

INDEX OF SHEETS

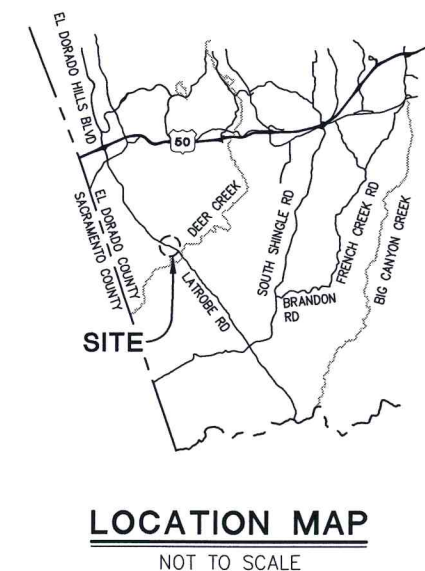
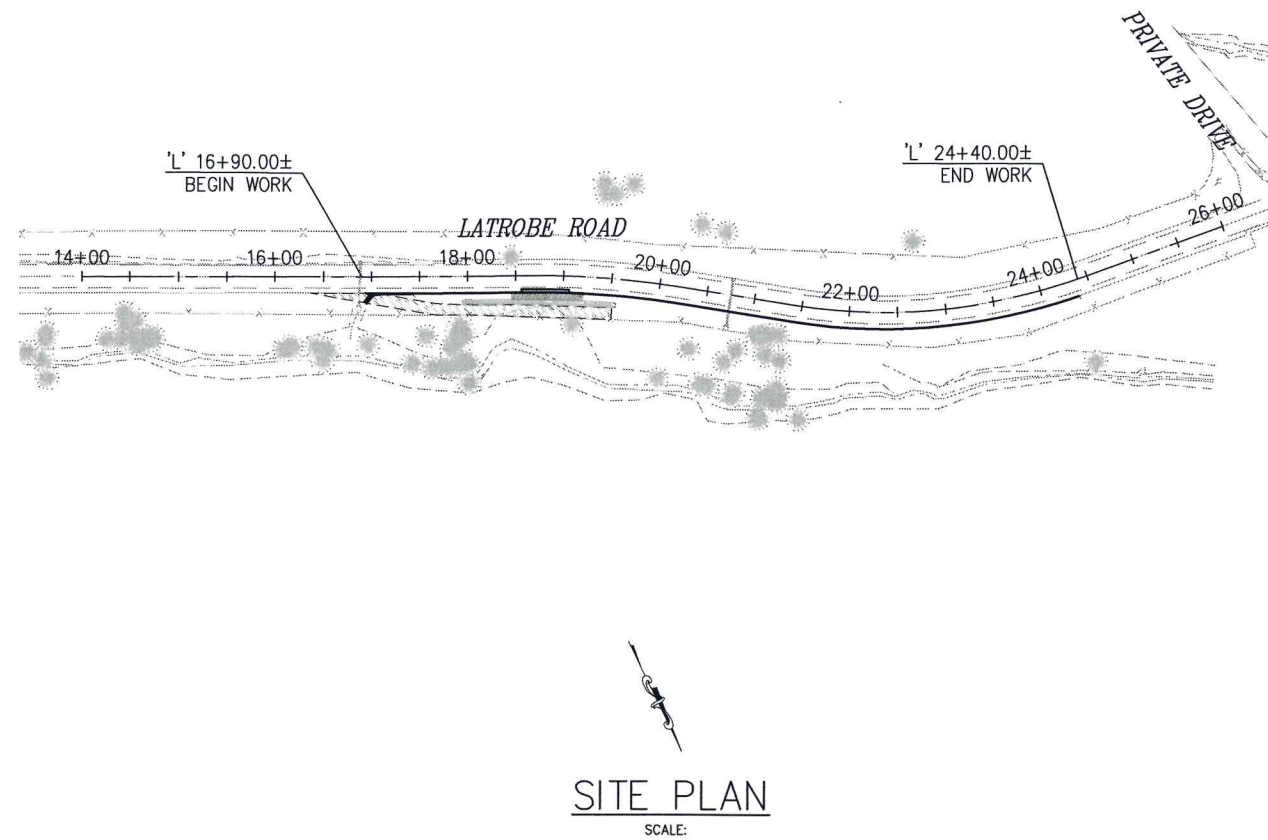
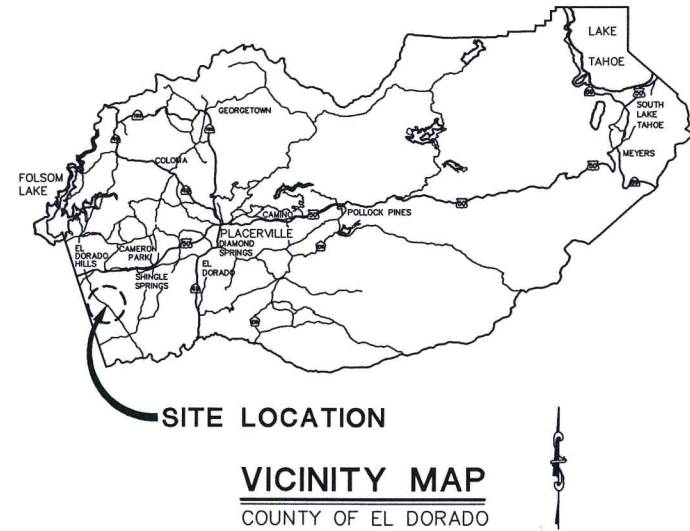
SHEET	PLAN SHEET	TITLE
1		TITLE SHEET
2	L-1	LAYOUT
3	C-1	CONSTRUCTION DETAILS
4	C-2	CONSTRUCTION DETAILS
5	C-3	CONSTRUCTION DETAILS

COUNTY OF EL DORADO, CA COMMUNITY DEVELOPMENT AGENCY TRANSPORTATION DIVISION

PROJECT PLANS FOR THE CONSTRUCTION OF LATROBE ROAD GABION WALL RETROFIT

IN THE COUNTY OF EL DORADO, DISTRICT II
APPROXIMATELY 4.1 MILES SOUTH OF U.S. HWY 50 AND EL DORADO HILLS BLVD INTERCHANGE

To be supplemented with Standard Plans and Specifications dated 2010, including
the revised Standard Specifications, of the California Department of
Transportation, unless otherwise noted.



BOARD OF SUPERVISORS

I	RON MIKULACO
II	VACANT
III	BRIAN VEERKAMP
IV	RON V. BRIGGS
V	NORMA SANTIAGO

**COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION**

(530) 621-5900
2850 FAIRLANE CT
PLACERVILLE, CA 95667

APPROVED BY:

Steve M. Reddick 8/19/14 DATE
STEVEN M. REDDICK, DIRECTOR
COMMUNITY DEVELOPMENT AGENCY

Mattew D. Sulzberg 8/19/14 DATE
MATTHEW D. SULZBERG, P.E. NO. C59652
DEPUTY DIRECTOR, ENGINEERING

PW NO. 14-31074 PROJECT NO. 48145

**LATROBE ROAD
GABION WALL RETROFIT**

TITLE SHEET

SHEET 1 OF 5

CONTRACTOR'S LICENSE CLASSIFICATION: Bidders shall be properly licensed to perform the Work pursuant to the State Contractor's License Act (Business and Professions Code section 7000 et seq.) and shall possess a CLASS A LICENSE or equivalent combination of Classes required by the categories and type of Work included in the Contract Documents and Plans. If the Contractor possesses a Class A license instead of the equivalent combination of Classes required by the categories and type of work included in the Contract Documents and Plans, then the Contractor or a subcontractor must also possess a CLASS C27 "Landscaping Contractor" license. Failure of the successful Bidder to obtain proper and adequate licensing at the time bids are submitted shall constitute a failure to execute the Contract, and forfeiture as provided under that section.

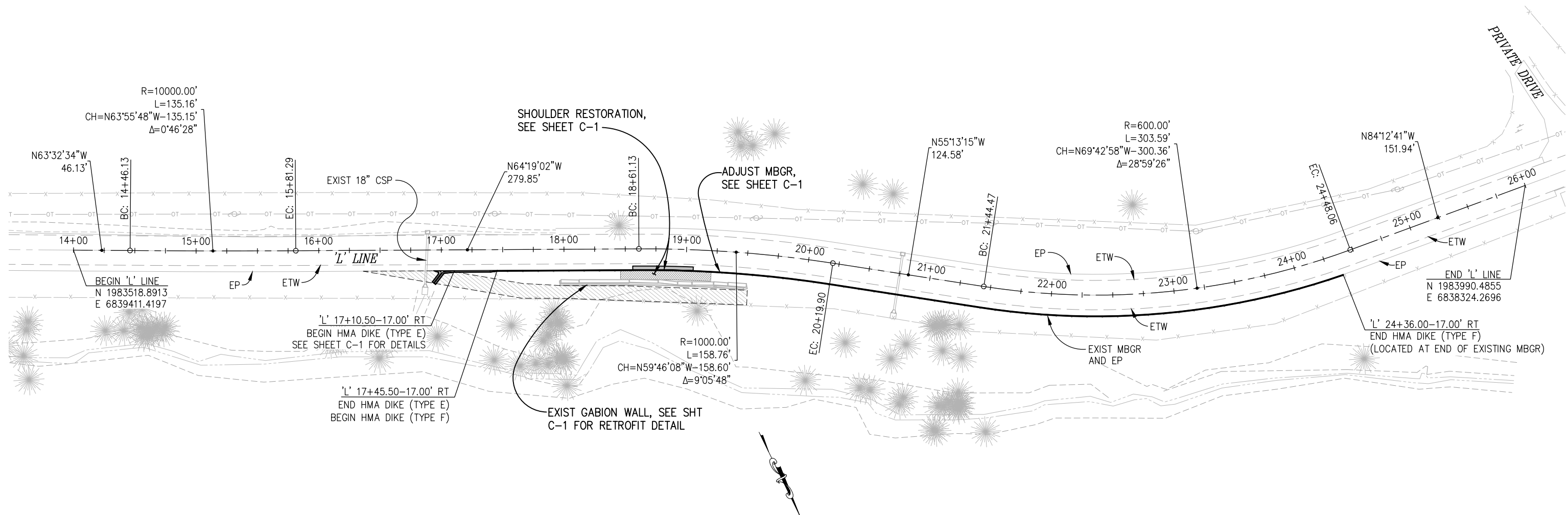
MARK	DATE	BY



SUBMITTED BY: *Jonathan Balzer*
JONATHAN BALZER, P.E.
CIVIL ENGINEER
STATE OF CALIFORNIA NO. C72291

08/21/14
DATE

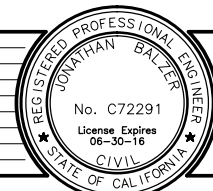
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 FOR REDUCED PLANS
 2
 1
 0



PLAN-LATROBE ROAD

LAYOUT
SCALE : 1" = 40'

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :

 REGISTERED CIVIL ENGINEER
 DATE: 08/21/14

DESIGNED: JOB SGM
 DRAWN: SGM
 CHECKED: DATE: 08/15/14
 ROAD NUMBER: 018

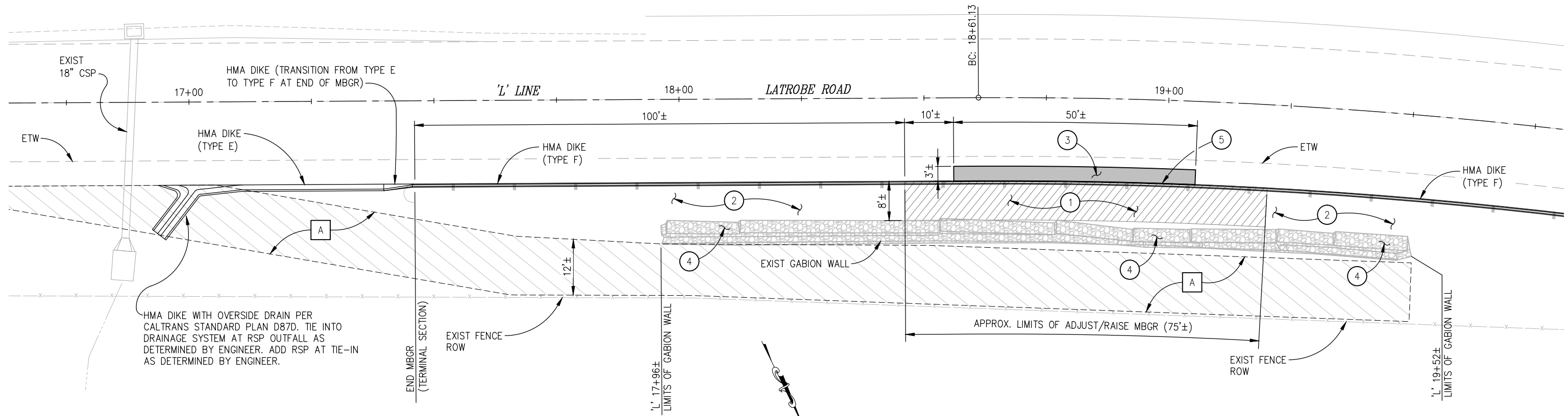


COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

LATROBE ROAD
GABION WALL RETROFIT

SHEET
L-1
 2 OF 5
 W.O. No. **48145**

ORIGINAL SCALE IS IN INCHES
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 FOR REDUCED PLANS
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RETROFIT DETAIL

SCALE: 1"=10'

CONSTRUCTION NOTES:

- ① — SHOULDER RESTORATION TO CONSIST OF REMOVE AND RECOMPACT TOP 12" (APPROXIMATE OR TO DEPTH AS NECESSARY TO REACH COMPETENT CONDITIONS) TO 95% RELATIVE COMPACTION. RESTORE GRADE BETWEEN GABION WALL AND EDGE OF PAVEMENT. PROTECT SURFACE USING CONTROLLED LOW STRENGTH MATERIAL (CLSM), REFER TO NOTE 2 (BELOW).
- ② — PROTECT SHOULDER SLOPE SURFACE USING CLSM, CONTROL DENSITY FILL (CDF), MINIMUM 3 SACK SLURRY OR EQUIVALENT OVER FINISH SHOULDER SURFACE ALONG LENGTH OF GABION WALL. (3" THICK MIN.)
- ③ — SAWCUT AND REMOVE DAMAGED HMA SHOULDER. REWORK EXISTING AB TO 95% RELATIVE COMPACTION IN TOP 12". REPLACE HMA SURFACE (3" MIN). ACTUAL LIMITS TO BE DETERMINED BY ENGINEER.
- ④ — GABION WALL RETROFIT, REFER TO SOIL NAIL SYSTEM DETAIL, SHEET C-3.
- ⑤ — ADJUST MBGR WITHIN APPROXIMATE LIMITS OF DAMAGED SHOULDER AS SHOWN. RESET MBGR PER CALTRANS STANDARD PLAN A77A1.
- A — CONTRACTOR HAS OPTION TO CONSTRUCT (AND REMOVE) A TEMPORARY ACCESS ROAD (APPROX. 12' WIDE MAX) FOR IMPROVEMENT ACTIVITIES. ALL STAGING AREAS AND ACCESS ROADS MUST EMPLOY NECESSARY TEMPORARY AND PERMANENT BMP'S AND STABILIZATION FEATURES (SWPPP CONTROLS), AND MINIMIZE DISTURBANCE AREAS, ALWAYS TO REMAIN WITHIN THE EXISTING FENCE LINE. ACTUAL ALIGNMENTS AND LIMITS TO BE DETERMINED BY ENGINEER.

CONSTRUCTION DETAILS
SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



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 DATE: 08/21/14

DESIGNED: JB SGM
 DRAWN: SGM
 CHECKED: JB DATE: 08/15/14
 ROAD NUMBER: 018

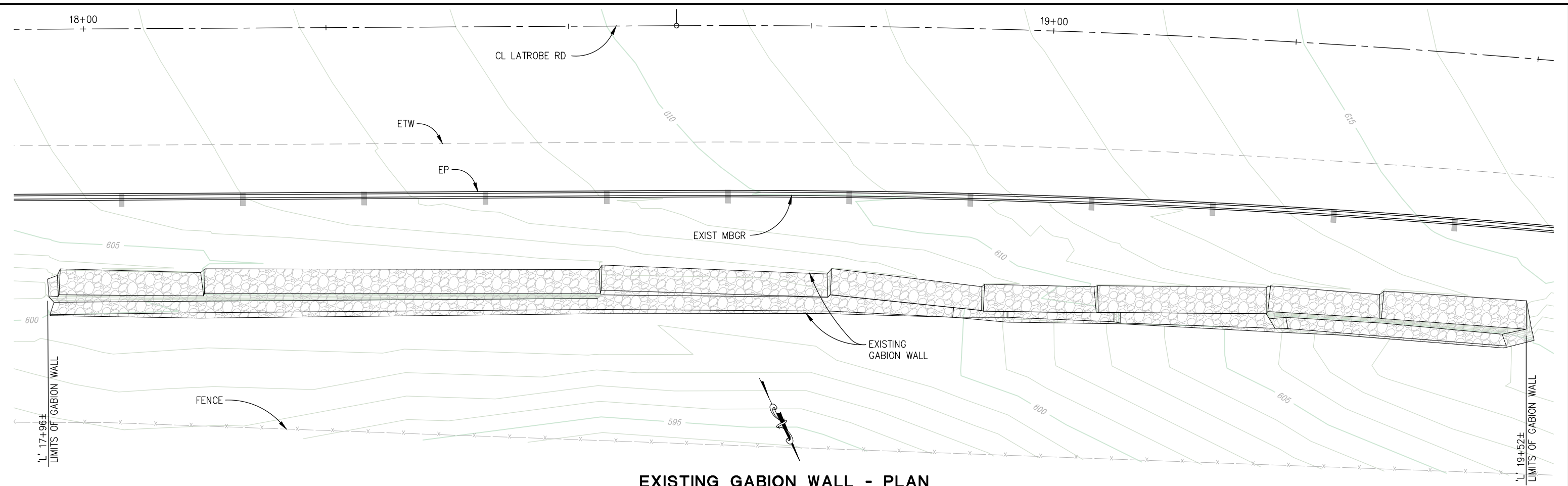


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LATROBE ROAD
GABION WALL RETROFIT

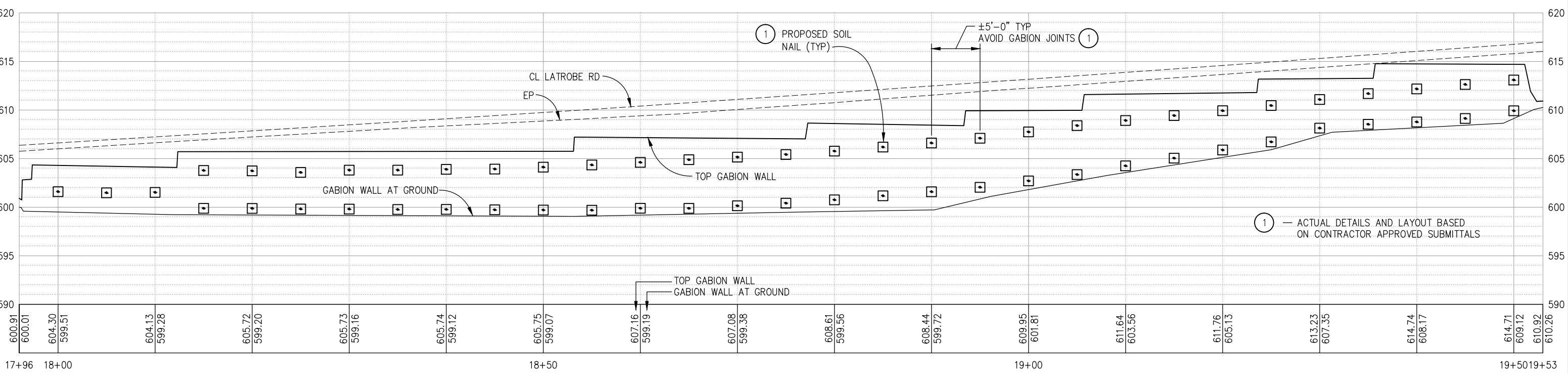
SHEET
C-1
 3 OF 5
 W.O. No. **48145**

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 FOR REDUCED PLANS



EXISTING GABION WALL - PLAN

SCALE: 1"=5'

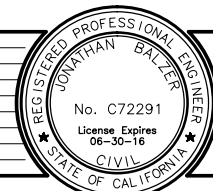


EXISTING GABION WALL - PROFILE

SCALE: 1"=5' H,V

CONSTRUCTION DETAILS
SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



PREPARED UNDER THE SUPERVISION OF :

 REGISTERED CIVIL ENGINEER
 DATE: 08/21/14

DESIGNED: JOB SGM
 DRAWN: SGM
 CHECKED: DATE: 08/15/14
 JOB
 ROAD NUMBER: 018

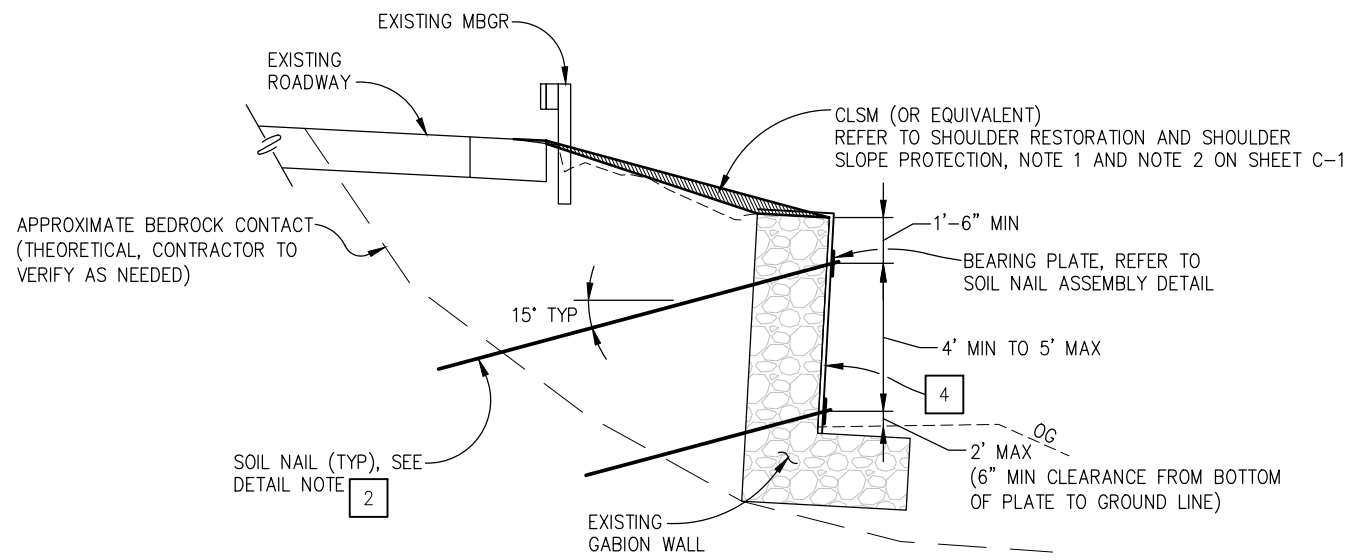


COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

LATROBE ROAD
GABION WALL RETROFIT

SHEET
C-2
 4 OF 5
 W.O. No. **48145**

ORIGINAL SCALE IS IN INCHES
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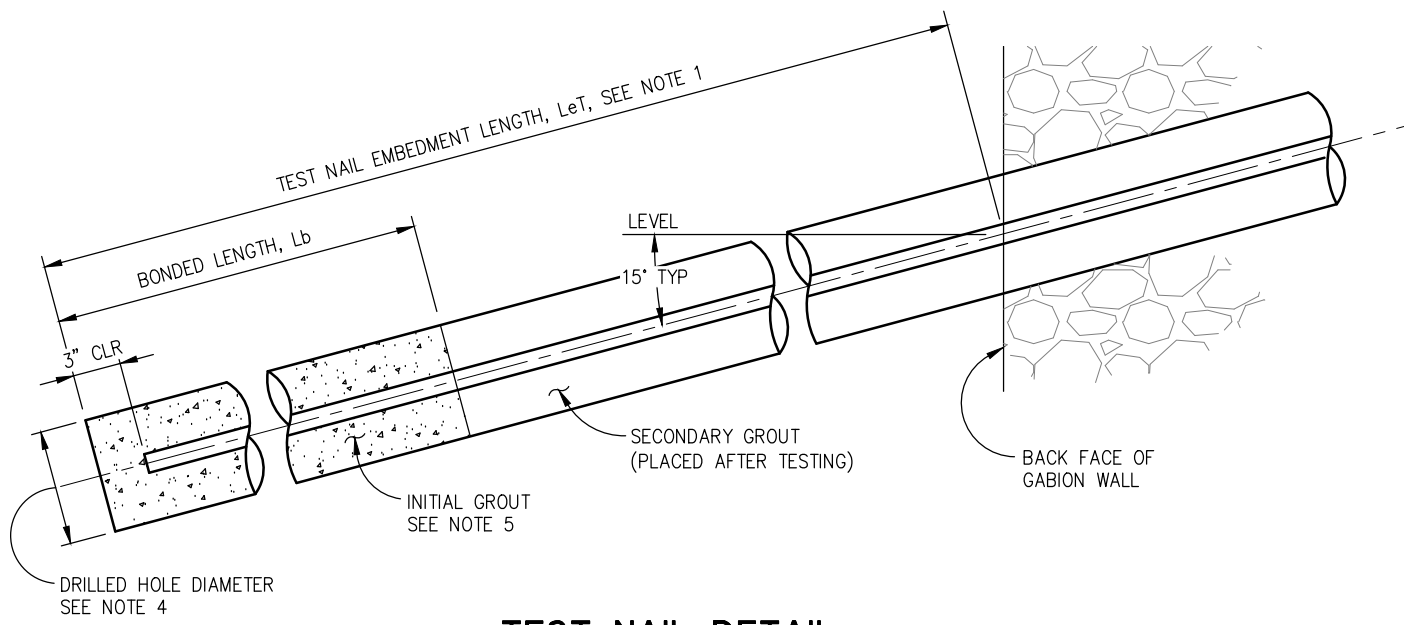
SOIL NAIL SYSTEM
 (ACTUAL DETAILS TO BE DETERMINED BY CONTRACTOR APPROVED SUBMITTALS)
 NTS

SOIL NAIL SYSTEM DETAIL NOTES:

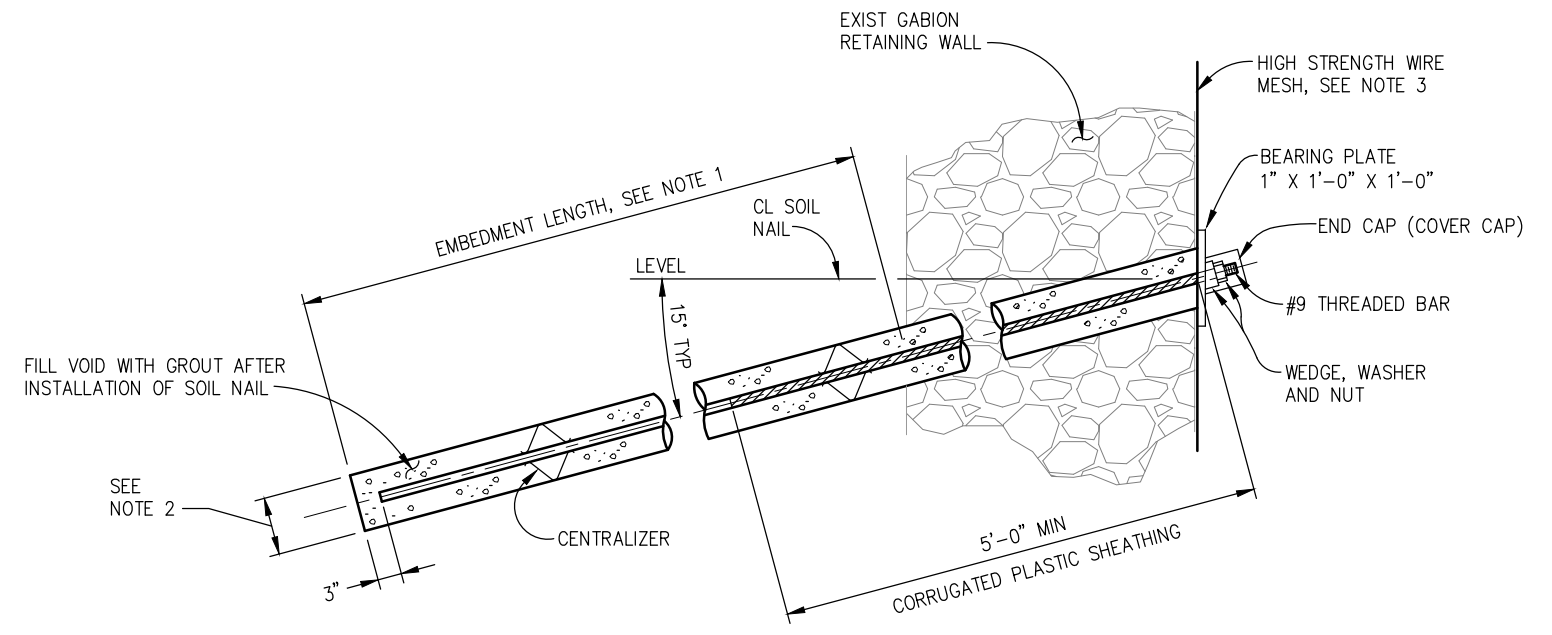
- 1 — SOIL NAIL SYSTEM TO BE ANALYZED AND EVALUATED TO STABILIZE ENTIRE LENGTH OF GABION WALL.
- 2 — CONTRACTOR TO VERIFY AND DETERMINE ACTUAL SOIL NAIL DIAMETER, LENGTHS, SPACING, AND NUMBER OF ROWS REQUIRED TO MEET DESIGN REQUIREMENTS AND SUBMIT THE ENGINEERED CALCULATIONS & DRAWINGS ACCORDINGLY. REFER TO PLANS AND SPECIFICATIONS FOR DETAILS.
- 3 — THE PLANS DEPICT AN ACCEPTABLE DESIGN. CONTRACTOR MAY PROPOSE AN ALTERNATIVE DESIGN. WHEN PROPOSING AN ALTERNATIVE DESIGN, CONTRACTOR MUST ENGINEER AND INSTALL A SYSTEM WITH A MINIMUM FACTOR OF SAFETY OF 1.5 FOR STATIC LOADING, AND 1.1 FOR SEISMIC LOADING. REFER TO THE LATROBE ROAD GABION WALL RETROFIT SPECIFICATIONS FOR ADDITIONAL DETAILS.
- 4 — HIGH STRENGTH WIRE MESH, TECCO MESH SYSTEM OR EQUIVALENT. (INSTALL PRIOR TO SOIL NAIL INSTALLATION TO REINFORCE EXISTING GABION BASKET WIRE MESH)

TEST NAIL DETAIL NOTES:

- 1. THIS TEST NAIL EMBEDMENT LENGTH L_eT , SHALL BE EQUAL TO 2/3 OF THE EMBEDMENT LENGTH, L_e , OF ADJACENT PRODUCTION SOIL NAIL ASSEMBLIES, BUT NOT LESS THAN 12'-0".
- 2. THE TOTAL LENGTH OF THE TEST NAIL ASSEMBLY EQUALS THE EMBEDMENT LENGTH PLUS THE LENGTH REQUIRED FOR JACKING EQUIPMENT.
- 3. TEST NAIL LOCATION TO BE INDICATED ON CONTRACTOR APPROVED SUBMITTALS.
- 4. CONTRACTOR TO DETERMINE DRILLED HOLE DIAMETER.
- 5. FINISHED GROUT SURFACE TO BE NORMAL TO THE BAR.
- 6. A MINIMUM OF TWO TEST NAILS ARE REQUIRED. (WITH A MINIMUM OF 1 EACH IN THE CRITICAL LOADING SECTION)



TEST NAIL DETAIL
 (ACTUAL DETAILS TO BE DETERMINED BY CONTRACTOR APPROVED SUBMITTALS)
 NTS



SOIL NAIL ASSEMBLY DETAIL
 (ACTUAL DETAILS TO BE DETERMINED BY CONTRACTOR APPROVED SUBMITTALS)
 NTS

SOIL NAIL ASSEMBLY DETAIL NOTES:

- 1. EMBEDMENT LENGTH OF SOIL NAILS MUST BE A MINIMUM OF 25 FEET BEHIND THE BACK OF WALL OR A MINIMUM OF 3 FEET INTO COMPETENT BEDROCK.
- 2. CONTRACTOR TO DETERMINE DRILLED HOLE DIAMETER.
- 3. HIGH STRENGTH WIRE MESH MUST BE "TECCO MESH SYSTEM" OR APPROVED EQUAL.

GENERAL NOTES:

- DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION 2012 WITH CALTRANS AMENDMENTS.
- SERVICE LOAD DESIGN METHOD PER FHWA MANUAL FOR DESIGN & CONSTRUCTION-MONITORING OF SOIL NAIL WALLS (FHWA-SA-96-069R AND FHWA0-IF-03-017)
- SOIL NAILS ASSEMBLY: ASTM DESIGNATION: A615, GRADE 60
 $f_y = 60$ ksi
- STRUCTURAL STEEL: PLATES AND SHAPES
 ASTM DESIGNATION: A709, GRADE 50
 $f_y = 50$ ksi
- WIRE MESH: $F_u = 250$ ksi
- DESIGN SOIL PARAMETERS: $\phi = 24^\circ$
 UNIT WT = 120 pcf
- DESIGN PULLOUT RESISTANCE
 $Q_d = 3.0$ k/ft (BEDROCK)
 $Q_d = 1.5$ k/ft (SOIL)
- LIVE LOAD SURCHARGE: 240 psf
- LATERAL SEISMIC LOAD 0.17g:
- *ALL SOIL NAIL MATERIALS (TO INCLUDE THREADED BAR, FASTENERS, BEARING PLATES, ETC.) TO CONTAIN A MINIMUM OF TWO LAYERS OF CORROSION PROTECTION.

CONSTRUCTION DETAILS
 SCALE : AS SHOWN

REVISION	NUMBER	DATE	DESCRIPTION	BY



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 DRAWN: SGM
 CHECKED: JB DATE: 08/15/14
 ROAD NUMBER: 018



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COMMUNITY DEVELOPMENT AGENCY
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LATROBE ROAD
GABION WALL RETROFIT

SHEET
C-3
 5 OF 5
 W.O. No. **48145**