

**CITY
OF
SCOTTS VALLEY**



**STANDARD
DETAILS**

Date Adopted: May 17, 1989

Resolution # 1183

Revised: July 25, 1990

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PART 1. GENERAL

Section A: Improvement Plan Preparation

1. Improvement plans shall be prepared by a Registered Civil Engineer (State of California), and shall be drawn on good grade mylar. The following are some of the items which must be included on the plans:
 - a. Project vicinity map on the title sheet
 - b. Location of existing utilities
 - c. Stationing along road and/or sewer and storm line where applicable
 - d. Location of sewer, storm drain and other proposed utilities with respect to road or utility easement center lines
 - e. Bench mark datum must be City datum unless prior approval has been secured from the Public Works Director/City Engineer.

2. Improvement plans shall be arranged in the following order:
 - a. Title sheet
 - b. Plan sheets scale: 1" = 20'
Profile scale: 1" = 4' vertical; 1" = 20' horizontal
 - c. Typical details
 - d. Miscellaneous details

Section B: Improvement Plan Processing

1. Initial submittal of 2 sets of improvement plans for checking shall be made to the Public Works Director/City Engineer. Upon completion of the checking process, and any necessary correction of the tracings, the original plans, along with 1 set of reproducible prints and one set of blueprints, shall be submitted for approval signature. The original plan submittal shall be accompanied by an engineer's estimate to be used to establish bond requirements. After the Public Works Director/City Engineer has approved the plans, the original plans will be returned to the engineer who prepared the plans.

GENERAL NOTES FOR STREET IMPROVEMENT PLANS

1. All work shall be done in accordance with the City of Scotts Valley's Standard Details, Caltrans Standard Specifications, Standard Specifications for Public Works construction, current edition with supplements (APWA).
2. All existing pavement to be removed shall be removed to clean, straight lines.
3. Existing pavement shall be coated with asphaltic emulsion at all locations where new pavement joins existing pavement.
4. All existing P.C.C. shall be saw cut prior to removal.
5. The contractor shall maintain dust control at all times by watering.
6. The contractor is responsible for the protection and adjustment of all gas valves, water valve boxes and covers, drains, clean-outs, etc.
7. An approved soil sterilizer shall be used on all natural-ground subgrades when placing A.C. pavement directly on subgrade.
8. No work shall be undertaken without obtaining an encroachment permit from the City of Scotts Valley Public Works Department.
9. Paving contractor shall reset manhole rings 1/8-inch below grade after placement of A.C. pavement.
10. Contractor shall satisfy himself that quantities shown are correct before bidding on any item.
- 11a. All A.C. pavement over 3-inches thick shall be placed in two lifts.
- 11b. All areas which are to receive A.C. overlay shall be edge-ground for a smooth conform prior to the placement of the overlay.
12. All temporary patches shall be of the "hot mix" variety. "Cold mix" shall not be allowed under any circumstances.
13. All trees within pavement area shall be removed, including root system. Backfill of the hole after removal shall be accomplished in accordance with the City of Scotts Valley provisions for trench compaction. A soils report shall be required with respect to

compaction of these holes.

14. Field notes located at _____ page _____.
15. Contractor shall furnish the City Engineer with accurate "as-built" drawings. Bonds will not be released by the City until after satisfactory submittal of "as-built" drawings has been made.
16. Sidewalk shall be constructed in conformance with Standard Drawing No. ST-13 for mailbox location requirements.
17. No item shall exceed 6 inches height above the top of curb within 18 inches from the face of curb.
18. The utility engineer signature block located on the improvement plan title sheet shall be signed by the respective representatives of Pacific Telephone and Telegraph Company, Pacific Gas and Electric Company and Scotts Valley County Water District prior to submittal to the City for review.
19. Demolished A.C. pavement shall not be used in fill material unless ground to a maximum size of 3/4" diameter and shall be mixed with other fill material to the satisfaction of the engineer.
20. Whenever lane closures or any form of traffic diversions are in place, a 6-foot wide lane for pedestrian and bicycle traffic must be provided. During times of heavy pedestrian traffic (i.e. school children, etc.) the use of a flag person for public safety is necessary.
21. All types of work activity shall be diligently and continuously pursued to final condition. Work suspension while there are rough or open trenches, unfinished tie-in paving, temporary guardrails, and other intermediate conditions shall not be allowed for any reason.
22. Work hours shall be limited to 8:00 AM to 5:00 PM, Monday through Friday, 9:00 AM to 5:00 PM Saturday. Saturday work shall require approval by the Public Works Director/City Engineer. No work shall be permitted on Sunday.

ADDITIONAL NOTES FOR SEWER CONSTRUCTION PLANS

1. All pipe shall be vitrified clay or approved equal as approved by the City Engineer.
2. Laterals are to be constructed with top of pipe three feet below top of curb grade unless otherwise noted.
3. Wyes must be constructed with 1 pipe length of station shown on the plans and all laterals laid 90 degrees to main except in cul-de-sacs where laterals shall be laid either at 90 degrees or 45 degrees to the main line.
4. The "as-built" drawings shall include the location of all laterals as constructed.
5. Contractor shall secure approval from the City Inspector before backfilling over pipe.
6. Trench compaction shall be in accordance with City of Scotts Valley provisions for trench compaction. The contractor shall employ a certified soils firm to take soils tests at locations directed by the City. Soils tests shall be submitted to the City.
7. An "S" shall be stamped on the curb fact at sewer lateral location.
8. Vitrified clay pipe must be speed sealed.
9. All sewer pipe shall be air pressure tested at 5 pounds pressure for 15 minutes, mandrelled, televised and one standard VHS copy delivered to the City of Scotts Valley. A computer generated report and floppy disk must be delivered to the City compatible with RJN LineFix software.

ADDITIONAL GENERAL NOTES FOR UTILITY PLANS

1. The top of water mains in public rights-of-way shall be constructed at a minimum depth of 36 inches below finish street surface.
2. A copper wire, AWG, is to be laid on top of the public water mains when constructed of plastic pipe. Wire is to be connected to the gate valves and wrapped around the main at 10 feet + intervals to source.
3. All water mains shall be as approved by the Scotts Valley Water District.
4. A valve box and cover shall be installed at each gate valve. Valve boxes and accessories shall be installed as approved by the Scotts Valley Water District.
5. Pressure testing and chlorination shall be performed in accordance with Scotts Valley Water District specifications and standards.
6. Gas lines to be constructed by Pacific Gas and Electric Company.
7. Fire hydrant assemblies shall be installed per Scotts Valley Water District standards and specifications
8. All water meters shall be set back of sidewalk, or in areas protected from vehicular or pedestrian traffic, as approved by the Public Works Director/City Engineer.
9. It shall be the responsibility of the contractor to locate and identify all underground lines and substructures of every nature and protect them from damage.
10. A "W" shall be stamped on the curb face at water lateral location where water meter boxes are not installed immediately behind the curb.
11. All hot-taps shall be performed by contractor after a minimum 48-hour notice to Scotts Valley Water District, and under the direction of the Scotts Valley Water District.

PART 2. STREET DESIGN

Section A: Street Widths

1. Minimum right-of-way shall be 50 feet in residential areas and 70 feet in commercial areas.
2. Existing city streets within the improvement shall be improved to the geometric, right-of-way and structural standards of this design criteria. In the event an existing city street is on the boundary of a proposed improvement, the half of the road adjacent to the improvement shall be improved to the standards of this design criteria.
3. A 6-foot wide P.U.E. shall be dedicated on both sides of the right-o-way in all instances.

Section B: Street Alignment and Grades

1. General requirements shall be no less than the minimum set forth in Figure ST-2.
2. Vertical curves are required for all grade breaks of 1 percent or more.
3. The gradient of the street entering an intersection shall not be more than 3 percent within a distance of 20 feet from the curb lines of the intersected street.
4. Streets shall be super elevated only if required by the Public Works Director/City Engineer.
5. Minimum curb return radii shall be 32 feet, measured at face of curb, for industrial, collector and four-lane street; and 24 feet for residential streets.
6. Minimum cul-de-sac radii shall be 32 feet measured at face of curb.
7. Temporary paved turnarounds of 32-foot minimum radius and a standard barricade shall be provided at ends of dead-end streets longer than 150 feet.
8. Dead-end streets shall not exceed 500 feet in length unless an emergency exit road, acceptable to the Fire Marshal and the Public Works Director/City Engineer.
9. Streets and highways shall intersect one another at angles as near to a right angle as is practical, and no intersections shall be at angles of less than 30 degrees from the perpendicular.
10. Streets intersecting at an angle other than 90 degrees may require the use of setback lines, special rounding of corners, or other device to assure desirable results as to traffic

movement, visibility and safety, as required by the Public Works Director/City Engineer.

11. If the center lines of two streets intercepting the same street from opposite directions are offset from each other, said offset shall be a minimum distance of 250 feet measured along the center line of the street intercepted.
12. No item shall exceed 6 inches height above the top of curb within 18 inches from the face of curb.
13. Driveway grades shall not exceed 3 percent behind the standard driveway ramp and within public right-of-way.
14. Minimum grade for drainage on all streets shall be 0.6 percent.

Section C: Structural Section

1. The total structural section shall be designed by R-value (Test Method California 301).
2. Traffic index values for new roads shall be based on the type of road and number of lots served in ultimate developments. These values are given in Figure ST-3.
3. Traffic index value for existing city roads to be improved shall be determined by the Public Works Director/City Engineer.
4. Figure ST-3 gives the minimum structural section requirements.
5. Minimum required surface course shall be 2 inches Type B asphalt concrete, ½ inch maximum, medium aggregate gradation.
6. Minimum required base course shall be Class 2 aggregate base, 6 inches thick.
7. The number and location of soils tests shall be subject to the approval of the Public Works Director/City Engineer, the minimum being one test for each 1500 linear feet of proposed streets. The R-value used for design purpose shall be the lowest test results, unless sufficient tests and soils investigations are made to determine the limit of the various soil types tested.
8. In addition to R-value tests to determine the structural section, further soils tests may be required by the Public Works Director/City Engineer to determine erosion control, stability or subdrainage requirements.

9. All soils tests shall be performed by a registered civil engineer experienced and knowledgeable in the application of the principles of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and testing of the construction thereof.
10. The Class 2 aggregate base shall have a relative compaction of 95% at optimum moisture content for its total depth prior to placement of oil coat and/or asphalt concrete. The subgrade shall have a minimum relative compaction of 95% for a depth of 2 feet and 90% for any depth below 2 feet up to 5 feet total depth.
11. All base courses, vertical surfaces of existing pavements, curbs, gutters, and construction joints in the surfacing against which additional material is to be placed, and pavement to be surfaced shall be prime coated with MC 70 or coated with paint binder SS1, 50% cut with water, at a rate of 0.25 gallons per square yard, all in accordance with the latest edition of Caltrans Standard Specifications.
12. All work within the public right-of-way shall have tests performed at applicant's sole expense to determine relative compaction. Relative compaction shall be a minimum of 95% and test results submitted to the Public Works Department prior to acceptance. Testing shall be performed by a firm regularly engaged in the inspection and testing of compaction and as approved by the City Engineer.

Section D: Grading

1. Excavation and embankment slopes shall not be steeper than 2 feet horizontal to 1 foot vertical, unless soils tests have been obtained to justify steeper slopes or adequate slope protection measures are provided. All fill areas shall be compacted to 95% relative compaction for the top 5 feet inside the roadway limits. All other fill areas shall be compacted to 95% relative compaction. All fill areas shall be stripped of vegetation prior to filling.

Section E: Planting

1. All cut or fill slopes shall be seeded and/or planted.

Section F: Curb and Gutter

1. Concrete curbs and gutters shall be required for all subdivisions with lots of less than 1 acre. Wheelchair ramps shall be provided on Type A curb (vertical face) at all returns. Asphalt curbs shall be required on any project which does not require concrete curbs.

GENERAL STREET REQUIREMENTS

Type of Street	Min. Radius Horizontal Curves (feet)	Min. Sight Distance Vertical Curves (feet*)	Min. Length Vertical Curves (feet*)
Over 500 lots served, or industrial	650	350	200
51 to 500 lots served	200	200	100
26 to 50 lots served	150	200	100
25 or less lots served	75	100	50

*sight distance controls over minimum length of vertical curve

GENERAL STREET REQUIREMENTS

TYPE OF STREET	MIN. RADIUS HORIZONTAL CURVES (Feet)	MIN. SIGHT DISTANCE VERTICAL CURVES (Feet)*	MIN. LENGTH VERTICAL CURVES (Feet)*	MAXIMUM GRADES (%)	MINIMUM GRADES (%)
OVER 500 LOTS SERVED OR INDUSTRIAL	650	350	200	8	0.4
51 TO 500 LOTS SERVED	200	200	100	12	0.4
26 TO 50 LOTS SERVED	150	200	100	15	0.4
25 OR LESS LOTS SERVED	75	100	50	15-20**	0.4

* SIGHT DISTANCE CONTROLS OVER MINIMUM LENGTH OF VERTICAL CURVE WHERE THERE IS A CONFLICT.

** 15% STREET SLOPE IS ALLOWED FOR UNLIMITED DISTANCE, 15 TO 17% STREET SLOPE IS ALLOWED FOR DISTANCE NOT EXCEEDING 500 FEET. 17 TO 20% STREET SLOPE IS ALLOWED FOR DISTANCE NOT EXCEEDING 200 FEET. STREET SLOPES MAY EXCEED 15% IN A SEGMENT NOT EXCEEDING 500 FEET IN LENGTH. STREET SLOPES IN SEGMENTS ADJACENT TO THAT IN WHICH THE STREET SLOPE EXCEEDS 15% SHALL BE 15% OR LESS, AND THESE SEGMENTS SHALL BE AT LEAST THE SAME LENGTH AS THE SEGMENTS IN WHICH THE STREET SLOPE EXCEEDS 15%. IN ANY 2000 FOOT LENGTH OF STREET, THE AVERAGE STREET SLOPE OVER THE ENTIRE 2000 FOOT LENGTH SHALL NOT EXCEED 16%.

ZONING OR USE	MIN. STREET WIDTH (FEET)	MIN. R.O.W. WIDTH (FEET)
COMMERCIAL 1 LANE & DIRECTION 2 LANES & DIRECTION***	36 60	50 70
INDUSTRIAL 1 LANE & DIRECTION 2 LANES & DIRECTION***	36 60	50 70
RESIDENTIAL COLLECTOR NON-COLLECTOR	48 36	60 50

*** NO ON-STREET PARKING IS ALLOWED IN COMMERCIAL AND INDUSTRIAL AREAS.
IF ON-STREET PARKING IS ALLOWED, DIMENSIONS ARE INCREASED BY 20'.

REV	DATE	REVISION DESCRIPTION			BY
CITY OF SCOTT'S VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS					
GENERAL STREET REQUIREMENTS					
APPROVED		 PUBLIC WORKS DIRECTOR			
DRAWN	400	CHECKED		SCALE NONE	
					ST-2

FLEXIBLE PAVEMENT SECTIONS

STRUCTURAL DESIGN TABLE

The following flexible pavement sections were calculated using Test Method No. Calif. 301-F procedures (1978) in which gravel equivalent $GE=0.0032 (T.I.)(100-R) = (.0384)(T.I.)(100-R)$.

AB $R \geq 78$
 ASB $R \geq 50$

TRAFFIC INDEX (T.I.)	PAVEMENT MATERIALS	PAVEMENT SECTIONS IN INCHES					
		SUBGRADE R-VALUES					
		5	10	15	20	25	30
4.5	AC	2 2 6	2 2 6	2 2 5.5	2 2 5.5	2 2 5	2 2 5
	AB	4 11 -	4 11 -	4 9 -	4 9 -	4 5 -	4 7 -
	ASB	7 - -	7 - -	6 - -	5 - -	4 - -	4 - -
5.0	AC	2 2 7.5	2 2 7	2 2 6	2 2 6	2 2 5.5	2 2 5.5
	AB	5 12 -	5 12 -	5 10 -	5 10 -	5 9 -	5 8 -
	ASB	8 - -	7 - -	6 - -	6 - -	4 - -	4 - -
5.5	AC	2 2 5.5	2 2 5	2 2 7.5	2 2 6.5	2 2 6.5	2 2 6
	AB	6 14 -	6 13 -	6 12 -	6 12 -	6 10 -	6 10 -
	ASB	9 - -	8 - -	7 - -	6 - -	5 - -	4 - -
6.0	AC	2.5 2.5 9	2.5 2.5 2.5	2.5 3.5 5	2.5 2.5 7.5	2.5 2.5 7	2.5 2.5 6.5
	AB	6 15 -	6 14 -	6 13 -	5 12 -	5 11 -	5 10 -
	ASB	10 - -	9 - -	8 - -	6 - -	5 - -	5 - -
6.5	AC	3 3 10.5	3.5 3.5 10	2.5 2.5 9	3.5 2.5 8	2.5 2.5 7.5	2.5 2.5 7
	AB	6 16 -	7 16 -	7 14 -	7 14 -	7 12 -	7 11 -
	ASB	11 - -	10 - -	8 - -	7 - -	6 - -	5 - -
7.0	AC	3 3 11	3 3 10.5	3 3 10	3 3 9	3 3 8.5	3 2.5 8
	AB	7 18 -	7 17 -	7 15 -	7 14 -	7 13 -	7 12 -
	ASB	12 - -	11 - -	9 - -	8 - -	7 - -	5 - -
7.5	AC	3.5 3.5 11.5	3.5 3.5 11	3.5 3.5 10.5	3.5 3.5 10	3.5 3.5 9.5	3.5 3.5 9
	AB	7 19 -	7 17 -	7 16 -	7 15 -	7 14 -	7 12 -
	ASB	13 - -	11 - -	10 - -	9 - -	7 - -	6 - -
8.0	AC	3.5 3.5 12	3.5 3.5 11.5	3.5 3.5 11	3.5 3.5 10.5	3.5 3.5 10	3.5 3.5 9.5
	AB	5 21 -	5 19 -	8 18 -	8 16 -	8 15 -	8 13 -
	ASB	14 - -	12 - -	11 - -	9 - -	8 - -	6 - -
8.5	AC	4 4 13	4 4 12	4 4 11.5	4 4 11.5	4 4 11	4 4 10
	AB	5 22 -	5 20 -	5 19 9	5 17 -	8 16 -	8 14 -
	ASB	15 - -	14 - -	12 - -	10 - -	5 - -	7 - -

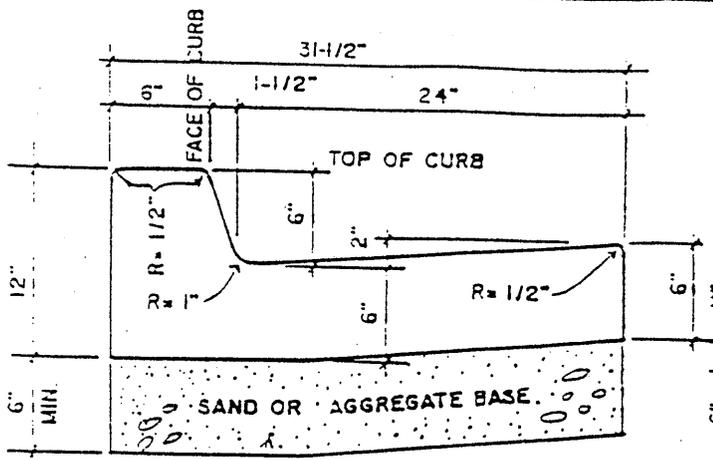
GENERAL GUIDELINES FOR DESIGN

Residential Streets with less than 10 dwelling units
 Residential Streets with 10-25 dwelling units
 Residential Streets with 26-50 dwelling units
 Residential Collector
 Residential Arterial
 Commercial
 Industrial
 Scotts Valley Drive & Mt. Herson Road

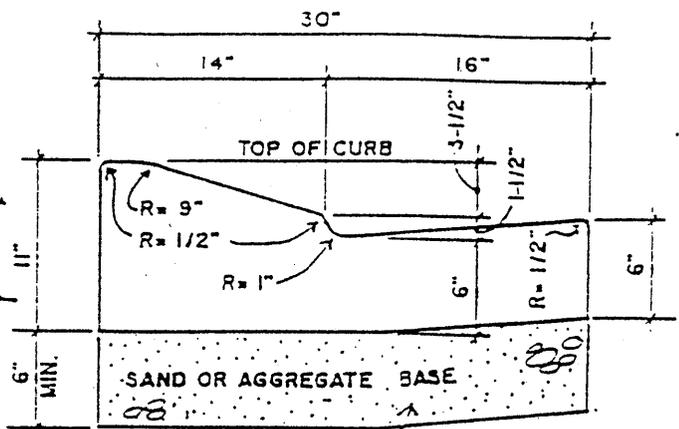
T.I. = 5.0
 T.I. = 5.5
 T.I. = 6.0
 T.I. = 6.5
 T.I. = 7.0
 T.I. = 7.5
 T.I. = 8.5
 T.I. = 9.0

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STRUCTURAL SECTION REQUIREMENTS			
		Approved <i>Robert D. ...</i> Date 5-19-89 Public Works Director	
DRAWN _____		ST-3	
CHECKED _____			
		SCALE: None	

708 JDE

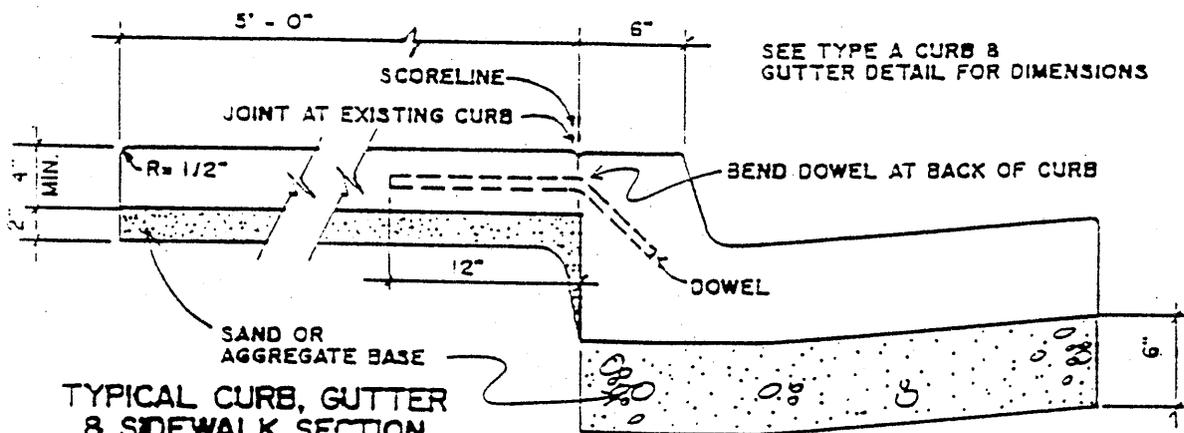


TYPE A CURB & GUTTER



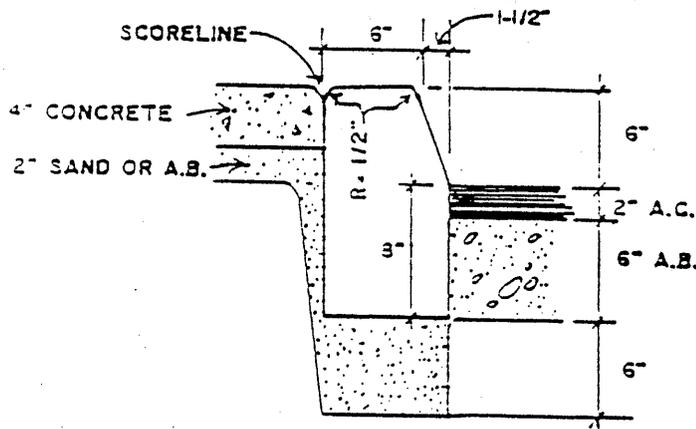
TYPE B CURB & GUTTER

COMPACT BASE MATERIAL TO 95% RELATIVE COMPACTION

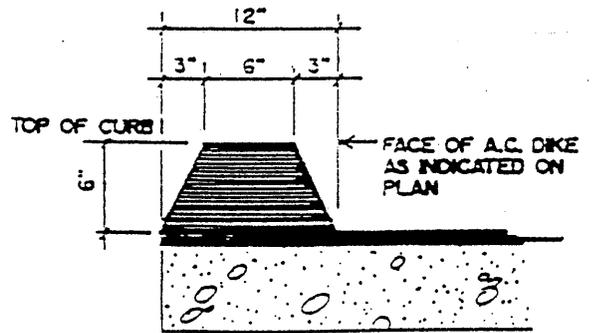


TYPICAL CURB, GUTTER & SIDEWALK SECTION

SEE TYPE A CURB & GUTTER DETAIL FOR DIMENSIONS



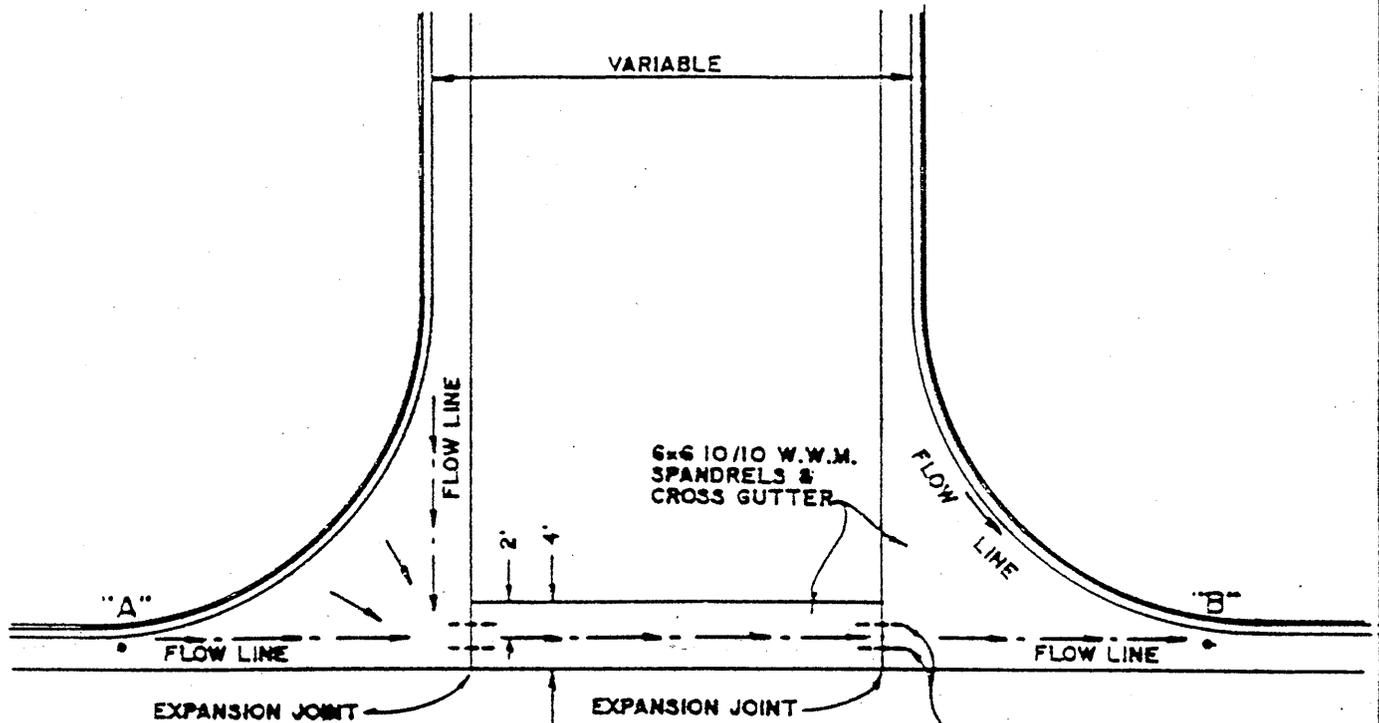
TYPE C CURB



A.C. DIKE

1. TYPE A, B & C CURB, GUTTER & SIDEWALK ARE TO BE CONSTRUCTED OF CLASS B CONCRETE, 6 SACK MINIMUM.
2. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 20' INTERVALS, AND AT THE ENDS OF RETURNS. EXPANSION JOINTS SHALL BE AT MAXIMUM 60 FEET SPACING.
3. TYPE B CURB TO BE USED ONLY TO CONFORM TO EXISTING TYPE B CURB OR FOR REPLACEMENT IN KIND. TYPE B CURB MAY NOT BE USED IN NEW CONSTRUCTION.
4. IF SIDEWALK IS NOT INSTALLED MONOLITHICALLY WITH CURB & GUTTER, PLACE 4 DOWELS 18" LONG AT 4' O.C. IN BACK OF CURB 2" DOWN FROM TOP OF CURB, 6" IN CONCRETE.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
CURB, GUTTER, SIDEWALK AND A.C. DIKE			
APPROVED _____			DATE _____
PUBLIC WORKS DIRECTOR			
DRAWN _____	_____	_____	_____
CHECKED VWL	SCALE NONE		ST-4



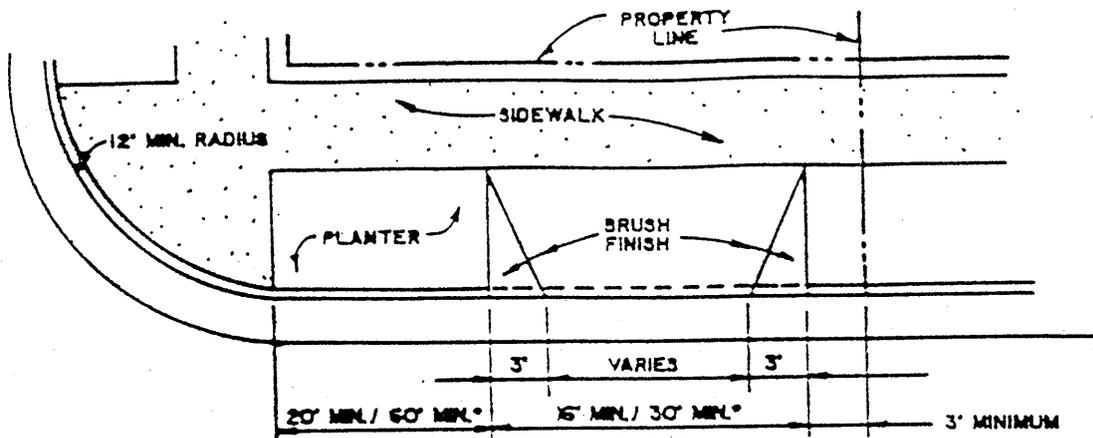
NOTE: TYPE A CURB & 6" THICK CLASS B P.C.C. SPANDRELS & CROSS GUTTER ON 6" CLASS 2 AGGREGATE BASE.

MAXIMUM DEPRESSION IN CROSS GUTTER AT FLOW LINE IS 1/2"

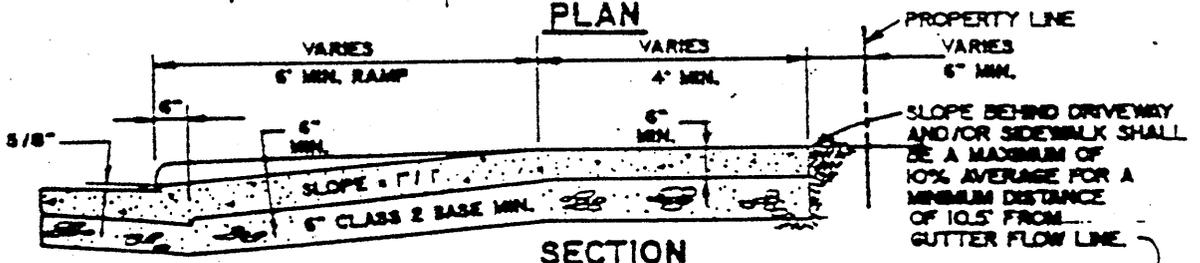
THIS DETAIL IS REQUIRED ONLY WHEN DROP INLETS ARE NOT PROVIDED AT THE RETURNS AT POSITION "A".

2- 24" x 5/8" STEEL DOWELS GREASED & WRAPPED TYPICAL EACH END OF CROSS GUTTER.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
CONCRETE CROSS GUTTER			
APPROVED <i>[Signature]</i>			DATE 5-12-89
PUBLIC WORKS DIRECTOR			
DRAWN <i>[Signature]</i>			ST-5
CHECKED <i>[Signature]</i>		SCALE NONE	

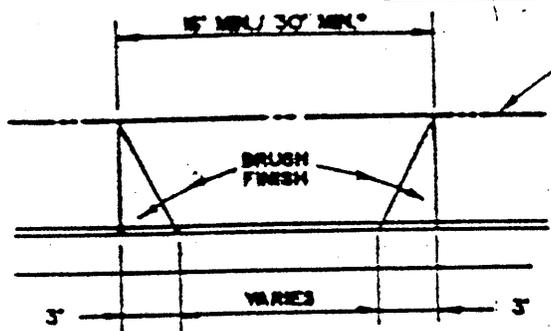


PLAN

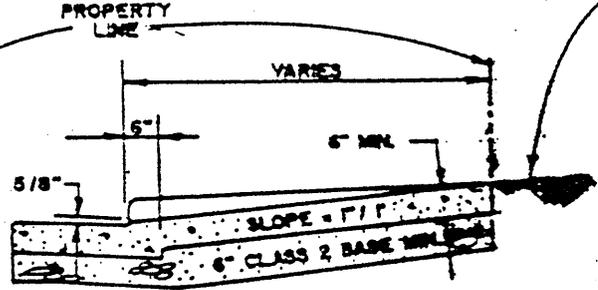


SECTION

TYPE "A" DRIVEWAY

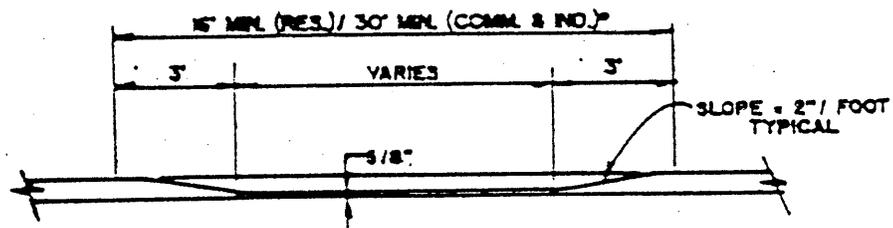


PLAN



SECTION

TYPE "B" DRIVEWAY

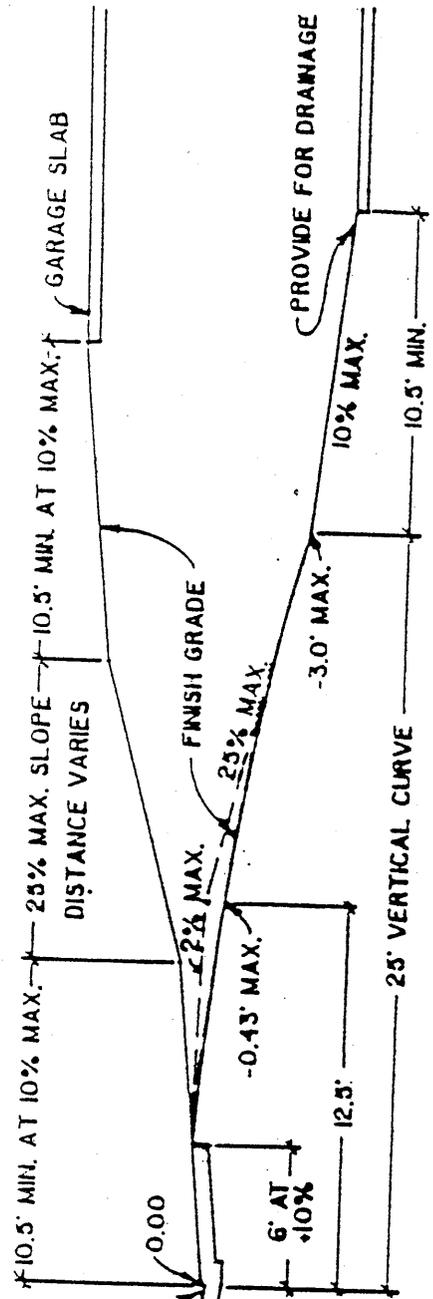


TYPICAL ELEVATION

NOTES:

- 1. ALL CONCRETE TO BE CLASS "3" CONCRETE.
- 2. ALL DIMENSIONS ARE TRUE, NOT NOMINAL.
- * RESIDENTIAL DIMENSION / COMMERCIAL & INDUSTRIAL DIMENSION, RESPECTIVELY.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
DRIVEWAY CURB DEPRESSION			
APPROVED		<i>[Signature]</i>	DATE 5-19-99
		PUBLIC WORKS DIRECTOR	
DRAWN	<i>[Signature]</i>		
CHECKED	VRL	SCALE	NONE
			ST-6

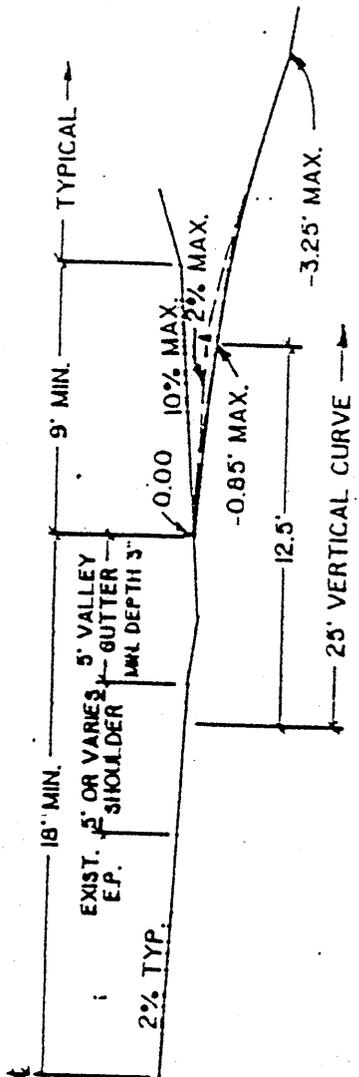


NOTE: CURB & GUTTER OR A.C. DKE TO BE REMOVED. REPLACE WITH TYPE B CURB SEE STD. DET. ST-6. EXIST. ROLLED CURB TO REMAIN.

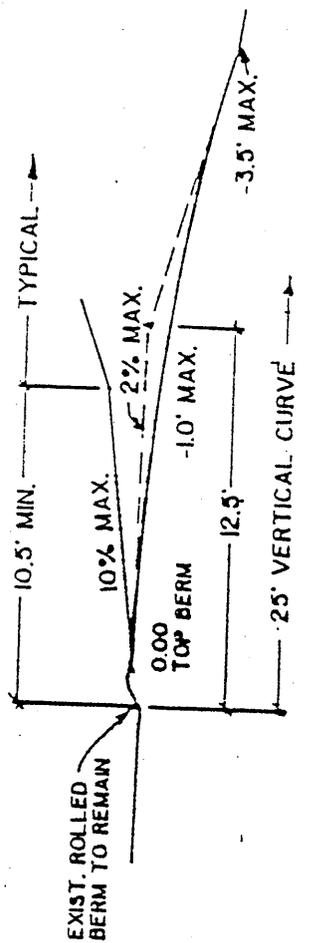
ROAD

NOTE: SHOW EXIST. GROUND ON PROFILES SUBMITTED FOR APPROVAL.
 4" CONCRETE ON 4" SAND OR 1 1/2" ASPHALT ON 5" CLASS 2 BASE ROCK FOR DRIVEWAYS BEYOND ROAD R.O.W.

DRIVEWAYS WITH EXIST. CURBS.

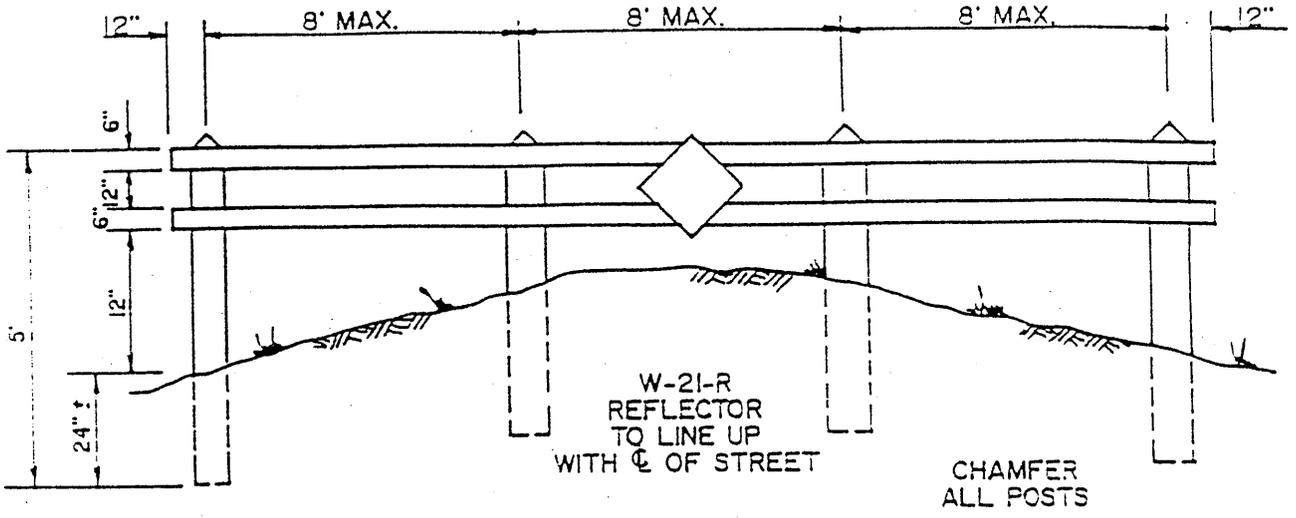


DRIVEWAYS WITH VALLEY GUTTERS



DRIVEWAYS WITH ROLLED CURBS

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
DRIVEWAY CENTERLINE PROFILES			
APPROVED: <i>[Signature]</i>			DATE: 5-19-99
PUBLIC WORKS DIRECTOR			
DRAWN: <i>[Signature]</i>	CHECKED: VWL	SCALE: NONE	ST-7



W-21-R REFLECTOR TO LINE UP WITH ϕ OF STREET

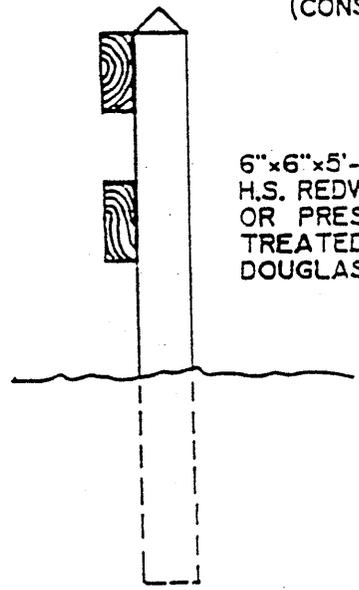
CHAMFER ALL POSTS

NOTES:

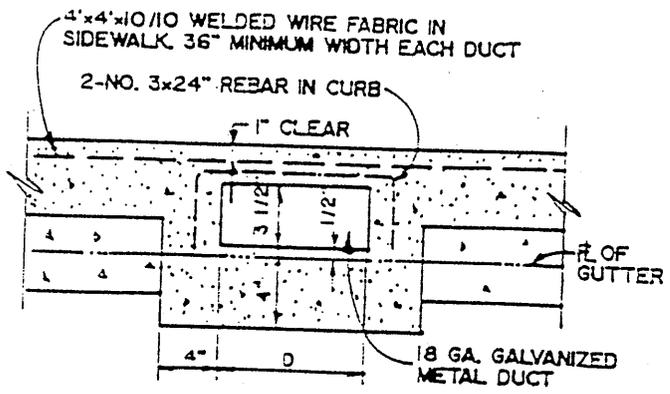
- POSTS ARE TO BE 6"x6"x5'-0" HEART STRUCTURAL REDWOOD, SQUARED 4 SIDES.
- TWO CROSS PLANKS ARE TO BE 2"x6" CONSTRUCTION DOUGLAS FIR.
- BARRICADE WILL BE 10' LESS THAN WIDTH OF PAVEMENT OR TRAVELLED WAY.
- ASSEMBLY IS TO BE PAINTED WITH TWO COATS OF WHITE PAINT.
- ASSEMBLY IS TO BE FASTENED TOGETHER WITH 20d NAILS, COMMON, GALVANIZED.
- W-21-R IS TO BE 18"x18" SIGN, WITH BAKED OR PORCELAIN ENAMEL TRAFFIC YELLOW BACKGROUND, AND WITH NINE 3" DIAMETER PLASTIC AMBER REFLECTOR BUTTONS; AND IS TO BE BOLTED ON THE CENTER OF THE BARRICADE AS SHOWN.

2"x6" DOUGLAS FIR (CONSTRUCTION)

6"x6"x5'-0" H.S. REDWOOD OR PRESSURE TREATED DOUGLAS FIR



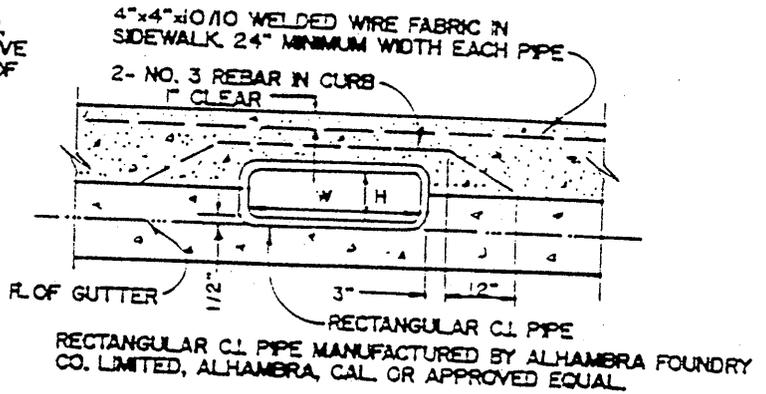
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS.			
ROAD BARRICADE			
APPROVED <i>[Signature]</i>			DATE 5-17-87
PUBLIC WORKS DIRECTOR			
DRAWN <i>[Signature]</i>			
CHECKED VWL		SCALE NCNE	
			ST-8



DIMENSION D	MAXIMUM CAPACITY
6"	0.57 C.F. PER SECOND
9"	0.94 C.F. PER SECOND
12"	1.29 C.F. PER SECOND

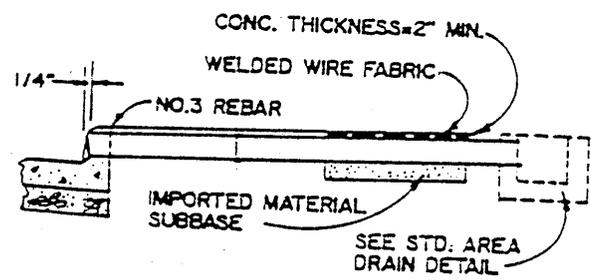
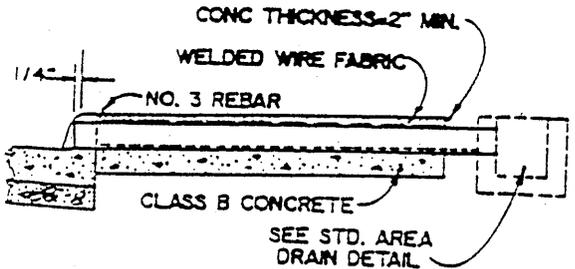
METAL DUCT SECTION

ALL PERSONS SETTING CURB DRAINS AFTER CURB, GUTTER & SIDEWALK HAVE BEEN POURED WILL HAVE TO SAWCUT C, G & S OUT AT LEAST 7" EACH SIDE OF PIPE & REPOUR SAME IN MONOLITHIC MANNER.



DIMENSION		MAXIMUM CAPACITY
H	W	
3	5	0.24 C.F. PER SECOND
4	6	0.31 C.F. PER SECOND
3	9	0.52 C.F. PER SECOND
3	12.5	0.78 C.F. PER SECOND
4	8.5	0.81 C.F. PER SECOND
4	14	1.51 C.F. PER SECOND

RECTANGULAR PIPE SECTION



TYPICAL METAL DUCT LONGITUDINAL SECTION

THE CONCRETE BASE AND COVER FOR METALLIC DUCT DRAINS SHALL EXTEND CONTINUOUSLY FROM PROPERTY LINE TO FACE OF CURB.

TYPICAL PLASTIC & C.I. RECTANGULAR PIPE LONGITUDINAL SECTION

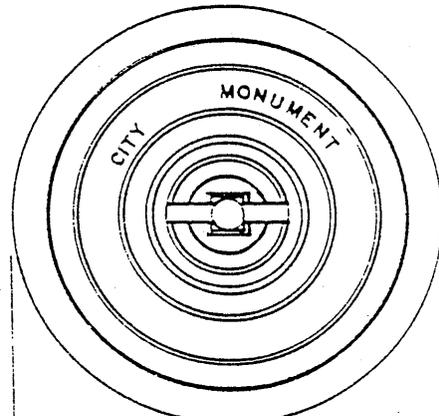
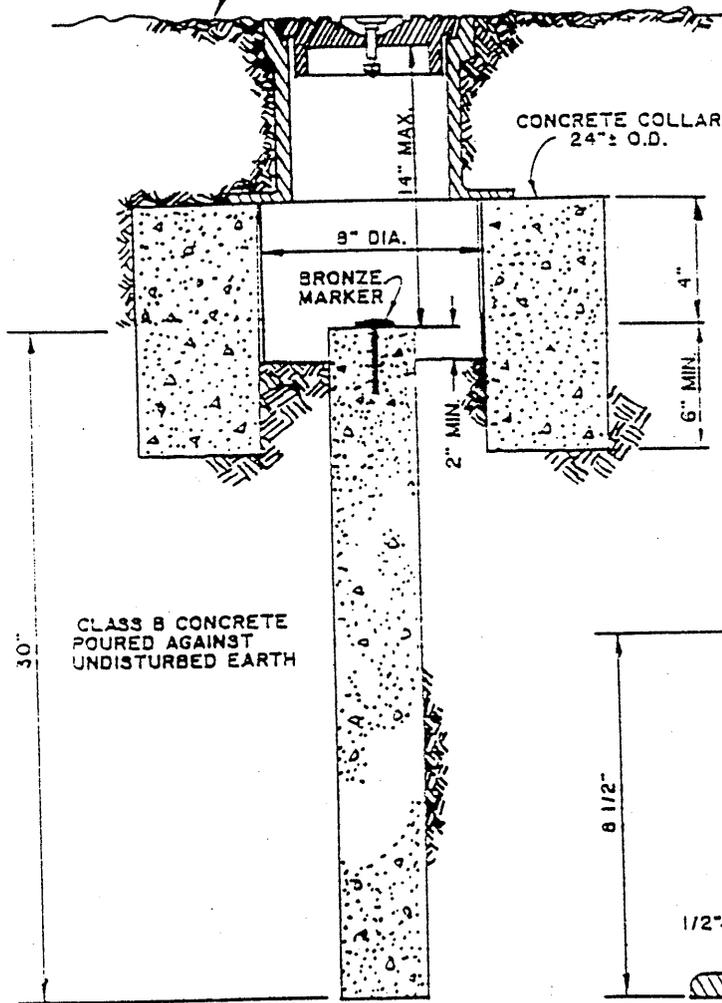
NO PIPE JOINTS SHALL BE MADE WITHIN THE SIDEWALK OR CURB.

NOTES:

- FOR GREATER CAPACITY ADDITIONAL ADJACENT DRAINS MAY BE INSTALLED WITH THE FOLLOWING LIMITATIONS
 - ADJACENT DRAINS SHALL BE OF ONE TYPE
 - MIN. WIDTH BETWEEN DRAINS SHALL BE 4"
- ALL CAPACITIES ARE BASED ON:
 - S = 1/4" TO 7" FLOWING FULL
 - N = 0.08 FOR RECT. DUCTS N = 0.009 FOR PLASTIC
- METAL DUCT FORM SHALL BE SUPPORTED FROM DISTORTION DURING POUR OF CONCRETE BY FILLING WITH SAND. TEMPORARY SUPPORT WEDGED IN PLACE OR OTHER SUITABLE MEANS.

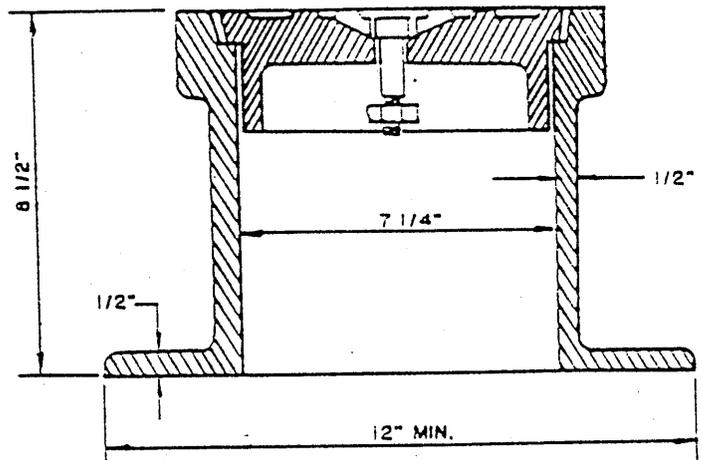
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
CURB DRAIN			
APPROVED		DATE 5-19-89	
PUBLIC WORKS DIRECTOR			
DRAWN		SCALE	NONE
CHECKED	VWL		
			ST-9

FINISHED GRADE

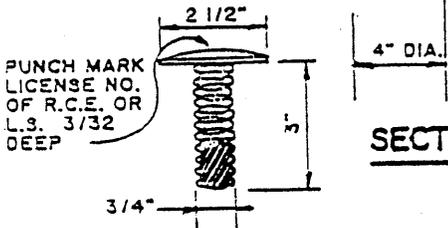


9 3/4"

PLAN



FRAME & COVER SECTION



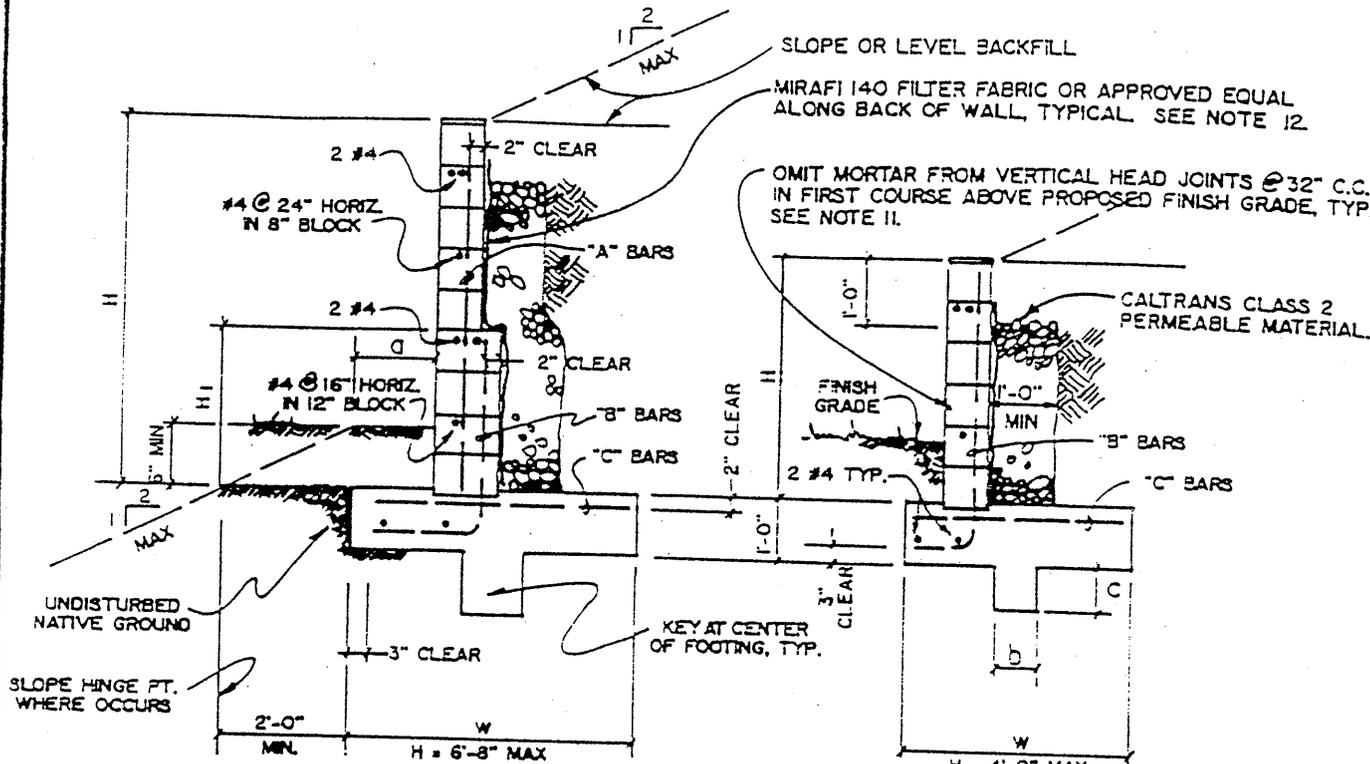
SECTION

BRONZE MARKER DETAIL

GENERAL NOTES:

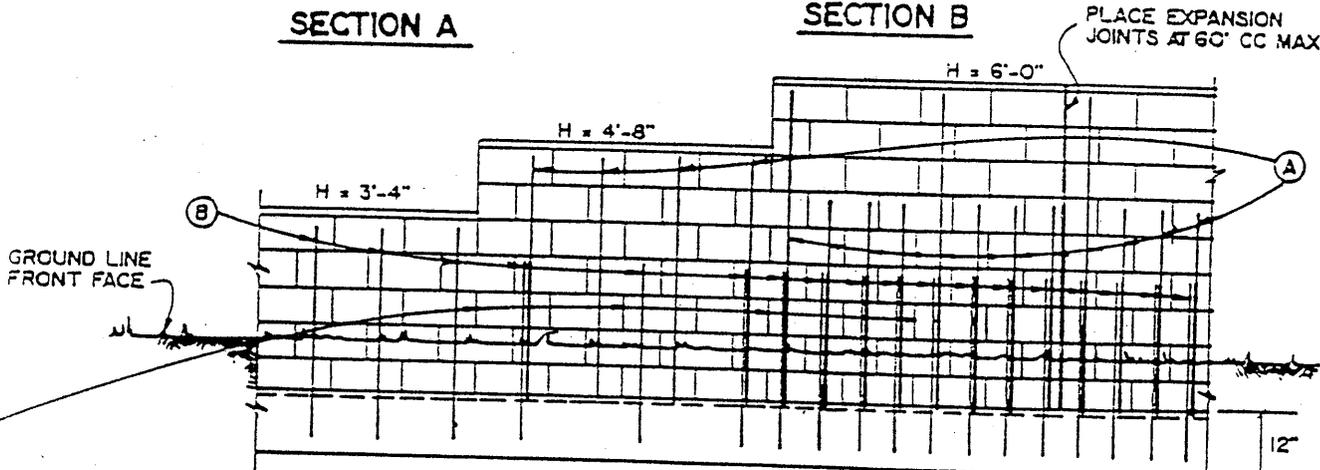
1. MONUMENT FRAME AND COVER SHALL BE GRAY CAST IRON, FREE OF BLISTERS, BLOWHOLES, WARPAGE, AND COLD SHUTS.
2. MONUMENT SHALL BE FURNISHED AND INSTALLED AS PER PLANS AND SECTION 81 OF THE STANDARD SPECIFICATIONS, COMPLETE WITH MARKER.
3. BEARING SURFACES OF FRAME AND COVER SHALL FIT WITH POSITIVE PRESSURE ON ALL SURFACES AND SHALL BE NON-ROCKING.
4. ALL CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH CLASS "B" OF THE STANDARD SPECIFICATIONS.
5. RING AND COVER SHALL BE CAST IRON-PHCENIX IRON WORKS CAT. NO. P-2001, OR APPROVED EQUAL.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
SURVEY MONUMENT			
APPROVED		<i>[Signature]</i>	DATE 5-19-89
		PUBLIC WORKS DIRECTOR	
DRAWN <i>[Signature]</i>			
CHECKED VWL		SCALE NONE	ST-10

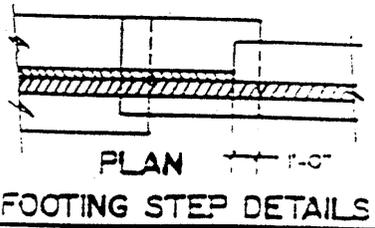
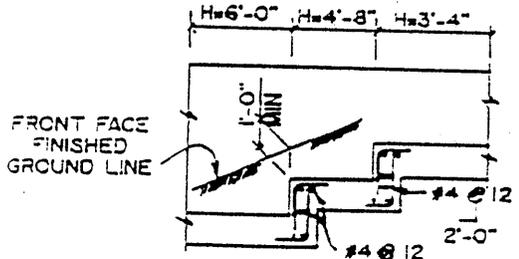


SECTION A

SECTION B



OMIT MORTAR FROM VERTICAL JOINT IN FIRST COURSE ABOVE PROPOSED GROUND LINE AT 32" CENTERS FOR WEEP HOLES. FILL ALL CELLS WITH CONCRETE ①



ELEVATION

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
MASONRY RETAINING WALL			
APPROVED	<i>[Signature]</i>		DATE 5-19-87
PUBLIC WORKS DIRECTOR			
DRAWN	VWL		
CHECKED	MMM	SCALE NONE	ST-11a

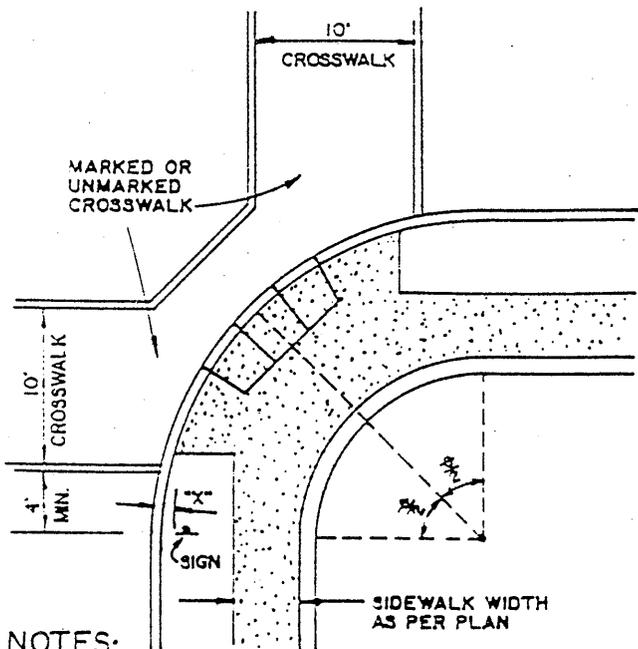
RETAINING WALL SCHEDULE

SECT.	H	H ₁	W	a	b	c	"A" BARS	"B" BARS	"C" BARS
A	6'-8"	2'-8"	4'-8"	1'-4"	1'-6"	1'-9"	#4 @ 8"	#6 @ 8"	#5 @ 24"
A	6'-0"	2'-0"	4'-4"	1'-4"	1'-3"	1'-6"	#4 @ 8"	#4 @ 8"	#4 @ 24"
A	5'-4"	2'-0"	4'-0"	1'-0"	1'-0"	1'-3"	#4 @ 32"	#4 @ 16"	#4 @ 24"
A	4'-8"	2'-0"	3'-8"	8"	1'-0"	1'-0"	#3 @ 16"	#4 @ 24"	#4 @ 24"
B	4'-0"	-	3'-4"	8"	8"	8"	-	#4 @ 8"	#3 @ 16"
B	3'-4"	-	2'-10"	8"	8"	8"	-	#3 @ 16"	#3 @ 16"
B	2'-8"	-	2'-6"	8"	6"	6"	-	#3 @ 16"	#3 @ 16"
B	2'-0"	-	2'-0"	8"	6"	6"	-	#3 @ 16"	#3 @ 16"

NOTES :

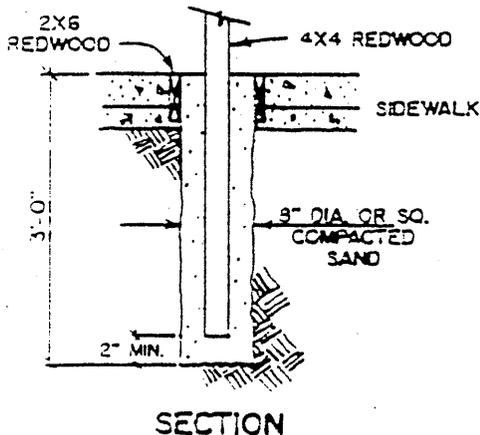
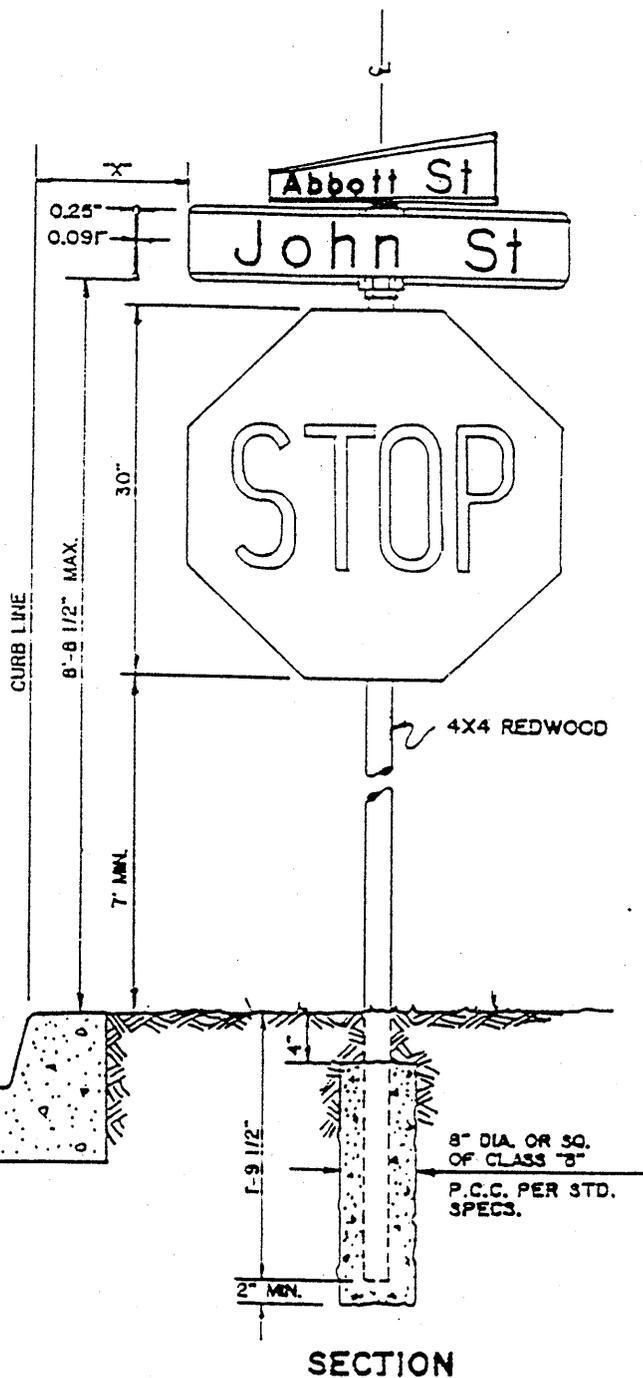
1. #4 @ 32" MAY BE USED INSTEAD OF #3 @ 16" HERE ONLY.
2. ALL VERTICAL BARS MAY BE TERMINATED AT 2' FROM TOP OF WALL IF THE UPPER 2' OF THE WALL IS REINFORCED WITH #3 @ 16" OR #4 @ 32" DOWELED INTO LOWER PORTION OF WALL 20" OR 26" RESPECTIVELY.
3. FOOTING CONCRETE SHALL BE CALTRANS CLASS "A", 6 SACK MIX.
4. REINFORCEMENT SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 40.
5. HOLLOW CONCRETE MASONRY UNITS SHALL BE GRADE "N" UNITS CONFORMING TO ASTM C-90. STYLE OF BLOCK (ie, SLUMPED, SPLIT FACE, ETC.) IS OPTIONAL.
6. MORTAR SHALL BE TYPE M OR S CONFORMING TO UBC TABLE 24-A.
7. ALL CELLS SHALL BE GROUTED SOLID WITH GROUT CONFORMING TO UBC TABLE 24-B.
8. ALL WORK SHALL BE IN CONFORMANCE WITH APPLICABLE REQUIREMENTS OF CHAPTER 24 "MASONRY" OF THE UBC, LATEST EDITION.
9. SAFETY HANDRAIL OR GUARD RAIL NOT SHOWN AT TOP OF WALL MAY BE REQUIRED AND IS RESPONSIBILITY OF BUILDER.
10. DESIGN DATA : E.F.P. = 35 PCF, LEVEL ; E.F.P. = 50 PCF, SLOPED ; Q_u = 2000 PSF ; PASSIVE PRESSURE = 200 PCF ; $\mu = 0.35$
11. ALTERNATE DRAINAGE MAY BE PROVIDED BY 2" ϕ WEEPS AT 4' C.C. SET 2" ABOVE FRONT FACE GROUND LINE OR BY 4" ϕ PERFORATED DRAIN PIPE IN BOTTOM OF ROCK POCKET AND SLOPED TO DAYLIGHT WITH APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS.
12. WITH THE WRITTEN APPROVAL OF A GEOTECHNICAL ENGINEER, THE PERMEABLE MATERIAL BACKFILL MAY BE REPLACED WITH MIRARAIN (PREFABRICATED DRAINAGE STRUCTURE), OR APPROVED EQUAL, BACKED WITH A MINIMUM 4-INCH THICK SAND BLANKET.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
MASONRY RETAINING WALL SCHEDULE			
APPROVED		DATE 5-19-89	
PUBLIC WORKS DIRECTOR			
DRAWN	JWD	SCALE	NONE
CHECKED	MM	ST-11b	

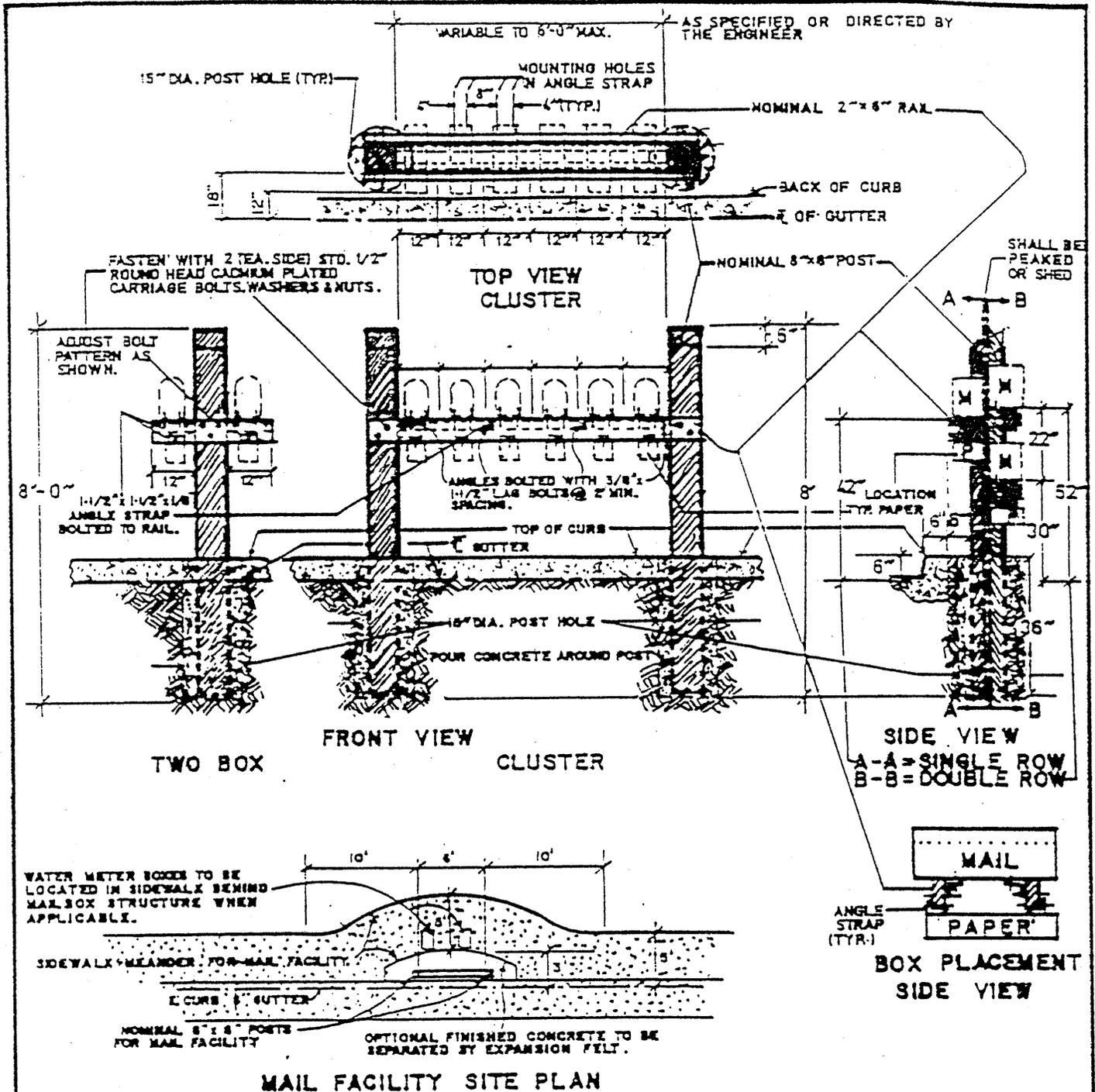


NOTES:

1. STREET NAME SIGNS SHALL BE HAMMONS AND HAMMONS STANDARD MODEL 4 - PLATE ASSEMBLY OR EQUAL.
2. SIGN FINISH SHALL BE ENGINEER GRADE INTERSTATE GREEN BACKGROUND WITH WHITE LETTERS.
3. DIMENSION "X" SHALL BE SUCH THAT THE MINIMUM CLEARANCE BETWEEN CURB LINE AND THE FURTHEST PROTRUSION OF THE SIGNS TOWARD THE STREET SHALL BE NOT LESS THAN 12" INCHES.
4. STREET NAME LETTERS SHALL BE 5" UPPER CASE 3 3/4" LOWER CASE.



REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STREET NAME / STOP SIGN			
APPROVED <i>[Signature]</i>		DATE 5-19-89	
PUBLIC WORKS DIRECTOR			
DRAWN <i>[Signature]</i>		SCALE NONE	
CHECKED VWL		ST-12	



NOTES:

1. FOR INSTALLATION ON STEEP SLOPES, HOLD TOP OF POSTS AND RAIL LEVEL AND POSTS PLUMB. SET CENTER OF RAIL AT SPECIFIED HEIGHT.
2. POSTS SHALL BE UNTREATED REDWOOD, ROUGH-SAWN HEART.
3. FOR DOUBLE ROW OF BOXES (PER SIDE VIEW, B-B ABOVE) SET RAILS TO ABOVE DIMENSIONS AS PER POST OFFICE REQUIREMENTS, 30.
4. UNLESS OTHERWISE DIRECTED, MAILBOX STANDS SHALL NOT BE PLACED OVER WATER METER BOXES.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
CURBSIDE MAILBOX FACILITY			
APPROVED		DATE 2-19-20	
PUBLIC WORKS DIRECTOR			
DRAWN	JMB		
CHECKED	J.S.	SCALE	NONE
			ST-13

PART 3. STORM DRAINAGE

SECTION A: ITEMS REQUIRED TO BE SUBMITTED WITH IMPROVEMENT PLANS

1. Topographic maps showing the boundaries of the drainage area used for design.
2. Design computations for:
 - a. Hydrology (design flows)
 - b. Hydraulic (channel, structure and pipe sizings)
 - c. Hydraulic gradients (for proposed structures or systems)

SECTION B: ASCE MANUAL OF ENGINEERING PRACTICE NO. 37 DESIGN AND CONSTRUCTION OF SANITARY AND STORM SEWERS

1. The design of storm drainage facilities shall conform to the practices and methods set forth in ASCE Manual of Engineering Practice No. 37.
2. Requirements set forth in this design criteria shall prevail over those set forth in ASCE Manual of Engineering Practice No. 37.

SECTION C: HYDROLOGY - MINIMUM DESIGN REQUIREMENTS

1. Minimum return periods. (Design storm)
 - a. Off-stream facilities and structures 10 year
 - b. In-stream facilities and structures 100 year
2. Storm water run-off shall be calculated by the Rational Method ($Q=CIA$).
3. Run-off coefficients to be used are given in Table 3-1 and shall be based on the probable future land use. Future land use shall be determined by the Planning Director.

Table 3-1

<u>Type of Area</u>	<u>Run-Off Coefficients</u>
Rural, park, forested, agricultural.....	.20 - .30
Low residential (single family dwellings).....	.40 - .50
High residential (multi-family dwellings).....	.55
Business and commercial.....	.80
Industrial.....	.70
Impervious.....	.90

4. Rainfall intensity shall be determined by using intensity of 1.8 inches per hour and duration curves given in Figure SD-5.
5. Minimum time of concentration used for intensity calculations shall be 10 minutes to the first inlet or culvert entrance.

SECTION D: HYDRAULIC REQUIREMENTS

1. Generally, Mannings Equation shall be used to determine flows in pipes or channels. Values for Mannings Roughness Coefficient (n) shall be as shown in Table 3-2.

Table 3-2

<u>Type of Conduit or Channel</u>	<u>Roughness Coefficients</u>
Concrete gutters.....	.015
Corrugated metal pipe.....	.024
Reinforced concrete pipe 12" to 21".....	.015
Reinforced concrete pipe 24" to 33".....	.013
Asbestos cement pipe.....	.011
Lined channels	
Concrete.....	.014
Air blown mortar.....	.016
Bituminous.....	.018
Sacked concrete.....	.025

2. Available head, governed by the permissible limits of upstream ponding, may be used at the culvert entrance.

Entrance slope protection shall be provided to prevent scour when utilizing available head.

3. The design of drainage pipe systems shall allow for a minimum freeboard of 0.75 feet between the top of inlet grade or manhole cover and the design water surface elevation.
4. Minimum velocity at design flow shall be 2 Fps.
5. Gutter flow shall not exceed 4 ½ inches in depth.

SECTION E. STORM DRAINAGE FACILITIES

1. General
 - a. Concrete valley gutters will not be permitted across collector streets.
2. Pipe Systems
 - a. Minimum pipe size - 15 inches
 - b. Maximum spacing of access openings - 500 feet
 - c. Access openings shall be provided at all horizontal angle points and changes in grade.
3. Curves will be allowed in pipe systems only when pipe diameter is 36 inches or larger.
4. Culverts
 - a. Minimum pipe size - 18 inches for road culverts
 - b. Minimum pipe size - 15 inches for driveway culverts
5. Energy dissipaters and/or adequate slope protection shall be required for outlets which discharge at velocities greater than 10 feet per second, or when required by the City Public Works Department.
6. Ditches shall be lined if velocities exceed those given in Table 3-3.

Table 3-3

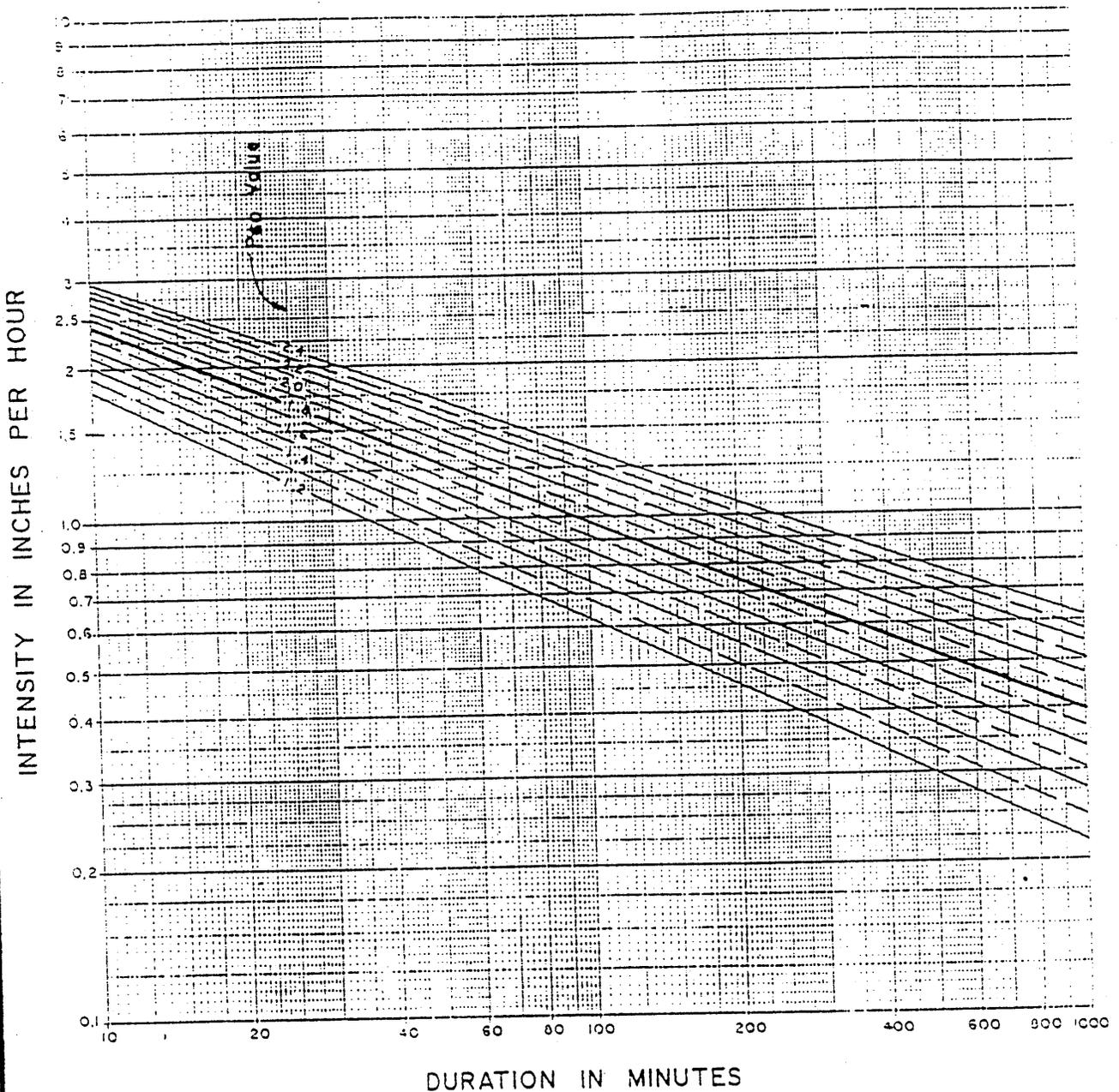
<u>Type of Material in Excavation Section</u>	<u>Roughness Coefficients</u>
Fine sand (noncolloidal).....	2.5
Sandy loam (noncolloidal).....	2.5
Silt loam (noncolloidal).....	3.0
Fine loam.....	3.5
Volcanic ash.....	4.0
Fine gravel.....	5.0
Stiff clay (colloidal).....	6.0
Graded material (noncolloidal)	
Loam to gravel.....	6.5
Silt to gravel.....	7.0
Gravel.....	7.5
Coarse gravel.....	8.0
Gravel to cobbles (under 6 inches).....	9.0
Gravel and cobbles (over 8 inches).....	10.0

SECTION F: RIGHT-OF-WAY AND EASEMENT DEDICATIONS

1. The minimum width of right-of-way or easement to be dedicated for watercourses shall be:

- | | | |
|----|-----------------------------------|---------------------|
| a. | Conduits up to 24 inches diameter | 10 feet |
| b. | Conduits over 24 inches diameter | O.D. + 8 feet |
| c. | Earth channels | Top width + 18 feet |
| d. | Lined channels | Top width + 12 feet |

RAINFALL INTENSITY DURATION CURVE
10 YEAR RETURN PERIOD

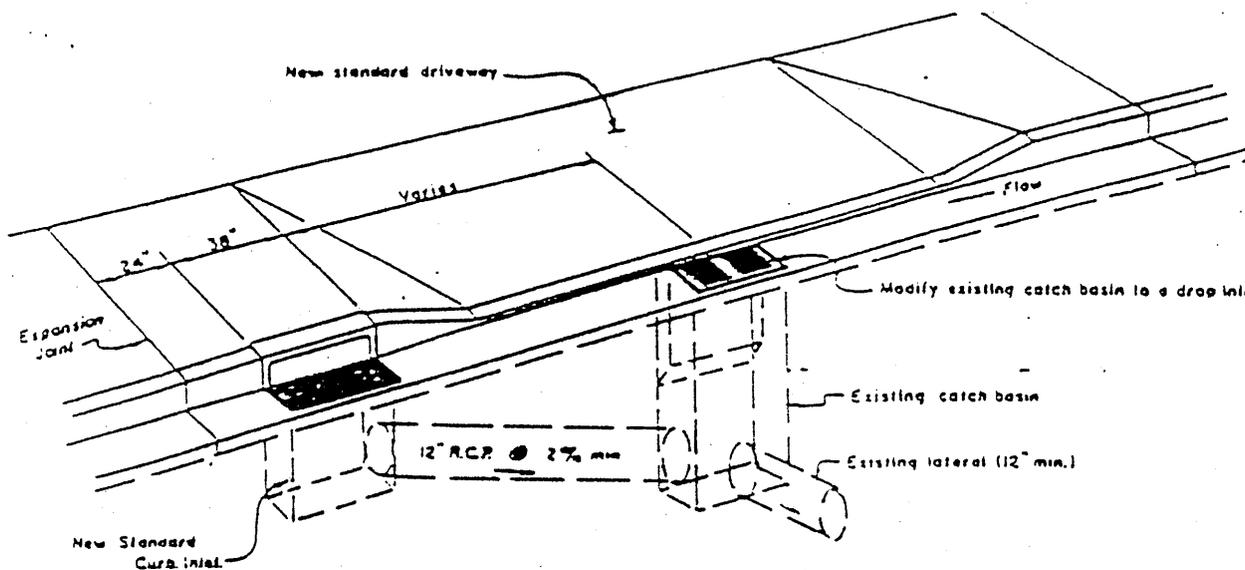


TO CONVERT CURVE INTENSITIES TO RETURN PERIODS OTHER THAN 10 YEARS MULTIPLY CURVE INTENSITIES BY THE FOLLOWING FACTORS.

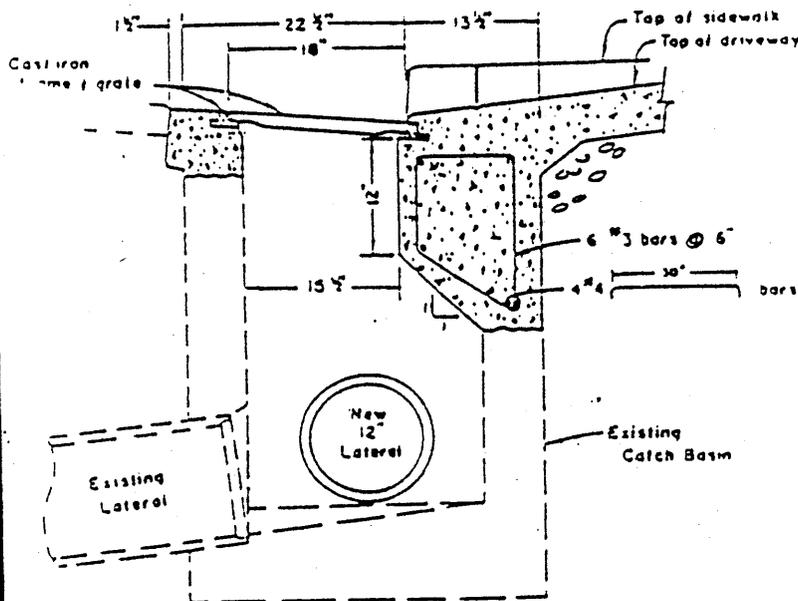
RETURN PERIOD	FACTORS
5 YEARS	0.84
15 YEARS	1.09
25 YEARS	1.20
50 YEARS	1.34
100 YEARS	1.49

NOTE: SCOTTS VALLEY P₅₀ = 4.8 IN./HR.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
RAINFALL INTENSITY DURATION			
APPROVED	<i>[Signature]</i>		DATE 5-19-87
PUBLIC WORKS DIRECTOR			
DRAWN	<i>[Signature]</i>		
CHECKED	VWL	SCALE	NONE
			SD-5

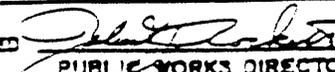


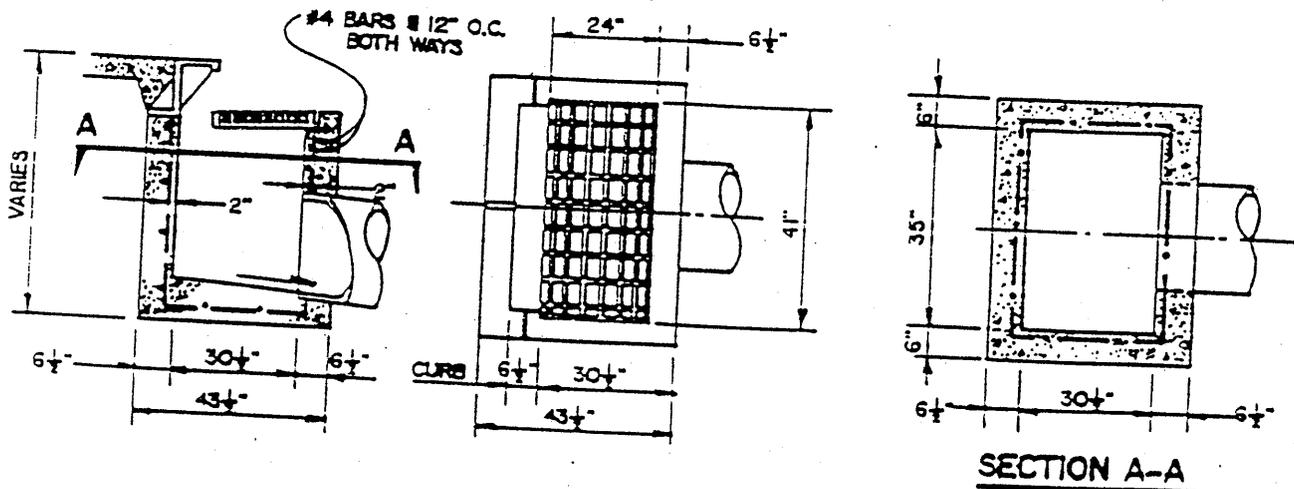
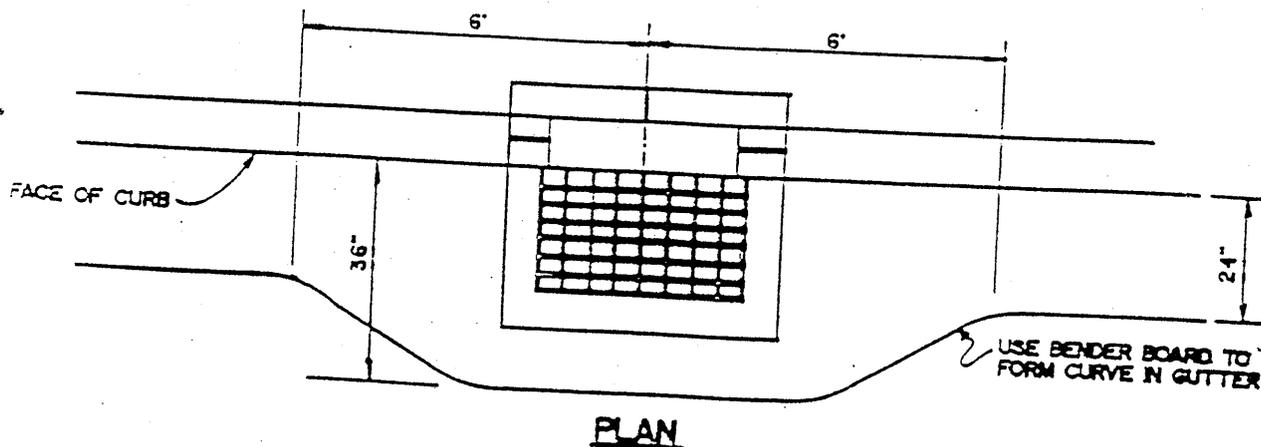
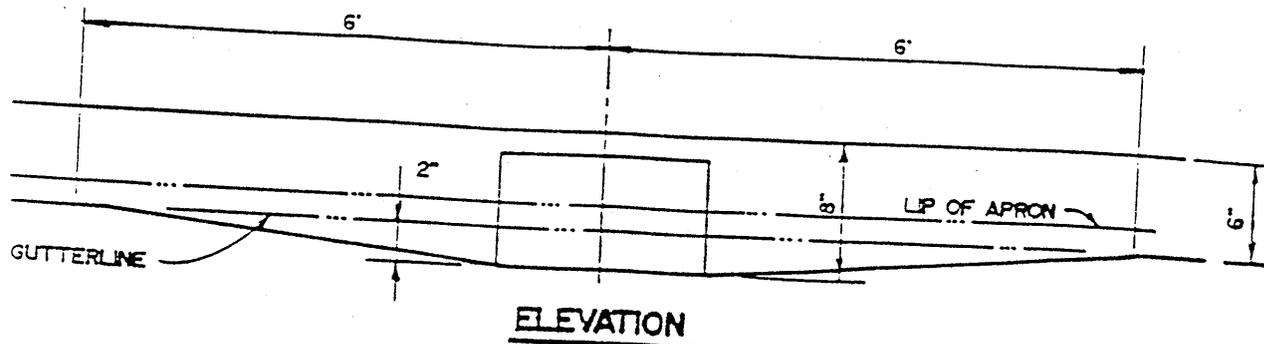
VIEW SHOWING CONNECTION & LOCATION
OF CATCH BASINS.



SECTION OF MODIFIED CATCH BASIN

1. THIS METHOD OF CONNECTING A NEW CURB INLET IS TO BE USED ONLY IF THE EXISTING CATCH BASIN AND LATERAL ARE IN GOOD CONDITION AND THE LATERAL IS AT LEAST 12" I.D., OTHERWISE THE EXISTING CATCH BASIN SHALL BE REMOVED OR FILLED IN AND A NEW LATERAL INSTALLED FROM THE NEW CURB INLET TO THE NEAREST MANHOLE.
2. CONSTRUCT NEW CURB INLET ON THE DOWNSTREAM SIDE OF NEW DRIVEWAY OR SHORTEST UPSTREAM SIDE OF DRIVEWAY IF ORIGINAL CATCH BASIN IS CONSTRUCTED AT A LOW POINT.
3. FRAME AND GRATE FOR MODIFIED DROP INLET SHALL BE EQUAL TO PHOENIX IRON WORKS NO. P-4203 ON 24" X 36" CATCH BASINS. USE EXISTING GRATE AND FRAME WHEN MODIFYING 24" X 36" CATCH BASIN.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
ADAPTATION FOR EXIST. C. B. IN NEW DRIVEWAY			
APPROVED	 PUBLIC WORKS DIRECTOR		DATE 5-17-89
DRAWN	MSE	SCALE	1" = 10'
CHECKED	VWL	SCALE	1" = 10'
			SD-6

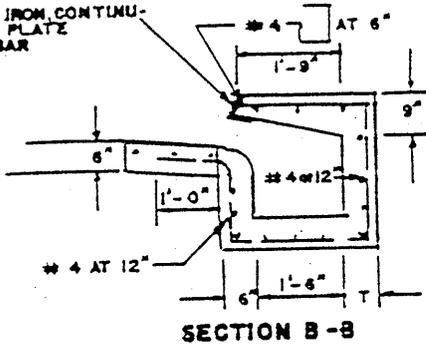


NOTES :

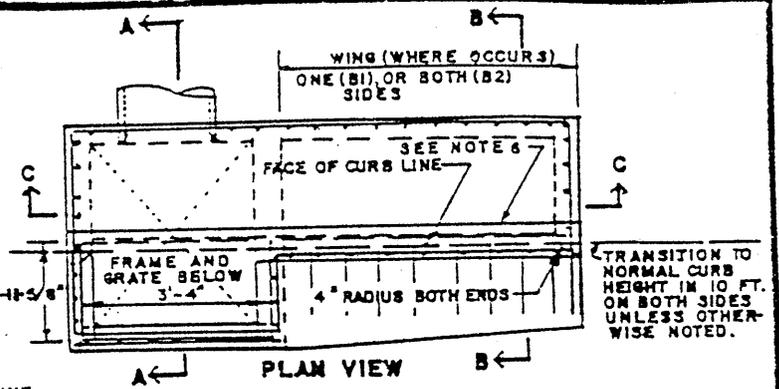
1. REAR OPENING HOOD TO BE PHOENIX IRON WORKS CAT. No. P-6003 OR APPROVED EQUAL.
2. FRAME & GRATE TO CONFORM TO SD-8.
3. GUTTER FLOWLINE SHALL DROP 2" MINIMUM FROM 6' ON EACH SIDE OF CATCH BASIN.
4. CONCRETE SHALL BE CLASS "A", 6 SACK MINIMUM.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
DROP INLET WITH APRON			
APPROVED		DATE 5-12-97	
PUBLIC WORKS DIRECTOR			
DRAWN		SCALE NONE	
CHECKED		SD-7	

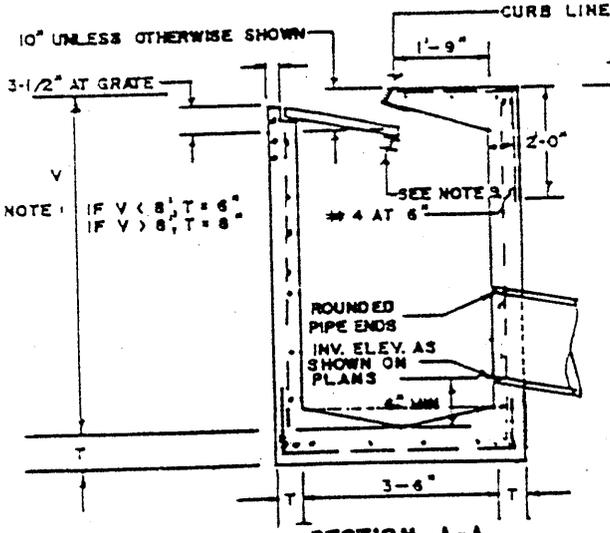
GALV. 3" x 1/4" L. IRON CONTINUOUS VERTICAL PLATE WELDED TO REBAR



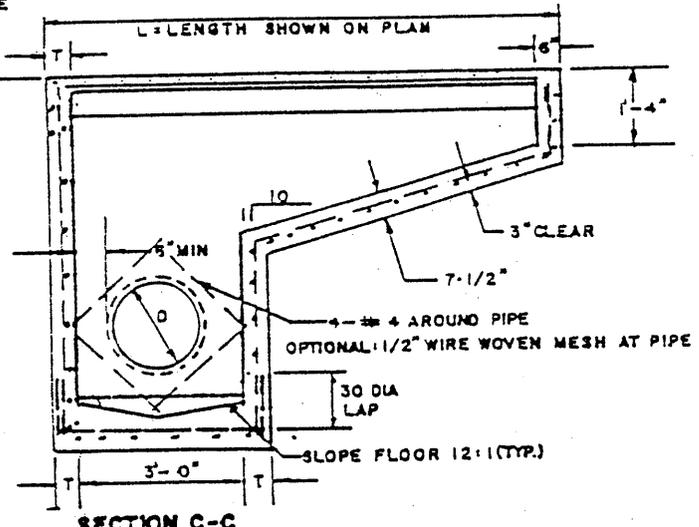
SECTION B-B



PLAN VIEW



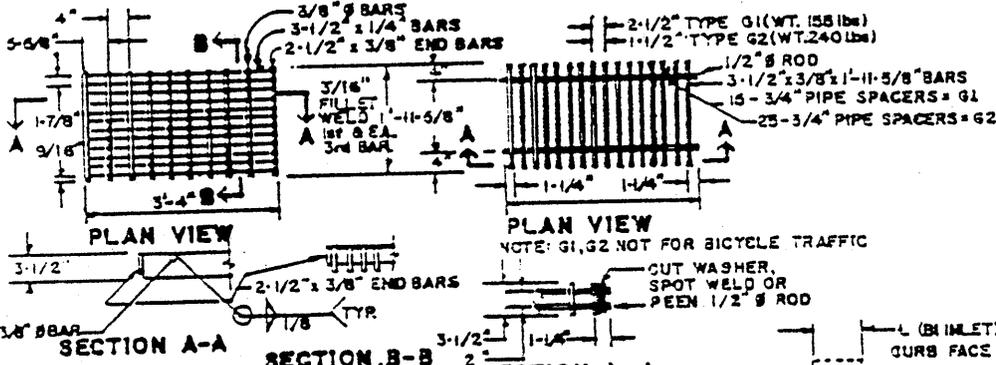
SECTION A-A



SECTION C-C

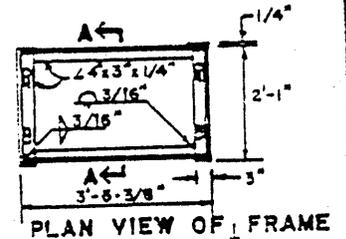
WINGED CURB INLET-TYPE B
&
COMPONENTS

WELDED STEEL GRATE FRAME



PLAN VIEW

PLAN VIEW

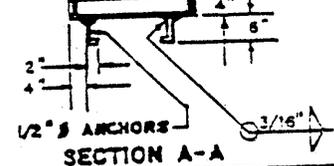


PLAN VIEW OF FRAME

SECTION A-A

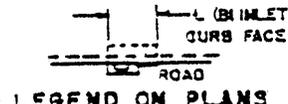
SECTION B-B

SECTION A-A



SECTION A-A

DRAINAGE STRUCTURE GRATES
TYPE G3
TYPE G1-G2

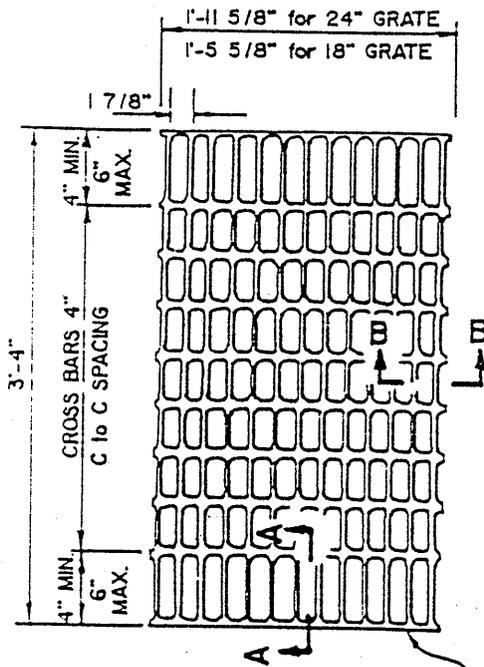


LEGEND ON PLANS

- INLET:**
1. TYPES: 0=NO WING, 1=1 WING, 2=2 WINGS.
 2. WHERE INLET IS CONSTRUCTED ON GRADE A STD. OWG. SD-7 CONCRETE APRON IS REQUIRED. LIFT DOWN-GRADE END OF GRATE.
 3. MAINTAIN 1-1/2" MIN. CLEAR SPACING BETWEEN REINFORCING AND SURFACE UNLESS OTHERWISE NOTED.
 4. SURFACE OF TOP SLAB SHALL BE SIDEWALK FINISHED TO DRAIN TOWARD STREET AT A SLOPE OF 1/4" PER FOOT.
 5. EXPOSED EDGES OF CONCRETE SHALL BE ROUNDED WITH A RADIUS OF A 1/2" INCH.
 6. PROVIDE 1/4" TOOLED GROOVE IN TOP SLAB IN LINE WITH BACK OF ADJACENT CURB.
 7. AN EXPANSION JOINT SHALL BE PLACED AT THE INLET ENDS, WHERE THE CURB IS TO ADJOIN.
 8. CONCRETE GUTTER SHALL MATCH ADJACENT GUTTER.
 9. WHEN GRATES G1 & G2 ARE USED, PLACE 3"-5.7 lb. STEEL BEAM, 3.5' LONG.

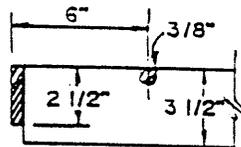
- GRATES:**
1. HOT DIP GALVANIZE ALL PARTS AFTER FABRICATION.
 2. DIMENSIONS TO CENTERLINE OF BARS UNLESS OTHERWISE NOTED.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
WINGED CURB INLET-TYPE B AND COMPONENTS			
APPROVED: <i>Robert Cabot</i>			DATE: 4/27/90
PUBLIC WORKS DIRECTOR			
DRAWN BY: BUCKLEY			SCALE: NONE
			SD-7.1

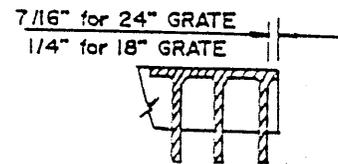


NOTE:

- BEARING BARS TO BE 3 1/2" x 1/4" BARS ON 1 7/8" CENTERS.
- 3/8" CROSS BARS MAY BE FILLET WELDED OR ELECTROFORGED TO BEARING BARS.
- WEIGHT OF 24" GRATE = 141 LBS.
- WEIGHT OF 18" GRATE = 107 LBS.
- (TYPE 24 GRATE SHOWN)
- FRAME AND GRATE TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.



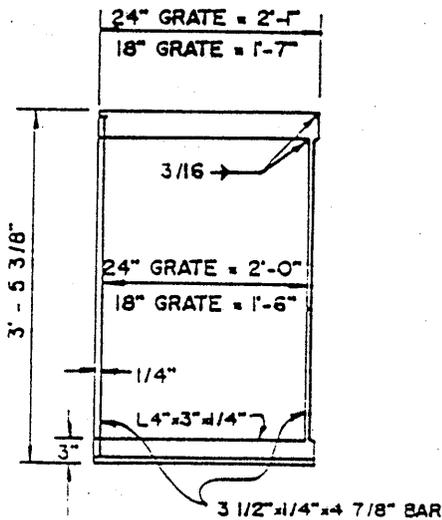
SECTION A-A



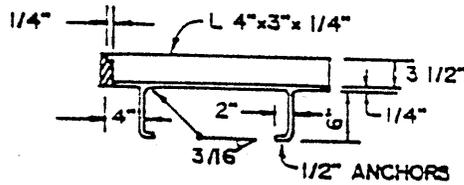
SECTION B-B

3/16" FILLET WELD FULL DEPTH EACH SIDE ON OUTSIDE BEARING BARS AND ON EVERY THIRD INTERVAL BEARING BAR

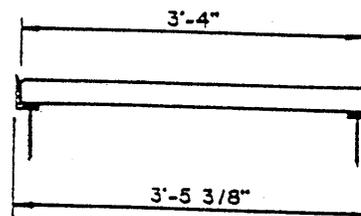
TYPE 18-10 & 24-13 GRATE (WELDED STEEL)



TYPICAL FRAME



CROSS SECTION (THRU FRAME)



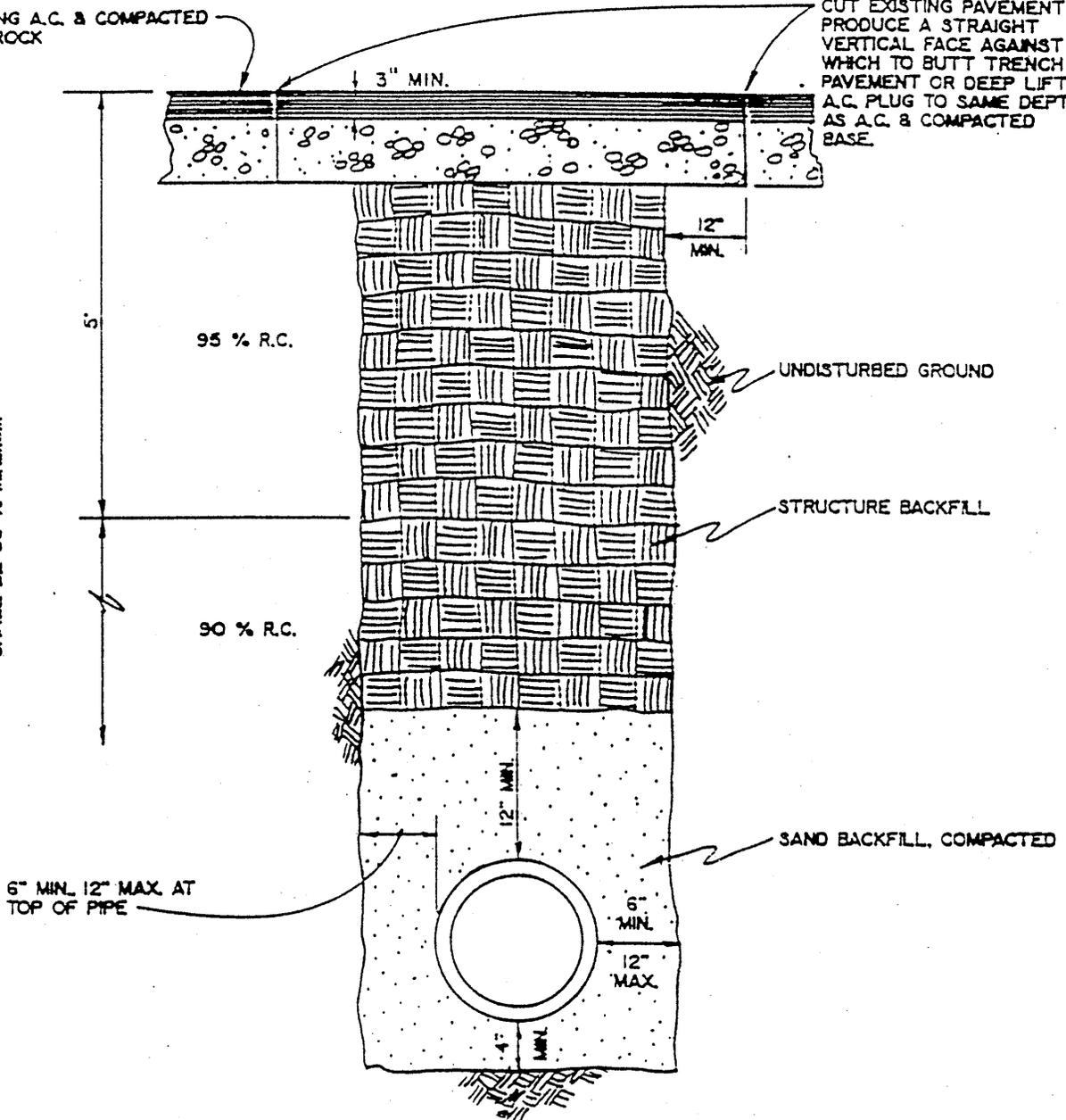
LONGITUDINAL SECTION (THRU FRAME AND GRATE)

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
FRAME AND GRATE			
APPROVED <i>[Signature]</i>			DATE 5-19-50
PUBLIC WORKS DIRECTOR			
DRAWN <i>[Signature]</i>			
CHECKED VWL		SCALE NONE	SD-8

EXISTING A.C. & COMPACTED
BASE ROCK

CUT EXISTING PAVEMENT TO
PRODUCE A STRAIGHT
VERTICAL FACE AGAINST
WHICH TO BUTT TRENCH
PAVEMENT OR DEEP LIFT
A.C. PLUG TO SAME DEPTH
AS A.C. & COMPACTED
BASE.

OUTSIDE OF RIGHT OF WAY COMPACTION
SHALL BE 85 % MINIMUM

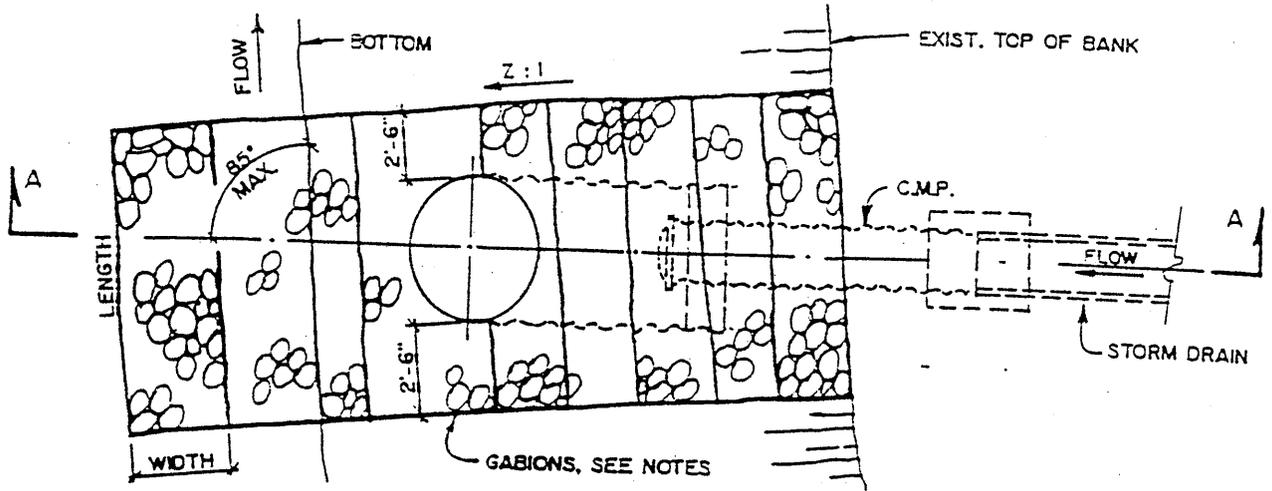


NOTE :

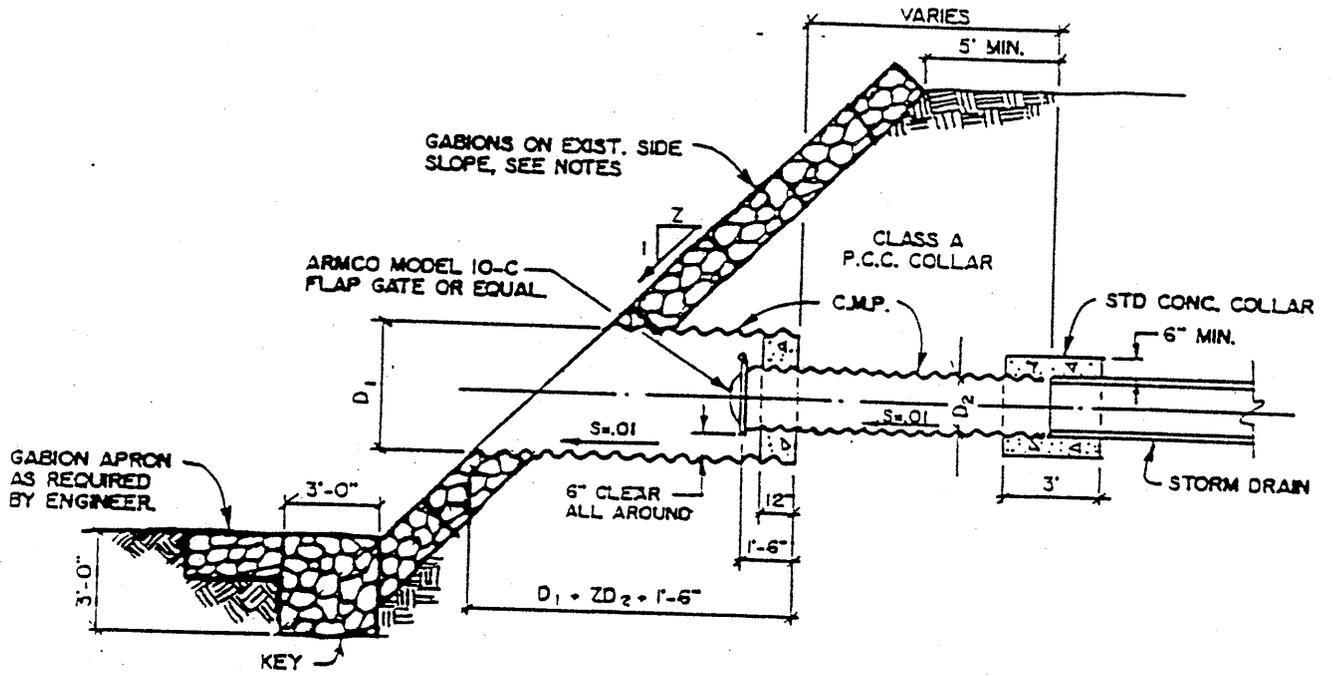
PAVEMENT SHALL BE REPLACED IN KIND, HOWEVER,
MINIMUM REQUIREMENTS ARE AS FOLLOWS:

- 1. PAVED ROADS - 3" A.C. TYPE B OVER 12" PRIME COATED CLASS 2 A.B.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STANDARD TRENCH BACKFILL			
APPROVED	<i>[Signature]</i>		DATE 5-19-89
			PUBLIC WORKS DIRECTOR.
DRAWN	<i>[Signature]</i>		
CHECKED	VWL	SCALE	NONE
			SD-9



PLAN



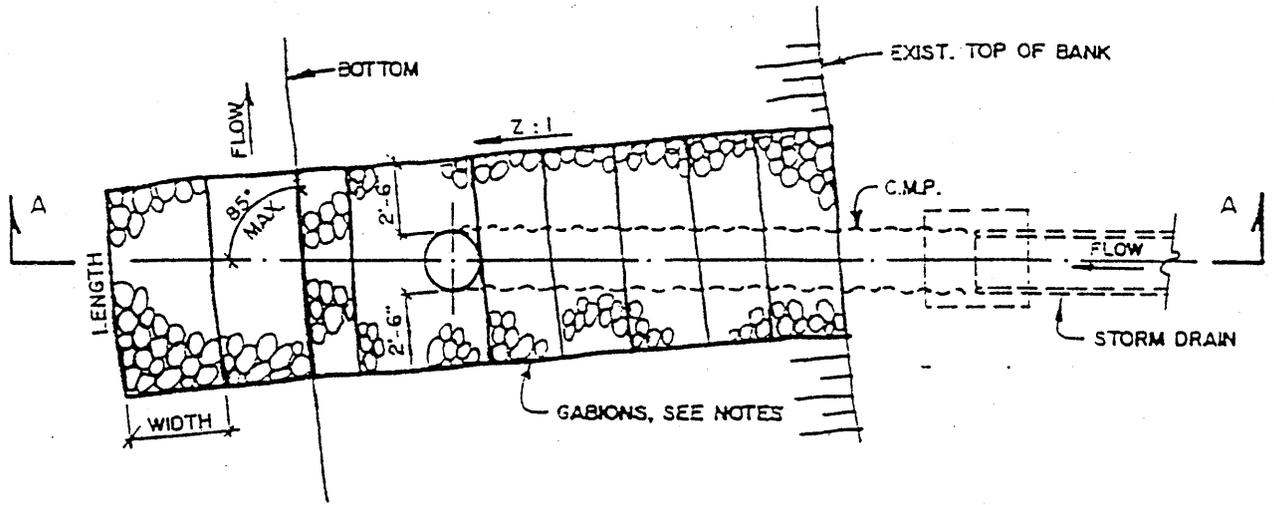
SECTION A-A

NOTES:

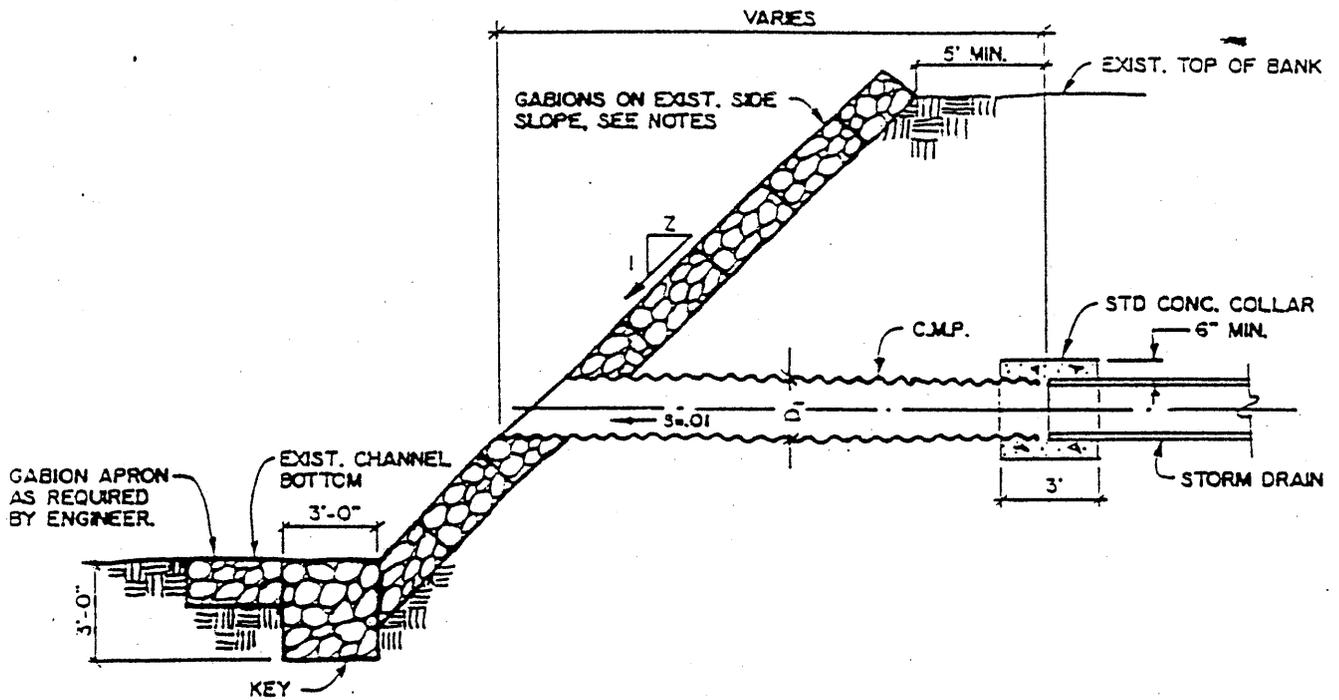
FOR SLOPES UP TO 2:1 USE A 12" DEPTH GABION.
 FOR SLOPES BETWEEN 2:1 AND 1:1 USE AN 18" DEPTH GABION. FOR SLOPE GREATER THAN 1:1, GABIONS MUST BE DESIGNED WITH REINFORCEMENT.

USE A 3' WIDTH, TYPICAL.
 TYPICAL LENGTHS ARE 6', 9' OR 12'.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STORM DRAIN OUTFALL WITH FLAP GATE			
APPROVED <i>[Signature]</i>			DATE 5-19-89
PUBLIC WORKS DIRECTOR			
DRAWN	ZBB		
CHECKED	VWL	SCALE NONE	SD-10



PLAN



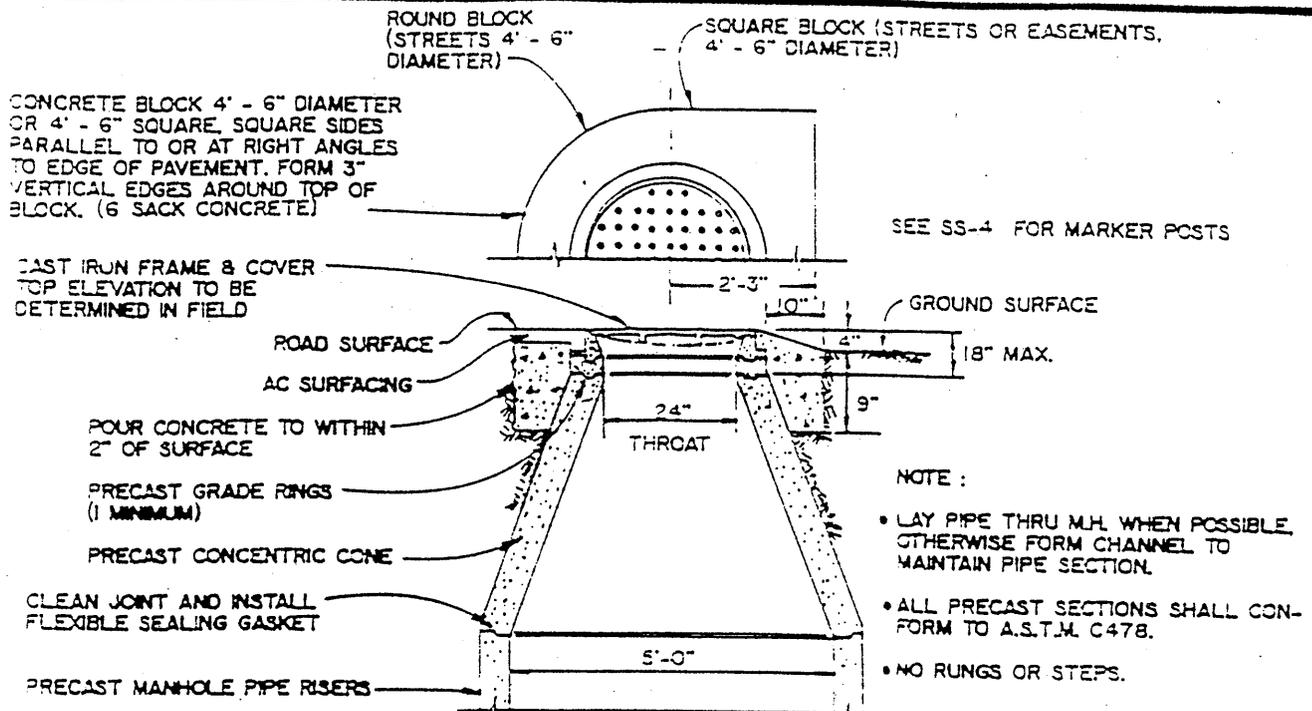
SECTION A-A

NOTES:

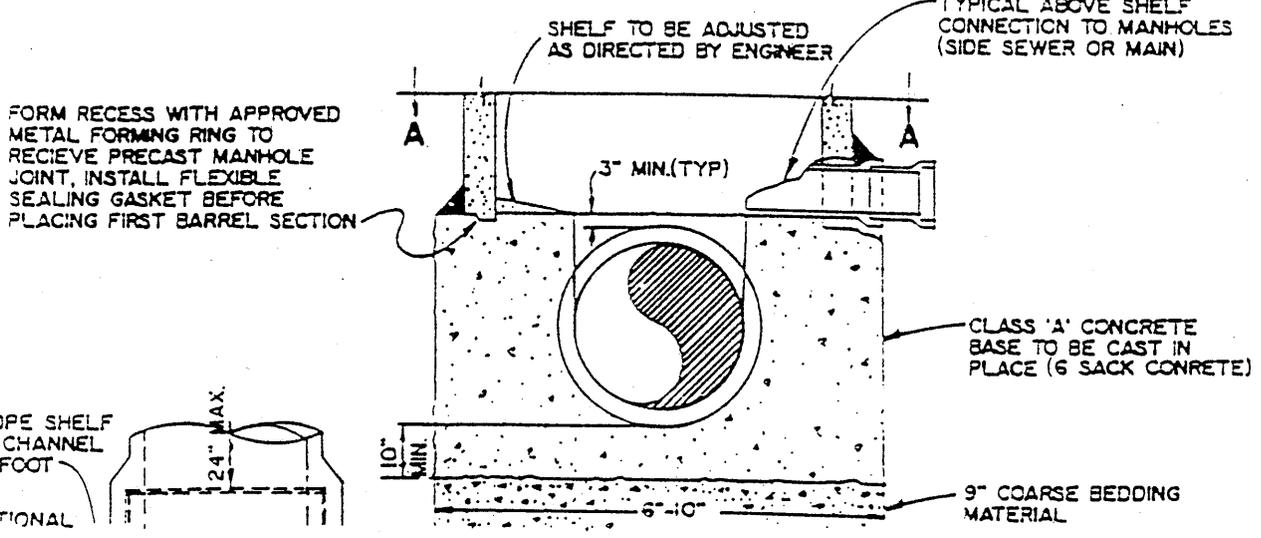
FOR SLOPES UP TO 2 : 1 USE A 12" DEPTH GABION.
 FOR SLOPES BETWEEN 2 : 1 AND 1 : 1 USE AN 18" DEPTH GABION. FOR SLOPE GREATER THAN 1 : 1, GABIONS MUST BE DESIGNED WITH REINFORCEMENT.

USE A 3' WIDTH, TYPICAL.
 TYPICAL LENGTHS ARE 6', 9' OR 12'.

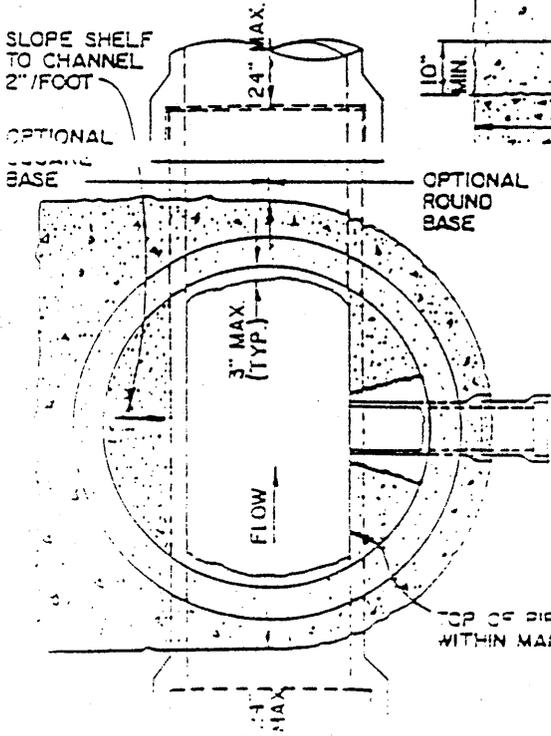
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STORM DRAIN OUTFALL WITHOUT FLAP GATE			
APPROVED <i>Robert D. ...</i>			DATE 5-19-89
PUBLIC WORKS DIRECTOR			
DRAWN <i>ASB</i>	SCALE NONE		SD-II
CHECKED <i>VWL</i>			



UPPER MANHOLE SECTION



BASE SECTION



BASE SECTION A-A

- NOTE :
- LAY PIPE THRU M.H. WHEN POSSIBLE, OTHERWISE FORM CHANNEL TO MAINTAIN PIPE SECTION.
 - ALL PRECAST SECTIONS SHALL CONFORM TO A.S.T.M. C478.
 - NO RUNGS OR STEPS.

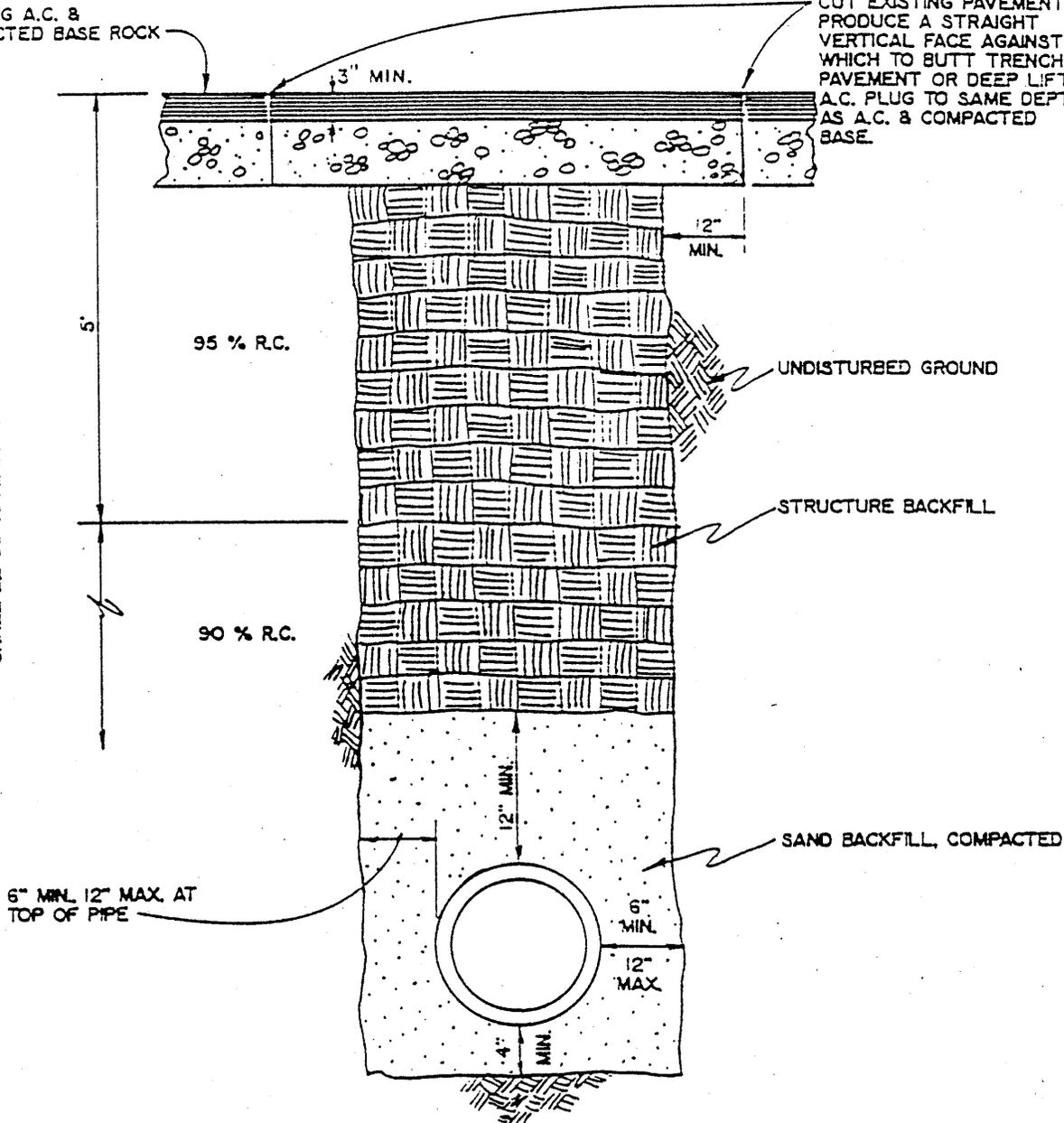
FOR 15" OR LARGER LINES.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STANDARD TRUNK MANHOLE			
APPROVED <i>[Signature]</i>			DATE 5-19-20
PUBLIC WORKS DIRECTOR			
CHECKED VWL		SCALE NONE	SD-12 SS-5

EXISTING A.C. & COMPACTED BASE ROCK

CUT EXISTING PAVEMENT TO PRODUCE A STRAIGHT VERTICAL FACE AGAINST WHICH TO BUTT TRENCH PAVEMENT OR DEEP LIFT A.C. PLUG TO SAME DEPTH AS A.C. & COMPACTED BASE.

OUTSIDE OF RIGHT OF WAY COMPACTION SHALL BE 85% MINIMUM



NOTE :

PAVEMENT SHALL BE REPLACED IN KIND, HOWEVER, MINIMUM REQUIREMENTS ARE AS FOLLOWS:

- 1. PAVED ROADS - 3" A.C. TYPE B OVER 12" PRIME COATED CLASS 2 A.B.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STANDARD TRENCH BACKFILL			
APPROVED	<i>John T. ...</i>		DATE 5-19-89
PUBLIC WORKS DIRECTOR.			
DRAWN	4/70		SS-2
CHECKED	VWL	SCALE NONE	

CONCRETE BLOCK 4'-6" DIAMETER OR 4'-6" SQUARE, SQUARE SIDES PARALLEL TO OR AT RIGHT ANGLES TO EDGE OF PAVEMENT, FORM 3" VERTICAL EDGES AROUND TOP OF BLOCK (6 SACK CONCRETE)

FOUR CONCRETE TO WITHIN 2" OF TOP OF COVER CASTING.

TOP ELEVATION TO BE DETERMINED IN FIELD.

CLEAN JOINT & INSTALL FLEXIBLE SEALING GASKET PRIOR TO SETTING NEXT SECTION

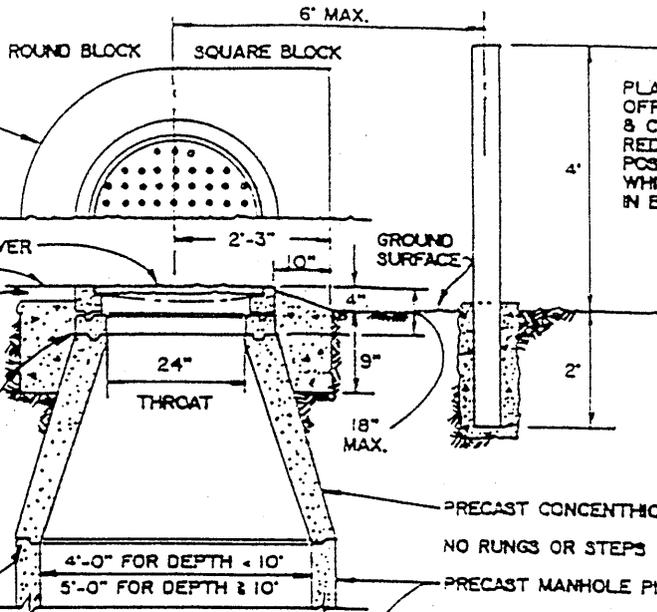
TYPICAL ABOVE SHELF CONNECTION TO (EXISTING) MANHOLE

FORM RECESS IN BASE WITH APPROVED METAL FORMING RING TO RECEIVE PRECAST MANHOLE JOINT. INSTALL FLEXIBLE SEALING GASKET BEFORE PLACING FIRST BARREL SECTION.

CLASS A CONCRETE BASE
9" COARSE BEDDING MATERIAL

UPPER MANHOLE SECTION

BASE SECTION

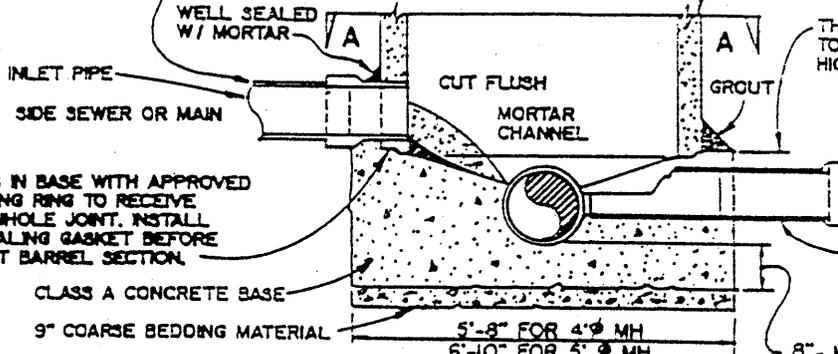


PLACE NEAR ALL OFF STREET M.H.'s & C.O.'s, 4"x4" REDWOOD MARKER POST, PAINTED WHITE WITH S A N IN BLK. LETTERS

PRECAST CONCENTRIC CONE
NO RUNGS OR STEPS

PRECAST MANHOLE PIPE RISERS

NOTE: ALL PRECAST SECTIONS SHALL CONFORM TO A.S.T.M. C478



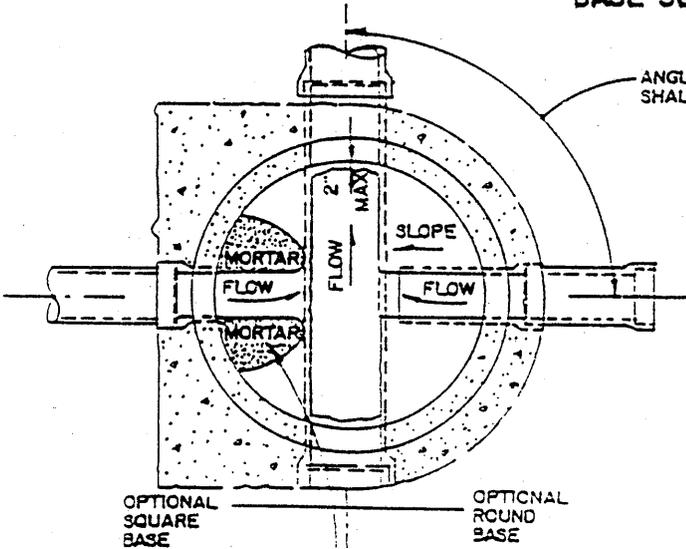
THE BASE SHALL BE POURED TO A LEVEL 3" ABOVE THE HIGHEST PIPE

TYPICAL BELOW SHELF CONNECTION TO MANHOLE (SIDE SEWER OR MAIN)

8" - M.H. DEPTH 0' - 15'
10" - M.H. DEPTH 15' - 25'

ANGLE BETWEEN INCOMING AND OUTGOING LINES SHALL BE GREATER THAN 60°

NOTE: LAY PIPE THRU M.H. WHEN POSSIBLE. OTHERWISE FORM CHANNEL TO MAINTAIN PIPE SECTION.

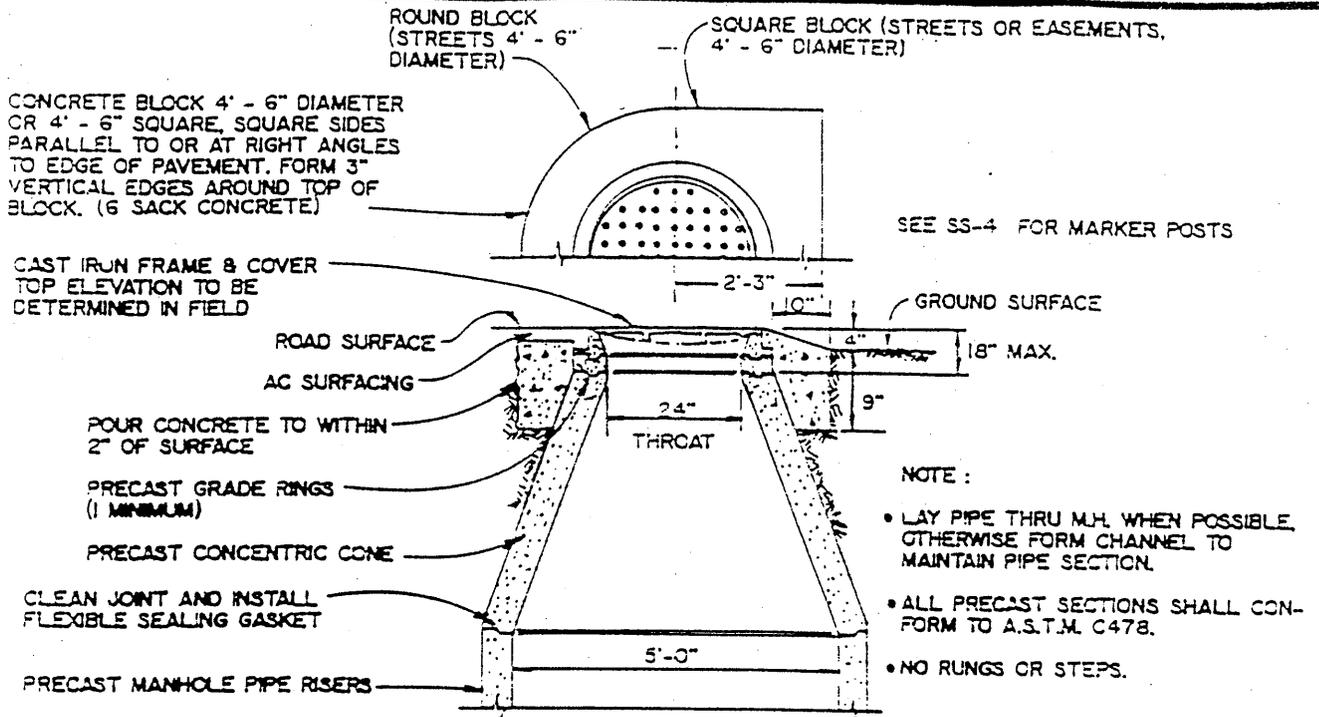


FOR 14" OR SMALLER LINES.

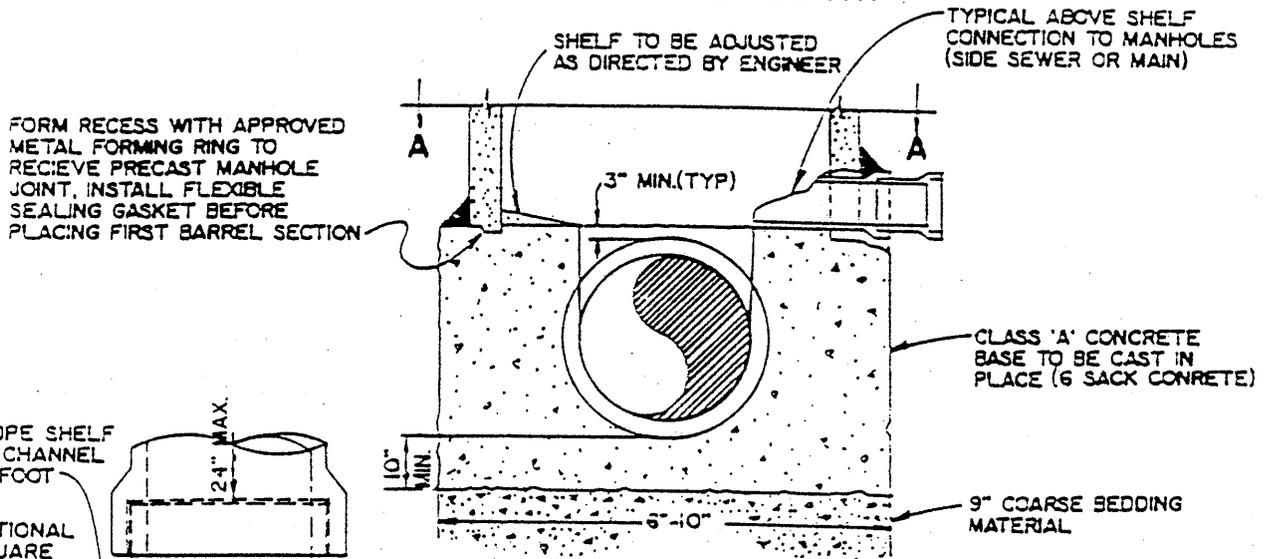
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STANDARD MAIN MANHOLE			
APPROVED	<i>Robert [Signature]</i>		DATE 5-19-92
			PUBLIC WORKS DIRECTOR
DRAWN	<i>WV</i>		
CHECKED	VWL	SCALE NONE	SS-4

ABOVE SHELF CONNECTION CONSTRUCT MORTAR CHANNEL ON M.H. BASE TO WITHIN 1" OF SPRING LINE OF ENTERING PIPE

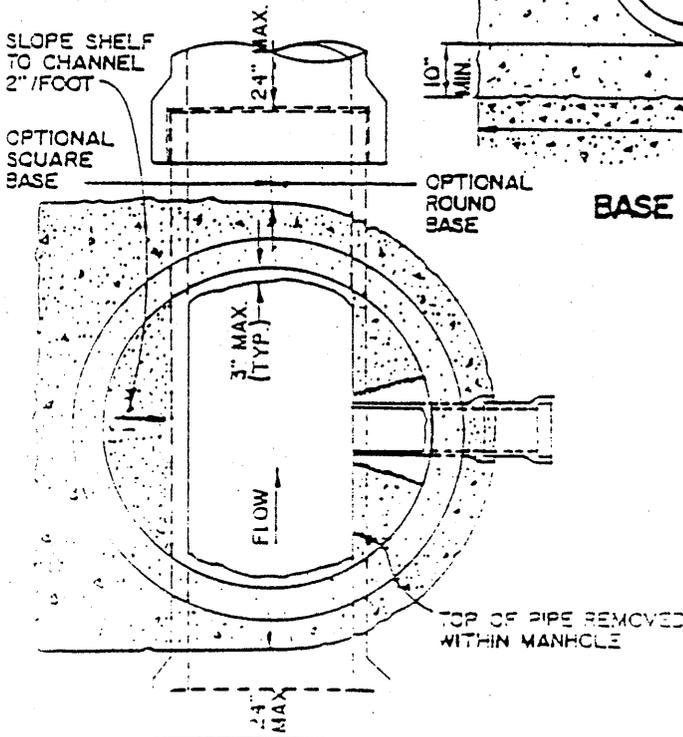
BASE SECTION A - A



UPPER MANHOLE SECTION



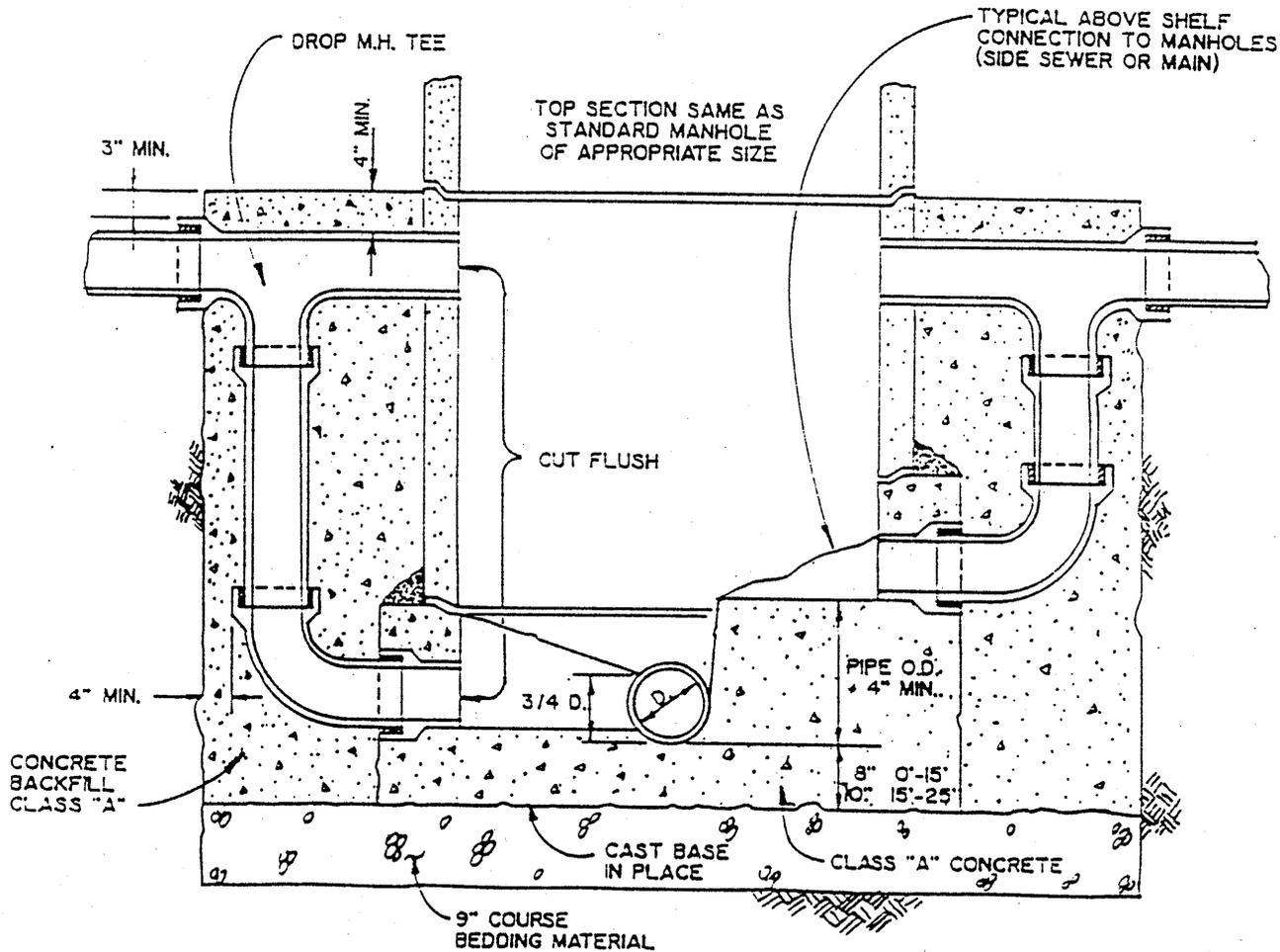
BASE SECTION



BASE SECTION A-A

FOR 15" OR LARGER LINES.

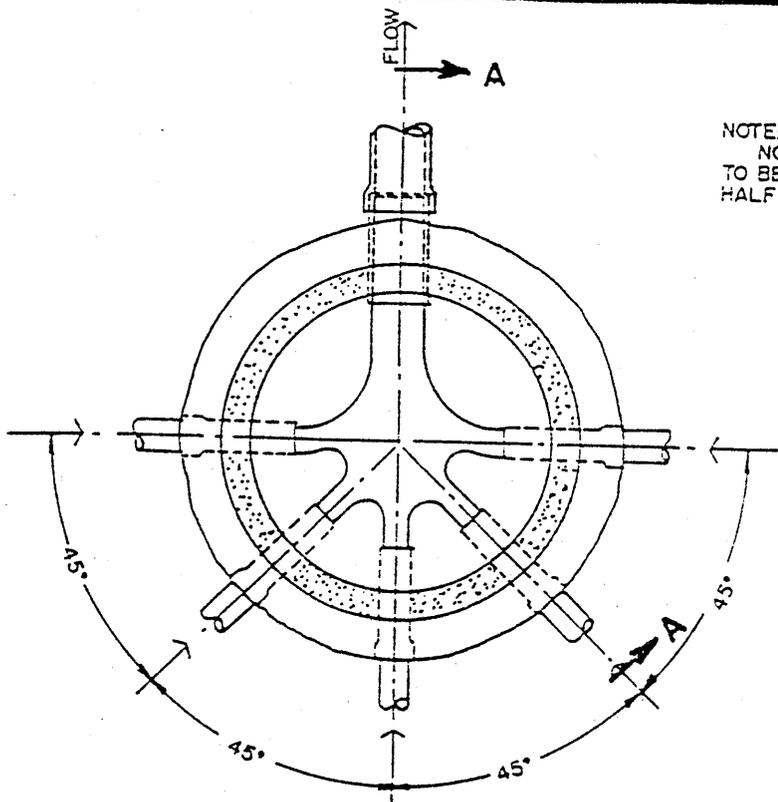
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STANDARD TRUNK MANHOLE			
APPROVED <i>[Signature]</i> DATE 5-19-20			
PUBLICWORKS DIRECTOR			
DRAWN <i>[Signature]</i>			SD-12
CHECKED V.M.		SCALE NONE	SS-5



BASE, PIPE RISERS AND UPPER SECTION OF CRCP MANHOLE SHALL CONFORM TO DETAILS SHOWN FOR STANDARD MANHOLE OF APPROPRIATE SIZE.

ALL CONCRETE IS 6 SACK.

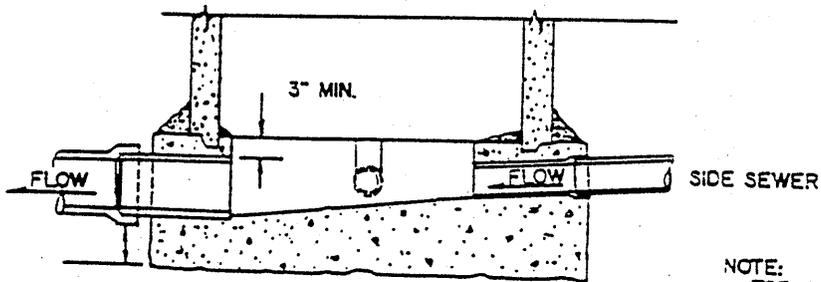
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTT'S VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
DROP MANHOLE			
APPROVED <i>[Signature]</i>		DATE 5-19-81	
DRAWN <i>[Signature]</i>		CHECKED VWL	SCALE NONE
			SS-6



NOTE:
NO LATERAL CONNECTIONS
TO BE MADE IN DOWNSTREAM
HALF OF MANHOLE

NOTE:
MAXIMUM NUMBER OF
SIDE SEWERS ALLOWED = 5

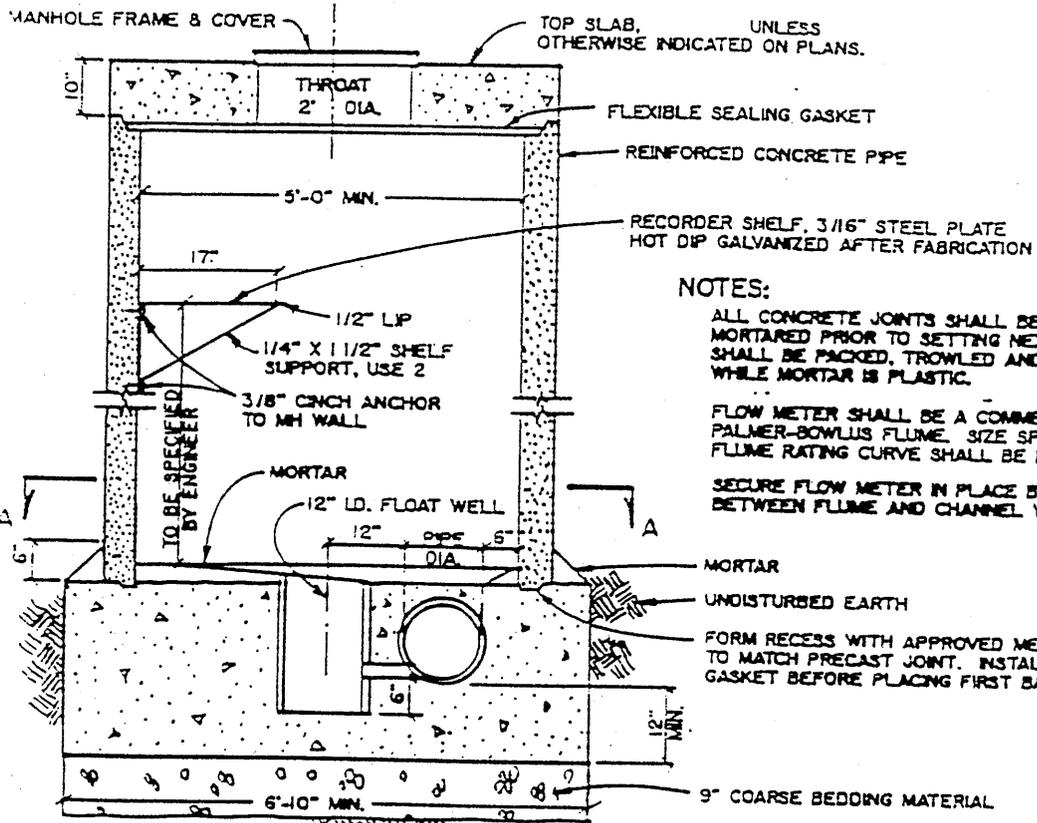
TOP SECTION SAME AS
STANDARD MANHOLE



NOTE:
TOP OF SIDE SEWERS SHALL
MATCH TOP OF OUTLET PIPE

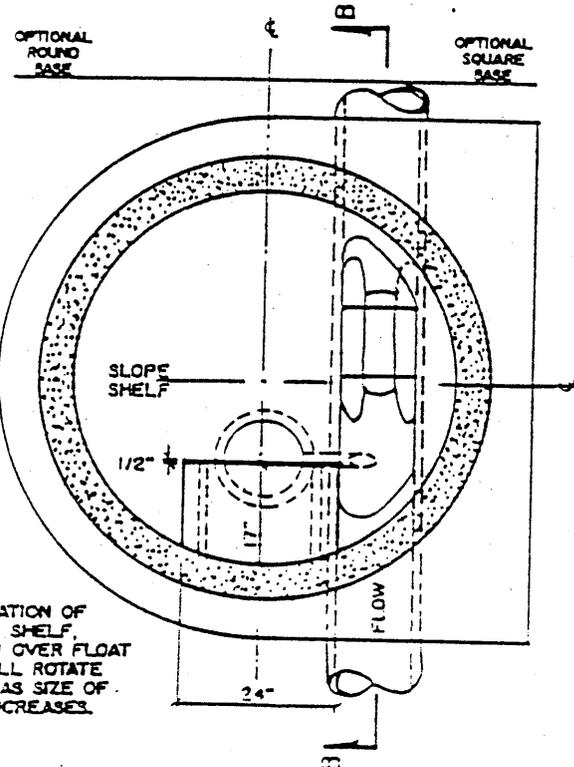
SECTION A-A

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY - CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
CUL-DE-SAC MANHOLE			
APPROVED		<i>[Signature]</i>	DATE 5-19-89
PUBLIC WORKS DIRECTOR			
DRAWN		VWL	
CHECKED		VWL	SCALE NONE
			SS-7



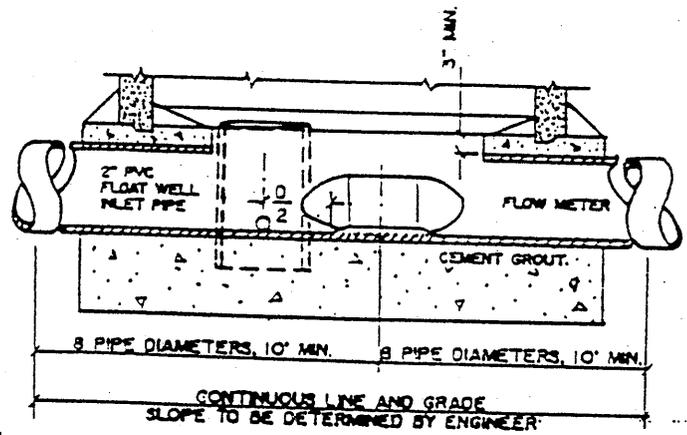
NOTES:
 ALL CONCRETE JOINTS SHALL BE CLEANED, WETTED AND MORTARED PRIOR TO SETTING NEXT SECTION. THE JOINTS SHALL BE PACKED, TROWLED AND BRUSHED SMOOTH WHILE MORTAR IS PLASTIC.
 FLOW METER SHALL BE A COMMERCIALY MANUFACTURED PALMER-BOWLUS FLUME. SIZE SPECIFIED BY DISTRICT. FLUME RATING CURVE SHALL BE FURNISHED TO CITY.
 SECURE FLOW METER IN PLACE BY FILLING ENTIRE VOID BETWEEN FLUME AND CHANNEL WITH CEMENT GROUT.

VERTICAL SECTION



TRUE LOCATION OF RECORDER SHELF, CENTERED OVER FLOAT WELL, WILL ROTATE RADIALLY AS SIZE OF PIPE (O) INCREASES.

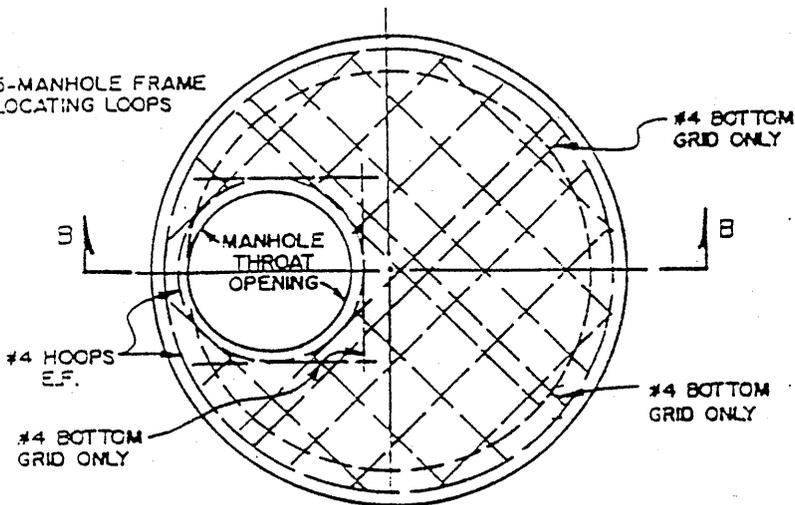
SECTION A-A



SECTION B-B

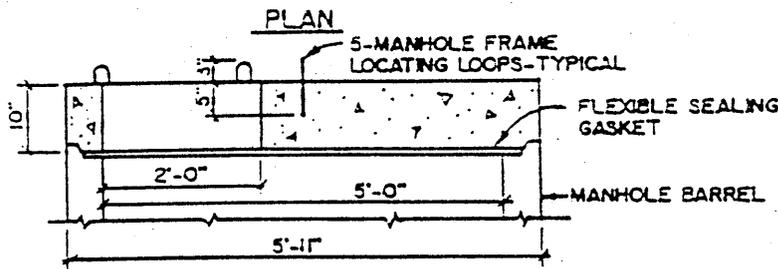
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
METERING MANHOLE			
APPROVED		<i>[Signature]</i>	DATE 5-19-89
		PUBLIC WORKS DIRECTOR	
DRAWN	7/25	SCALE	NONE
CHECKED	VWL		SS-8

5-MANHOLE FRAME LOCATING LOOPS

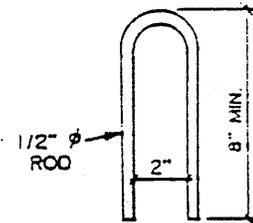


JOINT RECESS SHALL IN ANY EVENT BE FORMED TO FIT MANHOLE BARREL SECTION USED.

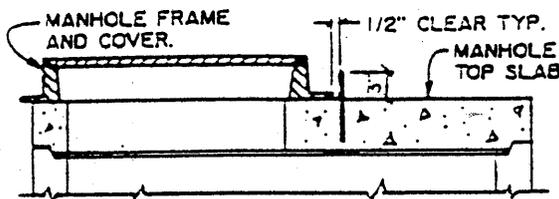
ALL STEEL TO BE #4 BARS PLACED AS SHOWN. MAXIMUM SPACING 9".



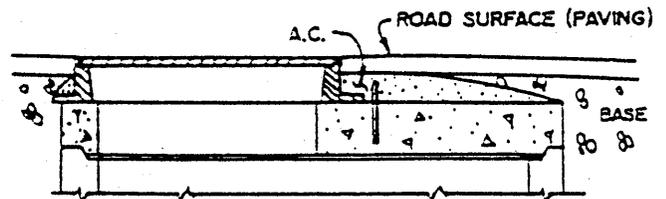
SECTION B-B



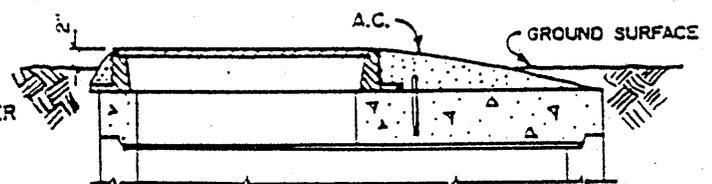
MANHOLE FRAME LOCATING LOOP DETAIL



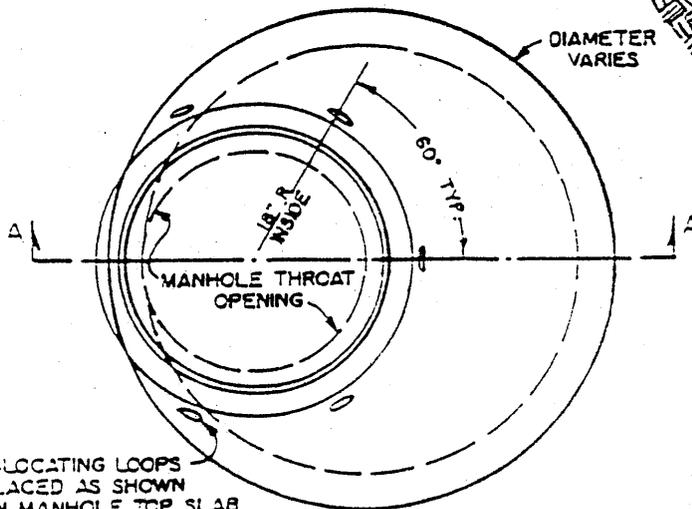
SECTION A-A



ROADWAY PLACEMENT



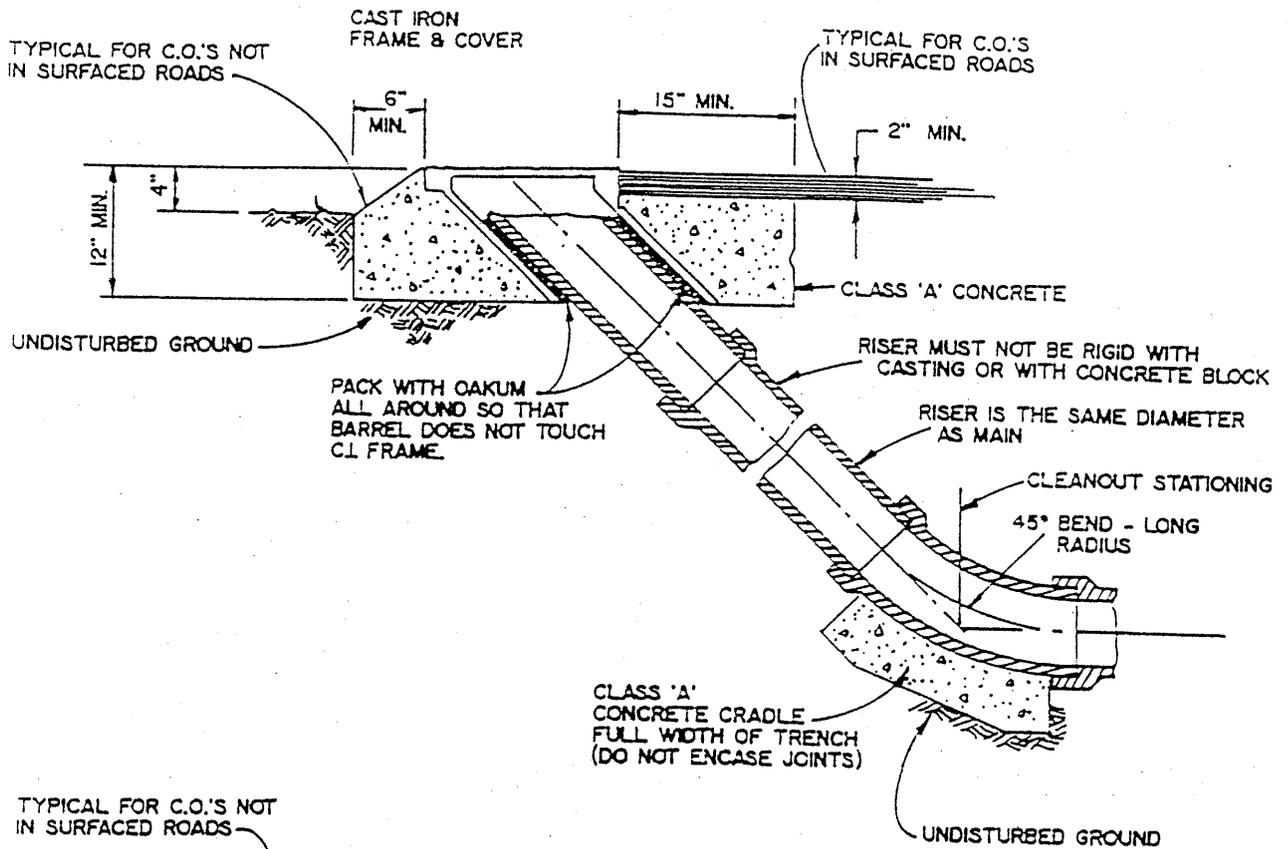
EASEMENT PLACEMENT



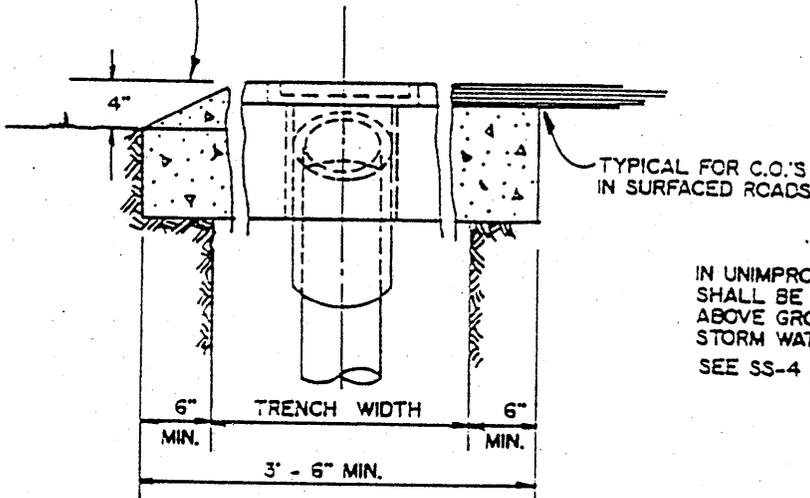
5-LOCATING LOOPS PLACED AS SHOWN ON MANHOLE TOP SLAB WITH OFFSET THROAT OPENING.

PLAN

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
METERING MANHOLE TOP SLAB			
APPROVED <i>[Signature]</i>			DATE 5-19-89
PUBLIC WORKS DIRECTOR			
DRAWN	MSB	SCALE	NONE
CHECKED	VWL		SS-9

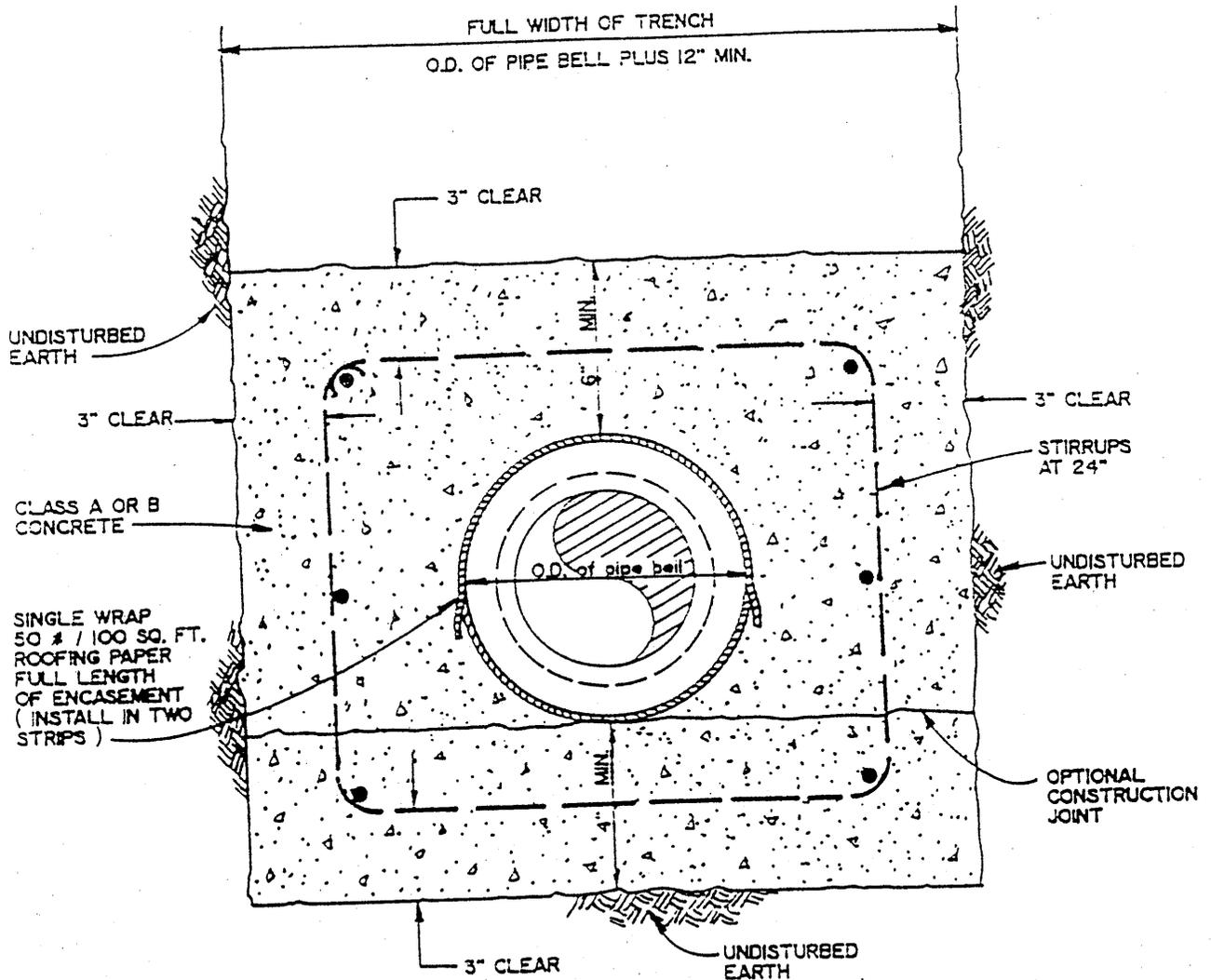


TYPICAL FOR C.O.'S NOT IN SURFACED ROADS



IN UNIMPROVED AREAS THE TOP OF COVER SHALL BE PLACED A MINIMUM OF 4" ABOVE GROUND WITH PROTECTION FROM STORM WATER INTRUSION. SEE SS-4 FOR MARKER POSTS.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
STANDARD CLEANOUT			
APPROVED		<i>Robert P. ...</i>	DATE 5-19-89
		PUBLIC WORKS DIRECTOR	
DRAWN	VWL	SCALE	NONE
CHECKED	VWL		SS-10

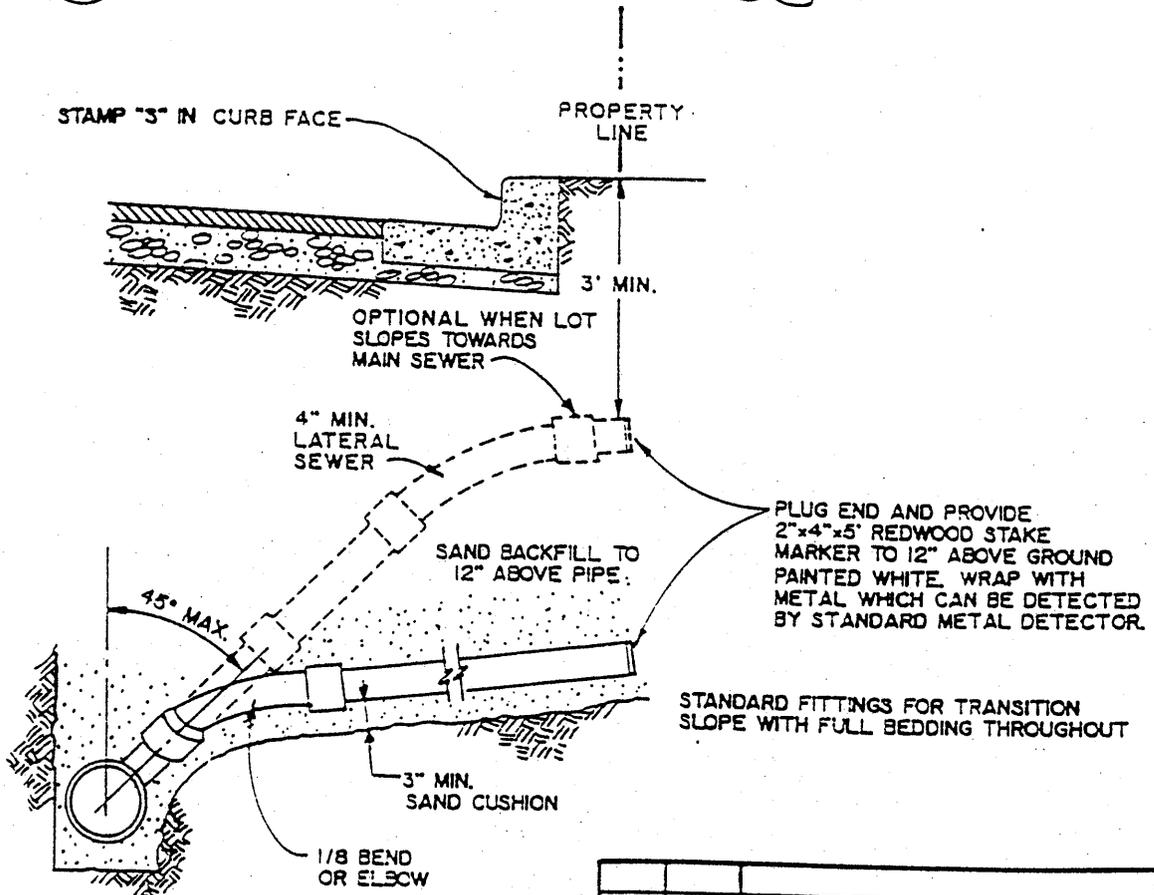
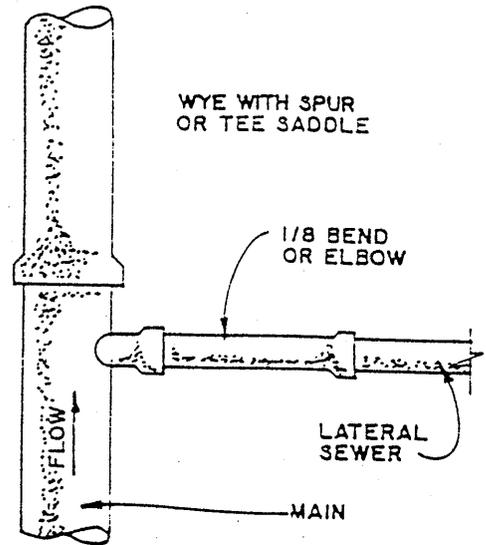
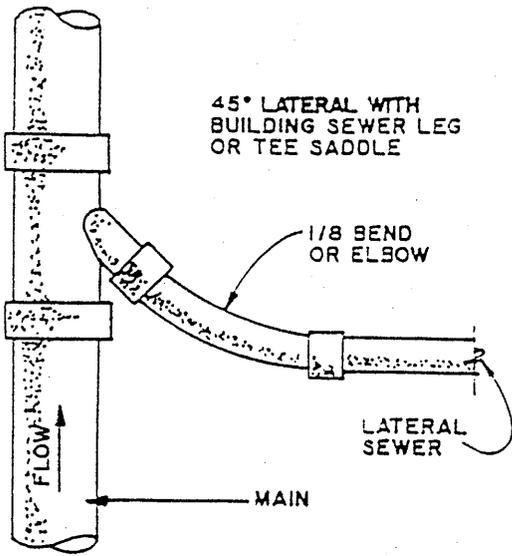


NOTE :

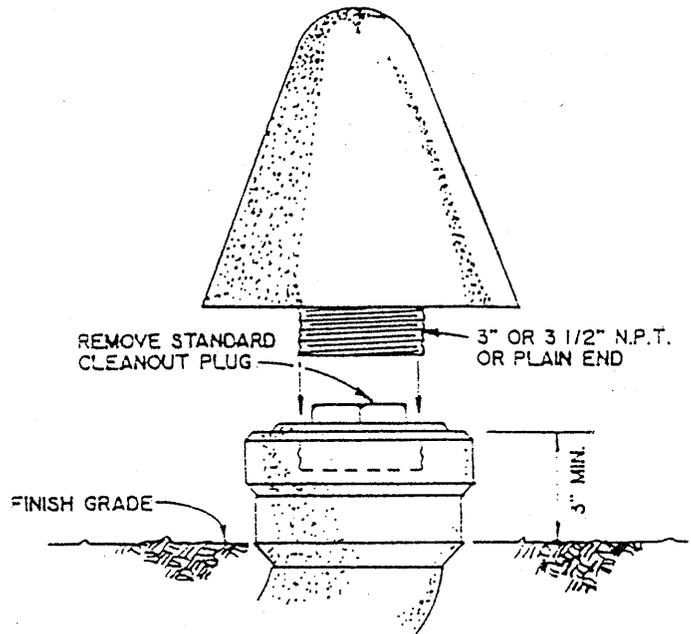
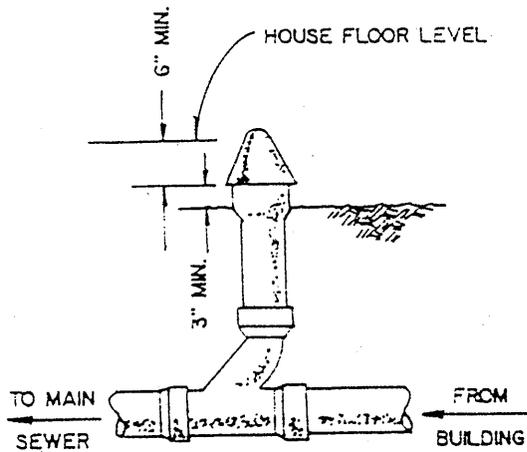
ALL REINFORCING, #4 BARS AS SHOWN.

SECTION

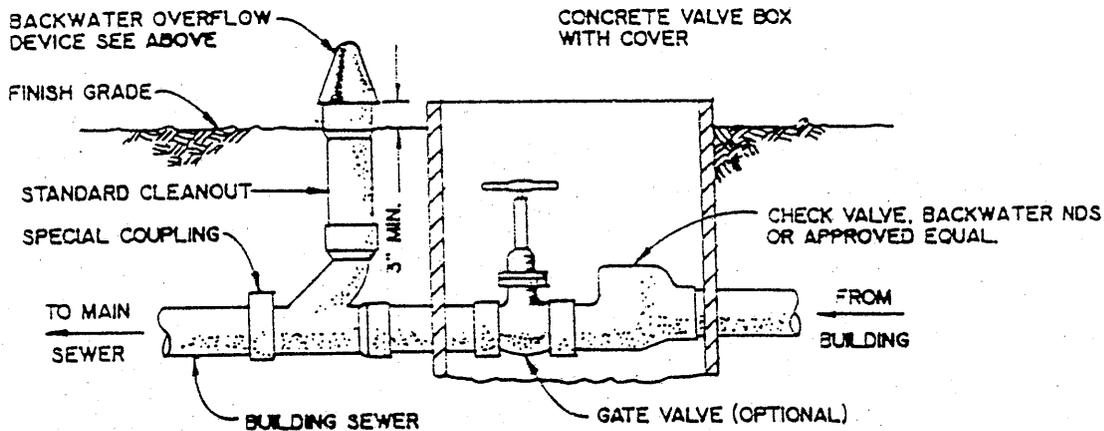
REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
CONCRETE ENCASEMENT			
APPROVES <i>[Signature]</i>		DATE	5-19-80
		PUBLIC WORKS DIRECTOR.	
DRAWN <i>[Signature]</i>	CHECKED VWL	SCALE NONE	SS-11



REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY, CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
LATERAL SEWER CONNECTION DETAILS			
APPROVED <i>[Signature]</i>			DATE 5-19-81
PUBLIC WORKS DIRECTOR			
DRAWN <i>[Signature]</i>		SCALE NONE	
CHECKED VWL		SS-12	



BACKWATER OVERFLOW DEVICE



BACKWATER CHECK VALVE & SHUTOFF SYSTEM

AN OVERFLOW SYSTEM IS REQUIRED AND SHALL BE INSTALLED WHERE THE FINISH FLOOR ELEVATION OF THE BUILDING TO BE CONNECTED IS LESS THAN ONE FOOT ABOVE THE RIM OF THE NEAREST UPSTREAM MANHOLE.

THE INSTALLATION OF THE BACKWATER OVERFLOW DEVICE SHALL BE MADE AFTER THE FINAL GRADING AROUND THE BUILDING IS COMPLETED. THE BACKWATER OVERFLOW DEVICE SHALL BE AS DETAILED, OR AN APPROVED EQUAL.

CONSIDERATION MUST BE GIVEN TO THE DAMAGE POTENTIAL TO ADJACENT PROPERTY BY SEWAGE RELEASED THROUGH THE BACKWATER OVERFLOW DEVICE.

REV	DATE	REVISION DESCRIPTION	BY
CITY OF SCOTTS VALLEY · CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
BACKFLOW PREVENTIVE DEVICES			
APPROVED <i>Calvin Rod</i>			DATE 5-9-89
PUBLIC WORKS DIRECTOR			
DRAWN <i>lbc</i>			SS-13
CHECKED VWL		SCALE NONE	