



## SEWER DRAWING LISTING

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<u>Plate No.</u>	<u>Title</u>
I	Legend
II	Precast Reinforced Concrete Manhole
III	Deleted
IV	Drop Manhole
V	Manhole Frame and Cover
VI	Dead End – VCP Pipe
VI-A	Dead End – PVC and ABS Pipe
VII	Dead End Frame and Cover
VIII	Chimney Pipe
IX	House Connection

EAST VALLEY WATER DISTRICT  
SEWER DIVISION

LEGEND

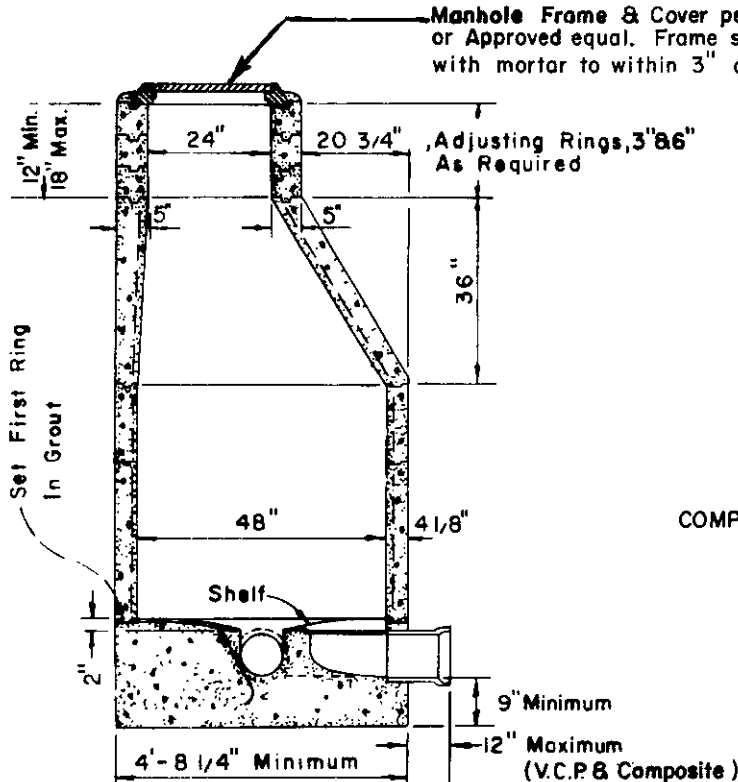
	SEWER PROPOSED
	EXISTING SEWER
	SAN BERNARDINO CITY LIMITS
	DISTRICT BOUNDARY
	ENCASEMENT
	DEAD END
	HOUSE CONNECTION SEWER
	WYE BRANCH
	CHIMNEY PIPE PROPOSED
	EXISTING CHIMNEY PIPE
	PORTLAND CEMENT CONCRETE IN SECTION
	PORTLAND CEMENT CONCRETE IN PLAN
	3" G GAS LINE EXISTING
	3" W WATER LINE EXISTING
	3MTD ELECTRICAL AND TELEPHONE CONDUIT EXISTING
	POWER POLE AND GUY LINE
	TRAFFIC SIGNAL EXISTING
	WELL, WATER
	M.H. MANHOLE
	J.M.H. JUNCTION MANHOLE
	D.M.H. DROP MANHOLE
	H.C. HOUSE CONNECTION SEWER
	D.E. DEAD END
	V.C.P. VITRIFIED CLAY PIPE
	D.I.P. DUCTILE IRON PIPE
	P.V.C. POLYVINYL CHLORIDE PIPE
	A.B.S. ACRYLONITRILE BUTADIENE STYRENE

EAST VALLEY WATER DISTRICT

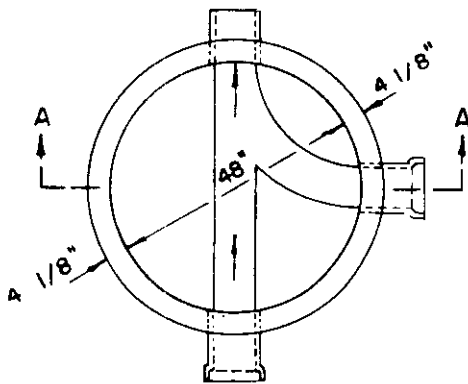
SEWER DIVISION

PRECAST REINFORCED CONCRETE MANHOLE

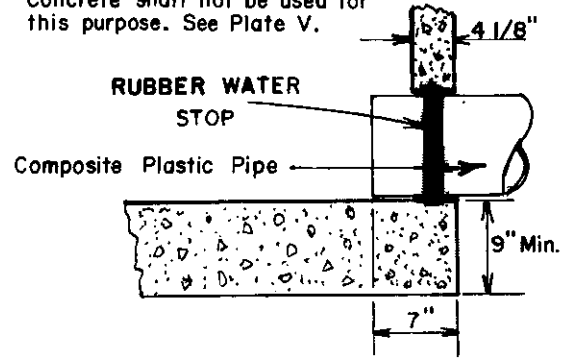
Manhole Frame & Cover per Alhambra Foundry No. A-1590; or Approved equal. Frame shall be grouted on to grade rings with mortar to within 3" of top of road. A minimum of 3" of asphalt shall be used when raising frame to final grade. Concrete shall not be used for this purpose. See Plate V.



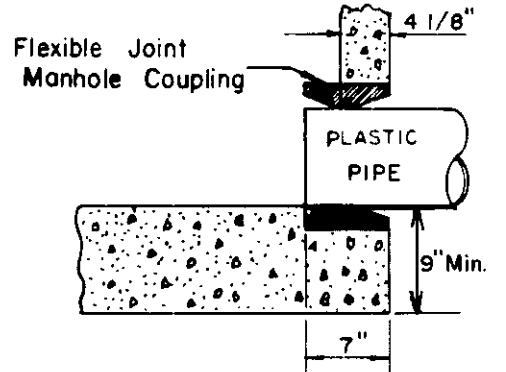
SECTIONAL ELEVATION A - A



PLAN OF BASE



COMPOSITE PLASTIC MANHOLE CONNECTION



PVC MANHOLE CONNECTION

NOTES

1. Inside joints shall be neatly mortared or fitted with a flexible plastic gasket per the specifications.
2. Concrete base and stub walls shall be poured in one operation to a point 2" above the top of inlet pipes. All pipes shall be rigidly supported by temporary piers during this operation.
3. The depth of channel shall equal the pipe diameter for all sizes of pipe.
4. Precast reinforced concrete manholes shall be manufactured to meet the requirements of ASTM C 478 specifications. (Latest Revision)
5. Reinforcement: Cone and Riser minimum  $A_s = 0.12$  sq. in. per ft.
6. Concrete: Minimum compressive strength 4,000 psi at 28 days.
7. For sewer lines 21" and larger, manholes shall be 60" in diameter with a 24" opening.

NEENAH FOUNDRY No. R-1575 DELETED	3-4-92	J.E.F.
REVISION	DATE	BY

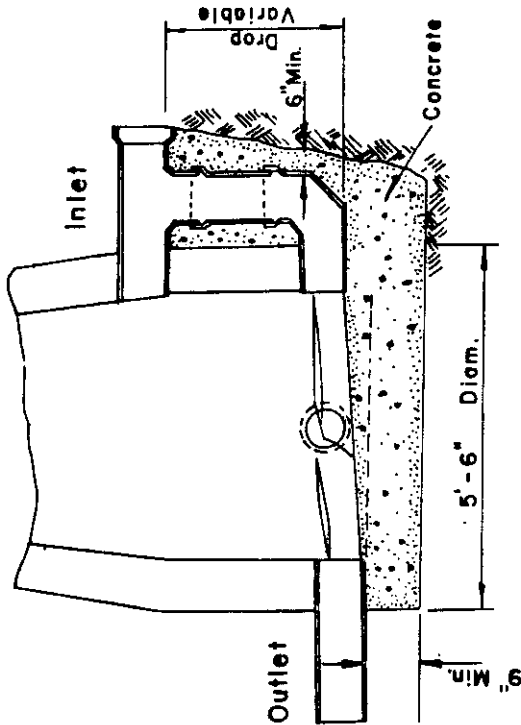
PLATE II

# DROP MANHOLE

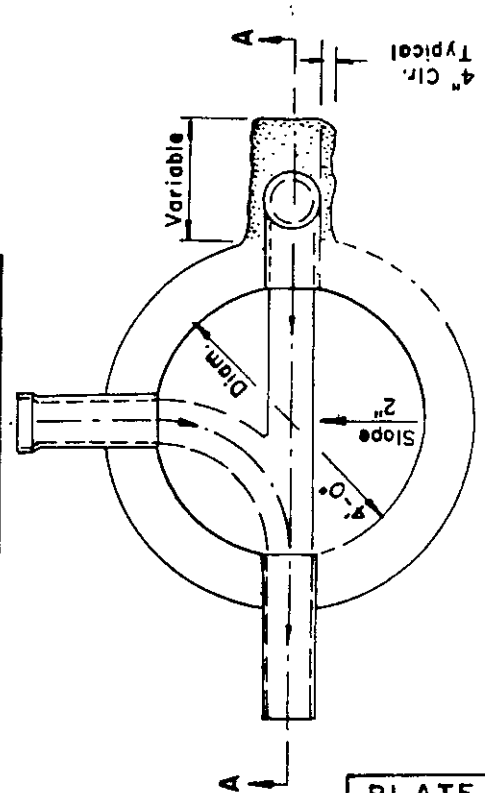
NOTE: See Plate II for Std.  
Construction of Manhole

NOTE: All drop manhole fittings shall be of the  
same material as the sewer main and shall  
be of solid wall construction.

Standard Drop Manhole tee and two  
1/8 bends, same size as inlet  
sewer main.



SECTION A-A



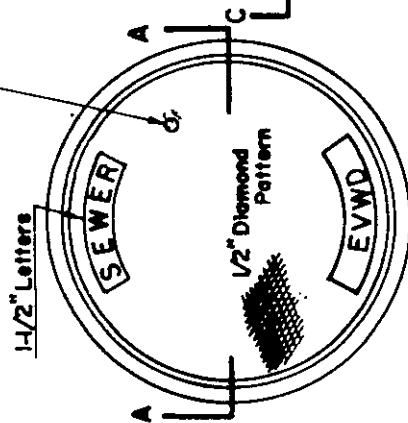
PLAN

**MANHOLE FRAME & COVER**

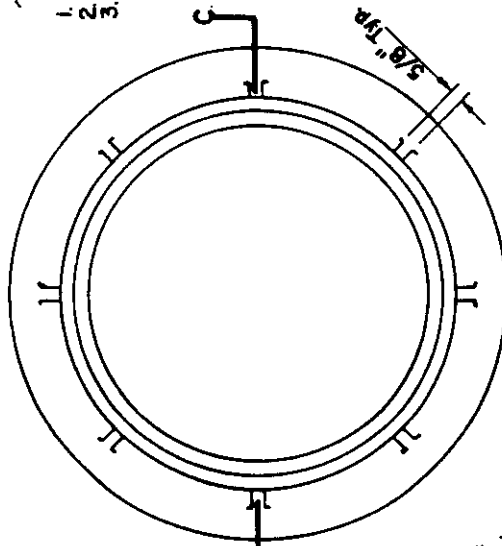
**NOTES:**

1. RING AND COVER TO BE MACHINED AS SHOWN FOR A SNUG FIT.
2. APPROXIMATE WEIGHT RING & COVER = 385 L.B. MIN.
3. C.I. TO HAVE 30,000 P.S.I. TENSILE STRENGTH

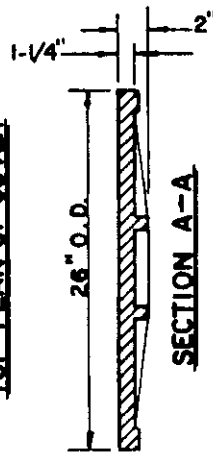
Drill and tap 1" iron pipe thread and install 1" sheet ell. in bottom of cover



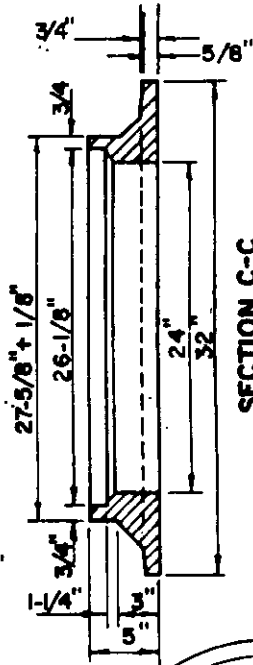
**TOP PLAN OF COVER**



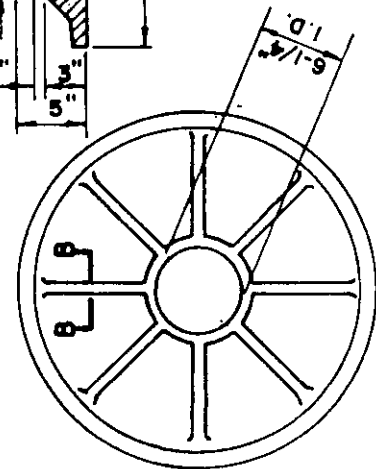
**PLAN OF FRAME**



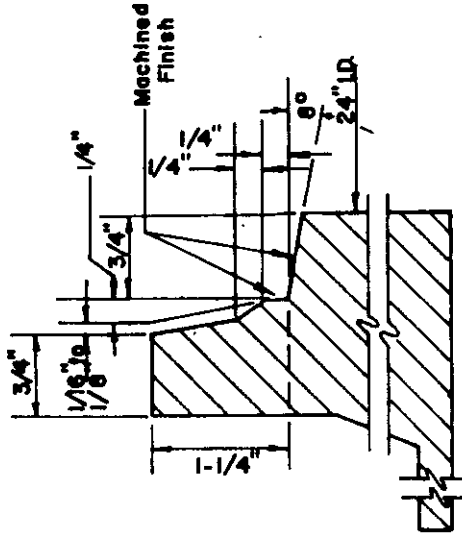
**SECTION A-A**



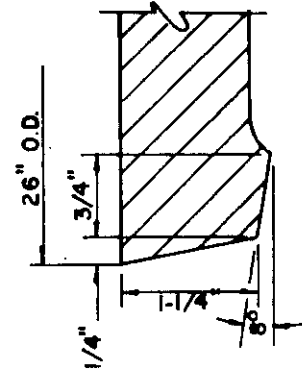
**SECTION C-C**



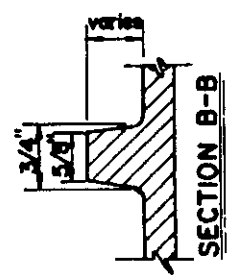
**BOTTOM PLAN OF COVER**



**ENLARGED SECTION OF RING**



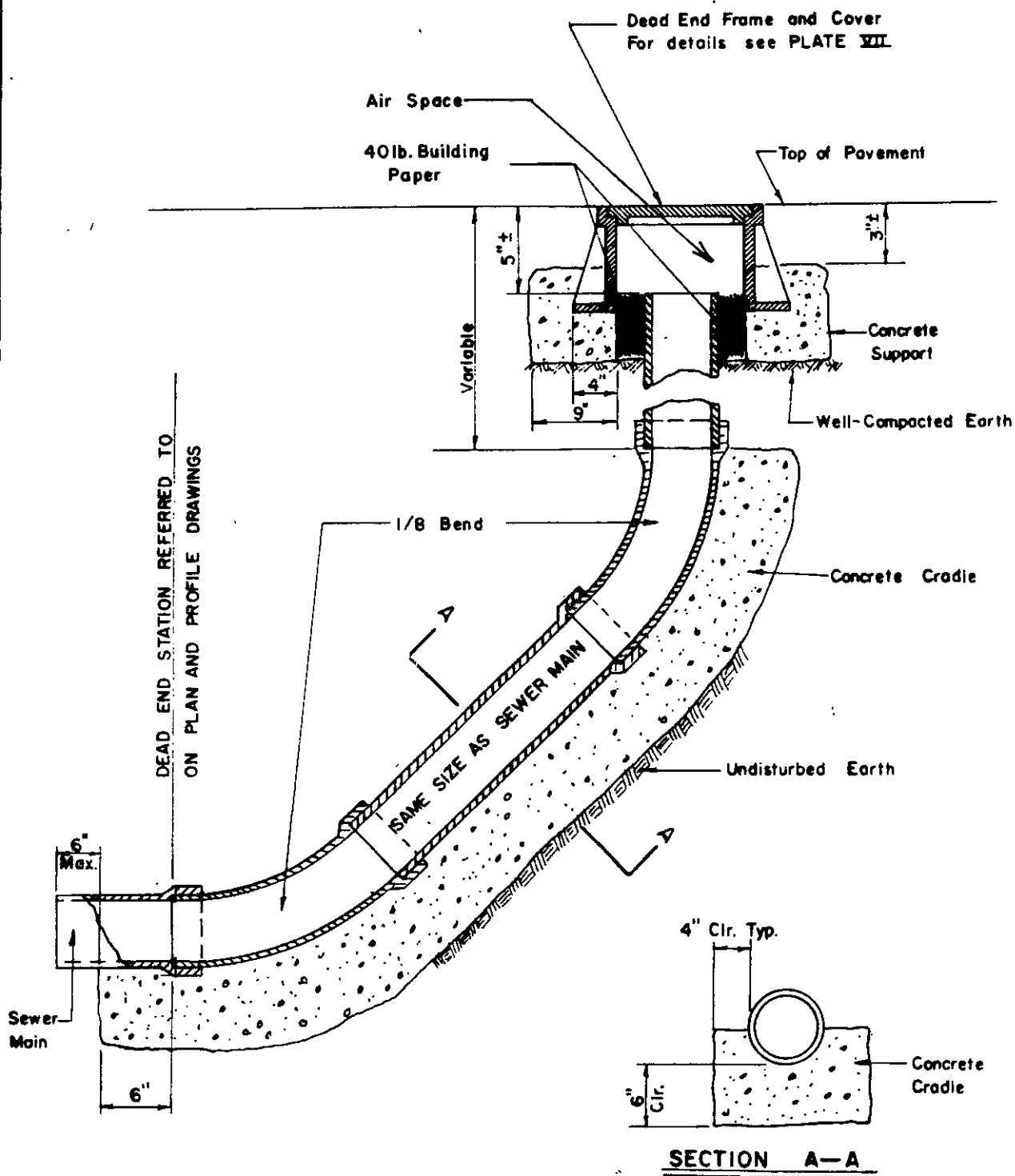
**ENLARGED SECTION OF COVER**



**SECTION B-B**

EAST VALLEY WATER DISTRICT  
SEWER DIVISION

DEAD END - VCP PIPE

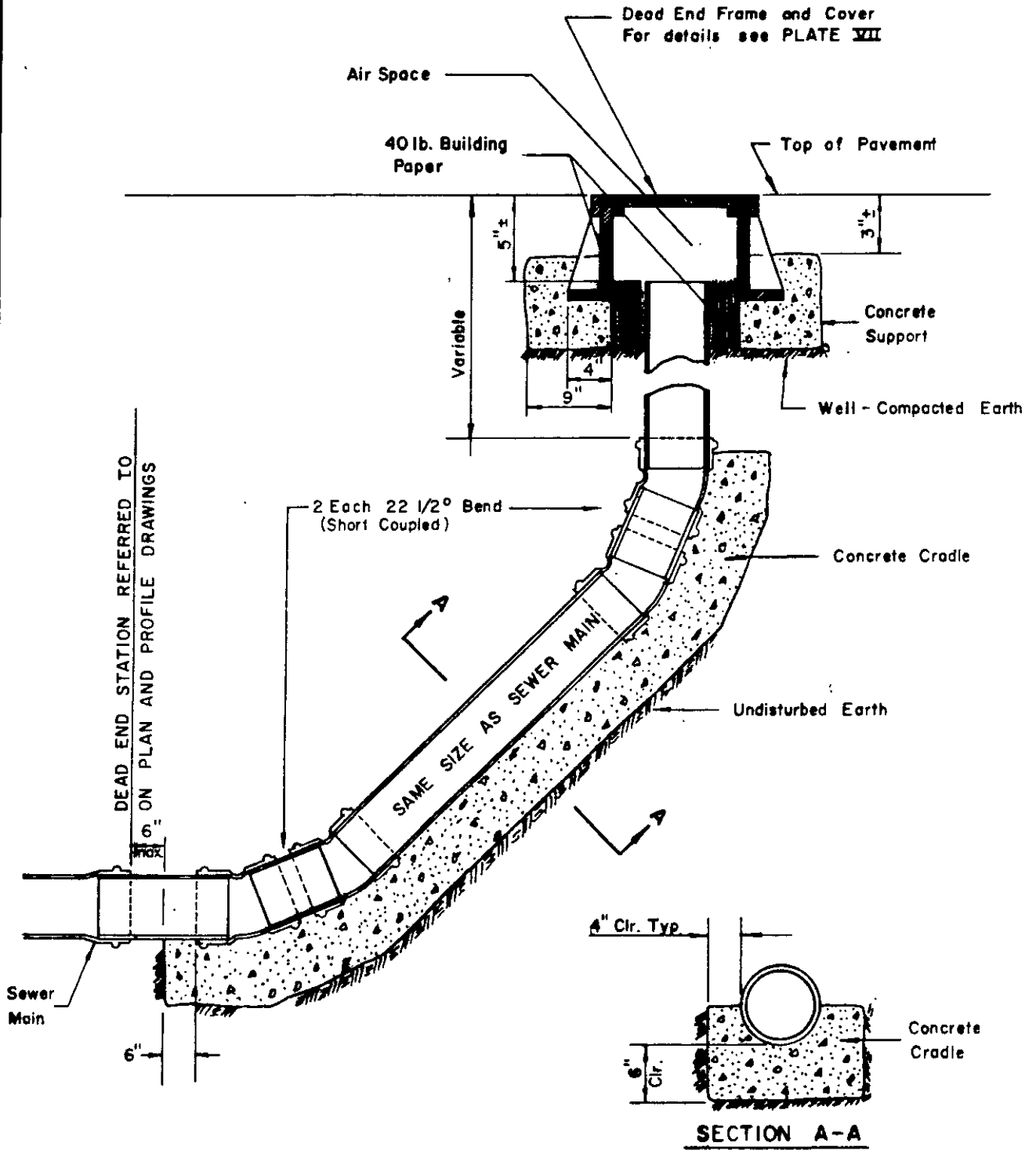


**NOTE:**

The concrete cradle shown above may be required by the District Engineer when a firm and unyielding foundation is not obtainable.

EAST VALLEY WATER DISTRICT  
SEWER DIVISION

DEAD END - PVC & ABS PIPE



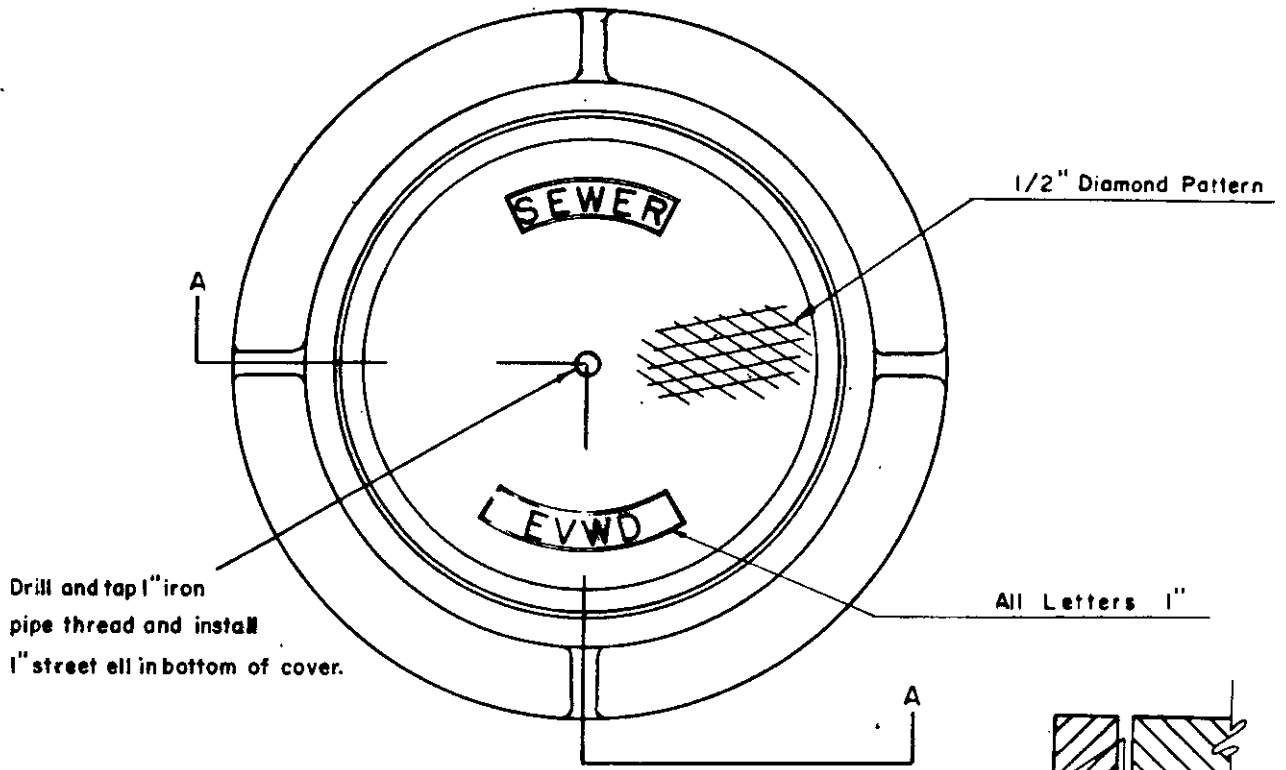
**NOTE:**

The concrete cradle shown above may be required by the District Engineer when a firm and unyielding foundation is not obtainable.

PLATE VI-A

EAST VALLEY WATER DISTRICT  
SEWER DIVISION

DEAD END FRAME & COVER



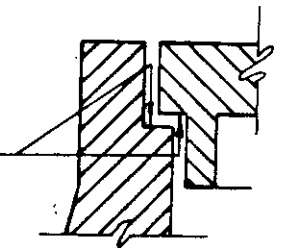
Drill and tap 1" iron pipe thread and install 1" street ell in bottom of cover.

1/2" Diamond Pattern

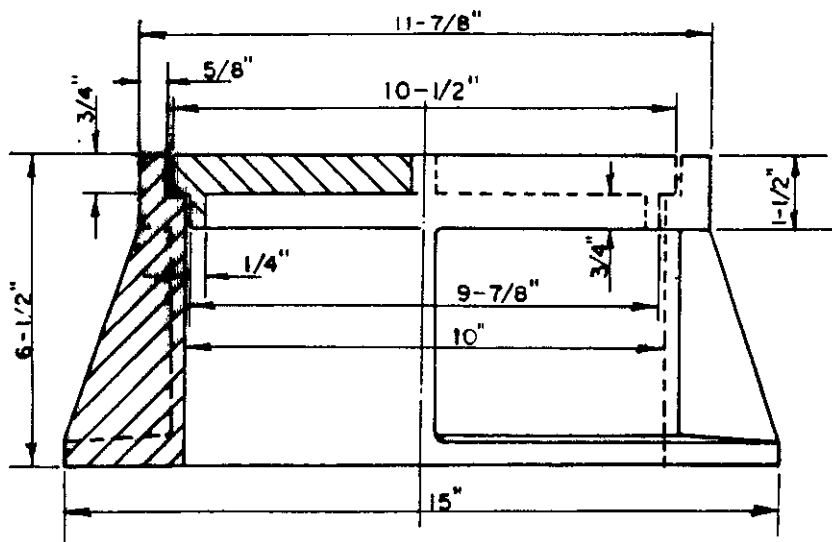
All Letters 1"

PLAN

Machined Finish



COVER SEATING DETAIL



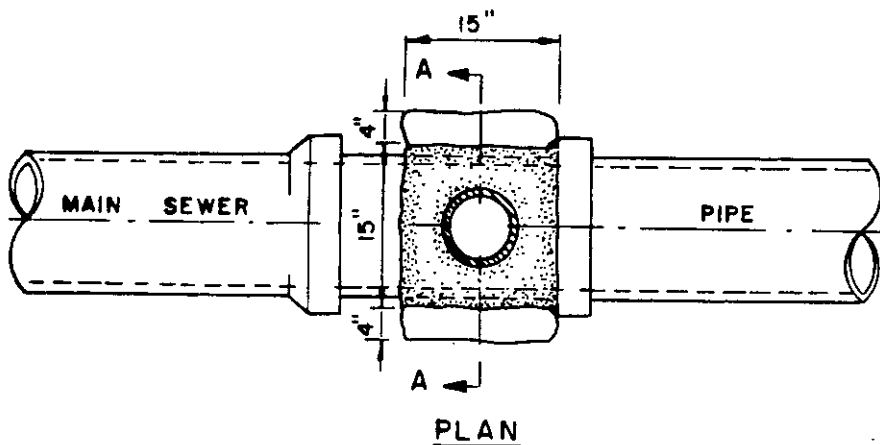
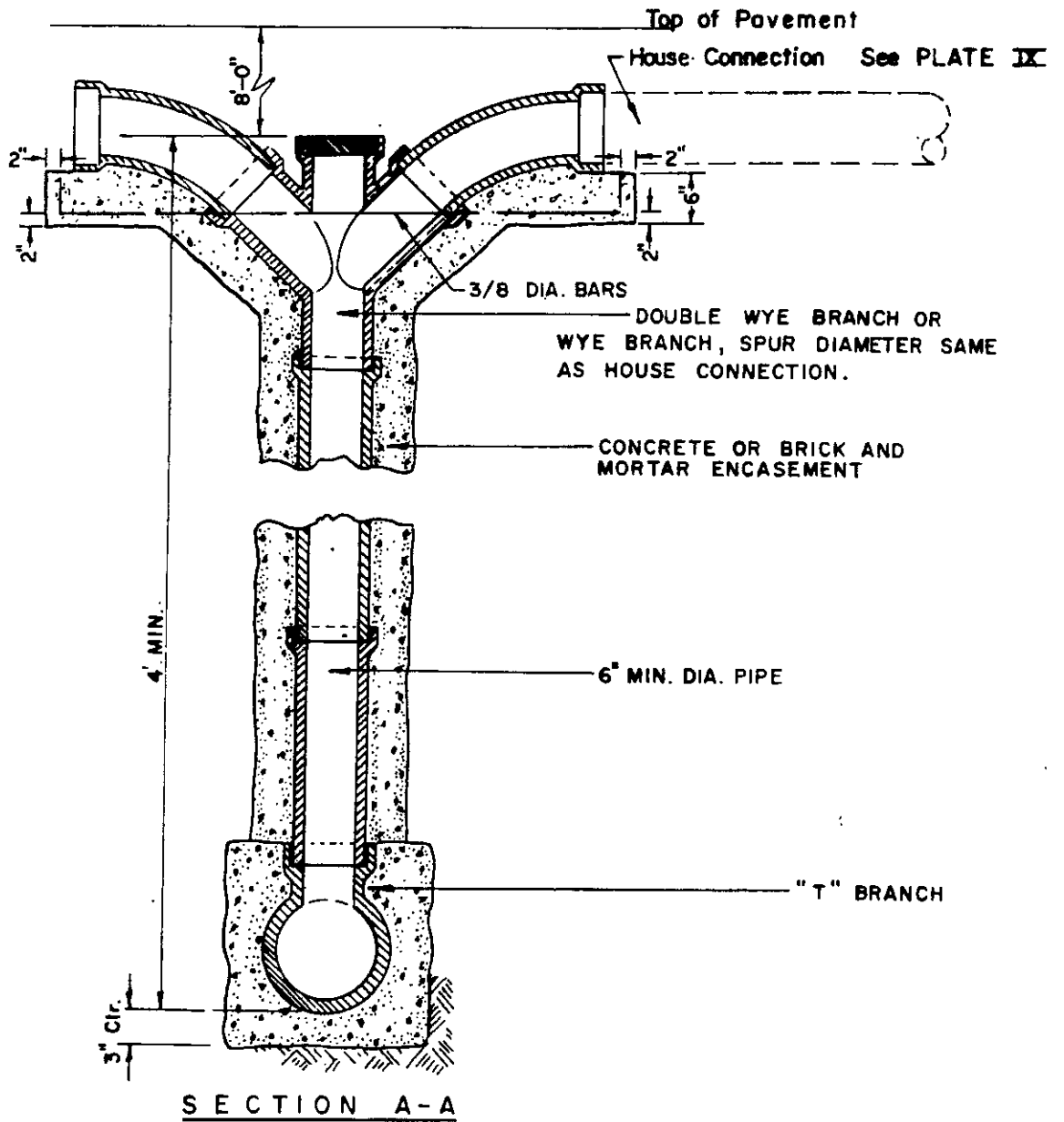
SECTIONAL ELEVATION A-A

NOTE: Covers and Frames machined to fit. Approximate weight = 85 lbs.

PLATE VII

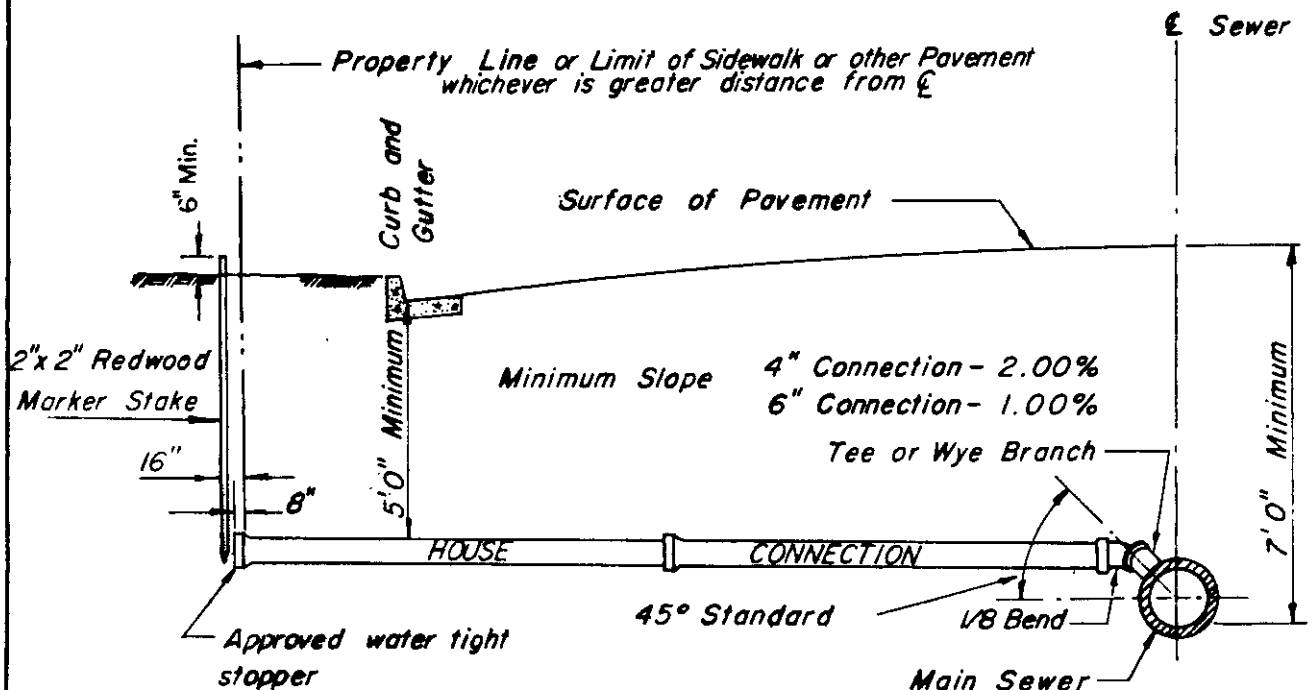
EAST VALLEY WATER DISTRICT  
SEWER DIVISION

CHIMNEY PIPE



EAST VALLEY WATER DISTRICT  
SEWER DIVISION

HOUSE CONNECTION



**NOTES**

1. Where curb and gutter is designed, but not installed, sewer lateral shall be positioned so the minimum clearance will be maintained under proposed curb installation.
2. Where curb and gutter do not exist and are not designed, the lateral shall be positioned so that the minimum clearance at the property line will be 5'-6" as measured from the crown of the existing street.
3. The District shall approve design of connection for multiple family dwellings, commercial lots, schools and places of a greater than normal household water use.
4. Two inch x two inch (2"x2") redwood marker stakes shall be placed at the end of each house connection, Marker stakes are to be a minimum of 6" above natural ground and extend to the house connection invert.
5. House Connection to be at right angles to Main Line Sewer unless location of main sewer does not permit.

PLATE IX