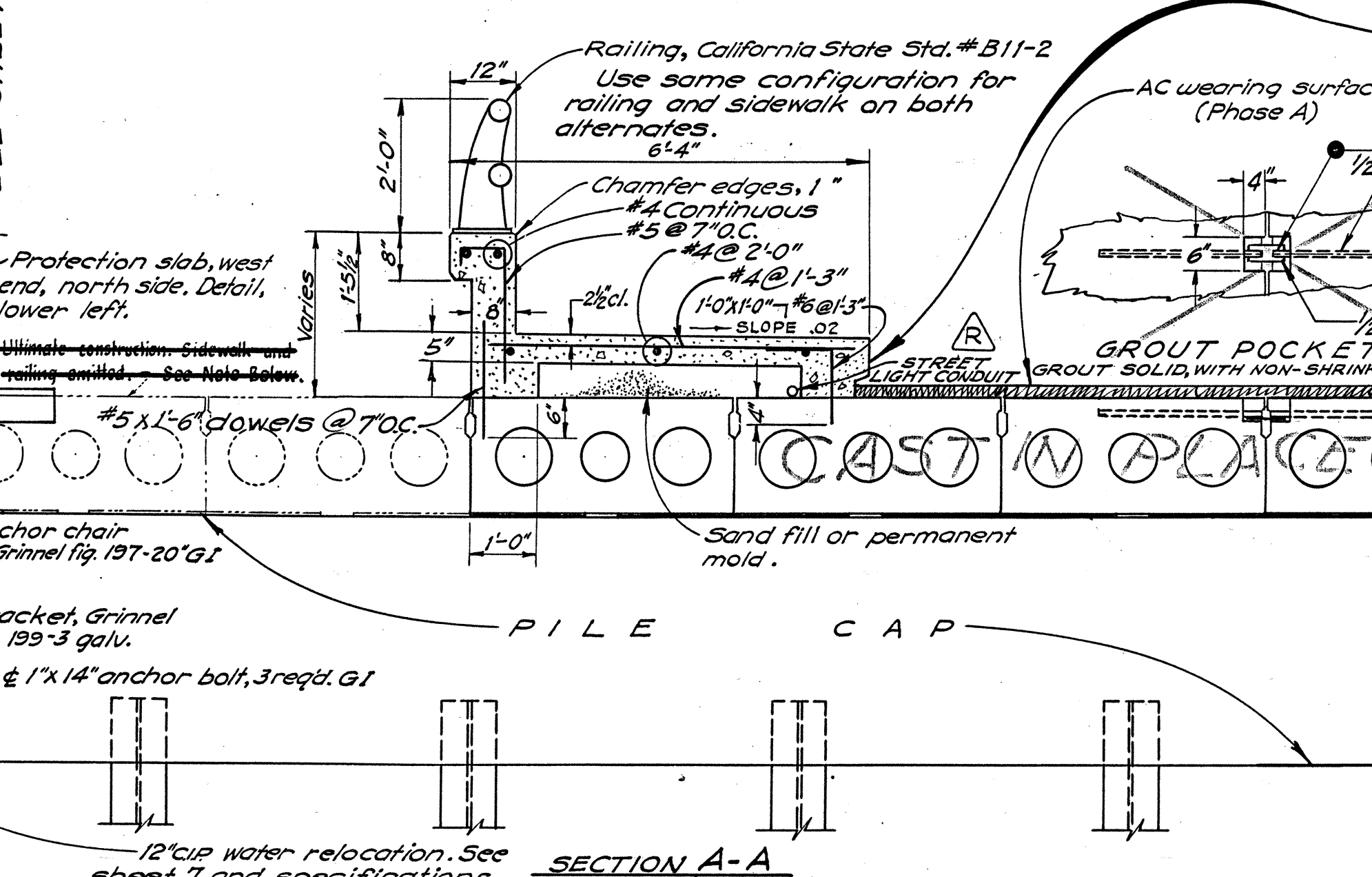
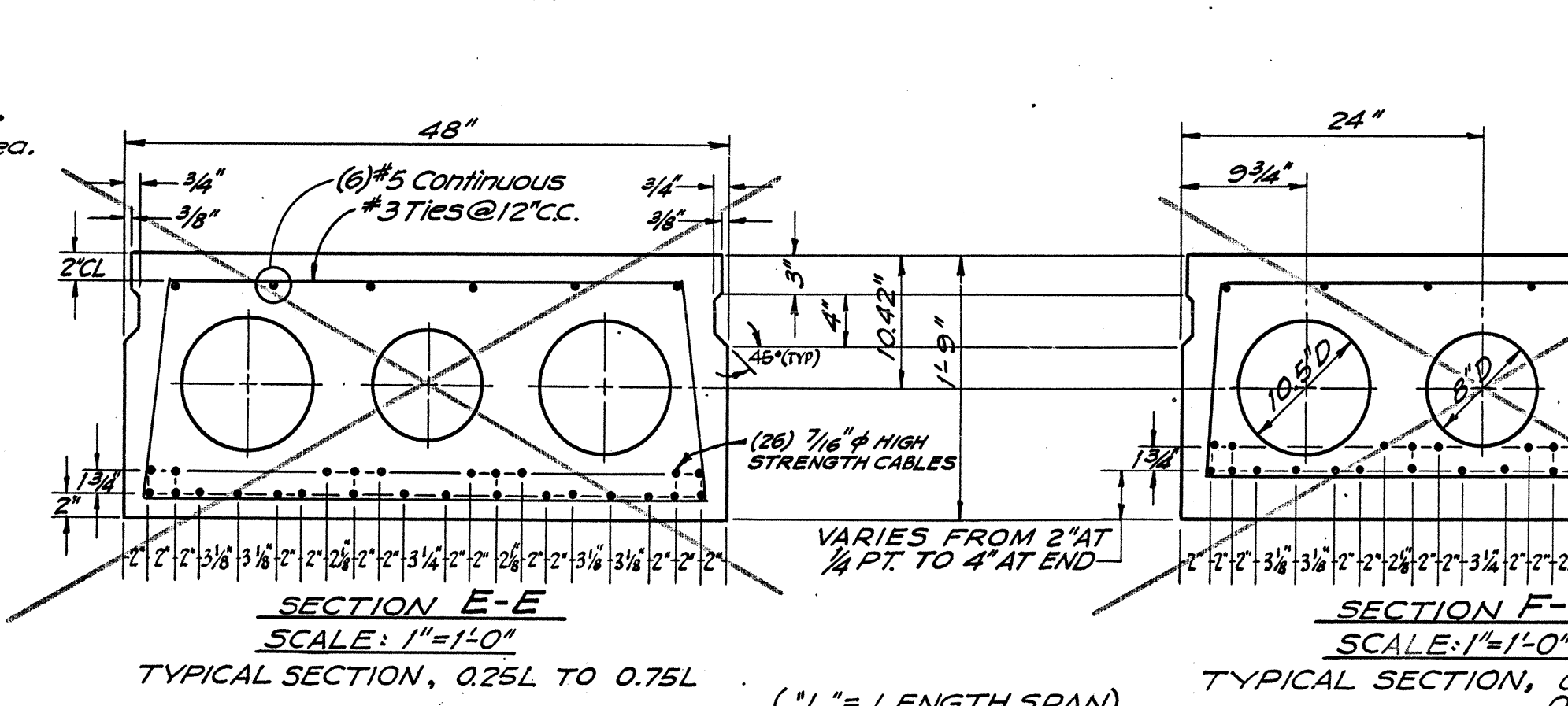


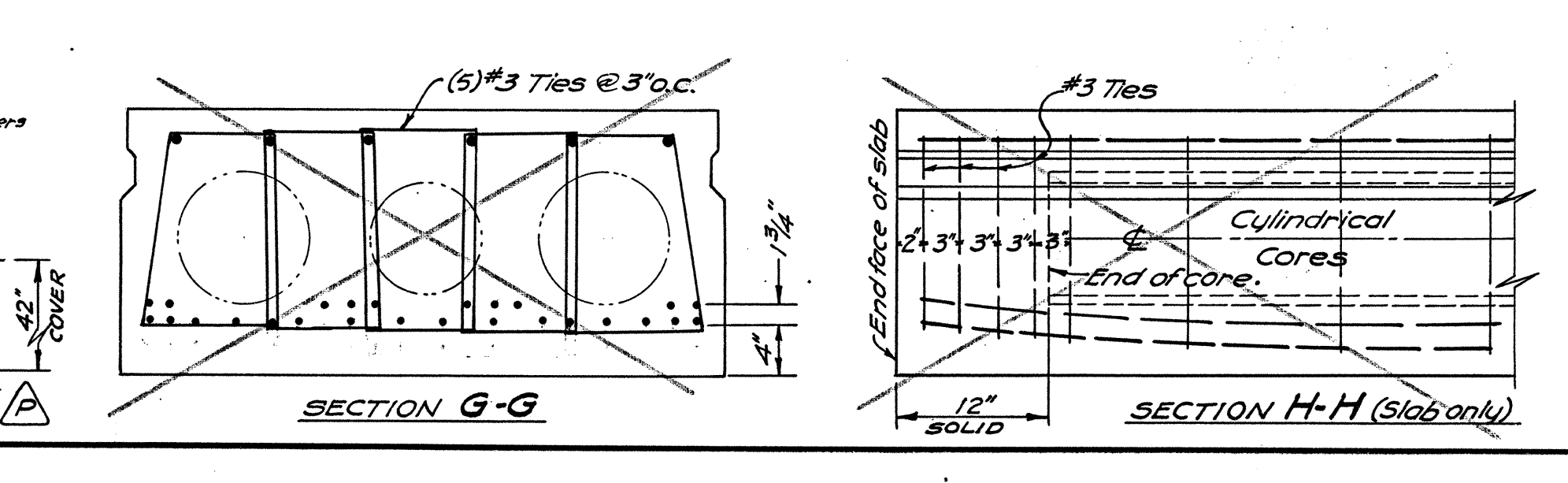
**SECTION - CAST IN PLACE SLAB**  
CAMBER 1/2" @ 6' SPAN



**SECTION - PRESTRESSED, PRECAST SLAB**  
AT THE TIME OF "ULTIMATE CONSTRUCTION" THE TWO OUTER SLABS AND SIDEWALK AT EACH SIDE WILL BE LIFTED AS A UNIT AND MOVED TO THE NEW LOCATION 48" OUT. NEW SLABS WILL THEN BE PLACED IN THE POSITION VACATED.



**DETAIL - END & CENTER SECTION, PRESTRESSED SLAB**



**NOTES -**

- All concrete work shall be in accordance with Sec. 51 of the California Div. of Highways Std. Specs.
- Concrete shall be Class A with compressive strength of 3000 psi at 28 days.
- Expose piers and wing walls before driving adjacent piles.
- Pile load, 45 tons.
- All work shall conform to the California State Highway Specifications, Department of Public Works, January 1962.

**PRESTRESSING NOTES -**

DESIGN STRESSES	PRETENSION
$P_s$ = Working force, lbs.	395,000
Concrete strength, psi	$P_s$ = 4,000
	$P_t$ = 2,500
Ultimate strength of pre-stressing steel, psi	$P_s$ = 250,000

**WORKING FORCE:**  
The force remaining after all losses, including those due to creep and shrinkage of concrete and creep of steel have occurred shall follow the path shown on the drawings.

**LOSSES:**  
The stress loss in prestressing steel due to shrinkage, creep, and sequence stressing shall be assumed to be: Prestressing steel - 35,000 psi. Provision shall be made for any other losses peculiar to the system of prestressing used.

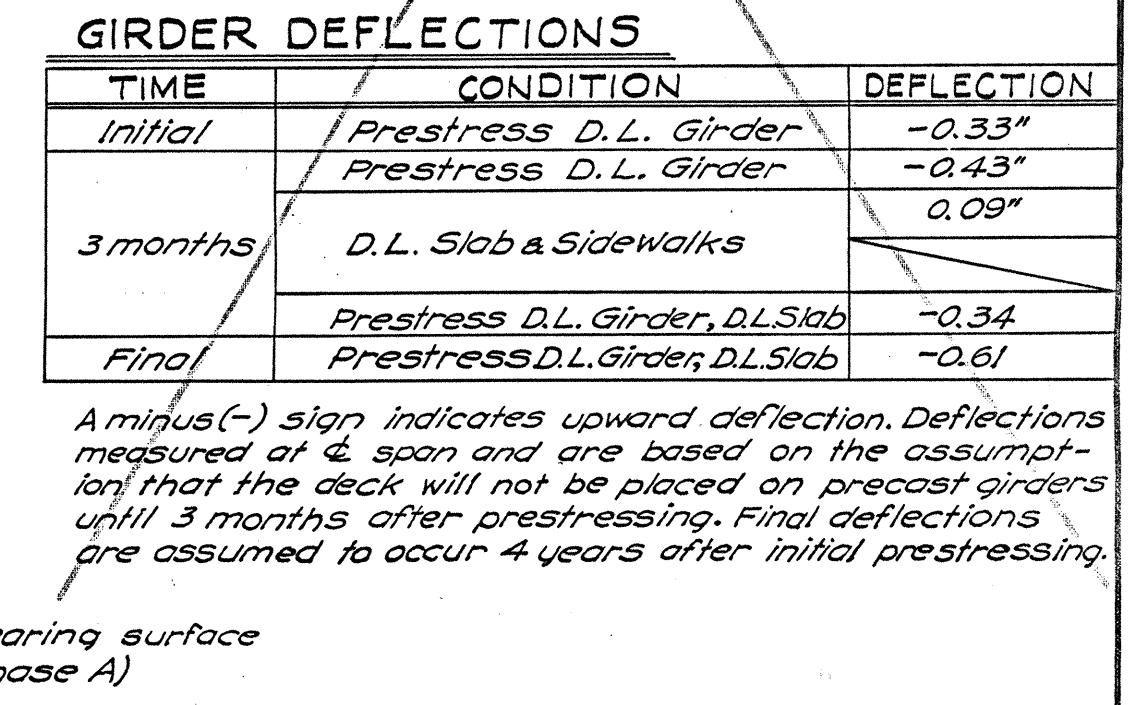
**CLEARANCES FOR PRETENSIONED STRANDS:**

- Strands may be bundled in groups consisting of 3 vertically and 2 horizontally and separated at the ends.
- The minimum distance "S" between groups or individual strands is 1 1/2" for 1/2" strands, 1 3/4" for 3/4" strands, and 2" for 1" strands.
- "S" is measured between centers of adjacent strands.
- Any deviation shall be approved by the Engineer.

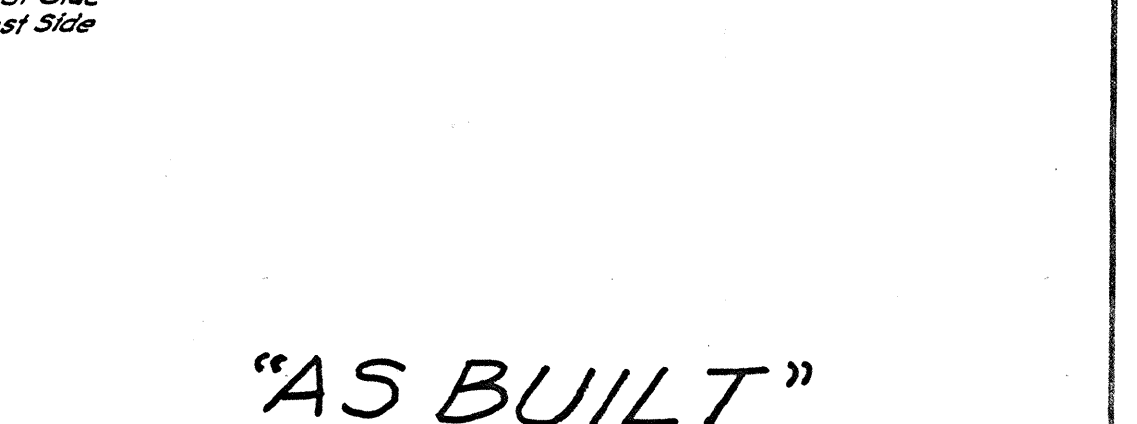
**GIRDER DEFLECTIONS**

TIME	CONDITION	DEFLECTION
Initial	Prestress D.L. Girder	-0.33"
	Prestress D.L. Girder	-0.43"
3 months	D.L. Slab & Sidewalks	0.09"
	Prestress D.L. Girder, D.L. Slab	-0.34"
Final	Prestress D.L. Girder, D.L. Slab	-0.61"

A minus (-) sign indicates upward deflection. Deflections measured at 4' span and are based on the assumption that the girders will not be placed on precast girders until 3 months after prestressing. Final deflections are assumed to occur 4 years after initial prestressing.



**NOTE: "AS BUILT" structure to ultimate 96" wide, 84" curb to curb. Structure cast in place.**



**"AS BUILT"**

**GENERAL NOTE - IMPROVEMENT PLANS - STD 902**

ITEM	DESCRIPTION	BREA STD	QUANTITY
* R	Street lighting conduit	SPEC	441 LF
7, 11 Q	Relocate air relief valve	300	1 ea.
7, 11 P	12" c.i.p. water main	301	150 LF
7, 11 O	20" steel casing (incl. brackets)	SPEC.	78 LF
11 N	Bridge structure, complete	SPEC.	1 ea @ 1 s.
* M			
10 L12	H=12 ft.		22 LF
14 L10	H=10 ft.	Div. of Hwy. Std. Plan B3-7	29 LF
10 L8	H=8 ft.		9 LF
10, 14 L6	H=6 ft.		48 LF
14 L4	H=4 ft.		20 LF
10, 14 L	Reinforced conc. retaining walls		
* K			
* J			
* H			
* G			
10 F	Relocate chain link fence	O.C.F.C.D.	80 LF
* E			
* D			
* C			
7 B	Temporary water service, 4" s.p.	SPEC	600 LF
* A			

**ESTIMATE**

ENGINEERING DEPARTMENT  
CITY OF BREA CALIFORNIA

**67 BRIDGE**

**CENTRAL AVENUE A.H.F.P. 377**

**STA. 245+40.43**

Drawn by: E. D. ROWLAND  
Checked by: City Engineer  
Date: 16, May, 1969

SHEET 14