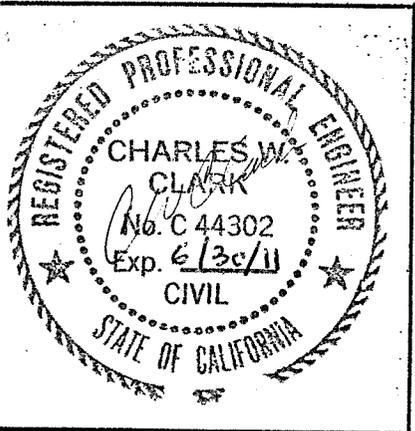
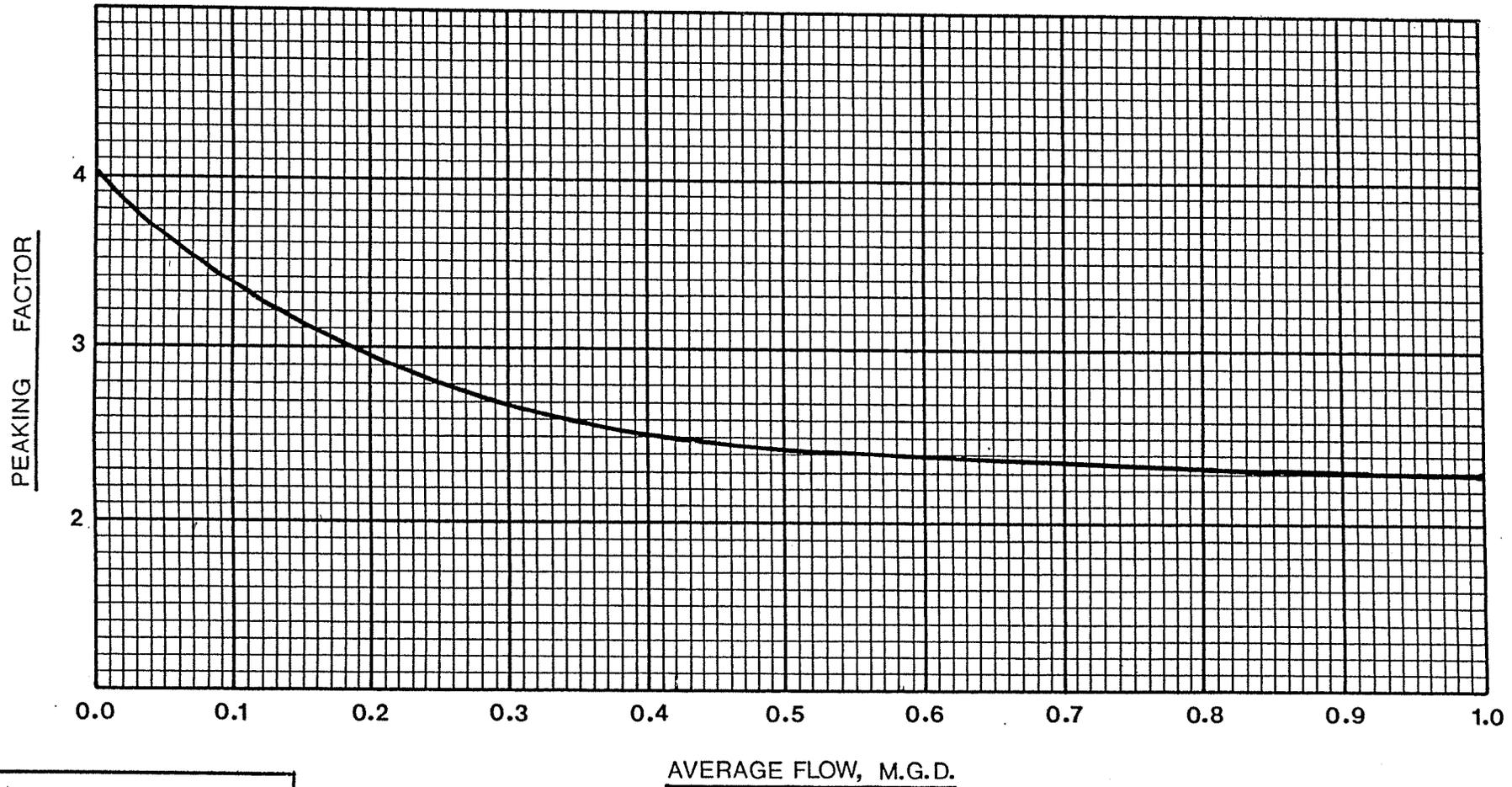


COMMERCIAL, INDUSTRIAL, AND
 MULTIPLE RESIDENTIAL ZONED AREAS

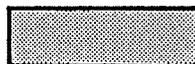
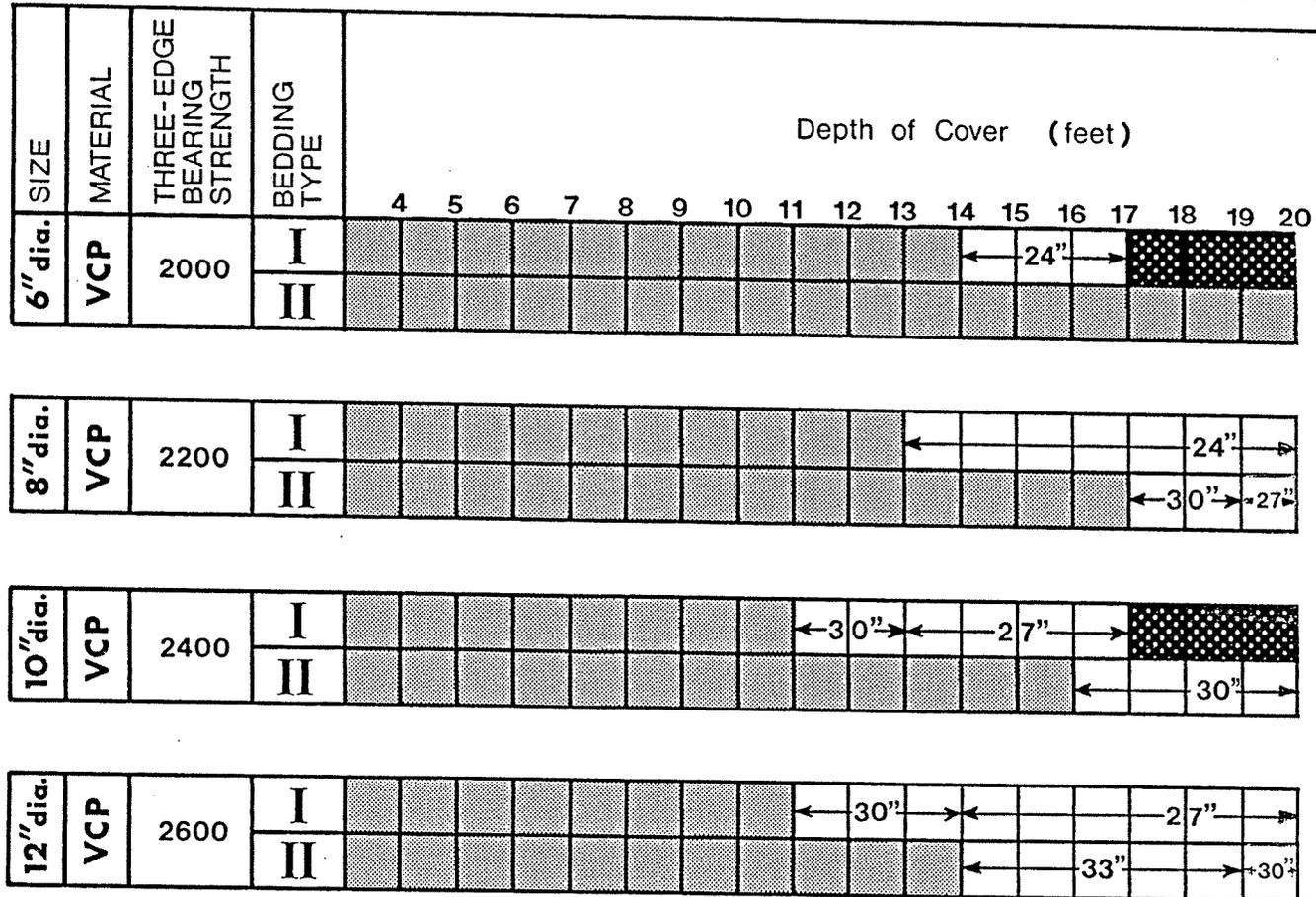
ESTIMATED AVERAGE FLOW
SOUTH PLACER MUNICIPAL UTILITY DISTRICT
STANDARD DRAWING NO. 1



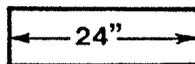
PEAKING FACTORS

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 2



No limit on trench width - see Sections 3.06 and 5.08



Maximum trench width measured at top of pipe

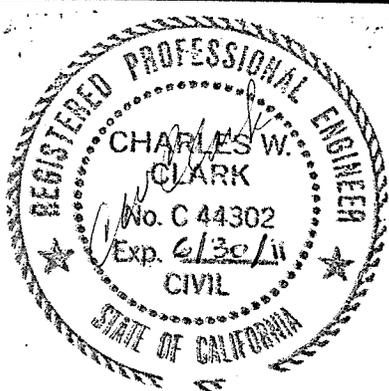


Pipe bearing strength, bedding type, and depth of cover not acceptable

NOTES:

Calculations based on soil wt. = 120 lb/ft³
Saturated clay $K_u = 0.110$

For depths less than 3 feet or more than 20 feet see Section 3.06 - Special pipe strength requirements

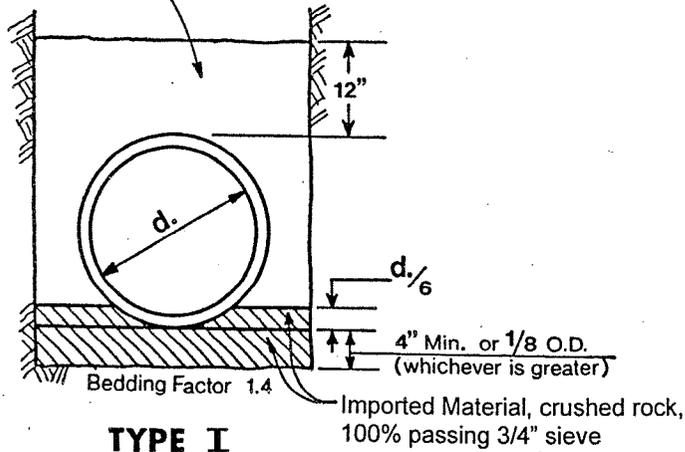


MAXIMUM TRENCH WIDTH - VCP

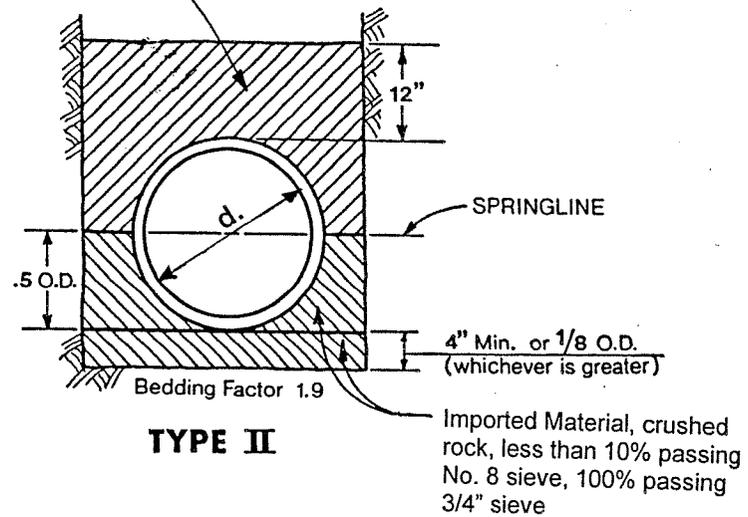
SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 3

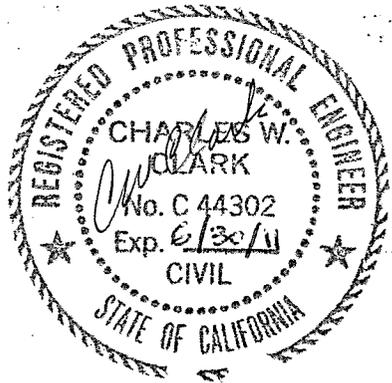
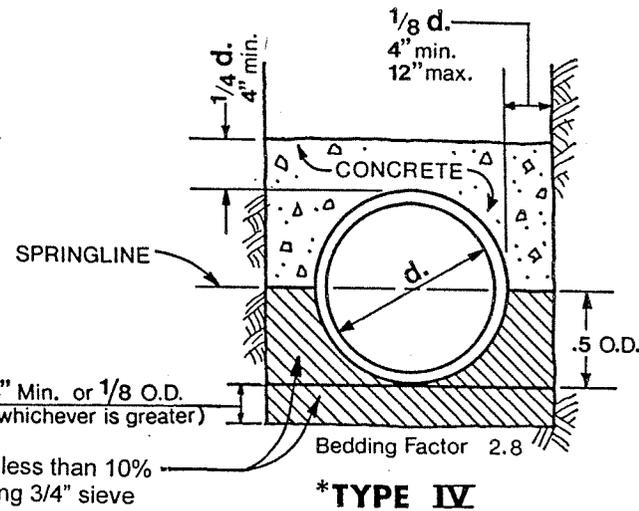
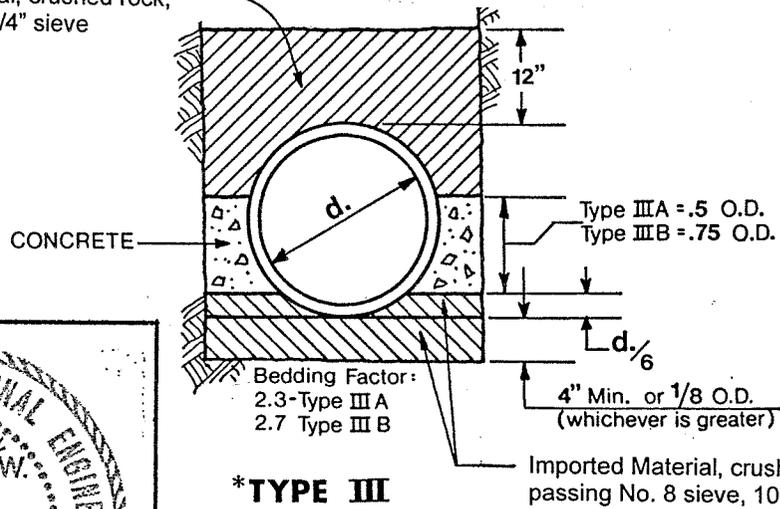
Carefully placed backfill,
no special Compaction
required



Imported Material, crushed rock,
100% passing 3/4" sieve



Imported Material, crushed rock,
100% passing 3/4" sieve



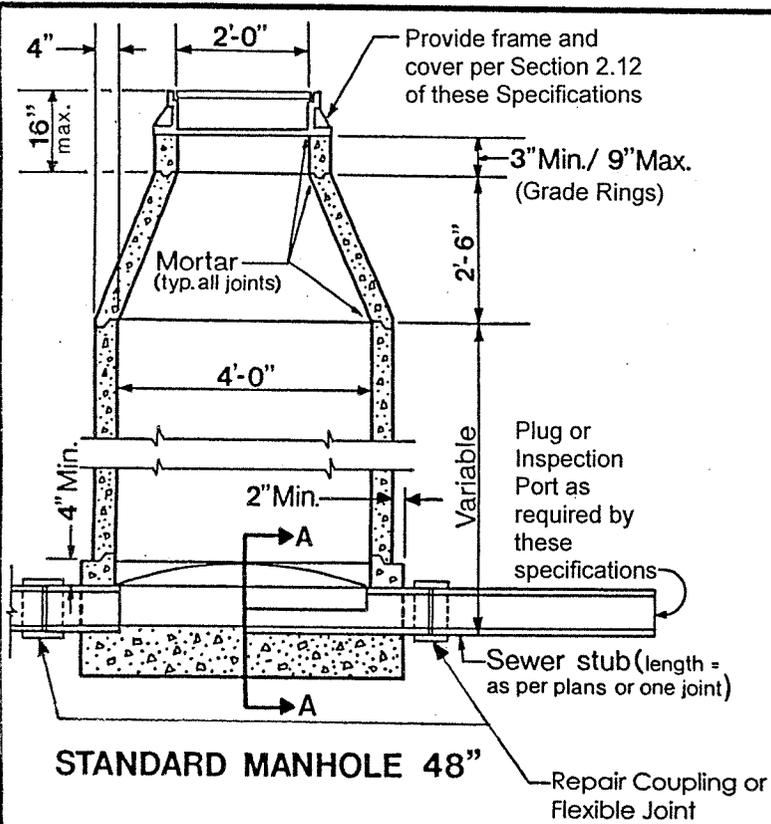
NOTES:

- (* Not permitted without specific District approval)
- (Concrete: "2-sack" minimum, or as required by the District, and with pipe wrap)

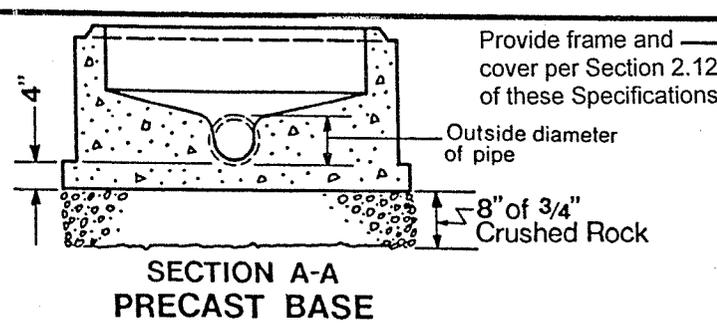
PIPE BEDDING & INITIAL BACKFILL

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

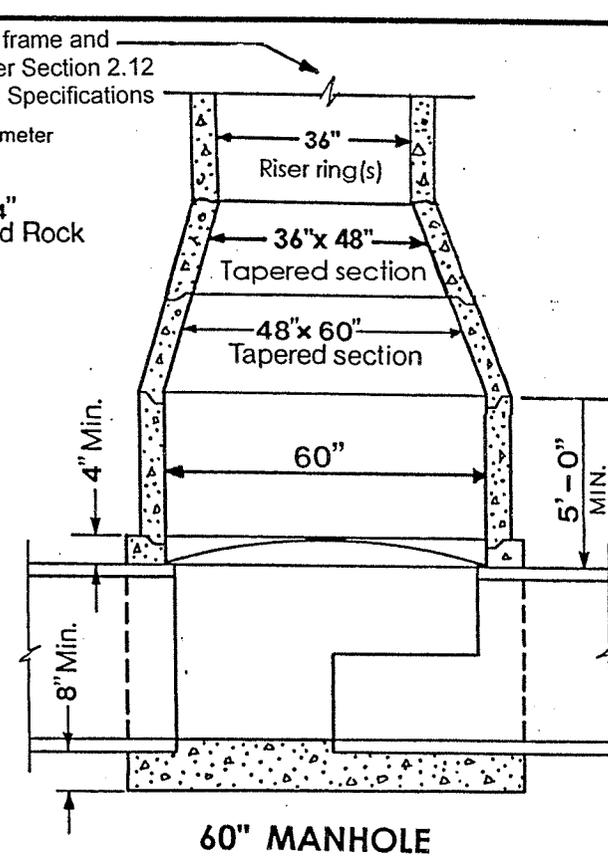
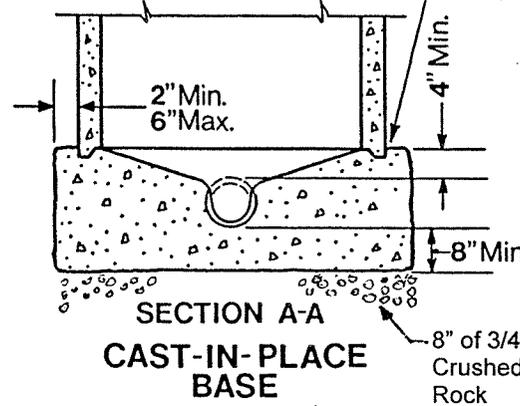
STANDARD DRAWING NO. 4



STANDARD MANHOLE 48"

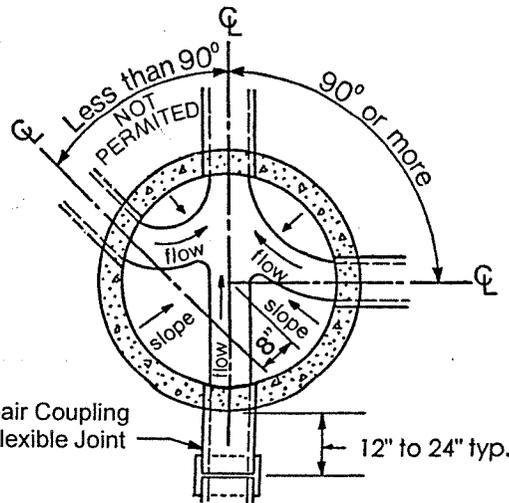


Form perimeter by use of an "Impression" ring. No barrels or cone shall be placed until concrete base has set.

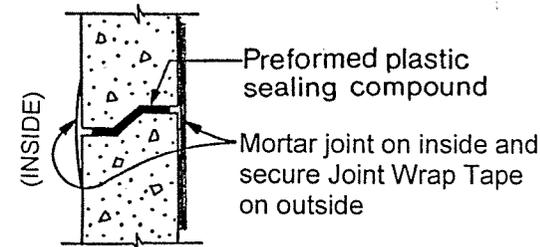


GENERAL MANHOLE NOTES:

1. See General Manhole Notes on Standard Drawing No. 6—"Shallow Pipe Manhole".



**PLAN VIEW OF MANHOLE
SHOWING INTERSECTING SEWERS**

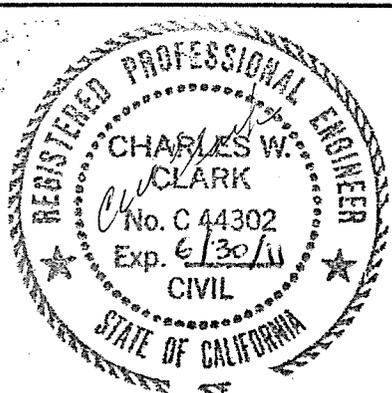


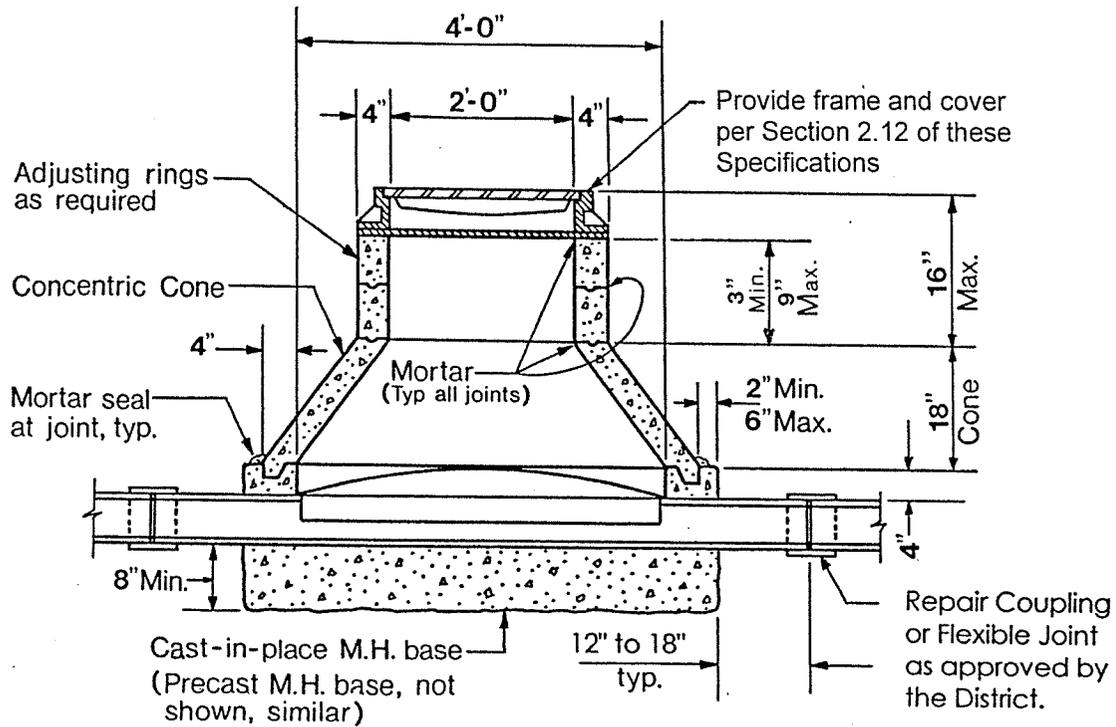
**JOINT DETAIL
(TYPICAL)**

MANHOLES

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

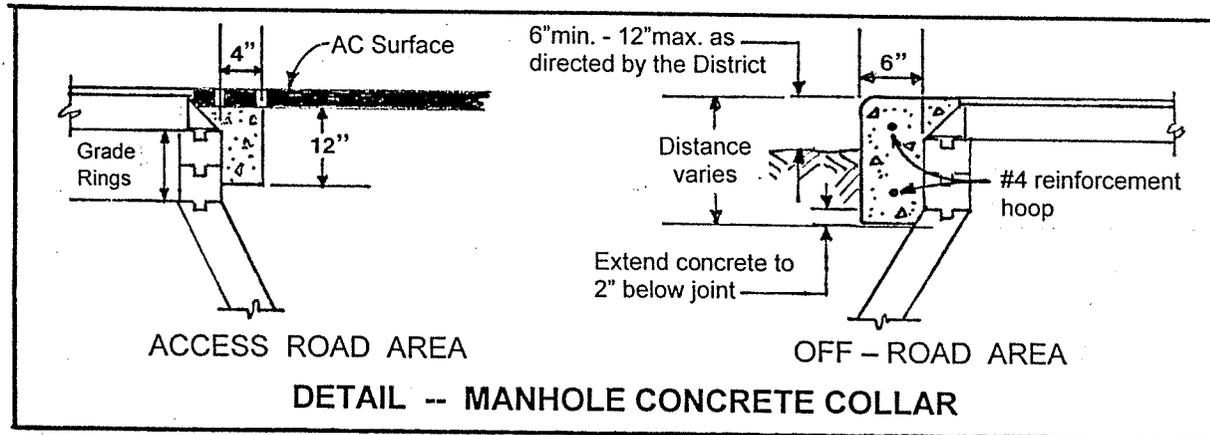
STANDARD DRAWING NO. 5



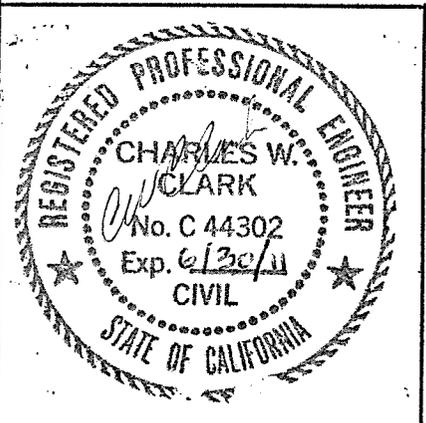


GENERAL MANHOLE NOTES:

1. Class A concrete shall be used for manholes which are greater than 10 feet in depth.
2. Cast-in-place manhole bases shall be shaped to be perpendicular to the pipe. Overpouring of concrete will not be allowed. Concrete shall be consolidated in a manner acceptable to the District. The perimeter of the base shall be formed by the use of an "impression" ring to receive the barrel or cone.
3. Pipe may stop at the inside face of the manhole or may be laid continuous through the manhole. If laid continuous, the top half of the pipe shall be broken away after the base is poured.
4. Joints shall be tongue and groove and sealed with approved plastic sealing compound. Mortar shall be placed on all inside joints, and the outside joint of the manhole shall be sealed with approved joint wrap tape.
5. Manhole frame shall have 24" inside diameter opening and cover shall be 26" diameter. Provide four holes at 1 1/2" - 2" in diameter at 90 degrees in the lower lip of cover frame.
6. Manholes shall be vacuum tested for leakage as specified in Section 5.34—Acceptance Tests.



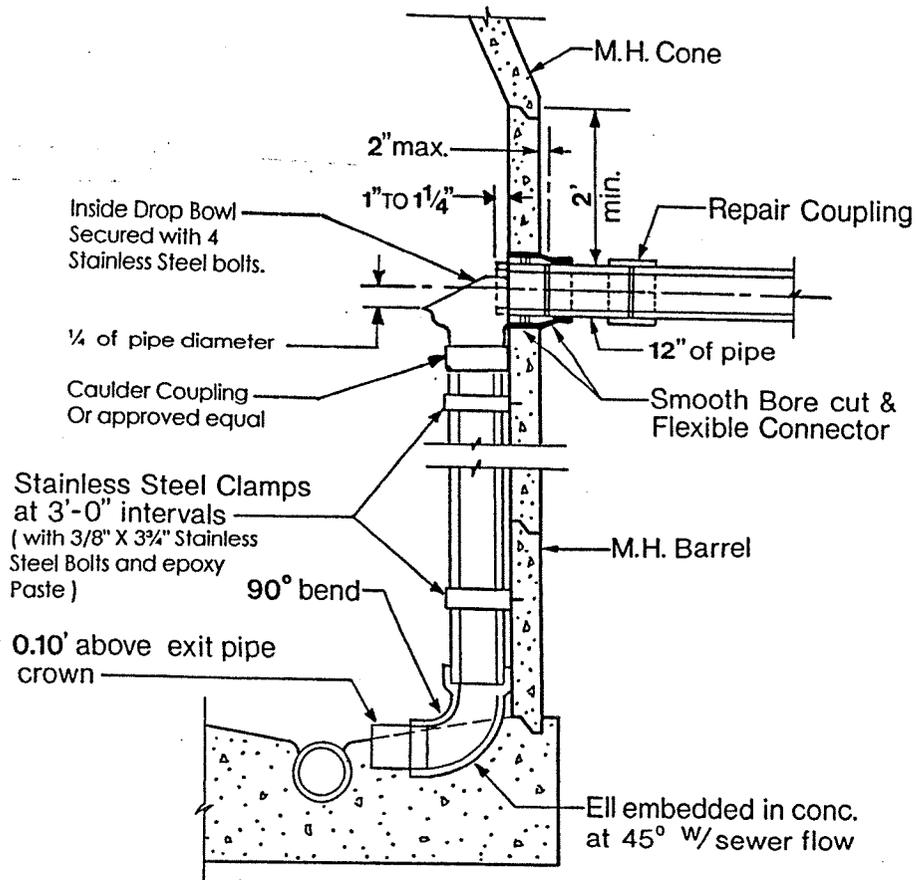
DETAIL -- MANHOLE CONCRETE COLLAR



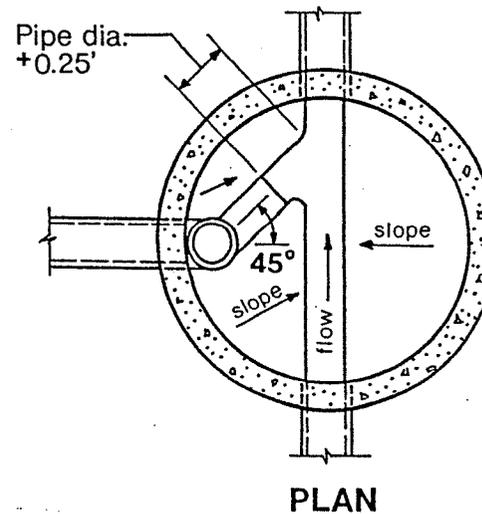
SHALLOW PIPE MANHOLE

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 6

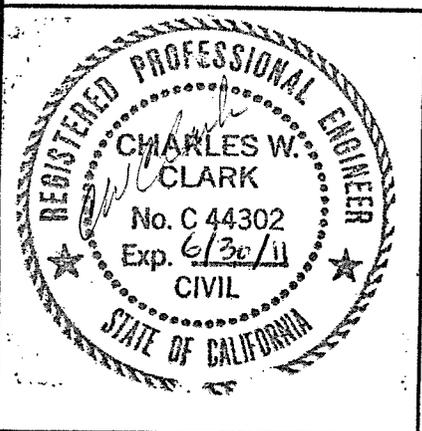


ELEVATION



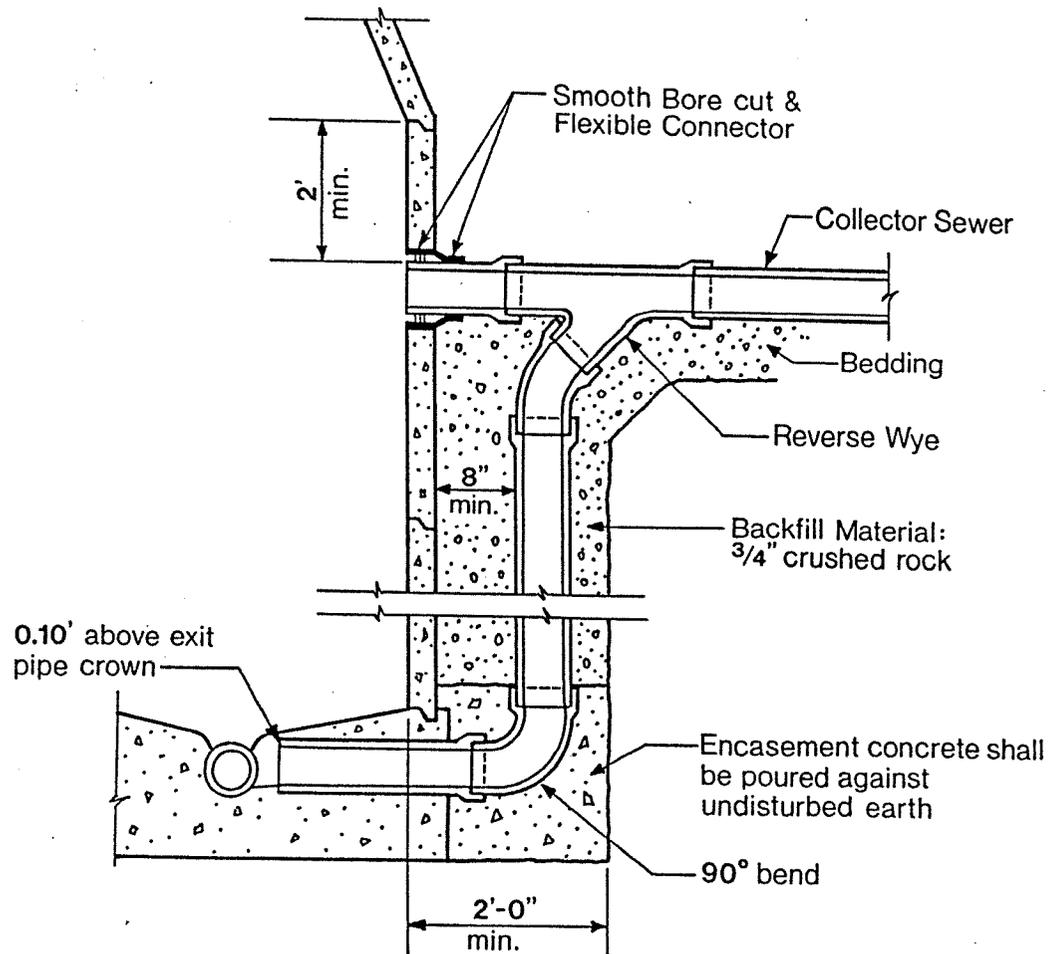
NOTES:

1. All inside drop piping shall be P.V.C. pipe Schedule 40 or A.B.S. pipe Schedule 40.
2. Prime and cement all joints as recommended by the manufacturer.
3. Drop connection pipe and fittings to be the same size as the entering pipe.
4. Minimum allowable drop distance shall be as noted on Standard Drawing No. 8.
5. Flexible connector shall be "Kor-n-Seal1", "Press-Boot", or equal.
6. Refer to Sections 3.08 and 5.24 for permissible drop connection situations.
7. All inside drop connections for Lower Laterals and Collector sewers shall use the drop bowl as produced by Reliner-Duran, Inc. (53 Mt. Archer Rd., Lyme, CT 06317) or approved equal.



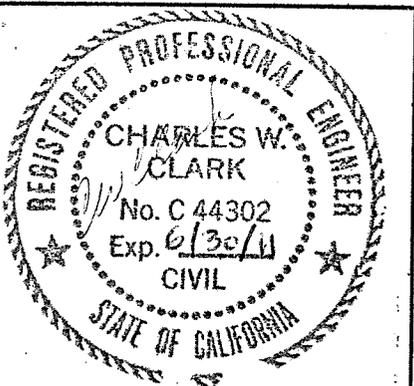
INSIDE DROP CONNECTION

**SOUTH PLACER MUNICIPAL UTILITY DISTRICT
STANDARD DRAWING NO. 7**



NOTES:

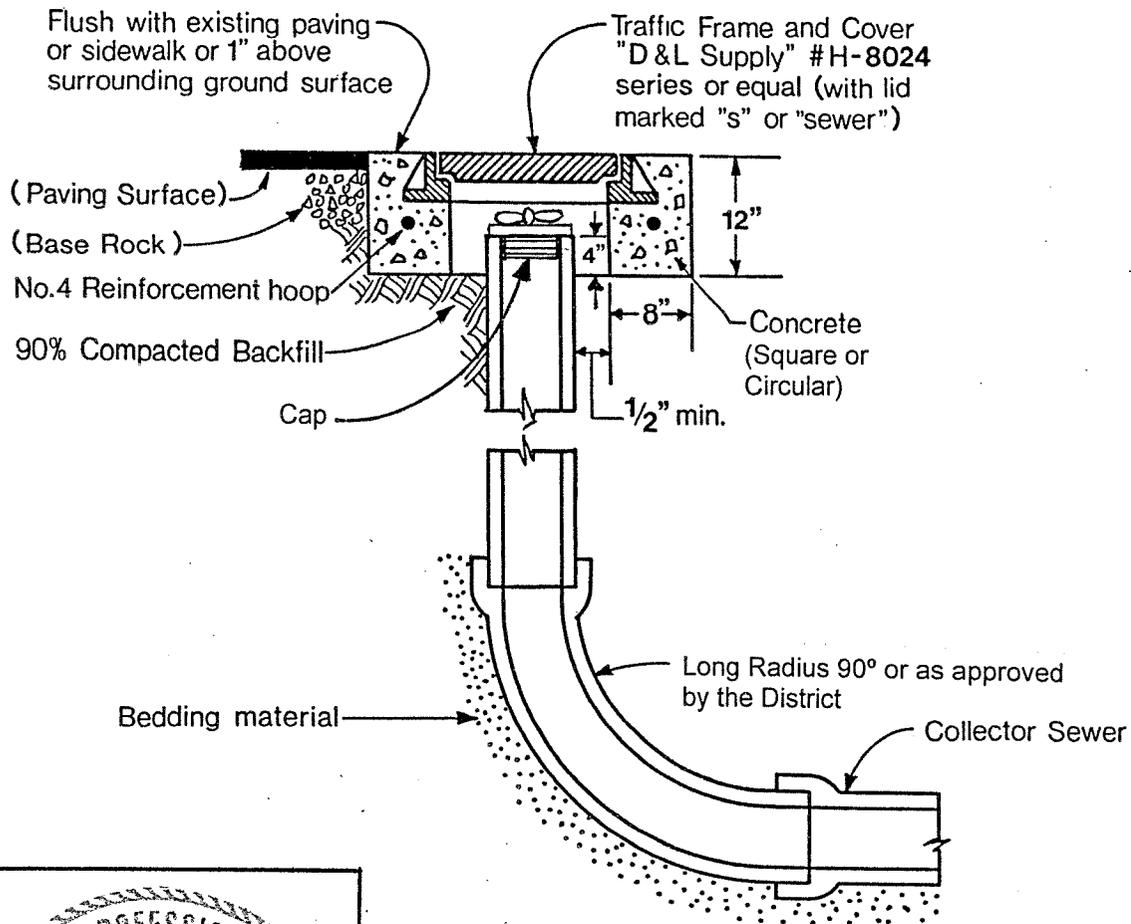
1. Drop connection pipe and fittings to be Ductile Iron Pipe with approved lining, or PVC—SDR 26 pipe.
2. Inside and Outside Drop connection minimum distances:
 - 6" and 8" pipe = 48" minimum drop, unless otherwise approved by the District.
 - 10" and larger pipe = Drop connection not allowed unless specifically approved by the District.
 - 4" Lower Lateral connections = 48" minimum for outside drop or 12" minimum for inside drop, unless otherwise approved by the District.
3. Flexible connector shall be "Kor-n-Seal 1", "Press-Boot", or equal.
4. Refer to Sections 3.08 and 5.24 for permissible drop connection situations.



OUTSIDE DROP CONNECTION

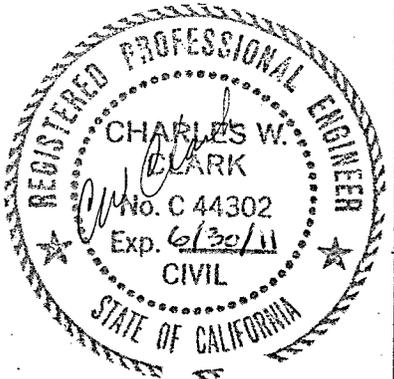
SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 8



Note: Flushing Branch pipe and fittings shall be the same size and material as the horizontal pipe to which it connects. Joint shall be as specified for the type of pipe used.

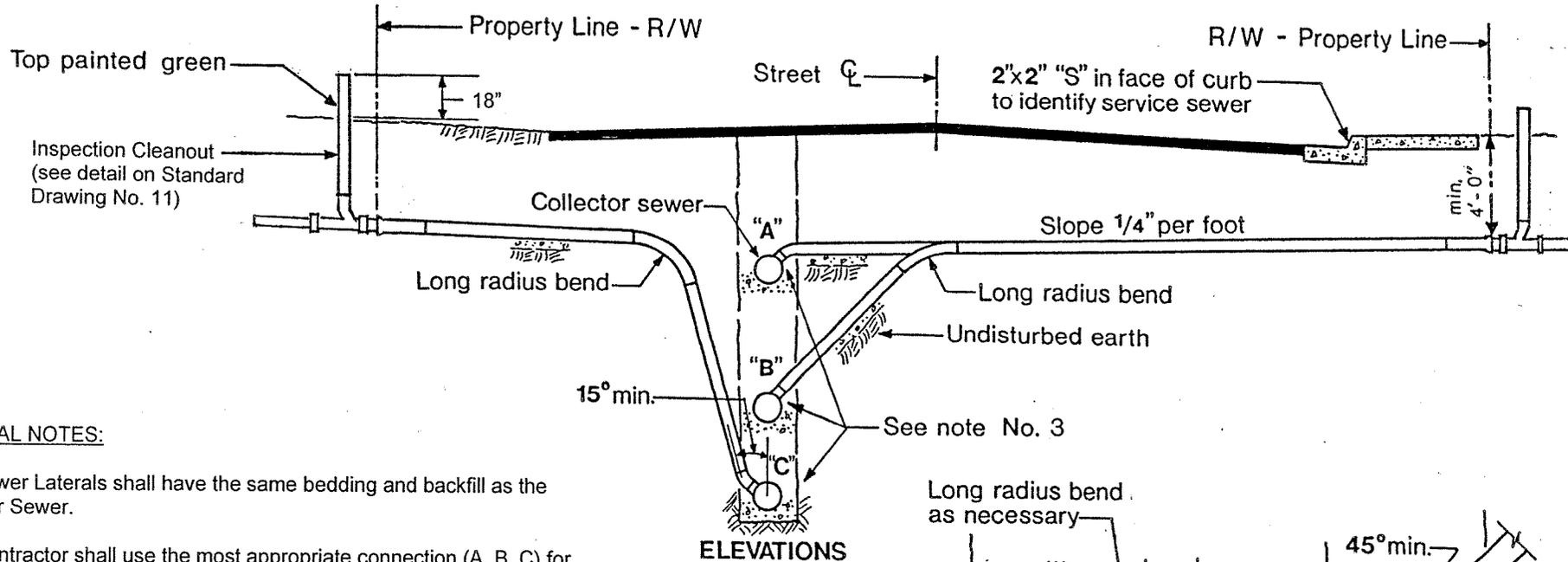
Cap shall be non-corrosive, Cherne Industries "End of Pipe Gripper Plug", Model 270245, or approved equal, Inside wing-nut twist plug.



6" AND 8" FLUSHING BRANCH

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

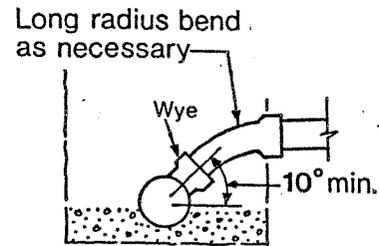
STANDARD DRAWING NO. 9



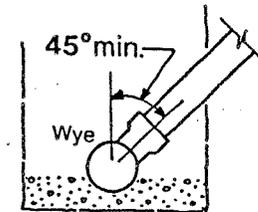
GENERAL NOTES:

1. Lower Laterals shall have the same bedding and backfill as the Collector Sewer.
2. Contractor shall use the most appropriate connection (A, B, C) for the particular situation encountered.
3. Place well compacted bedding material 18" wide under the wye branch, the fitting, and unsupported pipe.
4. All Lower Lateral pipe and fittings shall be the same material as the Collector Sewer, unless otherwise permitted by the District.
5. The Inspection Cleanout is for the purpose of testing / inspecting the Lower Lateral, and for serving to locate the end of the Lower Lateral stub.

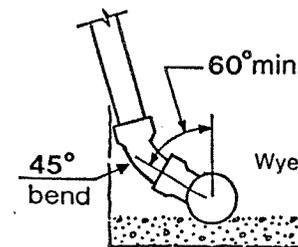
ELEVATIONS



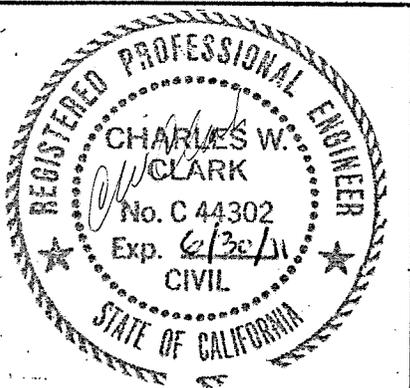
TYPE A



TYPE B



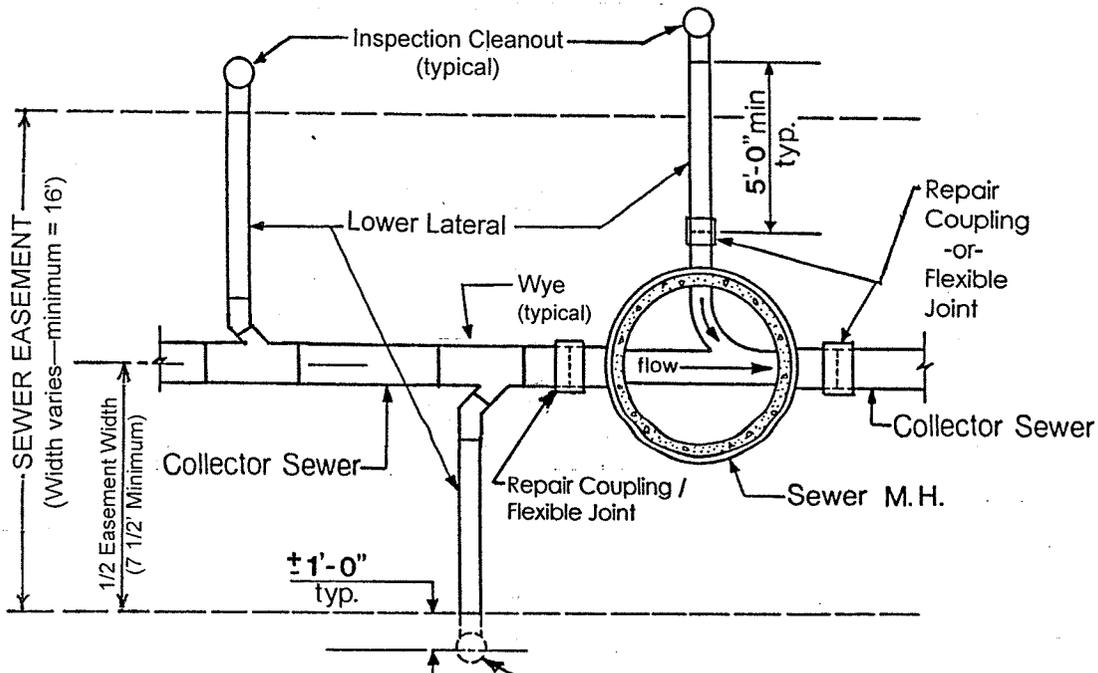
TYPE C



BUILDING SEWER – LOWER LATERAL

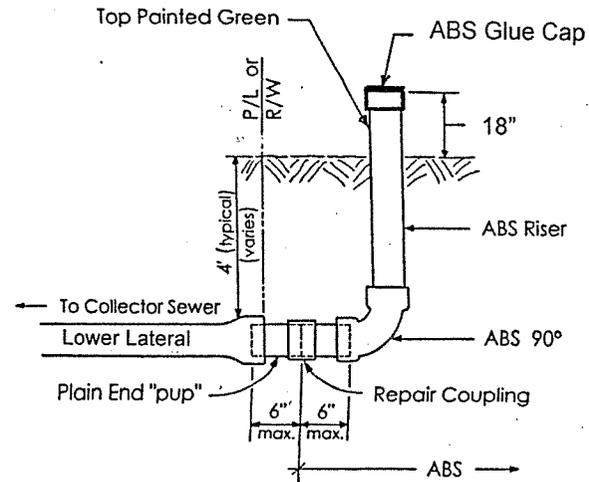
SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 10

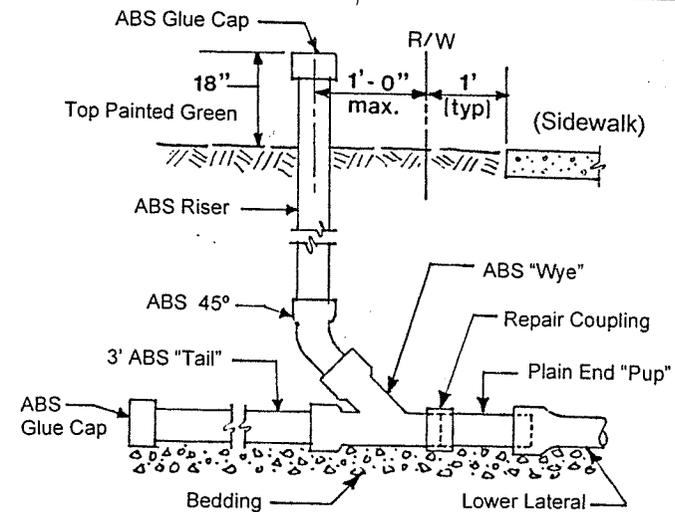


Alternate to Inspection Cleanout: Inspection Port,
when required by the District
(Future Property Line Cleanout – Inspection Port removed)

**PLAN
BUILDING SEWER LOWER LATERAL**



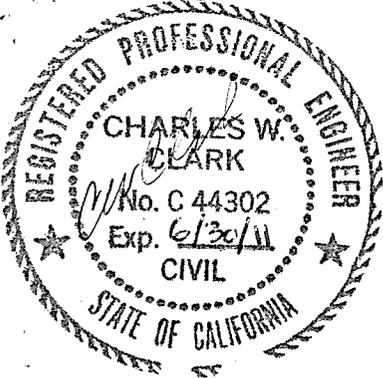
DETAIL – INSPECTION PORT

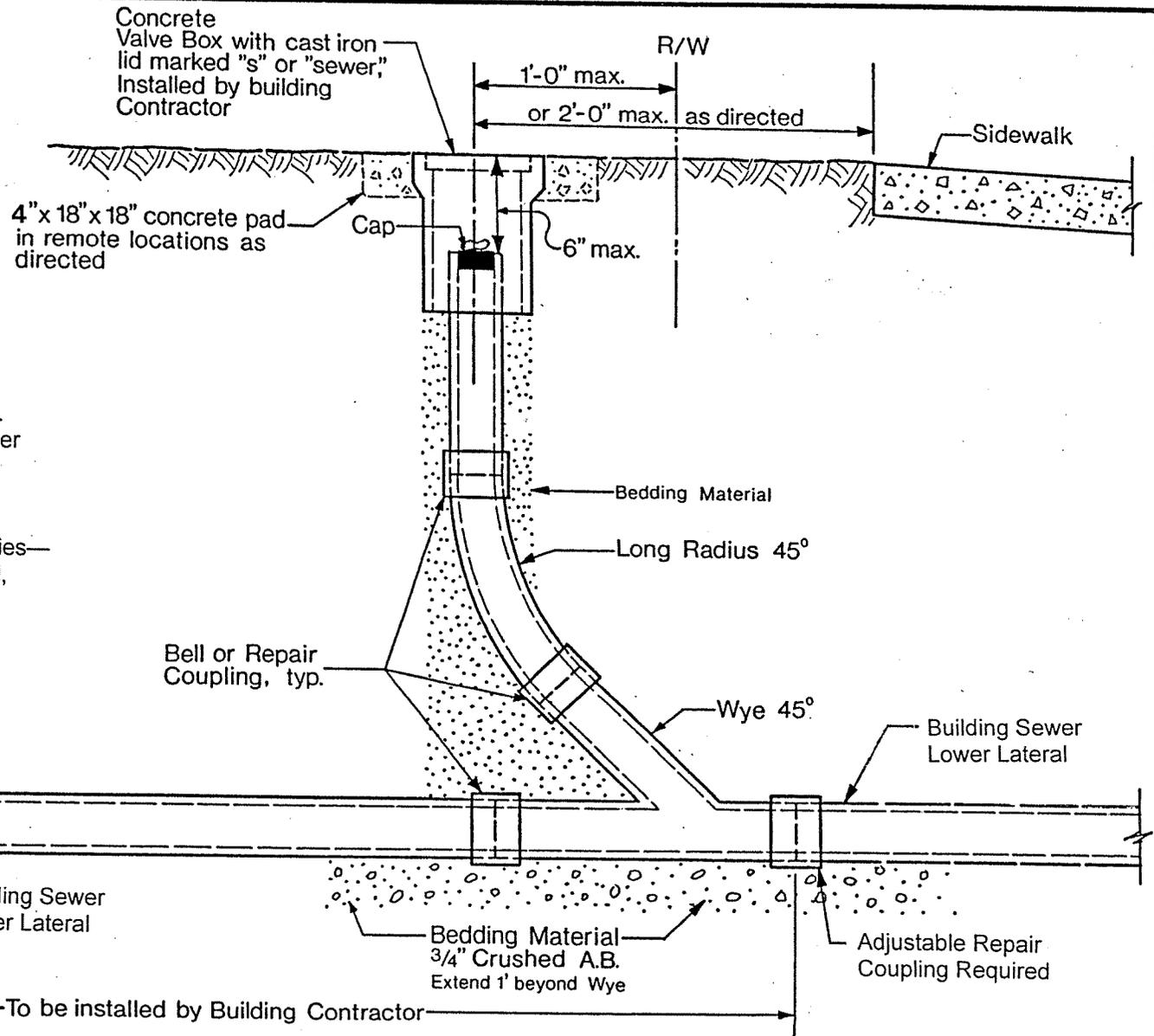


DETAIL – INSPECTION CLEANOUT

**BUILDING SEWER – LOWER LATERALS
(EASEMENTS)**

**SOUTH PLACER MUNICIPAL UTILITY DISTRICT
STANDARD DRAWING NO. 11**





NOTES:

1. All cleanout pipe and fittings shall be A.B.S. Schedule 40 pipe and the same size as the Lower Lateral to which it connects, unless otherwise required by the District

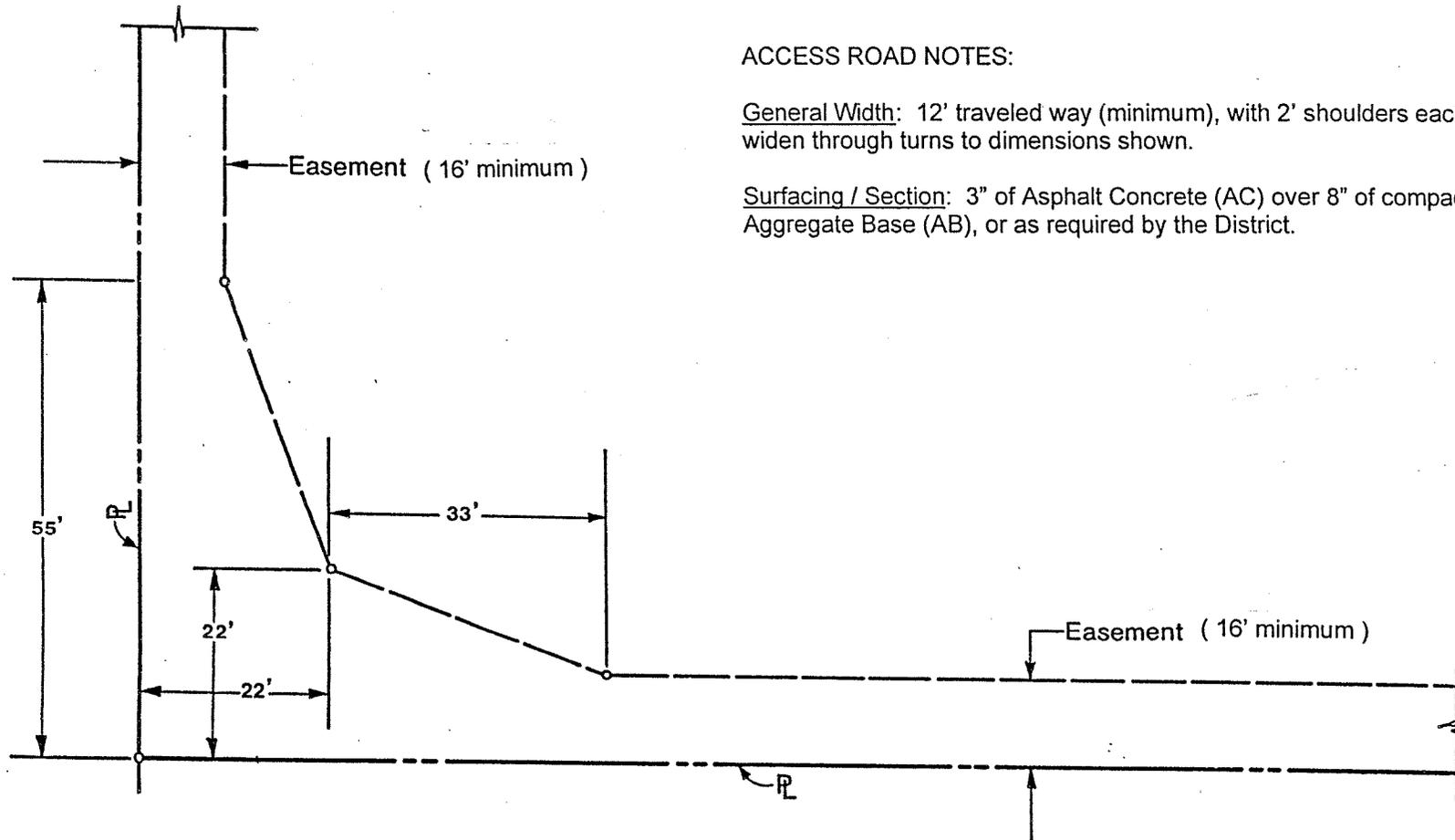
2. Cap shall be non-corrosive, Cherne Industries—End of pipe gripper plug, model 270245 or equal, inside wing-nut twist plug.



PROPERTY LINE CLEANOUT TO GRADE

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

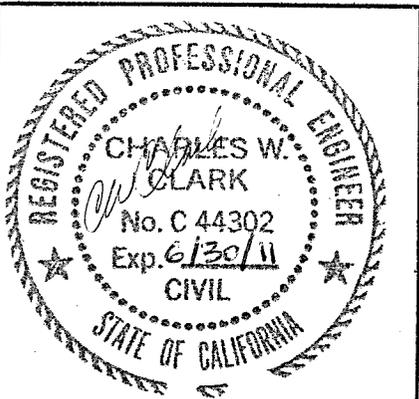
STANDARD DRAWING NO. 12



ACCESS ROAD NOTES:

General Width: 12' traveled way (minimum), with 2' shoulders each side, widen through turns to dimensions shown.

Surfacing / Section: 3" of Asphalt Concrete (AC) over 8" of compacted Aggregate Base (AB), or as required by the District.

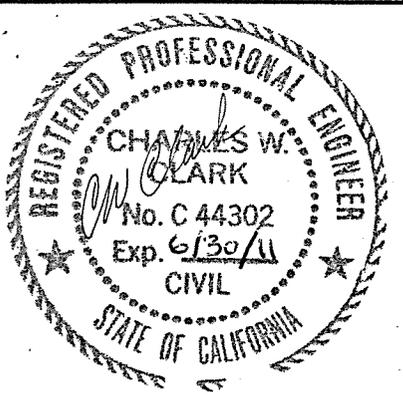
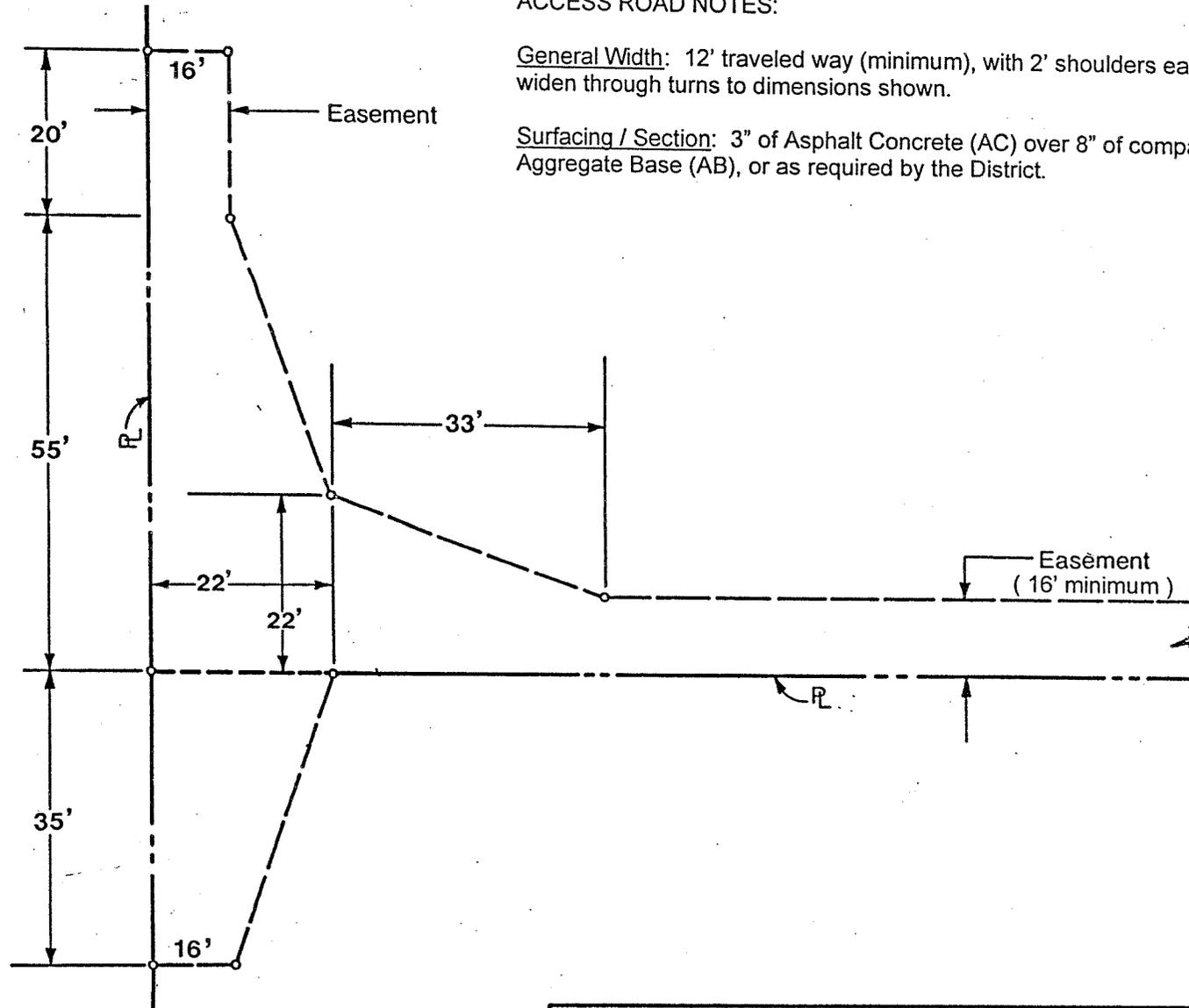


<p>MAINTENANCE ACCESS ROAD EASEMENT RIGHT TURN</p>
<p>SOUTH PLACER MUNICIPAL UTILITY DISTRICT STANDARD DRAWING NO. 13</p>

ACCESS ROAD NOTES:

General Width: 12' traveled way (minimum), with 2' shoulders each side, widen through turns to dimensions shown.

Surfacing / Section: 3" of Asphalt Concrete (AC) over 8" of compacted Aggregate Base (AB), or as required by the District.



**MAINTENANCE ACCESS ROAD EASEMENT
HAMMERHEAD TURN AROUND**

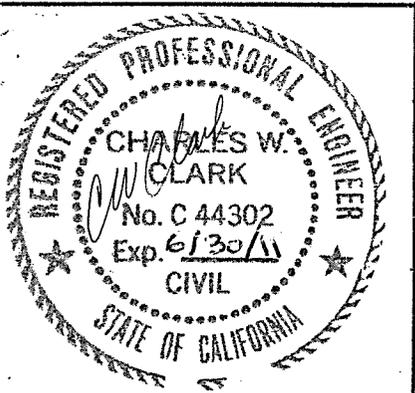
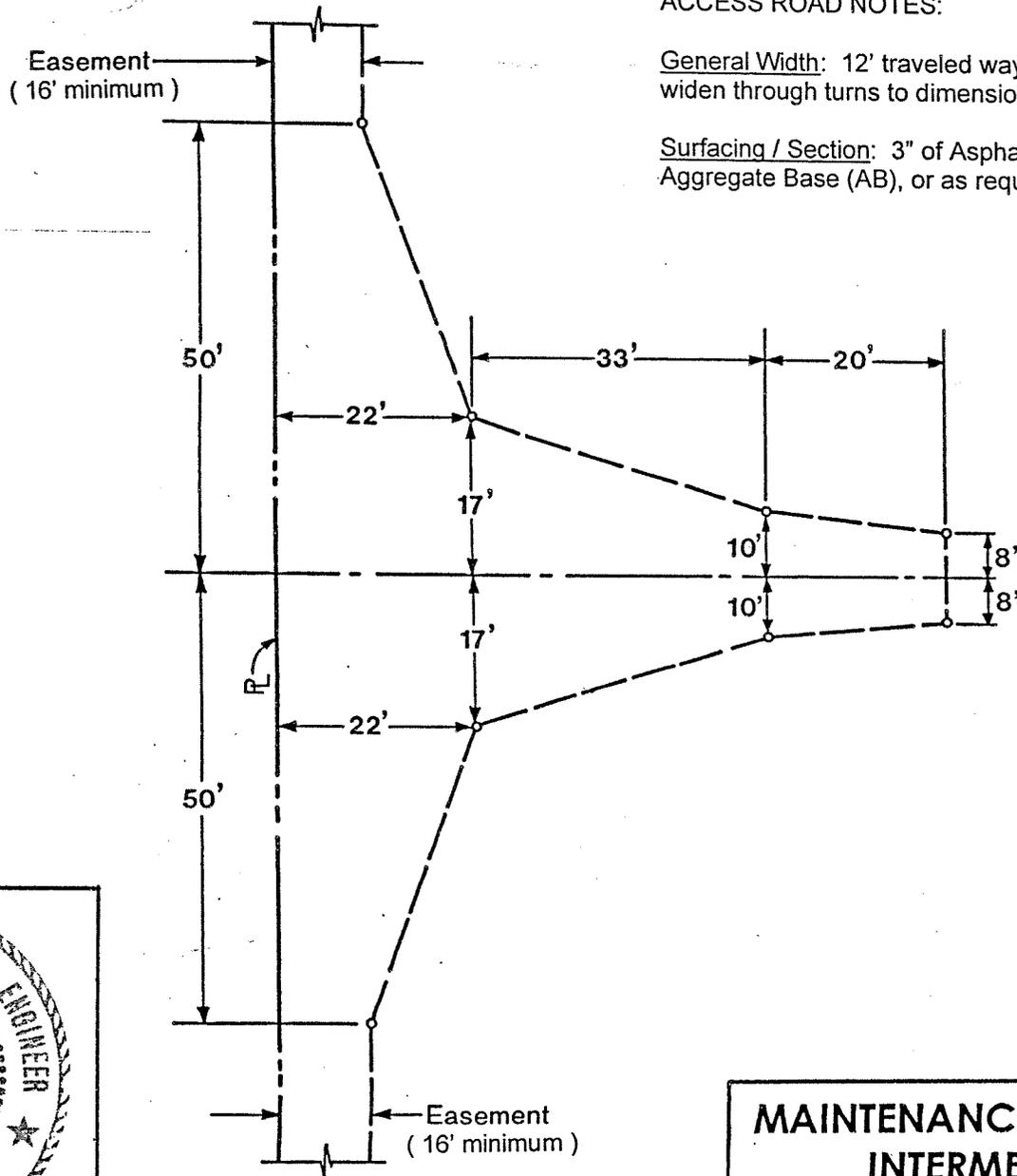
SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 14

ACCESS ROAD NOTES:

General Width: 12' traveled way (minimum), with 2' shoulders each side, widen through turns to dimensions shown.

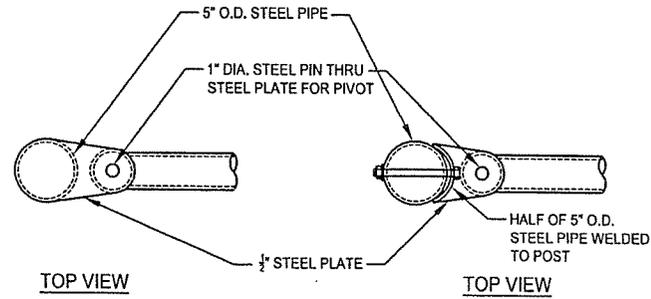
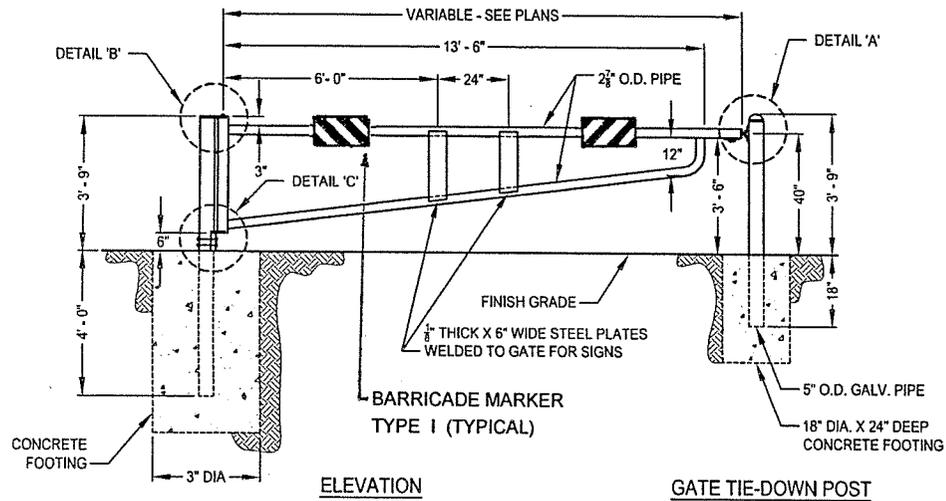
Surfacing / Section: 3" of Asphalt Concrete (AC) over 8" of compacted Aggregate Base (AB), or as required by the District.



**MAINTENANCE ACCESS ROAD EASEMENT
INTERMEDIATE TURN AROUND**

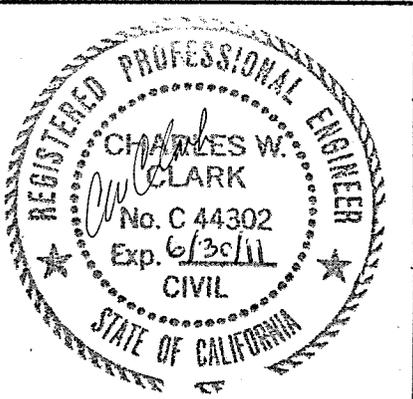
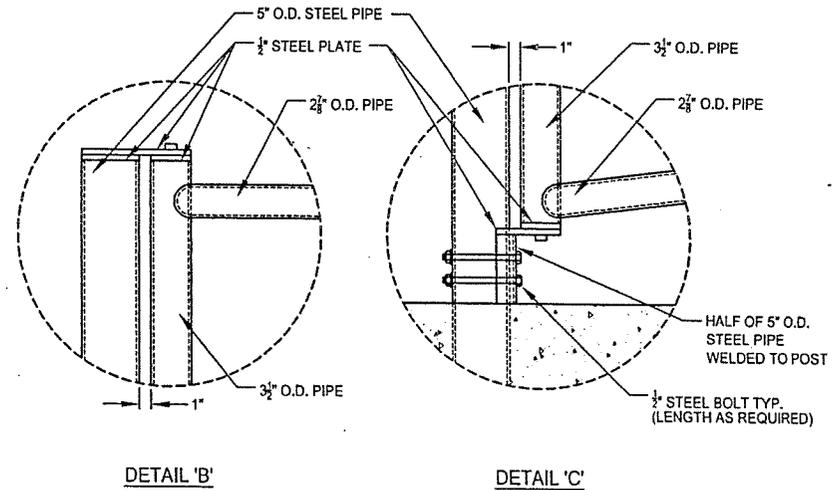
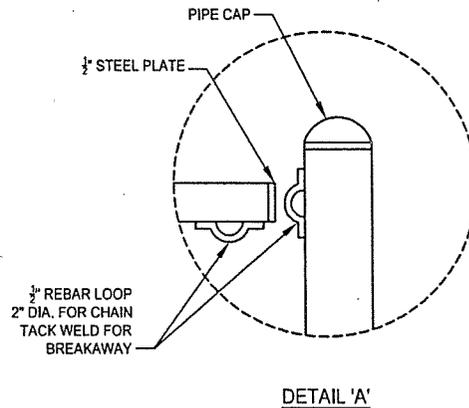
SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 15



NOTES:

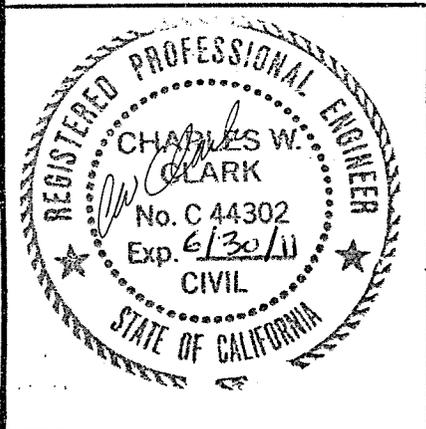
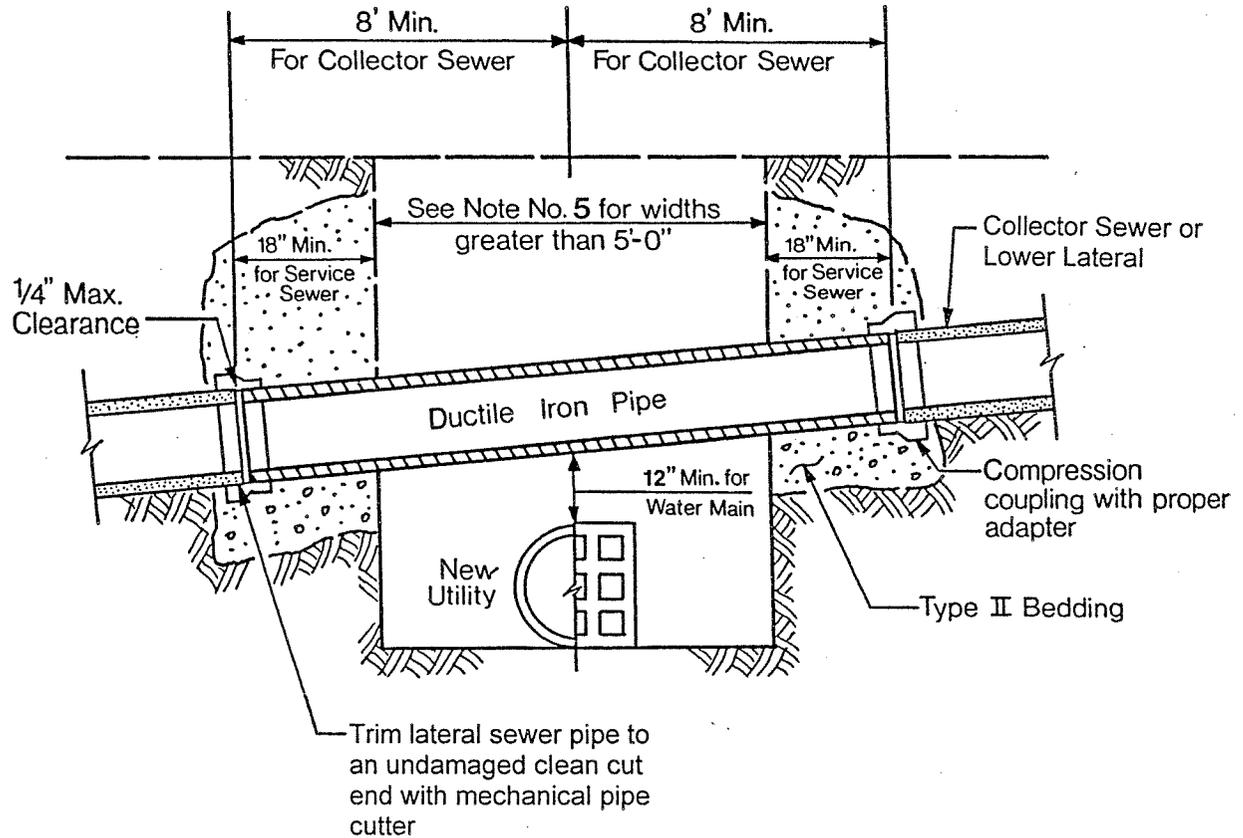
1. ALL PIPES SHALL BE BLACK STEEL PIPES. OUTSIDE DIAMETER (O.D.) AND WELDED.
2. ALL STEEL TO BE PAINTED WITH 2 COATS OF PRIMER AND INSIGNIA YELLOW.
3. PROVIDE TWO (2) O.D. PIPES AND INSTALL WITH CONCRETE FOOTING (18" X 24" DIA.) FOR TIE-DOWN WHEN GATE IS OPENED AND CLOSED.



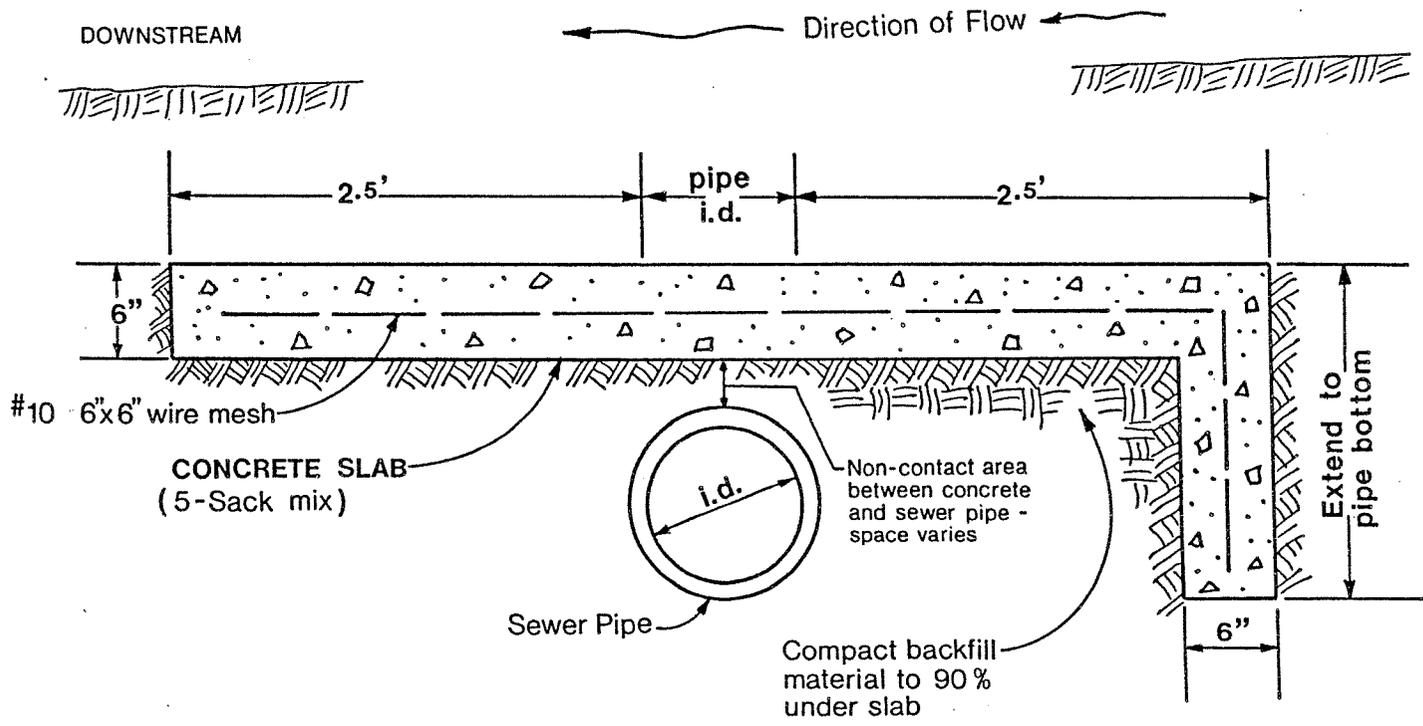
ACCESS ROAD PIPE GATE
SOUTH PLACER MUNICIPAL UTILITY DISTRICT
STANDARD DRAWING NO. 16

NOTES:

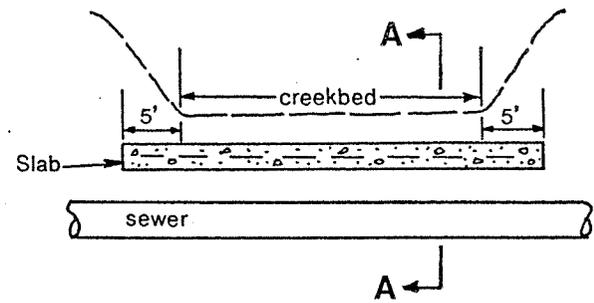
1. This detail is applicable to new utilities crossing existing sewers. In cases involving new sewer and new utility construction in conjunction with new improvements for developments, Ductile Iron Pipe (DIP) shall be used for the entire sewer run, manhole to manhole, or entire building sewer lower lateral, collector sewer to the right-of-way.
2. DIP is to be used as per this detail for the existing collector sewer or existing lower lateral whenever the sewer is cut or damaged, whenever new construction passes beneath the sewer, and whenever clearance between the existing sewer and other utility is 6" or less. In no case shall clearance be less than 4", unless otherwise approved by the District.
3. Inside diameter of DIP to be the same as the pipe to which it connects.
4. Only after written permission has been received from the District, will alteration of existing sewer grades be permitted.
5. Whenever the span of DIP exceeds 5'-0", place Type II bedding to 6" above the DIP and 18" each side of its centerline.
6. Water / Sewer crossings shall conform to state health department and water purveyor requirements and as directed by the District.



UTILITY CROSSING
SOUTH PLACER MUNICIPAL UTILITY DISTRICT
STANDARD DRAWING NO. 17



SECTION A - A

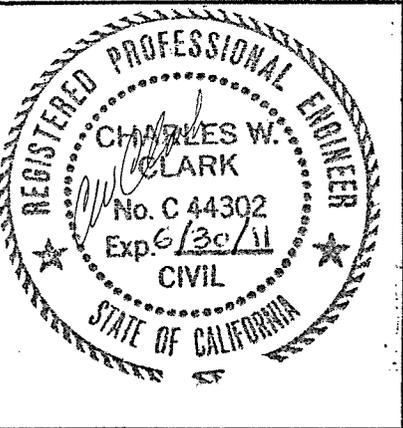
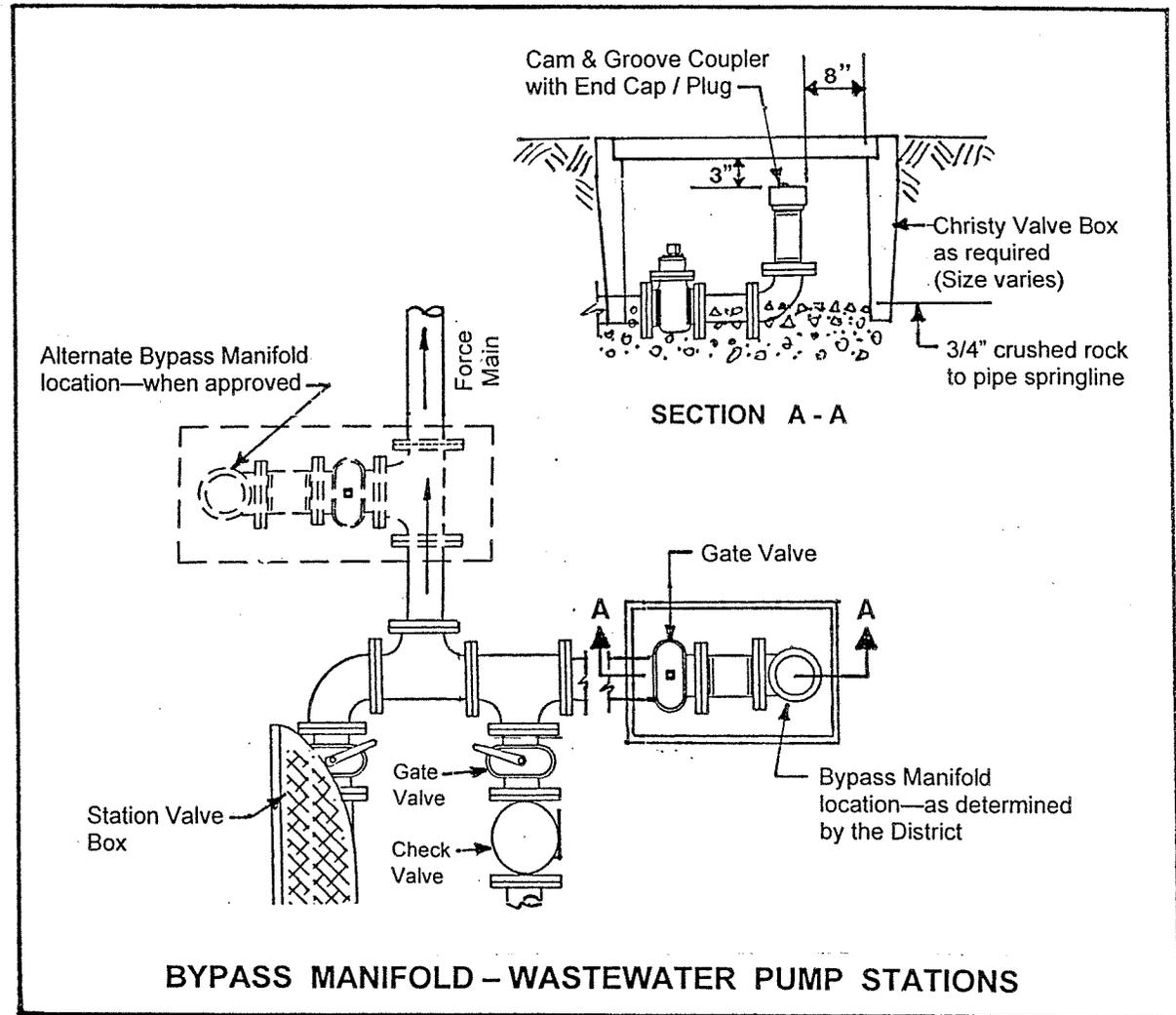
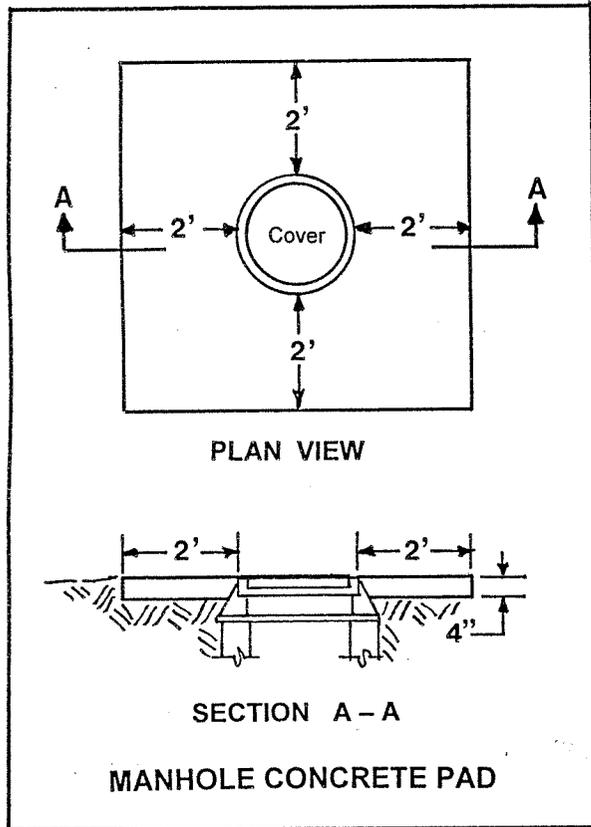


GENERAL NOTES:

1. Concrete slab to extend full creekbed width, plus 5' minimum each side.
2. Above ground creek crossings must be designed by a registered civil engineer, and design approved by the District.



CONCRETE EROSION PROTECTION
SOUTH PLACER MUNICIPAL UTILITY DISTRICT
STANDARD DRAWING NO. 18



MISCELLANEOUS DETAILS

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 19

SEWER PLAN ONLY APPROVED BY:
SOUTH PLACER MUNICIPAL UTILITY DISTRICT

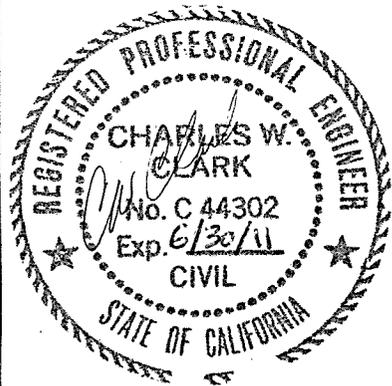
GENERAL MANAGER

DATE

△ SEWER REVISION APPROVED BY:
SOUTH PLACER MUNICIPAL UTILITY DISTRICT

GENERAL MANAGER

DATE



SIGNATURE AND REVISION BLOCKS

SOUTH PLACER MUNICIPAL UTILITY DISTRICT

STANDARD DRAWING NO. 20