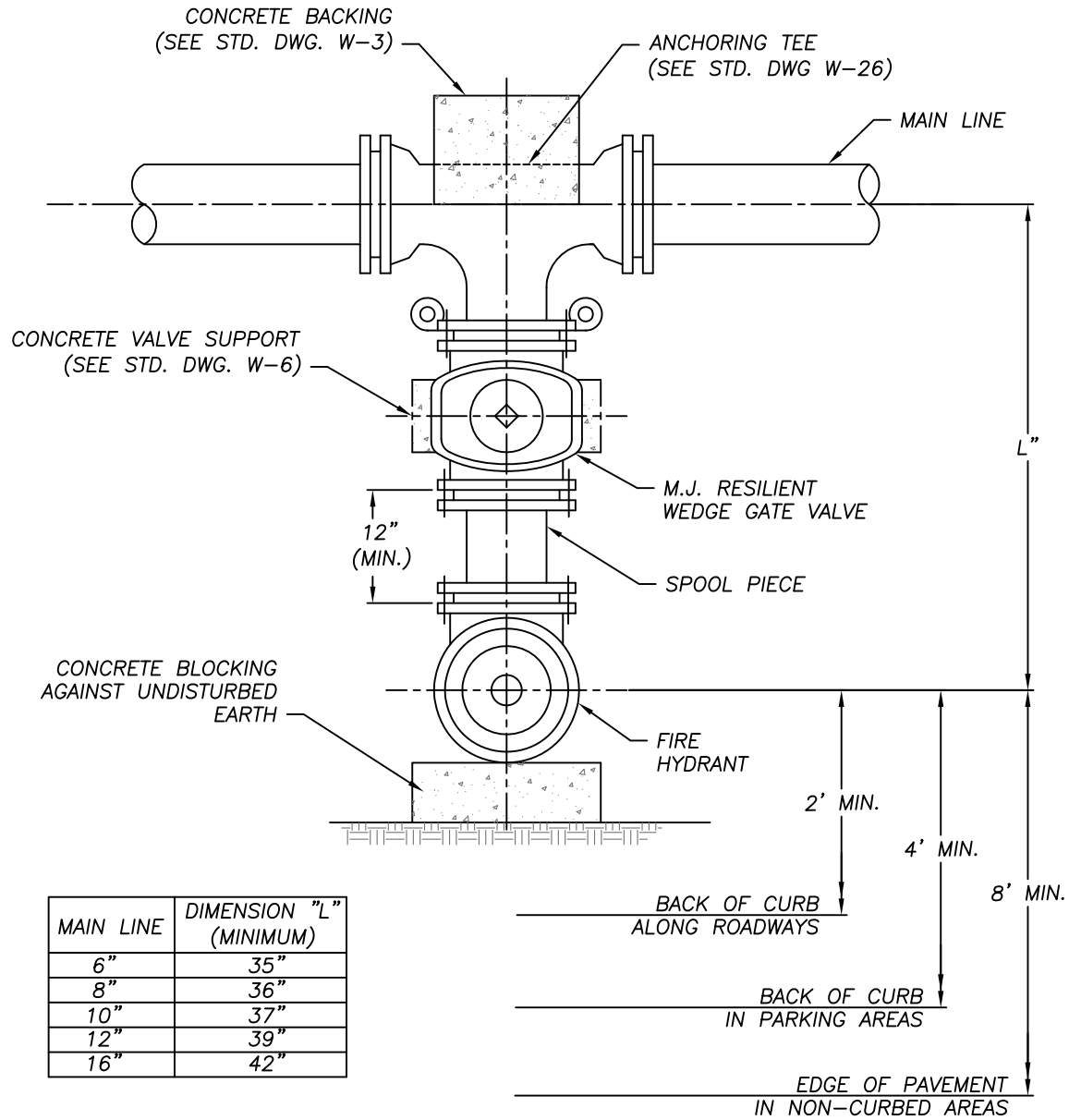
PAINTING: FINAL PAINT COLOR SHALL BE TNE MEC "FIRE RED" EPOXY. ALL HYDRANT SURFACES ABOVE GROUND SHALL BE CLEANED, WASHED AND WIRE BRUSHED AND ALL SURFACES OR SPOTS THAT REQUIRED TOUCHING UP SHALL HAVE ONE (1) COAT OF TNE MEC PRIMER. WHEN ALL THE SURFACES HAVE BEEN PRIMED AND ARE DRY, THEN ALL HYDRANT SURFACES SHALL RECEIVE TWO (2) COATS OF THE APPROVED PAINT. REFER TO THE CURENT APPROVED EDITION OF THE WATERLINE NOTES FOR THE SPECIFIC PAINT SYSTEM, COLORS, AND REQUIREMENTS.

LUBRICATION: ALL HYDRANT NOZZLE THREADS SHALL BE LUBRICATED WITH A FDA APPROVED FOOD GRADE LUBRICANT (PERMATEX SUPER LUBE OR EQUAL).

MATERIALS AND WORKMANSHIP: ALL MACHINED PARTS SHALL BE TRUE TO GAUGE SO THAT THEY WILL BE INTERCHANGEABLE BETWEEN HYDRANTS OF THE SAME MAKE AND SIZE.

WHEN REQUIRED, NON-ADJUSTABLE HYDRANT WRENCHES, PROPERLY SIZED TO THE SPECIFIED OPERATING NUT DIMENSIONS AND FABRICATED BY THE HYDRANT MANUFACTURER, SHALL BE SUPPLIED.

APPROVED	STANDARD FIRE HYDRANT DETAIL	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. W-20	SHEET NO. 3/3



APPROVED

APPROVAL DATE

REVISION DATE

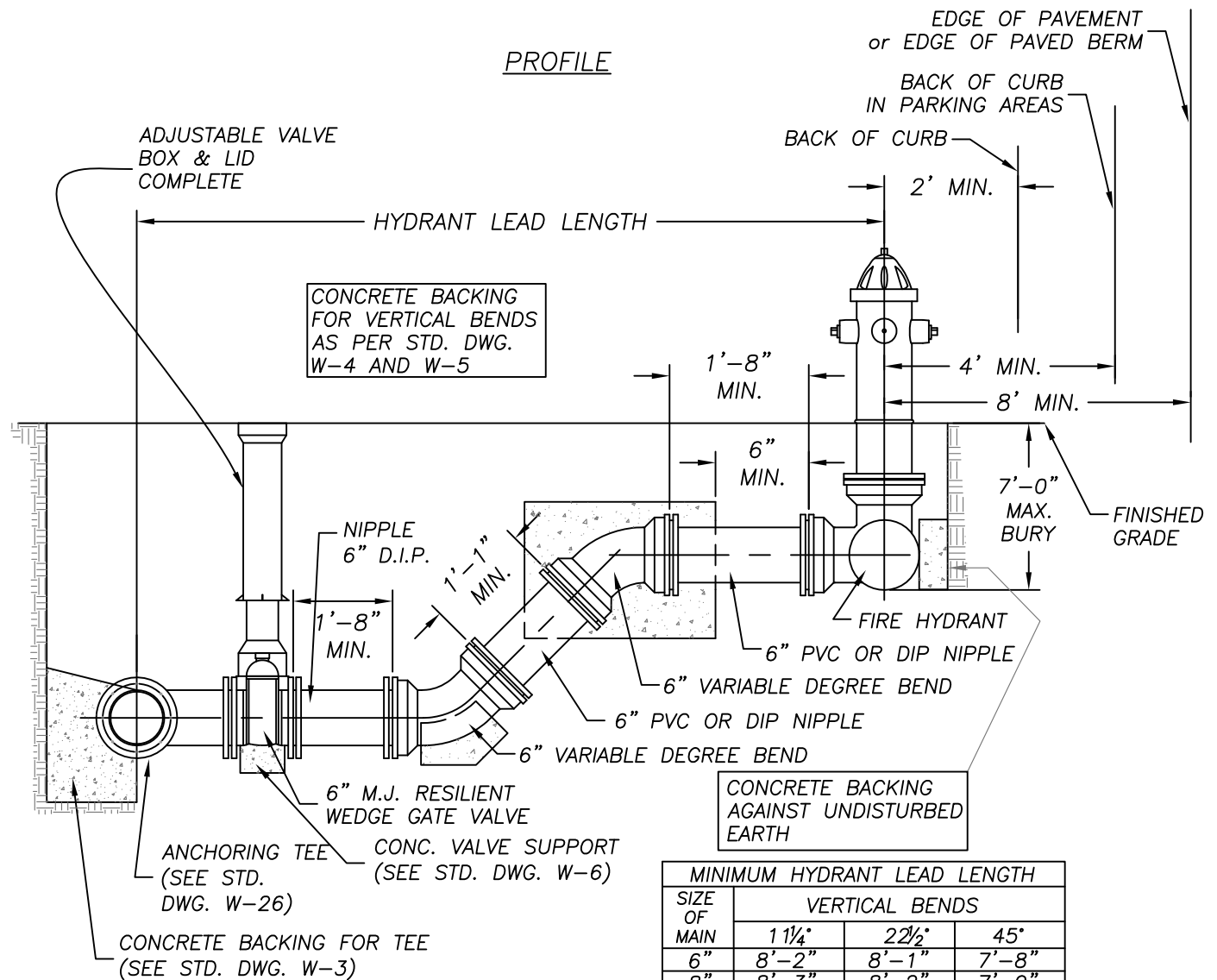
TYPICAL FIRE HYDRANT SETTING TYPE "A"

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-21



NOTES

1. TYPE "A MODIFIED" SHALL ONLY BE USED TO ELIMINATE EXCESSIVE BURY
2. VERTICAL BENDS SHALL NOT EXCEED 45°.
3. WHERE APPLICABLE, A COMMERCIAL OFFSET MAY BE USED IN LIEU OF THE TWO VERTICAL BENDS AND THE INCLINED NIPPLE, AS APPROVED BY THE COUNTY.
4. CONCRETE BACKING FOR VERTICAL BENDS SHALL BE PROVIDED PER STD. DWG. PER W-4 AND W-5.
5. FIRE HYDRANT SHALL BE SET A MINIMUM OF 6' FROM ALL DRIVEWAY OPENINGS.

APPROVED

APPROVAL DATE

REVISION DATE

TYPICAL FIRE HYDRANT SETTING

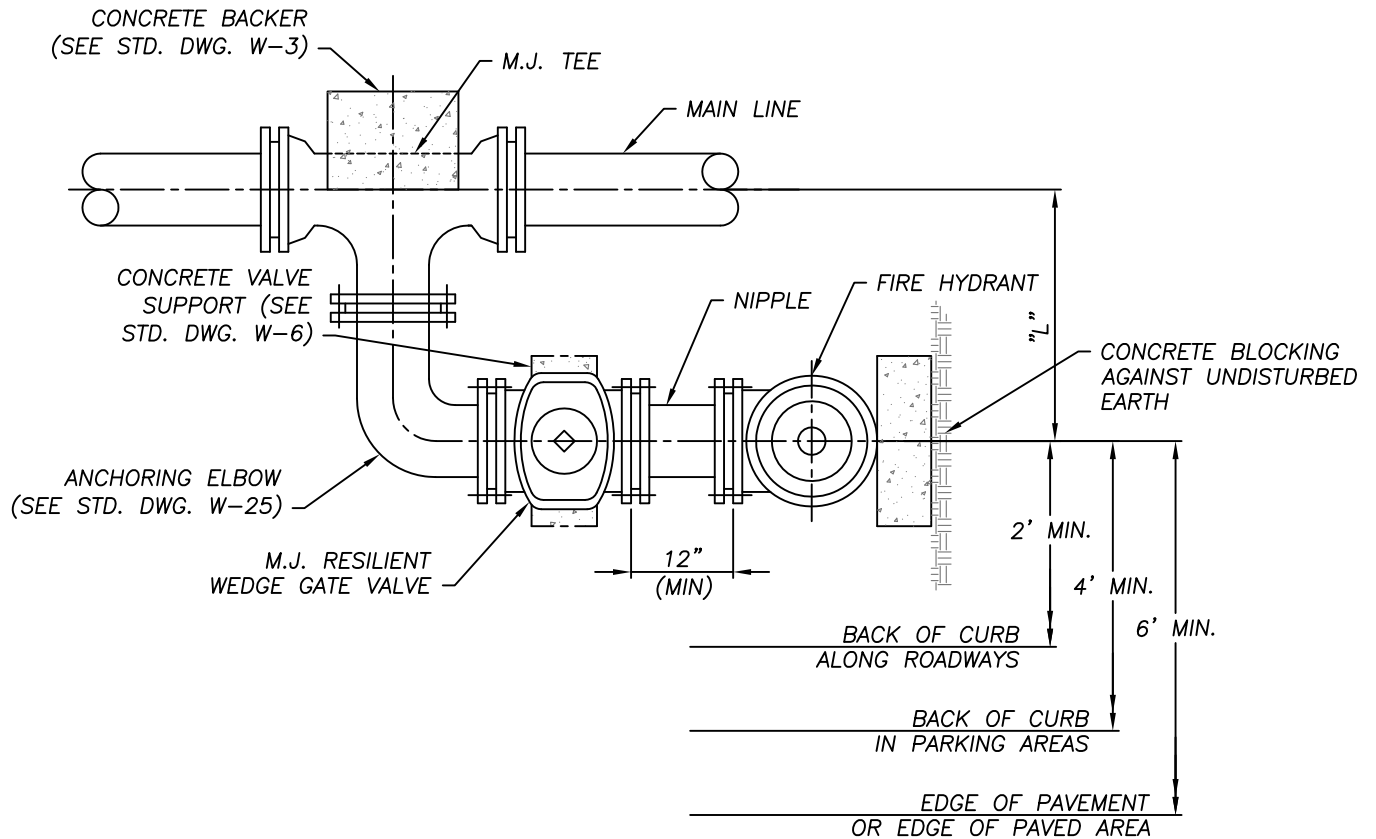
TYPE "A MODIFIED"

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-22



MAIN LINE	DIMENSION "L"	
	TYPE "B"	TYPE "B" MODIFIED"
6"	24"	19"
8"	25"	20"
10"	26"	21"
12"	28"	23"
16"	31"	26"

TYPE "B": LONG SIDE BEND TO TEE.

TYPE "B MODIFIED": SHORT SIDE BEND TO TEE.

NOTES:

FIRE HYDRANT SHALL HAVE A MAXIMUM BURY OF 7'-0". MODIFICATION OF HYDRANT LEAD TO MEET THIS REQUIREMENT SHALL BE MADE IN THAT SECTION FROM THE VALVE TO THE HYDRANT AS PER STANDARD DRAWING W-22.

APPROVED

APPROVAL DATE

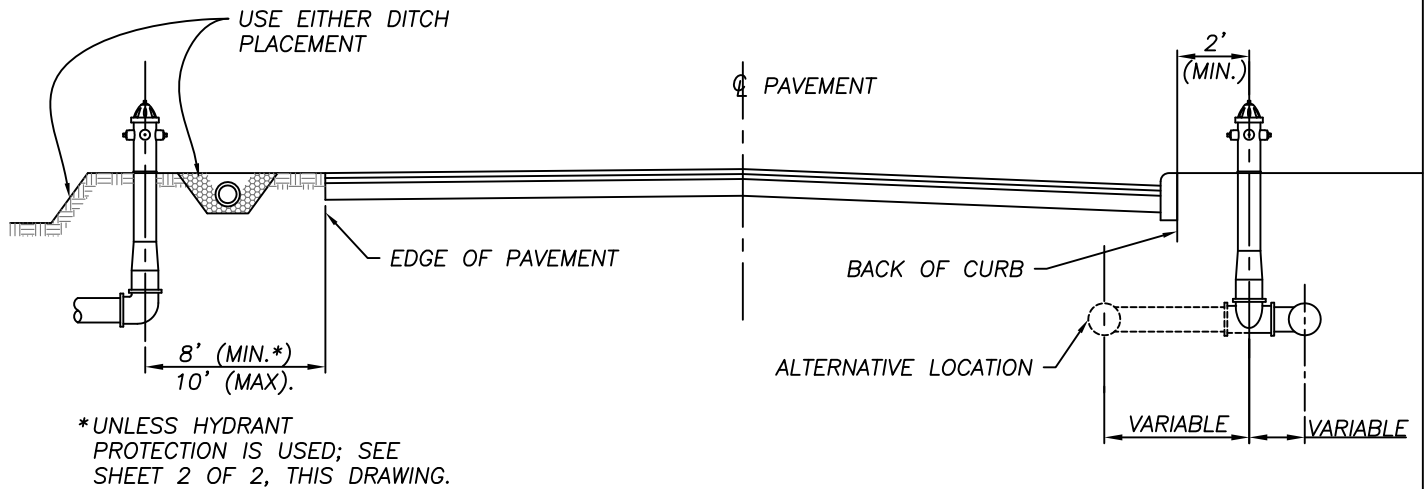
REVISION DATE

TYPICAL FIRE HYDRANT SETTING TYPE "B" & "B MODIFIED"

FAIRFIELD COUNTY
OHIO

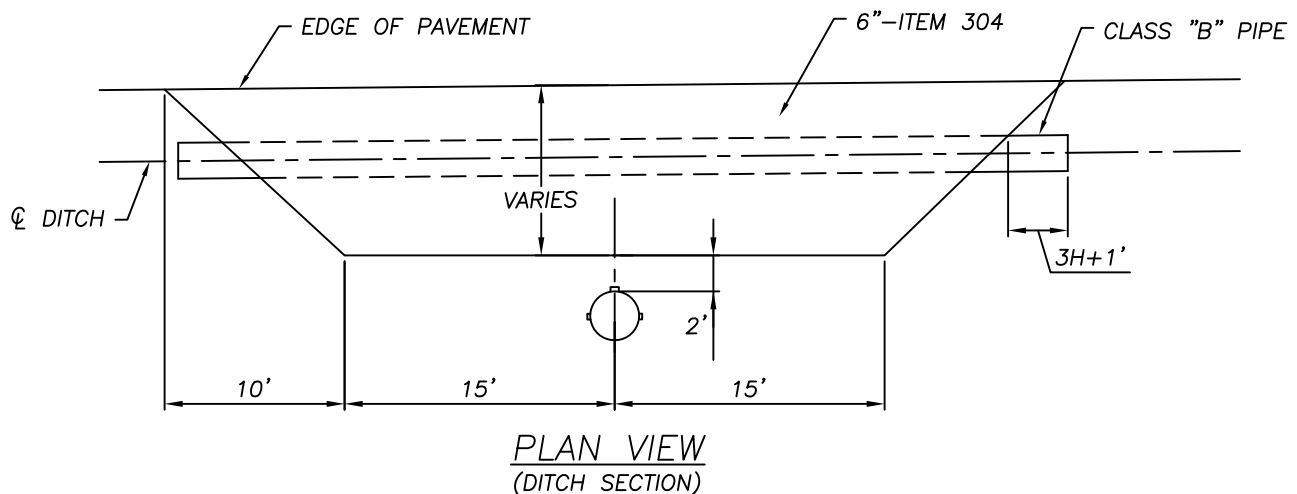
STANDARD
CONSTRUCTION DWG.

DRAWING NO.
W-23



DITCH SECTION

CURB SECTION



NOTES:

1. THIS DETAIL IS TO BE USED IN CONJUNCTION WITH THE FOLLOWING FAIRFIELD COUNTY STANDARD DRAWINGS AS THEY APPLY FOR THE PARTICULAR INSTALLATION: W-20, STANDARD FIRE HYDRANT DETAIL; W-21, TYPICAL FIRE HYDRANT TYPE "A" SETTING; W-22, TYPICAL FIRE HYDRANT TYPE "A MODIFIED" SETTING, AND W-23, TYPICAL FIRE HYDRANT TYPE "B" AND "B MODIFIED" SETTING.
2. NO FIRE HYDRANT SHALL BE LOCATED WITHIN SIX (6) FEET OF THE EDGE OF ANY RESIDENTIAL DRIVE APPROACH NOR SHALL ANY HYDRANT BE LOCATED WITHIN TWELVE (12) FEET OF ANY ALLEY, COMMERCIAL DRIVE OR ACCESS ROAD.
3. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT OR FACE OF CURB LINES OF THE INTERSECTION OF TWO PUBLIC STREETS.

APPROVED

APPROVAL DATE

REVISION DATE

FIRE HYDRANT LOCATION DETAIL

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

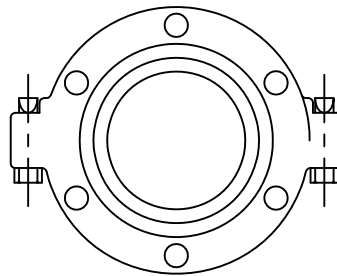
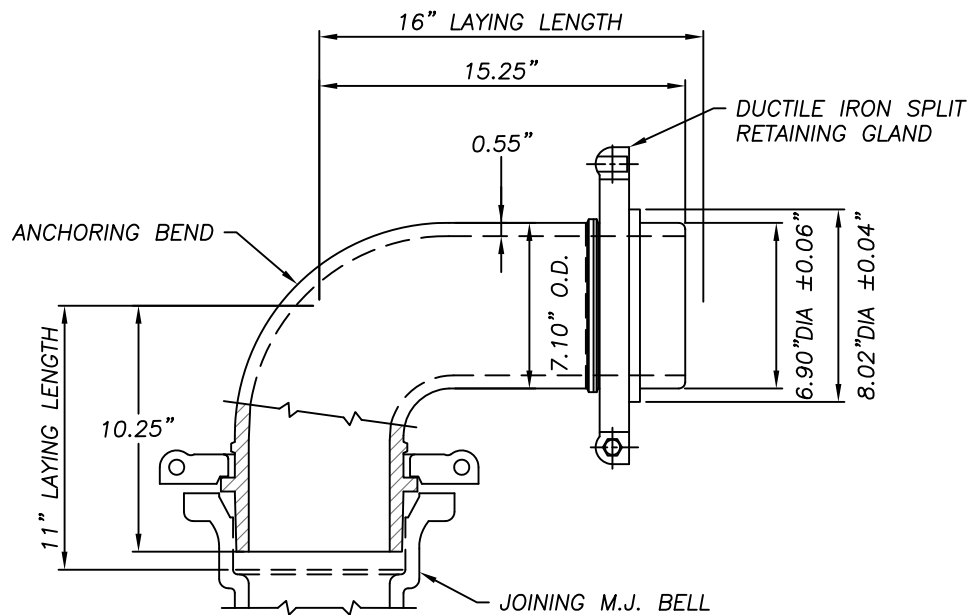
DRAWING NO.
W-24

SHEET NO.
1/2



1. FIRE HYDRANT PROTECTION SHALL BE USED WHEN HYDRANTS ARE LOCATED WITHIN SIX (6) FEET FROM THE EDGE OF PAVEMENT OF STREETS, ACCESS ROADS AND DRIVES WITHOUT CURB OR WITHIN FOUR (4) FEET FROM THE BACK OF CURB IN PARKING AREAS OR ELSEWHERE AS DIRECTED.
2. NO FIRE HYDRANT SHALL BE LOCATED WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT OR FACE OF CURB LINES OF THE INTERSECTION OF TWO PUBLIC STREETS.
3. NO FIRE HYDRANT SHALL BE LOCATED WITHIN SIX (6) FEET OF THE EDGE OF ANY RESIDENTIAL DRIVE APPROACH, NOR SHALL ANY HYDRANT BE LOCATED WITHIN TWELVE (12) FEET OF ANY ALLEY, COMMERCIAL DRIVE, OR ACCESS ROAD.
4. VALVE BOX AND COVER CASTING SHALL BE LEVEL WITH THE FINISHED GROUND OR FLUSH WITH PAVED SURFACES.
5. PRIOR APPROVAL SHALL BE OBTAINED FROM THE COUNTY BEFORE ANY CHANGE IS MADE TO THE GROUND ELEVATION AT AN EXISTING HYDRANT OR VALVE BOX.
6. SIX (6) INCH GALVANIZED METAL PROTECTION POSTS SHALL BE CLEANED AND PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF SAFETY YELLOW EPOXY PAINT. EACH COAT APPLIED AFTER PREVIOUS COAT IS THOROUGHLY DRY.

APPROVED	FIRE HYDRANT LOCATION DETAIL	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. W-24	SHEET NO. 2/2



THIS BEND TO BE USED WITH
TYPE "B" AND TYPE "B MODIFIED"
HYDRANT INSTALLATIONS PER STD.
DWG. W-23

APPROVED

APPROVAL DATE

REVISION DATE

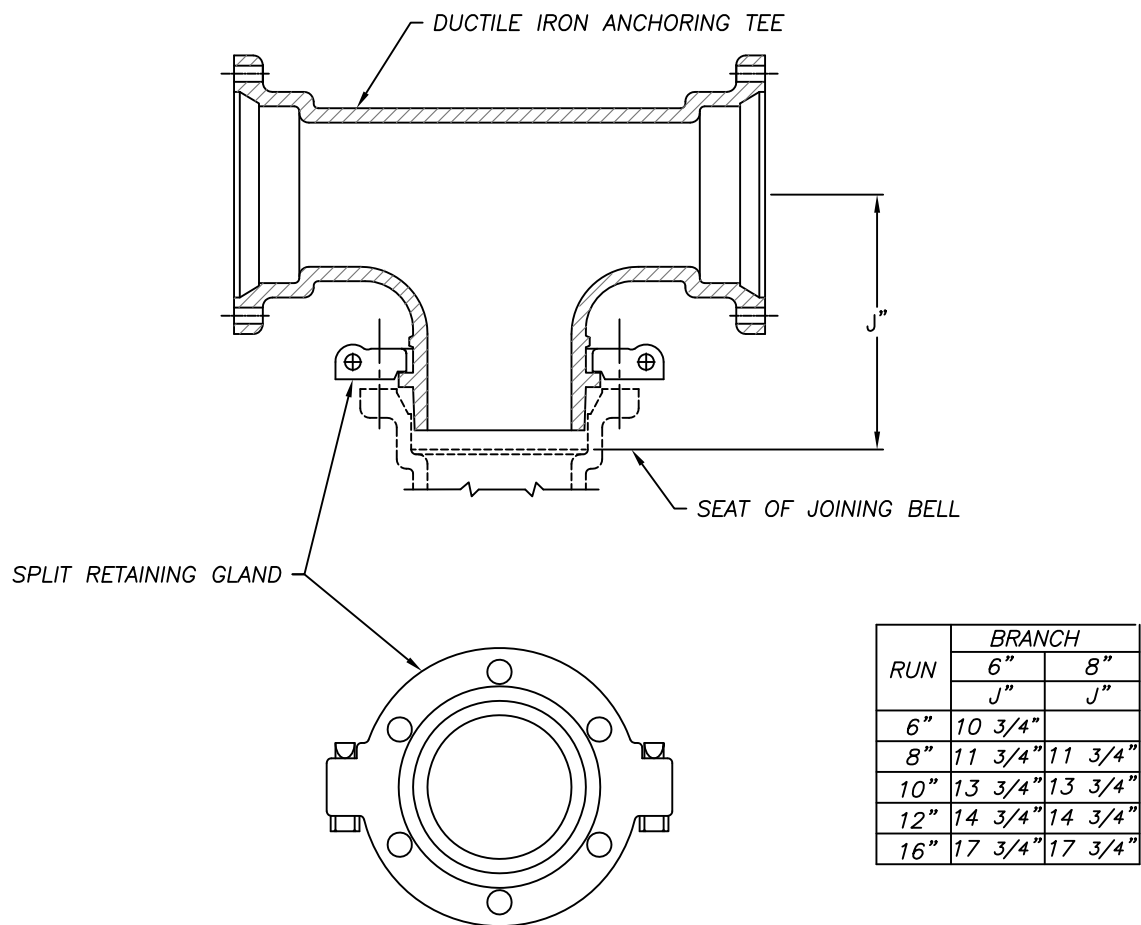
STANDARD 90° BEND FOR FIRE HYDRANT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-25



APPROVED

APPROVAL DATE

REVISION DATE

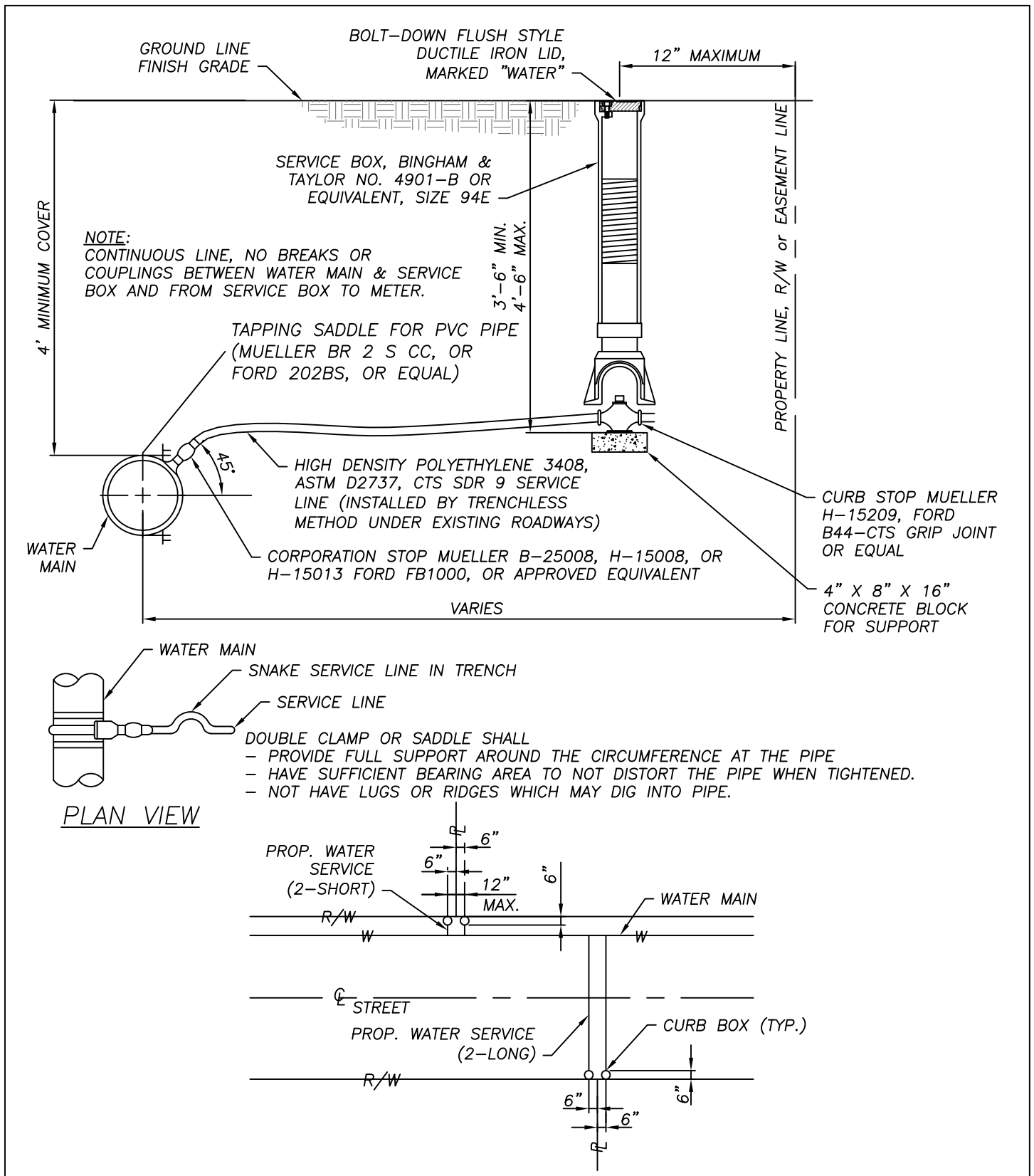
ANCHORING TEE

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-26

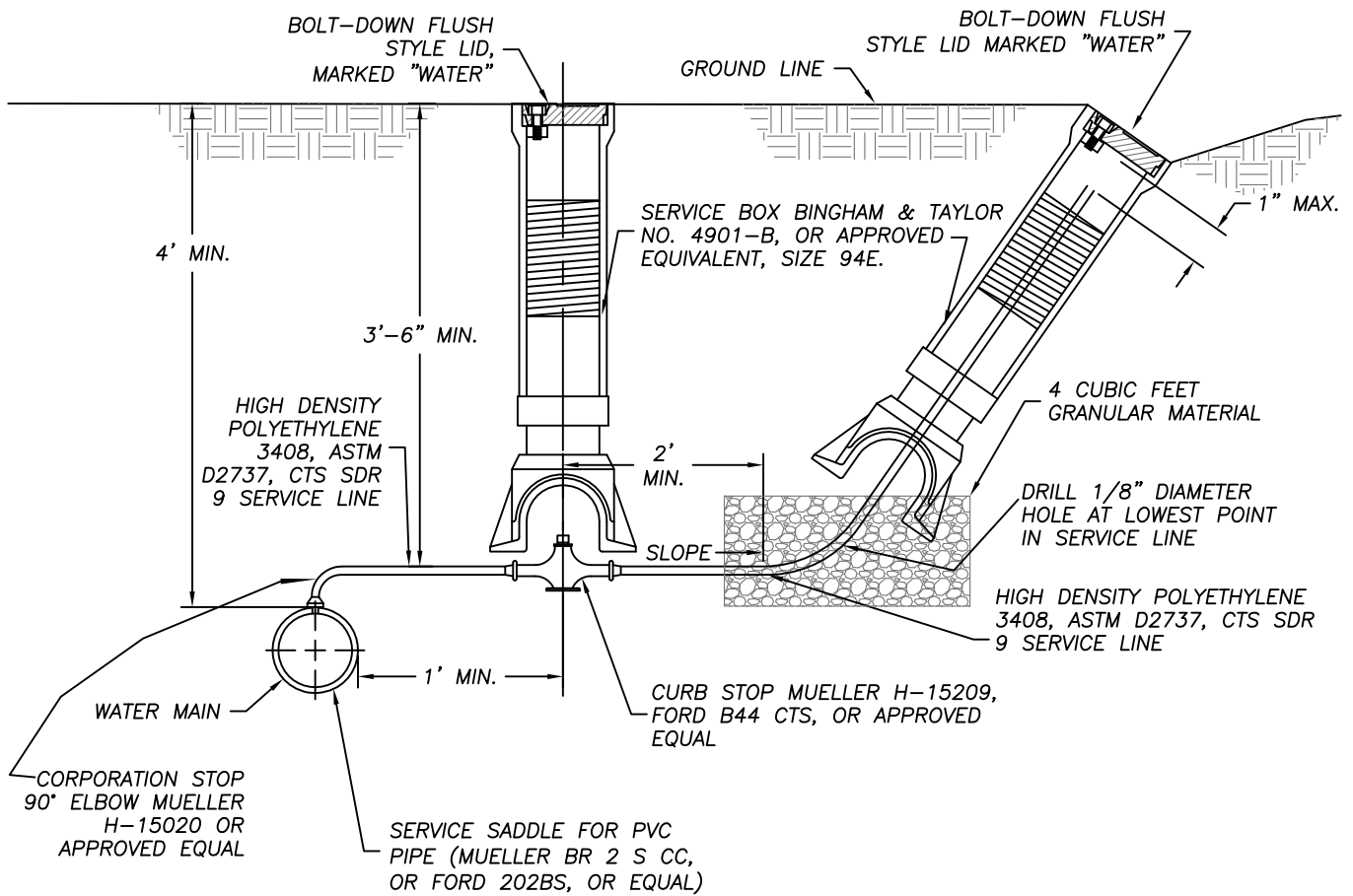


APPROVED	STANDARD WATER SERVICE	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. W-30	SHEET NO. 1/2

NOTES:

1. THE WATER SERVICE LINE SHALL BE HIGH DENSITY POLYETHYLENE 3408, ASTM D2737, CTS SDR 9 AND BE A SINGLE PIECE OF PIPE WITHOUT JOINTS, COUPLINGS OR UNIONS BETWEEN:
 - a) THE CORPORATION STOP AND THE CURB STOP, AND
 - b) THE CURB STOP AND THE METER SETTING IN THE BUILDING.
2. AT THE TIME OF BUILDING CONSTRUCTION, SITE GRADING AND LANDSCAPING ARE COMPLETED, THE VALVE BOX OVER THE CURB STOP SHALL,
 - a) BE SET VERTICAL OVER THE CURB STOP SO THAT A KEY CAN BE PLACED ON THE CURB STOP AND THE CURB STOP EASILY OPERATES TO THE FULLY OPENED AND CLOSED POSITIONS,
 - b) HAVE THE TOP SET AT FINISHED GRADE, AND
 - c) BE UNBROKEN.
3. ALL NEW WATER SERVICE INSTALLATIONS, AND ALL REPAIRED OR REPLACED WATER SERVICE INSTALLATIONS, SHALL BE INSPECTED PRIOR TO ACCEPTANCE OR THE TRANSFER OF OWNERSHIP. FAILURE TO REQUEST AN INSPECTION OR TO CORRECT THE NOTED DEFICIENCIES PRIOR TO OCCUPYING A BUILDING OR CHANGING OWNERSHIP MAY CAUSE THE SERVICE TO BE DISCONTINUED, THE SERVICE LINE DISCONNECTED FROM THE WATER SYSTEM, AND/OR PENALTIES TO BE IMPOSED, ALL AS PROVIDED IN THE CURRENT EDITION OF THE "FAIRFIELD COUNTY WATER, DRAINAGE AND SEWER REGULATIONS."
4. NON-SEAMED STAINLESS STEEL INSERT STIFFENERS SHALL BE USED FOR ALL COMPRESSION AND PACKED JOINT FITTINGS.

APPROVED	STANDARD WATER SERVICE	FAIRFIELD COUNTY OHIO	
APPROVAL DATE		STANDARD CONSTRUCTION DWG.	
REVISION DATE		DRAWING NO. W-30	SHEET NO. 2/2



APPROVED

APPROVAL DATE

REVISION DATE

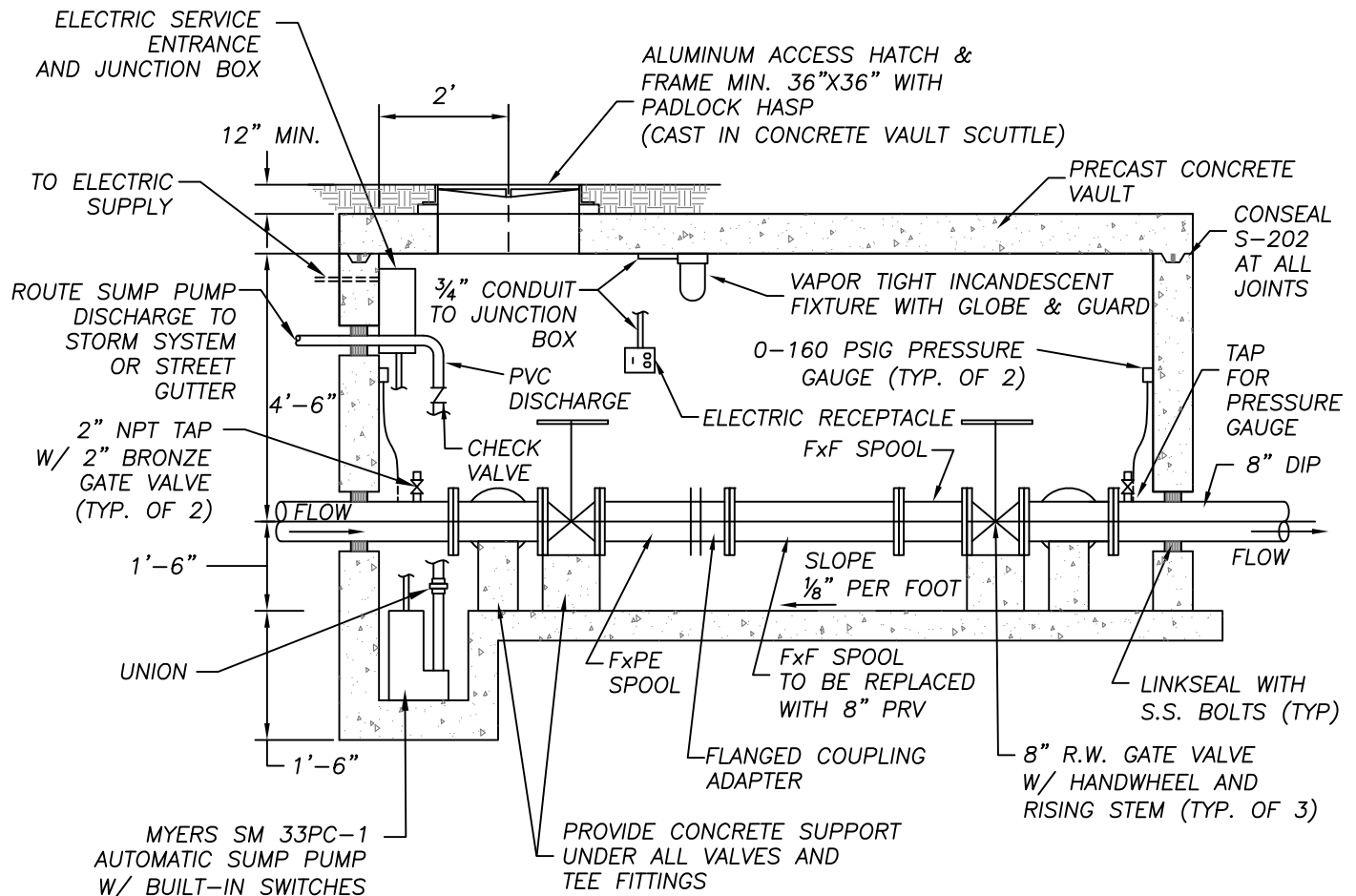
TYPICAL AIR RELEASE 3/4" THRU 2"

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-31



SECTION A-A

PRECAST CONCRETE UTILITY VAULT NOTES

1. ASTM C850-90.
2. REMOVABLE ROOF WITH 4 LIFTING HOOKS DESIGN CAPABILITY TO WITHSTAND HS-20 LOADING.
3. JOINT SEALANT: BUTYL RUBBER.
4. VAULT SHALL BE MADE WATERPROOF AND WATERTIGHT.
5. VAULT STEPS SHALL BE REINFORCED POLYPROPYLENE PLASTIC PER STANDARD DRAWING Sa.S-4.

APPROVED

APPROVAL DATE

REVISION DATE

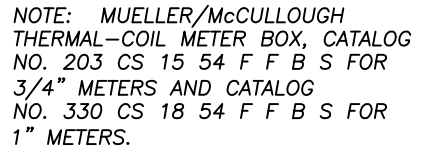
PRESSURE
REDUCING VALVE
VAULT

FAIRFIELD COUNTY
OHIO

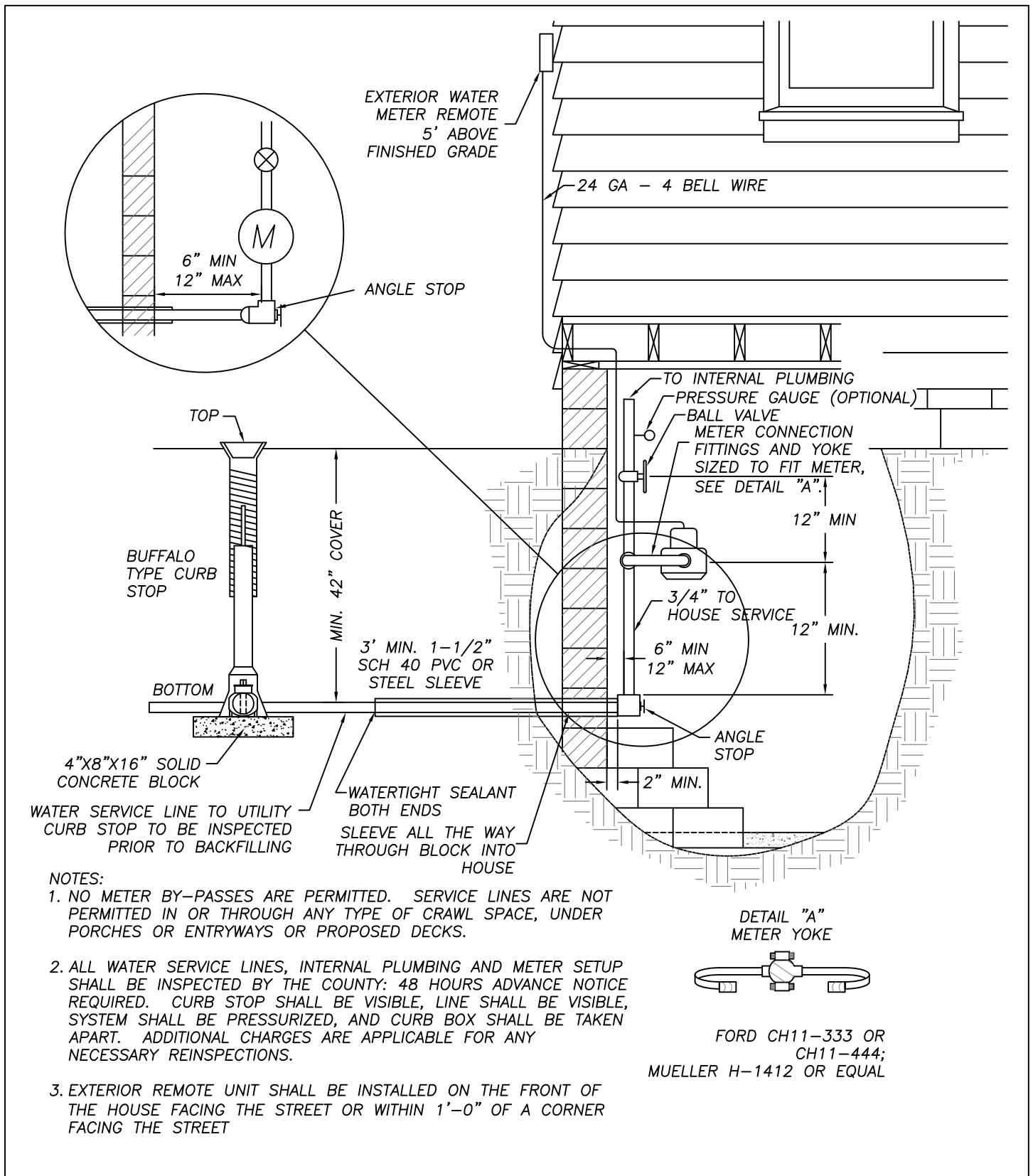
STANDARD
CONSTRUCTION DWG.

DRAWING NO.
W-34

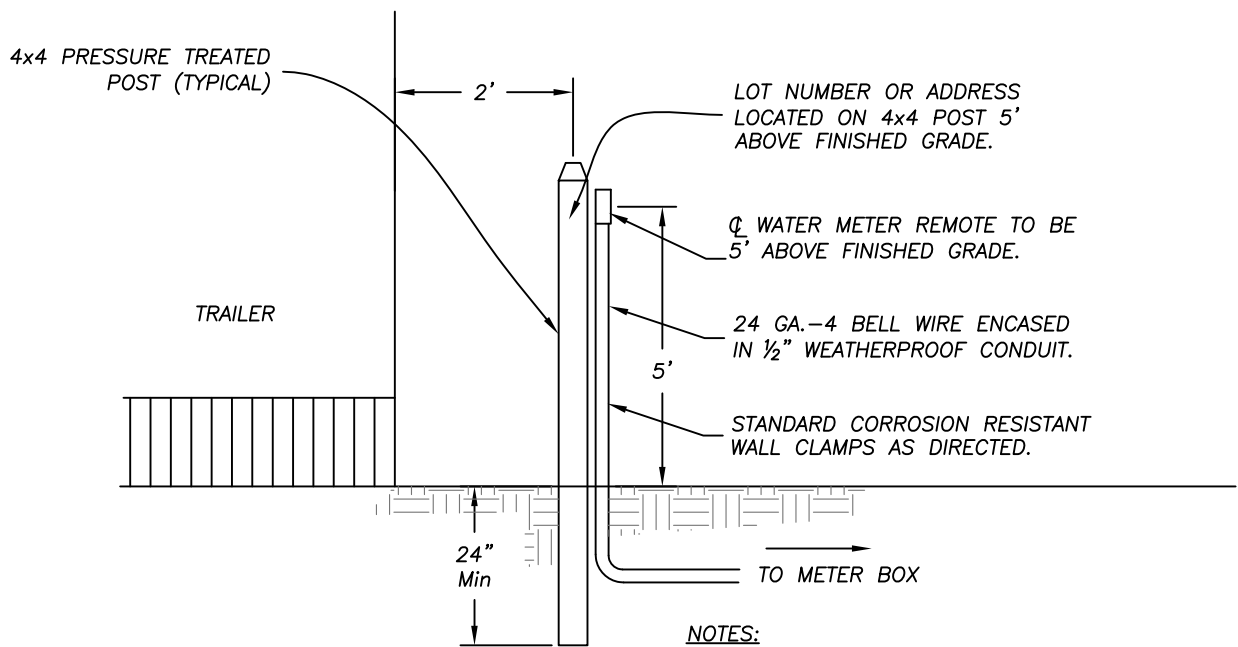
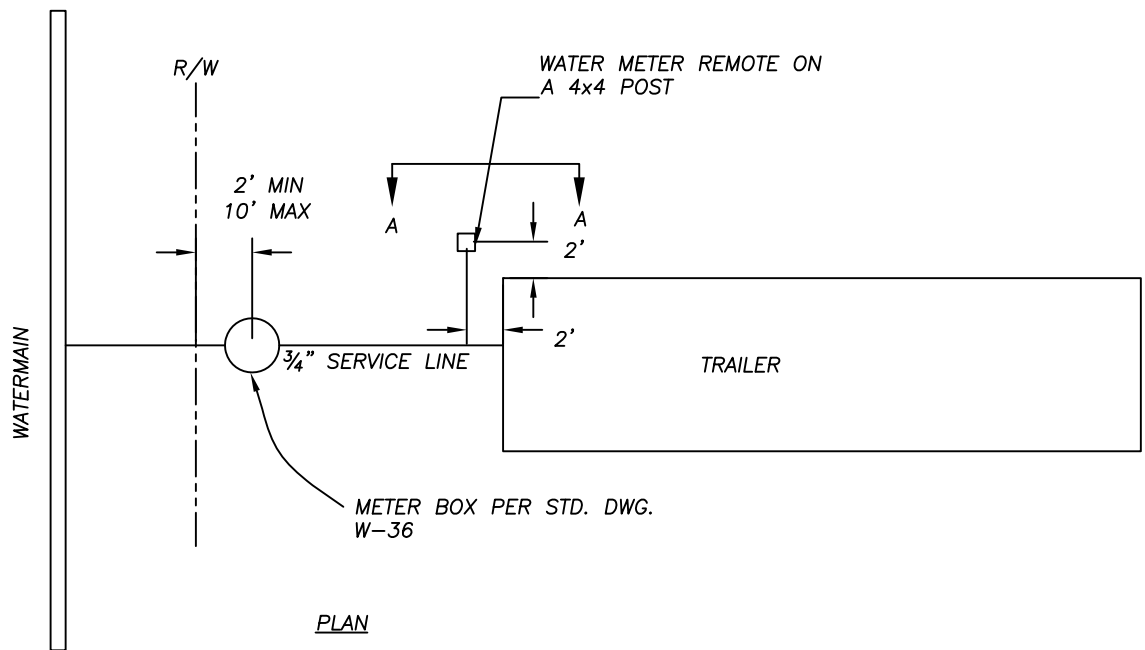
2/2



- W-36



APPROVED	<h1>TYPICAL WATER METER SETTING</h1> <h2>BASEMENT INSTALLATION</h2>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. W-37



- NOTES:**
1. COMPLETE WATER SERVICE LINE, METER BOX, AND REMOTE INSTALLATION.
 2. TO BE INSPECTED AND APPROVED BY THE COUNTY.

SECTION A-A

APPROVED

APPROVAL DATE

REVISION DATE

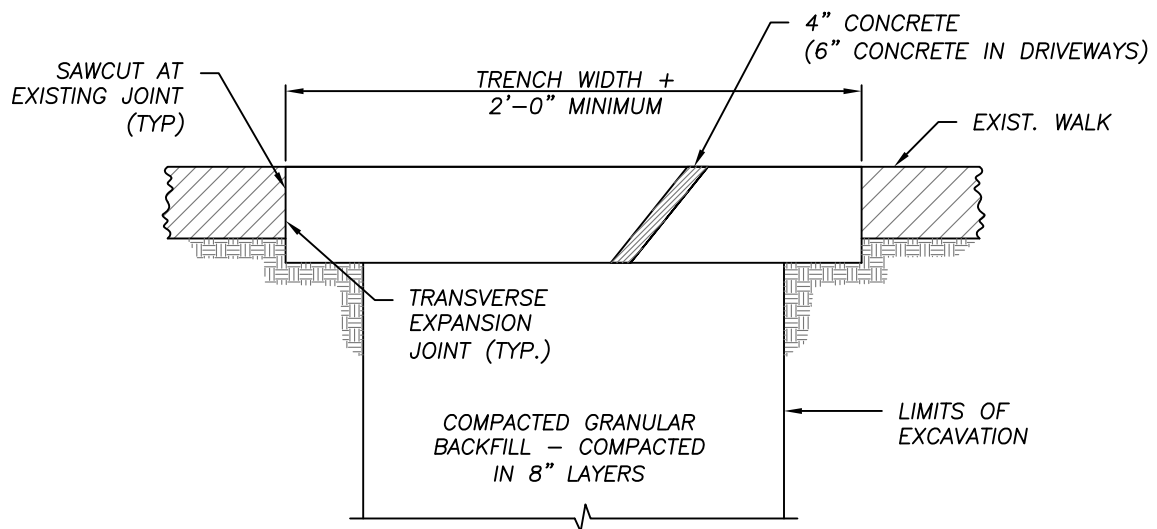
TYPICAL WATER METER SETTING TRAILER INSTALLATION

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.

W-38



APPROVED

APPROVAL DATE

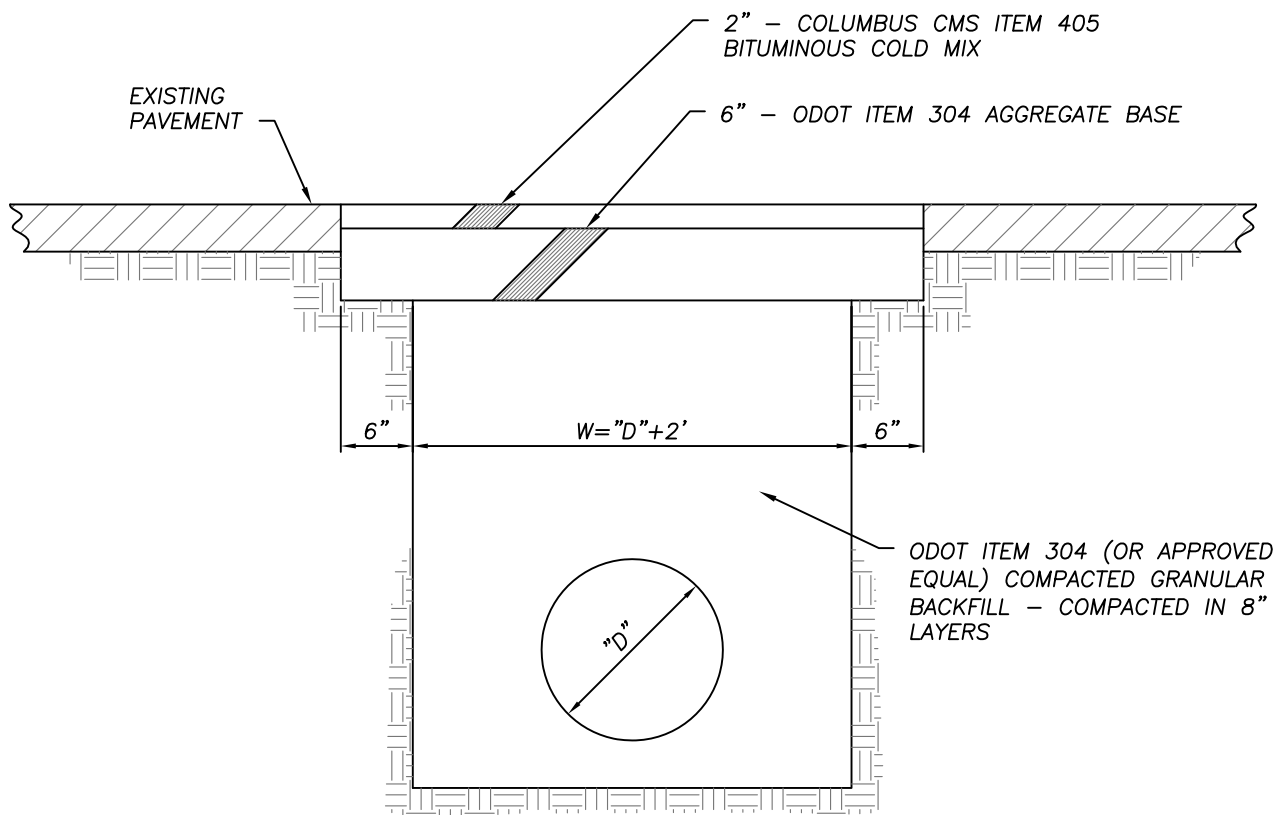
REVISION DATE

CONCRETE SIDEWALK REPLACEMENT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
W-39



NOTES:

1. UNLESS OTHERWISE APPROVED BY THE COUNTY, TEMPORARY PAVEMENT IS TO BE PLACED ON THE SAME DAY THE ORIGINAL PAVEMENT IS REMOVED.
2. TEMPORARY PAVEMENT TO BE REMOVED PRIOR TO INSTALLING PERMANENT PAVEMENT REPLACEMENT.
3. MAXIMUM PAY WIDTH IS TRENCH WIDTH (W) PLUS 1'-0". TRENCH WIDTH IS MEASURED 12" ABOVE THE TOP OF THE PIPE. TRENCH WIDTH MAY BE WIDER ABOVE THIS LINE BUT PAY WIDTH WILL NOT EXCEED $W + 1' - 0"$.

APPROVED

APPROVAL DATE

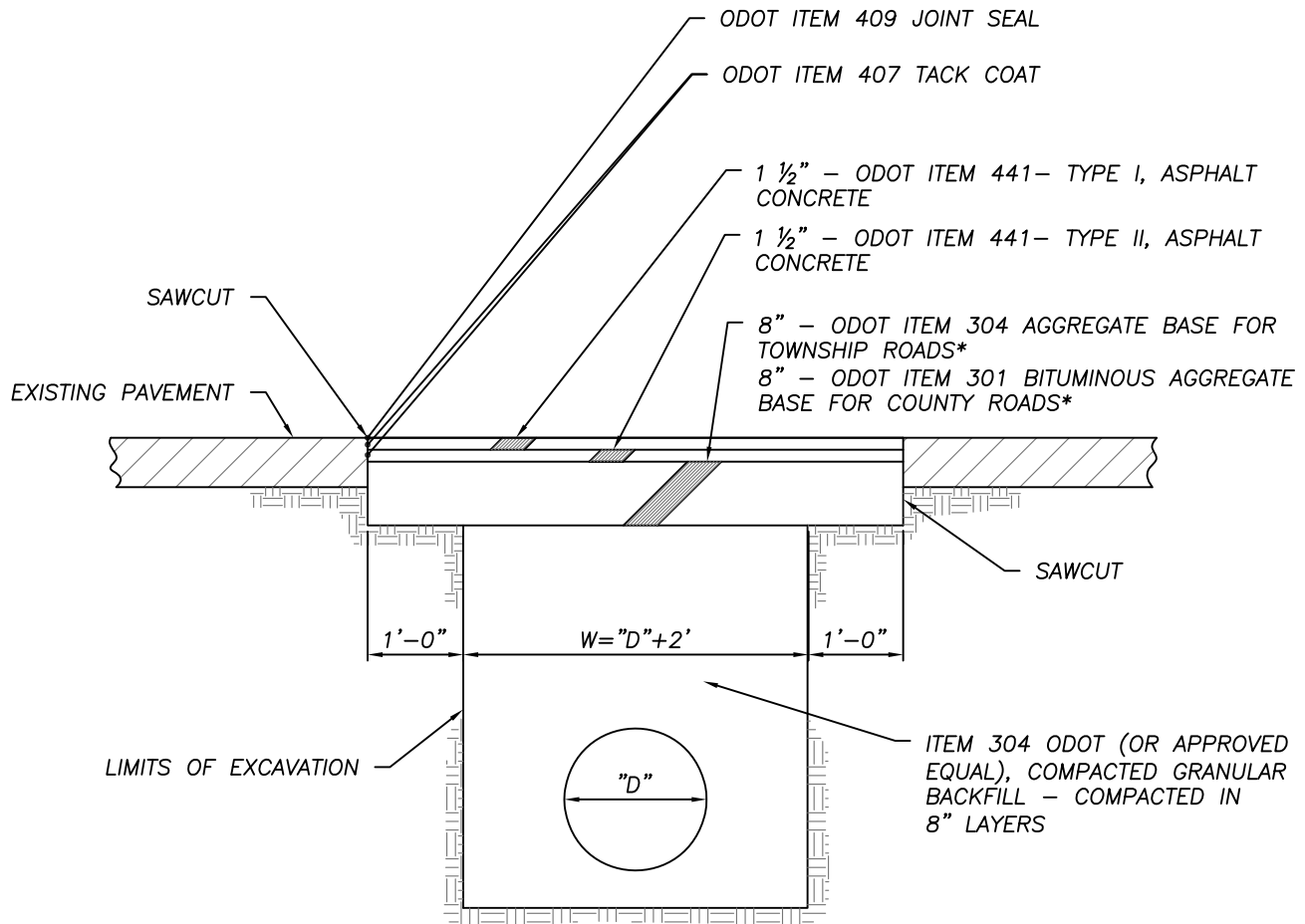
REVISION DATE

TEMPORARY PAVEMENT REPLACEMENT

FAIRFIELD COUNTY
OHIO

STANDARD
CONSTRUCTION DWG.

DRAWING NO.
W-40

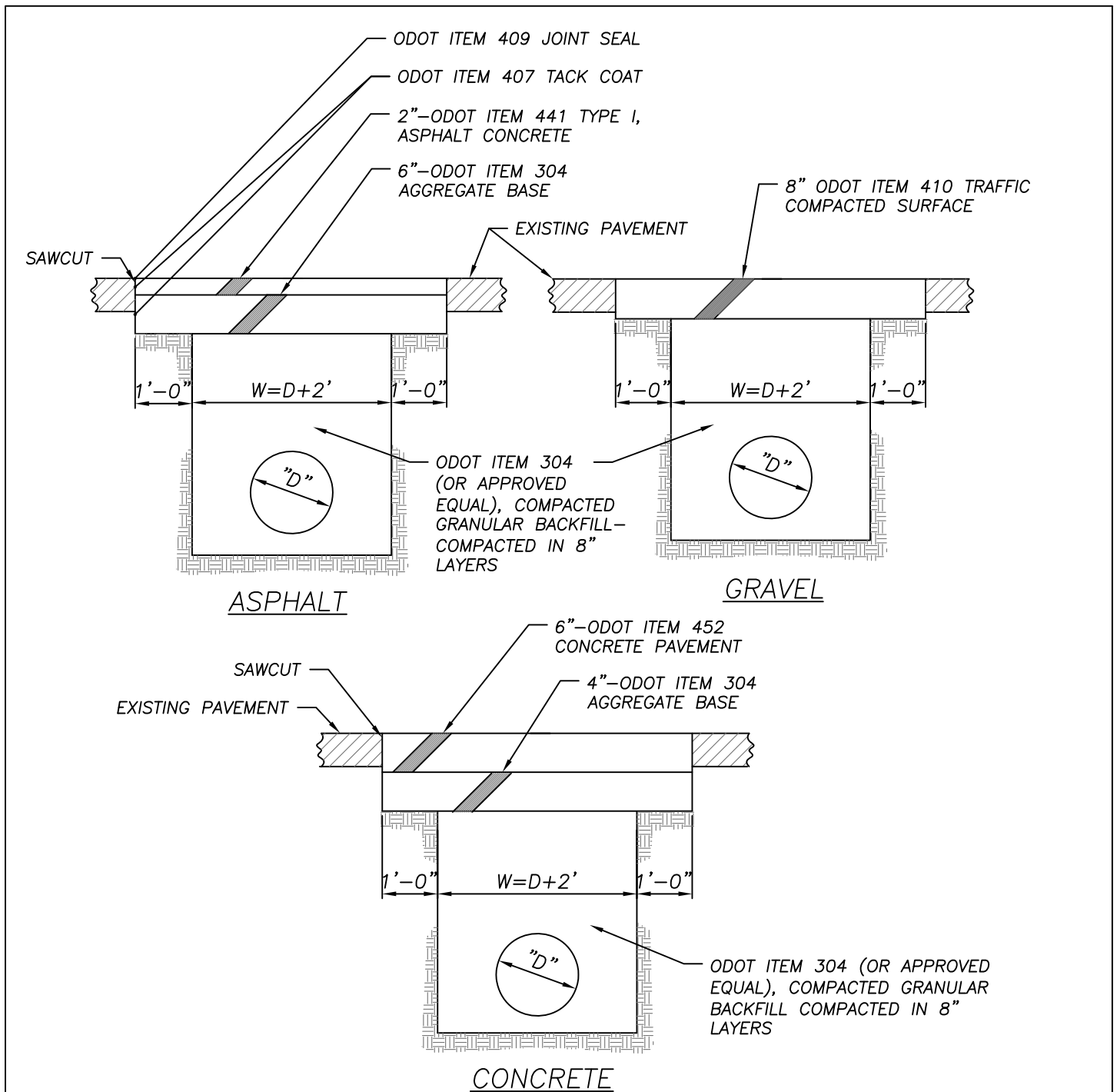


MAXIMUM PAY WIDTH IS TRENCH WIDTH (W) PLUS 2'-0".
TRENCH WIDTH IS MEASURED 12" ABOVE THE TOP OF
THE PIPE. TRENCH WIDTH MAY BE WIDER ABOVE THIS
LINE BUT PAY WIDTH WILL NOT EXCEED $W + 2'$.

TOWNSHIP/COUNTY ROADS
ASPHALT & CHIP/SEAL ROADWAYS*

*OR AS REQUIRED BY THE LOCAL ROAD AUTHORITY.

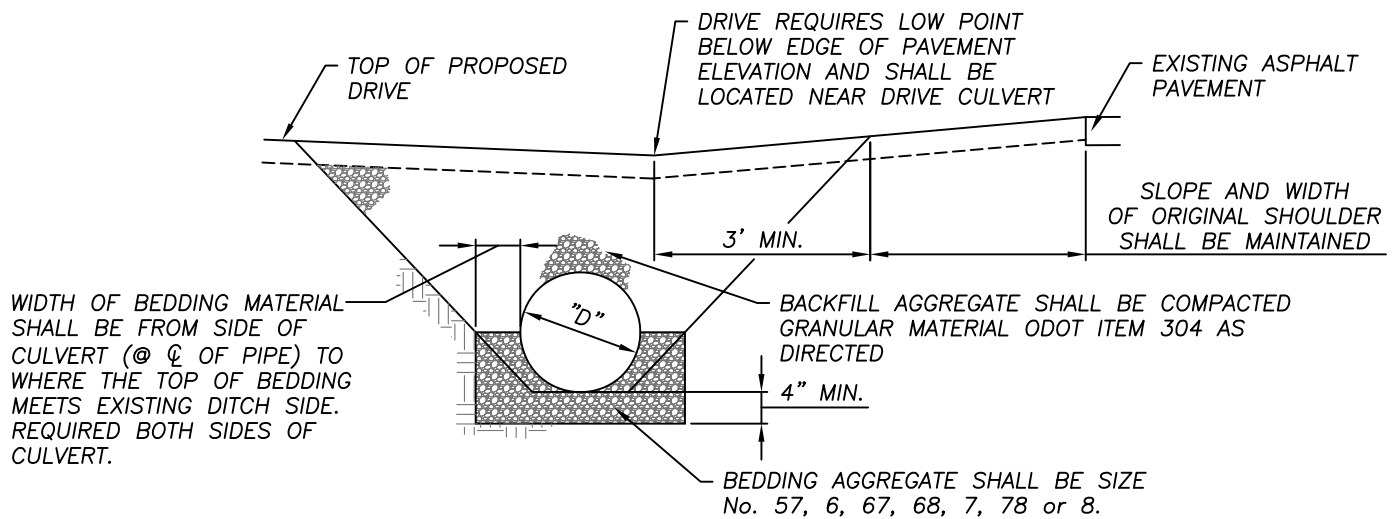
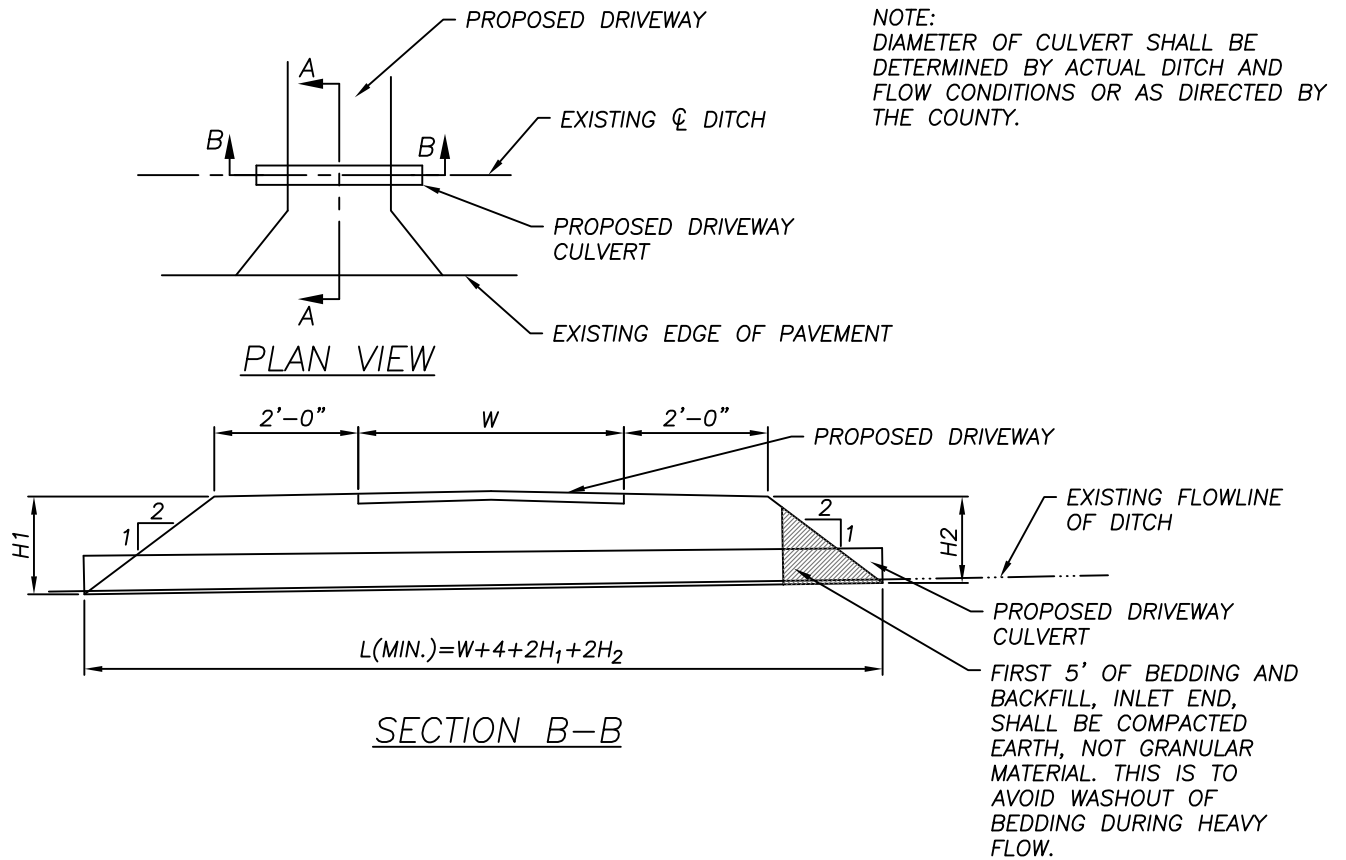
APPROVED	<div>PERMANENT PAVEMENT REPLACEMENT</div>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. W-41



NOTES:

1. SAWCUT EXISTING PAVEMENT PRIOR TO PLACEMENT OF NEW PAVEMENT
2. MAXIMUM PAY WIDTH IS TRENCH WIDTH (W) PLUS 2'-0". TRENCH WIDTH IS MEASURED 12" ABOVE THE TOP OF THE PIPE. TRENCH WIDTH MAY BE WIDER ABOVE THIS LINE BUT PAY WIDTH WILL NOT EXCEED $W + 2'-0"$.

APPROVED	<div>DRIVEWAY PAVEMENT REPLACEMENT</div>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. W-42



SECTION A-A

APPROVED	<div>DRIVEWAY CULVERT DETAILS</div>	FAIRFIELD COUNTY OHIO
APPROVAL DATE		STANDARD CONSTRUCTION DWG.
REVISION DATE		DRAWING NO. W-43