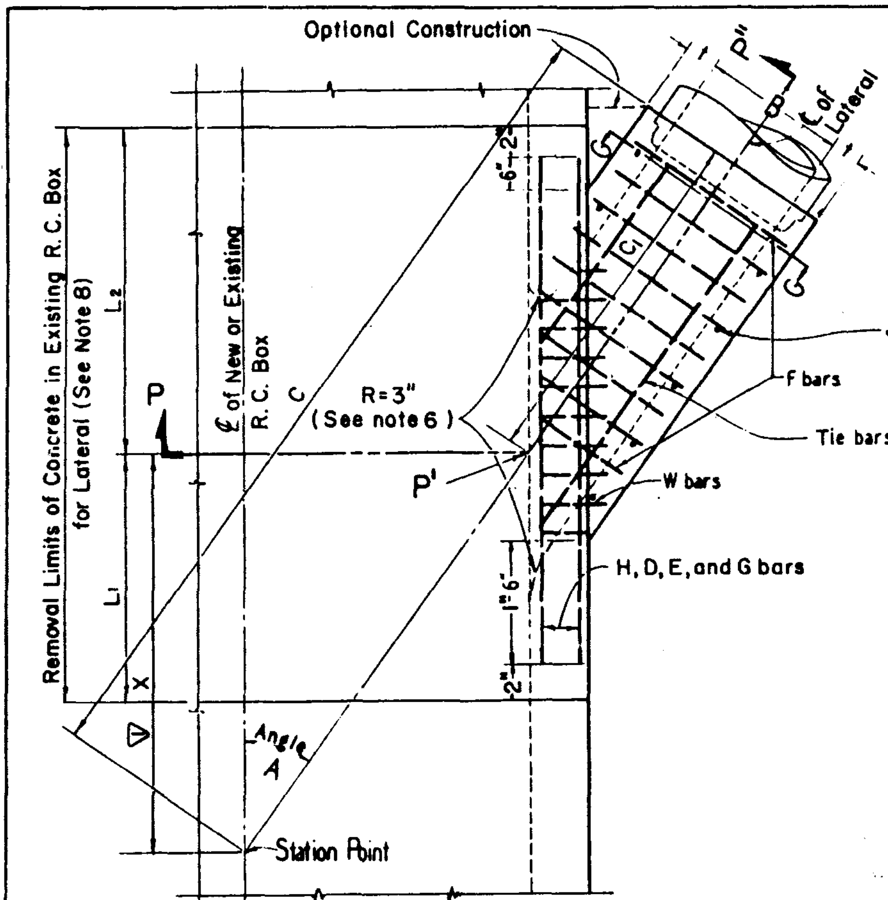
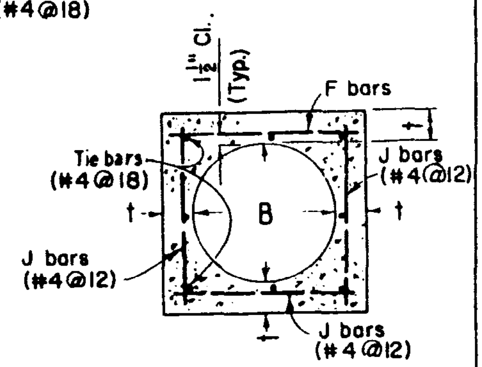
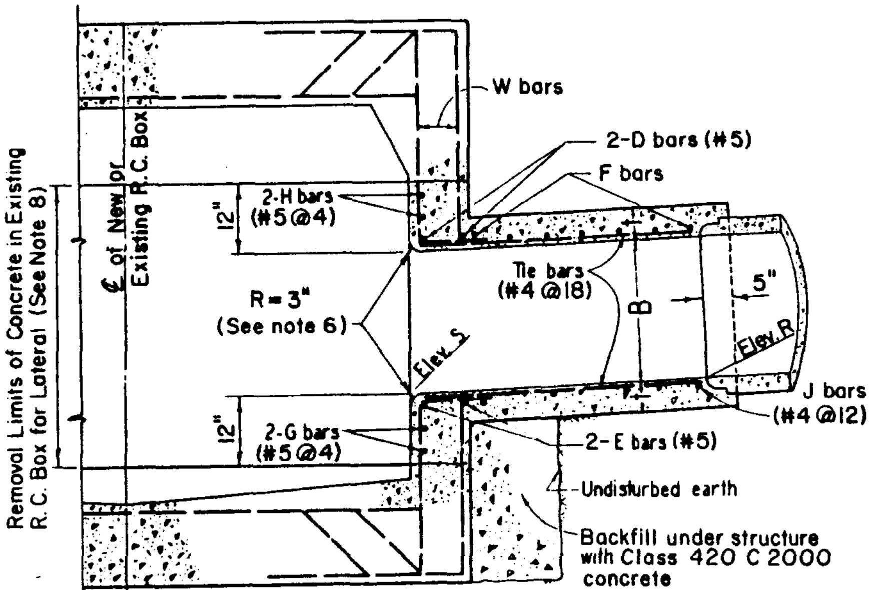


PLAN



SECTION G-G



W bars
2-D bars (#5)
F bars
2-H bars (#5@4)
12"
℄ of New or Existing R.C. Box
Removal Limits of Concrete in Existing R.C. Box for Lateral (See Note 8)
R=3"
(See note 6)
Tie bars (#4@18)
B
5"
Elev. S
Elev. R
J bars (#4@12)
2-G bars (#5@4)
2-E bars (#5)
Undisturbed earth
Backfill under structure with Class 420 C 2000 concrete

SECTION P P'P"

STRUCTURAL DATA		
B	t	F-BARS
12"	4"	#4@6
15"	4 ¼"	
18"	4 ½"	
21"	5"	
24"	5 ¼"	
27"	5 ½"	
30"	6"	
33"	6 ¼"	
36"	6 ½"	
39"	7"	
42"	7 ¼"	#4@6
45"	7 ¾"	#5@6
48"	8"	
51"	8 ½"	
54"	9"	
57"	9 ¼"	
60"	9 ½"	#5@6
FOR B>60", SEE PROJECT PLANS FOR SPECIAL DESIGN		

DEPARTMENT OF PUBLIC WORKS

BUREAU OF ENGINEERING

CITY OF LOS ANGELES

JUNCTION STRUCTURE "D"

STANDARD PLAN

S-301-1

SUBMITTED September 26, 1979

ENGINEER OF DESIGN

DEPUTY ENGINEER

APPROVED OCT 9 1979

CITY ENGINEER

DESIGNED BY | DRAWN BY | CHECKED BY

REVISIONS

NO	DATE	DESCRIPTION	ENG'R OF DESIGN	CITY ENG'R
▽	10-1-81	REDEFINE "X"	[signature]	[signature]

SUPERSEDES	REFERENCES
B-1531 B-3984	

VAULT INDEX NUMBER B-4023

NOTES FOR JUNCTION STRUCTURE "D"

1. CONCRETE FOR MAIN LINE AND LATERAL SHALL BE CLASS 560-C-3250. CONCRETE BACKFILL SHALL BE CLASS 420-C-2000.

2. DIMENSIONS:
   A. SEE PROJECT PLANS FOR VALUES OF A, B, C, C_1, L_1, L_2, X, ELEVATION R AND ELEVATION S WHEN ELEVATION R IS NOT INDICATED ON THE PROJECT PLANS, THE CONSTRUCTION GRADIENT BETWEEN ELEVATION S AND THE FIRST ELEVATION SHOWN ON THE PROJECT PLANS UPSTREAM OF ELEVATION S IS CONSTANT.

   B. THE LENGTH OF DIMENSIONS C AND C_1 MAY BE INCREASED TO MEET PIPE ENDS, PROVIDED PRIOR APPROVAL IS OBTAINED FROM THE ENGINEER.

3. STRUCTURAL DATA:
   A. REINFORCING STEEL SHALL BE 1-1/2 INCHES CLEAR FROM FACE OF CONCRETE.

   B. OMIT H BARS WHEN SOFFIT OF LATERAL IS LESS THAN ONE FOOT BELOW SOFFIT OF MAIN LINE. OMIT G BARS WHEN INVERT OF LATERAL IS LESS THAN ONE FOOT ABOVE FLOOR OF MAIN LINE.

4. ELEVATION S IS ON THE PROLONGATION OF THE LATERAL INVERT GRADE AT THE INSIDE FACE OF THE MAIN LINE.

5. SEE PROJECT PLANS FOR ADDITIONAL REQUIREMENTS WHEN PROJECT PLANS REQUIRE A MANHOLE TO BE CONSTRUCTED AT THE SAME LOCATION AS THIS JUNCTION.

6. PROVIDE A 3-INCH RADIUS OF ROUNDING AT THE INTERSECTION OF THE FACE OF THE LATERAL WITH THE MAIN LINE. THE RADIUS SHALL BE FORMED BY CURVED FORMS AND SHALL NOT BE MADE BY PLASTERING.

7. CONCURRENT CONSTRUCTION OF JUNCTION STRUCTURE WITH R.C. BOX
   A. THE CONTRACTOR MAY BLOCK OUT AN OPENING FOR THE JUNCTION, PROVIDED HE SUBMITS A PLAN SATISFACTORY TO AND APPROVED BY THE ENGINEER WHICH PROVIDES FOR SUCH BLOCKING AND THE BRACING, SUPPORT, AND STRUCTURAL INTEGRITY OF THE BOX. OTHERWISE, THE JUNCTION STRUCTURE AND THE MAIN LINE STRUCTURAL CONCRETE SHALL BE POURED MONOLITHICALLY IN ONE CONTINUOUS OPERATION.

   B. W BARS SHALL BE CUT IN THE CENTER OF THE OPENING AND BENT INTO THE LATERAL AS SHOWN HEREON. SEE PROJECT PLANS FOR SIZE AND SPACING OF W BARS FOR BOX TO BE CONSTRUCTED.

8. CONNECTION OF JUNCTION STRUCTURE "D" TO AN EXISTING R.C. BOX:
   A. REMOVE ALL SOIL AND ANY OTHER BURDEN OVER TOP OF EXISTING R.C. BOX WITHIN INDICATED REMOVAL LIMITS PRIOR TO BREAKING OUT OF ANY CONCRETE OR CONSTRUCTING THE JUNCTION. SUCH SOIL AND OTHER BURDEN MAY BE ALLOWED TO REMAIN IN PLACE DURING CONSTRUCTION OF THE JUNCTION PROVIDED THE CONTRACTOR SUBMITS A PLAN SATISFACTORY TO AND APPROVED BY THE ENGINEER WHICH PROVIDES FOR THE BRACING, SUPPORT, AND STRUCTURAL INTEGRITY OF THE EXISTING R.C. BOX, AND THE BYPASSING OF FLOWS AROUND SUCH BRACING AND SUPPORTS.

   B. THE CONCRETE WITHIN THE REMOVAL LIMITS SHALL BE REMOVED BY FIRST MAKING A ONE-INCH DEEP SAWCUT ON THE EXPOSED CONCRETE AT THE INDICATED REMOVAL LIMIT LINES USING AN APPROVED CONCRETE SAW; THEN ADJACENT TO THE SAWCUT LINE, AND WITHIN THE REMOVAL LIMITS, CUT A GROOVE EQUAL TO THE DEPTH OF THE SAWCUT USING AN APPROVED CHIPPING HAMMER; THEN REMOVE THE REMAINING CONCRETE USING HAND OPERATED EQUIPMENT AND TOOLS, LEAVING A CLEAN PLANE SURFACE FOR JOINING WITH THE NEW CONCRETE.

   C. THE EXPOSED EXISTING REINFORCEMENT SHALL BE CUT IN THE CENTER OF THE OPENING, CLEANED, AND BENT INTO THE NEW LATERAL.