

STANDARDS FOR CONSTRUCTION

**TOWN OF MCCANDLESS
ALLEGHENY COUNTY, PA**

**Adopted by the Town of McCandless
July 24, 2006**

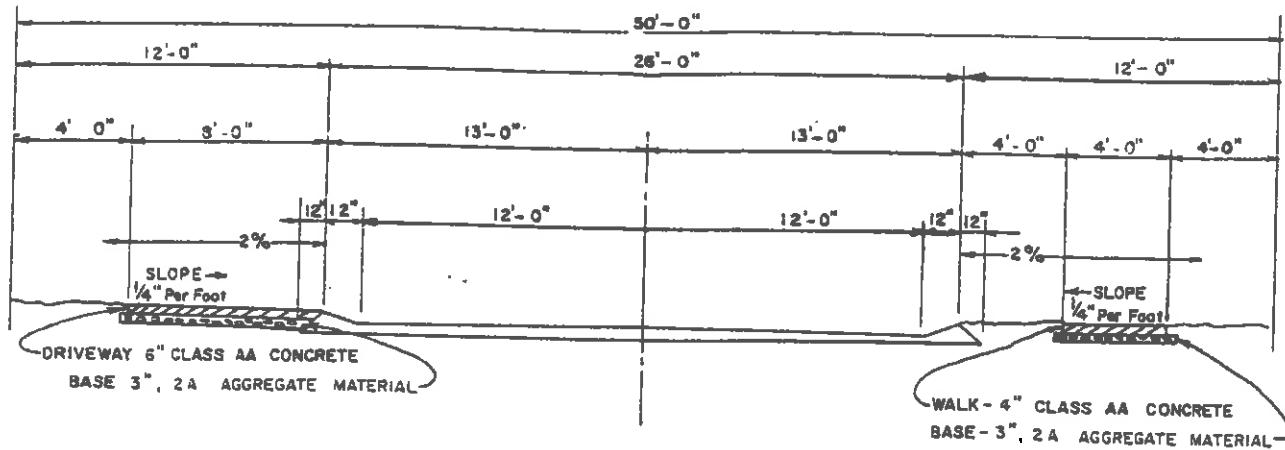
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1 & 2 FAMILY RESIDENTIAL DWELLINGS
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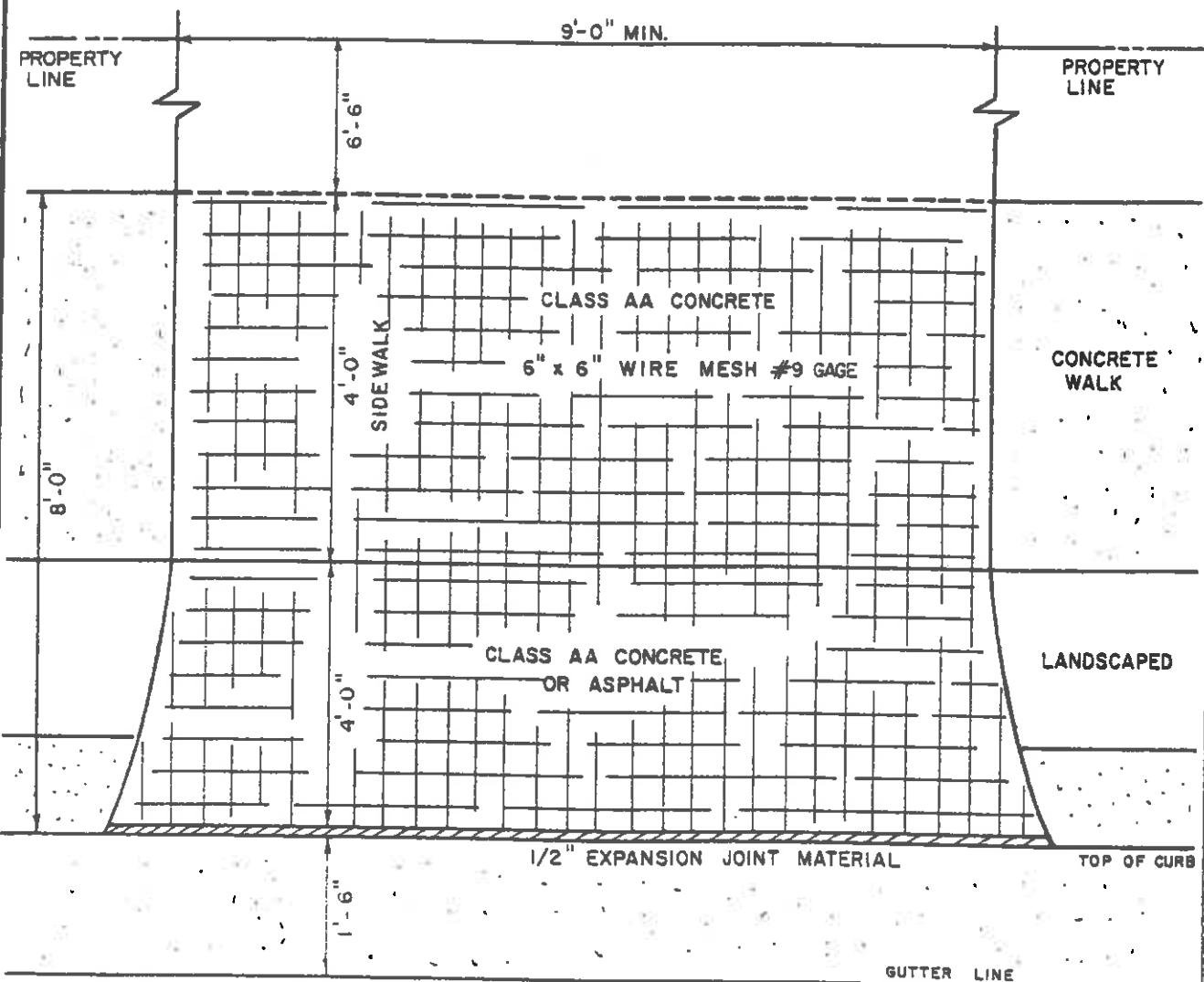
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SIDEWALK DETAIL



DRIVEWAY APPROACH APRON

REVISIONS:

MARCH, 1991
JAN., 1992
SEPTEMBER, 1999

SIDEWALK DETAIL DRIVEWAY APPROACH APRON

Begin driveway at
the edge of
pavement

PAVEMENT

SHOULDER

Min. - 2 %
8' Min.

Up Grade

8 % Max.

Down Grade

8 % Max.

10' Min.

3.5 %
3.5 %

WITHOUT CURB

Begin driveway at
the edge of curb

PAVEMENT

Max. + 2 %
8' Min.

Up Grade

8 % MAX.

Down Grade

8 % MAX.

10' Min.

3.5 %
3.5 %

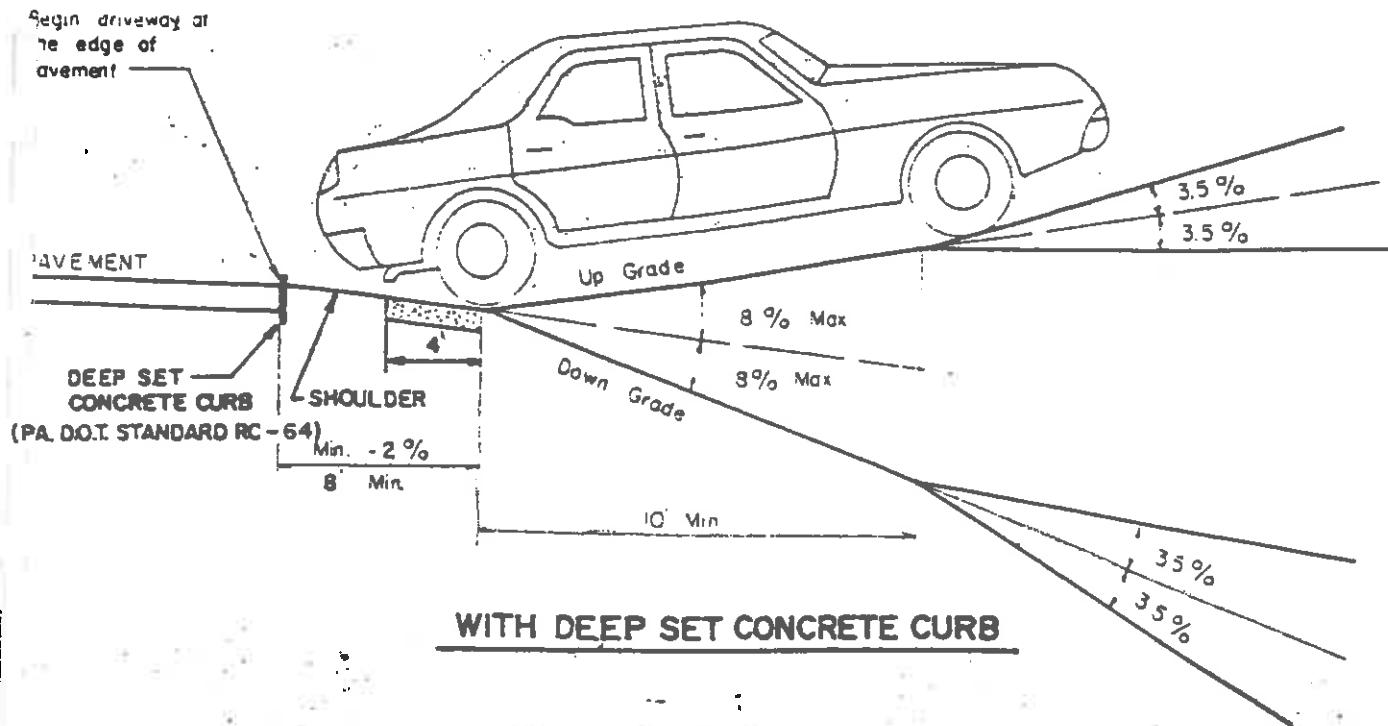
3.5 %
3.5 %

WITH BITUMINOUS WEDGE CURB

REVISIONS:
SEPTEMBER, 1999

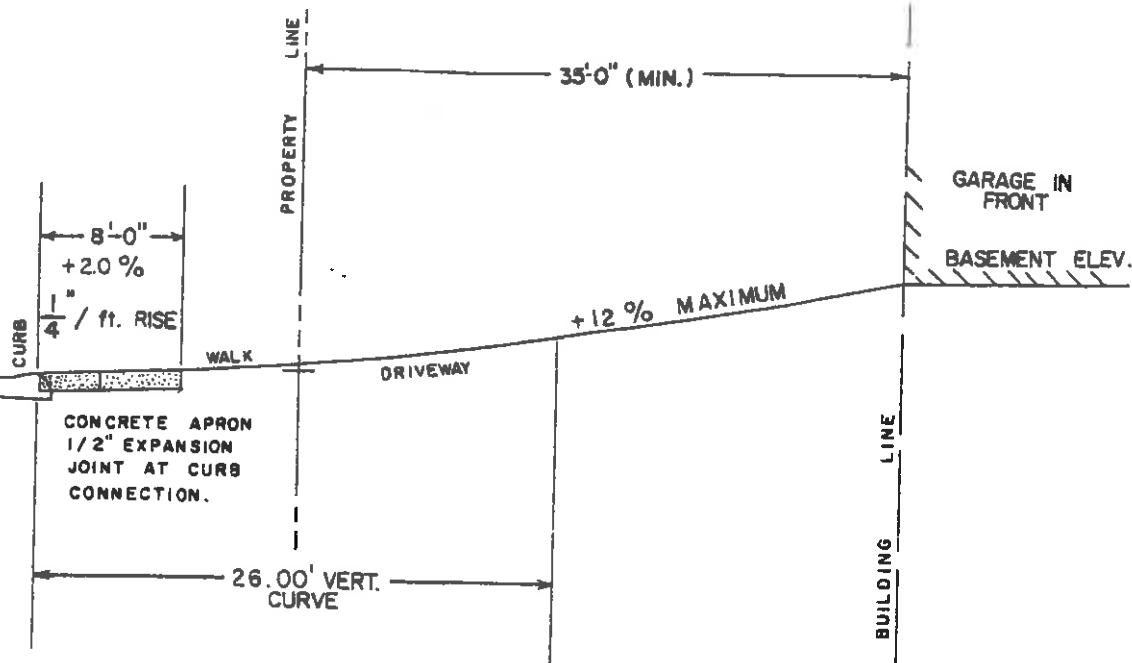
DRIVeway STANDard
FOR ALL DRIVEWAYS OTHER THAN 1 & 2 FAMILY RESIDENTIAL DWELLINGS

TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA.

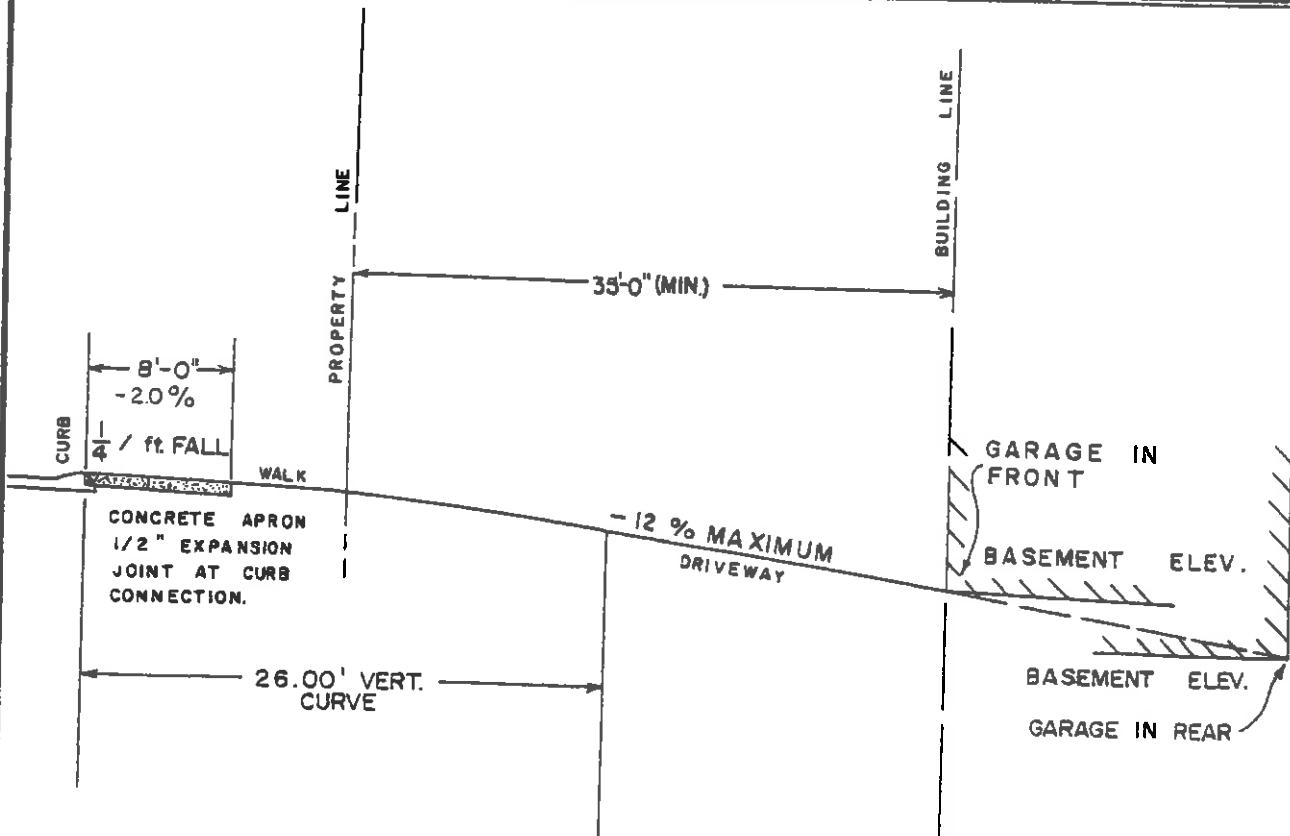


REVISIONS
SEPTEMBER, 1999

DRIVEWAY STANDARD
FOR ALL DRIVEWAYS OTHER THAN 1&2 FAMILY RESIDENTIAL DWELLING
TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA.



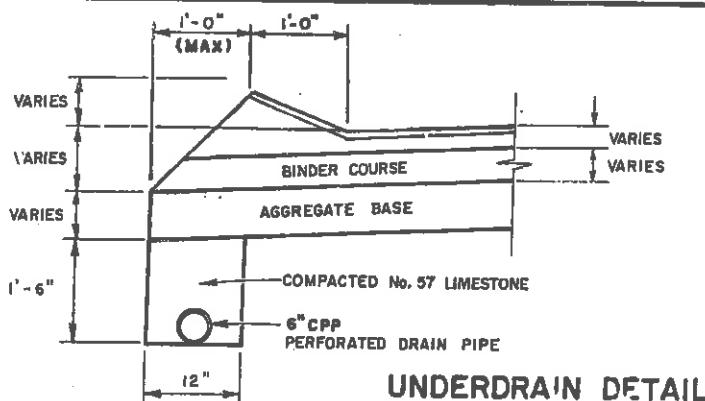
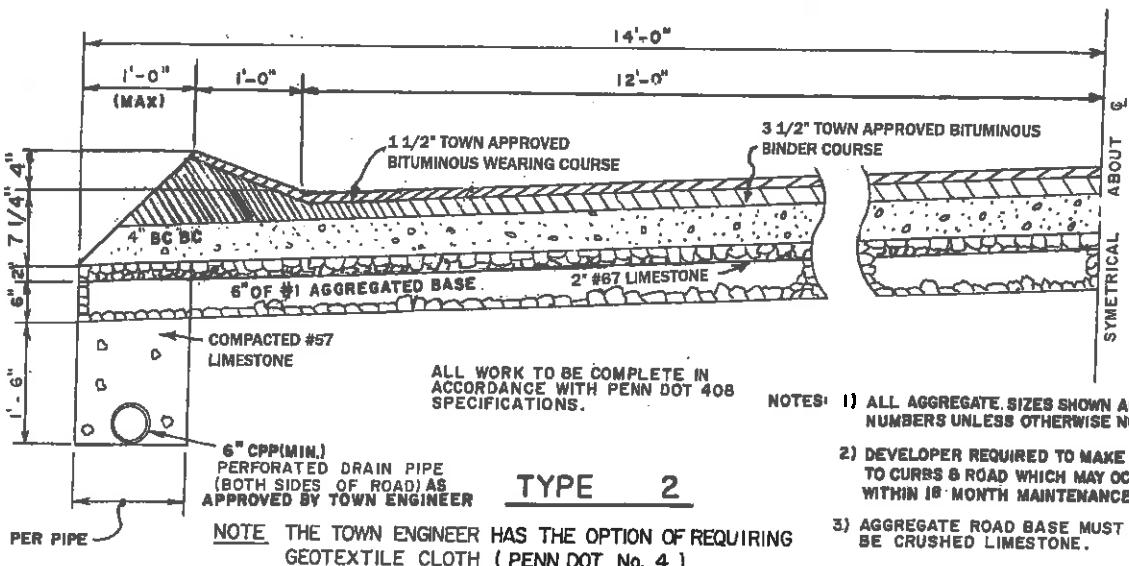
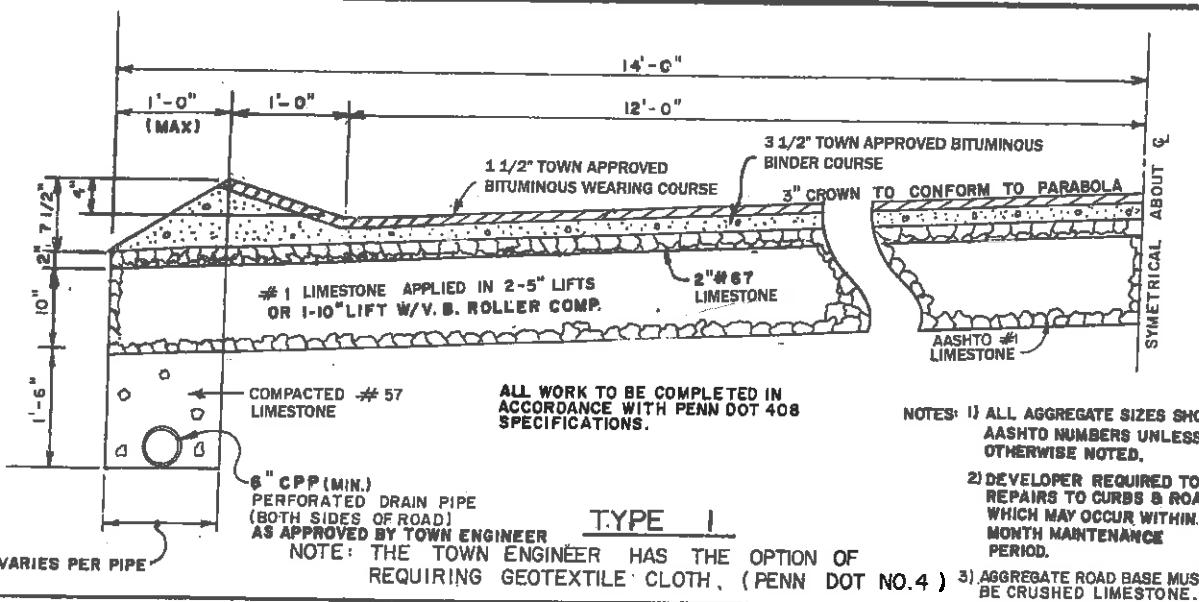
**TYPICAL DRIVEWAY APPROACH
HIGH SIDE LOTS**



**TYPICAL DRIVEWAY APPROACH
LOW SIDE LOTS
1&2 FAMILY RESIDENTIAL**

REVISIONS:
SEPTEMBER, 1988

**DRIVEWAY APPROACH
(With Sidewalk)**



UNDERDRAIN DETAIL

REVISI覩NS:

MARCH , 1991. JULY 2006
APRIL , 1991
JULY , 1991
JAN. , 1992
SEPTEMBER, 1998
JANUARY, 2005

ROAD PAVING AND WIDENING LOCAL, MINOR, OR MARGINAL ACCESS

**TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA**

FOR THE PURPOSES OF CONSTRUCTION, A COLLECTOR ROAD SHALL BE DEFINED AS A ROADWAY MEETING ANY ONE OR A COMBINATION OF THE FOLLOWING CRITERIA:

- 1) ANY ROAD EXPECTED TO CARRY MORE THAN 750 VEHICLES PER DAY.
- 2) ANY ROAD EXPECTED TO SERVICE A COMMERCIAL, MULTI-FAMILY, AND/OR INSTITUTIONAL LOT.
- 3) ANY ROAD EXPECTED TO SERVICE A "D" DEVELOPMENT DISTRICT.

ALL COLLECTOR ROADS SHALL BE DESIGNED ON ANTICIPATED VOLUME. ALL ROADWAY SECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH PENNSYLVANIA D.O.T. PUBLICATION 242 AND SUBMITTED TO THE TOWN FOR REVIEW.

THE MINIMUM WIDTH OF A COLLECTOR ROAD SHALL BE THIRTY (30) FEET.

REVISIONS:

SEPTEMBER 1999

COLLECTOR ROAD SPECIFICATION

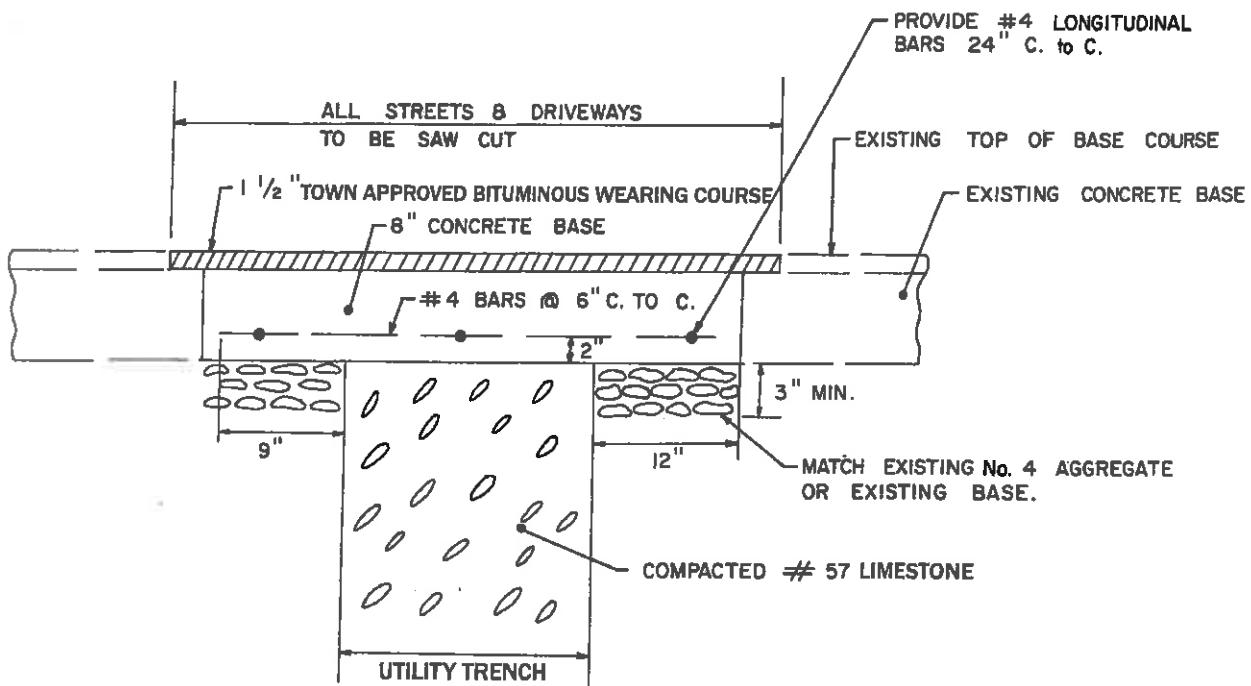
TOWN OF McCANDLESS
ALLEGHENY COUNTY, PA

STANDARDS FOR
CONSTRUCTION

201

COUNTY AND STATE SPECIFICATIONS
SHALL SUPERCEDE THIS DETAIL IN
THEIR PAVEMENTS.

USE HIGH EARLY STRENGTH CONCRETE.

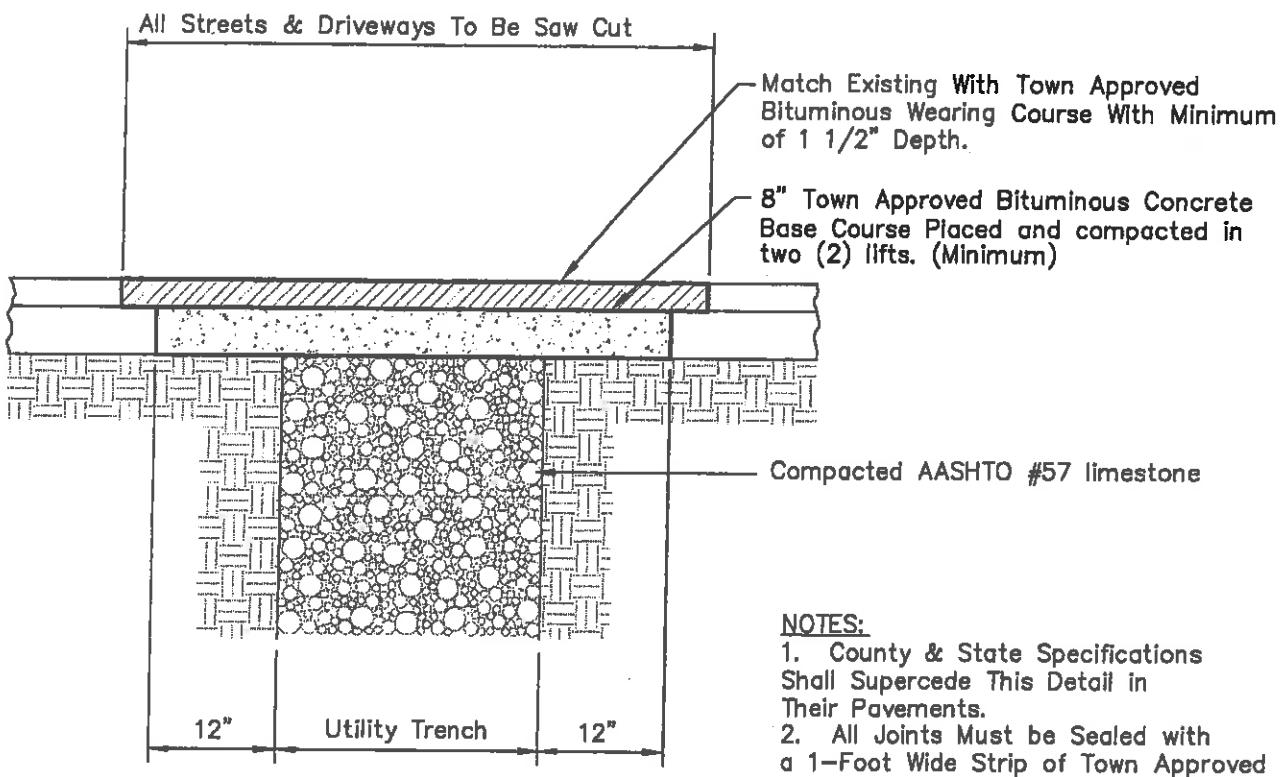


NOTE: ALL JOINTS MUST BE SEALED WITH A
1 FOOT WIDE STRIP OF TOWN APPROVED
BITUMINOUS MATERIAL.

REVISIONS:
MARCH, 1991
JULY, 1991
JAN., 1992
SEPTEMBER, 1999
JULY 2006

CONCRETE TRENCH REPAVING SPECIFICATION

TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA.



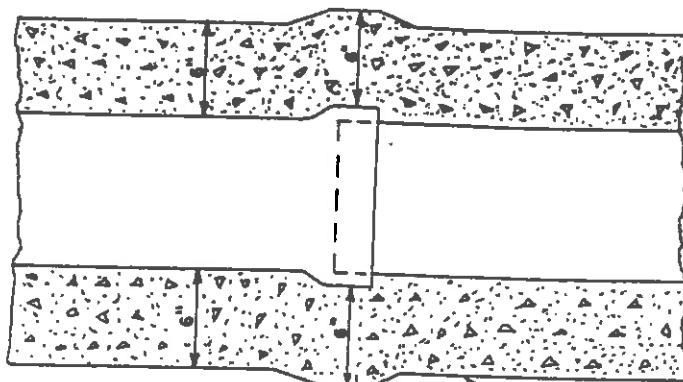
REVISIONS:
DECEMBER 1999
JULY, 2006

BITUMINOUS TRENCH REPAVING SPECIFICATION

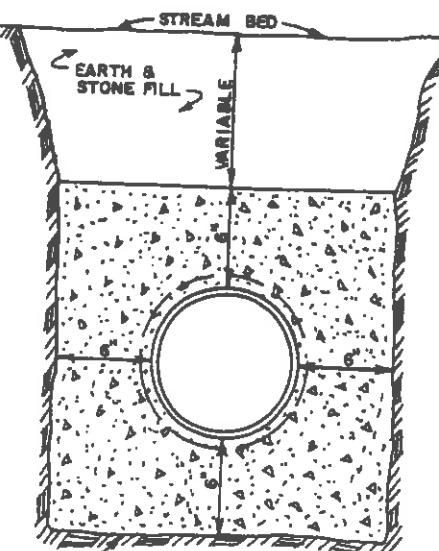
TOWN OF McCANDLESS
ALLEGHENY COUNTY, PA

STANDARDS FOR
CONSTRUCTION

CONCRETE ENCASEMENT



— PLAN OR ELEVATION —



— SECTION —

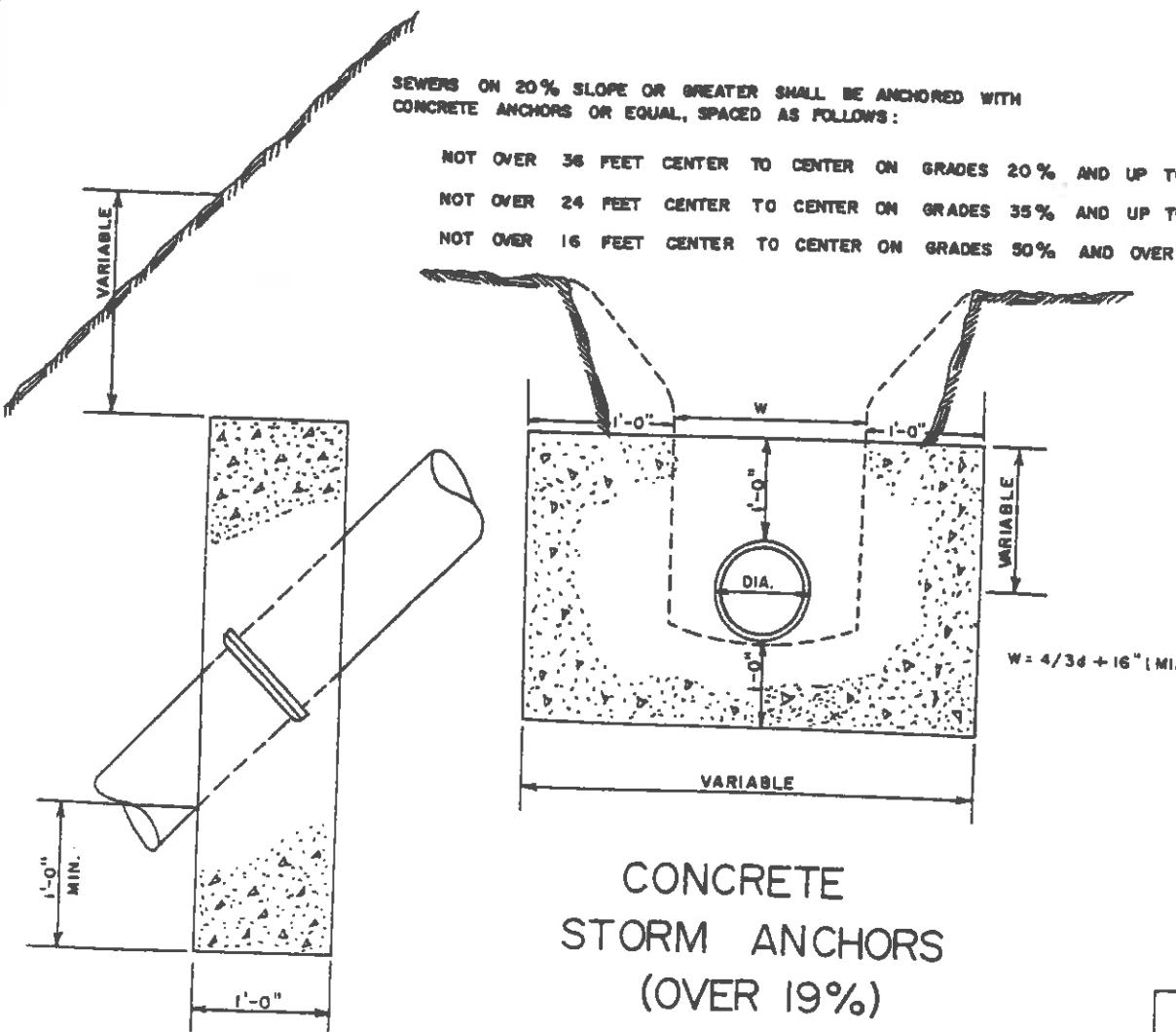
A

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 36%

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



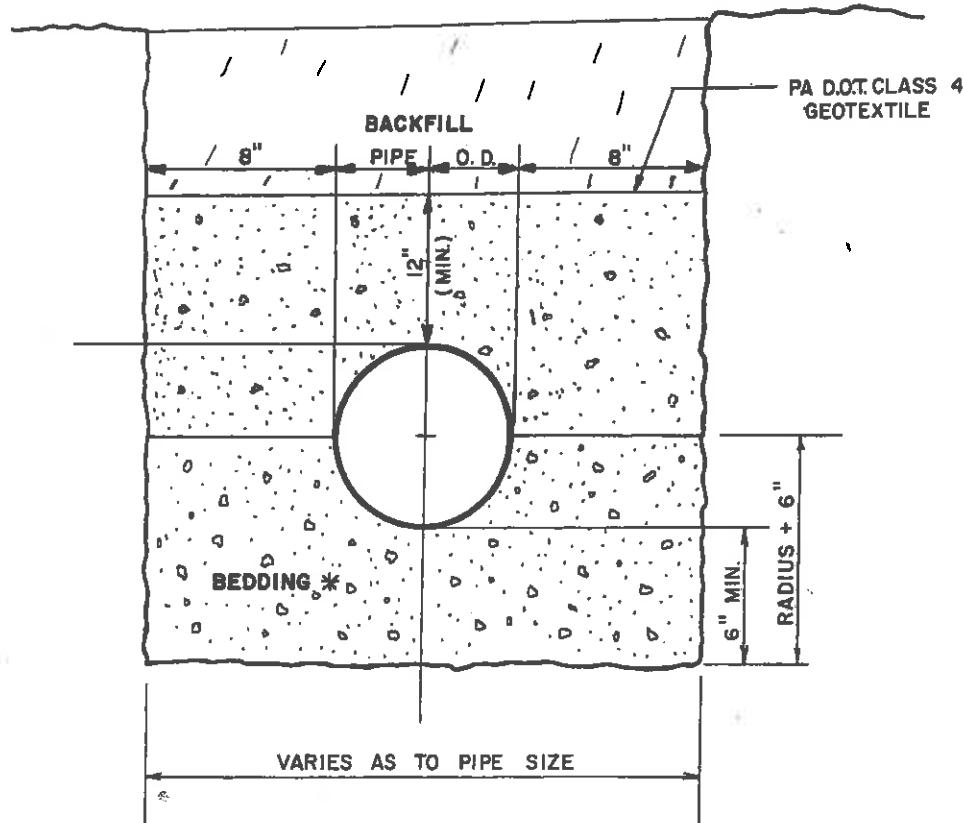
CONCRETE
STORM ANCHORS
(OVER 19%)

B

REVISIONS:

MARCH, 1991

CONCRETE ENCASEMENT CONCRETE STORM ANCHORS



BEDDING: THE BEDDING SHALL HAVE A MINIMUM DEPTH OF (6) SIX INCHES BELOW ALL PIPE AND SHALL BE BACKFILLED WITH AASHTO #57 LIMESTONE ((12) TWELVE INCHES BELOW ALL PIPE IN ROCK) THEN EXTENDED UP THE HAUNCHES TO (12) TWELVE INCHES ABOVE PIPE.

BACKFILL: ALL STREET AND PARKING AREA CROSSING SHALL BE BACKFILLED TO SUBGRADE WITH AASHTO #57 LIMESTONE.

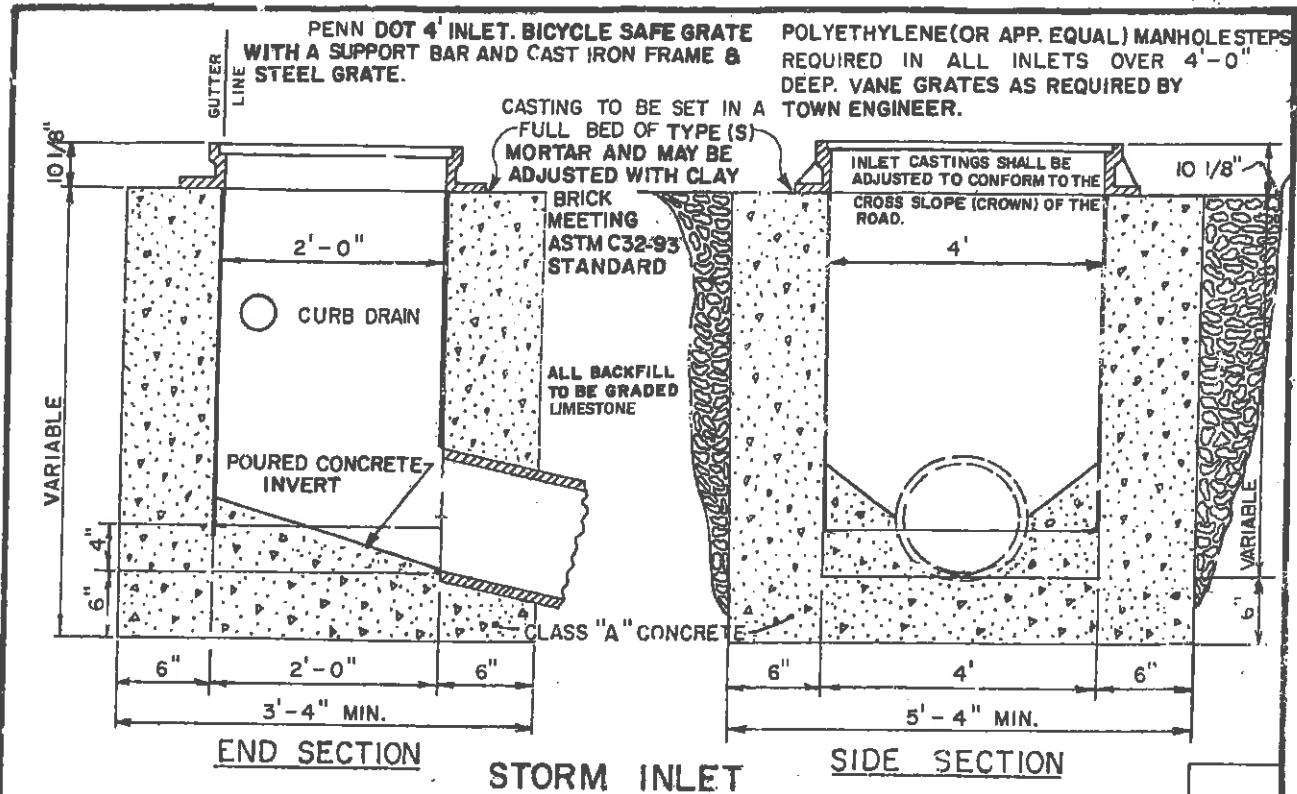
IN ALL OTHER TRENCH AREAS BACKFILL FROM THE SPRINGLINE TO (1) ONE FOOT ABOVE THE TOP OF PIPE; TO BE SELECTED MATERIAL (SELECTED MATERIAL IS FINELY DIVIDED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL AND STONES) TAMPED IN (4) FOUR INCH LAYERS; THEN THE REMAINING BACKFILL FROM THE TRENCH MAY BE PLACED.

NOTE: THIS STANDARD APPLIES TO ALL AUTHORIZED PIPE USED IN THE TOWN.

REVISIONS:
JAN. 1990
JAN. 1992
SEPTEMBER, 1999
JULY 2006

PIPE TRENCHING AND BEDDING DETAIL

TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA.



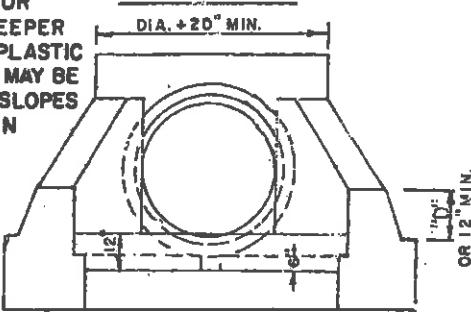
NOTE: PRECAST INLETS WILL BE APPROVED WITH FACTORY INSTALLED PIPE OPENINGS AS LONG AS THEY ARE ONE PIECE CONSTRUCTION. NO PIPE OPENINGS MAY BE CUT IN THE FIELD. STEPS SHALL BE MANUFACTURER INSTALLED. NO FIELD

A

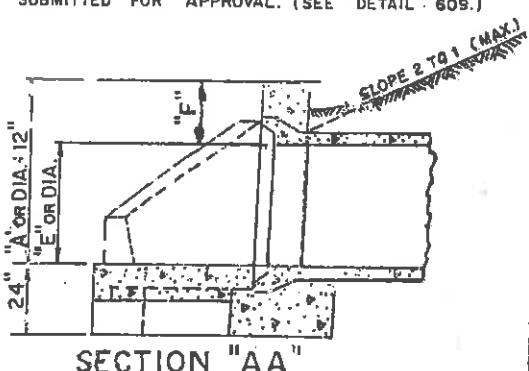
INSTALLATION

PIPE DIA	A	B	C	D	E	F
42"	5'-3"	15"	4'-3"	18"	4'-0"	15"
48"	5'-9"	15"	4'-9"	21"	4'-0"	15"
54"	6'-3"	15"	5'-3"	24"	5'-0"	15"
60"	7'-0"	15"	5'-9"	2'-3"	5'-0"	18"
66"	7'-6"	15"	7'-0"	2'-6"	6'-0"	18"
72"	8'-0"	18'	7'-0"	2'-6"	6'-6"	18"
84"	9'-0"	18"	8'-3"	2'-9"	7'-6"	18"

NOTE: CONCRETE ENDWALLS ARE REQUIRED FOR SLOPES STEEPER THAN 3:1. PLASTIC ENDWALLS MAY BE USED FOR SLOPES LESS THAN 3:1.



NOTE: SHOP DRAWINGS FOR ALL PRECAST HEADWALLS / ENDWALLS OR CONCRETE END SECTION MUST BE SUBMITTED FOR APPROVAL. (SEE DETAIL 609.)



END WALL OR HEADWALL DETAILS

TYPICAL DETAILS

B

1978

REVISIONS

MARCH, 1991

JULY, 1991

JAN, 1992

SEPTEMBER, 1999

JULY 2006

STORM DRAINAGE STRUCTURES

TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA.

**PENN DOT 4' INLET, BICYCLE SAFE GRATE
WITH A SUPPORT BAR & CAST IRON
FRAME & STEEL GRATE.**

POLYETHYLENE (OR APP. EQUAL) MANHOLE STEPS
REQUIRED IN ALL INLETS OVER 4'-0"
DEEP. VANE GRATES MAY BE REQUIRED BY
TOWN ENGINEER.

**CASTING TO BE SET IN A
FULL BED TYPE(S) MORTAR**

CLAY BRICK MUST SATISFY
ASTM C32-93 STANDARD

18
BOARD

**INLET CASTINGS SHALL BE
ADJUSTED TO CONFORM TO THE
CROSS SLOPE (CROWN) OF THE
ROAD.**

10 1

NOTE: PRECAST INLETS WILL BE APPROVED WITH FACTORY INSTALLED PIPE OPENINGS AS LONG AS THEY ARE ONE PIECE CONSTRUCTION. NO PIPE OPENINGS MAY BE CUT IN THE FIELD. STEPS SHALL BE MANUFACTURED INSTALLED. NO FIELD

INSTALLATION

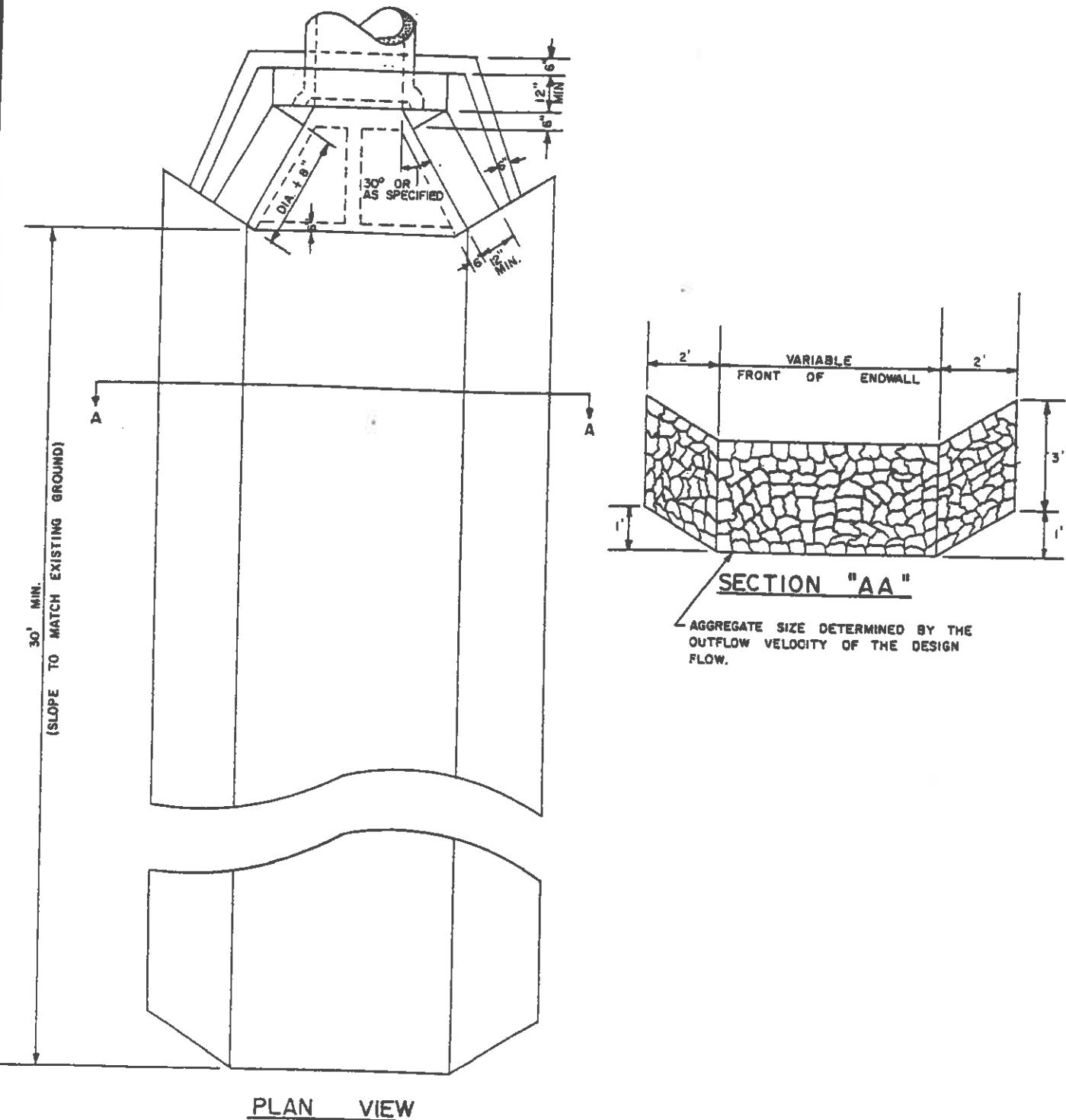
8

1991

REVISIONS
JULY, 1991
JAN., 1992
SEPTEMBER, 1992
JULY 2006

STORM DRAINAGE STRUCTURES

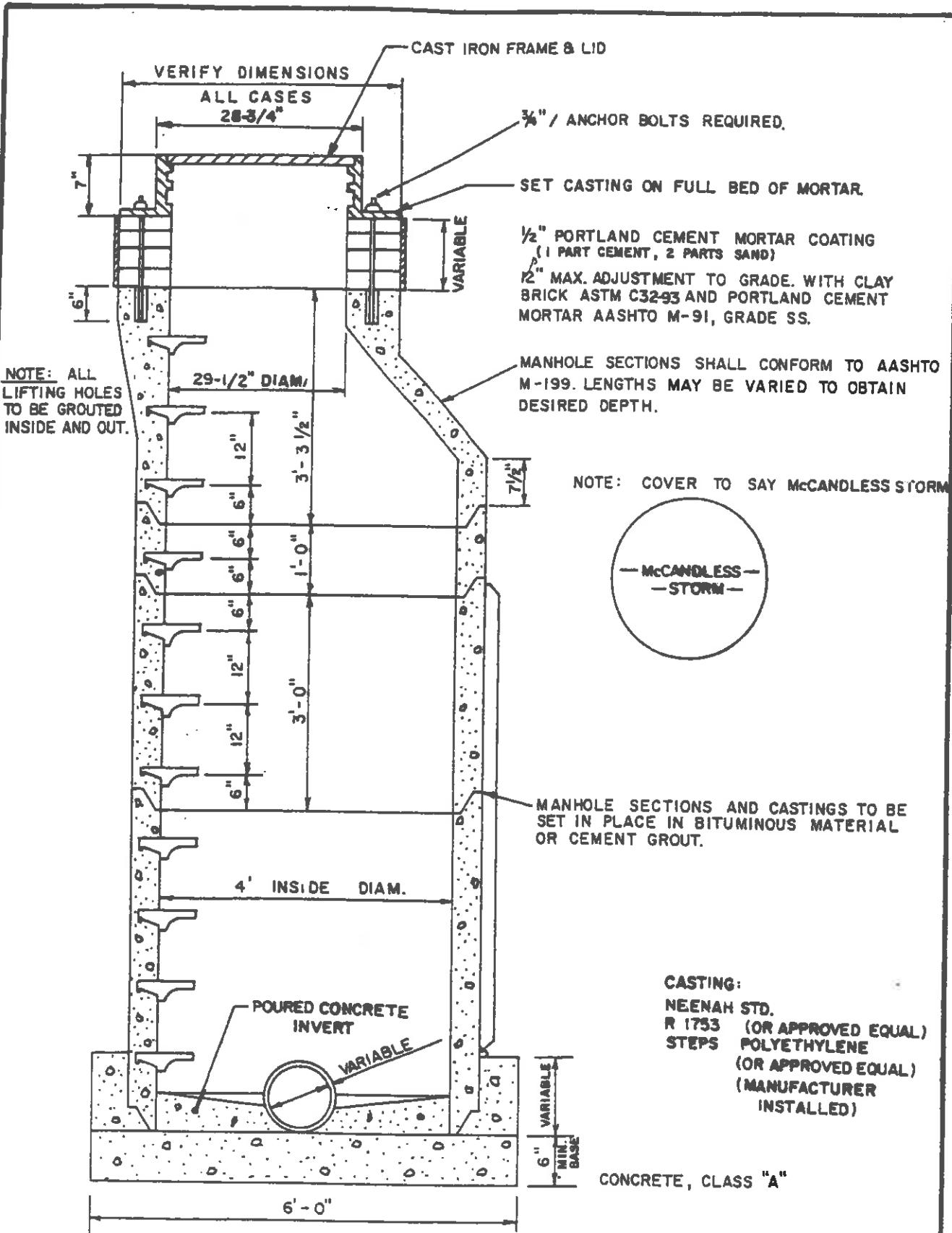
**TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA** SHEET 2 OF 2



REVISIONS:
MARCH, 1991
SEPTEMBER, 1993

ENERGY DISSIPATION TRENCH

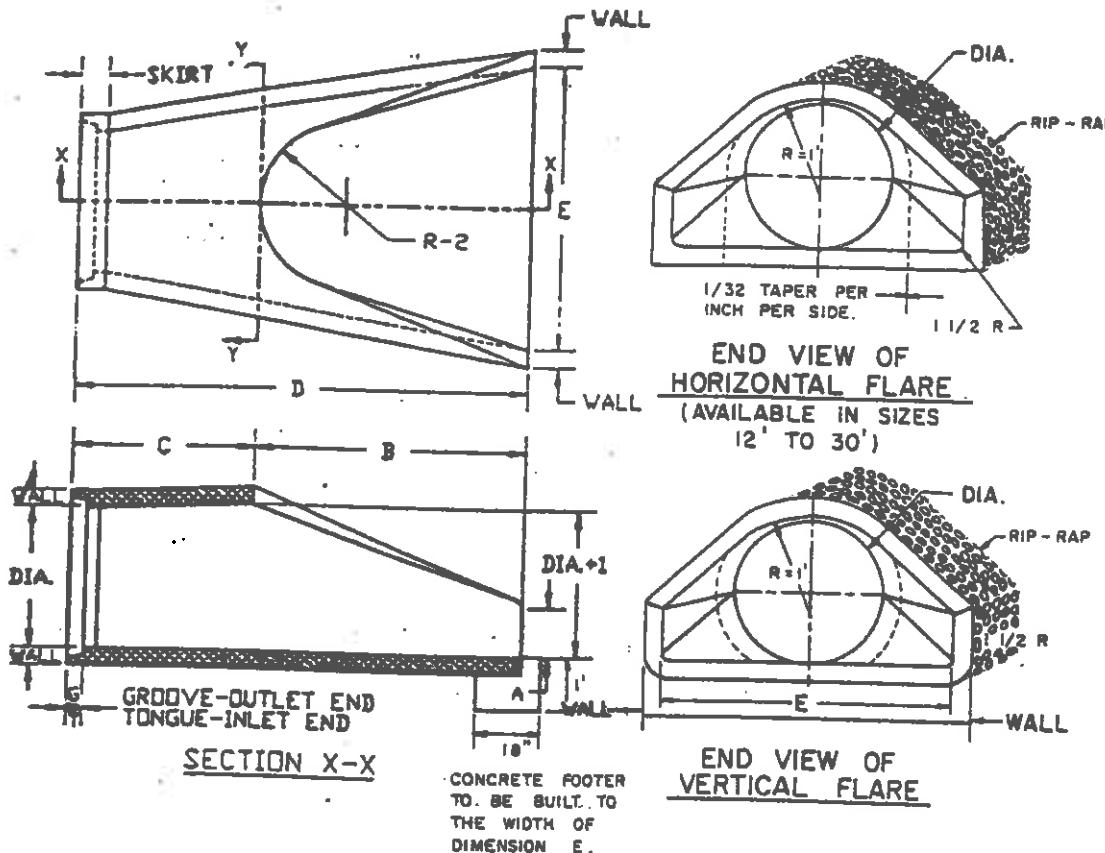
TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA.



REVISIONS:
JAN., 1992
SEPTEMBER, 1999

PRECAST CONCRETE MANHOLE DETAIL FOR PIPES
UNDER 48" IN DIAMETER

**TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA**



NOTE: SHOP DRAWINGS FOR ALL OTHER SIZES NOT SPECIFIED MUST BE SUBMITTED FOR APPROVAL.

RIP RAP IS REQUIRED IN FRONT OF THE END SECTION AT A MINIMUM WIDTH OF "E" + THE SIDE SLOPE OF THE OUTFALL CHANNEL. A MINIMUM LENGTH OF 20 FEET IS REQUIRED FOR THE CHANNEL. RIP RAP IS REQUIRED COMPLETELY BEHIND THE STRUCTURE AS SHOWN

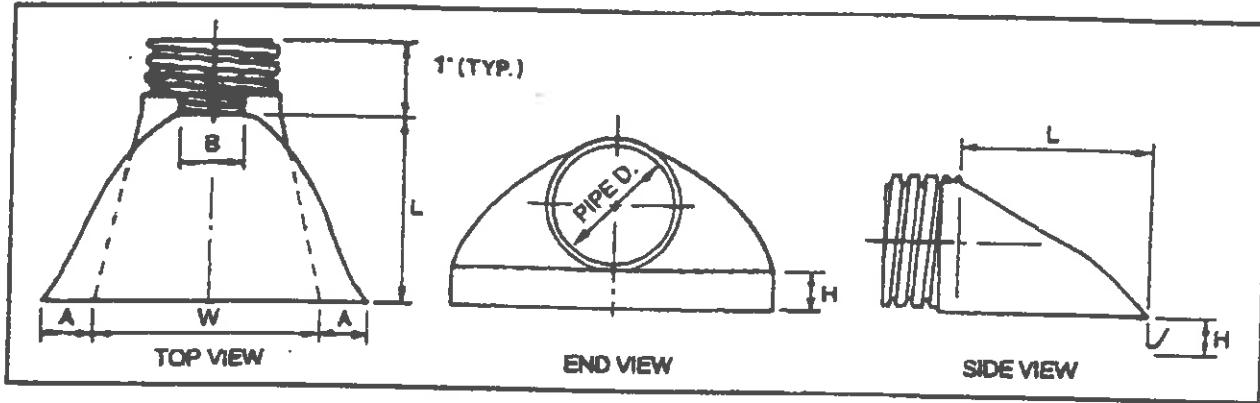
AVAILABLE SIZES

DIA.	WALL	G or T. WT. SEC	A	B	C	D	E	DIA.+1	R-1	R-2	SKIRT	
12	2	1 1/2	530	4	24	48 7/8	72 7/8	24	13	10 1/16	9	3 1/2
15	2 1/4	2	740	6	27	46	73	30	16	12 1/2	11	3 1/2
18	2 1/2	2 1/2	990	9	27	46	73	36	19	15 1/2	12	4
21	2 3/4	2 1/4	1,280	9	35	38	73	42	22	16 1/8	13	4
24	3	2 1/2	1,520	9 1/2	43 1/2	30	73 1/2	48	25	16 11/16	14	4 1/2
27	3 1/4	2 1/2	1,930	10 1/2	48	25 1/2	73 1/2	54	28	17 3/4	14 1/2	4 1/2
30	3 1/2	3	2,190	12	54	19 3/4	73 3/4	60	31	18 5/16	15	5
36	4	13 1/2	4,100	15	63	34 3/4	97 3/4	72	37	24 1/16	20	5 1/2
42	4 1/2	3 3/4	5,380	21	63	35	98	78	43	27 1/4	22	5 1/2
48	5	4 1/4	6,550	24	72	26	98	84	49	28 1/8	22	5 3/4

REVISIONS

MARCH , 1991
JULY , 1991
JAN. , 1992

FLARED CONCRETE END SECTION



NOTE: SHOP DRAWINGS FOR ALL OTHER SIZES NOT SPECIFIED MUST BE SUBMITTED FOR APPROVAL

RIP RAP IS REQUIRED IN FRONT OF THE END SECTION AT A MINIMUM WIDTH OF "W" + THE SIDE SLOPE OF THE OUTFALL CHANNEL. A MINIMUM LENGTH OF 20 FEET IS REQUIRED FOR THE CHANNEL. RIP RAP IS REQUIRED COMPLETELY BEHIND THE STRUCTURE AS SHOWN

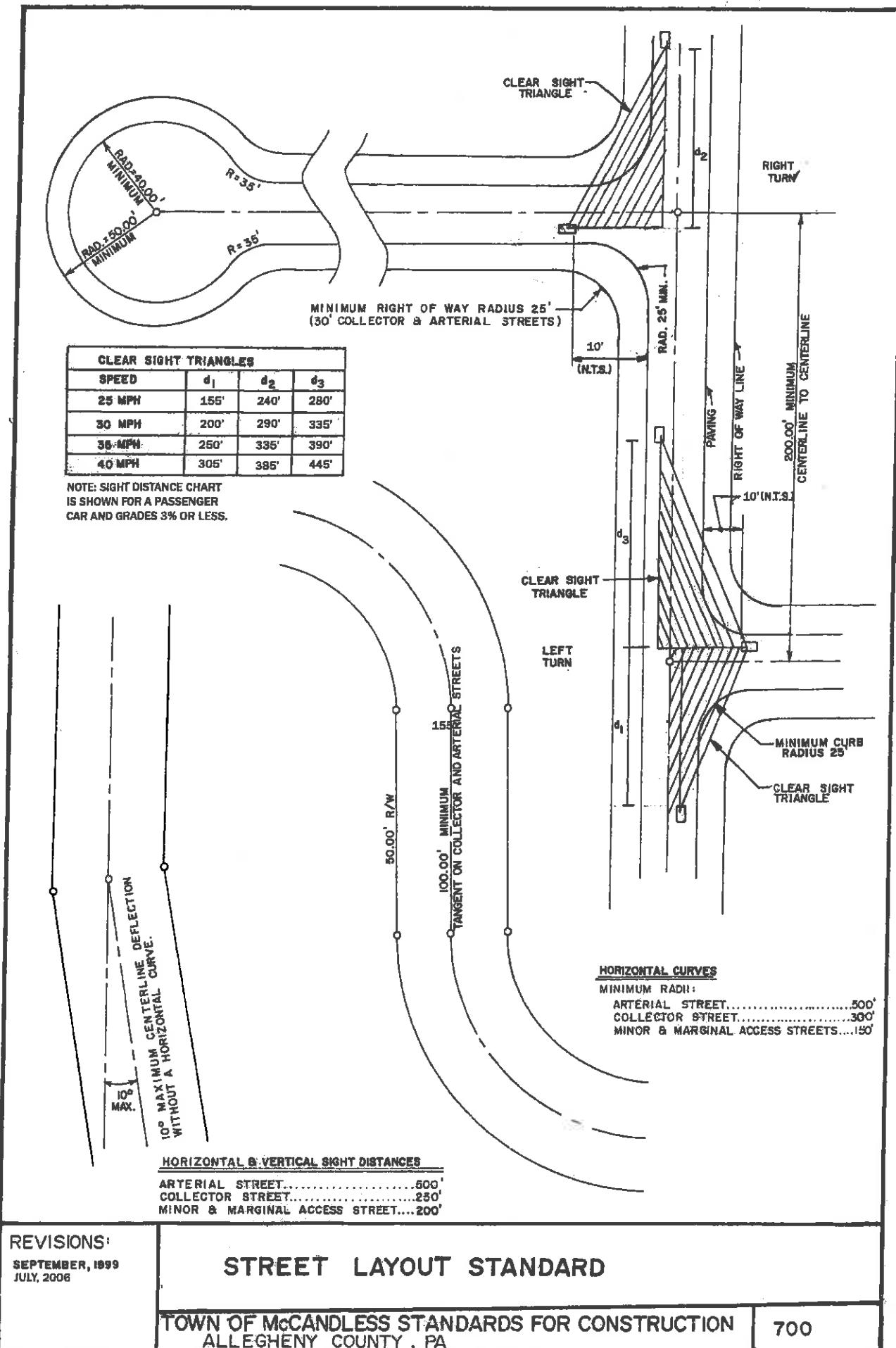
AVAILABLE SIZES

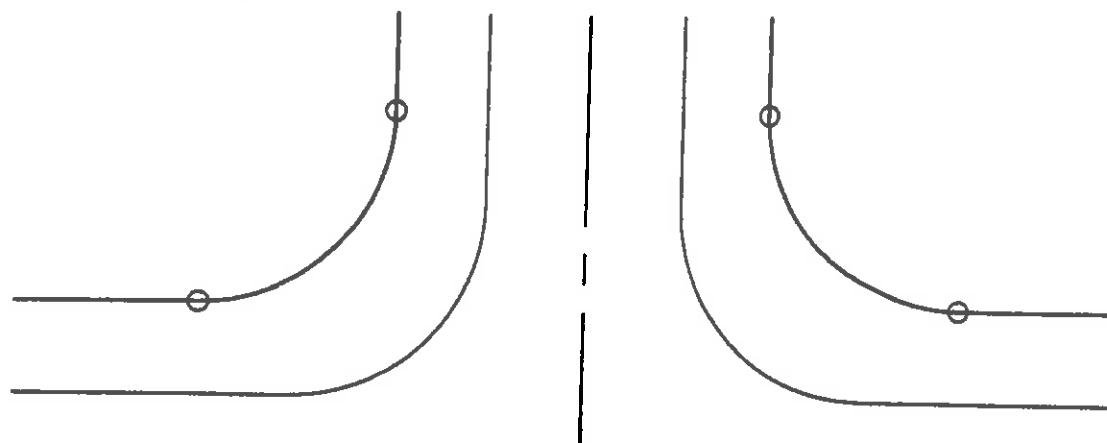
PIPE DIAMETER	DIMENSIONS, INCHES				
	A, ± 1	B MAX	H, ± 1	L, $\pm 1/2(13)$	W, ± 2
12, 15	6.5	10	6.5	25	29
18	7.5	15	6.5	32	35
24	7.5	18	6.5	36	45
30	10.5	N/A	7.0	53	68
36	10.5	N/A	7.0	53	68

REVISIONS
SEPTEMBER, 1999

FLARED CORRUGATED PLASTIC PIPE END SECTION (ADS OR APPROVED EQUAL)

TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA.





25.0 FEET MINIMUM CURB RETURN

RADIUS (MINOR STREETS)

R = 25.0 FEET
(MINIMUM)

MINIMUM RIGHT-OF-WAY
RADIUS IS:
* 25.0 FEET FOR MINOR STREETS
* 30.0 FEET FOR COLLECTOR AND
ARTERIAL STREETS
AS PER PA DOT PUBLICATION 70.

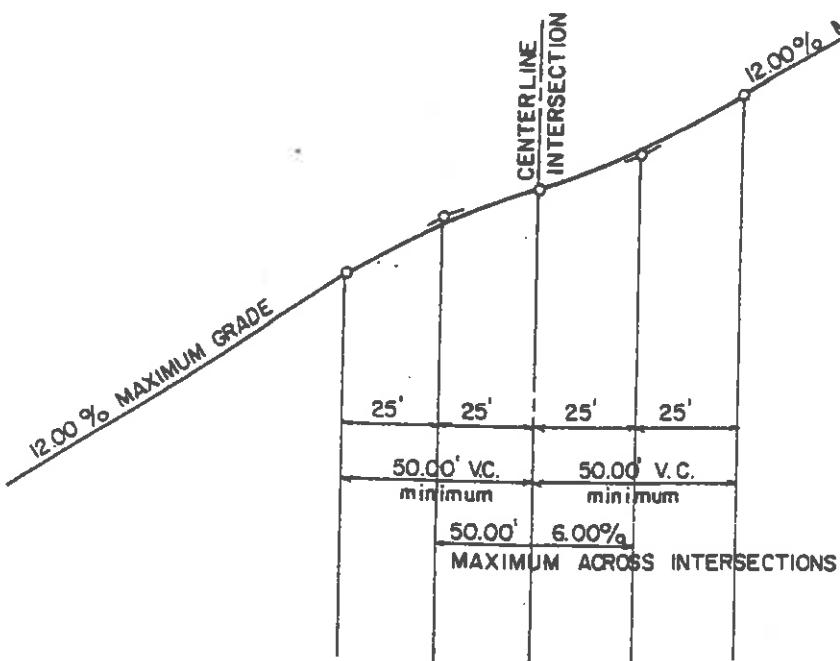
NOTE:
ALL INTERSECTIONS TO BE 90°

REVISIONS:
SEPTEMBER 1999

INTERSECTION PLAN

TOWN OF McCANDLESS
ALLEGHENY COUNTY, PA

STANDARDS FOR
CONSTRUCTION



VERTICAL CURVES AT INTERSECTIONS

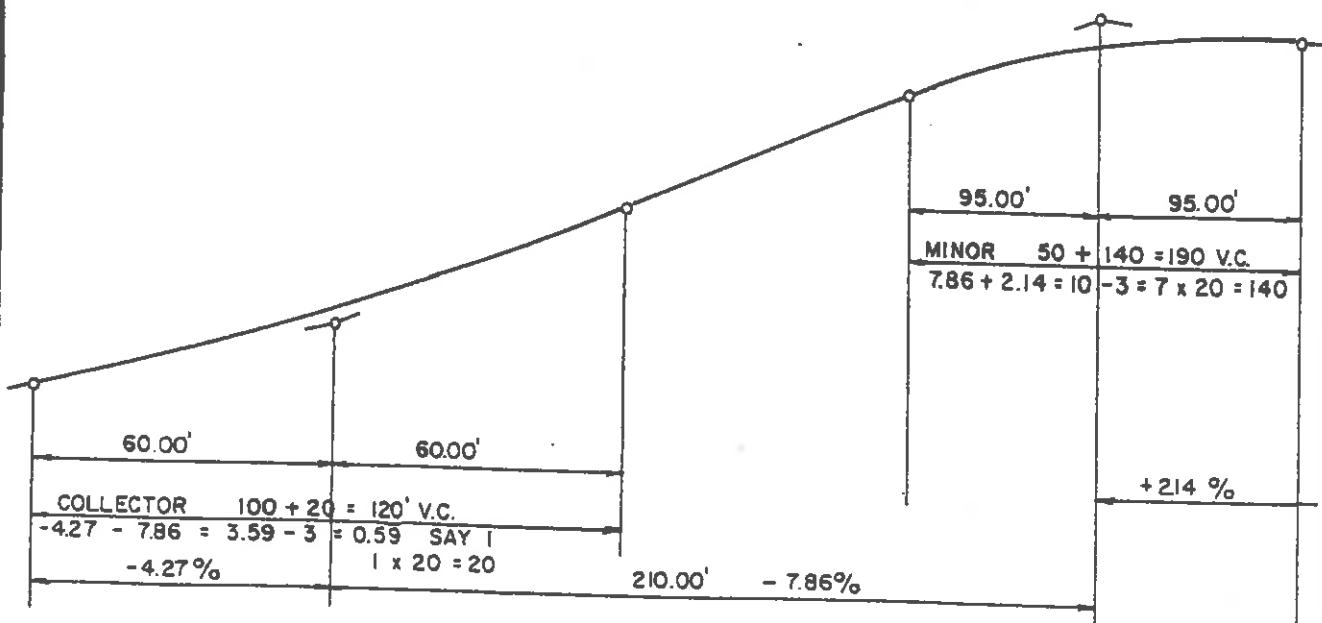
NOTE: VERTICAL CURVES SHALL BE INCREASED 20 FEET FOR EACH 1% OF GRADE CHANGE EXCEEDING 3%.

GRADES ACROSS INTERSECTIONS SHALL NOT EXCEED 6% WITHIN 25' OF THE CENTERLINE INTERSECTION.

150.00' MINIMUM ARTERIAL STREETS

100.00' MINIMUM COLLECTOR STREETS

50.00' MINIMUM MINOR OR MARGINAL ACCESS STREETS

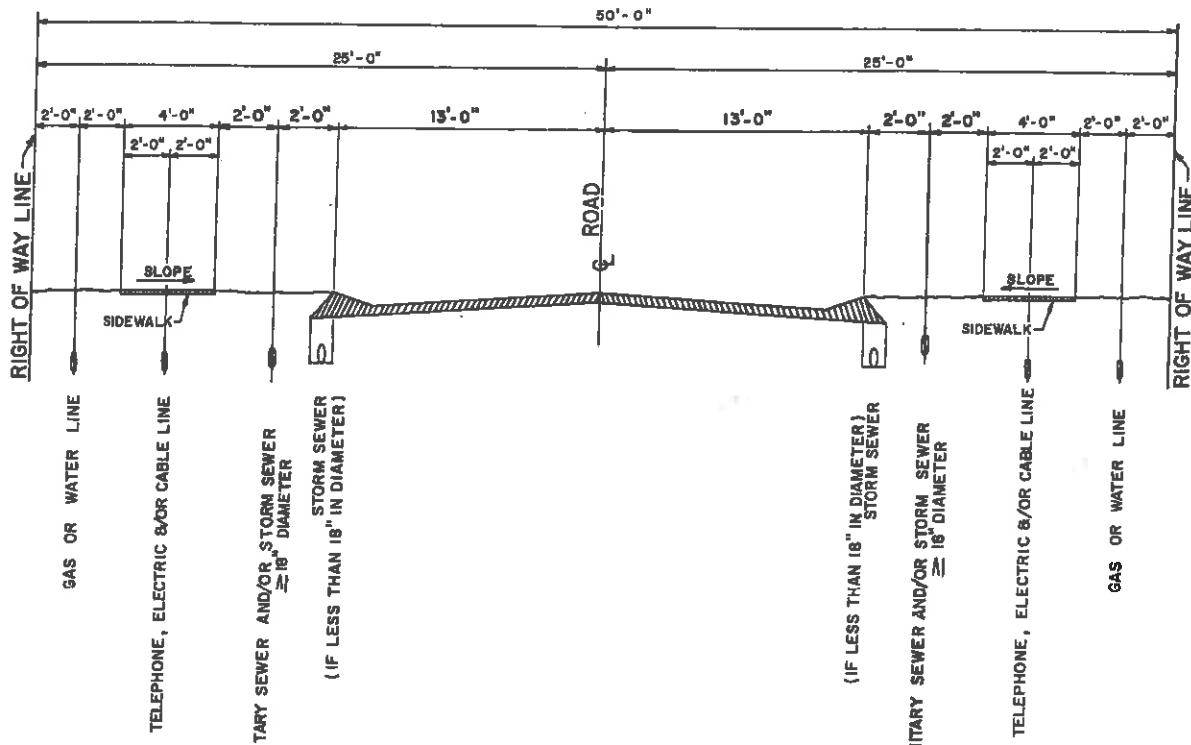


VERTICAL CURVES AT GRADE CHANGES

REVISIONS:
SEPTEMBER, 1969

VERTICAL CURVES AT INTERSECTIONS
VERTICAL CURVES AT GRADE CHANGES

TOWN OF McCANDLESS STANDARDS FOR CONSTRUCTION
ALLEGHENY COUNTY, PA



NOTE:

A MANHOLE OR INLET MUST BE INSTALLED AT ALL HORIZONTAL OR VERTICAL CHANGES IN A STORM SEWER LINE. ALL PRIVATE CONNECTIONS INTO A STORM SEWER LINE MUST BE MADE WITH A MANUFACTURED WYE.

ALL UTILITIES CROSSING THE ROADWAY SHALL BE AT LEAST 3' DEEP, BACKFILLED WITH AASHTO NO. 57 LIMESTONE AND SHALL BE INSPECTED BY THE TOWN. UTILITY CROSSINGS SHALL ALSO CONFORM TO THE MINIMUM STANDARDS FOR EACH RESPECTIVE UTILITY COMPANY.

THE MINIMUM DEPTH OF ALL UTILITY LINES IS FROM THE FINISHED CENTERLINE GRADE.

UPON COMPLETION OF CONSTRUCTION AN AS BUILT PLAN MUST BE SUBMITTED SHOWING ALL INSTALLED UTILITIES.

UTILITY SITUATION MAY VARY, BUT DIMENSIONS WILL GOVERN.

ALL TELEPHONE, ELECTRIC, TECHNOLOGY, AND CABLE T.V. LINES MUST BE INSTALLED IN CASING AT ROAD CROSSINGS.

STORM AND SANITARY SEWER CONSTRUCTION MUST BE COMPLETED FIRST.

REVISIONS

MARCH , 1991 JULY 2006

JULY , 1991

APRIL , 1992

MAY , 1992
SEPTEMBER, 1993

TYPICAL PUBLIC UTILITY LOCATIONS