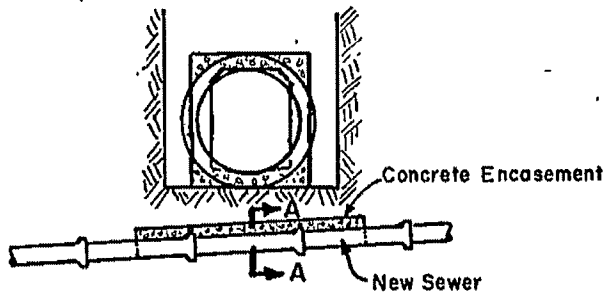


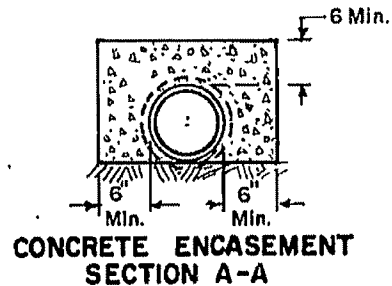
NOTES

1. Concrete for encasement and blanket shall be CLASS "B" concrete.
2. The concrete encasement or blanket shall extend across the full width of the storm drain trench plus an additional 12 inches into undisturbed earth on each side of the storm drain trench.
3. When the clearance between the bottom of the storm drain and the top of the sewer is between 6 inches and 18 inches the sewer shall be encased for Case I or blanketed for Case II as shown below.

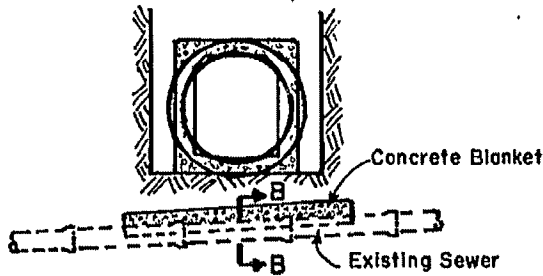


TYPICAL SECTION

PROTECTION FOR NEW SEWERS - CASE I

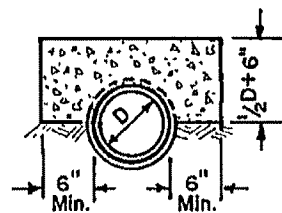


CONCRETE ENCASMENT
SECTION A-A



TYPICAL SECTION

PROTECTION FOR EXISTING SEWERS - CASE II



CONCRETE BLANKET
SECTION B-B

NOTES

1. CAST IN-PLACE STORM DRAINS

(a.) When the clearance between the bottom of the storm drain and the top of the sewer is less than 6 inches, the sewer shall be encased monolithically with the base of the storm drain; in addition it shall be constructed or replaced, as the case may be, with standard cast iron soil pipe, in the case of house connections, or with class "B" or class "150" cast iron pipe, in the case of main line sewers.

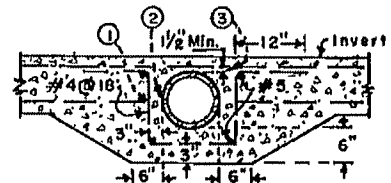
(b.) When the bottom slab of the cast-in-place storm drain intersects sewers under 15 inches in diameter, construct per typical encasement as shown below.

2. PRECAST PIPE STORM DRAINS

When the clearance between the bottom of the storm drain and the top of the sewer is less than 6 inches, the sewer shall be encased, in addition it shall be constructed or replaced with standard cast iron soil pipe, in the case of house connections, or with class "B" or class "150" cast iron pipe, in the case of main line sewers.

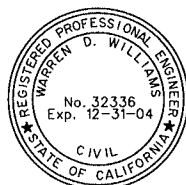
3. WRAP 1/2" MASTIC AROUND SEWER PIPE.

- ① Cut off 2" clear of C.I.P
- ② Construct C.I.P or replace existing sewer pipe with C.I.P
- ③ Clearance between the top of the sewer pipe and the steel reinforcement shall be a minimum of 1 1/2"



TYPICAL ENCASMENT WHERE SEWER IS IN BASE AND APPROXIMATELY AT RIGHT ANGLES TO STORM DRAIN

L.A.C.F.C.D. STD. NO. 2-D251



RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	
APPROVED BY:	<i>Warren D. Williams</i>
CHIEF ENGINEER	
DATE: April 5, 2004	R.C.E. NO. 32336

SANITARY SEWER
PROTECTION

STANDARD DRAWING NUMBER M807