

ADOPTED: SEPT. 2013
REVISED: APRIL 2025

BOROUGH STANDARD CONSTRUCTION DETAILS



BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

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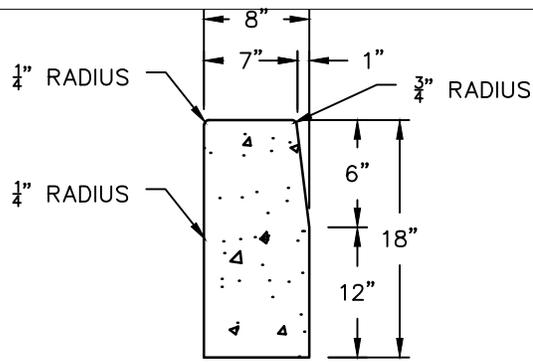
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WATER DETAILS

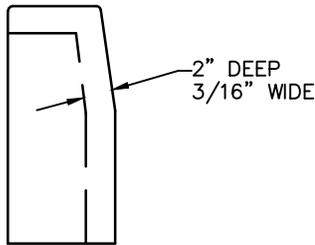
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STREETScape DETAILS

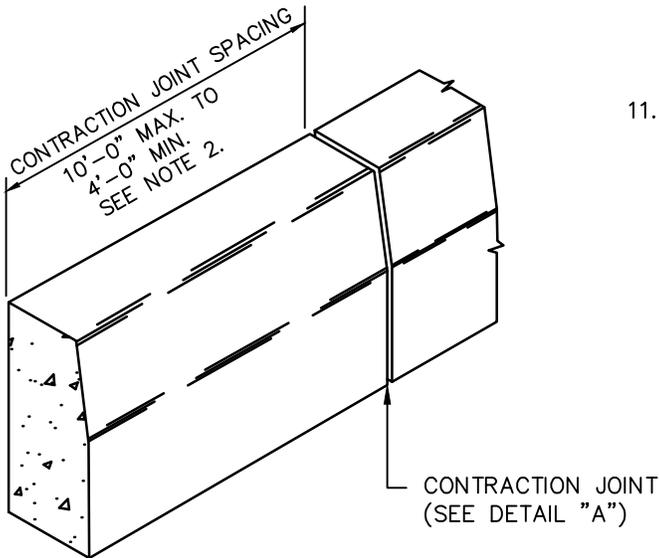
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TYPICAL CROSS SECTION

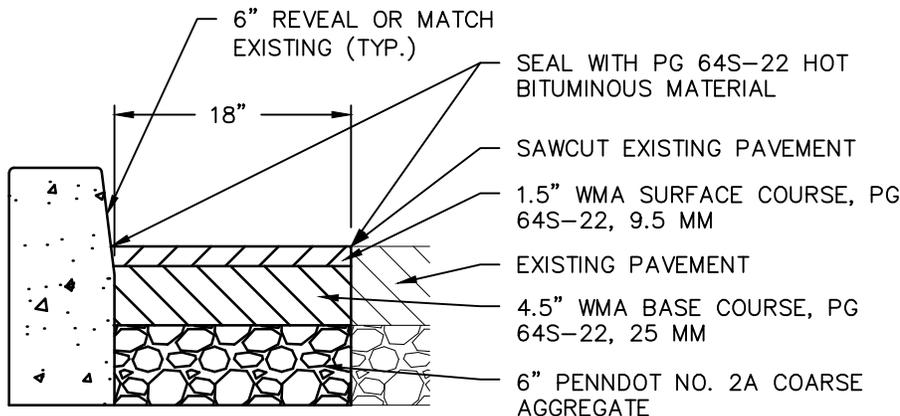


DETAIL "A" CONTRACTION JOINT



NOTES:

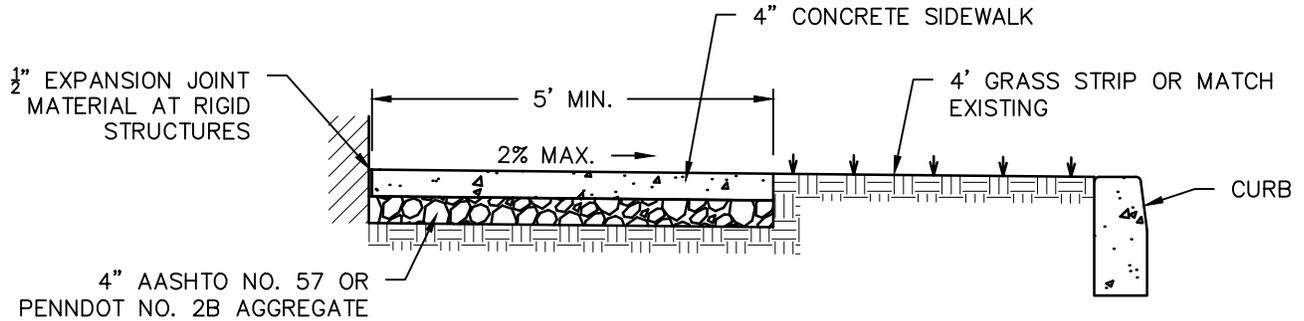
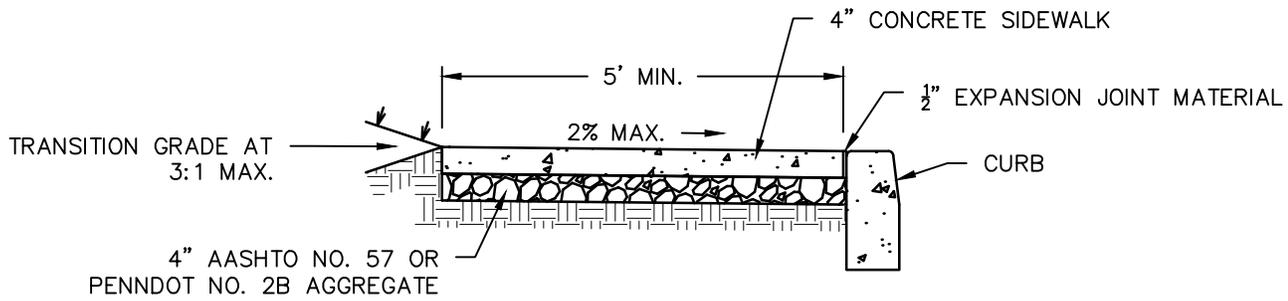
1. PROVIDE MATERIALS AND CONSTRUCTION IN ACCORDANCE WITH PENNDOT PUB. 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE GUTTER AND SECTION 641 FOR PLAIN CEMENT CONCR IS TO BE PENNDOT CLASS AA (3,750 PSI).
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4" PREMOLDED EXPANSION JOINT MATERIAL CONFORMING TO THE CROSS SECTIONAL AREA OF THE CURB AT RIGID STRUCTURES AND AT THE END OF THE WORKDAY.
4. SEE PENNDOT PUB. 72M, RC-50M FOR PLAIN CEMENT CONCRETE CURB SLOPED TOP ETE CURB GUTTER. EXCEPT THAT ALL CONCRETETREATMENT AT END OF STRUCTURES.
5. DEPRESSED CURB SHALL BE SLOPED 1/4" PER FOOT TOWARDS THE STREET.
6. ALL CONCRETE SHALL BE CURED USING A WHITE PIGMENTED CURING COMPOUND OR OTHER APPROVED METHOD IN ACCORDANCE WITH PENNDOT PUB. 408, SECTION 501.
7. THE MINIMUM LENGTH OF ANY CURB REPLACEMENT SHALL BE 4 FEET. WHERE CURB REPLACEMENT IS WITHIN 4 FEET OF AN EXISTING JOINT, THE CURB REPLACEMENT LENGTH SHALL BE EXTENDED TO THE EXISTING JOINT.
8. FACE FORMED CURB IS PROHIBITED, EXCEPT WHEN AUTHORIZED IN ADVANCE BY THE BOROUGH.
9. EXISTING SUBGRADE, STONE SUBBASE, AND ASPHALT PAVEMENT SHALL BE WELL COMPACTED.
10. EXISTING PAVEMENT SHALL BE SAWCUT IN A NEAT, STRAIGHT LINE. IF ANY EXISTING PAVEMENT ALONG THE SAWCUT LINE BECOMES COMPROMISED DURING THE WORK, SAWCUT AROUND AND REMOVE THE COMPROMISED PAVEMENT PRIOR TO PERFORMING PAVEMENT RESTORATIONS.
11. ALL CONCRETE SHALL BE PROTECTED UNTIL CURED SUFFICIENTLY FOR PEDESTRIAN OR, IF APPLICABLE, VEHICULAR TRAFFIC.



CONCRETE CURB AND ROADWAY RESTORATION

N.T.S.

G1
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



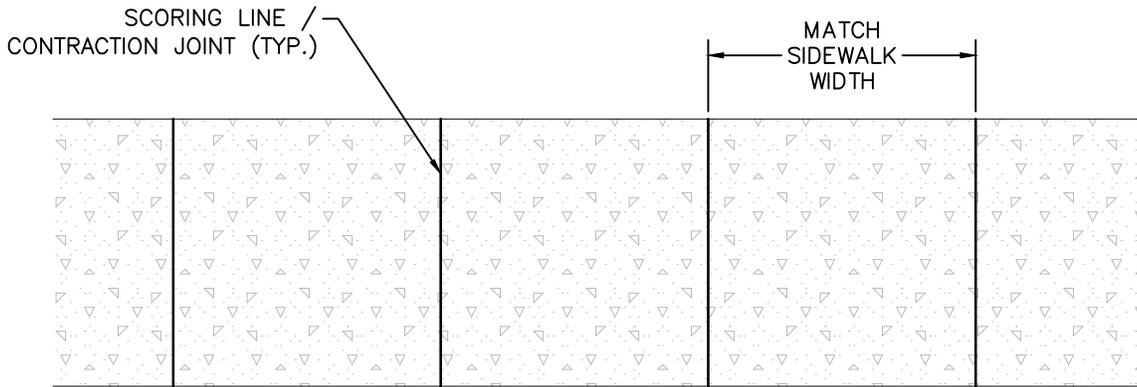
NOTES:

1. PROVIDE MATERIALS AND CONSTRUCTION IN ACCORDANCE WITH PENNDOT PUB. 408, SECTION 676 FOR CEMENT CONCRETE SIDEWALKS. EXCEPT THAT ALL CONCRETE IS TO BE PENNDOT CLASS AA (3,750 PSI).
2. PLACE 1/2" PREMOLDED EXPANSION JOINT MATERIAL FOR THE FULL DEPTH OF THE SIDEWALK AT JOINTS ADJACENT CURB, BETWEEN SIDEWALK AND CURB, AND BETWEEN SIDEWALK AND RIGID STRUCTURES.
3. FORM OUTSIDE EDGES AND JOINTS WITH 1/4" RADIUS EDGING TOOL.
4. PROVIDE ADEQUATE SURFACE DRAINAGE FROM SIDEWALK TO THE TOP OF ADJACENT CURB OR OTHER OUTLET (MIN. 0.5% SLOPE).
5. INSTALL SIDEWALK IN ACCORDANCE WITH CURRENT ADA STANDARDS.
6. PROVIDE A LIGHT BROOM FINISH TRANSVERSE TO THE DIRECTION OF TRAVEL.
7. ALL CONCRETE SHALL BE CURED USING A WHITE PIGMENTED CURING COMPOUND OR OTHER APPROVED METHOD IN ACCORDANCE WITH PENNDOT PUB. 408, SECTION 501.
8. THE MINIMUM AREA OF ANY SIDEWALK REPLACEMENT SHALL EXTEND TO EXISTING CONTROL JOINTS AROUND THE REPLACEMENT.
9. ALL CONCRETE SHALL BE PROTECTED UNTIL CURED SUFFICIENTLY FOR PEDESTRIAN OR, IF APPLICABLE, VEHICULAR TRAFFIC.
10. MINIMUM SIDEWALK WIDTH SHALL BE 5 FEET OR SHALL MATCH ADJOINING SIDEWALK WIDTH, IF GREATER.

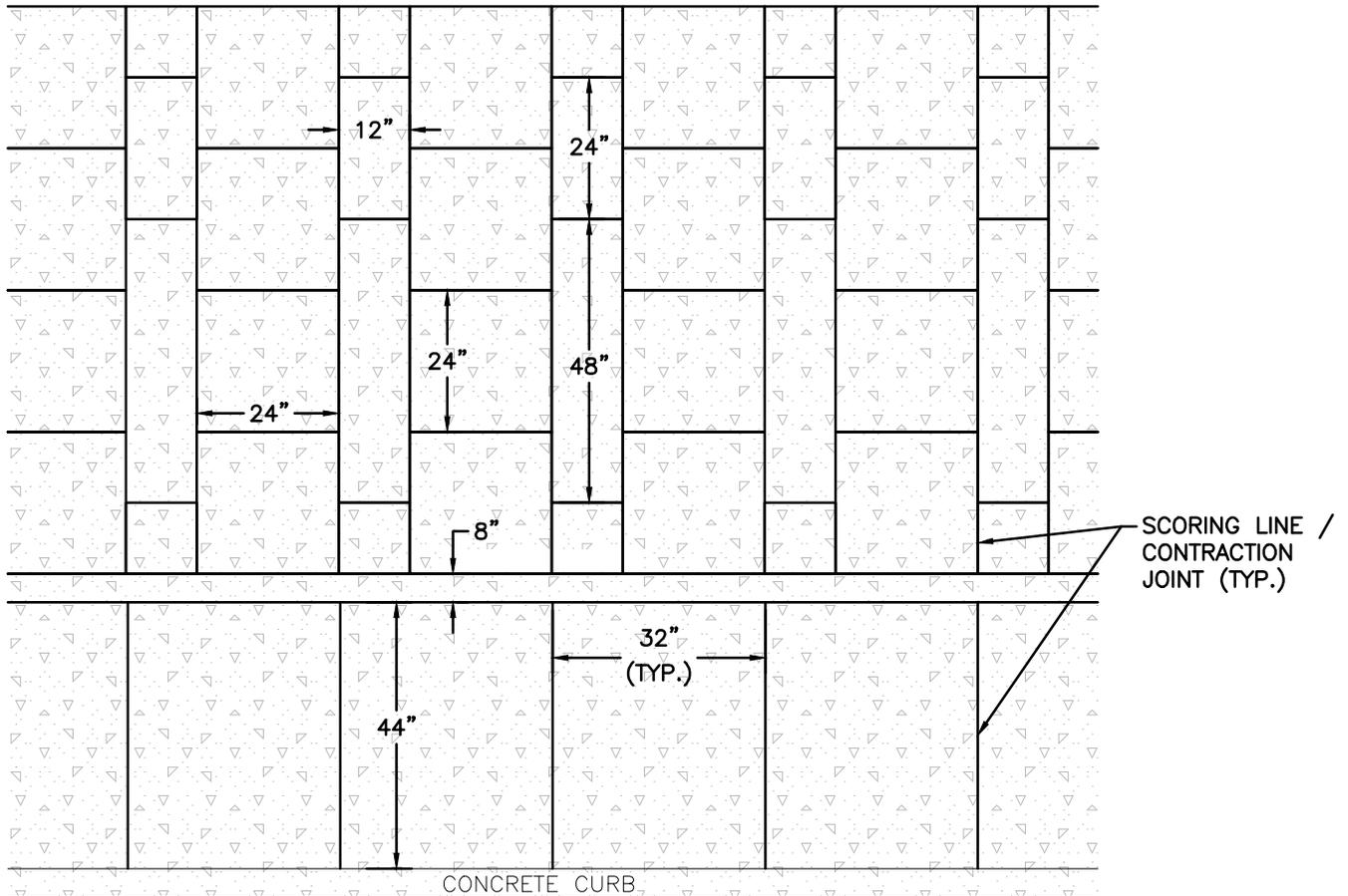
CEMENT CONCRETE SIDEWALK

N.T.S.

G2.1
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



STANDARD SIDEWALK SCORING PATTERN (UP TO 8' SIDEWALK WIDTH)



STREETSCAPE SIDEWALK SCORING PATTERN

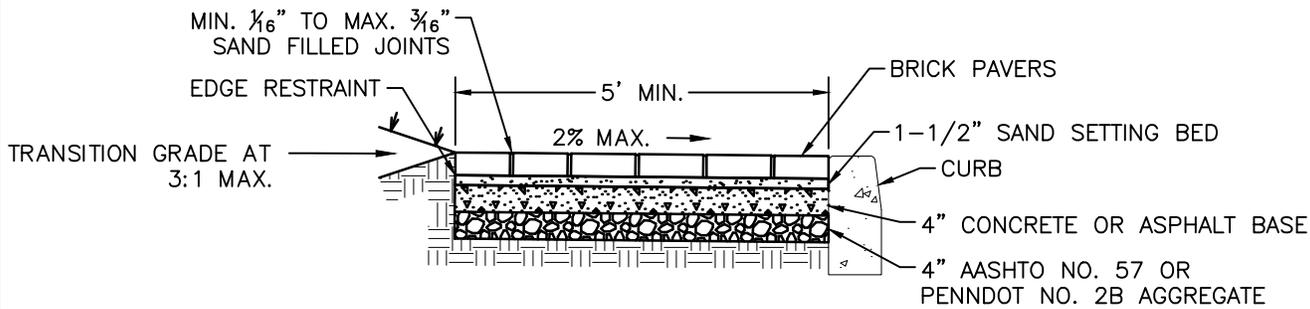
NOTES:

1. FOR STANDARD SIDEWALK UP TO 8 FEET IN WIDTH, TRANSVERSE SCORING SHALL BE SPACED AT INTERVALS EQUAL TO THE SIDEWALK WIDTH (E.G. FOR A 5 FOOT WIDE SIDEWALK, TRANSVERSE SCORING SHALL BE SPACED AT 5 FOOT INTERVALS).
2. FOR STANDARD SIDEWALK GREATER THAN 8 FEET IN WIDTH, LONGITUDINAL SCORING SHALL EVENLY DIVIDE THE SIDEWALK AND TRANSVERSE SCORING SHALL BE SPACED AT INTERVALS EQUAL TO HALF OF THE SIDEWALK WIDTH.
3. SCORING SHALL BE PERFORMED USING A HAND-TOOLED TECHNIQUE. SAWCUTTING IS NOT AN ACCEPTABLE METHOD FOR PERFORMING SCORING.
4. NO CHANGES OR ADJUSTMENTS TO THE SCORING LAYOUT AND DESIGN SHALL BE PERMITTED WITHOUT PRIOR AUTHORIZATION FROM THE BOROUGH.

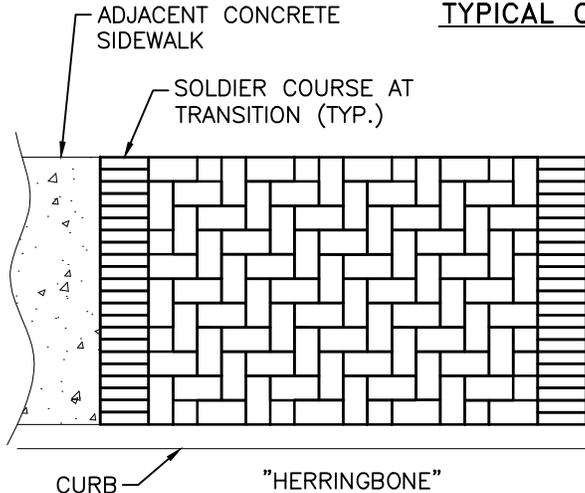
SIDEWALK SCORING PATTERN

N.T.S.

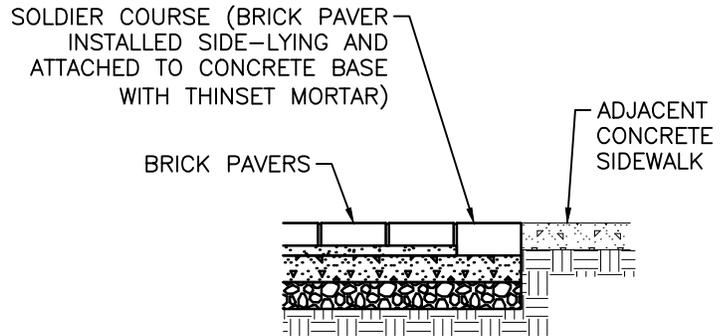
**G2.2
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



TYPICAL CROSS-SECTION



TYPICAL BRICK PAVER BOND PATTERN



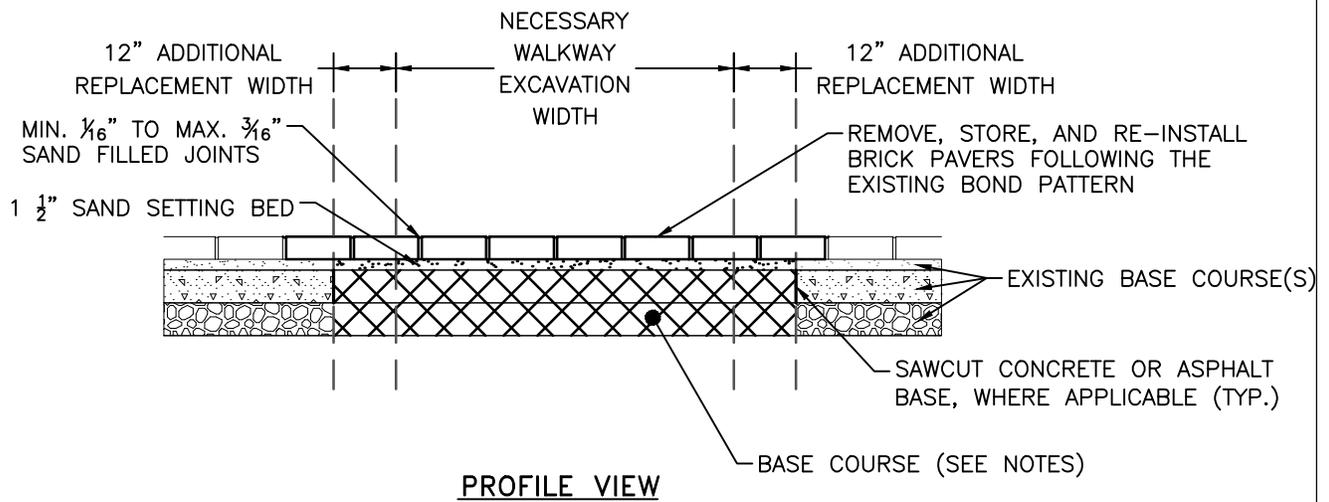
TYPICAL SOLDIER COURSE

NOTES:

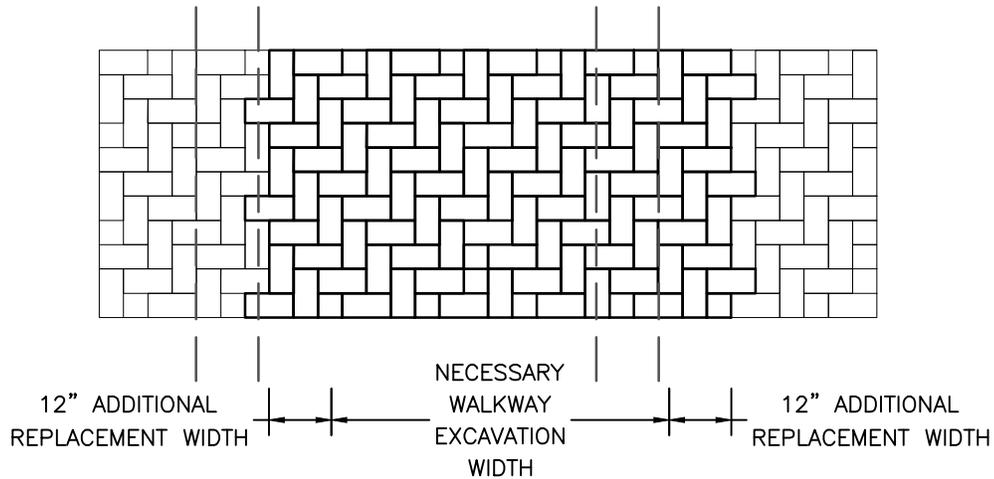
1. BRICK PAVERS SHALL BE CLAY MATERIAL COMPLYING WITH ASTM STANDARD C 902 FOR CLASS 'SX' OR 'SX (MOLDED)' PAVERS.
2. JOINT AND SETTING BED SAND SHALL COMPLY WITH ASTM STANDARD C 33.
3. PROVIDE ADEQUATE SURFACE DRAINAGE FROM BRICK PAVER SIDEWALK TO THE TOP OF ADJACENT CURB OR OTHER OUTLET (MIN. 0.5% SLOPE).
4. CONCRETE BASE, WHERE USED, SHALL BE PENNDOT CLASS A (3,300 PSI). CONTRACTION JOINTS SHALL BE PROVIDED WITH A MAXIMUM SPACING OF 12 FEET O.C.
5. ASPHALT BASE, WHERE USED, SHALL BE WMA BASE COURSE, PG64S-22, 25 MM.
6. HEAVY PLASTIC OR METAL EDGE RESTRAINTS SECURED WITH SPIKES, SUCH AS "SNAP EDGE", SHALL BE INSTALLED ALONG BRICK PAVERS WHERE BRICK PAVER SIDEWALK ABUTS NON-RIGID FEATURES, INCLUDING LANDSCAPED AREAS.
7. IF THE BRICK PAVER SIDEWALK ABUTS AN EXISTING BRICK PAVER SIDEWALK, THE BOND PATTERN OF THE NEW WALKWAY SHALL CONTINUE THE PATTERN FROM THE EXISTING BRICK PAVER SIDEWALK.
8. WHERE BRICK PAVER SIDEWALK TRANSITIONS TO ANOTHER SURFACE AND/OR MATERIAL (E.G. TRANSITIONS TO CONCRETE SIDEWALK), A SOLDIER COURSE SHALL BE INSTALLED AT THE TRANSITION.
9. WHERE BRICK PAVER SIDEWALK IS INSTALLED ADJACENT TO AN EXISTING OR PROPOSED TREE, A 3'-WIDE BY 2'-DEEP TRENCH OF STRUCTURAL SOIL SHALL BE INSTALLED UNDER THE CONCRETE BASE IN LIEU OF THE AGGREGATE BASE.
- 9.1. THE STRUCTURAL SOIL SHALL EXTEND 10' IN EACH DIRECTION FROM THE BASE OF THE TREE.

**BRICK SIDEWALK
(NEW CONSTRUCTION)**

N.T.S.



PROFILE VIEW



PLAN VIEW

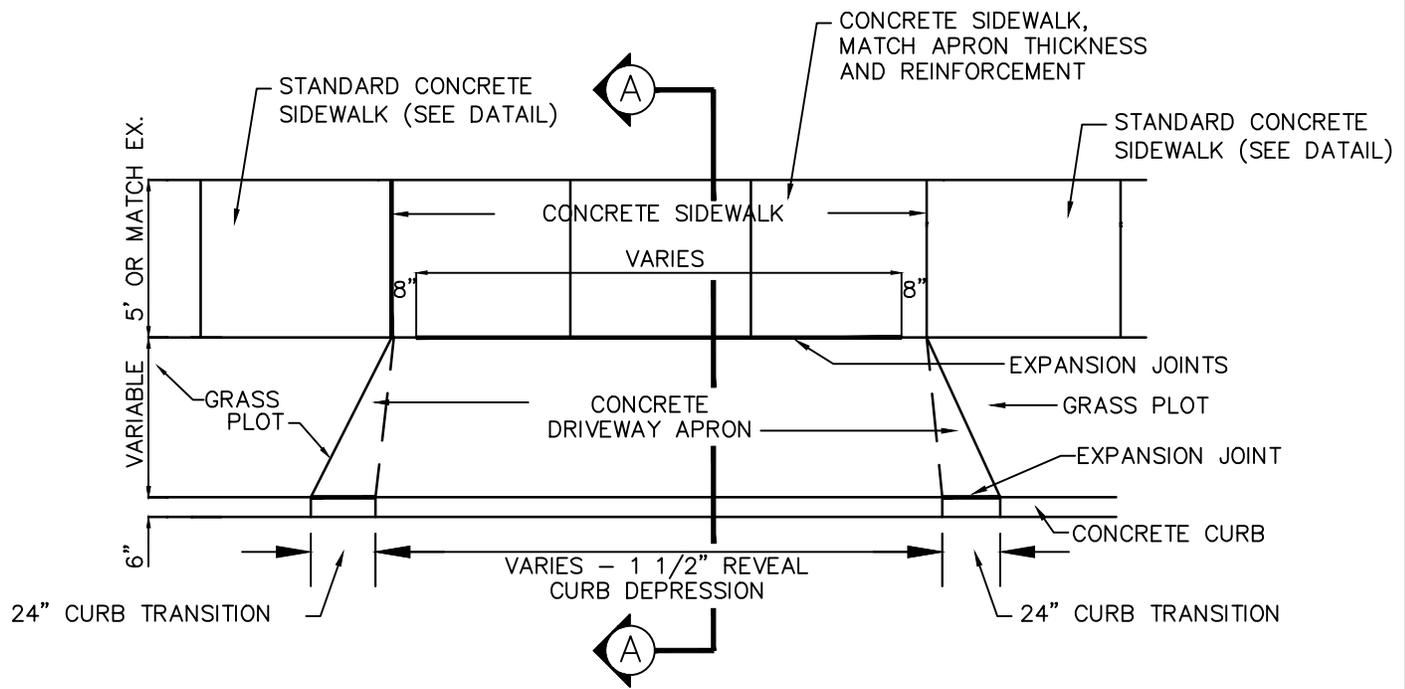
NOTES:

1. IF EXISTING BRICK PAVERS ARE DAMAGED AND REQUIRE REPLACEMENT, THE NEW BRICK PAVERS SHALL BE CLAY MATERIAL COMPLYING WITH ASTM STANDARD C 902 FOR CLASS 'SX' OR 'SX (MOLDED)' PAVERS.
2. JOINT AND SETTING BED SAND SHALL COMPLY WITH ASTM STANDARD C 33.
3. THE CROSS-SLOPE OF THE EXISTING WALKWAY SHALL BE MAINTAINED WITHIN THE REPLACEMENT WALKWAY AREA.
4. IF THERE IS AN EXISTING CONCRETE OR ASPHALT BASE IN THE REPLACEMENT AREA, A NEW CONCRETE OR ASPHALT BASE SHALL BE INSTALLED AS FOLLOWS:
 - 4.1. INSTALL A 4" THICK AASHTO NO. 57 OR PENNDOT NO. 2B AGGREGATE BENEATH THE NEW CONCRETE OR ASPHALT BASE.
 - 4.1. CONCRETE BASE, WHERE USED, SHALL BE PENNDOT CLASS A (3,300 PSI). CONTRACTION JOINTS SHALL BE PROVIDED WITH A MAXIMUM SPACING OF 12 FEET O.C.
 - 4.2. ASPHALT BASE, WHERE USED, SHALL BE WMA BASE COURSE, PG64S-22, 25 MM.
5. IF THERE IS NO EXISTING CONCRETE OR ASPHALT BASE IN THE REPLACEMENT AREA, A NEW 8" THICK AASHTO NO. 57 OR PENNDOT NO. 2B AGGREGATE BASE SHALL BE INSTALLED.
6. HEAVY PLASTIC OR METAL EDGE RESTRAINTS SECURED WITH SPIKES, SUCH AS "SNAP EDGE", SHALL BE INSTALLED ALONG BRICK PAVERS WHERE BRICK PAVER SIDEWALK ABUTS NON-RIGID FEATURES, INCLUDING LANDSCAPED AREAS.
7. WHERE BRICK PAVER SIDEWALK IS REPLACED ADJACENT TO A TREE, A 3'-WIDE BY 2'-DEEP TRENCH OF STRUCTURAL SOIL SHALL BE INSTALLED UNDER THE CONCRETE BASE IN LIEU OF THE AGGREGATE BASE.
 - 7.1. WHERE CONCRETE BASE LAYER IS NOT INSTALLED, THEN THE STRUCTURAL SOIL SHALL BE PLACED UNDER THE AGGREGATE BASE.
 - 7.2. THE STRUCTURAL SOIL SHALL EXTEND 10' IN EACH DIRECTION FROM THE BASE OF THE TREE OR TO THE EXTENTS OF THE REPLACEMENT AREA, WHICHEVER IS LESS.

**BRICK SIDEWALK
(REPLACEMENT)**

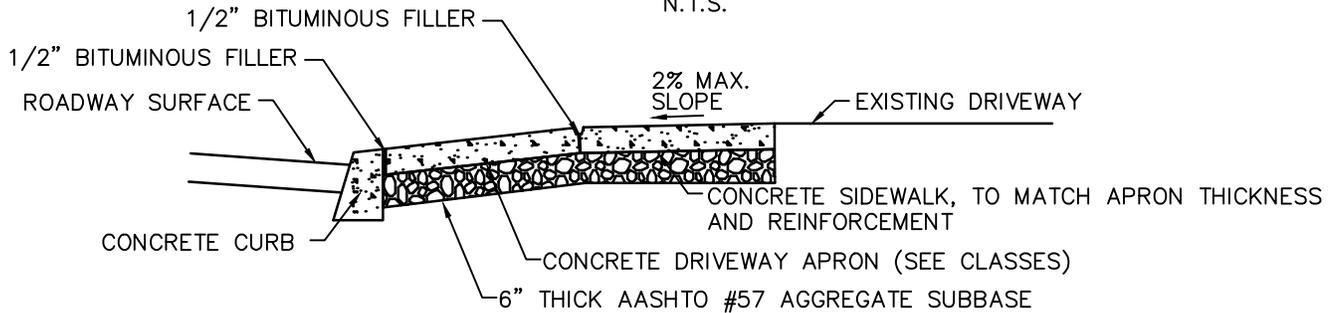
N.T.S.

**G4
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



PLAN VIEW

N.T.S.



SECTION "A-A"

N.T.S.

CONCRETE DRIVEWAY APRON & CURB DEPRESSION

(APPLICABLE WITH STANDARD CURB)

N.T.S.

NOTES:

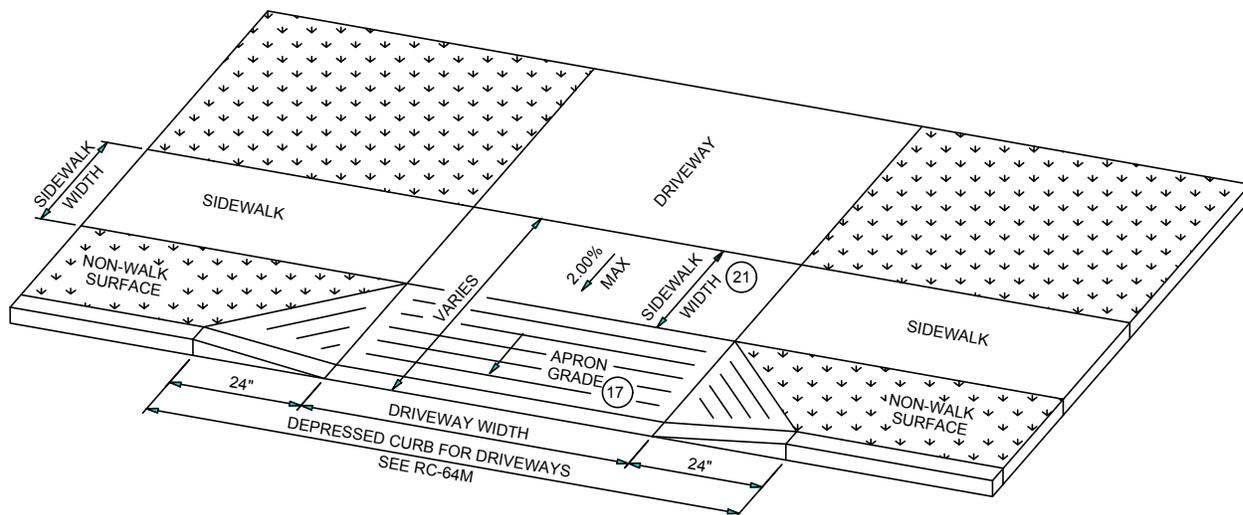
1. ALL CONCRETE IS TO BE CLASS AA (3,750 P.S.I.).
2. DEPRESSED CURB SHALL BE SLOPED 1/4" PER FOOT TOWARDS THE STREET.
3. CONCRETE SHALL BE ALLOWED TO CURE FOR SEVEN (7) DAYS.
4. USE OF "HIGH EARLY" CONCRETE MAY BE APPROVED BY THE BOROUGH INSPECTOR.
5. MONOLITHIC POURS SHALL ONLY BE PERMITTED BY SPECIAL EXCEPTION, AND ARE SUBJECT TO APPROVAL BY THE BOROUGH.
6. CONTRACTOR SHALL PROVIDE EROSION CONTROLS TO CONTAIN OPEN EXCAVATIONS AND PROTECT THE NEAREST DOWNSTREAM INLET.

DRIVEWAY APRON CLASSES – MINIMUM STANDARDS:

1. RESIDENTIAL – 6" THICKNESS WITH 6X6-W1.4/W1.4 WIREMESH REINFORCEMENT
2. COMMERCIAL – 8" THICKNESS WITH 6X6-W2.1/W2.1 WIREMESH REINFORCEMENT
3. INDUSTRIAL – DESIGN TO BE PROVIDED TO BOROUGH ENGINEER.

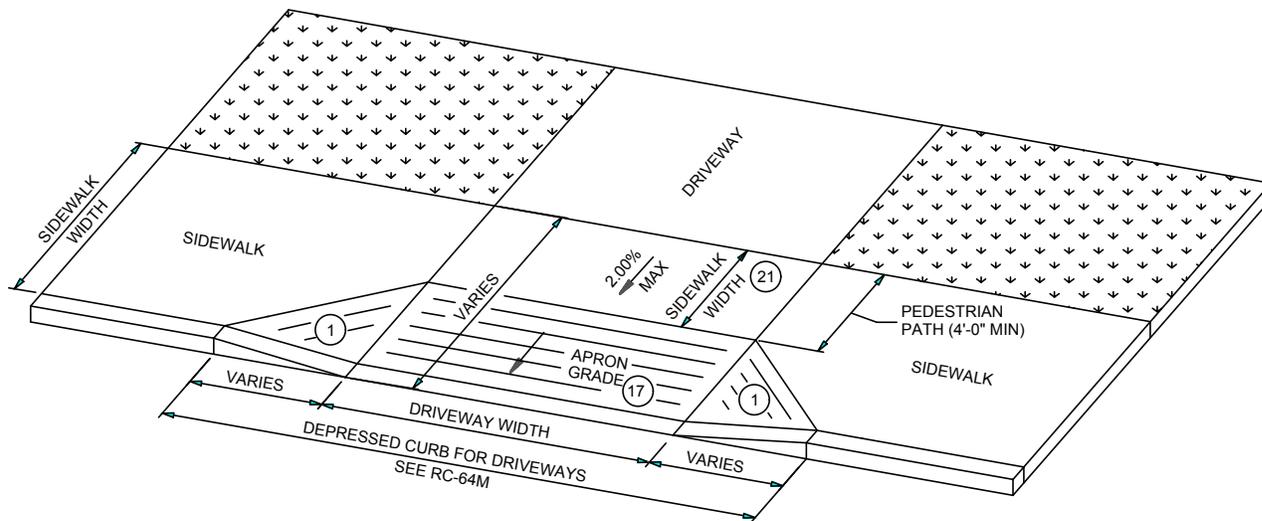
*DETERMINATION OF CLASS SUBJECT TO APPROVAL BY THE BOROUGH.

NOTE:
SIDEWALKS CROSSING DRIVEWAY APRONS SHALL COMPLY
WITH PENNDOT RC-67M FOR PEDESTRIAN ACCESSIBILITY.



DRIVEWAY APRON, TYPE 1

N.T.S.

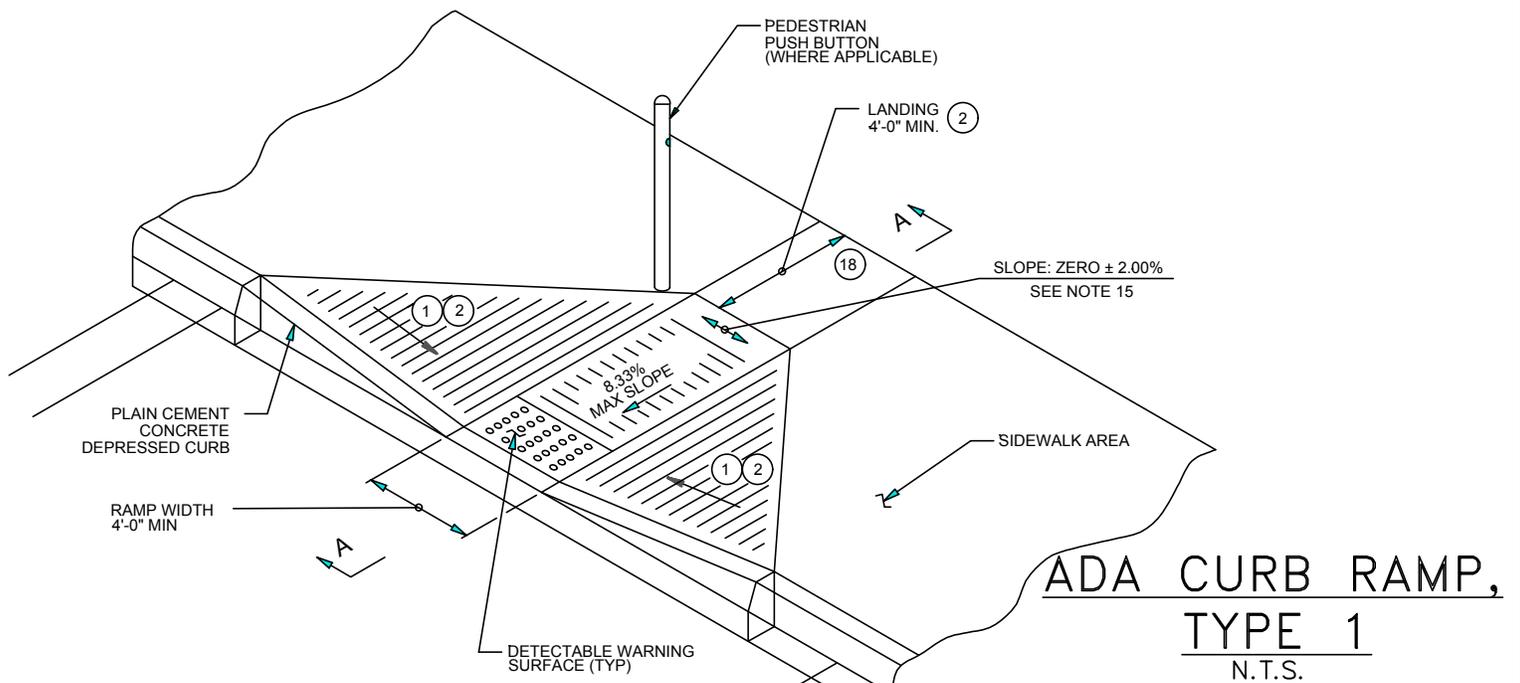


DRIVEWAY APRON, TYPE 1A

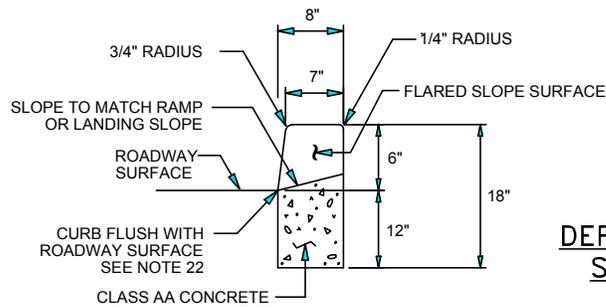
N.T.S.

- ① SIDE FLARES 10.00% MAX SLOPE
- ①⑦ 8% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY
- ②① MINIMUM SIDEWALK WIDTH ACROSS APRONS IS 4'-0"

G6
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

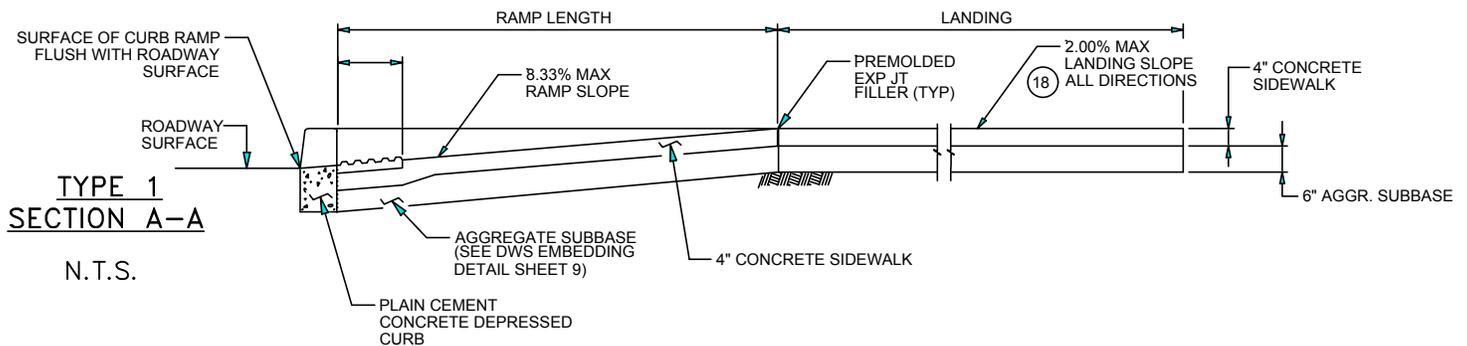


**ADA CURB RAMP,
TYPE 1**
N.T.S.

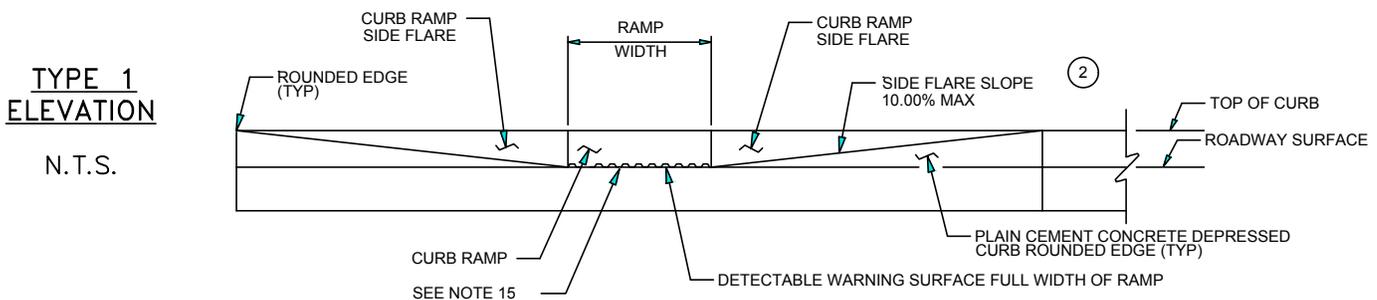


**DEPRESSED CURB
SECTION B-B**
N.T.S.

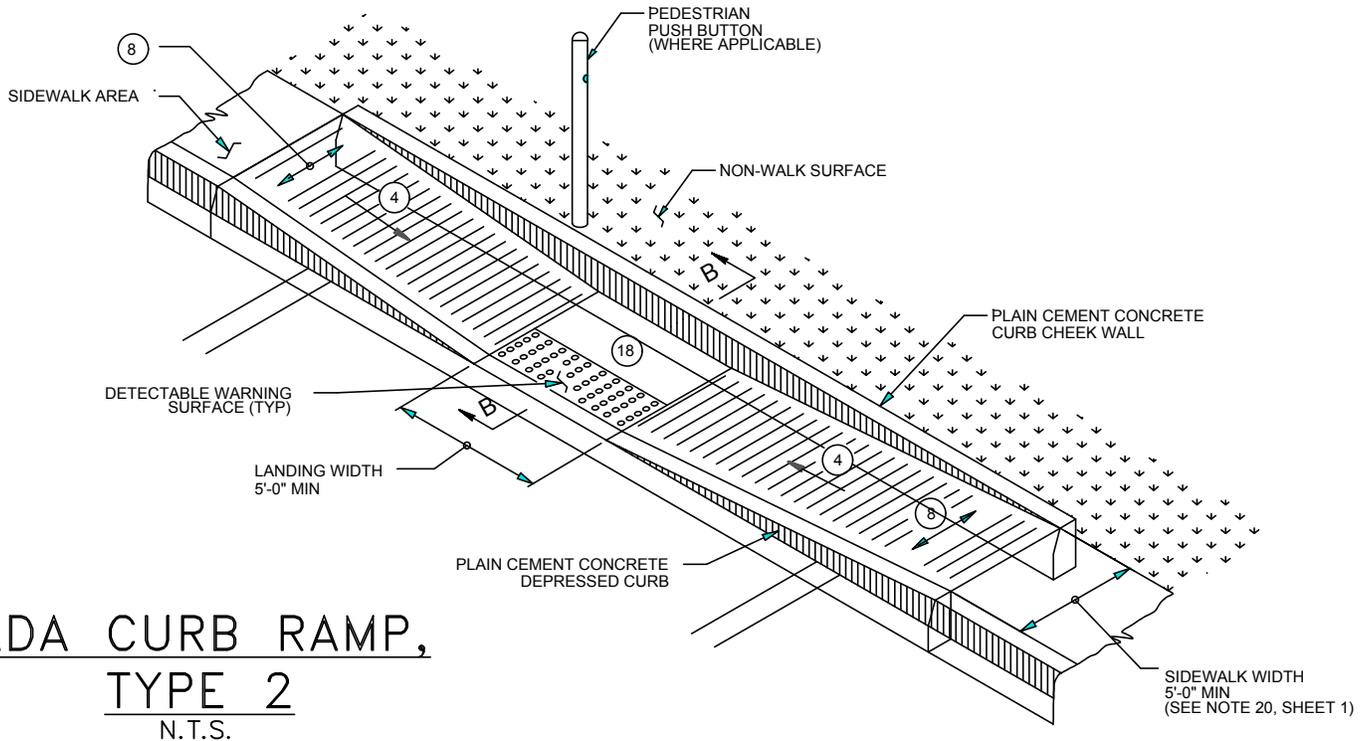
- ① SIDE FLARES 10.00% MAX SLOPE
- ② IF THE LANDING IS INDICATED TO BE LESS THAN 4'-0\", CONSTRUCT SIDE FLARES 8.33% MAX. SLOPE.
- ⑮ SIDE FLARES 10.00% MAX FOR RAMPS WITH TURNING SPACES 4'-0\"/>



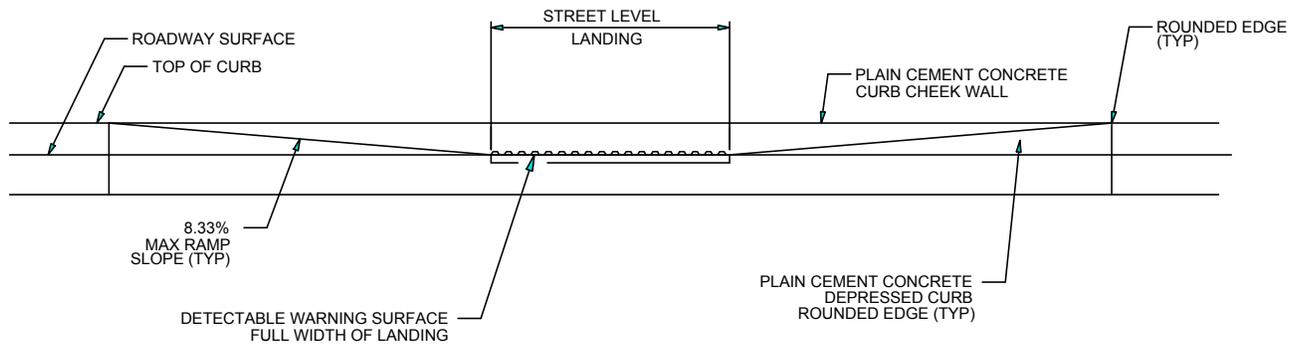
**TYPE 1
SECTION A-A**
N.T.S.



**TYPE 1
ELEVATION**
N.T.S.

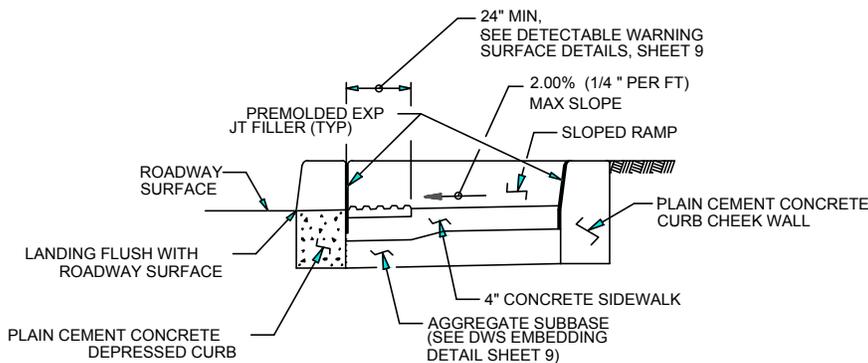


**ADA CURB RAMP,
TYPE 2
N.T.S.**

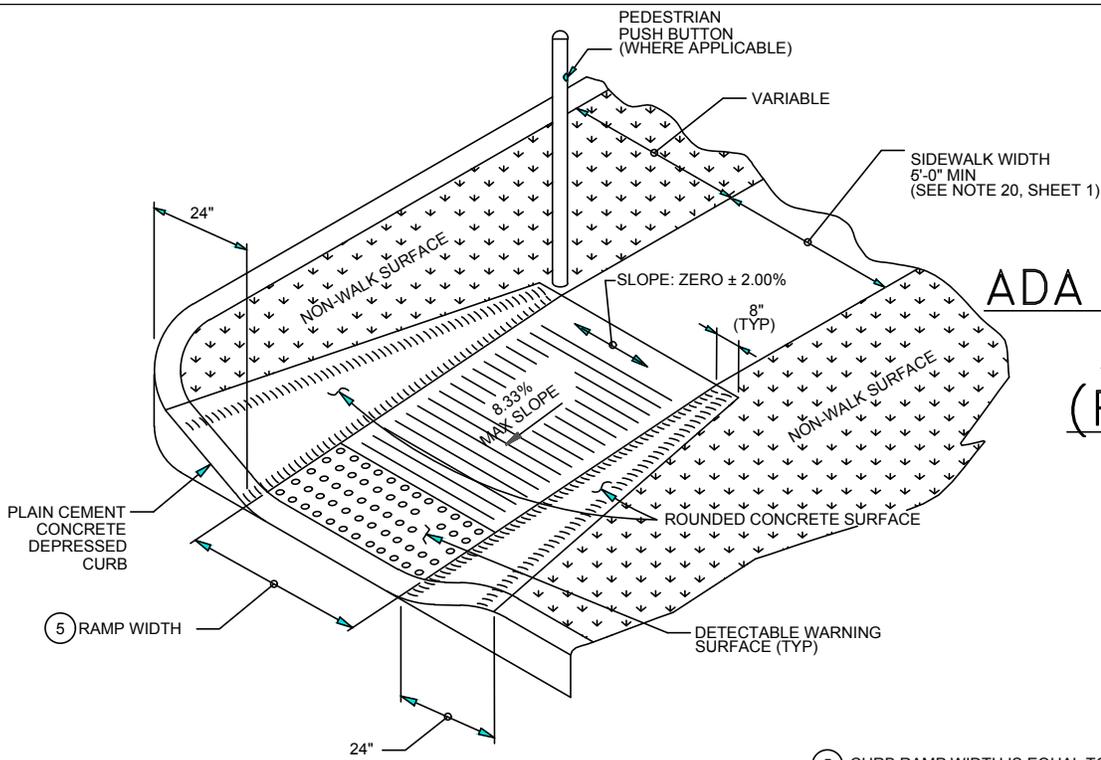


**TYPE 2
ELEVATION
N.T.S.**

- ① SIDE FLARES 10.00% MAX SLOPE
- ④ 8.33% MAX RAMP SLOPE
- ⑧ SLOPE: ZERO ± 2.00%
- ⑱ CURB RAMPS REQUIRE A 4'-0" MINIMUM LANDING WITH A MAXIMUM SLOPE OF 2.00% IN ALL DIRECTIONS WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS.



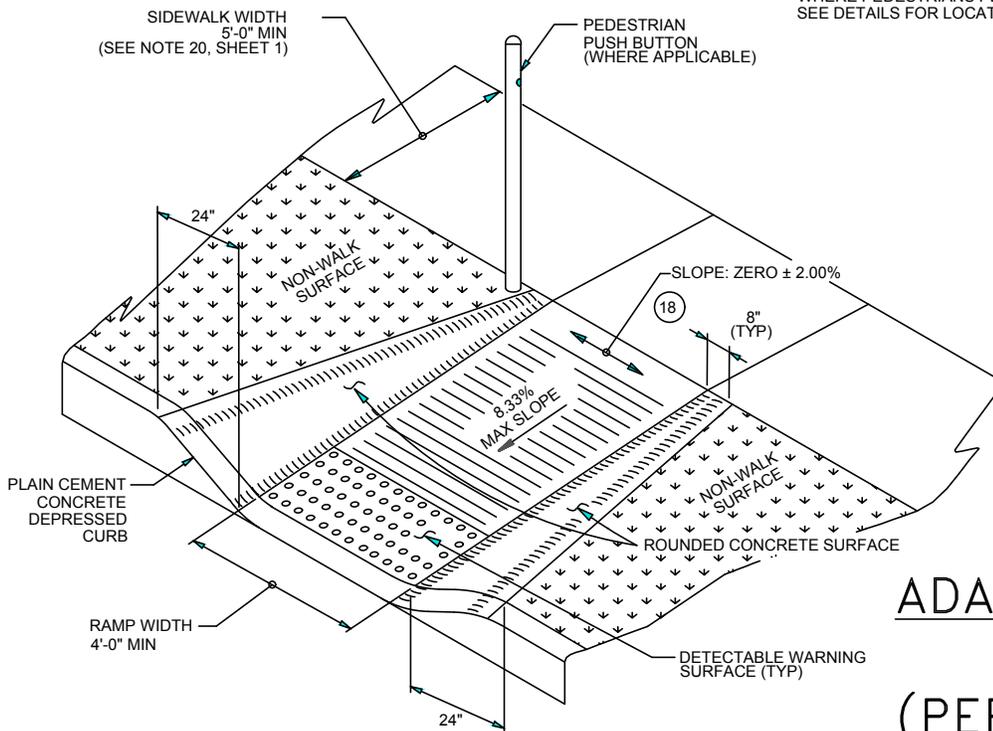
**TYPE 2
SECTION B-B
N.T.S.**



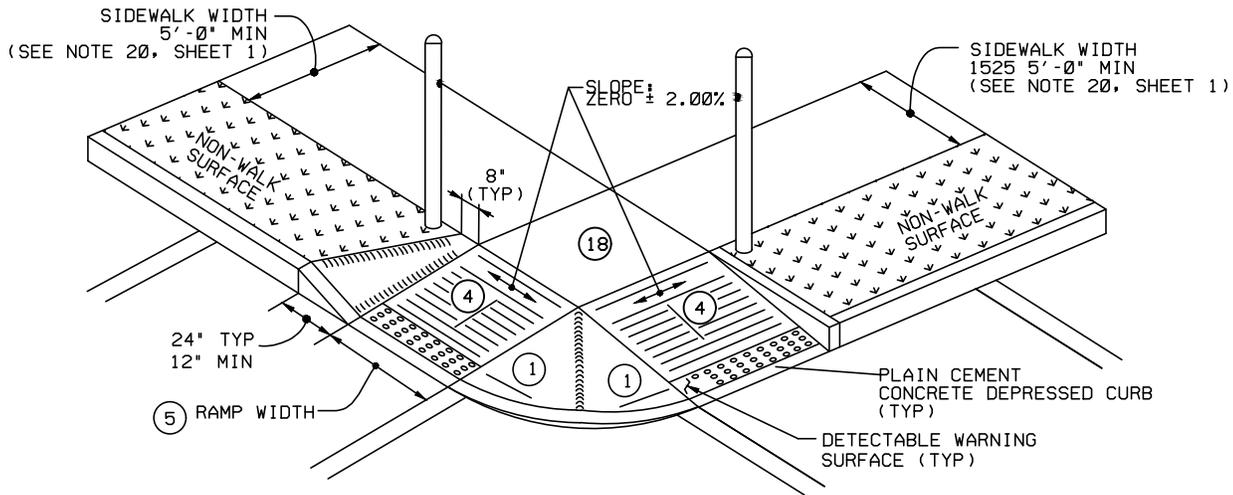
**ADA CURB RAMP,
TYPE 4A
(PARALLEL)
N.T.S.**

5 CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO 4'-0".

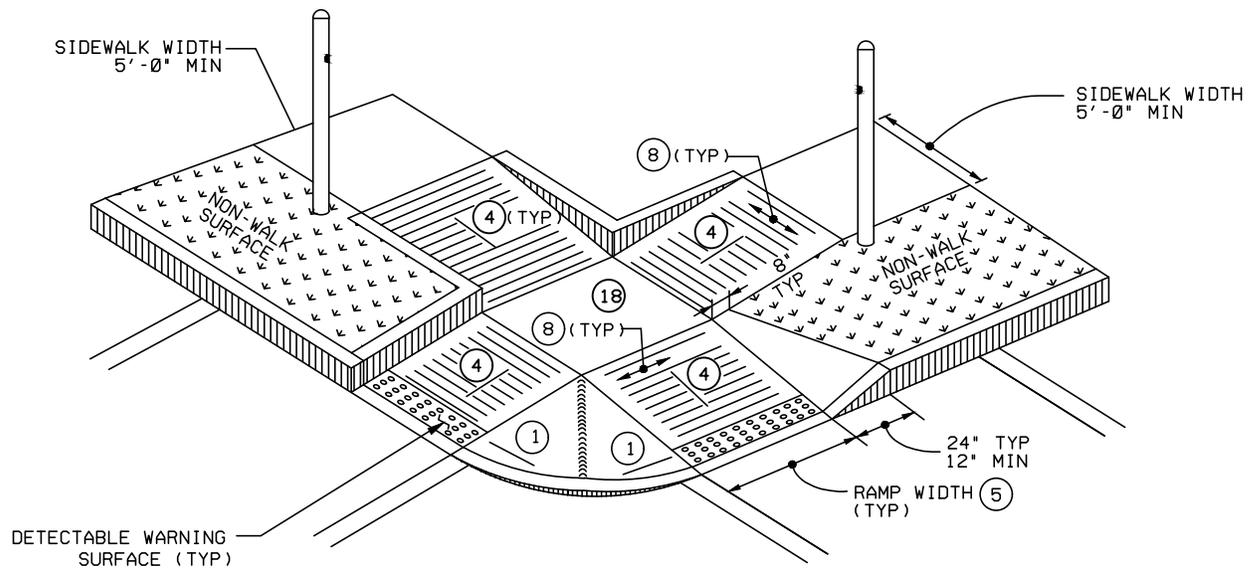
18 CURB RAMPS REQUIRE A 4'-0" MINIMUM LANDING WITH A MAXIMUM SLOPE OF 2.00% IN ALL DIRECTIONS WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS.



**ADA CURB RAMP,
TYPE 4A
(PERPENDICULAR)
N.T.S.**



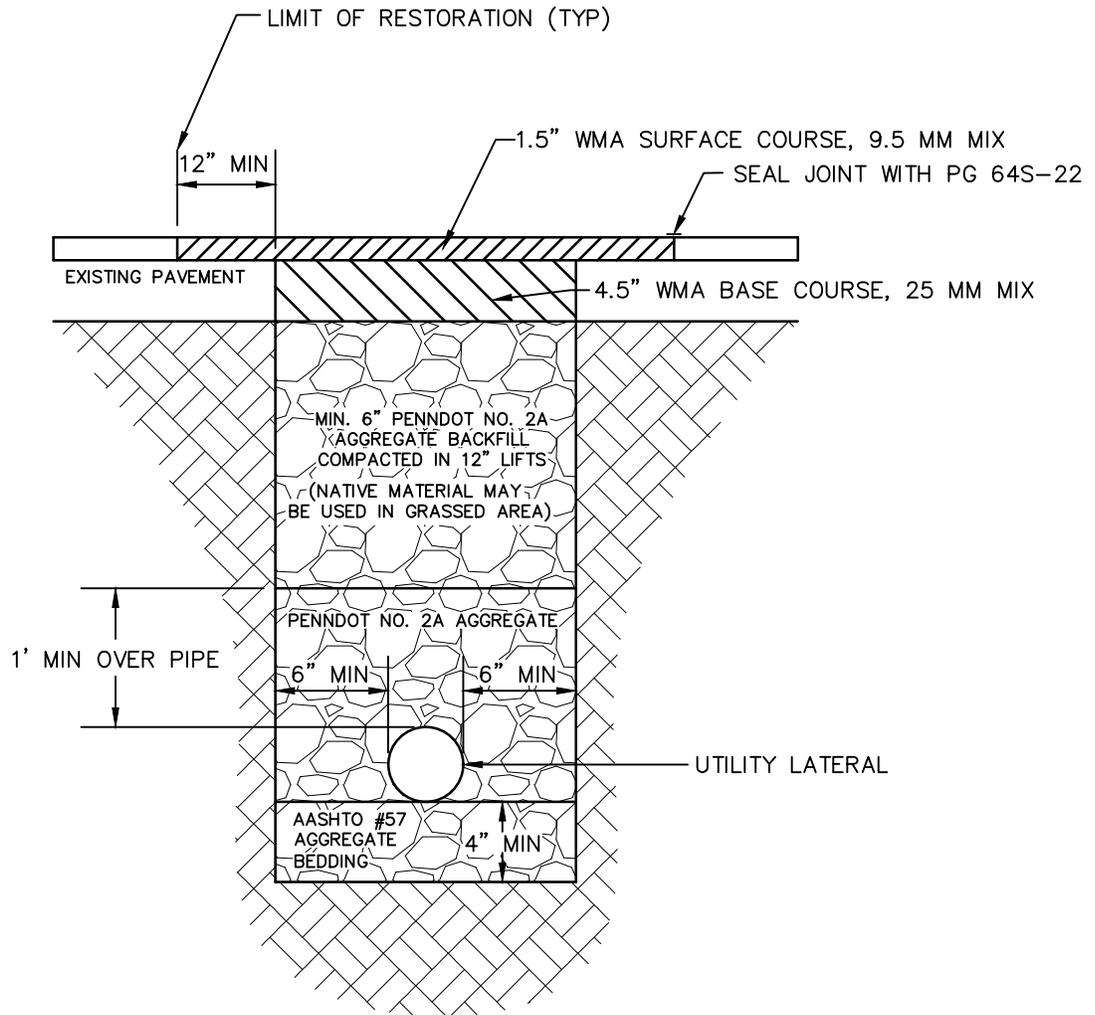
ADA CURB RAMPS, TYPE 4/4A (WITH SHARED LANDING)



ADA CURB RAMPS, TYPE 6 (WITH SHARED LANDING)

- ① SIDE FLARES 10.00% MAX SLOPE
- ④ 8.33% MAX RAMP SLOPE
- ⑤ CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO 4'-0".
- ⑧ SLOPE: ZERO +/- 2.00%
- ⑱ CURB RAMPS REQUIRE A 4'-0" MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

G10
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



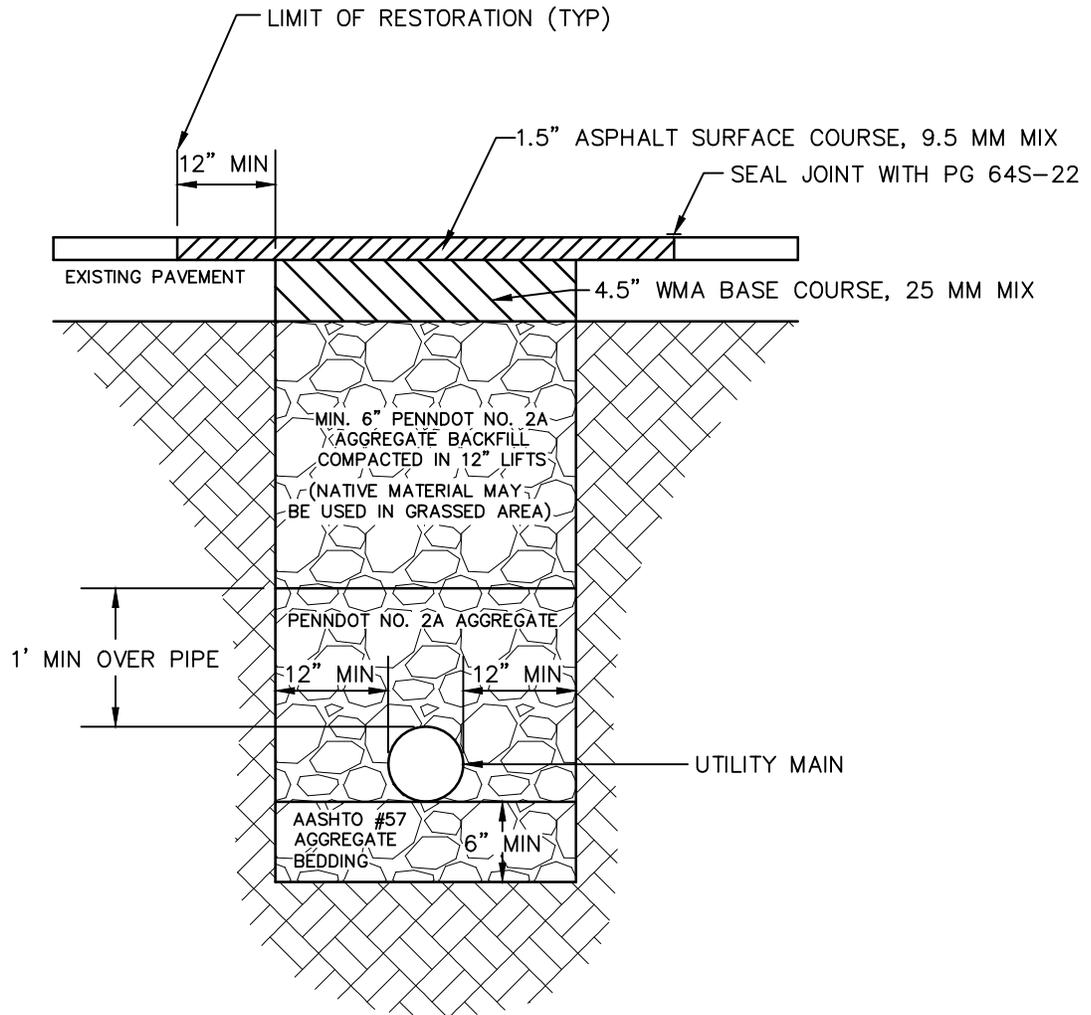
UTILITY LATERAL TRENCH RESTORATION (PERPENDICULAR TO ROADWAY)

N.T.S.

NOTE:

1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE WIDTH OF TRENCH.
2. 3/4H:1V (MAX SLOPE) FOR TRENCHES UP TO 8 FEET IN DEPTH.
3. TRENCHES IN EXCESS OF 8 FEET DEEP SHALL BE SLOPED OR STEPPED PER OSHA STANDARDS.
4. RESTORATIONS ON STATE HIGHWAYS REQUIRE PENNDOT APPROVAL.
5. TRENCHES SHALL BE PUMPED THROUGH A FILTER BAG.
6. UTILITY PATCHES WITHIN FIVE (5) FEET OF OTHER UTILITY PATCHES SHALL BE JOINED IN ORDER TO LIMIT THE NUMBER OF JOINTS IN THE PAVEMENT. THE PAVEMENT INTERFACE WITH THE CURB IS CONSIDERED A JOINT. PATCHES WITHIN FIVE (5) OF THE CURB SHALL BE EXTENDED TO THE CURB.

**G11
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



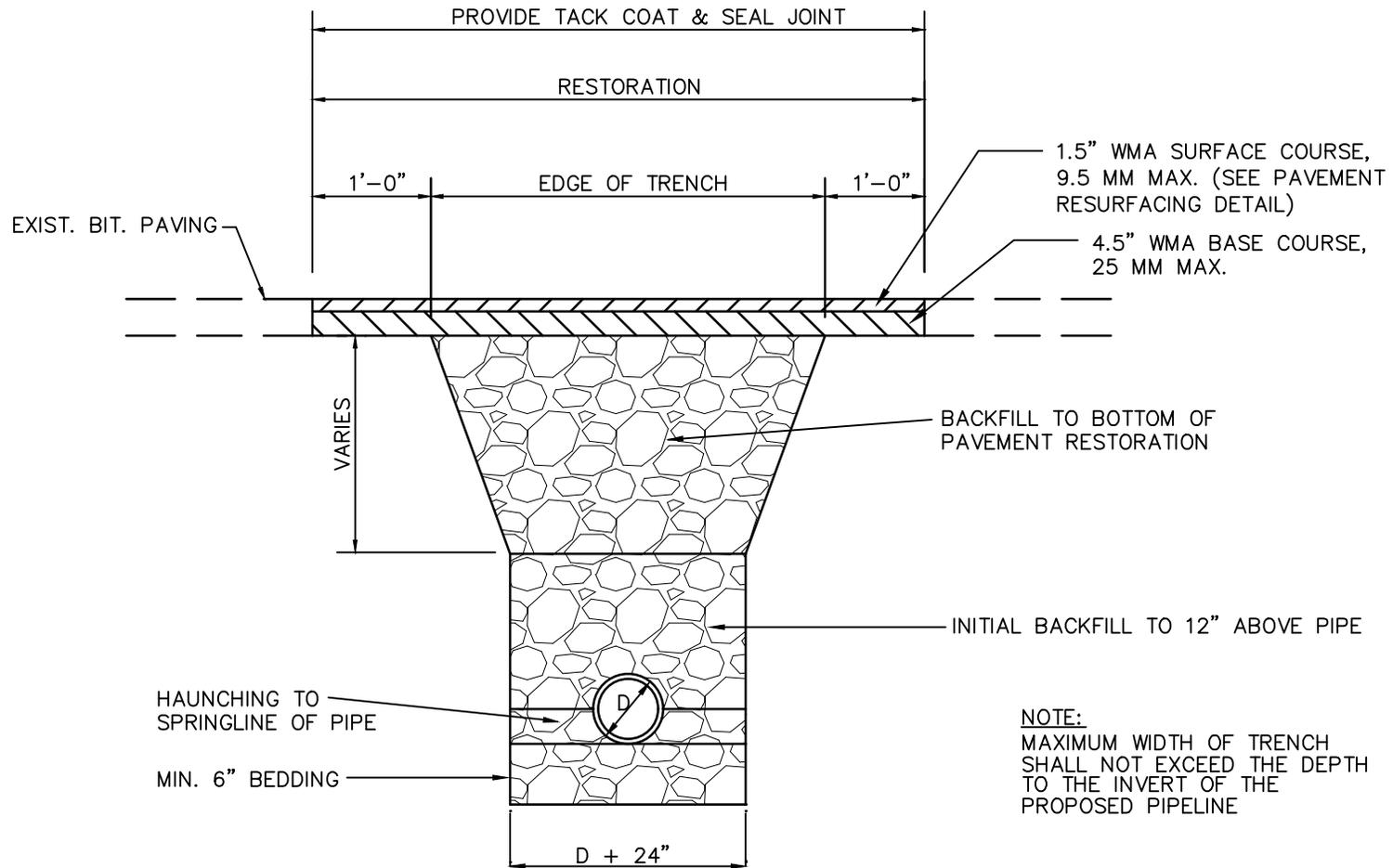
UTILITY MAIN TRENCH RESTORATION (PERPENDICULAR TO ROADWAY)

N.T.S.

NOTE:

1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE WIDTH OF TRENCH.
2. 3/4H:1V (MAX SLOPE) FOR TRENCHES UP TO 8 FEET IN DEPTH.
3. TRENCHES IN EXCESS OF 8 FEET DEEP SHALL BE SLOPED OR STEPPED PER OSHA STANDARDS.
4. RESTORATIONS ON STATE HIGHWAYS REQUIRE PENNDOT APPROVAL.
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6. UTILITY PATCHES WITHIN FIVE (5) FEET OF OTHER UTILITY PATCHES SHALL BE JOINED IN ORDER TO LIMIT THE NUMBER OF JOINTS IN THE PAVEMENT. THE PAVEMENT INTERFACE WITH THE CURB IS CONSIDERED A JOINT. PATCHES WITHIN FIVE (5) OF THE CURB SHALL BE EXTENDED TO THE CURB.

G12
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

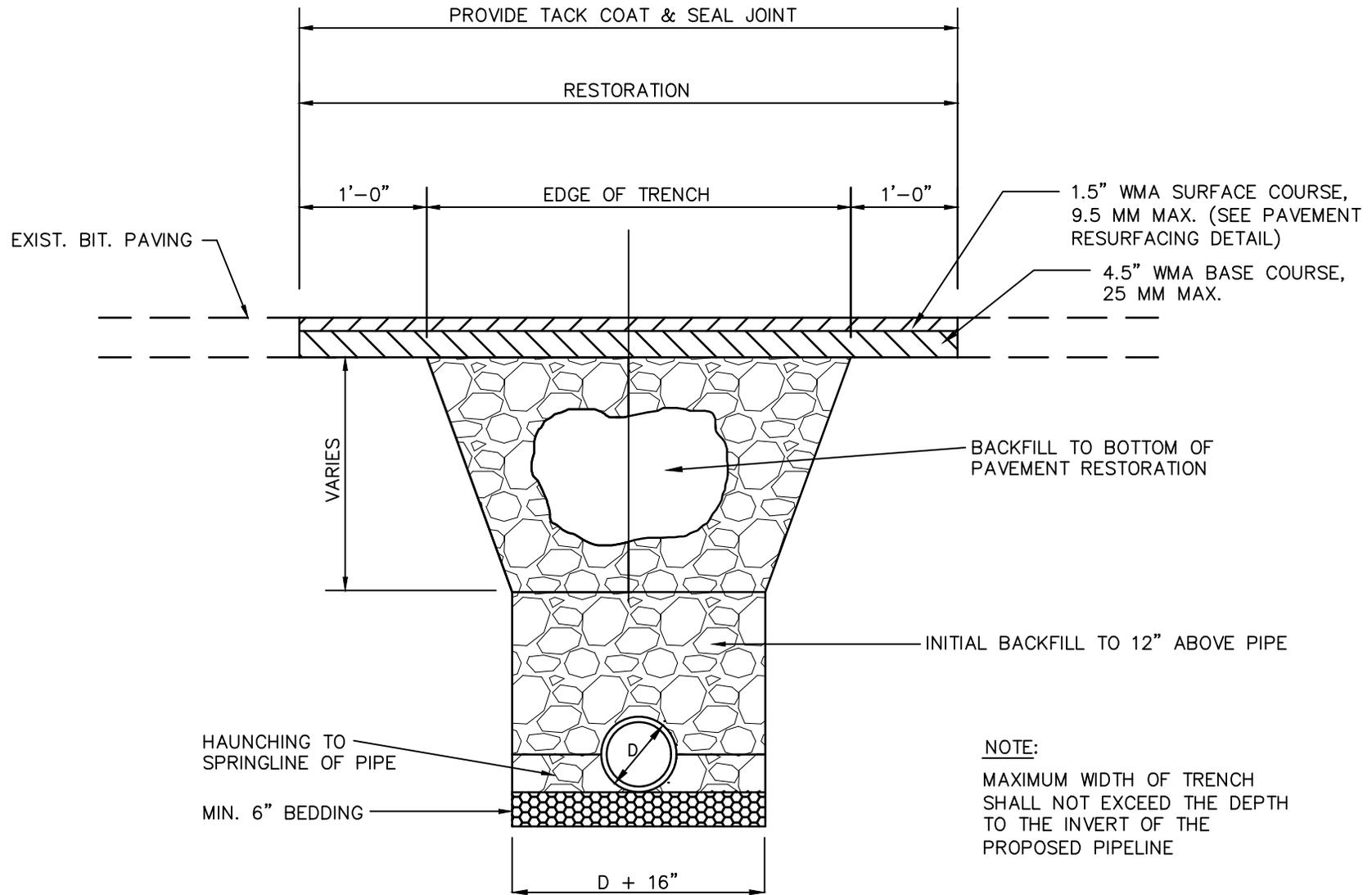


1. BEDDING, HAUNCHING AND INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR PENNDOT NO. 2B AGGREGATE.
2. BACKFILL SHALL BE PENNDOT NO. 2A OR NO. 2RC IN PAVED OR GRAVEL AREAS. SELECT BACKFILL MAY BE USED IN GRASS AREAS.
3. BACKFILL SHALL BE PLACED AND COMPACTED IN 12" LIFTS.

UTILITY MAIN TRENCH RESTORATION FOR P.V.C. & H.D.P.E. PIPE (PARALLEL TO ROADWAY)

NOT TO SCALE

G13
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

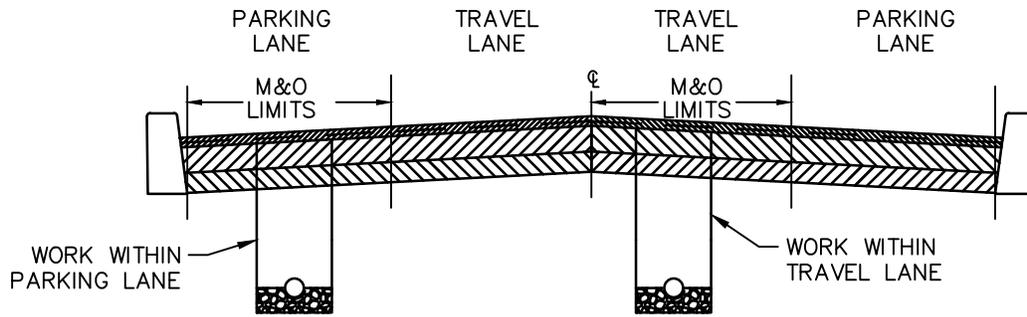


UTILITY MAIN TRENCH RESTORATION FOR D.I. PIPE (PARALLEL TO ROADWAY)

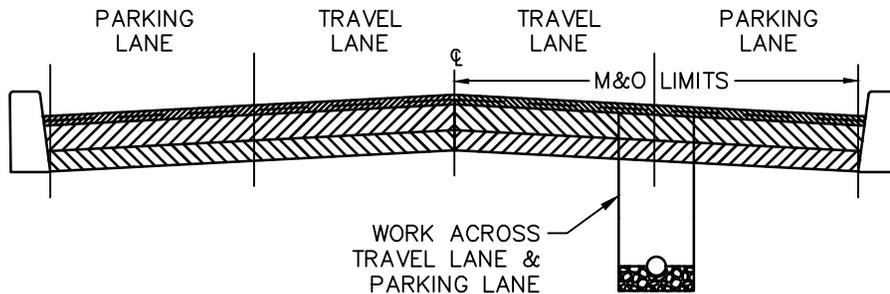
NOT TO SCALE

1. BEDDING AND HAUNCHING SHALL BE AASHTO NO. 57 OR PENNDOT NO. 2B AGGREGATE.
2. INITIAL BACKFILL AND BACKFILL SHALL BE PENNDOT NO. 2A OR NO. 2RC IN PAVED OR GRAVEL AREAS. SELECT BACKFILL MAY BE USED IN GRASS AREAS.
3. BACKFILL SHALL BE PLACED AND COMPACTED IN 12" LIFTS.

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CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



WORK IN PARKING LANE, TRAVEL LANE OR ORIGINAL PAVING PASS
N.T.S.



WORK AFFECTING 2 LANES OR ORIGINAL PAVING PASSES
N.T.S.

NOTES:

1. THE AREA OF PAVEMENT RESURFACING WORK (ALSO "MILL & OVERLAY" OR "M&O") SHALL INCLUDE THE FULL WIDTH OF THE PARKING LANE, TRAVEL LANE OR ORIGINAL PAVING PASS IN WHICH THE OPENING OR EXCAVATION WORK FALLS. IF THE WORK FALLS ACROSS MULTIPLE TRAVEL LANES, PARKING LANES OR PAVING PASSES, OR ANY COMBINATION THEREOF, THE PAVEMENT RESURFACING SHALL INCLUDE THE FULL WIDTH OF ALL AFFECTED LANES AND PAVING PASSES.
2. PAVEMENT RESURFACING SHALL INCLUDE MILLING THE EXISTING BITUMINOUS CONCRETE PAVEMENT TO 1.5" DEPTH, PERFORMING ANY NECESSARY BASE REPAIRS, AND INSTALLING A NEW 1.5" THICK SURFACE COURSE LAYER OF PAVEMENT (WMA SURFACE COURSE, PG 64S-22, 9.5 MM).
3. AFTER MILLING, THE EXPOSED SURFACE SHALL BE TEST ROLLED WITH A FULLY LOADED DUMP TRUCK TO IDENTIFY AREAS REQUIRING BASE REPAIRS. THE TEST ROLL SHALL BE WITNESSED BY THE BOROUGH.
4. PRIOR TO INSTALLING THE SURFACE COURSE PAVEMENT, THE EXISTING MILLED SURFACE SHALL BE SWEEPED, ALL VERTICAL SURFACES (CURBS, STRUCTURES, ETC.) SHALL BE PAINTED WITH BITUMINOUS MATERIAL (CLASS E-6, E-8, OR AE-T) AND A BITUMINOUS TACK COAT (CLASS AE-T) SHALL BE APPLIED TO THE EXISTING MILLED SURFACE.
5. WHEREVER THE LIMITS OF A PAVEMENT RESURFACING AREA ARE WITHIN 50 FEET OF ANOTHER SUCH AREA, PAVEMENT RESURFACING SHALL BE EXTENDED CONTINUOUSLY BETWEEN THE AREAS.
6. THE EXACT LIMITS OF PAVEMENT RESURFACING SHALL BE DETERMINED IN THE FIELD BY THE BOROUGH. THE BOROUGH RESERVES THE RIGHT TO ADJUST THE PAVING LIMITS IN ORDER TO MATCH SEAMS FROM PRIOR PAVING WORK OR OTHERWISE TO PRESERVE THE INTEGRITY OF THE ROAD TO THE GREATEST EXTENT PRACTICAL.

PAVEMENT RESURFACING

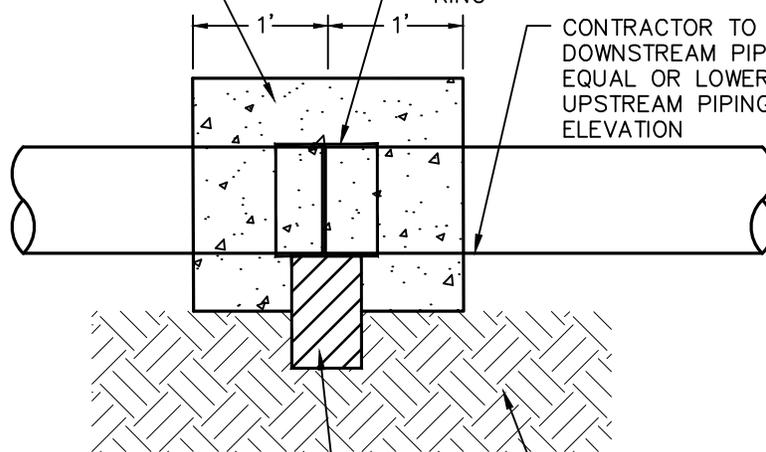
N.T.S.

**G15
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**

6" CONCRETE ENCASEMENT
AROUND ALL SIDES

FERNCO OR EQUAL, COUPLING
WITH STAINLESS STEEL SHEER
RING

CONTRACTOR TO INSURE
DOWNSTREAM PIPING INVERT IS
EQUAL OR LOWER THAN
UPSTREAM PIPING INVERT
ELEVATION



COMPACTED SUBGRADE

PROVIDE BRICK OR
CEMENT BLOCK (TYP.)

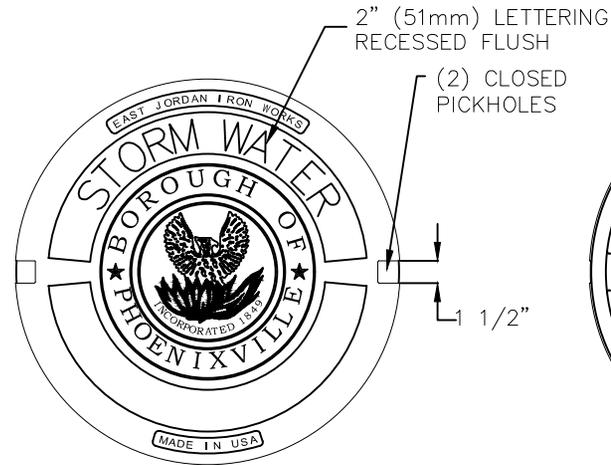
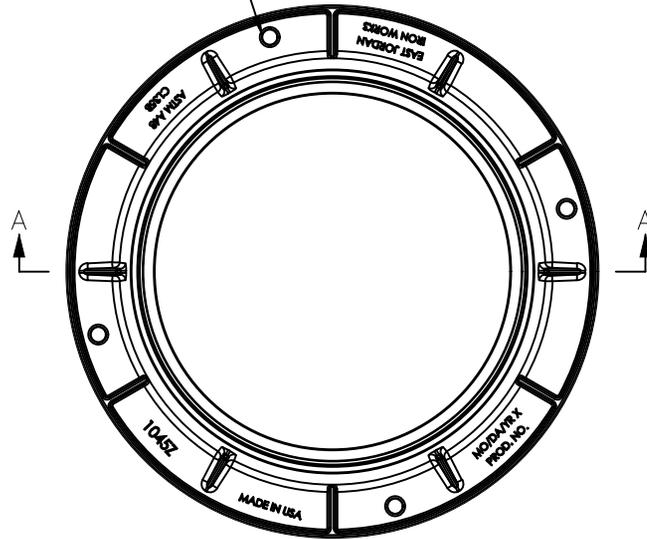
PIPE COUPLING

N.T.S.

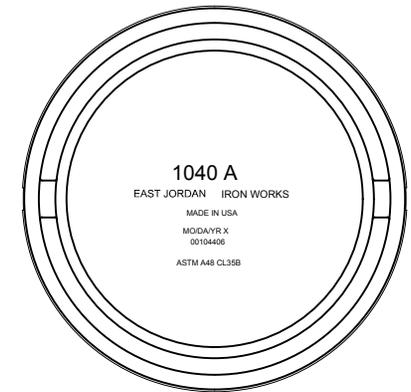
NOTES:

1. STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
2. STANDARD MANHOLE FRAME & COVER SHALL BE BRIDGESTATE PATTERN #1012B, OR APPROVED EQUAL, WITH FOUR (4) MCGUARD BOLTS
3. "FLOW-SEAL" MANHOLE COVERS SHALL BE USED ON MANHOLES LOCATED WITHIN EASEMENTS, IN UNPAVED AREAS, & OUTSIDE OF THE CENTERLINE OF PAVED ROADS.
4. ALL MANHOLE FRAME & COVERS SHALL BE MADE IN THE U.S.A.

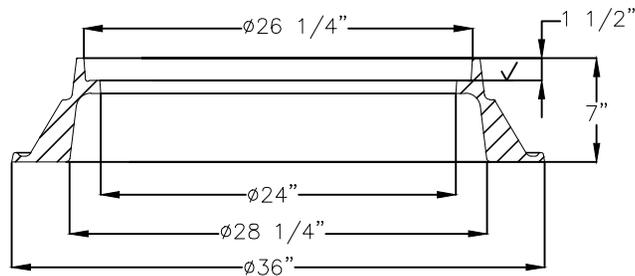
(4) $\phi 1$ BOLT HOLES
EQUALLY SPACED ON A
 $\phi 32 \frac{3}{4}$ " BOLT CIRCLE



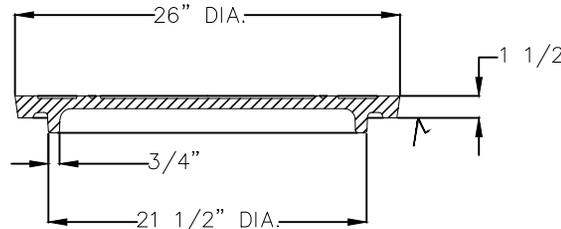
PLAN VIEW



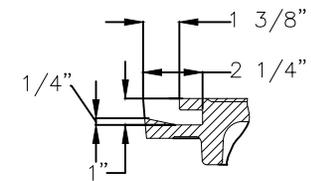
BOTTOM VIEW



FRAME SECTION A-A



COVER SECTION

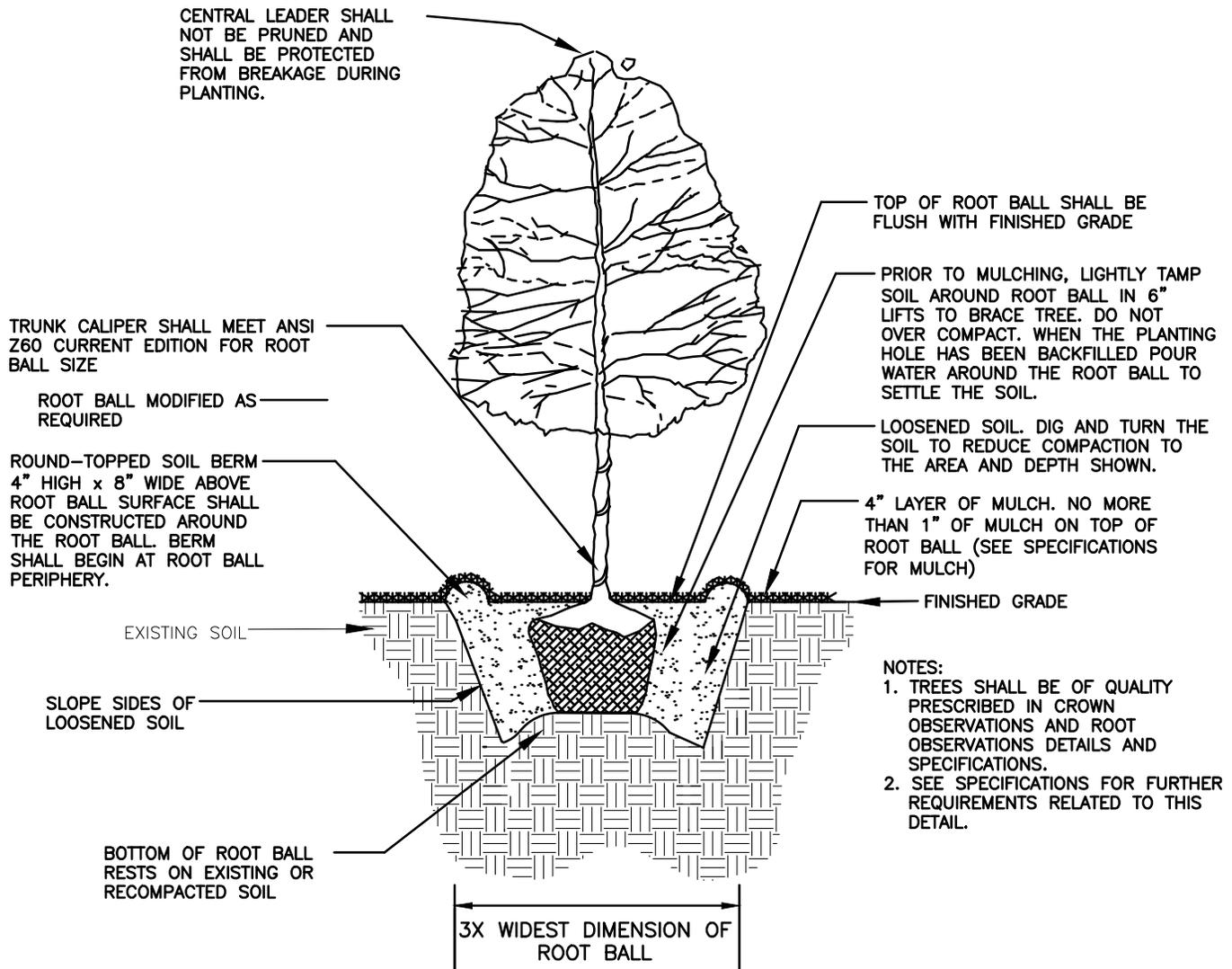


PICKHOLE DETAIL

STORM MANHOLE FRAME AND COVER

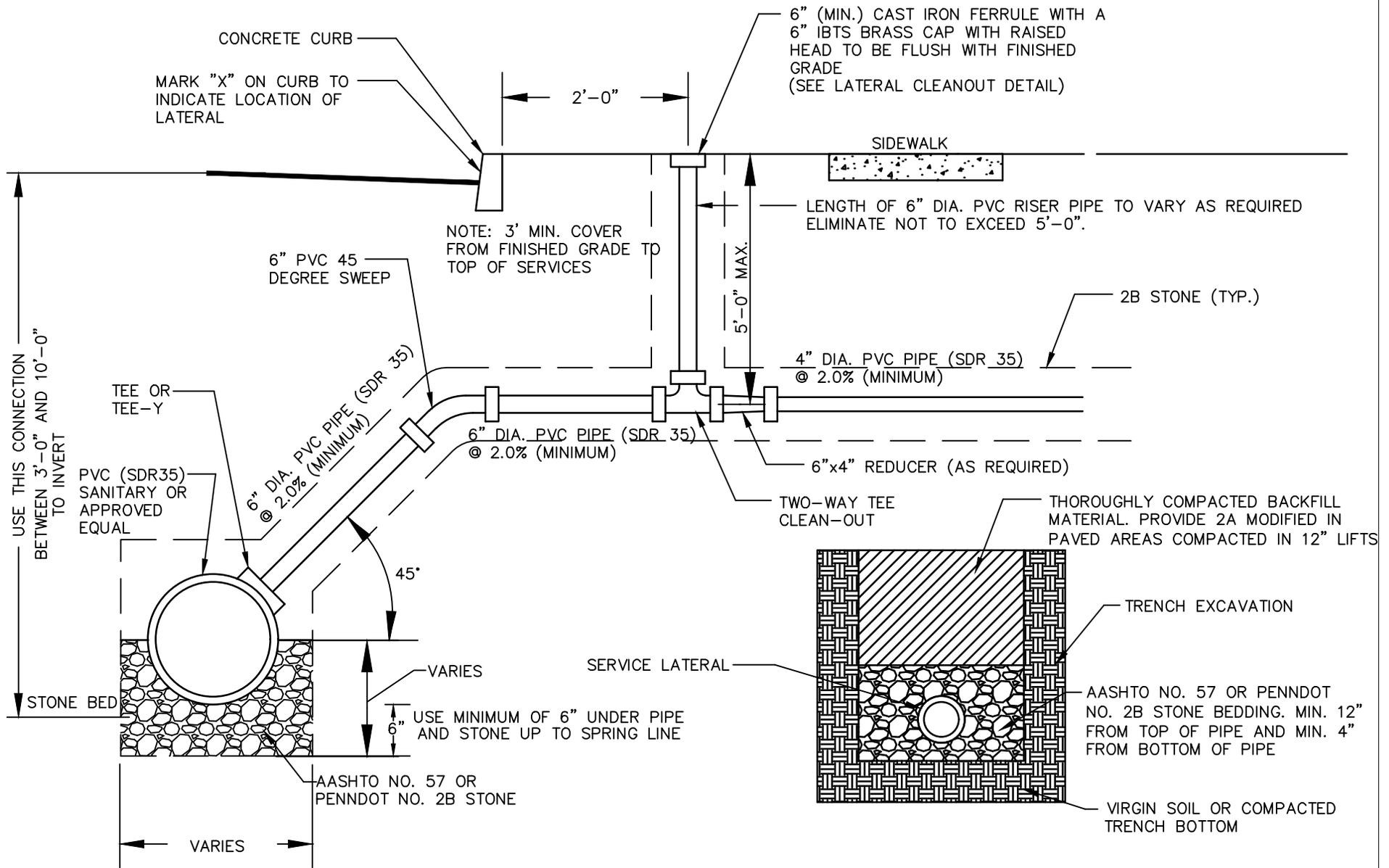
NOT TO SCALE

**G17
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



TREE WITH BERM (EXISTING SOIL NOT MODIFIED)

N.T.S.



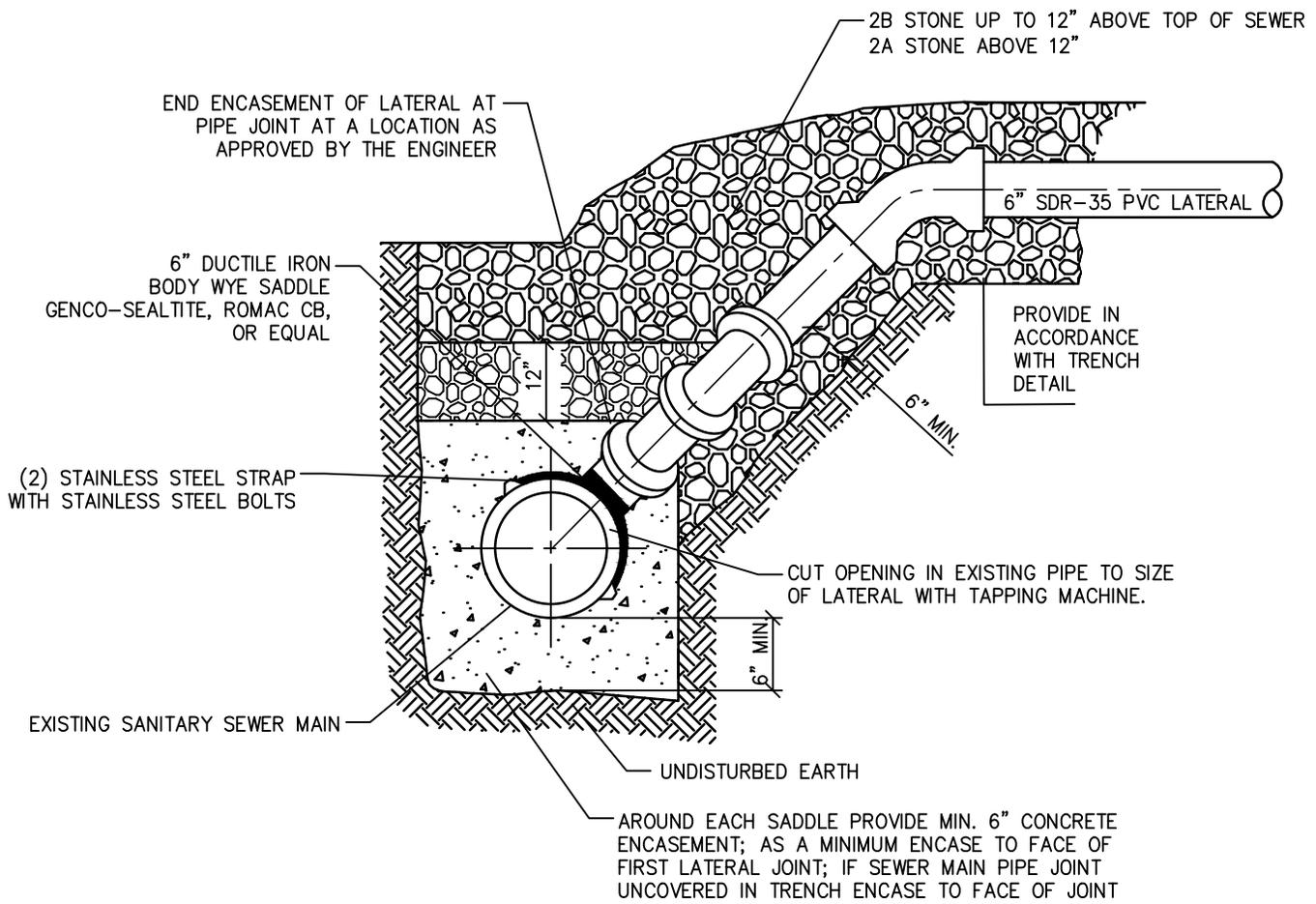
NOTE: LATERALS MAY BE SDR35 OR SCH40 PVC IN ACCORDANCE WITH THE BOROUGH PLUMBING CODE

SANITARY LATERAL

3' TO 10' DEPTH

N.T.S.

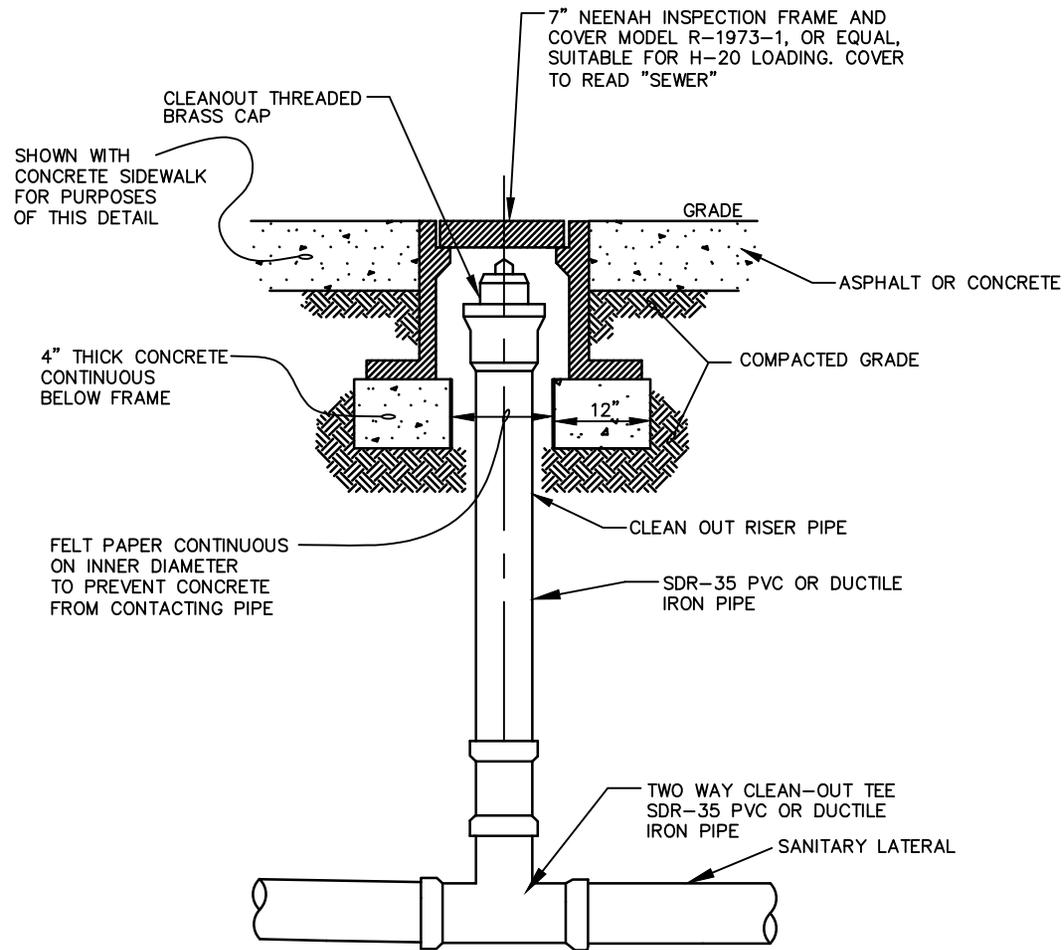
S1
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



NOTE: FOR REMAINING DETAILS FOR LATERAL CONSTRUCTION, SEE TYPICAL LATERAL DETAIL.

SANITARY LATERAL CONNECTION TO EXISTING SANITARY SEWER MAIN

NTS

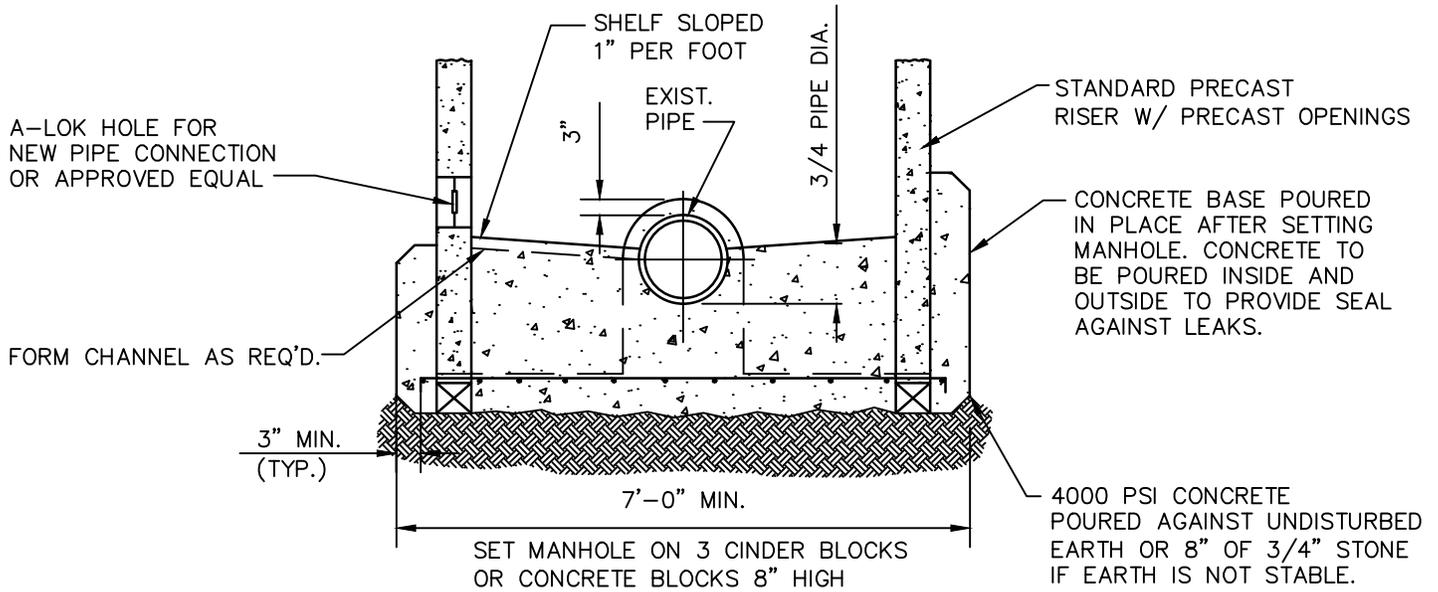
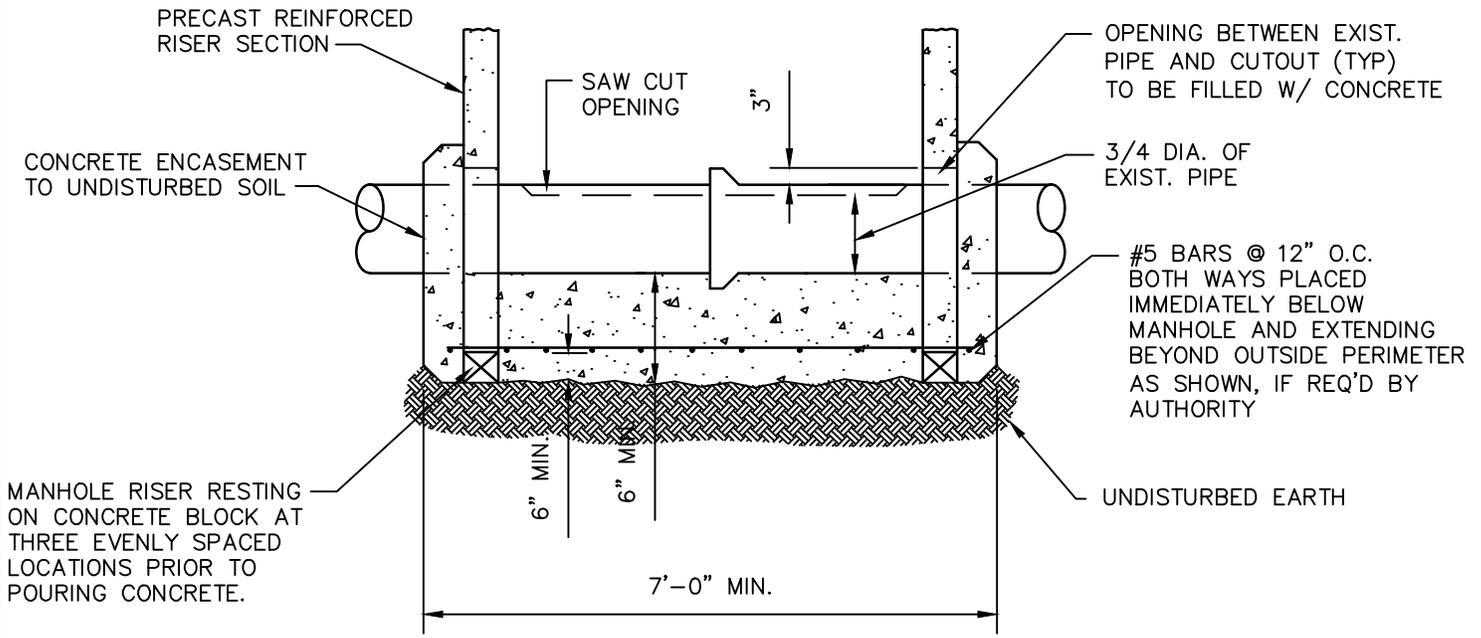


NOTE: FOR CLEANOUTS IN GRASSED AREAS, TERMINATE VERTICAL PIPE AT GRADE LEVEL AND PROVIDE THREADED CAP.

SANITARY LATERAL CLEANOUT IN PAVED AREAS

N.T.S.

S3
 CONSTRUCTION DETAILS
 BOROUGH OF PHOENIXVILLE
 CHESTER COUNTY, PENNSYLVANIA

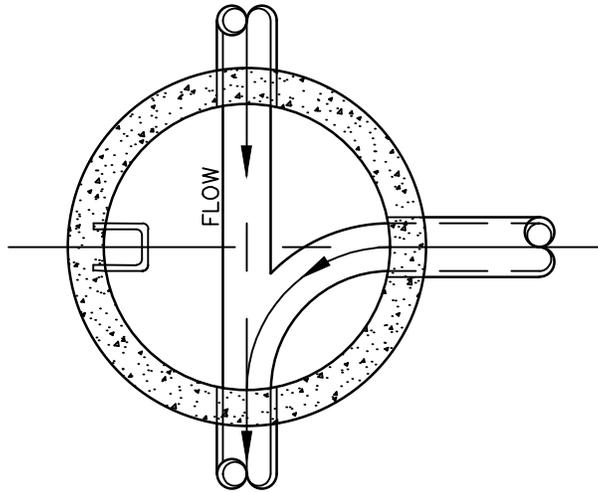


- NOTES:**
1. EXISTING PIPE TO REMAIN UNTIL SATISFACTORY COMPLETION OF MANHOLE.
 2. REMOVE CROWN OF EXISTING PIPE FLUSH WITH CONCRETE SHELF.

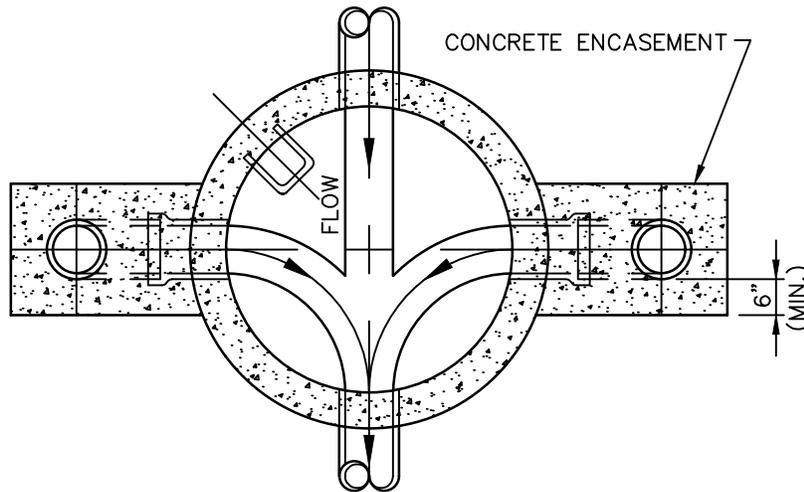
DOGHOUSE SANITARY MANHOLE

N.T.S.

S4
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



SECTIONAL PLAN – STANDARD MANHOLE

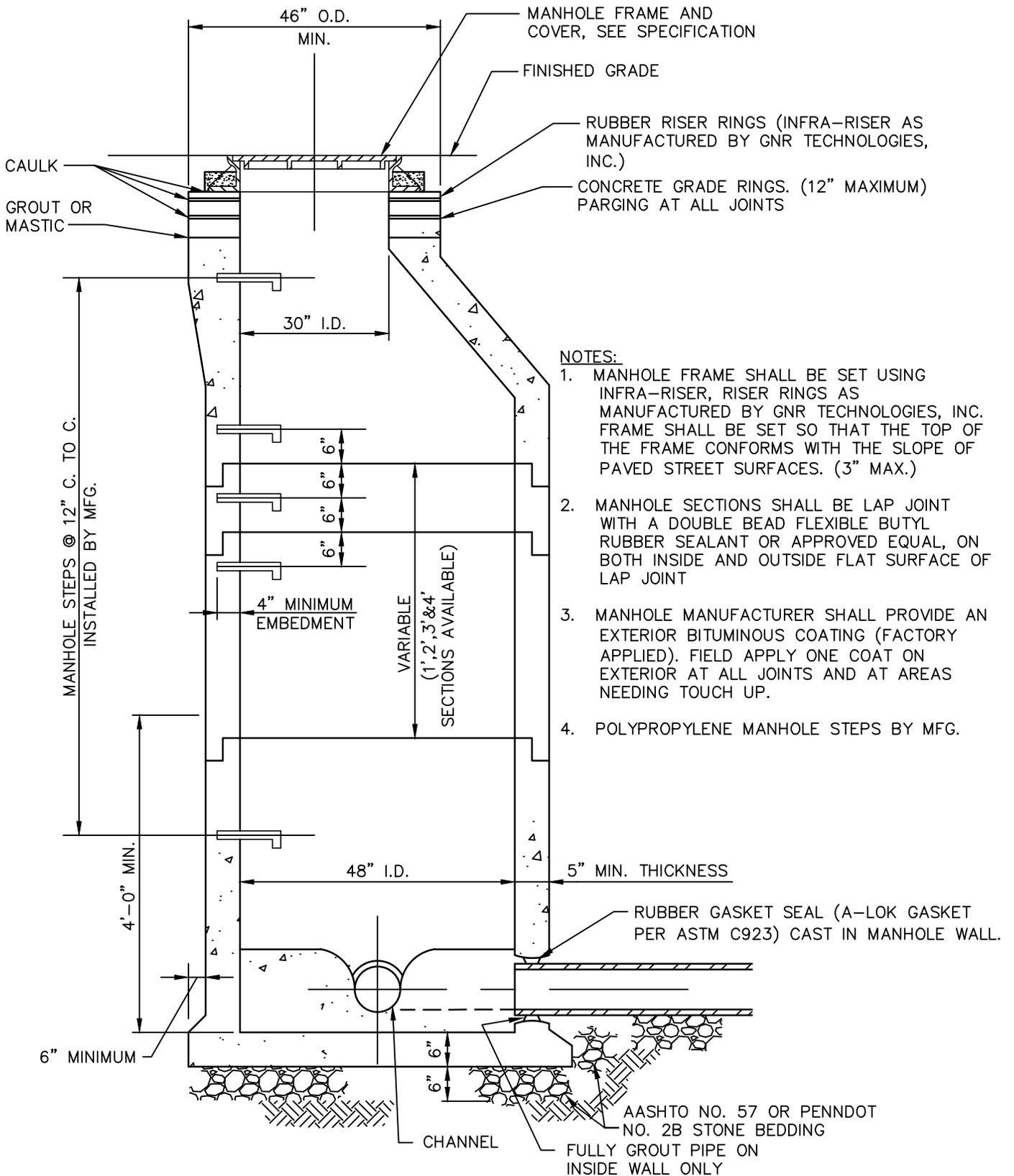


NOTE: MANHOLE INVERTS OR CHANNELS TO BE PRECAST OR FORMED IN BASE, BY THE INSTALLATION OF CHANNEL PIPE AND FITTINGS, CHANGES IN SIZE, GRADE, AND DIRECTION TO BE MADE SMOOTHLY AND EVENLY WITH AS LARGE OF A RADIUS AS POSSIBLE.

SECTIONAL PLAN – DROP MANHOLE

CHANNELS FOR SANITARY MANHOLES

NOT TO SCALE



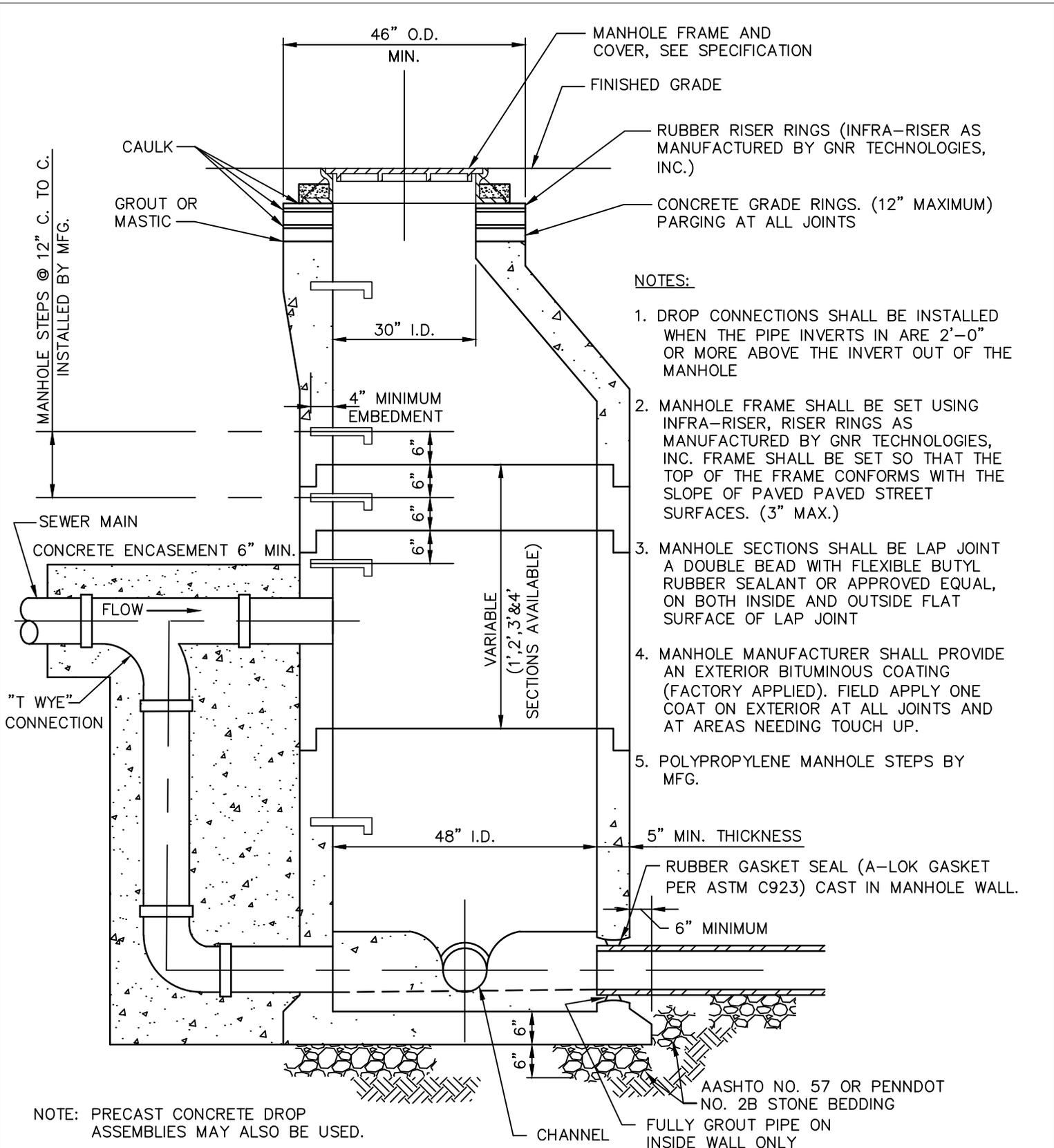
NOTES:

1. MANHOLE FRAME SHALL BE SET USING INFRA-RISER, RISER RINGS AS MANUFACTURED BY GNR TECHNOLOGIES, INC. FRAME SHALL BE SET SO THAT THE TOP OF THE FRAME CONFORMS WITH THE SLOPE OF PAVED STREET SURFACES. (3" MAX.)
2. MANHOLE SECTIONS SHALL BE LAP JOINT WITH A DOUBLE BEAD FLEXIBLE BUTYL RUBBER SEALANT OR APPROVED EQUAL, ON BOTH INSIDE AND OUTSIDE FLAT SURFACE OF LAP JOINT
3. MANHOLE MANUFACTURER SHALL PROVIDE AN EXTERIOR BITUMINOUS COATING (FACTORY APPLIED). FIELD APPLY ONE COAT ON EXTERIOR AT ALL JOINTS AND AT AREAS NEEDING TOUCH UP.
4. POLYPROPYLENE MANHOLE STEPS BY MFG.

SANITARY MANHOLE

N.T.S.

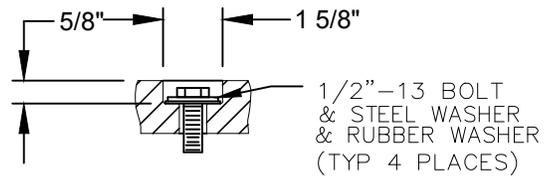
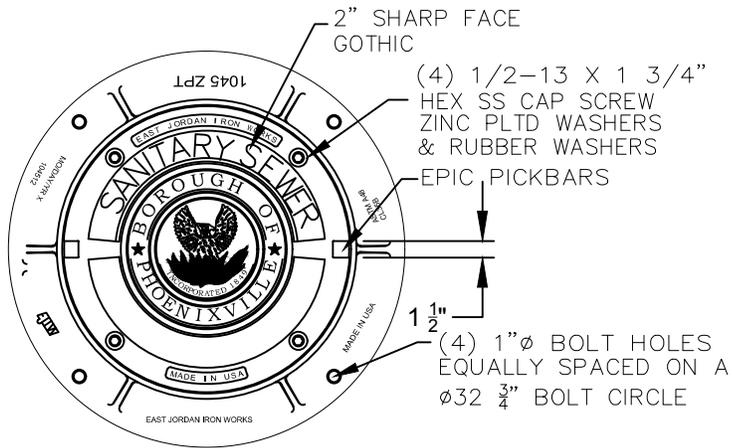
**S6
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



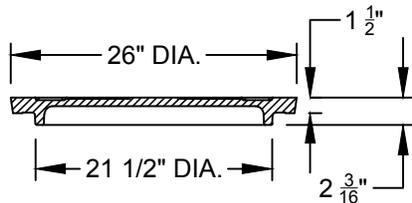
DROP SANITARY MANHOLE

N.T.S.

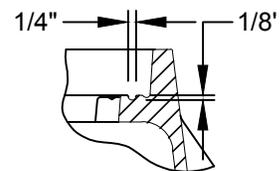
S7
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



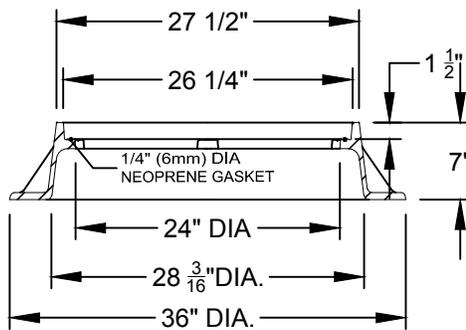
BOLT DETAIL



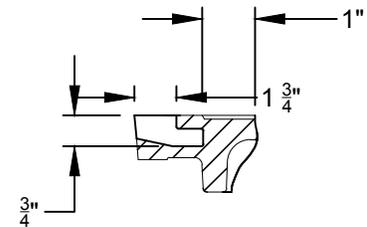
COVER SECTION



GROOVE DETAIL



FRAME SECTION

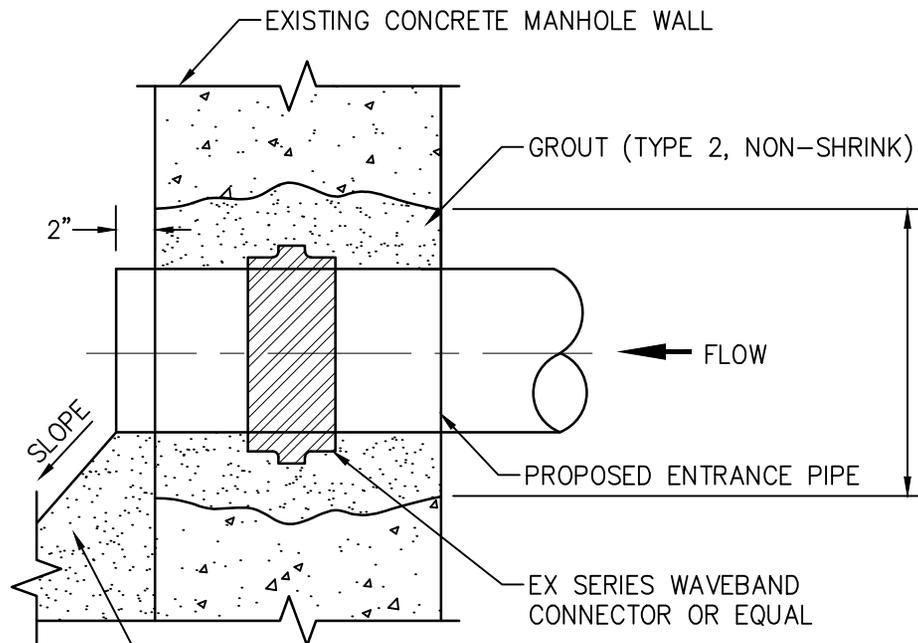


EPIC DETAIL

SANITARY MANHOLE FRAME AND COVER

N.T.S.

S8
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



MARK A CIRCLE 3 INCHES LARGE IN DIAMETER THAN THE MANHOLE ADAPTER. ON THIS CIRCLE DRILL ONE DIAMETER OR LARGER HOLES A MAXIMUM OF 3 INCHES APART CIRCUMFERENTIALLY CENTER TO CENTER. KNOCKOUT CIRCLE WITHOUT STRUCTURALLY AFFECTING REMAINDER OF MANHOLE.

NOTES:

1. DO NOT INSTALL IN TEMPERATURES BELOW 35°F.
2. MANHOLE SHALL NOT BE BACKFILLED AND SHALL BE KEPT DRY UNTIL GROUT CURE PERIOD HAS BEEN ACHIEVED.

PROVIDE CHanneled SLOPE TO EXISTING CHANNEL USING TYPE 2, NON-SHRINK GROUT

PIPE INSTALLATION NOTES:

1. MAKE SURE SEALING ARE OF PIPE IS SMOOTH AND FREE OF DEFECTS. REPAIR IF NEEDED.
2. CENTER PIPE IN CONNECTOR OPENING. (PIPE MUST NOT REST ON CONNECTOR KORBAND).
3. POSITION THE PIPE CLAMP IN THE CONNECTOR'S PIPE CLAMP GROOVE WITH THE SCREW AT THE TOP.
4. TIGHTEN THE PIPE CLAMP SCREW TO 60 INCH POUNDS WITH A T-HANDLE TORQUE WRENCH, P/N 80090.

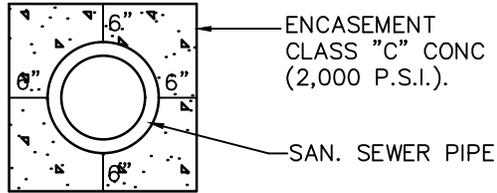
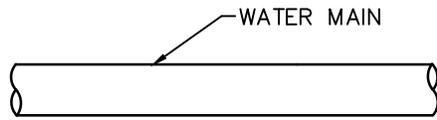
CONNECTOR INSTALLATION NOTES:

1. CHECK TO BE SURE THE EX SERIES WAVEBAND IS PROPERLY LOCATED IN CONNECTOR GROOVE.
2. INSPECT THE INSIDE SURFACE OF THE CORED/FORMED HOLE. IF THERE IS POROSITY OR WIRE-TO-CONCRETE SEPARATION, USE PATCHING OR HYDRAULIC CEMENT TO SMOOTH THE SURFACE.
3. INSERT CONNECTOR ASSEMBLY INTO HOLE WITH WEDGE EXPANDER AT TOP OF HOLE.
4. POSITION CONNECTOR SO IT IS SQUARE TO MANHOLE BOTH VERTICALLY AND HORIZONTALLY.
5. TIGHTEN WEDGE EXPANDER USING $\frac{1}{2}$ " SOCKET WRENCH TO 12 FOOT POUNDS.
6. RETORQUING PRIOR TO SHIPMENT IS RECOMMENDED BUT NOT REQUIRED.

CONNECTION TO EXISTING SANITARY MANHOLE

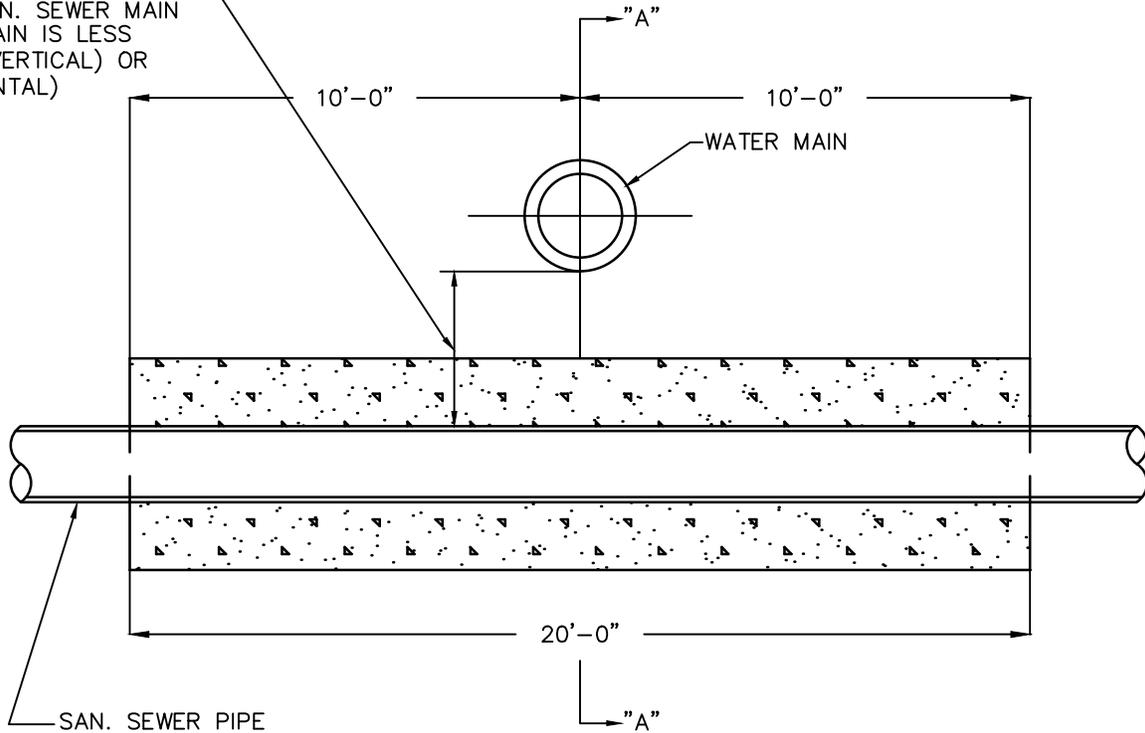
N.T.S.

**S9
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



SECTION "A-A"

CONCRETE ENCASEMENT
REQUIRED WHERE CLEARANCE
BETWEEN SAN. SEWER MAIN
& WATER MAIN IS LESS
THAN 18" (VERTICAL) OR
10' (HORIZONTAL)



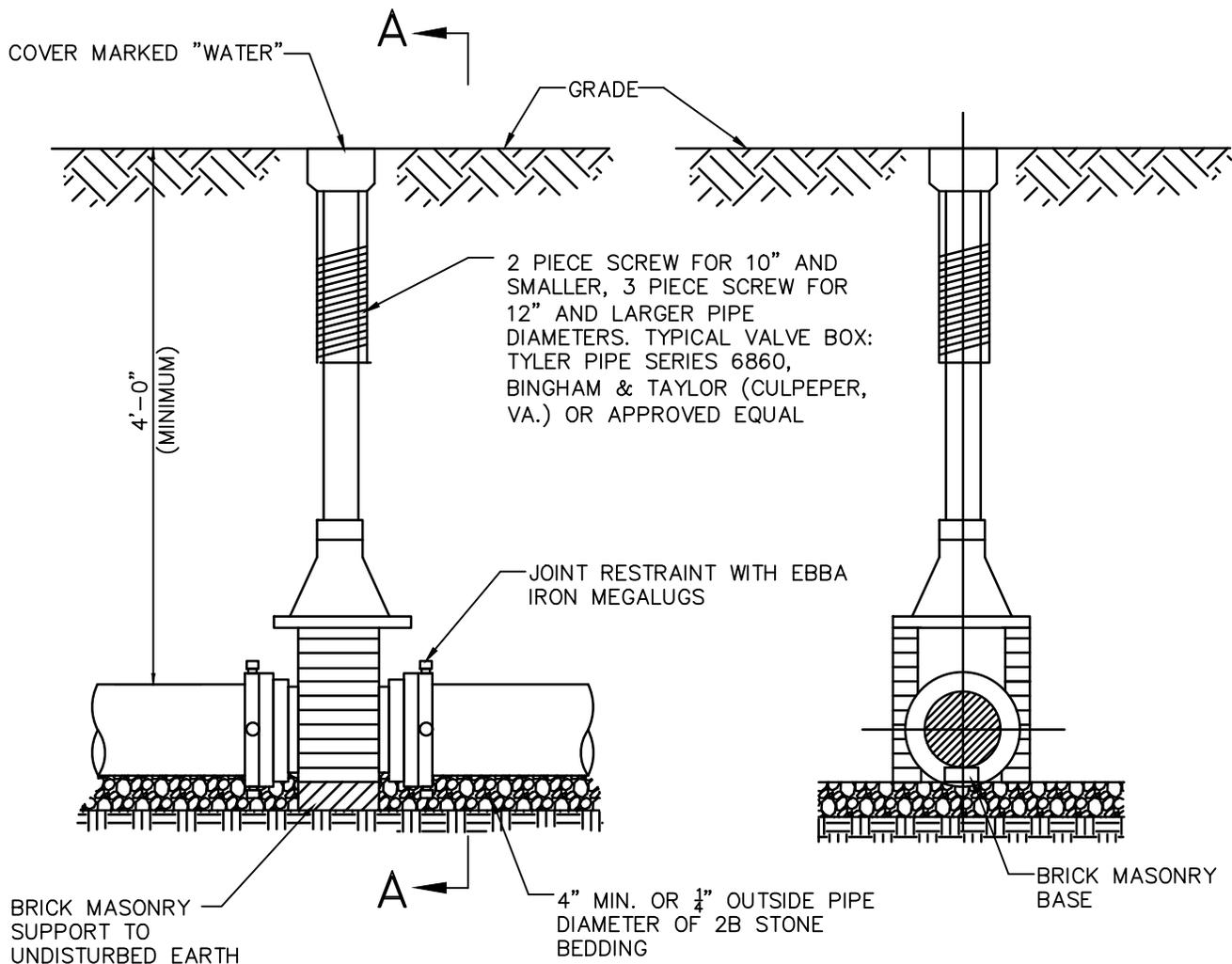
CONCRETE ENCASEMENT DETAIL

NOT TO SCALE

NOTES:

1. PROVIDE BRIDGING SUPPORT FOR WATER MAIN ON BOTH SIDES OF CROSSING TO AVOID POINT LOAD ON WATER MAIN.

W1
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

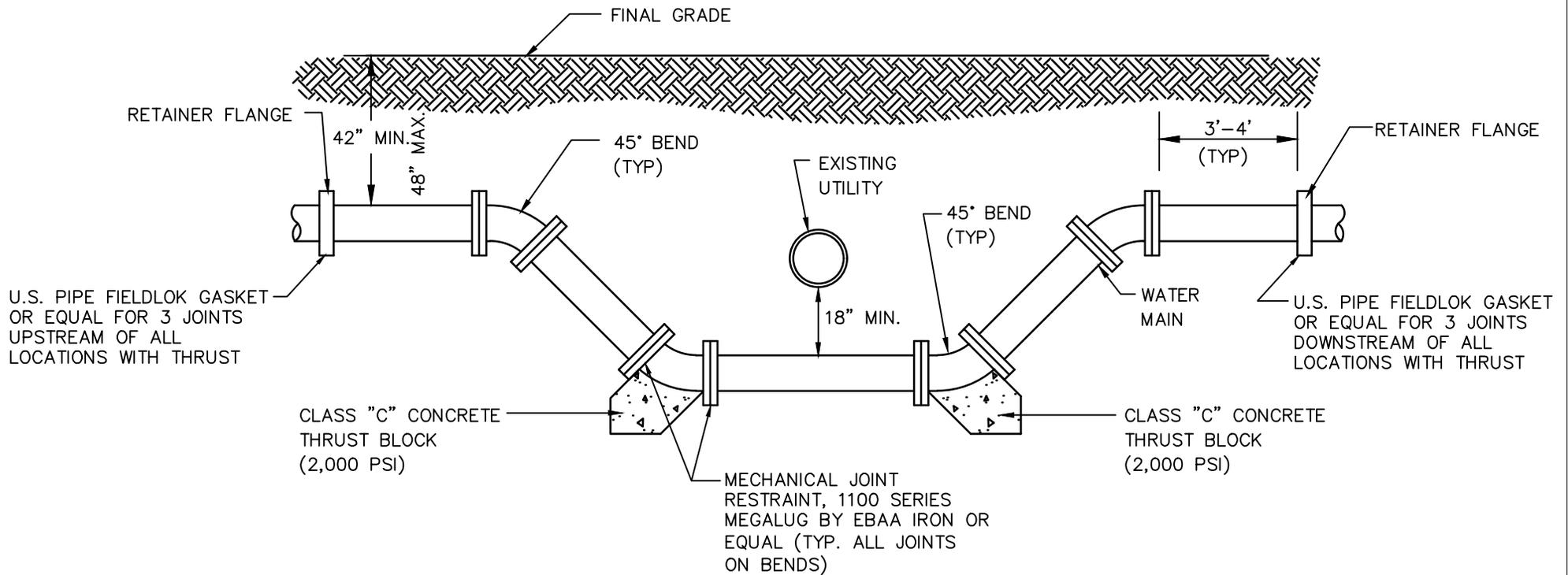


NOTES

1. ALL VALVES SHALL CONFORM TO AWWA C515 FOR RESILIENT SEATED GATE VALVES AS MANUFACTURED BY AMERICAN FLOW CONTROL OR APPROVED EQUAL.
2. VALVE BOX BASES TO BE:
 No. 4 DOME – VALVES 4" AND SMALLER
 No. 6 ROUND – 6" AND 8" VALVES
 No. 160 OVAL – 10" TO 24" VALVES
3. MECHANICAL JOINTS WITH JOINT RESTRAINT FOR ALL VALVES AND FITTINGS.

GATE VALVE
 NOT TO SCALE

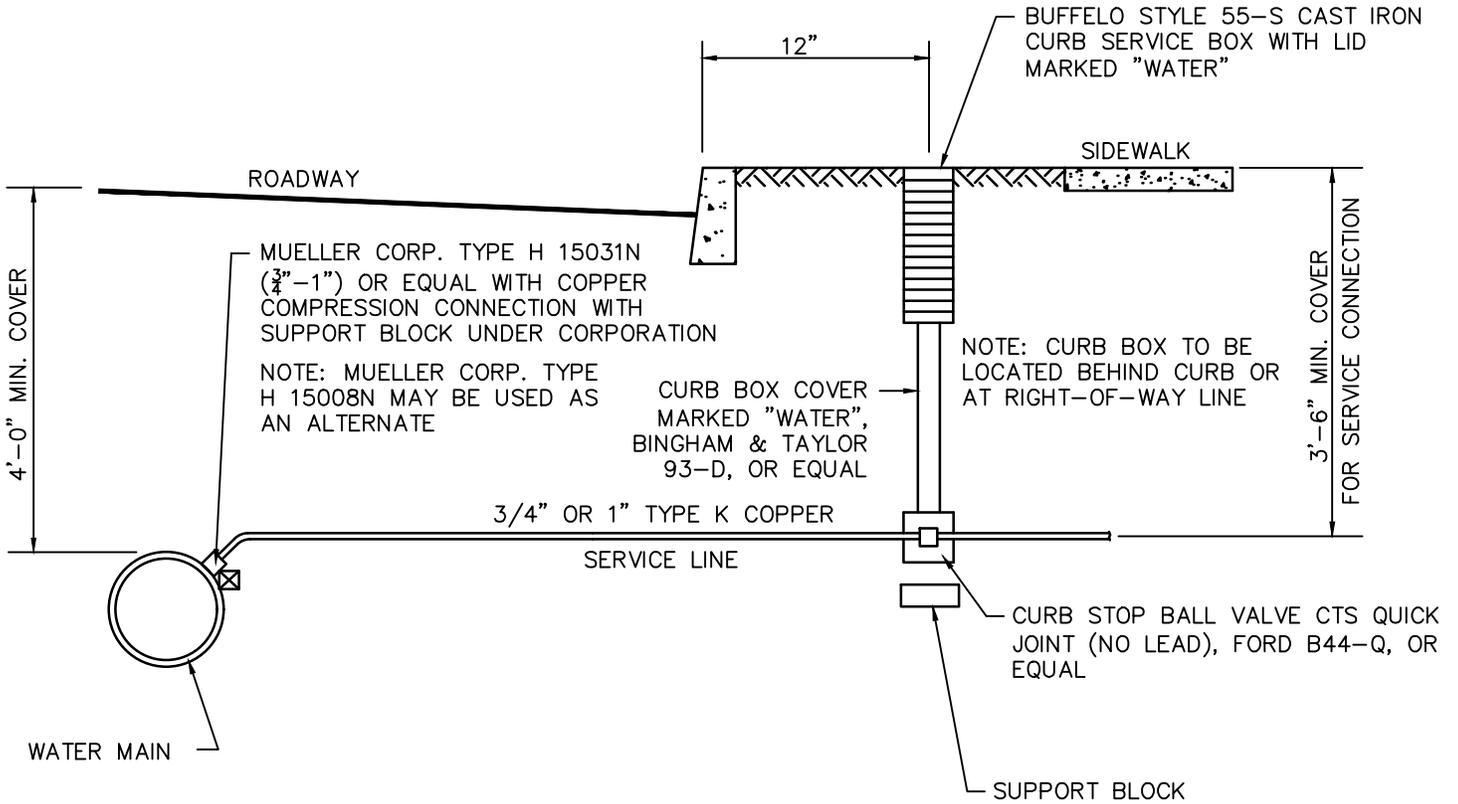
W2
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



WATER MAIN OFFSET DETAIL

N.T.S.

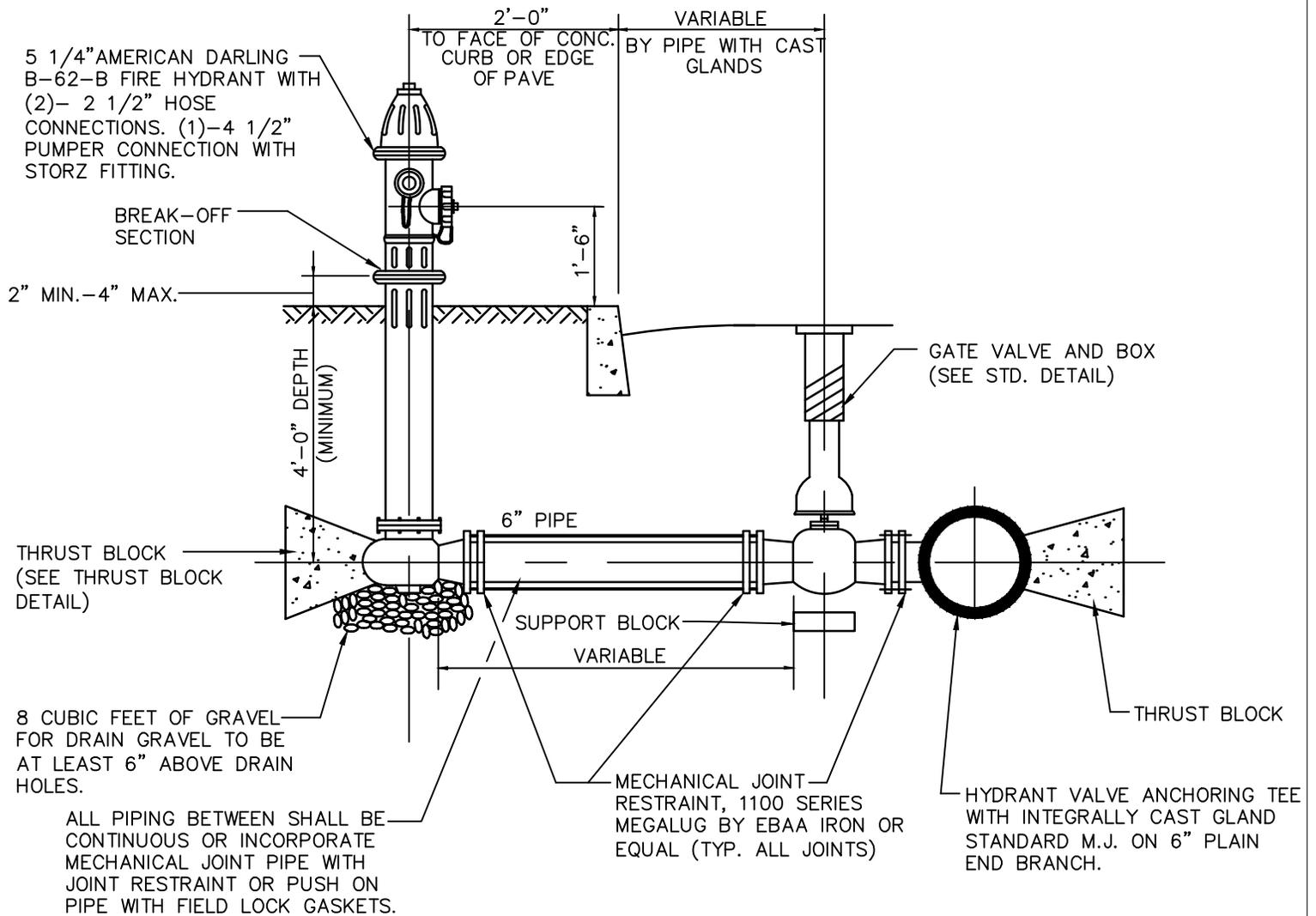
W3
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



3/4" & 1" WATER SERVICE CONNECTION

N. T. S.

W4
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



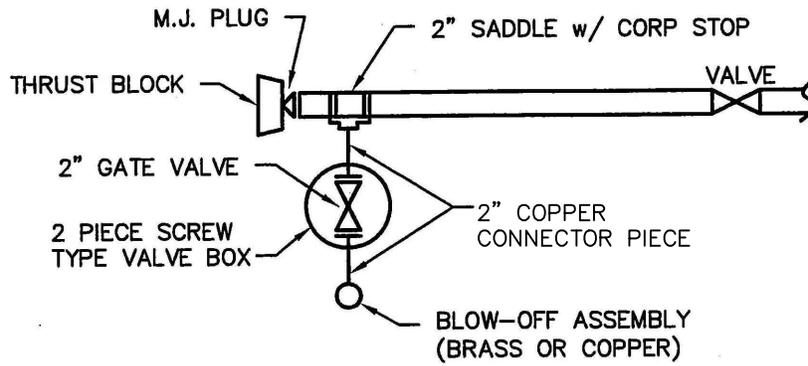
NOTES:

1. IF CURB IS NOT PRESENT THAN PROVIDE 3'x3'x4" CONCRETE PAD ON GRADE BUT BELOW BREAK AWAY FLANGE.
2. FIRE HYDRANT TO COMPLY WITH AWWA C502.
3. NOZZLE THREADS AND ADAPTORS SHALL COMPLY WITH MUNICIPAL AND FIRE DEPARTMENT REGULATIONS.

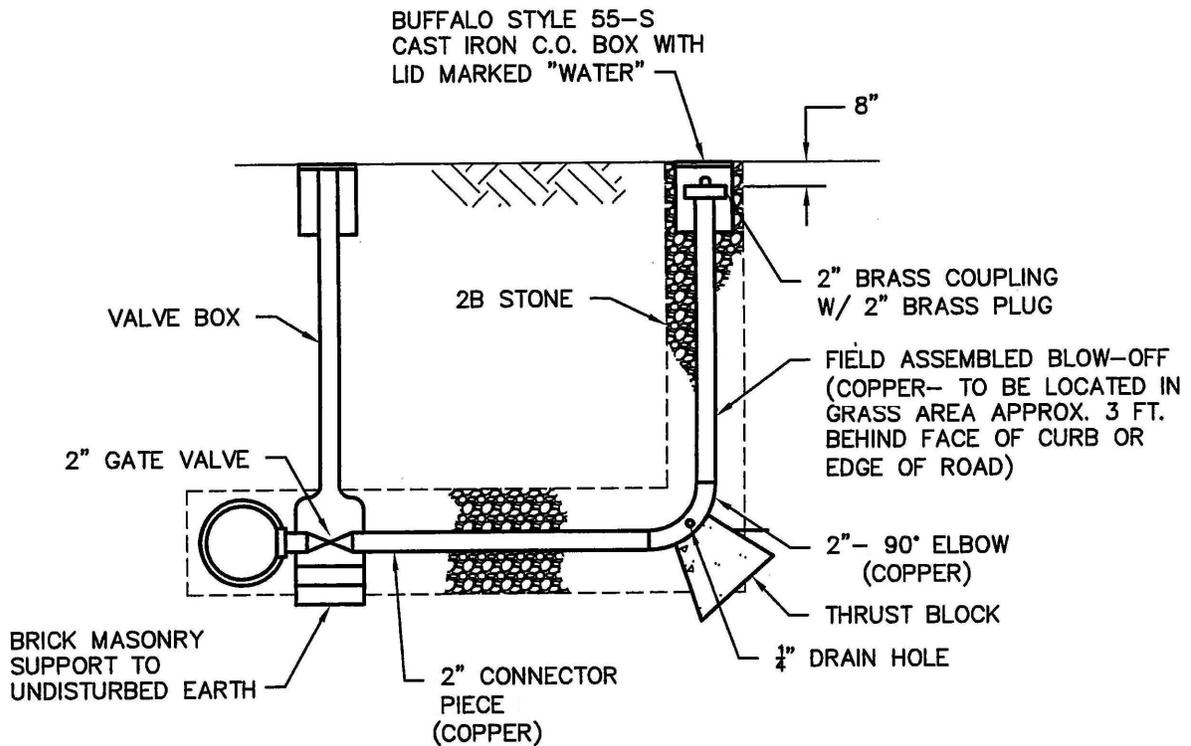
FIRE HYDRANT ASSEMBLY

NOT TO SCALE

**W5
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



PLAN



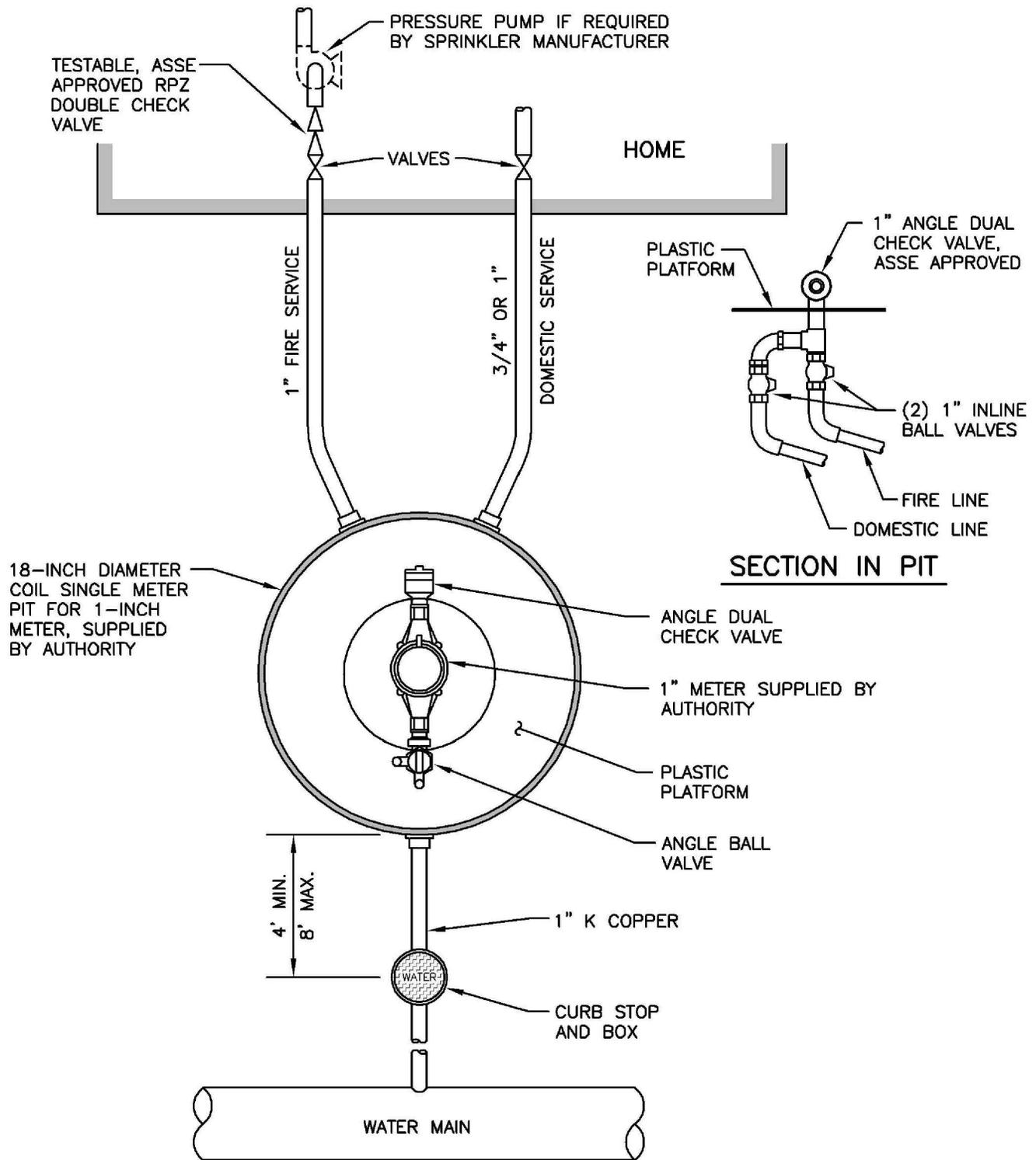
NOTE:
 WHERE COPPER IS USED - NO SWEAT JOINTS.
 BRASS FITTINGS MUST BE USED.

ELEVATION

END-OF-LINE BLOW-OFF

N.T.S.

W6
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



COMBINATION FIRE & DOMESTIC METER RESIDENTIAL INSTALLATION

NOT TO SCALE

W7
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

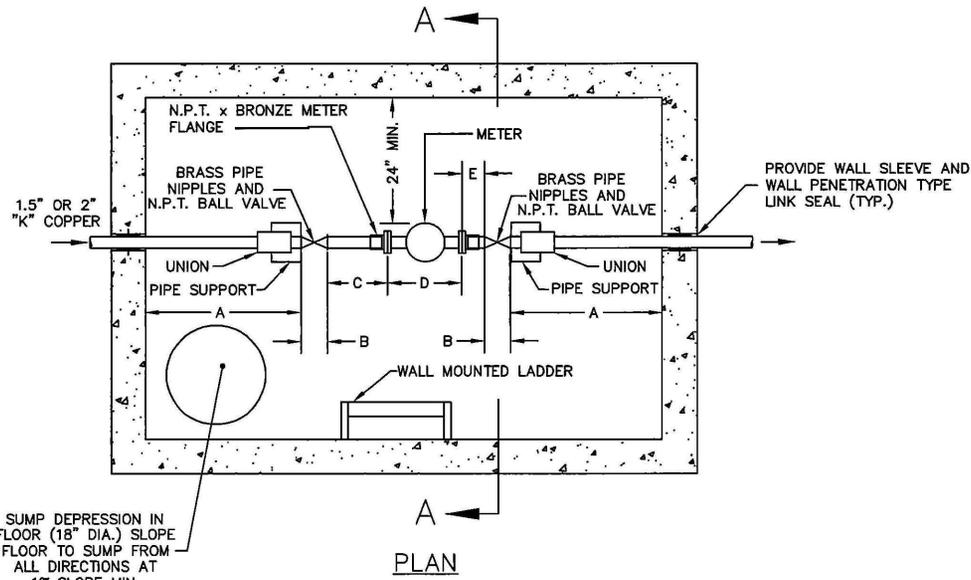
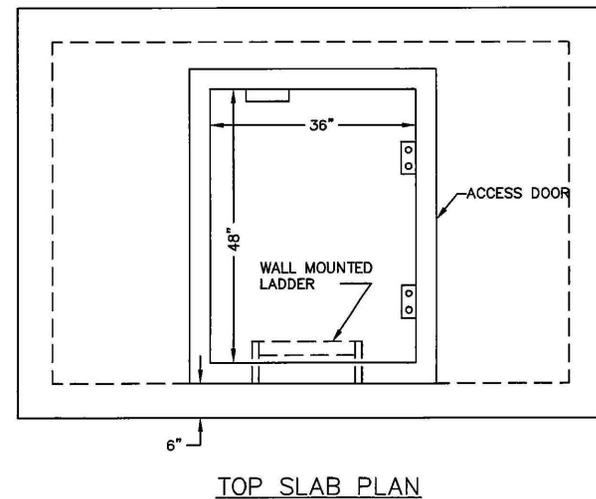
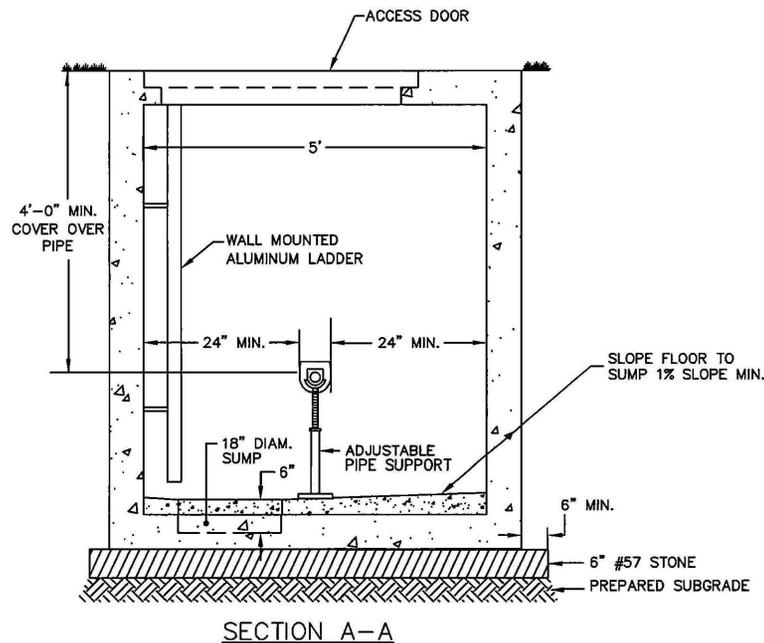


TABLE A-1
METER PIT DIMENSIONS

PIPE	A(2)	B(2)	C	D	E	TOTAL	VAULT SIZE (Inside Dim.) L. W. H.	ACCESS DOOR
1 1/2"	24" MIN.	4.5"	7.5"	13"	3"	6'-9"	7' x 5' x 6'	36" x 48"
2"	21" MIN.	5.5"	10"	17"	4"	7'-0"	7' x 5' x 6'	36" x 48"

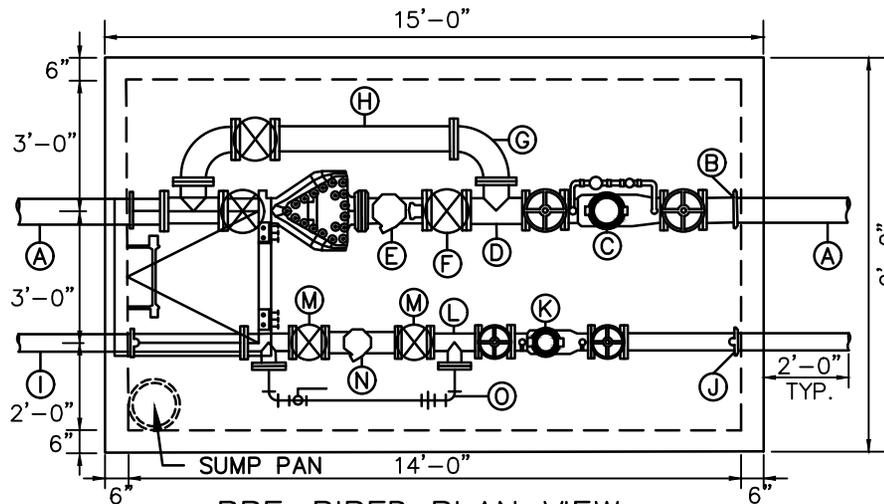
NOTES

- "A" DIMENSION IS A MIN. DISTANCE FROM VAULT WALL TO NEAREST FITTING (TYP.)
- "C" DIMENSION IS MIN. DISTANCE STRAIGHT PIPE BEFORE METER (5 PIPE DIAMETERS)
- ALL BRONZE BALL VALVES MUST BE SUPPLIED WITH MANUFACTURER'S HANDLE.
- ACCESS DOOR SHALL BE HALLIDAY SERIES W15 OR APPROVED EQUAL.
- SERVICE LINES TO BE K COPPER.
- FLOOR OF METER PIT SHALL BE SLOPED TOWARD SUMP DEPRESSION.
- SOLDERED JOINTS ARE NOT PERMITTED.
- DESIGN OF METER PIT SHALL BE UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER EXPERIENCED IN THE DESIGN OF THIS WORK AND LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA. THE DRAWINGS SHALL BEAR THE SEAL OF THE RESPONSIBLE ENGINEER. STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO HL-93 LOADING REQUIREMENTS.
- THE ENTIRE EXTERIOR SURFACE OF ALL PITS AND VAULTS SHALL BE COATED AT THE PLANT WITH A TWO PART EPOXY AT 3 TO 6 MILS PER COAT.
- THE ENTIRE INTERIOR SURFACE SHALL BE COATED AT THE PLANT WITH ONE PART WHITE EPOXY AT 4 TO 6 MILS PER COAT WITH 2 COATS.
- LOCATE ACCESS DOOR OVER LADDER AND WATER METER.
- COAT ALUMINUM IN CONTACT WITH CONCRETE.

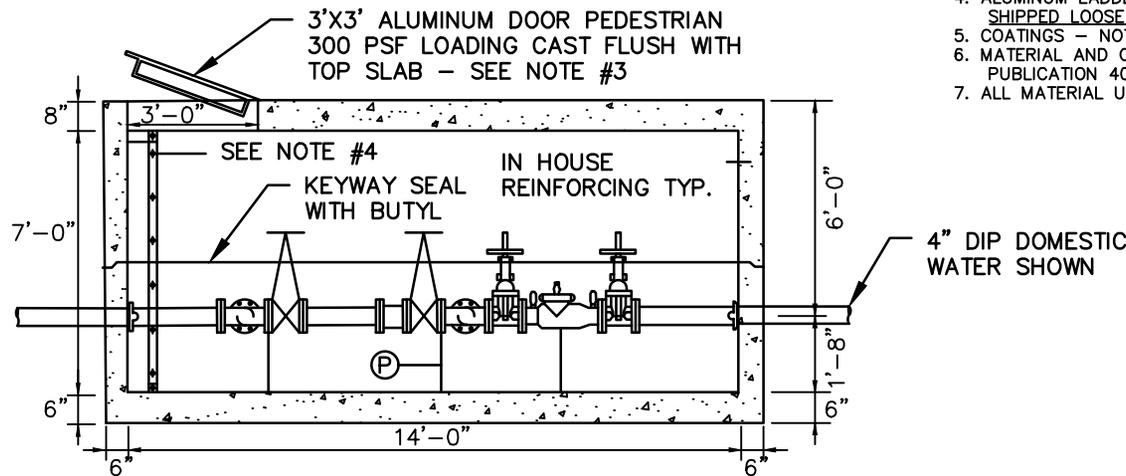


STANDARD WATER METER PIT FOR
1 1/2" & 2" DOMESTIC SERVICES
NOT TO SCALE

W8
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



PRE-PIPED PLAN VIEW



PIPE SCHEMATIC - CROSS SECTION

PIPE LEGEND

- A - 6" X 42" DIP FLANGE X PLAIN END SPOOL (2) TYP.
- B - 6" OMNI WALL SLEEVE W/ 6" EBAA MEGALUG RESTRAINT (2) TYP.
- C - 6" ZURN WILKINS MODEL 350DA DOUBLE CHECK DETECTOR BACKFLOW WITH OS&Y GATE VALVES
- D - 6" TEE, FLANGED (2) TYP.
- E - 6" WATER METER PER BOROUGH SPECIFICATION - SUPPLIED BY BOROUGH INSTALLED BY VENDOR
- F - 6" OS&Y GATE VALVE, FLANGED (3) TYP.
- G - 6" 90 ELBOW LONG RADIUS, FLANGED (2) TYP.
- H - 6" DIP FLANGE X FLANGE SPOOL (BYPASS PIPE)
- I - 4" X 36" DIP FLANGE X PLAIN END SPOOL (2) TYP.
- J - 4" OMNI WALL SLEEVE W/ 4" EBAA MEGALUG RESTRAINT (2) TYP.
- K - 4" ZURN WILKINS MODEL 350 DOUBLE CHECK DETECTOR BACKFLOW WITH OS&Y GATE VALVES
- L - 4" X 4" FLANGED TEE (2) TYP.
- M - 4" FLANGED OS&Y GATE VALVE (2) TYP.
- N - 4" WATER METER PER BOROUGH SPECIFICATION - SUPPLIED BY BOROUGH INSTALLED BY VENDOR
- O - 2" BYPASS = BLIND FLANGE W/ 2" NPT TAP, 2" BALL VALVE, 2" THREADED 90
- P - PIPE STANDS AS REQUIRED

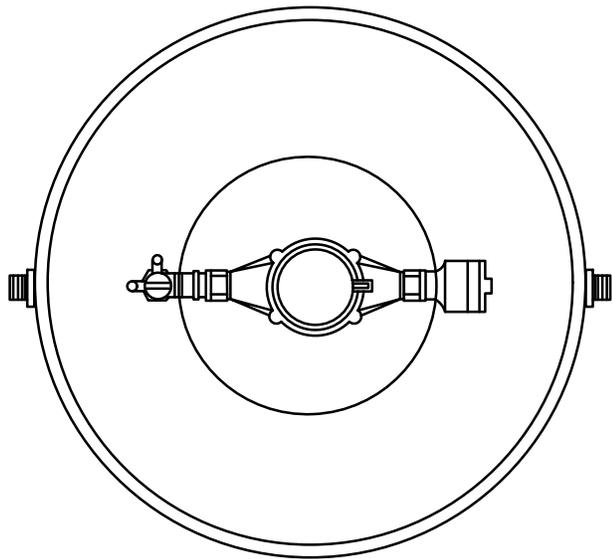
NOTES

1. CONCRETE - 5000 PSI, AIR ENTRAINED
2. REINFORCING STEEL - GRADE 60, ASTM A-615
3. ALUMINUM HATCH - SEE ACCOMPANYING SPEC. SHEET
4. ALUMINUM LADDER - SEE ACCOMPANYING SPEC. SHEET - SHIPPED LOOSE INSTALLED IN THE FIELD BY OTHERS
5. COATINGS - NOT REQUIRED
6. MATERIAL AND CONSTRUCTION SHALL CONFORM TO PENNDOT PUBLICATION 408, 72, & ASTM C858
7. ALL MATERIAL USED MADE IN THE USA

**STANDARD COMBINATION METER VAULT
FOR 4" DOMESTIC & 6" FIRE SERVICES**

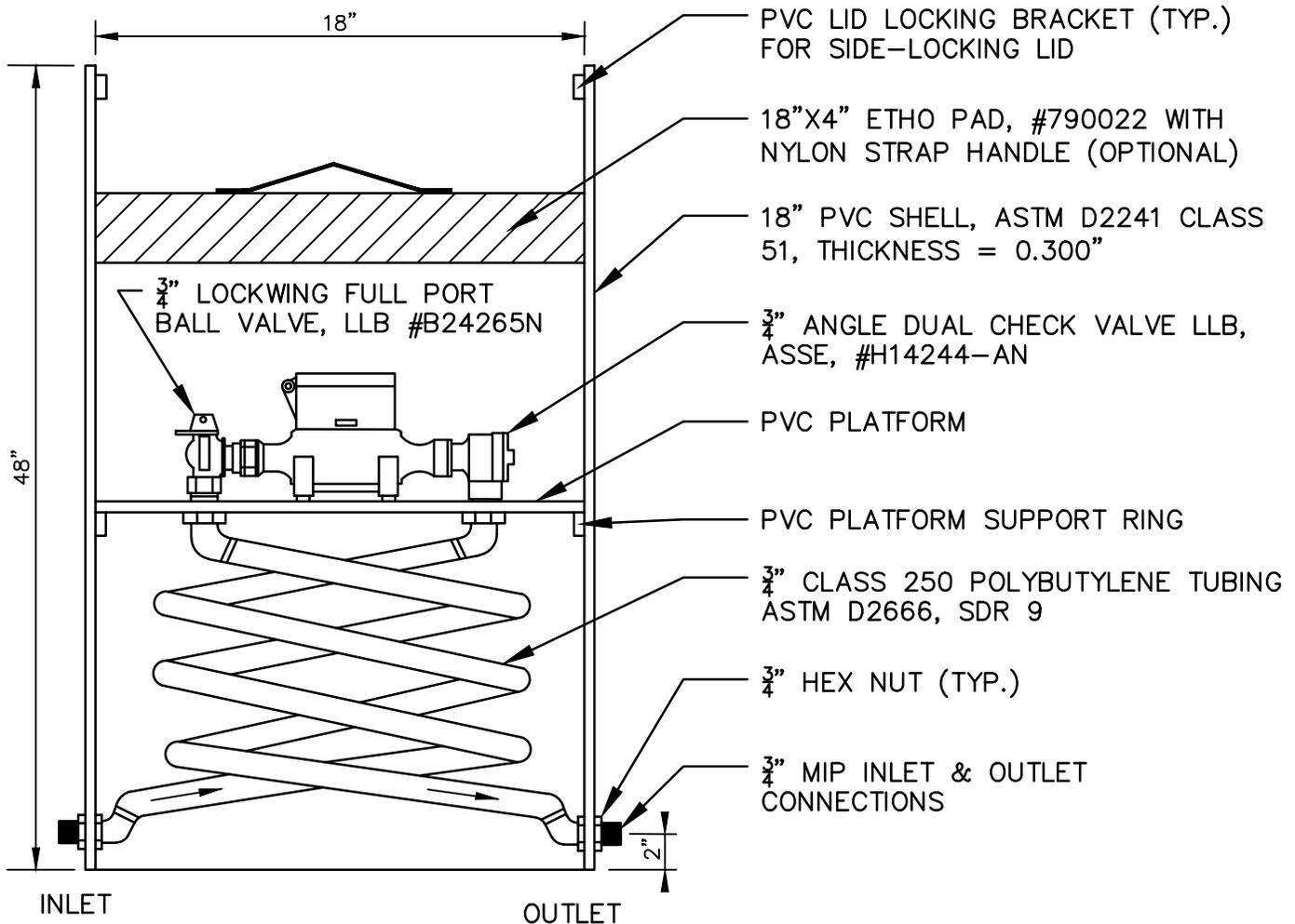
NOT TO SCALE

**W9
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



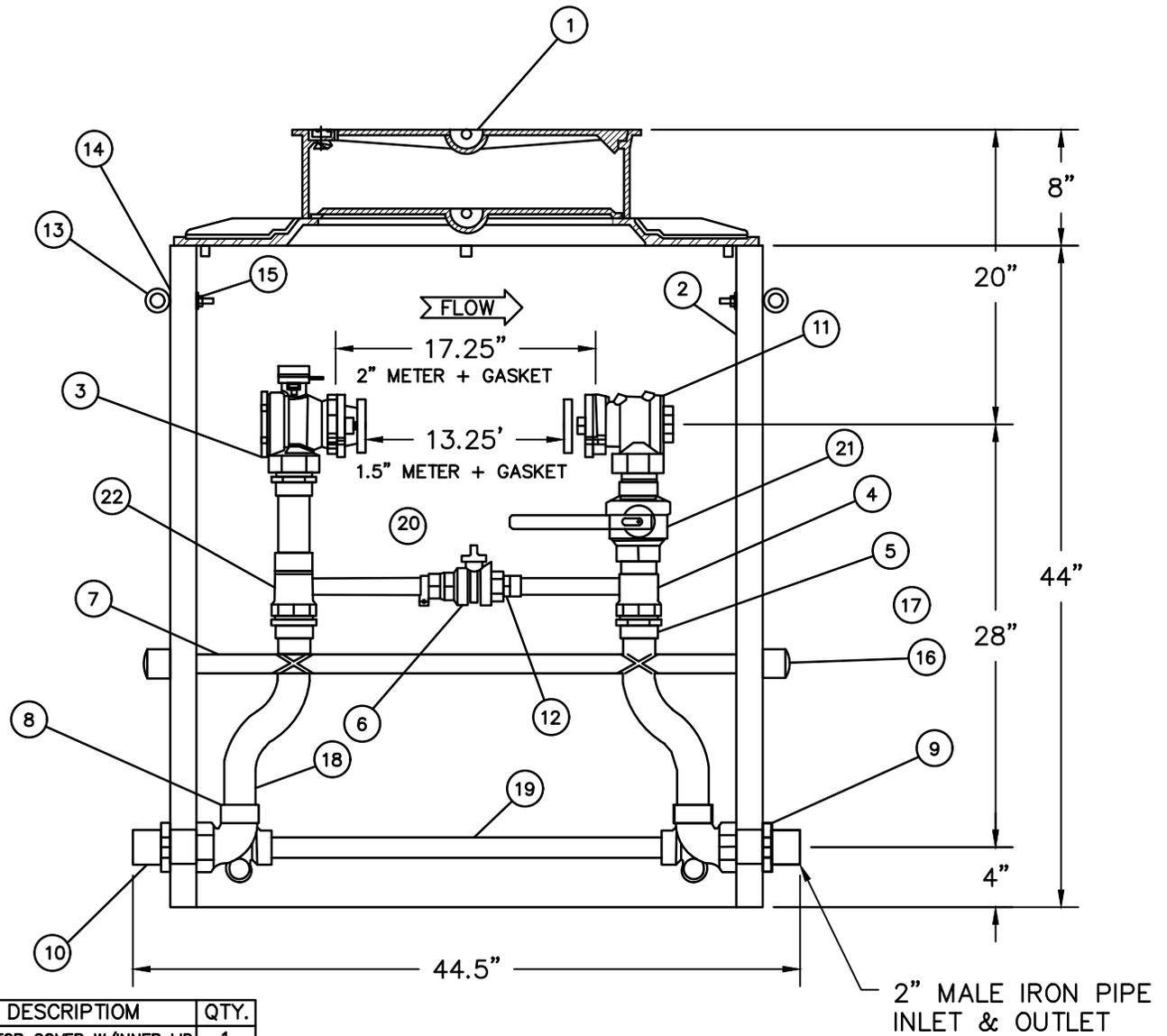
18-INCH LOW-LEAD SINGLE
COIL METER PIT FOR 5/8-INCH
METER #200CS1548FSBSN
(METER NOT INCLUDED)

18" FLAT LID WITH SIDE MOUNTED STANDARD WATERWORKS PENTAGON NUT LOCK, #282924



THERMAL COIL METER PIT
5/8" TO 1" - 18" ROUND
NOT TO SCALE

W10
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



ITEM	DESCRIPTION	QTY.
1	MONITOR COVER W/INNER LID	1
2	36" CORRUGATED PVC PIT	1
3	ANGLE BALL VALVE	1
4	TEE	1
5	SOLDER BUSHING	3
6	BALL VALVE	1
7	1" PVC BRACE BAR	1
8	ELL	2
9	LOCK NUT	2
10	NIPPLE	2
11	ANGLE DUEL CHECK VALVE	1
12	SOLDER BUSHING	1
13	EYE BOLT	2
14	FLAT WASHER	4
15	LOCK NUT	2
16	1" PVC CAP	2
17	PLASTIC TIE	4
18	2 1/4" COPPER TUBE	2
19	1 3/8" OD COPPER TUBE	1
20	M1 1/2" OD COPPER TUBE	2
21	BALL VALVE	1
22	TEE	1

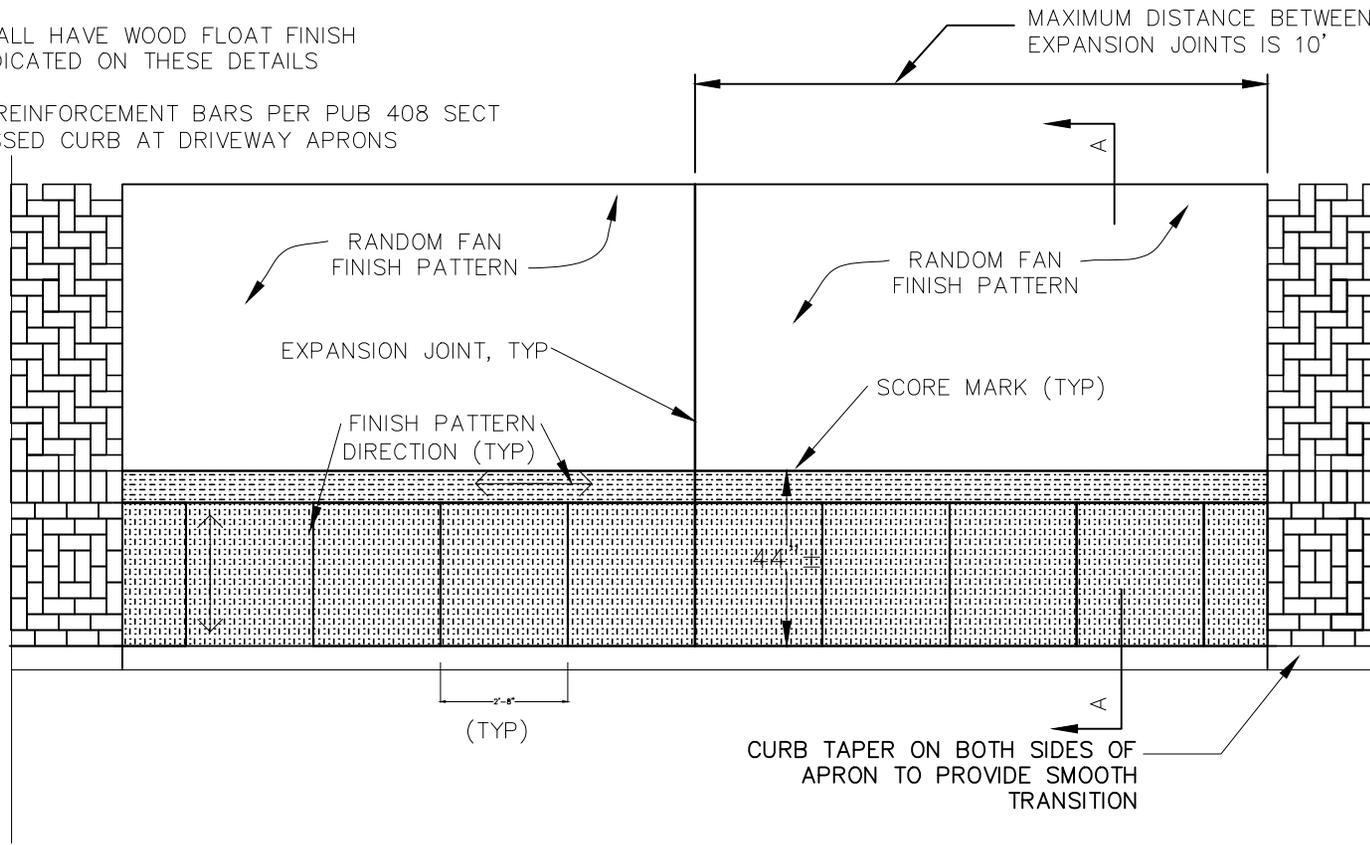
**1.5" & 2" PITSETTER W/ BYPASS
BALL VALVE INLET & OUTLET,
CHECK VALVE OUTLET**

NOT TO SCALE

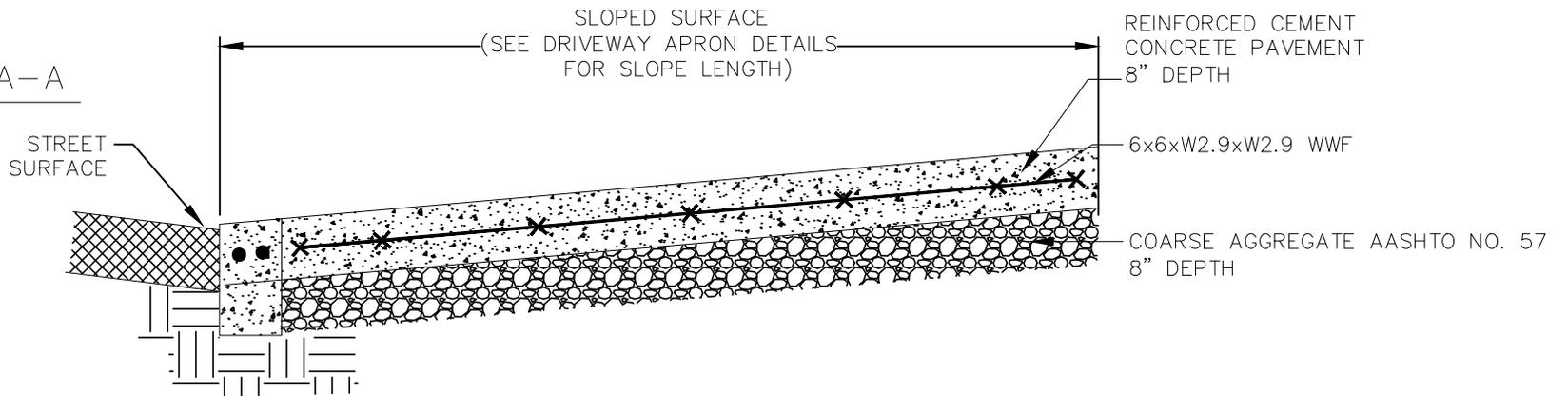
**W11
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**

NOTES:

- 1. ALL CONCRETE SHALL HAVE WOOD FLOAT FINISH IN THE DIRECTION INDICATED ON THESE DETAILS
- 2. PLACE TWO 1/2" REINFORCEMENT BARS PER PUB 408 SECT 630 FOR ALL DEPRESSED CURB AT DRIVEWAY APRONS



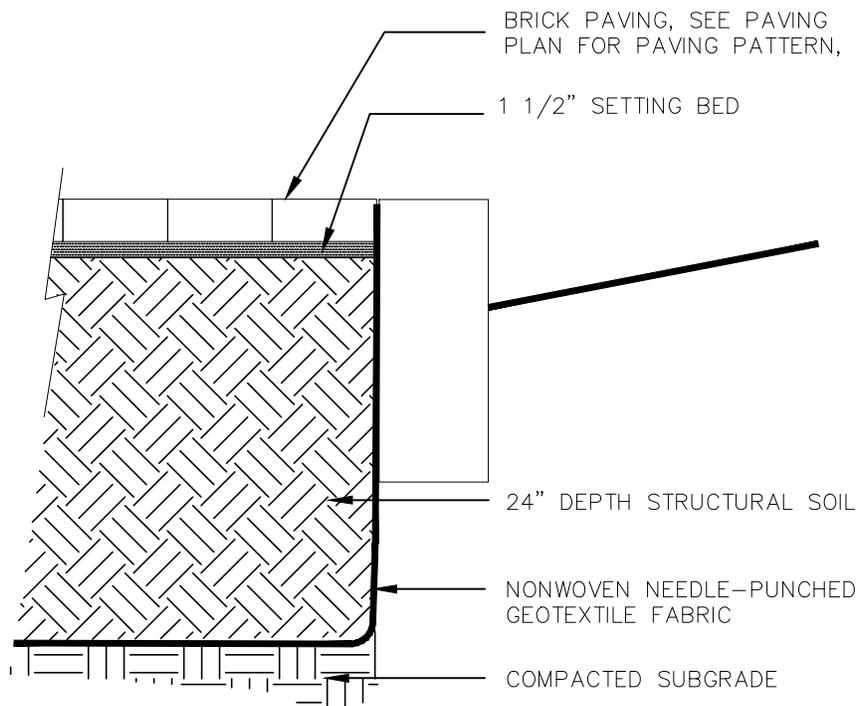
SECTION A-A



STREETSCAPE – DRIVEWAY APRON

NOT TO SCALE

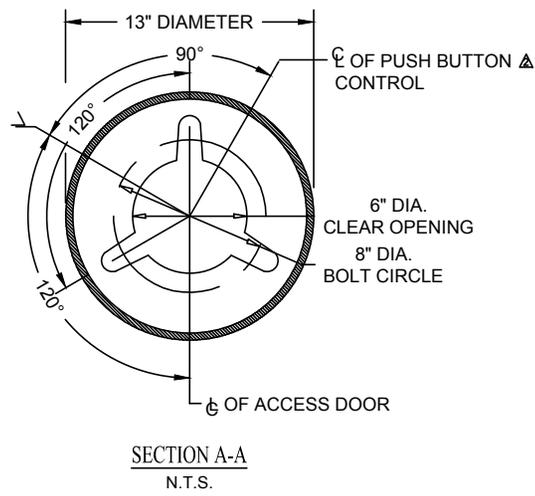
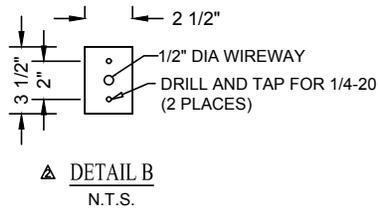
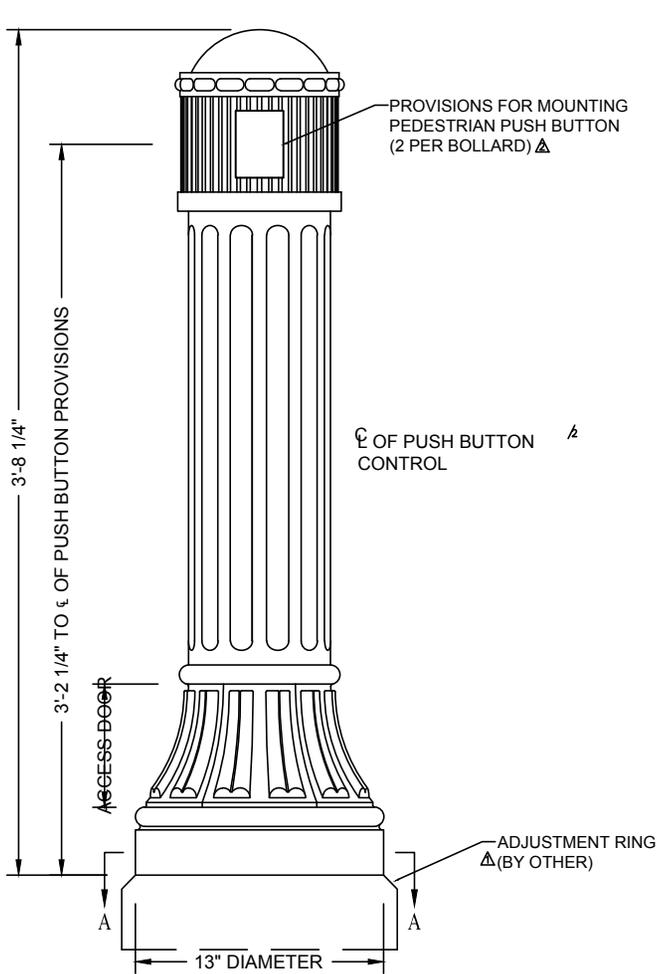
**ST1
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



STREETSCAPE – BRICK PAVING WITH STRUCTURAL SOIL FOR TREE ASSEMBLY

NOT TO SCALE

**ST2
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



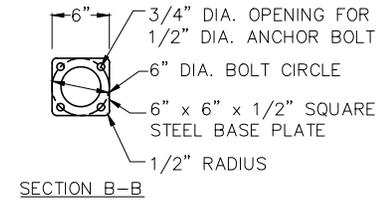
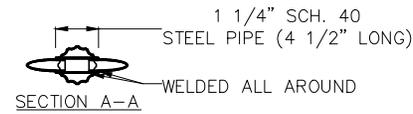
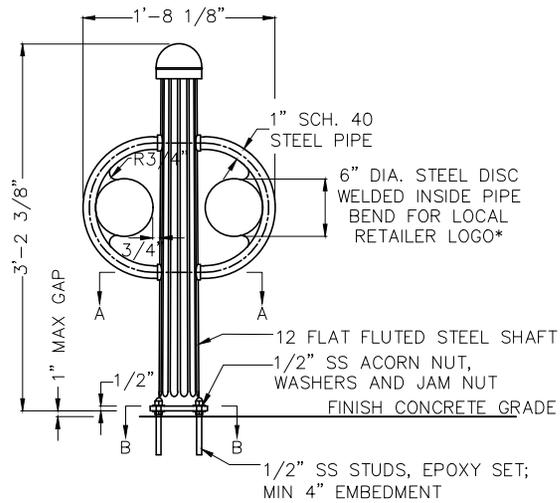
BOLLARD SPECIFICATIONS

STYLE:	WASHINGTON / TAMPA
HEIGHT:	3'-8 1/4"
BASE:	13" DIAMETER
MATERIAL:	CAST DUCTILE IRON PER A.S.T.M. A536-84, GRADE 65-45-12
FINISH:	
PRIME COAT:	PRIME PAINT TIGER DRYLAC ZINC RICH PRIMER, 69/90350 DRYZINC
FINISH COAT:	Δ POWDER COAT, TIGER DRYLAC RAL 5010 SERIES 38/40016 SMOOTH GLOSSY
ACCESS DOOR:	Δ LOCATED IN BASE SECURED WITH STAINLESS STEEL HEX SOCKET
ANCHOR BOLTS:	Δ SECURITY HEAD MACHINE SCREWS (3) 3/4" DIAMETER ANCHOR BOLTS
BOLT PROJECTION:	(SUPPLIED BY OTHER) 3" REQUIRED
CATALOG NO.:	DBDWST-13-3.69-XX-323/1NW-CB
QUANTITY 1 REQUIRED
PER S.O. #:	0013190

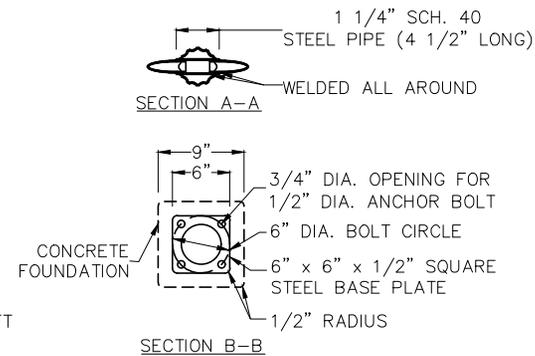
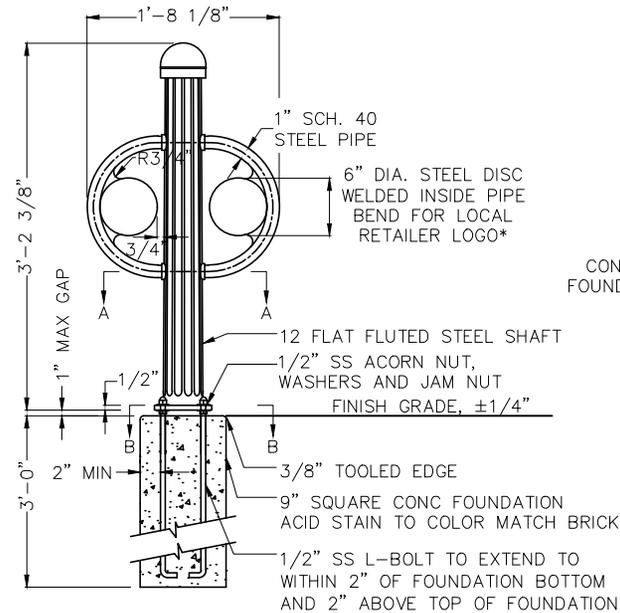
STREETSCAPE – BOLLARD W/ PROVISIONS FOR PEDESTRIAN PUSH BUTTON

NOT TO SCALE

**ST3
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



* LOGO DECAL N.I.C.

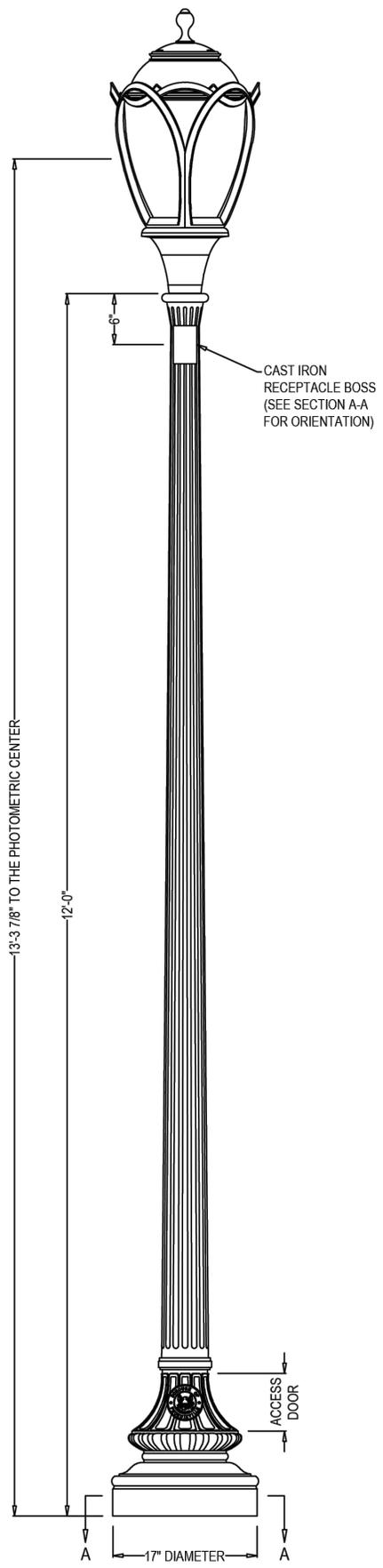


* LOGO DECAL N.I.C.

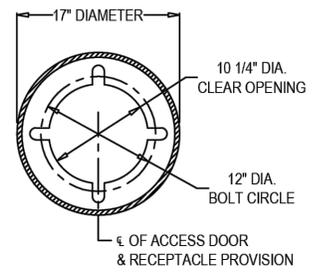
STREETSCAPE – BICYCLE HITCHING POST

NOT TO SCALE

ST4
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



LOGO DETAIL
N.T.S.



SECTION A-A
N.T.S.

LUMINAIRE SPECIFICATIONS

STYLE:	IRVINE
HEIGHT:	33 1/2"
WIDTH:	17 1/2"
MATERIAL:	CAST ALUMINUM ALLOY A.N.S.I. 356, PER A.S.T.M. B26-95
GLOBE:	FROSTED POLYCARBONATE
FINISH:	POWDER COAT - PLEASE SELECT BELOW
LAMPING:	80 WATT LED SYSTEM
VOLTAGE:	ELECTRONICALLY WIRED AT 120-277 VOLTS
COLOR TEMP:	3000K (WARM WHITE)
DISTRIBUTION:	TYPE III REFRACTIVE OPTICS (ASYMMETRIC DISTRIBUTION)
CATALOG NO.:	ALMIRV-LE080/EVX/X2-30-CR3-PKSF-FIR-CU

LAMP POST SPECIFICATIONS

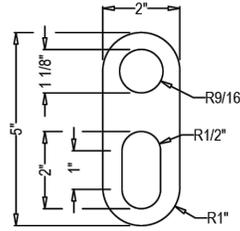
STYLE:	WASHINGTON 12P
HEIGHT:	12'-0"
PHOTOMETRIC CENTER:	13'-3 7/8"
BASE:	17" DIAMETER
MATERIAL:	ONE PIECE, CAST DUCTILE IRON PER A536-84 GRADE 65-45-12
FINISH:	POWDER COAT - PLEASE SELECT BELOW
ACCESS DOOR:	LOCATED IN BASE SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS
GROUND PROVISIONS:	DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (GROUND STUD BY OTHERS)
ANCHOR BOLTS:	(4) 3/4" X 24" + 3" HOOK (FULLY GALVANIZED WITH 1 GALVANIZED WASHER AND 1 GALVANIZED NUT PER BOLT)
BOLT PROJECTION:	3" REQUIRED
TENON:	3" DIA. X 3" HIGH (TO ACCEPT LUMINAIRE)
CATALOG NO.:	DPSWSH-17-12.00-TN3.00/3.00-DC-PP-RP-CU
POST:	
ANCHOR BOLTS:	323/1NW

COLOR	
RIVER TEXTURE GLOSS BLACK	
TIGER DRYLAC RAL# 6005 (GREEN)	
TIGER DRYLAC RAL# 5010 (BLUE)	

**12'-0" DUCTILE IRON PEDESTRIAN LAMP POST
W/LOGO AND LUMINAIRE**

NOT TO SCALE

**ST5
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



DETAIL A
N.T.S.

LOGO DETAIL
N.T.S.

LUMINAIRE SPECIFICATIONS

STYLE: IRVINE
 HEIGHT: 33 1/2"
 WIDTH: 17 1/2"
 MATERIAL: CAST ALUMINUM ALLOY A.N.S.I. 356, PER A.S.T.M. B26-95
 GLOBE: FROSTED POLYCARBONATE
 FINISH: POWDER COAT - PLEASE SELECT BELOW
 LAMPING: 80 WATT LED SYSTEM
 VOLTAGE: ELECTRONIC WIRED AT 120-277 VOLTS
 COLOR TEMPERATURE: 3000K (WARM WHITE)
 OPTICAL SYSTEM: TYPE III REFRACTIVE ACRYLIC (ASYMMETRIC DISTRIBUTION)

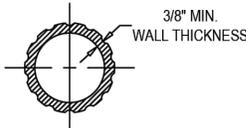
CATALOG NO.: ALMIRV-LE080/EVX/2-30-CR3-PKSF-FIR-CU

LAMP POST SPECIFICATIONS

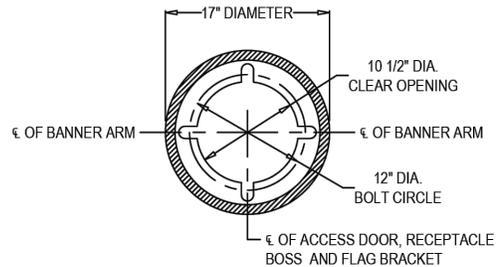
STYLE: WASHINGTON 12P
 HEIGHT: 12'-0"
 PHOTOMETRIC CENTER: 13'-10 3/4"
 BASE: 17" DIAMETER
 MATERIAL: ONE PIECE, CAST DUCTILE IRON PER A536-84 GRADE 65-45-12
 FINISH: POWDER COAT - PLEASE SELECT BELOW
 ACCESS DOOR: LOCATED IN BASE SECURED WITH STAINLESS STEEL TAMPER
 GROUND PROVISIONS: ROOF HEX SOCKET SECURITY MACHINE SCREWS DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (GROUND STUD BY OTHERS)
 ANCHOR BOLTS: (4) 3/4" X 24" + 3" HOOK (FULLY GALVANIZED WITH 1 GALVANIZED WASHER AND 1 GALVANIZED NUT PER BOLT)
 BOLT PROJECTION: 3" REQUIRED
 TENON: 3" DIA. X 3" HIGH (TO ACCEPT LUMINAIRE)

CATALOG NO.: DPSWSH-17-12.00-TN3.00/3.00-DC-PP-FH-2BP-RP-CU
 POST:
 BANNER ARMS: SBNUBT-1S-0.75-18.00-F02-FB-CU
 ANCHOR BOLTS: 323/1NW

COLOR	
RIVER TEXTURE GLOSS BLACK	
TIGER DRYLAC RAL# 6005 (GREEN)	
TIGER DRYLAC RAL# 5010 (BLUE)	



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

12'-0" DUCTILE IRON PEDESTRIAN LAMP POST
W/ARMS, LOGO AND LUMINAIRE

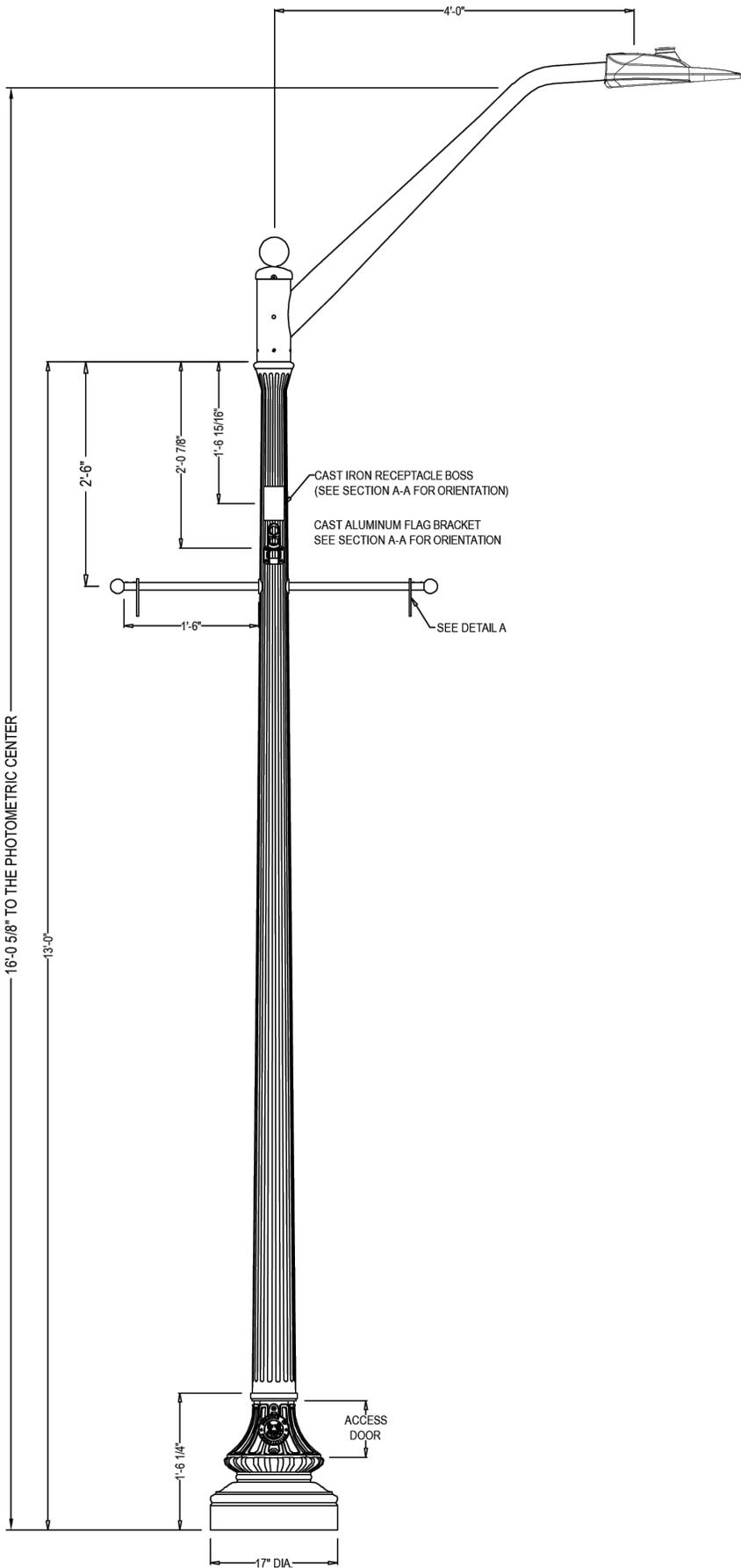
NOT TO SCALE

ST6
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

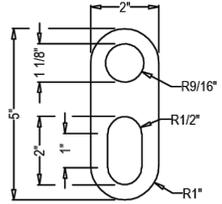
13'-10 3/4" TO PHOTOMETRIC CENTER

12'-0"

17" DIAMETER



LOGO DETAIL
N.T.S.



DETAIL A
N.T.S.

LUMINAIRE SPECIFICATIONS

STYLE:	LEOTEK CV1
HEIGHT:	4 7/8
WIDTH:	18 1/2"
MATERIAL:	CAST ALUMINUM
GLOBE:	FLAT GLASS
FINISH:	POWDER COAT - RAL 5010
LAMPING:	19-67 ADJUSTABLE WATTAGE
VOLTAGE:	120V-277V ELECTRONIC
OTHER:	SUPPLIED BY INDEPENDENCE LIGHTING

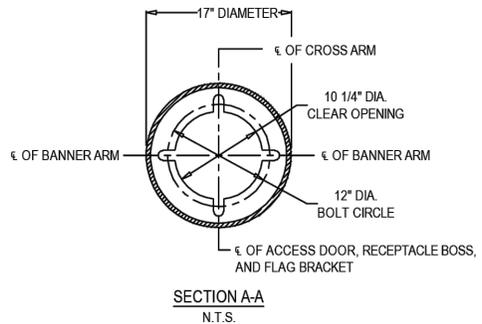
CROSS ARM SPECIFICATIONS

STYLE:	MAST ARM
HEIGHT:	32"
WIDTH:	48"
MATERIAL:	CAST ALUMINUM & SPUN TAPERED ARM
TENON:	2 3/8"OD X 6" LONG TENON
FINISH:	POWDER COAT - RAL 5010

LAMP POST SPECIFICATIONS

STYLE:	WASHINGTON 12P
HEIGHT:	13'-0"
BASE:	17" DIAMETER
MATERIAL:	1 PIECE, HEAVY WALL CAST DUCTILE IRON PER A.S.T.M. A536-84 GRADE 65-45-12
FINISH:	POWDER COAT - RAL 5010
ACCESS DOOR:	LOCATED IN BASE SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS
GROUND PROVISIONS:	DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (GROUND STUD BY OTHERS)
ANCHOR BOLTS:	(4) 3/4" X 24" + 3" HOOK (FULLY GALVANIZED WITH 1 GALVANIZED WASHER AND 1 GALVANIZED NUT PER BOLT)
BOLT PROJECTION:	3" REQUIRED
TENON:	4" DIA. X 4" HIGH (TO ACCEPT CROSS ARM)
CATALOG NO.:	BY SPRING CITY
POST:	IPSWH-17-13-TN4.00/4.00-DC-PP-FH-(2)BP-RP-CU (PHO)
BANNER ARMS:	SBNUBT-1S-0.75-18.00-F02-FB-CU
ANCHOR BOLTS:	323/1NW

QUANTITY 4 COMPLETE ASSEMBLIES REQUIRED
PER S.O. # 019361

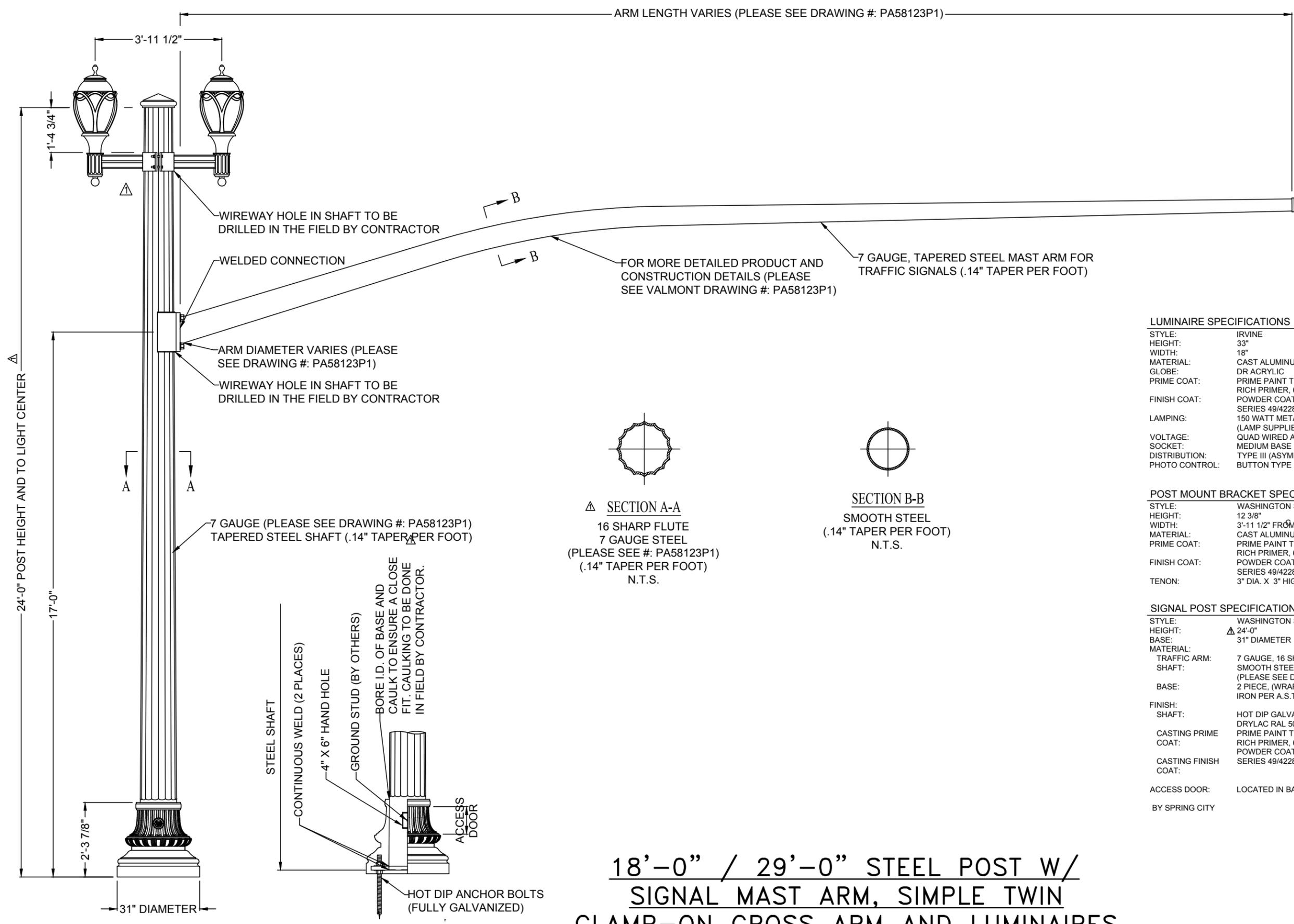


SECTION A-A
N.T.S.

PEDESTRIAN LAMP POST AT CROSSWALK

NOT TO SCALE

ST7
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



ARM LENGTH VARIES (PLEASE SEE DRAWING #: PA58123P1)

WIREWAY HOLE IN SHAFT TO BE DRILLED IN THE FIELD BY CONTRACTOR

WELDED CONNECTION

ARM DIAMETER VARIES (PLEASE SEE DRAWING #: PA58123P1)

WIREWAY HOLE IN SHAFT TO BE DRILLED IN THE FIELD BY CONTRACTOR

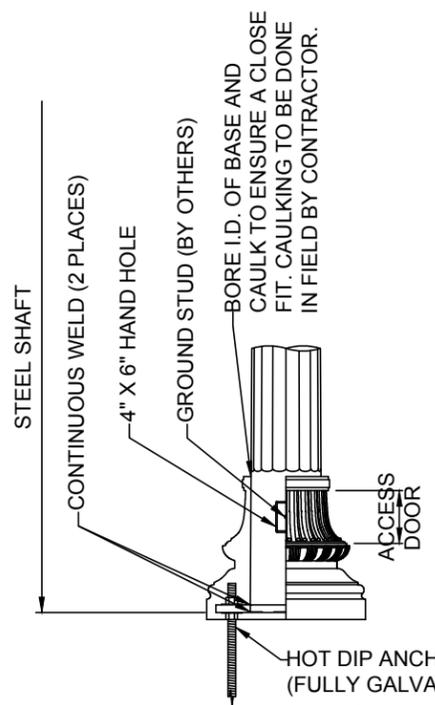
FOR MORE DETAILED PRODUCT AND CONSTRUCTION DETAILS (PLEASE SEE VALMONT DRAWING #: PA58123P1)

7 GAUGE, TAPERED STEEL MAST ARM FOR TRAFFIC SIGNALS (.14" TAPER PER FOOT)

7 GAUGE (PLEASE SEE DRAWING #: PA58123P1) TAPERED STEEL SHAFT (.14" TAPER PER FOOT)

SECTION A-A
16 SHARP FLUTE
7 GAUGE STEEL
(PLEASE SEE #: PA58123P1)
(.14" TAPER PER FOOT)
N.T.S.

SECTION B-B
SMOOTH STEEL
(.14" TAPER PER FOOT)
N.T.S.



LUMINAIRE SPECIFICATIONS

STYLE:	IRVINE
HEIGHT:	33"
WIDTH:	18"
MATERIAL:	CAST ALUMINUM
GLOBE:	DR ACRYLIC
PRIME COAT:	PRIME PAINT TIGER DRYLAC ZINC RICH PRIMER, 69/90350 DRYZINC
FINISH COAT:	POWDER COAT, TIGER DRYLAC RAL 5010 SERIES 49/42280 SMOOTH GLOSSY
LAMPING:	150 WATT METAL HALIDE - PULSE START (LAMP SUPPLIED BY OTHERS)
VOLTAGE:	QUAD WIRED AT 120
SOCKET:	MEDIUM BASE
DISTRIBUTION:	TYPE III (ASYMMETRIC DISTRIBUTION)
PHOTO CONTROL:	BUTTON TYPE PHOTO CELL

POST MOUNT BRACKET SPECIFICATIONS

STYLE:	WASHINGTON SIMPLE TWIN
HEIGHT:	12 3/8"
WIDTH:	3'-11 1/2" FROM L OF LUMINAIRE TO L OF LUMINAIRE
MATERIAL:	CAST ALUMINUM
PRIME COAT:	PRIME PAINT TIGER DRYLAC ZINC RICH PRIMER, 69/90350 DRYZINC
FINISH COAT:	POWDER COAT, TIGER DRYLAC RAL 5010 SERIES 49/42280 SMOOTH GLOSSY
TENON:	3" DIA. X 3" HIGH (TO ACCEPT LUMINAIRE)

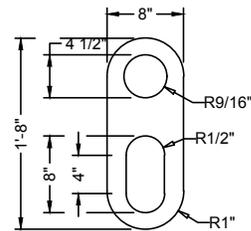
SIGNAL POST SPECIFICATIONS

STYLE:	WASHINGTON STEEL WITH SINGLE MAST ARM AND ROADWAY ARM
HEIGHT:	24'-0"
BASE:	31" DIAMETER
MATERIAL:	TRAFFIC ARM: 7 GAUGE, 16 SHARP FLUTE STEEL MONOTUBE CONSTRUCTION SHAFT: SMOOTH STEEL MONOTUBE CONSTRUCTION (PLEASE SEE DRAWING #: PA58123P1)
BASE:	2 PIECE, (WRAP AROUND) HEAVY WALL CAST IRON PER A.S.T.M. A 48-83 CLASS 30
FINISH:	SHAFT: HOT DIP GALVANIZED THEN POWDER COAT, TIGER DRYLAC RAL 5010 SERIES 49/42280 SMOOTH GLOSSY CASTING PRIME COAT: PRIME PAINT TIGER DRYLAC ZINC RICH PRIMER, 69/90350 DRYZINC CASTING FINISH COAT: POWDER COAT, TIGER DRYLAC RAL 5010 SERIES 49/42280 SMOOTH GLOSSY
ACCESS DOOR:	LOCATED IN BASE TO COINCIDE WITH HAND HOLE IN STEEL SHAFT
BY:	SPRING CITY

**18'-0" / 29'-0" STEEL POST W/
SIGNAL MAST ARM, SIMPLE TWIN
CLAMP-ON CROSS ARM AND LUMINAIRES**

NOT TO SCALE

**ST8
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



DETAIL A
N.T.S.

LOGO DETAIL
N.T.S.

LUMINAIRE SPECIFICATIONS

STYLE:	LEOTEK CV1
HEIGHT:	4 7/8
WIDTH:	18 1/2"
MATERIAL:	CAST ALUMINUM
GLOBE:	FLAT GLASS
FINISH:	POWDER COAT - RAL 5010
LAMPING:	19-67 ADJUSTABLE WATTAGE
VOLTAGE:	120V-277V ELECTRONIC
OTHER:	SUPPLIED BY INDEPENDENCE LIGHTING

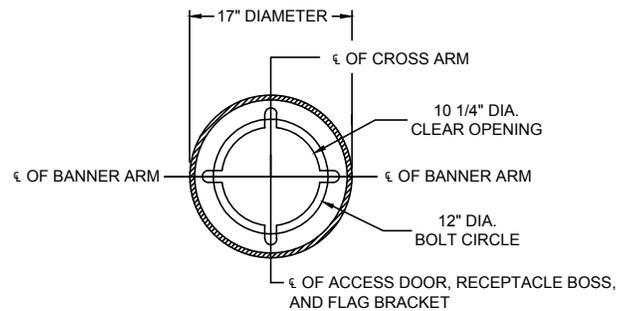
CROSS ARM SPECIFICATIONS

STYLE:	MAST ARM
HEIGHT:	32"
WIDTH:	48"
MATERIAL:	CAST ALUMINUM & SPUN TAPERED ARM
TENON:	2 3/8"OD X 6" LONG TENON
FINISH:	POWDER COAT - RAL 5010

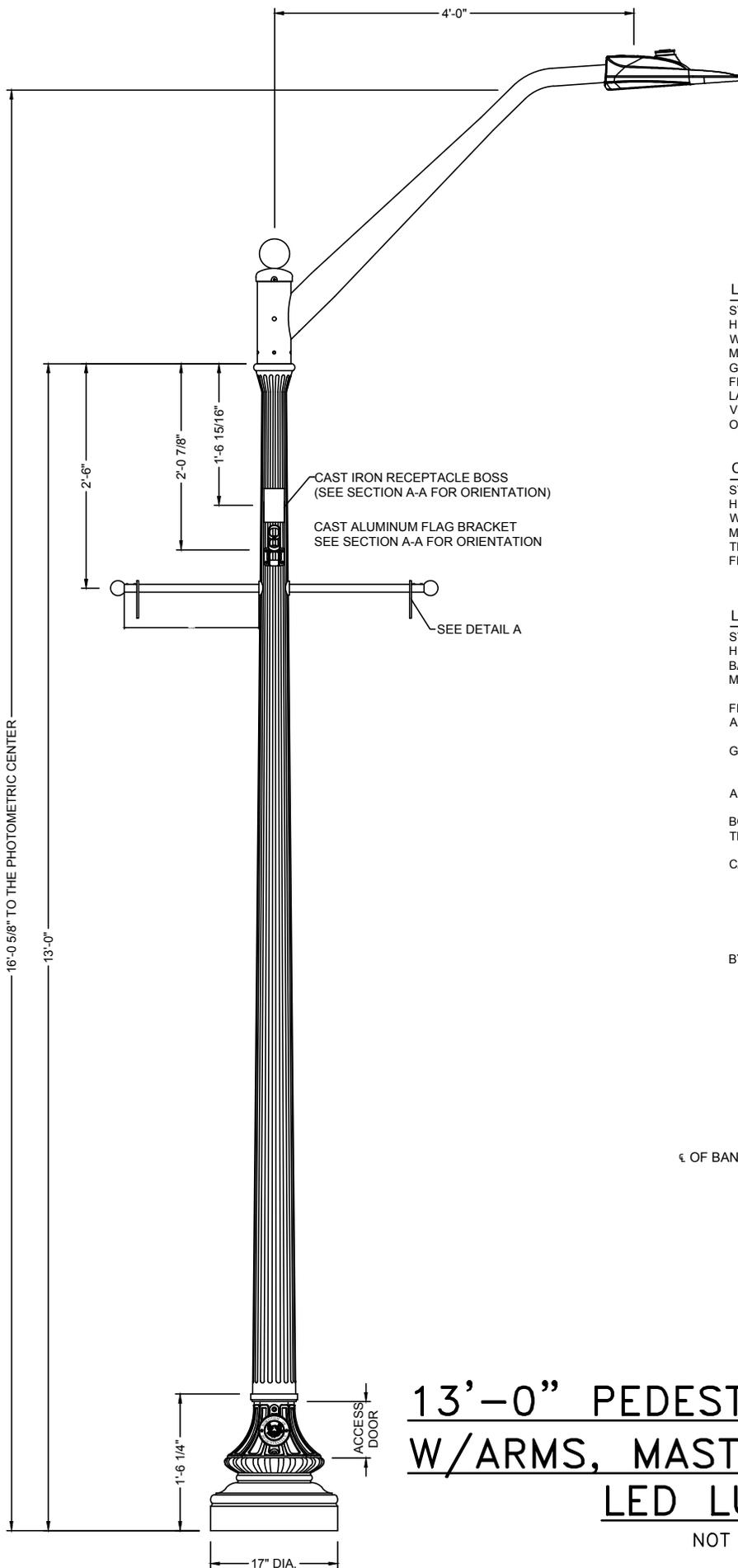
LAMP POST SPECIFICATIONS

STYLE:	WASHINGTON 12P
HEIGHT:	13'-0"
BASE:	17" DIAMETER
MATERIAL:	1 PIECE, HEAVY WALL CAST DUCTILE IRON PER A.S.T.M. A536-84 GRADE 65-45-12
FINISH:	POWDER COAT - RAL 5010
ACCESS DOOR:	LOCATED IN BASE SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS
GROUND PROVISIONS:	DRILL AND TAP INSIDE WALL OF BASE OPPOSITE ACCESS DOOR TO ACCOMMODATE A 1/4"-20 GROUND STUD (GROUND STUD BY OTHERS)
ANCHOR BOLTS:	(4) 3/4" X 24" + 3" HOOK (FULLY GALVANIZED WITH 1 GALVANIZED WASHER AND 1 GALVANIZED NUT PER BOLT)
BOLT PROJECTION:	3" REQUIRED
TENON:	4" DIA. X 4" HIGH (TO ACCEPT CROSS ARM)
CATALOG NO.:	
POST:	IPSWSH-17-13-TN4.00/4.00-DC-PP-FH-(2)BP-RP-CU (PHO)
BANNER ARMS:	SBNBUT-1S-0.75-18.00-F02-FB-CU
ANCHOR BOLTS:	323/1NW

BY SPRING CITY



SECTION A-A
N.T.S.



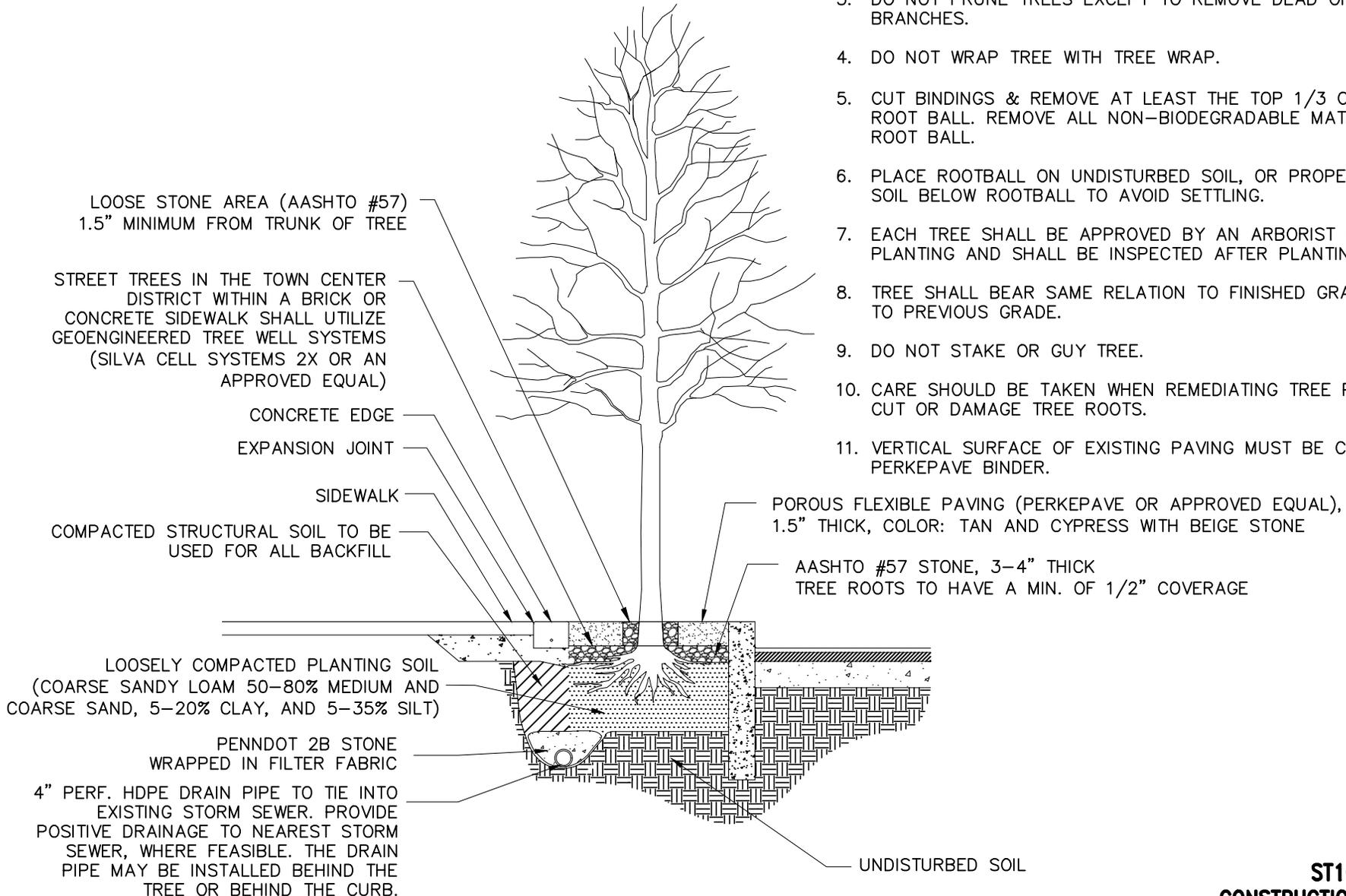
**13'-0" PEDESTRIAN LAMP POST
W/ARMS, MAST ARM, LOGO AND
LED LUMINAIRE**

NOT TO SCALE

**ST9
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**

NOTES:

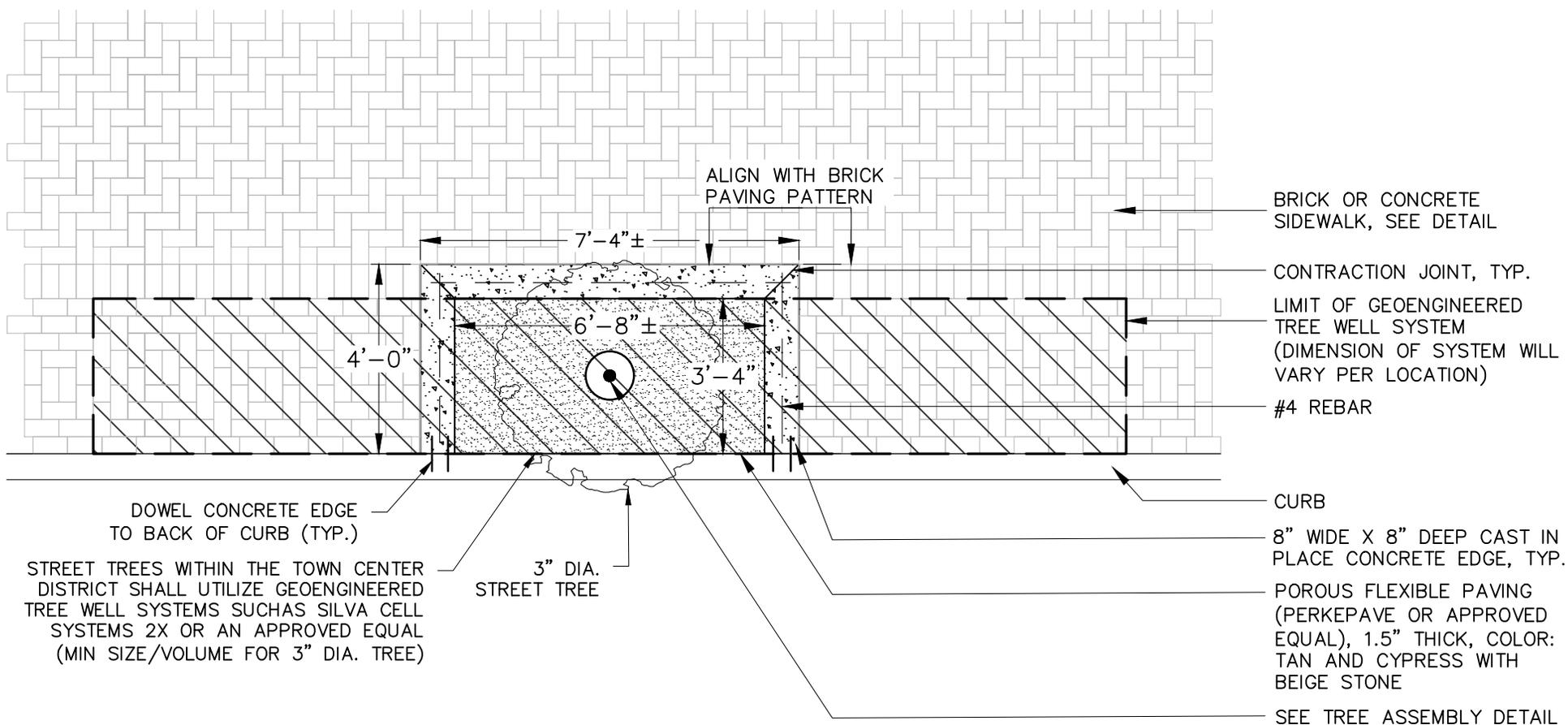
1. IF FOLIAGE IS PRESENT AT TIME OF PLANTING, SPRAY WITH AN ANTIDESICANT ACCORDING TO MANUFACTURERS INSTRUCTIONS.
2. ALL NEW TREES SHALL MEET CURRENT STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (FORMERLY AMERICAN ASSOCIATION OF NURSERYMEN).
3. DO NOT PRUNE TREES EXCEPT TO REMOVE DEAD OR BROKEN BRANCHES.
4. DO NOT WRAP TREE WITH TREE WRAP.
5. CUT BINDINGS & REMOVE AT LEAST THE TOP 1/3 OF BURLAP FROM ROOT BALL. REMOVE ALL NON-BIODEGRADABLE MATERIAL FROM ROOT BALL.
6. PLACE ROOTBALL ON UNDISTURBED SOIL, OR PROPERLY COMPACTED SOIL BELOW ROOTBALL TO AVOID SETTLING.
7. EACH TREE SHALL BE APPROVED BY AN ARBORIST PRIOR TO PLANTING AND SHALL BE INSPECTED AFTER PLANTING.
8. TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE.
9. DO NOT STAKE OR GUY TREE.
10. CARE SHOULD BE TAKEN WHEN REMEDIATING TREE PITS AS NOT TO CUT OR DAMAGE TREE ROOTS.
11. VERTICAL SURFACE OF EXISTING PAVING MUST BE COATED WITH PERKEPAVE BINDER.



STREETSCAPE – TREE ASSEMBLY

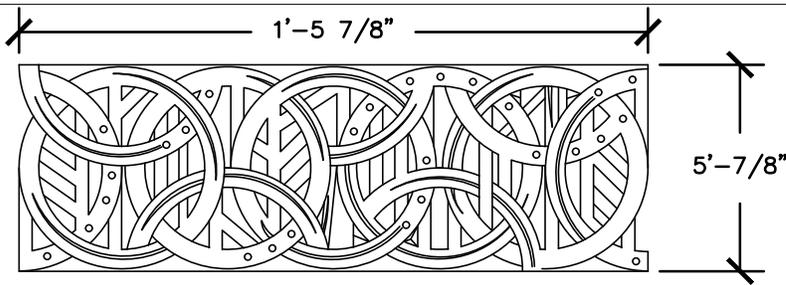
NOT TO SCALE

**ST10
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA**



STREETSCAPE – TREE ASSEMBLY PLAN VIEW
 NOT TO SCALE

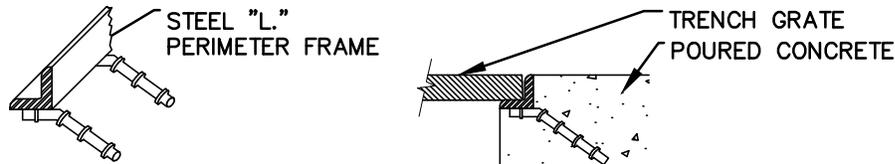
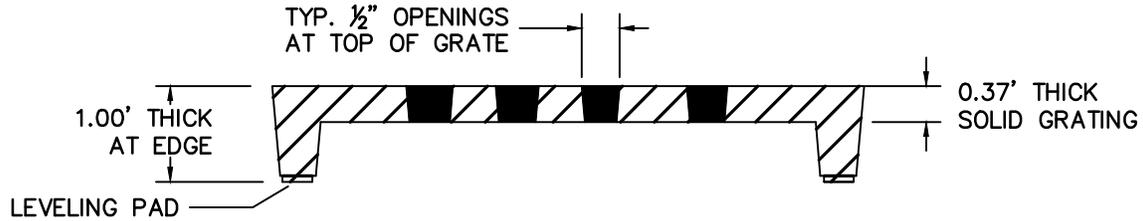
ST11
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



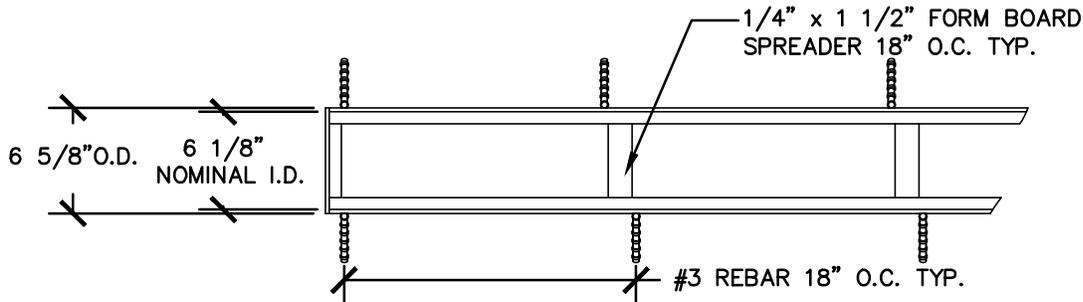
6" OT TITLE-24 TRENCH

TRENCH GRATE, MANUFACTURER:
 URBAN ACCESSORIES 465 EAST 15TH
 STREET, TACOMA, WA 98421,
 Ph: (410) 778-1110,
 MODEL NO. 6" OT TITLE-24 TRENCH:

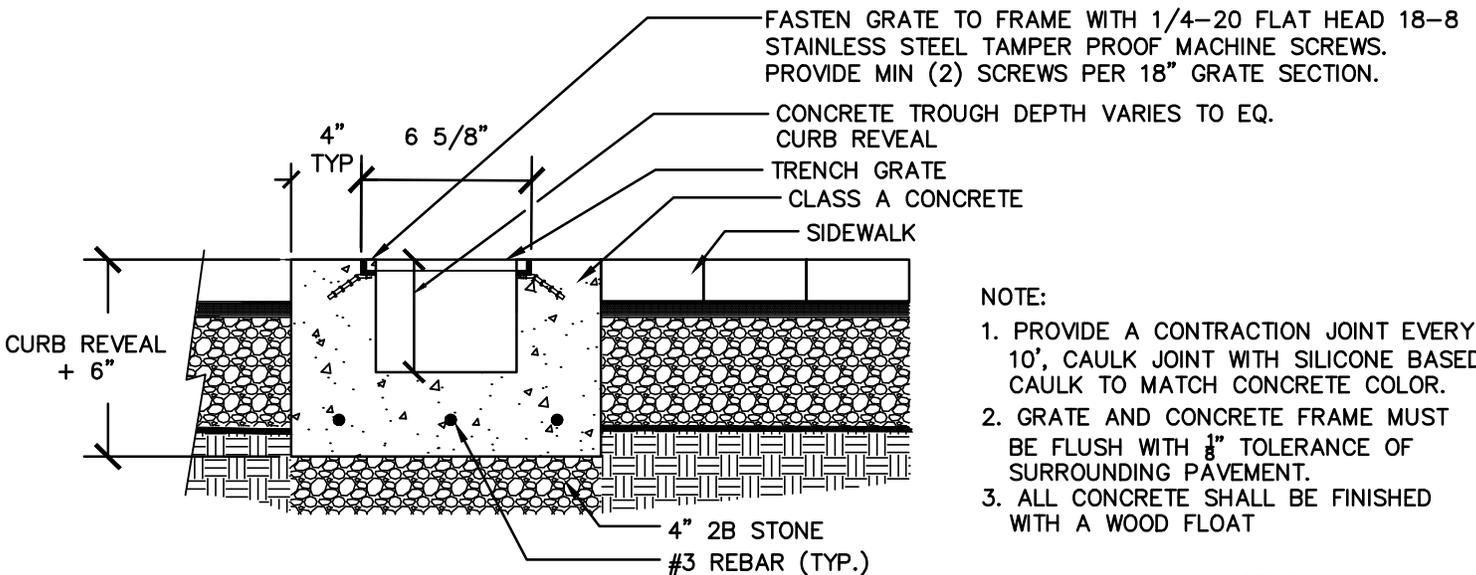
- CAST IRON / NATURAL FINISH
- CAST IN ONE PIECE, 1" THICK
- NO OPENINGS GREATER THAN 3/8"
- PROVIDE AND INSTALL 2 VANDAL-RESISTANT STAINLESS STEEL FASTENERS PER TRENCH GRATE SECTION



"S" DETAIL



6" TRENCH FRAME TYPE "S"



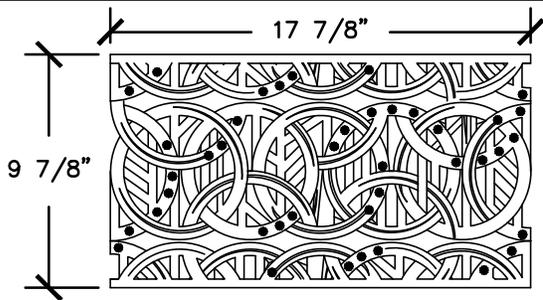
NOTE:

1. PROVIDE A CONTRACTION JOINT EVERY 10', CAULK JOINT WITH SILICONE BASED CAULK TO MATCH CONCRETE COLOR.
2. GRATE AND CONCRETE FRAME MUST BE FLUSH WITH 1/8" TOLERANCE OF SURROUNDING PAVEMENT.
3. ALL CONCRETE SHALL BE FINISHED WITH A WOOD FLOAT

**STREETSCAPE - 6" ORNAMENTAL
 TRENCH GRATE ASSEMBLY**

NOT TO SCALE

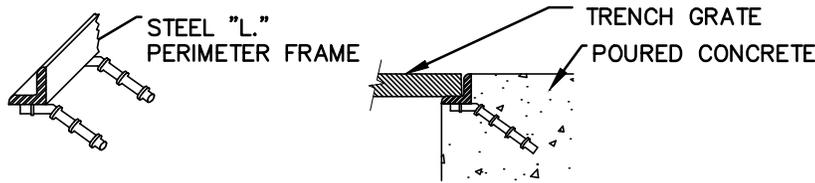
**ST12
 CONSTRUCTION DETAILS
 BOROUGH OF PHOENIXVILLE
 CHESTER COUNTY, PENNSYLVANIA**



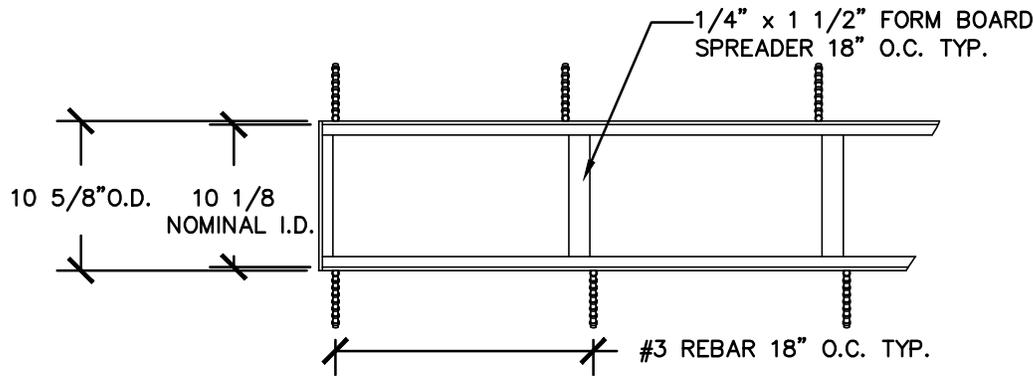
TRENCH GRATE, MANUFACTURER:
 URBAN ACCESSORIES 465 EAST 15TH
 STREET, TACOMA, WA 98421,
 Ph: (410) 778-1110,
 MODEL NO. 10" OT TITLE-24 TRENCH:

- GRATE IS 3/4" THICK
- NO OPENING GREATER THAN 3/8"
- STANDARD: RAW CAST IRON
- PROVIDE AND INSTALL 2 VANDAL-RESISTANT STAINLESS STEEL FASTENERS PER TRENCH GRATE SECTION

10" OT TITLE-24 TRENCH



"S" DETAIL



10" TRENCH FRAME TYPE "S"

FASTEN GRATE TO FRAME WITH 1/4-20 FLAT HEAD 18-8 STAINLESS STEEL TAMPER PROOF MACHINE SCREWS. PROVIDE MIN (2) SCREWS PER 18" GRATE SECTION.

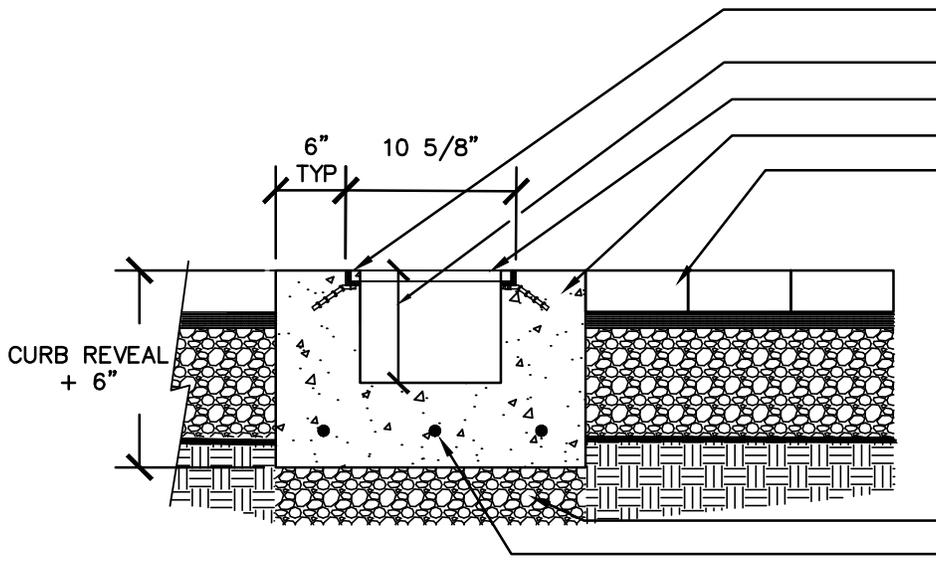
- VARIES HT. TO EQ. CURB REVEAL
- TRENCH GRATE
- CLASS A CONCRETE
- SIDEWALK

NOTE:
 PROVIDE A CONTRACTION JOIN EVERY 10', CAULK JOINT WITH SILICONE BASED CAULK TO MATCH CONCRETE COLOR.

GRATE AND CONCRETE FRAME MUST BE FLUSH WITH 1/8" TOLERANCE OF SURROUNDING PAVEMENT.

ALL CONCRETE SHALL BE FINISHED WITH A WOOD FLOAT

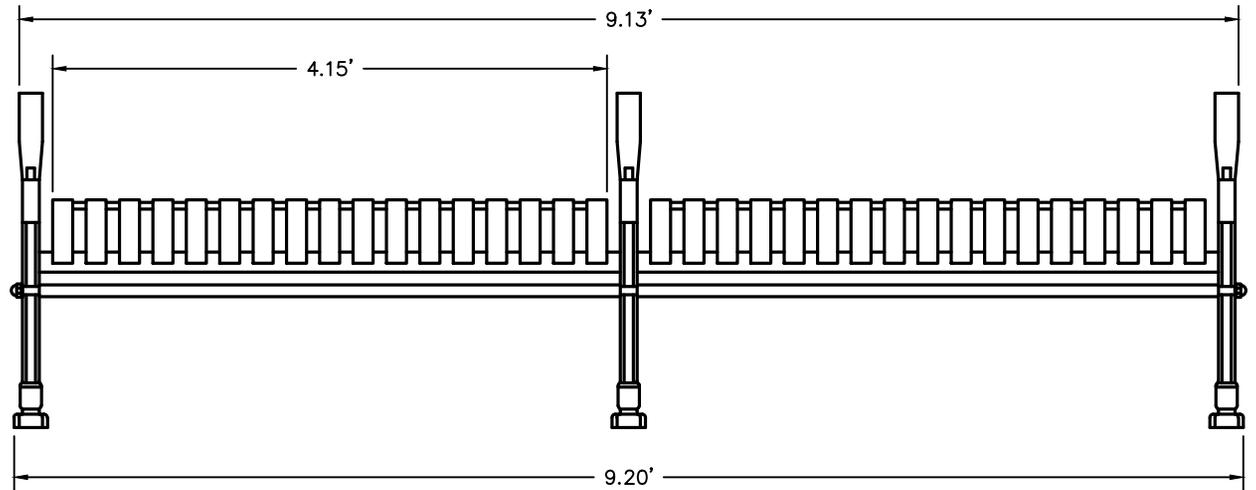
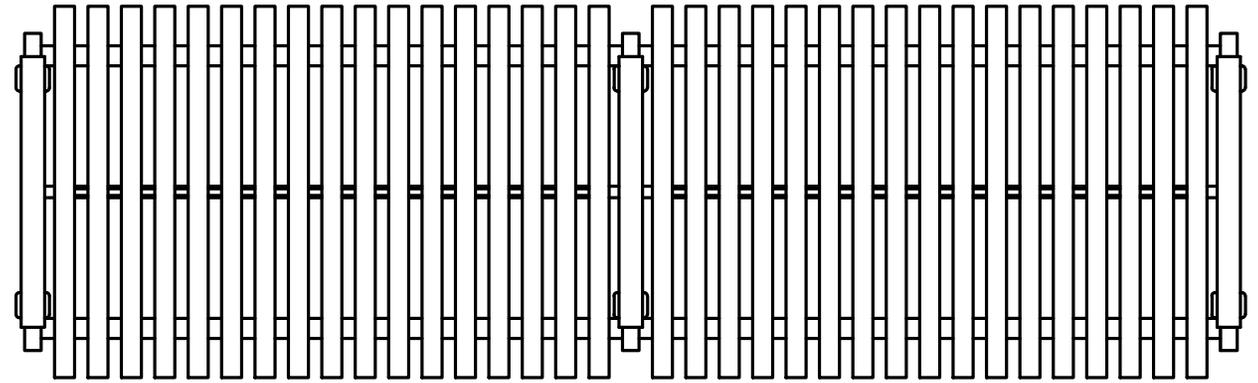
- 4" 2B STONE
- #3 REBAR (TYP.)



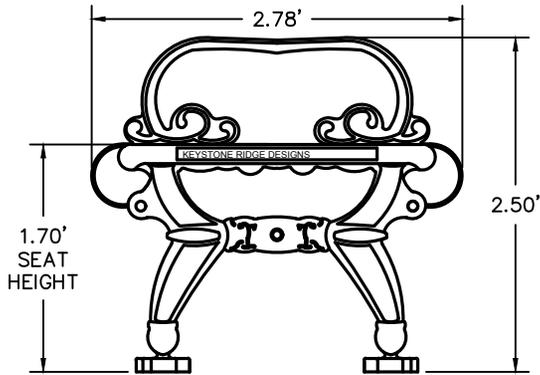
STREETSCAPE - 10" ORNAMENTAL TRENCH GRATE ASSEMBLY

NOT TO SCALE

ST13
 CONSTRUCTION DETAILS
 BOROUGH OF PHOENIXVILLE
 CHESTER COUNTY, PENNSYLVANIA



8' FLAT BENCH WITH CENTER ARM
NOT TO SCALE



SPECIFICATIONS

STEEL SIZES
 CAST ALUMINUM
 BENCH LEGS
 11 GAUGE
 1 1/2" O.D.
 TUBE
 11 GAUGE
 7/8" O.D.
 TUBE
 3/16" x 1 1/2"
 FLAT
 1/2" O.D.
 SOLID
 1/2"
 ALL THREAD

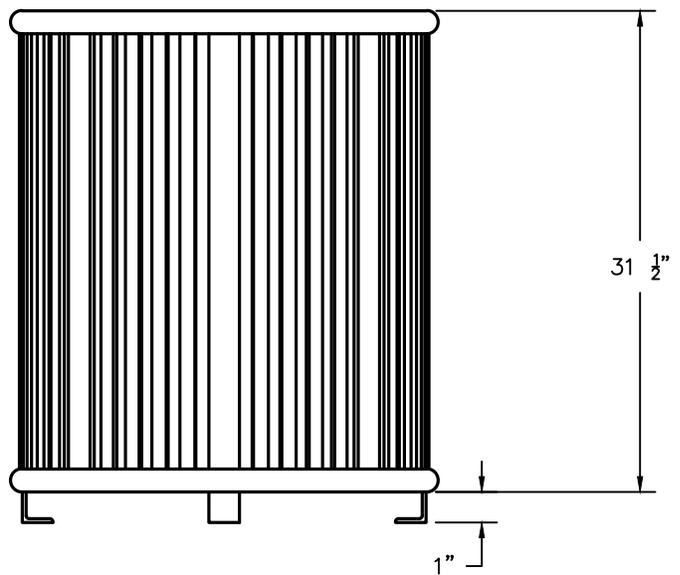
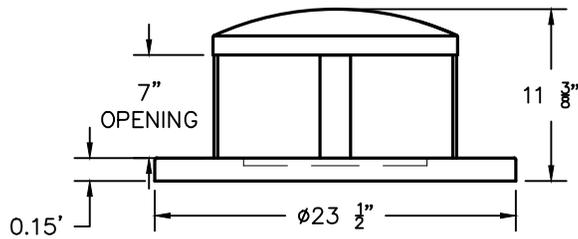
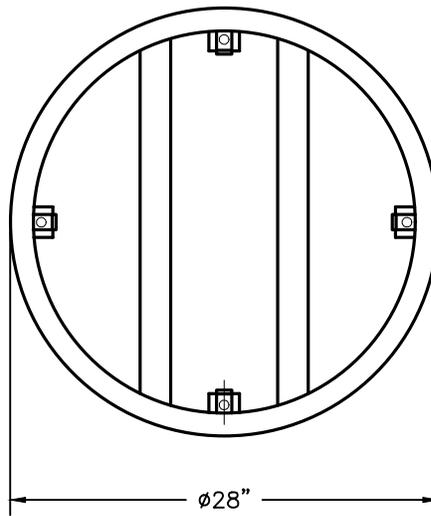
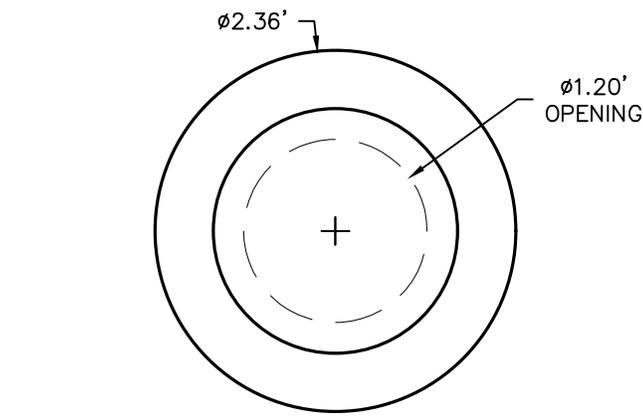
STEEL FINISH
 KEYSHIELD® POWDER COATING

NOTE:
 BENCH SHIPS FULLY ASSEMBLED

HARDWARE
 ANCHOR BOLTS
 NOT INCLUDED

BY SPRING CITY

ST14
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



SPECIFICATIONS

STEEL SIZES

- 11 GAUGE
- 1 1/2" O.D.
- TUBE
- 3/8" x 1"
- FLAT
- 3/8" x 2"
- FLAT
- 1/4" x 2"
- FLAT
- 1/4" x 1 1/2"
- ANGLE
- 1/4" x 2"
- ANGLE

STEEL FINISH

KEYSHIELD® POWDER COATING

HARDWARE

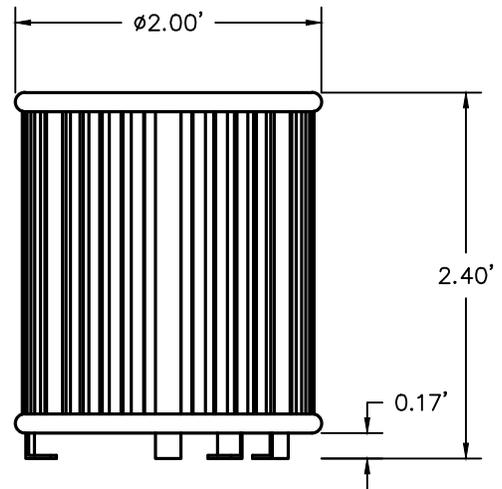
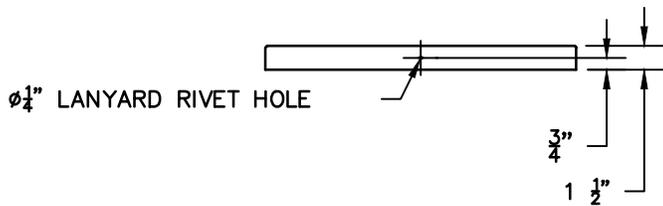
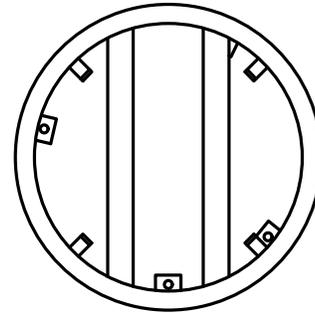
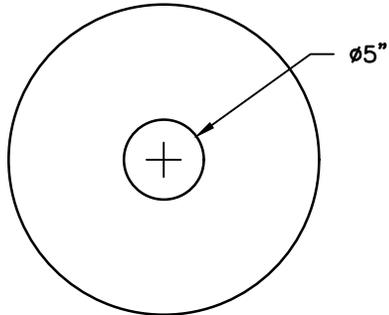
ANCHOR BOLTS
NOT INCLUDED

BY SPRING CITY

32 GALLON LITTER RECEPTACLE W/ELEVATED LID

NOT TO SCALE

ST15
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



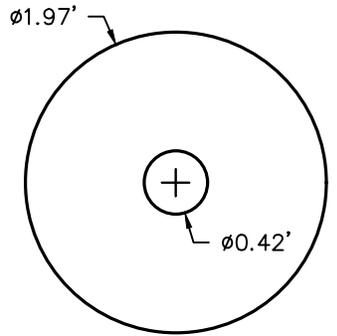
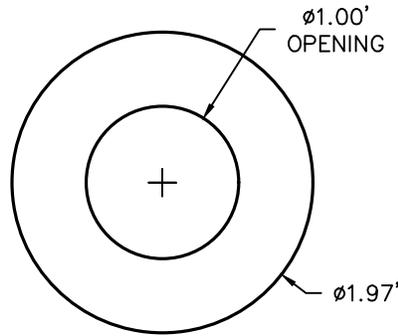
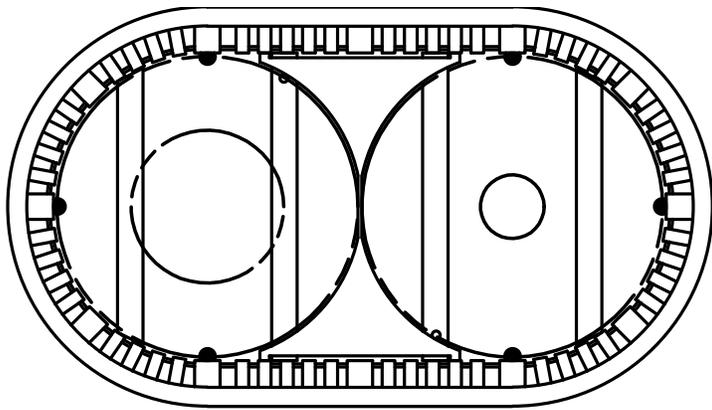
SPECIFICATIONS
<u>STEEL SIZES</u>
11 GAUGE
1 1/2" O.D.
TUBE
3/8" x 1"
FLAT
3/8" x 2"
FLAT
1/4" x 2"
FLAT
1/4" x 1 1/2"
ANGLE
1/4" x 2"
ANGLE

BY SPRING CITY

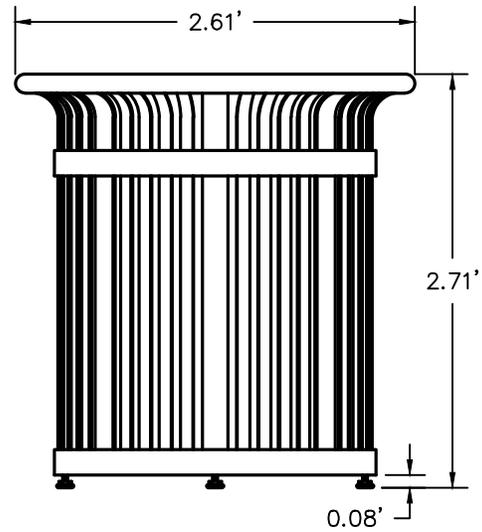
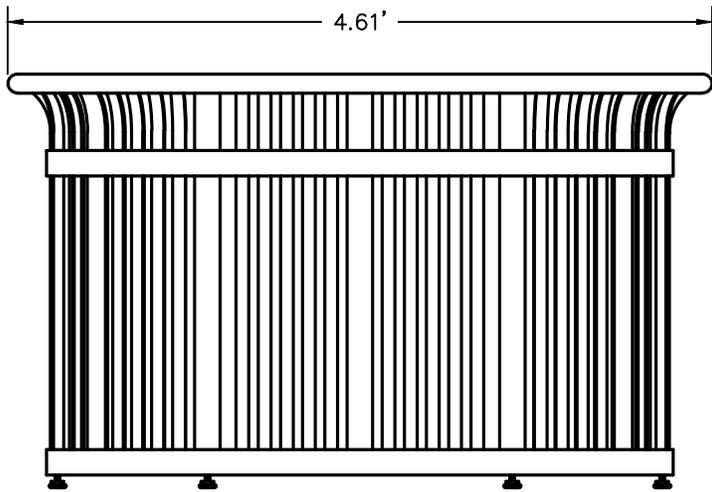
22 GALLON LITTER RECEPTACLE W/RECYCLE LID

NOT TO SCALE

ST16
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



LID DETAIL



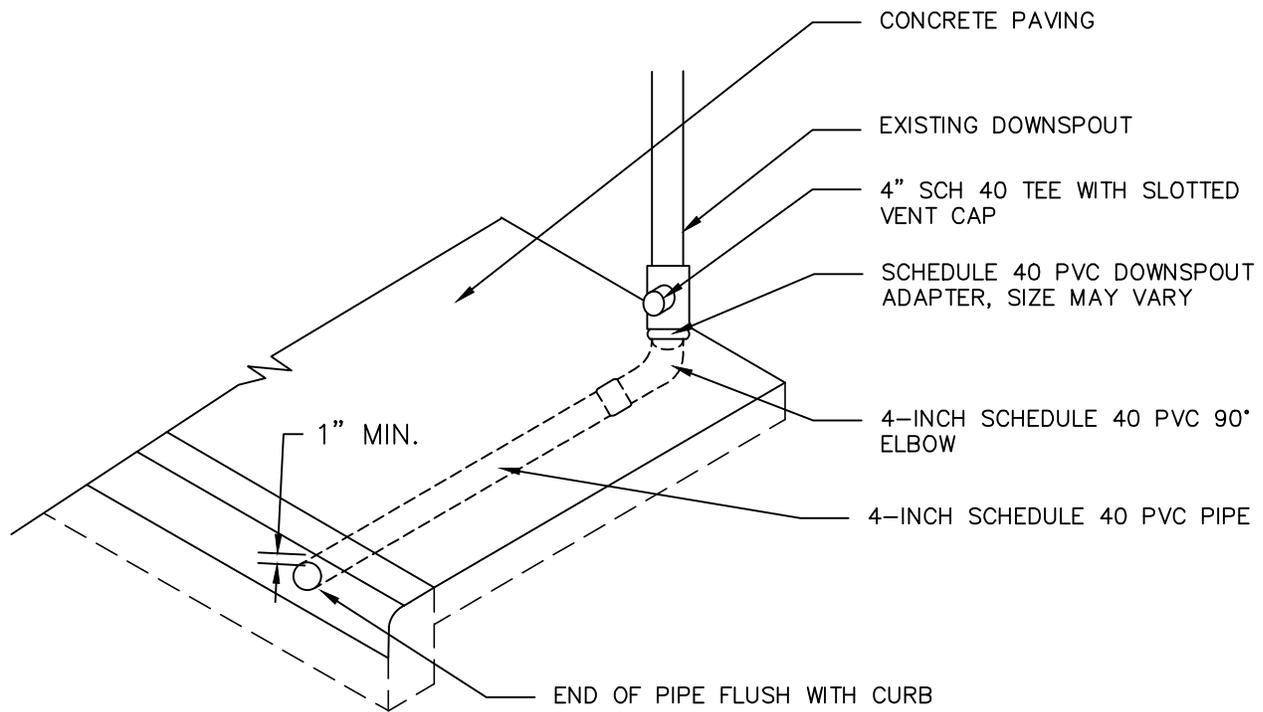
SPECIFICATIONS MT3D-32DRT		
32 GAL.		
WIDTH		31 1/8"
LENGTH		55 5/16"
ELEVATED LEG		37 1/2"
ADJUSTABLE LEG		36 1/2"
LID DIAMETER		23 5/8"
WEIGHT		340 lbs.

BY KEYSTONE
RIDGE DESIGNS

32 GALLON DUAL RECYCLE/LITTER
RECEPTACLE W/DOOR

NOT TO SCALE

ST17
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

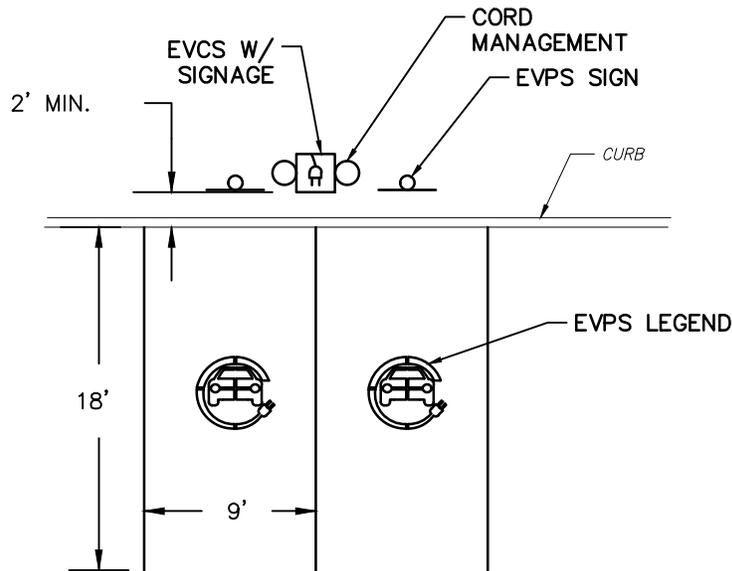


NOTE:
 PROVIDE A MINIMUM ONE (1) INCH
 CONCRETE COVER FOR ALL PVC
 DOWNSPOUT OUTFALL PIPES.

STREETSCAPE – DOWNSPOUT IN CONCRETE SIDEWALK

NOT TO SCALE

ST18
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



NOTE:

1. DETAIL SHOWN IS TYPICAL FOR EVCS CONFIGURATION SERVING TWO (2) ELECTRIC VEHICLE PARKING SPACE (EVPS). ACTUAL CONFIGURATION MAY VARY FOR EVCS SERVING SINGLE EVPS, DIFFERENT PHYSICAL BARRIERS, AND ADA PARKING SPACES.

Electric Vehicle Charging Station Standards.

1. INSTALLATION OF EVCS SHALL MEET THE REQUIREMENTS OF NATIONAL ELECTRICAL CODE ARTICLE 62, "ELECTRICAL VEHICLE CHARGING AND SUPPLY EQUIPMENT SYSTEMS."
2. CONNECTORS FOR A LEVEL 1 AND LEVEL 2 EVCS SHALL COMPLY WITH THE NORTH AMERICAN STANDARD J1772 FOR ELECTRICAL CONNECTORS MAINTAINED BY SAE INTERNATIONAL.
3. EVCS CORDS SHALL BE RETRACTABLE OR HAVE A PLACE TO HANG THE CORD AND CONNECTOR SUFFICIENTLY ABOVE THE PEDESTRIAN SURFACE. ANY CORDS CONNECTING THE CHARGER TO A VEHICLE SHALL BE CONFIGURED SO THAT THEY DO NOT CROSS A DRIVEWAY, SIDEWALK, OR PASSENGER UNLOADING AREA.
4. EVCS OUTLETS AND CONNECTORS SHALL BE MOUNTED TO COMPLY WITH ALL RELEVANT AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS. WHERE EVCS EQUIPMENT IS PROVIDED WITHIN AN ADJACENT PEDESTRIAN CIRCULATION AREA, SUCH AS A SIDEWALK OR ACCESSIBLE ROUTE TO THE BUILDING ENTRANCE, THE CHARGING EQUIPMENT MUST BE LOCATED SO AS NOT TO INTERFERE WITH ACCESSIBILITY REQUIREMENTS.
5. EVCS PEDESTALS SHALL BE DESIGNED TO MINIMIZE POTENTIAL DAMAGE BY ACCIDENTS AND VANDALISM AND TO BE SAFE FOR USE IN INCLEMENT WEATHER.
6. EVCS SHALL BE PROTECTED FROM VEHICLE IMPACTS BY CURBS, WHEEL STOPS, BOLLARDS OR OTHER GROUND MOUNTED PHYSICAL BARRIERS. THE EVCS SHALL BE OFFSET A MINIMUM OF 24 INCHES CLEAR FROM THE PHYSICAL BARRIER.

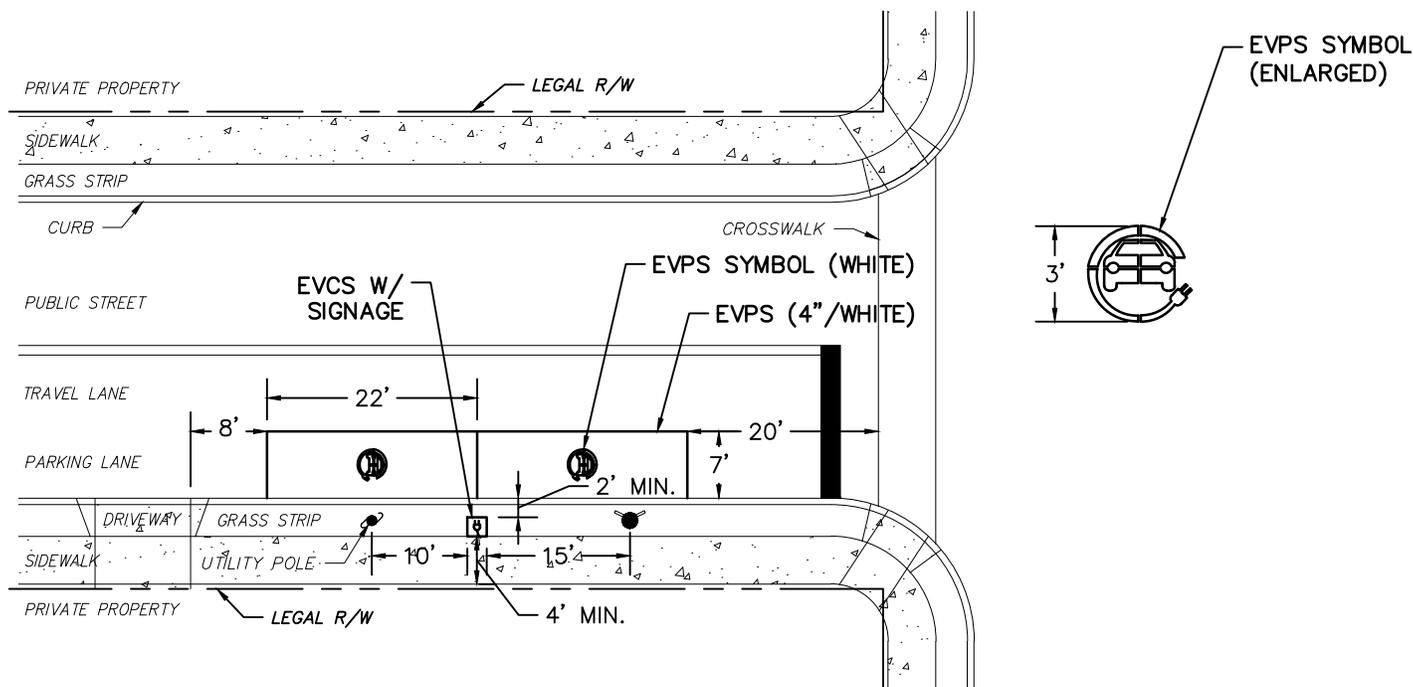
Signage, Safety and Other Standards.

1. ANY ELECTRIC VEHICLE PARKING SPACE (EVPS) AVAILABLE FOR PUBLIC USE SHALL BE MARKED WITH A SIGN INDICATING THAT THEIR USE IS EITHER RESERVED FOR ELECTRIC VEHICLES (EVS) OR PREFERRED FOR USE BY EVS.
2. THE FOLLOWING INFORMATION SHALL BE POSTED AT EACH EVCS:
 - (A) VOLTAGE AND AMPERAGE LEVELS;
 - (B) HOURS OF OPERATION, TIME LIMITS, AND TOWING PROVISIONS WHICH MAY BE ENFORCED BY THE PROPERTY OWNER;
 - (C) USAGE FEES, IF ANY;
 - (D) SAFETY INFORMATION;
 - (E) CONTACT INFORMATION TO FACILITATE REPORTING WHEN EQUIPMENT IS NOT OPERATING CORRECTLY OR OTHER ISSUES.
3. SITE LIGHTING (MIN. 0.2 FOOTCANDLES) SHALL BE PROVIDED WHEREVER AN EVCS IS INSTALLED, UNLESS THE PARKING AREA IS LIMITED TO DAYTIME USE ONLY.

ELECTRIC VEHICLE CHARGING STATION (EVCS)

N.T.S.

EV1
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



CURBSIDE ELECTRIC VEHICLE CHARGING STATION (PUBLIC RIGHT-OF-WAY)

N.T.S.

1. CURBSIDE ELECTRIC VEHICLE CHARGING STATIONS (EVCS) MAY BE INSTALLED AT DESIGNATED ELECTRICAL VEHICLE PARKING SPACES (EVPS) WHERE ON-STREET PARALLEL PARKING IS OTHERWISE PERMITTED.
2. EVPS FOR CURBSIDE EVCS SHALL MEET THE FOLLOWING REQUIREMENTS:
 - 2.1. HAVE MINIMUM DIMENSIONS OF 7' WIDE AND 22' LONG, IN ACCORDANCE WITH §22-417.2.E.(1). AT THE END OF A ROW OF PARALLEL PARKING HAVING NO OTHER PHYSICAL OBSTRUCTION, LENGTH MAY BE REDUCED TO 18'.
 - 2.2. EVPS SHALL BE STRIPED WITH 4" WHITE STRIPING ALONG SIDE AND AT EACH END.
 - 2.3. EVPS SHALL BE MARKED WITH A WHITE EVPS SYMBOL, OF BOROUGH-APPROVED DESIGN.
3. CURBSIDE EVCS SHALL MEET THE FOLLOWING REQUIREMENTS:
 - 3.2. PROVIDE LEVEL 2 ELECTRICAL VEHICLE CHARGING FOR PUBLIC USE.
 - 3.4. NETWORKED CONFIGURATION PROVIDING EV DRIVERS WITH EVCS LOCATION, STATUS, AND POINT-OF-SALE FUNCTIONS.
 - 3.5. PROVIDE CHARGER CORDS (MIN. 20' LENGTH) WITH SAE J1772 CONNECTOR FOR EACH EVPS SERVED BY THE EVCS.
 - 3.6. CURBSIDE EVCS SHALL HAVE A CABLE MANAGEMENT SYSTEM IN ACCORDANCE WITH §22-417.7.B.(3). CABLES MAY NOT INTERFERE WITH PEDESTRIAN USE OF SIDEWALKS.
 - 3.7. CURBSIDE EVCS SHALL HAVE SIGNAGE IN ACCORDANCE WITH §22-417.7.E.
4. CURBSIDE EVCS SHALL BE LOCATED PER THE FOLLOWING REQUIREMENTS:
 - 4.1. CURBSIDE EVCS SERVING ONE (1) EVPS MAY BE LOCATED ANYWHERE ALONG THE EVPS.
 - 4.2. CURBSIDE EVCS SERVING TWO (2) EVPS SHALL BE CENTERED BETWEEN BOTH EVPS.
 - 4.3. ALL PORTIONS OF CURBSIDE EVCS SHALL BE SET BACK 2' FROM THE FACE OF CURB OR ANOTHER PHYSICAL GROUND MOUNTED BARRIER TO PROTECT THE CURBSIDE EVCS FROM VEHICLE IMPACTS.
 - 4.4. CURBSIDE EVCS SHALL BE LOCATED TO MAINTAIN A 3' MINIMUM CLEAR WIDTH (5' PREFERRED) ACROSS SIDEWALKS IN ACCORDANCE WITH 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
 - 4.5. CURBSIDE EVCS SHALL MAINTAIN THE FOLLOWING CLEARANCES FROM EXISTING FEATURES:
 - 4.5.1. 5' FROM STREET FURNITURE, SIGNS, WATER/SEWER SERVICES, VALVES, VENTS, STREET LIGHTS, AND BUILDING ENTRANCES.
 - 4.5.2. 10' FROM UTILITY POLES, STREET TREES.
 - 4.5.3. 15' FROM FIRE HYDRANTS.
6. UNLESS INSTALLED ON A UTILITY POLE, CURBSIDE EVCS SHALL BE POWERED BY AN UNDERGROUND SERVICE.
7. CURBSIDE EVCS MAY ONLY BE INSTALLED ON UTILITY POLES WITH PERMISSION FROM THE UTILITY POLE OWNER.
8. SEE §22-417.7 FOR ADDITIONAL REQUIREMENTS NOT LISTED HERE.

EV2
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA