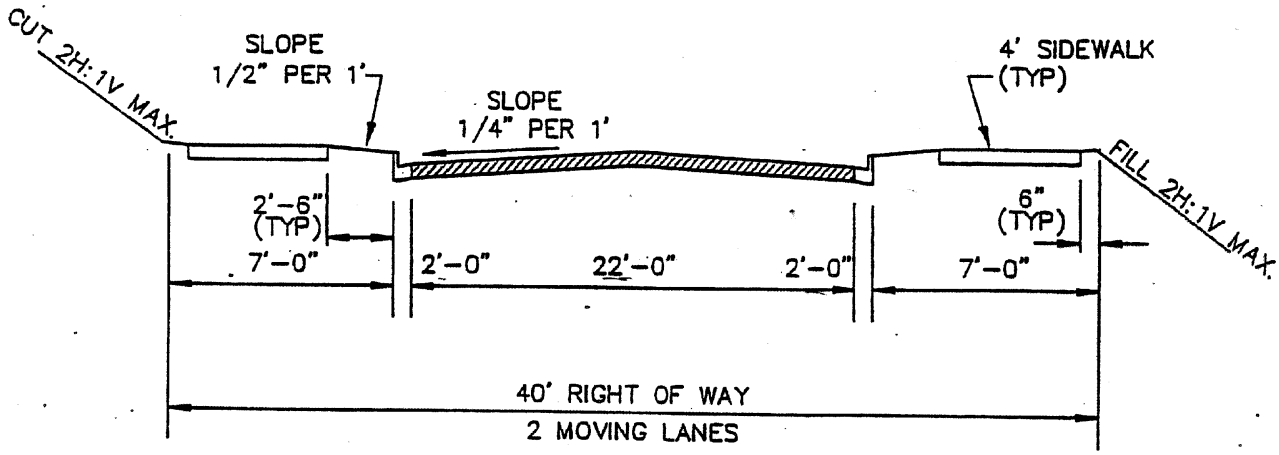
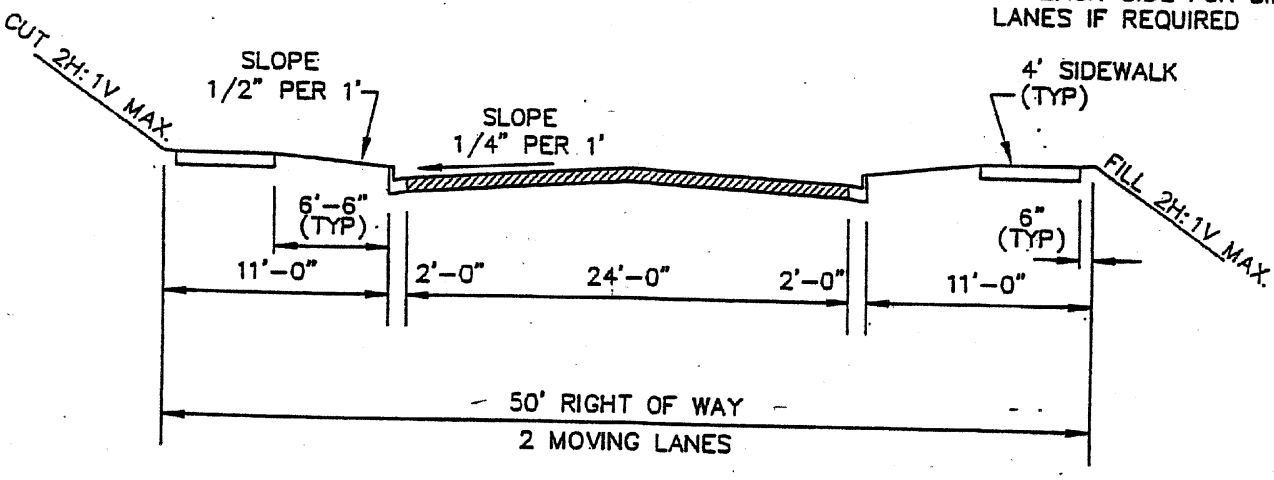


MINOR RESIDENTIAL STREETS

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



RESIDENTIAL STREETS

WEST POINT

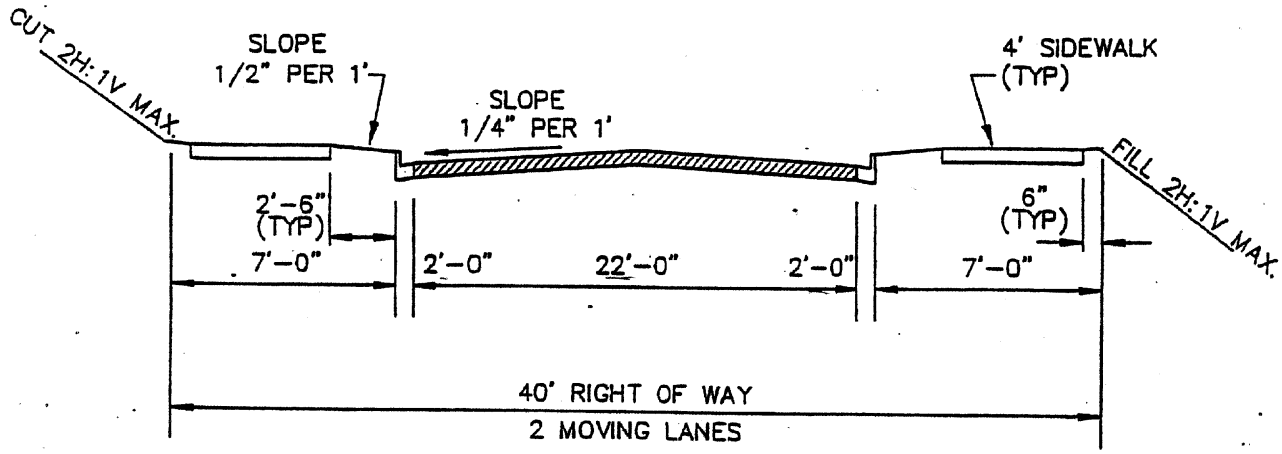
City of West Point

TYPICAL ROADWAY DESIGN

STANDARD DEVELOPMENT DETAILS

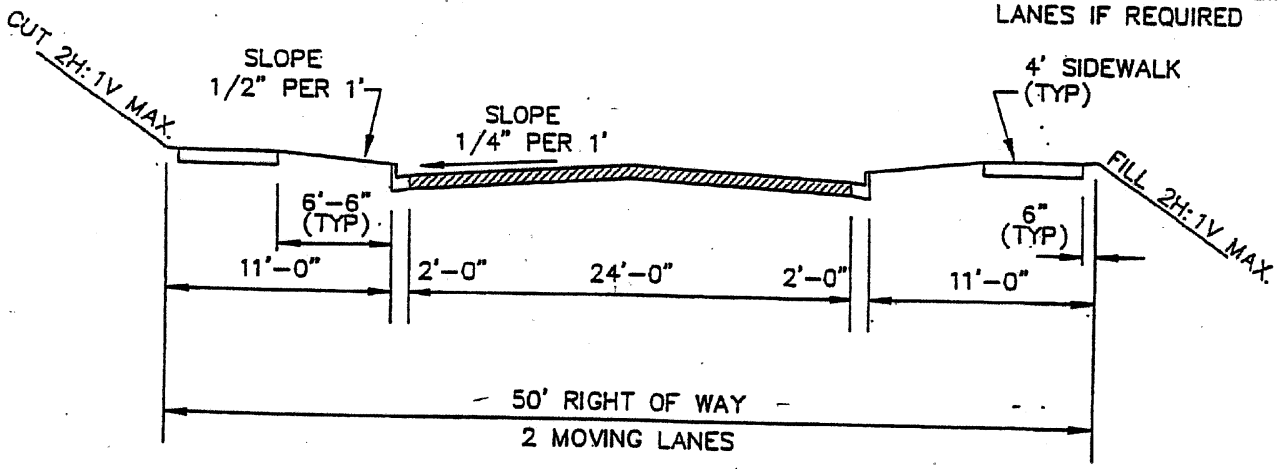
SCALE: NONE

DATE: JUNE 1998



MINOR RESIDENTIAL STREETS

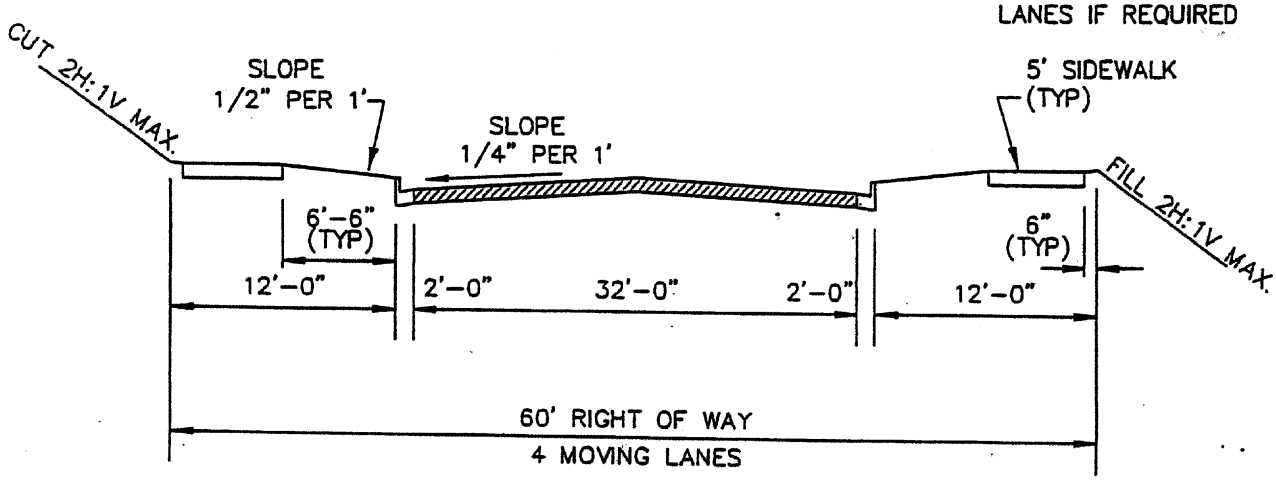
NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



RESIDENTIAL STREETS

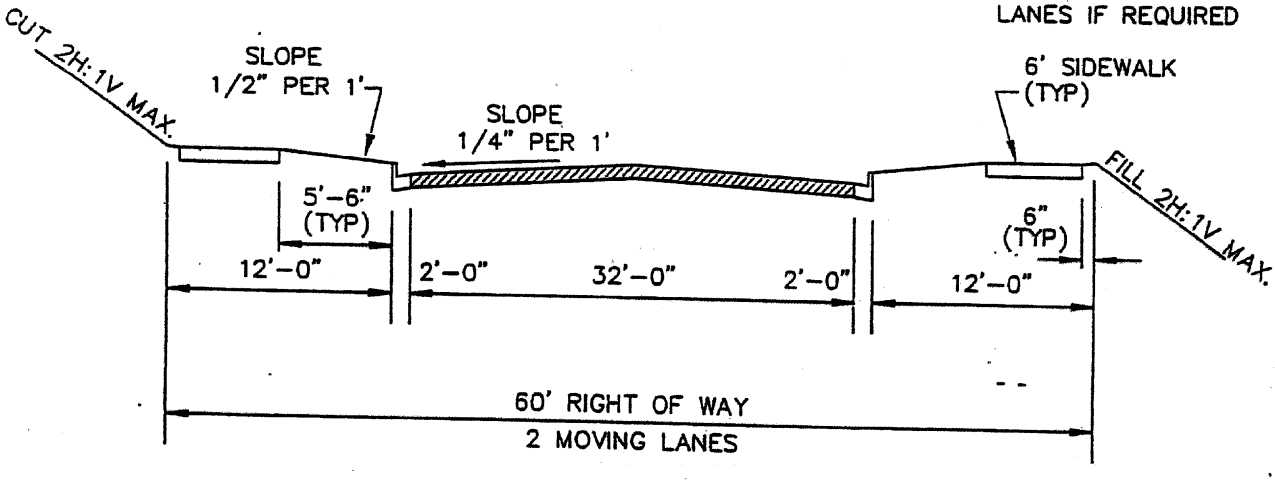
WEST POINT **City of West Point**	TYPICAL ROADWAY DESIGN
	STANDARD DEVELOPMENT DETAILS
	SCALE: NONE DATE: JUNE 1998

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



RESIDENTIAL COLLECTOR STREETS

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



COMMERCIAL LOCAL STREETS

WEST POINT

City of West Point

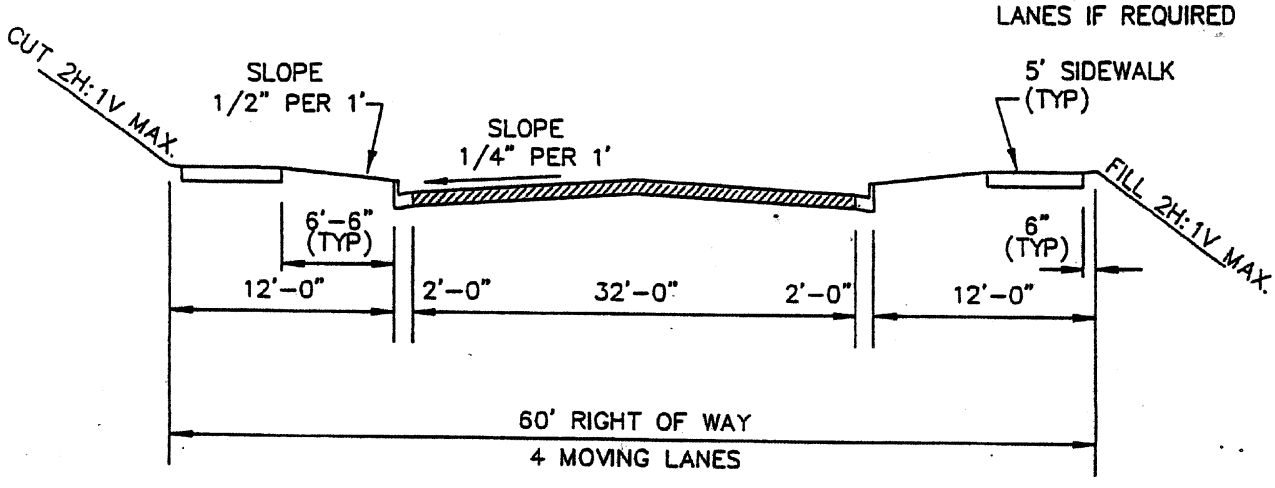
TYPICAL ROADWAY DESIGN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

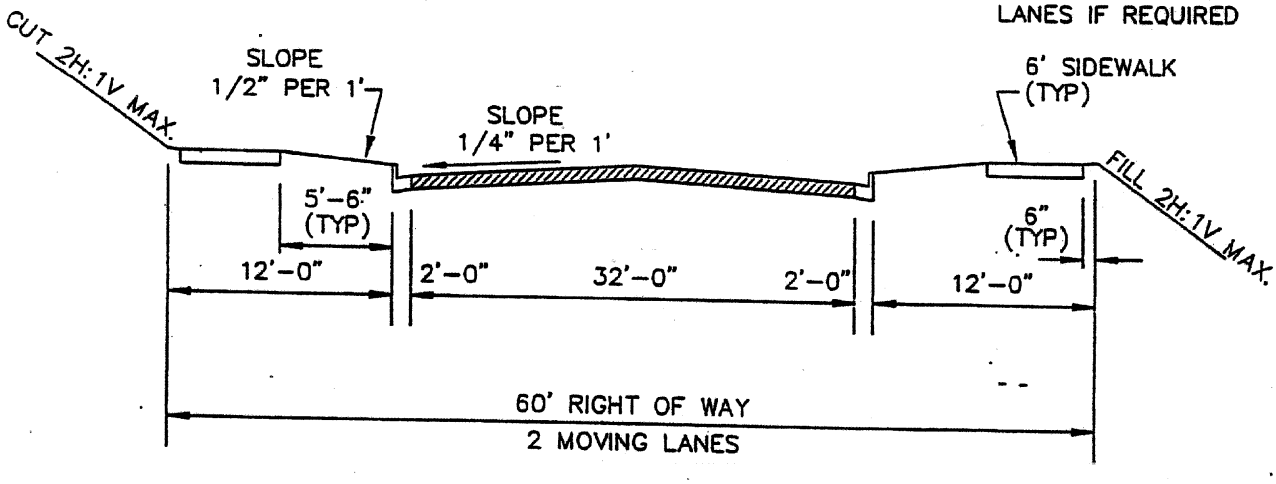
DATE: JUNE 1998

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



RESIDENTIAL COLLECTOR STREETS

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



COMMERCIAL LOCAL STREETS

WEST POINT

City of West Point

TYPICAL ROADWAY DESIGN

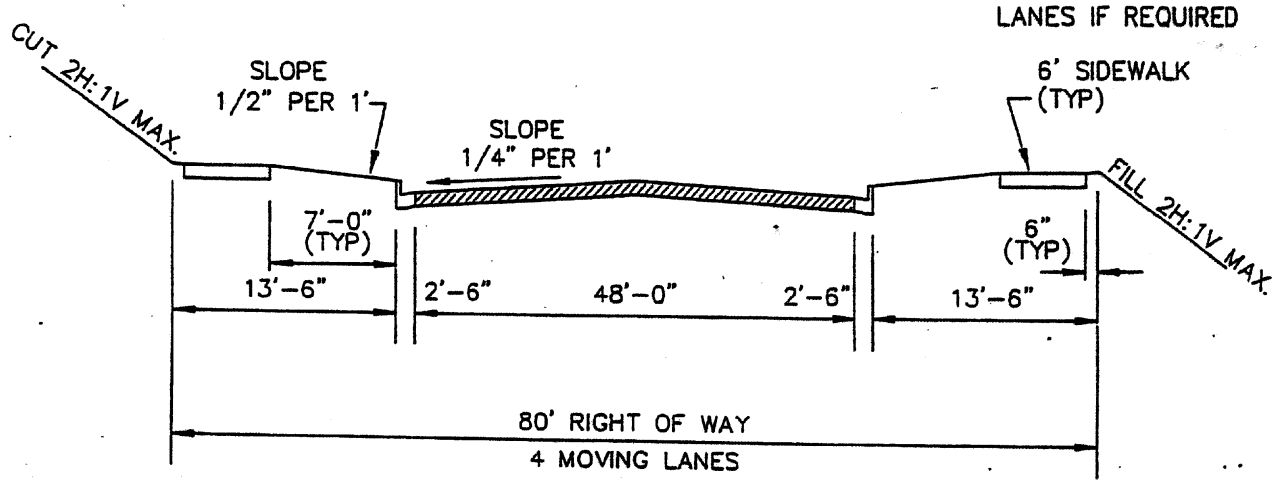
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

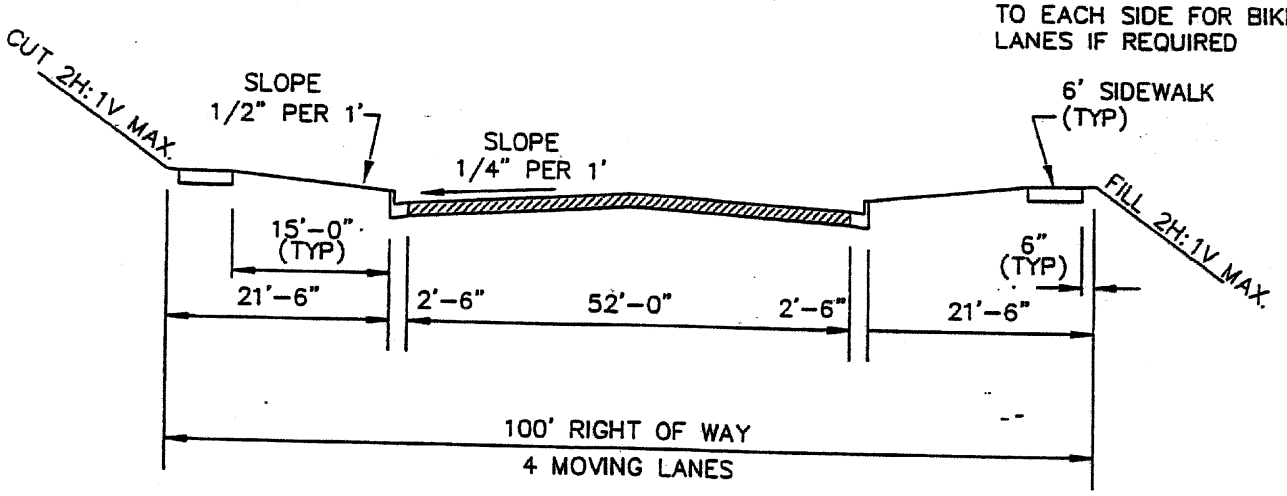
S01.03

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



COMMERCIAL COLLECTOR STREETS

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



COMMERCIAL ARTERIAL STREETS

WEST POINT

City of West Point

TYPICAL ROADWAY DESIGN

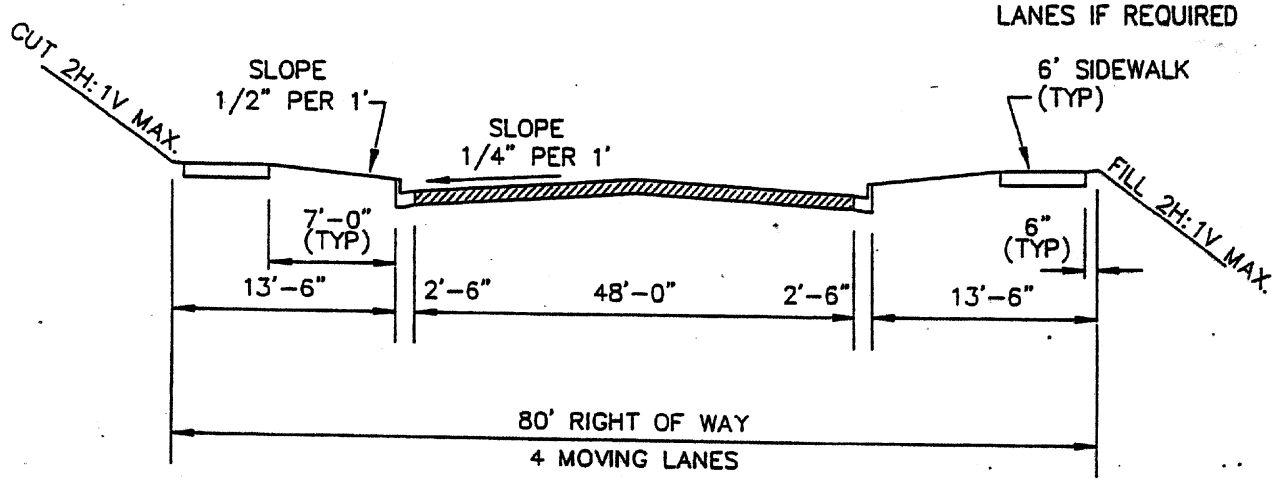
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

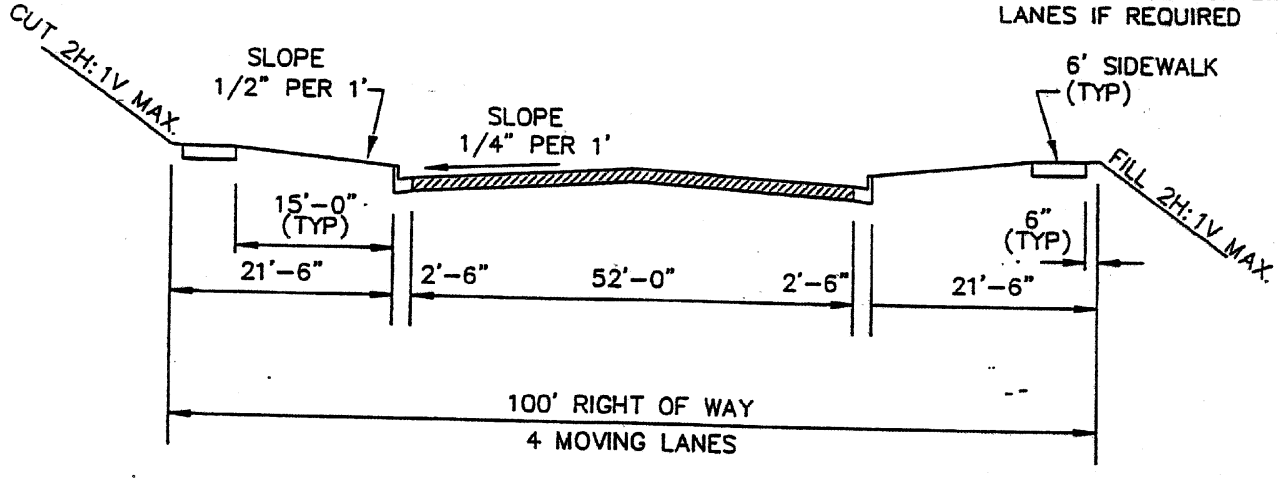
S01.03

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



COMMERCIAL COLLECTOR STREETS

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



COMMERCIAL ARTERIAL STREETS

WEST POINT

City of West Point

TYPICAL ROADWAY DESIGN

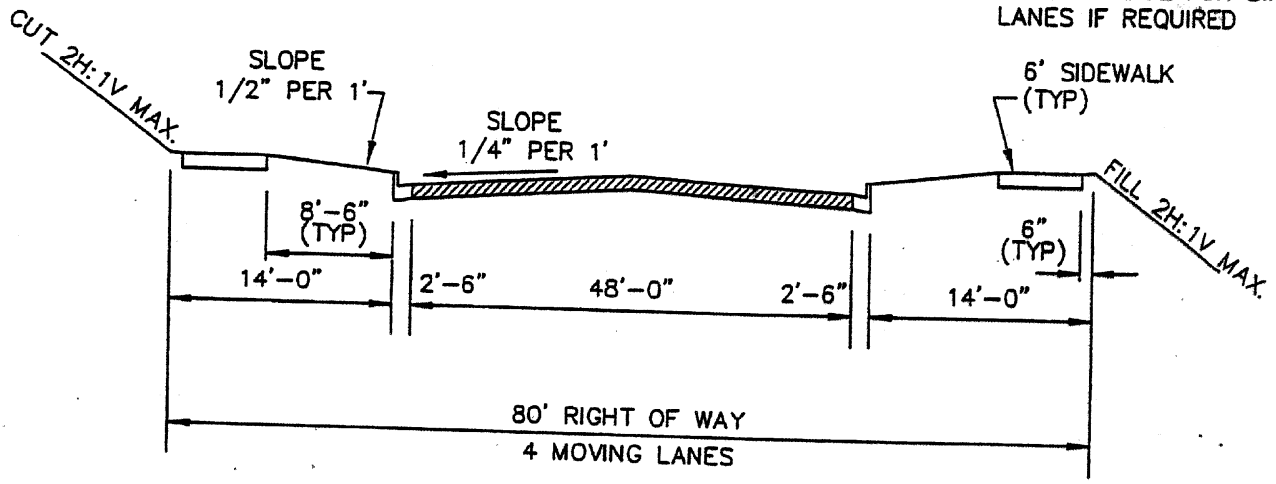
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

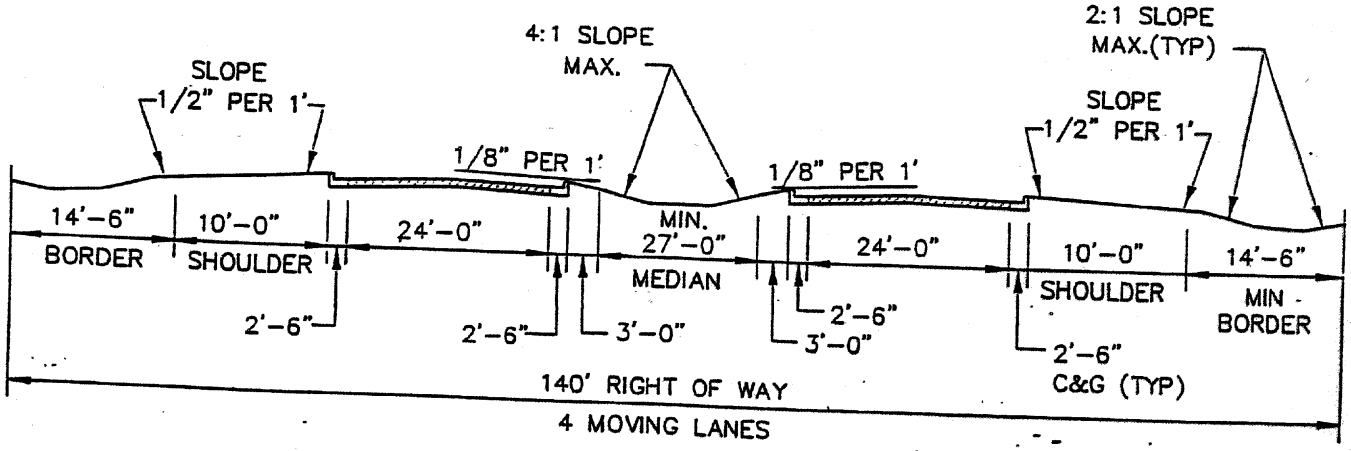
DATE: JUNE 1998

S01.04

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



80' R/W INDUSTRIAL STREETS



PARKWAY

WEST POINT

City of West Point

TYPICAL ROADWAY DESIGN

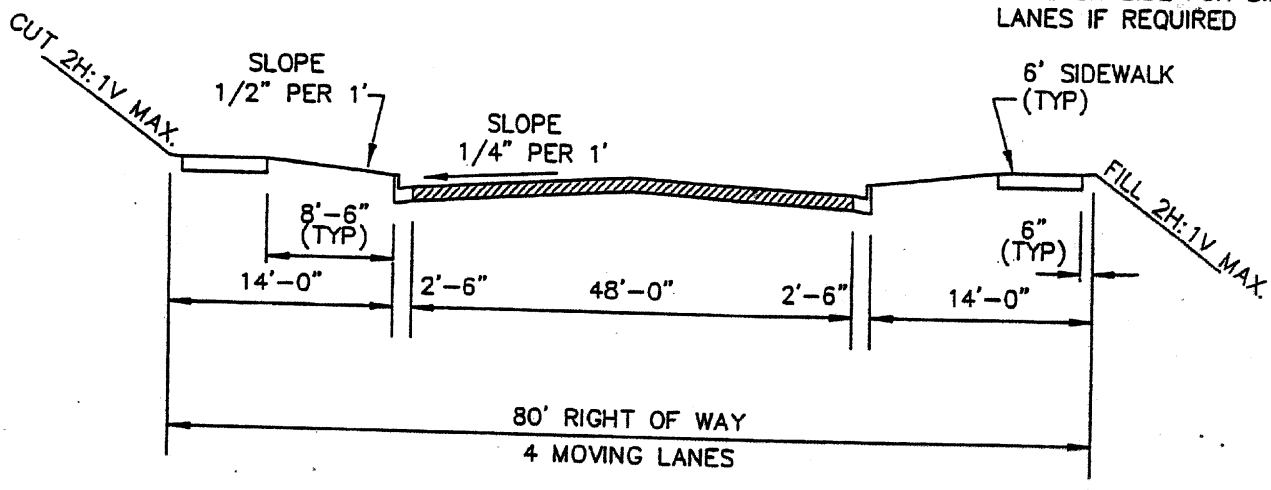
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

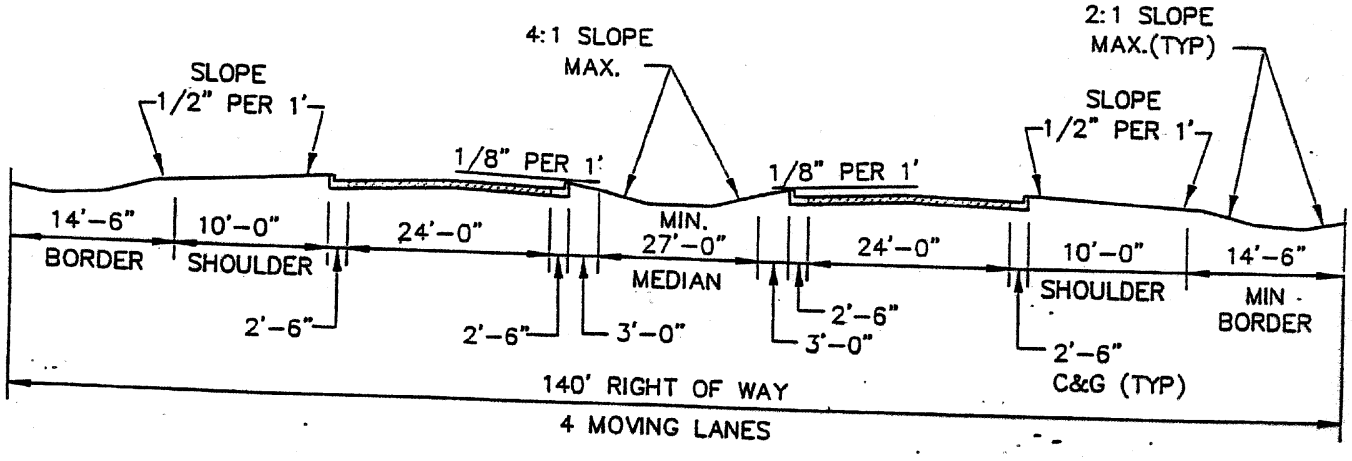
DATE: JUNE 1998

S01.04

NOTE:
ADD 4' OF PAVEMENT TO EACH SIDE FOR BIKE LANES IF REQUIRED



80' R/W INDUSTRIAL STREETS



PARKWAY

WEST POINT

City of West Point

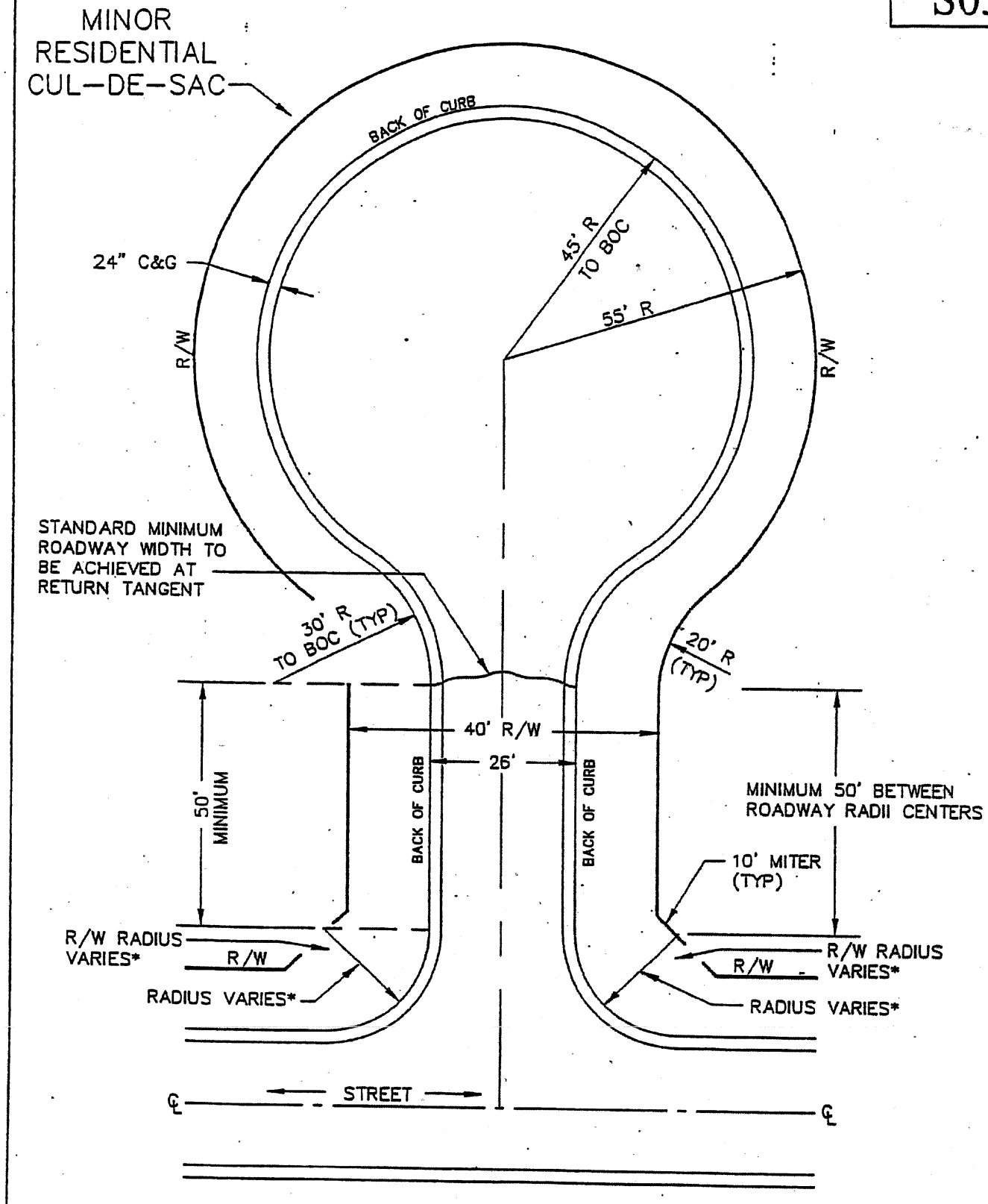
TYPICAL ROADWAY DESIGN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

S03



* SEE MINIMUM INTERSECTION RADII REQUIREMENTS IN DEVELOPMENT REGULATIONS.

WEST POINT

City of West Point

MINOR RESIDENTIAL CUL-DE-SAC

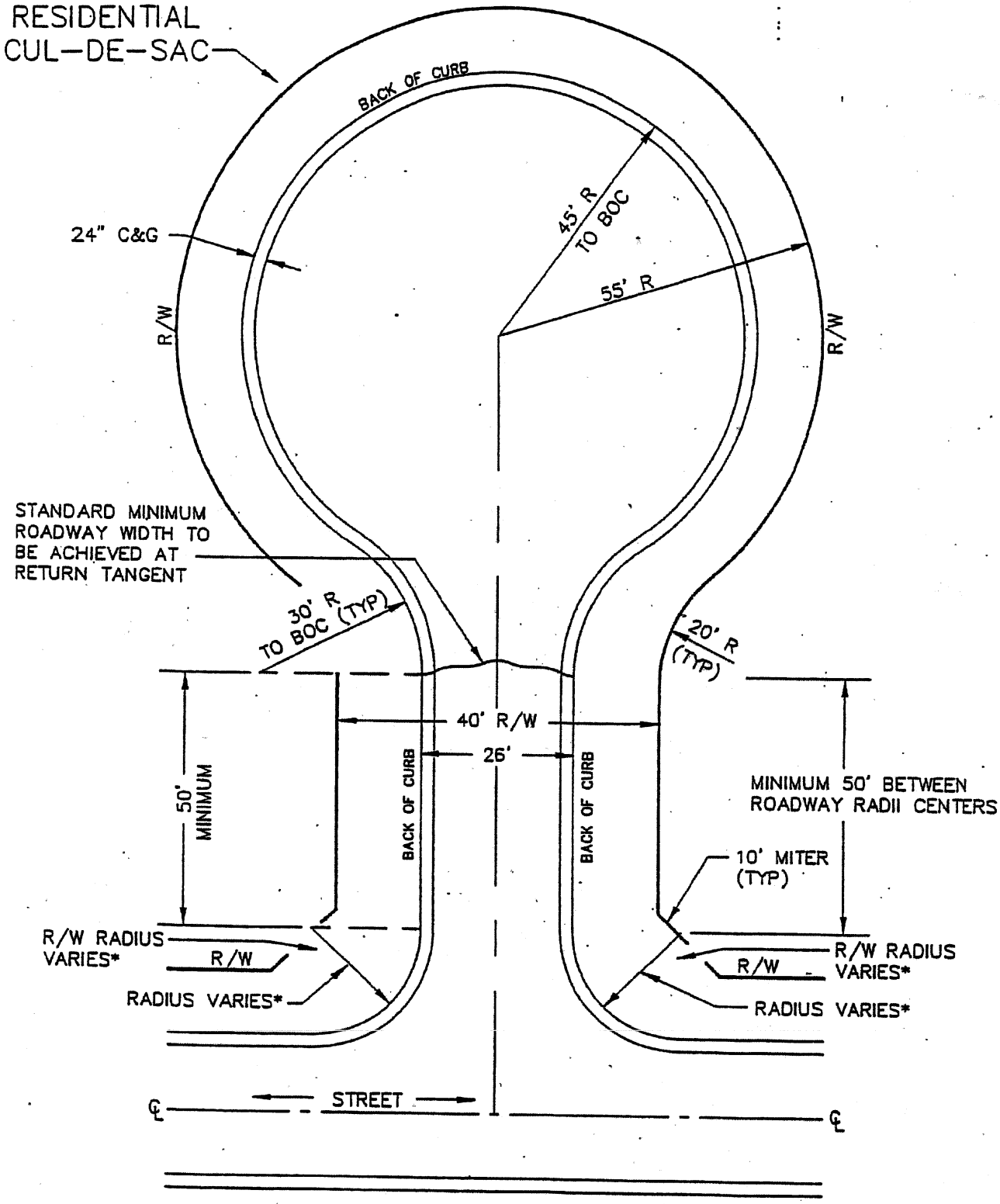
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

S03

MINOR RESIDENTIAL CUL-DE-SAC



* SEE MINIMUM INTERSECTION RADII REQUIREMENTS IN DEVELOPMENT REGULATIONS.

WEST POINT

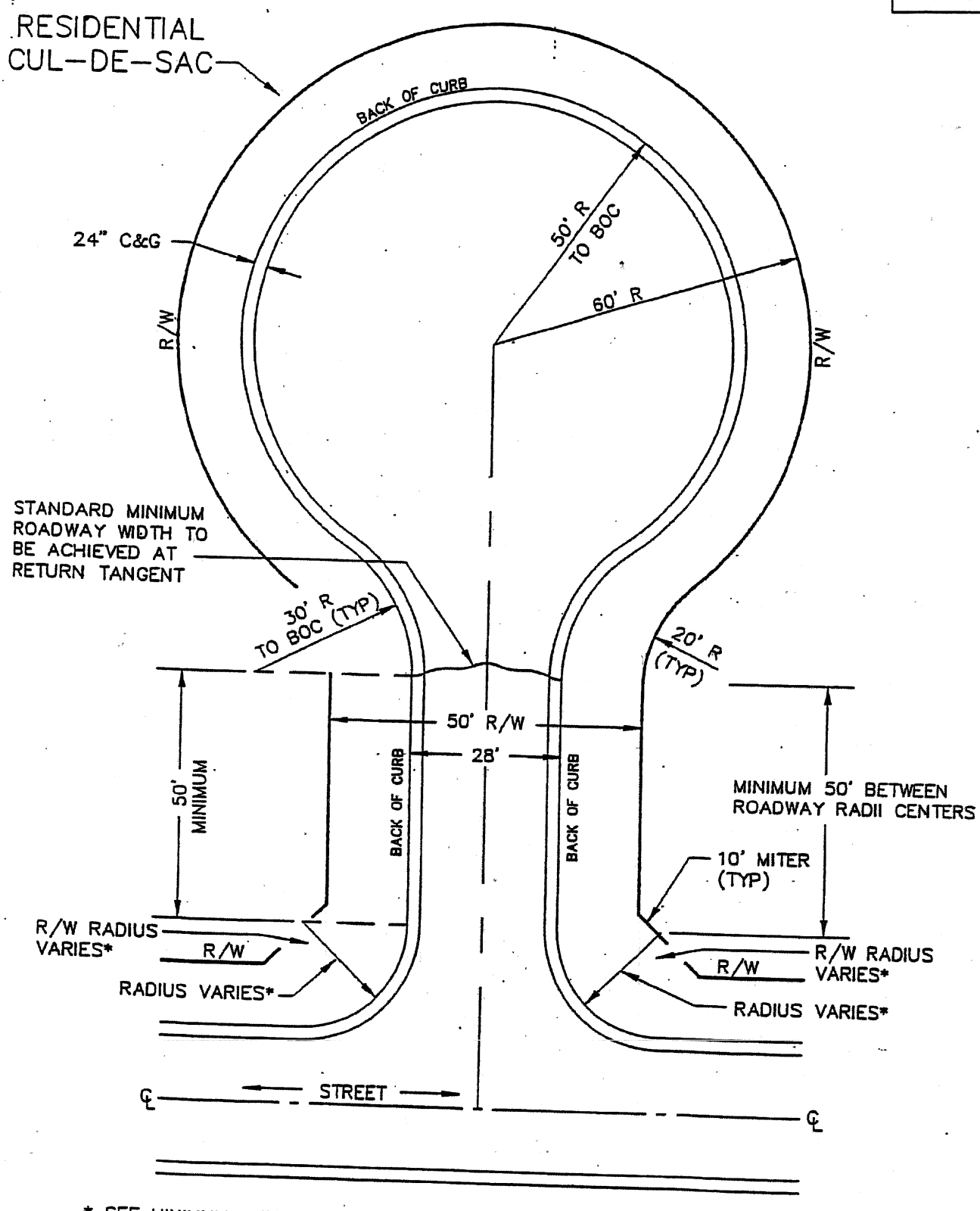
City of West Point

MINOR RESIDENTIAL CUL-DE-SAC

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998



* SEE MINIMUM INTERSECTION RADII REQUIREMENTS IN DEVELOPMENT REGULATIONS.

WEST POINT

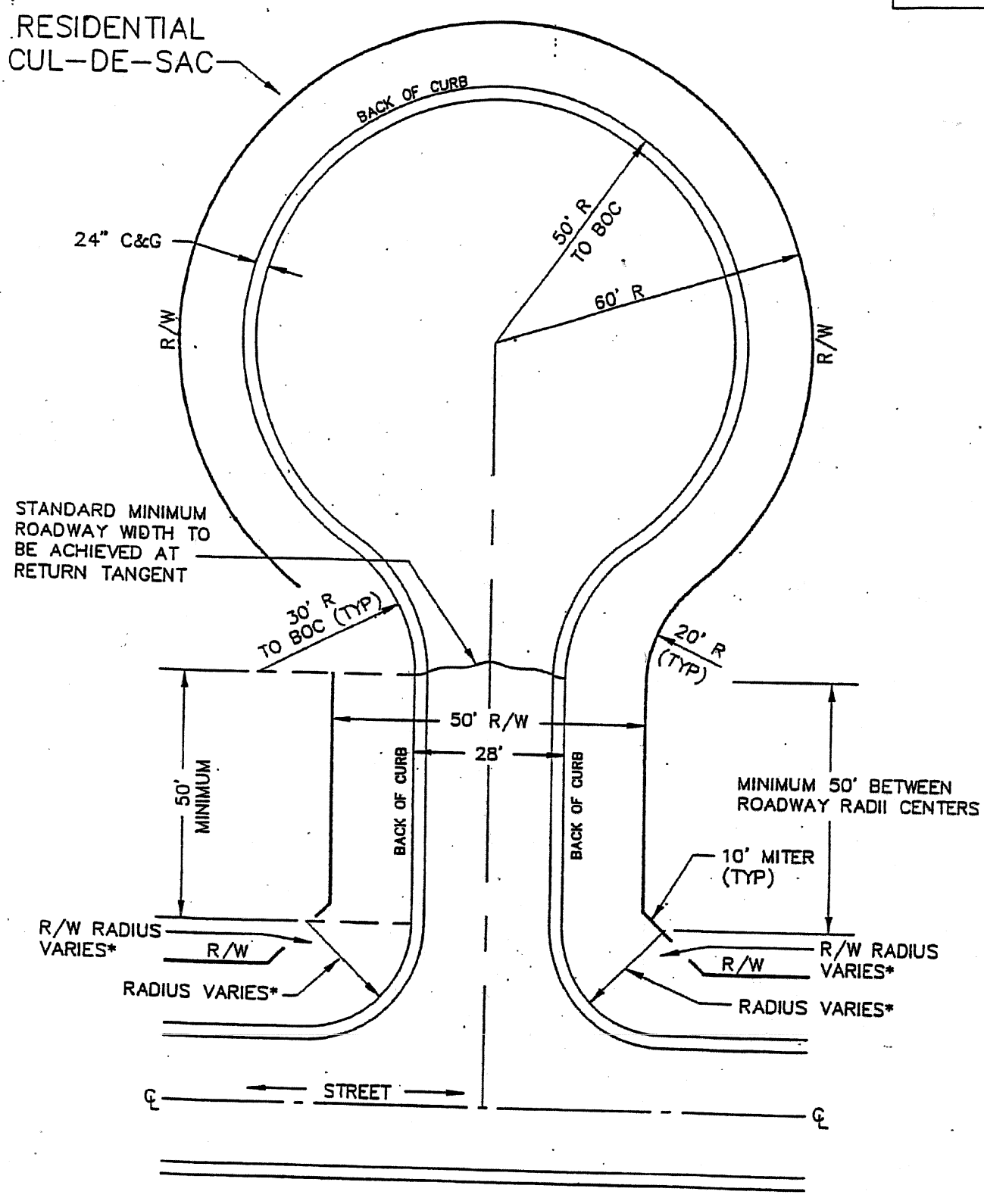
City of West Point

RESIDENTIAL CUL-DE-SAC

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998



* SEE MINIMUM INTERSECTION RADII REQUIREMENTS IN DEVELOPMENT REGULATIONS.

WEST POINT

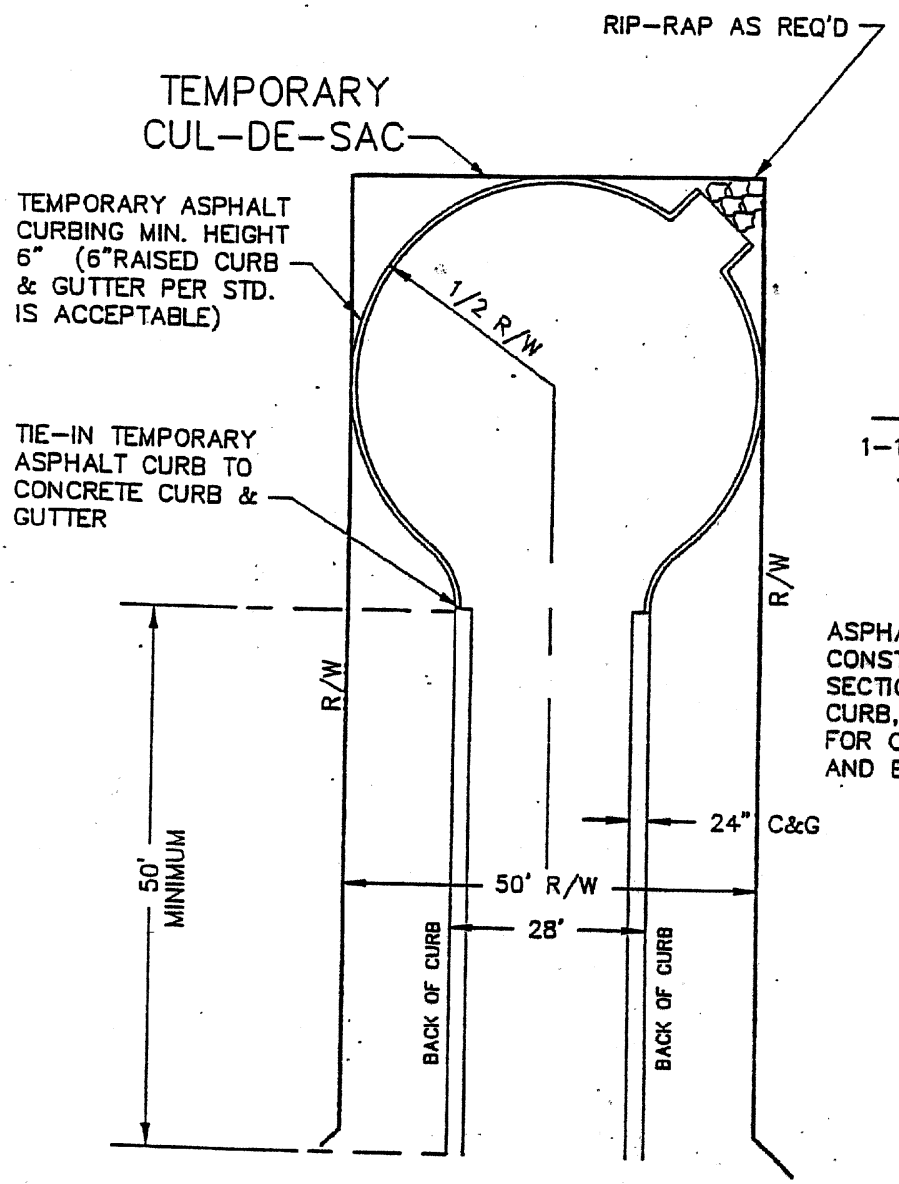
City of West Point

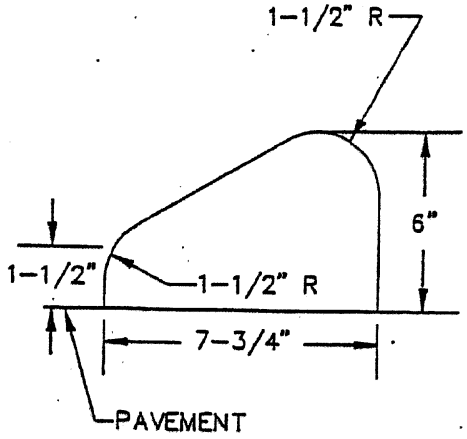
RESIDENTIAL CUL-DE-SAC

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998





ASPHALTIC CONCRETE CURB TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 436 – ASPHALTIC CONCRETE CURB, GEORGIA D.O.T. STANDARD FOR CONSTRUCTION OF ROADS AND BRIDGE LATEST EDITION.

1. TEMPORARY ASPHALT CURBING IS TO BE INSTALLED ON TEMPORARY CUL-DE-SAC
2. LOCATION AND WIDTH OF FLUME VARIES
3. CROWN CUL-DE-SAC WITH 1/4" / FT. SLOPE.

WEST POINT

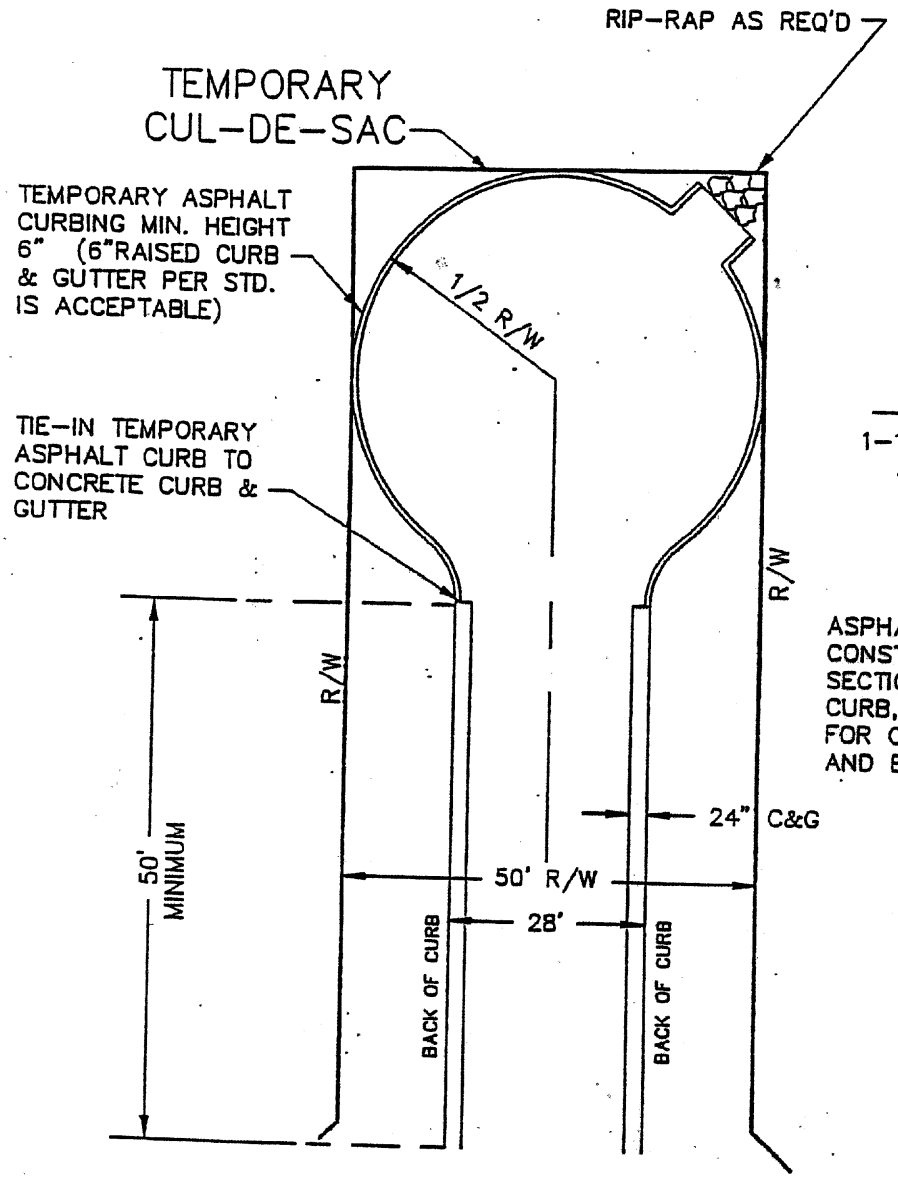
City of West Point

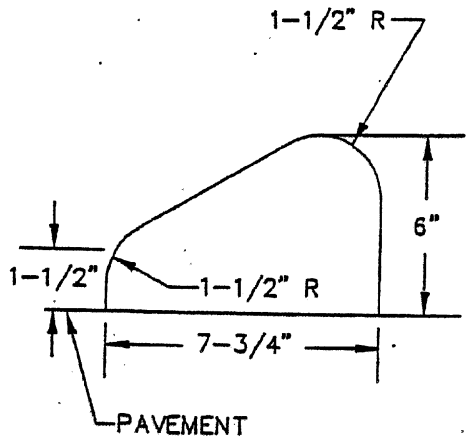
TEMPORARY CUL-DE-SAC

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998





ASPHALTIC CONCRETE CURB TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 436 – ASPHALTIC CONCRETE CURB, GEORGIA D.O.T. STANDARD FOR CONSTRUCTION OF ROADS AND BRIDGE LATEST EDITION.

1. TEMPORARY ASPHALT CURBING IS TO BE INSTALLED ON TEMPORARY CUL-DE-SAC
2. LOCATION AND WIDTH OF FLUME VARIES
3. CROWN CUL-DE-SAC WITH 1/4" / FT. SLOPE.

WEST POINT

City of West Point

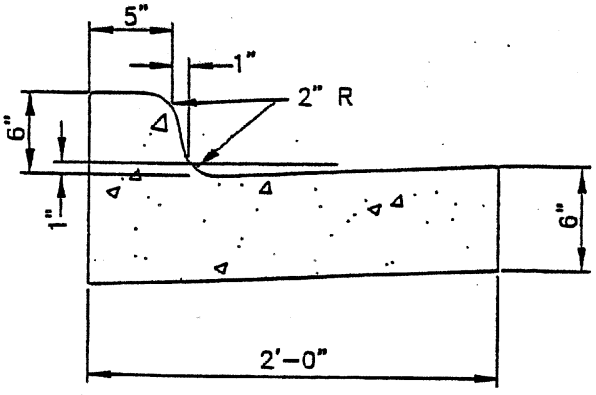
TEMPORARY CUL-DE-SAC

STANDARD DEVELOPMENT DETAILS

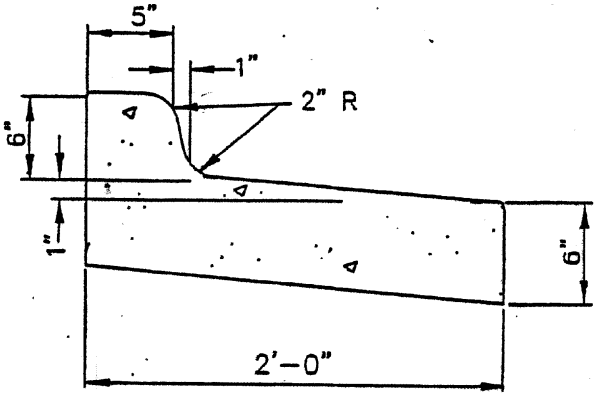
SCALE: NONE

DATE: JUNE 1998

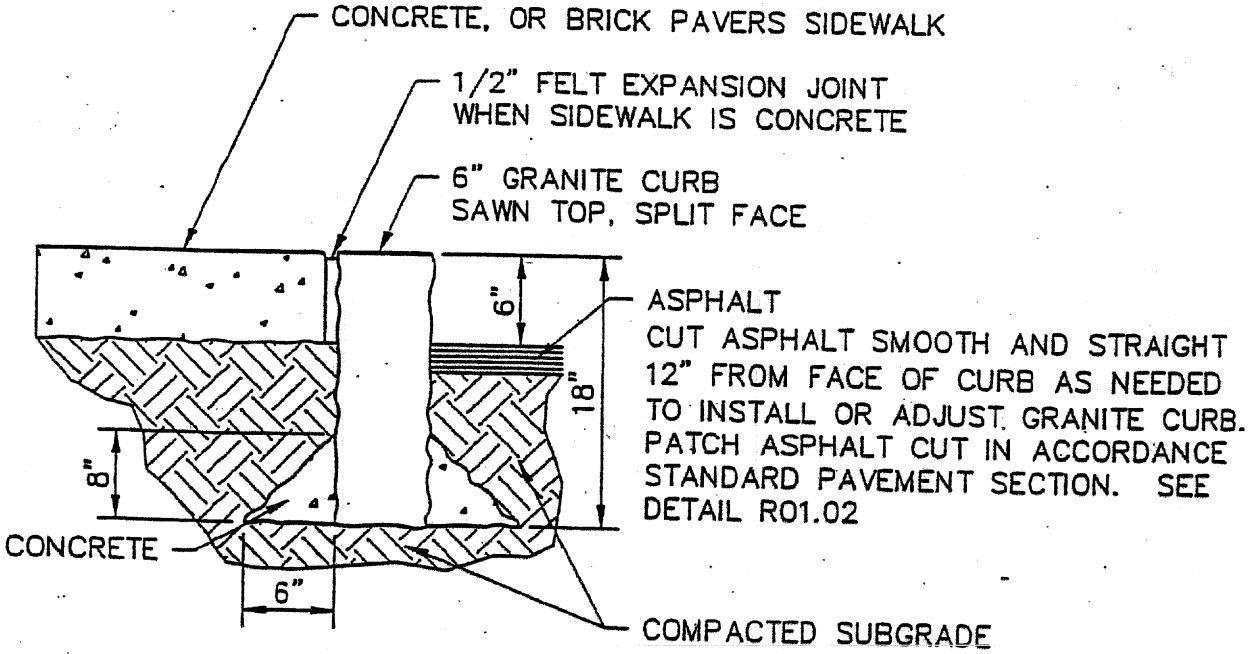
TYPE "A"
(USE WHEN FLOW IS TOWARD CURB)



TYPE "B"
(USE WHEN FLOW IS AWAY FROM CURB)



STANDARD



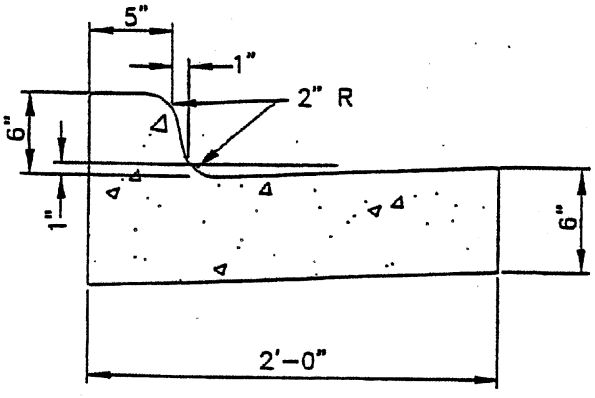
GRANITE CURB

NOTES:

1. CURB & GUTTER WITHIN GEORGIA D.O.T. R/W TO BE 30" AND CONSTRUCTED TO GA. D.O.T. STANDARDS
2. ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO GA. D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGE, LATEST EDITION.

WEST POINT **City of West Point**	CURB & GUTTER
	STANDARD DEVELOPMENT DETAILS SCALE: NONE

TYPE "A"
(USE WHEN FLOW IS TOWARD CURB)



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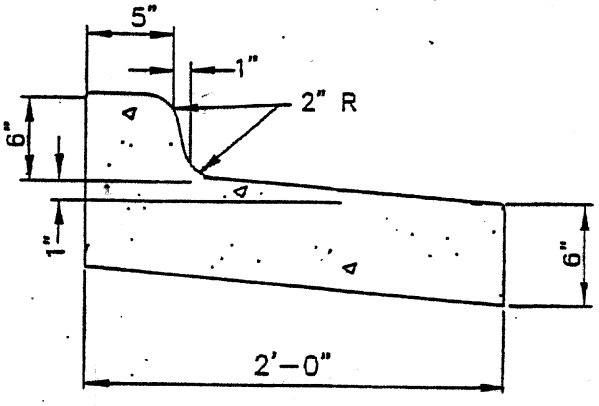
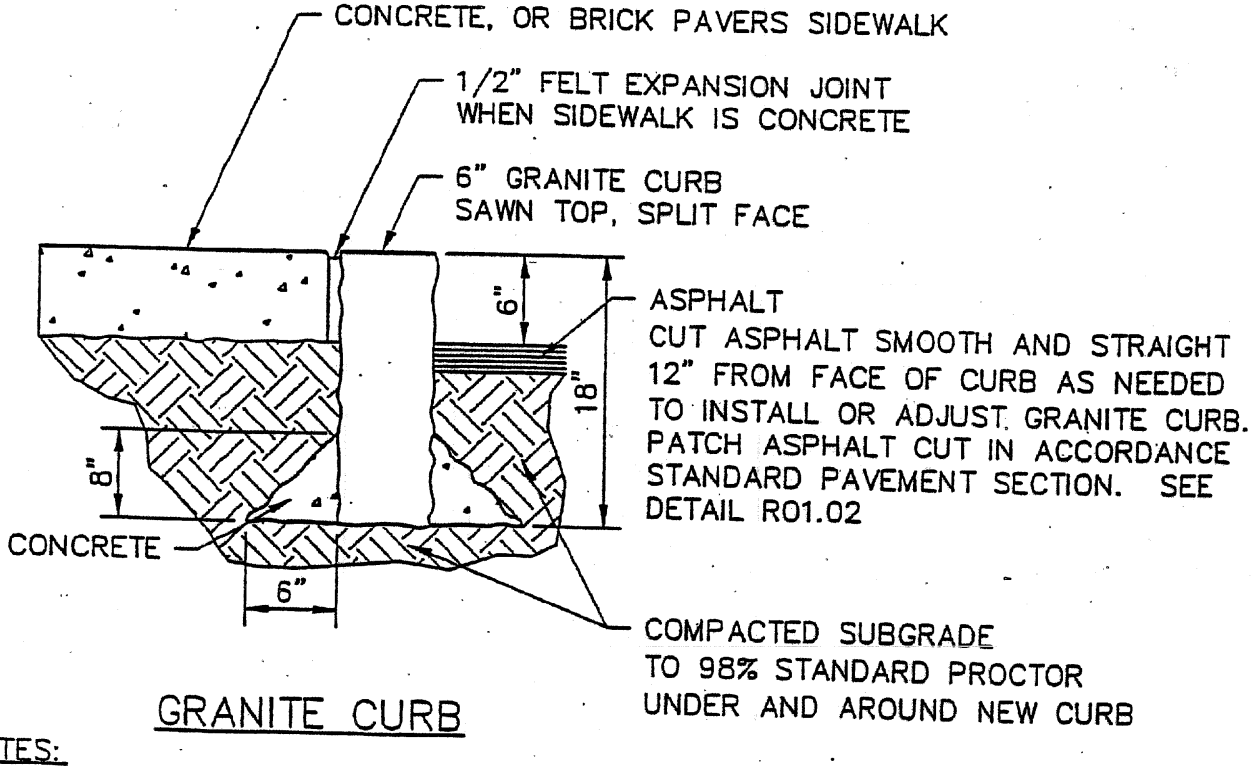


STANDARD

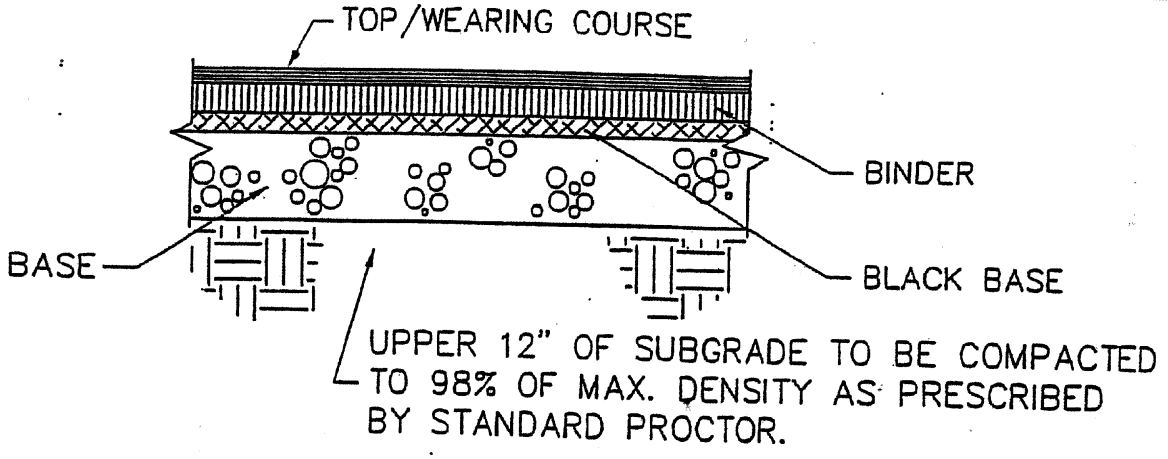


GRANITE CURB

NOTES:

1. CURB & GUTTER WITHIN GEORGIA D.O.T. R/W TO BE 30" AND CONSTRUCTED TO GA. D.O.T. STANDARDS
2. ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO GA. D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGE, LATEST EDITION.

WEST POINT **City of West Point**	CURB & GUTTER
	STANDARD DEVELOPMENT DETAILS SCALE: NONE



	MINOR RESIDENTIAL	RESIDENTIAL	RESIDENTIAL COLLECTOR	COMMERCIAL LOCAL
1-1/2" "E" TOP	X	X	X	X
1-1/2" "B" BINDER				
2" "B" BINDER	X	X		
3" "B" BINDER			X	X
6" GRADED AGGREGATE BASE	X	X		
8" GRADED AGGREGATE BASE			X	X

	INDUSTRIAL 80' R/W	COMMERCIAL COLLECTOR	COMMERCIAL ARTERIAL	PARKWAY
1-1/2" "E" TOP	X	X	X	X
1-1/2" "B" BINDER				
2" "B" BINDER				
3" "B" BINDER	X	X	X	X
4" BLACK BASE	X	X	X	X
6" GRADED AGGREGATE BASE				
8" GRADED AGGREGATE BASE	X	X		
10" GRADED AGGREGATE BASE			X	X

NOTE: ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO GA. D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES, LATEST EDITION.

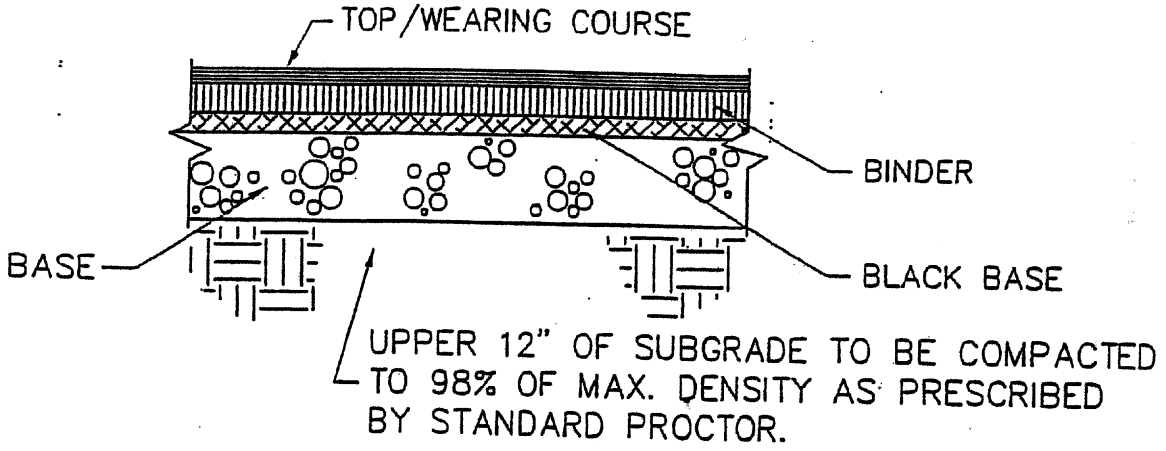
WEST POINT

City of West Point

PAVEMENT SECTION SPECIFICATIONS

STANDARD DEVELOPMENT DETAILS

SCALE: NONE



	MINOR RESIDENTIAL	RESIDENTIAL	RESIDENTIAL COLLECTOR	COMMERCIAL LOCAL
1-1/2" "E" TOP	X	X	X	X
1-1/2" "B" BINDER				
2" "B" BINDER	X	X		
3" "B" BINDER			X	X
6" GRADED AGGREGATE BASE	X	X		
8" GRADED AGGREGATE BASE			X	X

	INDUSTRIAL 80' R/W	COMMERCIAL COLLECTOR	COMMERCIAL ARTERIAL	PARKWAY
1-1/2" "E" TOP	X	X	X	X
1-1/2" "B" BINDER				
2" "B" BINDER				
3" "B" BINDER	X	X	X	X
4" BLACK BASE	X	X	X	X
6" GRADED AGGREGATE BASE				
8" GRADED AGGREGATE BASE	X	X		
10" GRADED AGGREGATE BASE			X	X

NOTE: ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO GA. D.O.T. STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES, LATEST EDITION.

WEST POINT

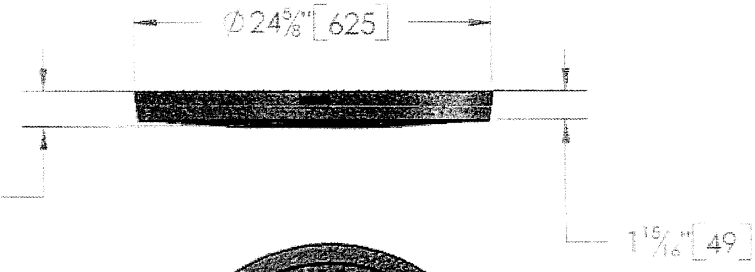
City of West Point

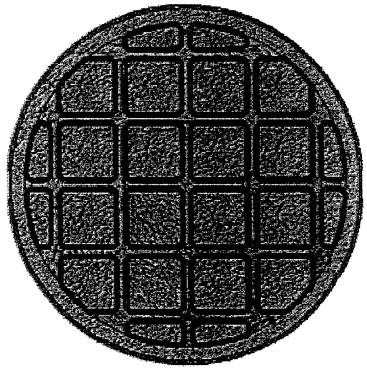
PAVEMENT SECTION SPECIFICATIONS

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

AJ633C Cover
24 5/8" [624]
150 lbs 68 kg
Gray Iron
ASTM A48 Class 30





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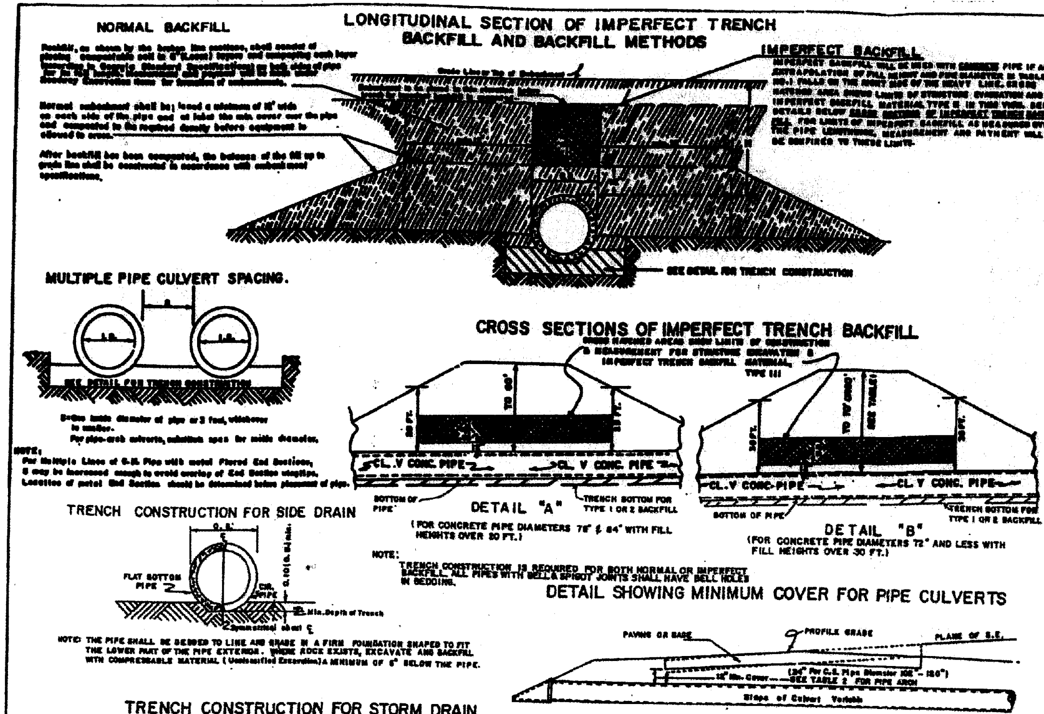
Mueller Canada



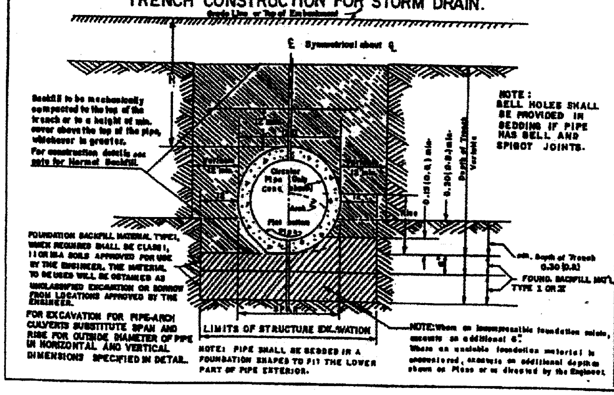


TABLE NO. 2 (PIPE-ARCH)

TABLE SHOWING MINIMUM THICKNESS IN INCHES OF CORRUGATED STEEL AND CORRUGATED ALUMINUM PIPE-ARCH AND MAXIMUM HEIGHTS OF FILL ABOVE THE TOP OF THE PIPE-ARCH.

Diameter Of Pipe Of Equal Periphery Inch	SPAN INCH	RISE INCH	MIN. THICKNESS (Inches) COR. STEEL ①	COR. STEEL ②	COR. ALUMINUM	MIN. COVER INCHES	MAX. HT FILL FT.
15	17	13	.064		.060	[illegible]	[illegible]
18	21	15	.064		.060	[illegible]	[illegible]
21	24	18	.064		.060	[illegible]	[illegible]
24	28	20	.064		.060	[illegible]	[illegible]
30	35	24	.064		.060	[illegible]	[illegible]
36	42	29	.064		.075	[illegible]	[illegible]
	40	31		.079		[illegible]	[illegible]
42	49	33	.079		.105	[illegible]	[illegible]
	46	36	.079	.079		[illegible]	[illegible]
48	57	38	.109		.135	[illegible]	[illegible]
	53	41		.079		[illegible]	[illegible]
54	64	43	.109		.135	[illegible]	[illegible]
	60	46		.079		[illegible]	[illegible]
60	71	47	.138		.164	[illegible]	[illegible]
	[illegible]	[illegible]		.079		[illegible]	[illegible]
66	77	[illegible]	.168			[illegible]	[illegible]
	73	[illegible]		.079		[illegible]	[illegible]
72	83	57	.168			[illegible]	[illegible]
	81	[illegible]		.079		[illegible]	[illegible]
78	87	63		.079		[illegible]	[illegible]
84	[illegible]	67		.109		[illegible]	[illegible]
90	103	71		.109		24	[illegible]

TABLE NO. 1.

TABLE SHOWING MIN. CLASSES OF CONCRETE PIPE AND THICKNESS IN INCHES OF CORRUGATED STEEL PIPE [illegible] FILL ABOVE THE TOP OF PIPE

PIPE DIAM.	[illegible]
12	[illegible]
15	[illegible]
18	[illegible]
24	[illegible]
30	[illegible]
36	[illegible]
42	[illegible]
48	[illegible]
54	[illegible]
60	[illegible]
66	[illegible]
72	[illegible]
78	[illegible]
84	[illegible]
90	[illegible]
96	[illegible]
102	[illegible]
108	[illegible]
114	[illegible]
120	[illegible]

IMPERFECT BACKFILL IS NOT REQUIRED FOR CONDITIONS SHOWN ON THE LEFT SIDE OF THE HEAVY LINE. USE NORMAL BACKFILL.

FOR CONDITIONS TO THE RIGHT OF THE HEAVY LINE, CLASS V CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO DETAIL "A" OR "B".

TRENCH CONSTRUCTION IS REQUIRED FOR CONDITIONS ON BOTH SIDES OF HEAVY LINE

① Denotes 2⅔" x ½" Corrugation.
② Denotes 3" x 1" Corrugation — OR 125 mm x 25 mm Corrugation.

2. Only one Class or Thickness of Pipe will be specified for each individual location. The Class or Thickness will be determined by the maximum height of fill.
3. When Concrete Pipe is specified see note relative to "Imperfect Backfill."

TABLE NO. 3 - (INFORMATION ONLY)

	Cor. Metal Thickness	Equivalent Gage
STEEL	0.064	16
	0.079	14
	0.109	12
	0.138	10
	0.168	8
ALUMINUM	0.060	16
	0.075	14
	0.105	12
	0.135	10
	0.164	8

NOTE FOR TABLE NO. 2.
Alternate Span-Rise Combinations for pipe-arches, having equal periphery to that shown, may be substituted if listed in AASHTO M-36 or AASHTO M-196.

WEST POINT

City of West Point

STANDARD 1030D PIPE CULVERT

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NNW01C00.DY

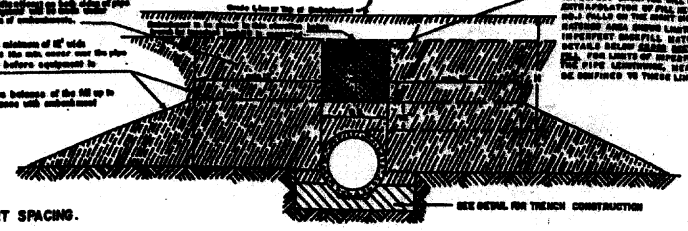
NORMAL BACKFILL

Backfill, as shown by the hedge, the portions, shall consist of loosely compactable soil in 6" (15cm) layers and compacting each layer to 95% Standard Density. Backfill shall be placed on both sides of pipe to the Springline. Standard Density shall be in accordance with Standard Specifications Items for Execution of embankments.

Normal embankment shall be; load a minimum of 12" with on each side of the pipe and at least the min. cover over the pipe and compacted to the required density before equipment is allowed to cross.

After backfill has been compacted, the balance of the fill up to grade line shall be constructed in accordance with embankment specifications.

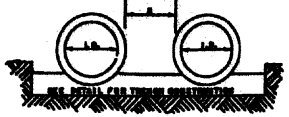
LONGITUDINAL SECTION OF IMPERFECT TRENCH BACKFILL AND BACKFILL METHODS



IMPERFECT BACKFILL

IMPERFECT BACKFILL WILL BE USED WITH CONCRETE PIPE IF AN ANTICIPATION OF FILL HEIGHT AND PIPE DIAMETER IS TABLE NO.1 FALLS ON THE HEAVY SIDE OF THE HEAVY LINE. ON ROAD SECTIONS AREA WITHIN LIMITS OF STRUCTURE EXCAVATION AND IMPERFECT BACKFILL MATERIAL TYPE II IN THE TRENCH. SEE DETAILS BELOW SHOW DIMENSIONS OF IMPERFECT TRENCH BACKFILL. FOR LIMITS OF IMPERFECT BACKFILL AS MEASURED OVER THE PIPE LONGITUDINAL MEASUREMENT AND PAYMENT WILL BE CONFINED TO THESE LIMITS.

MULTIPLE PIPE CULVERT SPACING.

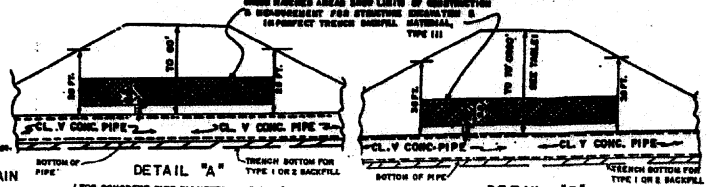


Outside inside diameter of pipe or 3 feet, whichever is smaller.

For pipe-arch culverts, substitute span for inside diameter.

NOTE:
For Multiple Lines of S.D. Pipe with metal Flared End Sections, it may be necessary enough to avoid overlap of End Section simplifies. Location of metal End Section should be determined before placement of pipe.

CROSS SECTIONS OF IMPERFECT TRENCH BACKFILL

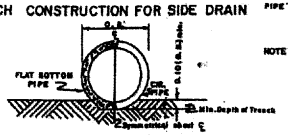


DETAIL "A"
(FOR CONCRETE PIPE DIAMETERS 78" & 84" WITH FILL HEIGHTS OVER 30 FT.)

DETAIL "B"
(FOR CONCRETE PIPE DIAMETERS 72" AND LESS WITH FILL HEIGHTS OVER 30 FT.)

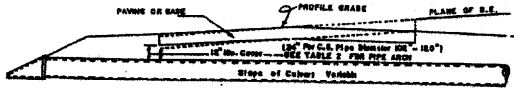
NOTE:
TRENCH CONSTRUCTION IS REQUIRED FOR BOTH NORMAL OR IMPERFECT BACKFILL. ALL PIPES WITH BELL & SPIGOT JOINTS SHALL HAVE BELL HOLES IN BEDDING.

TRENCH CONSTRUCTION FOR SIDE DRAIN

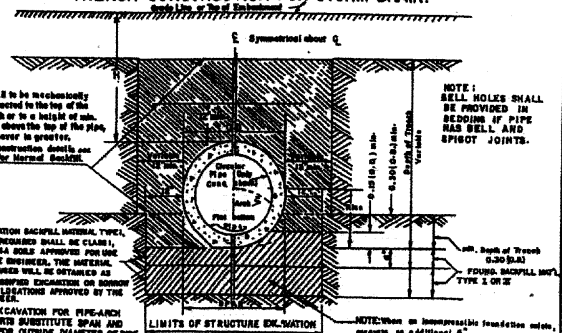


NOTE: THE PIPE SHALL BE BEDDED TO LINE AND GRADE IN A FIRM FOUNDATION SHAPED TO FIT THE LOWER PART OF THE PIPE EXTERIOR. WHERE ROCK EXISTS, EXCAVATE AND BACKFILL WITH COMPRESSIBLE MATERIAL (Unclassified Excavation) A MINIMUM OF 6" BELOW THE PIPE.

DETAIL SHOWING MINIMUM COVER FOR PIPE CULVERTS



TRENCH CONSTRUCTION FOR STORM DRAIN.



FOR EXCAVATION FOR PIPE-ARCH CULVERTS SUBSTITUTE SPAN AND RISE FOR OUTSIDE DIAMETER OF PIPE IN HORIZONTAL AND VERTICAL DIMENSIONS SPECIFIED IN DETAIL.

NOTE: PIPE SHALL BE BEDDED IN A FOUNDATION SHAPED TO FIT THE LOWER PART OF PIPE EXTERIOR.

NOTE: When an incompressible foundation exists, excavate an additional 6". Where an unstable foundation material is encountered, excavate an additional depth as shown on Plans or as directed by the Engineer.

NOTE:
BELL HOLES SHALL BE PROVIDED IN BEDDING IF PIPE HAS BELL AND SPIGOT JOINTS.

TABLE NO. 2 (PIPE-ARCH)

TABLE SHOWING MINIMUM THICKNESS IN INCHES OF CORRUGATED STEEL AND CORRUGATED ALUMINUM PIPE-ARCH AND MAXIMUM HEIGHTS OF FILL ABOVE THE TOP OF THE PIPE-ARCH.

Equivalent Diameter of Pipe for Reinforcement Table	SPAN INCH	RISE INCH	MIN. THICKNESS (Inches) COR. STEEL 68	80	COR. ALUMINUM	MIN. COVER INCHES	MAX. HT FILL FT.
15	17	13	.064		.060	18	13
18	22	13	.064		.060	18	12
21	24	18	.064		.060	18	10
24	28	20	.064		.060	18	11
30	32	24	.064		.060	18	8
36	42	29	.064		.060	18	9
	46	31		.079	.075	18	9
42	49	33	.079		.105	18	7
	50	36	.079	.079		18	10
48	57	38	.064		.132	18	7
	59	41		.079		18	10
54	64	43	.079		.135	18	7
	66	46		.079		18	10
60	71	47	.079		.164	18	7
	74	51		.079		18	10
66	77	51	.079			18	7
	81	55		.079		18	10
72	83	57	.079			18	7
	91	59		.079		18	10
78	93	63		.079		18	7
84	102	67		.109		18	7
90	110	71		.109		18	7

TABLE NO.1.

TABLE SHOWING MIN. GAUGES OF CONCRETE PIPE AND THICKNESS IN INCHES OF CORRUGATED STEEL PIPE

PIPE DIAMETER	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	100-110	110-120	120-130	130-140	140-150
12															
15															
18															
24															
30															
36															
42															
48															
54															
60															
66															
72															
78															
84															
90															
96															
102															
108															
114															
120															

FOR CONDITIONS TO THE RIGHT OF THE HEAVY LINE, CLASS V CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO DETAIL "A" OR "B"

IMPERFECT BACKFILL IS NOT REQUIRED FOR CONDITIONS SHOWN ON THE LEFT SIDE OF THE HEAVY LINE. USE NORMAL BACKFILL.

TRENCH CONSTRUCTION IS REQUIRED FOR CONDITIONS ON BOTH SIDES OF HEAVY LINE

① Denotes 5⅝" x ½" Corrugation
② Denotes 3" x 1" Corrugation—OR 125 mm x 25 mm Corrugation.
a Denotes Circular Cross Section Factory Shaped or Vertical Axis 5% a Normal Diameter.

Note: Concrete Side Drain Pipe for fills to 10 ft. may be Class II Pipe. Class II Pipe for Side Drains may be non-reinforced for diameters of 12" through 24". For fills over 10 ft use Class of pipe shown in TABLE NO.1.

2. Only one Class or Thickness of Pipe will be specified for each individual location. The Class or Thickness will be determined by the maximum height of fill.
3. Where Concrete Pipe is specified see note relative to "Imperfect Backfill."

TABLE NO. 3 – (INFORMATION ONLY)

	Corr. Metal Thickness	Equivalent Gage
STEEL	0.064	16
	0.079	14
	0.109	12
	0.138	10
	0.168	8
ALUMINUM	0.060	16
	0.075	14
	0.105	12
	0.135	10
	0.164	8

NOTE FOR TABLE NO. 2.
Alternate Span - Rise Combinations for pipe-arches, having equal periphery, to that shown, may be substituted if listed in AASHTO M-36 or AASHTO M-196.

WEST POINT

City of West Point

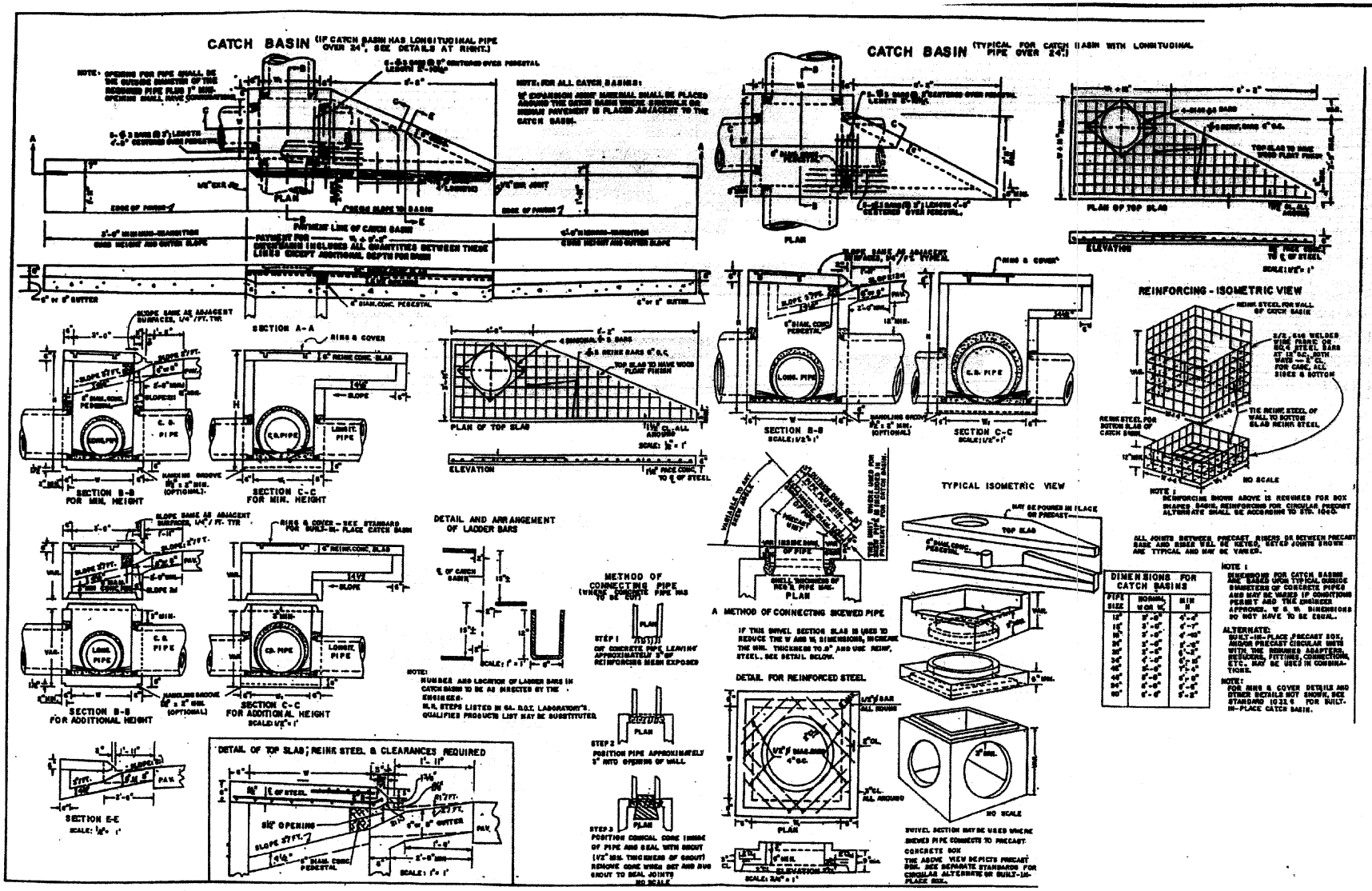
STANDARD 1030D PIPE CULVERT

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWNO1CDD.DW

D02.01



WEST POINT

City of West Point

STANDARD 1033G CATCH BASIN

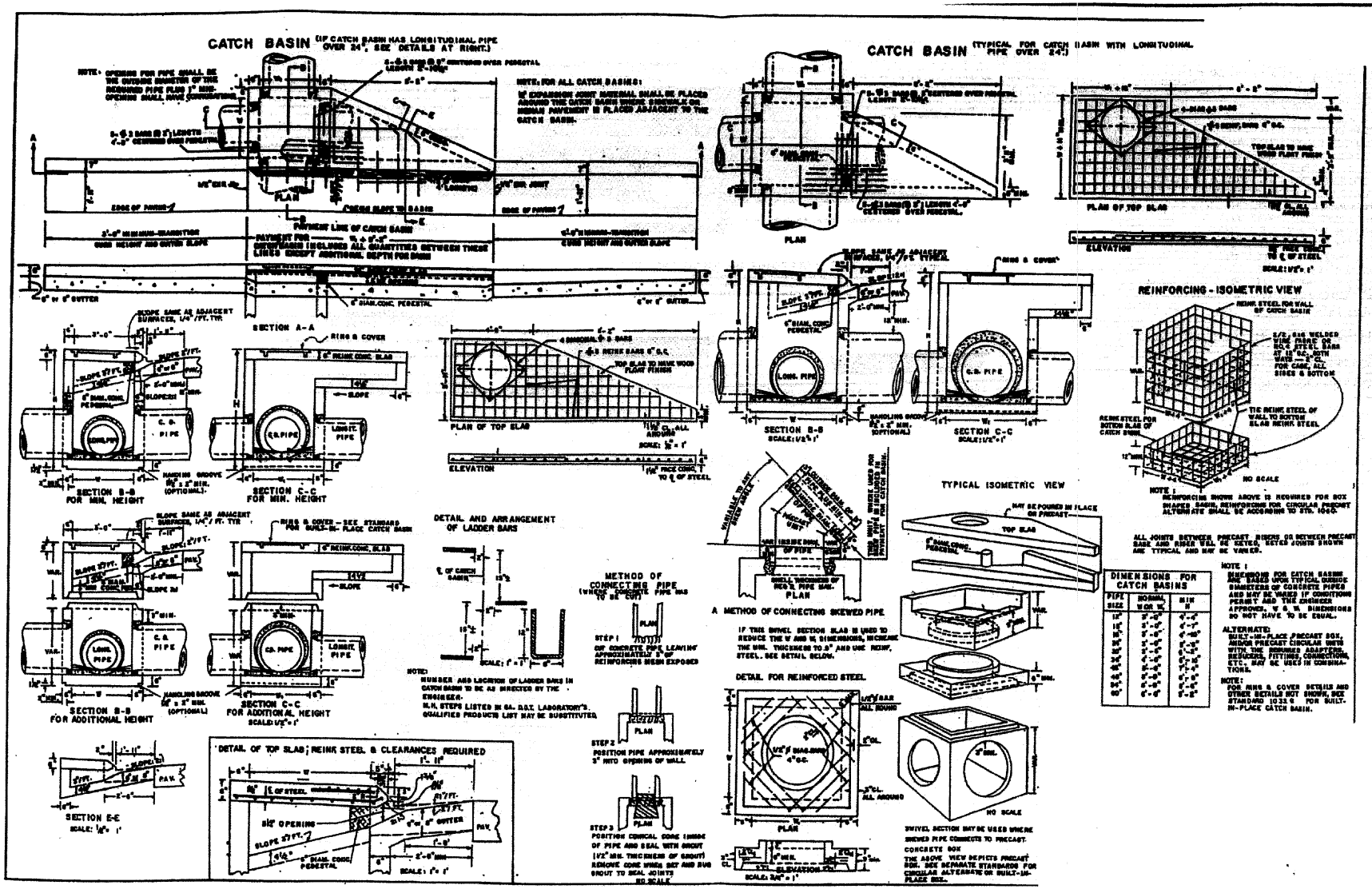
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

NWN01CDD.DW

D02.01



WEST POINT

City of West Point

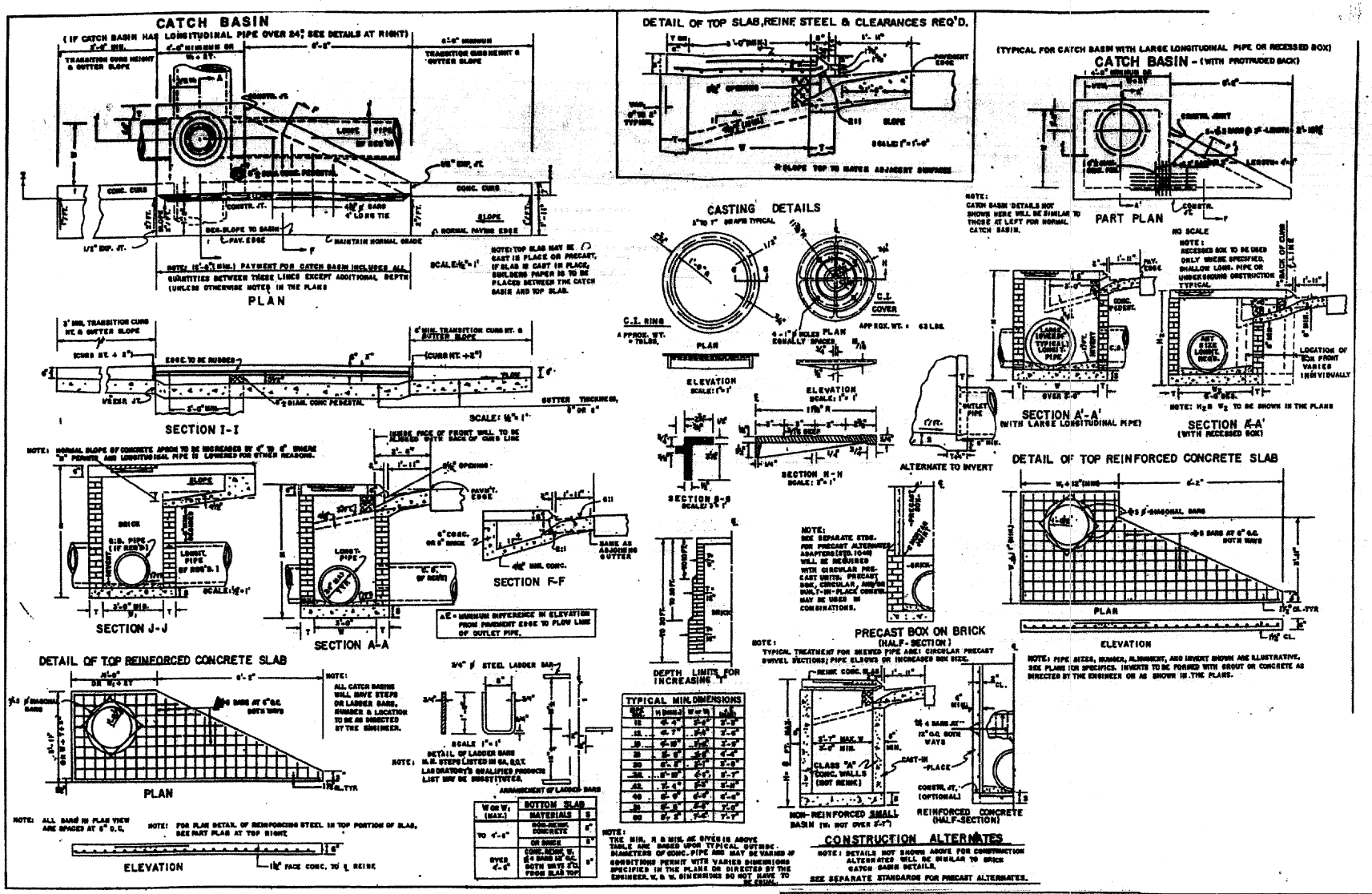
STANDARD 1033G CATCH BASIN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWN01CDD.DW

D02.02



WEST POINT

City of West Point

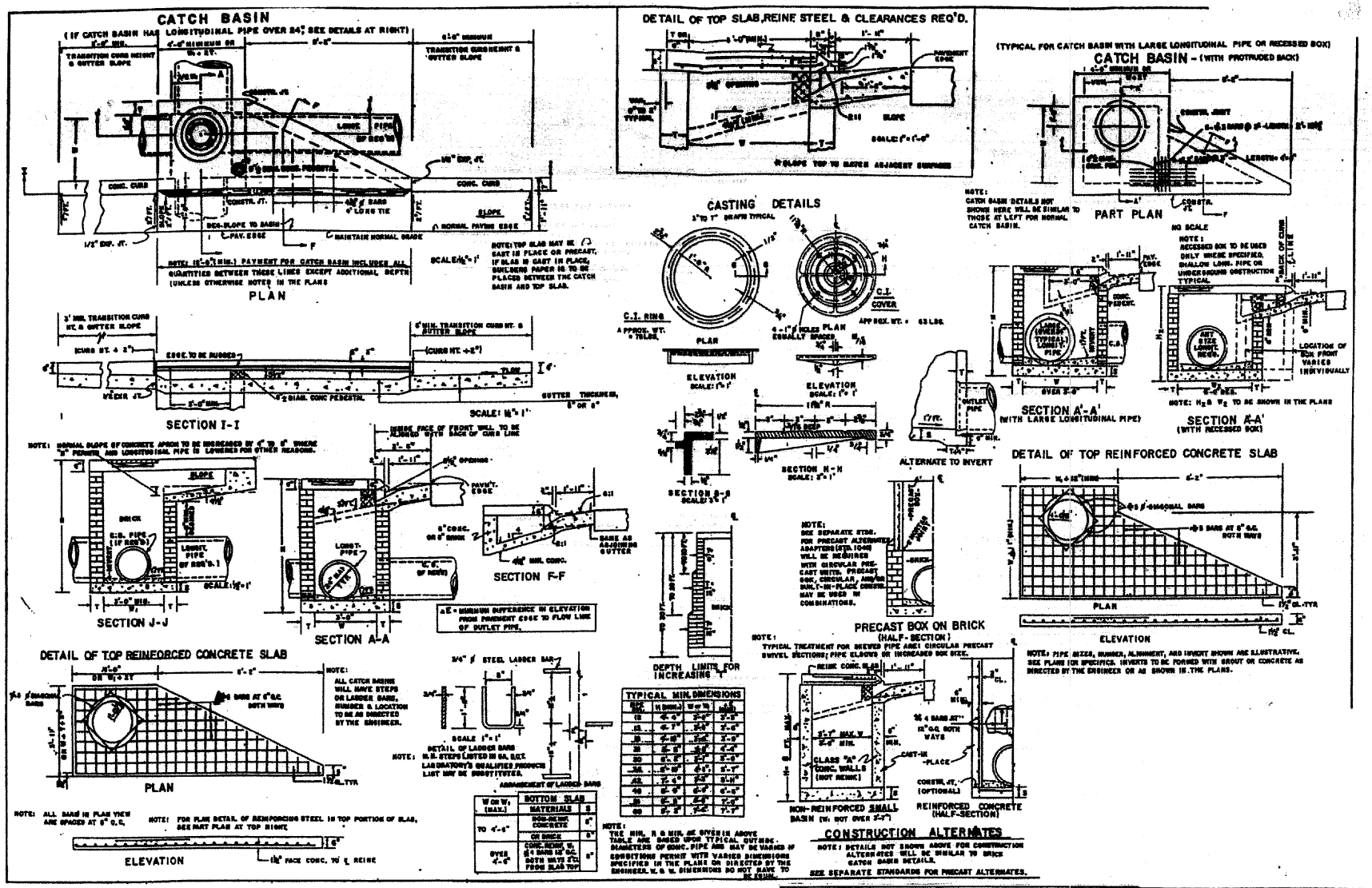
PRECAST 1033G CATCH BASIN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWN01CDD.DN

D02.02



WEST POINT

City of West Point

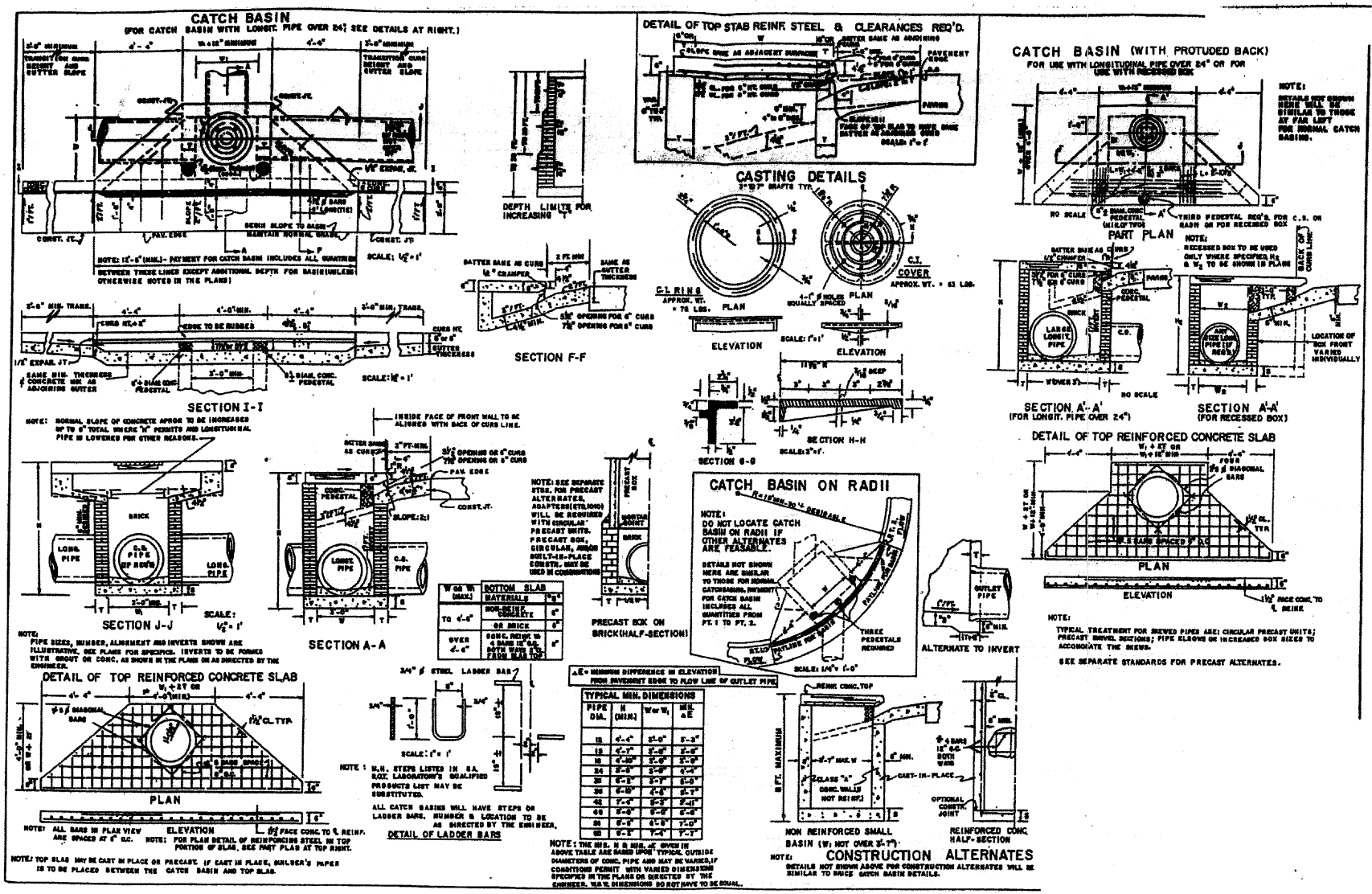
PRECAST 1033G CATCH BASIN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWN01CDD.DW

D03.01



WEST POINT

City of West Point

STANDARD 1034D CATCH BASIN

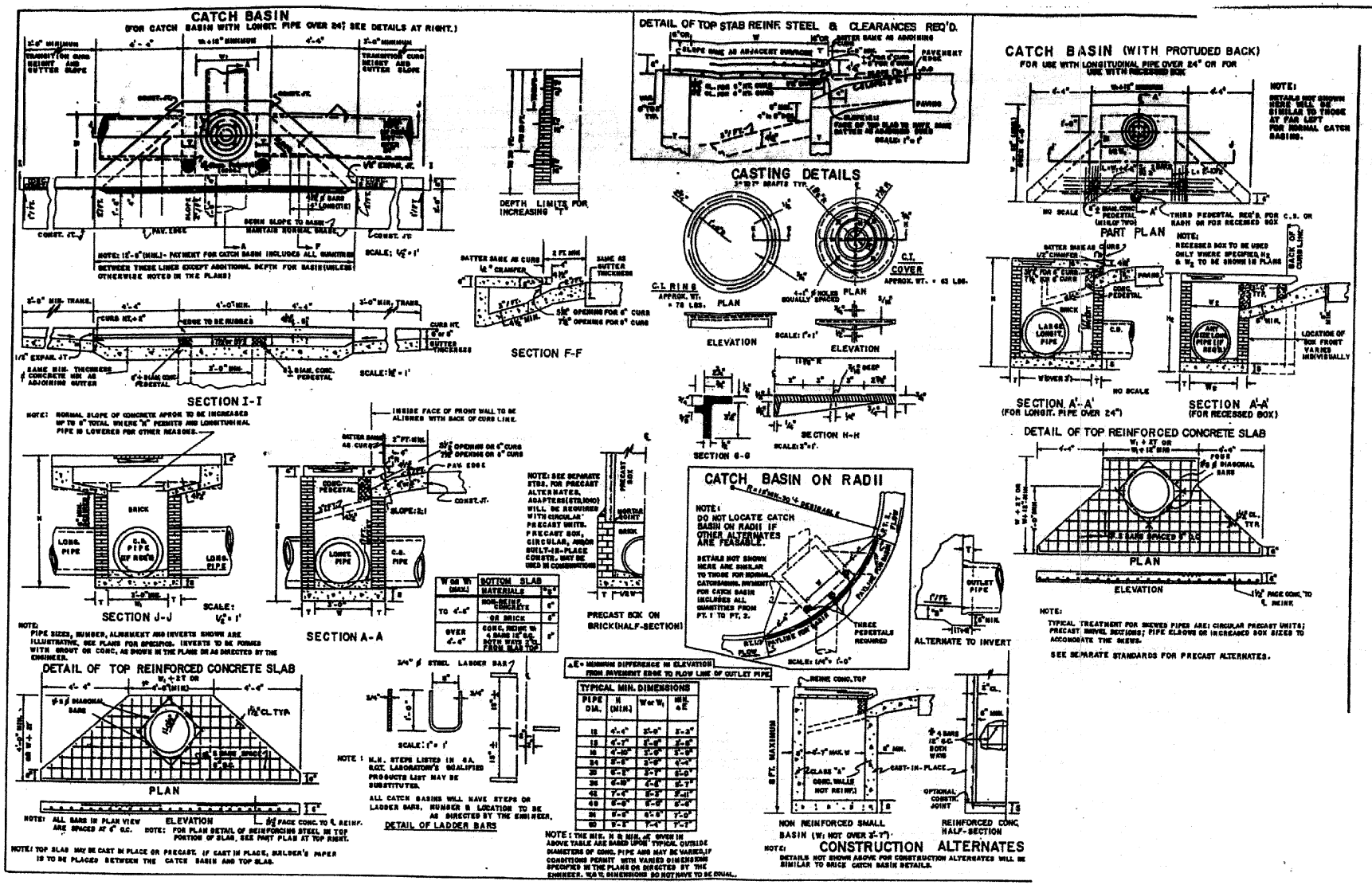
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

NWN01CDD.DW

D03.01



WEST POINT

City of West Point

STANDARD 1034D CATCH BASIN

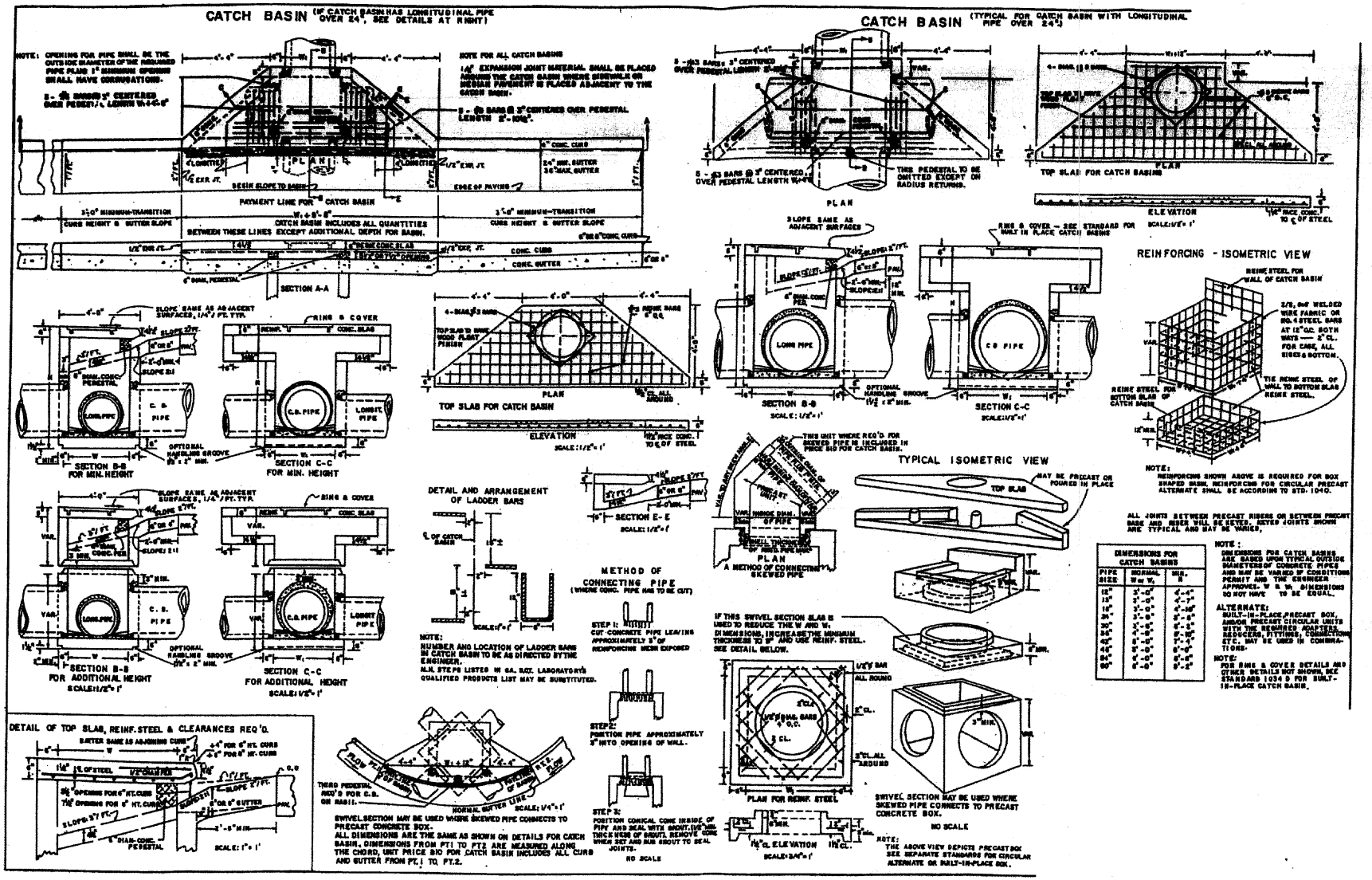
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

NWN01CDD.DW

D03.02



DIMENSIONS FOR CATCH BASINS		
PIPE SIZE	NORMAL W or W1	MIN. B
12"	3'-0"	4'-0"
15"	3'-0"	4'-3"
18"	3'-0"	4'-10"
24"	3'-0"	5'-0"
30"	3'-0"	6'-0"
36"	3'-0"	6'-6"
42"	3'-0"	6'-10"
48"	3'-0"	7'-3"
54"	3'-0"	7'-7"
60"	3'-0"	8'-0"
66"	3'-0"	8'-4"
72"	3'-0"	8'-8"

WEST POINT

City of West Point

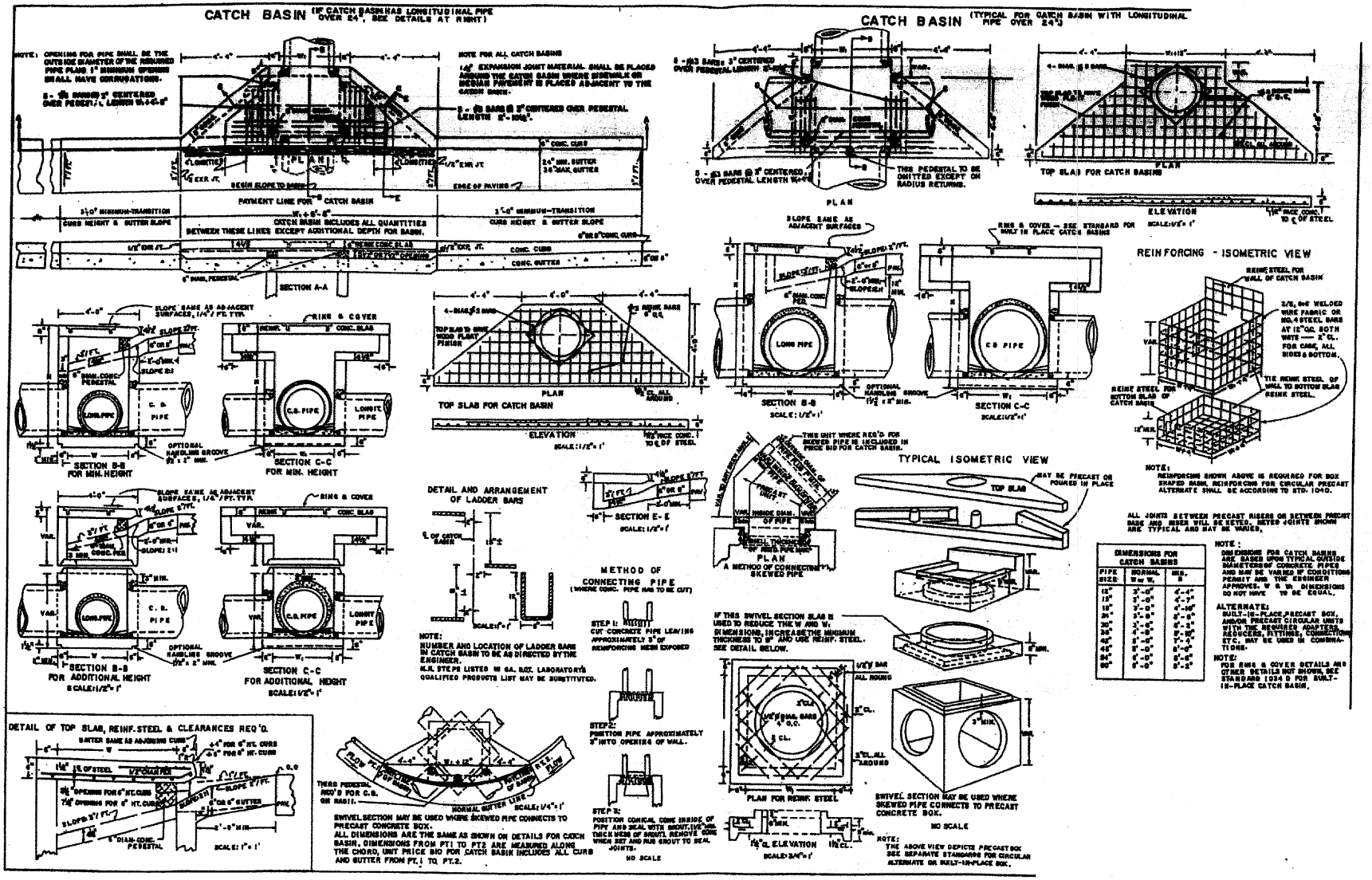
PRECAST 1034D CATCH BASIN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWN01CDD.DW

D03.02



DIMENSIONS FOR CATCH BASINS		
PIPE SIZE	NORMAL W or W1	MIN. B
18"	3'-0"	4'-4"
15"	3'-0"	4'-7"
18"	3'-0"	4'-10"
24"	3'-6"	5'-8"
30"	3'-6"	6'-8"
36"	4'-0"	7'-10"
42"	5'-0"	7'-3"
48"	5'-0"	8'-0"
54"	6'-0"	9'-4"
60"	6'-0"	9'-8"

WEST POINT

City of West Point

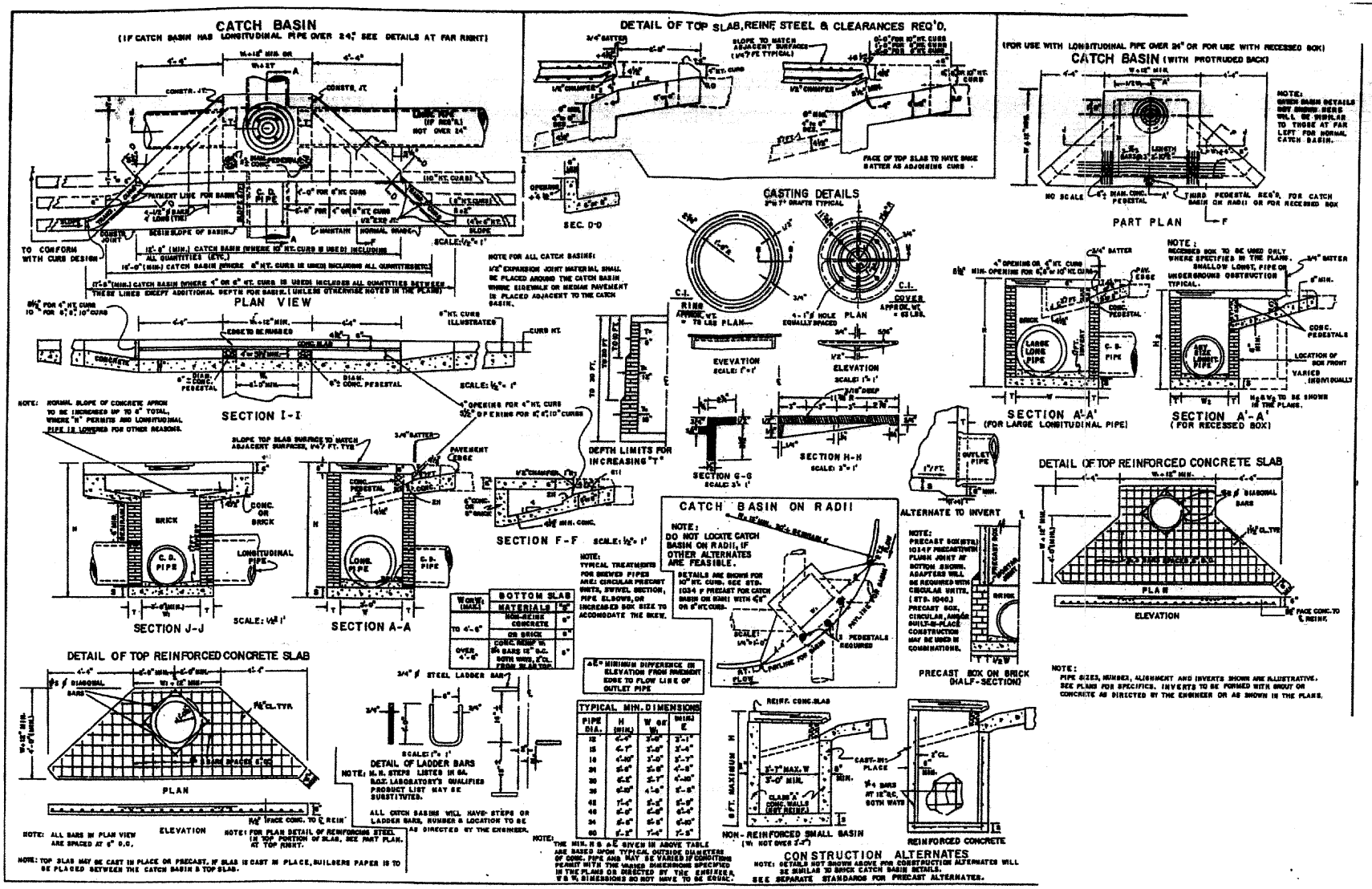
PRECAST 1034D CATCH BASIN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWN01CDD.DW

D04.01



WEST POINT

City of West Point

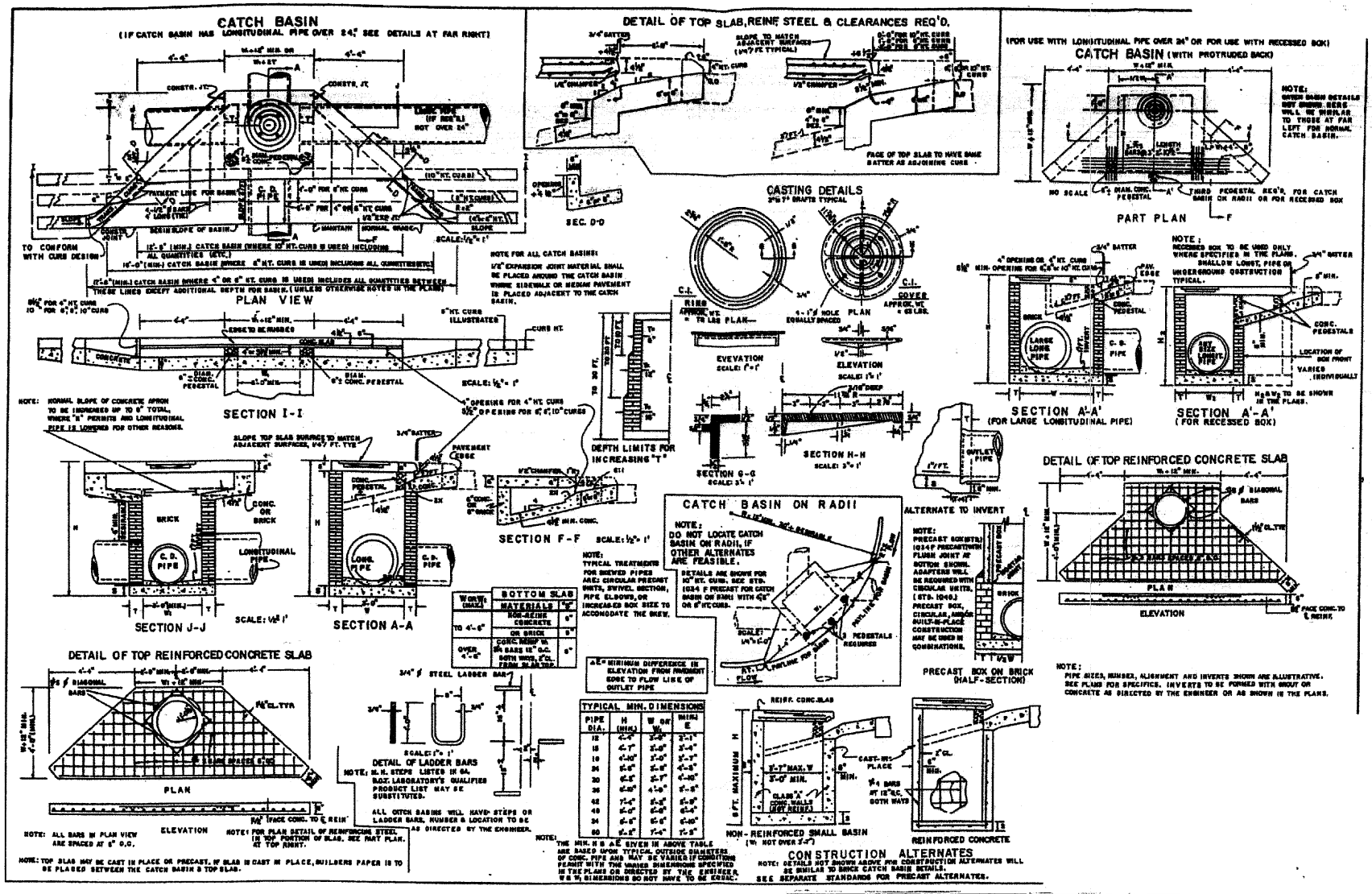
STANDARD 1034F CATCH BASIN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWNO1CDD.DW

D04.01



WEST POINT

City of West Point

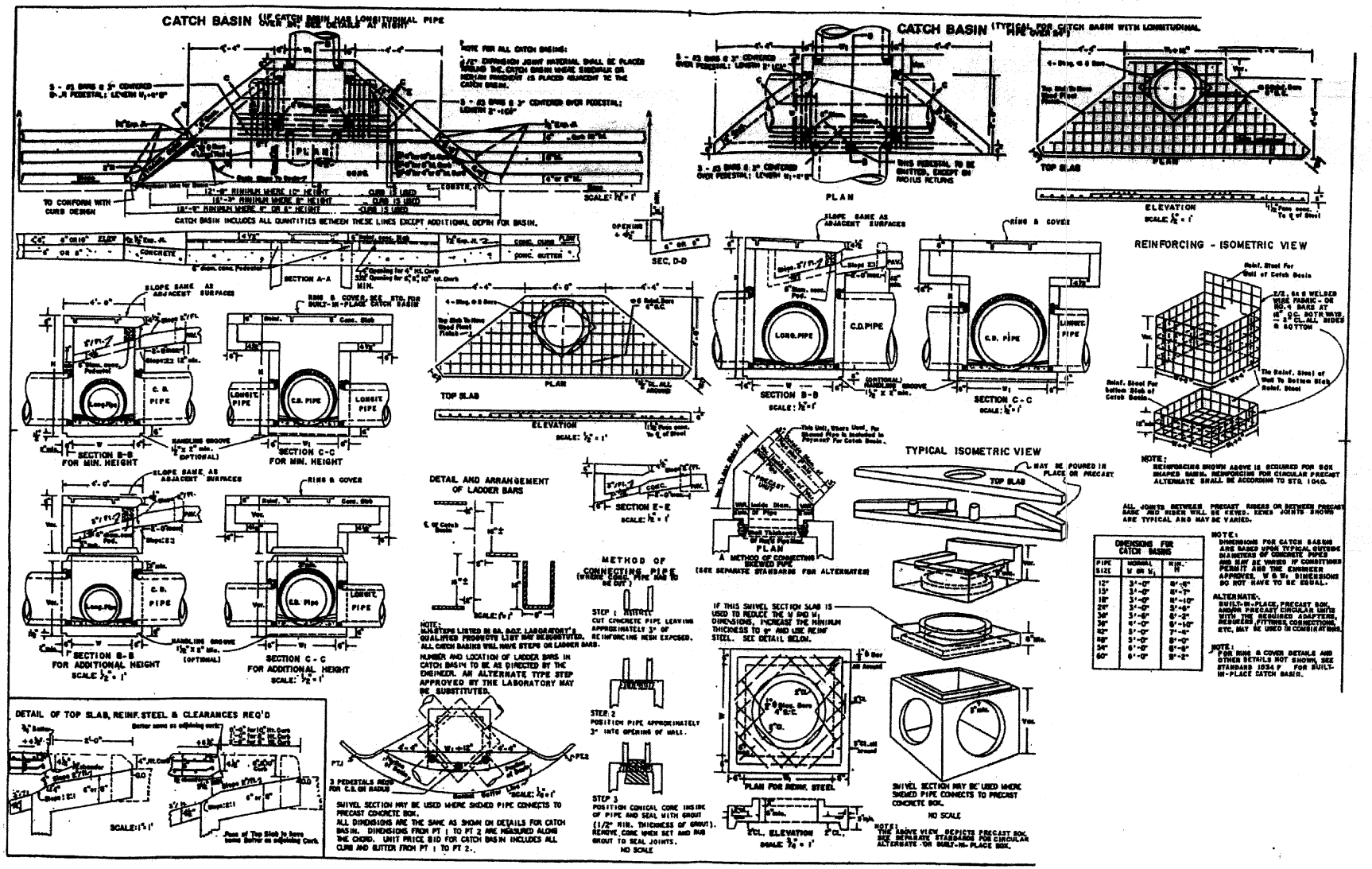
STANDARD 1034F CATCH BASIN

STANDARD DEVELOPMENT DETAILS

SCALE: NONE DATE: JUNE 1998

NWN01CDD.DWK

D04.02



DIMENSIONS FOR CATCH BASINS		
PIPE SIZE	NORMAL W OR W1	MIN. H
12"	3'-0"	4'-6"
15"	3'-0"	4'-7"
18"	3'-0"	4'-10"
24"	3'-0"	5'-6"
36"	3'-6"	6'-3"
54"	4'-0"	6'-10"
42"	5'-0"	7'-6"
48"	5'-0"	8'-0"
54"	6'-0"	8'-6"
60"	6'-0"	9'-0"

WEST POINT

City of West Point

PRECAST 1034F CATCH BASIN

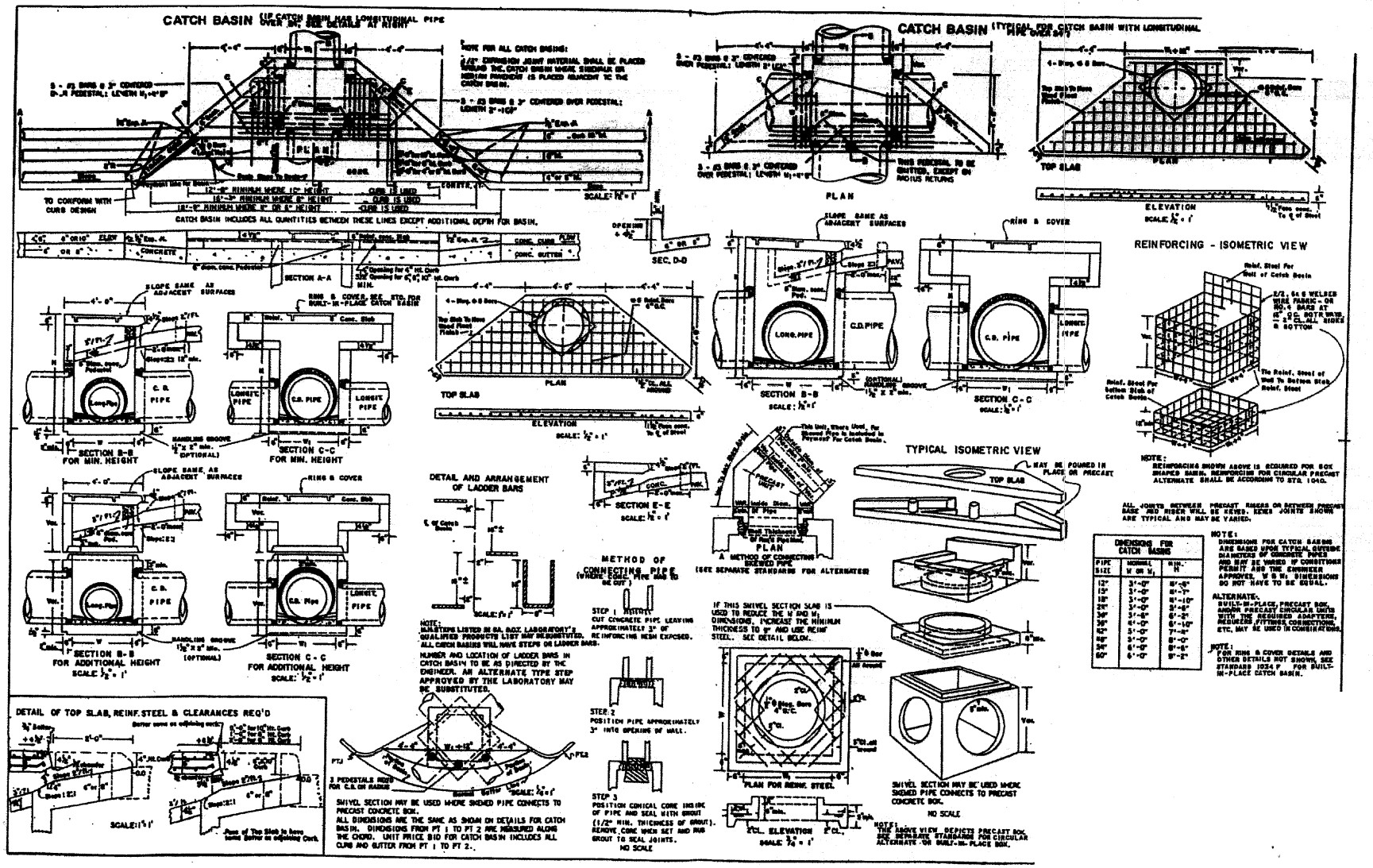
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

NWNOTCOD.DWK

D04.02



DIMENSIONS FOR CATCH BASINS		
PIPE SIZE	NOMINAL W OR W_1	MIN. H
12"	3'-0"	8'-6"
15"	3'-0"	8'-7"
18"	3'-0"	8'-10"
21"	3'-0"	9'-6"
24"	3'-6"	6'-2"
30"	4'-0"	6'-10"
42"	5'-0"	7'-6"
48"	5'-0"	8'-0"
54"	6'-0"	8'-6"
60"	6'-0"	9'-2"

NOTE: DIMENSIONS FOR CATCH BASINS ARE BASED UPON TYPICAL QUEENS DIAMETERS OF CONCRETE PIPES AND MAY BE VARIED IF CONDITIONS PERMIT AND THE ENGINEER APPROVES. W & H DIMENSIONS DO NOT HAVE TO BE EQUAL.

ALTERNATE: BUILT-IN-PLACE, PRECAST BOX, AND/OR PRECAST CIRCULAR UNITS WITH THE REQUIRED ADAPTERS, REDUCERS, FITTINGS, CONNECTIONS, ETC. MAY BE USED IN COMBINATIONS.

NOTE: FOR RING & COVER DETAILS AND OTHER DETAILS NOT SHOWN, SEE STANDARD 1034 P FOR BUILT-IN-PLACE CATCH BASIN.

WEST POINT

City of West Point

PRECAST 1034F CATCH BASIN

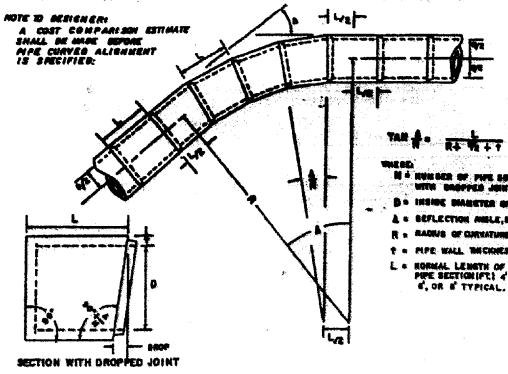
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

PIPE CURVED ALIGNMENT USING SECTIONS WITH DROPPED JOINTS

NOTE TO DESIGNER:
A COST COMPARISON ESTIMATE SHALL BE MADE BEFORE PIPE CURVED ALIGNMENT IS SPECIFIED.



$$\tan\frac{\Delta}{N} = \frac{L}{R + \frac{D}{2} + t}$$

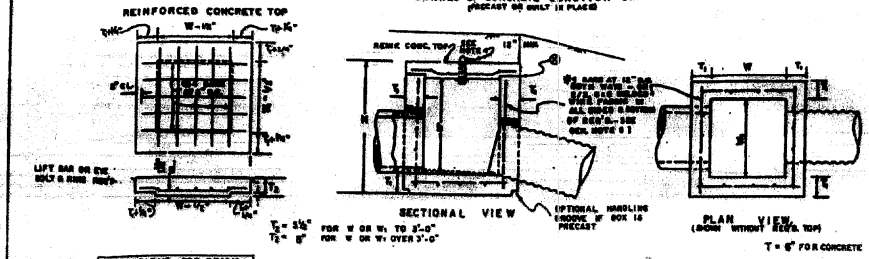
WHERE:
N = NUMBER OF PIPE SECTIONS WITH DROPPED JOINTS
D = INSIDE DIAMETER OF PIPE
Δ = DEFLECTION ANGLE, DEGREES
R = RADIUS OF CURVATURE (FT)
t = PIPE WALL THICKNESS (FT)
L = NORMAL LENGTH OF PIPE SECTION (FT) 4', 6', OR 8' TYPICAL.

NOTES FOR PIPE CURVED ALIGNMENT:

1. PLANS ARE TO SPECIFY ONLY THE PIPE DIAMETER "D", THE ANGLE "Δ", AND THE TANGENT ALIGNMENT.
2. PIPE WALL THICKNESS "t", PIPE SECTION LENGTH "L", AND DROP IN PIPE JOINT "DROP" VARIES ACCORDING TO PIPE PRODUCER AND IS BASED ON FEASIBILITY.
3. THE RADIUS "R" AND THE NUMBER OF DROPPED JOINT PIPE SECTIONS "N" IS DETERMINED BY MEANS OF ABOVE. MINOR ADJUSTMENTS IN THE RADIUS "R" ARE NORMALLY MADE SO THAT "N" WILL BE A WHOLE NUMBER.
4. PIPE SECTIONS SHALL BE ORIENTED SUCH THAT THE PLANE OF THE DROPPED JOINT IS AT RIGHT ANGLES TO THE THEORETICAL CIRCULAR CURVE. THE TOP OF SECTIONS ARE TO BE MARKED SO THAT THE DEFLECTION ANGLE IS PROPERLY OBTAINED.
5. DETAILS ARE SHOWN FOR CONCRETE PIPE. CURVED ALIGNMENT FOR C.I. PIPE SHALL BE RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
6. PAYMENT PER LIN. FT. PIPE INCLUDES PIPE SECTIONS WITH DROPPED JOINTS.

DETAILS OF CONCRETE JUNCTION BOX

(PRECAST OR ONLY IN PLACE)



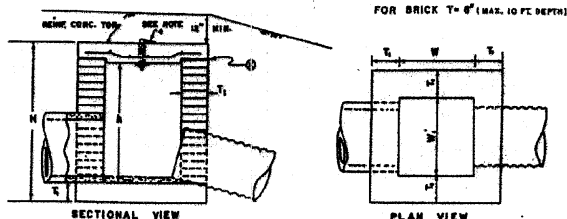
T_1 = 2½" FOR W OR W_1 TO 2'-0"
T_2 = 6" FOR W OR W_1 OVER 3'-0"

SEE GEN. NOTE NO.3

DIMENSIONS FOR BRICK OR REINF. CONC. BOX			
PIPE SIZE	INSIDE W OR W	REINF. H	BRICK H
15"	2'-0"	1'-9"	2'-2"
18"	2'-3"	2'-1"	2'-1"
24"	2'-10"	2'-9"	2'-4"
30"	3'-5"	3'-3"	4'-3"
36"	4'-0"	3'-10"	4'-0"
42"	4'-7"	4'-3"	4'-3"
48"	5'-2"	4'-8"	4'-6"

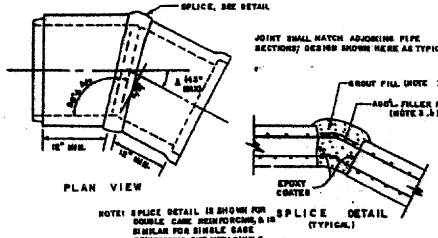
DETAILS OF BRICK JUNCTION BOX

FOR BRICK T= 8" (MAX. 10 FT DEPTH)



② PREVENT BOND WITH EITHER 30 LB. ASPHALT SATURATED FELT OR PREFORMED FOAM JOINT FILLER.

PIPE ELBOW SECTION (PRE-FABRICATED)

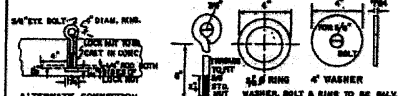


NOTE: SPLICE DETAIL IS SHOWN FOR DOUBLE CAGE REINFORCING, & IS SIMILAR FOR SINGLE CAGE REINFORCING, BUT WITH SINGLE SPLICE ALL AROUND BEING APPLICABLE.

NOTES FOR PIPE ELBOW:

1. PAYMENT FOR LIN. FT. OF PIPE INCLUDES ELBOWS.
2. ELBOW ANGLE Δ SHALL VARY ACCORDING TO NEED, BUT SHALL NOT BE GREATER THAN 45°. THE CONTRACTOR SHALL INFORM PRODUCER AS TO ANGLE REQUIRED.
3. (a) CONCRETE PIPE SHALL BE CUT BEFORE BEING CURED AND STEEL EXPOSED FROM EACH SIDE OF CUT. (b) EXPOSED STEEL SHALL BE BA JOINED. FILLER RODS AT LEAST EQUAL TO RODS IN PIPE SHALL BE ADDED AS NEEDED FOR HANDLING STRENGTH & TO HOLD GROUT.
   b) ALL VOID IN SPLICE SHALL BE PACKED WITH GROUT MORTAR RICH ENOUGH TO GIVE STRENGTH AT LEAST EQUAL TO REMOVED CONCRETE WITH INSIDE SMOOTHED OUT.
4. C.M. PIPE ELBOW NOT SHOWN, BUT MAY BE SPECIFIED. SOLID WELD SHALL BE REQUIRED FOR C.M. ELBOW JOINT WITH GALVANIZING AND/OR COATING REPAIRED AS REQ'D.

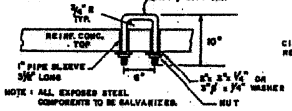
BOLT, RING & WASHER DETAILS



WASHER, BOLT & RING TO BE GALV. STEEL OR WROUGHT IRON RING TO BE PLACED IN EYE OF BOLT BEFORE LEAVING SHOP

STEEL LIFTING BAR DETAIL

LIFT BAR SHALL BE ABLE TO MOVE UP & DOWN

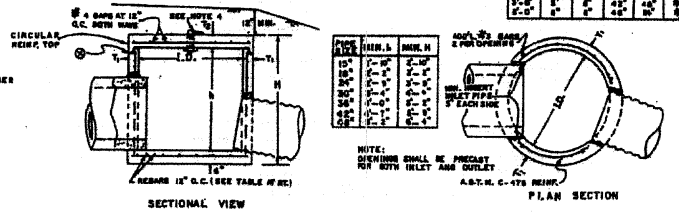


NOTE: ALL EXPOSED STEEL COMPONENTS TO BE GALVANIZED.

DETAILS OF CIRCULAR PRECAST JUNCTION BOX

(REINFORCING AND DESIGN SHALL COMPLY WITH A.S.T.M. C-478 EXCEPT AS OTHERWISE SHOWN. MATERIALS SHALL COMPLY WITH GA. STA SPECIFICATIONS FOR PRECAST MANHOLES

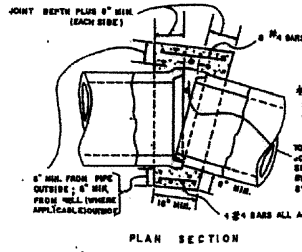
I.D.	T_1 (MIN)	T_2 (MIN)	MAX. PIPE CONC.	MAX. PIPE C.I.P.	REBARS IN BOTTOM
1'-0"	5"	6"	30"	36"	#3
1'-6"	5"	6"	42"	48"	#4
2'-0"	5"	6"	48"	54"	#4



PIPE SIZE	MIN. h	MAX. H
15"	1'-10"	2'-10"
18"	2'-0"	2'-0"
24"	2'-3"	2'-3"
30"	2'-4"	2'-5"
36"	2'-6"	2'-6"
42"	2'-7"	2'-9"
48"	2'-8"	2'-9"

NOTE:
OPENINGS SHALL BE PRECAST FOR BOTH INLET AND OUTLET

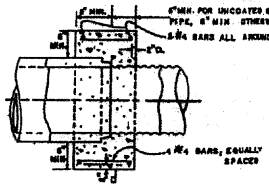
CONCRETE COLLAR FOR DEFLECTING PIPE



NOTES FOR CONCRETE COLLARS:

1. PERIMETERS OF CONCRETE COLLARS DO NOT HAVE TO BE SMOOTH LINES. COLLARS MAY BE FORMED AGAINST COMPACTED OR UNDISTURBED SOIL. DIMENSIONS ARE MINIMUM. COLLAR MAY BE SQUARE, ROUND OR SHAPE MAY VARY SO LONG AS MINIMUM DIMENSIONS ARE OBTAINED.
2. ALL CONCRETE COLLARS ARE TO BE CONSTRUCTED WITH CLASS A CONCRETE.
3. PAYMENT FOR LIN. FT. OF PIPE INCLUDES COLLARS.

CONCRETE COLLAR FOR JOINTING PIPE



GENERAL NOTES:

1. SPECIFICATIONS: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENTS THERETO.
2. ILLUSTRATED PIPES, PIPE JOINTS, ALIGNMENT, SIZES, ETC. ARE SHOWN AS REPRESENTATIVE. ACTUAL REQUIREMENTS VARY PER LOCATION AS INDICATED IN THE PLANS.
3. JUNCTION BOXES DO NOT HAVE TO BE CONSTRUCTED SQUARE. W & W₁ DIMENSIONS MAY VARY ACCORDING TO PIPE SIZE.
4. ALL JUNCTION BOX TOPS SHALL BE EQUIPPED WITH EITHER AN EYE BOLT & RING (SHOWN) OR A LIFTING BAR (ALTERNATE).
5. REINFORCING IS REQUIRED FOR ALL PRECAST JUNCTION BOXES. REINFORCING MAY BE OMITTED FOR BUILT IN PLACE CONCRETE BOXES NOT OVER 10 FT. DEEP AND NOT LARGER THAN 3' x 3'. CONSTRUCTION JOINTS PERMITTED IF DOWELED OR KEYED. ALL JUNCTION BOX TOPS SHALL BE REINFORCED.

WEST POINT

City of West Point

STANDARD 9031U JUNCTION BOX

STANDARD DEVELOPMENT DETAILS

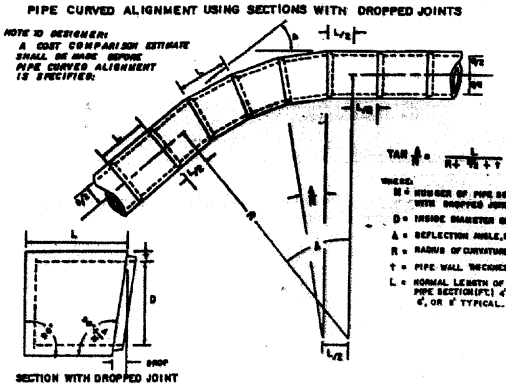
SCALE: NONE DATE: JUNE 1998

NWN01CDD.DWG

D05

PIPE CURVED ALIGNMENT USING SECTIONS WITH DROPPED JOINTS

NOTE TO DESIGNER:
A COST COMPARISON ESTIMATE SHALL BE MADE BEFORE PIPE CURVED ALIGNMENT IS SPECIFIED.



$$\tan\frac{\Delta}{2} = \frac{L}{R + \frac{D}{2} + T}$$

WHERE:

N = NUMBER OF PIPE SECTIONS WITH DROPPED JOINTS

D = INSIDE DIAMETER OF PIPE

Δ = DEFLECTION ANGLE, DEGREES

R = RADIUS OF CURVATURE (FT)

T = PIPE WALL THICKNESS (FT)

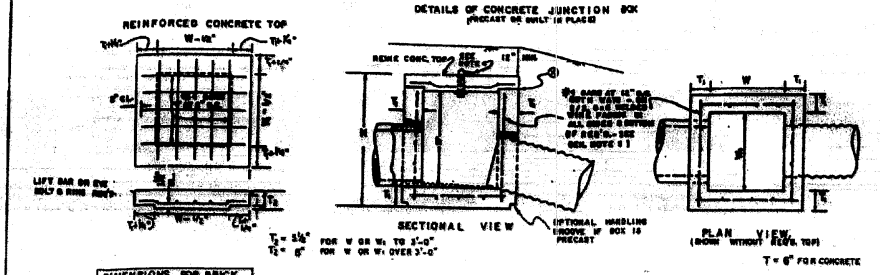
L = NORMAL LENGTH OF PIPE SECTION (FT) 4', 4', OR 8' TYPICAL.

NOTES FOR PIPE CURVED ALIGNMENT:

1. PLANS ARE TO SPECIFY ONLY THE PIPE DIAMETER "D", THE ANGLE "Δ", AND THE TANGENT ALIGNMENT.
2. PIPE WALL THICKNESS "T", PIPE SECTION LENGTHS "L", AND DROP IN PIPE JOINT "DROP" VARIES ACCORDING TO PIPE PRODUCER AND IS BASED ON FEASIBILITY.
3. THE RADIUS "R" AND THE NUMBER OF DROPPED JOINT PIPE SECTIONS "N" IS DETERMINED BY USE OF ABOVE. MINOR MODIFICATIONS OF THE GIVEN "Δ" ARE NORMALLY MADE SO THAT "N" WILL BE A WHOLE NUMBER.
4. PIPE SECTIONS SHALL BE ORIENTED SUCH THAT THE PLANE OF THE DROPPED JOINT IS AT RIGHT ANGLES TO THE THEORETICAL CIRCULAR CURVE. THE TOP OF SECTIONS ARE TO BE MARKED SO THAT THE DEFLECTION ANGLE IS PROPERLY ORIENTED.
5. DETAILS ARE SHOWN FOR CONCRETE PIPE. CURVED ALIGNMENT FOR C.M. PIPE SHALL BE RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
6. PAYMENT PER LIN. FT. PIPE INCLUDES PIPE SECTIONS WITH DROPPED JOINTS.

DETAILS OF CONCRETE JUNCTION BOX

(PRECAST OR BUILT IN PLACE)



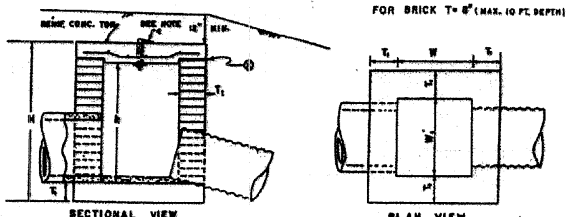
T_1 = 2 1/2" FOR W OR W_1 TO 2'-0"
T_2 = 6" FOR W OR W_1 OVER 2'-0"

DIMENSIONS FOR BRICK OR REINF CONC. BOX			
PIPE SIZE	W OR W'	MIN. H	MIN. H'
18"	2'-0"	1'-8"	2'-0"
24"	2'-3"	2'-1"	2'-1"
30"	2'-10"	2'-6"	2'-6"
36"	3'-5"	3'-3"	4'-3"
48"	4'-0"	3'-10"	4'-0"
54"	4'-7"	4'-5"	4'-5"
60"	5'-2"	5'-0"	5'-0"

SEE GEN. NOTE #13

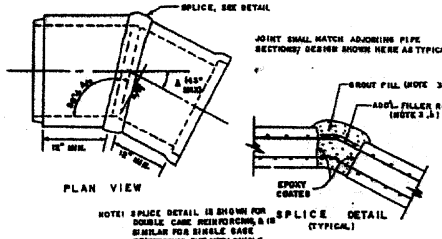
DETAILS OF BRICK JUNCTION BOX

FOR BRICK T= 8" (MAX. 10 FT. DEPTH)



⑩ PREVENT BOND WITH EITHER 30 LB. ASPHALT SATURATED FELT OR PREFORMED FOAM JOINT FILLER.

PIPE ELBOW SECTION (PRE-FABRICATED)



NOTE: SPLICE DETAIL IS SHOWN FOR DOUBLE CAGE REINFORCING, & IS SIMILAR FOR SINGLE CAGE REINFORCING, BUT WITH SINGLE SPLICE ALL AROUND BEING APPLICABLE.

NOTES FOR PIPE ELBOW:

1. PAYMENT FOR LIN. FT. OF PIPE INCLUDES ELBOWS.
2. ELBOW ANGLE Δ SHALL VARY ACCORDING TO NEED, BUT SHALL NOT BE GREATER THAN 45°. THE CONTRACTOR SHALL INFORM PRODUCER AS TO ANGLE REQUIRED.
3. (a) CONCRETE PIPE SHALL BE CUT BEFORE BEING CURED AND STEEL EXPOSED FROM EACH SIDE OF CUT.
   (b) EXPOSED STEEL SHALL BE ADJOINED. FILLER RODS AT LEAST EQUAL TO RODS IN PIPE SHALL BE ADDED AS NEEDED FOR HANDLING STRENGTH & TO HOLD GROUT.
   (c) ALL RODS IN SPLICE SHALL BE PACKED WITH GROUT MORTAR RICH ENOUGH TO GIVE STRENGTH AT LEAST EQUAL TO REMOVED CONCRETE WITH INSIDE SMOOTHED OUT.
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BOLT, RING & WASHER DETAILS

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STEEL LIFTING BAR DETAIL

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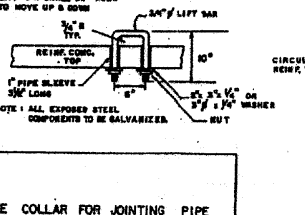

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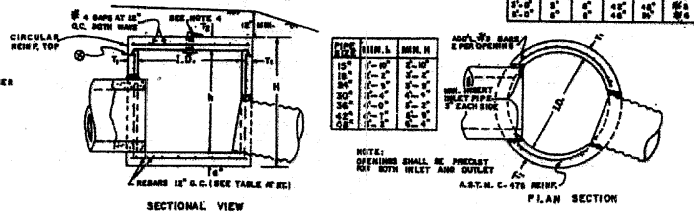
I.D.	T_1 (MIN.)	T_2 (MIN.)	MAX. PIPE CONC.	MAX. PIPE C.M.	REBARS IN BOTTOM
4'-0"	5"	6"	30"	24"	#5
5'-0"	5"	6"	42"	48"	#6
6'-0"	6"	6"	48"	54"	#6



PIPE SIZE	MIN. L	MIN. H
15"	1'-10"	2'-10"
18"	1'-6"	2'-6"
24"	1'-3"	2'-3"
30"	1'-4"	2'-4"
36"	1'-0"	2'-0"
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NOTE:
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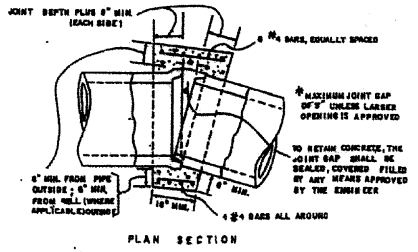
CONCRETE COLLAR FOR DEFLECTING PIPE



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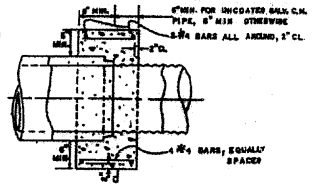

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WEST POINT

City of West Point

STANDARD 9031U JUNCTION BOX

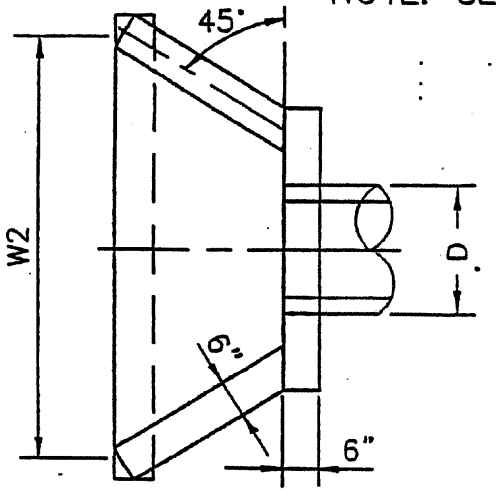
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

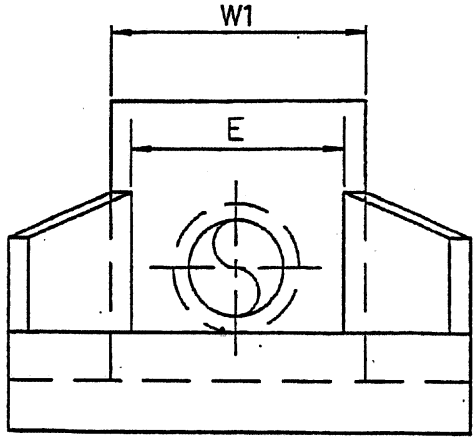
DATE: JUNE 1998

NOTE: SEE D07.02 FOR DIMENSIONS.

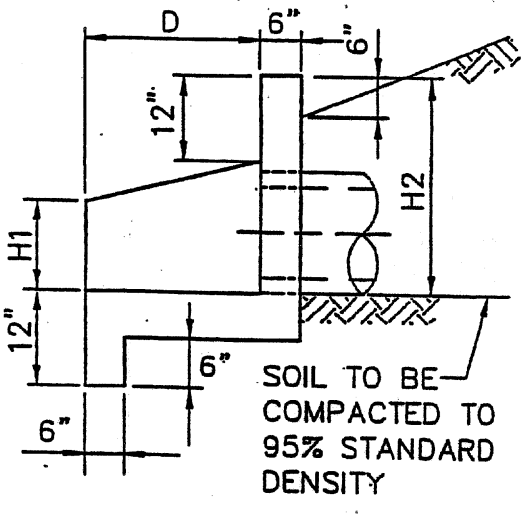
D06.01



PLAN



FRONT ELEVATION



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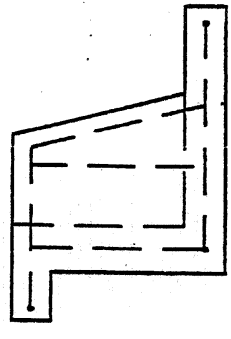
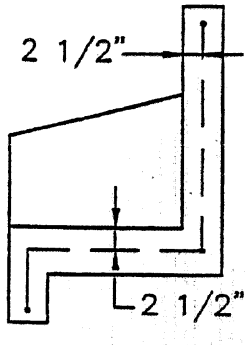
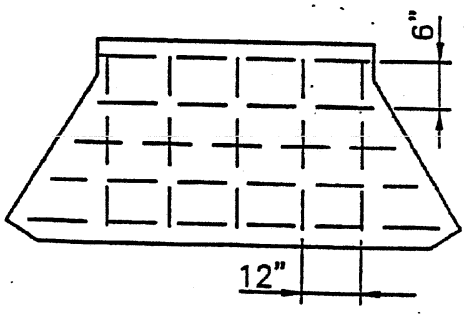


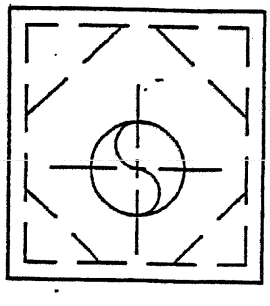
WING SECTION



BASE & WALL SECTION



BASE SECTION



WALL SECTION

WEST POINT

City of West Point

STANDARD PRECAST HEADWALL

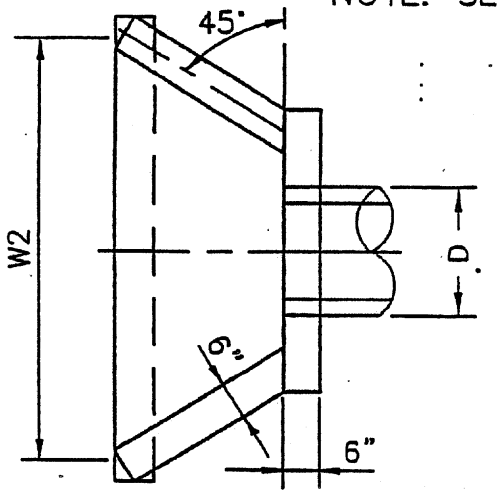
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

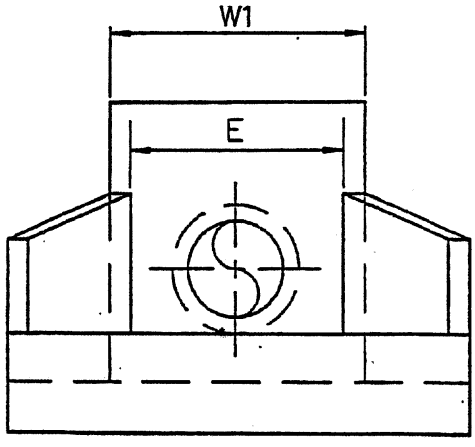
DATE: JUNE 1998

NOTE: SEE D07.02 FOR DIMENSIONS.

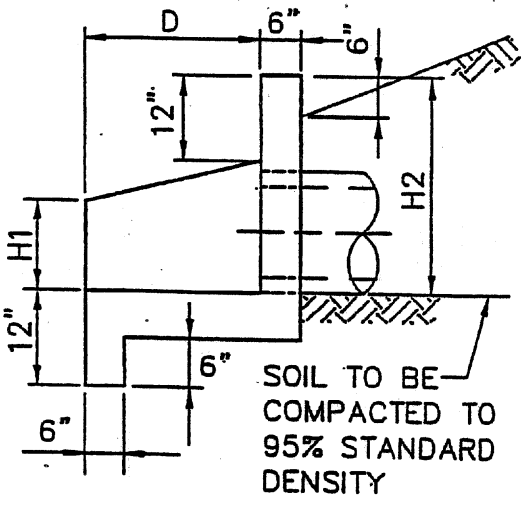
D06.01



PLAN



FRONT ELEVATION



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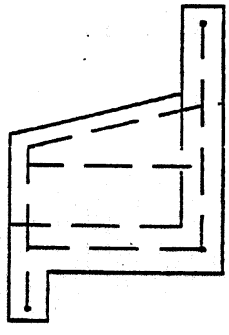
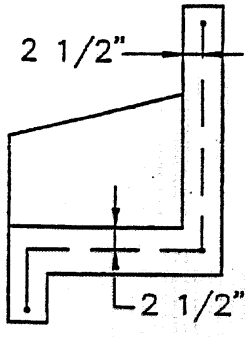
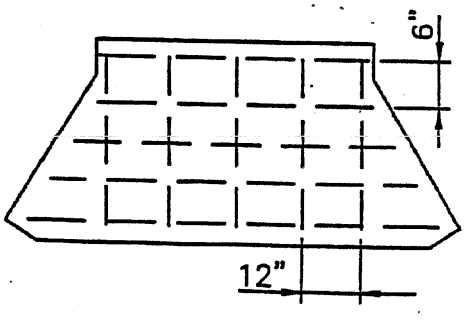


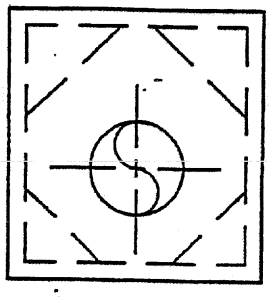
WING SECTION



BASE & WALL SECTION



BASE SECTION



WALL SECTION

WEST POINT

City of West Point

STANDARD PRECAST HEADWALL

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

D06.02

HEADWALL DIMENSIONS (METAL PIPE)								
USE NEXT LARGEST SIZE FOR CONCRETE PIPE								
PIPE INSIDE DIA.	W1	W2	H1	H2	D	E	WT.	SQ. FT. BASE AREA
12", 15", 18"	3'-2"	4'-10"	1'-3"	3'-2"	1'-3"	1'-9"	1550	7.34
21", 24"	3'-8"	6'-1"	1'-9"	3'-8"	1'-6"	2'-3"	2100	9.90
30"	4'-2"	7'-2"	2'-0"	4'-2"	1'-10"	2'-9"	2850	13.50
36"	4'-8"	8'-4"	2'-4"	4'-8"	2'-2"	3'-3"	3700	17.65
42", 48"	5'-8"	10'-10"	3'-3"	5'-8"	2'-11"	4'-3"	5600	28.60
54"	6'-8"	11'-11"	3'-8"	6'-8"	3'-4"	5'-3"	7500	35.60

NOTES:

1. ALL CONCRETE SHALL BE CLASS A
2. REINFORCEMENT STEEL SHALL BE 1/2" DIA. OF INTERMEDIATE GRADE.
3. CHAMFER ALL EXPOSED EDGES 3/4".
4. ALL CONCRETE SHALL BE 4,000 P.S.I.
5. RIP RAP TO BE PLACED AT OUTLET, LENGTH TO BE 6 x D

D06.02

HEADWALL DIMENSIONS (METAL PIPE)								
USE NEXT LARGEST SIZE FOR CONCRETE PIPE								
PIPE INSIDE DIA.	W1	W2	H1	H2	D	E	WT.	SQ. FT. BASE AREA
12", 15", 18"	3'-2"	4'-10"	1'-3"	3'-2"	1'-3"	1'-9"	1550	7.34
21", 24"	3'-8"	6'-1"	1'-9"	3'-8"	1'-6"	2'-3"	2100	9.90
30"	4'-2"	7'-2"	2'-0"	4'-2"	1'-10"	2'-9"	2850	13.50
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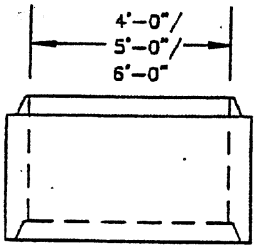
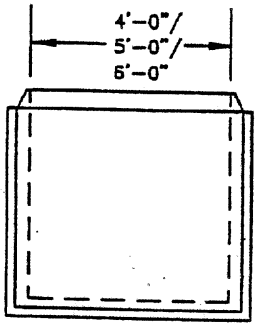
D07.01



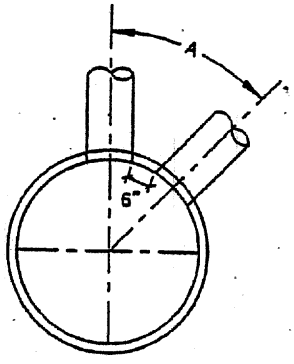
REINFORCING TO BE 2/2 6X6
WELDED WIRE FABRIC

RISER

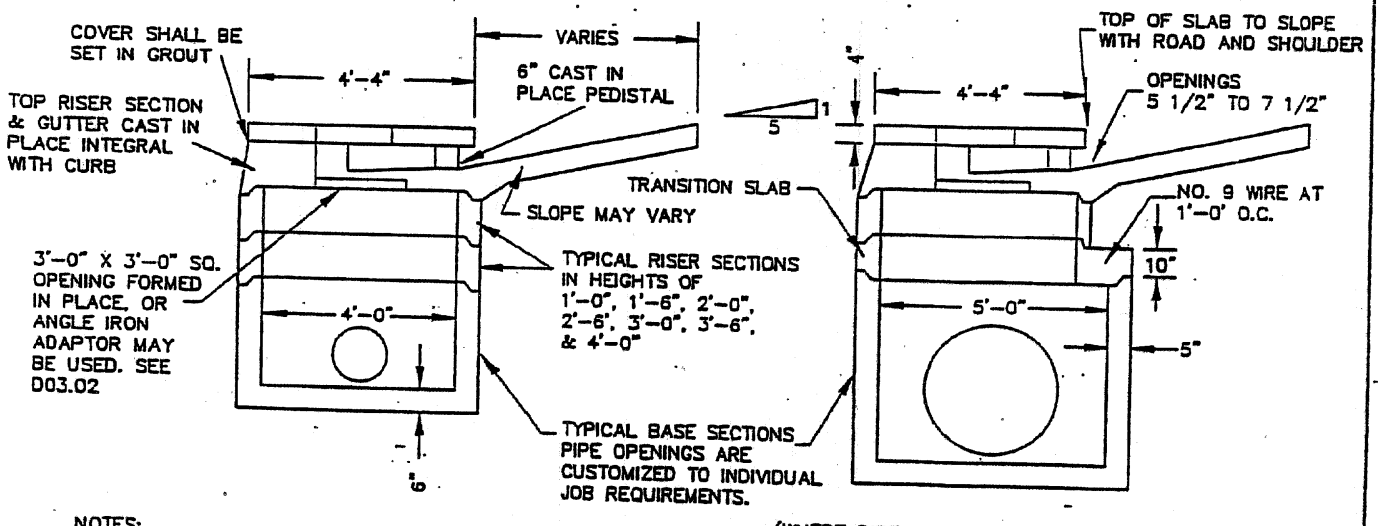


REINFORCING TO BE 2/2 6X6
WELDED WIRE FABRIC

BASE



ANGLE A					
4'-0" BASE		5'-0" BASE		6'-0" BASE	
PIPE SIZE	A	PIPE SIZE	A	PIPE SIZE	A
12	45°	12	40°		
15	52°	15	47°		
18	60°	18	55°		
21	67°	21	69°		
24	75°	24	70°		
		27	78°		
		30	86°		
		36	115°		
		42	140°	42	90°
				48	115°



(WHERE PIPE DIA. REQUIRES 5' DIA. BASE)

NOTES:

1. SUBGRADE TO BE COMPACTED TO 95% STANDARD PROCTOR.
2. REINFORCEMENT STEEL TO BE PLACED TO ALLOW A MINIMUM OF 2" CLEARANCE, EXCEPT WHERE NOTED.
3. REINFORCEMENT STEEL SHALL BE OF INTERMEDIATE GRADE AND SHALL BE 0.12 SQ. IN. PER FT. IN BOTH DIRECTIONS IN ACCORDANCE WITH A.S.T.M. C 476-76 MANHOLE SPECIFICATIONS.
4. ALL CONCRETE SHALL BE CLASS AA1 4500 PSI UNLESS NOTED OTHERWISE.
5. CHAMFER ALL EXPOSED EDGES 3/4".
6. STRUCTURE TO ACCOMMODATE DOUBLE WING AS REQUIRED.

WEST POINT

City of West Point

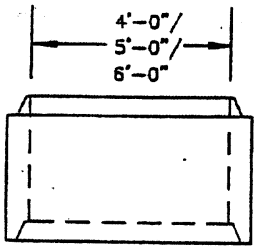
STANDARD CIRCULAR CATCH BASINS

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

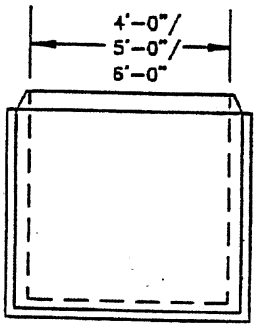
DATE: JUNE 1998

D07.01



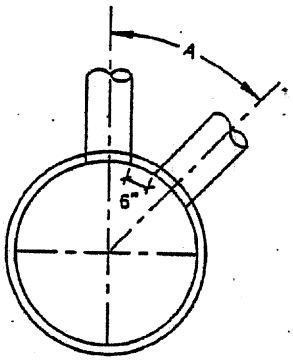
REINFORCING TO BE 2/2 6X6
WELDED WIRE FABRIC

RISER



REINFORCING TO BE 2/2 6X6
WELDED WIRE FABRIC

BASE



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		30	86°		
		36	115°		
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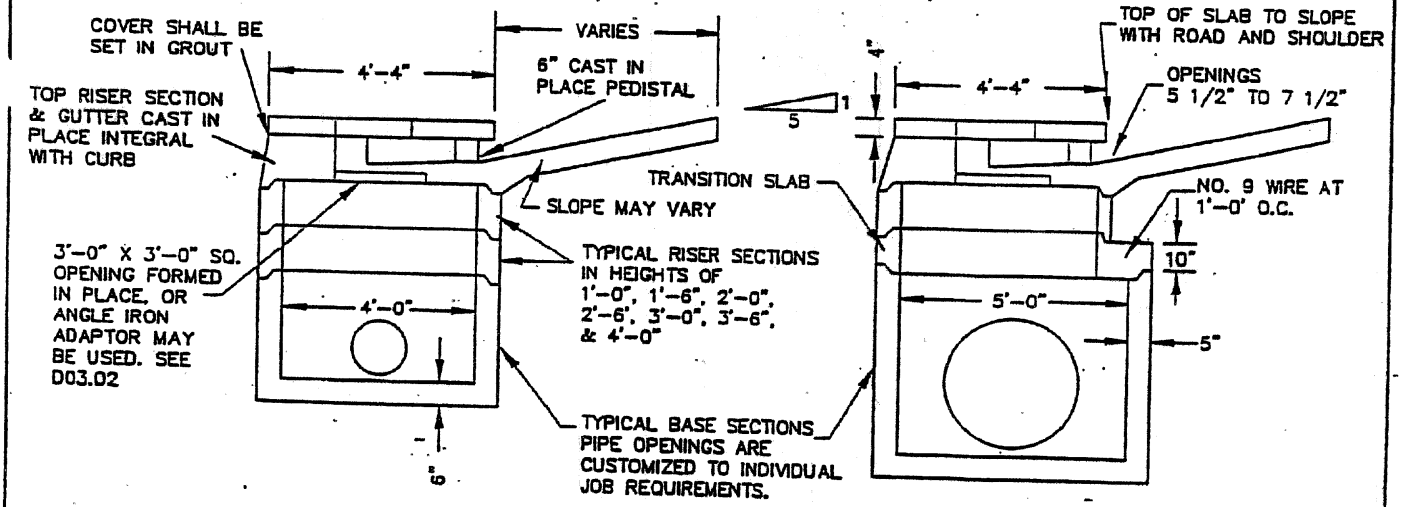

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WEST POINT

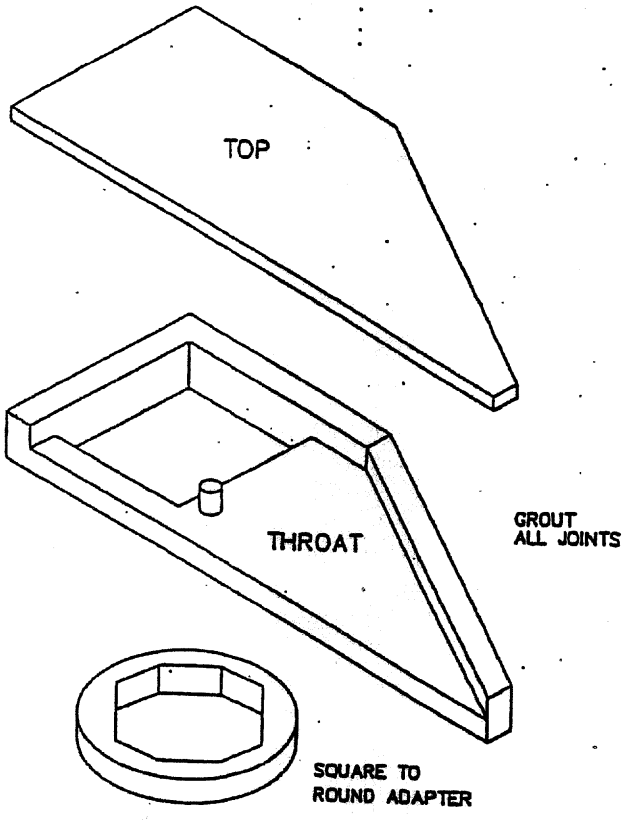
City of West Point

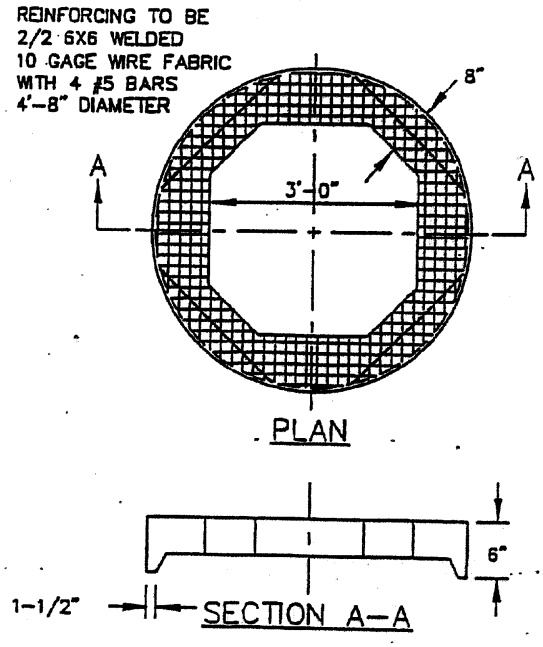
STANDARD CIRCULAR CATCH BASINS

STANDARD DEVELOPMENT DETAILS

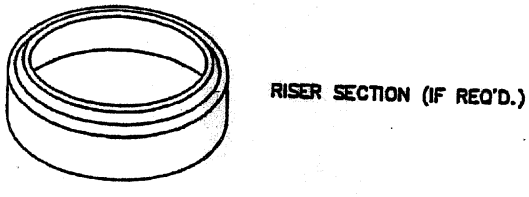
SCALE: NONE

DATE: JUNE 1998

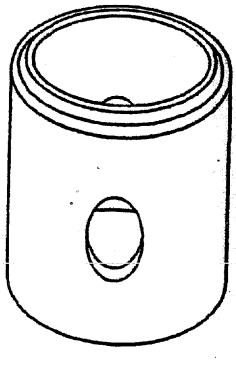




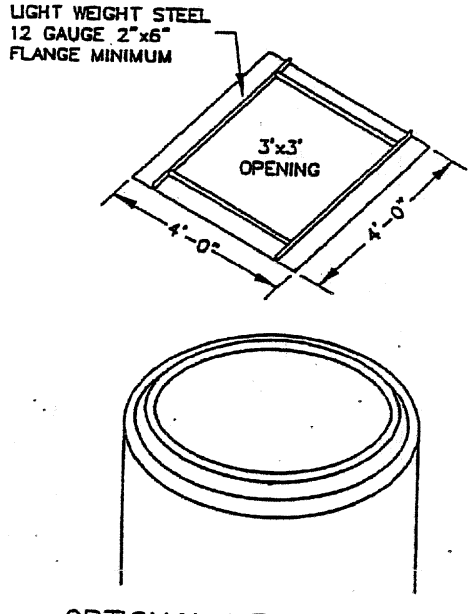
ROUND TO SQUARE ADAPTER



RISER SECTION (IF REQ'D.)



MONOLITHIC BASE
HOLES MUST BE
PRECAST



OPTIONAL METAL ADAPTER

WEST POINT

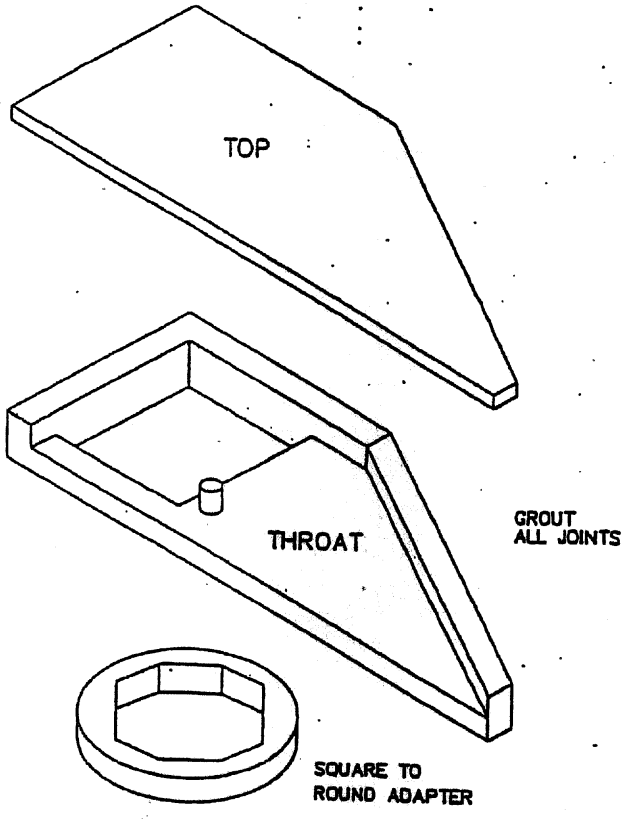
City of West Point

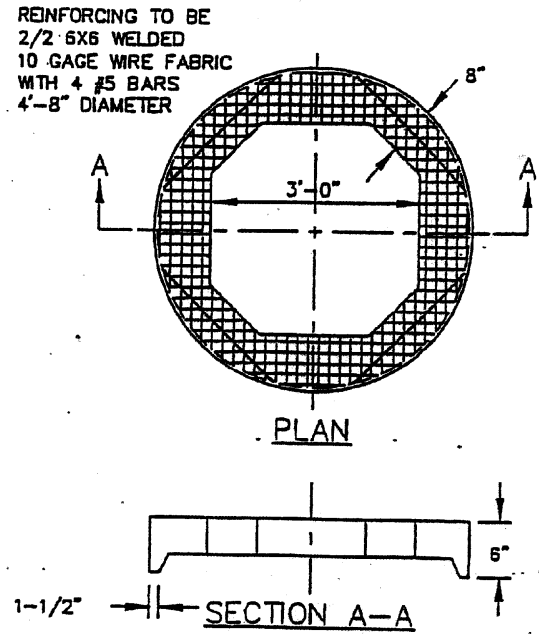
STANDARD CIRCULAR CATCH BASINS

STANDARD DEVELOPMENT DETAILS

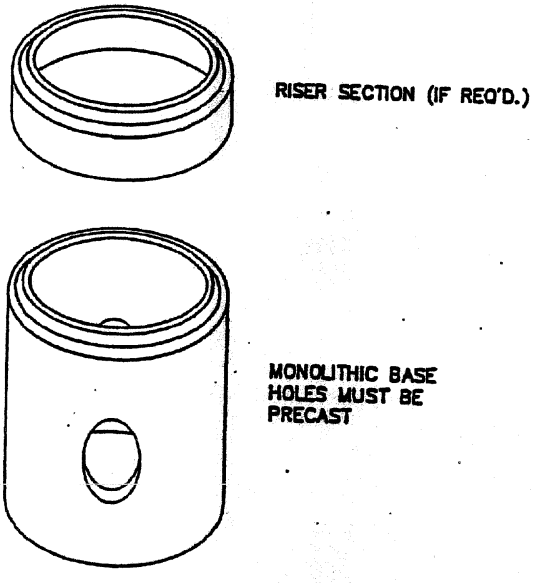
SCALE: NONE

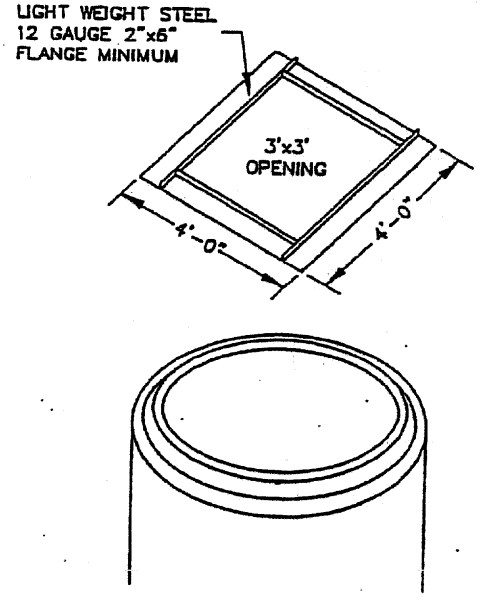
DATE: JUNE 1998





ROUND TO SQUARE ADAPTER

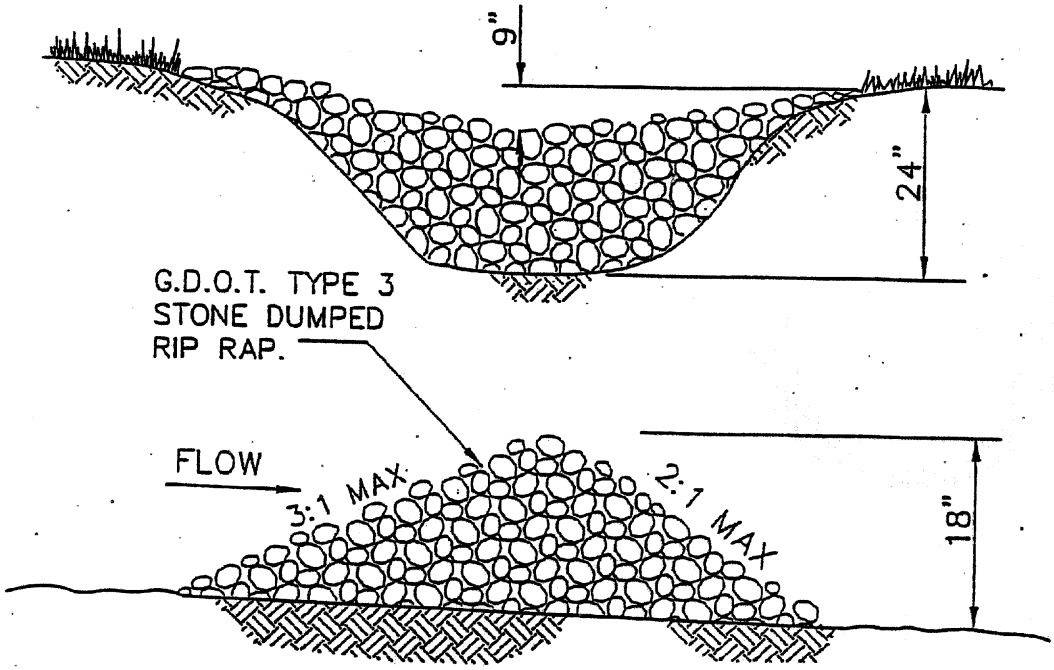


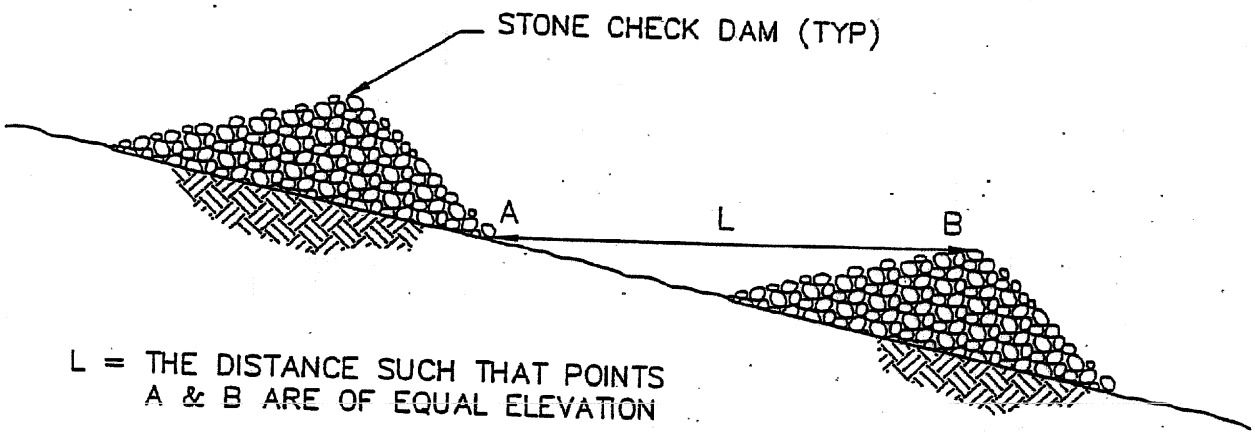


OPTIONAL METAL ADAPTER

WEST POINT **City of West Point**	STANDARD CIRCULAR CATCH BASINS
	STANDARD DEVELOPMENT DETAILS
	SCALE: NONE DATE: JUNE 1998

E02





L = THE DISTANCE SUCH THAT POINTS
A & B ARE OF EQUAL ELEVATION

Cd

WEST POINT

City of West Point

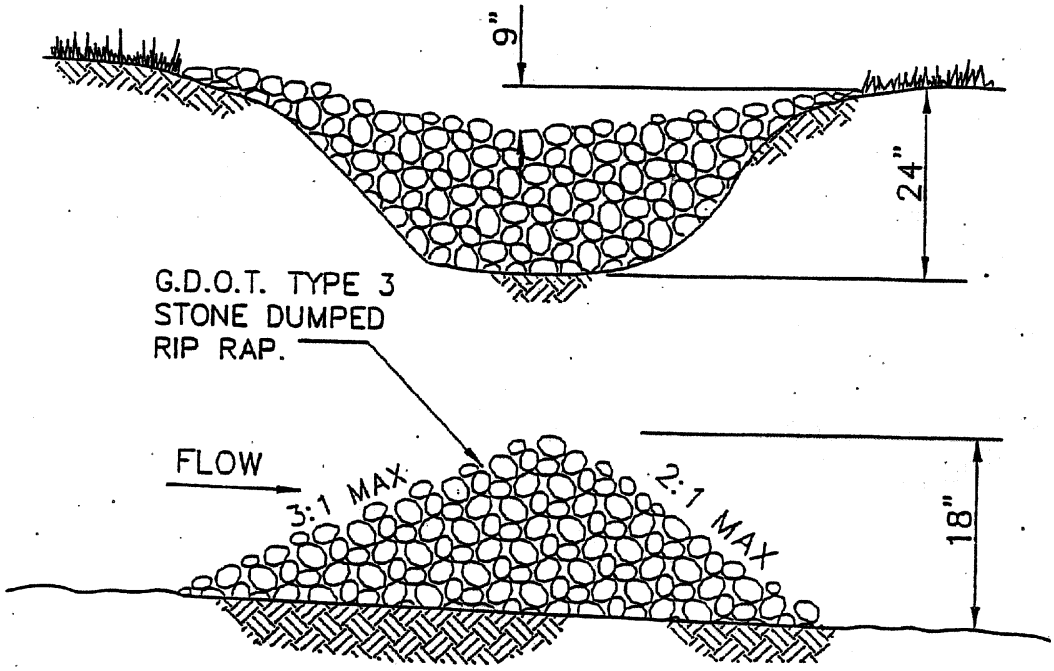
STONE CHECK DAM

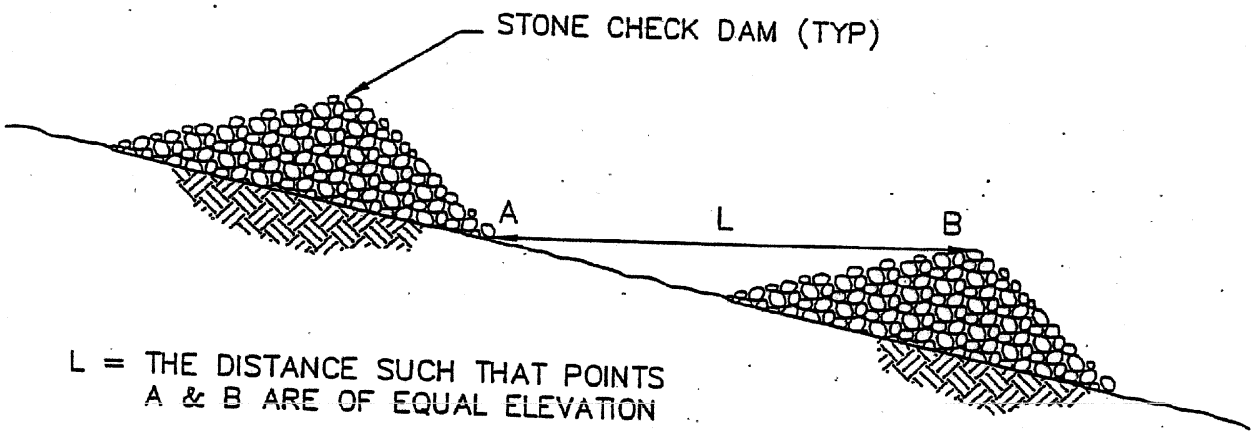
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

E02





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WEST POINT

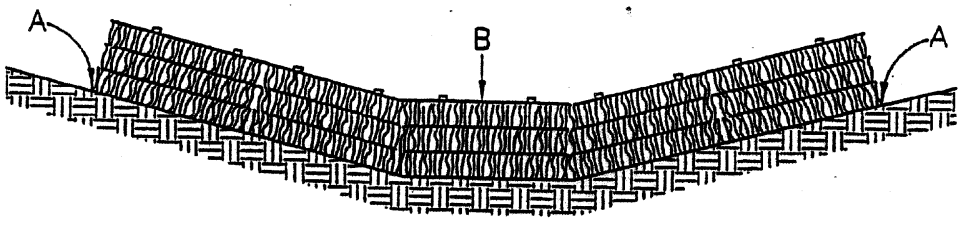
City of West Point

STONE CHECK DAM

STANDARD DEVELOPMENT DETAILS

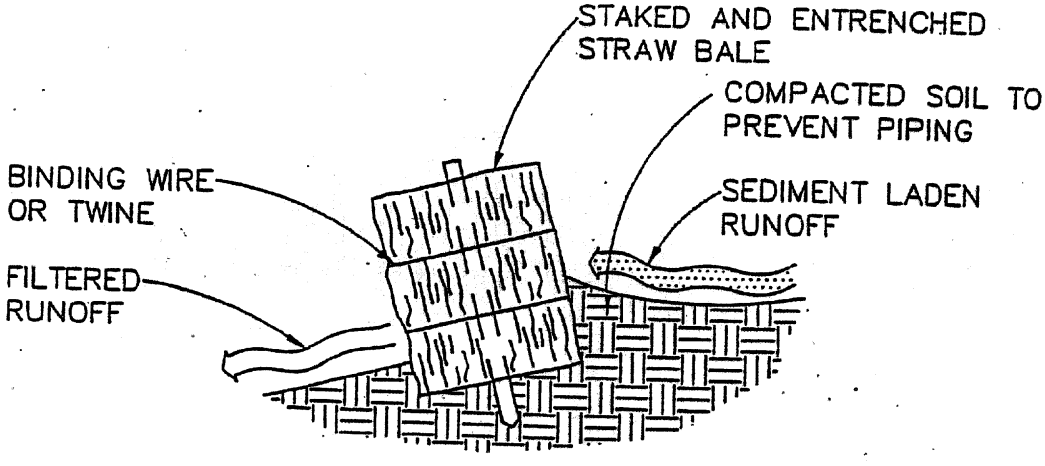
SCALE: NONE

DATE: JUNE 1998



POINTS "A" SHOULD BE HIGHER THAN POINT "B".

PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY



NOTE: EMBED HAY BALES A MINIMUM OF 4 INCHES.

CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE

Cd

WEST POINT

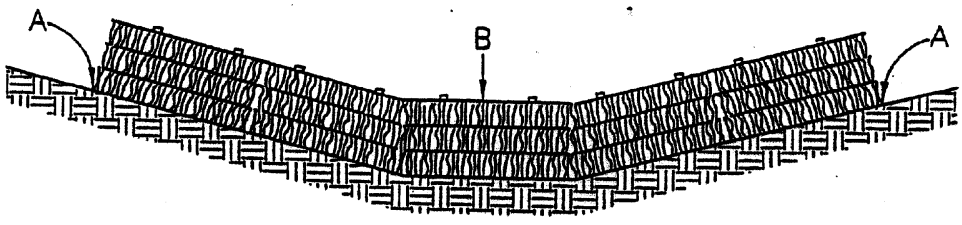
City of West Point

STRAW BALE CHECK DAM

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998



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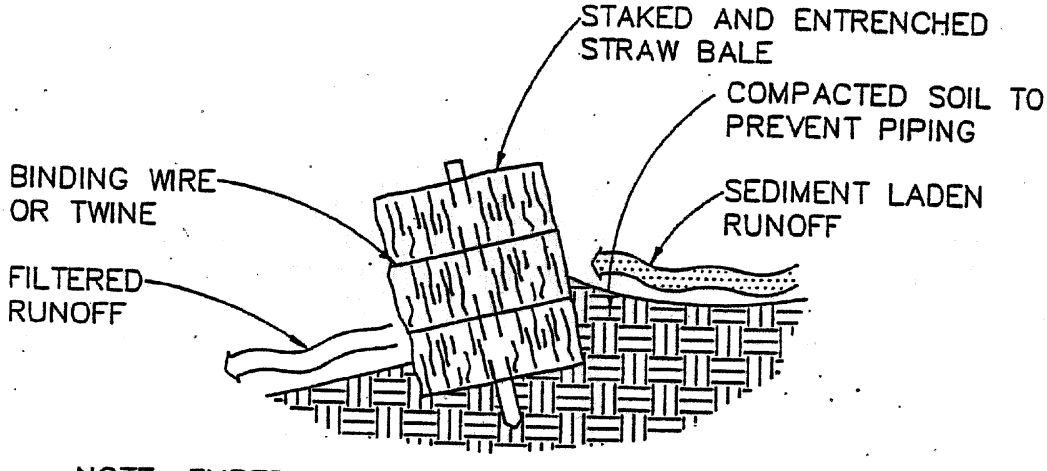

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Cd

WEST POINT

City of West Point

STRAW BALE CHECK DAM

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

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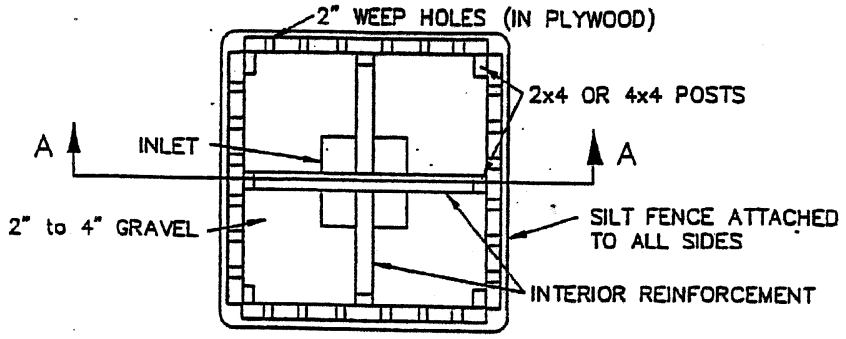
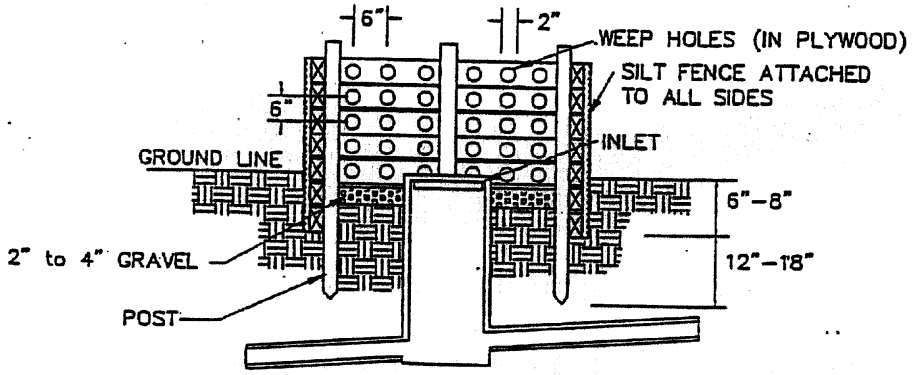


PLAN



SECTION A–A

NOTES:

BOX TO BE MADE OF BOARDS SPACED 1" to 2" APART, OR MADE OF PLYWOOD WITH 2" WEEP HOLES SPACED APPROX. 6" VERTICAL – 6" HORIZONTAL
SILT FENCE TO BE ATTACHED TO ALL SIDES OF THE SEDIMENT BOX
2" to 4" OF GRAVEL ON THE INSIDE AROUND THE INLET (IN PLYWOOD BOX)
DIMENSIONS OF THE BOX WILL VARY ACCORDING TO THE SIZE OF THE INLET AND DEPTH OF BASIN
EXCAVATE 1' BELOW TOP OF INLET IN 10' RADIUS AROUND BOX FOR SILT CONTROL DURING CONSTRUCTION

WEST POINT

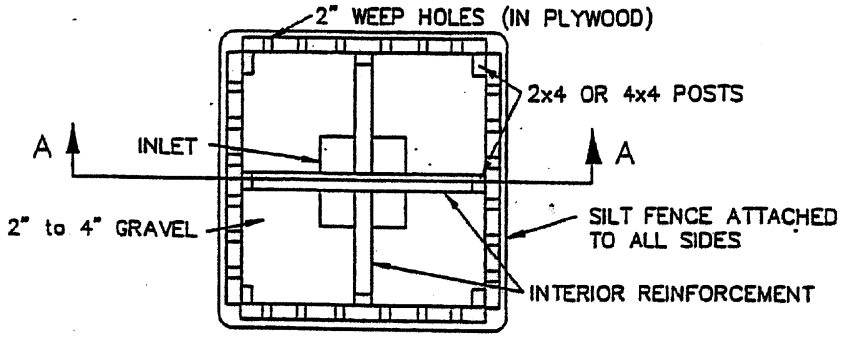
City of West Point

SEDIMENT BOX

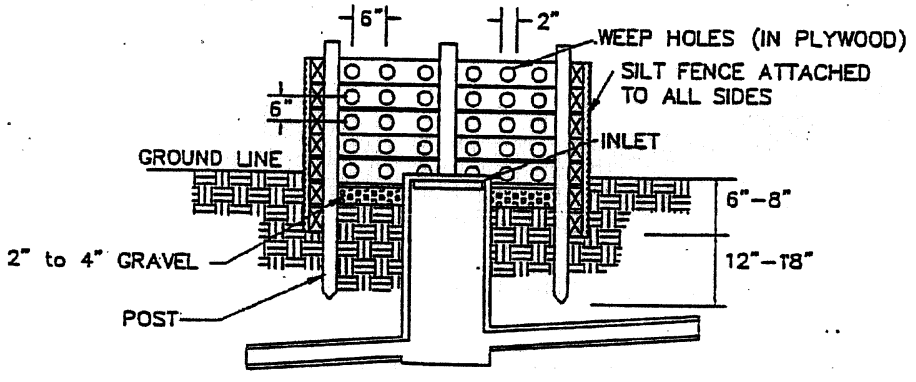
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998



PLAN



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WEST POINT

City of West Point

SEDIMENT BOX

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

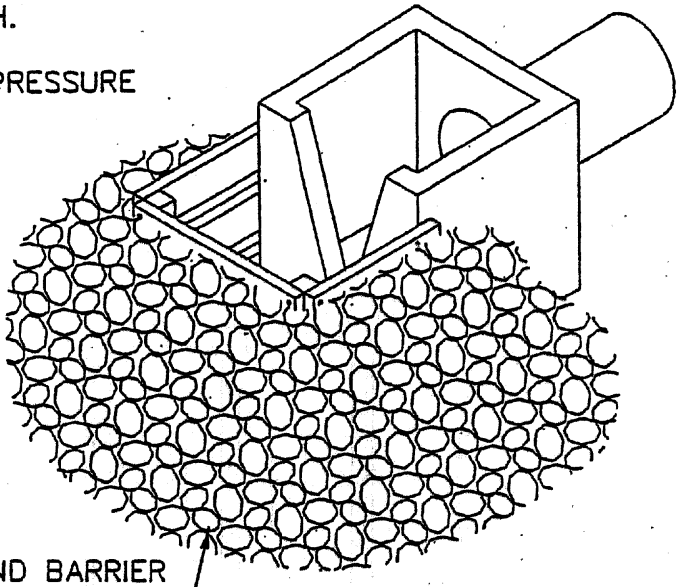
DATE: JUNE 1998

E05

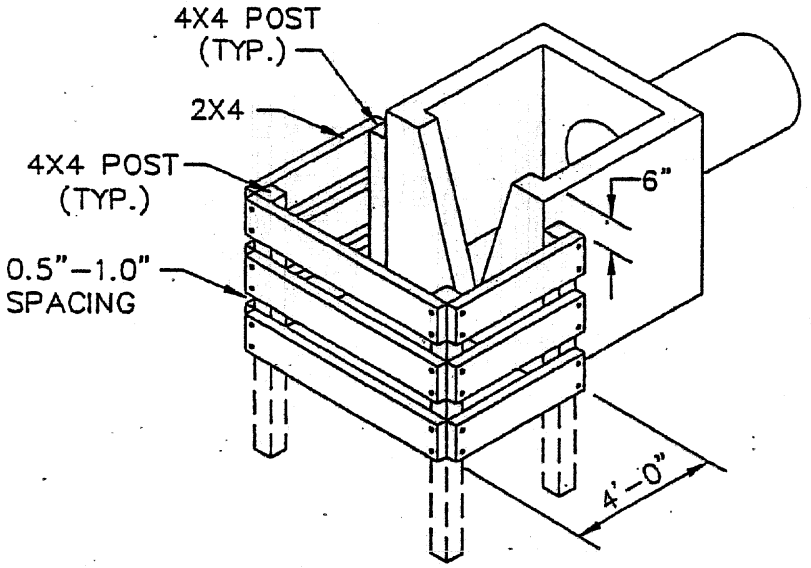
NOTES:

1. POST TO BURIED MIN. 24" IN COMPACTED EARTH OR IN UNDISTURBED EARTH.

2. ALL WOOD TO BE PRESSURE TREATED.



FILL AROUND BARRIER WITH 3" – 4" STONE (EVEN WITH TOP)



WEST POINT

City of West Point

SLOTTED BOARD DAM

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998

E05

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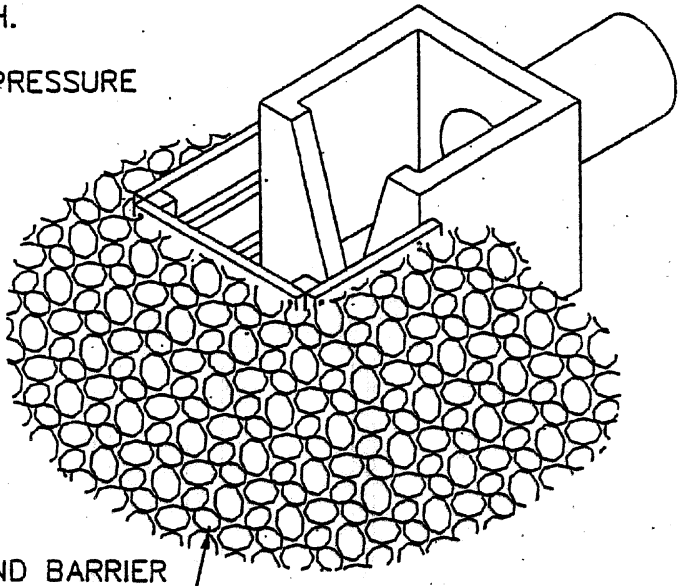

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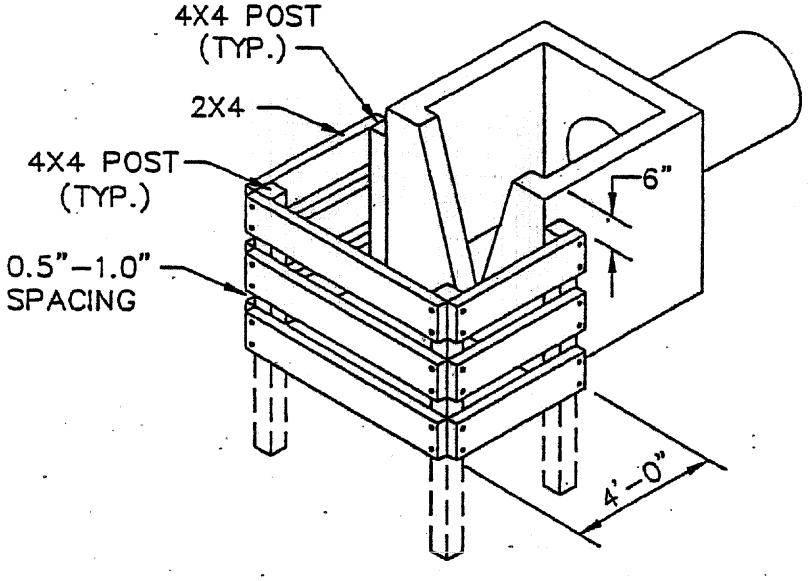


WEST POINT

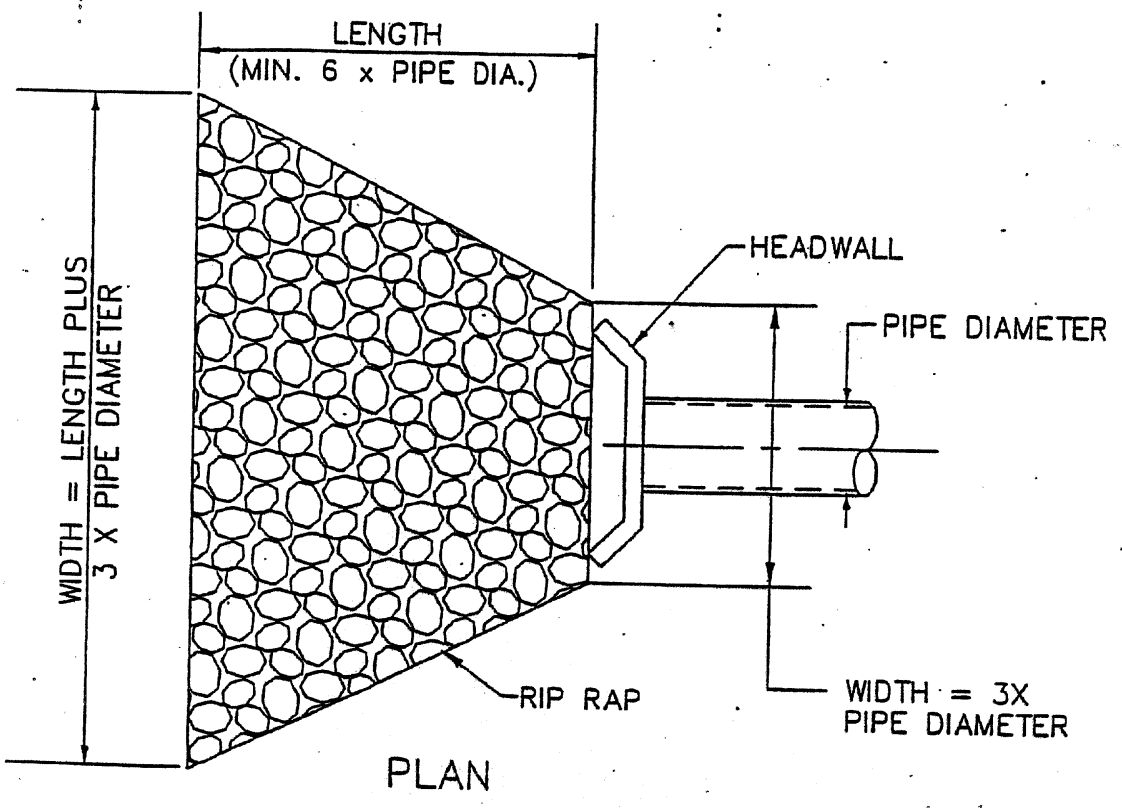
City of West Point

SLOTTED BOARD DAM

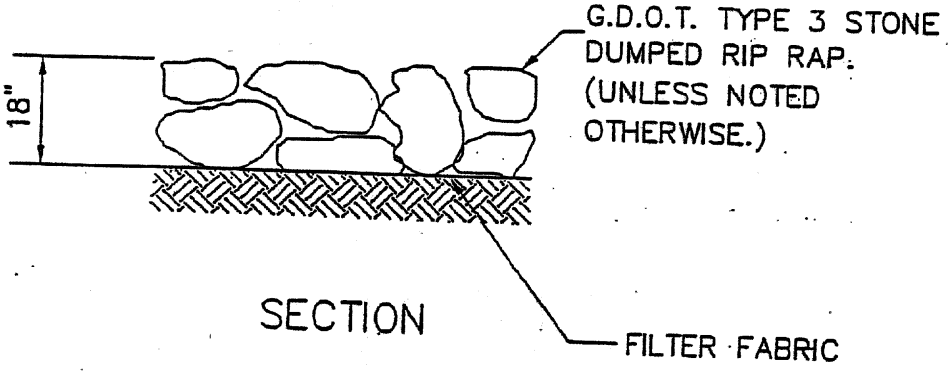
STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998



PLAN



SECTION

St

WEST POINT

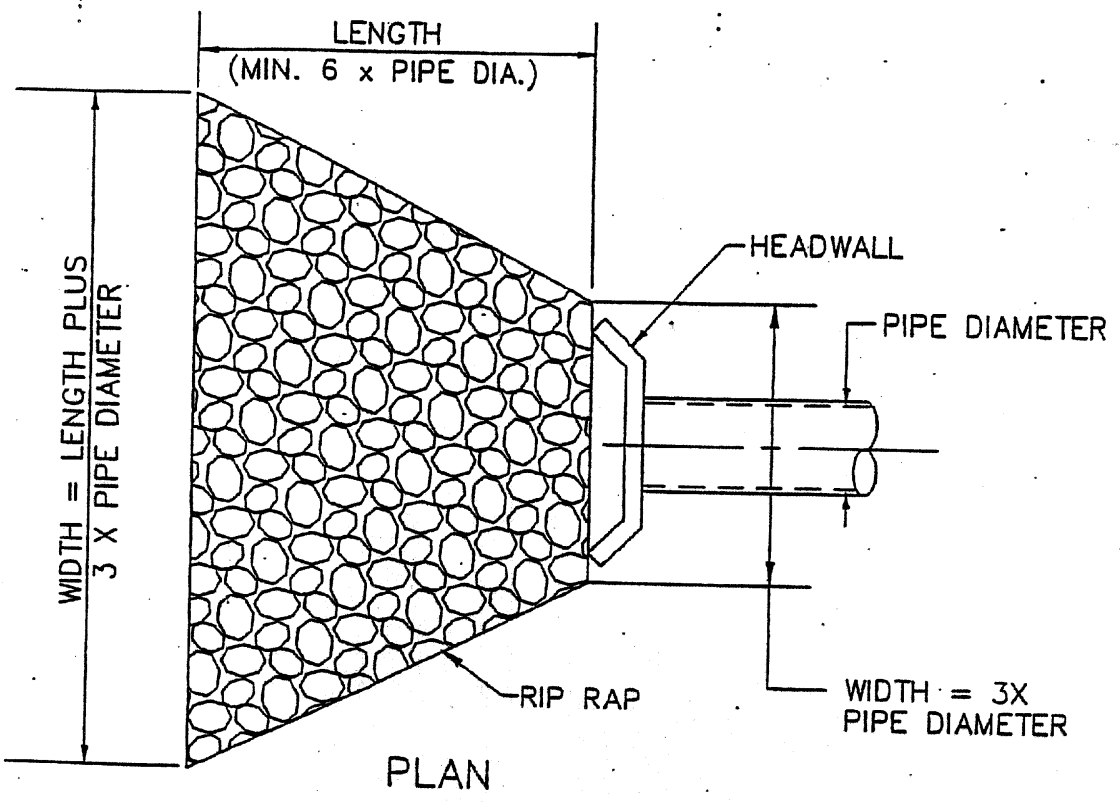
City of West Point

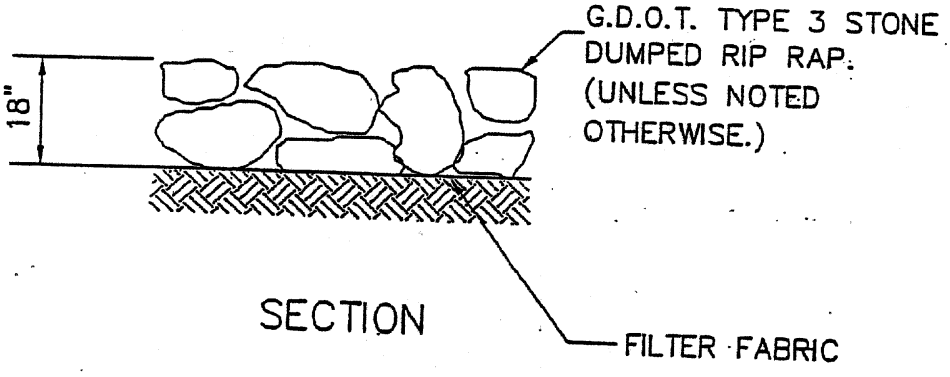
STORM DRAIN OUTLET PROTECTION

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998





St

WEST POINT

City of West Point

STORM DRAIN OUTLET PROTECTION

STANDARD DEVELOPMENT DETAILS

SCALE: NONE

DATE: JUNE 1998