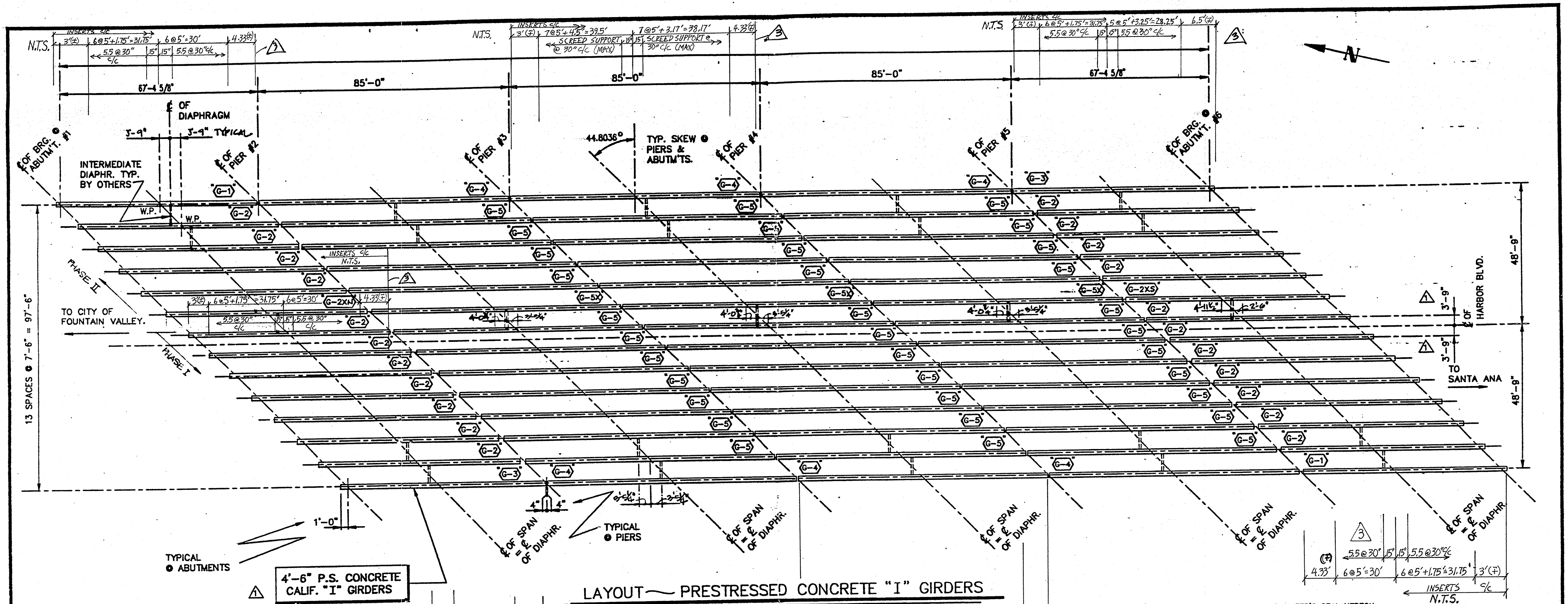




# LAYOUT — PRESTRESSED CONCRETE "I" GIRDERS

SCALE 1/16" = 1'-0"

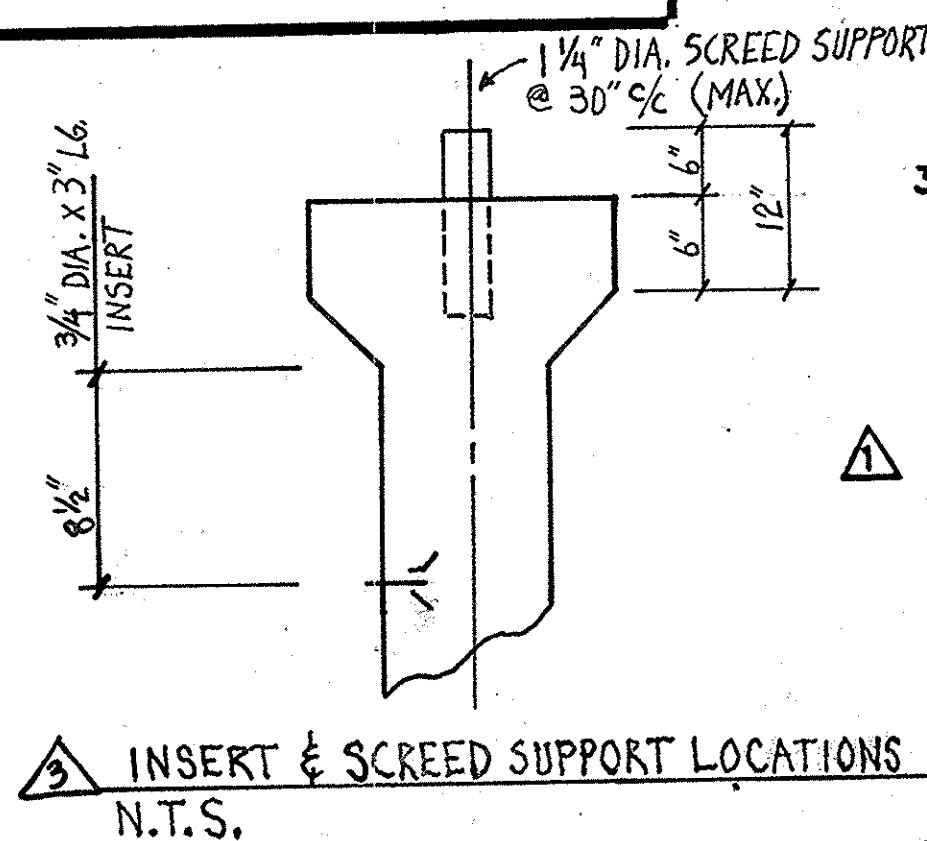
TABLE OF GIRDER CAMBER

| GIRDER MARK   | INITIAL CAMBER | CAMBER @ ERECTION (60 DAYS AFTER ERECTION) POURING |
|---------------|----------------|----------------------------------------------------|
| "G-1" & "G-3" | 0.756" UP      | 1.341" UP                                          |
| "G-2"         | 0.652" UP      | 1.153" UP                                          |
| "G-4" & "G-5" | 1.062" UP      | 1.864" UP                                          |

NOTE:  
SEE PACIFIC PRECAST ASSOCIATES  
CALCULATIONS DATED 5/18/93, 3 SHEETS,  
FOR DEFLECTION CALCULATION VALUES.  
CALCS ARE IN PROJECT FILE.

PHASE II CASTING SEQUENCE

1st 1, 2, 3 = (1) G4 & (1) G5X  
" 4 thru 9 = (2) G5  
Pour 10 = (1) G2XN & (1) G2XS  
Pour 11-14 = (2) G2  
Pour 15 = (1) G1 & (1) G3



## GENERAL NOTES

### 1. CONCRETE:

HARDROCK @ 150 P.C.E.  
CONCRETE STRENGTHS

f<sub>ci</sub> @ TRANSFER = 4000 P.S.I.  
f<sub>c</sub> @ 28 DAYS = 5200 P.S.I.

### 2. CONCRETE FINISH:

TOPS TO BE TRANSVERSE RAKE  
OTHER TO BE FORM FINISH

### 3. PRESTRESSING:

STRANDS TO BE ASTM A416 1/2" DIAMETER GR.270 KSI  
"LO-LAX"  
JACKING FORCE.....= 28.9 KIPS EACH STRAND  
FINAL FORCE.....= 23.55 KIPS EACH STRAND  
AVERAGE E<sub>s</sub>.....= 29.0 KIPS

### 4. REINFORCING

REINFORCING BARS TO BE ASTM A615 GRADE 60 KSI  
STAGGER SPLICES AS REQ'D. FOR ALL LONGITUDINAL BARS  
ADJUST AS REQ'D. TO CLEAR ALL INTERFERENCES I.E. HOLES,STR.

### 5. NOTE:

- REMOVE ALL 1" DIA. PVC FORMING MATERIAL AFTER STRIPPING TO LEAVE A 1 1/2" DIA. HOLE IN CONCRETE @ ABUTMENT SLEEVES
- BURN ALL STRAND ENDS FLUSH WITH GIRDER ENDS AND COAT WITH EPOXY PRIOR TO UNIT LOADOUT

### 6. ELASTOMERIC BEARING PADS

ELASTOMERIC BEARING PADS SHALL CONFORM TO CALTRANS SPECIFICATIONS 51-1.12H(1)  
"PLAIN AND FABRIC REINFORCED ELASTOMERIC BEARING PADS"  
BEARING PADS @ ABUTMENTS TO BE 12" X 1'-7" X 1" THICK  
BEARING PADS @ PIERS TO BE 1'-3" X 1'-7" X 1" THICK

### 7. ABBREVIATIONS:

O.C. = ON CENTERS  
C.G.S. = CENTER GRAVITY STRANDS  
W.P. = WORK POINT

THE PROFESSIONAL ENGINEER'S SEAL HEREON INDICATES THAT THIS SHOP DRAWING CONFORMS TO THE DESIGN SHOWN BY THE ENGINEER OF RECORD, RICHARD HART, AND IS NOT INTENDED AS A CERTIFICATION OF THE DESIGN.

ORIGINAL STAMPED & SEALED BY:  
LUCIEN CZYNN JAROSLAW  
RCE NO. C04406D  
EXP. 6/30/93

|                                                                                                                                                                                                                                                                                               |                              |                    |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|--------------|
| 2/96                                                                                                                                                                                                                                                                                          | AS-BUILT                     |                    |              |
| 4/94                                                                                                                                                                                                                                                                                          | DIAPHRAGM INSERT ADJUSTMENTS | RM                 | 2/           |
| 5/24/93                                                                                                                                                                                                                                                                                       | GENERAL REVISIONS            | RM                 | 2/           |
| 5-3-93                                                                                                                                                                                                                                                                                        | ISSUED FOR APPROVAL          | RM                 | 2/           |
| NO.                                                                                                                                                                                                                                                                                           | DATE                         | REVISIONS & ISSUES | BY           |
| <p>PACIFIC PRECAST ASSOCIATES<br/>A JOINT VENTURE<br/>P.O. BOX 308 PERRIS, CA 92572-0308</p> <p>GRIFITH COMPANY<br/>2020 SOUTH YALE STREET SANTA ANA, CA 92704</p> <p>HARBOR BLVD. BRIDGE<br/>ORANGE CO. ENVIRONMENTAL AGENCY — SANTA ANA, CA<br/>P.S. CONCRETE GIRDER LAYOUT &amp; NOTES</p> |                              |                    |              |
| DESIGNED                                                                                                                                                                                                                                                                                      | DRAWN RAM                    | DATE APRIL 1993    | SCALE NOTED  |
| CHECKED                                                                                                                                                                                                                                                                                       | CHECKED                      | PR. ENGR.          | REV. NO. 1   |
| CHIEF ENGR.                                                                                                                                                                                                                                                                                   |                              | PROJ. NO. 3304     | SHEET 1 OF 6 |

BRIDGE NO. (SA 29) W.O. NO. R09318