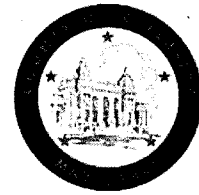


**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



**ITEM
3.64
(ID # 9560)**

MEETING DATE:
Tuesday, July 23, 2019


FROM: TLMA-TRANSPORTATION:

SUBJECT: TRANSPORTATION AND LAND MANAGEMENT AGENCY/TRANSPORTATION:
Approval of the Construction and Maintenance Agreement by and between the County of Riverside, Riverside County Transportation Commission, and Southern California Regional Rail Authority for the Placentia Avenue Overhead Bridge Widening; CEQA Nothing Further Required. Community of Mead Valley, District 1. [\$0 Total Cost]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Find that the Construction and Maintenance Agreement for the Placentia Avenue Overhead Bridge Widening, as part of the Mid County Parkway Project ("Project") has been adequately analyzed pursuant to the California Environmental Quality Act ("CEQA") as further described in the earlier adopted County Board of Supervisor's Resolution No. 2019-164 making responsible agency CEQA findings related to its certain limited approvals for the Project; therefore nothing further is required under CEQA; and
2. Approve the Construction and Maintenance Agreement by and between the County of Riverside, Riverside County Transportation Commission, and the Southern California Regional Rail Authority for the Placentia Avenue Overhead Bridge Widening for Fiscal Year 19/20 and authorize the Chairman of the Board to execute the same on behalf of the County.

ACTION:Policy


Patricia Romo, Director of Transportation 7/1/2019

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Jeffries, seconded by Supervisor Perez and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Spiegel, Washington, Perez and Hewitt
Nays: None
Absent: None
Date: July 23, 2019
xc: Transp.

Kecia R. Harper
Clerk of the Board

By 
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 0	\$ 0	\$ 0	\$ 0
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0
SOURCE OF FUNDS: N/A. There are no general funds being used for this project.			Budget Adjustment: No	
			For Fiscal Year: 19/20	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

A new freeway interchange is proposed to be constructed on Interstate 215 (I-215) at Placentia Avenue. The Riverside County Transportation Commission (RCTC) is the lead agency for the project and construction is anticipated to take place from 2020 to 2022. The Placentia Avenue interchange improvements will include a portion of the ultimate improvements envisioned for the Mid County Parkway.

Adjacent to the proposed Placentia Avenue interchange is a Metrolink rail line operated by the Southern California Regional Rail Authority (SCRRA) within right-of-way owned by the Riverside County Transportation Commission (RCTC). Placentia Avenue crosses over the rail line with a County-maintained bridge. The Placentia Avenue Overhead Bridge will be widened as part of the interchange project.

The Construction and Maintenance Agreement for the Placentia Avenue Overhead Bridge Widening between SCRRA, RCTC, and the County of Riverside (County) sets forth the terms of the County's operation and maintenance responsibilities for the bridge.

On this same Board agenda (MT Item 8639), the County of Riverside Board of Supervisors, as responsible agency, will adopt Resolution No. 2019-164 Making Responsible Agency CEQA findings for its certain limited approvals related to approving the Interstate 215/Placentia Avenue Interchange Project, for which the Placentia Avenue Overhead Bridge Widening is a part, and adopting the Mid County Parkway final Environmental Impact Report (SCH #2004111103) certified by RCTC on April 8, 2015 and amendment adopted by RCTC on January 31, 2019. Pursuant to CEQA, RCTC's Final Environmental Impact Report (EIR) was reviewed. The County, in its limited capacity as a Responsible Agency, will adopt Resolution No. 2019-164 and find that RCTC's Final EIR adequately covered actions contemplated and certain limited approvals by the County, including the Construction and Maintenance Agreement, and no significant impacts will result from the Construction and Maintenance Agreement, the widening of the Placentia Avenue Overhead Bridge or the County's operation and maintenance of the bridge. Although RCTC adopted a Mitigation Monitoring and Reporting Program and a Habitat Mitigation and Monitoring Plan (HMMP), no mitigation is required for the County's future

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

operation and maintenance of the bridge, and the County is not responsible for any construction related mitigation for this project, including any mitigation required and described in the HMMP. Nothing further is required under the California Environmental Quality Act (CEQA) for the approval and execution of the Construction and Maintenance Agreement for the Placentia Avenue Overhead Bridge Widening.

County Counsel has approved the agreement as to form.

W.O. No. 977137

Impact on Residents and Businesses

The construction of the I-215/Placentia Street Interchange is anticipated to improve public safety and circulation in the Mead Valley area due to increased traffic volumes. The existing Placentia Avenue crossing over the railroad bridge and I-215 freeway will be closed for approximately 10 months to expedite the construction of the proposed improvements.

Additional Fiscal Information

RCTC is constructing the Placentia Avenue Overhead Bridge Widening as part of the Placentia Avenue Interchange project through various funding sources. There are no County general funds being used for this project.

ATTACHMENTS:

Construction and Maintenance Agreement (bridge over railroad)
Location Map



Jason Farin, Senior Management Analyst

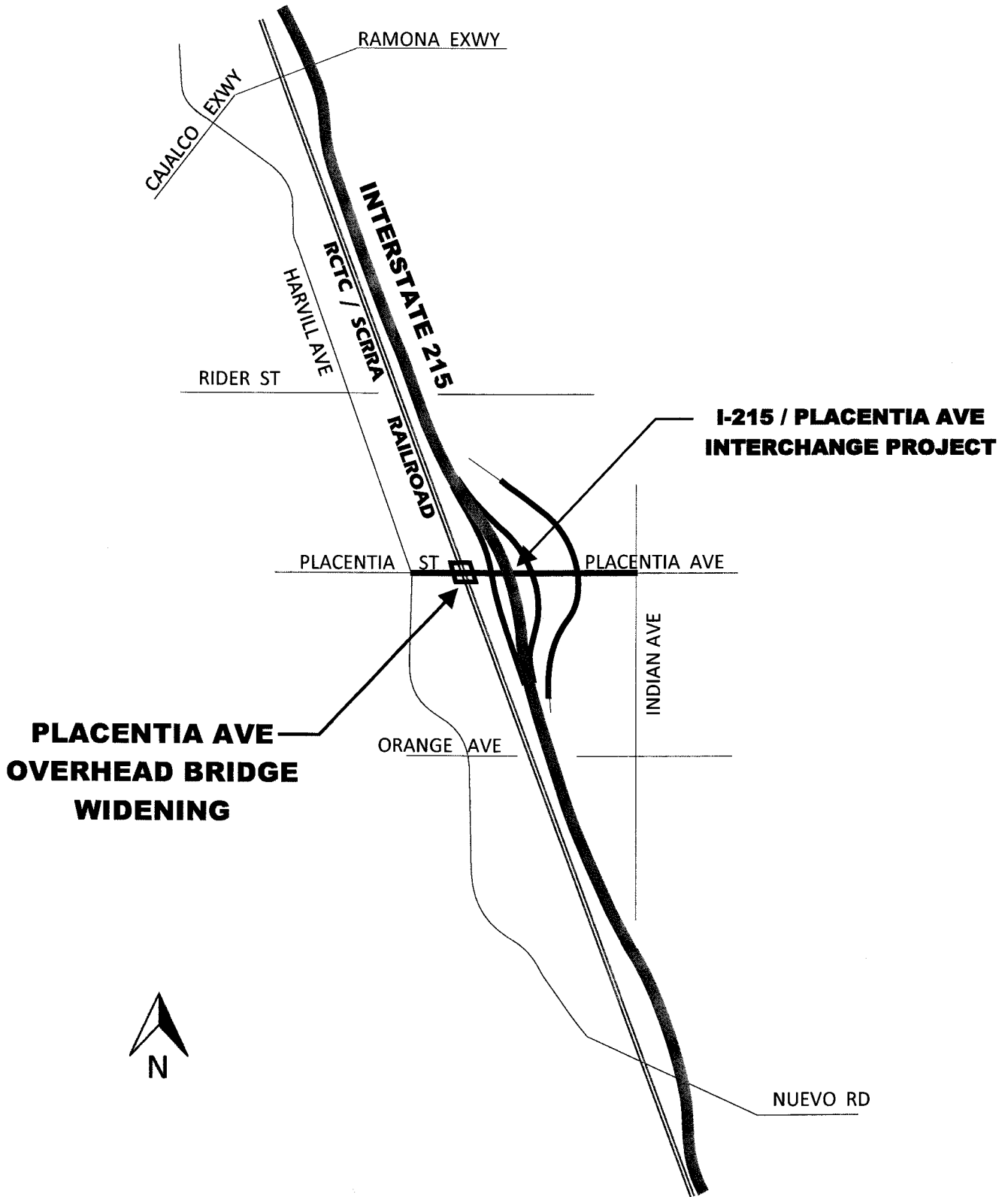
7/16/2019



Gregory V. Priaplos, Director County Counsel

7/11/2019

LOCATION MAP



Contract No. A-06-002
Riverside Co. Transportation

WHEN DOCUMENT IS FULLY EXECUTED RETURN
CLERK'S COPY
to Riverside County Clerk of the Board, Stop 1010
Post Office Box 1147, Riverside, Ca 92502-1147
Thank you.

SCRRRA File No. G0000938
SCRRRA Project No. 860967
RCTC No. 19-31-049-00

CONSTRUCTION AND MAINTENANCE AGREEMENT

for

**PLACENTIA AVENUE OVERHEAD
BRIDGE WIDENING**

between

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRRA)

and RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Covering the CONSTRUCTION

and between

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRRA)

and COUNTY OF RIVERSIDE

Covering the future MAINTENANCE

at

SCRRRA MP 80.23 – PERRIS VALLEY SUBDIVISION

DOT NO.: 027334L

CPUC NO.: 101PV-80.23-A

BRIDGE NO.: 56C-0450

in

RIVERSIDE COUNTY, CALIFORNIA

JUL 23 2019

3.64

Construction and Maintenance Agreement
for
PLACENTIA AVENUE OVERHEAD BRIDGE WIDENING

CPUC No. 101PV-80.23-A

DOT No.: 027334L

BRIDGE NO.: 56C-0450

MP PV-80.23 – PERRIS VALLEY SUBDIVISION
RIVERSIDE COUNTY, CALIFORNIA

This Construction and Maintenance Agreement ("AGREEMENT") is made and entered into as of the 26th day of August, 2019, by and between the **SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY**, a joint powers authority existing under the laws of the State of California (hereinafter referred to as "SCRRA"), to be addressed at 900 Wilshire Blvd., Suite 1500, Los Angeles, California 90017, the **RIVERSIDE COUNTY TRANSPORTATION COMMISSION**, organized and existing under the laws of the State of California pursuant to California Public Utilities Code Section 130050 et seq. (hereinafter referred to as "COMMISSION"), to be addressed at Riverside County Transportation Commission, 4080 Lemon St., 3rd Floor, P.O. Box 12008 Riverside, California 92502, and the **COUNTY OF RIVERSIDE**, a political subdivision of the State of California (hereinafter referred to as "COUNTY"), to be addressed at County of Riverside, Transportation Department, 4080 Lemon Street, 8th Floor, P.O. Box 1090, Riverside, California 92502. Herein, SCRRA, COMMISSION, and COUNTY are collectively referred to as the "**PARTIES.**"

RECITALS:

SCRRA is a five-county joint powers authority, created pursuant to California Public Utilities Code Section 130255 and California Government Code Section 6500 et seq., to build, maintain, administer, and operate the "METROLINK" commuter train system on railroad rights-of-way

owned by the member agencies and through other shared use and joint operation agreements. The five-county member agencies are comprised of the following: Los Angeles County Metropolitan Transportation Authority (“LACMTA”), Ventura County Transportation Commission (“VCTC”), Orange County Transportation Authority (“OCTA”), San Bernardino County Transportation Authority (“SBCTA”), and COMMISSION.

SCRRA controls, administers, operates, and maintains the railroad track, structures, signals, communication systems, and appurtenances on the rail line known as the Perris Valley Subdivision in the area traversed by Placentia Avenue. SCRRA and the “Operating Railroads” [as used herein “Operating Railroads” means any passenger or freight-related railroad company(s) operating on SCRRA track(s), including the Burlington Northern Santa Fe (BNSF)] operate trains and rail equipment through this crossing location on right-of-way owned by COMMISSION, in accordance with Shared Use Agreements dated October 30, 1992, and the Agreement between SCRRA, its Member Agencies, and the Burlington Northern Santa Fe (BNSF) otherwise known as the “Intercity Agreement.”

COMMISSION holds the primary responsibility for state and federal funding programming and implementation of regional highway and transit projects throughout Riverside County, holds ownership of the right-of-way for which the SCRRA rail line known as the Perris Valley Subdivision is located, and is the lead agency for the project described here in Article 2.

COUNTY is public agency of jurisdiction of the operation and maintenance of the Placentia Avenue public street and bridge crossing located over COMMISSION right-of-way and SCRRA rail facility.

SCRRA, COMMISSION and COUNTY are entering into this AGREEMENT to cover the PROJECT as described in **Article-2** of the AGREEMENT and as contained in the Exhibits attached hereto and made a part of this AGREEMENT.

AGREEMENT

NOW, THEREFORE, it is mutually agreed by and between the PARTIES hereto as follows:

ARTICLE 1 - LIST OF EXHIBITS

The exhibits below are attached to and made a part of this AGREEMENT as if set forth in their entirety:

Exhibit A	SCRRA Terms and Conditions
Exhibit B-1	Description of Project
Exhibit B-2	Title Sheet Plan
Exhibit B-3	Detailed Structure Plans
Exhibit B-4	Standard Provisions page and Structures Special Provisions
Exhibit C	(Not Used)
Exhibit D-1	Engineers' Estimate of Probable Cost for Work within Railroad Property
Exhibit D-2	SCRRA Scope of Work and Estimate (RAILROAD WORK)
Exhibit E-1	SCRRA Form 37 Rules and Requirements for Construction on SCRRA Property and List of Submittals
Exhibit E-2	SCRRA Form 6 -Temporary Right-of-Entry Agreement and SCRRA Insurance Requirements
Exhibit F	Funding Schedule
Exhibit G	CPUC Decision Granting Authority to Alter or Widen the Existing Grade-separated Highway-Rail Crossing

ARTICLE 2 - DESCRIPTION OF PROJECT

2.1 The COMMISSION desires to widen the existing eastbound overhead bridge by approximately 38'-2" to the south (the "STRUCTURE"), along with associated roadway improvements and appurtenances (collectively "the PROJECT") that will carry vehicular traffic traversing on Placentia Avenue over SCRRA's track(s) at Mile Post 80.23, on the Perris Valley Subdivision in the County of Riverside, California as described in **Exhibit B-1** and in accordance with **Exhibit A**. The general arrangement, plan, section and location of the STRUCTURE proposed by the COMMISSION are shown on the location print marked as **Exhibit B-2**. The detailed plan(s) of the STRUCTURE and PROJECT upon acceptance by COUNTY and SCRRA are to be included in this AGREEMENT and are collectively marked as **Exhibit B-3**. The specification cover and index page from specifications of the STRUCTURE and PROJECT upon acceptance by COUNTY and SCRRA are to be included in this AGREEMENT and are collectively marked as **Exhibit B-4**. The PROJECT also includes appropriate protection to communication and signal lines and appurtenances, temporary track work, grading, preliminary and final design review, construction engineering, inspection, and contract preparation.

ARTICLE 3 – PLANS AND SPECIFICATIONS

3.1 The COMMISSION shall, at its sole cost and expense, prepare detailed Plans, Specifications, and Estimates (the "PS&E") for the PROJECT. The COMMISSION shall comply with all COUNTY and SCRRA terms and conditions that are described in **Exhibits E-1** and **E-2**, including all COUNTY and SCRRA Standards, Design and Construction Criteria and Guidelines and any other special guidelines that COUNTY and SCRRA may provide to the COMMISSION on or before the EFFECTIVE DATE for this PROJECT for any work performed by COMMISSION or Contractor(s) for the COMMISSION.

3.2 The COMMISSION has worked with COUNTY and SCRRA throughout design development and shall furnish and submit copies of the 100% and Conformed Contract plans and specifications, along with the supporting calculations, to COUNTY and SCRRA prior to

construction commencement, for the review and approval of COUNTY and SCRRA, insofar as the PROJECT affects the property, facilities, safety, operation, or interests of COUNTY and SCRRA.

3.3 The 100% PS&E shall include all appurtenances, associated drainage, shoring, sheeting, and excavations for foundations, bents or abutments, walls and box culvert replacement next to or adjacent to SCRRA's tracks and, where applicable, all demolition and removal plans for any existing structures. The COMMISSION shall make its submittals sufficiently in advance of the final adoption of any element in the design to permit COUNTY and SCRRA a four (4) week period for review, and to communicate any recommendations or to make any requests for revisions in the PS&E where the interests of COUNTY and SCRRA are affected by the PROJECT.

3.4 The COMMISSION shall coordinate its designs with COUNTY, SCRRA, utilities, and any other third parties affected by the PROJECT. The COMMISSION shall revise its PS&E as necessary, or upon notice by COUNTY and SCRRA, to provide adequate clearances, provide access for future maintenance, and provide for the proper location and functioning of signal and communication systems.

3.5 COUNTY and SCRRA will review the PS&E for general conformance with COUNTY and SCRRA standards and requirements. SCRRA will give COMMISSION final written approval of the plans and specifications, per the SCRRA Form of Approval. COUNTY will give COMMISSION final written approval of the plans and specifications, per COUNTY format. Upon the final written approval of the plans and specifications by COUNTY and SCRRA, said plans and specifications will become part of this AGREEMENT by reference. No substantive changes in the final and approved PS&E may be made unless COUNTY and SCRRA has consented to the proposed changes in writing.

3.6 Approval by SCRRA shall mean only that the PS&E meet the standards of SCRRA, and such approval by SCRRA shall not be deemed to mean that the PS&E or construction is structurally sound and appropriate or that the PS&E meet applicable regulations, laws, statutes, local ordinances, building codes, or any combination thereof.

3.7 Approval by COUNTY shall mean only that the PS&E meet the standards of COUNTY, and such approval by COUNTY shall not be deemed to mean that the PS&E or construction is structurally sound and appropriate or that the PS&E meet applicable regulations, laws, statutes, local ordinances, building codes, or any combination thereof.

3.8 Upon completion of the PROJECT, the COMMISSION, at its sole cost and expense, shall furnish to COUNTY and SCRRA a compact disc (CD) or a digital versatile disc (DVD) of electronic portable document format (PDF) files of the record drawings developed in accordance with Caltrans procedures and depicting the as-constructed condition of the PROJECT and appurtenances. In addition, the COMMISSION shall furnish a PDF copy of the specifications, structural calculations, and approved prestressing shop plans of the structures to COUNTY and SCRRA. The COMMISSION shall also furnish to COUNTY and SCRRA the drawings electronically in an editable MicroStation or AutoCAD file format. In addition to the electronic copies required above, the COMMISSION shall furnish printed copies (including half-size plans) of all of the construction and contract documents to SCRRA. COUNTY requires no printed copies.

ARTICLE 4 – SCRRA, COMMISSION AND COUNTY REQUIREMENTS

4.1 The COMMISSION at its sole cost and expense, shall comply, and ensure that its employee(s), consultant(s), and contractor(s) comply, at all times when on the rail right-of-way, with the rules and regulations, as contained in the current editions of the following documents, which are otherwise known as “REFERENCES”, as incorporated in this document as if they were set full in this paragraph, and incorporated in this AGREEMENT by reference. These documents are described and can be accessed through SCRRA’s website www.metrolinktrains.com, as the following:

- **Temporary Right-of-Entry agreement, SCRRA Form No. 6**
- **Rules and Requirements for Construction on Railway Property, SCRRA Form No. 37**
- **SCRRA Bridge and Tunnel Safety Management Policy**

- **General Safety Regulations for Third Party Construction and Maintenance Activity on SCRRRA Member Agency Property**
- **Applicable SCRRRA Engineering Standards, Criteria and Operational Guidelines**

4.2 The COMMISSION and all employee(s), consultant(s), and contractor(s) employed by the COMMISSION shall ensure compliance to the terms and conditions of this AGREEMENT for work specified in this Article. SCRRRA requires all COMMISSION and COUNTY employee(s), consultant(s) and contractor(s) working on the PROJECT to attend the SCRRRA Third Party Safety Training as a mandatory prerequisite to enter the railroad right-of-way and comply with the SCRRRA Safety Rules while on railroad property.

4.3 The COMMISSION shall notify SCRRRA's Railroad Protective Services Contractor a minimum of three (3) weeks in advance of the daily Employee in Charge (EIC) requirements for each week. Each EIC shift shall comprise of 8 hours of support with a period of up to one hour either end of the shift solely for the purpose of establishing or taking down protection as required. EIC support shall be required at all times for any work within the railroad right-of-way or with the potential to foul the railroad.

4.4 SCRRRA representatives may make inspections and conduct tests to judge the effectiveness of the safety training, and compliance with SCRRRA requirements, in accordance with SCRRRA's Efficiency Testing Program, in compliance with 49 CFR 214 – Railroad Workplace Safety Regulations and SCRRRA Third Party Work Rules. The COMMISSION's employee(s), consultant(s), and contractor(s) shall cooperate with SCRRRA, Federal, State and COUNTY representatives at all times. Disregard for, or failure to comply with, the requirements of 49 CFR 214 – Railroad Workplace Safety regulations, or SCRRRA third-party safety requirements, may result in the removal of an offending individual(s) from the SCRRRA operated Right-of-Way. Egregious or repeated disregard for any safety rule or requirement may result in the termination of the Right-of-Entry Agreement.

4.5 The COMMISSION will ensure that its Contractor fully protects the track and associated infrastructure beneath any demolition activities that may be required upon the existing bridge, from any potential concrete spillage, from CIDH piling arisings or other excavation arisings and to ensure that any work above the railroad is fully protected so as to ensure that there is no potential for materials or equipment to fall onto the right-of-way beneath. COMMISSION shall ensure that the contractor does not store materials or equipment upon the right-of-way within 20-feet of the track, that any material/equipment to be stored upon the right-of-way is first agreed with SCRRRA and is secured, that a clear access path for maintenance or emergency vehicles is maintained at all times adjacent to tracks and that activities do not generate excessive dust.

4.6 The COMMISSION and its consultants and contractors shall obtain a no cost encroachment permit from COUNTY for work performed in COUNTY right-of-way.

4.7 The COMMISSION shall provide a California Registered Structures Representative to monitor, inspect and verify compliance with contract plans, specifications and special provisions on all aspects of structural construction of the PROJECT, such as bridges, foundations, walls, falsework, shoring, pre-stressed concrete and drainage structures.

4.8 The COMMISSION will incorporate all requirements of this AGREEMENT into bid documentation and the construction contract with the Contractor pertaining to responsibilities of the contractor.

ARTICLE 5 – WORK AND ESTIMATE BY COMMISSION

5.1 The work to be performed by the COMMISSION is described in **Exhibit D-1 – COMMISSION Scope of Work and Estimate**, (hereinafter referred to as " COMMISSION WORK") in the amount of Three Million Six Hundred Twenty Six Thousand, Seven Hundred Fifty Five Dollars and Zero Cents (\$3,626,755.00)

5.2 COMMISSION shall also make at no cost to SCRRA or COUNTY any and all arrangements for the installation or relocation of wire lines, pipe lines and other facilities owned by private persons, companies, corporations, political subdivisions, or public utilities other than COUNTY and SCRRA which may be necessary for the construction of the PROJECT.

5.3 Except as otherwise provided by law, removal of any and all contaminated or hazardous material within the limits of the PROJECT and the CROSSING AREA shall be at no cost to SCRRA or COUNTY, and shall be conducted in accordance with applicable law or regulation.

5.4 The COMMISSION shall be responsible for all coordination, permits, licenses and agreements required by Utility Companies, Third Parties and Statutory Authorities for the construction and operation of the PROJECT.

5.5 The COUNTY is not responsible for cost sharing for the PROJECT.

ARTICLE 6 – WORK AND ESTIMATE BY SCRRA

6.1 The railroad work to be performed by SCRRA (hereinafter "RAILROAD WORK"), at the COMMISSION's sole cost and expense, is described in **Exhibit D-2 – SCRRA Scope of Work and Estimate**, dated November 14th, 2018. SCRRA's estimated cost for SCRRA's RAILROAD WORK associated with the PROJECT is One Million, One Hundred and Twenty One Thousand Dollars and Zero Cents (\$1,121,000.00).

6.2 Completion of any designs necessary for the RAILROAD WORK portion of the PROJECT, and the acceptance of the estimate in **Exhibit D-2**, and the fifty (50%) percent deposit of any funds due to SCRRA, are conditions precedent to issuing the Notice to Proceed with the RAILROAD WORK.

6.3 Upon execution of this AGREEMENT, COMMISSION shall deposit fifty (50%) of the estimate contained in **Exhibit D-2**, RAILROAD WORK portion of the PROJECT cost or Five

Hundred Sixty Thousand Five Hundred dollars and no cents (\$560,500.00), with SCRRRA. When the actual cost and expenses incurred by SCRAA, including the estimate allocated overhead, reaches Five Hundred Thousand dollars (\$500,000.00), SCRRRA shall notify COMMISSION in writing and the COMMISSION shall deposit the remaining balance of the estimated RAILROAD WORK within 30 days of such notification. Should the amounts on deposit be depleted before the RAILROAD WORK are completed, SCRRRA may stop work and will not commence until COMMISSION next deposit is received.

6.4 SCRRRA shall provide a Project Manager to support the PROJECT, attend progress meetings, review work plans and schedules where the scope has the potential to affect SCRRRA operations or at the COMMISSION's request, provide an overview of construction progress, ensure railroad operational safety and compliance with SCRRRA standards and procedures, support inspections and final walk-through and to generally provide coordination between SCRRRA, the COMMISSION and the COMMISSION's contractor.

6.5 SCRRRA shall provide support services and coordination, including support of its track and signal contractors, to facilitate the initial removal of a track panel and final replacement, testing and return of track to service within a full track closure weekend work window to facilitate installation of a box culvert to replace the existing drainage system beneath the tracks by COMMISSION's contractor

6.6 SCRRRA shall provide a track inspector as necessary to monitor and ensure integrity of track structure during adjacent piling activities.

6.7 The COUNTY is not responsible for cost sharing of the PROJECT.

ARTICLE 7 – CONSTRUCTION BY COMMISSION

7.1 COMMISSION shall furnish, or cause to be furnished, all labor, materials, tools equipment, and superintendence for the performance of the COMMISSION WORK for which the

COMMISSION is responsible. The COMMISSION shall also provide a full-time resident engineer with experience in highway-railroad grade separation projects on the site of the work during construction. The resident engineer must be an engineer licensed in the State of California, and must have the authority to provide direction to the Contractor or Contractors employed by the COMMISSION, and to commit the agency within a reasonable scope of authority. SCRRA, at the cost and expense of the COMMISSION, may retain an inspector or engineer to make periodic reviews of the work insofar as the interests of SCRRA are affected. The COUNTY, at COUNTY's cost, may make periodic reviews of the work insofar as the interest of COUNTY are affected. Resident engineer shall coordinate the Contractor's work schedule and progress with the SCRRA PM to provide advance notifications of work window requirements, upcoming activities and to ensure that the work does not impact SCRRA or freight railroad operations.

7.2 COMMISSION must supervise and inspect the operations of all Contractors employed by the COMMISSION to assure compliance with the plans and specifications approved by COUNTY and SCRRA, the terms of this AGREEMENT and all safety requirements of COUNTY and SCRRA. If COUNTY/SCRRA determines that proper supervision and inspection is not being performed by COMMISSION personnel at any time during construction of the PROJECT, COUNTY/SCRRA shall notify the COMMISSION's Capital Project's Manager. Should the COMMISSION's Capital Project Manager fail to address the COUNTY/SCRRA's concerns, the COUNTY/SCRRA has the right to stop construction within or adjacent to its operating right-of-way. Construction of the PROJECT, within or adjacent to the COUNTY/SCRRA operated right-of-way, will not proceed until COMMISSION corrects the objectionable condition or activity to the reasonable satisfaction of COUNTY/SCRRA. If COUNTY/SCRRA believes that the condition or activity is not being corrected in an expeditious manner, COUNTY/SCRRA will immediately notify COMMISSION, and COMMISSION agrees to institute appropriate corrective action.

7.3 The COMMISSION shall incorporate the requirements of **Exhibits A, E-1 and E-2** into each prime contract for construction of the PROJECT. The COMMISSION shall exercise its authority as a party to any contract for construction into which it enters, to ensure that its Contractor conforms with the requirements described in **Exhibits A, E-1 and E-2**, and to avoid delay or damage to

COUNTY and SCRRA operations, right-of-way, property, or other facilities, or the operations, property or facilities of others occupying or using SCRRA operated right-of-way. All work done by the COMMISSION, or its Contractor(s), on the right-of-way operated by SCRRA shall be done in a manner satisfactory to COUNTY and SCRRA.

7.4 SCRRA and COMMISSION shall establish mutually agreeable work windows for the PROJECT prior to advertising the PROJECT for bid. Currently there is no commuter or freight service through the project area at the weekend and so absolute forty-eight (48) hour work windows are potentially available for both tracks. Should there be any requirement for train operations through the area at the weekend, then work will be limited to a window on one track only to allow train movement under "Form B" protection upon the other track. Weekday working will require provision of "Form B" protection. All work pertaining to lifting/installing bridge girders, CIDH casings or reinforcement cages, erection of falsework or any work over the tracks with the potential for materials or equipment to fall and foul the track shall be undertaken in night or weekend windows. Installation of a box culvert beneath the tracks to replace the existing drainage system must be undertaken during a weekend window with full track closure. COMMISSION shall ensure that its contractor(s) coordinate and comply with EIC directions at all times, standing down and securing any equipment while a train passes by. To facilitate scheduling for the PROJECT, COMMISSION shall require its Contractor or Contractors to give SCRRA's representative forty-five (45) days advance notice of the proposed times and dates for any absolute work windows to which SCRRA has agreed in principle. Should, due to train operations or service obligations or other reasons provided in this AGREEMENT, it become impracticable to provide the work window on the dates established, SCRRA will provide the work window at the next reasonable available opportunity. SCRRA shall not be responsible for any additional costs and expenses resulting from a change in work windows.

7.5 The COMMISSION shall furnish copies of the Contractor-furnished submittals listed in **Exhibit E-1** to SCRRA for review and approval prior to proceeding with the work covered by the submittal. Upon approval of the COMMISSION, the Contractor(s) may make the submittals directly to SCRRA at the address provided in this AGREEMENT. SCRRA shall be allowed twenty (20) working days to complete its review of any submittals.

7.6 COMMISSION must advise the SCRRA Director of Engineering and Construction in writing, of the completion date of the PROJECT within thirty (30) days after such completion date. Additionally, COMMISSION must notify SCRRA's Director of Engineering and Construction in writing, of the date on which COMMISSION and its Contractor(s) will meet with SCRRA for the purpose of making final acceptance of the PROJECT. COMMISSION shall ensure that any outstanding defects, omissions, site clean-up and removal of materials/equipment with the potential to affect Railroad operations are immediately addressed to SCRRA's satisfaction.

7.7 COMMISSION must advise the COUNTY Director of Transportation in writing, of the completion date of the PROJECT within thirty (30) days after such completion date. Additionally, COMMISSION must notify COUNTY's Director of Transportation in writing, of the date on which COMMISSION and its Contractor(s) will meet with COUNTY for the purpose of making final acceptance of the PROJECT. COMMISSION shall ensure that any outstanding defects, omissions, site clean-up and removal of materials/equipment with the potential to affect COUNTY operations are immediately addressed to COUNTY's satisfaction.

ARTICLE 8 – SHOOFLY CONSTRUCTION (NOT USED)

ARTICLE 9 – TRACK STABILIZATION PERIOD (NOT USED)

ARTICLE 10 – DISTRIBUTION OF COSTS

10.1 The sources of funding for the PROJECT include state and local funds, attached hereto as **Exhibit F**. The COMMISSION and SCRRA each agree to conform to all contracts, expenses and invoicing for this PROJECT to meet the requirements of the funding contracts and agreements attached to this AGREEMENT as **Exhibit F**. SCRRA acknowledges that certain funding is contingent upon execution of this AGREEMENT. The COMMISSION shall furnish SCRRA copies of any funding contracts or agreements into which the COMMISSION enters after the date of this AGREEMENT.

10.2 The current rules, regulations and provisions of the Federal Aid Policy Guide as contained in 23 CFR 140, Subpart I and 23 CFR 646, Subparts A and B are incorporated into this AGREEMENT by reference, and construction work by the COMMISSION and Contractor(s) shall be performed, and any reimbursement to SCRRA for work it performs, shall be made in accordance with the Federal Aid Policy Guide. If there is no corresponding closure of an existing grade crossing as part of the PROJECT as provided in 23 CFR 646.210(b)(2), the PROJECT is of no ascertainable benefit to SCRRA and SCRRA shall not be obligated to pay or contribute to any PROJECT costs.

10.3 Notwithstanding any provision of 23 CFR 210, or funding contract or agreement, the COMMISSION agrees to assume, in accordance with 23 CFR 210 (d), all responsibility for any and all share of the cost for which SCRRA might otherwise be responsible. SCRRA shall not, in any event, be required to commit its own revenue or that of its member agencies to the PROJECT.

ARTICLE 11 – PAYMENT FOR SCRRA WORK

11.1 Upon the execution of this AGREEMENT, the COMMISSION shall deposit fifty percent (50%) of the amount of the estimate contained in **Exhibit D-2 – SCRRA Scope of Work and Estimate with SCRRA (RAILROAD WORK)**. When forty five percent of the deposit has been used to pay for SCRRA costs, SCRRA will request a deposit for the remaining 50% of the estimate contained in Exhibit D-2. If at any time, the projected cost, including the estimated allocated overhead, exceeds eighty percent (80%) of the SCRRA Scope of Work Estimate, SCRRA may, in its sole discretion, revise its estimates of the amount of RAILROAD WORK remaining, and the COMMISSION shall deposit any additional amounts in excess of the original deposit(s) with SCRRA, subject to COMMISSION allocation of sufficient funding for such additional sums, and an amendment to Exhibit D-2 executed by the COMMISSION and SCRRA.

11.2 SCRRA will submit quarterly statements of costs incurred by SCRRA for review by the COMMISSION. The COMMISSION shall review the statement for conformance with the applicable provisions of 48 CFR 31 or the requirements of the funding agreements contained in

Exhibit F within Seven (7) business days and provide SCRRA with written approval, comments and/or objections in writing.

11.3 Until SCRRA receives formal approval of its overhead rates, an estimated allocated overhead rate will be provided for cost estimation and budgeting purposes. SCRRA will invoice utilizing this estimated allocated overhead rate until the Federal Transit Administration, SCRRA's cognizant audit Agency, has approved the final rate at the completion of its audit, at which time SCRRA will reconcile all previous invoices and make adjustments where appropriate. Upon completion of the PROJECT, and after the SCRRA overhead rate for each period covering the construction of the PROJECT is approved by the cognizant audit Agency, SCRRA will send the COMMISSION a detailed statement of final costs, segregated as to labor and materials for each item in the recapitulation shown on **Exhibit D-2**.

11.4 SCRRA, if it so elects, may recalculate and update the Estimate as contained in **Exhibit D-2** submitted to the COMMISSION in the event the COMMISSION does not commence construction on the portion of the PROJECT located on the right-of-way of SCRRA within six (6) months from the date of the Estimate.

11.5 COMMISSION acknowledges that the Estimate as contained in **Exhibit D-2** does include an estimate of the flagging or other protective service costs provided by SCRRA that are to be paid by COMMISSION in connection with the PROJECT.

11.6 COMMISSION acknowledges that by entering into this AGREEMENT, SCRRA will provide services and accommodations to promote the public interest in the PROJECT without profit or other economic benefit. Notwithstanding the amount of any estimate provided by SCRRA, the COMMISSION agrees to reimburse SCRRA for one hundred percent (100%) of all actual costs incurred by SCRRA in connection with the PROJECT, provided that such costs have been approved in advance by COMMISSION, including, but not limited to, actual costs of engineering review, coordination, construction inspection, flagging or other protective service, procurement of materials, equipment rental, manpower and deliveries to the job site and all of the normal and

customary additives applicable to SCRRA (which shall include direct and cognizant agency approved indirect overhead costs) associated therewith.

ARTICLE 12 -- PERMIT TO CONSTRUCT STRUCTURE

12.1 The COMMISSION shall obtain any necessary easements or licenses, on, over, or under the real property necessary to permit the permanent location and use of the improvements comprising the PROJECT.

ARTICLE 13 - CONTRACTOR'S RIGHT OF ENTRY PERMIT AND INSURANCE

13.1 Entry onto the SCRRA operated right-of-way by the COMMISSION or its Contractor(s) shall at all times be subject to the then-current requirements for entering the SCRRA operated right-of-way and the SCRRA procedures and requirements for securing railway flagging or other protective services.

13.2 Entry onto the COUNTY road right-of-way by the COMMISSION or its Contractor(s) shall at all times be subject to the then-current requirements for entering the COUNTY right-of-way. Cost for permit shall be a no cost to COMMISSION, its Consultant(s) and Contractor(s).

13.3 The COMMISSION shall incorporate the provisions set forth in **Exhibits A, Exhibit E-1 and Exhibit E-2**, into each contract for construction of the PROJECT. The COMMISSION shall further require that each of its Contractors comply with the requirements set forth in **Exhibits A, Exhibit E-1 and Exhibits E-2**, to this AGREEMENT.

13.4 If the COMMISSION retains a Contractor(s) to perform any work involving the PROJECT (including initial construction and any subsequent relocation or maintenance and repair work), the COMMISSION shall require the Contractor(s) to:

- a) Execute SCRRA "Form 6 – Right -of -Entry Agreement" or similar form of agreement as adopted by SCRRA at the time that any future work is performed without

modification. A copy of Form 6 as currently adopted by SCRRA is included with AGREEMENT as **Exhibit E-2**

- b) Furnish and provide the bonds, insurance policies, certificates, binders, endorsements or combinations thereof in accordance with the insurance requirements accompanying SCRRA "Form 6 – Right –of-Entry Agreement" and as described in **Exhibit E-2**
- c) Furnish all SCRRA administrative and railroad protection service costs associated with provision of the right-of-entry agreement and the contractor's safe execution of the work
- d) Furnish and provide the bonds, insurance policies, certificates, binders, endorsements or combinations thereof in accordance with the insurance requirements of COUNTY, including naming COUNTY as additionally insured.

13.5 The COMMISSION shall not allow any Contractor or Contractors to commence any work in the CROSSING AREA or on any other portion of the SCRRA operated right-of-way until the contractor or contractors have provided the required insurance and the right-of-entry is approved and signed by SCRRA.

13.6 The COMMISSION shall not allow any Contractor(s) or consultants(s) to commence any work in and portion of COUNTY right-of-way until contractor(s) or consultant(s) have provided required insurance and the right-of entry is approved by COUNTY.

13.7 All insurance correspondence, binders, policies, certificates and/or endorsements shall be sent to:

SCRRA

Christos Sourmelis

Coordinator, Right-of-Way

2558 Supply Street Building A, Pomona, California 91767

Email: sourmelisc@scrra.net

Phone: (909) 392-8463

SCRRA File No. G0000938

SCRRA Project No. 860967

County of Riverside - Transportation Department
Cathy Wampler
Engineering Project Manager
4080 Lemon Street, 8th Floor, Riverside, CA 92501
Email: cwampler@rivco.org
Phone: (951) 955-6803

13.8 The COMMISSION may not self-insure any portion of the insurance coverage for work performed by the employees of the COMMISSION without the prior approval of COUNTY and SCRRA.

13.9 Under no circumstances will personnel, equipment, or material of a Contractor or the COMMISSION be allowed on the COUNTY right-of-way or SCRRA operated right-of-way without providing the insurance required by this article and arranging for flagging or other protective services, as applicable.

ARTICLE 14 - MAINTENANCE OF COMPLETED STRUCTURE

14.1 SCRRA will accept and maintain, at its sole cost and expense, the following portions of the PROJECT:

- a) The railroad roadbed, ballast, track and appurtenances;
- b) The railroad signal and communication facilities and appurtenances;
- c) The railroad maintenance roads located on the railroad right-of-way and on the railroad side of access gates;
- d) The railroad drainage structures;
- e) Other facilities to which SCRRA accepts title whether constructed by COMMISSION or SCRRA.

14.2 COUNTY OF RIVERSIDE(COUNTY) will own and maintain, at its sole cost and expense, the following portions of the PROJECT related to Placentia Avenue roadway and bridge:

- a) The bridge superstructure, bridge seats, bearings, and bearing areas;
- b) The bridge abutments, piers, backwalls, wingwalls, and connecting retaining walls;
- c) The roadway including the roadway approaches and curbs, gutters, sidewalks and appurtenances thereto;
- d) The overpass and roadway approach lighting;
- e) The roadway drainage structures, storm drain laterals, and collecting storm drains;
- f) The roadway signage and striping;
- g) The railings and appurtenances of roadway and bridge crossing for protection or benefit of vehicles and pedestrians;
- h) All other work constructed by the PROJECT as it specifically relates to vehicular and pedestrian use of the roadway and bridge crossing.

14.3 The COUNTY does not intend to paint or maintain any paint applied to the bridge.

14.4 The COUNTY shall keep the underside of the STRUCTURE, those portions of the STRUCTURE visible from the roadway and tracks, and surrounding areas reasonably clean and free from birds, pigeons, scavengers, vermin, creatures, and other animals. The COUNTY shall keep the underside and all portions of the STRUCTURE free of graffiti.

14.5 COUNTY shall not be responsible for clearance of vegetation, debris or trash under the bridge. COMMISSION shall trim, mow, prune, remove, or otherwise control all vegetation within COMMISSION right-of-way, including that which may encroach within the SCRRRA operated right-of-way from twenty (20) feet from the center line of the tracks to the right-of-way.

ARTICLE 15 – EFFECTIVE DATE; TERM AND TERMINATION.

15.1 This AGREEMENT shall become effective as of the date signed by all PARTIES (the "EFFECTIVE DATE") and shall continue in full force and effect for as long as the STRUCTURE remains within the Crossing Area.

15.2 In the event the COMMISSION does not commence construction on the portion of the PROJECT located on the SCRRA CROSSING AREA within twelve (12) months of the EFFECTIVE DATE of the AGREEMENT, SCRRA may, if it so elects, terminate this AGREEMENT effective upon delivery of thirty (30) written notice to the COMMISSION.

15.3 SCRRA may suspend its performance, under this AGREEMENT, if it becomes impracticable to proceed because of the lack of funding or restrictions on the distribution of funds.

15.4 COMMISSION may terminate this Agreement for convenience if the PROJECT is suspended or terminated for any reason, including lack of funding, by providing thirty (30) days written notice of its intent to terminate for convenience to the other Parties. In such case, COMMISSION shall do such work as required to leave the PROJECT area, including the CROSSING AREA, in a safe and operable condition.

15.5 If the AGREEMENT is terminated or suspended as provided above, or for any other reason, the COMMISSION shall pay to SCRRA all actual costs incurred by SCRRA or its Contractor(s) in connection with the PROJECT up to the date of termination or suspension, including, without limitation, all actual costs incurred by SCRRA, including allocated overhead, in the amount approved by the cognizant agency, in connection with reviewing any preliminary or final PROJECT PS&E.

ARTICLE 16 - CONDITIONS PRECEDENT TO START OF WORK

16.1 Neither the COMMISSION nor any Contractor(s) retained by the COMMISSION may commence any work within the Crossing Area or on any other SCRRA managed property until:

- a) SCRRA, COMMISSION, and COUNTY have executed this AGREEMENT.
- b) SCRRA has provided to the COMMISSION, SCRRA's written approval of the PS&E.
- c) COUNTY has provided to the COMMISSION, COUNTY's written approval of the PS&E.
- d) Each Contractor(s) has executed SCRRA "Form No. 6 - Temporary Right-of-Entry Agreement" and has obtained and provided to SCRRA the insurance policies, certificates, binders, endorsements, or a combination thereof set forth in the "Form 6 - Temporary Right-of- Entry Agreement. Should the prime contractor elect to provide insurance and indemnification for all of its subcontractors then only the prime contractor shall obtain the Form No. 6 Right-of-Entry Agreement.
- e) Each Contractor(s) obtained a COUNTY encroachment permit, if required.
- f) All required sums for payment of SCRRA engineering support and protective services have been deposited with SCRRA.

ARTICLE 17 - INDEMNIFICATION

17.1 Neither SCRRA, nor the Operating Railroads, nor any of SCRRA's board members, member agencies, officers, agents, volunteers, contractors, or employees shall be responsible for any damage or liability occurring by reason of any acts or omissions on the part of COMMISSION or COUNTY under or in connection with any aspect of the PROJECT, COMMISSION WORK, authority or obligation agreed to by the COMMISSION under this AGREEMENT. COMMISSION and COUNTY, respectively, shall indemnify, defend and hold harmless SCRRA, any Operating Railroads, as identified by SCRRA, as well as their respective board members, member agencies, officers, agents, volunteers,

contractors, and employees (“SCRRA Indemnitees”) from any and all liability, loss, expense (including reasonable attorneys’ fees and other defense costs), demands, suits, liens, damages, costs, claims, including but not limited to, claims for bodily injury, death, personal injury, or property damage, that are incurred by or asserted against the SCRRA Indemnitees arising out of or connected with any negligent acts or omissions on the part of COMMISSION or COUNTY, respectively, or their council, officers, agents, contractors, or employees under or in connection with any aspect of the PROJECT, COMMISSION WORK, authority or obligation agreed to by the COMMISSION or COUNTY, respectively, under this AGREEMENT. This indemnity shall survive completion of the PROJECT, COMMISSION WORK, RAILROAD WORK and termination of this AGREEMENT.

17.2 Neither COMMISSION, nor its council, officers, agents, contractors, or employees shall be responsible for any damage or liability occurring by reason of any acts or omissions on the part of SCRRA or COUNTY under or in connection with any RAILROAD WORK, work, authority or obligation agreed to by SCRRA and COUNTY under this AGREEMENT. SCRRA and COUNTY, respectively, shall indemnify, defend and hold harmless COMMISSION, as well as their respective council, officers, agents, contractors, and employees (“COMMISSION Indemnitees”) from any and all liability, loss, expense (including reasonable attorneys’ fees and other defense costs), demands, suits, liens, damages, costs, claims, including but not limited to, claims for bodily injury, death, personal injury, or property damage, that are incurred by or asserted against the COMMISSION Indemnitees arising out of or connected with any negligent acts or omissions on the part of SCRRA or COUNTY, respectively, or their board members, officers, agents, volunteers, contractors or employees under or in connection with any aspect of the RAILROAD WORK, work, authority or obligation agreed to by SCRRA or COUNTY, respectively, under this AGREEMENT. This indemnity shall survive completion of the PROJECT, COMMISSION WORK, RAILROAD WORK and termination of this AGREEMENT.

17.3 Neither the COUNTY, nor its board, officers, agents, contractors, or employees shall be responsible for any damage or liability occurring by reason of any acts or omissions on the part of SCRRA or the COMMISSION under or in connection with any RAILROAD WORK, work, authority or obligation agreed to by SCRRA or COMMISSION under this AGREEMENT. SCRRA and

COMMISSION, respectively, shall indemnify, defend and hold harmless the COUNTY, as well as their respective board, officers, agents, contractors, and employees (“COUNTY Indemnitees”) from any and all liability, loss, expense (including reasonable attorneys’ fees and other defense costs), demands, suits, liens, damages, costs, claims, including but not limited to, claims for bodily injury, death, personal injury, or property damage, that are incurred by or asserted against the COUNTY Indemnitees arising out of or connected with any negligent acts or omissions on the part of SCRRRA or COMMISSION, respectively, or their board members, officers, agents, volunteers, contractors or employees under or in connection with any aspect of the RAILROAD WORK, work, authority or obligation agreed to by SCRRRA or COMMISSION, respectively, under this AGREEMENT. This indemnity shall survive completion of the PROJECT, COMMISSION WORK, RAILROAD WORK and termination of this AGREEMENT.

17.4 In contemplation of the provisions of Government Code §895.2 imposing certain tort liability jointly upon public entities solely by reason of such entities being PARTIES to an agreement, as defined in Government Code §895, each of the PARTIES hereto, pursuant to the authorization contained in Government Code §895.4 and §895.6, will assume the full liability imposed upon it or any of its officers, agents or employees by law for injury caused by any negligent or wrongful act or omission occurring in the performance of this AGREEMENT to the same extent that such liability would be imposed in the absence of §895.2 of such code. To achieve this purpose, each other agrees to indemnify and hold harmless each other for any cost or expense that may be imposed upon each other solely by virtue of said §895.2. The provisions of Civil Code §2778 are made a part hereof as if incorporated herein.

ARTICLE 18 -GENERAL PROVISIONS

18.1 This AGREEMENT shall continue in force and effect unless otherwise provided herein, until mutual termination by the PARTIES or the elimination or removal of the grade separation (overhead), whichever occurs first. The covenants and provisions of this AGREEMENT shall be binding upon and inure to the benefit of the successors and assigns of COUNTY, COMMISSION, and SCRRRA.

18.2 This AGREEMENT may be modified or amended only in writing. All modifications, amendments, changes and revisions of this AGREEMENT, in whole or part and from time to time, shall be binding upon the PARTIES, so long as the same shall be in writing and executed by the COUNTY, COMMISSION and SCRRA.

18.3 This AGREEMENT and the exhibits attached hereto contain the entire understanding between the PARTIES and supersede any prior written or oral understanding and agreement between them regarding the subject matter of this AGREEMENT. There are no representations, agreements, arrangements or understandings, oral or written, between the PARTIES relating to the subject matter of this AGREEMENT, which are not fully expressed herein.

18.4 The PARTIES to the AGREEMENT shall maintain all records associated with the PROJECT for the period of three (3) years from the date of the final invoice in accordance with 23 CFR 645. If funding is provided by State and FHWA, under Section 130, the books pertaining to the work shall be open to inspection and audit by representatives of the State and FHWA for three years after FHWA payment of final invoice. Furthermore, each party shall make all records available for audit by SCRRA, or COMMISSION, or State, or Federal auditors, or all or any combination. All audits are to be performed in accordance with audit principles and standards as set forth in 48 CFR, Chapter 1, Part 31.

18.5 In addition to the specific provisions of this AGREEMENT, the delay in performance by any party hereunder shall not be a default where delays or defaults are due to war; insurrection; strikes; lock-outs; riots; floods; earthquakes; weather; fires; casualties; accidents; emergencies; acts of God; acts of the public enemy; epidemics; quarantine restrictions; freight embargoes; lack of transportation; unusually severe weather; Federally-mandated inspections and maintenance; and/or any other causes beyond the control or without the fault of the party claiming an extension of time for any such cause. An extension of time for any such cause shall only be for the period of the enforced delay, which period shall commence to run from the time of commencement of the cause. If, however, notice by the party claiming such extension is sent to the other party more than thirty (30) days after the commencement of the cause, the period shall commence to run only 30 days prior to the giving of such notice.

18.6 The execution and delivery of this AGREEMENT by each party and the consummation of the transactions contemplated hereby are within the power of each party and have been duly authorized by all necessary actions of each respective party.

18.7 In the event any part of this AGREEMENT is declared by a court of competent jurisdiction to be invalid, void or unenforceable, such part shall be deemed severed from the remainder of the AGREEMENT and the balance of the AGREEMENT shall remain in effect.

18.8 This AGREEMENT shall be construed and interpreted under the laws of the State of California.

18.9 The article and section headings in this AGREEMENT are for convenience only and shall not be used in its interpretation or considered part of this AGREEMENT.

18.10 Any notice sent by first class mail, postage paid, to the address and addressee, shall be deemed to have been given when in the ordinary course it would be delivered. The representatives of the PARTIES who are primarily responsible for the administration of this AGREEMENT, and to whom notices, demands and communications shall be given, are as follows:

To COMMISSION

Mr. Mark Lancaster
Capital Project Manager
Riverside County Transportation Commission
4080 Lemon Street
Riverside, CA 92502
mlancaster@rctc.org
951-787-7932

To SCRRA

Mr. Justin Fornelli, P.E.
Director of Engineering & Construction
Southern California Regional Rail Authority
2558 Supply Street, Bldg. A
Pomona, CA 91767
fornellij@scrta.net
(949) 212-9779

To COUNTY

Ms. Cathy Wampler

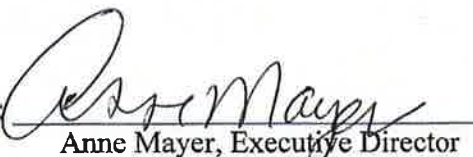
Engineering Project Manager
County of Riverside - Transportation Department
4080 Lemon Street, 8th Floor
Riverside, CA 92501
cwampler@rivco.org
951-955-6803

IN WITNESS WHEREOF, the PARTIES have caused this AGREEMENT to be duly executed in by their duly qualified and authorized officials.


**SOUTHERN CALIFORNIA
REGIONAL RAIL AUTHORITY**

By: 
Stephanie Wiggins
Chief Executive Officer

**RIVERSIDE COUNTY
TRANSPORTATION COMMISSION**

By: 
Anne Mayer, Executive Director

APPROVED AS TO FORM:

By: 
Don O. Del Rio
General Counsel

APPROVED AS TO FORM:

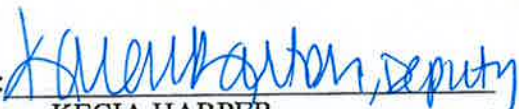
By: 
Best Best & Krieger, LLP
General Counsel

COUNTY OF RIVERSIDE

Approved by the
BOARD OF SUPERVISORS

By: 
KEVIN JEFFRIES
Chairman of the Board

ATTEST:

By: 
KECIA HARPER
Clerk of the Board (SEAL)

APPROVED AS TO FORM:

GREGORY P. PRIAMOS
County Counsel


By: 
SYNTHIA M. GUNZEL
Chief Deputy County Counsel

Exhibit A

To Construction and Maintenance Agreement
for
PLACENTIA AVENUE OVERHEAD
BRIDGE WIDENING

SCRRA Terms and Conditions

EXHIBIT A

TERMS AND CONDITIONS

SECTION 1 - CONDITIONS AND COVENANTS

- a) SCRRRA makes no covenant or warranty of title for quiet possession or against encumbrances. COMMISSION shall not use or permit use of the Overpass for any purposes other than those described in this AGREEMENT. Without limiting the foregoing, COMMISSION shall not use or permit use of the Overpass for gas, oil or gasoline pipe lines. Any lines constructed above or upon the right-of-way operated by SCRRRA by or under authority of COMMISSION for the purpose of conveying electric power or communications incidental to COMMISSION's use of the right-of-way for highway purposes shall be constructed in accordance with specifications and requirements of SCRRRA, and in such manner as not adversely to affect communication or signal lines of SCRRRA or its licensees now or hereafter located upon said right-of-way. No non-party shall be admitted by COMMISSION to use or occupy any part of the right-of-way operated by SCRRRA without SCRRRA's written consent. Nothing herein shall obligate SCRRRA to give such consent.
- b) The right hereby granted is subject to any existing encumbrances and rights (whether public or private), recorded or not, and also to any renewals thereof. COMMISSION shall not damage, destroy or interfere with the right-of-way or rights of nonparties in, upon or relating to the SCRRRA operated right-of-way, unless COMMISSION at its own expense settles with and obtains releases from such nonparties.
- c) SCRRRA reserves the right to cross the Overpass with such SCRRRA tracks as may be required for its convenience or purposes in such manner as not to unreasonably to interfere with its use as a public highway. In the event SCRRRA shall place tracks upon the Overpass, COMMISSION shall, at its sole cost and expense, modify the highway to conform to the rail line.
- d) So far as it lawfully may do so, COMMISSION will assume, bear and pay all taxes and assessments of whatsoever nature or kind (whether general, local or special) levied or assessed upon or against the Overpass, excepting taxes levied upon and against the right-of-way as a component part of SCRRRA's operating right-of-way.
- e) If any property or rights other than the right granted by this AGREEMENT and the attached

easements or licenses are necessary for the construction, maintenance and use of the Overpass and its appurtenances, or for the performance of any work in connection with the PROJECT, COMMISSION will acquire all such other property and rights at its own expense and without expense to SCRRA.

SECTION 2 - CONSTRUCTION OF PROJECT

- a) All work contemplated in this AGREEMENT must be performed in a good and workmanlike manner and each portion must be promptly commenced by the PARTY obligated by this AGREEMENT to perform the work. All work must be diligently prosecuted to conclusion in its logical order and sequence. All changes or modifications proposed during construction which affect SCRRA or the interests of SCRRA will be subject to SCRRA's approval prior to the commencement of work on all such changes or modifications.

- b) Except as may be otherwise specifically provided herein, COMMISSION, at its expense, shall furnish all necessary labor, material tools, equipment, and superintendence, and shall construct and complete the PROJECT and all appurtenances thereof. The appurtenances shall include, without limitation, all necessary and proper drainage facilities, guard rails or barriers, and right-of-way fences between the Structure and the SCRRA tracks. Upon completion of the PROJECT, COMMISSION shall remove from the right-of-way operated by SCRRA all temporary structures and false work, and will leave the Overpass and adjacent right-of-way in a condition satisfactory to SCRRA.

- c) COMMISSION, at its expense, will apply for and obtain all public authority required by law, ordinance, rule or regulation for the PROJECT, and will furnish SCRRA upon request with satisfactory evidence that such authority has been obtained. COMMISSION shall act as the lead agency on all planning, zoning, environmental approval and permitting activities required by State or Federal law and shall obtain and pay for all other permits and licenses required by law or regulation for the PROJECT.

- d) All construction work of COMMISSION upon the right-of-way operated by SCRRA (including, but not limited to, construction of the Overpass and all appurtenances and all related and incidental work) shall be performed and completed in a manner satisfactory to the Director of Engineering and Construction of SCRRA or his authorized representative and in accordance with the Plans, Specifications and Estimates, SCRRA's Minimum Requirements set forth in **Exhibit B-3, B-4, E-1, E-2, G** and other guidelines or standards furnished by SCRRA.

e) COMMISSION shall require its Contractor(s) to reasonably adhere to the construction schedule adopted for all PROJECT work. Reasonable time must be allowed in the schedule for SCRRA to perform the Railroad Work for which it is responsible. However, regardless of the requirements of the construction schedule, SCRRA reserves the right to reallocate the labor forces assigned to complete the railroad work in the event of an emergency to provide for the immediate restoration of railroad operations or to protect persons or property on or near any SCRRA owned property. SCRRA will not be liable for any additional costs or expenses resulting from any such reallocation of its labor forces. The PARTIES mutually agree that any reallocation of labor forces by SCRRA pursuant to this provision and any direct or indirect consequences or costs resulting from any such reallocation will not constitute a breach of this AGREEMENT by SCRRA.

f) All construction work of COMMISSION shall be performed diligently and completed within a reasonable time and in any event within three (3) years from the effective date of this AGREEMENT, or within such further period of time as may be specified in writing by SCRRA's Director of Engineering and Construction. No part of the PROJECT shall be suspended, discontinued or unduly delayed without SCRRA's written consent and subject to such reasonable conditions as SCRRA may specify. It is understood that SCRRA's tracks at and in the vicinity of the work will be in constant or frequent use during progress of the work and that movement or stoppage of trains, engines or cars may cause delays in the work of COMMISSION. COMMISSION hereby assumes the risk of any such delays and agrees that no claims for damage on account of any delay shall be made against SCRRA.

g) SCRRA will have the right to stop construction work on the PROJECT if any of the following events take place:

h) COMMISSION or any of its contractor(s) performs the PROJECT work in a manner contrary to the PS&E approved by SCRRA;

- i) COMMISSION or any of its Contractor(s), in SCRRA's opinion, prosecutes the PROJECT work in a manner which is hazardous to SCRRA property, facilities or the safe and expeditious movement of railroad traffic;
- ii) the insurance required by the AGREEMENT is canceled during the course of the PROJECT or does not meet the minimum requirements specified herein; or
- iii) COMMISSION fails to pay any non-disputed costs incurred by SCRRA as provided in the AGREEMENT.

i) The work stoppage may continue until all necessary actions are taken by COMMISSION or its

Contractor(s) to rectify the conditions to the satisfaction of SCRRA's Director of Engineering and Construction or until additional insurance has been delivered to and accepted by SCRRA or the obligations are brought current.

SECTION 3 - INJURY AND DAMAGE TO PROPERTY

If COMMISSION, in the performance of any work contemplated by this AGREEMENT or by the failure to do or perform anything for which COMMISSION is responsible under the provisions of this AGREEMENT, shall injure, damage or destroy any property of SCRRA or of any other person lawfully occupying or using the right-of-way operated by SCRRA, such property shall be replaced or repaired by COMMISSION at COMMISSION's own expense, or by SCRRA at the expense of COMMISSION, and to the satisfaction of SCRRA's Director of Engineering and Construction.

SECTION 4 - PAYMENT FOR WORK BY SCRRA

Payment for work by SCRRA shall be in accordance with Article 11-Payment for SCRRA Work (RAILROAD WORK) as set forth in the Construction and Maintenance Agreement; **AGREEMENT**.

SECTION 5 - SAFETY MEASURES; PROTECTION OF SCRRA OPERATIONS

It is understood and recognized that safety and continuity of SCRRA's operations and communications are of the utmost importance; and in order that the same may be adequately safeguarded, protected and assured, and in order that accidents and/or incidents may be prevented and avoided, it is agreed with respect to all of said work of COMMISSION that the work will be performed in a safe manner and in conformity with the following standards:

- a) **COMMISSION and Contractor**. All references in this AGREEMENT to COMMISSION shall also include the Contractor(s), its subcontractors of any tier, and their respective officers, agents and employees, and others acting under its or their authority; and all references in this AGREEMENT to work of COMMISSION shall include work both within and outside of the right-of-way operated by SCRRA.
- b) **Compliance With Laws**. COMMISSION shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work. COMMISSION shall use only such methods as are

consistent with safety, both as concerns COMMISSION, COMMISSION's agents and employees, the officers, agents, employees and property of SCRRA and the public in general. COMMISSION (without limiting the generality of the foregoing) shall comply with all applicable state and federal occupational safety and health acts, labor laws, laws governing trade, travel and use of material, and similar laws or regulations. All Federal Railroad Administration regulations shall be followed when work is performed on SCRRA's premises. If any failure by COMMISSION to comply with any such laws, regulations, and enactments, shall result in any fine, penalty, cost or charge being assessed, imposed or charged against SCRRA, COMMISSION shall reimburse and indemnify SCRRA for any such fine, penalty, cost, or charge, including without limitation attorney's fees, court costs and expenses. COMMISSION further agrees in the event of any such action, upon notice thereof being provided by SCRRA, to defend such action free of cost, charge, or expense to SCRRA.

c) **No Interference or Delays.** COMMISSION shall not do, suffer or permit anything which will or may obstruct, endanger, interfere with, hinder or delay maintenance or operation of SCRRA's tracks or facilities, or any communication or signal lines, installations or any appurtenances thereof, or the operations of others lawfully occupying or using the right-of-way operated by SCRRA or facilities.

d) **Supervision.** COMMISSION, at its own expense, shall adequately superintendent and inspect all work to be performed by COMMISSION, and shall not inflict injury to persons or damage to property for the safety of whom or of which SCRRA may be responsible, or to property of SCRRA. The responsibility of COMMISSION for safe conduct and adequate policing and supervision of the PROJECT shall not be lessened or otherwise affected by SCRRA's approval of plans and specifications, or by SCRRA's collaboration in performance of any work, or by the presence at the work site of SCRRA's representatives, or by compliance by COMMISSION with any requests or recommendations made by such representatives. If a representative of SCRRA is assigned to the PROJECT, COMMISSION will give due consideration to suggestions and recommendations made by such representative for the safety and protection of SCRRA's property and right-of-way operations.

e) **Suspension of Work.** If at any time COMMISSION's Engineers or the Director of Engineering and Construction of SCRRA or their respective representatives shall be of the opinion that any work of COMMISSION is being or is about to be done or prosecuted without due regard and precaution for safety and security, COMMISSION shall immediately suspend the work until suitable, adequate and proper protective measures are adopted and provided.

f) **Removal of Debris.** COMMISSION shall not cause, suffer or permit material or debris to be deposited or cast upon, or to slide or fall upon any right-of-way or facilities of SCRRA; and any such material and debris shall be promptly removed from the right-of-way operated by SCRRA by COMMISSION at COMMISSION's own expense or by SCRRA at the expense of COMMISSION. COMMISSION shall not cause, suffer or permit any water to be drained or pumped onto the right-of-way operated by SCRRA during any dewatering from the PROJECT without the prior permission of SCRRA Director of Engineering and Construction.

g) **Explosives.** COMMISSION shall not discharge any explosives on or in the vicinity of the right-of-way operated by SCRRA without the prior consent of the SCRRA Director of Engineering and Construction, which will not be given if, in the sole discretion of SCRRA's Director of Engineering and Construction, such discharge would be dangerous or would interfere with the right-of-way operated by SCRRA, property or facilities. For the purposes hereof, the "vicinity of the right-of-way operated by SCRRA" shall be deemed to be any place on the right-of-way operated by SCRRA or in such close proximity to the right-of-way operated by SCRRA that the discharge of explosives could cause injury to SCRRA's employees or other persons, or cause damage to or interference with the facilities or operations on the right-of-way operated by SCRRA. SCRRA reserves the right to impose such conditions, restrictions or limitations on the transportation, handling, storage, security and use of explosives as SCRRA, in SCRRA's sole discretion, may deem to be necessary, desirable or appropriate.

h) **Excavation.** COMMISSION shall not excavate from existing slopes nor construct new slopes which are excessive in a manner that may create hazards of slides or falling rock, or impair or endanger the clearance between existing or new slopes and the tracks of SCRRA. COMMISSION shall not do or cause to be done any work which will or may disturb the stability of any area or adversely affect SCRRA's tracks or facilities. COMMISSION, at its own expense, shall install and maintain adequate shoring and cribbing for all excavation and/or trenching performed by COMMISSION in connection with construction, maintenance or other work. Systems for the support of any excavation must conform to the requirements of SCRRA Excavation Support Guidelines. The shoring and cribbing shall be constructed and maintained with materials and in a manner approved by SCRRA's Director of Engineering and Construction to withstand all stresses likely to be encountered, including any stresses resulting from railroad surcharges or vibrations caused by SCRRA's operations in the vicinity.

i) **Falsework.** No falsework may be erected over the track or on SCRRA right-of-way except as approved by SCRRA. All falsework must conform to the requirements of the Caltrans Falsework Manual for traffic openings

and any additional provisions provided by SCRRA:

j) **Drainage.** COMMISSION, at COMMISSION's own expense, shall provide and maintain suitable facilities for draining the Overpass and its appurtenances, and shall not suffer or permit drainage water there from to flow or collect upon right-of-way of SCRRA. COMMISSION, at COMMISSION's own expense, shall provide adequate passageway for the waters of any streams, bodies of water and drainage facilities (either natural or artificial, and including water from SCRRA's culvert and drainage facilities), so that said waters may not, because of any facilities or work of COMMISSION, be impeded, obstructed, diverted or caused to back up, overflow or damage the right-of-way or property of SCRRA or any part thereof, or the property of others. COMMISSION shall not obstruct or interfere with existing ditches or drainage facilities.

k) **Fiber Optic Cables.** Fiber optic and other cable systems may be buried on the right-of-way operated by SCRRA. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. COMMISSION and its consultants and contractors shall telephone the Underground Service Alert of Southern California toll-free at (800) 227-2600 a minimum of two (2) business days before performing any excavation.

l) **SCRRA Signal and Communication Facilities.** SCRRA is not a member of Underground Service Alert of Southern California. COMMISSION, and its consultants and contractors, shall call SCRRA Signal Department at (909) 592-1346 to request marking of signal and communication cables or conduits or both a minimum of 5 working days prior to performing any excavation on SCRRA operated right-of-way. No work may proceed until COMMISSION has been provided with an SCRRA dig number in addition to that provided by Underground Service Alert. In case of signal emergencies or grade crossing problems, the contractor shall call SCRRA's 24-hour signal emergency number at (888) 446-9715.

SECTION 6 - OTHER RAILROADS AND AGENCIES

All protective and indemnifying provisions of this AGREEMENT shall insure to the benefit of SCRRA and any other Operating Railroad company lawfully using the right-of-way operated by SCRRA or facilities. On any certificate of insurance furnished pursuant to this AGREEMENT, SCRRA must be named as the Certificate holder or the insured. The following must be named as an additional insured:

Los Angeles County Metropolitan Transportation Authority (MTA)
Orange County Transportation Authority (OCTA)
Riverside County Transportation Commission (COMMISSION)
San Bernardino County Transportation Authority (SBCTA)
Ventura County Transportation Commission (VCTC)
Union Pacific Railroad Company (UPRR)
Burlington Northern Santa Fe Corp. (BNSF)
National Railroad Passenger Corporation (Amtrak)

SECTION 7 - REMEDIES FOR BREACH OR NONUSE

- a) If COMMISSION shall fail, refuse or neglect to perform and abide by the terms of this AGREEMENT, SCRRA, in addition to any other rights and remedies, may perform any work which in the judgment of SCRRA is necessary to place the OVERPASS and appurtenances in such condition as will not menace, endanger or interfere with SCRRA's facilities or operations or jeopardize SCRRA's employees; and COMMISSION will reimburse SCRRA for the expenses thereof.
- b) Termination of this AGREEMENT shall not affect any rights, obligations or liabilities of the PARTIES, accrued or otherwise, which may have arisen prior to termination.

END EXHIBIT A

Exhibit B-1

To Construction and Maintenance Agreement

for

PLACENTIA STREET OVERHEAD

WIDENING

Description of Project

Placentia Street Overhead Widening - Project Description

Riverside County Transportation Commission (RCTC) proposes to construct a new interchange along Interstate 215 (I-215) at Placentia Avenue/Street in the City of Perris and the County of Riverside. Placentia Avenue/Street is a primary arterial running eastbound-westbound and crosses I-215 with an existing bridge structure but no interchange currently exists. Since the new interchange ramps are adjacent to the railroad, the improvements will require widening of the existing bridge, Placentia Street Overhead (OH), over the Southern California Regional Rail Authority (SCRRA) tracks.

The existing Placentia Street OH was constructed in 1994 and is a 3-span, 3'-3" deep structure that is approximately 125'-0" long. The project will widen the bridge by approximately 38'-2" to the south.

The Placentia Street OH will carry four traffic lanes (two in each direction), bike lanes, sidewalk on the north side, and an equestrian trail on the new widened south side. All the existing concrete barriers will be replaced and meet SCRRA requirements.

The proposed bridge widening will have a vertical clearance of 22'-6", which will meet the CPUC General Order (GO) 26-D minimum vertical clearance of 22'-6". This variance has been documented by SCRRA, and approval will be dependent upon approval by the CPUC. The minimum horizontal clearance of 9'-6.5" from track centerline is in compliance and will not require a variance.

END EXHIBIT B-1

Exhibit B-2

To Construction and Maintenance Agreement for PLACENTIA AVENUE OVERHEAD BRIDGE WIDENING

Title Sheet Plan

**STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY**

**IN RIVERSIDE COUNTY NEAR PERRIS
FROM 0.1 MILE SOUTH OF NUEVO ROAD OVERCROSSING
TO 0.5 MILE NORTH OF OLEANDER AVENUE OVERCROSSING**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018

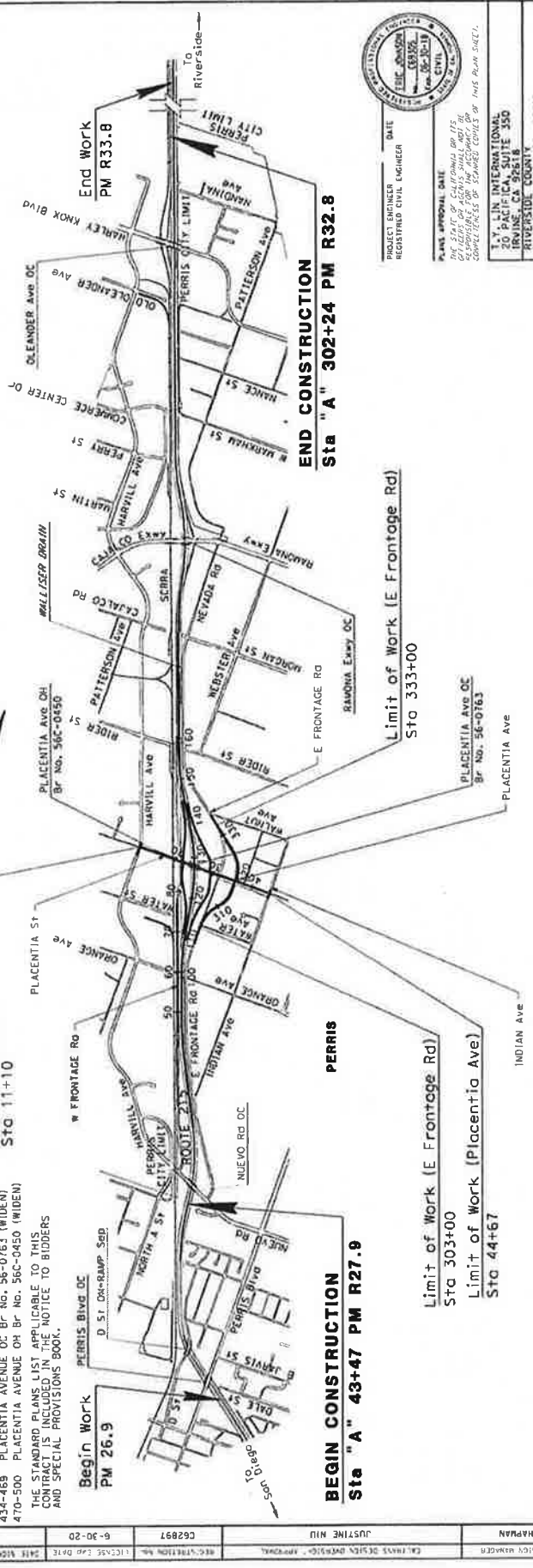
DATE	ROUTE	SCALE	SHEET NO.	TOTAL SHEETS
08/15/2018	R27.9/R32.8	1" = 500'	1	500

INDEX OF PLANS

SHEET NO.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-21	TYPICAL CROSS SECTIONS
22	KEY MAP AND LINE INDEX
23	PROJECT CONTROL
24-34	LAYOUTS
35-48	PROFILES AND SUPERELEVATION DIAGRAMS
49-103	CONSTRUCTION DETAILS
104-114	CONTOUR GRADING
115-198	DRAINAGE PLANS, PROFILES, DETAILS AND QUANTITIES
199-209	UTILITY PLANS, 210
211-217	NOTORIST INFORMATION AND TRAFFIC
218-243	HANDLING PLANS, DETAILS AND QUANTITIES
244-259	PAVEMENT DELINEATION PLANS, DETAILS AND QUANTITIES
260-292	SIGN PLANS, DETAILS AND QUANTITIES
293-301	SUMMARY OF QUANTITIES
302-325	IRRIGATION PLANS, PLANTING PLANS AND LANDSCAPE DETAILS
326-337	EROSION CONTROL PLANS AND QUANTITIES
338-382	ELECTRICAL SYSTEMS PLANS
383-384	LOG OF TEST BORINGS
385-433	REVISED STANDARD PLANS

STRUCTURE PLANS (FOR REFERENCE ONLY)
 434-469 PLACENTIA AVENUE OC BR NO. 56-0763 (WIDEN)
 470-500 PLACENTIA AVENUE OC BR NO. 56-0450 (WIDEN)

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.



THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

SCALE: 1" = 100' (VERTICAL), 1" = 500' (HORIZONTAL)



PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER
 DATE: 08/15/2018

PLANS APPROVAL DATE: 08/15/2018
 BY: JUSTINE MIU
 TITLE: PROJECT ENGINEER
 LICENSE NO.: 682297
 EXPIRES: 08/15/2021

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION COMMISSION
 4080 E. CHAN ST., 10TH FLOOR
 RIVERSIDE, CALIFORNIA 92501

CONTRACT NO. **08-OF3211**
 PROJECT ID **0817000014**

UNIT 0000 PROJECT NUMBER & PHASE 0817000014

Exhibit B-3

To Construction and Maintenance Agreement for PLACENTIA AVENUE OVERHEAD BRIDGE WIDENING

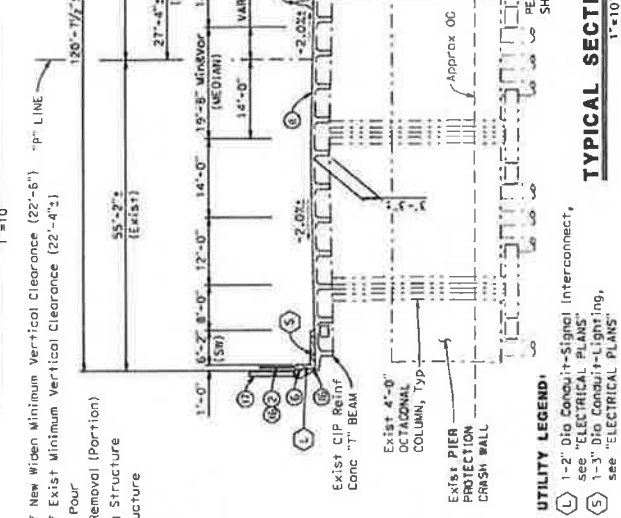
Detailed Structure Plans

NOTES:
 1. For Index To Plans and General Notes, see "INDEX TO PLANS" sheet.
 2. For Details of BRIDGE REMOVAL DETAILS NO. 2' SHEET.



TYPICAL SECTION (SPANS 1 & 2)
 1"=10'
 NOTE: For information not shown, see TYPICAL SECTION (SPAN 2).

TYPICAL SECTION (SPAN 1 & 2)
 1"=10'



TYPICAL SECTION (SPAN 2)
 1"=10'

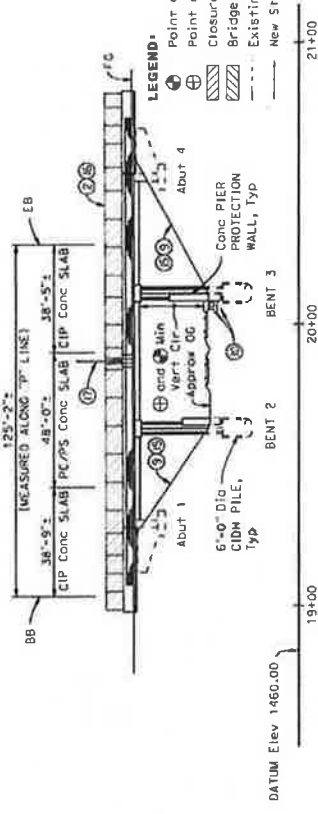
LEGEND: (Cont)

- ④ Prepare existing concrete bridge deck surface, treat with methacrylate, furnish and place 3" min polyester conc overlay, remove unsound concrete and patch with rapid setting concrete (patch)
- ⑬ Paint Bridge No. 56C-0450
- ⑭ Remove Exist AC at Trail
- ⑮ Polyester Concrete Expansion Dam at Trail
- ⑯ Repair Cracks at Exist Abut Walls and Slope Paving with Epoxy Injection
- ⑰ Architectural Treatment
- ⑱ Electrolier (Coltrons Standard)

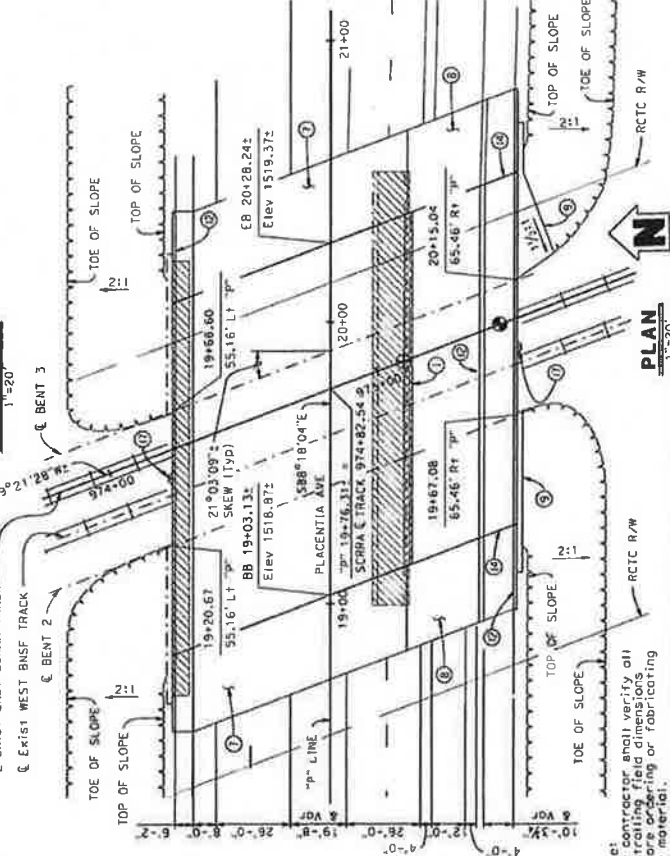
LEGEND:

- ① Closure Pour
- ② Chain Link Railing Type 7 (Mod)
- ③ Concrete Barrier Type B36 (Mod)
- ④ 1/4" Minimum AC Surfacing
- ⑤ Temporary Railing (Type A), see "ROAD PLANS"
- ⑥ Concrete Barrier Type 7325W (Mod)
- ⑦ Structure Approach Type R (300)
- ⑧ Structure Approach Type N (300)
- ⑨ Concrete Slope Paving (Full Slope)
- ⑩ Concrete Drainage Channel and Fiber Optic Line (protect-in-place)

UTILITY LEGEND:
 L 1-2" Dia Conduit-Signal Interconnect, see "ELECTRICAL PLANS"
 S 1-3" Dia Conduit-Lighting, see "ELECTRICAL PLANS"



ELEVATION
 1"=20'



PLAN
 1"=20'

NOTE:
 The contractor shall verify all dimensions in the field dimensions before ordering or fabricating any material.

NO.	DATE	REVISIONS	BY	CHECKED BY	DESCRIPTION

COUNTY OF INVERGORDON TRANSPORTATION DEPARTMENT
 1500 PACIFIC AVE, SUITE 350
 REDWOOD CITY, CALIF. 94061
 TEL: 650-865-4200 FAX: 650-865-4201

DATE: 11/15/00 COUNTY OVERSIGHT ENGINEER: DATE: 11/15/00

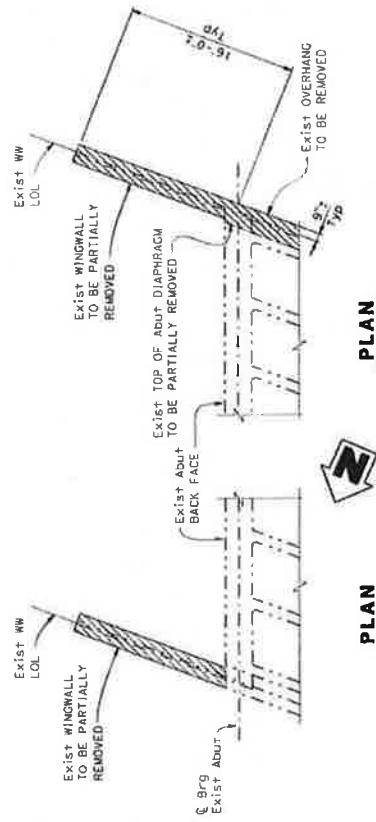
T.V. LIN INTERNATIONAL
 1500 PACIFIC AVE, SUITE 350
 REDWOOD CITY, CALIF. 94061
 TEL: 650-865-4200 FAX: 650-865-4201

DATE: 11/15/00 PROJECT ENGINEER: DATE: 11/15/00

PLACENTIA AVE OVERHEAD (WIDEN) GENERAL PLAN
 SCALE: AS NOTED

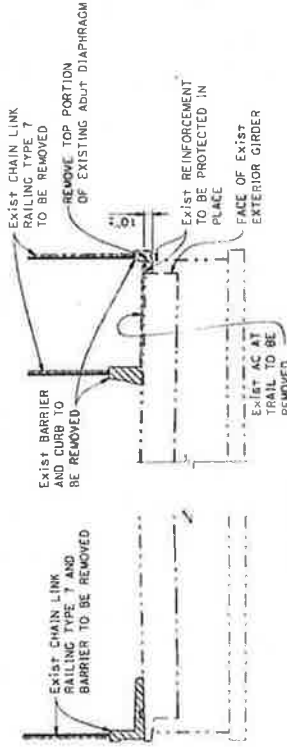
NO. 00000

COUNTY FILE NO. 1



PLAN

PLAN



ELEVATION

ELEVATION

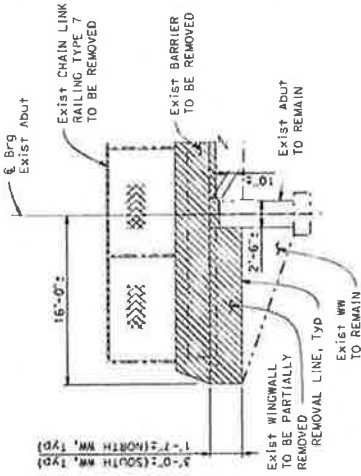
NORTH CORNER AT ABUT 1 & 4 SOUTH CORNER AT ABUT 1 & 4

EXISTING ABUTMENT AND WINGWALL REMOVAL DETAILS

NO SCALE

Note: The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO.	DATE	DESCRIPTION	BY	CHECKED



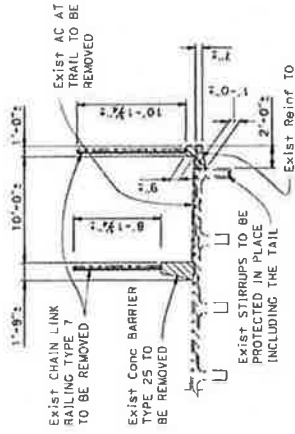
ABUTMENT AND WINGWALL ELEVATION

LEGEND:

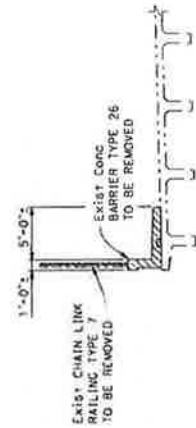
- Bridge removal (Portion)
- Existing structure

NOTES:

- The limit of overhang removal is from BB to EB.
- The limit of barrier and chain link removals are between ends of WW.



SOUTH EDGE OF DECK



NORTH EDGE OF DECK

EXISTING OVERHANG AND BARRIER REMOVAL DETAILS

NO SCALE



T.V. LIN INTERNATIONAL
 PROJECT ENGINEER
 20 PARKWAY, 3RD FLOOR
 BOSTON, MA 02114

PLACENTIA AVE OVERHEAD (WIDEN)	HEET NO.
BRIDGE REMOVAL DETAILS NO. 1	3 OF 31

SCALE: As Noted
 WO 00000

COURTY FILE NO.

EXHIBIT B-3

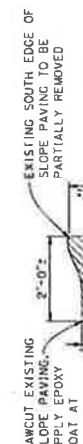


REMOVE SLOPE PAVING (SOUTH EDGE)

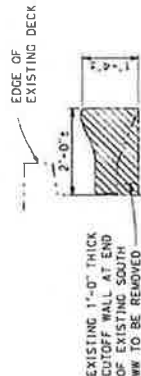
"P" LINE STA	ELEV. "L"	ELEV. "R"
19+14.57	1518.10±	1517.50±
19+25.35	1518.21±	1517.61±
19+36.01	1518.30±	1517.70±
19+46.78	1518.36±	1517.76±
19+57.38	1518.42±	1517.82±
19+68.10	1518.45±	1517.85±
19+78.83	1518.49±	1517.89±
19+89.52	1518.51±	1517.91±
20+04.15	1518.54±	1517.94±
20+11.07	1518.55±	1517.95±
20+21.79	1518.54±	1517.94±
20+32.54	1518.52±	1517.92±

* DECK ELEVATIONS DO NOT INCLUDE THICKNESS OF POLYESTER CONCRETE OVERLAY. DECK ELEVATIONS SHALL BE ADJUSTED PER CONSTRUCTED THICKNESS OF POLYESTER CONCRETE OVERLAY.

Notes:
The contractor shall verify all quantities and materials before ordering or fabricating any material.



SECTION A-A



SECTION B-B

EXISTING SLOPE PAVING REMOVAL DETAILS

NO SCALE

SECTION	THEORY	CUTTING	SECTION	SECTION
BY	A. Tolson	/ D. Tolson	DATE	
CHECKED BY	D. Tolson	DATE	SCALE	AS NOTED

DATE	BY	REVISION	NO.

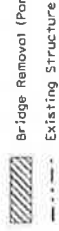
DATE	BY	REVISION	NO.

DATE: 02/11/03

QUANTITIES

INJECT CRACK (EPOXY)	50	LF
REMOVE CHAIN LINK FENCE	455	LF
REMOVE CONCRETE BARRIER	309	LF
STRUCTURE EXCAVATION (BRIDGE)	867	CY
STRUCTURE BACKFILL (BRIDGE)	1757	CY
PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	1632	SOFT
1/2" CRUSHED GRANITE FILLING	666	LF
30" CAST-IN-DRILLED-HOLE CONCRETE PILING	493	LF
70" CAST-IN-DRILLED-HOLE CONCRETE PILING	205	LF
STRUCTURAL CONCRETE, BRIDGE FOOTING	66	CY
STRUCTURAL CONCRETE, BRIDGE	127	CY
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	318	CY
STRUCTURAL CONCRETE (PIER WALL PROTECTION)	115	CY
AGGREGATE BASE (APPROACH SLAB)	24	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	106	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	234	CY
ARCHITECTURAL TREATMENT (FENCE)	2268	SOFT
ARCHITECTURAL SURFACE (BARRIER)	736	SOFT
DRILL AND BOND DONEL	492	LF
FURNISH PRECAST PRESTRESSED CONCRETE SLAB (TYPE SIV)	1436	SOFT
ERECT PRECAST PRESTRESSED CONCRETE DECK UNIT	261	EA
JOIN SEALING (STEEL BRIDGE)	21	LB
BAR REINFORCING STEEL (PIER PROTECTION WALL)	214590	LB
ASPHALT MEMBRANE WATERPROOFING	54140	45 SOFT
RAPID SETTING CONCRETE PATCH	23	CF
REMOVE ASPHALT CONCRETE SURFACING	2369	SOFT
POLYESTER CONCRETE EXPANSION DAM	20	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	9198	SOFT
FURNISH POLYESTER CONCRETE OVERLAY	575	CF
PLACE POLYESTER CONCRETE OVERLAY	9198	SOFT
TREAT BRIDGE DECK	103	GAL
FURNISH BRIDGE DECK TREATMENT MATERIAL	1	LS
BRIDGE REMOVAL (PORTION)	2	CY
REMOVE CONCRETE (CHANNEL)	2	CY
REMOVE CONCRETE (CUTTING)	4	CY
MINOR CONCRETE (CUTTING)	2	CY
MISCELLANEOUS METAL (RESTRAINER - PIPE TYPE)	2157	LB
MISCELLANEOUS METAL (BRIDGE)	789	LB
CHAIN LINK RAILING (TYPE 7 MODIFIED)	552	LF
CONCRETE BARRIER (TYPE 836 MODIFIED)	370	LF
CONCRETE BARRIER (TYPE 7325W MODIFIED)	185	LF
LIGHTING SYSTEM (ELECTROLIER CALTRANS STANDARD)	1	LS

LEGEND



DATE PLOTTED: 03/20/03
SCALE: AS NOTED

PROJECT NO.	10000000000000000000
DATE	03/20/03
SCALE	AS NOTED
FILE NO.	10000000000000000000

PLACENTIA AVE OVERHEAD (WIDEN)
BRIDGE REMOVAL DETAILS NO. 2

SCALE: AS NOTED

PROJECT ENGINEER: [Name]

PRODUCT ENGINEER: [Name]

DATE: [Date]

PROJECT NO.: [Number]

SCALE: AS NOTED

SECTION 4 OF 31

DATE: 03/20/03

SCALE: AS NOTED

PLACENTIA AVE OVERHEAD (WIDEN)

BRIDGE REMOVAL DETAILS NO. 2

SCALE: AS NOTED

PROJECT ENGINEER: [Name]

PRODUCT ENGINEER: [Name]

DATE: [Date]

PROJECT NO.: [Number]

SCALE: AS NOTED

PLACENTIA AVE OVERHEAD (WIDEN)

BRIDGE REMOVAL DETAILS NO. 2

SCALE: AS NOTED

PROJECT ENGINEER: [Name]

PRODUCT ENGINEER: [Name]

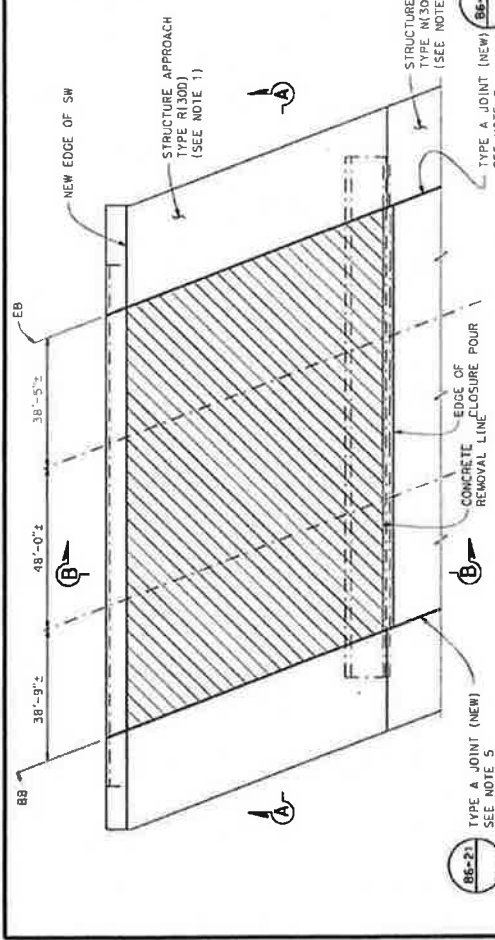
DATE: [Date]

PROJECT NO.: [Number]

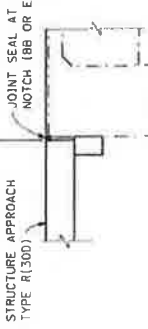
SCALE: AS NOTED

DATE PLOTTED: 03/20/03
SCALE: AS NOTED

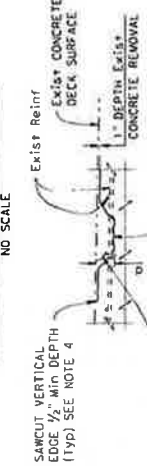
EXHIBIT B-3



EXISTING OVERHEAD
NO SCALE

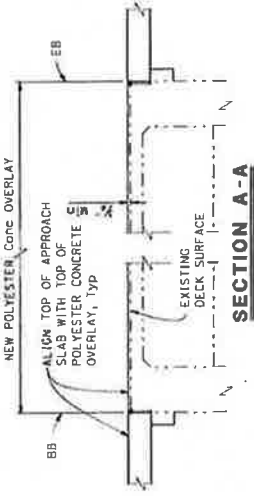


DIAPHRAGM ABUTMENT JOINT SEAL LOCATION
NO SCALE



DECK REPAIR DETAIL
NO SCALE

NOTE: Locations to be determined by the Engineer. Reinforcement may be encountered during deck concrete removal.



SECTION A-A
NO SCALE

LOCATION	MINIMUM "WR" (IN)	APPROXIMATE LENGTH (FT)
ABOUT 1	1/2"	131'-6"
ABOUT 4	1/2"	131'-6"

APPROX. AREA DAMAGED	APPROX. DEPTH, "d"
1%	3"

NOTES:

- For Structure Approach Type R (300) Details, see **B9-2** and **B9-5**.
- For Structure Approach Type N (300) Details, see **B9-1** and **B9-5**.
- For Structure Approach Drainage Details, see **B9-5** and "Miscellaneous Details No. 2" sheet.
- When existing transverse reinforcement is exposed in the deck surface, sawcutting shall be waived with the approval of the Engineer.
- Place entire joint at the same time, without breaks.

LEGEND:

- New Structure
- - - Existing Structure
- /// Concrete Removal
- New joint seal, see **B5-21**

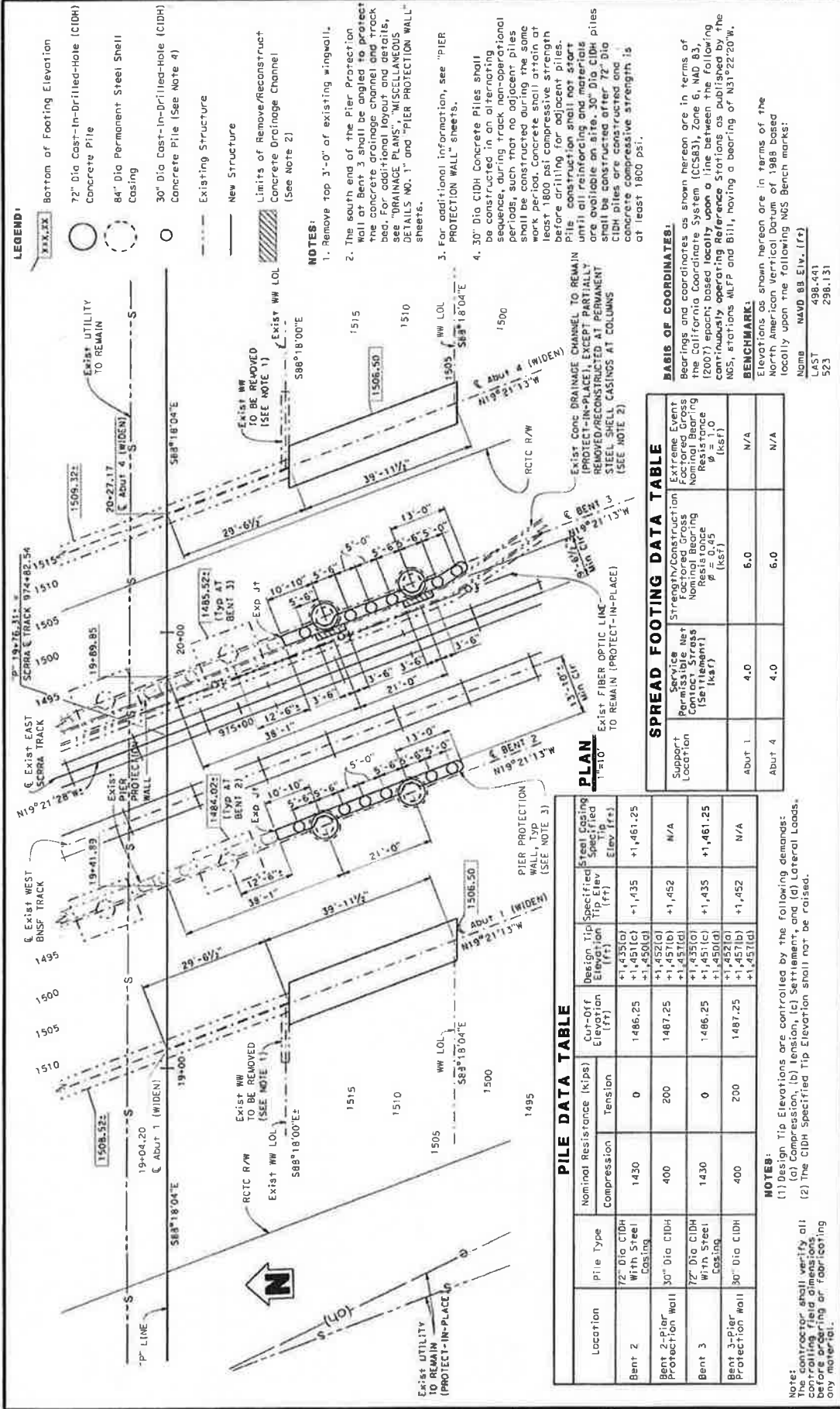
SECTION B-B
NO SCALE



Note: The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

		PROJECT NO. 5 SHEET 5 OF 31 DATE 10/15/15
T.Y. LIN INTERNATIONAL PROJECT ENGINEER: T.Y. LIN 20 PACIFIC ST. 350 IRVINE, CA 92618 PH: (949) 398-4850		
SHEET NO. 5 SHEET TITLE: POLYESTER CONCRETE OVERLAY	SCALE: AS NOTED	COUNTY FILE NO. NO 00000

EXHIBIT B-3



Location	Pile Type	Nominal Resistance (kips)		Cur-Off Elevation (ft)	Design Tip Elevation (ft)	Design Tip Elevation (ft)	Steel Casting Specified Tip Elevation (ft)
		Compression	Tension				
Bent 2	72" Dia CIDH With Steel Casing	1430	0	1486.25	+1,451(c)	+1,450(d)	+1,451.25
Bent 2-Pier Protection Wall	30" Dia CIDH	400	200	1487.25	+1,457(b)	+1,457(d)	N/A
Bent 3	72" Dia CIDH With Steel Casing	1430	0	1486.25	+1,451(c)	+1,450(d)	+1,461.25
Bent 3-Pier Protection Wall	30" Dia CIDH	400	200	1487.25	+1,457(b)	+1,457(d)	N/A

PILE DATA TABLE

NOTES:
 (1) Design Tip Elevations are controlled by the following demands:
 (a) Compression, (b) Tension, (c) Settlement, and (d) Lateral Loads.
 (2) The CIDH Specified Tip Elevation shall not be raised.

Note:
 The contractor shall verify all controlling field dimensions, including all fabricating dimensions, before fabricating.

Support Location	Service Contact Stress (Settlement) (ksf)	Strength/Construction Nominal Bearing Resistance (ksf)	Nominal Bearing Resistance (ksf)	Extreme Event Nominal Bearing Resistance (ksf)
Abut 1	4.0	6.0	6.0	N/A
Abut 4	4.0	6.0	6.0	N/A

SPREAD FOOTING DATA TABLE

BASIS OF COORDINATES:
 Bearings and coordinates as shown hereon are in terms of the California State Plane System (CSES). Zone 6, NAD 83 (2007) project based locally upon a line between the following continuously operating Reference Stations as published by the NGS, stations WUPP and Bill, having a bearing of N31°22'20"W. **BENCHMARK:**
 Elevations as shown hereon are in terms of the North American Vertical Datum of 1988 based locally upon the following NGS Bench marks:
 Name MAMD 88 Elev. (ft)
 LAST 498.441
 523 298.131

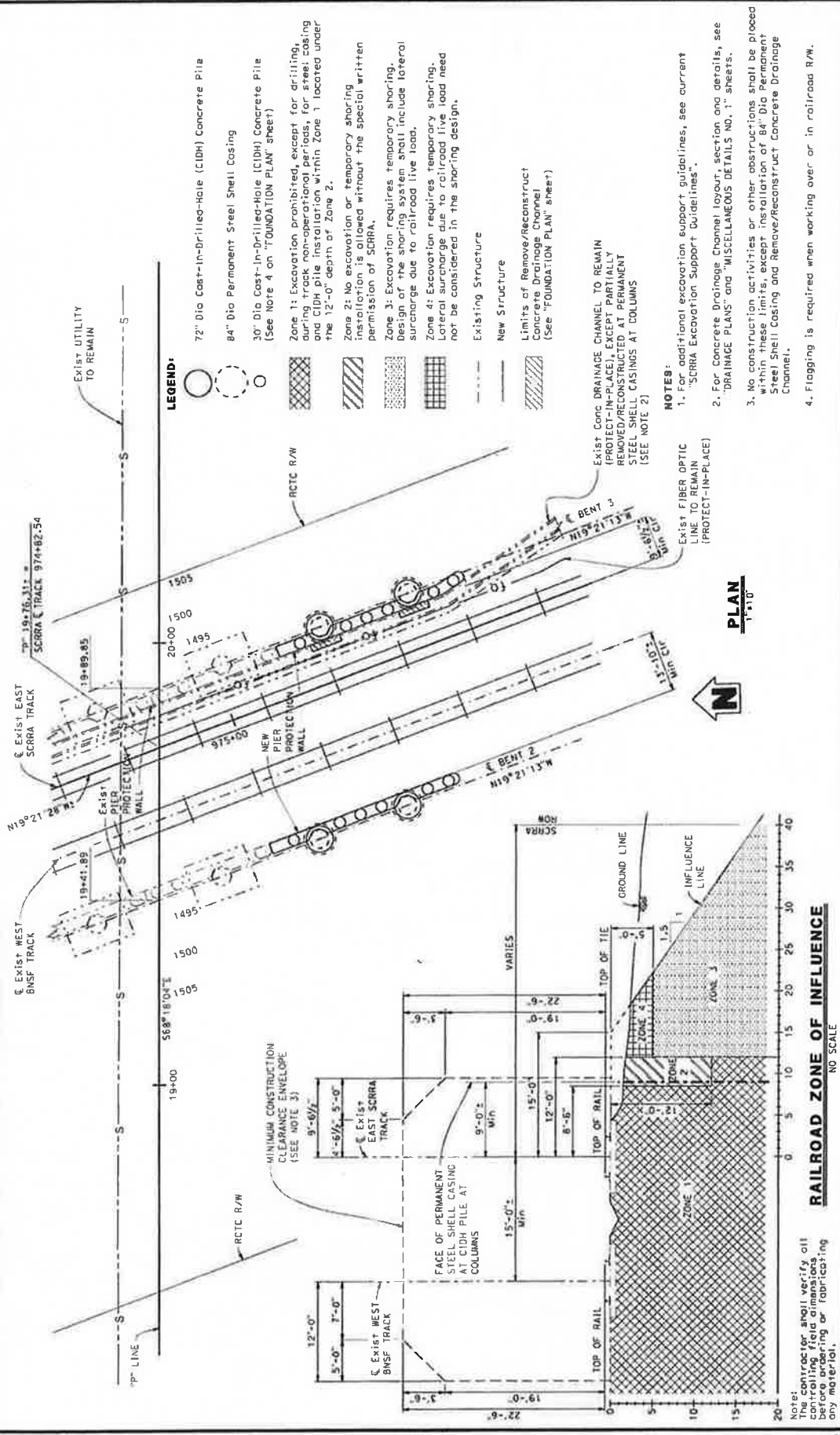
T. Y. LIM INTERNATIONAL
 20 PACIFIC, Ste. 350
 (REDF, CA 94618) PH: (415) 399-9950
 FAX: (415) 399-9950
 PROJECT ENGINEER
 DATE

PLACENTIA AVE OVERHEAD (WIDEN) FOUNDATION PLAN
 SCALE: AS NOTED
 SHEET NO. 6
 OF 31

LEGEND:
 Bottom of Footing Elevation
 72" Dia Cast-In-Drilled-Hole (CIDH) Concrete Pile
 84" Dia Permanent Steel Shell Casing
 30" Dia Cast-In-Drilled-Hole (CIDH) Concrete Pile (See Note 4)
 Existing Structure
 New Structure
 Limits of Remove/Reconstruct Concrete Drainage Channel (See Note 2)

NOTES:
 1. Remove top 3'-0" of existing wingwall.
 2. The south end of the Pier Protection Wall at Bent 3 shall be angled to meet the concrete drainage channel and track bed. For additional layout and details, see "DRAINAGE PLANS", "MISCELLANEOUS DETAILS NO. 1", and "PIER PROTECTION WALL" sheets.
 3. For additional information, see "PIER PROTECTION WALL" sheets.
 4. 30" Dia CIDH Concrete Piles shall be constructed in an alternating sequence, during track non-operational periods, such that no adjacent piles shall be constructed during the same track non-operational period. A minimum of 1800 psi concrete strength shall be achieved before drilling for adjacent piles. Pile construction shall not start until all reinforcing and materials are available on site. 30" Dia CIDH piles shall be constructed after 72" Dia CIDH piles are constructed and concrete compressive strength is at least 1800 psi.

EXHIBIT B-3



LEGEND:

- 72" Dia Cast-In-Drilled-Hole (CIDH) Concrete Pile
- 84" Dia Permanent Steel Shell Casing
- 30" Dia Cast-In-Drilled-Hole (CIDH) Concrete Pile
(See Note 4 on "FOUNDATION PLAN" sheet)
- Zone 1: Excavation prohibited, except for drilling, during track non-operational periods, for steel casing and pier installation within Zone 1 located under the 12'-0" depth of Zone 2.
- Zone 2: No excavation or temporary shoring installation is allowed without the special written permission of SCRRRA.
- Zone 3: Excavation requires temporary shoring. Design of the shoring system shall include lateral surcharge due to railroad live load.
- Zone 4: Excavation requires temporary shoring. Lateral surcharge due to railroad live load need not be considered in the shoring design.
- Existing Structure
- New Structure
- Limits of Remove/Reconstruct Concrete Drainage Channel
(See "FOUNDATION PLAN" sheet)

EXIST' CONC DRAINAGE CHANNEL TO REMAIN (PROTECT-IN-PLACE), EXCEPT PARTIALLY REMOVED/RECONSTRUCTED AT PERMANENT STEEL SHELL CASINGS AT COLUMNS (SEE NOTE 2)

NOTES:

1. For additional excavation support guidelines, see current "SCRRRA Excavation Support Guidelines".
2. For Concrete Drainage Channel layout, section and details, see "DRAINAGE PLANS" and "MISCELLANEOUS DETAILS NO. 1" sheets.
3. No construction activities or other obstructions shall be placed within these limits, except installation of 84" Dia Permanent Steel Shell Casing and Remove/Reconstruct Concrete Drainage Channel.
4. Flagging is required when working over or in railroad R/W.

PLAN
1"=40'

RAILROAD ZONE OF INFLUENCE
NO SCALE

Notes: The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DATE	DESCRIPTION	BY	APP'D

DESIGNED BY	THOMAS HARTON	CHECKED BY	STUNGHOON BANK
DRAWN BY	A. TALLEY / D. DALCO	CHECKED BY	STUNGHOON BANK
QUANTITY BY	DINO KASABASH	CHECKED BY	STUNGHOON BANK
SCALE	AS SHOWN	PROJECT NO.	565-0450

T.Y. LIN INTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
NO. 45127

PROJECT NO. 565-0450
DATE: 11/19/19

SCALE: AS NOTED

PLACENTIA AVE OVERHEAD (WIDEN) RAILROAD ZONE OF INFLUENCE

SCALE: AS NOTED

NO. 00000

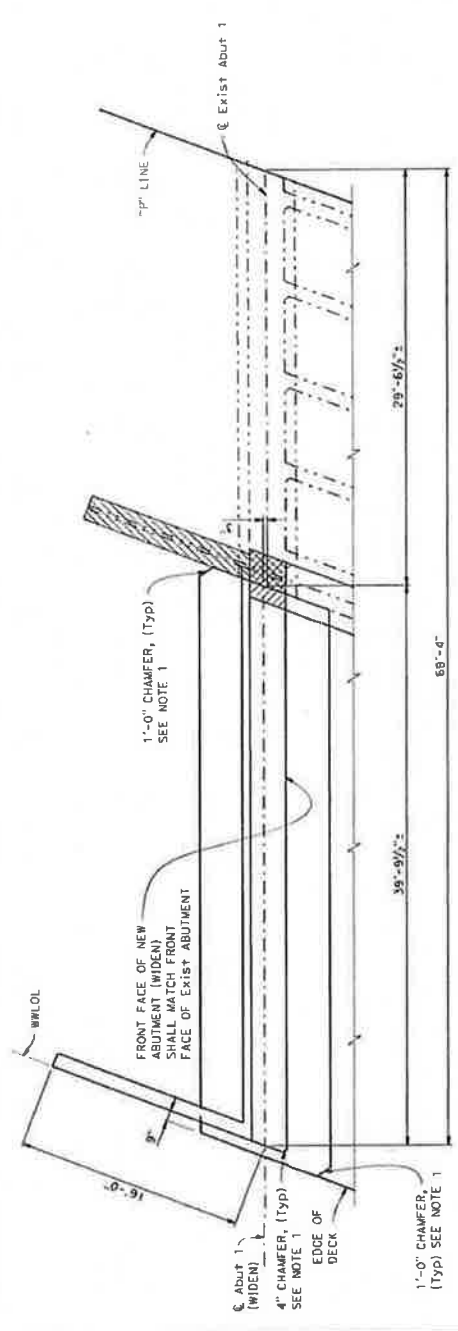
COUNTY FILE NO.

DATE PLOTTED: 11/19/19

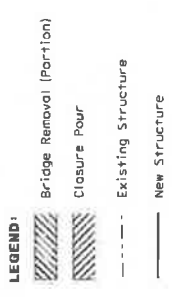
DATE PRINTED: 11/19/19

PROJECT NO. 565-0450

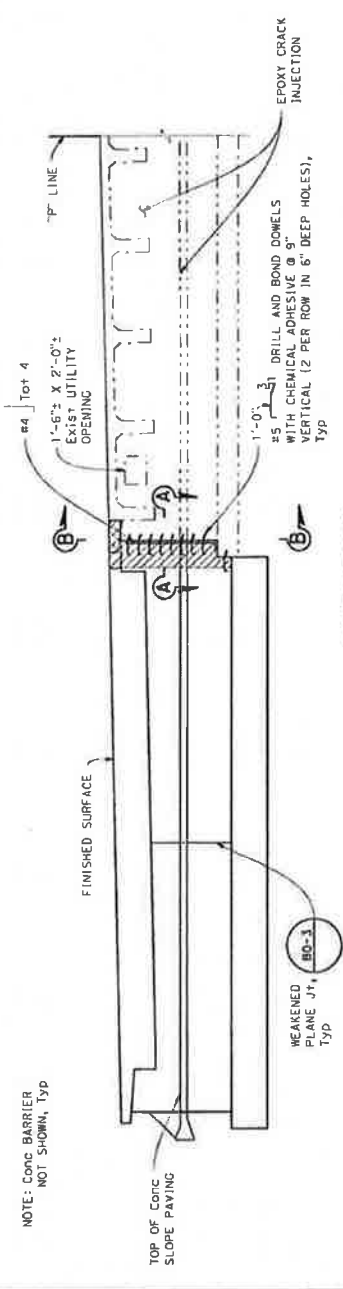
SHEET NO. 7 OF 31



PLAN
1/4" = 1'-0"



- NOTES:**
- For Sections A-A, B-B, and Corner Details, see "ABUTMENT DETAILS NO. 2" SHEET.
 - For abutment and structure approach drainage see "Miscellaneous Details No. 2" sheet.



ELEVATION
1/4" = 1'-0"

NOTE:
The contractor shall verify all controlling field dimensions, elevations, and bearings of fabricating.

NO.	REVISIONS	DATE	BY	APP'D.

DESIGNED BY	INTEGRAL	DATE	04/15/00
CHECKED BY	ALF/IB	DATE	04/15/00
APPROVED BY	SAUNGTOWN BANK	DATE	04/15/00
PROJECT NO.	SEC-0050	DATE	04/15/00

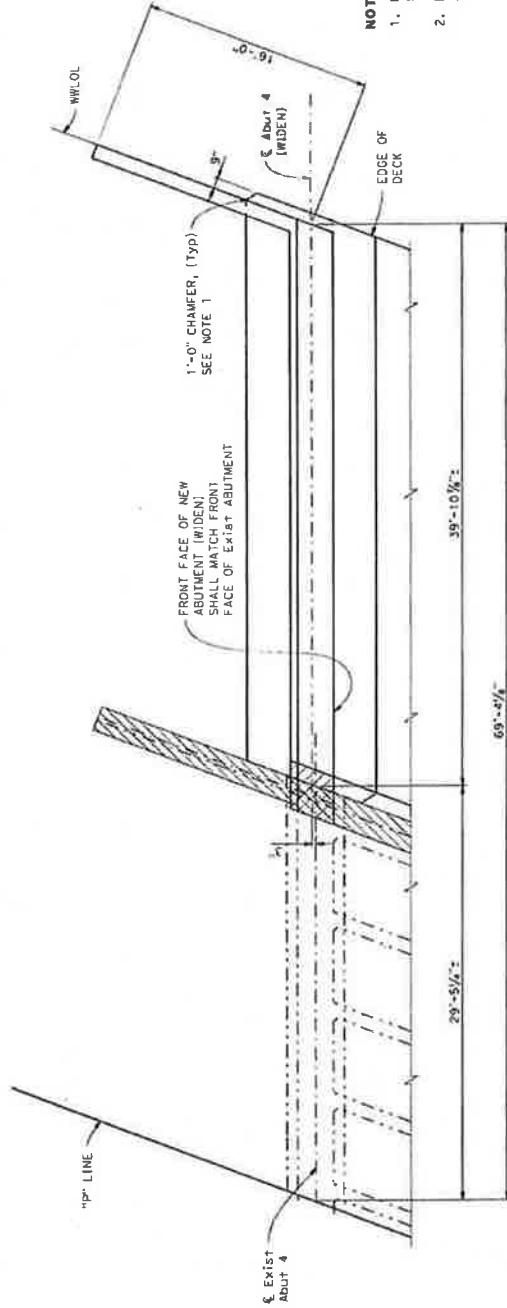
SAUNGTOWN BANK
1000 WEST 10TH STREET
MILWAUKEE, WI 53233
TEL: 414.224.1200
FAX: 414.224.1201

T.V. LIN INTERNATIONAL
PROJECT ENGINEER
20 PINECREEK ST. 250
HARTFORD, CT 06118
TEL: 860.234.1200
FAX: 860.234.1201

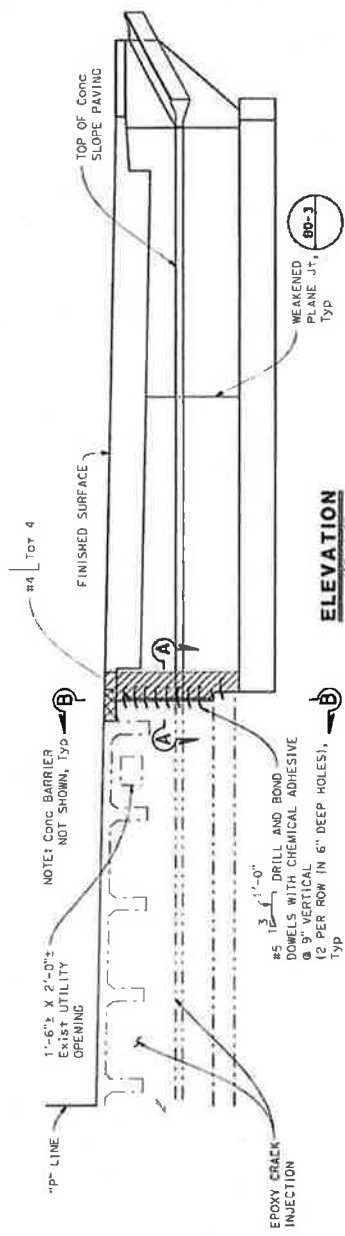
PLACENTIA AVE OVERHEAD (WIDEN) ABUTMENT 1 LAYOUT
SCALE: As Noted

PROJECT NO. **8**
SHEET NO. **8** OF **31**
DATE: **04/15/00**
SCALE: As Noted
PROJECT FILE NO. **WD 00000**
EQUIPMENT FILE NO.

EXHIBIT B-3



PLAN
1/4" = 1'-0"



ELEVATION
1/4" = 1'-0"

NOTES:

1. For Sections A-A and B-B, and Corner Details see "ABUTMENT DETAILS NO. 2" SHEET.
2. For abutment and structure approach drainage see "Miscellaneous Details No. 2" SHEET.

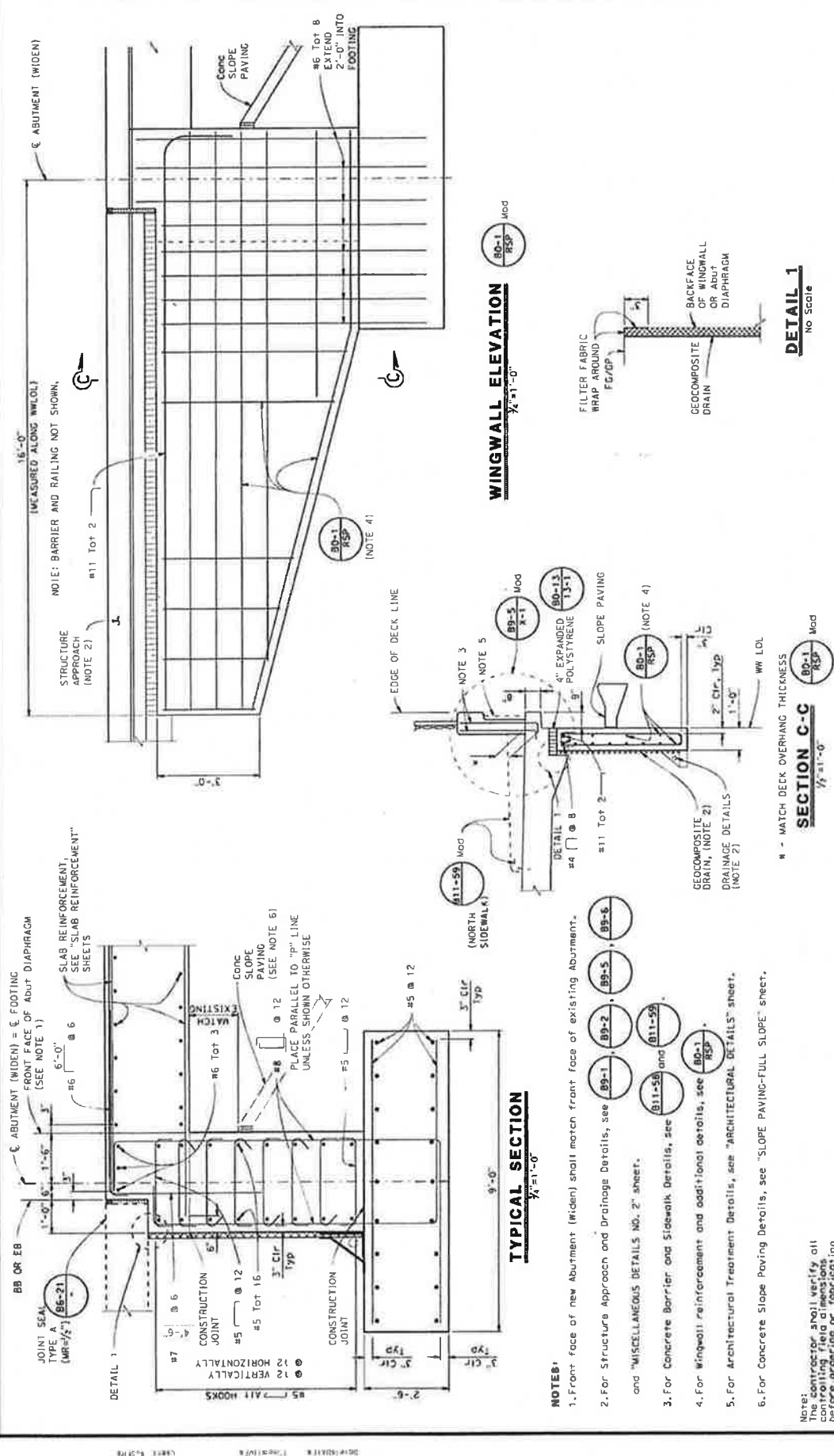
LEGEND:

- Bridge Removal (Portion)
- Closure Pour
- Existing Structure
- New Structure

NOTE:
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

<p>DATE PLOTTED: 03/27/2015 TIME PLOTTED: 03:27:13 PM</p>		<p>PROJECT NO. 9 SHEET 9 OF 31 DATE: 03/27/15</p>
<p>PROJECT DRIVER: WITTONS SCALE: AS NOTED RD. 00000</p>		<p>COURTY FILE NO.</p>
<p>PLACENTIA AVE OVERHEAD (WIDEN) ABUTMENT 4 LAYOUT</p>		
<p>T. Y. LIN INTERNATIONAL 20 PACIFICA ST. 150 IRVINE, CA 92614 PHONE: (949) 261-8800 FAX: (949) 261-8801 WWW.TYLIN.COM</p>		
<p>MANAGER: T. Y. LIN PROJECT ENGINEER: T. Y. LIN CHECKER: T. Y. LIN DATE: 03/27/15</p>		
<p>DATE: 03/27/15 BY: T. Y. LIN CHECKED: T. Y. LIN</p>	<p>DATE: 03/27/15 BY: T. Y. LIN CHECKED: T. Y. LIN</p>	<p>DATE: 03/27/15 BY: T. Y. LIN CHECKED: T. Y. LIN</p>
<p>DATE: 03/27/15 BY: T. Y. LIN CHECKED: T. Y. LIN</p>	<p>DATE: 03/27/15 BY: T. Y. LIN CHECKED: T. Y. LIN</p>	<p>DATE: 03/27/15 BY: T. Y. LIN CHECKED: T. Y. LIN</p>

EXHIBIT B-3



NOTES:

1. Front face of new abutment (widened) shall match front face of existing abutment.
2. For Structure Approach and Drainage Details, see B9-1, B9-2, B9-5, B9-6 and "MISCELLANEOUS DETAILS NO. 2" sheet.
3. For Concrete Barrier and Sidewalk Details, see B11-50 and B11-59.
4. For Wingwall reinforcement and additional details, see B0-1 RSP.
5. For Architectural Treatment Details, see "ARCHITECTURAL DETAILS" sheet.
6. For Concrete Slope Paving Details, see "SLOPE PAVING-FULL SLOPE" sheet.

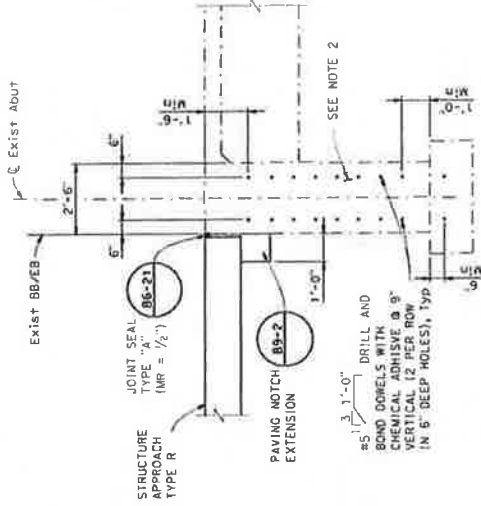
Note: Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DATE	DESCRIPTION	BY	APP'D

PROJECT: PLACENTIA AVE OVERHEAD (WIDEN) ABUTMENT DETAILS NO. 1
 DRAWING NO.: 10
 SCALE: AS NOTED
 COUNTY FILE NO.: 00000

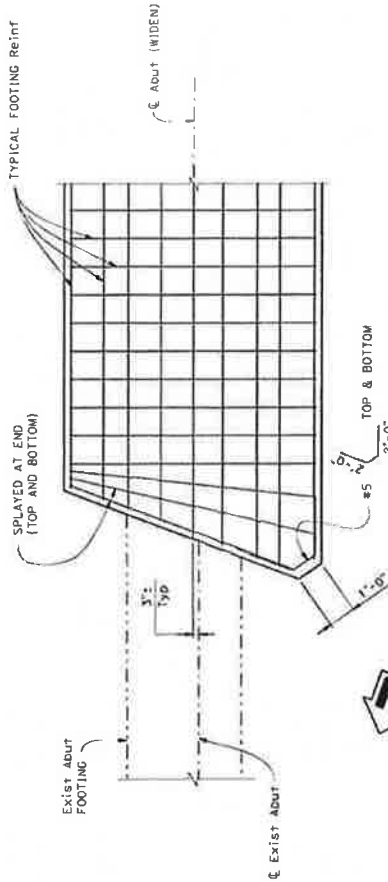
T.Y. LIN INTERNATIONAL
 1700 WEST 14TH AVENUE, SUITE 200
 DENVER, COLORADO 80202
 PHONE: (303) 733-8888
 FAX: (303) 733-8889
 WWW: WWW.TYLIN.COM

EXHIBIT B-3



SECTION A-A
1/2 x 31'-0"

NOTE: Abut 4 shown, Abut 1 similar



FOOTING CORNER DETAIL
1/2 x 31'-0"

Note:
The contractor shall verify all controlling field dimensions, including all fabrications of any material.

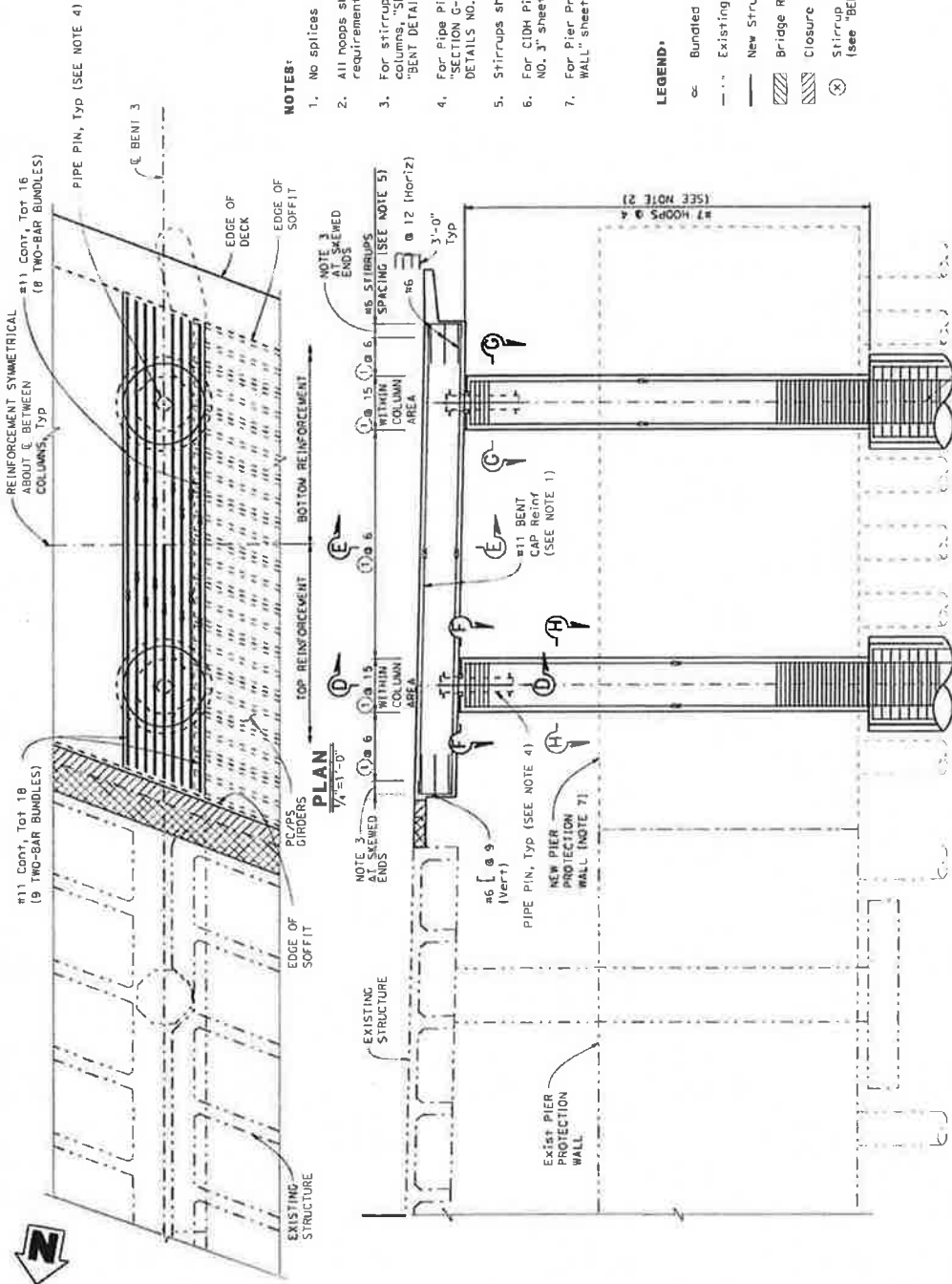
LEGEND:
--- Existing Structure
— New Structure

NOTES:

1. Front face of new Abutment (Widen) shall match front face of existing Abutment.
2. Side face of existing abutment shall be roughened to 1/4" amplitude.

		PLACENTIA AVE OVERHEAD (WIDEN) ABUTMENT DETAILS NO. 2		SHEET NO. 11 OF 11
PROJECT NO. _____ DATE _____		SCALE: As Noted NO. 00000		DATE PLOTTED: 11/11/2011 FILE NO.
PROJECT NO. _____ DATE _____		PROJECT NO. _____ DATE _____		DATE PLOTTED: 11/11/2011 FILE NO.
PROJECT NO. _____ DATE _____		PROJECT NO. _____ DATE _____		DATE PLOTTED: 11/11/2011 FILE NO.

EXHIBIT B-3



Note:
The contractor shall verify all
contracting field dimensions
before fabricating or
erecting any material.

NO.	REVISION	DATE

DESIGNED BY: Theodor H. Hoyer	CHECKED BY: Seungmoon Park
DRAWN BY: D. Cabal	CHECKED BY: Seungmoon Park
PROJECT NO.: 58C-083D	DATE: 03/22/02
SCALE: AS NOTED	PROJECT ENGINEER: T.Y. LIN INTERNATIONAL



T.Y. LIN INTERNATIONAL
 20 Pacific Ave, Ste 350
 Redwood City, CA 94061
 Tel: (415) 366-6600
 Fax: (415) 366-6601

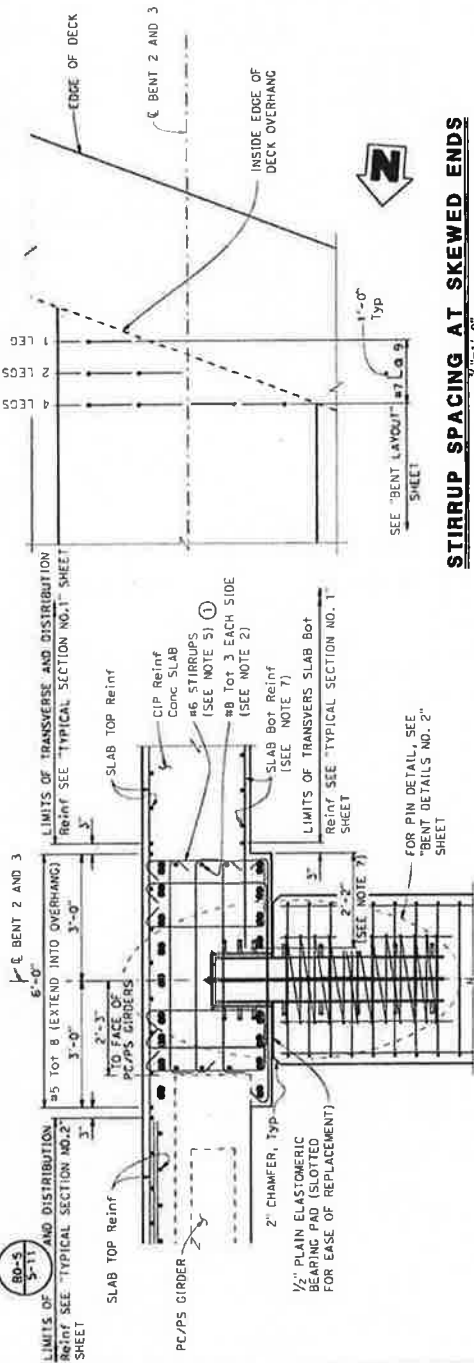
**PLACENTIA AVE
OVERHEAD (WIDEN)
BENT LAYOUT**

PROJECT NO. **12**
 SHEET NO. **12 OF 31**

SCALE: As Noted
 COUNTY FILE NO. WO 00000

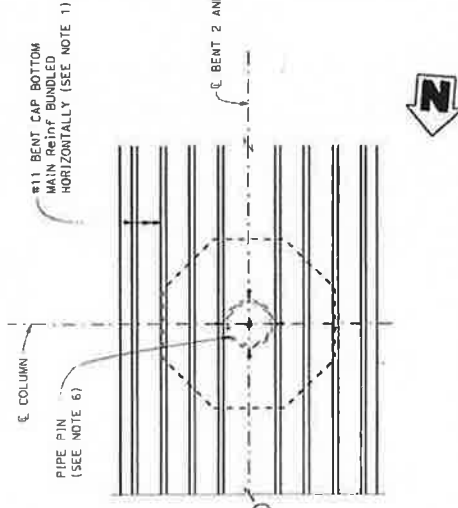
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 TIME PLOTTED: 11:33:28 AM

EXHIBIT B-3

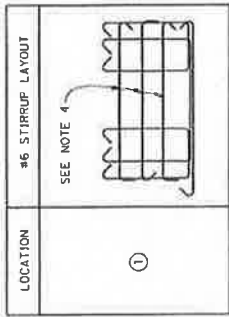


- NOTES:**
1. Bent cap bottom main reinforcement shall clear pipe pin.
 2. Side face reinf shall be spaced equally at 12" max.
 3. For stirrups layout, see "BENT LAYOUT" sheet.
 4. Vertically and horizontally alternate 135° bends on stirrups/cross ties.
 5. Bent cap stirrups and Ps strands may be adjusted.
 6. For Pipe Pin and Steel Can Details, see "BENT DETAILS NO. 2" sheet.
 7. Longitudinal slab bottom reinforcement shall be hooked to clear pipe pin.
 8. Concrete at bent caps shall be self-consolidating concrete (SCC).

STIRRUP SPACING AT SKEWED ENDS
 $\frac{1}{4}'' = 1'-0''$



BENT CAP STIRRUP CONFIGURATION
 NO SCALE



BAR PLACEMENT DETAIL
 $\frac{1}{4}'' = 1'-0''$



NOTE:
 The contractor shall verify all controlling field dimensions, including field spacing of reinforcing any material.

NO.	REVISION	DATE	BY

DESIGNED BY	Checked BY	DESIGNED BY	Checked BY
DETAILS BY A. Tolson / D. Colton	Checked BY	DESIGNED BY	Checked BY
QUANTITIES BY Eric Kabaallah	Checked BY	DESIGNED BY	Checked BY
ISSUED NO. SEC-0450		DESIGNED BY	Checked BY

T. Y. LIN INTERNATIONAL

STRUCTURAL ENGINEER

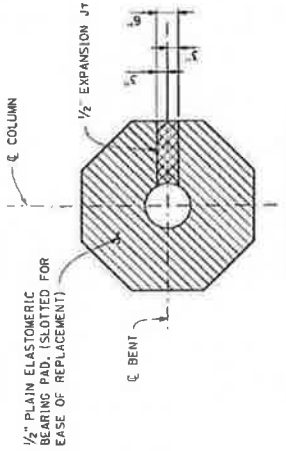
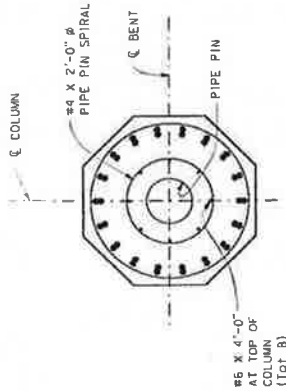
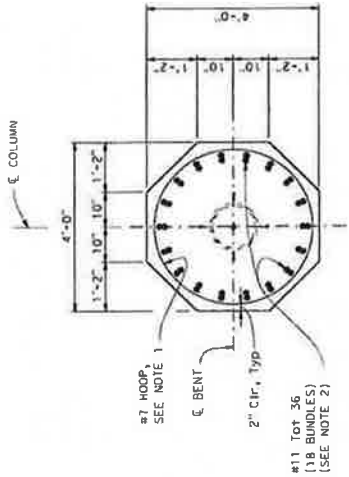
20 PACIFIC ST., STE. 330
 FARMINGDALE, N.Y. 11735

DATE: 3-2-83

PROJECT NO.	13
DATE	1.3.81
SCALE	AS NOTED

NO. DDCDD

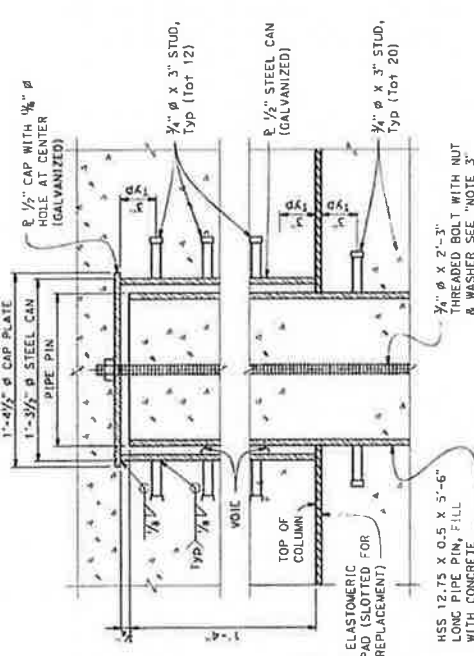
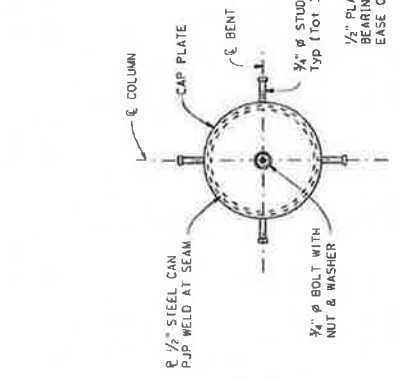
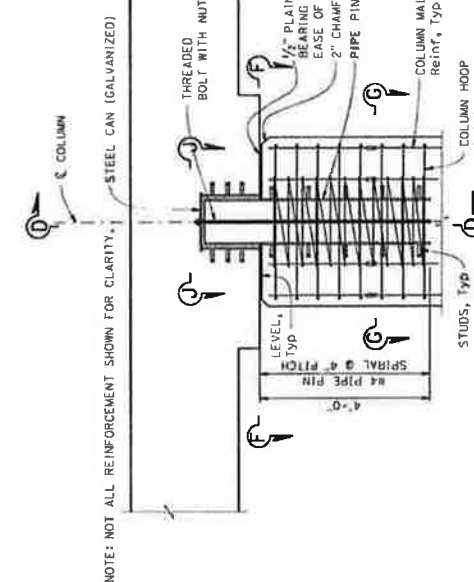
SEE FILE "S" UNDER "GENERAL" FOR ALL REVISIONS AND COMMENTS ON THE DRAWING.



SECTION H-H
1/4" x 1'-0"

SECTION G-G
1/4" x 1'-0"

SECTION F-F
1/4" x 1'-0"



NOTES:
1. All hoops shall be butt welded and shall meet ultimate splice requirements.
2. No splices permitted in column main reinforcement.
3. Nut shall be snug tight to keep steel can in place while casing bent concrete.

PIN DETAIL
1/4" x 1'-0"

NOTE:
The contractor shall verify all controlling field dimensions, including field length, before fabricating any material.

DESIGN BY	THOMAS A. TOLSON / D. COCO	DRAWN BY	SCHEIDT	CHECKED BY	SCHEIDT
DESIGNED BY	THOMAS A. TOLSON / D. COCO	DRAWN BY	SCHEIDT	CHECKED BY	SCHEIDT
DESIGNED BY	THOMAS A. TOLSON / D. COCO	DRAWN BY	SCHEIDT	CHECKED BY	SCHEIDT
DESIGNED BY	THOMAS A. TOLSON / D. COCO	DRAWN BY	SCHEIDT	CHECKED BY	SCHEIDT

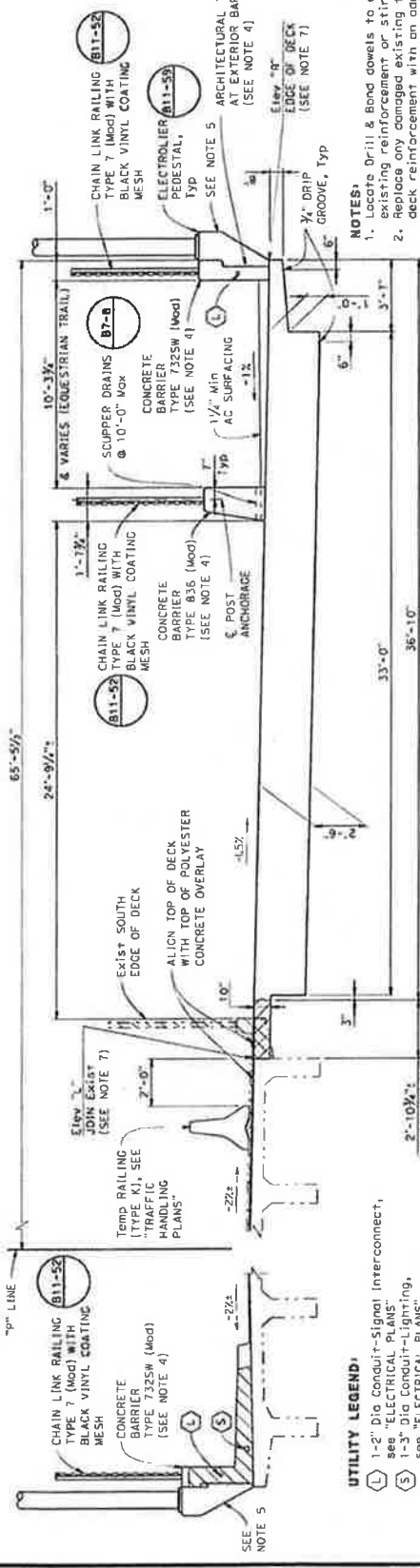
DATE	DESCRIPTION	BY	APP'D.

T.Y. LIN INTERNATIONAL
Structural Steel Detailing & Fabrication
10000 15th Ave S, PO Box 388-8880
Burien, GA 30319
Phone: 404-875-8880
Fax: 404-875-8881
E-mail: tylin@tylin.com

PLACENTIA AVE OVERHEAD (WIDEN) BENT DETAILS NO. 2
SCALE: AS NOTED
WO 00000

14
SHEET NO.
DATE: 14 03 11

PLACEMENT OF REINFORCING BARS

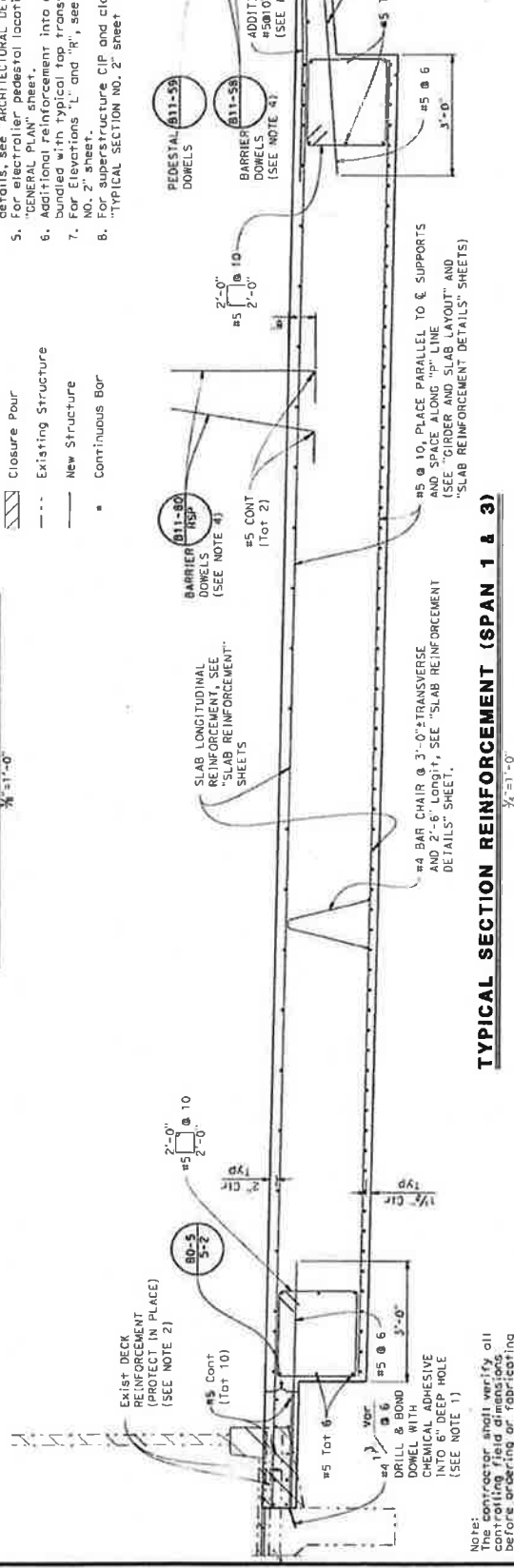


TYPICAL SECTION (SPAN 1 & 3)

LEGEND:
 Bridge Removal (Portion)
 Closure Pour
 Existing Structure
 New Structure
 Continuous Bar

UTILITY LEGEND:
 (L) 1-2" Dia Conduit-Signal Interconnect, see "ELECTRICAL PLANS"
 (S) 1-3" Dia Conduit-Lighting, see "ELECTRICAL PLANS"

NOTES:
 1. Locations Drill & Bond dowels to clear existing reinforcement stirrups. Replace any damaged existing transverse deck reinforcement with an additional 2# grill & bond dowel into 6" deep hole.
 2. For additional information, see "SLAB REINFORCEMENT" sheets and "GIRDER AND SLAB LAYOUT" sheets.
 3. For additional barrier and architectural treatment details, see "ARCHITECTURAL DETAILS" sheet.
 4. For electrical pedestal locations, see "GENERAL PLAN" sheet.
 5. Additional reinforcement into overhang slab shall be bundled with typical top transverse reinforcement.
 6. For Elevations "L" and "R", see "REMOVAL DETAILS" NO. 2 sheet.
 7. Superstructure GIR and closure pour notes, see "TYPICAL SECTION NO. 2" sheet



TYPICAL SECTION REINFORCEMENT (SPAN 1 & 3)

Notes:
 The contractor shall verify all dimensions and materials before ordering or fabricating any material.

#4 BAR CHAIR @ 3'-0" TRANSVERSE AND SPACE ALONG "P" LINE (SEE "GIRDER AND SLAB LAYOUT" AND "SLAB REINFORCEMENT DETAILS" SHEETS)

#5 @ 10, PLACE PARALLEL TO & SUPPORTS AND SPACE ALONG "P" LINE (SEE "GIRDER AND SLAB LAYOUT" AND "SLAB REINFORCEMENT DETAILS" SHEETS)

ADDITIONAL #5 @ 10 'X' 6'-6" (SEE NOTE 6)

PEDESTAL B11-52

BARRIER B11-52 (SEE NOTE 4)

BARRIER B11-80 (SEE NOTE 4)

#5 CONT (Tot 2)

#5 @ 6

#5 CONT (Tot 6)

#5 @ 6

3'-0"

1'-0"

NO.	DATE	REVISIONS	BY	CHECKED

SCALE: As Noted

NO. 00000

PLACENTIA AVE OVERHEAD (WIDEN)

TYPICAL SECTION NO. 1

16

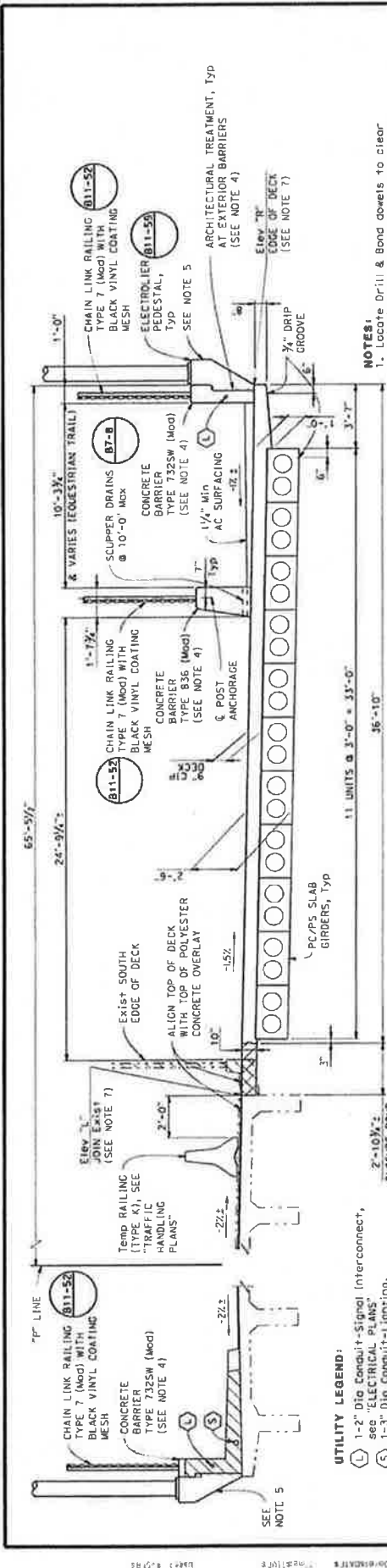
DATE: 10/16/31

T.Y. LIN INTERNATIONAL

PROJECT ENGINEER

20 PACIFIC ST, 3RD FLOOR, SAN FRANCISCO, CA 94102

SCALE: As Noted



UTILITY LEGEND:
 (L) 1-2" Dia Conduit-Signal Interconnect, see "ELECTRICAL PLANS"
 (S) 1-3" Dia Conduit-Lighting, see "ELECTRICAL PLANS"

TYPICAL SECTION (SPAN 2)

11 UNITS @ 3'-0" = 33'-0"

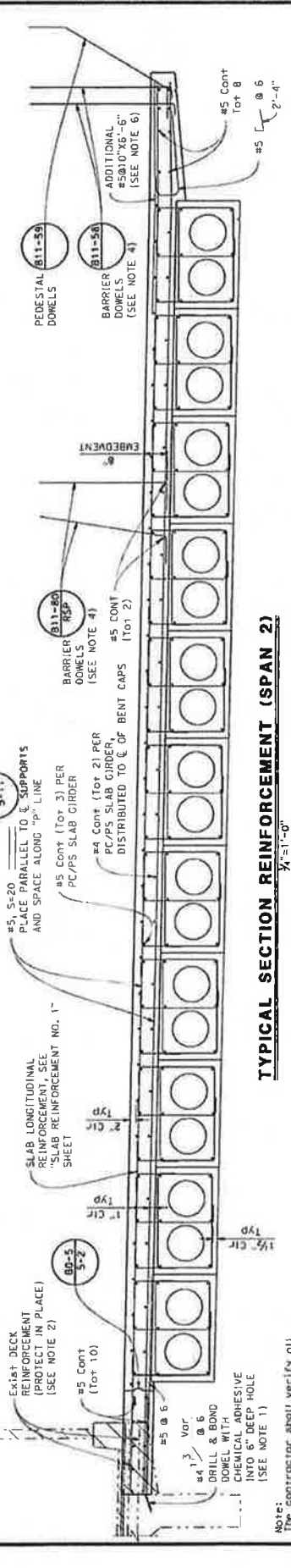
SUPERSTRUCTURE CIP CONCRETE NOTES:

- The concrete barrier is placed at least 21 days after the cast-in-place deck has been placed and attained the specified concrete strength.
- The closure pour shall not be placed sooner than 14 days after placement of the barrier.

NOTES:

- Locate Drill & Bond dowels to clear existing reinforcement or stirrups.
- Replace any damaged existing transverse deck reinforcement with an additional #4 drill & bond dowel into 6" deep hole.
- For additional information, see "SLAB REINFORCEMENT" sheets and "GIRDER AND SLAB LAYOUT" sheets.
- For additional barrier and architectural treatment details, see "ARCHITECTURAL DETAILS" sheet.
- For electroliner pedestal locations, see "GENERAL PLAN" sheet.
- Additional reinforcement into overhang slab shall be provided at 1/2" depth transverse reinforcement. For Elevations "L" and "R", see "REMOVAL DETAILS" sheet.
- NO. 2" sheet.

LEGEND:
 Bridge Removal (Portion)
 Closure Pour
 - - - Existing Structure
 — New Structure
 * Continuous Bar



TYPICAL SECTION REINFORCEMENT (SPAN 2)

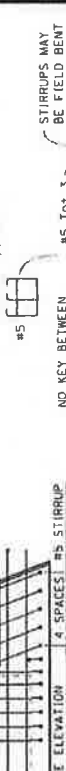
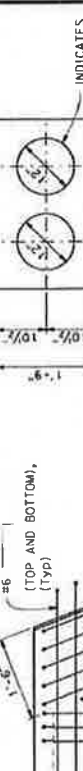
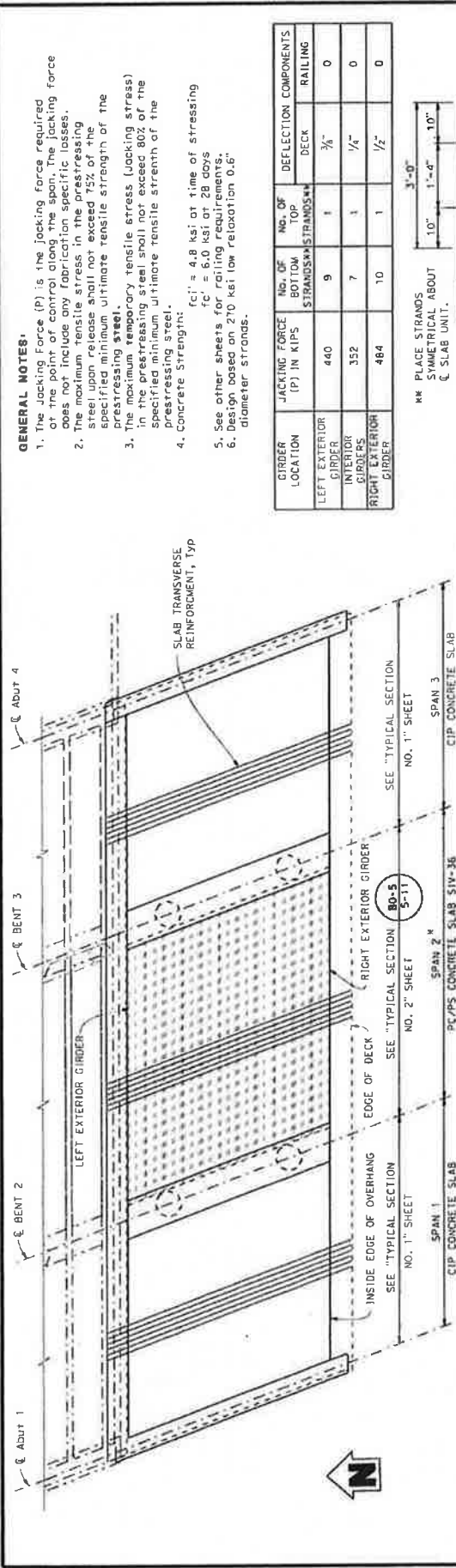
1/2" x 1'-0"

Note:
 The contractor shall verify all controlling field dimensions, including field lengths, before placing or fabricating any material.

T.Y. LIN INTERNATIONAL Structural Engineer 20 Pacific, 5th Fl. 350 Irvine, CA 92618 Project No. 88-0050 Date: 08/27/90			SHEET NO. 17 OF 31
SCALE: As Noted NO. 00000			COUNTY FILE NO.

DATE: 8/27/90
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 PROJECT NO. 88-0050
 SHEET NO. 17 OF 31
 COUNTY FILE NO.

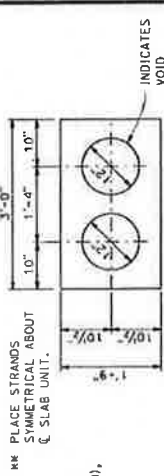
EXHIBIT B-3



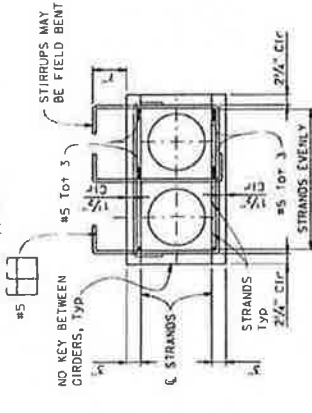
GENERAL NOTES:

- The jacking force (P) is the jacking force required at the point of control along the span. The jacking force does not include any fabrication specific losses.
- The maximum tensile stress in the prestressing steel upon release shall not exceed 75% of the specified minimum ultimate tensile strength of the prestressing steel.
- The maximum temporary tensile stress (jacking stress) in the prestressing steel shall not exceed 80% of the specified minimum ultimate tensile strength of the prestressing steel.
- Concrete Strength: $f_c' = 4.8$ ksi at time of stressing $f_c' = 6.0$ ksi at 28 days
- See other sheets for railing requirements.
- Design based on 270 ksi low relaxation 0.6" diameter strands.

GIRDER LOCATION	JACKING FORCE (P) IN KIPS	NO. OF BOTTOM STRANDS**	NO. OF TOP STRANDS**	DEFLECTION COMPONENTS
LEFT EXTERIOR GIRDER	440	9	1	DECK 7/8" 0
INSIDE EXTERIOR GIRDER	352	7	1	DECK 1/4" 0
RIGHT EXTERIOR GIRDER	484	10	1	DECK 1/2" 0



TYPICAL SECTION SIV-38 (MOD)



TYPICAL REINFORCEMENT



PLAN

* Prior to fabrication, dimensions to be verified in field after completion of column construction and bent cap falsework.

PC/PS CONCRETE SLAB ELEVATION

Note: The contractor shall verify all dimensions and quantities before ordering or fabricating any material.

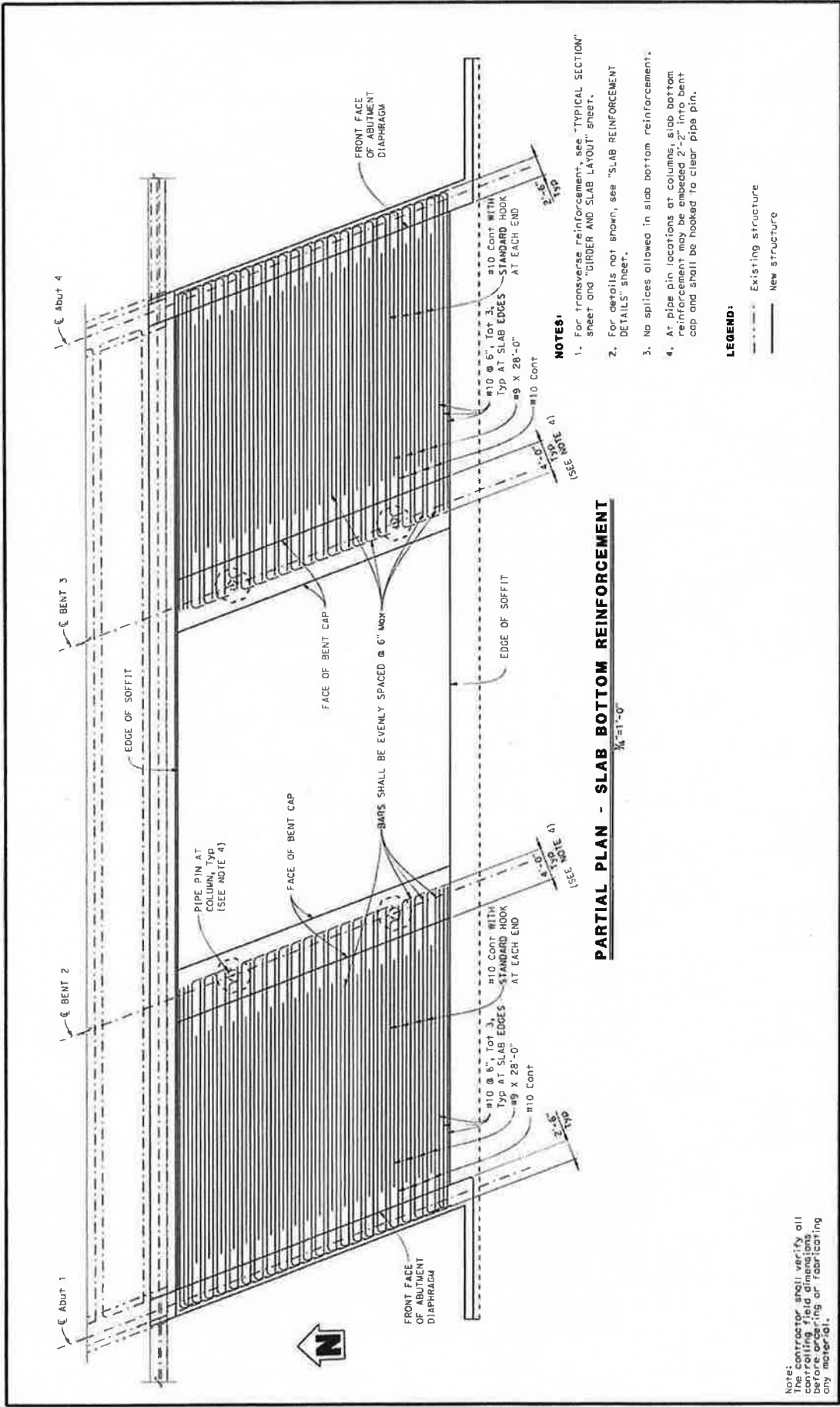
DATE: 11/15/2011 10:25:14 AM
 SHEET NO: 18 OF 31
 PROJECT: PLACENTIA AVE OVERHEAD (WIDEN) GIRDER AND SLAB LAYOUT
 SCALE: As Noted
 FILE NO: 90 00000

18
 18 OF 31
 PLACENTIA AVE OVERHEAD (WIDEN) GIRDER AND SLAB LAYOUT
 SCALE: As Noted
 FILE NO: 90 00000

T.Y. LIN INTERNATIONAL
 10000 S. DEER CREEK ROAD, SUITE 100, DENVER, CO 80231
 TEL: (303) 751-1111 FAX: (303) 751-1112
 WWW.TYLIN.COM

DESIGNED BY: [Blank] CHECKED BY: [Blank]
 DRAWN BY: [Blank] PROJECT ENGINEER: [Blank]
 DATE: [Blank] REVISION DATE: [Blank]

PROJECT: PLACENTIA AVE OVERHEAD (WIDEN) GIRDER AND SLAB LAYOUT
 SCALE: As Noted
 FILE NO: 90 00000



NOTES:

1. For transverse reinforcement, see "TYPICAL SECTION" sheet and "GIRDER AND SLAB LAYOUT" sheet.
2. For details not shown, see "SLAB REINFORCEMENT DETAILS" sheet.
3. No splices allowed in slab bottom reinforcement.
4. At pipe pin locations at columns, slab bottom reinforcement may be embedded 2'-2" into bent cap and shall be hooked to clear pipe pin.

LEGEND:

- Existing structure
- New structure

PARTIAL PLAN - SLAB BOTTOM REINFORCEMENT

1/4" = 1'-0"

Note:
The contractor shall verify all quantities and dimensions before ordering or fabricating any material.

NO.	DESCRIPTION	QTY	UNIT

DESIGNED BY	Checked by	Seungmoon Park
DRAWN BY	Checked by	Seungmoon Park
DATE	Checked by	Seungmoon Park
PROJECT NO.	Checked by	Seungmoon Park
DATE	Checked by	Seungmoon Park

T.Y. LIM INTERNATIONAL

Professional Engineer
 License No. 10000
 State of California

Project Engineer
 T.Y. Lim
 10000
 10000

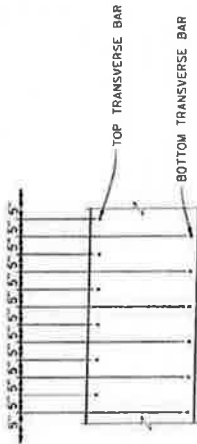
PLACENTIA AVE OVERWIDEN (WIDEN)

SLAB REINFORCEMENT NO. 2

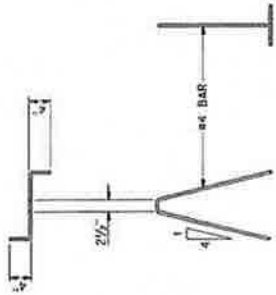
Scale: As Noted

NO. 00000

Sheet No. **20**
 of 31



DISTRIBUTION OF SLAB TRANSVERSE REINFORCEMENT
1'-1'-0"



BAR CHAIR DETAIL
1'-1'-0"

NOTES:

1. No splices allowed in top and bottom transverse bars.
2. Spacing of all transverse bars is measured along & roadway.
3. Place all transverse bars parallel to bent and abutment centerline.
4. Splices in longitudinal slab top reinforcement shall be located near center of span and shall be staggered.
5. No splices allowed in longitudinal slab bottom reinforcement.

BAR SIZE		BAR SPLICE LENGTH										
#4	#5	#6	#7	#8	#9	#10	#11					
ALL BARS EXCEPT TOP BARS		23"	28"	34"	39"	45"	68"	76"	85"			
TOP BARS		23"	28"	34"	53"	60"	77"	97"	120"			

Note:
The contractor shall verify all controlling field dimensions and quantities of reinforcing material.

NO.	DATE	REVISION	BY	APP'D

DESIGN BY: T.Y. LIN	CHECK BY: SUNGHOON BAK
DRAWN BY: A. TOSKOS / O. SOKOL	CHECK BY: SUNGHOON BAK
QUANTITIES BY: DINO KARAMALISH	CHECK BY: SUNGHOON BAK
PROJECT NO. 58C-0550	

T. Y. LIN INTERNATIONAL

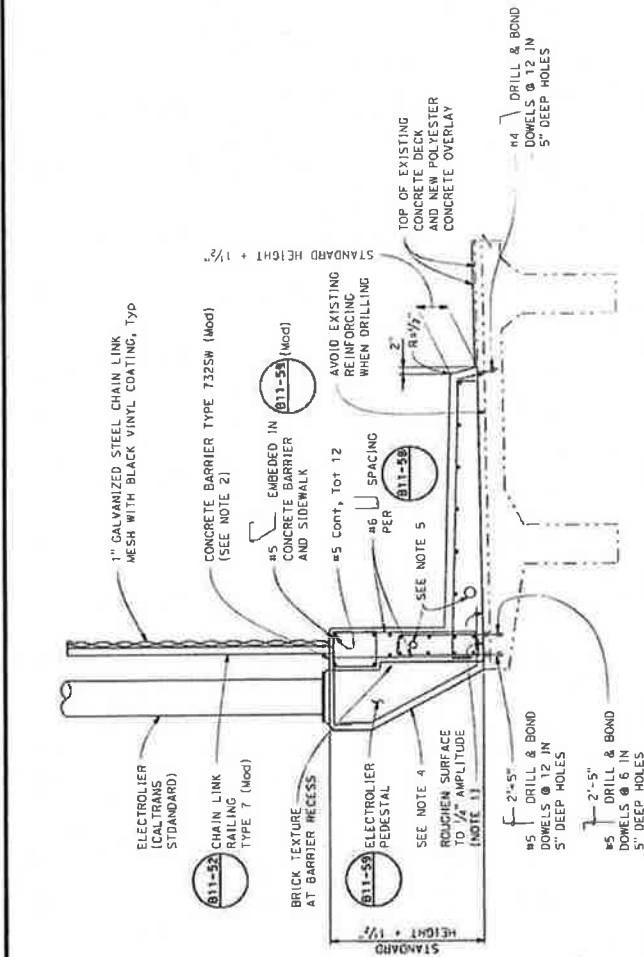
REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 20 PACIFIC, Ste. 350
 IRVINE, CA 92618 Tel: (949) 496-4600

PLACENTIA AVE OVERHEAD (WIDEN) SLAB REINFORCEMENT DETAILS

PROJECT NO. 58C-0550
 SHEET NO. 21
 OF 31

SCALE: As Noted
 NO. 00000
 COUNTY FILE NO.

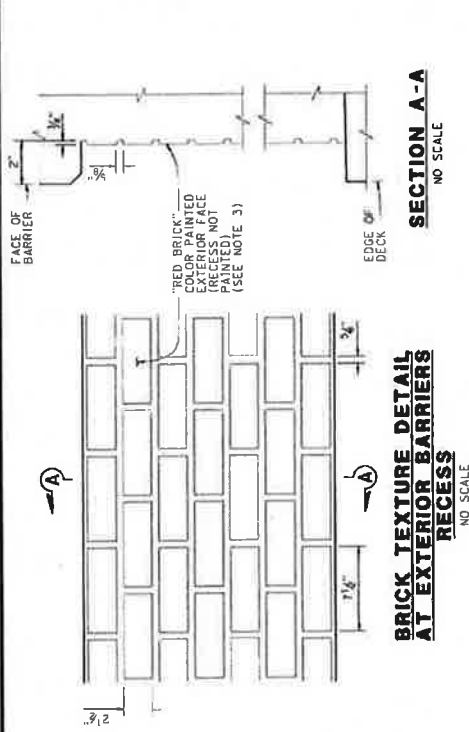
DATE PLOTTED: 11/21/2019 11:23:12 AM
 PLOT TABLE: 12.5 x 9.0
 SHEETS: 31



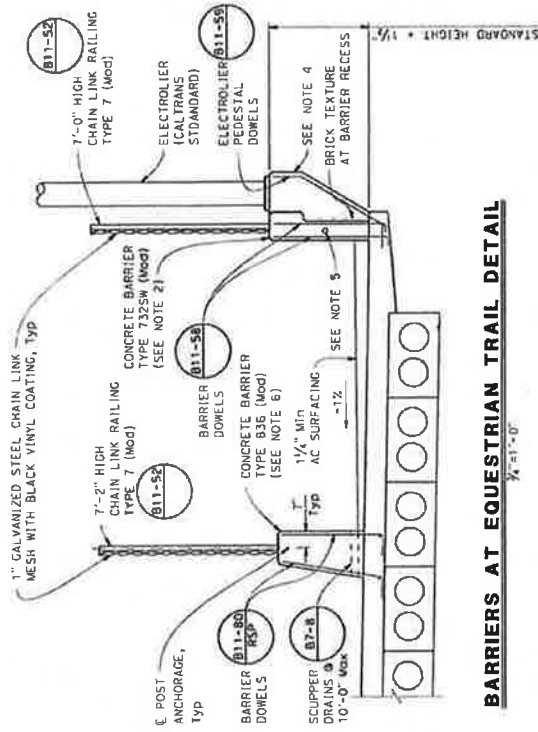
BARRIER RETROFIT DETAIL
1/4" = 1'-0"

- NOTES:**
1. Roughen existing bridge deck surface before casting new concrete against existing concrete.
 2. For additional concrete barrier information, see (B11-35) and (B11-55).
 3. Prepare and paint "Red Brick" color as determined by the Engineer, District Landscape Architect, and City of Perris.
 4. For Electropler pedestal locations, see "GENERAL PLAN" sheet.
 5. For utility information, see "TYPICAL SECTION" sheets, (B11-79) and (B11-80).
 6. For additional concrete barrier information, see (B11-79) and (B11-80).

Note:
The contractor shall verify all controlling field dimensions for existing or fabricating any material.



Brick Texture Detail at Exterior Barriers
NO SCALE



Barriers at Equestrian Trail Detail
1/4" = 1'-0"

Note:
The contractor shall verify all controlling field dimensions for existing or fabricating any material.

NO.	DATE	DESCRIPTION	BY	CHECKED

NO.	DATE	DESCRIPTION	BY	CHECKED

T.Y. LIN INTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER
CIVIL ENGINEERING
CALIFORNIA LICENSE NO. 51234

PROJECT ENGINEER
DATE

20 PACIFIC ST. STE. 350
IRVINE, CA 92618 PH: (949) 348-4950

PLACENTIA AVE OVERHEAD (WIDEN) ARCHITECTURAL DETAILS

SHEET 22 of 31

SCALE: As Noted

WO 00000

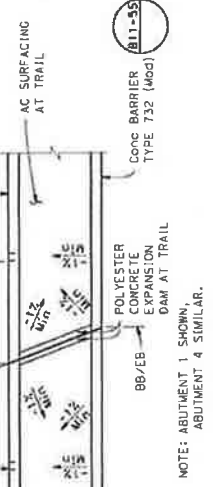
SCUPPER DRAIN, Typ **B7-B**

CONC BARRIER TYPE 732 (Mod) **B11-55**

AC SURFACING AT TRAIL

POLYESTER CONCRETE EXPANSION DAM AT TRAIL

SOUTH EDGE OF DECK



NOTE: ABUTMENT 1 SHOWN, ABUTMENT 4 SIMILAR.

AC SURFACING TRANSITION AT EXPANSION DAM
No Scale

- NOTES:
1. For scupper drain locations and details, see "TYPICAL SECTION" sheet and **B7-B**.
 2. For joint armor details, see "JOINT ARMOR FOR PEDESTRIAN WALKWAYS" sheet.



CONC BARRIER TYPE 732 (Mod) **B11-55**

REUSE EXIST GRATE

3/4" CHAMFER

MATCH EXIST 1/2" X 1/2" CONTINUOUS WITH 1/4" DIA X 8" LONG BENT ANCHORS @ 18" O.C., Typ

MATCH EXIST 1" PREMOLDED EXPANSION JOINT MATERIAL (AT FACE OF PIER PROTECTION WALL ONLY)

MATCH EXIST #5012 (HORIZONTAL AND VERTICAL Reinf)

CONC JT AND ASPHALT MEMBRANE WATERPROOFING @ CONST JOINTS (EXTEND 1'-0" BEYOND TPOB) Horiz Const JT AND APPLY 2'-0" WIDE AT VERT Const JT AT EACH END OF CONC CHANNEL REMOVAL)

FACE OF PIER PROTECTION WALL WHERE OCCURS

EXIST #5

EXIST #5 @ 12 (PROTECT-IN-PLACE)

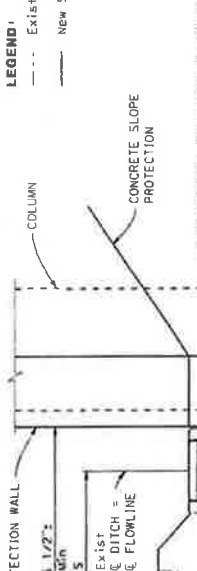
EXIST #5 @ 12

CONC JT AND ASPHALT MEMBRANE WATERPROOFING @ CONST JOINTS (EXTEND 1'-0" BEYOND TPOB) Horiz Const JT AND APPLY 2'-0" WIDE AT VERT Const JT AT EACH END OF CONC CHANNEL REMOVAL)

LEGEND:

--- Existing Structure

--- New Structure



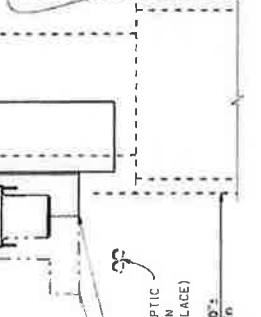
POLYESTER CONCRETE EXPANSION DAM AT TRAIL
No Scale

EXTEND STEEL SHELL CASING ABOVE PILE CUT-OFF LINE AS NEEDED FOR CONSTRUCTION. CUT STEEL CASING BELOW BOTTOM OF CONCRETE DRAINAGE CHANNEL, AFTER CONSTRUCTION IS COMPLETE.

PILE CUT-OFF Elev. SEE "FOUNDATION PLAN" SHEET

CONCRETE DRAINAGE CHANNEL NOTES:

1. REINFORCE CONCRETE: $f'_c = 60 \text{ ksi}$
2. All exposed edges shall be chamfered 3/4".
3. Existing concrete channel shall be stripped to sound concrete and limits of removal and reconstruction of the concrete drainage channel, see "FOUNDATION PLAN" sheet.



EXIST CONC DRAINAGE CHANNEL TO BE PROTECTED IN PLACE, EXCEPT WHERE NOTED OTHERWISE. EXIST STEEL SHELL CASINGS TO REMAIN (TOTAL TWO LOCATIONS) (SEE "DETAIL A" AND NOTE 4)

EXIST FIBER OPTIC LINE TO REMAIN (PROTECT-IN-PLACE)

PIER PROTECTION WALL

EXIST @ EAST TRACK

EXIST @ 1/2" VARIES

EXIST @ DITCH & FLOWLINE

EXIST @ WEST TRACK

COLUMN

CONCRETE SLOPE PROTECTION

9'-0" Min

9'-6" Min

TYPICAL CONCRETE DRAINAGE CHANNEL SECTION
1/4" = 1'-0"

Note: The contractor shall verify all before final placement of any material.

SCALE: As Noted

NO.	REVISION	DATE

PROJECT: PLACENTIA AVE OVERHEAD (WIDEN)

DATE: Dec 23, 2011

SCALE: As Noted

FILE NO.: 000000

T.Y. LIN INTERNATIONAL

REGISTERED PROFESSIONAL ENGINEER

STATE OF CALIFORNIA

CREDENTIAL NO. 45848

PROJECT: PLACENTIA AVE OVERHEAD (WIDEN)

DATE: Dec 23, 2011

SCALE: As Noted

FILE NO.: 000000

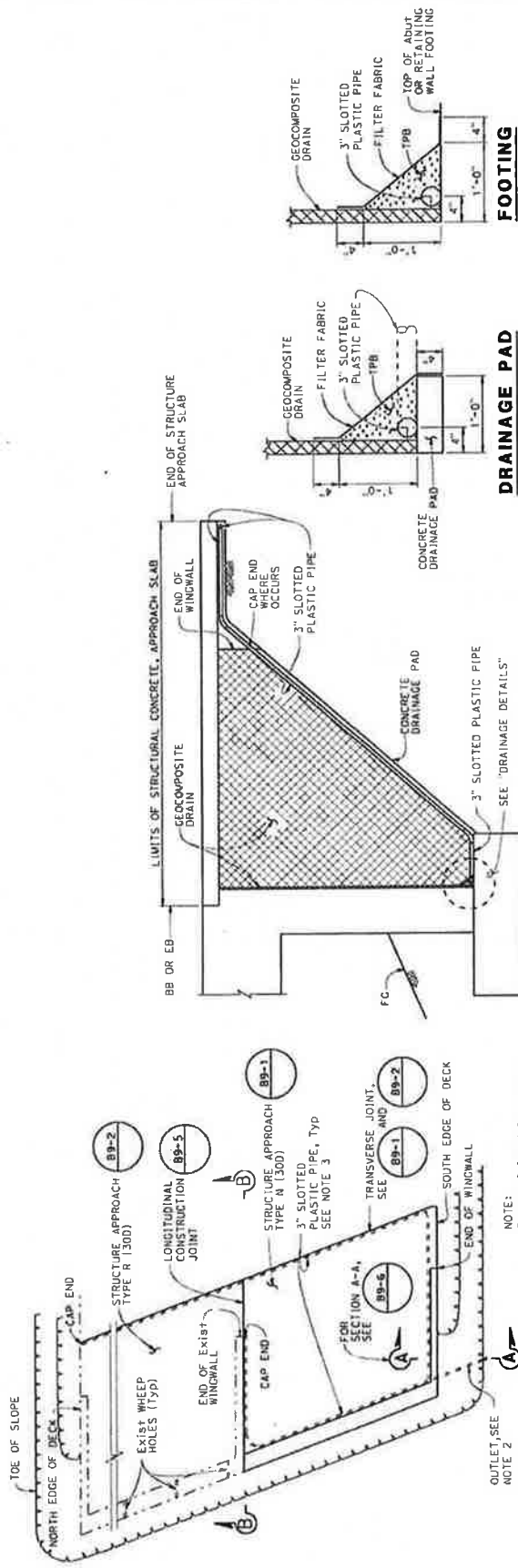
PROJECT: PLACENTIA AVE OVERHEAD (WIDEN)

DATE: Dec 23, 2011

SCALE: As Noted

FILE NO.: 000000

EXHIBIT B-3



SECTION B-B
NO SCALE

SECTION B-B'
1/2" = 1'-0"

NOTE: TPB not shown for clarity.

- NOTES:**
- All bends in plastic pipe must have 3'-0" minimum radius. Plastic pipe used for bends is not required to be slotted.
 - Connect About 1 and About 4 outlets to Drainage System. See "DRAINAGE PLANS" for more details.
 - Slotted plastic pipe shall be sloped to drain.

PLAN
NO SCALE

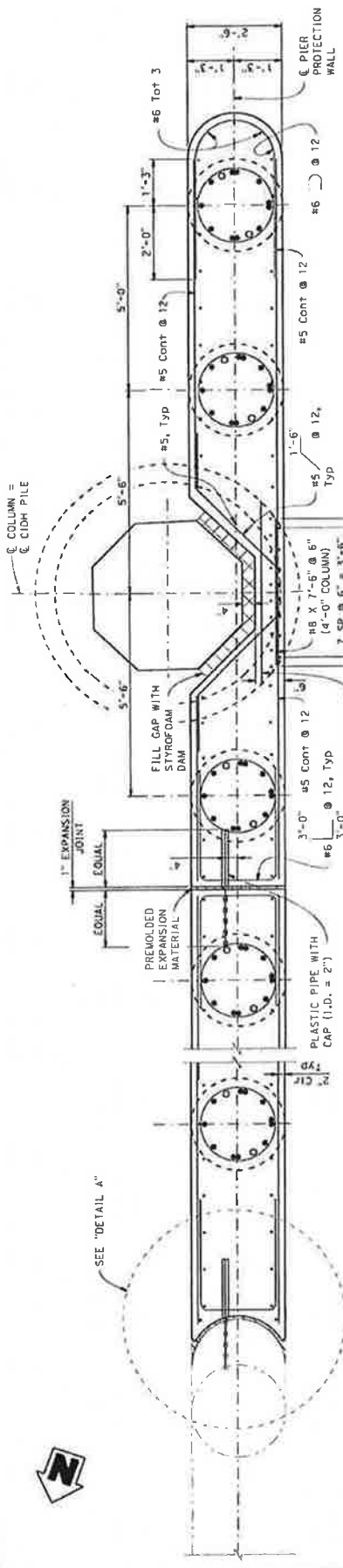
NOTE: For additional Structure Approach and Drainage Details, see 89-1 89-2 89-3 89-6

Note: The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

NO.	DATE	REVISION	BY	APP'D.

T. Y. LIN INTERNATIONAL
 20 PACIFICA, Ste 310
 IRVING, CA 92618 PH: (949) 368-8800
 PROJECT ENGINEER
 DATE: 11/22/06

PLACENTIA AVE OVERHEAD (WIDEN)
MISCELLANEOUS DETAILS NO. 2
 SHEET NO. 24 OF 31
 COUNTY FILE NO. WO 00000
 SCALE: As Noted



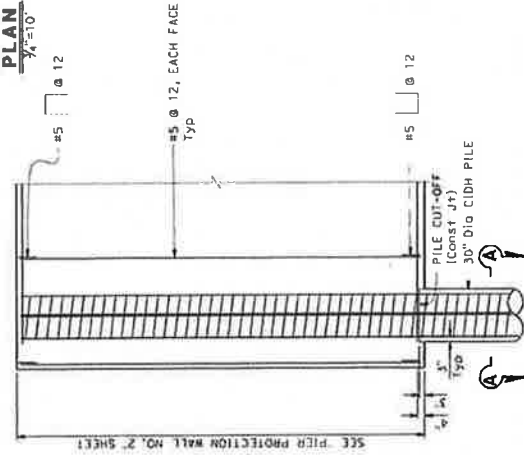
TYPICAL AT JOINT

TYPICAL AT EXPANSION JOINT

TYPICAL AT COLUMNS

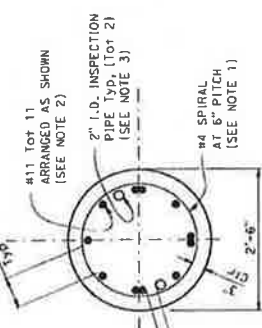
TYPICAL BETWEEN PILES

PLAN
1/4"=10'



TYPICAL ELEVATION
1/2"=10'

SECTION A-A
1"=1'-0"



SECTION A-A
1"=1'-0"

- NOTES:**
1. Lap splices in spiral pile reinforcement shall be lapped and at least 60 bar diameter. Spiral pile reinforcement splices and of ends shall be terminated with a 135° hook with a 6" tail hooked around an intersecting longitudinal bar.
 2. Pile main reinforcement, where permitted, shall meet ultimate splice requirements. Lapped splices are not permitted in pile reinforcement.
 3. Inspection pipes may not be installed, if the drilled hole is dry or dewatered without the use of temporary casing to control ground water and if gamma-gamma testing is not required.

SPLICE ZONE
1/2"=1'-0"



Note:
The contractor shall verify all dimensions and quantities before ordering or fabricating any material.

NO.	REVISIONS	DATE	BY	APP'D.

DESIGNER	THEOPHILUS K. TOLBOO	CHECKED BY	SEUNGHOON BAEK
PROJECT ENGINEER	THEOPHILUS K. TOLBOO	CHECKED BY	SEUNGHOON BAEK
PROJECT NO.	58C-0420	CHECKED BY	SEUNGHOON BAEK
DATE		CHECKED BY	

DATE	

FOR FILE -> NATL. COOP. TRANS. AUTHORITY, 4000 CENTRAL EXPRESSWAY, OFFICE OF STRUCTURAL ENGINEERING, 10115-0000, MEMPHIS, TN 38117

DATE: 04-21-15
TIME: 10:23:59 PM

PLACEMENT OF REINFORCEMENT
FIG. TABLE 3.3
REVISIONS

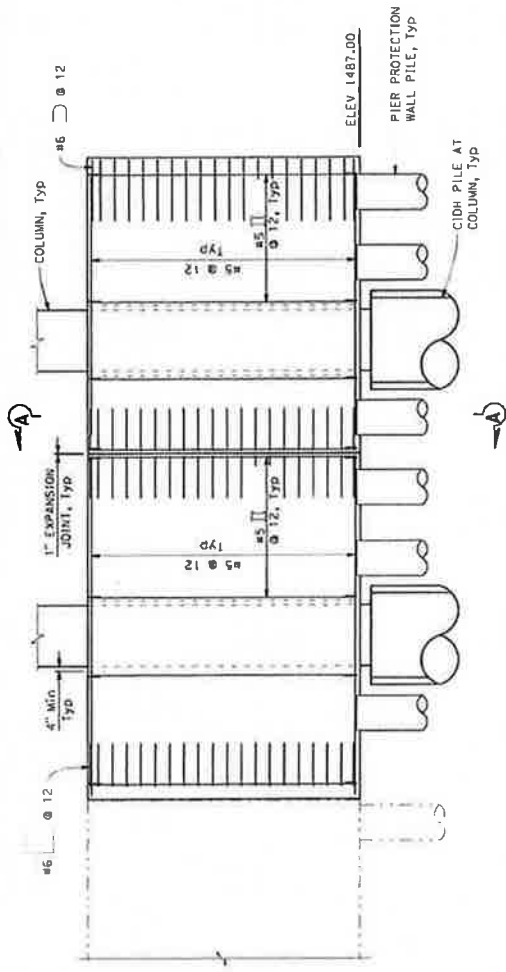
SCALE: As Noted
NO. 00000
FILE NO.

T.Y. LIN INTERNATIONAL
PROJECT ENGINEER
PROJECT NO. 58C-0420
DATE: 04-21-15

PLACENTIA AVE OVERHEAD (WIDEN)
PIER PROTECTION WALL NO. 1
SCALE: As Noted
NO. 00000
FILE NO.

DATE: 04-21-15
TIME: 10:23:59 PM

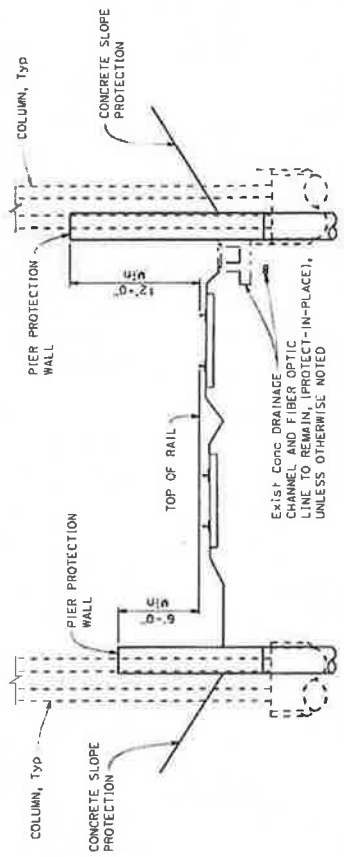
EXHIBIT B-3



EAST WALL ELEVATION
1/4" = 1'-0"

- NOTES:**
1. For more information, see "PIER PROTECTION WALL NO. 1" sheet.
 2. Reinforced Concrete:
f_y = 60 ksi
f_c = 4.0 ksi

NOTES:
EAST WALL ELEVATION SHOWN,
WEST WALL ELEVATION SIMILAR



EAST WALL
SECTION A-A
3/8" = 1'-0"

WEST WALL
SECTION A-A
3/8" = 1'-0"

Note:
The contractor shall verify all
dimensions and materials
before ordering or fabricating
any material.

NO.	DATE	REVISIONS	BY	CHKD.

DESIGN BY: Theodor G. Pappas	CHECKED BY: Saungchun Bank
DATE: 10/13/03	PROJECT NO.: 58C-0450
SCALE: AS NOTED	

T.V. LIN INTERNATIONAL

Professional Engineer
No. 14567
State of California

PROJECT ENGINEER
DATE: 10/13/03

PLACENTIA AVE OVERHEAD (WIDEN)

PIER PROTECTION WALL NO. 2

SCALE: AS NOTED

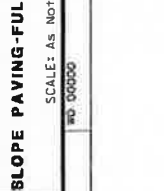
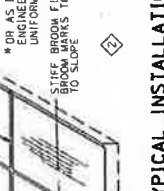
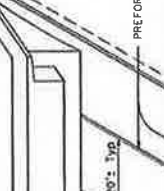
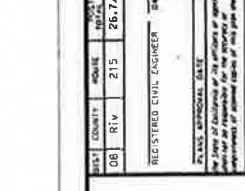
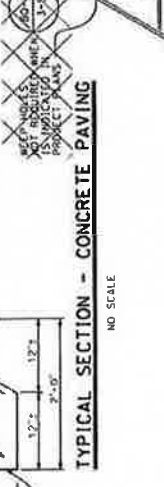
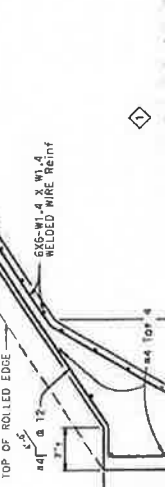
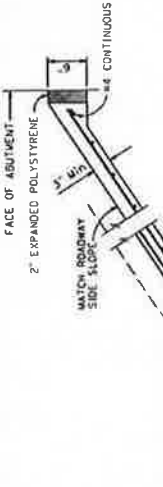
WO 00000

FILE NO.

26

NOV 26 2003

DATE	08	RIV	215	26.7.232.8
REGISTERED CIVIL ENGINEER	DATE			
T.Y. LIN INTERNATIONAL 20 PACIFICA, SUITE 330 IRVINE, CA 92614				



NO.	REVISION	DATE	BY	CHKD.
1	ISSUED FOR PERMITS	JULY 2014		

REVISED BRIDGE STANDARD DETAILS
 314-210
 JULY 2014
 THIS DIMENSION BECOMES ZERO WHEN EDGE OF DECK IS AT OUTSIDE FACE OF RW

DOES NOT APPLY
 MODIFIED DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES

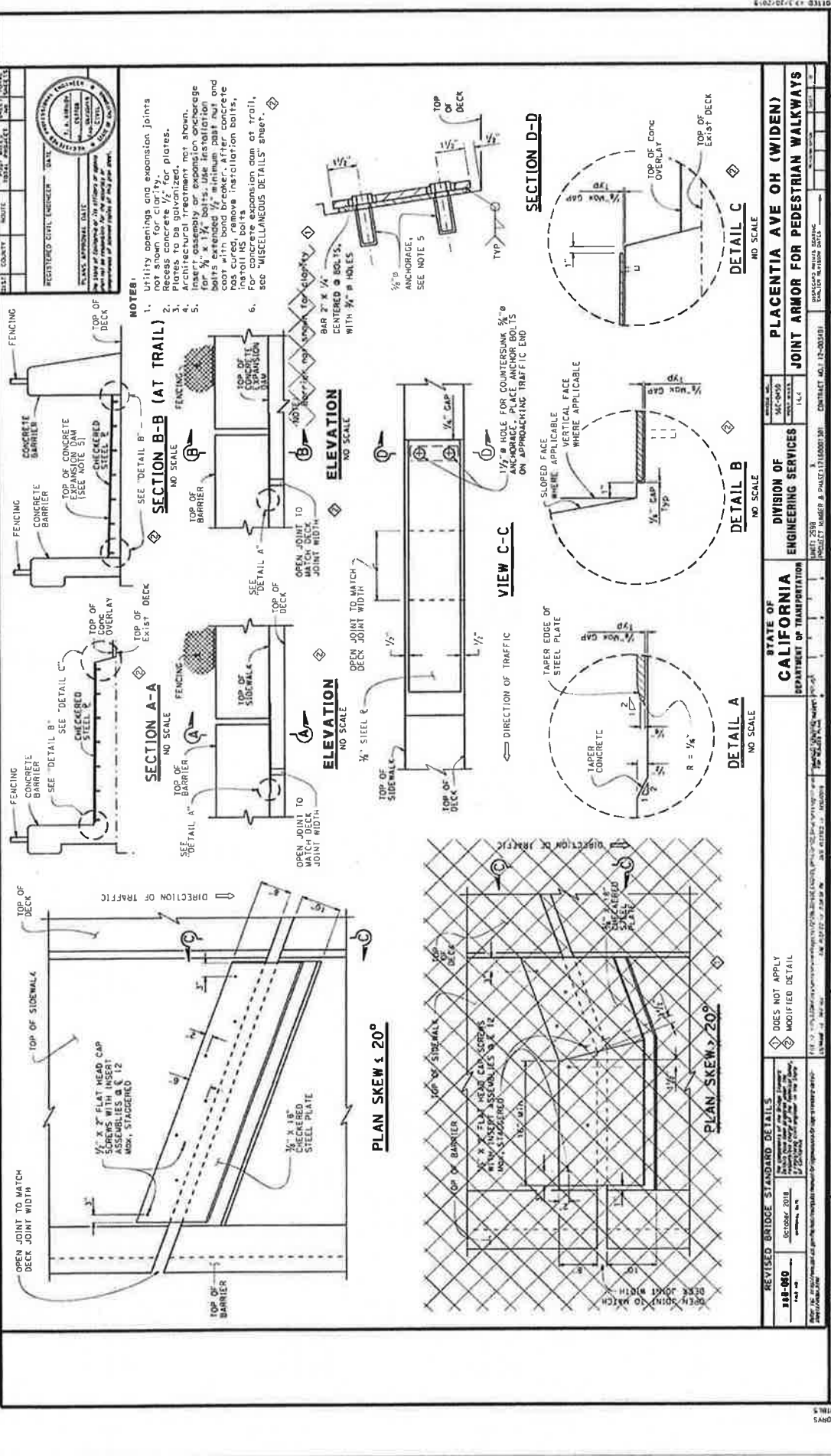
PROJECT NAME & NUMBER: PLACENTIA AVE OH (WIDEN) SLOPE PAVING-FULL SLOPE
 CONTRACT NO.: 12-028385
 SHEET NO.: 27 OF 31

T.Y. LIN INTERNATIONAL
 PROJECT ENGINEER
 20 PACIFICA, SUITE 330
 IRVINE, CA 92614
 SCALE: AS NOTED
 RW: 000000

PLACENTIA AVE OH (WIDEN)
 SLOPE PAVING-FULL SLOPE
 SHEET 27 OF 31

COUNTY FILE NO.
 DATE PLOTTED: 27/07/2014
 TIME PLOTTED: 9:17:02 PM

EXHIBIT B-3



REGISTERED CIVIL ENGINEER STATE OF CALIFORNIA

NOTES:
 1. Utility openings and expansion joints not shown for clarity.
 2. Reconciling concrete $\frac{1}{2}$ " for plates.
 3. Reinforcing bars to be placed in accordance with details shown.
 4. Insert assembly or expansion anchorage for $\frac{3}{4}$ " x 1 1/2" bolts. Use installation bolts extended 1/2" minimum past nut and washer. Use minimum 1/2" diameter. Concrete has cured, remove installation bolts, install NS bolts.
 5. For concrete expansion dam at trail, see "MISCELLANEOUS DETAILS" sheet.
 6. BAR 2" x 1/2" CENTERED @ BOLTS, WITH 3/8" HOLES

REVISED BRIDGE STANDARD DETAILS	DATE	BY
34B-060	October 2018	AW
DOES NOT APPLY		
MODIFIED DETAIL		
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES PROJECT NUMBER: 18-118001-01		
PLACENTIA AVE OH (WIDEN) JOINT ARMOR FOR PEDESTRIAN WALKWAYS		
PROJECT NO.	DATE	SHEET NO.
18-118001-01	3-23-20	28 of 31
PROJECT ENGINEER	DATE	CHECKED
T. Y. LIN INTERNATIONAL	3-23-20	
PROJECT NO. 18-118001-01 PROJECT ENGINEER T. Y. LIN INTERNATIONAL 19005 S. GREENWAY AVE. DANA POINT, CA 92629 PHONE: (949) 441-1100 FAX: (949) 441-1101 SCALE: AS NOTED		

REVISION	DATE	BY	DESCRIPTION

DESIGNED BY	DRAWN BY	CHECKED BY	DATE

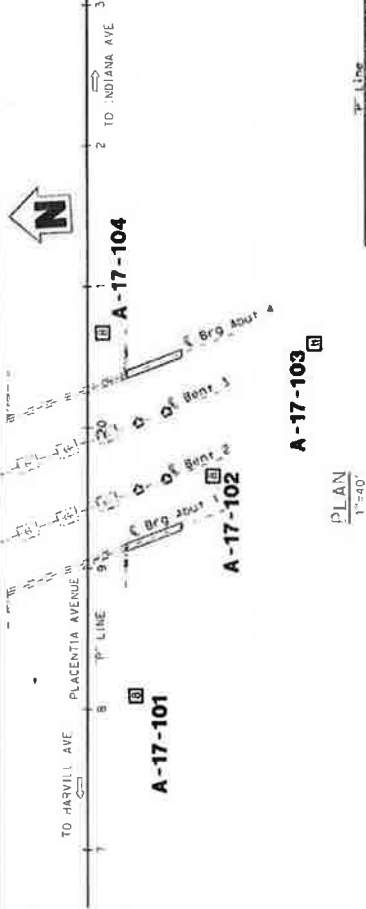
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EXHIBIT B-3

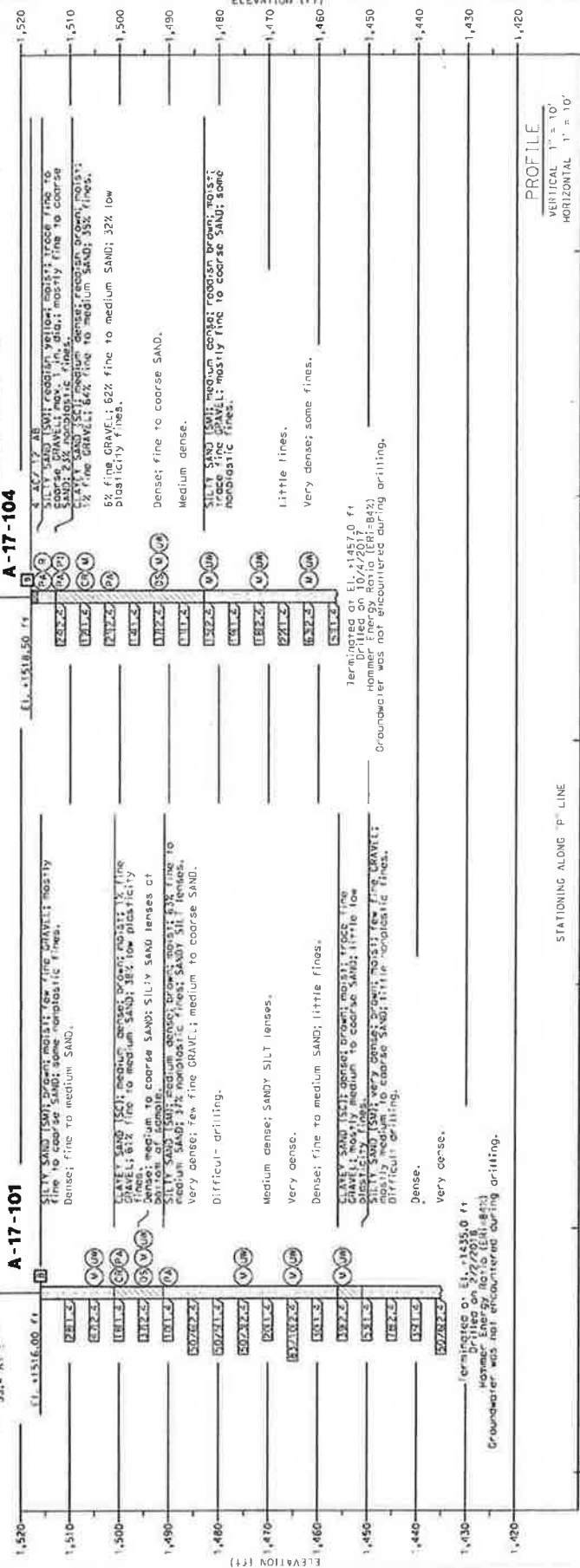
BENCHMARK:
 Project Benchmark - LAST, 33°50'14.51" (N), 117°18'33.24" (W),
 Elevation 498.44', NAVD 88.

BASIS OF BEARINGS AND COORDINATES:
 Bearings and coordinates are in terms of the California
 Coordinate System (CCS83), Zone 6, NAD 83 (2007) EPOCH,
 based locally upon a line between the following continuously
 operating reference stations as published by the NGS,
 stations MFP and BILL, having a bearing of N31°22'20"W.

BASIS OF ELEVATIONS:
 North American Vertical Datum of 1988 (NAVD 88).



- NOTES:**
- (1) This LOTB shear (Boring Record) was prepared in accordance with Caltrans Soil and Rock Logging, Classification and Preservation Manual (2010).
 - (2) 1.4' samples were taken using a Standard Penetration Test (SPT) Sampler and 2.4' samples were taken using a California Modified Sampler; multiply California Modified Sampler blowcounts by 0.65 to convert to equivalent SPT blowcounts.
 - (3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the samplers.
 - (4) For Soil Legend, see Caltrans Standard Plans (A101 and A102).
 - (5) Cobbles and abundant gravel were observed at the project site during the recent field investigation. These materials are also anticipated to be buried below the existing ground surface.



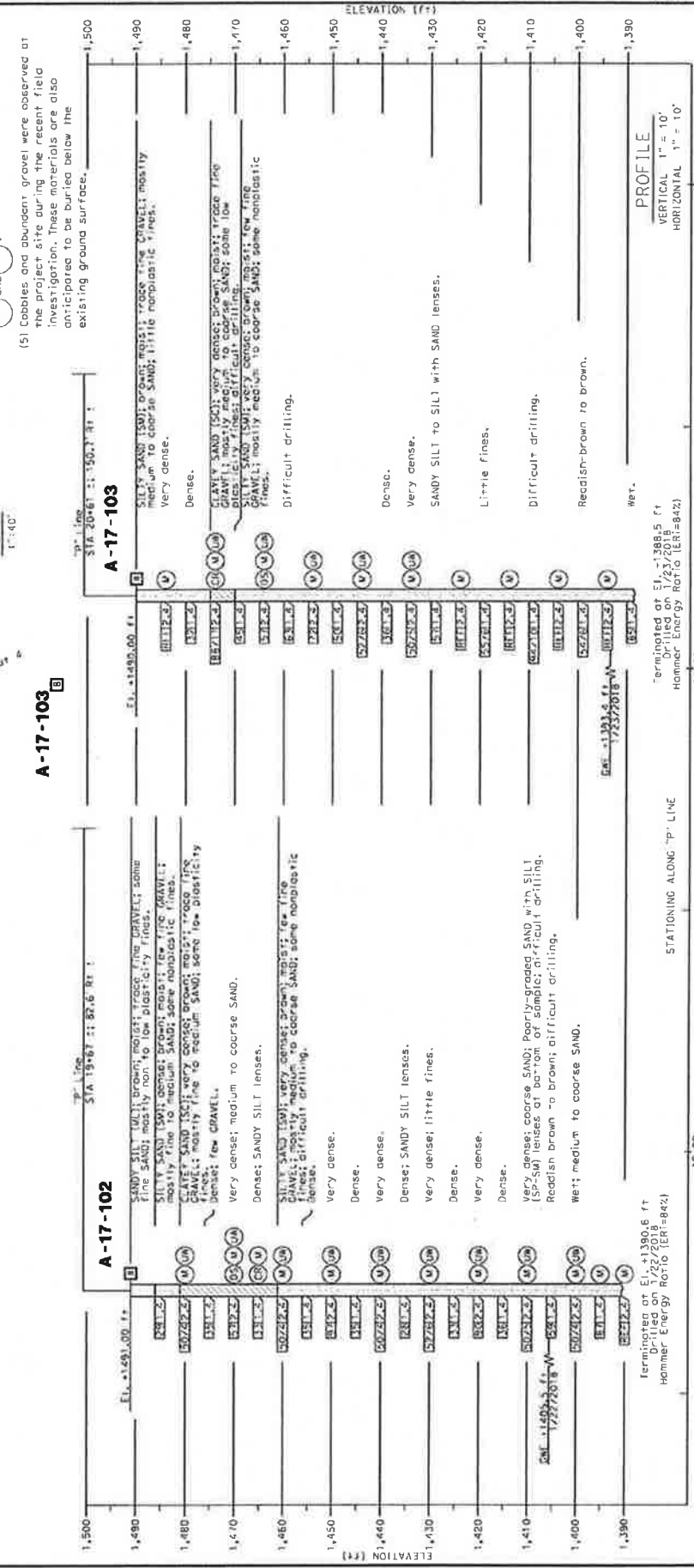
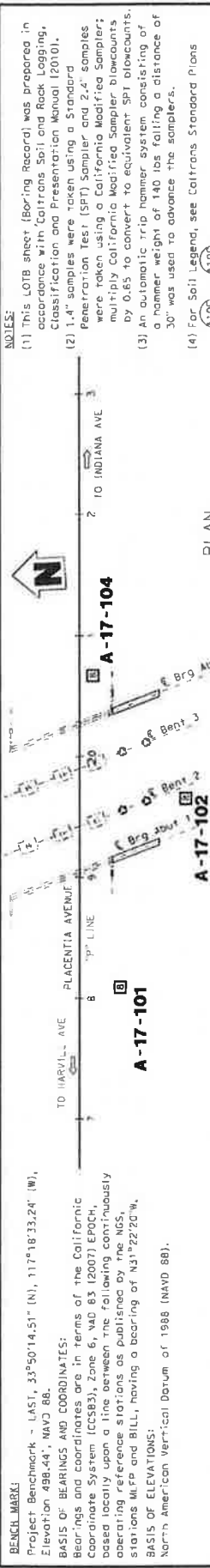
DATE: 10-04-11		DATE: 02-02-19	
DRAWN BY: B. HOSHITAMA		CHECKED BY: A. THARIRBAJAH	
PROJECT NO.: 56C-015D		DATE: 10-04-11	
PROJECT NAME: PLACENTIA AVENUE OVERHEAD (WIDEN)		PROJECT NUMBER: 56C-015D	
PROJECT LOCATION: 1800 N. AVENUE, PLACENTIA, CA 92679		PROJECT DATE: 10-04-11	
SCALE: AS NOTED		SCALE: AS NOTED	
SHEET NO.: 29		SHEET NO.: 30	
TOTAL SHEETS: 30		TOTAL SHEETS: 30	

EARTH MECHANICS, INC.
 1800 N. AVENUE, PLACENTIA, CA 92679
 TEL: 714.992.1111
 FAX: 714.992.1112
 WWW.EMINC.COM

PLACENTIA AVENUE OVERHEAD (WIDEN)
LOG OF TEST BORINGS
NO. 1 OF 3

VERTICAL 1" = 10'
 HORIZONTAL 1" = 10'

EXHIBIT B-3



NOTES:

- (1) This LOTB sheet (Boring Record) was prepared in accordance with Caltrans Soil and Rock Logging, Classification and Presentation Manual (2010).
- (2) 1.4" samples were taken using a Standard Penetration Test (SPT) Sampler and 2.4" samples were taken using a California Modifying Sampler; multiply California Modifying Sampler blowcounts by 0.65 to convert to equivalent SPT blowcounts.
- (3) An automatic trip hammer system consisting of a hammer weight of 140 lbs falling a distance of 30" was used to advance the samplers.
- (4) For Soil Legend, see Caltrans Standard Plans (AIDE) eng/ALIDA.
- (5) Cobbles and abundant gravel were observed at the project site during the recent field investigation. These materials are also anticipated to be buried below the existing ground surface.

PLAN 1"=40'

PROFILE 1"=10'
VERTICAL 1"=10'
HORIZONTAL 1"=10'

PLACENTIA AVENUE OVERHEAD (WIDEN) LOG OF TEST BORINGS NO. 2 OF 3
SCALE: AS NOTED

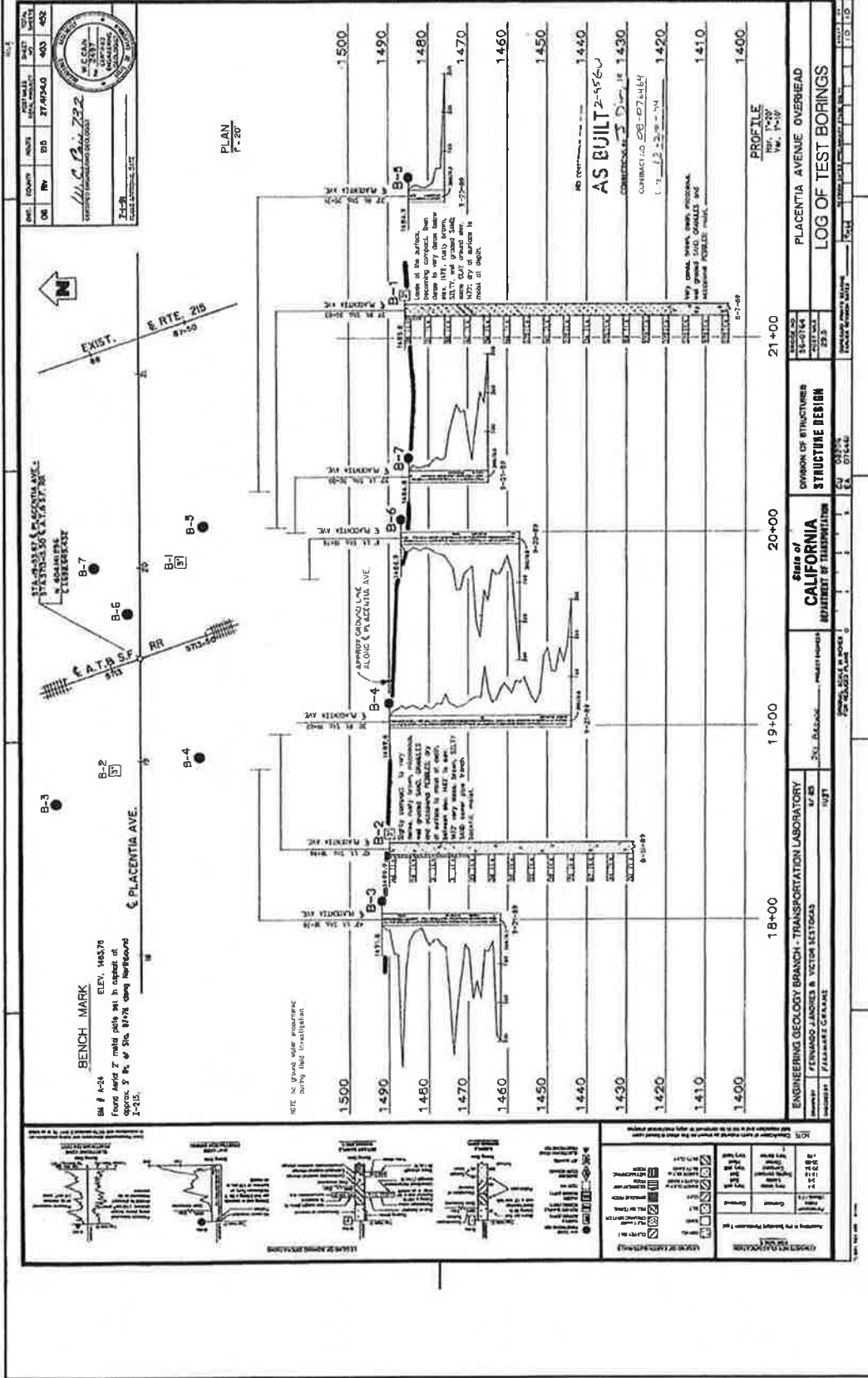
EARTH MECHANICS, INC.
CALIFORNIA A. INDRERAJAN
PROJECT ENGINEER
10000 WILSON AVENUE, SUITE 100
DUBLIN, CA 94568
DATE: 01-22-18

DATE: 01-22-18
PROJECT: PLACENTIA AVENUE OVERHEAD WIDEN
DATE: 01-22-18

TERMINATED AT: EL. +1386.5 FT
HAMMER ENERGY: RATIO (ERT)=84%

TERMINATED AT: EL. +1380.6 FT
HAMMER ENERGY: RATIO (ERT)=84%

EXHIBIT B-3



PLACENTIA AVENUE OVERHEAD (WIDEN)
LOG OF TEST BORINGS
NO. 3 OF 3

EARTH MECHANICS, INC.
PLACEMENT A. THOMAS
PROJECT ENGINEER
DATE
1000 W. 10TH ST., SUITE 100
PLACENTIA, CALIF. 92679
Tel: 714/992-1200

ENGINEERING GEOLOGY BRANCH - TRANSPORTATION LABORATORY
FERNANDO J. JARQUE B. VICTOR BUSTOS
FERNANDO JARQUE

FIELD INVESTIGATION BY
08-01-65 to 08-21-65
DATE
Drawn by: See Drawing
Checked by: See Drawing
Project No.: 580-00-00
SHEET NO. 3 OF 3

AS-BUILT
08-01-65 to 08-21-65
DATE

REVISIONS

NO.	DATE	DESCRIPTION

PLACENTIA AVENUE OVERHEAD (WIDEN)
LOG OF TEST BORINGS
NO. 3 OF 3

Exhibit B-4

To Construction and Maintenance Agreement for PLACENTIA AVENUE OVERHEAD BRIDGE WIDENING

Standard Provisions page and
Structures Special Provisions



Mid County
PARKWAY

STANDARD PROVISIONS

STANDARD PROVISIONS

FOR CONSTRUCTION OF INTERSTATE 215/PLACENTIA AVENUE INTERCHANGE PROJECT FROM 0.1 MILE SOUTH OF NUEVO ROAD OVERCROSSING TO 0.5 MILE NORTH OF OLEANDER AVENUE OVERCROSSING (PM R27.9 TO PM R32.8) IN RIVERSIDE COUNTY, CALIFORNIA

RCTC Agreement No. XX-XX-XXX-XX



RIVERSIDE
COUNTY
TRANSPORTATION
COMMISSION

Mid County
PARKWAY

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 Lemon Street, 3rd Floor
P.O. Box 12008
Riverside, CA 92502-2208

PART "C"
SPECIAL PROVISIONS

Caltrans EA 08-0F3214

RCTC Agreement No. xx-xx-xxx-xx

EXHIBIT B-4

Design Oversight Approval		Registration No.	Date
Printed Name	Signature		
Justine Niu		C62897	

The special provisions contained herein have been prepared by or under the direction of the following Registered Persons.

STRUCTURES

REGISTERED CIVIL ENGINEER DATE



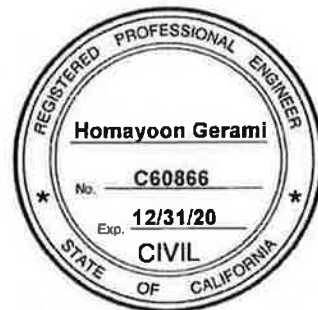
ROADWAY & TRAFFIC

REGISTERED CIVIL ENGINEER DATE



DRAINAGE

REGISTERED CIVIL ENGINEER DATE



LANDSCAPE

REGISTERED LANDSCAPE ARCHITECT DATE



ELECTRICAL

REGISTERED CIVIL ENGINEER DATE



DIVISION VI STRUCTURES

49 PILING

Add to section 49-1.03:

Expect difficult pile installation due to the conditions shown in the following table:

Pile location		Conditions
Bridge no.	Support location	
<u>56-0763</u>	<u>Abutment 1, Bent 2 and Abutment 3</u>	<u>Dense to very dense coarse-grained soils as well as the presence of cobbles and gravels. Bedrock may be inclined and this may cause horizontal translation of the excavation (cutting) device, if drilling is in contact with bedrock. If caving occurs, a temporary casing may be required during construction. In the event that any boring becomes bell-shaped and cannot be advanced, all loose material should be removed from the bottom of the boring and the caved region filled with a low strength sand-cement slurry. Drilling may continue when the slurry has reached its initial set. Refer to the Foundation Report for CIDH Pile Construction requirements.</u>
<u>56C-0450</u>	<u>Bent 2 and Bent 3</u>	<u>Dense to very dense coarse-grained soils as well as the presence of cobbles and gravels. A full-length temporary casing, installed using either an oscillator or a rotator can be used for controlling caving. In lieu of the full-length casing, a temporary casing and/or polymer drilling fluid can also be considered to control caving. When polymer slurry is used, gamma-gamma testing will be required. A permanent casing, installed using either an oscillator or a rotator, to prevent possible soil caving during excavation to construct the 72-inch diameter CIDH piles adjacent to the railroad tracks is required. In the event that any boring becomes bell-shaped and cannot be advanced, all loose material should be removed from the bottom of the boring and the caved region filled with a low strength sand-cement slurry. Drilling may continue when the slurry has reached its initial set. Piling center-to-center spacing is less than 3 pile diameters. Refer to the Foundation Report for CIDH Pile Construction requirements.</u>
<u>56C-0450</u>	<u>Bent 3</u>	<u>Existing Fiber Optic Line (protect-in-place)</u>

Add to section 49-3.02B(6)(c):

The synthetic slurry must be one of the materials shown in the following table:

EXHIBIT B-4

Material	Manufacturer
SlurryPro CDP	KB INTERNATIONAL LLC 735 BOARD ST STE 209 CHATTANOOGA TN 37402 (423) 266-6964
Super Mud	PDS CO INC 105 W SHARP ST EL DORADO AR 71731 (870) 863-5707
Shore Pac GCV	CETCO CONSTRUCTION DRILLING PRODUCTS 2870 FORBS AVE HOFFMAN ESTATES IL 60192 (800) 527-9948
Terragel or Novagel Polymer	GEO-TECH SERVICES LLC 220 N. ZAPATA HWY STE 11A-449A LAREDO TX 78043 (210) 259-6386
BIG FOOT	MATRIX CONSTRUCTION PRODUCTS 50 S MAIN ST STE 200 NAPERVILLE IL 60540 (877) 591-3137
POLY-BORE	BAROID INDUSTRIAL DRILLING PRODUCTS 3000 N SAM HOUSTON PKWY EAST HOUSTON TX 77032 (877) 379-7412

Use synthetic slurries in compliance with the manufacturer's instructions. Synthetic slurries shown in the above table may not be appropriate for a given job site.

Synthetic slurries must comply with the Department's requirements for synthetic slurries to be included in the above table. The requirements are available from the Offices of Structure Design, P.O. Box 168041, MS# 9-4/11G, Sacramento, CA 95816-8041.

SlurryPro CDP synthetic slurry must comply with the requirements shown in the following table:

SlurryPro CDP		
Quality characteristic	Test method	Requirement
Density During drilling (pcf)	Mud weight (density), API RP 13B-1, section 4	≤ 67.0 ^a
Before final cleaning and immediately before placing concrete (pcf)		≤ 64.0 ^a
Viscosity During drilling (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	50–120
Before final cleaning and immediately before placing concrete (sec/qt)		≤ 70
pH	Glass electrode pH meter or pH paper	6.0–11.5
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.

^aIf authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

EXHIBIT B-4

Super Mud synthetic slurry must comply with the requirements shown in the following table:

Super Mud		
Quality characteristic	Test method	Requirement
Density During drilling (pcf)	Mud weight (density), API RP 13B-1, section 4	≤ 64.0 ^a
Before final cleaning and immediately before placing concrete (pcf)		≤ 64.0 ^a
Viscosity During drilling (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	32–60
Before final cleaning and immediately before placing concrete (sec/qt)		≤ 60
pH	Glass electrode pH meter or pH paper	8.0–10.0
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.

^aIf authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

Shore Pac GCV synthetic slurry must comply with the requirements shown in the following table:

Shore Pac GCV		
Quality characteristic	Test method	Requirement
Density During drilling (pcf)	Mud weight (density), API RP 13B-1, section 4	≤ 64.0 ^a
Before final cleaning and immediately before placing concrete (pcf)		≤ 64.0 ^a
Viscosity During drilling (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	33–74
Before final cleaning and immediately before placing concrete (sec/qt)		≤ 57
pH	Glass electrode pH meter or pH paper	8.0–11.0
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.

^aIf authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

EXHIBIT B-4

Terragel or Novagel Polymer synthetic slurry must comply with the requirements shown in the following table:

Terragel or Novagel Polymer

Quality characteristic	Test method	Requirement
Density During drilling (pcf)	Mud weight (density), API RP 13B-1, section 4	≤ 67.0 ^a
Before final cleaning and immediately before placing concrete (pcf)		≤ 64.0 ^a
Viscosity During drilling (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	45–104
Before final cleaning and immediately before placing concrete (sec/qt)		≤ 104
pH	Glass electrode pH meter or pH paper	6.0–11.5
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.

^aIf authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

BIG-FOOT synthetic slurry must comply with the requirements shown in the following table:

BIG-FOOT

Quality characteristic	Test method	Requirement
Density During drilling (pcf)	Mud weight (density), API RP 13B-1, section 4	≤ 64.0 ^a
Before final cleaning and immediately before placing concrete (pcf)		≤ 64.0 ^a
Viscosity During drilling (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	30–125
Before final cleaning and immediately before placing concrete (sec/qt)		55–114
pH	Glass electrode pH meter or pH paper	8.5–10.5
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.

^aIf authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

EXHIBIT B-4

POLY-BORE synthetic slurry must comply with the requirements shown in the following table:

POLY-BORE		
Quality characteristic	Test method	Requirement
Density During drilling (pcf)	Mud weight (density), API RP 13B-1, section 4	62.8-65.8 ^a
Before final cleaning and immediately before placing concrete (pcf)		62.8-64.0 ^a
Viscosity During drilling (sec/qt)	Marsh funnel and cup. API RP 13B-1, section 6.2	50-80
Before final cleaning and immediately before placing concrete (sec/qt)		50-80
pH	Glass electrode pH meter or pH paper	7.0-10.0
Sand content, percent by volume Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 1.0

NOTE: Slurry temperature must be at least 40 °F when tested.

^aIf authorized, you may use slurry in a salt water environment. The allowable density of slurry in a salt water environment may be increased by 2 pcf.

Replace *Reserved* in section 49-3.02B(6)(d) with:

You may use water as slurry if a casing is used for the entire length of the drilled hole.

Water slurry must comply with the requirements shown in the following table:

Water Slurry Requirements		
Quality characteristic	Test method	Requirement
Density Before final cleaning and immediately before placing concrete (pcf)	Mud weight (density), API RP 13B-1 section 4	63.5 ^a
Sand content Before final cleaning and immediately before placing concrete (%)	Sand, API RP 13B-1, section 9	≤ 0.5

^aIf authorized, you may use salt water slurry. The allowable density of the slurry may be increased by 2 pcf.

Add to section 49-3.02C(1):

If the piling center-to-center spacing is less than 3 pile diameters, do not drill holes or drive casing for an adjacent pile until 24 hours have elapsed after concrete placement in the preceding pile and your prequalification test results for the concrete mix design show that the concrete will attain at least 1800 psi compressive strength at the time of drilling.

Add to section 49-3.02C(6):

Install permanent steel casings at Placentia OH Br. No. 56C-0450 at Bent 2 and Bent 3 by , oscillators or rotators.

Replace item 5 in the list in the 2nd paragraph of section 49-3.02C(7) with:

5. Be installed by , oscillators or rotators.

AA

50 PRESTRESSING CONCRETE

Replace the 2nd paragraph of section 50-1.01C(3) with:

For initial review, submit:

- 1. 6 copies for structures other than railroad bridges

AA

51 CONCRETE STRUCTURES

Add to section 51-1.01A:

The concrete behind ramp gores as contrasting surface treatment must be integrally pigmented colored concrete. The color must match color no. 60170 of FED-STD-595.

Add to the list in the 6th paragraph of section 51-1.01A:

9. Approach slabs

Concrete for concrete bridge decks must contain polymer fibers. Each cubic yard of concrete must contain at least 1 pound of microfibers and at least 3 pounds of macrofibers.

Concrete for concrete bridge decks must contain a shrinkage reducing chemical admixture. Each cubic yard of concrete must contain at least 3/4 gallon of a shrinkage reducing admixture. If you use the maximum dosage rate shown on the Authorized Material List for the shrinkage reducing admixture, your submitted shrinkage test data does not need to meet the shrinkage limitation specified.

Add to the list in the 2nd paragraph of section 51-1.03F(3):

- 9. Surfaces of concrete pilasters at Placentia Ave OC Br. No. 56-0763.

Add to section 51-1.03G(1):

The brick texture as shown on the bridge plans, must match the texture, color, and pattern of the referee sample available for inspection by bidders as determined by the engineer, district landscape architect, and the City of Perris.

Replace the 2nd paragraph of section 51-1.03H with:

Cure the top surface of bridge decks by (1) misting and (2) the water method using a curing medium under section 90-1.03B(2). After strike off, immediately and continuously mist the deck with an atomizing nozzle that forms a mist and not a spray. Continue misting until the curing medium has been placed and the application of water for the water method has started. At the end of the curing period, remove the curing medium and apply curing compound on the top surface of the bridge deck during the same work shift under section 90-1.03B(3). The curing compound must be curing compound no. 1.

Delete the 4th paragraph of section 51-1.03H.

Add to section 51-1.04:

The payment quantity for brick texture, as shown on the bridge plans, is included with the payment for architectural surface (barrier).

At Placentia Ave OC Br. No. 56-0763, the payment quantity for city seal fusion sign, as shown on the bridge plans, is included with the payment for architectural surface (barrier).

At Placentia Ave OC Br. No. 56-0763, the payment quantity for concrete pilasters, as shown on the bridge plans, is included with the payment for structural concrete (bridge) and bar reinforcing steel (bridge).

AA

56 OVERHEAD SIGN STRUCTURES, STANDARDS, AND POLES

Replace *Reserved* in section 56-2.03B(2) with:

Section 56-2.03B(2) includes specifications for removing a sign structure.

Removing an overhead sign structure includes removing:

1. Frames, braces, supports, and brackets
2. Portions of foundations
3. Sign panels
4. Mounting hardware for light fixtures
5. Walkways, safety railing, gutter
6. Electrical equipment for sign lighting
7. Hardware
8. Posts

You may abandon concrete foundations in place, except remove the top portion of the foundation, including anchor bolts, reinforcing steel, and conduits, to a depth of at least 3 feet below the adjacent finished grade. Backfill and compact the resulting holes with material at least equal in quality to the surrounding material.

Remove the sign's conduit and wiring to the nearest pull box. Remove fuses within spliced connections in the pull box.

AA

59 STRUCTURAL STEEL COATINGS

Replace "Reserved" in section 59-11 with:

59-11 POWDER COATING GALVANIZED METAL SURFACES at Placentia Ave OC Br. No. 56-0763

59-11.01 GENERAL

59-11.01A Summary

Section 59-11 includes specifications for preparing and coating galvanized metal surfaces with polyester powder coating.

59-11.01B Definitions

Reserved

59-11.01C Submittals

Submit a certificate of compliance for each production batch of powder coating.

59-11.01D Quality Control and Assurance

59-11.01D(1) General

Acceptance of the polyester powder must be based on the quality control test results required on the manufacturer's certification. The coating applicator must review certification for compliance and maintain a file of them.

59-11.01D(2) Prequalification of Coating

Prequalify the polyester powder with a trial batch using the same materials, proportions, equipment, procedures and batch size to be used in polyester powder coating production.

The polyester powder trial batch must comply with the requirements in the following table:

Table 1 Polyester Prequalification Requirements

TEST PROPERTY	TEST METHOD	SPECIFICATION LIMITS
Abrasion Resistance	Taber Abraser CS-10, 1000 gm load, 1000 cycles, D 1044	100 mg max weight loss
Adhesion	ASTM D 3359, Method A (Bonderite 1000 panel)	Rating 5A
Gloss	ASTM D 525, 60° initial	30 - 45 per Fed. Std 595
Hardness	ASTM D 3363	Min 2H - No gouge
Impact	ASTM D 2794	Pass 80 in. lb
Salt Spray Resistance	ASTM B 117, D 1654 1000 hr (Bonderite 1000 panel)	Table 2, Rating 7
Thickness	ASTM G 12	7 ± 2 mils
Color	ASTM E 1331 or ASTM E 1338	Match Fed. Std. 595 color no.
Infrared Spectrogram	Equipment manufacturer's procedures	Manufacturer's IR
Weather Resistance	ASTM D 4587, test condition D Conduct test with a UVA lamp (340 nm peak) for 1000 hr	50 % min gloss retention
Specific Gravity	D 5965	Manufacturer's result

The physical tests shown are only required to prequalify the powder coating, and will not be required for certification.

59-11.01D(3) Certification

Certification for polyester powder must comply with the requirements in the following table:

Table 2 Polyester Certification Requirements

TEST PROPERTY	TEST METHOD	SPECIFICATION LIMITS
Infrared Spectrogram	ASTM D 2621	Match prequalification sample
Taber Abrasion Resistance, mg loss, max	ASTM D 4060	100
Specific Gravity	ASTM D 5965 (Method A)	Prequalification sample ± 0.02
Color	ASTM E 1331 or ASTM E 1338	Match Fed. Std. 595 color no.

59-11.02 MATERIALS

Polyester powder must be a super durable TGIC (Triglycidyl Isocyanurate) polyester .

Touch up system must be a two-component aliphatic polyurethane as supplied by the manufacturer and color matched for patching the fusion bonded polyester coating.

59-11.03 CONSTRUCTION**59-11.03A General**

Clean and coat all exposed galvanized metal surfaces.

EXHIBIT B-4

Before applying the polyester powder to galvanized metal surface, the applicator must demonstrate the ability to properly apply and cure the materials.

Perform cleaning and coating in an environmentally controlled plant that is fully enclosed and authorized.

For measuring of polyester powder coating complying with ASTM D 1186, the thickness must be 7 ± 2 mils. For measuring of cured coating complying with ASTM D 3363, the pencil hardness must be 2H.

The color coat must match color no. 20061, Mahogany Brown, of FED-STD-595. Use a 67 1/2 volt wet sponge detector to check polyester powder coatings for holidays, pinholes, and discontinuities. There must be no more than one deficiency per 5 square feet. Perform check in the presence of the Engineer.

Coating thickness of the touch up material must be the same thickness as the polyester and can be applied in multiple coats.

59-11.03B Surface Preparation

59-11.03B (1) General

Reserved

59-11.03B (1) Cleaning and Coating

59-11.03B(1)(a) General

The surface of the material shall be prepared by solvent cleaning conforming to SSPC-SP 1.

59-11.03B(1)(b) Brush-Off Blast Cleaning

Brush-off blast clean prepared surfaces under SSPC-SP 7. After brush-off blast cleaning, surfaces must have a profile of 0.75 to 1.25 mils when measured under ASTM D 4417, Method C. When the blast cleaning exposes bare steel, the bare steel must be spot primed with an organic zinc rich coating. The polyester powder must be applied within 24 hours of surface preparation.

59-11.03C Protecting

59-11.03C(1) General

Protect pieces of coated surfaces during transportation by placing protective padding below the first piece, between all other pieces, and above the top piece. During handling and installation, care must be taken to protect the coated surfaces by the use of slings, padding or other appropriate means. Chains must not be used to handle coated pieces.

59-11.03D Repairing

59-11.03D(1) General

Repair chipped, scratched, blistered, or other surface areas separated from the base metal using a repair kit supplied by the manufacturer and complying with the manufacturer's instructions. Repairs must be completed to the satisfaction of the Engineer or must be replaced at the Contractor's expense. An additional, unused repair kit supplied by the manufacturer for each color used must be provided to the Engineer.

59-11.03E Coating Miscellaneous Components

Repair chipped, scratched, blistered, or other surface areas separated from the base metal. Miscellaneous components that can not be powder coated including all anchor bolts, studs, nuts and washers must be coated with a two component aliphatic polyurethane of the same color and thickness as the surrounding powder coating. Follow the specifications of the manufacturer of the two component aliphatic polyurethane coating for surface preparation and application.

Prior to application of two component aliphatic polyurethane coating all exposed threads of anchor bolts, bolts, studs and any abraided galvanized surfaces of nuts and washers must be cleaned and coated with 2 applications of organic zinc-rich primer under Section 75-1.05, GALVANIZING.

59-11.04 PAYMENT

Payment for powder coated plates, as shown on the bridge plans, is included in the payment for architectural treatment (fence).

AA

60 EXISTING STRUCTURES

Add to section 60-2.01A:

Remove the following structures or portions of structures:

Bridge no./Structure name	Description of work
<p><u>56-0763</u></p>	<p><u>At South Edge of Deck: Existing south overhang, Type 25 barrier and curb, chain link railing, AC at trail, portion of wingwall, and shear key, as shown on the bridge plans.</u></p> <p><u>At North Edge of Deck: Existing Type 26 barrier and chain link railing, and portion of wingwall, as shown on the bridge plans.</u></p> <p><u>At Abutment 1 and Abutment 3: Existing portion of abutment backwall, as shown on bridge plans.</u></p> <p><u>At South Edge of Slope Paving: Existing edge of slope paving to be partially removed, as shown on the bridge plans.</u></p> <p><u>At Bent 2: Existing columns isolation flare retrofit shall be constructed as shown on the bridge plans. Cut and remove existing column flare reinforcement and protect-in-place existing main column reinforcing and hoops, as shown on the bridge plans.</u></p>
<p><u>56C-0450</u></p>	<p><u>At South Edge of Deck: Existing south overhang, Type 25 barrier and curb, chain link railing, AC at trail, and portion of wingwall, as shown on the bridge plans.</u></p> <p><u>At North Edge of Deck: Existing Type 26 barrier and chain link railing, and portion of wingwall, as shown on the bridge plans.</u></p> <p><u>At South Edge of Slope Paving: Existing edge of slope paving to be partially removed, as shown on the bridge plans.</u></p>

Add to section 60-2.02A(3):

For the following bridges or portions of bridges, allow the days shown in the following table for the review of the bridge removal work plan:

Bridge or portion of bridge	Review time (days)
56-0763	25
56C-0450	40

Exhibit D-1

To Construction and Maintenance Agreement
for
PLACENTIA AVENUE OVERHEAD
BRIDGE WIDENING

Engineers Estimate of Probable Cost
for Work within Railroad Property

I-215/Placentia Avenue Interchange Project
ENGINEER'S ESTIMATE OF PROBABLE COST (PRELIMINARY)
Work within Railroad Property Only

BID ITEM CONTRACT COST

ROADWAY ITEMS	\$570,000
STRUCTURE ITEMS	\$2,297,000
TOTAL BID ITEMS	\$2,867,000
CONTINGENCIES (10%)	\$286,700
SUBTOTAL	\$3,153,700
CONSTRUCTION SUPPORT (15%)	\$473,055
<hr/>	
TOTAL PROJECT COSTS (WITHIN RAILROAD)	\$3,626,755

END EXHIBIT D-1

Exhibit D-2

To Construction and Maintenance Agreement

for

PLACENTIA AVENUE OVERHEAD

BRIDGE WIDENING

SCRRA Scope of Work and Estimate

(RAILROAD WORK)

	Months	Hours/month	Hourly rate (fully burdened)	Total (\$)
A) SCRRRA Staff & Consultants				
Project Manager	27	20	\$250	135,000.00
Inspector	20	20	\$150	60,000.00
Admin/Contracts/ Miscellaneous	24	8	\$250	48,000.00
B) SCRRRA Contractors				
Track				LS 50,000.00
Signal/Comms				LS 8,000.00
Flagging	20	22 shifts	\$1,750/shift	770,000.00
RWP Training	20	2 classes	\$1,000/class	40,000.00
Cable Marking	20		\$500	10,000.00
				\$1,121,000.00

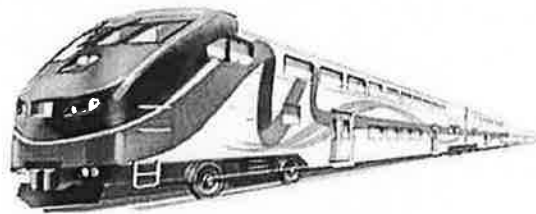
Notes:

- 1) Project construction schedule assumed to be 24 months with additional 3 months close-out.
- 2) Construction directly affecting Metrolink operations/infrastructure assumed to be 20 months
- 3) Track contractor to undertake track removal and replacement for new culvert construction
- 4) Signal/Comms to support track panel replacement and fiber line protection
- 5) The cost of the SCRRRA services shown is an estimate only and RCTC will reimburse SCRRRA on the basis of actual costs and expenses
- 6) RCTC shall reimburse SCRRRA the actual costs and expenses incurred by its contractors and consultants for all services and work performed in connection with this project, including an allocated overhead representing SCRRRA's costs for administration and management

Exhibit E-1

To Construction and Maintenance Agreement
for
PLACENTIA AVENUE OVERHEAD
BRIDGE WIDENING

SCRRA Form 37 Rules and Requirements for
Construction on SCRRA Property and List of
Submittals



METROLINK



SCRRRA FORM 37

**RULES AND REQUIREMENTS FOR
CONSTRUCTION ON SCRRRA RIGHT-OF-WAY**

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Rules and Requirements for Construction on SCRRA Right-of-Way

TABLE OF CONTENT

1.0 GENERAL 1

 1.1 Purpose..... 1

 1.2 Definitions..... 1

 1.3 Acronyms 2

 1.4 General Requirements of the Contractor 3

 1.5 Submittals..... 4

 1.6 Reimbursement of Costs and Expenditures..... 8

2.0 SCRRA SAFETY SERVICES 8

 2.1 SCRRA Employee-In-Charge (EIC)..... 8

 2.2 Right to Challenge Sufficiency on On-Track Safety 9

 2.3 Work Requiring Protection of Track and Operations 9

3.0 CONTRACTOR SAFETY REQUIREMENTS 10

 3.1 Contractor General Safety Requirements 10

 3.2 Personnel Protective Equipment..... 12

 3.3 Maintenance of Work Area 13

 3.4 General Precautions When Working Near Electrical Conductors..... 13

 3.5 Safety Training and Communication 14

 3.6 Emergency Response and Accident Reporting..... 15

4.0 TRACK OCCUPANCY AND WORK WINDOWS 16

 4.1 Description of Location and Traffic..... 16

 4.2 Coordination with Rail Traffic..... 17

 4.3 Work Windows and Track Access..... 17

 4.4 Requesting Work Windows..... 19

 4.5 Project Specific Work Windows 21

 4.6 Extraordinary Work..... 21

 4.7 Track Back In Service..... 22

 4.8 SCRRA Service Impacts and Damages..... 22

5.0 CONSTRUCTION 23

 5.1 Demolition and Removal..... 23

 5.2 Storage of Materials and Equipment..... 24

 5.3 Excavation and Backfill..... 25

 5.4 Shoring and Support of Excavation..... 26

 5.5 Drilling and Pile Driving..... 27

 5.6 Boring and Jacking 27

 5.7 Temporary Structures..... 28

 5.8 Hoisting Operations 28

 5.9 Clearances 30

 5.10 Temporary Vehicular Traffic Control 31

 5.11 Performance Bond..... 32

Rules and Requirements for Construction on SCRRRA Right-of-Way

6.0 UTILITIES 32

6.1 Protection of Underground Facilities 32

7.0 HAZARDOUS AND CONTAMINATED MATERIALS 34

7.1 Discharge 34

7.2 Notification, Control and Disposal 34

8.0 INSPECTION AND OBSERVATION 34

8.1 Site Inspections by SCRRRA and Others 34

8.2 SCRRRA Efficiency Testing 35

8.3 Scope of Inspections and Observations 35

9.0 CLEANING AND RESTORATION 35

9.1 Cleaning of Right-of-Way 35

EXHIBITS

Exhibit A Site Specific Work Plan (SSWP) - Scope of SSWP 36

Exhibit B Site Specific Work Plan (SSWP) Checklist 38

Exhibit C Construction Submittal Checklist 42

Exhibit D Sample Site Specific Work Window 43

Rules and Requirements for Construction on SCRRRA Right-of-Way

1.0 GENERAL

1.1 Purpose

- A. The rules and requirements are adopted to protect the Southern California Regional Rail Authority's (SCRRRA) operations, including the proper manner of protecting the tracks, signals, fiber optic cables, pipe lines, other Right-of-Way, and tenants or licensees upon, adjacent to, across (under, and/or over), and along SCRRRA and Member Agency Right-of-Way during the construction and/or maintenance activities on or adjacent to the Right-of-Way.
- B. The information in this document is intended to improve communication and cooperation on construction and improvement projects that may involve the railroad Right-of-Way. The goal of SCRRRA is the facilitation of a safe work environment for its employees, Contractor's employees, and for the public.
- C. SCRRRA must give careful consideration to anything that could adversely affect customer service, funding shortfalls for the services provided by SCRRRA for use of railroad Right-of-Way, and risk to railroad operation.

1.2 Definitions

- Contractor** Contractor is an individual, firm, third party, partnership or corporation, or combination thereof, private, municipal or public, including joint ventures, retained by SCRRRA or another public entity to provide construction or maintenance services which may impact Right-of-Way and who is referred to throughout this document by singular number and masculine gender.
- Member Agency** The county transportation agency whose property is directly affected by the Project. SCRRRA Member Agencies include: the Los Angeles Metropolitan Transportation Authority (METRO), the Orange County Transportation Authority (OCTA), the Riverside County Transportation Commission (RCTC), the San Bernardino Associated Governments (SANBAG) and the Ventura County Transportation Commission (VCTC).
- Operating Envelope** An imaginary line, measured 20 feet horizontally from the rail on the track on which trains or "on-track" equipment operate or may potentially operate. The Operating Envelope also includes the width and length of any active station platform. This imaginary pair of lines, which define the outside boundaries of the Operating Envelope, extend vertically up and down infinitely.
- Operating System** Includes but is not limited to the tracks on which trains and on-track equipment operate or may potentially operate, and in addition any facilities closely related to the operation of the railroad system including signal and communication masts, bridges, poles, cables, and houses, track bridges, tunnels, culverts, grade crossings and station platforms."

Rules and Requirements for Construction on SCRRA Right-of-Way

- Project** The work (products, materials, facilities and improvements as required by the contract) to be performed pursuant to the contract documents.
- Public Agency** Public Agency is defined to mean (i) the federal government and any agencies, departments or subdivisions thereof, and (ii) the State of California or any other state, and any Public Agency, city, city and Public Agency, district, public authority, Public Agency, joint powers, municipal corporation, or any other political subdivision or public corporation therein.
- Right-of-Way** Right-of-Way is defined herein to mean the real and/or personal property of SCRRA or Member Agency(s).
- SCRRA** Southern California Regional Rail Authority (SCRRA) is a five-county joint powers authority, created pursuant to California Public Utilities Code Section 130255 and California Government Code Sections 6500 et seq., to build and operate the "METROLINK" commuter train system. The five-county member agencies are: Los Angeles County Metropolitan Transportation Authority ("METRO"), Ventura County Transportation Commission, Orange County Transportation Authority, San Bernardino Associated Governments, and Riverside County Transportation Commission. SCRRA builds, operates and maintains a commuter rail system in the five-county area on rail rights-of-way owned by the member agencies.
- SSWP** Site Specific Work Plan (SSWP) is a program, plan, and schedule prepared and submitted by the Contractor and approved by SCRRA that accurately describes and illustrates the manner in which work within the Right-of-Way will be accomplished; the impacts on any elements of the Right-of-Way, SCRRA operations, SCRRA facilities; and the manner in which work will be accomplished with SCRRA allotted work windows.

1.3 Acronyms

The following acronyms are used in this document:

AASHTO	American Association of State Highway and Transportation Officials
ANSI	American National Standards Institute
	American Public Works Association
AREMA	American Railway Engineering and Maintenance of Way Association
ASTM	American Society for Testing and Materials
BNSF	Burlington Northern & Santa Fe Railway
Caltrans	California Department of Transportation

Rules and Requirements for Construction on SCRRRA Right-of-Way

CPUC	California Public Utilities Commission
DOC	Dispatch and Operations Center
EIC	Employee-In-Charge
FRA	Federal Railway Administration
METRO	Los Angeles County Metropolitan Transportation Authority
MUTCD	Manual of Uniform Traffic Control Devices
OCTA	Orange County Transportation Authority
OSHA	Occupational Safety and Health Administration
PPE	Personnel Protective Equipment
PTC	Positive Train Control
RCTC	Riverside County Transportation Commission
SANBAG	San Bernardino Associated Governments
SCRRRA	Southern California Regional Rail Authority
SSWP	Site Specific Work Plan
UPRR	Union Pacific Railroad
VCTC	Ventura County Transportation Commission
WATCH	Work Area Traffic Control Handbook

1.4 General Requirements of the Contractor

- A. All railroad tracks within and adjacent to the Project site are to be assumed active and rail traffic over these tracks must be maintained throughout the Project. Rail traffic may include both through trains and switching moves to local customers. SCRRRA and other railroad traffic and operations can occur continuously throughout the day and night on these tracks and may not be interrupted except as approved by SCRRRA and the other operating railroads using the tracks. The Contractor shall coordinate and schedule the work so that construction activities do not interfere with rail operations.
- B. The Contractor, and its sub-contractors of any tier (collectively referred to as the Contractor), must coordinate its work with SCRRRA during construction of the Project when any of the following conditions are present:
 - 1. Where work is performed on the Right-of-Way of SCRRRA;
 - 2. When the work is over or under or adjacent to the tracks of SCRRRA;
 - 3. When excavations are performed within 30-feet of the centerline of the nearest track; or
 - 4. When the work has the potential to foul (obstruct) any track or reduce any clearance below the allowable minimum.
- C. The Contractor may not move, relocate, remove, obstruct, or otherwise interfere with any railroad tracks, signals, cables, signs, flags, or other railroad facilities, or any service or connection to any railroad facility. All work on SCRRRA tracks, signals, communication equipment, and other railroad facilities must be performed by SCRRRA.
- D. The Contractor's ability to enter Right-of-Way is subject to the absolute right of

Rules and Requirements for Construction on SCRRRA Right-of-Way

SCRRRA to cause the Contractor's work on Right-of-Way to cease if, in the sole opinion of SCRRRA, the Contractor's activities create a hazard to Right-of-Way, or SCRRRA employees, or SCRRRA operations, or any combination thereof.

- E. The Contractor shall inform itself of the expected train movements over the tracks in the vicinity of the work prior to developing its plans for any portion of the work. The Contractor must plan, schedule and conduct all work activities so as not to interfere with the movement of any trains.
- F. The Contractor shall obtain permission in writing from SCRRRA for movement of equipment on track or across tracks at locations other than public crossings. Such permission may not necessarily be granted. If it is granted, the Contractor shall comply with any condition required such as, but not limited to, the bridging of rail and protection of ballast section. Damages to the track structure will be repaired at the Contractor's sole expense.
- G. The Contractor shall perform no work on Right-of-Way until all its employees, including sub-contractors of any tier, have attended and passed the safety orientation class described in SCRRRA Form 6, "Temporary Right-of-Entry Agreement".
- H. The Contractor shall adequately supervise all work performed by its employees and Subcontractors. Subcontractors of any tier, suppliers, owner-operators, and invitees of the Contractor are not recognized as such by SCRRRA and are to be considered as employees of the Contractor for the purpose of carrying out the Contractor's obligations while working on, over, or adjacent to Right-of-Way.

1.5 Submittals

- A. Whenever work is performed within the vicinity of Right-of-Way, or when work may affect the operation or safety of trains, or for temporary or short-term uses of Right-of-Way, appropriate right-of-entry agreements and the method of performing the work shall first be submitted to SCRRRA Representative for approval. SCRRRA Form No. 4, "Agreement for Moving Oversized Loads Over Highway-Rail Grade Crossings" for the movement of oversize vehicles over the crossings; SCRRRA Form No. 5, "Indemnification and Assumption of Liability Agreement" for temporary uses of rights of way (such as surveying activities and shallow geotechnical investigations); and SCRRRA Form No. 6, "Temporary Right-of-Entry Agreement" for projects involving construction shall be submitted to SCRRRA for review and approval.
- B. SSWP:
 - 1. All work with the potential to impede the normal functioning of any part of the Operating System shall include a detailed SSWP's showing schedule of events, indicating the expected hourly progress of each activity that has duration of one hour or longer. The schedule shall include a time at which each activity planned under the SSWP and the requested Work Window will be completed, and the total duration of all the construction

Rules and Requirements for Construction on SCRRA Right-of-Way

activities shall be less than the approved Work Window. Failure of the Contractor to complete the scheduled activities by the planned time or to put in place an approved contingency plan may adversely affect the operations of scheduled trains.

2. The Contractor shall refer to SCRRA's Site Specific Work Plan Scope of SSWP (Exhibit A) prior to submitting SSWP. The Contractor shall submit SCRRA's SSWP Checklist (Exhibit B).
3. The SSWP shall include at minimum the information specified below.
 - a. The SSWP shall include scope, brief schedule, location, equipments, material and staging, schedule, haul routes, safety plan, contingency plan, worksite representative, emergency response plan, excavation plan, boring and jacking plan, drilling and pile driving plan, falsework plan, and temporary traffic control plan.
 - b. All activities necessary to perform construction activities within the Operating Envelope, including use of stations, tracks, signals, proposed storage areas and any other railroad facility.
 - c. A description of any proposed changes in the Operating System between start and finish of the work, including any requested Work Windows.
 - d. A schedule of the work, showing each activity and where and how it affects normal operation of the Operating System. This schedule shall integrate and allow for the necessary work of the Signal and Communication forces. Each activity in the plan shall include all labor, materials, and equipment required to complete the activity within SCRRA allotted time period. The Contractor shall identify on the schedule all SCRRA furnished labor, equipment and materials.
 - e. The Contractor shall have SCRRA approved contingency plans for putting the Operating System back in operation in case of an emergency, or in case the Contractor fails to perform and complete the work on time. The contingency plans shall address the various stages of activities necessary to restore the System.
 - f. List all of the approved proposed work plans to be performed under the SSWP, and provide the name(s) and number(s) of the Contractor's supervisor(s) in charge of the SSWP tasks.
 - g. Plans showing all the existing underground and overhead utilities, including SCRRA's signal and communications cables when the excavation, boring and jacking, and drilling & pile driving work is within twenty feet of railroad tracks. The plans will show the actual locations of utilities based on potholing operation.

Rules and Requirements for Construction on SCRRA Right-of-Way

4. The SSWPs must be of sufficient detail, clarity, and organization to permit easy review and approval by SCRRA before the proposed work is performed. The SSWP shall be submitted and approved prior to starting work. The Contractor shall anticipate obtaining approvals from SCRRA as follows:
 - a. At least 14 calendar days prior to start of the work within the Operating Envelope for work other than signal or third-party activity.
 - b. At least 30 calendar days prior to the start of work for work involving signal or third-party installation.
 5. SCRRA may request explanations and changes to the SSWP to conform the SSWP to the requirements of the Contract Documents. If the SSWP is not acceptable, the Contractor shall revise the SSWP to make it acceptable. The Contractor is responsible for submitting a revised SSWP that can be reviewed and approved by SCRRA at least seven days in advance of any work that affects the Operating System.
 6. The Contractor will be informed if the SSWP is acceptable not less than seven calendar days prior to the scheduled start of work within the Operating Envelope. Once the plan is accepted, the Contractor shall assemble the resources necessary to perform the work represented by the SSWP, so that necessary resources are available one calendar day before the work is to be accomplished, thereby demonstrating to SCRRA the readiness of the Contractor to perform the work. At this time, SCRRA will make a final decision as to whether or not the Work is to proceed as planned or be canceled.
- C. The Contractor shall provide a detailed construction schedule to SCRRA for review and approval prior to commencement of work within or adjacent to the Right-of-Way. The Contractor shall use activity codes to identify specific activities that involve work within or adjacent to Right-of-Way. Activities that involve working within reduced clearances must also be identified by a unique activity code. This schedule shall be updated for all critical events as necessary but not less than monthly so that site visits may be scheduled at the appropriate times. A copy of each schedule update shall be furnished to SCRRA. The Contractor shall also furnish SCRRA, at the beginning of each week, with a look-ahead schedule projecting the Contractor's activities for three weeks in advance of the week in which the look-ahead schedule is issued.
- D. For major construction projects, the Contractor shall submit, as soon as possible, but no later than 20 working days after a Notice to Proceed (NTP) with any portion of the work, for SCRRA's review and approval, a document control plan. The document control plan shall describe and illustrate the process (including roles, responsibilities, and contact information) by which the firms and individuals responsible for submitting, reviewing, and approving all submittals from the Contractor to the local agency, will manage the flow of submittals and

Rules and Requirements for Construction on SCRRA Right-of-Way

information. The document control plan must also include a master list of submittals. A preliminary list of submittal is included in Exhibit C. The Contractor shall also submit, not later than 20 working days after the NTP, a testing and inspection plan that identifies the tests and inspections required, the point during construction at which each test or inspection is to be performed, and the entity responsible for performing each test or inspection on both temporary and permanent work.

- E. Construction submittals requiring SCRRA approval, and Requests for Information (RFI) requiring a reply from SCRRA, must be forwarded to the Public Agency who in turn will forward to SCRRA Representative. Unless waived by SCRRA, all submittals made to SCRRA must bear an approval stamp indicating the acceptance of the submittal by the Public Agency, and include a statement that the submittal conforms to the requirement and standards of SCRRA included with the Contract. Where required by SCRRA rules, standards, guidelines, and other requirements, the Contractor shall submit plans, calculations and other documents prepared under the direction of a Registered Professional Engineer licensed to practice in California.
- F. The Contractor shall submit general insurance and railroad protective insurance certificates to SCRRA as a part of SCRRA Form No. 6, "Temporary Right-of-Entry Agreement". The Contractor shall maintain all insurance in full force during the time that its work is performed on or adjacent to Right-of-Way. SCRRA forms, manuals and guidelines are available on its website www.metrolinktrains.com (About Us, Engineering and Construction).
- G. No work shall take place within Right-of-Way until appropriate right-of-entry agreement, SSWP, schedule, and document control plan have been reviewed and approved by SCRRA. If a change occurs in the process, involvement of firm, or individuals named in the document control and SSWP, the Contractor shall immediately revise the document control and SSWP and submit the changes for approval.
- H. SCRRA shall be allowed 20 working days for review of all submittals. Upon written approval by the Public Agency, the Contractor may make the submittals directly to SCRRA Representative and the Public Agency simultaneously. However, SCRRA will not approve any submittal for which the approval of Public Agency is required until the Public Agency has first reviewed and approved the Contractor's submittal.
- I. SCRRA's review and approval of the Public Agency's or the Contractor's plans in no way relieves the Public Agency and Contractor from their responsibilities, obligations or liabilities under the Contract between the Public Agency and the Contractor, or SCRRA Form 6, "Temporary Right-of-Entry Agreement". SCRRA's review and approval will be given with the understanding that SCRRA makes no representations or warranty as to the validity, accuracy, legal compliance or completeness of the designs prepared by Public Agency or the Contractor, and that any reliance by the Public Agency or the Contractor with respect to such designs is at the risk of the Public Agency and the Contractor.

Rules and Requirements for Construction on SCRRA Right-of-Way**1.6 Reimbursement of Costs and Expenditures**

- A. The Contractor agrees to reimburse SCRRA or any Member Agency and/or any Operating Railroad for all cost and expense incurred by SCRRA or Member Agency in connection with work and safety services, including without limitation the expense of engineering plan review, administrative costs to process approvals and agreements, annual overhead rates, safety training, utility markings, and SCRRA EIC and protective services as SCRRA deems necessary. The Plan review, administrative, safety training, and utility marking costs and fees paid to SCRRA as a part of the Right-of-Entry are not refundable.
- B. The cost of SCRRA provided services are shown SCRRA's Schedule of Fees. This table is available on SCRRA's website. The direct link to the Schedule of Fees is as shown below.

[http://www.metrolinktrains.com/pdfs/EngineeringConstruction/SCRRA ROE Schedule of Fees 08.10.16.pdf](http://www.metrolinktrains.com/pdfs/EngineeringConstruction/SCRRA_ROE_Schedule_of_Fees_08.10.16.pdf)

- C. SCRRA will provide the cost of all SCRRA services based on Contractor's input. Prior to commencement of work, the Contractor shall provide deposit representing the estimated expense to be incurred by SCRRA and Member Agency in connection with said work. As the work progresses, SCRRA may require additional progress payments as the scope of work changes or becomes clearer. SCRRA may discontinue services to Contractor pending receipt of progress payments. The deposit and progress payments shall be applied to SCRRA's and Member Agency's actual costs and expenditures. The Contractor shall be responsible to pay any amount exceeding the above payments upon receipt of notice or invoice by SCRRA.

2.0 SCRRA SAFETY SERVICES**2.1 SCRRA Employee-In-Charge (EIC)**

- A. Work in the proximity of railway track(s) is potentially hazardous where movement of trains and equipment can occur at any time and in any direction. All work performed by the Contractor within or adjacent to the Right-of-Way of SCRRA must be in compliance with this Form 37 and the requirements of SCRRA Form 6, "Temporary Right-of-Entry Agreement".
- B. SCRRA Employee-in-Charge (EIC) is responsible for on-track safety anytime that work is underway on or adjacent to the track. Services of an EIC will be provided by SCRRA using railroad personnel trained and qualified under the rules of the Federal Railroad Administration and qualified to work on SCRRA Subdivision on which they will be providing services. All persons acting as an EIC will be furnished through SCRRA. Personnel of the Contractor may not provide an EIC or perform flagging or other protective services for railroad operations. No work may begin until the EIC is present at the work site and proper protection has been provided.
- C. The EIC will provide job briefings and safety protection to assure the contractor a

Rules and Requirements for Construction on SCRRA Right-of-Way

safe work environment and the safe passage of trains. The EIC will conduct job briefings at the start of every work shift and every change of conditions affecting roadway worker safety during a work shift. The EIC has the authority to temporarily or permanently halt work or to temporarily or permanently remove employees of the Contractor from the Right-of-Way in order to assure the work is conducted safely. The Contractors' employees must comply immediately with all instructions of the EIC involving work within or affecting the Right-of-Way of SCRRA.

2.2 Right to Challenge Sufficiency on On-Track Safety

- A. The employees of the Contractor may, during the job briefing process, request clarification of the protection against trains being provided by the EIC. If an employee of the Contractor does not believe that the protection against trains is sufficient, the employee may at any time, in good faith, challenge the form of protection established by the EIC and must remain clear of all tracks until the challenge is resolved. Federal regulations and SCRRA rules require that the EIC, Contractor supervisor and SCRRA supervisor must resolve the challenge before work can begin. A Good Faith Challenge Form must be completed by the parties involved.
- B. If the Contractor disagrees with any instructions from the EIC, the contractor and contractor employees must immediately clear the tracks to a safe location. After employees are clear of tracks, the contractor may contact the EIC's supervisor to resolve any disagreement over the instruction provided.

2.3 Work Requiring Protection of Track and Operations

- A. The Contractor must request and arrange for an EIC, inspector, or other protective services from SCRRA for the following conditions:
 - 1. When the Contractor's work activities are within the Right-of-Way of SCRRA.
 - 2. When the Contractor's work activities are located over or under a track or tracks.
 - 3. When cranes, pile drivers, drill rigs, concrete pumps, or similar equipment positioned outside of the Right-of-Way could foul the track in the event of tip-over or other catastrophic occurrence.
 - 4. When in the opinion of SCRRA it is necessary to safeguard the employees, trains, engines and facilities of SCRRA.
 - 5. When any excavation is performed below the elevation of the track sub-grade, or track or other railroad facilities may be subject to movement or settlement.
 - 6. When work in any way interferes with the safe operation of trains at timetable speeds.
 - 7. When any hazard is presented to railway track, communications, signal, electrical, or other facilities either due to persons, material, equipment or blasting in the vicinity.
 - 8. When clearing, grubbing, grading, or blasting is in proximity to the Right-of-Way which, in the opinion of SCRRA or representative of an SCRRA

Rules and Requirements for Construction on SCRRRA Right-of-Way

- member agency, may endanger the Right-of-Way or operations.
9. When street construction and maintenance activities, located within the Right-of-Way or in the vicinity of the highway-rail grade crossing, requiring temporary work area traffic control, which may affect or create unsafe conditions for employees, public, trains and vehicles.
 - B. The services of an EIC are generally provided by one employee. However, additional personnel may be required to protect the facilities and operations of SCRRRA, if deemed necessary by SCRRRA representative or other authorized SCRRRA employee. The maximum shift duration for one EIC is 10 hours. Under "Form B" protection, the 10 hours includes 8 hours of the Contractor work and two (2) hours to install and remove Form B flags. The Contractor shall not be allowed to work within the Operating Envelope during the 2-hour flag installation and removal. The minimum shift duration for flagging services is four (4) hours. If the Contractor desires to perform activities requiring an EIC that are longer than 10 hours' duration, then the Contractor shall coordinate with SCRRRA to schedule multiple EICs for said Work.
 - C. The estimated cost for one (1) EIC is \$1,500 for an eight (8) hour basic day plus two hours of overtime (10 hours total). The estimated cost for each EIC includes vacation allowance, paid holidays, railroad and unemployment insurance, public liability and property damage insurance, health and welfare benefits, transportation, meals, lodging, and supervision. However, the rate for an EIC in effect at the time of performance of the work by the Contractor hereunder will be used to calculate the actual costs of the services of an EIC pursuant to this paragraph. Billing will be on an actual cost basis.
 - D. The Contractor shall call the phone number provided with the executed copy of SCRRRA agreement, a minimum of 15 working days in advance of the date that services of an EIC will be required. An EIC will not be scheduled until the Contractor has executed SCRRRA agreement and the Contractor has attended the required safety training.

3.0 CONTRACTOR SAFETY REQUIREMENTS

3.1 Contractor General Safety Requirements

- A. The Contractor shall comply with the provisions of all local, State, and Federal regulations; with all applicable Specifications, standards, and recommended practices; and with SCRRRA policies, procedures and requirements. Where the State and Federal regulations have differing requirements, the Contractor shall comply with that which is more stringent.
- B. Safety takes precedence over deadlines, production schedules, and all other considerations. When uncertainty arises, take the safest course. Remember that accidents are often the result of carelessness, unsafe practices, lack of attention, and complacency.

Rules and Requirements for Construction on SCRRRA Right-of-Way

- C. The following rules must be followed at all times:
1. Using, possessing, or working under the influence of alcohol or drugs is not permitted anywhere on Right-of-Way. This includes prescription drugs that cause drowsiness or otherwise impair a person's ability to perform an assigned task. SCRRRA may require employees of the Contractor to submit urine or other toxicological samples to be used for drug and alcohol testing after an accident or incident occurring within the Right-of-Way.
 2. Any employees, agents or invitees of Contractor or its sub-contractors under suspicion of being under the influence of drugs or alcohol, or in the possession of same, will be removed from Right-of-Way and subsequently released to the custody of a representative of the Contractor's management. An employee removed for violation of the drug or alcohol policy will not be permitted future access to the Right-of-Way.
 3. SCRRRA may require employees of the Contractor to submit urine samples for drug and alcohol testing after an accident or incident.
 4. The use or possession of unauthorized radio equipment is prohibited. The use of personal radios (including iPod, MP3 players, and similar devices), and cell phone ear pieces while working is prohibited.
 5. The use of cellular phones within 25-feet from the nearest rail is prohibited.
 6. Horseplay, physical altercations, running or jumping is prohibited.
 7. Firearms or other deadly weapons, including knives are prohibited.
 8. Work on public streets, roadway crossings, and highway bridges must conform to the California Vehicle Code and the standards given in the California Manual of Uniform Traffic Control Devices, and must be performed with due regard for the convenience and safety of the public.
 9. Only authorized employees are allowed on engines, cars, cabooses, track cars or other railroad equipment.
 10. Contractor employees must exercise care to prevent injury to themselves or others.
 11. Employees must be alert and attentive at all times when performing their work.
 12. Any defective tools, machinery and equipment are prohibited from use on Right-of-Way and, if found, must be removed immediately.
 13. When on or near the tracks, the following precautions must be taken:
 - a. Keep clear of all tracks unless the EIC has provided a job briefing and identified the On-Track Safety protection in effect. No work may begin until the EIC is present at work site and a job briefing has been conducted.
 - b. Always look both ways before crossing tracks. Always step over the rails when crossing the tracks. Never walk, stand, or sit on the rails. The rail surface can be extremely slippery.
 - c. Always face the direction from which the train or on-track equipment is approaching.
 - d. Avoid track switches. The switch points are controlled from a remote location, can move unexpectedly, and exert enough force

Rules and Requirements for Construction on SCRRRA Right-of-Way

to crush ballast rock. Stand 150 feet from track switches when trains are approaching. Stay away from any other railroad device with which you are not familiar.

- e. Always walk single file when crossing the tracks in a group.
- f. Never stand between adjacent tracks in multiple track territory when a train is passing.
- g. Always cross at least 20 feet away from the end of equipment: i.e. engines, railroad cars, or on-track equipment
- h. Do not pass between standing locomotives, railroad cars or on-track equipment when there is less than 50 feet between the equipment.
- i. Never cross tracks by going underneath, over or through cars, engines or on-track equipment.
- j. Work is not allowed within 50 feet of the track centerline while trains are passing the work site. Always stand as far back as possible to prevent injury from flying debris or loose rigging.
- k. Always visually inspect all passing trains. If you detect a dangerous condition, inform your EIC or watchman immediately. The EIC or watchman will notify the train crew.
- l. Always stop equipment while a train is passing through your working limits. No movement will be allowed toward an approaching train that would cause the engineer to believe the track might be fouled.
- m. Trains travel faster than they appear and are relatively quiet. Trains may operate with cab car forward. You should not rely on past experiences to determine train schedule. Train schedules are unpredictable and are subject to changes and/or delays.

D. Always expect a train on any track at any time. Trains may stop, reverse direction, set out cars, or run around stopped trains without notice. Expect movement of locomotives, railroad cars or on-track equipment on any track in either direction at any time.

3.2 Personal Protective Equipment

A. All persons working on, over, or under Right-of-Way must be equipped with personal protective equipment meeting applicable OSHA and ANSI specifications. Personal protective equipment must be appropriate for the task performed. Employees, subcontractors, suppliers, agents or invitees of Contractor shall possess the following minimum equipment while on the right-of way:

1. Safety glasses with side shields conforming to ANSI Z87.1 - Occupational and Educational Personal Eye and Face Protection Devices;
2. Protective Helmets (Hard Hats) conforming to ANSI Z89.1 - Requirements for Protective Headwear for Industrial Workers, Type I or II, Class G or E;
3. Safety shoes with hardened toes conforming to ANSI Z41.1 – Personal Protection - Protective Footwear. Shoes must lace above the ankle and have a defined heel;

Rules and Requirements for Construction on SCRRRA Right-of-Way

- 4. High visibility ORANGE (and only orange) retro-reflective work wear. (Green and Red shirts, vests, or other outerwear are not permitted within Right-of-Way because of the use of the same colors for signals to trains).
 - 5. SCRRRA railroad safety training card in possession.
- B. Hearing protection, face and eye shields, fall protection, gloves, and respirators must be worn as required by State and Federal regulations.

3.3 Maintenance of Work Area

- A. The Contractor must not pile or place any materials, articles, or equipment, nor park any machinery or equipment within Right-of-Way, or closer than 25'-0" to the center line of the nearest track, or in a manner that blocks access to SCRRRA facilities and equipment. Soil, aggregates, or other similar loose materials must be covered to prevent migration of the material toward the track. Dust or blowing soil or debris must be controlled in accordance with South Coast Air Quality Management District Rule No. 402 and Rule No. 403.
- B. Materials, machinery or equipment must not be stored or left within 250 feet of any highway railroad at-grade crossings, where storage of the same will interfere with the sight distances of motorists approaching the crossing. For construction on Right-of-Way the Contractor must establish a storage area with concurrence of SCRRRA prior to beginning work, or as part of a site specific work plan.
- C. Machines or vehicles must not be left unattended with the engine running. Parked machines and equipment must be turned off and must be in gear with brakes set. If equipped with blade, pan or bucket, the blade, pan or bucket must be lowered to the ground. All machinery and equipment permitted to be left unattended on Right-of-Way must be left inoperable and secured against movement. Do not park vehicles over vegetation that might be ignited by the heat from the vehicle's exhaust system.
- D. The Contractor must not create and leave any conditions at the work site that would interfere with stormwater drainage. Any work performed over water must meet all Federal, State and Local regulations.

3.4 General Precautions When Working Near Electrical Conductors

- A. All wires and cables must be considered to carry electric current at high voltage and to be dangerous unless informed to the contrary by proper authority. When using temporary power cords, cords must never be placed over the rails, and employees must not place any metal objects across the rails.
- B. For all power lines the minimum clearance between the lines and the top of the rail must be as shown below:

Rules and Requirements for Construction on SCRRRA Right-of-Way

ITEM	MINIMUM CLEARANCE
Electric wires carrying less than 750 volts	27'-0"
Electric wires carrying 750 volts to 15,000 volts	28'-0"
Electric wires carrying 15,000 volts to 20,000 volts	30'-0"
Electric wires carrying more than 20,000 volts	34'-0"

- C. For all power lines the minimum clearance between the lines and any part of the equipment or load must be as shown below:

ITEM	MINIMUM CLEARANCE
Electric wires carrying less than 200 KV	15'-0"
Electric wires carrying 200 KV to 350 KV	20'-0"
Electric wires carrying 350 KV to 500 KV	25'-0"
Electric wires carrying 500 KV to 750 KV	35'-0"
Electric wires carrying 750 KV to 1000 KV	40'-0"

- D. If Cal/OSHA, CPUC, and/or the utility owners clearance requirements are more restrictive than those shown herein than the most restrictive clearances shall apply.
- E. If capacity of the line is not known, a minimum clearance of 45 feet must be maintained. A person must be designated to observe clearance of the equipment and give a timely warning for all operations where it is difficult for an operator to maintain the desired clearance by visual means. When the height of overhead wire lines cannot be determined from the available records, the actual height must be determined by field survey.
- F. All damage to the Right-of-Way, facilities, or property of SCRRRA, or any accident or incident within SCRRRA right-of-way, or any hazard noticed on passing trains must be reported immediately to the railroad EIC, if an EIC is present, or in the absence of a railroad EIC, to SCRRRA's Dispatch and Operations Center (DOC) at (888) 446-9715 or (909) 596-3584. Any vehicle or machine which comes in contact with the track, signal equipment, structure or other railroad installation or facility, regardless of the force of the impact, may result in the derailment of a train and must be reported immediately to SCRRRA representative and to the EIC, if an EIC is present, or in the absence of a railroad EIC, to DOC.

3.5 Safety Training and Communication

- A. All personnel working on, over, or adjacent to Right-of-Way must attend a railroad safety training class and pass an examination covering the information presented in the class. Persons not regularly employed on the Project, or at the Project site only intermittently, are not exempted from this requirement.

Rules and Requirements for Construction on SCRRA Right-of-Way

- B. Before beginning any task on the Right-of-Way of SCRRA, a thorough job safety briefing must be conducted with all personnel involved with the task. The briefing must include the Contractor's job hazard analysis, its plan for conducting the work, and the procedures the Contractor will use to prevent its employees, sub-contractors, suppliers, agents or invitees from moving any equipment adjacent to or across any SCRRA tracks without the appropriate protection for the Contractor and the railroad operations. Additional job safety briefings must be conducted anytime that the job tasks, or conditions affecting the job tasks, change or are revised.
- C. When Contractor employees are required to work on Right-of-Way after normal working hours or on weekends, the Public Agency and SCRRA Representatives must be notified. A minimum of two Contractor employees must be present at all times. If work is within or near Right-of-Way an EIC will be required, and a representative of the Public Agency must also be present on the Project site.
- D. The Contractor shall develop and provide an emergency action plan indicating the location of the site, contact names and phone numbers, directions for access to the site, instructions for emergency response, and location of the nearest hospitals. The plan must also cover the Contractor's means of preventing fires arising from the Contractor's operations, and the Contractor's methods of fire suppression. The plan must also include the local direct phone numbers and locations of the nearest fire and police departments. Phone numbers for utility and SCRRA emergency response must be obtained from SCRRA representative prior to the start of any work and must be posted at the job site.

3.6 Emergency Response and Accident Reporting

- A. Prior to starting work, the Contractor must provide the EIC with the emergency phone numbers for the Project. At a minimum, phone numbers must be provided for paramedics, fire, police, utility response, SCRRA Representative, Contractor Superintendent, Dispatch and Operations Center (DOC), and the Metrolink Signal emergency number. A map and directions to the site must be immediately available for the use of the EIC.
- B. In emergency situations the following apply:
 - 1. Immediately report to the EIC any accidents, personal injuries, defects in tracks, bridges, signals, utilities or communication facilities or any unusual condition that may affect the safe operation of the railroad.
 - 2. When a person is injured, stop work and ensure everything possible is done for the injured person. Also take the following immediate action: Notify the fire, police, or paramedics as appropriate, and notify the Metrolink Dispatch and Operations Center (DOC); provide an individual or individuals to guide emergency response personnel to the site; make sure that all access ways are cleared for emergency vehicle access; and immediately report to the EIC any accidents, personal injuries, defects in tracks, bridges, signals utilities or communication facilities or any unusual condition that may affect the safe operation of the railroad.

Rules and Requirements for Construction on SCRRA Right-of-Way

3. If equipment was involved in the incident, it must not be moved until examined to ensure the equipment was in proper working condition, unless movement is necessary to prevent further injury or risk to persons or property.
 4. In case of personal injury, loss of life, or damage to property, the EIC must immediately document the names, addresses and occupation of all persons involved, including all persons at the scene regardless of whether these persons give a statement about the incident. This information should be included in the incident reports. The Contractor's cooperation with, and assistance to, the EIC is a requirement of accessing Right-of-Way.
 5. If an incident causes personal injury or death, all tools, machinery and other equipment involved, including premises where such accident occurred must be promptly inspected by the EIC. Tools, equipment and machinery must be secured until the EIC, Safety Officer, or other competent person has completed an inspection. A report of such inspection, stating the conditions found and names of persons making the inspection must be promptly forwarded to SCRRA and the supervising officer of person making the inspection.
- C. Information concerning incidents or personal injuries occurring to persons who are not employees, must not be given to anyone except authorized representatives of SCRRA or an officer of the law.

4.0 TRACK OCCUPANCY AND WORK WINDOWS

4.1 Description of Location and Traffic

- A. The Contractor shall obtain permission in writing from SCRRA for movement of equipment on track or across tracks at locations other than public crossings. Such permission may not necessarily be granted. Damages to the track structure will be repaired at the Contractor's sole expense.
- B. The mainline tracks, within the limits of Project site, are under direct control of SCRRA dispatcher. No track shall be fouled without authorization and presence of an SCRRA EIC on the scene. For all work with the potential to foul the track, the Contractor shall allow sufficient time in his work schedule for the EIC to clear trains. Up to 15 minutes may be required for the EIC to clear each train, during which time the Contractor must not foul the track. Such time required to clear scheduled trains shall not be an acceptable reason for submitting contract change requests or delay claims to SCRRA. Scheduled trains may be up to 15 minutes behind schedule, and such tardiness will not be an acceptable reason for submitting contract change requests or delay claims to SCRRA.
- C. Positive Train Control (PTC) is in effect for PTC-equipped trains on all main line tracks, controlled sidings, and tracks as designated by SCRRA Timetable. The purpose of a PTC System is to prevent train-to-train collisions, over speed

Rules and Requirements for Construction on SCRRRA Right-of-Way

accidents, incursion into work zones, and movements through a misaligned switch by requiring automatic control systems to override mistakes by human operators. Accurate and up-to-date reporting of field work activity, especially activity that result in changes in signal and track assets, Track Charts, Composite Maps, PTC database is important for safe railroad operations. The Contractor shall work with SCRRRA personnel to coordinate and follow the Change Request Process for all changes that affect the PTC system at the beginning of the Project. This will allow SCRRRA to communicate to the Contractor any risks, impacts, additional tasks, or constraints to the Project so the Contractor can better plan the work without affecting the Project or the SCRRRA PTC system.

4.2 Coordination with Rail Traffic

- A. The Contractor's operations are subordinate to the operation of trains on Right-of-Way, whether passenger or freight. All work upon Right-of-Way shall be done at such times and in such a manner as to not interfere with or endanger SCRRRA Operations. SCRRRA will strive to cooperate with the Contractor such that the work may be handled and performed in an efficient manner. However, the Contractor will have no claim whatsoever for any type of damages or for extra or additional compensation in the event its work is delayed by rail operations.
- B. All forecasts of train traffic and schedules are approximate. The public time table or schedule shall be used for planning purposes only and shall not be used for scheduling actual work in the vicinity of the railroad tracks in the absence of a railroad EIC. SCRRRA, UPRR, BNSF, and Amtrak may run additional trains as needed to perform their respective obligations. The operation of extra and special trains will be at sole discretion of SCRRRA. The Contractor's work may be halted or delayed whenever necessary to accommodate train service.
- C. Persons acting as an EIC are generally dispatched to projects in the order requested. An EIC may not be available at all times without advance notice. The Contractor is encouraged to schedule the services of an EIC or inspector a minimum of 15 working days in advance of any planned operation to avoid delay. Any work to be performed by the Contractor, which requires services of an EIC or inspector, shall be deferred until an EIC or inspector is available at the job site.

4.3 Work Windows and Track Access

- A. All work on, over, or adjacent to the tracks must be coordinated with SCRRRA, and the Contractor's work is subject to SCRRRA operating rules for work on main tracks and other than main tracks. Project Specific Work Windows shall be obtained from SCRRRA. The Project Specific Work Window hours and days are not included here in this document and shall be obtained from other project related documents.
- B. Work Window: A period of time with specific beginning and ending time and durations for which the track, signals, bridges and other Operating System elements within the Operating Envelope are temporarily removed from service or modified in some other manner and train and other operations suspended or modified to allow construction or maintenance work to occur. Written authority

Rules and Requirements for Construction on SCRRRA Right-of-Way

from SCRRRA and an approved Site Specific Work Plan (SSWP) is required before the Contractor is granted a Work Window. The Contractor's Work Window shall have specific geographic limits, which are defined in the approved SSWP. Modifications or suspension of train and on-track equipment movements resulting from a Work Window involves written changes to the Railroad's Rules of Train and On-Track Equipment Operations.

- C. Exclusive Track Window: An approved Work Window in which no train movements (except the Contractor or SCRRRA work trains or equipment under control of the EIC, per the SSWP) will operate on any track within the window limits. The Contractor may dismantle, remove, reconstruct, or otherwise obstruct tracks within the limits of such a window. This Work may be protected by track out of service, track and time limits, or by Form B Track Bulletin.
- D. Limited Track Window: An approved Work Window for some, but not all tracks within a general Work area (e.g. one track remains for operation of trains, other tracks are available for the Contractor's Work). Movement of trains over the track(s) of a Limited Track Window is under the control of the EIC who will not authorize train movement unless and until the Contractor personnel and equipment are clear of the operating track. The Contractor may remove, construct, or obstruct only the track designated by the SSWP and must arrange the Work so that trains can operate without delay on the remaining track(s) in the Work area. This Work may be protected by track out of service, track and time, or by Form B Track Bulletin.
- E. "Form B" Work Window: An approved Work Window in which passenger, freight and all other trains and on-track equipment movements can be prohibited from entering the defined limits of a segment of track. The "Form B" Work Window does not allow the Contractor to remove from service or modify the tracks, signals, bridges, stations or other elements of the Operating System in a manner, which will delay or in any way affect the safe operation of the trains. The "Form B" Work Window allows the Contractor the ability to enter the Operating Envelope and perform construction activities subject to the conditions above. An Employee-in-Charge/Flagman from SCRRRA will exercise strict control over the Contractor's construction activities in conjunction with Roadway Worker Protection requirements, to assure that the Contractor's activities do not delay or impact train service.
- F. Track and Time: An approved Work Window in which the Dispatcher will authorize men and equipment to occupy a track or tracks within limits for a certain time period. The Dispatcher authority shall include authority number, track designation, limits and time. Movements may be made in either direction within the specified limits until the limited are released.
- G. No construction work shall be performed during the New Year's Day, Memorial Day, Independent day, Labor Day, Thanksgiving days, and Christmas day holiday and weekends when Construction Management staff, or SCRRRA furnished labor or equipment are not available unless approved in advance and in writing by SCRRRA.

Rules and Requirements for Construction on SCRRA Right-of-Way

- H. The start time for Track Work Windows is an "average" start time dependent on location and train on-time performance, and may vary by 30 minutes either direction.
- I. Contractor must comply with any regulatory restrictions to hours of operation or other restrictions in operations during specific Work Windows.
- J. Contractor shall coordinate with SCRRA signal forces and allocate the required time and number of hours within these work windows for SCRRA signal work. Within the time limits of each work window, the Contractor shall allow time for SCRRA's signal forces to restore and test the signal and communication system before the operation of trains, therefore the full duration of the work window is not available for the use of the Contractor. The SSWP shall designate both the time at which the Contractor must make track ready (in full compliance with the FRA Track safety Standards and with SCRRA's Track Maintenance and Engineering Instructions) for the passage of trains, and SCRRA crew time within the work window that will be required for the signal and communications system restoration.
- K. Railroad services are important to SCRRA, freight railroads, and passengers. Any disruptions or delays affect everyone. SCRRA would like to coordinate all work in the right-of-way so that delays are minimized. The Contractor may have to share Work Windows with other contractors and SCRRA's maintenance forces. If there is another Work Window for another project in the vicinity of this project work, SCRRA will request the Contractor to coordinate and schedule the work with the other work and the Contractor shall agree to do the construction simultaneously under the same Work Window. This may result in overtime work and the Contractor shall be responsible to pay the additional cost.
- L. SCRRA may require that certain facilities and areas be used concurrently by the Contractor and others. The Contractor shall afford access and cooperate with other contractors, including coordinating its Work with the work of these other labor forces and equipment, including employees of the SCRRA and its authorized representatives, other contractors and subcontractors, utilities working at or adjacent to the Worksite, operating trains, or personnel inspecting or maintaining the railroad during the Contractor's period of performance for execution of the Work. The Contractor shall cooperate and communicate with any contractor performing work that may connect, complement, or interfere with the Contractor's work, and make a good-faith effort to resolve any disputes or coordination problems with such contractor(s). The Contractor shall not be entitled to additional costs for coordination or concurrent use of any Worksite.

4.4 Requesting Work Windows

- A. The Contractor shall make requests in writing to SCRRA Representative not less than twenty-five (25) working days prior to commencing work in connection with approved work when the work will be performed within Right-of-Way under Form B Work Window or Limited Track Window. The Contractor shall provide written notice and submit its SSWP to SCRRA Representative a minimum of seventy-five (75) working days prior to the scheduled track cutovers or Exclusive Track

Rules and Requirements for Construction on SCRRRA Right-of-Way

Window. The Contractor shall provide written notice to SCRRRA Representative a minimum of ninety (90) working days prior to the scheduled complete Street and highway-rail grade crossing closures. The time to perform work during the complete Street and highway-rail grade crossing closures will be shared between the Contractor and SCRRRA forces. All work shall be performed in accordance with previously approved SSWP.

- B. Work window shall include a detailed schedule of events, indicating the expected hourly progress of each activity that has duration of one hour or longer. The schedule shall include a time at which each activity planned under the work window and the requested work window will be completed, and the total duration of all the construction activities shall be less than the approved Work Window. Failure of the Contractor to complete the scheduled activities by the planned time or to put in place an approved contingency plan may adversely affect the operations of scheduled trains. The work window shall include the information specified below:
1. All activities necessary to perform construction activities within the operating envelope, including use of stations, sidings, and proposed storage areas.
 2. A description of any proposed changes in the operating system between start and finish of the work, including any requested work windows.
 3. A schedule of the work, showing each activity and where and how it affects normal operation of the operating system. This schedule shall integrate and allow for the necessary work of the Signal and Communication forces. Each activity in the plan shall include all labor, materials, and equipment required to complete the activity within the SCRRRA allotted time period. The Contractor shall identify on the schedule all SCRRRA furnished labor, equipment and materials.
 4. The Contractor shall have SCRRRA approved contingency plans for putting the operating system back in operation in case of an emergency, or in case the Contractor fails to perform and complete the work on time. The contingency plans shall address the various stages of activities necessary to restore the System.
 5. List all of the approved proposed work plans to be performed under the work window, and provide the name(s) and number(s) of the Contractor's supervisor(s) in charge of the tasks.
 6. The work window must be of sufficient detail, clarity, and organization to permit easy review and approval by the SCRRRA before the proposed work is performed.
- C. SCRRRA may request explanations and changes to the work window to conform the work to the requirements of SCRRRA. If the work window is not acceptable, the Contractor shall revise the window to make it acceptable. The Contractor

Rules and Requirements for Construction on SCRRA Right-of-Way

shall be responsible for submitting a revised work window that can be reviewed and approved by the SCRRA.

- D. No Exclusive Track Window will be allowed during the Metrolink "Holiday Train" weekend. This event is tentative scheduled between the Thanksgiving holiday and the Christmas holiday. The Contractor shall coordinate with Metrolink when this event will be scheduled.
- E. All required signal and track testing by the Contractor and SCRRA shall be completed by the end of the Exclusive Track Window.
- F. The start time for work windows is an "average" start time dependent on location and train on-time performance, and may vary by 30 minutes either direction.
- G. Scheduling of work windows, SCRRA EICs and watchmen, and signal support forces during track construction will be strictly controlled by SCRRA and documented in the Contractor's SSWP and three-week look-ahead schedule. Work Window activities not coordinated in the weekly construction meetings and documented in the look-ahead schedules will not be supported by authorization of work windows.
- H. The Contractor is strongly encouraged to work additional shifts as required to finish the Work within the contract time. There shall be no additional payment for night work, weekend work and overtime required for working around live track.

4.5 Project Specific Work Windows

Number of project specific Form B Work Windows, Exclusive Track Windows, Limited Track Windows, Track and Time Window, and hours of operation will be decided and agreed to between SCRRA and the Contractor for each individual project and will be included under separate cover. A Sample Project Specific Work Window is included in Exhibit D which can be used as a guide for any specific work by the Contractor.

4.6 Extraordinary Work

- A. Should an unsafe condition arise from, or in connection with, the Contractor's work on this Project which requires immediate and extraordinary actions to be taken to protect operations and facilities of SCRRA, or facilities of others within the Right-of-Way, the Contractor shall undertake such actions. There will be no extra payment to the Contractor for this action. If, in the judgment of SCRRA, such actions are insufficient, SCRRA with its own forces may perform the work to protect operations and facilities. Such actions will be at the sole discretion of the SCRRA and shall be at the Contractor's expense and without cost to SCRRA. SCRRA shall have the right to order the Contractor to temporarily cease operations in the event of an emergency or SCRRA may unilaterally terminate work under the contract. An unsafe condition is defined as creating a track condition which does not meet the FRA Track Safety Standards for Class of Track, willful damage to facilities or material, or any other unsafe condition for trains, employees, passengers or the public, at the sole determination of the SCRRA.

Rules and Requirements for Construction on SCRRRA Right-of-Way

4.7 Track Back In Service

- A. Prior to any track work window, Contractor's track work that is to be placed into service during the work window, shall be completed to Class 5 as defined by FRA guidelines. At the end of each track work window shown in the approved SSWP, all tracks must be completed to Class 5 as defined by FRA guidelines. Contractor shall furnish all necessary labor and equipment to comply with this requirement. SCRRRA will perform an inspection and will approve the condition of the tracks before train service can resume on tracks previously out of service. Contractor shall include in its SSWP, and shall prosecute its work so as to allow ample time for inspection by SCRRRA, and an allowance for correction of any deficiencies prior to the end of the scheduled work window. Allowing train service on reconstructed or shifted track at the end of each approved work window is not considered beneficial occupancy or final acceptance of the work. Contractor shall remain fully responsible for loss or damage arising from Contractor's activities under this contract.
- B. If further adjustments or repairs are required to meet appropriate FRA and SCRA track standards, and Contractor has failed to comply with those requirements, SCRRRA forces will immediately perform the necessary remedial work and make appropriate adjustments or repairs, and Contractor shall be responsible for the direct and indirect cost of the remedial work, and the possible assessment of rail service slow orders, interruption, and disruption damages.

4.8 SCRRRA Service Impacts and Damages

- A. Rail service slow orders, interruptions and disruptions shall be considered an unauthorized delay to passenger and freight operations, and rail service damage assessments will be made when any of the following occurs:
1. Contractor's construction operations exceed the approved work window time limits specified in an approved SSWP.
 2. An unplanned and/or unapproved slow order occurs as result of Contractor's required work or normal operations.
 3. Contractor's construction operations working under an approved Form B work window result in the stoppage of a scheduled train (i.e., a train operating within the time arranged in the SSWP). The delay shall be calculated from the time the train is stopped at the working limits until the train has completely passed through the working limits.
 4. Contractor has not restored the track to Class 5 standards.
 5. Contractor's construction operations cause an unplanned train stoppage.
- B. Rail service slow orders, interruptions and disruptions, and other damages asserted by SCRRRA are determined as follows.

Rules and Requirements for Construction on SCRRRA Right-of-Way

1. Loss of Revenue due to service interruptions or disruptions: Actual loss of revenue in accordance with delay provisions of service contracts.
2. Slow Order: When train speed is restricted to a lower speed than the operating maximum timetable speed allowed in accordance with SCRRRA operating rules because of an unplanned and/or unapproved slow order, the damages are calculated in accordance with the formulas and example below.

Example:

- Operating maximum timetable (unrestricted) speed: 25 mph (144 sec per mile).
- Slow Order speed restriction: 15 mph (240 sec per mile).
- Length of restriction: 1.5 miles (distance between green flags of speed restriction).
- Distance train operates at restricted speed: 1.6 miles (1.5 miles plus length of train).
- Time of unrestricted train: 1.6 miles x 144 sec per mile = 230 seconds.
- Time of restricted train: 1.6 miles x 240 sec per mile = 384 seconds.
- Slow Order delay: 384 - 230 = 154 seconds = 2.57 minutes, rounded up to 3 minutes.
- Slow Order damages: 3 minutes x \$50.00 per minute = \$150.00 for subject train.

3. Rail Service Interruption: \$50.00 per minute, or portion thereof, for each minute of delay for each train delayed as determined by SCRRRA. The maximum cost for rail service interruption will be \$1,000.00 for each train per day, and a cumulative daily maximum of \$20,000.00 per day.

Example: 55 minute delay x 2 trains x \$50.00 = \$5,500.00

4. Rail Service Disruption – Actual cost of alternative passenger transportation. Estimated cost can be calculated as \$500.00 per bus trip for each bus trip required to transport passengers around the out of-service track as determined by SCRRRA. The maximum cost for rail service disruption will be \$50,000.00 for one day. The cost will be reduced to \$25,000.00 if at least one track is put in operation.

Example: 500 passengers / 50 passengers per bus = 10 bus trips, 10 bus trips x \$500.00 per bus trip = \$5,000.00

C. SCRRRA damages noted above are additive and cumulative, and there is a possibility that the Contractor could be responsible for more than one type of assessment.

5.0 CONSTRUCTION

5.1 Demolition and Removal

- A. Where structures over or adjacent to the tracks are to be demolished, the tracks must be protected from damage during the demolition. The Contractor may employ either of the following methods:

Rules and Requirements for Construction on SCRRA Right-of-Way

1. During demolition of a bridge deck or overhead structure, a protection shield must be erected over the track to catch falling debris. The protection shield shall be supported from girders or beams and shall not be lower than the allowed temporary clearance from the top of rail. The deck must be removed by cutting into sections and lifting out. All cranes, hoists, winches, and hardware used in connection with the demolition are to include a factor of safety of 150% in addition to the safe working load of the equipment or hardware. Large pieces of deck or other portions of the structure must be handled individually and must not be allowed to fall on protection shield or onto the ground.
 2. When an overhead protection shield cannot be installed due to limited clearance or type of superstructure, the track may be protected by timber mats placed over the track structure, subject to approval by SCRRA. Timber mats shall be made in sections such that they may be lifted in and out as a unit quickly. Mats must not rest on ties or rails. Geofabric or canvas must be placed over the track structure to keep the ballast clean. The mats and ballast protection are to extend 25-ft beyond the existing limits of the overhead bridge or structure. Equipment used in demolition operations may not be operated on or over unprotected track. Blasting will not be permitted to demolish a structure over or within railroad Right-of-Way.
- B. The Contractor shall submit detailed SSWP and plans of the protection shield or the timber mats to SCRRA Representative for approval prior to the start of demolition. The plans shall also indicate the location and capacity of the proposed cranes and estimated lifting loads. The lifting plans shall be prepared by a Registered Professional Engineer and shall bear his seal and signature.
- C. The Contractor shall provide timely communication to SCRRA Representative when scheduling the demolition-related work so that the representative or their designee may be present during the entire demolition procedure.
- D. At any time during demolition activities, SCRRA Representative may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or SCRRA facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the satisfaction of SCRRA Representative. SCRRA shall not be responsible for any additional costs or time claims necessitated by the above events.

5.2 Excavation and Backfill

- A. All excavations must be conducted in compliance with applicable law and regulations and, regardless of depth, must be shored when within the zone of influence from the railroad loading, or when necessary to protect structures, facilities, or personnel. Shoring for excavations must comply with SCRRA "Excavation Support Guidelines." Any excavations, holes or trenches on Right-of-Way must be covered, guarded and protected when work is not actively

Rules and Requirements for Construction on SCRRA Right-of-Way

prosecuted. When leaving work site areas at night and over weekends, the areas must be secured and left in a condition that will ensure that SCRRA employees and other personnel who may be working or passing through the area are protected from all hazards. All excavations must be backfilled as quickly as practicable.

- B. The Contractor shall submit a plan showing the limits of all excavations within the Right-of-Way of SCRRA, and the method of support when support is required. The Contractor shall not make any excavations on Right-of-Way, or within the zone of railroad load influence as defined in Figure 2-1 of SCRRA "Excavation Support Guidelines", until the Contractor's excavation plan, its plans and calculations for the support of the excavation, and SSWP are approved in writing by SCRRA.
- C. Open excavation areas shall be protected per OSHA regulations and by walkways with handrails no closer than 8 feet 6 inches horizontally from the centerline of the nearest operating track, if tangent, and 9 feet 6 inches if the track is curved. Furthermore, the walkways shall be no less than 3 feet wide, and the handrails shall be no less than 3.5 feet high and capable of withstanding 250 pounds of lateral force.
- D. The Contractor must cease all work and notify SCRRA immediately before continuing excavation in the area if obstructions are encountered which do not appear on drawings. If the obstruction is a utility and the owner of the utility can be identified, then the Contractor must also notify the utility owner immediately. The Contractor shall not perform any work if there is any doubt about the location of underground cables or lines of any kind until the exact location of the underground facilities has been determined. There will be no exceptions to these requirements.
- E. The Contractor shall compact all backfill within Right-of-Way to a minimum of 90 percent of maximum standard density in accordance with AASHTO T-99 or ASTM D-698. Where it becomes necessary to excavate beyond the normal lines of excavation to remove boulders or other interfering objects, the voids remaining after such materials are removed must be back-filled with suitable material approved by SCRRA. The material obtained from the Project excavation may be used as fill or backfill, provided that all organic material, rubbish, debris, large rocks, and other deleterious or objectionable materials are removed. Any excess material must be disposed of hauling off-site. The excess material must not be piled-up or scattered on the Right-of-Way.
- F. The Contractor shall perform excavation and grading so that the finished surfaces are in uniform planes with no abrupt breaks in surface and having positive drainage on the Right-of-Way away from the track structure, and to approved catchment areas.

5.3 Storage of Materials and Equipment

- A. Materials and equipment shall not be stored where they will interfere with SCRRA operations, nor on the right-of-way without first having obtained

Rules and Requirements for Construction on SCRRA Right-of-Way

permission from SCRRA. The permission will be with the understanding that SCRRA will not be liable for damage to such material and equipment from any cause and SCRRA may move or require the Contractor to move, at Contractor's expense, such material and equipment.

- B. All construction machinery that is left parked near the track unattended shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify, and save SCRRA and member agencies, harmless from and against all losses, costs, expenses, claim or liability arising out of or incident to the Contractor's failure to immobilize the construction machinery.

5.4 Shoring and Support of Excavation

- A. Shoring, cribbing and sheeting designed to support excavations or embankments shall be designed to support all lateral forces caused by the earth, vehicular traffic, construction equipment, temporary and permanent structures, and other surcharge loads in the vicinity of the excavation. Support or shoring located on Right-of-Way, or within the zone of influence from railroad loading, shall conform to SCRRA Excavation Support Guidelines. Designs for all temporary structures supporting tracks, or excavations adjacent to the tracks and within the zone of influence from railroad loading, shall include railway surcharge loading imposed by a Cooper E-80 live load. Any excavation adjacent to track must be covered and provide a uniform path and include with standard handrails when work is not actively underway.
- B. The Contractor shall submit a detailed SSWP drawings and supporting calculations for any temporary support of excavation for SCRRA review and approval. For the installation of temporary or permanent shoring systems, including soldier piles and lagging, or interlocked steel sheeting on or adjacent to Right-of-Way, lateral deflection of the shoring system plus top of rail monitoring is required. The frequency of monitoring must comply with SCRRA Excavation Support Guidelines, Section 9.0, and Track Monitoring. The monitoring program must identify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. The Contractor must submit the monitoring program for the track, roadbed, and shoring for review and approval prior to starting work.
- C. The monitoring survey data must be collected at the approved frequency and immediately furnished to SCRRA Representative for review. If SCRRA determines that any movement has occurred in the track or supporting structure, SCRRA will notify the Contractor and the Contractor shall immediately take all necessary steps to correct the movement or settlement. SCRRA, at its sole discretion, shall have the right to immediately require all contractor operations to be ceased, or to have the excavated area immediately backfilled, or to perform additional investigations to determine what corrective action is required, or any combination thereof. SCRRA may modify the survey locations and monitoring frequency as it deems necessary during the Project. Any corrective action required by SCRRA or performed by SCRRA, including the monitoring of corrective action of the Contractor, will be at the cost and expense of the

Rules and Requirements for Construction on SCRRA Right-of-Way

Contractor.

5.5 Drilling and Pile Driving

- A. The Contractor must take special precaution and care, in connection with drilling or driving piles or sheets adjacent to tracks, to provide adequate lateral support for the tracks and the loads which they carry, without disturbance of track alignment and surface, and to avoid obstructing track clearances with working equipment, tools or other material. The Contractor shall submit detailed SSWP and plans of the Drilling and Pile Driving Operations to SCRRA Representative for approval prior to the start of drilling and pile driving.
- B. Pile driving must be carried out so that it does not interfere or endanger train operations. An EIC must be present whenever pile driving or drilling is underway in the vicinity of SCRRA track. Equipment must be positioned so that no part of machine swings over the track or infringes within 25-ft of the nearest rail without first obtaining permission from SCRRA and SCRRA has established an appropriate work window.
- C. Piles must be secured independently of the hammer or vibrator at all times while driving until sufficiently anchored in the soil such that the pile will stand without external support during the completion of the driving. Reinforcing steel cages or other internal structural supports in concrete structures must be designed to withstand all loads imposed in handling and setting. A crane must remain attached to the reinforcing steel cage until the reinforcing steel cage is guyed or braced to prevent movement unless it can be demonstrated that the cage or support will resist all loads which may be imposed without collapse or failing.
- D. Large diameter holes and shafts within the zone of influence from railroad loads must be cased to prevent caving and loss of support adjacent to the tracks. If caving occurs, the hole must immediately be filled until additional casing can be advanced in the hole before drilling is continued.

5.6 Boring and Jacking

- A. The face of all jacking and receiving pits shall be located outside of Right-of-Way, or a minimum of 25 feet from the center line of the nearest track, measured at right angle to the track, whichever is greater unless otherwise approved by SCRRA. The use of trench boxes may be permitted for jacking and receiving pits, however, trench boxes, shields, and hydraulic shores are not acceptable inside the zone of influence from railroad loading. Design of the temporary supports for the jacking and receiving pits must conform to the requirements of SCRRA "Excavation Support Guidelines."
- B. Boring and jacking of casings and other conduits must conform to the requirements of SCRRA Engineering Standard ES5001 and ES5002. For any conduit that is bored or jacked under the track, the Contractor must guarantee the work against settlement for two years after the completion of the work.
- C. The Contractor shall submit detailed SSWP and plans for jacking and boring

Rules and Requirements for Construction on SCRRRA Right-of-Way

operations, including the design of temporary supports for the jacking and receiving pits, and track monitoring plan to SCRRRA Representative for approval prior to the start of any work.

5.7 Temporary Structures

- A. Formwork, falsework, guying, bracing, and other temporary structures must be designed to resist all imposed construction live and dead loads including wind and seismic loads. Railroad track, structures, equipment, or other railroad facilities may not be used to secure or brace temporary or permanent structures during construction.
- B. Designs for falsework above any tracks shall conform to SCRRRA Grade Separation Guidelines and the Caltrans Falsework Manual. Falsework over or adjacent to railroad tracks shall meet the requirements in the Caltrans Falsework Manual for falsework over traffic (traffic openings). The additional provisions stipulated the "Guidelines for Design of Falsework for Structures Over Railroad in Connection with Highway Grade Separation Construction," issued by the Southern Pacific Lines (Falsework Memo No. 7) shall be included in all designs of falsework over SCRRRA tracks. Collision posts are required.
- C. The Contractor shall submit a detailed SSWP and procedure for erecting and removal of the falsework spans over railroad tracks. Equipment used for the erection, or removal of structures over railroad facilities, shall have a minimum lifting capacity of one hundred-sixty seven percent (167%) of the lift weight (operational capacity limited to sixty percent (60%) of the tipping load or the boom structural load). The procedure shall indicate the capacity of cranes, location of cranes with respect to the tracks and estimated lifting loads. The erection procedure must be prepared by a California Registered Professional Engineer and shall bear his or her seal and signature. The procedure must be approved by SCRRRA.
- D. The Contractor shall furnish, to SCRRRA Representative, four sets of working drawings and a copies of the Contractor's plans illustrating and describing the details of construction affecting Right-of-Way and tracks. The working drawing must include the proposed method of installation and removal of falsework, shoring or cribbing, The Contractor shall also furnish two sets of structural calculations of any falsework, shoring or cribbing. A registered professional engineer licensed to practice in the State of California shall seal and sign all drawings and calculations. The Contractor shall not begin work until SCRRRA has reviewed and approved the plans

5.8 Hoisting Operations

- A. The Contractor shall submit a detailed SSWP and procedure for any crane, mast, or boom operations, on, over, or adjacent to Right-of-Way to SCRRRA Representative for approval prior to the start of hoisting operations. The Contractor shall submit four (4) copies of the detailed procedure for erection of the proposed structures over or adjacent to SCRRRA's tracks or Right-of-Way. This procedure shall include a plan showing the locations of cranes, horizontally

Rules and Requirements for Construction on SCRRRA Right-of-Way

and vertically, operating radii, with staging locations shown, including beam placement on ground or truck unloading staging plan. Plan should also include the location of all tracks, other railroad facilities; wires, poles, adjacent structures, or buried utilities that could be affected, showing that the proposed lifts are clear of these obstructions. No crane or equipment may be set on SCRRRA rails or track structure.

- B. The following additional information must be included in the submittal as applicable:
1. All as-built bridge seats and top of rail elevations shall be furnished to SCRRRA Representative for review and verification at least 30 days in advance of construction or erection, to ensure that minimum vertical clearances as approved in the plans will be achieved. Computations must be made for the weight of the materials, articles or equipment being lifted must be submitted. Computations shall be made from plans of the structural members being erected and those plans or sections thereof shall also be included in the submittal; the weight shall include the weight of concrete or other materials including lifting rigging.
 2. Crane rating sheets showing cranes to be adequate for 167% of the actual weight of the pick. A complete set of crane charts, including crane, counterweight, maximum boom angle, and boom nomenclature is to be submitted. Safety factors that are included by the manufacturer in the crane charts are not to be considered when determining the 167% additional capacity.
 3. A data sheet shall be prepared listing the type, size and arrangements of slings, shackles, or other connecting equipment. Include copies of a catalog or information sheets for specialized equipment. All specific components proposed for use shall be clearly identified and highlighted in the submitted documents. The safe working load capacity of the connecting equipment shall be 167% above the calculated weight of the pick.
 4. A complete written procedure is to be included that describes the sequence of events, indicating the order of lifts and any repositioning or reconnecting of the crane or cranes.
 5. A time schedule for each of the various stages must be shown as well as a schedule for the entire lifting procedure. The proposed time frames for all critical sub tasks (e.g., performing aerial splices, installing temporary bracing, etc.) shall be furnished so that the potential impact to SCRRRA operations may be assessed and eliminated or minimized.
 6. The names and experience of the key Contractor personnel involved in the operation shall be included in the Contractor's means and methods submission.
 7. Design and supporting calculations prepared by the Professional Engineer for items including the temporary support of components or intermediate stages shall be submitted for review. A guardrail or collision post will be required to be installed in a track where a temporary bent is located within fifteen (15) feet from the centerline of that track.
 8. The proposed erection procedure must be approved by SCRRRA Representative prior to undertaking work on the Project.

Rules and Requirements for Construction on SCRRRA Right-of-Way

9. The Contractor shall provide timely communication to SCRRRA Representative when scheduling the erection-related work so that SCRRRA Representative may be present during the entire erection procedure.
10. At any time during construction activities, SCRRRA Representative may require revisions to the previously approved procedures to address weather, site conditions or other circumstances that may create a potential hazard to rail operations or SCRRRA facilities. Such revisions may require immediate interruption or termination of ongoing activities until such time the issue is resolved to the satisfaction of SCRRRA Representative. SCRRRA shall not be responsible for any additional costs or time claims associated with such revisions.

5.9 Clearances

- A. The Contractor must not pile or store any materials, machinery or equipment closer than 25'-0" to the center line of the nearest SCRRRA track, and only then with the permission of SCRRRA. Materials, machinery or equipment must not be stored or left within 250 feet of any highway railroad at-grade crossings, where storage of the same will interfere with the sight distances of motorists approaching the crossing. Prior to the start of work, the Contractor must establish a storage area with concurrence of SCRRRA representative.
- B. Unless shown otherwise on the Contract Drawings and approved by SCRRRA, the Contractor shall abide by the following temporary clearances during construction. The Contractor shall not place forms, materials, spoils, or other temporary construction, including bracing or work platforms, within the clear area defined below unless approved in writing by SCRRRA:
 1. 15' -0" Horizontally at right angles from centerline of nearest track
 2. 22' -6" Vertically above the top of the highest rail
- C. At no time may the Contractor reduce the minimum clearances required by the California Public Utilities Commission (CPUC) General Order 26-D, or block or restrict the visibility of any signal or railroad warning device. Any infringement within the clearances established by General Order 26-D due to the Contractor's operations must be submitted to SCRRRA and the operating railroads, and must not be undertaken until approved in writing by SCRRRA, and until SCRRRA has obtained any necessary authorization from the CPUC for the infringement. No extra compensation will be allowed in the event the Contractor's work is delayed pending approval by SCRRRA, the operating railroads, or the CPUC as applicable.
- D. The temporary clearance requirements noted above shall also apply to all other physical obstructions including, but not limited to stockpiles of material, parked equipment, placement or driving of piles, and bracing or other construction supplies.
- E. Reduced temporary construction clearances, which are less than construction clearances defined above, will require special review and approval by SCRRRA

Rules and Requirements for Construction on SCRRA Right-of-Way

and, if less than the statutory minimum, the CPUC. Any proposed variance on the specified minimum clearances due to the Contractor's operations shall be submitted to SCRRA Representative and the Public Agency at least thirty (30) working days in advance of the work. No work shall be undertaken until the variance is approved in writing by SCRRA Representative.

- F. Parallel to the outer side of each exterior track of multiple operated tracks and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending in width not less than twelve feet (12') perpendicular from centerline of track, must be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during working hours must be covered, guarded and/or protected as soon as practicable. Walkways with railings shall be constructed by the Contractor over open excavation areas when in close proximity of track, and railings shall not be closer than 9'-0" perpendicular from the center line of tangent track or 10'-0" horizontal from curved track.

5.10 Temporary Traffic Control Plan

- A. The Contractor's operations which control traffic across or around SCRRA facilities shall be coordinated with and approved by both SCRRA and Public Agency, and shall be in compliance with Section 21400 et seq. of the California Vehicle Code and the California Manual of Uniform Traffic Control Devices (California MUTCD). Traffic control in the vicinity of highway - railroad grade crossings shall conform to the Section 6G-19 of the California MUTCD and SCRRA Standard ES4301. The Contractor shall perform no work at, or in the vicinity of a highway-railroad grade crossing without the presence of a railroad EIC, notwithstanding that the work of the Contractor may not be physically located on Right-of-Way.
- B. The Contractor shall submit detailed temporary traffic control plans to SCRRA for approval prior to start of work requiring traffic control. Contractor shall also obtain approval of the temporary traffic control plan from the Public Agency having jurisdiction over the public street within the work zone.
- C. The Contractor must comply with all traffic control signs and other devices within SCRRA facilities, and must observe a maximum speed limit of 20 mph within Right-of-Way. Disregard for posted traffic control signs and devices, or excessive speed within Right-of-Way may lead to revocation of access for the offending individual.
- D. SCRRA will not permit temporary at-grade crossings unless absolutely necessary and there is no practicable alternative route available to Contractor to access the Project site. Temporary crossings, if permitted, must conform to SCRRA Standard ES4302. All work at temporary crossings that lies between the rails and within 8.5 feet of the center line of the track on each side may be performed by SCRRA at the cost and expense of the Contractor.

5.11 Performance Bond

Rules and Requirements for Construction on SCRRA Right-of-Way

- A. The Contractor must furnish a performance bond when any excavation, shoring and support of excavation, or boring and jacking of pipe and casing may affect the stability of the railroad facility or track(s), or settlement of the soil around a pipe, in the amount shown in the following table:

Construction Activity	Bond Amount
Excavation and shoring	\$180,000
36" Casing	\$120,000
42" Casing	\$140,000
48" Casing	\$160,000
54" Casing	\$180,000
60" Casing	\$200,000
66" Casing	\$220,000
72" Casing	\$240,000
Over 72" Casing	SCRRA Approval

6.0 UTILITIES

6.1 Protection of Underground Facilities

- A. Signal, communication, fiber-optic, petroleum, natural gas, electric power and other utilities are present in Right-of-Way. Delays and disruptions to service may cause business interruptions involving loss of revenue and profits, danger to train operations, and release of potentially hazardous or flammable compounds. The Contractor must take special precautions and care in connection with excavating, shoring, and other subsurface construction to avoid damage to subsurface facilities.
- B. Before excavating, the Contractor must determine whether any underground pipe lines, electric wires, or cables, including fiber optic cable systems, are present and located within the Project work area by calling the Southern California Underground Service Alert at 811. SCRRA is not a member of Underground Service Alert (DigAlert) and SCRRA signal and communication lines must be located by contacting SCRRA Signal Department.
- C. Potholing and subsurface utilities and facilities verification work shall be completed at least 30 days in advance of any excavation work within the limits of any construction. The intent of performing potholing and field verification of underground utilities well in advance of any relocation, protection or modification of utilities is to preclude any delays or disruption arising from utility relocation and allow for redesign and reissuance of plans and related Contract Documents. Accordingly, any failure on the Contractor's part to perform the potholing and field verification of utilities within the time frames listed above shall be sufficient cause

Rules and Requirements for Construction on SCRRRA Right-of-Way

to reject any claims by the Contractor for delays associated with utility relocations.

- D. When the excavation is within the approximate location of subsurface installation, the Contractor shall determine the exact location of the subsurface installations in conflict with the excavation by excavating with hand tools within the area of the approximate location of subsurface installations as provided by the utility companies and SCRRRA in accordance with Section 4216.3 of California State law before using any power-operated or power-driven excavating or boring equipment.
- E. The Contractor shall pothole and physically locate all utilities, including signal and communications lines, within two (2) feet of railroad vehicle or pedestrian gates to conform depth and lateral location. The Contractor to comply with all requirements of the utility companies which may be more stringent.
- F. All underground and overhead wires must be considered HIGH VOLTAGE and dangerous until verified with the company having ownership of the line. It is the Contractor's responsibility to notify any other companies that have underground utilities in the area and arrange for the location of all underground utilities before excavating. Individual owners of utilities may require that an inspector employed by the utility owner be present during any excavation near the utility.
- G. In addition to calling the Southern California Underground Service Alert (Dig Alert), the Contractor shall call SCRRRA's "Call Before You Dig" number at least 72 hours prior to commencing work at (909) 592-1346 during normal business hours. In case of emergencies involving SCRRRA signal or communication facilities, the Contractor shall call (888) 446-9721. The signal and communication emergency phone line is staffed 24 hours a day, 7 days a week. If a telecommunications system is buried anywhere on or near Right-of-Way, the Contractor will coordinate with SCRRRA and the telecommunication company to arrange for relocation or other protection of the system prior to beginning any work on or near Right-of-Way. Notice must be given to the freight railroads and fiber optic companies not less than 72 hours prior to work by calling to permit them to arrange for the location or protection of any lines under their control.
- H. The SCRRRA's Call Before You Dig number shall remain valid for not more than 28 calendar days from the date of issuance, and after that date shall require revalidation.
- I. If, at any time during an excavation for which there is a valid SCRRRA number, SCRRRA signal and communications field markings are no longer reasonably visible, the Contractor shall contact SCRRRA. Upon receiving timely notification or renotification, SCRRRA will re-locate and re-mark, within two working days, the signal and communications lines that may be affected by the excavation to the extent necessary, at the Contractor sole cost and expense.
- J. It is the responsibility of the Contractor to make arrangements directly with utility companies involving the protection, encasement, reinforcement, relocation, replacement, removing or abandonment in place of non-railroad facilities affected by the Project. SCRRRA has no obligation to supply additional Right-of-Way for

Rules and Requirements for Construction on SCRRRA Right-of-Way

non-railroad facilities affected by this Project, nor does SCRRRA have any obligation to permit non railroad facilities to be abandoned in place or relocated on Right-of-Way. Any facility or utility that crosses Right-of-Way must be covered under an agreement or license obtained through SCRRRA including, without limitation, any relocation of an existing facility or utility.

- K. SCRRRA will, if required, rearrange its communications and signal lines, grade crossing warning devices, train signals, tracks and facilities that are in use and maintained by SCRRRA forces in connection with its operation. This work by SCRRRA will be done by its own forces or by contractors under a continuing contract and is not a part of the work under the Contract for the construction of the Project. The Contractor must allow sufficient time in its schedule to permit SCRRRA to issue the necessary task orders to its contractors order material, and perform any necessary work.

7.0 HAZARDOUS AND CONTAMINATED MATERIALS**7.1 Discharge**

- A. Discharge, release or spill on Right-of-Way of any hazardous substances, oil, petroleum, constituents, pollutants, contaminants, or any hazardous waste is prohibited and Contractor must immediately notify SCRRRA Representative of any discharge, release or spills in excess of a reportable quantity. The Contractor must not allow Right-of-Way to become a treatment, storage or transfer facility as those terms are defined in the Resource Conservation and Recovery Act or any state analogue.

7.2 Notification, Control and Disposal

- A. If the Contractor discovers any hazardous waste, hazardous substance, petroleum or other deleterious material, including any non-containerized commodity or material, on or adjacent to Right-of-Way, in or near any surface water, swamp, wetlands or waterways adjacent to the Right-of-Way, while performing any work on this Project, the Contractor must immediately: (a) notify the Public Agency's Resident Engineer and SCRRRA Representative, of such discovery; (b) take safeguards necessary to protect its employees, sub-contractors, agents and third parties; and (c) exercise due care with respect to the release, including the taking of any appropriate measure to minimize the impact of such release.

8.0 INSPECTION AND OBSERVATION**8.1 Site Inspections by SCRRRA and Others**

- A. In addition to the office reviews of construction submittals, site observations will be performed by SCRRRA or its designee at significant points during construction as determined by SCRRRA. Site visits to observe the progress of the work may be performed at any time throughout the construction process as deemed necessary by SCRRRA.

Rules and Requirements for Construction on SCRRRA Right-of-Way

- B. Federal or State representatives may also conduct inspections and tests to verify compliance with laws and regulations. SCRRRA maintains an Efficiency Testing program to verify the effectiveness of the Contractor's compliance with 49 CFR 214 – Railroad Workplace Safety regulations and SCRRRA third party work rules.

8.2 SCRRRA Efficiency Tests

- A. SCRRRA representatives may make inspections and conduct tests to judge the effectiveness of the safety training, and compliance with SCRRRA requirements. The Contractor shall cooperate with SCRRRA, Federal, and State representatives at all times. Disregard for, or failure to comply with, the requirements of 49 CFR 214 – Railroad Workplace Safety regulations, or SCRRRA third-party safety requirements may result in the removal of an offending individual from Right-of-Way. Egregious or repeated disregard for any safety rule or requirement may result in the termination of the Contractor's Right-of-Entry Agreement.

8.3 Scope of Inspections and Observations

- A. Inspections by SCRRRA will be for compliance with SCRRRA standards, guidelines, rules, and agreements, and will generally be limited to the work of the Contractor within or near Right-of-Way. Notwithstanding any inspection or site visit by SCRRRA, responsibility for compliance with the Contract between the Contractor and the Public Agency, local codes and ordinances, SCRRRA standards and guidelines, and for the inspection of temporary and permanent work and other work site inspections, resides with the Public Agency and the Contractor. SCRRRA by its inspections and comments makes no representations and offers no warranty as to the completeness, accuracy, degree of conformance to codes, compliance with the Contract or local codes or ordinances.

9.0 CLEANING AND RESTORATION**9.1 Cleaning of Right-of-Way**

- A. The Contractor shall, upon completion of the work, promptly remove all of the Contractor's tools, implements and other materials whether brought upon the Right-of-Way by the Contractor or any sub-contractor, employee, supplier, or agent of the Contractor. The Contractor shall also restore the Right-of-Way of SCRRRA, and make arrangements with SCRRRA to restore the tracks, wire lines, signals, and other facilities of SCRRRA. The Contractor shall leave the premises in a clean and presentable state equal to or better than existed at the start of the Project work. All areas must be graded to drain away from the tracks, all fences or other barriers that have been damaged during the work, or removed to facilitate the work, must be replaced with new fencing of an equivalent character. Where the Project improvements intersect the natural flow of the runoff, the contractor shall provide facilities for the proper collection, conveyance, and disposal of water reaching the interfering improvement.

EXHIBIT A

SCOPE OF SITE SPECIFIC WORK PLAN (SSWP)

All SSWPs shall be submitted in writing a minimum of 15 calendar days prior to the scheduled start of work within Right-of-Way. SCRRRA will require a SSWP for all proposed work in or adjacent to Right-of-Way that affects the operation and safety of Metrolink passengers and trains. Provide detailed information on each task for SCRRRA review and approval. A SSWP Checklist shall be submitted to SCRRRA.

TASK	DESCRIPTION
Contractor	Provide the name and address of the contractor.
Scope	Provide a brief description of the work. Description shall include all activities necessary to perform construction task within Right-of-Way, including use of grade crossings, main tracks, siding, stations, and proposed storage area.
Brief Schedule	List the project beginning and end dates, as well as time for the proposed activities.
Location	Identify the city, county, subdivision name, mile post limits, tracks, sidings of the proposed work activity.
Equipments	Identification of all equipment necessary for the successful completion of the work activities. All equipment shall be inspected, calibrated, and certified by the contractor for performing work in and around Right-of-Way. Provide plan illustrating locations of equipment during build-up of equipment.
Material and Staging	Identify all materials required for the completion of the work activity. Identify the placement of all personnel and material to allow for schedule adherence. Identify proposed haul roads, methods of separating construction vehicles from railroad operations, truck staging locations. Provide crane capacity, locations and positions during hoisting.
Schedule	Detailed summary of the work activity. All work with a potential to impact normal functioning of any part of the operating system shall include a detailed schedule of events indicating the expected hourly progress of each activity that has duration of one hour or longer. The schedule shall include a time at which all activities planned will be completed. Failure of the contractor to complete the scheduled activities by the planned time or to put in place an approved contingency plan may adversely impact the operations of SCRRRA.
Haul Routes	Identify the routes that will be used by the trucks to deliver materials. Contractor will communicate with sub-contractors the safety of the railroad and adherence to safety procedures while delivering materials to the Right-of-Way.
Safety Plan	Identification of proper personnel protective equipment (PPE) and work area. Provide plan for safety training, utility notifications, work windows, and measures to perform work activities to effectively reduce the amount of time and effort required during the approved work windows identified and submitted.

Rules and Requirements for Construction on SCRRRA Right-of-Way

Contingency Plan	Include back-up or contingency plans for putting the system back in operation in case of emergency or in case the contractor fails to perform and complete the work on time. Contingency plan shall address the various stages of construction.
Worksite Representative	Names, title, phones (office and cellular), e-mail address and date and time of availability.
Emergency Response Plan	Written procedures for responding to emergencies (phones, contact numbers, addresses and maps) for incident, police, ambulance, fire and medical (hospitals). Provide First-aid kit and fire extinguisher at the field location. Name, title and phones (office and cellular) of all responsible persons who can be contacted for emergency.
Utility Plans	Provide plans showing all the existing underground and overhead utilities, including SCRRRA's signal and communications cables when the excavation, boring and jacking, and drilling & pile driving work is within twenty feet of railroad tracks. The plans will show the actual locations of utilities based on potholing operation.
Excavation Plan (If necessary)	Provide excavation support plans and calculations. Excavation plans shall meet Caltrans, OSHA, and SCRRRA requirements. Refer to SCRRRA's Excavation Support Guidelines.
Boring and Jacking Plan (If necessary)	Provide plans and profile of casing and carrier pipes. Provide details and calculations of boring and excavation. Soil boring data and analysis, track monitoring plans and pressure grouting plans shall be submitted. Refer to SCRRRA's Engineering Standard ES5001 or ES5002.
Drilling and Pile Driving Plan (If necessary)	Provide plans of pile layout and developed elevation of finished structures.
Falsework Plan (If necessary)	Provide falsework installation, stripping and lowering plans and calculations for review and approval.
Temporary Traffic Control Plan (If necessary)	Submit temporary traffic control plans for any traffic control affecting grade crossings and disrupting normal operation of grade crossing protection. Temporary Traffic control plans shall meet CA MUTCD, WATCH and SCRRRA requirements. Refer to SCRRRA Temporary Traffic Control Guidelines and SCRRRA Engineering Standard ES4301.
Storm Related Identification, Prevention and Implementation Plan (If necessary)	Provide plans specific to jobsite that identifies potential hazards, implements preventive measures with timeline, and ways to handle emergencies related to storms.

EXHIBIT B
SITE SPECIFIC WORK PLAN (SSWP)
CHECKLIST

Rules and Requirements for Construction on SCRRRA Right-of-Way

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Equipment				
All equipment necessary for the work is identified?				
Procedures for all equipments to be inspected, calibrated and certified established?				
Material and Staging				
Materials required for work identified?				
Personnel required for work identified?				
Plan illustrating locations of materials and equipment during build-up of equipment and prior to hoisting submitted?				
Plan illustrating crane capacity, locations and positions during hoisting submitted?				
Schedule				
A schedule of the work, showing each activity and where and how it affects normal operation submitted?				
Detailed schedule indicating the expected hourly progress of each activity that has duration of one hour or longer submitted?				
All SCRRRA furnished services and time line identified on the schedule?				
Haul Routes				
Routes used by the trucks to deliver materials identified?				
Sub-contractors are communicated with haul routes, safety of the railroad and safety procedures while delivering materials to the Right-of-Way?				
Truck staging locations identified?				
Safety Plan				
Proper personnel protective equipment (PPE) identified?				
Safety training scheduled and completed?				
SCRRRA signal and communication cables located? Ticket number obtained?				
DigAlert ticket number obtained for the project?				
Work windows are identified for the constructions?				
Measures to perform work activities to effectively reduce the amount of time and effort required during the approved work windows identified and submitted?				
Worksite hazards identified?				
Contingency Plan				
Back-up or contingency plan and necessary resources (labor, equipment, materials) to assure that all appropriate measures are available for the return to full service submitted?				
Contingency plan addresses the various stages of work?				

Rules and Requirements for Construction on SCRRRA Right-of-Way

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Worksite Representatives				
Name, title, phones (office and cellular), e-mail address, date and time of availability provided to SCRRRA?				
Emergency Response Plan				
Written procedures for responding to emergencies for incident, police, ambulance, fire and medical (hospital) submitted?				
First-aid kit and fire extinguisher will be located at field location?				
Name, title and phones (office and cellular) of all responsible persons who can be contacted for emergency provided?				
Utility Plans				
Plans showing all the existing underground and overhead utilities, including SCRRRA's signal and communications cables submitted?				
Excavation Plans (if necessary)				
Limits of excavation with slope lines indicated?				
Excavation support plans including calculations submitted?				
Type and models of equipment proposed for use submitted?				
Operational limits of equipment (including swing radius or overhang distance submitted?				
Plan and elevation illustrating location of equipment with respect to track submitted?				
Stock pile areas?				
SCRRRA Shoring Submittal Design Checklist as per SCRRRA Excavation Support Guidelines, Appendix A submitted?				
SCRRRA Shoring Submittal Review Checklist as per SCRRRA Excavation Support Guidelines, Appendix B submitted?				
Performance Bond submitted to SCRRRA				
Boring and Jacking Plans (if necessary)				
Plan and profile of casing and carrier pipe submitted?				
Location and size of jacking and receiving pits shown?				
Engineering details and calculations submitted?				
Soil boring data and analysis submitted for pipes equal or greater than 48" in diameter?				
Track monitoring plans submitted for pipes equal or greater than 48" in diameter as per Section 9, Track Monitoring of SCRRRA Excavation Support Guidelines?				
Boring, tunneling or jacking operation will be continuous without stoppage when the casing is 20 feet from the nearest track?				
Immediately after completion of jacking operation, the installation shall be pressure grouted?				
Boring and Jacking meet SCRRRA Engineering Standard ES5001 or ES5002 requirements?				
Performance Bond submitted to SCRRRA for pipes equal or greater in diameter than 36 inches?				

ITEM	YES	NO	N/A	IF NO, EXPLAIN
Drilling and Pile Driving Plans (If necessary)				
Plan of pile layout and developed elevation of finished structure with intermediate excavation levels indicated?				
Type, model, location, operation limits of cranes submitted to SCRRRA?				
Pick plan for hoisting of large or heavy materials submitted?				
Falsework Plan (If necessary)				
Plans of falsework and calculations submitted?				
Falsework erection plans submitted?				
Plans of stripping and lowering of falsework including schedule submitted?				
Methods of securing beams and stringers to bents submitted?				
SCRRRA Falsework Submittal Checklist as per SCRRRA Grade Separation Guidelines submitted?				
Temporary Traffic Control Plans (If necessary)				
Temporary traffic control plans submitted?				
Approval of Temporary traffic control plan obtained from local authority?				
Temporary traffic control plan meet CA MUTCD, WATCH and SCRRRA requirements?				
Temporary traffic control plan meet SCRRRA guidelines and Engineering Standard ES4301 requirements?				
Storm Related identification, Prevention and Implementation Plan (If necessary)				
Plans for tie-down and removal of material and small equipment for high winds?				
Plans to handle large amount of stormwater due to heavy rain, including diverting, cleaning drains, off-site and on-site impacts, and covering materials?				
Prevent stormwater damage and methods to prevent ponding submitted?				
Material or equipment creating dams to water runoff?				
Plans to handle landslides for on-site earthwork or from adjacent areas?				
Emergency contact numbers for storm related emergencies?				
Availability of equipment to cleanup storm debris and repair damage?				

EXHIBIT C

CONTRACTOR SUBMITTAL CHECKLIST

SECTION	DESCRIPTION	REFERENCES
1.4 & 1.5	Temporary Right-of-Entry Agreement	Form No. 6, http://www.metrolinktrains.com/agency/page/title/engineering_construction
1.4 & 1.5	Insurance Certificates	Form No. 6
1.5	Construction Schedule	Standard Specifications
1.5	Weekly Look-Ahead Schedule	Standard Specifications
1.5	Document Control Plan	Resident Engineer's Manual
1.5	Testing and Inspection Plan	Resident Engineer's Manual
1.5	Site Specific Work Plans	Form No. 37
4.0	Work Windows Requests	Form No. 37
5.1	Demolition and Removal Plans	Grade Separation Guidelines and Caltrans Falsework Manual
5.2	Excavation and Backfill Plans	Excavation Support Guidelines
5.4	Shoring and Support of Excavation Plans	Excavation Support Guidelines
5.4	Shoring and Support of Excavations Removal Plans	Excavation Support Guidelines
5.4	Track Monitoring Plan	Excavation Support Guidelines - Section 9.0
5.5	Drilling and Pile Driving Plans	AREMA and Caltrans
5.6	Boring and Jacking Plans	ES5001 and ES5002
5.6	Boring and Jacking Track Monitoring Plan	Excavation Support Guidelines, Section 9.0 and Design Criteria Manual Section 9.0
5.8	Temporary Structures Plans	Grade Separation Guidelines and Caltrans Falsework Manual
5.8	Falsework Design Plans	Grade Separation Guidelines and Caltrans Falsework Manual
5.8	Falsework Erection Plan	Grade Separation Guidelines and Caltrans Falsework Manual
5.8	Falsework Removal Plan	Grade Separation Guidelines and Caltrans Falsework Manual
5.9	Hoisting Plans	OSHA
5.10	Clearances	(CPUC) General Order 26-D and ES2101 & ES2102
5.11	Temporary Traffic Control Plans	California MUTCD, Temporary Traffic Control Guidelines, and ES4301
6.1	Underground and overhead utilities plans	California State Law 4216 and Underground Service Alert of Southern California

EXHIBIT D**SAMPLE SITE SPECIFIC WORK WINDOW****1.0 WORK WINDOWS****1.1 Track Occupancy and Project Specific Work Windows**

Track Occupancy and work windows for this project must be coordinated with SCRRRA. Work Windows that apply to this Contract are as follows:

- A. Most work within the SCRRRA right-of-way or within 25 feet from centerline of active tracks shall be performed under Form B.

Only XXX Form B Work Window(s) will be allowed at any one time. Only one EIC and 00 Subgroup Coordinators for each Form B Work Window will be provided. Form B Work Windows will be available between the hours of 00:00 AM to 00:00 PM, Monday through Sunday.

The Contractor shall schedule and conform their work limits within the range of vision of the assigned EIC. If the Contractor's requested work limits are outside of the normal range of vision of the EIC due to curves, topography, or distance, SCRRRA will furnish one or more Roadway Worker Protection (RWP) qualified Subgroup Coordinator suitable to the EIC. The railroad workers are subject to the Federal Hours of Service laws and shall not work in excess of 12 hours per shift, including travel time from crew designated headquarters to the work site.

- B. SCRRRA will provide XXX Limited Track Windows, subject to the terms and conditions of the SCRRRA Standard Specifications, the C&M Agreement, and as stated in this section. Limited Track Window will be available at night between the hours of 00:00 PM to 00:00 AM the following morning, Monday through Sunday.

- C. SCRRRA will provide Exclusive Track Windows, subject to the terms and conditions of the SCRRRA Standard Specifications, the C&M Agreement, and as stated in this section. The Exclusive Track Windows will be for the following period and activities:

1. XXX Exclusive Track Window(s) of 00-hour will be available between the hours of 00:00 PM Friday night to 00:00 AM Monday morning for bridge construction.
2. XXX Exclusive Track Window(s) of 00-hour will be available between the hours of 00:00 PM Friday night to 00:00 AM Monday morning on weekends for track cutovers. Contractor will perform all track cutovers

Rules and Requirements for Construction on SCRRA Right-of-Way

and SCRRA signal forces will perform all associated signal work during the weekend Exclusive Track Windows.

3. XXX Exclusive Track Window(s) and full closures of the street and highway-rail grade crossing will be granted for 00-hour between the hours of 00:00 PM Friday night to 00:00 AM Monday morning to perform all required grade crossing and street rehabilitation and construction, as well as the required track and signal cutovers. During each of the street and highway-rail grade crossing closures, SCRRA signal forces will prepare and install all necessary signal systems. The Contractor shall coordinate with SCRRA signal forces and allocate adequate time during each grade crossing closure for railroad signal cutover and testing before the road and track is returned to service. The Contractor shall furnish and install all street and track work and shall coordinate with SCRRA signal forces to ensure timely completion of all railroad work. During this period Contractor may perform other work, but that work shall not affect the signal circuits (i.e. no track welding, road surfacing, etc.). Work that is permitted during this time includes installation of concrete crossing panels, roadway grading, paving, stripping, traffic control devices and general site clean-up necessary to reopen street and highway-rail grade crossing to vehicular traffic.
- D. The execution of the work by the Contractor shall follow all the requirements and provisions shown in SCRRA's Standard Specifications Section 01 14 00.
- E. SCRRA shall furnish 00 signal persons per day to provide railroad signal construction forces to support the Contractor's track, bridge or station construction activities. Signal support is defined as any work that will interfere with the existing wayside signal system, and/or grade crossing warning system.

1.2 Daily Train Traffic Volumes

There are XXX main tracks with controlling signals at this project location. SCRRA, Amtrak, the BNSF Railway Company (BNSF) and Union Pacific Railroad (UPRR) operate trains over the tracks traversing the project location. The average train traffic on this route is 00 passenger trains and 00 freight trains for 24-hour period. The average train timetable speed is 00 mph for passenger trains and 00 mph for freight trains. Passenger trains include scheduled revenue trains as well as possible dead-head moves. Passenger train traffic is approximately limited to the hours between 4:00 am and 12:00 Midnight. Freight trains are operated 24 hours a day, seven days a week without regular schedules. In addition to freight service, extra freight trains may be operated as traffic warrants.

Exhibit E-2

To Construction and Maintenance Agreement
for
PLACENTIA AVENUE OVERHEAD
BRIDGE WIDENING

SCRRA Form 6 Temporary Right of Entry Agreement
and SCRRA Insurance Requirements

EXHIBIT E-2



Southern California Regional Rail Authority

TEMPORARY RIGHT-OF-ENTRY AGREEMENT

SCRRA FORM NO. 6

SCRRA File No.	
SCRRA Project/Task No.	
Subdivision	
Mile Post	

This Temporary Right-of-Entry Agreement ("Agreement") is between the Southern California Regional Rail Authority (hereinafter referred to as "SCRRA") and _____ (hereinafter referred to as "Contractor"). This Agreement is for entry upon, over and under SCRRA and Member Agency Right-of-Way ("Right-of-Way") at or near _____ in the City of _____ or in the Unincorporated County of _____ (as such location is more specifically identified above) for the purpose of _____ (as shown on attached drawings).

1. **Definitions**

- A. Contractor is an individual, firm, partnership or corporation or combination thereof, private, municipal or public, including joint ventures, which are referred to throughout this document by singular number and masculine gender. For purposes of this agreement, Contractor also includes any subcontractor, supplier, agent or other individual entering the Right-of-Way during performance of work.
- B. Indemnitees are SCRRA, Member Agencies and Operating Railroad and their respective officers, commissioners, employees, agents, successors and assigns.
- C. Operating Railroad is/are any specific passenger or freight-related railroad company(s) validly operating on SCRRA and Member Agency track(s). Operating Railroads are any combination(s) of the SCRRA (METROLINK), the National Railroad Passenger Corporation (AMTRAK), the Union Pacific Railroad Company (UPRR) and the BNSF Railway Company.
- D. Right-of-Way is defined herein to mean the real and/or personal property of SCRRA and/or Member Agencies.
- E. SCRRA is a five-county joint powers authority, created pursuant to State of California Public Utilities Code Section 130255 and California Government Code Section 6500 et seq., to build and operate the "Metrolink" commuter train system in the five-county area on rail rights-of-ways owned by the Member Agencies. The five-county Member Agencies ("Member Agency") are comprised of the following: Los Angeles County Metropolitan Transportation Authority (MTA), Ventura County Transportation Commission (VCTC), Orange County Transportation Authority (OCTA), San Bernardino County Transportation Authority (SBCTA), and Riverside County Transportation Commission (RCTC).

- F. SCRRA Employee-In-Charge (EIC) is a Southern California Regional Rail Authority employee or contractor (SCRRA General Code of Operating Rules and Territory Qualified) providing warning to Public Agency or Contractor personnel of approaching trains or on track equipment and who has the authority to halt work and to remove personnel from the Right-of-Way to assure safe work.
- G. SCRRA Safety Trainer is a qualified SCRRA employee or contracted employee (SCRRA General Code of Operating Rules qualified) as authorized by the SCRRA Director of Engineering and Construction to provide Contractor training.

2. **References**

When working on the Right-of-Way, the Contractor must comply with the rules and regulations contained in the current editions of the following documents which are "references" incorporated in this document as if they were set out in full in this paragraph. The Contractor, by its signature on this Agreement, acknowledges receipt of these documents and agrees to abide by said rules and regulations at all times when on the Right-of-Way. The documents are available on SCRRA's website at www.metrolinktrains.com (About Us, Engineering and Construction)

- A. Rules and Requirements for Construction on SCRRA Property, SCRRA Form No. 37.
- B. General Safety Regulations for Third Party Construction and Utility Workers on SCRRA Property.

3. **Entry onto Right-of-Way**

No verbal approvals will be granted. The Contractor shall not enter onto the Right-of-Way unless Contractor has arranged for SCRRA safety training as well as protective services (EIC and/or other protective services to be determined by SCRRA) and has paid all charges and fees. A fully executed copy of this Form 6 must be in the possession of the contractor at the job site and must be produced by Contractor upon request by SCRRA, a law enforcement officer or Member Agency's representative. If said Agreement is not produced, SCRRA has the right to suspend work in the Right-of-Way until Contractor demonstrates possession of Agreement at the job site.

4. **Termination of Agreement**

SCRRA or Member Agency reserves the right to terminate or revoke this temporary Agreement at any time upon two hours notice; however, in the event of an unsafe condition on the Right-of-Way, SCRRA shall have the right to terminate this Agreement immediately, without any advanced notice. Unless subsequently modified, extended, terminated or revoked by SCRRA, this temporary Agreement shall extend until access to the Right-of-Way is no longer necessary. In any event, however, the Agreement shall be automatically terminated if or when the insurance that the Contractor is required to maintain hereunder lapses or expires. The Contractor agrees to return the Right-of-Way to a condition substantially the same as before work, including replacement, repair, or reinstallation of railroad signs and property. Railroad signs include but are not limited to "No Trespassing", "Speed Limit", "Milepost", "Whistle", "Station Stop" and "Fiber Optics". The Contractor agrees to notify SCRRA, in writing and orally, when use of the Right-of-Way or work is completed. The Contractor shall also complete and return the Confirmation of Completion form. Under no circumstances shall the temporary right of entry provided for under this Agreement be construed as granting to the Contractor or its Subcontractors and agents any right, title or interest of any kind or character in, on or about any Right-of-Way

At the request of SCRRA or Member Agency, Contractor shall remove from the Right-of-Way any employee or other individual who has not completed safety training or otherwise fails to conform to the instructions of SCRRA's or Member Agency's representative in connection with work on the Right-of-Way. Any right of Contractor to enter upon the Right-of-Way shall be suspended until such request of SCRRA or Member Agency is met. Contractor shall defend, indemnify and hold harmless SCRRA and Member Agency against any claim arising from the removal of any such employee or other individual

from the Right-of-Way.

5. **Indemnification**

Contractor, on behalf of itself and its employees, subcontractors, agents, successors and assigns, agrees to indemnify, defend, by counsel satisfactory to SCRRA and Member Agency, and hold harmless "Indemnitees", and each of them to the maximum extent allowed by law, from and against all loss, liability, claims, demands, suits, liens, claims of lien, damages (including incidental consequential damages), costs and expenses (including, without limitation, any fines, penalties, judgments, actual litigation expenses and experts' and actual attorneys' fees), that are incurred by or asserted against Indemnitees arising out of or connected in any manner with (i) the acts or omissions of the Contractor or its officers, directors, affiliates, subcontractors or agents or anyone directly or indirectly employed by them or for whose acts the foregoing persons are liable (collectively, "Personnel") in connection with or arising from the presence upon or performance of activities by the Contractor or its Personnel with respect to the Right-of-Way, (ii) bodily and/or personal injury or death of any person (including without limitation employees of Indemnitees) or damage to or loss of use of Right-of-Way resulting from such acts or omissions of the Contractor or its Personnel or (iii) non-performance or breach by Contractor or its Personnel of any term or condition of this Agreement, in each case whether occurring during the term of this Agreement or thereafter.

The foregoing indemnity shall be effective regardless of any negligence (whether active, passive, derivative, joint, concurrent or comparative) on the part of Indemnitees, unless caused by the sole negligence or willful misconduct of Indemnitees, and is in addition to any other rights or remedies, which Indemnitees may have under the law or under this Agreement.

Claims against the Indemnitees by the Contractor or its Personnel shall not limit the Contractor's indemnification obligations hereunder in any way, whether or not such claims against Indemnitees may result in any limitation of the amount or type of damages, compensation or benefits payable by or for the Contractor or its Personnel under workers' compensation acts, disability benefit acts or other employee benefit acts or insurance.

The provisions of this section shall survive the termination or expiration of this Agreement.

6. **Assumption of Liability**

To the maximum extent allowed by law, the Contractor releases Indemnitees from and assumes any and all risk of loss, damage or injury of any kind to any person or property, including without limitation, the Right-of-Way and any other property of or under the control or custody of, the Contractor or its personnel in connection with any acts undertaken under or in connection with this Agreement. The Contractor's assumption of risk shall include, without limitation, loss or damage caused by defects in any structure or improvements (including easement, lease or license agreements for other existing improvements and utilities) on the Right-of-Way, accident or fire or other casualty on the Right-of-Way or electrical discharge, noise or vibration resulting from SCRRA, Member Agency and Operating Railroad transit operations on or near the Right-of-Way and any other persons or companies employed, retained or engaged by SCRRA or Member Agency. The Contractor, on behalf of itself and its Personnel (as defined in Section 5, "Indemnification") as a material part of the consideration for this Agreement, hereby waives all claims and demands against the Indemnitees for any such loss, damage or injury of the Contractor and/or its Personnel. The Contractor waives the benefit of California Civil Code Section 1542, which provides as follows: "A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

The provisions of this Section shall survive the termination or expiration of this Agreement.

7. **Insurance**

The Contractor, at its sole cost and expense, shall obtain and maintain in full force and effect during the term of this Agreement insurance as required by SCRRA or Member Agency in the amounts, coverage, and terms and conditions specified, and issued by insurance companies as described on Exhibit "A". SCRRA or Member Agency reserve the right, throughout the term of this Agreement, to review and change the amount and type of insurance coverage it requires in connection with this Agreement. Prior to entering the Right-of-Way or performing any work or maintenance on the Right-of-Way, the Contractor shall furnish SCRRA with insurance endorsements or certificates in the form of Exhibit "B", evidencing the existence, amounts and coverage of the insurance and signed by a person authorized by the insurer to bind coverage on its behalf. In most instances, SCRRA and Member Agency do not allow self-insurance; however, if the Contractor can demonstrate assets and retention funds meeting SCRRA and Member Agency self-insurance requirements, SCRRA and Member Agency may in SCRRA's sole and absolute discretion permit the Contractor to self-insure. The right to self-insure with respect to any coverage required hereunder may be granted or revoked at the sole and absolute discretion of SCRRA or any Member Agency. SCRRA or Member Agency shall not be liable for the payment of any premiums or assessments for insurance required to be maintained by the Contractor under this Agreement. Contractor affirms that all subcontractors covered by this Agreement are insured to the same limits required of the Contractor or included in Contractor's policy.

Prior to the expiration of any policy, the Contractor shall furnish SCRRA with certificates of renewal or "binders" thereof. Each certificate shall expressly state that such policies shall not be cancelable or otherwise subject to modification except after thirty (30) days prior written notice to SCRRA and Member Agency.

8. **No Assignment**

The Contractor shall not assign this Agreement or any right hereunder without SCRRA's and Member Agency's prior written consent.

9. **Compliance by Contractor**

The Contractor shall take all steps necessary to assure that its subcontractors comply with the terms and conditions of this Agreement and applicable laws and regulations. The Contractor shall assure that no lien is placed against the Right-of-Way arising from performance of work hereunder by Contractor or any subcontractor, and in the event of such a lien, Contractor shall immediately remove or cause to be removed such lien.

10. **Safety and Protective/Flagging Services Notification**

The Contractor and his subcontractors shall be required to attend a SCRRA Safety Orientation Class prior to receiving permission to enter the Right-of-Way. The Contractor shall request safety training by calling Laurene Lopez at 909-451-2885. Request safety training at least 72 hours in advance of requested training date. Upon completion of safety training and prior to start of work activities, the Contractor shall notify SCRRA's consultant/contractor, Dale Stuart with Jacobs Engineering at (213) 305-8424 a minimum of fifteen (15) working days prior to beginning work on the Right-of-Way and secure any safety EIC services SCRRA deems necessary. This prior notification does not guarantee the availability of on-track safety protection for the proposed date of work. In no event shall SCRRA be liable to Contractor in the event that track safety protection cannot be provided due to force majeure event or for any other reason. SCRRA will advise Contractor as soon as reasonably practicable once it is determined that track safety protection will be unavailable on a proposed date of construction.

11. **SCRRA Safety and Protective Services**

The Contractor must request and arrange for on-track safety protection satisfactory to SCRRA in the

following circumstances:

- A. When the Contractor's work activities are within the right-of-way of SCRRA.
- B. When the Contractor's work activities are located over or under a track or tracks.
- C. When cranes, pile drivers, drill rigs, concrete pumps, or similar equipment positioned outside of the right-of-way could foul the track in the event of tip-over or other catastrophic occurrence.
- D. When in the opinion of the SCRRA it is necessary to safeguard the employees, trains, engines and facilities of SCRRA.
- E. When any excavation is performed below the elevation of the track sub-grade, or track or other railroad facilities may be subject to movement or settlement.
- F. When work in any way interferes with the safe operation of trains at timetable speeds.
- G. When any hazard is presented to railway track, communications, signal, electrical, or other facilities either due to persons, material, equipment or blasting in the vicinity.
- H. When clearing, grubbing, grading, or blasting is in proximity to the right-of-way which, in the opinion of SCRRA or representative of an SCRRA Member Agency, may endanger the right-of-way or operations.
- I. When street work and maintenance activities, located within the right-of-way or in the vicinity of the highway-rail grade crossing, requiring temporary work area traffic control, which may affect or create unsafe conditions for employees, public, trains and vehicles.

The Contractor, and his subcontractors, shall complete SCRRA's Safety Orientation Class, as instructed in Item 10. Upon completion individuals will received a safety sticker which shall be adhered to their hardhat while working on railroad Right-of-Way as proof of completion of safety training.

12. Underground Utilities

Signal, communication, fiber-optic, petroleum, natural gas, electric power and other utilities are present in SCRRA right-of-way. The Contractor shall contact the Southern California Underground Service Alert (DigAlert) at 811 to locate underground utilities. SCRRA is not a member of DigAlert. The Contractor shall call SCRRA at (909) 592-1346 a minimum of five days prior to beginning work to mark SCRRA's signal and communication cables and conduits.

Delays and disruptions to service may cause business interruptions involving loss of revenue and profits, danger to train operations, and release of potentially hazardous or flammable compounds.

13. Reimbursement of Costs and Expenditures

The Contractor agrees to reimburse SCRRA or any Member Agency and/or any Operating Railroad for all cost and expense incurred by SCRRA or Member Agency in connection with work and safety services, including without limitation the expense of engineering plan review, administrative costs to process approvals and agreements, annual overhead rates, safety training, utility markings, and SCRRA EIC and protective services as SCRRA deems necessary. Contractor agrees to reimburse SCRRA for all work related services including but not limited to installation and removal of falsework beneath tracks, restoration of railroad roadbed and tracks, installation of appropriate protective devices, temporary and permanent repairs of signal or communication equipment, restoration of the Right-of-Way to a condition satisfactory to SCRRA's and Member Agency's representative.

The Contractor agrees to reimburse SCRRA or any Member Agency actual cost and expense incurred.

This includes cost of plan review, administrative, safety training, utility marking, flagging services fees, and work performed in connection with said work, including applicable overhead rates. Refer to SCRRA's Schedule of Fees for more information. SCRRA will charge the Contractor four hours minimum for the mandatory safety training class and for other services four hours or less in duration. SCRRA will charge the Contractor for eight hours minimum if the Contractor cancels SCRRA services after SCRRA EIC or SCRRA Safety Training Officer is on site on the day of the appointment.

The Contractor also agrees to reimburse SCRRA, any Member Agency and/or any Operating Railroad for any and all cost and expense incurred as a result of Contractor's work which may result in (i) unscheduled delay to the trains or interference in any manner with the operation of trains, (ii) unscheduled disruption to normal train operation, (iii) unreasonable inconvenience to the public or private user of the system, (iv) loss of revenue and (v) alternative method of transportation for passengers. SCRRA will submit final bills to the Contractor for cost incurred.

SCRRA will provide the cost of all SCRRA services based on Contractor's input. Prior to commencement of work, the Contractor shall provide deposit representing the estimated expense to be incurred by SCRRA and Member Agency in connection with said work. As the work progresses, SCRRA may require additional progress payments as the scope of work changes or becomes clearer. SCRRA may discontinue services to Contractor pending receipt of progress payments. The deposit and progress payments shall be applied to SCRRA's and Member Agency's actual costs and expenditures. The Contractor shall be responsible to pay any amount exceeding the above payments upon receipt of notice or invoice by SCRRA. SCRRA shall exercise its best efforts to provide final invoicing to Contractor within 90 days following completion of the work; however, Contractor acknowledges that it shall be responsible for payment of all expenses incurred by SCRRA and Member Agency in connection with the work even if the final invoicing is provided to Contractor thereafter. Upon completion of all work, any payments in excess of SCRRA's and Member Agency's costs and expenditures shall be returned to the Contractor within a reasonable time.

If the Contractor stop the work in the right-of-way for three months or longer and then plans to resume the work, he/she shall notify SCRRA as per contact information shown in Section 18 prior to resumption of the work.

14. **Temporary Traffic Control**

Temporary traffic control shall be used when a maintenance or construction activity is located on the Right-of-Way or when the activity is located in the vicinity of a highway-rail grade crossing, which could result in queuing of vehicles across the railroad tracks. Temporary traffic control will comply with the current editions of the CA MUTCD, WATCH and SCRRA Engineering Standard ES4301. Refer to SCRRA's "Temporary Traffic Control Guidelines" for further information on definitions, referenced standards, traffic control plans, submittals, traffic control elements and responsibility/authority for temporary traffic control at highway-rail grade crossings. The guidelines provide acceptable alternatives and procedures, which prescribe appropriate temporary traffic control measures at highway-rail grade crossings. The Contractor must place flagmen in the direction of the flow of traffic for each lane to assure that there is no queuing of traffic over the crossing. If after moving your work area away from the railroad right of way and queuing of traffic persists, flagmen must be reinstated at the crossing to control vehicular traffic over the crossing.

15. **Environmental Health and Safety Plan**

Contractor shall immediately notify SCRRA and the appropriate regulatory agency (ies) of any spill, release, discharge or discovery of any hazardous material or contaminants in, on or under the Right-of-Way. After providing such notice to SCRRA and the appropriate regulatory agency (ies), any contaminated soils or hazardous materials which are spilled, released, discharged or discovered by the Contractor, shall be promptly removed and disposed of by Contractor in accordance with all the applicable laws at Contractor's sole cost and expense. To the extent preexisting contamination or hazardous material, which was not caused or contributed to by Contractor, is discovered or unearthed

by Contractor, Contractor shall only be obligated by this provision to removing and disposing of that portion of the contaminated soils or hazardous materials that are unearthed or otherwise disturbed during Contractor's operations. Prior to entry onto the Right-of-Way, Contractor (s) performing trenching, excavations or soil borings may be required by SCRRA to submit a "Hazardous Materials Work Plan." If required, said plan shall include Contractor's site-specific health and safety plan and any other information that SCRRA may require. Contractor shall ensure that all documentation for transportation or disposal of contaminated soils or hazardous materials is prepared in the Contractor's name only and that neither SCRRA nor Member Agency shall have any responsibility or liability therefor. Contractor shall defend and indemnify SCRRA for any spill, release or discharge of contaminants or hazardous materials by Contractor in connection with activities hereunder in accordance with Section 5 Indemnification.

16. Warranty for Plan Review

Review and or approval of the plans and calculations by SCRRA shall not relieve the Contractor of responsibility for full compliance with contract requirements, correctness of design drawings and details, proper fabrication and construction techniques and coordination with other government and private permitting agencies, nor shall such review or approval by SCRRA in any way relieve Contractor from, or otherwise modify, Contractors' indemnity obligations (Section 5) or assumption of liability obligations (Section 6). Execution of this right of entry does not imply design warranty or responsible charge on the part of SCRRA engineering employees. The parties expressly agree that SCRRA makes no warranty of any kind and assumes no responsibility therefor.

17. Emergency Telephone Numbers

The Contractor must immediately contact SCRRA in case of accidents, personal injury, defect in track, bridge or signals or any unusual condition that may affect the safe operation of the railroads. The following are SCRRA's emergency numbers:

Signal Emergencies and Grade Crossing Problems	(888) 446-9721
Metrolink Chief Dispatcher	(909) 596-3584 or (888) 446-9715
Metrolink Sheriff's Dispatch Center	(323) 563-5280
Signal and Communications Cable Location	(909) 592-1346

18. Notices

Except as otherwise provided in this agreement, all notices, statements, demands, approvals or other communications to be given under or pursuant to this agreement will be in writing, addressed to the parties at their respective addresses as provided below and will be delivered in person or by certified or registered mail, postage paid or by telegraph or cable, charges pre-paid.

SCRRA: Southern California Regional Rail Authority (SCRRA)
2558 Supply Street
Pomona, CA 91767
Attn: Mr. Christos Sourmelis - ROW Crossings Coordinator
E-mail: sourmelisc@scrra.net
Office Number: (909) 392-8463

Contractor: Contractor's address is shown on the next page.

19. California Law/Venue

This agreement shall be construed and interpreted in accordance with and governed by the laws of the State of California. Venue shall be located in courts in Los Angeles County.

The Contractor hereby agrees to the terms as set forth in this Agreement and hereby acknowledges receipt of

this Agreement and of the insurance certificate forms (Exhibits A & B) herein provided.

_____ (Name of Contractor)	_____ (Signature)
_____ (Address)	_____ (Print Name)
_____ (Telephone)	_____ (Title)
_____ (Fax)	_____ (Contractor's State License No.)
	_____ (Email)

Receipt of the foregoing agreement and certificated of Insurance furnished by the Contractor are hereby acknowledged on this ___day of _____20____.

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

By: _____
ROW Crossings Coordinator

By: _____
Principal Engineer, Project Delivery

[Approved As To Form By Legal Counsel]

**EXHIBIT "A"
INSURANCE REQUIREMENTS FOR RIGHT OF ENTRY AGREEMENTS**

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to Right-of-Way, which may arise from or in connection with the performance of the work by the Contractor, his agents, representatives, employees or subcontractors.

1. Minimum Scope of Insurance

Coverage shall be at least as broad as:

- Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
- Insurance Services Office form No. CA 0001 (Ed. 1/87) covering Auto. Liability, code 1(any auto).
- Worker's Compensation insurance as required by the State of CA. & Employer's Liability Insurance.
- Course of Construction insurance form providing coverage for "all risks" of loss.
- Property insurance against all risks of loss to any tenant improvements or betterment.
- Contractor's Pollution Liability

2. Minimum Limits of Insurance

Contractor shall maintain limits no less than:

- General Liability: \$2,000,000 per occurrence for bodily injury, personal injury and Property damage.
- If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
- Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.
- Employer's Liability: \$1,000,000 per accident for bodily injury or disease.
- Course of Construction: Completed value of the project.
- Property Insurance: Full replacement cost with no coinsurance penalty provision.
- Contractor's Pollution Liability: \$1,000,000 per occurrence/\$2,000,000 annual aggregate

3. Certificate Holder/Additional Insured

Certificate holder and/or insured will be the following:

Southern California Regional Rail Authority (SCRRA)

Additionally Insured will be the following:

Los Angeles County Metropolitan Trans. Auth. (MTA)
 Burlington Northern Santa Fe Corp. (BNSF)
 Orange County Transportation Authority (OCTA)
 Union Pacific Railroad Company (UPRR)
 Riverside County Transportation Commission (RCTC)
 National Railroad Passenger Corp. (AMTRAK)
 San Bernardino County Transportation Authority (SBCTA)
 Ventura County Transportation Commission (VCTC)

4. Railroad Protective Liability Insurance

- Railroad Protective Liability Insurance

The Contractor shall provide, with respect to the operations they or any of their subcontractors perform on the Right-of-Way, Railroad Protective Liability Insurance, AAR-AASHTO (ISO/RIMA) in the name of the SCRRA with additional insured specified in Section 3 above.

The policy shall have limits of liability of not less than **\$2 million per occurrence**, combined single limit,

for coverage and for losses arising out of injury to or death of all persons and for physical loss or damage to or destruction of Property, including the loss of use thereof. A \$6 million annual aggregate shall apply.

If coverage is provided on the London claims-made form, the following provisions shall apply:

- A. The limits of liability shall be not less than \$3 million per occurrence, combined single limit. A \$9 million aggregate may apply.
- B. Declarations item 6, extended claims made date, shall allow an extended claims made period no shorter than the length of the original policy period plus one year.
- C. If equivalent or better, wording is not contained in the policy form, the following endorsement must be included:

It is agreed that "physical damage to Property" means direct and accidental loss of or damage to rolling stock and their contents, mechanical construction equipment or motive power equipment, railroad tracks, roadbed, catenaries, signals, bridges or buildings.

For certain low-hazard activity, Contractor may request that the SCRRA and Member Agency waive the requirement to provide the Railroad Protective Liability Insurance. If the exposure to the track is physically separated by a building, floor or a continuous fence (no thoroughfares) and the employees of the Contractor are explicitly notified that they are not permitted to have any contact with the track, the Railroad Protective Liability Insurance requirement may be waived by SCRRA's Manager Public Projects or his/her designated representative.

5. **Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to and approved by SCRRA and Member Agency. At the option of SCRRA, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects SCRRA and Member Agency, its officials and employees or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

6. **Other Insurance Provisions**

The General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions:

- A. SCRRA and Member Agency, its subsidiaries, officials and employees are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Contractor; premises owned, occupied or used by the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to SCRRA and Member Agency, its subsidiaries, officials and employees.
- B. For any claims related to this work, the Contractor's insurance coverage shall be primary insurance as respects SCRRA and Member Agency, its subsidiaries, officials and employees. Any insurance or self-insurance maintained by SCRRA and Member Agency, its subsidiaries, officials and employees shall be excess of the Contractor's insurance and shall not contribute with it.
- C. Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to SCRRA and Member Agency, its subsidiaries, officials and employees.
- D. The Contractor insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- E. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to SCRRA

and/or Member Agency.

Course of Construction policies shall contain the following provisions:

- A. SCRRRA and Member Agency shall be named as loss payee.
- B. The insurer shall waive all rights subrogation against SCRRRA and Member Agency.

7. **Acceptability of Insurers**

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise approved by SCRRRA and Member Agency.

8. **Verification of Coverage**

Contractor shall furnish SCRRRA with original endorsements evidencing coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on forms provided by SCRRRA. All endorsements are to be received and approved by SCRRRA before work commences. As an alternative to SCRRRA's forms, the Contractor's insurer may provide complete, certified copies of all required insurance policies, including endorsements evidencing the coverage required by these specifications.

9. **Subcontractors**

Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

10. **Train Services**

The train traffic information is available on SCRRRA's website at www.metrolinktrains.com (About Us, Engineering and Construction). The following is the direct link to the file.
<http://www.metrolinktrains.com/pdfs/EngineeringConstruction/TrainTrafficDensityExhibitforSCRRASystem.pdf>

11. **Submittal**

The original insurance policy (s) shall be submitted to:

Southern California Regional Rail Authority (SCRRRA)
2558 Supply Street
Pomona, CA 91767
Attn: Mr. Christos Sourmelis - ROW Crossings Coordinator
E-mail: sourmelisc@scrra.net
Office Number: (909) 392-8463

**EXHIBIT "B"
RAILROAD PROTECTIVE LIABILITY POLICY
DECLARATION**

POLICY			
Insurance Company: _____		From: _____ To: _____	
Policy Number: _____		12:01am Standard time at location	
Policy Period: _____			
CERTIFICATE HOLDER AND ADDITIONALLY INSURED			
Certificate Holder/Insured:			
Southern California Regional Rail Authority (SCRRA) 2558 Supply Street, Pomona, CA 91767			
Additionally Insured:			
Los Angeles County Metropolitan Transportation Authority (MTA)	Burlington Northern Santa Fe Corporation (BNSF)		
Orange County Transportation Authority (OCTA)	Union Pacific Railroad Company (UPRR)		
Riverside County Transportation Commission (RCTC)	National Railroad Passenger Corp. (AMTRAK)		
San Bernardino County Transportation Authority (SBCTA)			
Ventura County Transportation Commission (VCTC)			
LIMITS OF INSURANCE			
Aggregate Limit	\$6,000,000	Each Occurrence Limit	\$2,000,000
DESCRIPTION OF WORK AND JOB LOCATION(S)			
NAME AND ADDRESS OF DESIGNATED CONTRACTOR			
NAME AND ADDRESS OF INVOLVED GOVERNMENT AUTHORITY OR OTHER CONTRACTING PARTY			
PREMIUM			
Contract Cost	_____	Rate per 1,000 of	_____
Premium Base	_____	Advance Premium	_____
FORM OF ENDORSEMENT			
<u>Title</u>			<u>Number</u>
COUNTERSIGNATURE			
Countersigned by	_____	Date	_____
	<i>(Authorized Representative)</i>		

EXHIBIT "B"

CERTIFICATE OF INSURANCE Southern California Regional Rail Authority (SCRRA)				ISSUE DATE (MM/DD/YY)		
PRODUCER		THIS CERTIFICATE OF INSURANCE IS NOT AN INSURANCE POLICY AND DOES NOT AMEND, EXTEND OR ALTER THIS COVERAGE AFFORDED BY THE POLICY BELOW. COMPANIES AFFORDING COVERAGE COMPANY A LETTER COMPANY B LETTER COMPANY C LETTER COMPANY D LETTER COMPANY E LETTER				
INSURED						
COVERAGES THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENTS, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.						
CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR. <input type="checkbox"/> OWNER'S & CONTRACTOR'S PROT. <input type="checkbox"/> OTHER _____				GENERAL AGGREGATE	\$
					PRODUCTS-COMP/OP AGG.	\$
					PERSONAL & ADV. INJURY	\$
					EACH OCCURRENCE	\$
					FIRE DAMAGE (Any one fire)	\$
					MED. EXPENSE	\$
					(Any one person)	
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTO <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS <input type="checkbox"/> GARAGE LIABILITY				COMBINED SINGLE LIMIT	\$
					BODILY INJURY (Per person)	\$
					BODILY INJURY (Per accident)	\$
					PROPERTY DAMAGE	\$
	EXCESS LIABILITY <input type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM				EACH OCCURRENCE	\$
					AGGREGATE	\$
	PROPERTY INSURANCE <input type="checkbox"/> COURSE OF CONSTRUCTION				AMOUNT OF INSURANCE	\$
	WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY				STATUARY LIMITS	\$
					EACH ACCIDENT	\$
					DISEASE-POLICY LIMIT	\$
					DISEASE-EACH EMPLOYEE	\$
DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS						
THE FOLLOWING PROVISIONS APPLY: 1. None of the above-described policies will be canceled, limited in scope of coverage or nonrenewed until after 30 days' written notice has been given to SCRRA at the address indicated below. 2. As respects operations of the named Insured performed on behalf of SCRRA, the following are added as additional Insured on all liability insurance policies listed above: SCRRA, its Member Agencies, Operating Railroads, its subsidiaries, officials and employees. 3. It is agreed that any insurance of self-insurance maintained by SCRRA will apply in excess of and not contribute with, the insurance described above. 4. SCRRA is named a loss payee on the property insurance policies described above, if any. 5. All rights of subrogation under the property insurance policy listed above have been waived against SCRRA. 6. Any failure by the Insured to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to SCRRA, its Member Agencies, its subsidiaries, officials and employees. 7. The worker's compensation insurer named above, if any, agrees to waive all rights of subrogation against SCRRA for injuries to employees of the Insured resulting from work for SCRRA or use of Member Agencies premises or facilities.						
CERTIFICATE HOLDER Southern California Regional Rail Authority (SCRRA) 2558 Supply Street, Pomona, CA 91767				AUTHORIZED REPRESENTATIVE SIGNATURE _____ TITLE _____ PHONE NO. _____		
ADDITIONAL INSURED MTA, OCTA, RCTC, SBCTA, VCTC, BNSF, UPRR, AMTRAK						

Exhibit F

To Construction and Maintenance Agreement

for

PLACENTIA AVENUE OVERHEAD

BRIDGE WIDENING

Funding Schedule

**Exhibit F
Funding Breakdown**

Project: I-215/Placentia Avenue Overhead Widening Project

Funding Source	Fiscal Year			Total
	2019/20	2020/21	2021/22	
State SB-1 LPP	\$7,042,000			\$7,042,000
Local Measure A	\$6,046,000	\$43,000,000		\$49,046,000
Total	\$13,088,000	\$43,000,000		\$56,088,000

Exhibit G

To Construction and Maintenance Agreement

for

PLACENTIA AVENUE OVERHEAD

BRIDGE WIDENING

CPUC Decision Granting Authority to Alter or
Widen the Existing Grade-separated Highway-Rail
Crossing

PUBLIC UTILITIES COMMISSION

320 W. 4TH STREET, SUITE 500
LOS ANGELES, CA 90013



May 6, 2019

File Number: XREQ 2019040009
Placentia Street (Overhead)
City of Riverside, Riverside County

Alex Menor
Project Manager
Riverside County Transportation Commission
4080 Lemon Street, 3rd Floor
Riverside, CA 92502

SENT VIA E-MAIL

Re: General Order 88-B Request for Authority to Modify the Placentia Street Grade-Separated Highway-Rail Crossing Identified as CPUC Crossing Number 002X-15.40-A (101PV-80.23-A) and DOT Number 027334L, in Unincorporated Riverside County.

Dear Mr. Menor:

This refers to your letter dated April 5, 2019 received by us on April 11, 2019, requesting authorization pursuant to California Public Utilities Commission (CPUC/Commission) General Order (GO) 88-B, to modify the grade-separated Placentia Street crossing (crossing) over the Southern California Regional Rail Authority (SCRRA) tracks in Unincorporated Riverside County (County). The crossing is identified as CPUC Crossing Number 002X-15.40-A (101PV-80.23-A) and DOT Number 027334L.

The crossing consists of two traffic lanes in each direction over two mainline railroad tracks owned by the Riverside County Transportation Commission (RCTC) and maintained by SCRRA. BNSF also operates freight trains over this line. The proposed alterations will provide an additional 12 foot wide traffic lane and 10 foot wide equestrian trail, as shown on the plans. Approximately 12 passenger trains operate on the railroad tracks at a maximum speed of 79 miles per hour (mph) and one freight train operates at a maximum speed of 30 mph daily. The average daily vehicle traffic is 9,500.

The RCTC proposes to widen the south side of the crossing structure by approximately 38 feet 2 inches.

All proposed permanent clearances will comply with Commission GO 26-D minimum clearance requirements. RCTC did not request any temporary clearance reductions.

The Commission's Rail Crossings and Engineering Branch (RCEB) investigated the request filed by the RCTC and finds that it adequately addresses compliance and safety. As RCTC and SCRRA are in agreement as to the design and apportionments of the cost under the provisions of GO 88-B, the improvements as described in your request received by us on April 11, 2019, and summarized above, are authorized.

Alex Menor
XREQ 2019040009
May 6, 2019
Page 2 of 2

This project is statutorily exempt from the requirements of the California Environment Quality Act of 1970, as amended [California Public Resources Code 21080.13].

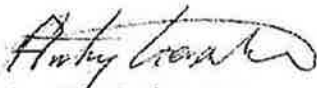
This authorization shall expire if the above conditions are not complied with or if the work is not completed within three years of the date of this letter. Upon written request to RCEB, the time to complete the project may be extended. Any written request for a time extension must include concurrence letters by involved parties in support of the time extension. If an extension is requested, RCEB may reevaluate the crossing prior to granting an extension.

Within 30 days after completion of this project, the RCTC shall notify RCEB that the authorized work is completed, by submitting a completed Commission Standard Form G titled *Report of Changes at Highway Grade Crossings and Separations*. Form G requirements and forms can be obtained at the Commission web site at <http://www.cpuc.ca.gov/Crossings>. This report may be submitted electronically to rceb@cpuc.ca.gov.

At the conclusion of the project, SCRRA should electronically submit an updated Federal Railroad Administration (FRA) inventory form (Form F6180.71) to the FRA, reflecting the changes. Commission requests a concurrent copy of the updated inventory form be submitted to rceb@cpuc.ca.gov.

If you have any questions, please contact Sergio Licon at (213) 576-7085 or sal@cpuc.ca.gov.

Sincerely,



Anton Garabetian, P.E.
Program and Project Supervisor
Rail Crossings and Engineering Branch
Safety and Enforcement Division

cc: **(SENT VIA E-MAIL)**
Justin Fomelli, SCRRA
Tiera Adams, BNSF