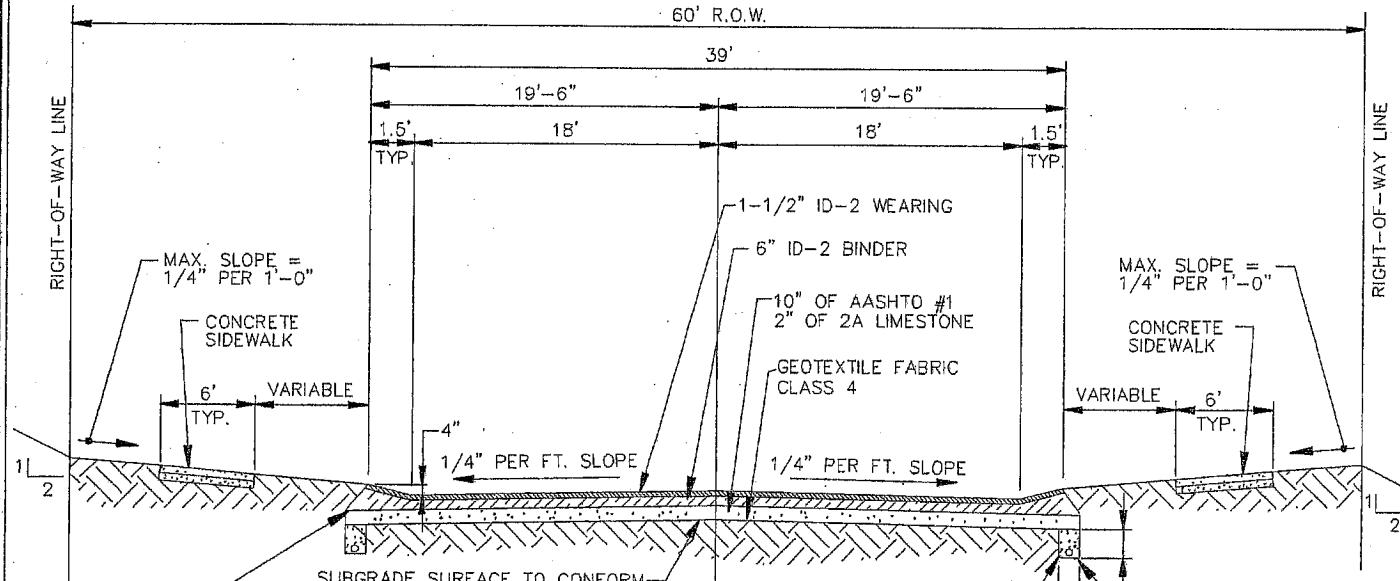


Township  
Of  
Middlesex

Construction  
Design  
Standards

Appendix

NOTE:  
2 PHASE PAVING  
1/2" ID-2 WEARING AS DIRECTED BY TWP. ENGINEER



EXTEND SUBBASE 6" BEYOND  
BACK OF CURB, SLOPE BINDER  
ON 1 TO 1 SLOPE, ALTERNATIVE  
SUBBASE SPEC (10" ASSHTO #1 AND  
2" OF PADOT #2A).  
ALTERNATE CURB SPEC (PLAIN CONCRETE  
CURB GUTTER OR PLAIN CONCRETE  
CURB IN ACCORDANCE WITH PADOT  
PUBLICATION 408).

4" DIA. CORREGATED SLOTTED UNDER  
DRAIN TO BE INSTALLED ON  
EMBANKMENT SIDES OF STREET AND  
OUTFALLED INTO NEAREST SAME STREET

SIDE STORM INLET, AS DIRECTED BY THE  
TOWNSHIP ENGINEER.

MAX. SLOPE =  
1/4" PER 1'-0"  
CONCRETE  
SIDEWALK  
VARIABLE  
6' TYP.  
1/4" PER FT. SLOPE  
15"  
12"  
BACKFILL WITH PADOT  
#57 COARSE  
AGGREGATE  
WRAP IN PENNDOT  
CLASS 1 GEOTEXTILE  
FABRIC

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

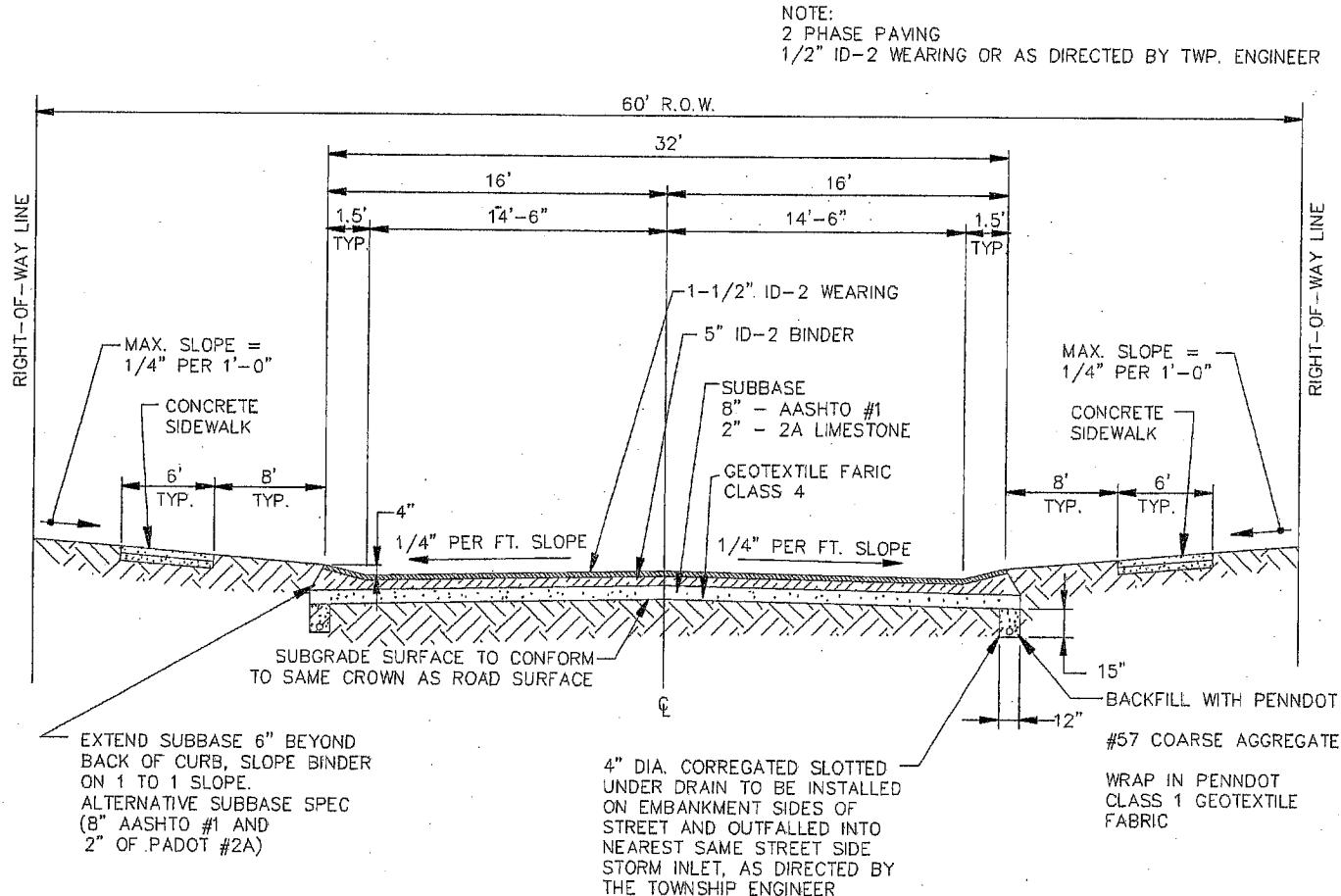
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## TYPICAL STREET SECTION ARTERIAL STREET

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

401.2.1



NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

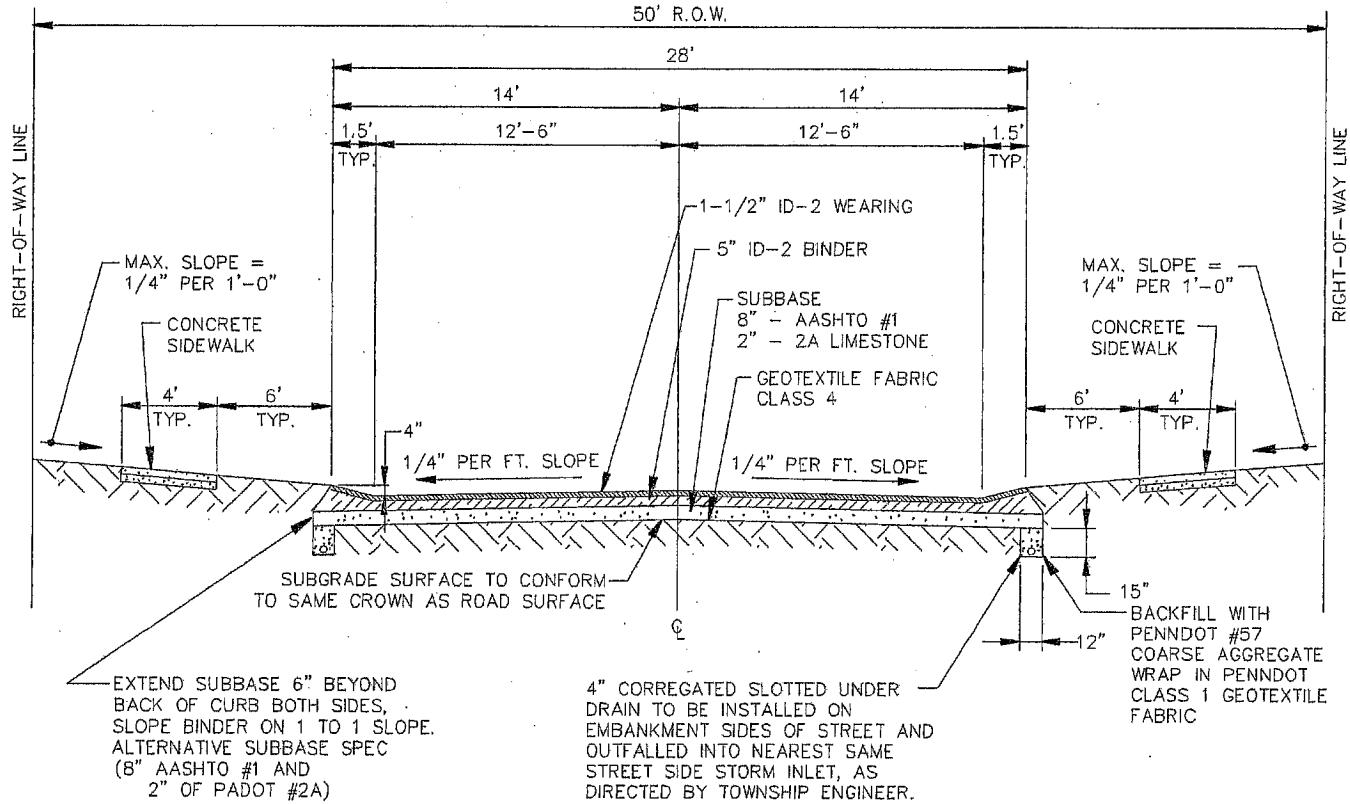
**TYPICAL STREET SECTION  
COMMERCIAL COLLECTOR STREET**

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

401.2.2

NOTE:  
2 PHASE PAVING  
1/2" ID-2 WEARING AS DIRECTED BY TWP. ENGINEER



NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

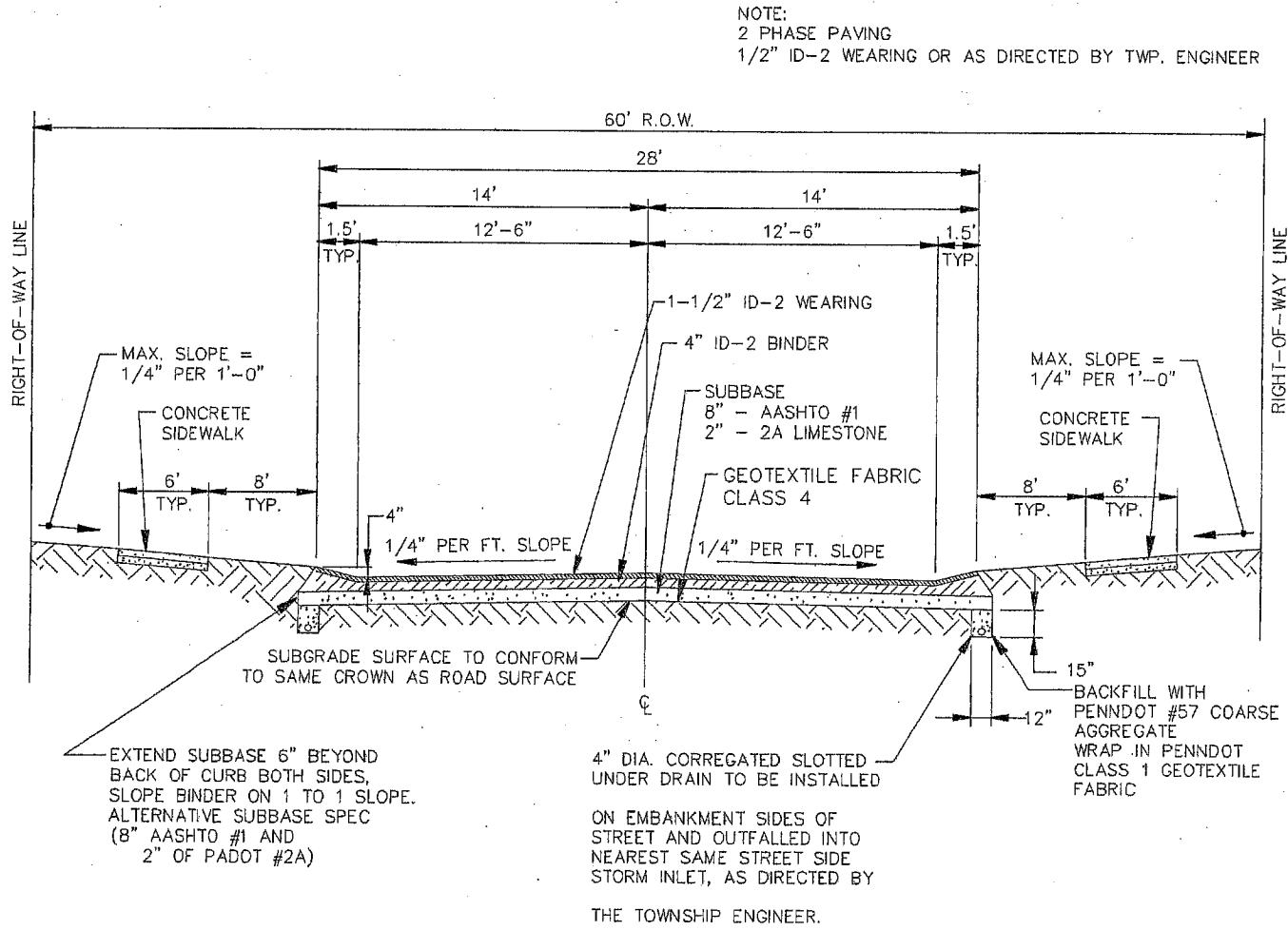
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## TYPICAL STREET SECTION RESIDENTIAL COLLECTOR STREET

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

401.2.3



MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

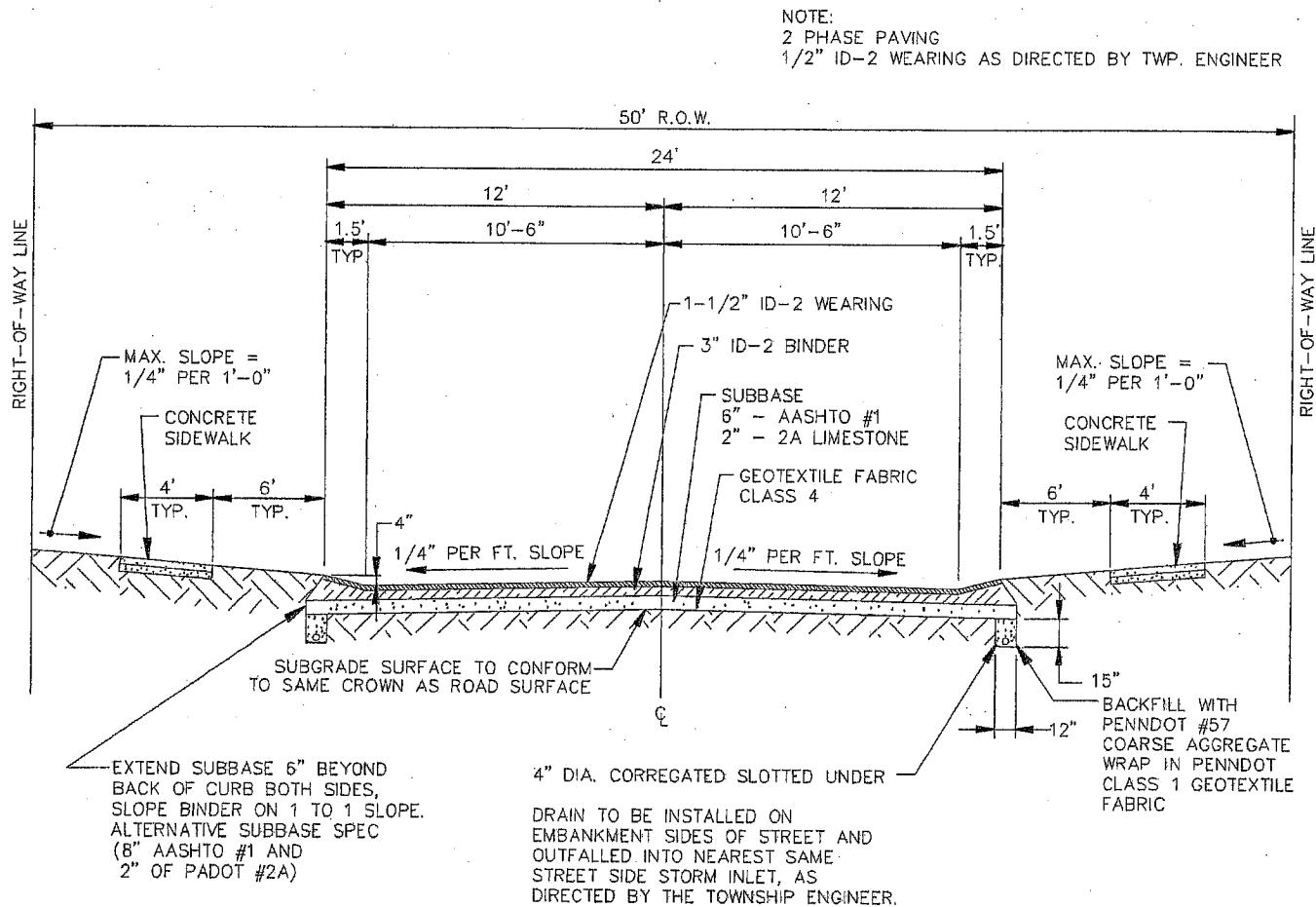
PHONE: (724) 898-3571  
FAX: (724) 898-4607

**TYPICAL STREET SECTION  
LOCAL COMMERCIAL STREET**

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

401.2.4



NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

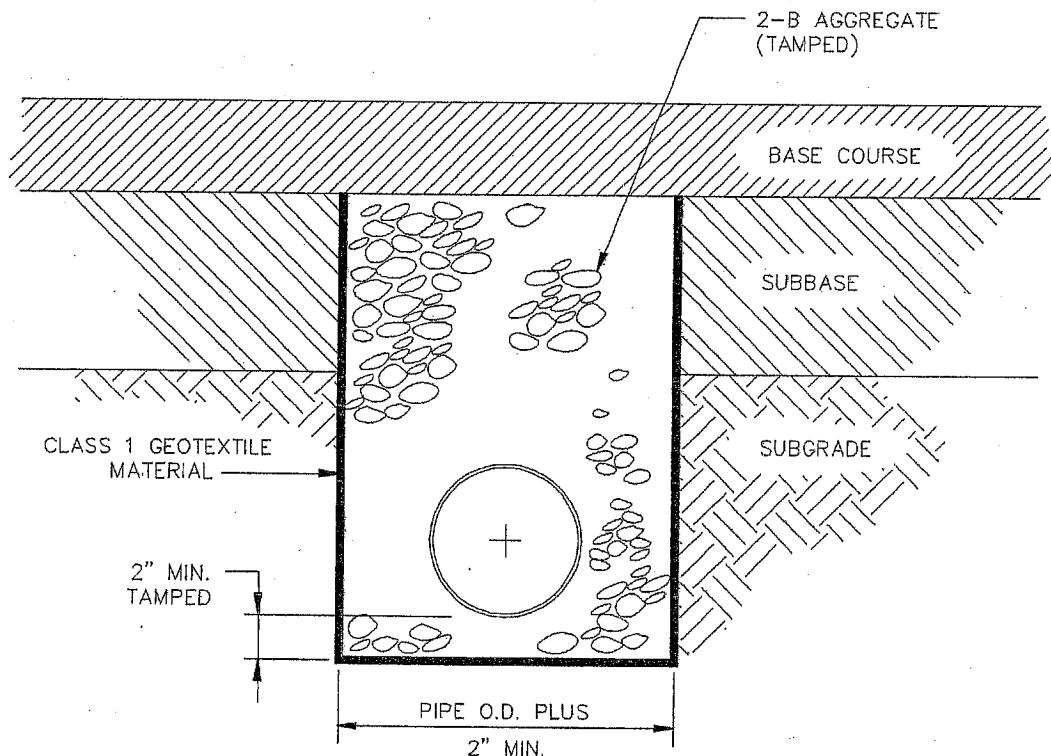
PHONE: (724) 898-3571  
FAX: (724) 898-4607

**TYPICAL STREET SECTION  
LOCAL RESIDENTIAL STREET**

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

401.2.5



NOTES

1. MATERIALS AND CONSTRUCTION SHALL CONFORM WITH THE REQUIREMENTS OF PENNDOT 408, SECTIONS 610 AND 615.

NOT TO SCALE

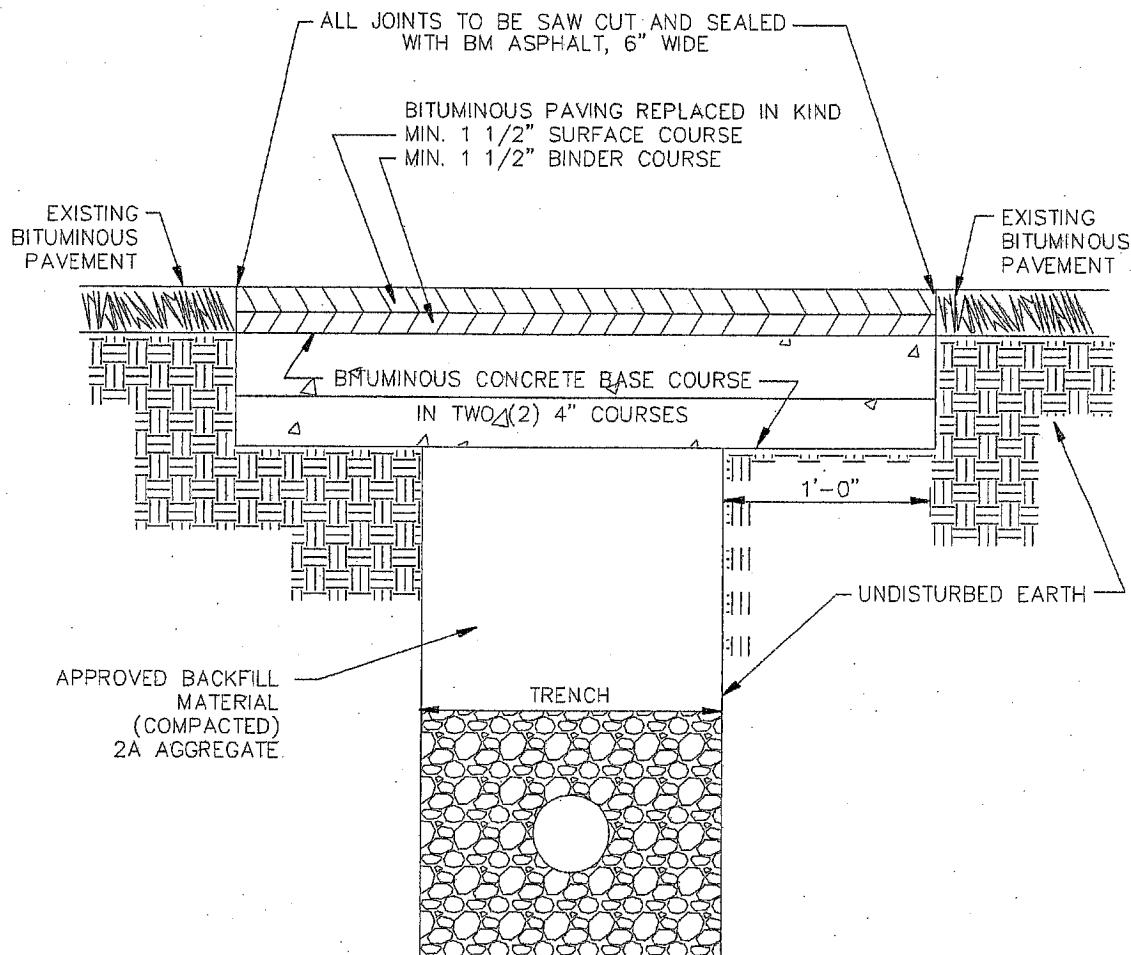
REFERENCE RC-30-PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

**SUBSURFACE DRAIN  
(Pavement Base Drain) DETAIL**

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			401.2.7



NOTE:  
TRENCH REPAVING REQUIREMENTS FOR  
OTHER THAN BITUMINOUS PAVING  
WILL BE DETERMINED BY THE  
TOWNSHIP ENGINEER.

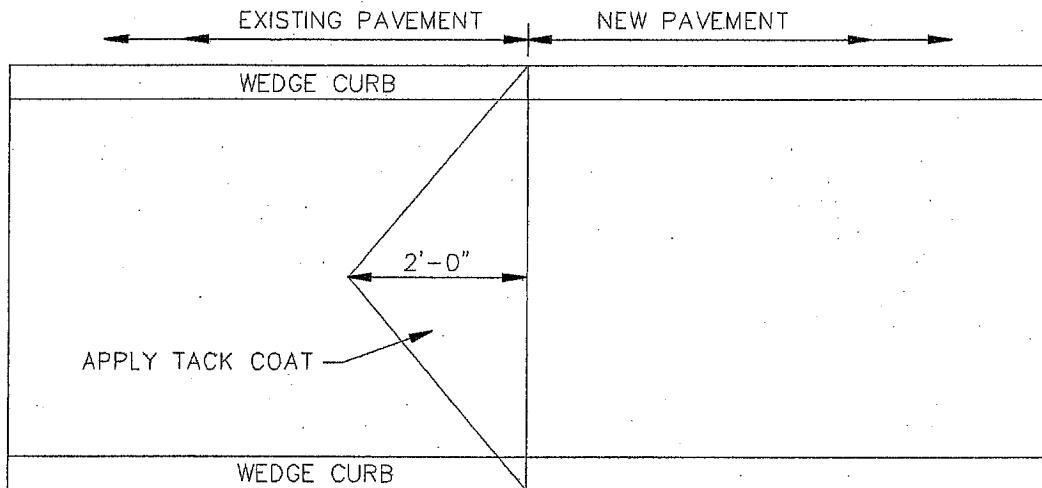
NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

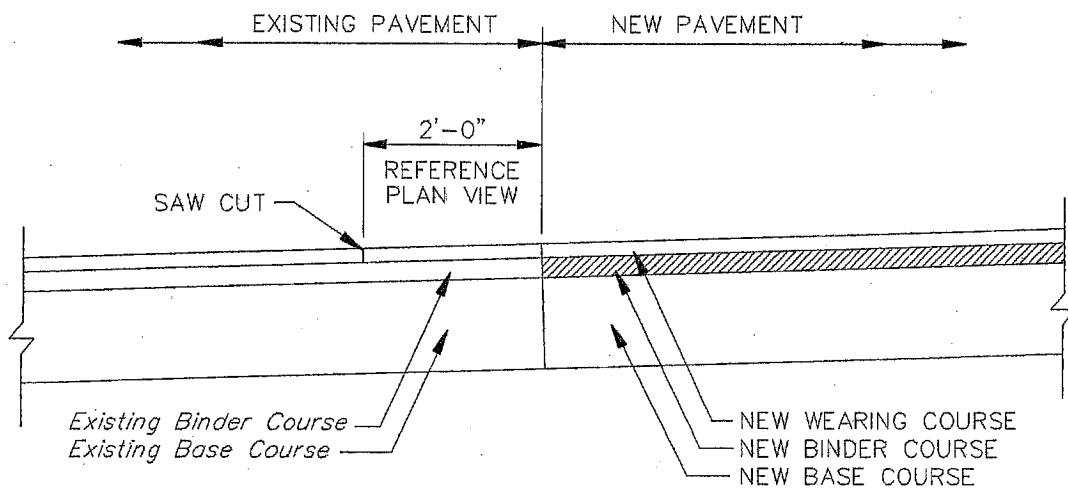
## TRENCH REPAVING FOR BITUMINOUS PAVING

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			401.2.10



PLAN VIEW

SEAL ALL EDGES AS SPECIFIED IN  
FORM 408, SECTION 401.3(j)3



WHERE NEW ASPHALT PAVEMENT MEETS  
EXISTING ASPHALT PAVEMENT, CUT NOTCH  
AS SHOWN IN PLAN VIEW.

NOT TO SCALE

REFERENCE RC-28 PENNDOT PUB. 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

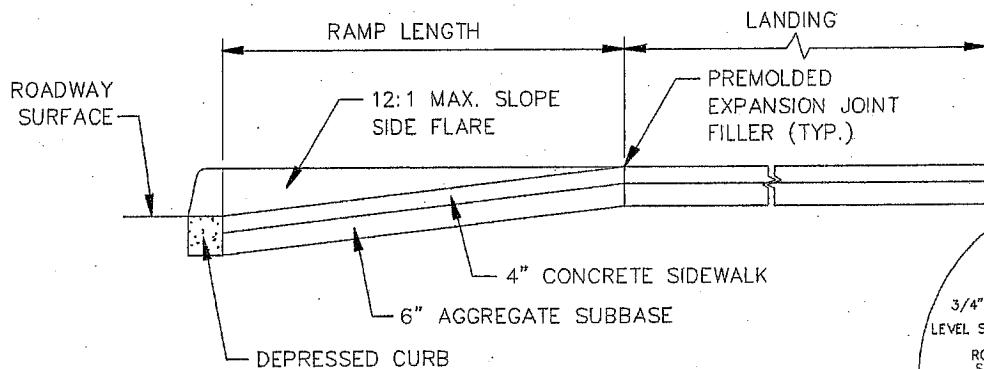
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## PAVING NOTCH DETAIL

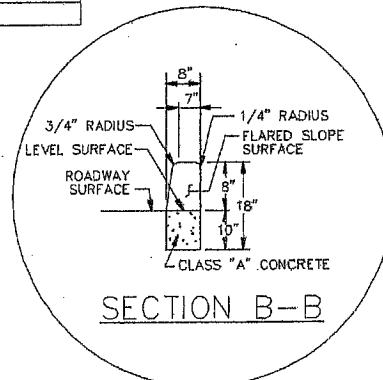
REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

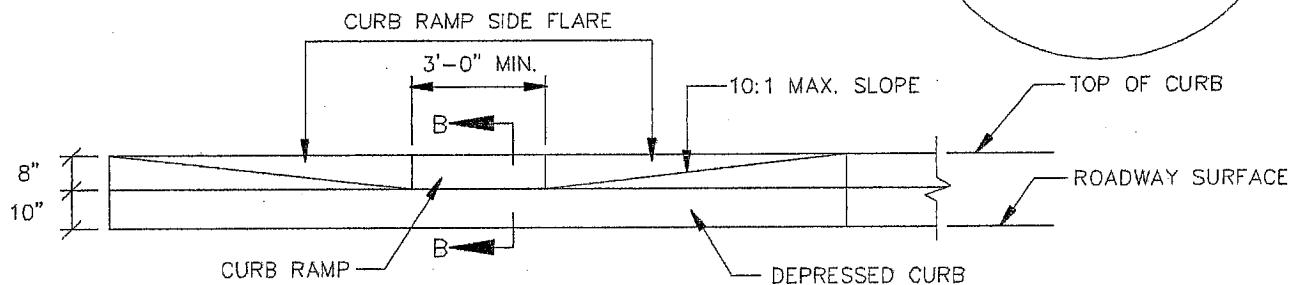
401.2.11



SECTION A-A

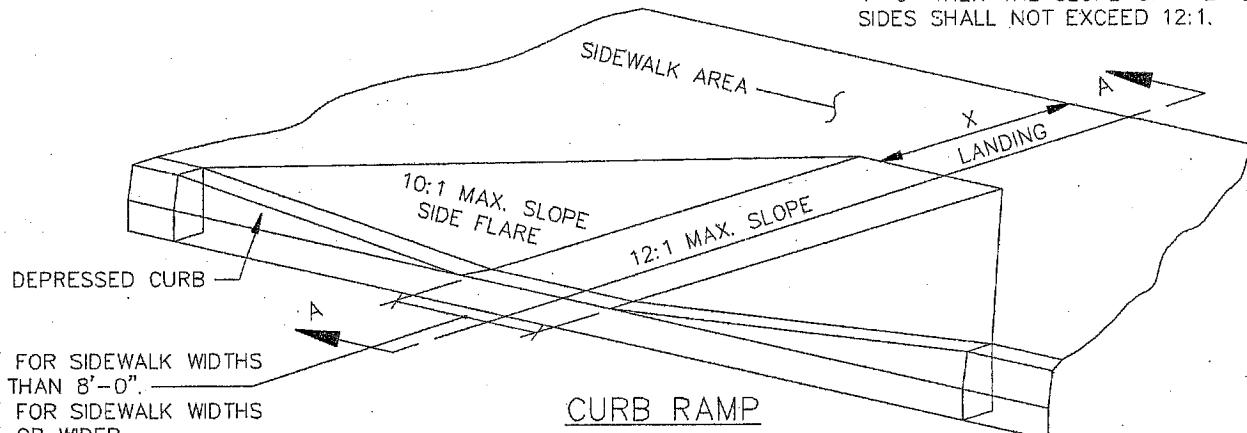


SECTION B-B



ELEVATION

X SHALL BE EQUAL TO OR GREATER THAN 3'-0". IF X IS LESS THAN 4'-0" THEN THE SLOPE OF THE FLARED SIDES SHALL NOT EXCEED 12:1.



3'-0" FOR SIDEWALK WIDTHS  
LESS THAN 8'-0"  
4'-0" FOR SIDEWALK WIDTHS  
8'-0" OR WIDER.

NOT TO SCALE

REFERENCE RC-67 -- PENNDOT PUBLICATION 72

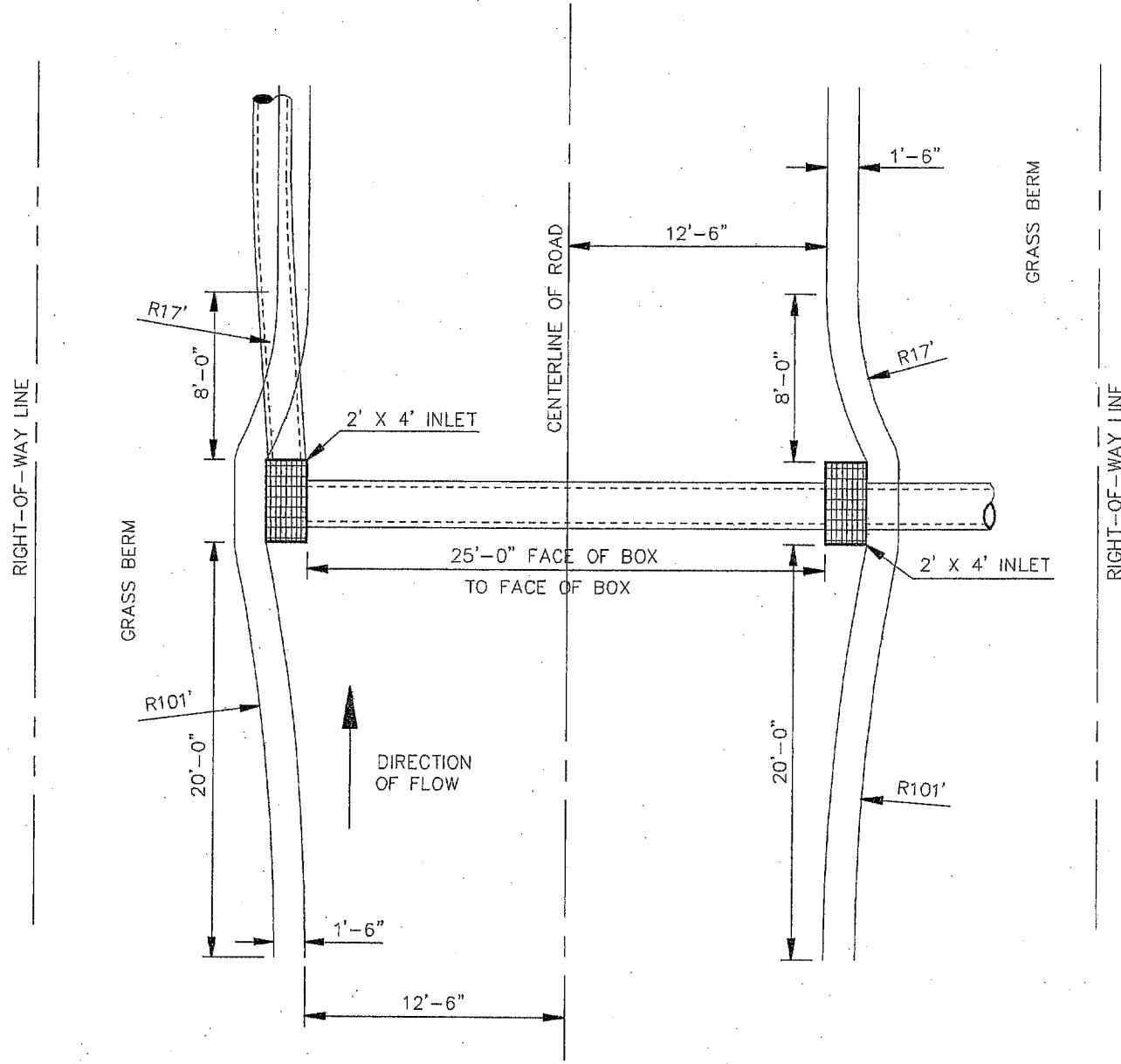
MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

## CURB CUT/ RAMP DETAIL

### REVISIONS

NO.	DATE	NO.	DATE	FIGURE
ORIGINAL	OCTOBER 2003			401.2.13



NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

## EARRED INLET FOR RESIDENTIAL COLLECTOR STREET

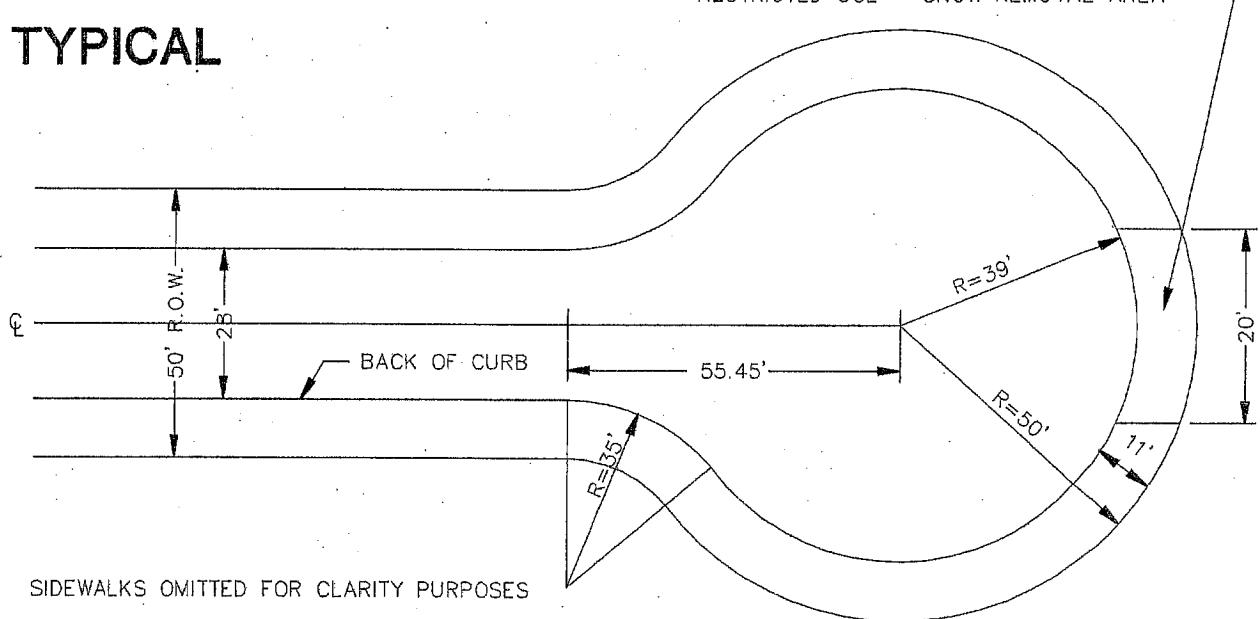
REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

401.2.3.1

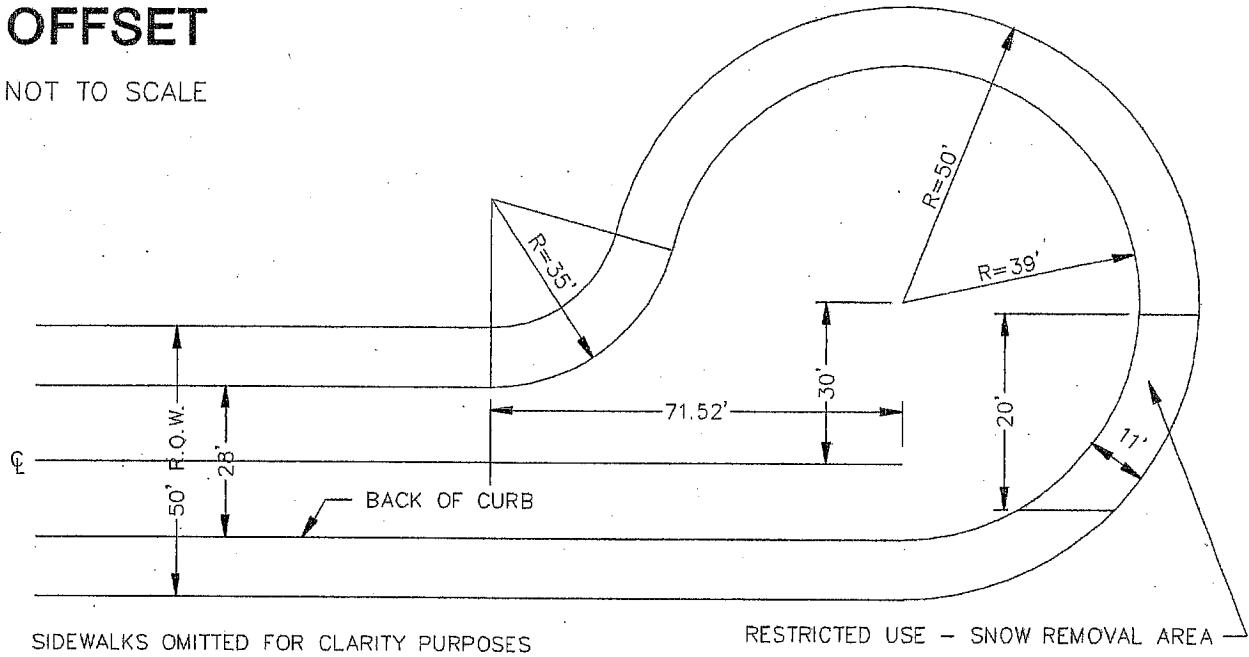
RESTRICTED USE - SNOW REMOVAL AREA

## TYPICAL



## OFFSET

NOT TO SCALE



MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

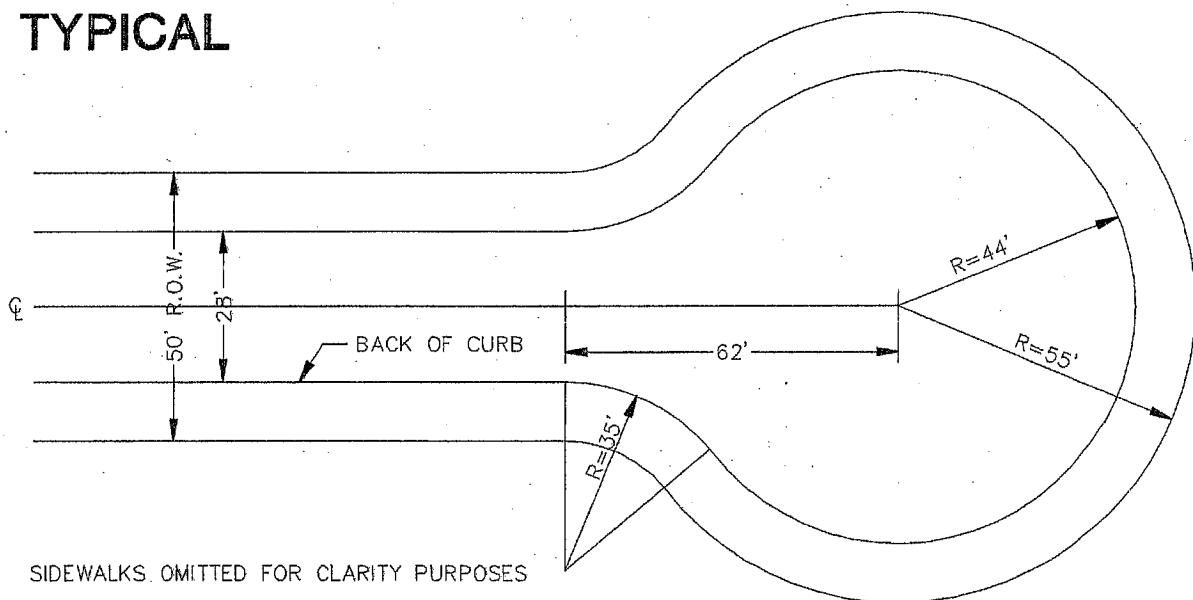
## TYPICAL AND OFFSET CUL DE SAC DETAILS (RESIDENTIAL)

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

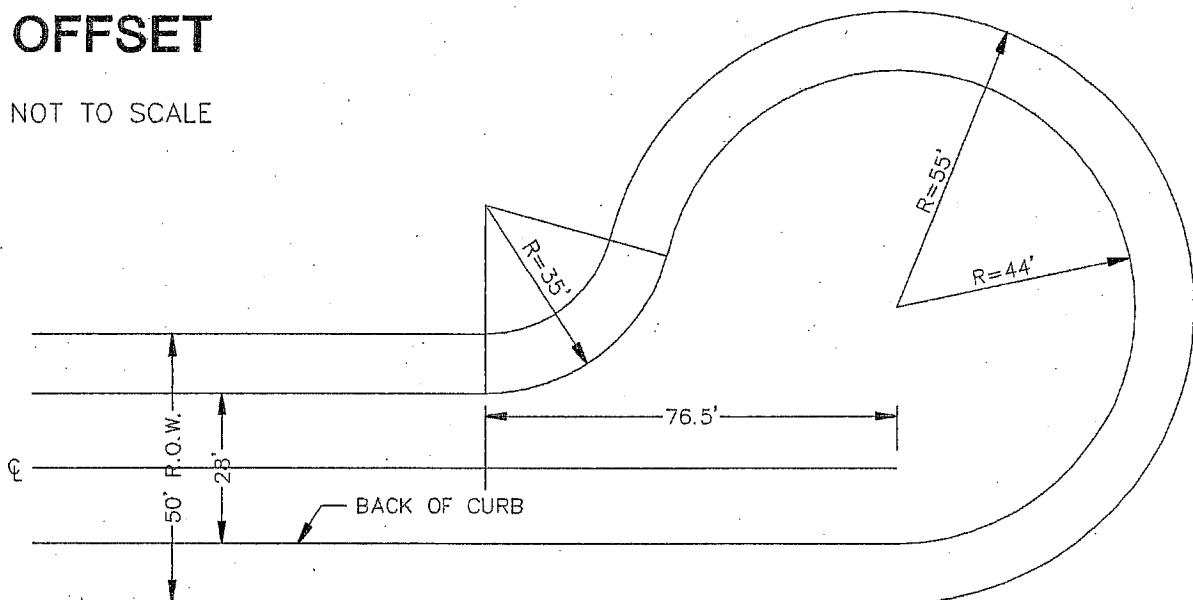
401.3.2A

## TYPICAL



## OFFSET

NOT TO SCALE



MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

## TYPICAL AND OFFSET CUL DE SAC DETAILS (COMMERCIAL)

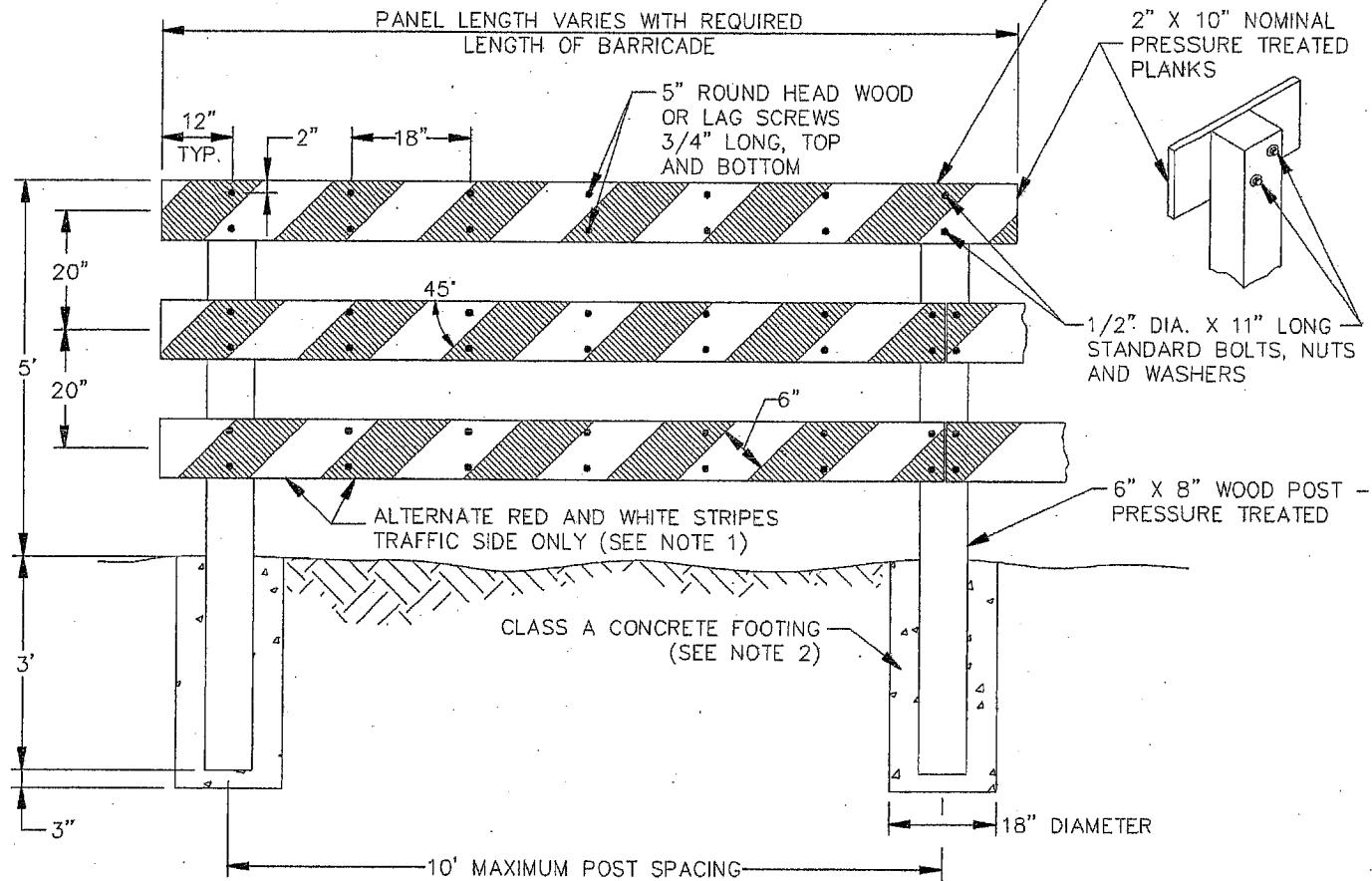
REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2005		

FIGURE

401.3.2B

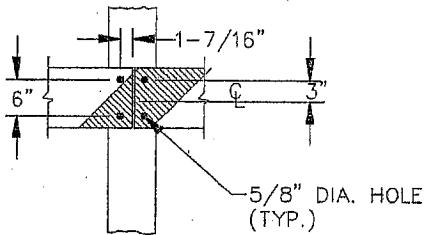
CLASS I, CLASS I-A OR CLASS II  
REFLECTIVE MATERIAL APPLIED TO  
0.063" X 10" ALUMINUM BLANK  
AND FASTENED TO WOOD PLANKS  
(SEE NOTE 1)

POST TO PANEL CONNECTION



NOTES

1. ONLY CLASS I, CLASS I-A OR CLASS II REFLECTIVE SHEETING MATERIAL SUPPLIED BY A MANUFACTURER, AS LISTED IN PENNDOT BULLETIN 15 PERMITTED.
2. MECHANICALLY DRIVE POSTS OR ERECT IN CONCRETE FOOTING.



BUTT SPLICE

NOT TO SCALE

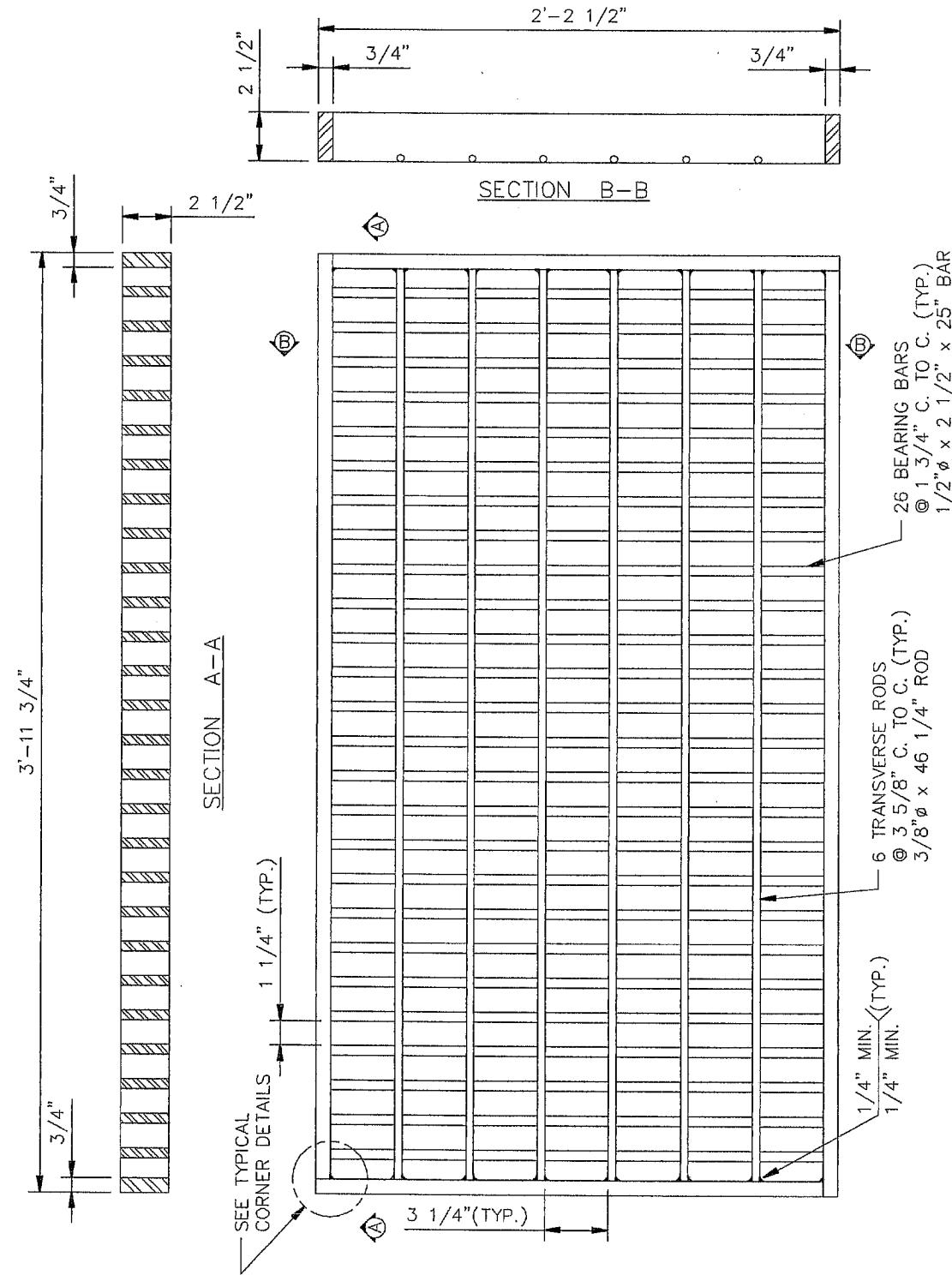
REFERENCE RC-63 - PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

**BARRICADE DETAIL FOR  
DEAD END ROADS**

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			401.3.3



MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

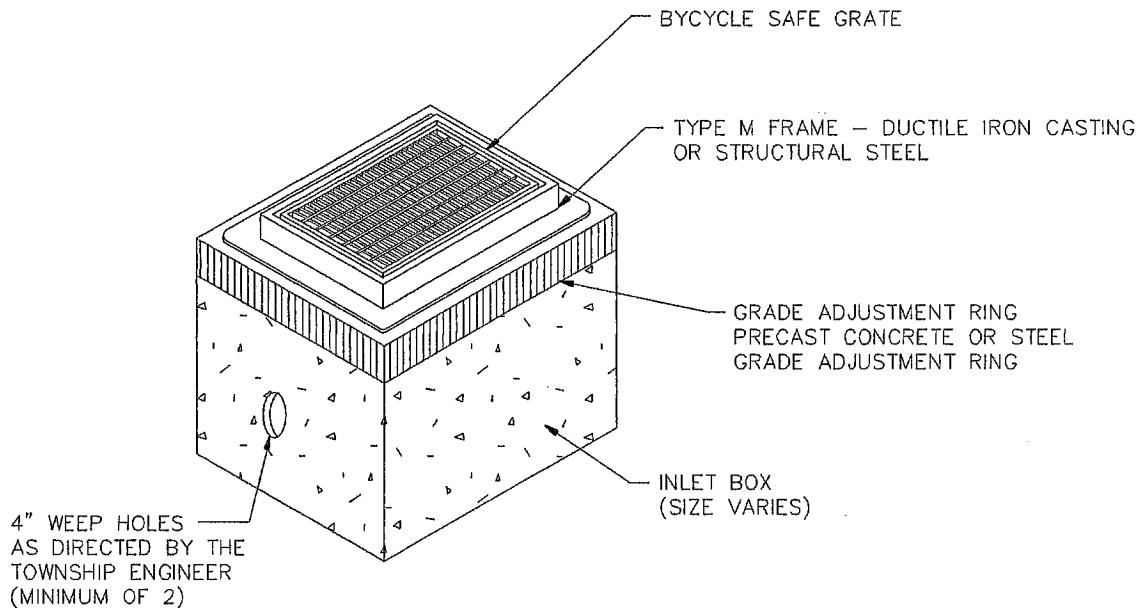
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## STRUCTURAL STEEL BICYCLE SAFE GRATE

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.2.1



NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES.
2. ALL DRAINAGE STRUCTURES SHALL HAVE Poured-in-Place CONCRETE CHANNEL BOTTOMS.
3. LADDER BARS TO BE INSTALLED IN STRUCTURES EXCEEDING A DEPTH OF 5 FEET.

NOT TO SCALE

REFERENCE RC-34 - PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

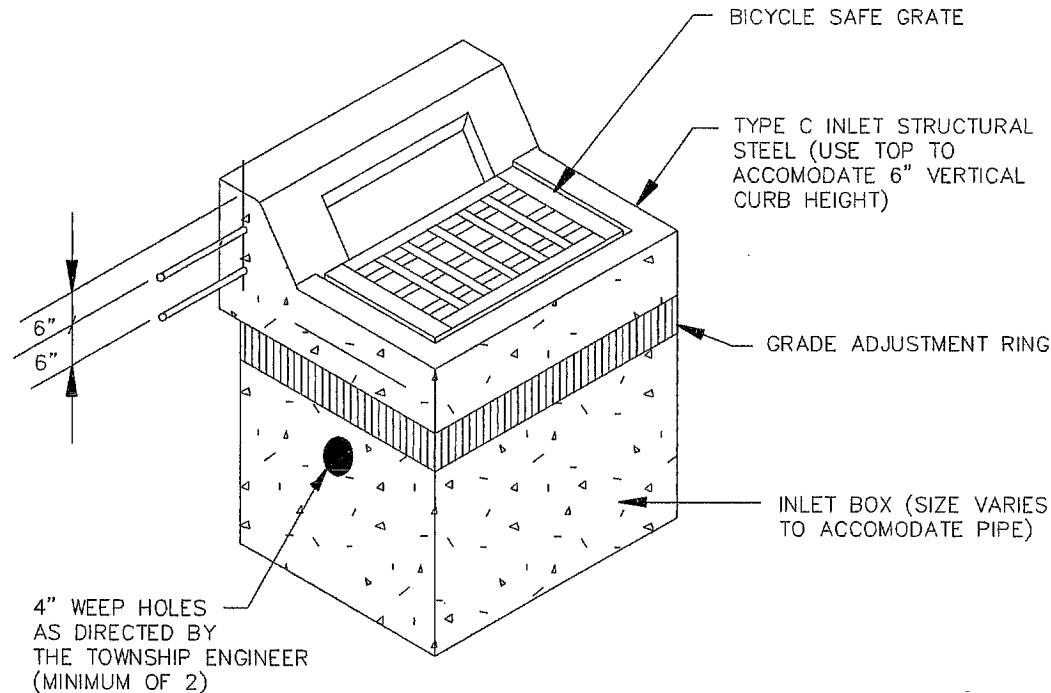
PHONE: (724) 898-3571  
FAX: (724) 898-4607

**TYPE "M"  
INLET DETAIL**

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.2A



NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 605 AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-34. CONTRACTOR SHALL VERIFY INLET BOX SIZING BASED ON PIPE SIZES AND ALIGNMENT PRIOR TO ORDERING PRECAST STRUCTURES.
2. ALL DRAINAGE STRUCTURES SHALL HAVE Poured-in-Place CONCRETE CHANNEL BOTTOMS.
3. LADDER BARS TO BE INSTALLED IN STRUCTURES EXCEEDING A DEPTH OF 5 FEET.

NOT TO SCALE

REFERENCE RC-34 — PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

**TYPE "C"  
INLET DETAIL**

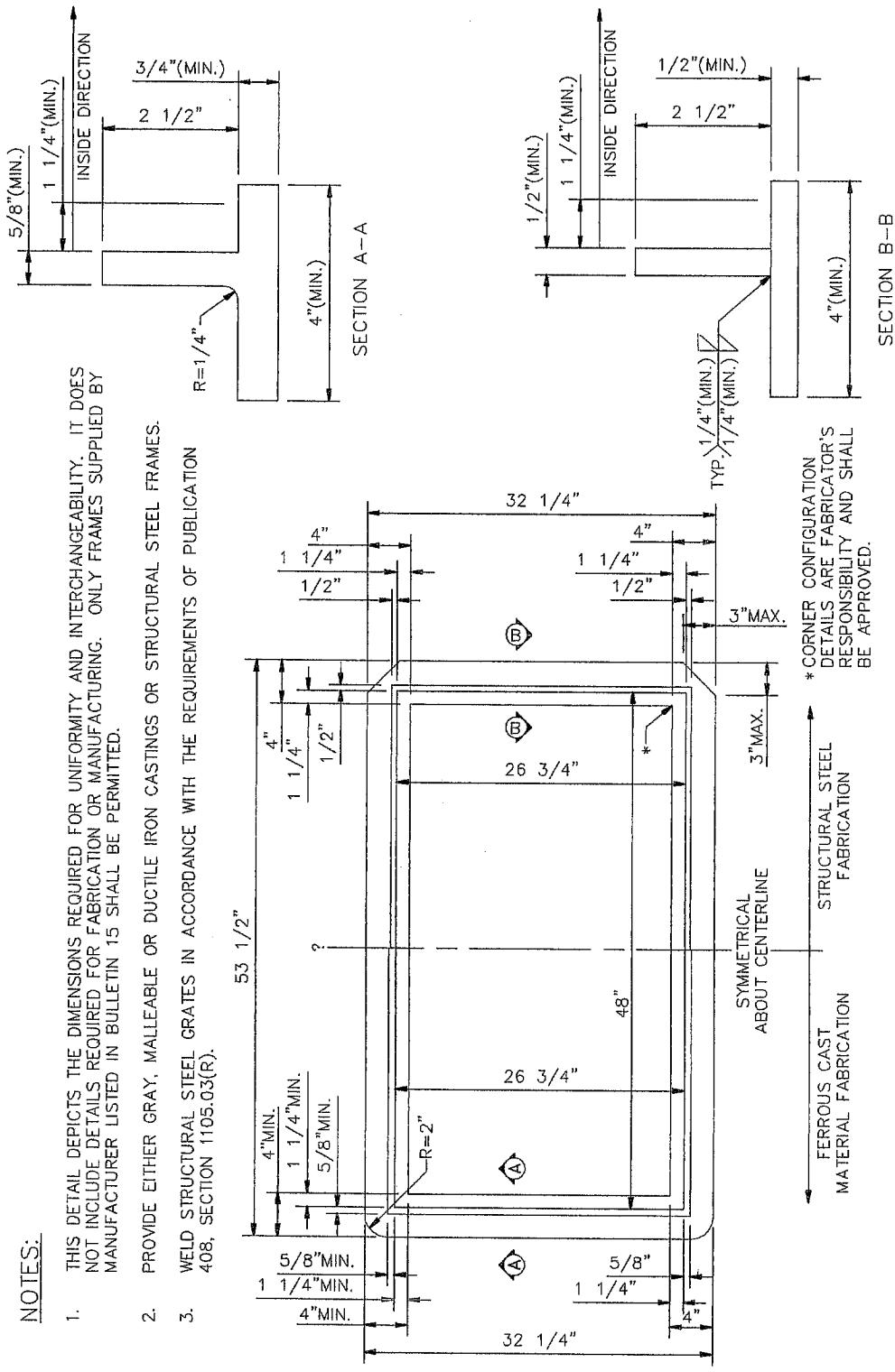
REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.2B

NOTES:

1. THIS DETAIL DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGEABILITY. IT DOES NOT INCLUDE DETAILS REQUIRED FOR FABRICATION OR MANUFACTURING. ONLY FRAMES SUPPLIED BY MANUFACTURER LISTED IN BULLETIN 15 SHALL BE PERMITTED.
2. PROVIDE EITHER GRAY, MALLEABLE OR DUCTILE IRON CASTINGS OR STRUCTURAL STEEL FRAMES.
3. WELD STRUCTURAL STEEL GRATES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 1105.03(R).



MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

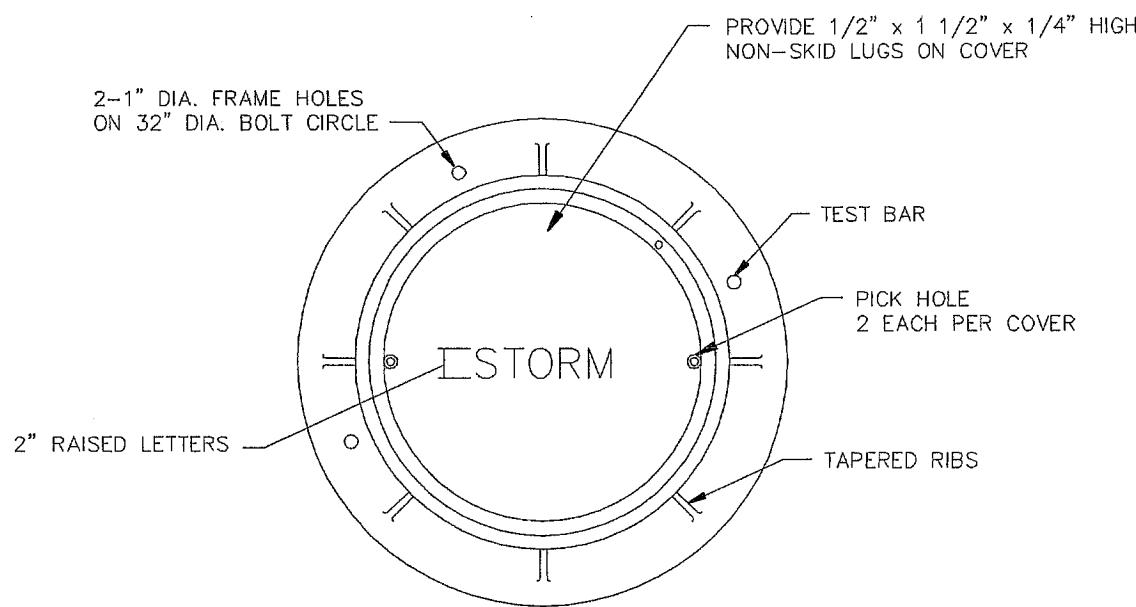
PHONE: (724) 898-3571  
FAX: (724) 898-4607

**TYPE "M"**  
**INLET FRAME DETAIL**

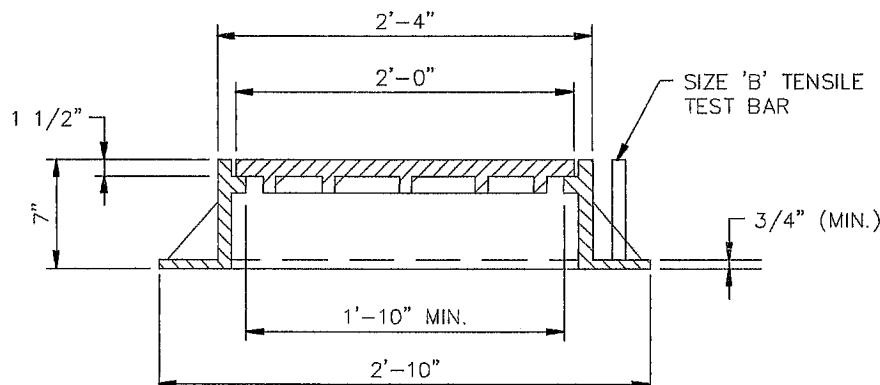
REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.2.2



PLAN



SECTION

NOT TO SCALE

REFERENCE RC-39 - PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

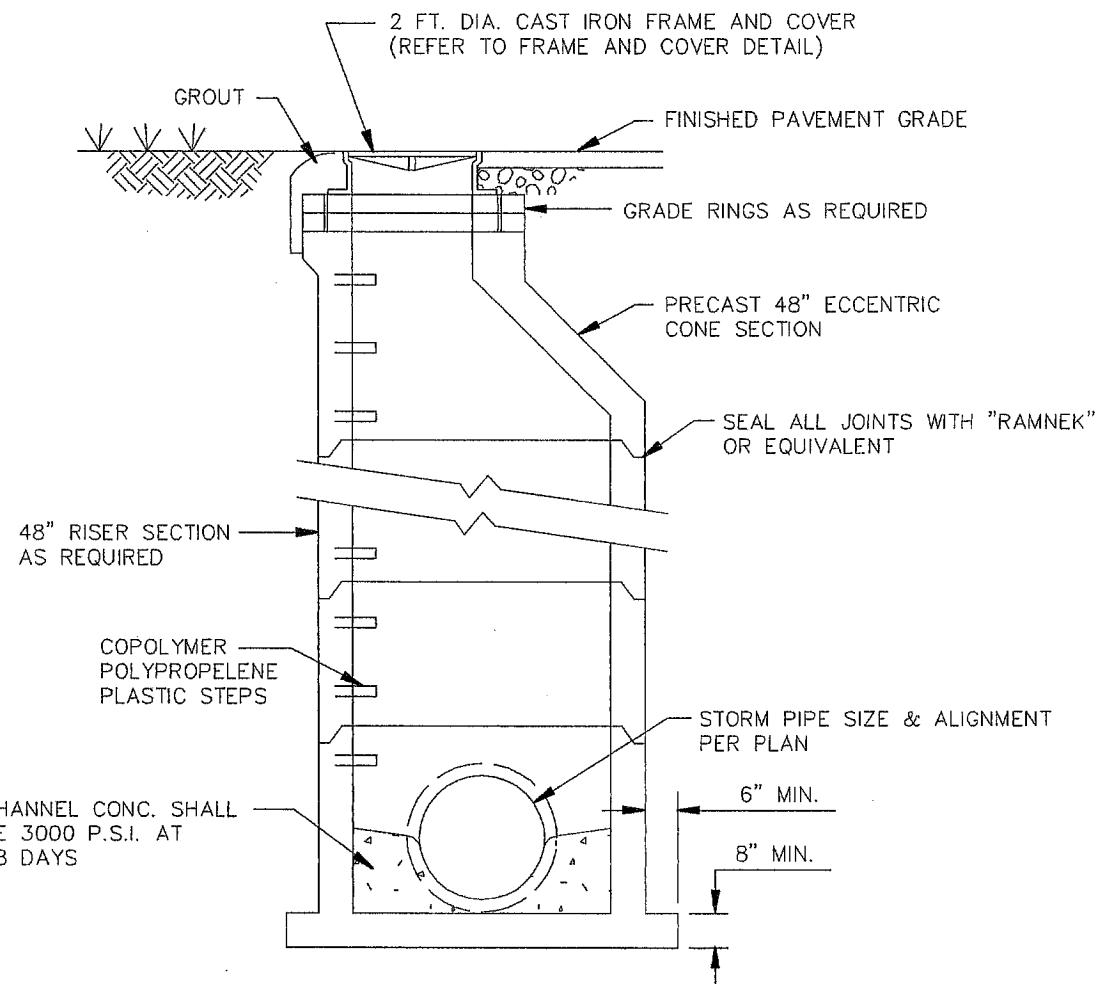
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## STANDARD MANHOLE FRAME & COVER

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.3A



ALL MATERIALS AND CONSTRUCTION SHALL MEET REQUIREMENTS OF PENNDOT PUBLICATION 408

NOT TO SCALE

REFERENCE RC-39 - PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

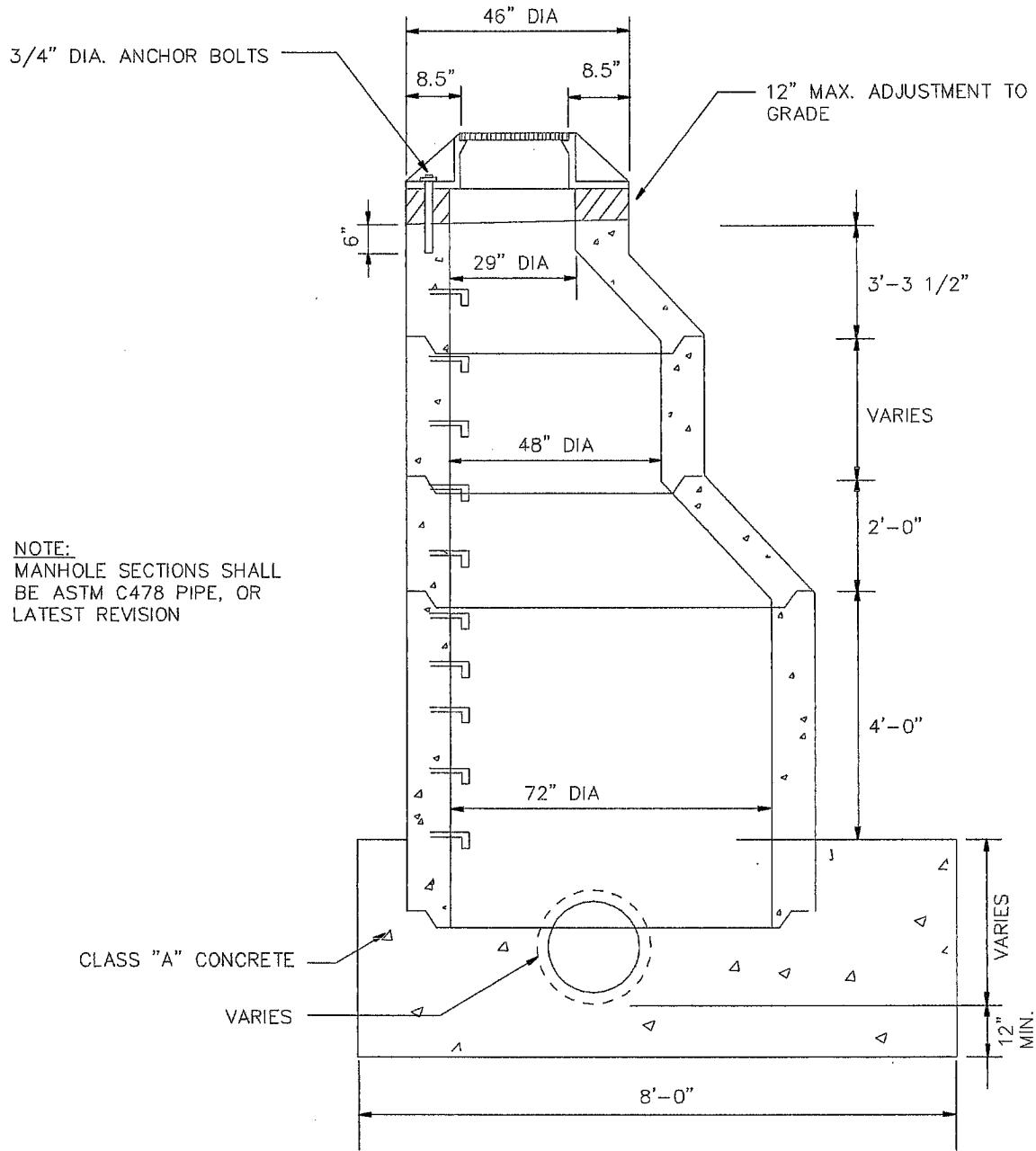
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## STORM MANHOLE DETAIL (TYPICAL SECTION)

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.3B



NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

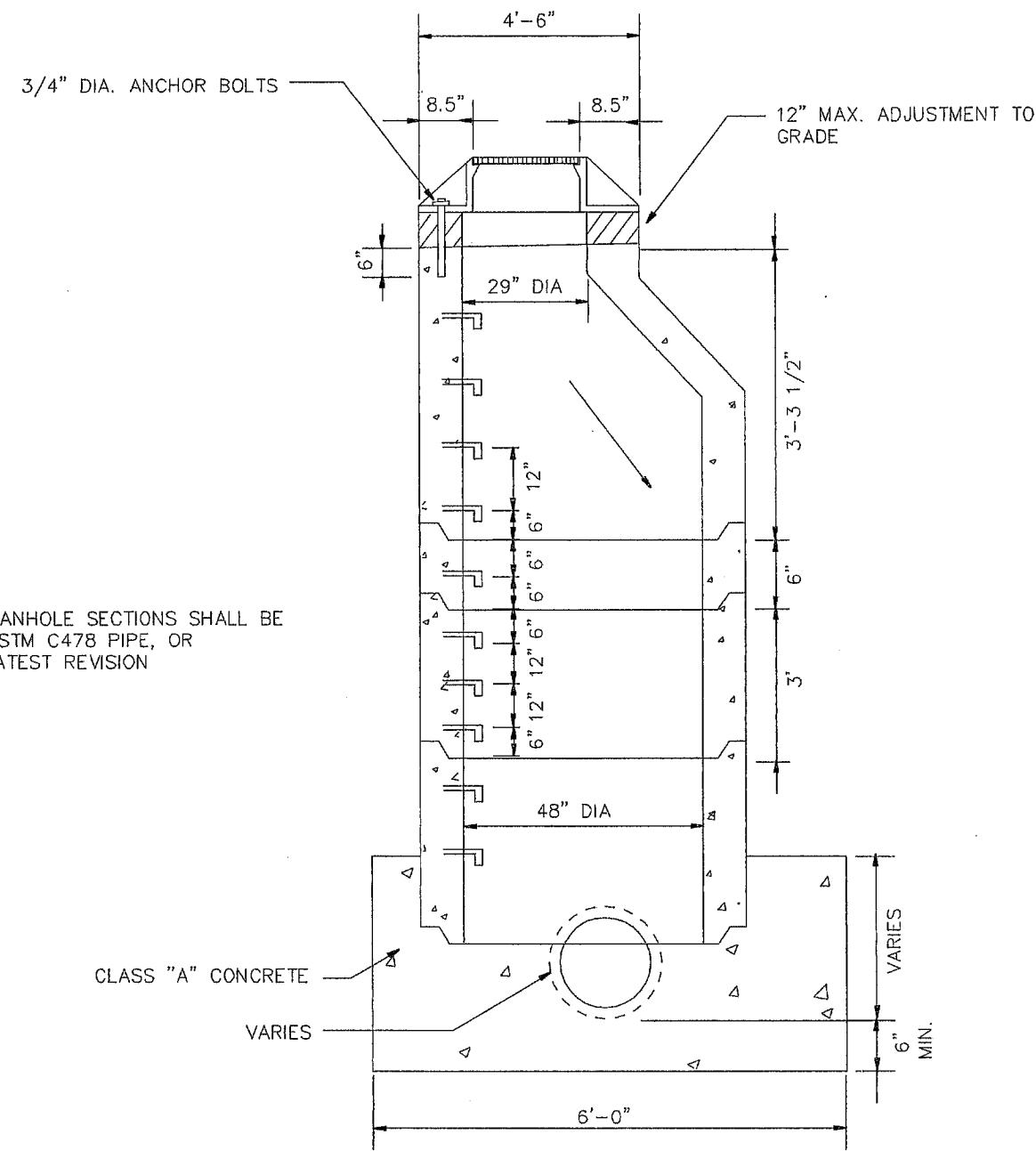
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## PRE-CAST CONCRETE MANHOLE PIPES OVER 48" DIA.

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.3D



MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

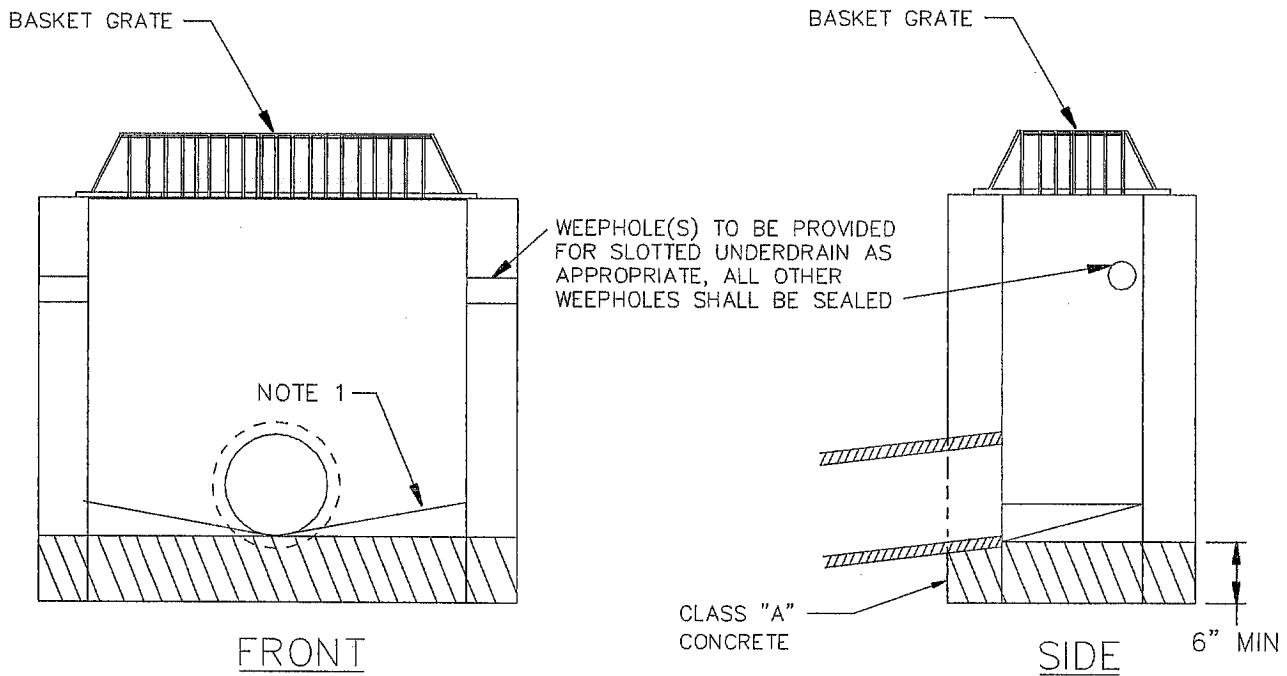
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## PRE-CAST CONCRETE MANHOLE PIPES UNDER 48" DIA.

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

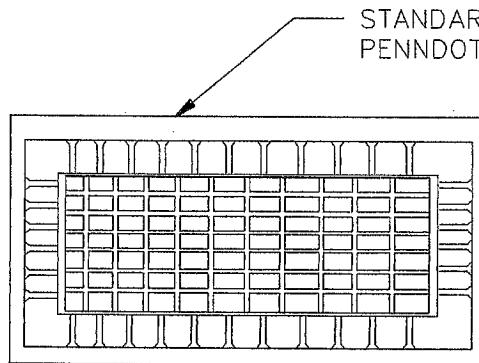
FIGURE

402.3C



NOTES:

1. ALL DRAINAGE STRUCTURES SHALL HAVE POURED-IN-PLACE CONCRETE CHANNEL BOTTOMS.
2. LADDER BARS SHALL BE INSTALLED IN STRUCTURES EXCEEDING A DEPTH OF 5 FEET.



TOP

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

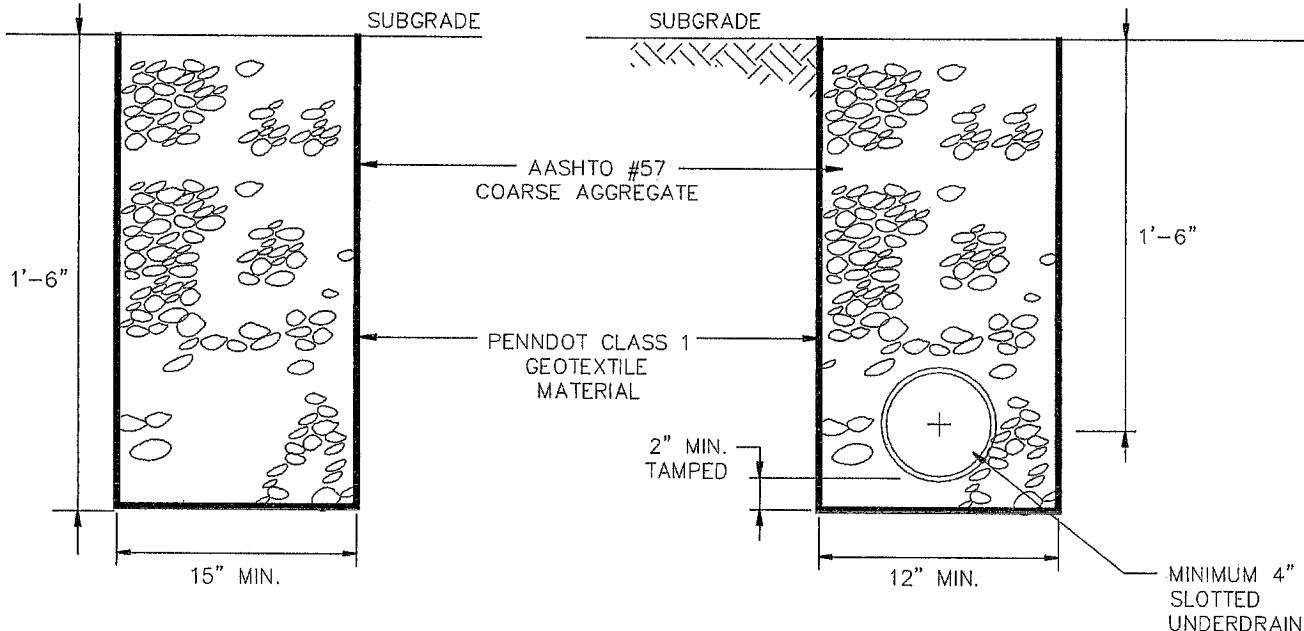
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## YARD DRAINS

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

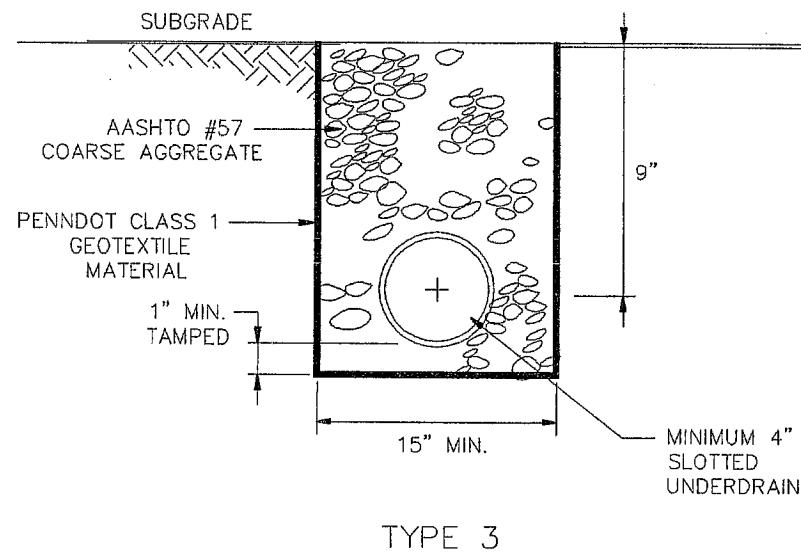
FIGURE

402.4.1



TYPE 1

TYPE 2



TYPE 3

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

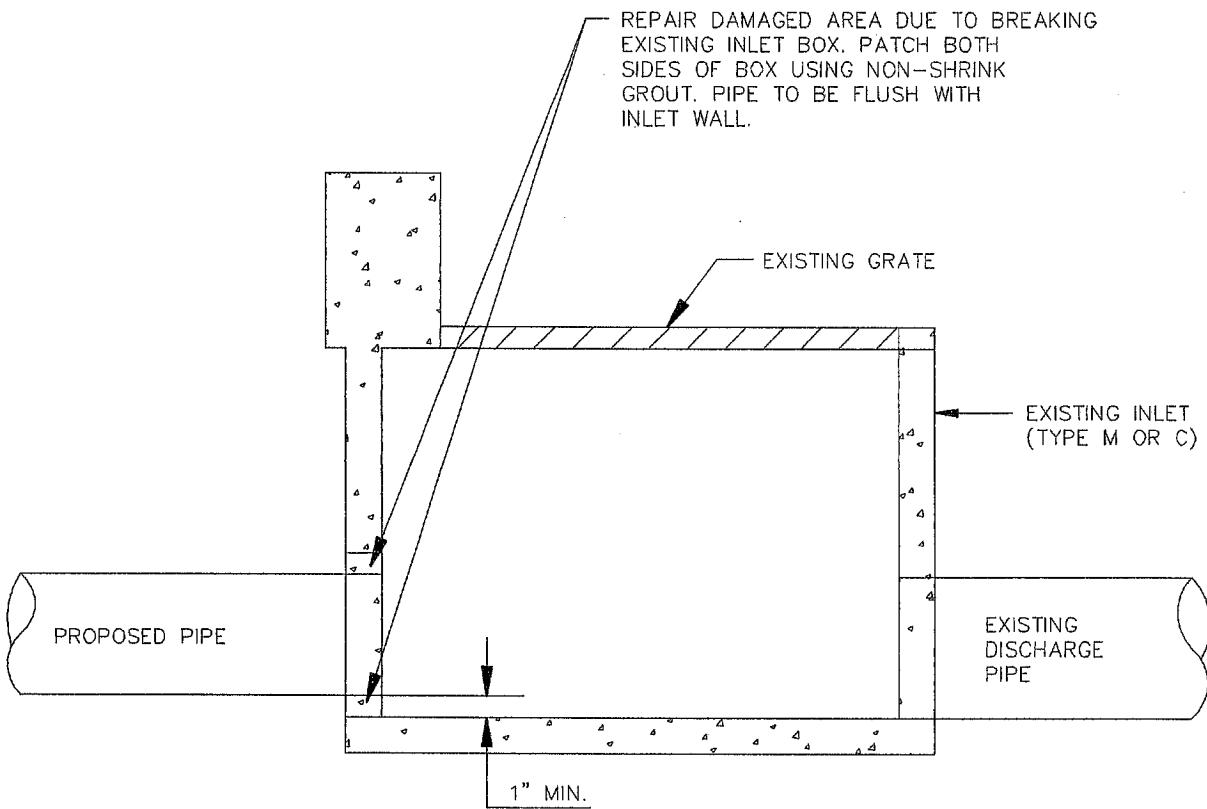
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## SPECIAL UNDERDRAINS

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.4.2



NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

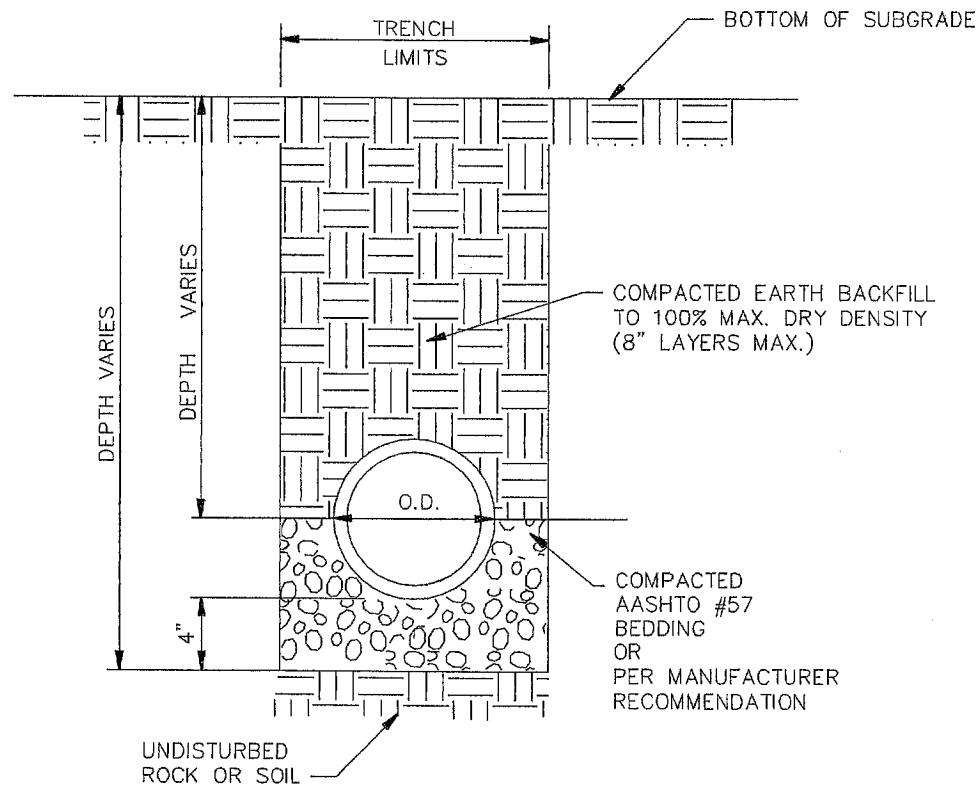
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## INLET CONNECTIONS DETAIL

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.5



NOTES:

1. MATERIAL OBTAINED IN TRENCH EXCAVATION SHALL NOT BE UTILIZED FOR BACKFILL. THIS REQUIREMENT SHALL APPLY TO BACKFILL IN SHOULDER AREAS AS WELL AS BACKFILL WITHIN THE CARTWAY.
2. AGGREGATE MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED EIGHT INCHES AND COMPACTED TO THE FOLLOWING MINIMUM REQUIREMENTS. SHOULDER AREAS AS WELL AS BACKFILL WITHIN THE CARTWAY.

MAXIMUM DRY WEIGHT OF  
BACKFILL MATERIAL (AS  
DETERMINED IN ACCORDANCE  
WITH AASHTO T99)

LESS THE 95.0 LB./CU.FT.  
95.0-99.9 LB./CU. FT.  
100.0-109.9 LB./CU. FT.  
110.0 OR MORE

MAXIMUM FIELD COMPACTION  
REQUIREMENT (PERCENT OF  
MAXIMUM DRY WEIGHT)

UNSUITABLE MATERIAL  
100.  
100.  
95%

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

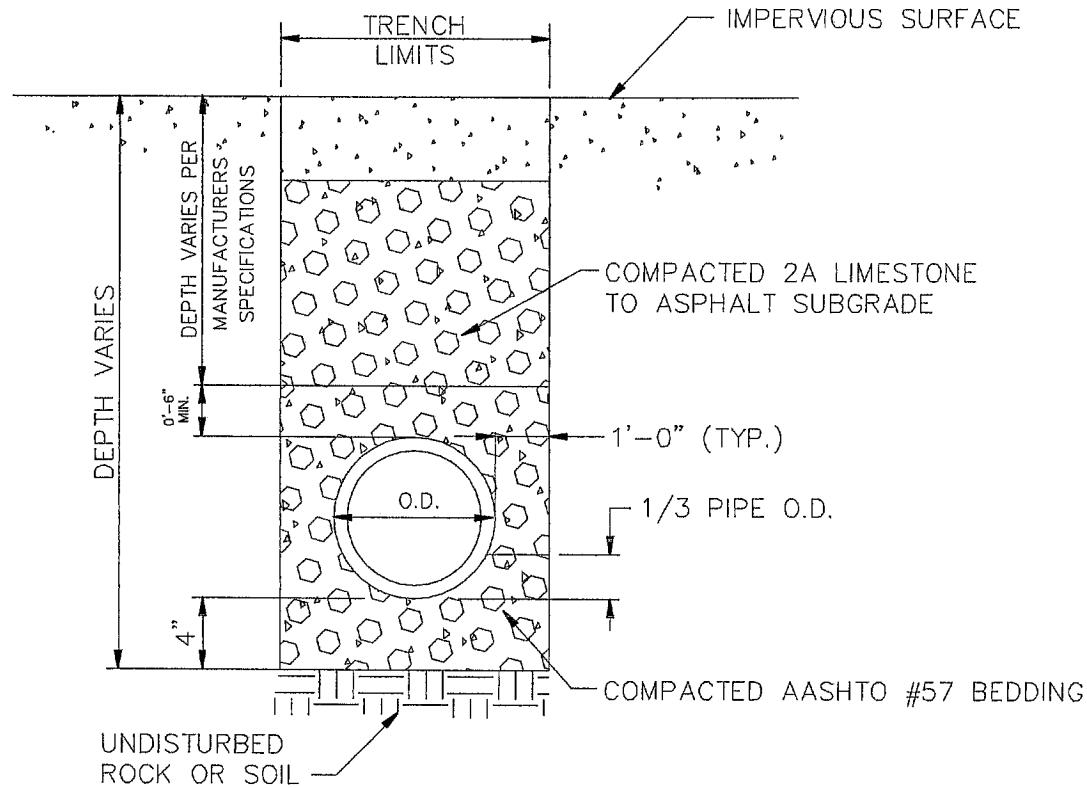
PHONE: (724) 898-3571  
FAX: (724) 898-4607

**TYPICAL STORM SEWER  
TRENCH DETAIL-WITHIN R.O.W.**

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

402.10.1A



NOT TO SCALE

NOTES:

1. MATERIAL OBTAINED IN TRENCH EXCAVATION SHALL NOT BE UTILIZED FOR BACKFILL. THIS REQUIREMENT SHALL APPLY TO BACKFILL IN SHOULDER AREAS.
2. AGGREGATE MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED EIGHT INCHES AND COMPACTED TO THE FOLLOWING MINIMUM REQUIREMENTS. WITHIN THE CARTWAY.

MAXIMUM DRY WEIGHT OF  
BACKFILL MATERIAL (AS  
DETERMINED IN ACCORDANCE  
WITH AASHTO T99)

LESS THE 95.0 LB./CU.FT.  
95.0-99.9 LB./CU. FT.  
100.0-109.9 LB./CU. FT.  
110.0 OR MORE

MAXIMUM FIELD COMPACTION  
REQUIREMENT (PERCENT OF  
MAXIMUM DRY WEIGHT)

UNSUITABLE MATERIAL  
100.  
100.  
95%

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

PHONE: (724) 898-3571  
FAX: (724) 898-4607

**TYPICAL STORM SEWER  
TRENCH DETAIL - IMPERVIOUS AREA**

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

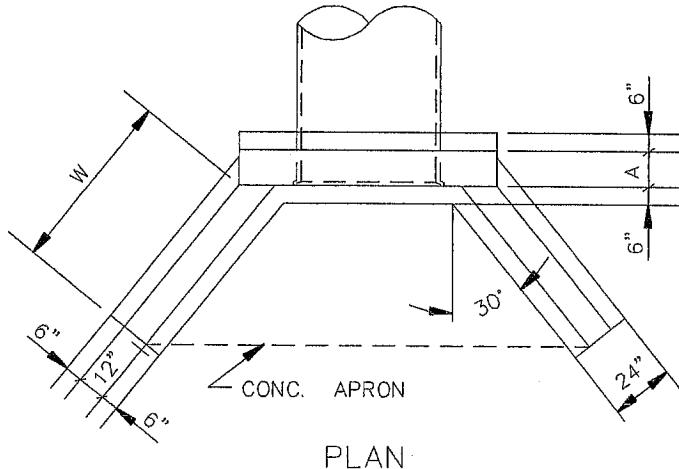
FIGURE

402.10.1B

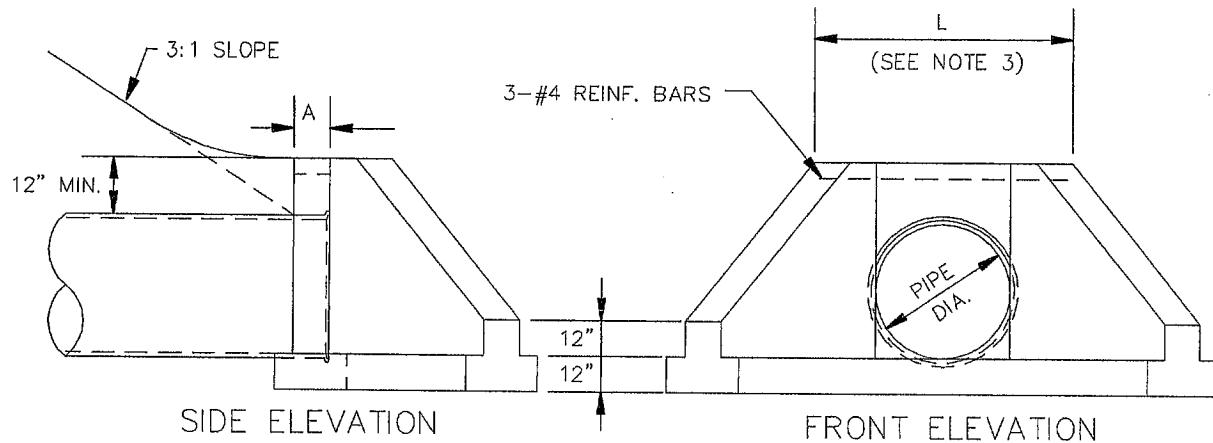
PIPE DIA.	L*	W	A
15"	4.0'	4.0'	12"
18"	4.0'	4.0'	12"
24"	4.5'	4.25'	12"
36"	4.5'	4.25'	12"
48"	5.0'	4.25'	12"

NOTES:

1. CONCRETE SHALL BE CLASS "A"
2. EXPOSED EDGES SHALL BE CHAMFERED ONE (1) INCH.
3. ADD 1'-0" TO DIMENSION 'L' WHEN ORIFICE PLATE IS TO BE PLACED ON HEADWALL.



PLAN



NOT TO SCALE

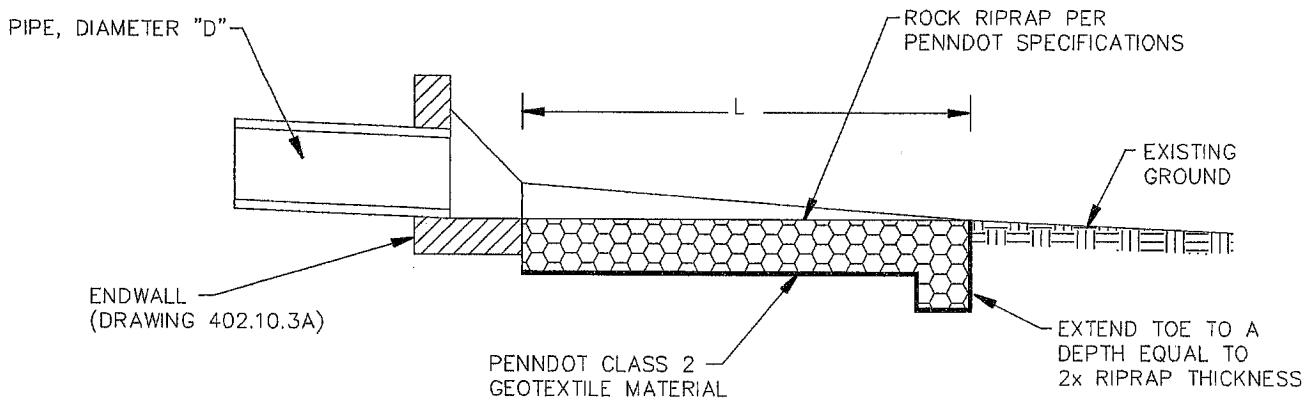
REFERENCE RC-31 — PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

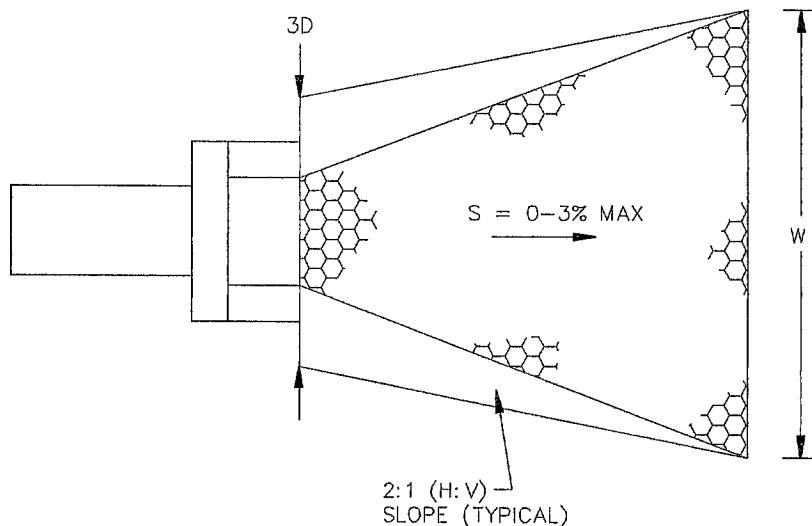
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FAX: (724) 898-4607

**STANDARD TYPE D-W  
ENDWALL/HEADWALL DETAIL**

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			402.10.3A



### PROFILE



### PLAN

#### NOTES:

1. RIPRAP APRON TO BE UTILIZED FOR OUTFALLS DISCHARGING TO UNCONFINED AREAS. PIPES DISCHARGING TO CHANNELS OR SWALES SHOULD BE DESIGNED PER DRAWING SS-04.
2. RIPRAP DESIGN DATA AND SPECIFICATIONS, DIMENSIONS "W", AND "L" TO BE SPECIFIED AS PER PADEP CHAPTER 102, EROSION AND SEDIMENT POLLUTION CONTROL MANUAL.

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

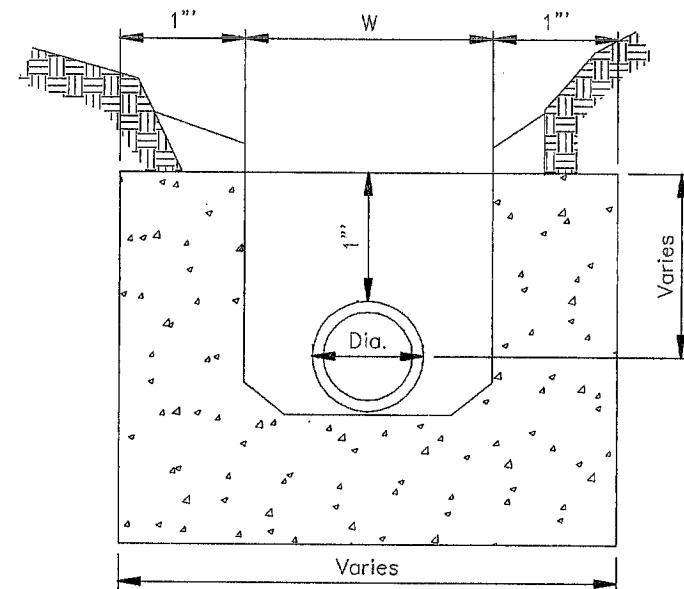
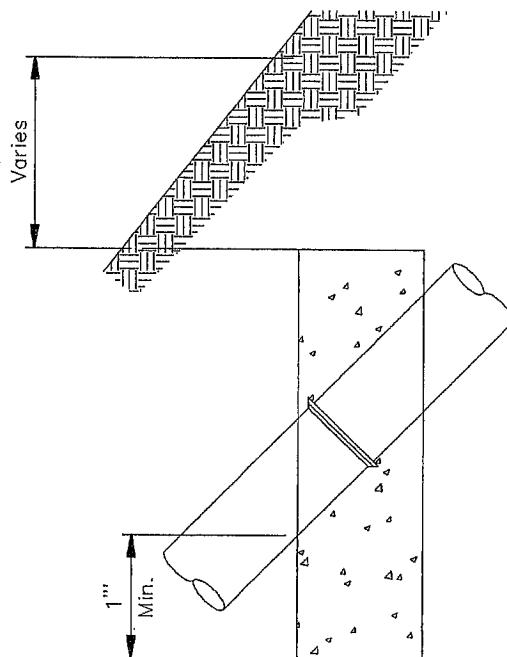
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## RIPRAP APRON ENERGY DISSIPATOR (TYPICAL)

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			402.10.3B

Sewers on 20% Slope or Greater Shall Be Anchored With Concrete Anchors or Equal, Spaced As Follows:

- Not Over 36 Feet Center to Center On Grades 20% And Up To 35%
- Not Over 24 Feet Center to Center On Grades 35% And Up To 50%
- Not Over 16 Feet Center to Center On Grades 50% And Over



$$W = \frac{4}{3} d + 16 \text{ (Min.)}$$

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

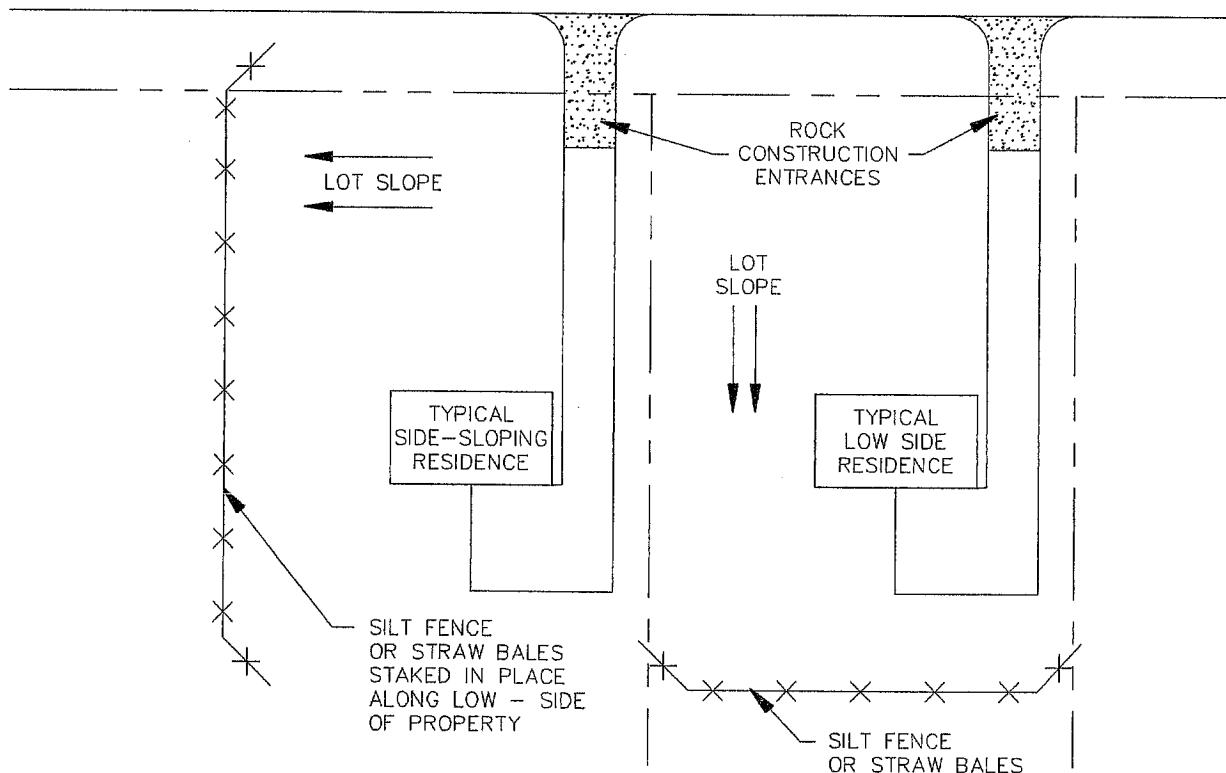
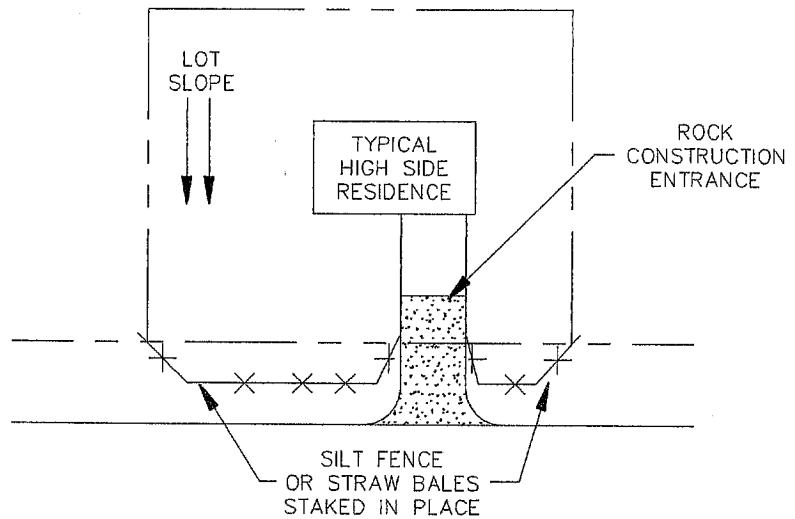
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## CONCRETE STORM ANCHOR FOR STORM SEWER PIPE

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			402.10.4

NOTE:

ALL EROSION AND SEDIMENT CONTROL  
MEASURES TO BE INSTALLED AS PER  
THE MOST RECENT VERSION OF THE  
PADEP EROSION AND SEDIMENT  
POLLUTION CONTROL MANUAL



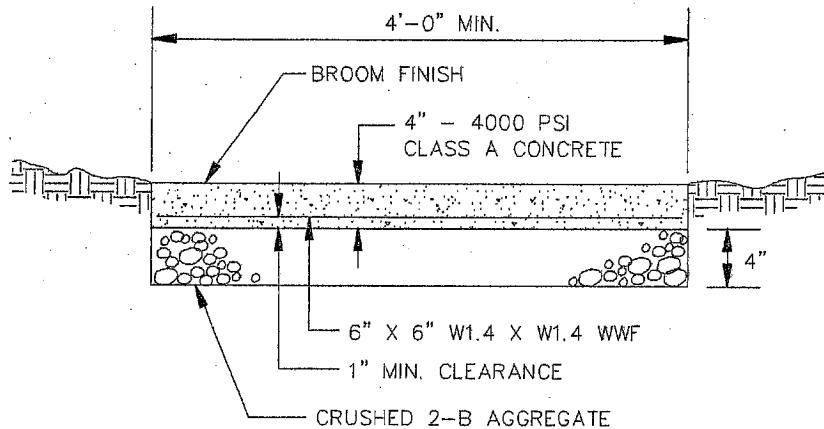
NOT TO SCALE

**TYPICAL INDIVIDUAL ON LOT  
E&S CONTROLS**

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			402.10.9.1

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133 BROWNS HILL ROAD  
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FAX: (724) 898-4607



NOTES:

1. CONSTRUCT SIDEWALK IN ACCORDANCE WITH PA D.O.T. SPECIFICATIONS
2. PROVIDE TRANSVERSE DUMMY JOINTS AT 5' INTERVALS
3. PROVIDE 1/2" PREMOLDED EXPANSION JOINT MATERIAL AT 20' SPACING
4. SLOPE SIDEWALK AT 1/4" PER FOOT
5. CURING AND PROTECTING COVERS SHALL BE PROVIDED IN ACCORDANCE WITH FORM 408 SECTION 711.

NOT TO SCALE

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

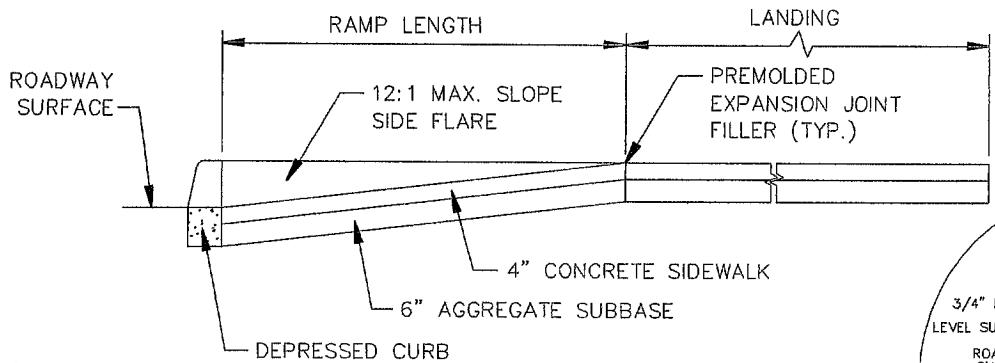
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FAX: (724) 898-4607

**TYPICAL SIDEWALK  
DETAIL**

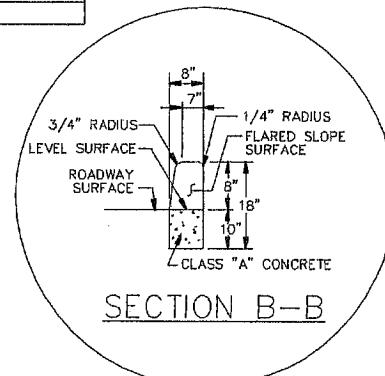
REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

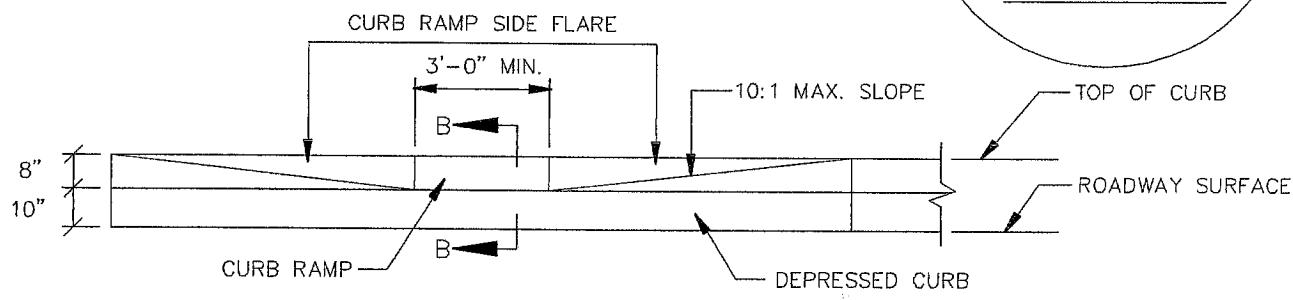
404.1



SECTION A-A

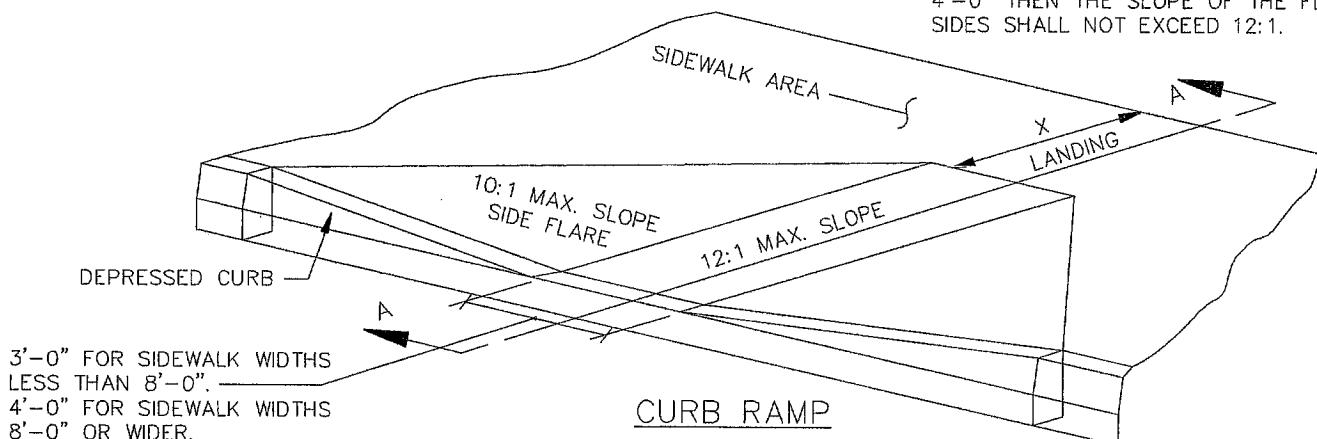


SECTION B-B



ELEVATION

X SHALL BE EQUAL TO OR GREATER THAN 3'-0". IF X IS LESS THAN 4'-0" THEN THE SLOPE OF THE FLARED SIDES SHALL NOT EXCEED 12:1.



NOT TO SCALE

REFERENCE RC-67 - PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

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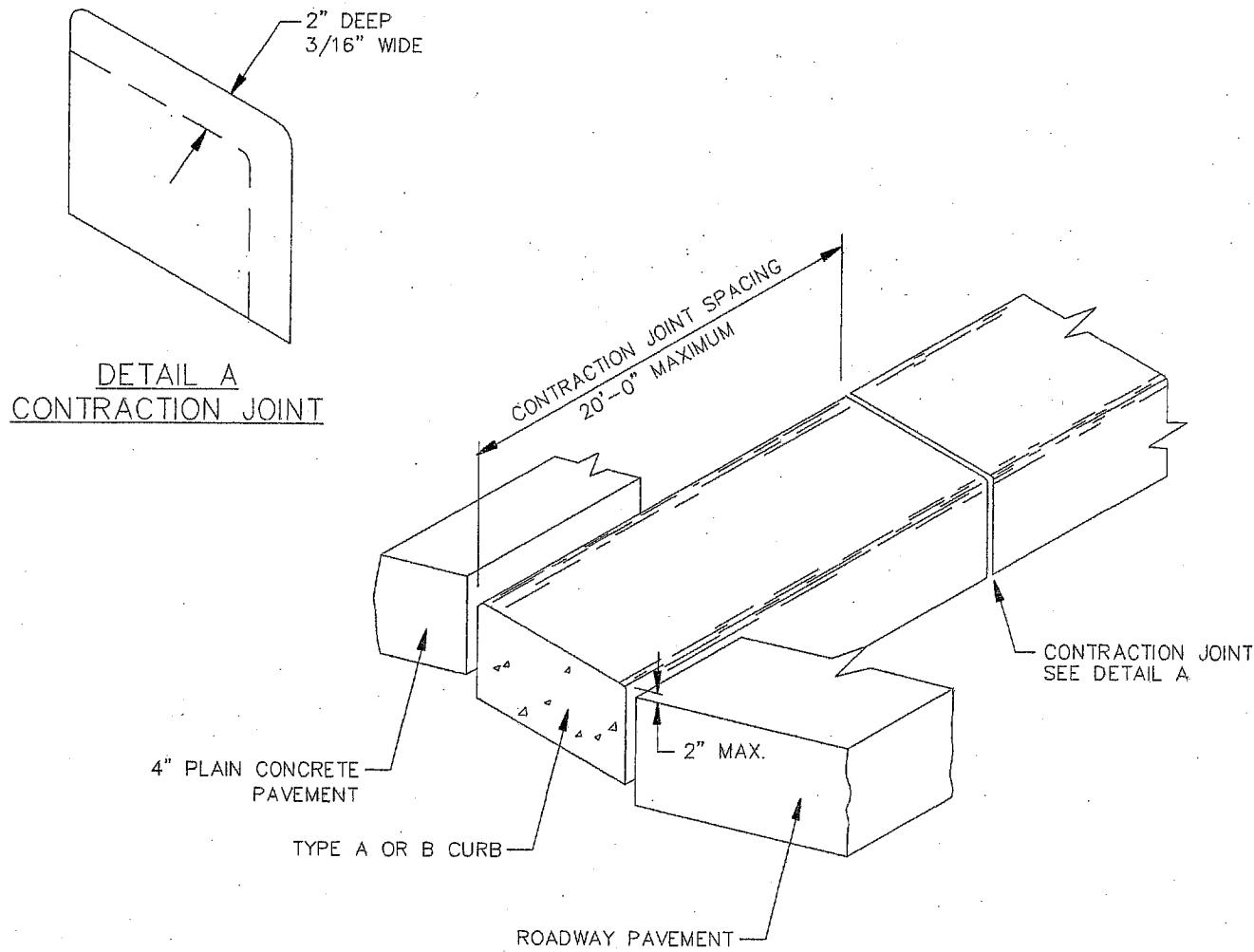
## CURB CUT/ RAMP DETAIL

### REVISIONS

NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

405.2.5



NOT TO SCALE

REFERENCE RC-65 - PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

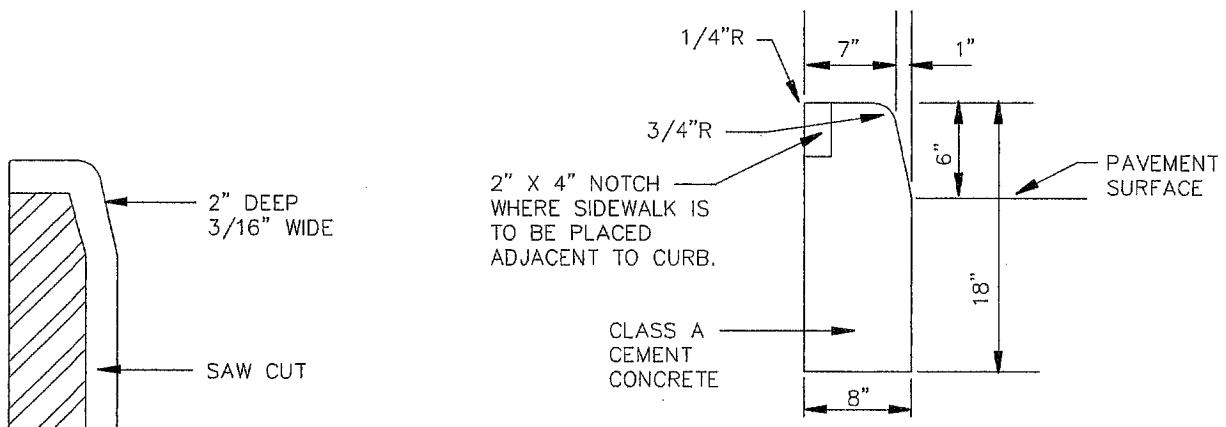
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## CONCRETE MOUNTABLE CURB DETAIL

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

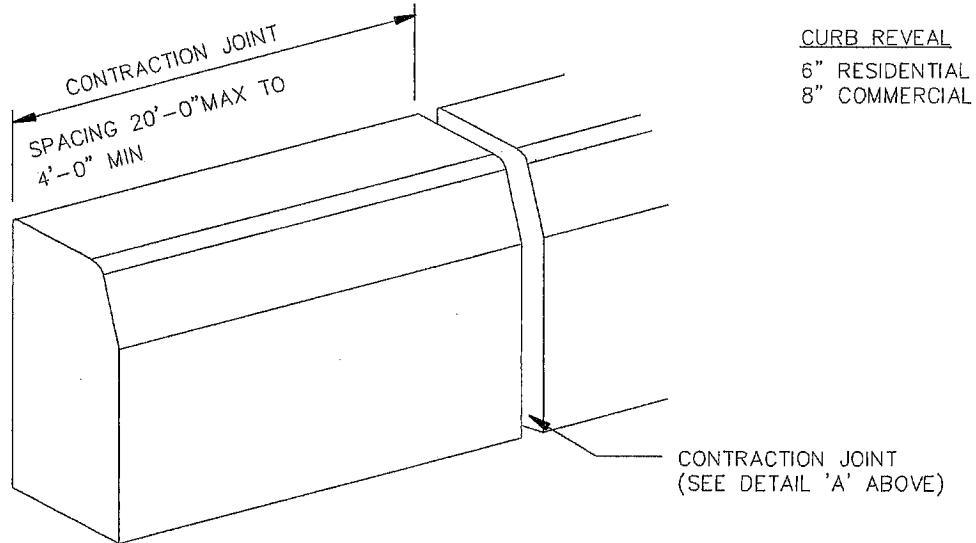
FIGURE

406.2.2



DETAIL 'A' CONTRACTION JOINT

TYPICAL CROSS-SECTION



NOT TO SCALE

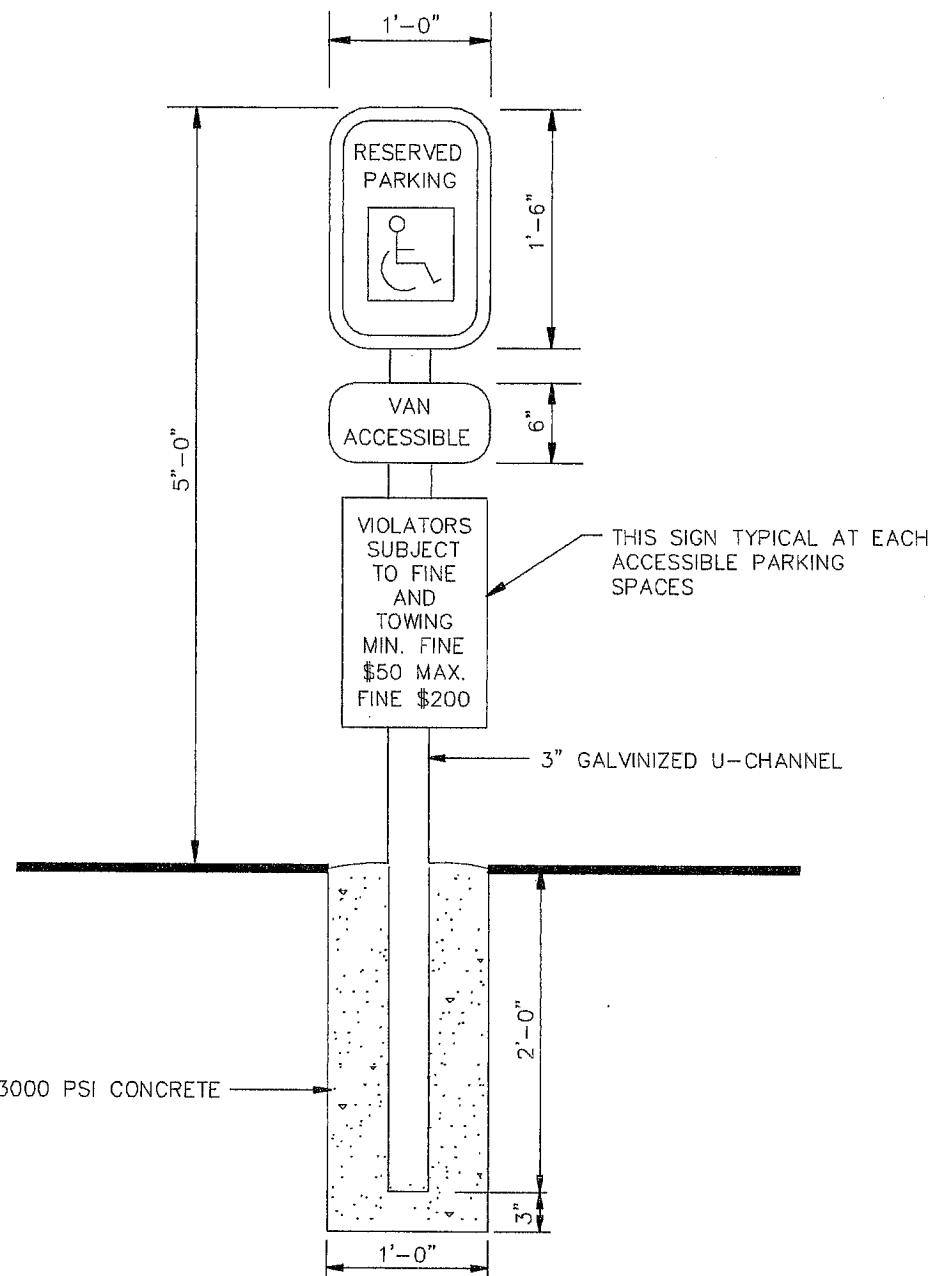
REFERENCE RC-64 – PENNDOT PUBLICATION 72

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## CURB DETAIL

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			406.2.2.1



NOT TO SCALE

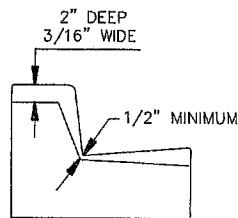
REFERENCE PENNDOT PUBLICATION 236  
R7-8,R7-8A,R7-8B

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133 BROWNS HILL ROAD  
VALENCIA, PA 16059

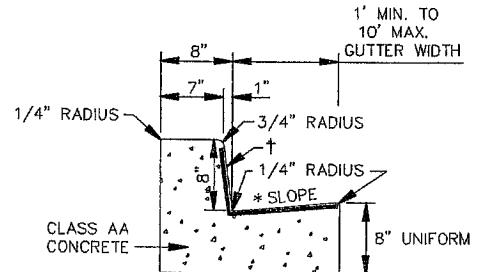
PHONE: (724) 898-3571  
FAX: (724) 898-4607

## TYPICAL ACCESSIBLE PARKING SIGN

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	406.2.4
ORIGINAL	OCTOBER 2003			



DETAIL C  
CONTRACTION  
JOINT



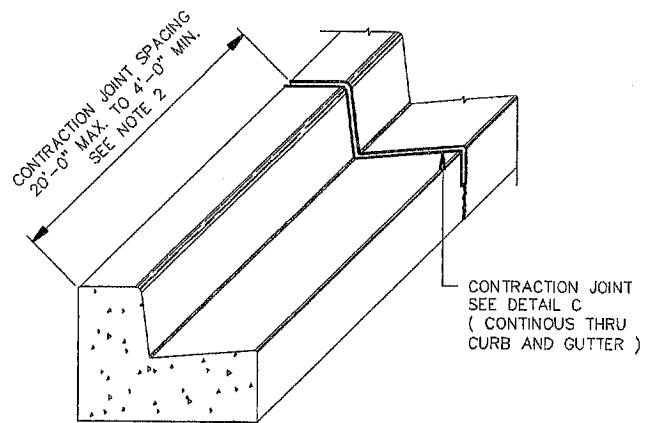
TYPICAL  
CROSS SECTION

\* UNDER 5' GUTTER WIDTH = 1" PER FT. MIN.  
5' AND GREATER GUTTER WIDTH = 1/2" PER FT. MIN.

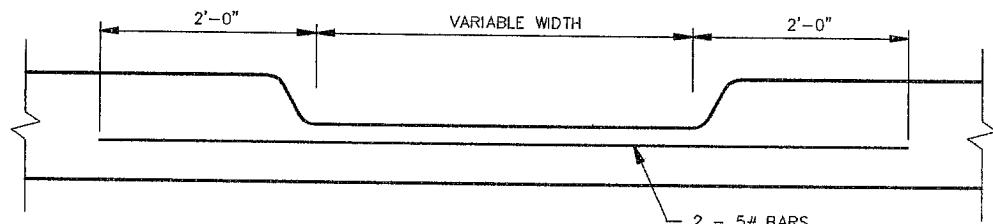
† REPRESENTS WIDTH OF GUTTER FOR COMPUTING PAY AREA.

NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CONCRETE CURB AND FOR PLAIN CONCRETE CURB GUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4 - INCH PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY, CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
4. SEE RC-50 FOR PLAIN CONCRETE CURB SLOPED TOP TREATMENT AT END OF STRUCTURES.



PLAIN CONCRETE CURB AND GUTTER



DEPRESSED CURB FOR DRIVES

NOT TO SCALE

REFERENCE DRAWING RC-64 - PENNDOT PUBLICATION 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
VALENCIA, PA 16059

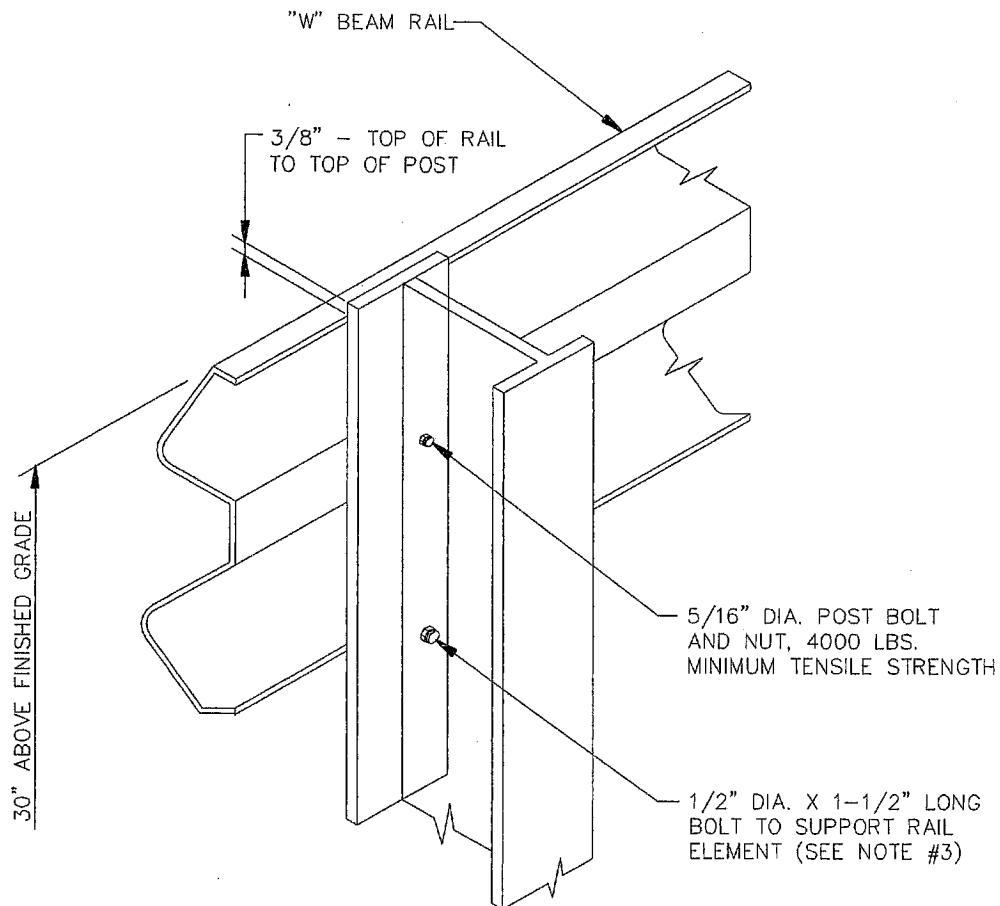
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**CURBS AND GUTTERS**

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

406.2.5



NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 520.
2. THE 3-3/8" X 2-1/4" COLD FORMED CHANNEL POST, S3 X 5.7 POST AND ALUMINUM ALLOY POST MAY BE BID AS ALTERNATES FOR TYPE 2 WEAK POST GUIDE RAIL SYSTEM; HOWEVER, MIXING OF DIFFERENT POSTS WILL NOT BE ACCEPTABLE WITHIN THE PROJECT.
3. DURING ERECTION, USE TEMPORARY SUPPORT BOLTS OR TEMPORARY DRIFT PINS TO SUPPORT THE RAIL ELEMENT UNTIL THE 5/16" POST BOLTS ARE PROPERLY TORQUED.
4. ATTACH W-BEAM RAIL ELEMENT TO EACH POST, SPLICING ONLY AT POSTS AND LAP IN THE DIRECTION OF TRAFFIC.

NOT TO SCALE

REFERENCE RC-53 - PENNDOT PUBLICATION 72

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133 BROWNS HILL ROAD  
VALENCIA, PA 16059

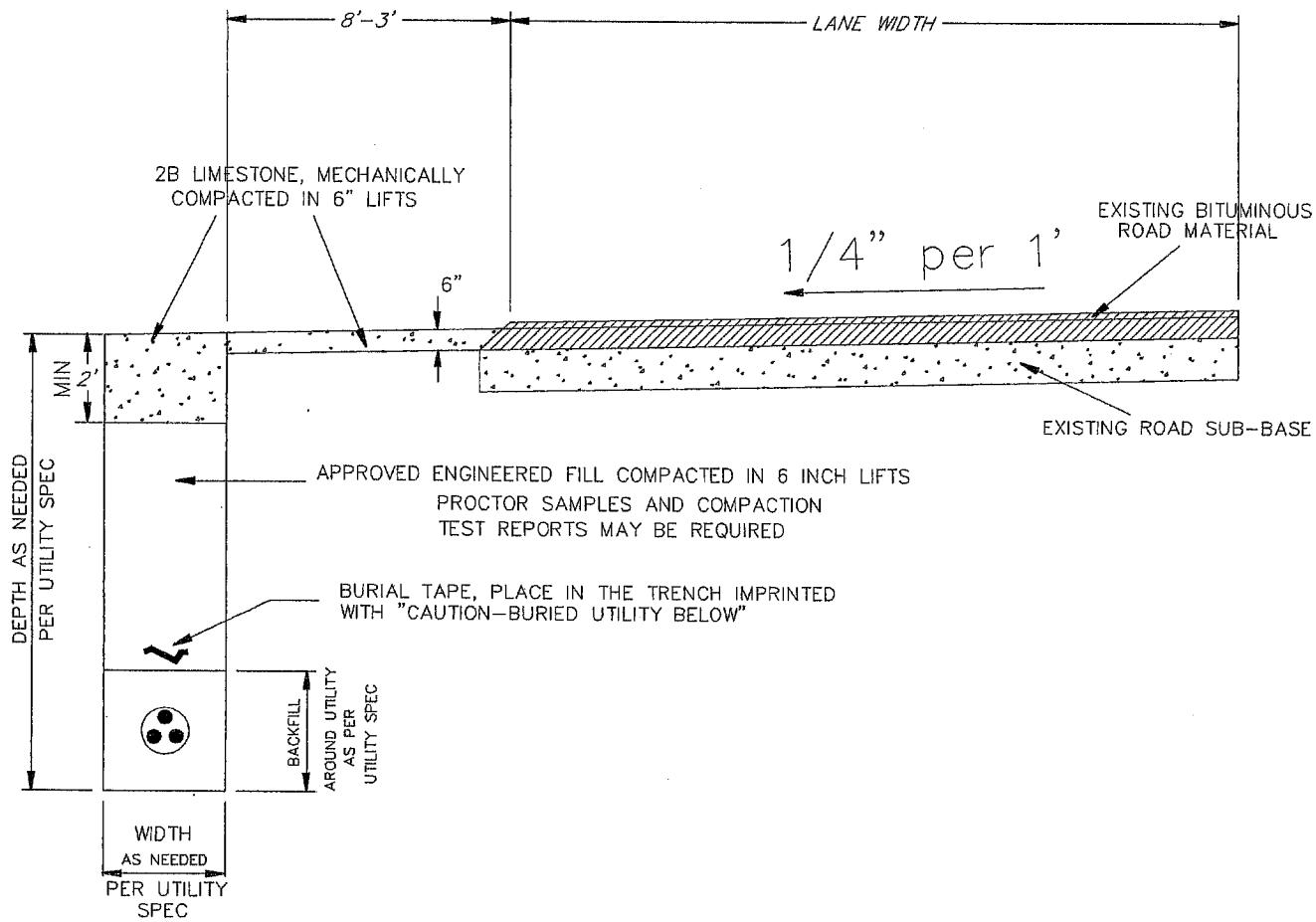
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**GUIDE RAIL  
DETAIL**

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			

408.1

NOTE: WHERE THE EDGE OF THE TRENCH CLOSEST TO THE ROAD IS WITHIN (3) THREE FEET OF THE ROAD EDGE THE TRENCH SHALL BE BACKFILLED 100% ABOVE THE PIPE ZONE WITH 2B LIMESTONE MECHANICALLY COMPACTED IN SIX INCH LIFTS



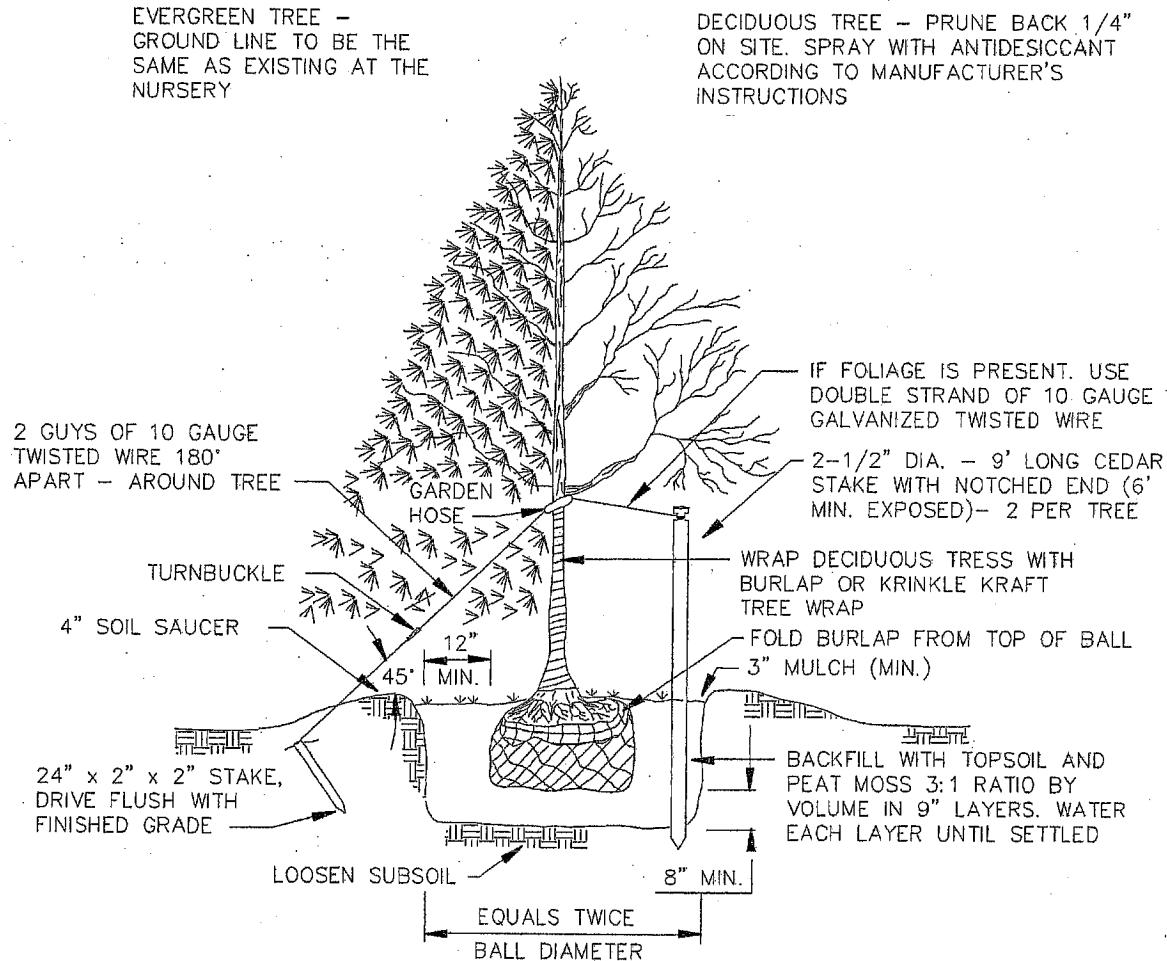
NOT TO SCALE

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133 BROWNS HILL ROAD  
VALENCIA, PA 16059

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FAX: (724) 898-4607

## PIPE ZONE BACKFILL FOR UNIMPROVED SHOULDER

REVISIONS				FIGURE
NO.	DATE	NO.	DATE	
ORIGINAL	OCTOBER 2003			409.3.1



NOT TO SCALE

REFERENCE RC-91 PENNDOT PUB. 72

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133 BROWNS HILL ROAD  
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## EVERGREEN/DECIDUOUS PLANTING DETAIL

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

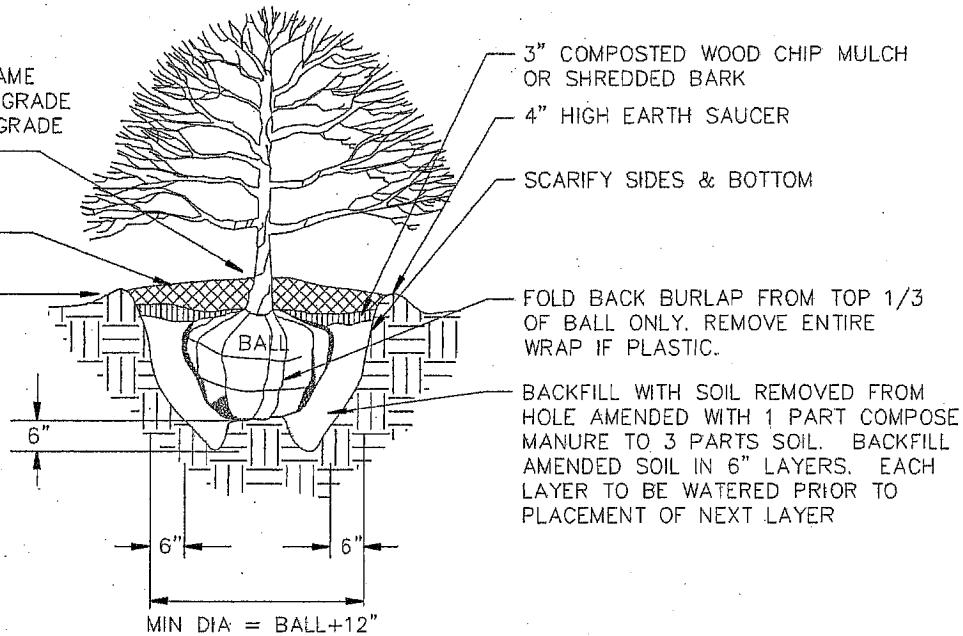
FIGURE

416.1

SHRUB SHALL BEAR THE SAME  
RELATIONSHIP TO FINISHED GRADE  
AS THE SHRUBS ORIGINAL GRADE  
BEFORE DIGGING.

BERM

FINISHED GRADE



NOT TO SCALE

REFERENCE PENNDOT PUB. 72

MIDDLESEX TOWNSHIP  
133 BROWNS HILL ROAD  
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## SHRUB PLANTING DETAIL

REVISIONS			
NO.	DATE	NO.	DATE
ORIGINAL	OCTOBER 2003		

FIGURE

416.2