



**SURVEY CONTROL**

**HORIZONTAL CONTROL**

HORIZONTAL CONTROL IS BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 6, NAD 83 (1991.35 EPOCH) DATUM AS SHOWN ON THE SURVEY PLAN. THE SURVEY POINTS ARE CONTROL POINTS AND ARE NOT TO BE USED FOR ANY OTHER PURPOSE. THE SURVEY POINTS ARE CONTROL POINTS AND ARE NOT TO BE USED FOR ANY OTHER PURPOSE. THE SURVEY POINTS ARE CONTROL POINTS AND ARE NOT TO BE USED FOR ANY OTHER PURPOSE.

AT STATION: UMB PFI07  
 NORTHING = 185471.531 ft  
 EASTING = 640082.399 ft  
 ELEVATIONS = 1749.299 ft

GROUND DISTANCE = 680.00 FT  
 COMBINATION FACTOR = 0.9999855

**BENCHMARKS**  
 DESIGNATION: TC 28F  
 DESCRIPTION: STD. 500 BRASS STAMPED TO 258 1971" SET IN 2'x3' BOULDER 0.5' ABOVE GROUND. A STEEL PENCRIPT IS SET 15' SOUTH OF BENCHMARK.  
 LOCATION: 0.2 MILES N/E ON TAVEN RD. FROM INT. RHESA ROAD 41' SOUTHWEST OF C/A.  
 ELEVATION: 1613.360 ft  
 DATUM: VERICAL DATUM IS NVD 1822.

Sometimes these brass benchmarks are hard to find after 60 years!

FOR REDUCED PLANS  
 ORIGINAL SCALE IS IN INCHES

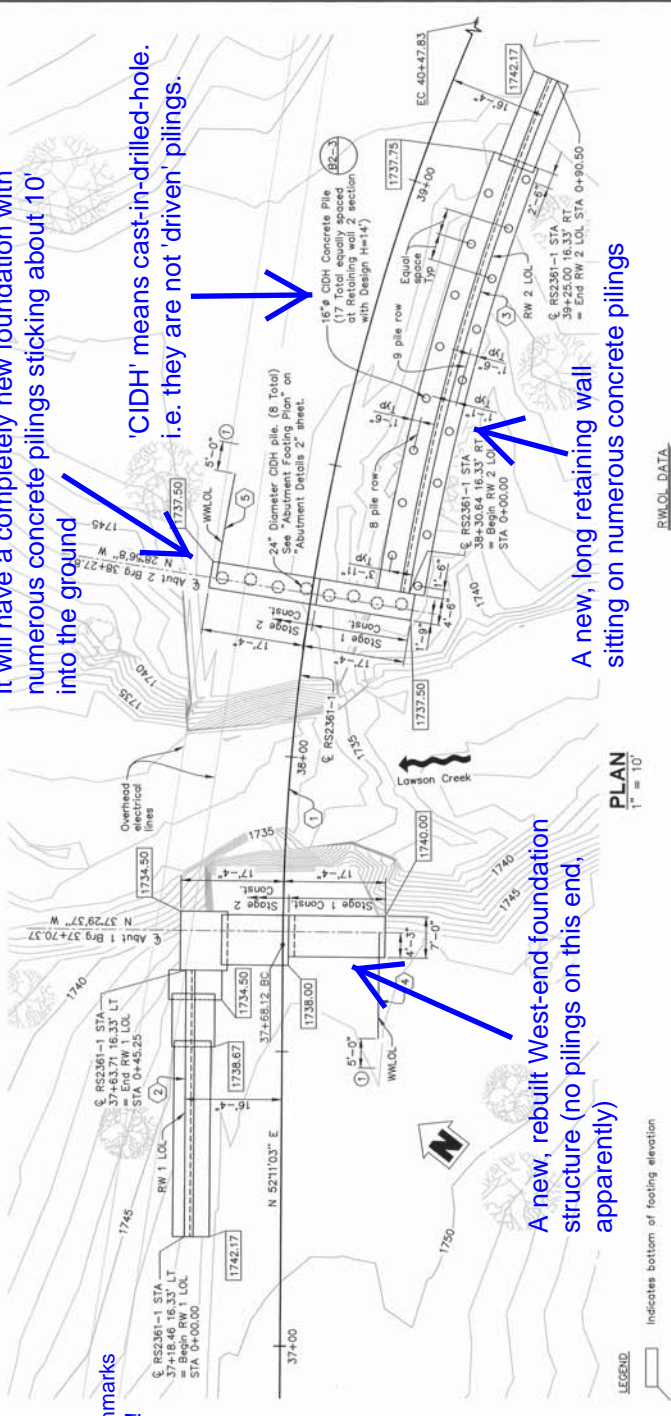
DATE: 8/15/01  
 BY: [Signature]  
 CHECKED: [Signature]  
 DESIGNED: [Signature]  
 DRAWN: [Signature]  
 Note: Associates  
 San Diego, California 92128  
 Tel: 858.385.0500, Fax: 858.385.0400  
 REGISTERED CIVIL ENGINEER

This is the end (the East end) that was failing. It will have a completely new foundation with numerous concrete pilings sticking about 10' into the ground

'CIDH' means cast-in-drilled-hole. i.e. they are not 'driven' pilings.

A new, rebuilt West-end foundation structure (no pilings on this end, apparently)

A new, long retaining wall sitting on numerous concrete pilings



**RWLOL DATA**

| No. | Bearing      | Radius  | Δ         | Tangent Length |
|-----|--------------|---------|-----------|----------------|
| 2   | N 52°17'3" E | 383.67' | 13°00'56" | 45.46'         |
| 3   |              |         |           |                |

**WWLOL DATA**

| No. | Bearing      | Radius  | Δ        | Tangent Length |
|-----|--------------|---------|----------|----------------|
| 4   | N 52°17'3" E | 416.33' | 2°28'38" | 9.00'          |
| 5   |              |         |          |                |

**CURVE DATA**

| Curve No. | Radius  | Δ         | Length   |
|-----------|---------|-----------|----------|
| 1         | 400.00' | 40°03'53" | 279.705' |

**NOTES**  
 1) See retaining wall details on "Retaining Wall 1 Layout" and "Retaining Wall 2 Layout" sheets.  
 2) Stage 1 Construction coincides with Phase 2 on the roadway plans and Stage 2 Construction coincides with Phase 3 on the roadway plans.

**SPREAD FOOTING DATA TABLE**

| SUPPORT LOCATION | WORKING STRESS DESIGN (WSD) | Allowable Gross Bearing Capacity (ksf) |
|------------------|-----------------------------|--|
| ABUTMENT 1       | 66                          | 22                                     |
| RETAINING WALL 1 | 66                          | 22                                     |
| RETAINING WALL 2 | 7.5                         | 2.5                                    |

**PILE DATA TABLE**

| LOCATION         | PILE TYPE | NOMINAL RESISTANCE | DESIGN TIP ELEVATIONS (FT.)               | SPECIFIED TIP ELEVATION (FT.) |
|------------------|-----------|--------------------|---|-------------------------------|
| ABUTMENT 2       | 24"ODH    | 200 KIPS           | 1731.00 (1)<br>1727.00 (3)                | 1727.00 (3)                   |
| RETAINING WALL 2 | 16"CIDH   | 90 KIPS            | 1728.00 (1)<br>1728.00 (2)<br>1728.00 (3) | 1728.00 (3)                   |

NOTE: Design tip elevations are controlled by: (1) Compression; (2) Tension; (3) Lateral loads

SP333  
 SCALE: HOR. AS SHOWN, VERT. AS SHOWN  
 LAWSON VALLEY ROAD BRIDGE EAST  
 OVER LAWSON CREEK (57C-0726)  
 BRIDGE PLAN, 3B OF 20B  
 SHEET 14 OF 39 SHEETS

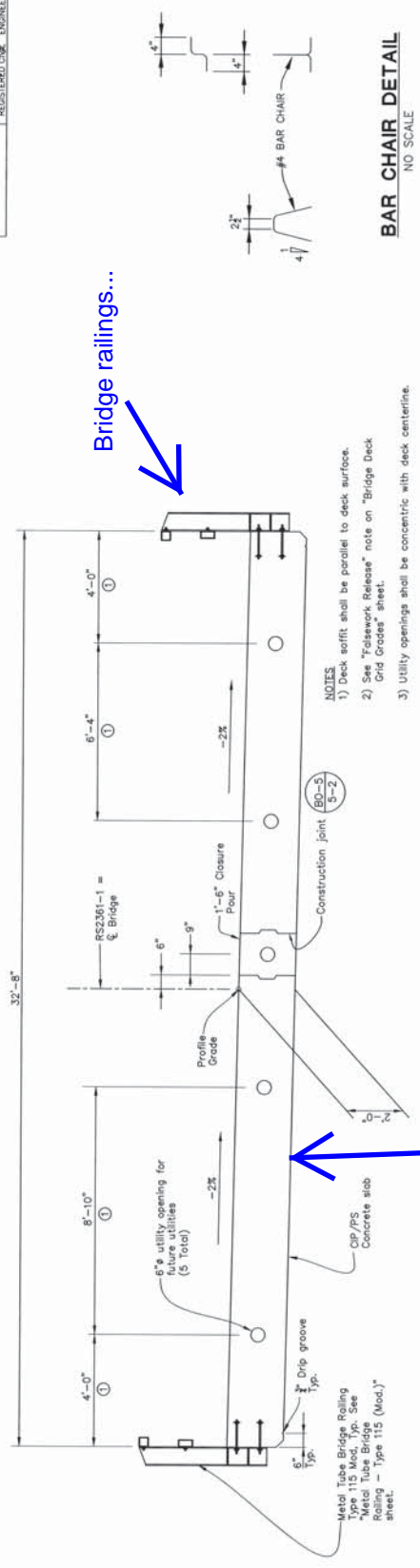


|         |                   |             |             |
|---------|-------------------|-------------|-------------|
| DATE    | BY                | CHKD        | APP'D       |
| 9/12/11 | J. J. [Signature] | [Signature] | [Signature] |

REGISTERED CIVIL ENGINEER  
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 State of California  
 Noted Associates  
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 Tel: 949.385.0500, Fax: 949.385.0400

FOR REDUCED PLANS  
ORIGINAL SCALE IS IN INCHES

10 9 8 7 6 5 4 3 2 1 0 -1 -2



**TYPICAL SECTION**  
1/2" = 1'-0"

**NOTES**

**LEGEND**

**BAR CHAIR DETAIL**  
NO SCALE



**DECK REINFORCEMENT**  
1/2" = 1'-0"

**NOTES**

**LEGEND**

**BAR CHAIR DETAIL**  
NO SCALE



**TYPE K RAILING ATTACHMENT DETAIL**  
NO SCALE



The new bridge roadway will be entirely made of a 2-foot thick piece of concrete (reinforced of course). There are no steel girders whatsoever! Just two big slabs of concrete, joined down the middle with a poured-in-place 'construction joint'.

These are the 'rebar' details. Rebar gives the concrete tensile and shear strength, and also helps control 'shrinkage cracking'.

SP-333  
SCALE FOR AS SHOWN, VERT. AS SHOWN  
SHA-203000/1003226 & RS2361-1  
BRIDGE PLAN 9B OF 20B  
SHEET 20 OF 39 SHEETS

**COUNTY OF SAN DIEGO**  
**DEPARTMENT OF PUBLIC WORKS**  
 5500 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

LAWSON VALLEY ROAD BRIDGE EAST  
 OVER LAWSON CREEK (57C-0726)  
 TYPICAL SECTION & DECK REINFORCEMENT

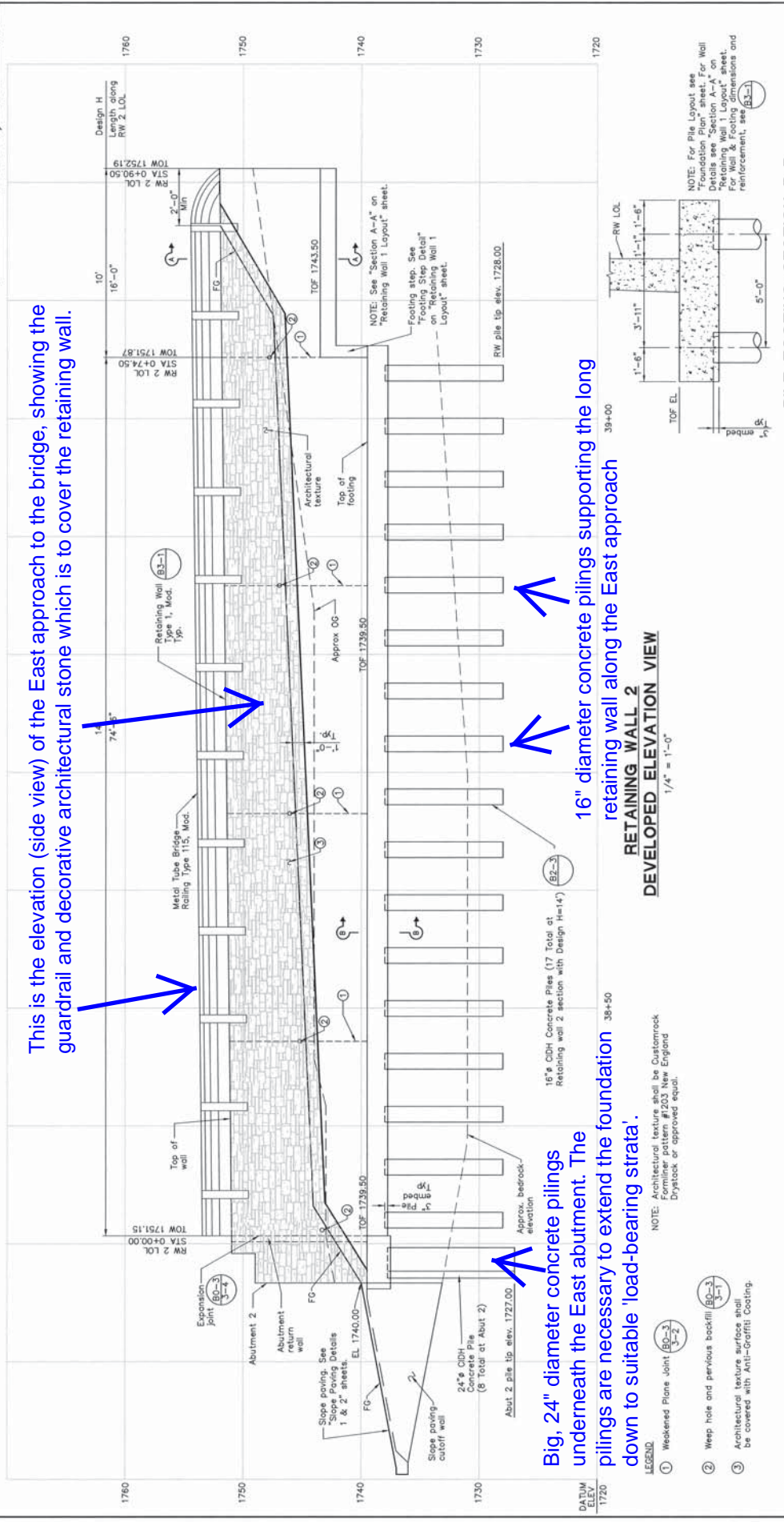
PLANS BY DATE  
 REVISIONS BY DATE  
 REGISTERED CIVIL ENGINEER  
 8/13/11

NOTICE: For Pile Layout see "Foundation Plan" sheet. For Wall Details see "Section A-A" on Retaining Wall 1 Layout" sheet. For Wall & footing dimensions and reinforcement see (B3-1)

FOR REDUCED PLANS  
 ORIGINAL SCALE IS IN INCHES

1760  
1750  
1740  
1730  
1720

1760  
1750  
1740  
1730  
1720



This is the elevation (side view) of the East approach to the bridge, showing the guardrail and decorative architectural stone which is to cover the retaining wall.

Big, 24" diameter concrete pilings underneath the East abutment. The pilings are necessary to extend the foundation down to suitable 'load-bearing strata'.

16" diameter concrete pilings supporting the long retaining wall along the East approach

RETAINING WALL 2  
 DEVELOPED ELEVATION VIEW  
 1/4" = 1'-0"

NOTE: Architectural texture shall be Customrock Formliner pattern #203 New England Drystack or approved equal.

LEGEND  
 ① Wakened Plane Joint (B0-3)  
 ② Weep hole and previous backfill (B0-3)  
 ③ Architectural texture surface shall be covered with Anti-Graffiti Coating.

NO SCALE  
 SP333  
 COUNTY OF SAN DIEGO  
 DEPARTMENT OF PUBLIC WORKS  
 5500 OVERLAND AVENUE, SAN DIEGO, CA 92121-1235

REVISIONS BY APPROVED DATE

COORDINATE INCHES  
 214 - N 1839 - E

LAWSON VALLEY ROAD BRIDGE EAST  
 OVER LAWSON CREEK (57C-0726)  
 RETAINING WALL 2 LAYOUT

SCALE FOR: AS SHOWN, UNIT: AS SHOWN  
 I/A: 202009/1009222.e - R52461-1  
 BRIDGE PLAN 138 OF 208  
 SHEET 24 OF 39 SHEETS