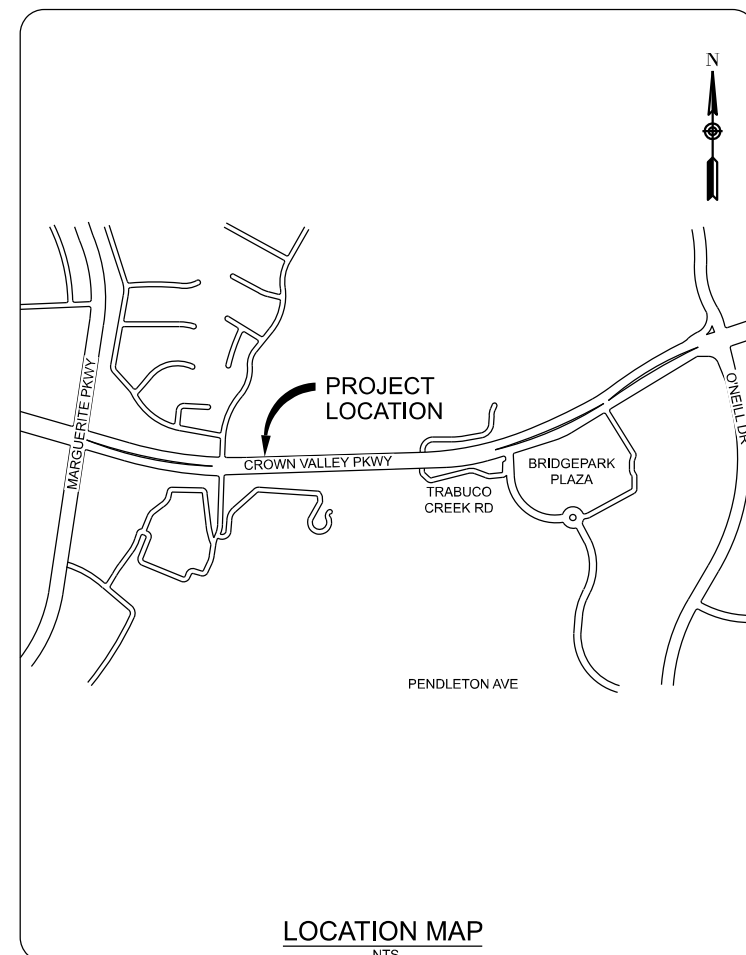
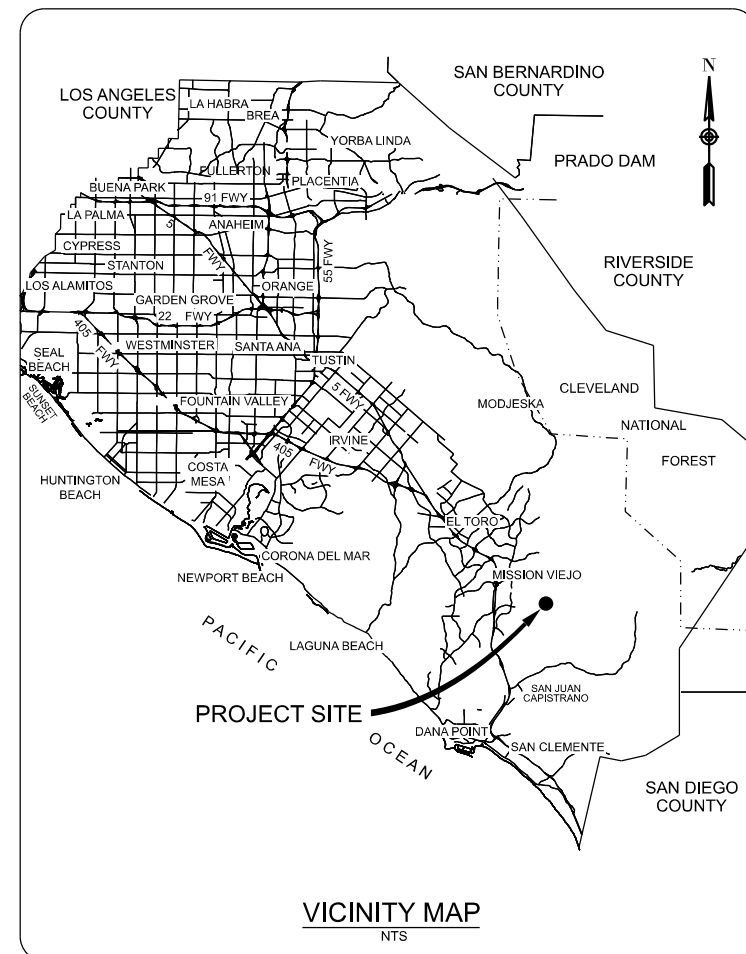


**ATTACHMENT A  
PLANS**



# County of Orange



SANTA ANA, CALIFORNIA

SHANE L. SILSBY, DIRECTOR

PLANS FOR  
2018 BRIDGE MAINTENANCE PROJECT  
CROWN VALLEY BRIDGE PARKWAY OVER  
ARROYO TRABUCO BRIDGE NO. 55C0637  
WORK ORDER NO ER20539

April 25, 2018  
BID SET

FUNDED & MAINTAINED BY: ORANGE COUNTY PUBLIC WORKS

| COUNTY OF ORANGE OC PUBLIC WORKS DEPARTMENT |                                                                                                                                                                |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SUBMITTED:                                  | <div> <div>REGINA HU, P.E.</div> <div>SENIOR CIVIL ENGINEER</div> <div>OC INFRASTRUCTURE PROGRAMS</div> <div>ENGINEERING DIVISION</div> </div> <div>DATE</div> |
| RECOMMENDED:                                | <div> <div>PAUL JEFFREY ERNST, P.E.</div> <div>MANAGER</div> <div>OC INFRASTRUCTURE PROGRAMS</div> <div>ENGINEERING DIVISION</div> </div> <div>DATE</div>      |
| RECOMMENDED:                                | <div> <div>NARDY KHAN, P.E.</div> <div>DEPUTY DIRECTOR</div> <div>OC INFRASTRUCTURE PROGRAMS</div> </div> <div>DATE</div>                                      |
| APPROVED:                                   | <div> <div>KHALID BAZMI, P.E.</div> <div>ASSISTANT PUBLIC WORKS DIRECTOR</div> <div>COUNTY ENGINEER</div> </div> <div>DATE</div>                               |

|                                     |  |
|-------------------------------------|--|
| <b>RECORD DRAWING</b>               |  |
| CONTRACTOR: _____                   |  |
| RESIDENT ENGINEER: _____            |  |
| INSPECTOR: _____                    |  |
| CONSTRUCTION START DATE: _____      |  |
| CONSTRUCTION COMPLETION DATE: _____ |  |

PREPARED BY

PREPARED UNDER RESPONSIBLE CHARGE OF:

**DE DOKKEN**  
ENGINEERING

110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL. 916 858-0642  
FAX 916 858-0643

*Fortunato Enriquez*

4/25/2014

FORTUNATO ENRIQUEZ, P.E.,  
DOKKEN ENGINEERING

REGISTERED PROFESSIONAL ENGINEER  
EXPIRATION DATE: 3/31/2014  
No. CB0445  
CIVIL  
STATE OF CALIFORNIA

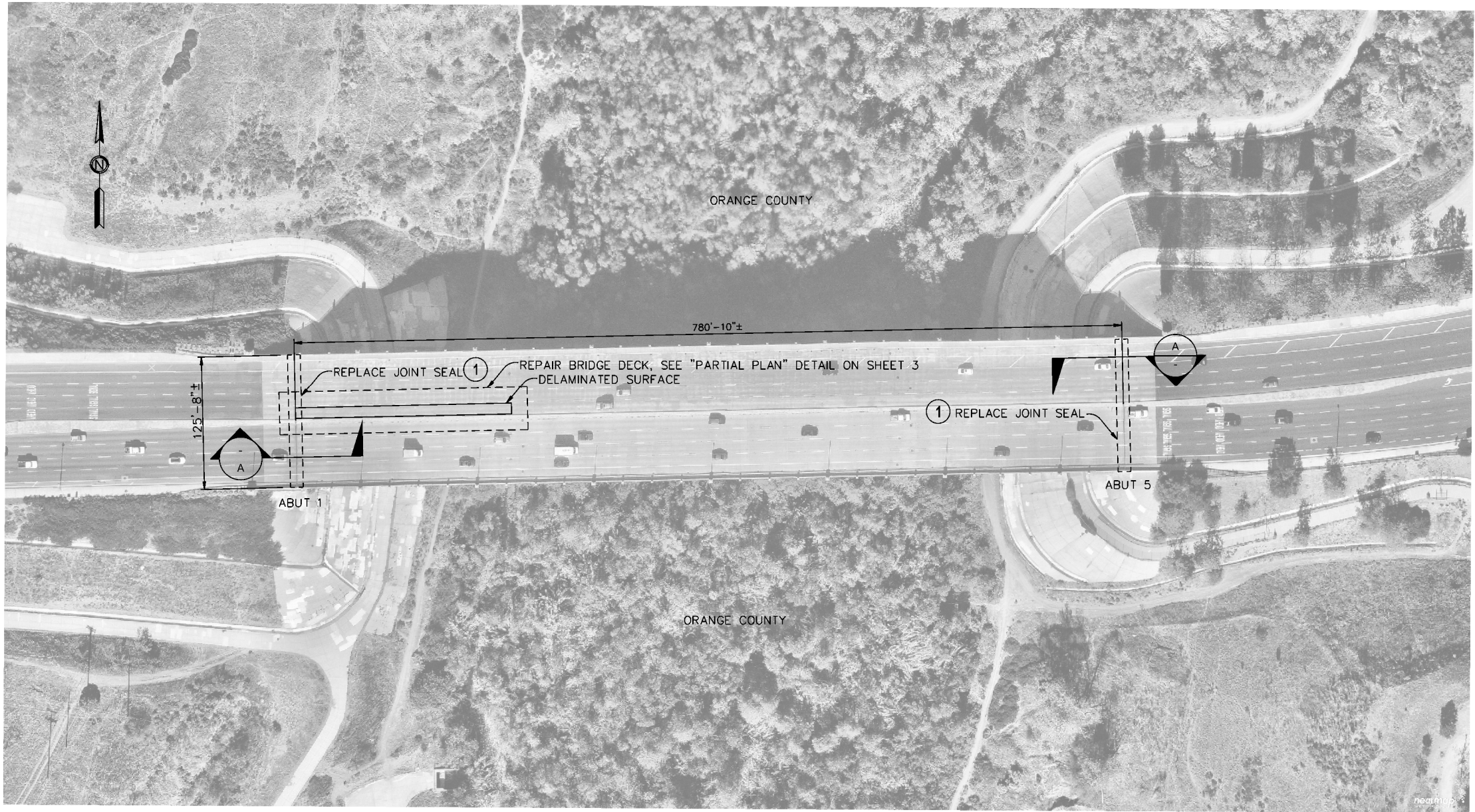
| INDEX OF SHEETS |                 |
|-----------------|-----------------|
| SHEET           | DESCRIPTION     |
| 1               | TITLE SHEET     |
| 2               | SITE PLAN NO. 1 |
| 3               | SITE PLAN NO. 2 |

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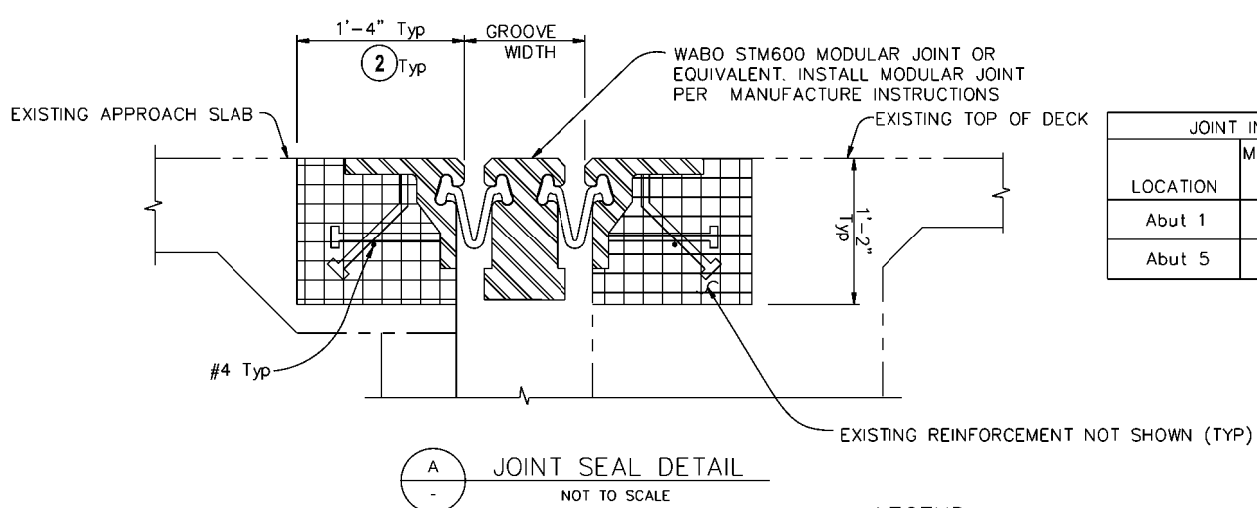
REVISIONS

W.O. NO. ER20539  
DWG. NO. G-001

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PLAN  
NOT TO SCALE



A  
-  
JOINT SEAL DETAIL  
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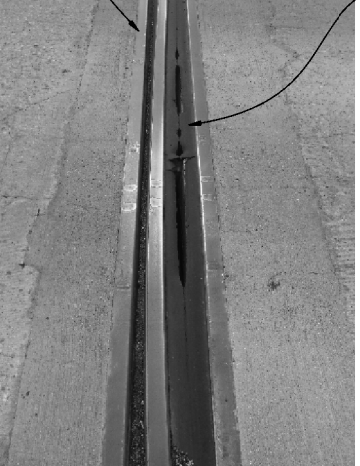
LEGEND



DENOTES LIMITS OF CONCRETE REMOVAL PER 2015 CALTRANS STANDARD SPECIFICATIONS 15-1.03B  
DENOTES RAPID SET CONCRETE PATCH PER CALTRANS STANDARD SPECIFICATIONS 60-3

| JOINT INFORMATION |                      |      |
|-------------------|----------------------|------|
| LOCATION          | MOVEMENT RATING (MR) | SKEW |
| Abut 1            | 5½"                  | 0°   |
| Abut 5            | 5½"                  | 0°   |

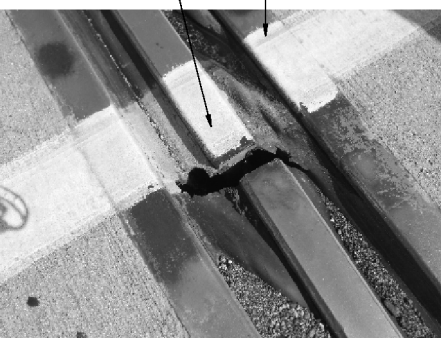
EXISTING MODULAR JOINT



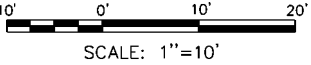
EAST JOINT  
NOT TO SCALE

1 126'

EXISTING MODULAR JOINT



WEST JOINT  
NOT TO SCALE



SCALE: 1"=10'

KEY NOTES

- 1 REPLACE DAMAGED MODULAR JOINT
- 2 EXIST REINFORCEMENT TO REMAIN

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH CURRENT CA MUTCD REQUIREMENTS AND SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.

QUANTITIES

| ITEM                                 | QUANTITY  |
|--------------------------------------|-----------|
| JOINT SEAL ASSEMBLY (MR 5½")         | 252 LF    |
| RAPID SETTING CONCRETE (PATCH)       | 15 CY     |
| REMOVE CONCRETE                      | 15 CY     |
| FURNISH POLYESTER CONCRETE OVERLAY   | 138 CF    |
| PLACE POLYESTER CONCRETE OVERLAY     | 2200 SQFT |
| REMOVE CONCRETE DECK SURFACE         | 2200 SQFT |
| PREPARE CONCRETE BRIDGE DECK SURFACE | 245 SQYD  |



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PREPARED UNDER THE RESPONSIBLE CHARGE OF

**DEDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0662  
FAX: 916 888-0663

*Fortunato Enriquez*  
REGISTERED PROFESSIONAL ENGINEER  
No. 00892  
Exp. 12/31/2018

DATE: 4/25/2018

DESIGNED BY: FORTUNATO ENRIQUEZ  
DRAWN BY: K. DANG  
CHECKED BY: KATHY WICKAM

DRAWING NUMBER: -  
FILE NAME: E200539  
PLOT DATE: -  
SCALE: AS SHOWN

County of Orange  
Public Works

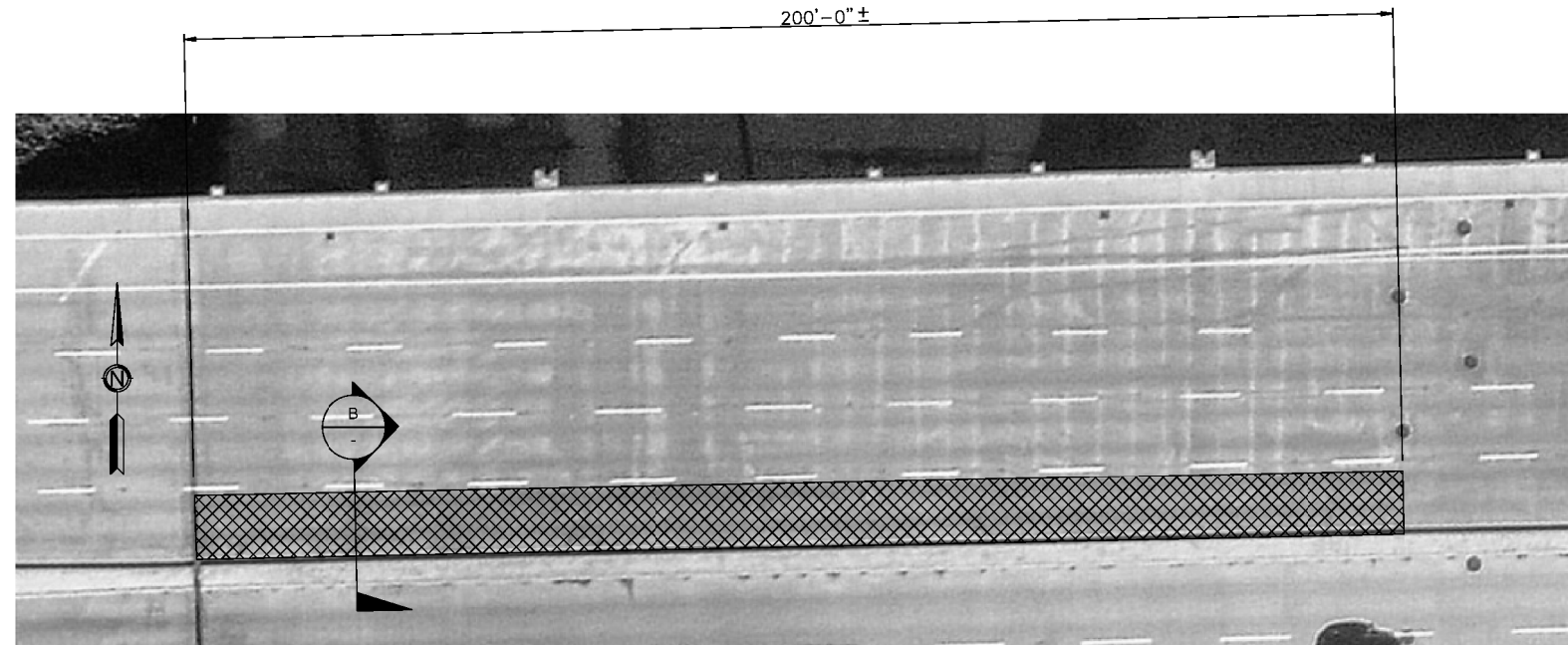
PREPARED BY: DEDOKKEN ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0662  
FAX: 916 888-0663

CROWN VALLEY PKWY  
BRIDGE OVER  
ARROYO TRABUCO  
PROJECT

SITE PLAN NO. 1

SHEET  
**G-002**  
INDEX: 2 OF 3

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ABUT 1

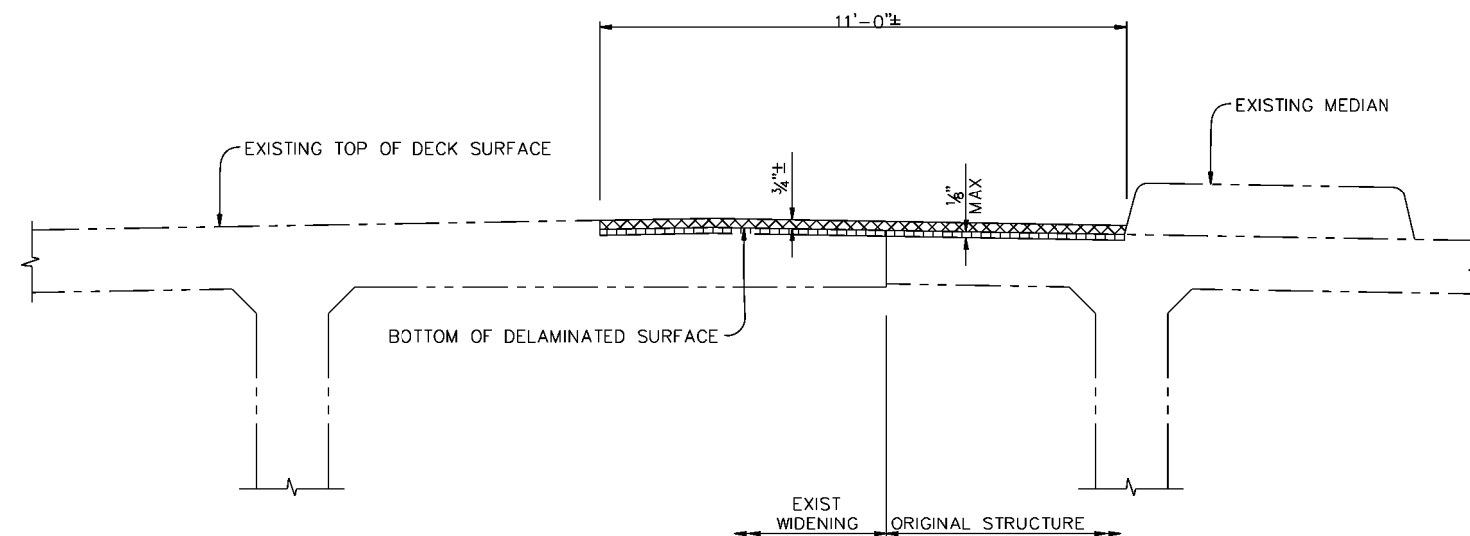
PARTIAL PLAN  
NOT TO SCALE

### GENERAL NOTES

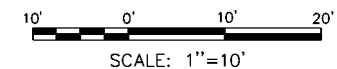
1. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH CURRENT MUTCD REQUIREMENTS AND SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.

### LEGEND

-  DENOTES CONCRETE DECK SURFACE REMOVAL AND PREPARE CONCRETE DECK SURFACE PER 2015 CALTRANS STD SPECIFICATIONS 60-3
-  DENOTES POLYESTER CONCRETE OVERLAY PLACEMENT PER 2015 CALTRANS STD SPECIFICATIONS 60-3
-  DENOTES DECK GRINDING BELOW DELAMINATED SURFACE, 1/8" MAX. PER 2015 CALTRANS STD SPECIFICATIONS 60-3
-  DENOTES EXISTING STRUCTURE



B PARTIAL BRIDGE SECTION  
NOT TO SCALE



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PREPARED UNDER THE RESPONSIBLE CHARGE OF

**DEBOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0862  
FAX: 916 888-0841

*Fortunato Enriquez*  
Professional Engineer  
No. 0489  
Exp. 2/27/25

4/25/2018 DATE

DESIGNED BY: **FORTUNATO ENRIQUEZ**

CHECKED BY: **KATIE WICKAM**

DRAWN BY: **K. DANG**

DRAWING NUMBER: **W.O. NO. E200539**

FILE NAME: **-**

SCALE: **AS SHOWN**

PREPARED BY: **DEBOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0862  
FAX: 916 888-0841

CROWN VALLEY PKWY  
BRIDGE OVER  
ARROYO TRABUCO  
PROJECT

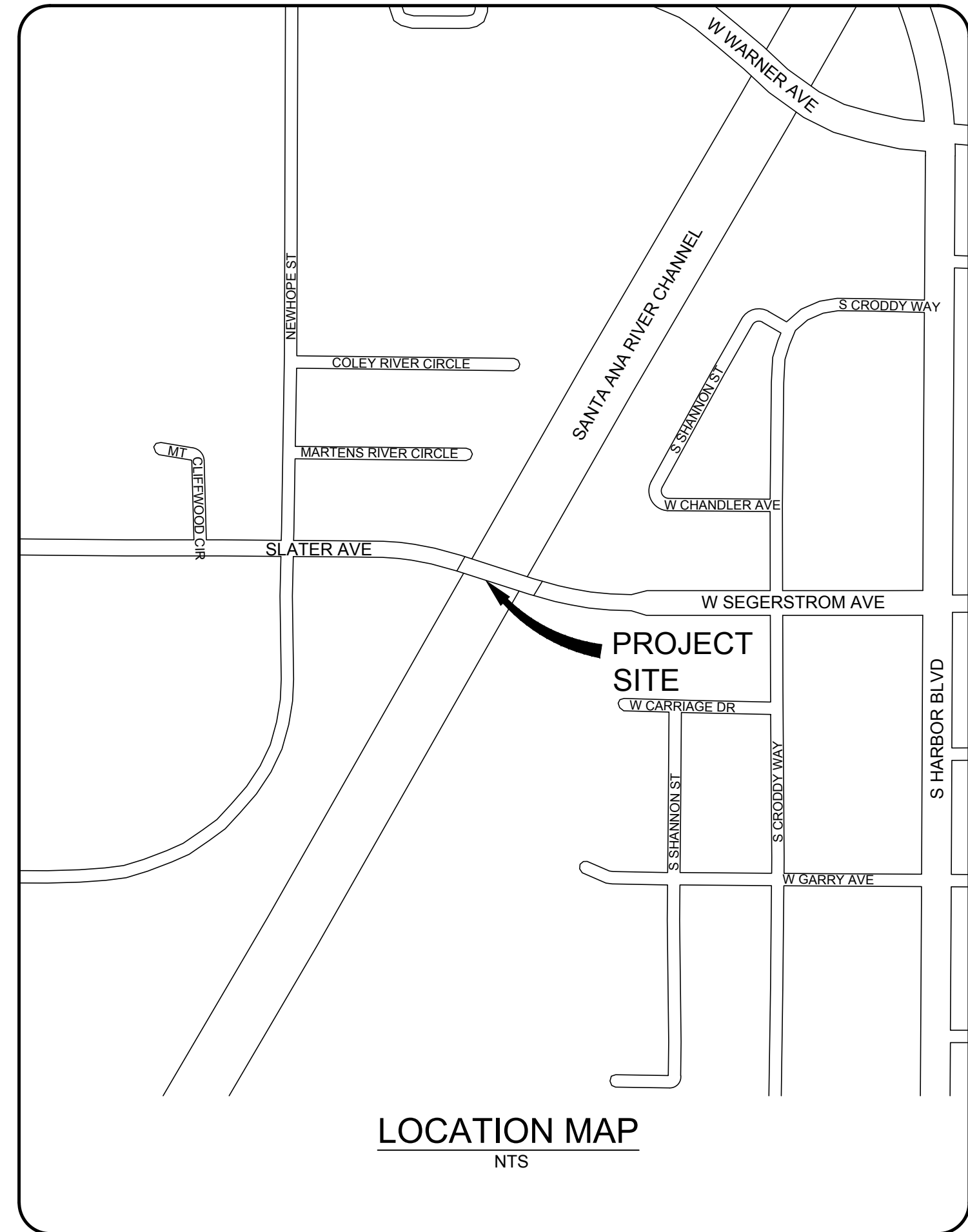
SITE PLAN NO. 1

SHEET

**G-003**

INDEX: 3 OF 3









B DAMAGED JOINT SEAL  
C-001 SCALE: NONE

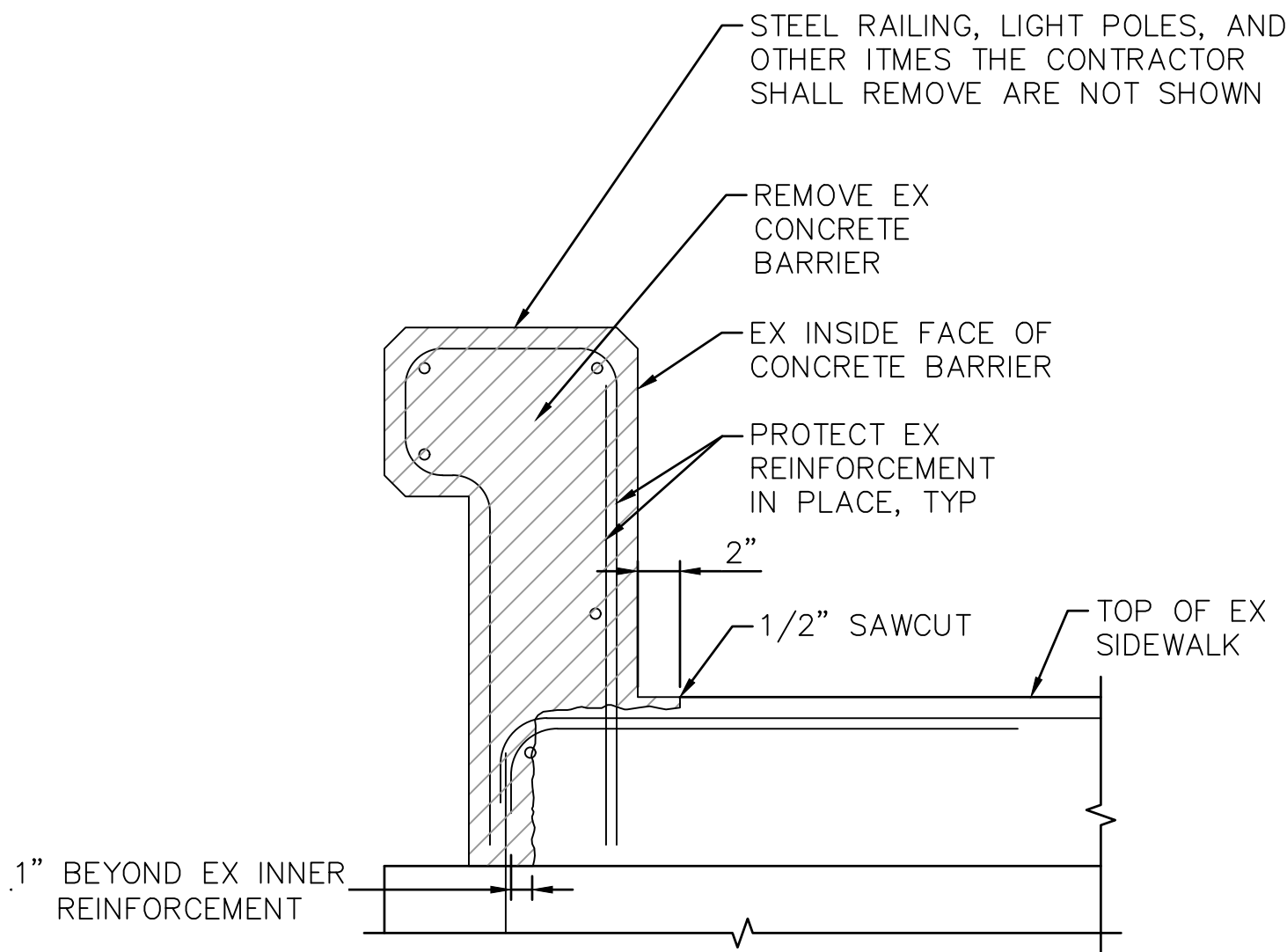
SHEET  
**C-001**  
INDEX 2 OF 3



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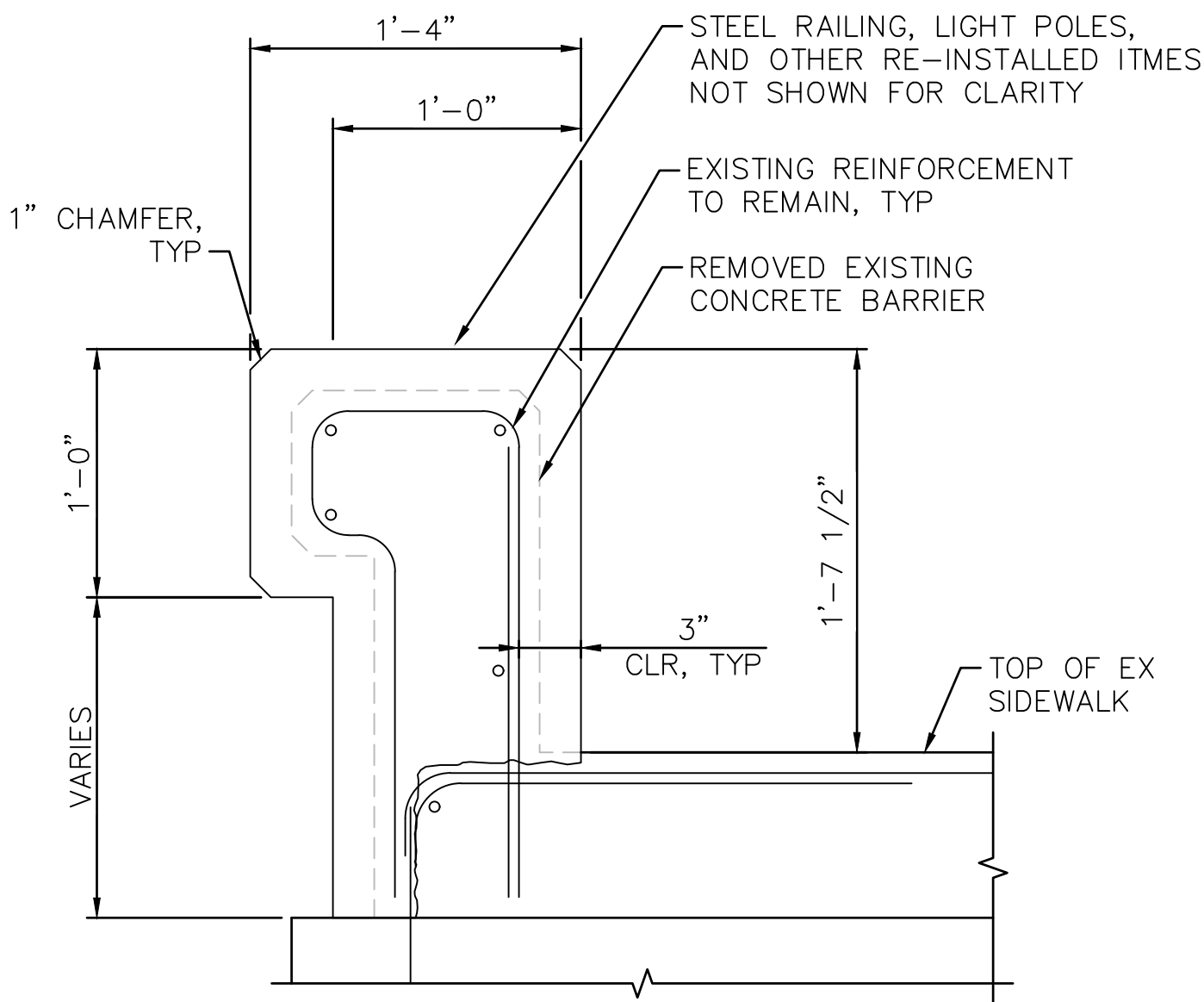


DAMAGED SIDEWALK  
SCALE: NONE



REMOVAL

A BARRIER REPAIR DETAIL  
C-001 SCALE: 1 1/2" = 1'-0"



RECONSTRUCTION

SIDEWALK REPAIR NOTES

1. REMOVE AND REPLACE THE SIDEWALK PER SPECIFICATION AND OC PUBLIC WORKS STANDARD PLAN 1205. RELATIVE COMPACTION OF NOT LESS THAN 90% SHALL BE OBTAINED FOR THE BASE MATERIAL BEFORE PLACING CONCRETE.

BARRIER REPAIR NOTES

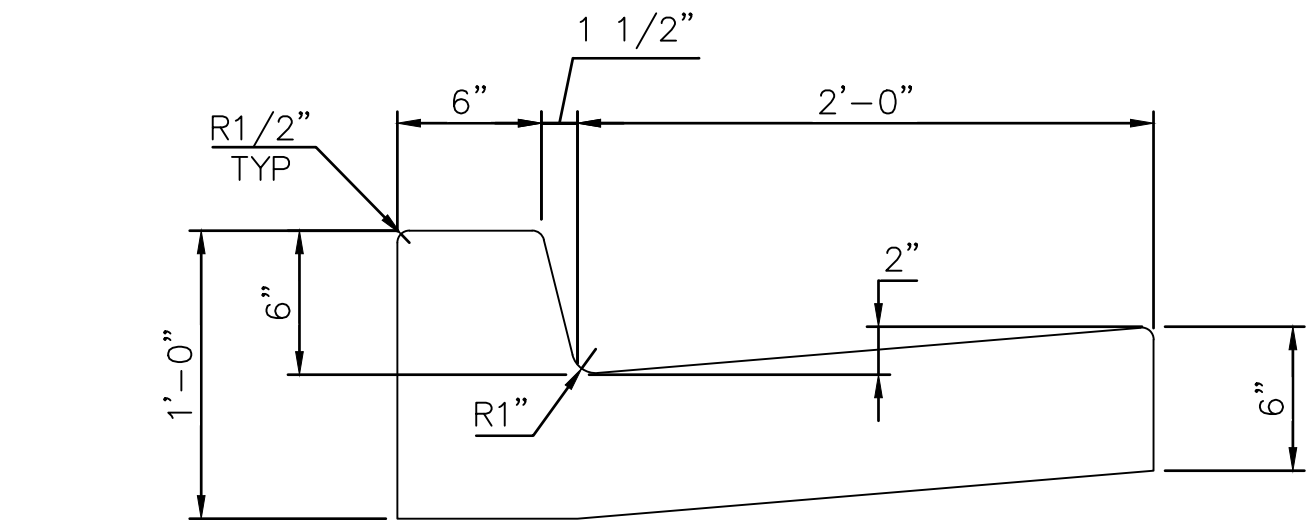
1. FOR DETAILS NOT SHOWN REFER TO "PLANS FOR THE WIDENING OF SLATER-SEGERSTROM BRIDGE SA-31A" MARKED "AS BUILT" AND DATED 7/83.
2. PROTECT EXISTING REINFORCING IN PLACE AS NOTED.
3. THE CONTRACTOR SHALL REMOVE, PROTECT, AND REUSE EXISTING STEEL RAILING, LIGHT POLES, AND ALL SUPPORTING ELEMENTS (EXCEPT CONCRETE BARRIER) DURING DEMOLITION OF EXISTING AND CONSTRUCTION OF NEW BARRIER.
4. THE CONTRACTOR SHALL NOT ALLOW DEMOLITION/CONSTRUCTION DEBRIS TO FALL INTO THE SANTA ANA RIVER CHANNEL.
5. CONSTRUCTION OF NEW BARRIER SHALL COMPLY WITH 2015 CALTRANS STANDARD SPECIFICATION SECTION 83.

JOINT SEALANT NOTES

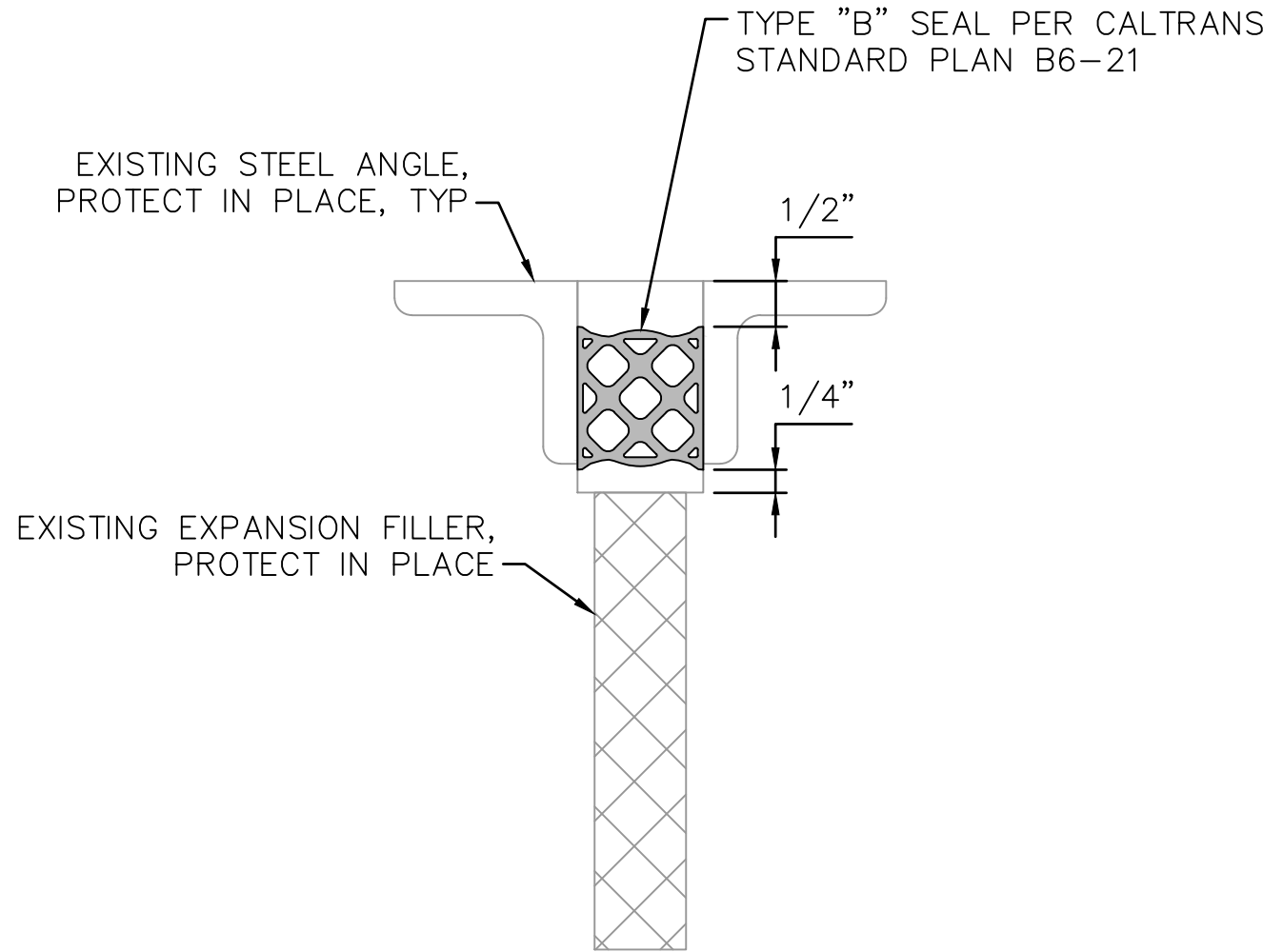
1. INSTALL SEALANT PER MANUFACTURERS INSTRUCTIONS.

CURB REPLACEMENT NOTES

1. SAW CUT AND REMOVE THE EXISTING CURB AND GUTTER 6" FROM THE CRACK LOCATION.
2. THE CONTRACTOR SHALL CONFIRM NEW CURB AND GUTTER DIMENSIONS MATCH EXISTING CURB AND GUTTER PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER IF DIMENSIONS VARY FROM WHAT IS SHOWN ON THESE DRAWINGS.
3. THE CONTRACTOR SHALL FOLLOW CALTRANS STANDARD SPECIFICATION SECTION 73 FOR CONSTRUCTION OF THE NEW CURB AND GUTTER.
4. CONSTRUCT SEALED EXPANSION JOINT AT EACH END OF THE NEW CURB AND GUTTER.

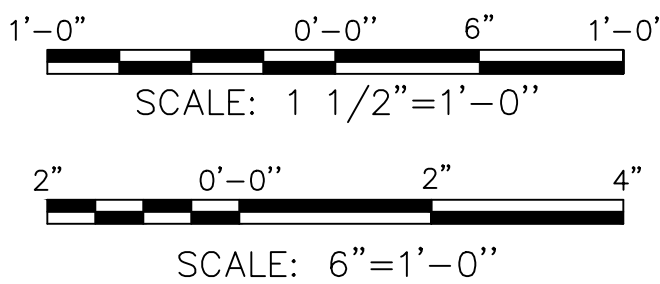


C CURB DETAIL  
C-001 SCALE: 1 1/2" = 1'-0"



B EXPANSION JOINT DETAIL  
C-001 SCALE: 6" = 1'-0"

| JOINT INFORMATION |                      |              |
|-------------------|----------------------|--------------|
| LOCATION          | MOVEMENT RATING (MR) | SKEW         |
| ABUT. 1           | 1"                   | 13° 10' 22"± |



QUANTITIES

| ITEM                                                                                                            | QUANTITY |
|-----------------------------------------------------------------------------------------------------------------|----------|
| CONCRETE BARRIER REPLACEMENT                                                                                    | 656 LF   |
| REMOVE, SALVAGE, AND REINSTALLATION OF STEEL RAILING, LIGHT POLES, AND OTHER ITEMS ATTACHED TO CONCRETE BARRIER | 656 LF   |
| SIDEWALK REPLACEMENT                                                                                            | 31 LF    |
| EXPANSION JOINT REPLACEMENT                                                                                     | 36 LF    |
| CONCRETE CURB REPLACEMENT                                                                                       | 3 LF     |



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PREPARED UNDER THE RESPONSIBLE CHARGE OF:

**moffatt & nichol**  
3780 KILROY AIRPORT WAY, SUITE 800  
LONG BEACH, CALIFORNIA 90806  
TEL 562 426-9551 FAX 562 424-7489

DATE: 4/24/18

CHARTERED PROFESSIONAL ENGINEER  
No. CE 8088  
CALIFORNIA  
CIVIL ENGINEERING

OWNER: AIRPORT 2 E., MOFFATT & NICHOL

DESIGNED BY: BA  
DRAWN BY: SC  
CHECKED BY: SX

County of Orange  
Public Works

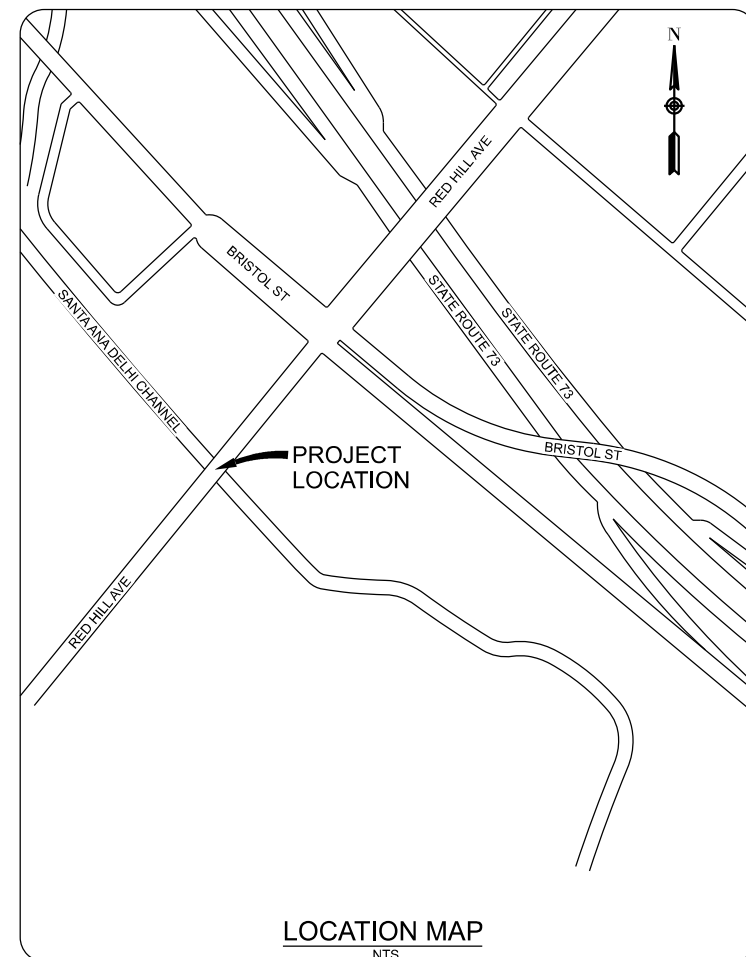
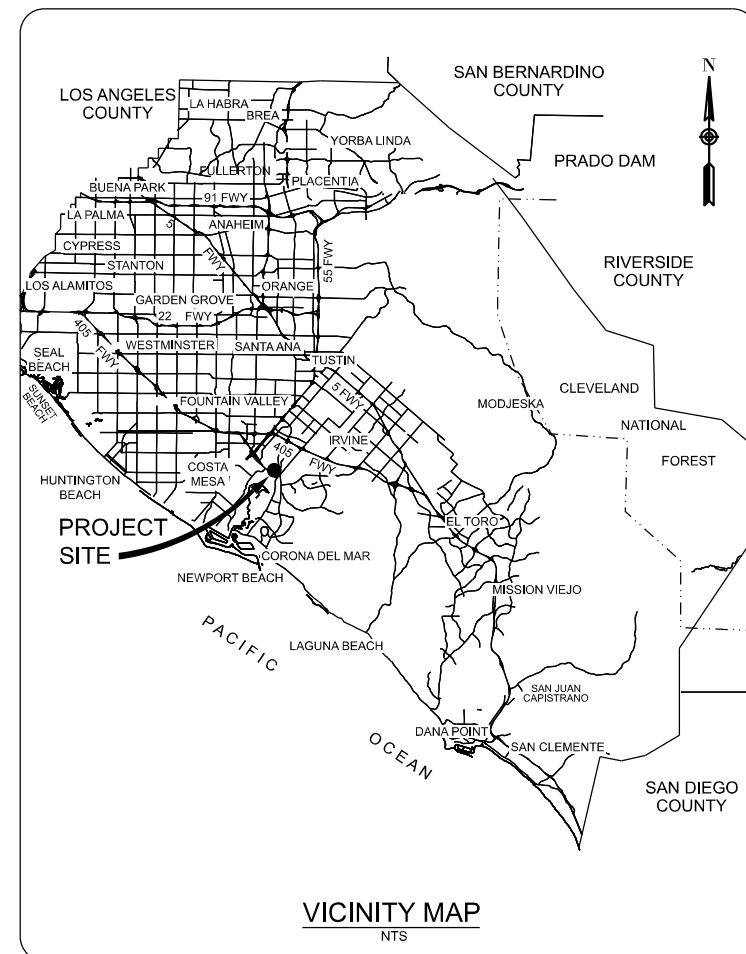
PREPARED BY: **moffatt & nichol**  
3780 KILROY AIRPORT WAY, SUITE 800  
LONG BEACH, CALIFORNIA 90806  
TEL 562 426-9551 FAX 562 424-7489

DRAWING NO.: C-002  
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PLOT DATE: AS SHOWN

2018 BRIDGE  
MAINTENANCE PROJECT  
SANTA ANA RIVER CHANNEL  
BRIDGE No. 55C0371  
DETAILS

SHEET  
**C-002**  
INDEX 3 OF 3





# County of Orange



SANTA ANA, CALIFORNIA

SHANE L. SILSBY, DIRECTOR

**PLANS FOR  
2018 BRIDGE MAINTENANCE PROJECT  
SANTA ANA AVENUE BRIDGE OVER SANTA  
ANA DELHI CHANNEL BRIDGE NO. 55C0205  
WORK ORDER NO ER20538**

April 25, 2018  
BID SET

FUNDED & MAINTAINED BY: ORANGE COUNTY PUBLIC WORKS

## COUNTY OF ORANGE OC PUBLIC WORKS DEPARTMENT

|            |                                                                                                |      |
|------------|------------------------------------------------------------------------------------------------|------|
| SUBMITTED: | REGINA HU, P.E.<br>SENIOR CIVIL ENGINEER<br>OC INFRASTRUCTURE PROGRAMS<br>ENGINEERING DIVISION | DATE |
|------------|------------------------------------------------------------------------------------------------|------|

RECOMMENDED: \_\_\_\_\_ DATE \_\_\_\_\_  
PAUL JEFFREY ERNST, P.E.  
MANAGER  
OC INFRASTRUCTURE PROGRAMS  
ENGINEERING DIVISION

RECOMMENDED: \_\_\_\_\_ DATE \_\_\_\_\_  
NARDY KHAN, P.E.  
DEPUTY DIRECTOR  
OC INFRASTRUCTURE PROGRAMS

APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
KHALID BAZMI, P.E.  
ASSISTANT PUBLIC WORKS DIRECTOR  
COUNTY ENGINEER

## APPROVALS

APPROVED: \_\_\_\_\_  
CITY ENGINEER DATE \_\_\_\_\_

## RECORD DRAWING

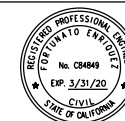
CONTRACTOR: \_\_\_\_\_  
RESIDENT ENGINEER: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_  
CONSTRUCTION START DATE: \_\_\_\_\_  
CONSTRUCTION COMPLETION DATE: \_\_\_\_\_

## PREPARED BY

PREPARED UNDER RESPONSIBLE CHARGE OF:



110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL. 916 858-0642  
FAX 916 858-0643



FORTUNATO ENRIQUEZ, P.E.,  
DOKKEN ENGINEERING

## INDEX OF SHEETS

| SHEET | DESCRIPTION           |
|-------|-----------------------|
| 1     | TITLE SHEET           |
| 2     | SITE PLAN             |
| 3     | MISCELLANEOUS DETAILS |
| 4     | STRIPING PLAN         |

| UTILITY OWNER | PHONE NO. | CONTACT |
|---------------|-----------|---------|
|---------------|-----------|---------|

**BENCH MARK:**

### BASIS OF BEARINGS:

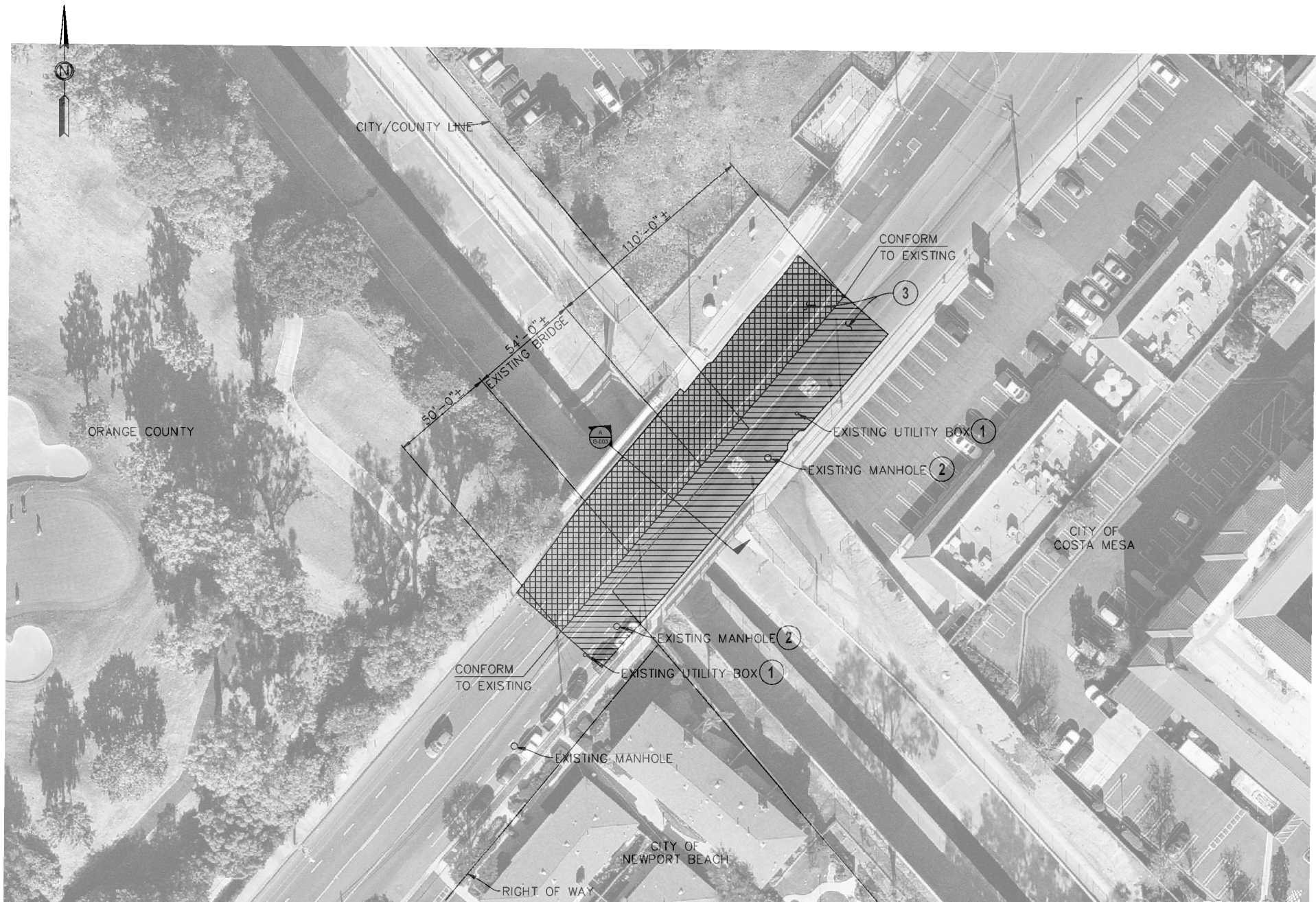
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REVISIONS

W.O. NO. ER20538  
DWG. NO. G-001

SHEET 1 OF 4

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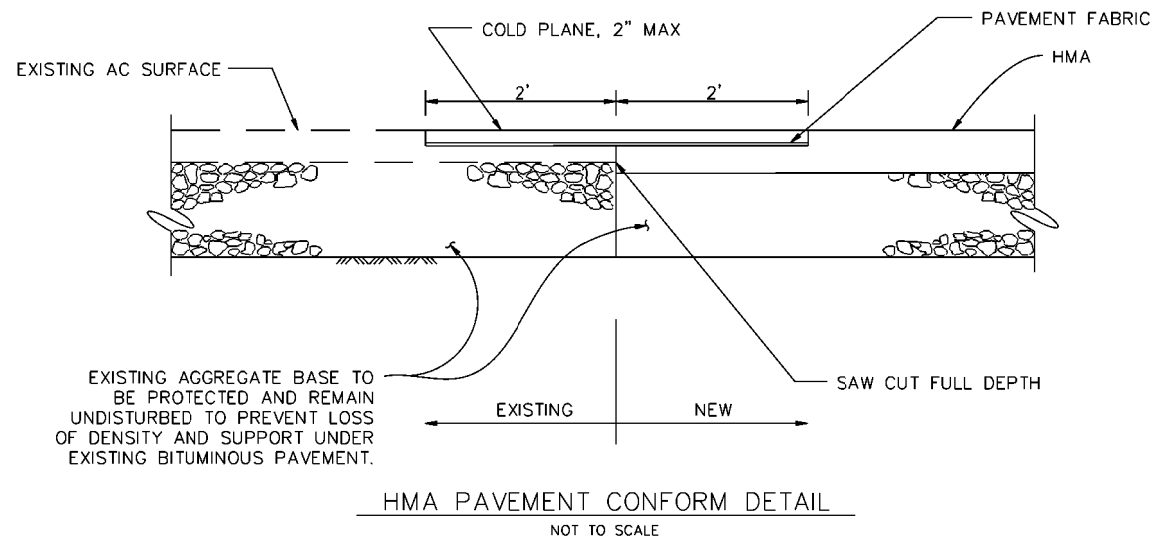
PLAN  
NOT TO SCALE

#### GENERAL NOTES

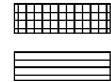
1. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH CURRENT CA MUTCD REQUIREMENTS AND SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.

#### KEY NOTES

- ① ADJUST EXISTING UTILITY BOX TO GRADE PER JOB ORDER CONTRACT SPECIAL PROVISIONS SECTION F-19.
- ② ADJUST EXISTING MANHOLE TO GRADE PER JOB ORDER CONTRACT SPECIAL PROVISIONS SECTION F-18.
- ③ REMOVE AC PER JOB ORDER CONTRACT SPECIAL PROVISIONS SECTION F-21 AND PLACE ASPHALT CONCRETE PAVEMENT PER JOB ORDER CONTRACT SPECIAL PROVISIONS SECTION F-23.



#### LEGEND



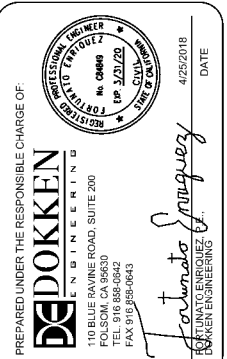
DENOTES STAGE 1 LIMITS OF AC REMOVAL  
DENOTES STAGE 2 LIMITS OF AC REMOVAL

#### QUANTITIES

| ITEM                             | QUANTITY   |
|----------------------------------|------------|
| ASPHALT CONCRETE PAVEMENT        | 185 TON    |
| REMOVE ASPHALT CONCRETE PAVEMENT | 12400 SQFT |
| ADJUST MANHOLE TO GRADE          | 2 EA       |
| ADJUST UTILITY COVER TO GRADE    | 2 EA       |
| THERMOPLASTIC PAVEMENT MARKINGS  | 63 SQFT    |
| RETROREFLECTIVE PAVEMENT MARKERS | 60 EA      |
| THERMOPLASTIC TRAFFIC STRIPE     | 1,125 LF   |



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|-------------------------------------------|-------------------------------------------|
| DESIGNED BY:<br><b>FORTUNATO ENRIQUEZ</b> | CHECKED BY:<br><b>KATY MCNAM</b>          |
| DRAWN BY:<br><b>K. DANG</b>               | DRAWING NUMBER:<br><b>W.O. NO. E20058</b> |
| FILE NAME:<br><b>-</b>                    | SCALE:<br><b>AS SHOWN</b>                 |
| PLOT DATE:<br><b>-</b>                    |                                           |

County of Orange  
Public Works

PREPARED BY:  
**DEDOKKEN ENGINEERING**  
110 BLUE RAINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0662  
FAX: 916 888-0641

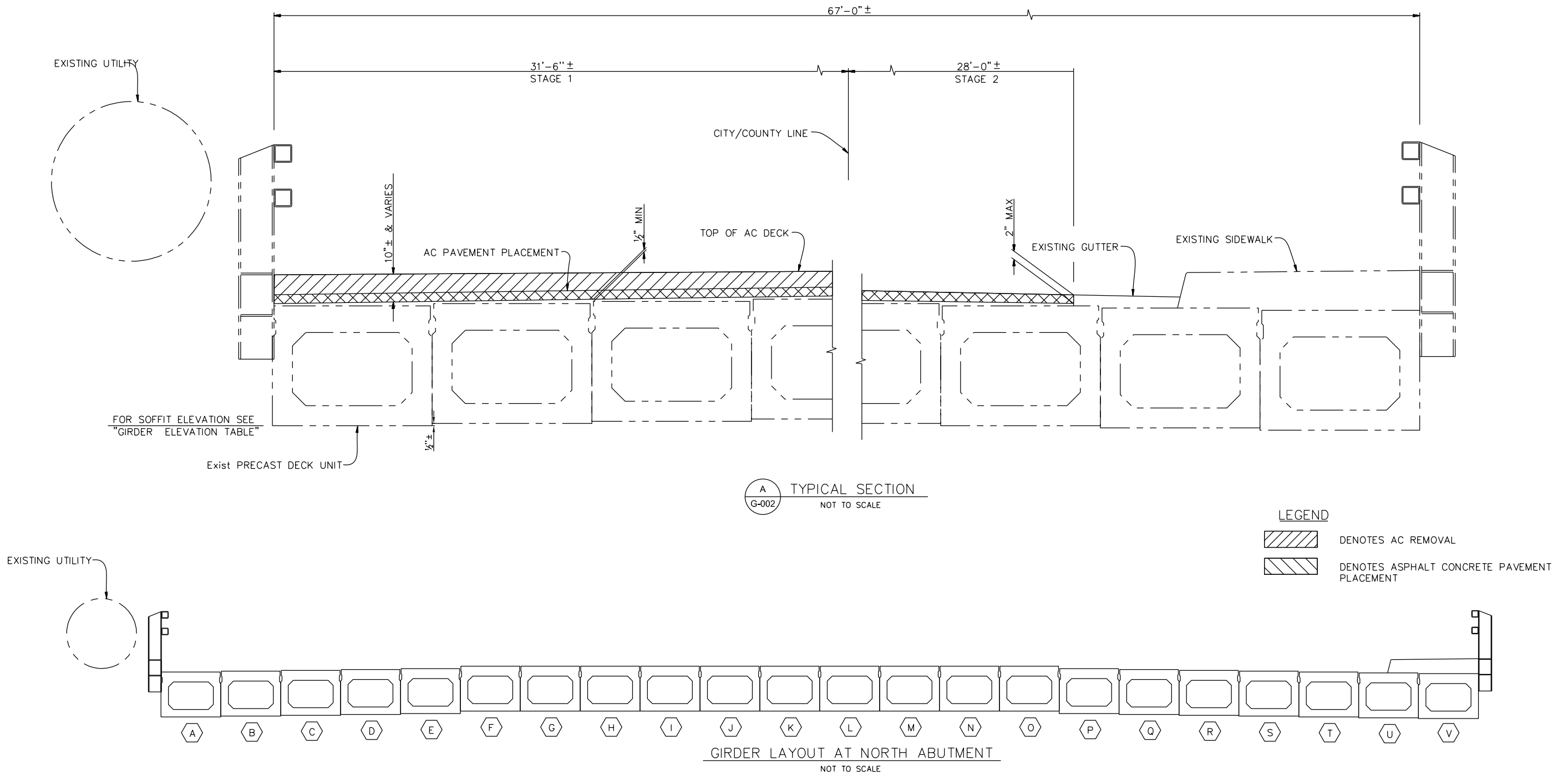
SANTA ANA AVENUE  
BRIDGE OVER SANTA  
ANA DELHI CHANNEL  
PROJECT

SITE PLAN

SHEET  
**G-002**  
INDEX: 2 OF 4



File: G:\B\13383-06\CAD\Drawings\13383-06\13383-06.dwg, Plotter: 1/8/2015 3:08 PM by CARSON, STEVE, Saved: 2/21/2018 2:17 PM by NALMEDA



GIRDER SOFFIT ELEVATION TABLE

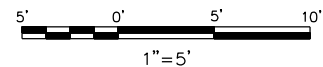
| GIRDER | ☐ SOUTH ABUT | ☐ NORTH ABUT |
|--------|--------------|--------------|
| A      | 27.87±       | 29.11±       |
| B      | 27.91±       | 29.15±       |
| C      | 27.95±       | 29.19±       |
| D      | 28.00±       | 29.24±       |
| E      | 28.04±       | 29.27±       |
| F      | 28.08±       | 29.36±       |
| G      | 28.08±       | 29.36±       |
| H      | 28.08±       | 29.36±       |
| I      | 28.08±       | 29.36±       |
| J      | 28.08±       | 29.36±       |
| K      | 28.08±       | 29.36±       |

GIRDER SOFFIT ELEVATION TABLE

| GIRDER | ☐ SOUTH ABUT | ☐ NORTH ABUT |
|--------|--------------|--------------|
| L      | 28.08±       | 29.36±       |
| M      | 28.08±       | 29.36±       |
| N      | 28.08±       | 29.36±       |
| O      | 28.08±       | 29.32±       |
| P      | 28.04±       | 29.27±       |
| Q      | 28.00±       | 29.24±       |
| R      | 27.95±       | 29.19±       |
| S      | 27.91±       | 29.15±       |
| T      | 27.87±       | 29.11±       |
| U      | 27.83±       | 29.07±       |
| V      | 27.79±       | 29.03±       |

GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
- GIRDER SOFFIT ELEVATIONS ARE BASED ON THE 1968 WIDENING AS BUILT PLANS.



| MARK | DESCRIPTION | DATE | APPR. |
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PREPARED UNDER THE RESPONSIBLE CHARGE OF:

**DEIDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916.858.0642  
FAX: 916.858.0643

*Fortunato Enriquez*  
Professional Engineer  
No. 04849  
Exp. 2/27/25

DATE: 4/25/2018

DESIGNED BY: FORTUNATO ENRIQUEZ

CHECKED BY: KATHY WICKAM

DRAWN BY: K. DANG

DRAWING NUMBER: ER20538

FILE NAME: -

SCALE: AS SHOWN

PLOT DATE: -

County of Orange  
Public Works

PREPARED BY: **DEIDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916.858.0642  
FAX: 916.858.0643

SANTA ANA AVENUE  
BRIDGE OVER SANTA  
ANA DELHI CHANNEL  
PROJECT

MISCELLANEOUS  
DETAILS

SHEET

**G-003**

INDEX: 3 OF 4



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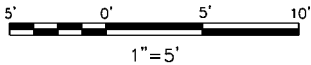
PLAN  
NOT TO SCALE

LEGEND

- # TRAFFIC DETAIL NUMBER
- ▲ BEGIN/END TRAFFIC STRIPE DETAIL
- AHEAD "AHEAD" PAVEMENT MARKING
- SIGNAL "SIGNAL" PAVEMENT MARKING

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH CURRENT CA MUTCD REQUIREMENTS AND SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
3. THERMOPLASTIC TRAFFIC STRIPE AND THERMOPLASTIC PAVEMENT MARKINGS PER JOB ORDER CONTRACT SPECIAL PROVISIONS SECTION F-39.
4. RETROREFLECTIVE PAVEMENT MARKERS PER JOB ORDER CONTRACT SPECIAL PROVISIONS SECTION F-40.



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PREPARED UNDER THE RESPONSIBLE CHARGE OF

**DEDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0662  
FAX: 916 888-0663

*Fernando Enriquez*  
REGISTERED PROFESSIONAL ENGINEER  
No. 04893  
Exp. 12/31/2018

DATE: 4/25/2018

DESIGNED BY: FORTUNATO ENRIQUEZ

COUNTY OF ORANGE  
Public Works

CHECKED BY: KATHY WICAM

DRAWN BY: K. DANG

DRAWING NUMBER: W.O. NO. E200538

FILE NAME: -

SCALE: AS SHOWN

PREPARED BY: DEDOKKEN ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0662  
FAX: 916 888-0663

SANTA ANA AVENUE  
BRIDGE OVER SANTA  
ANA DELHI CHANNEL  
PROJECT

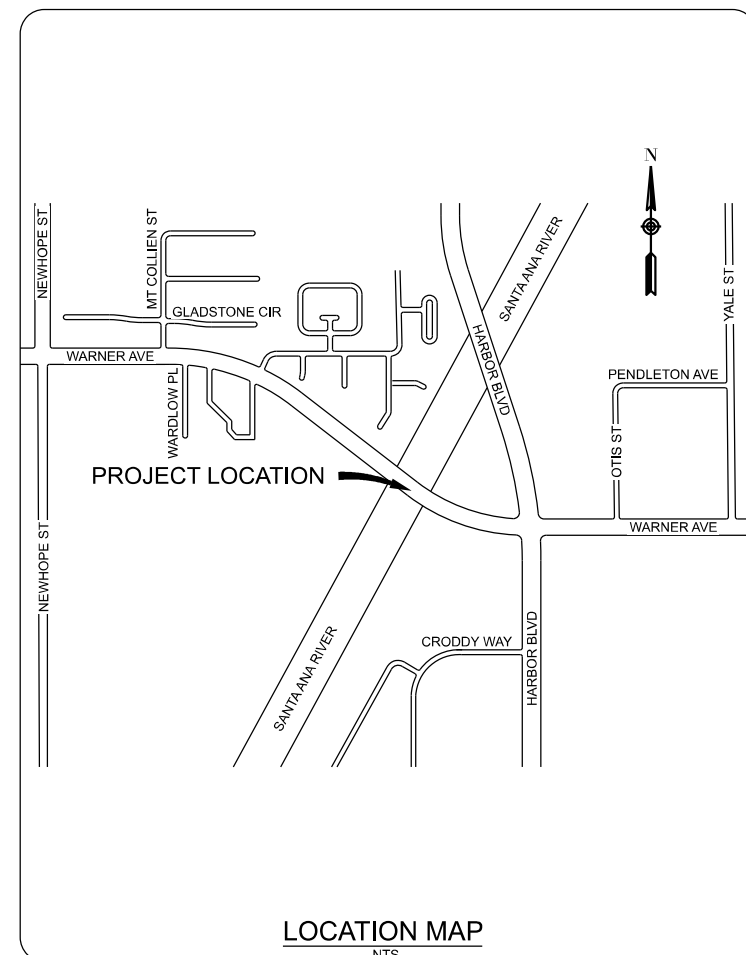
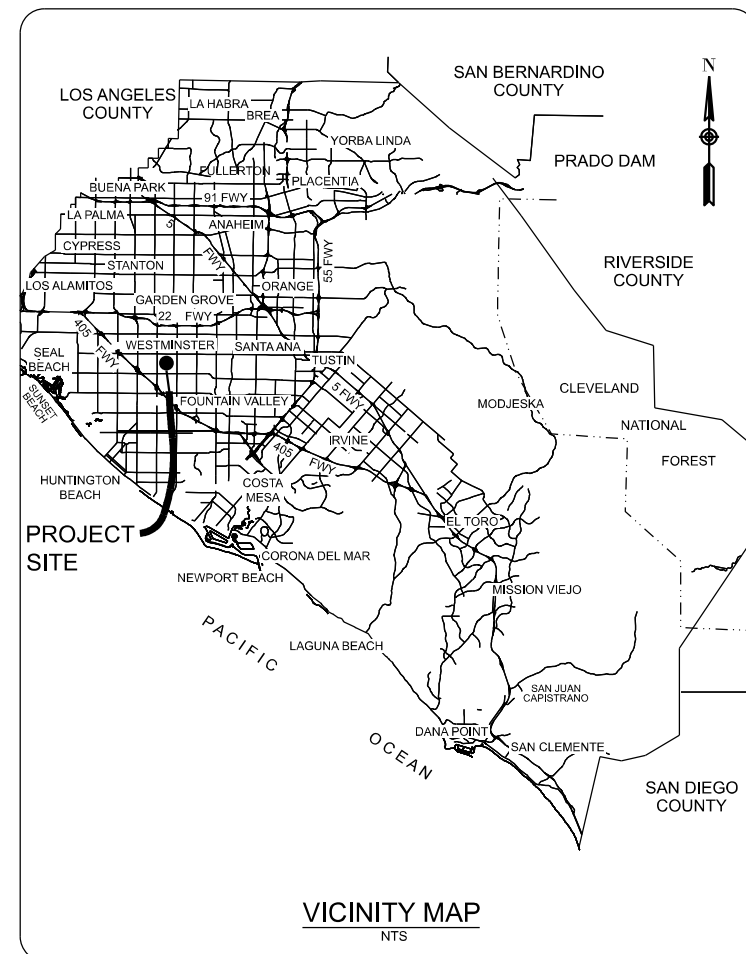
STRIPING PLAN

SHEET

**G-004**

INDEX: 4 OF 4





# County of Orange



SANTA ANA, CALIFORNIA

SHANE L. SILSBY, DIRECTOR

**PLANS FOR  
2018 BRIDGE MAINTENANCE PROJECT  
WARNER AVENUE BRIDGE OVER SANTA ANA  
RIVER CHANNEL BRIDGE NO. 55C0148  
WORK ORDER NO ER20540**

April 25, 2018  
BID SET

FUNDED & MAINTAINED BY: ORANGE COUNTY PUBLIC WORKS

| COUNTY OF ORANGE OC PUBLIC WORKS DEPARTMENT |                                                                                                                                                                                                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SUBMITTED:                                  | <div style="border-bottom: 1px solid black; display: flex; justify-content: space-between;"> <span>REGINA HU, P.E.</span> <span>DATE</span> </div> <div style="padding-top: 5px;"> SENIOR CIVIL ENGINEER<br/> OC INFRASTRUCTURE PROGRAMS<br/> ENGINEERING DIVISION </div> |
| RECOMMENDED:                                | <div style="border-bottom: 1px solid black; display: flex; justify-content: space-between;"> <span>PAUL JEFFREY ERNST, P.E.</span> <span>DATE</span> </div> <div style="padding-top: 5px;"> MANAGER<br/> OC INFRASTRUCTURE PROGRAMS<br/> ENGINEERING DIVISION </div>      |
| RECOMMENDED:                                | <div style="border-bottom: 1px solid black; display: flex; justify-content: space-between;"> <span>NARDY KHAN, P.E.</span> <span>DATE</span> </div> <div style="padding-top: 5px;"> DEPUTY DIRECTOR<br/> OC INFRASTRUCTURE PROGRAMS </div>                                |
| APPROVED:                                   | <div style="border-bottom: 1px solid black; display: flex; justify-content: space-between;"> <span>KHALID BAZMI, P.E.</span> <span>DATE</span> </div> <div style="padding-top: 5px;"> ASSISTANT PUBLIC WORKS DIRECTOR<br/> COUNTY ENGINEER </div>                         |

|                                     |  |
|-------------------------------------|--|
| <b>RECORD DRAWING</b>               |  |
| CONTRACTOR: _____                   |  |
| RESIDENT ENGINEER: _____            |  |
| INSPECTOR: _____                    |  |
| CONSTRUCTION START DATE: _____      |  |
| CONSTRUCTION COMPLETION DATE: _____ |  |

PREPARED BY

PREPARED UNDER RESPONSIBLE CHARGE OF:

**DE DOKKEN**  
ENGINEERING

110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL. 916 858-0642  
FAX 916 858-0643

*Fortunato Enriquez*

FORTUNATO ENRIQUEZ, P.E.,  
DOKKEN ENGINEERING

REGISTERED PROFESSIONAL ENGINEER  
EXPIRATION DATE  
No. CB8445  
EXP. 3/31/20  
CIVIL  
STATE OF CALIFORNIA

4/25/2018  
DATE

| INDEX OF SHEETS |             |
|-----------------|-------------|
| SHEET           | DESCRIPTION |
| 1               | TITLE SHEET |
| 2               | SITE PLAN   |

|     |             |      |          |      |
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REVISIONS

W.O. NO. ER20540  
DWG. NO. G-001



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PLAN  
NOT TO SCALE

GENERAL NOTES

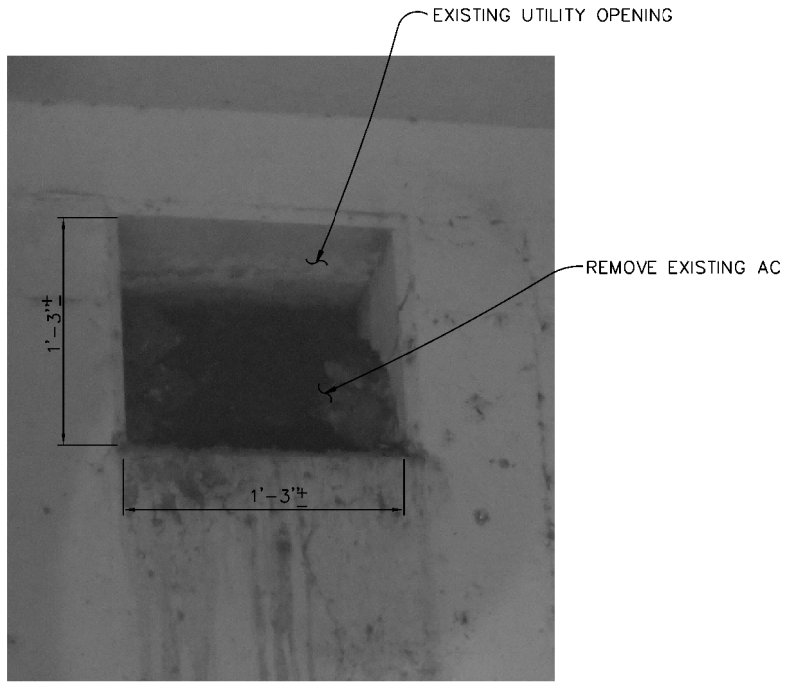
1. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIALS.
2. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH CURRENT CA MUTCD REQUIREMENTS AND SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.

KEY NOTES

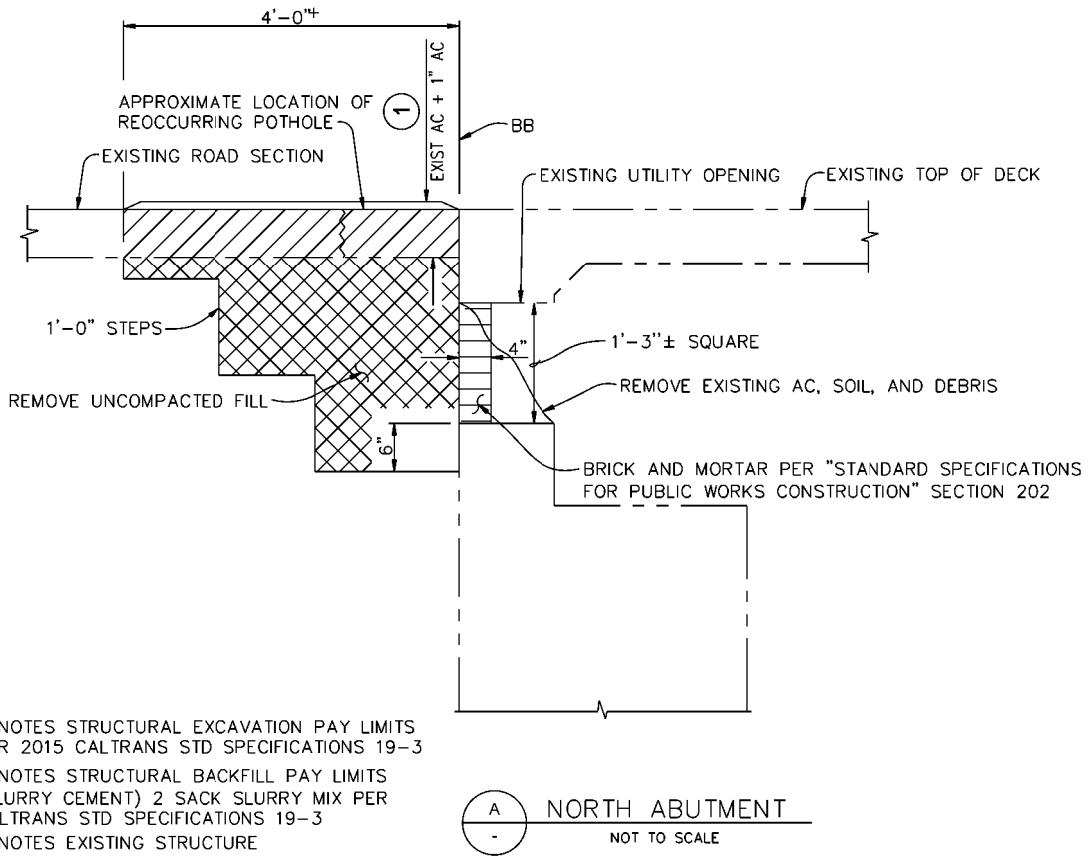
- ① PAY LIMITS FOR ASPHALT CONCRETE PAVEMENT PLACEMENT PER JOB ORDER CONTRACT SPECIAL PROVISIONS SECTION F-23

QUANTITIES

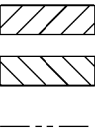
| ITEM                                | QUANTITY |      |
|-------------------------------------|----------|------|
| STRUCTURAL EXCAVATION               | 3        | CY   |
| STRUCTURAL BACKFILL (SLURRY CEMENT) | 3        | CY   |
| ASPHALT CONCRETE PAVEMENT           | 1        | TON  |
| BRICK AND MORTAR                    | 2        | SQFT |



EXIST UTILITY OPENING AT NORTH ABUTMENT  
NOT TO SCALE

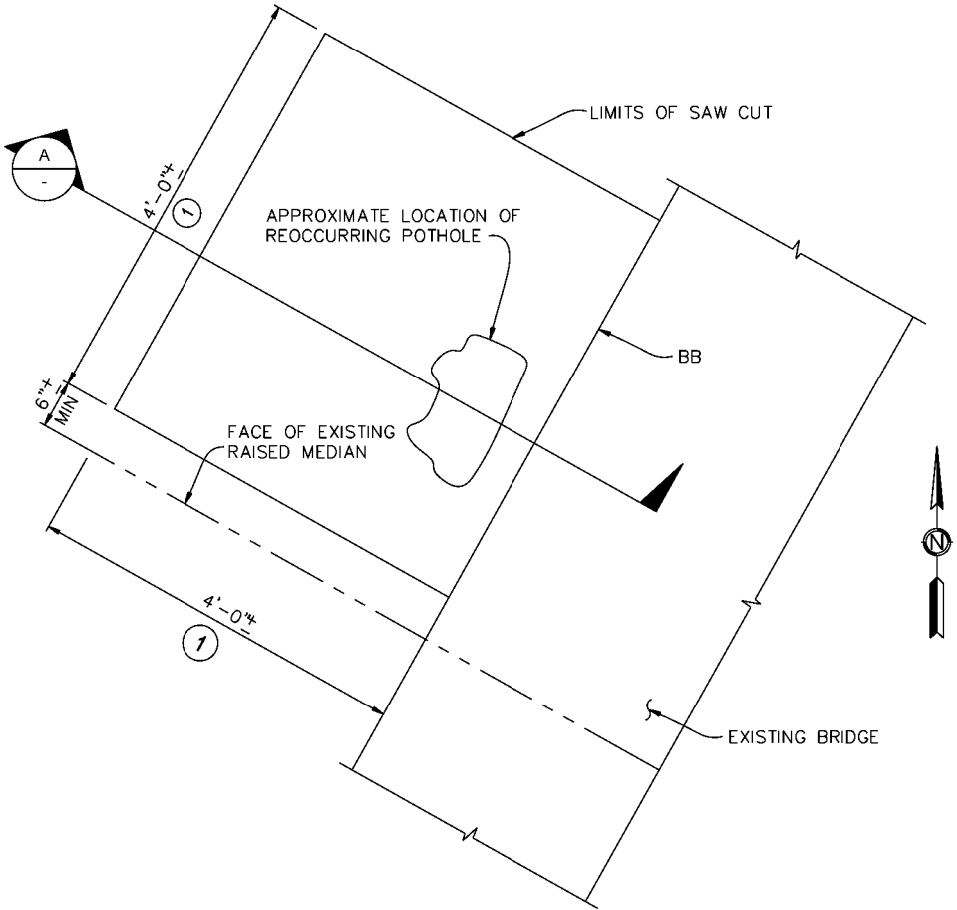


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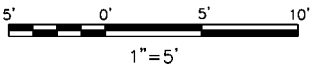


DENOTES STRUCTURAL EXCAVATION PAY LIMITS PER 2015 CALTRANS STD SPECIFICATIONS 19-3  
DENOTES STRUCTURAL BACKFILL PAY LIMITS (SLURRY CEMENT) 2 SACK SLURRY MIX PER CALTRANS STD SPECIFICATIONS 19-3  
DENOTES EXISTING STRUCTURE

A NORTH ABUTMENT  
NOT TO SCALE



NORTH ABUTMENT PARTIAL PLAN DETAIL  
NOT TO SCALE



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PREPARED UNDER THE RESPONSIBLE CHARGE OF

**DEIDOKKEN**  
ENGINEERING  
110 BLUE RAINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0862  
FAX: 916 888-0841

*Antonio Iniguez*  
REGISTERED CIVIL ENGINEER  
No. 04892  
EXP. 12/31/2018

4/25/2018 DATE

DESIGNED BY: **FORTUATO ENRIQUEZ**  
DRAWN BY: **K. DANG**  
CHECKED BY: **MARY WICKAM**

County of Orange  
Public Works

PREPARED BY: **DEIDOKKEN**  
ENGINEERING  
110 BLUE RAINE ROAD, SUITE 200  
FOLSOM, CA 95630  
TEL: 916 888-0862  
FAX: 916 888-0841

DRAWING NUMBER: **W.O. NO. E205-40**  
FILE NAME: **E205-40**  
PLOT DATE: **AS SHOWN**  
SCALE: **AS SHOWN**

**WARNER AVENUE  
BRIDGE OVER SANTA  
ANA RIVER CHANNEL  
PROJECT**

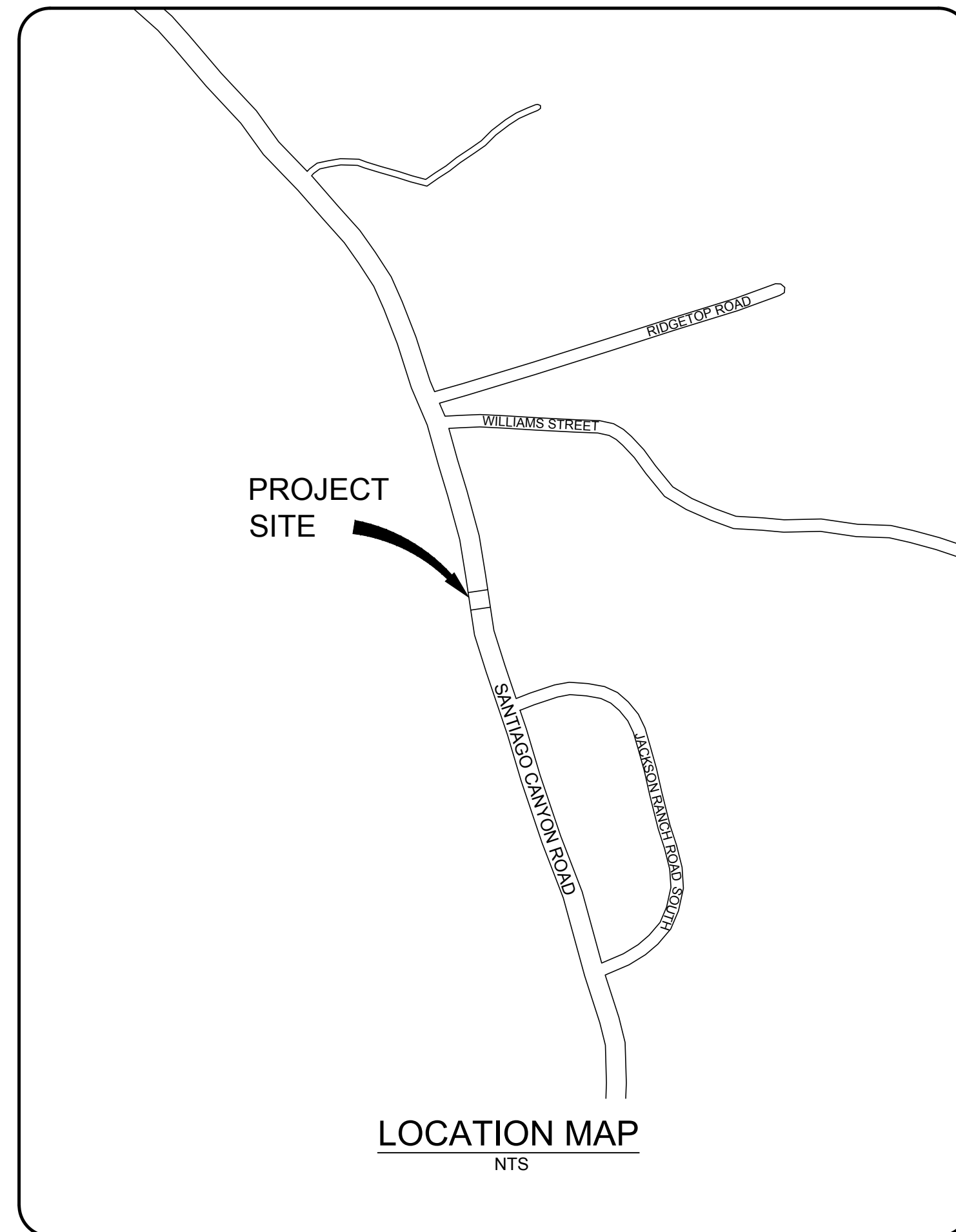
**SITE PLAN**

SHEET

**G-002**

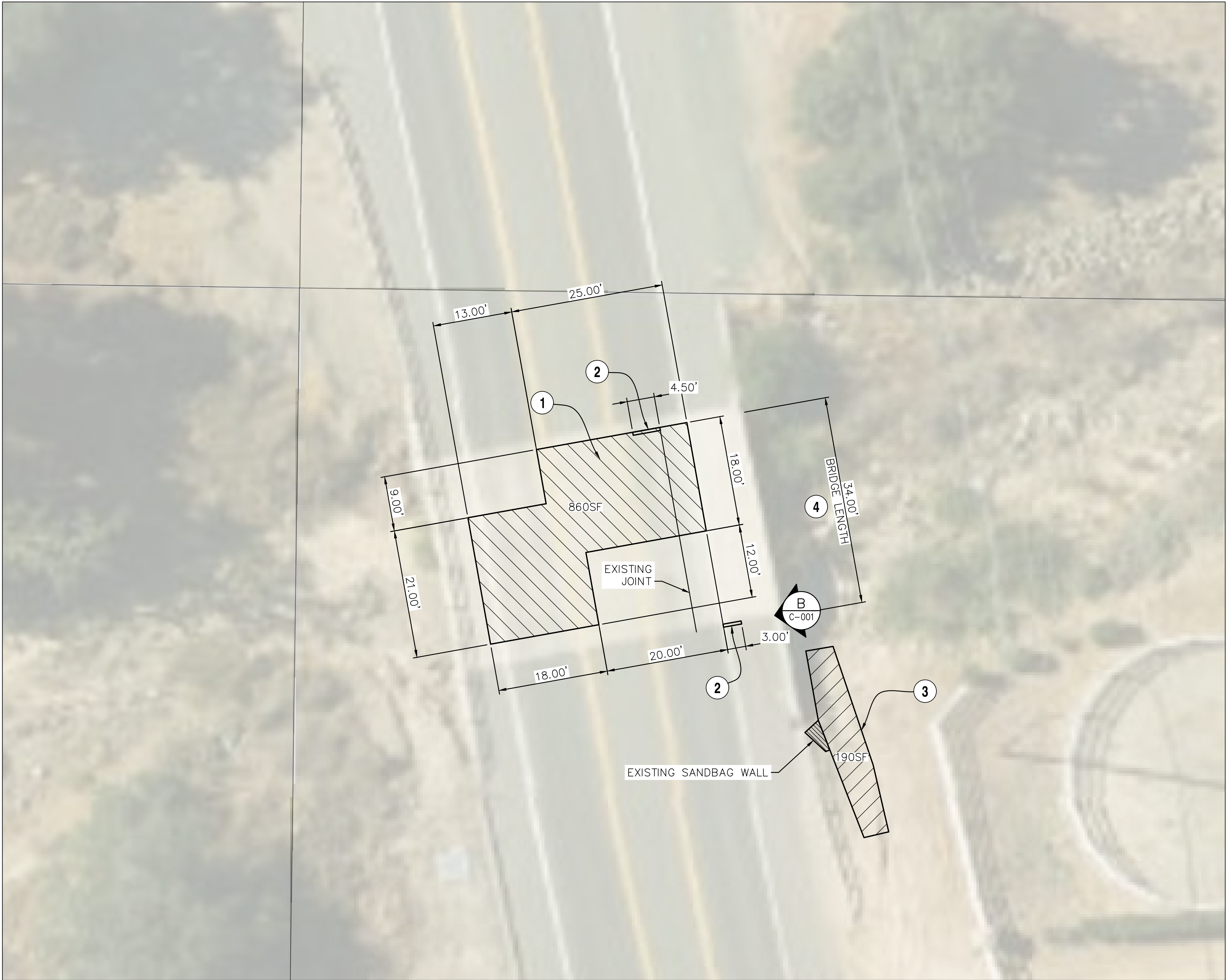
INDEX: 2 OF 2







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KEY NOTES

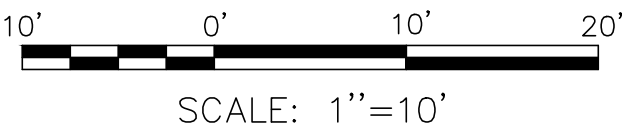
- 1 REPAIR CONCRETE RUTTING
- 2 REPAIR CONCRETE EDGE SPALL
- 3 REPAIR EMBANKMENT EROSION
- 4 RESTRIPE THE FULL LENGTH OF THE BRIDGE

GENERAL NOTES

1. THE CONTRACTOR SHALL RESTRIPE THE BRIDGE PER OC PUBLIC WORKS SPECIAL PROVISIONS SECTION F-39.
2. REFER TO CALTRANS 2015 STANDARD PLAN P6 FOR SPALL REPAIR DETAILS.
3. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH CURRENT MUTCD REQUIREMENTS AND SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.



B  
C-001 TYPICAL EDGE SPALL DAMAGE  
SCALE: NONE



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PREPARED UNDER THE RESPONSIBLE CHARGE OF:

4/24/18

DATE

4/24/18

3780 KILROY AIRPORT WAY, SUITE 600  
LONG BEACH, CALIFORNIA 90806  
TEL: 562.426.9551  
FAX: 562.424.7488

CHIEF ENGINEER

CHAD MOFFATT, P.E.  
MOFFATT & NICHOL

DESIGNED BY:

RA

CHECKED BY:

SC

SK

County of Orange  
PublicWorks

PREPARED BY:

3780 KILROY AIRPORT WAY, SUITE 600  
LONG BEACH, CALIFORNIA 90806  
TEL: 562.426.9551  
FAX: 562.424.7488

DRAWING NO.:  
C-001

FILE NAME:  
938906\_0059-C-001.dwg

PLOT DATE:  
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SCALE:  
AS SHOWN

2018 BRIDGE  
MAINTENANCE PROJECT  
WILLIAMS CANYON CREEK  
BRIDGE No.

55C0059  
SITE PLAN

SHEET

C-001

INDEX 2 OF 3

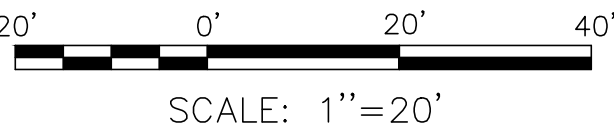




1. TO REPAIR CONCRETE RUTTING, REMOVE ALL DETERIORATED CONCRETE, DIRT, OIL, GREASE, AND ANY OTHER BOND-INHIBITING MATERIALS FROM THE AREA TO BE REPAIRED. REPAIR AREA SHALL BE MILLED A MINIMUM OF 1/4" AND MAXIMUM OF 1" TO OBTAIN AN EXPOSED AGGREGATE SURFACE OF CLEAN AND SOUND CONCRETE. USE SIKAGUICK 1000 OR APPROVED EQUAL MORTAR TO REPLACE THE REMOVED CONCRETE.

1. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK AND TO FIELD SURVEY THE LIMITS OF EXCAVATION.
2. THE CONTRACTOR SHALL PROCURE AND PLACE STONES TO FILL HOLES. STONES SHALL BE PLACED TO MATCH EXISTING SLOPE.
3. THE EXPOSED SURFACE OF THE HOLE SHALL BE THOROUGHLY PREPARED IN CONFORMANCE WITH SPECIFICATIONS. EXCAVATE AND REMOVE LOOSE MATERIAL FOUND IN THE HOLE. EXCAVATE TO UNCOVER THE LOCATION WHERE MATERIAL LOSS IS OCCURRING. EXCAVATION SHALL BE PERFORMED IN THE LONGITUDINAL DIRECTION, FROM UPPER TO LOWER ELEVATION, UNTIL STABLE, SOLID ROCK IS FOUND.
4. STONES OR RIPRAP MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF OCPW STANDARD PLAN 1809 AND 2015 GREENBOOK.
5. CONSTRUCTION OF SLOPE PROTECTION SHALL COMPLY WITH THE REQUIREMENTS OF 2015 CALTRANS STANDARD SPECIFICATION SECTION 72.
6. PRIOR TO SHIPPING, QUARRY MATERIAL SHALL BE INSPECTED BY PERSONNEL FROM THE OCPW MATERIALS TESTING LAB.

|                  |        |
|------------------|--------|
| CONCRETE RUTTING | 860 SF |
| SPALL REPAIR     | 7.5 LF |
| EROSION REPAIR   | 190 SF |
| STRIPING         | 100 LF |

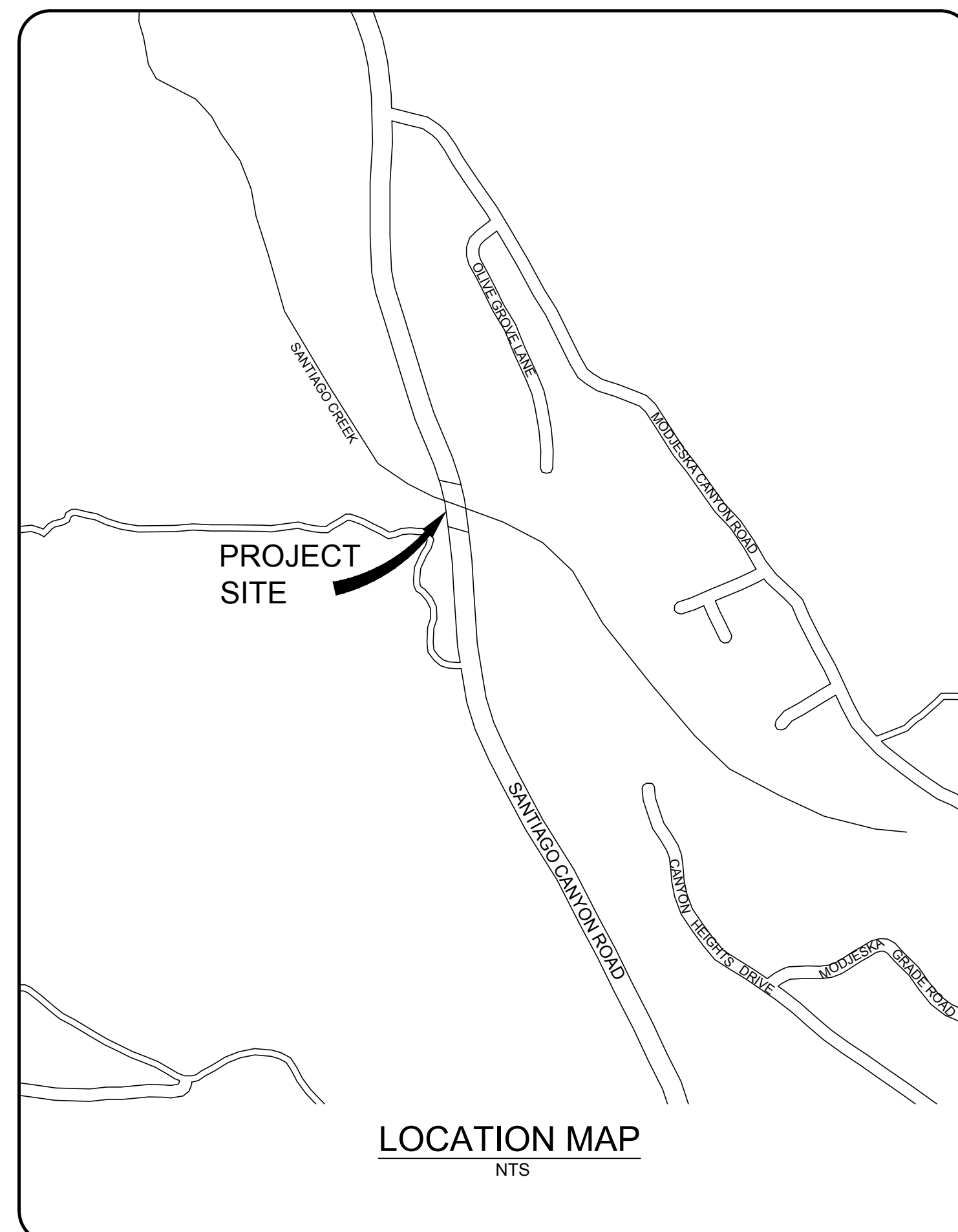
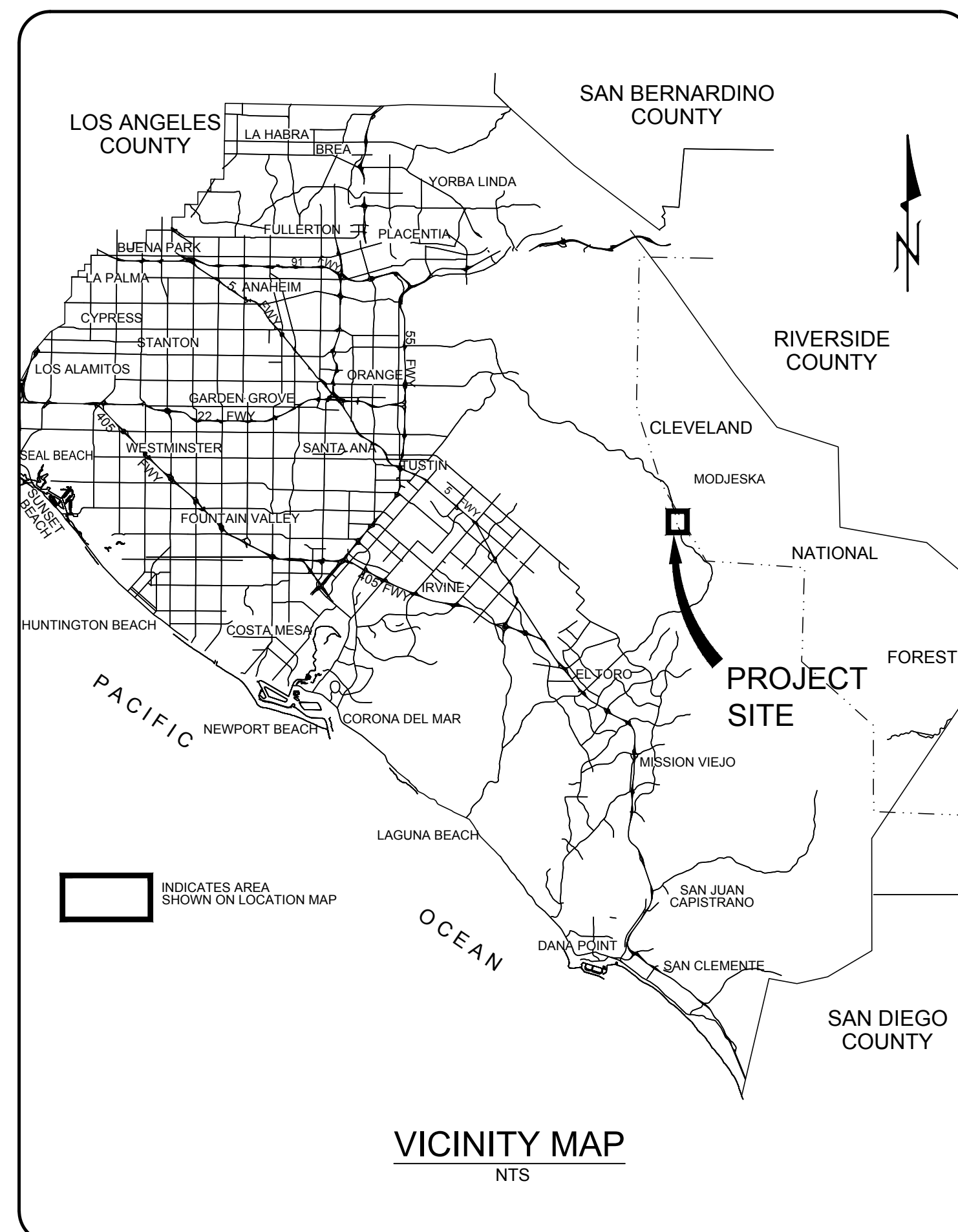


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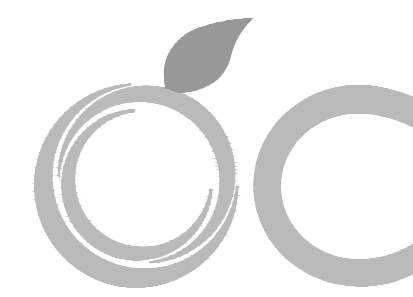
**C-002**

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# County of Orange



SANTA ANA, CALIFORNIA

SHANE L. SILSBY, DIRECTOR

# PLANS FOR 2018 BRIDGE MAINTENANCE PROJECT SANTIAGO CREEK BRIDGE NO. 55C0049

April 25, 2018  
BID SET

## INDEX OF SHEETS

| SHEET | DESCRIPTION                |
|-------|----------------------------|
| 1     | 55C0049 TITLE SHEET        |
| 2     | 55C0049 SITE PLAN          |
| 3     | 55C0049 JOINT SEAL DETAILS |

FUNDED & MAINTAINED BY: ORANGE COUNTY PUBLIC WORKS

COUNTY OF ORANGE OC PUBLIC WORKS DEPARTMENT

SUBMITTED: \_\_\_\_\_ DATE \_\_\_\_\_  
REGINA HU, P.E.  
SENIOR CIVIL ENGINEER  
OC INFRASTRUCTURE PROGRAMS  
ENGINEERING DIVISION

RECOMMENDED: \_\_\_\_\_ DATE \_\_\_\_\_  
PAUL JEFFREY ERNST, P.E.  
MANAGER  
OC INFRASTRUCTURE PROGRAMS  
ENGINEERING DIVISION

RECOMMENDED: \_\_\_\_\_ DATE \_\_\_\_\_  
NARDY KHAN, P.E.  
DEPUTY DIRECTOR  
OC INFRASTRUCTURE PROGRAMS

APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_  
KHALID BAZMI, P.E.  
ASSISTANT PUBLIC WORKS DIRECTOR  
COUNTY ENGINEER

RECORD DRAWING

CONTRACTOR: \_\_\_\_\_

RESIDENT ENGINEER: \_\_\_\_\_

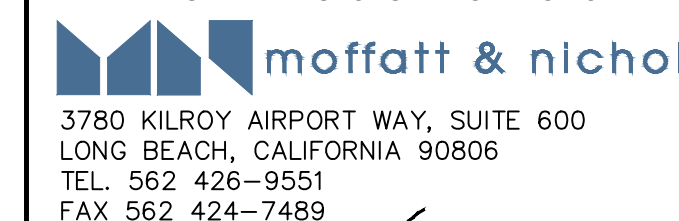
INSPECTOR: \_\_\_\_\_

CONSTRUCTION START DATE: \_\_\_\_\_

CONSTRUCTION COMPLETION DATE: \_\_\_\_\_

## PREPARED BY

PREPARED UNDER RESPONSIBLE CHARGE OF



FAX 562 424-7489  
OMAR JARADAT, P.E.  
MOFFATT & NICHOL

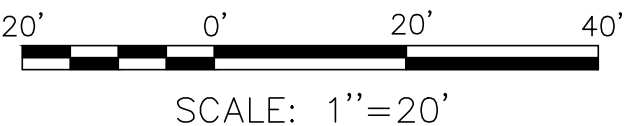
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| REVISIONS |             |      |          |      |

W.O. NO. ER20537  
DWG. NO. G-001

( SHEET 1 OF 3 )



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KEY NOTES

- 1 REMOVE EXISTING JOINT SEAL IN IT'S ENTIRETY, FURNISH AND INSTALL NEW JOINT SEAL

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN COMPLYING WITH CURRENT MUTCD REQUIREMENTS AND SIGNED BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.



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PREPARED UNDER THE RESPONSIBLE CHARGE OF:

David J. Moffatt, P.E.  
MOFFATT & NICHOL

3780 KILROY AIRPORT WAY, SUITE 600  
LONG BEACH, CALIFORNIA 90806  
TEL 562 426-9551  
FAX 562 424-7489

DATE

4/24/18

DESIGNED BY:

RA

DRAWN BY:

SC

CHECKED BY:

SK

PREPARED BY:  

3780 KILROY AIRPORT WAY, SUITE 600  
LONG BEACH, CALIFORNIA 90806  
TEL 562 426-9551  
FAX 562 424-7489

DRAWING NO.:

C-001

FILE NAME:

938906\_0049-C-001.dwg

PLOT DATE:

SCALE:

AS SHOWN

2018 BRIDGE  
MAINTENANCE PROJECT  
SANTIAGO CREEK  
BRIDGE No.

55C0049  
SITE PLAN

SHEET

C-001

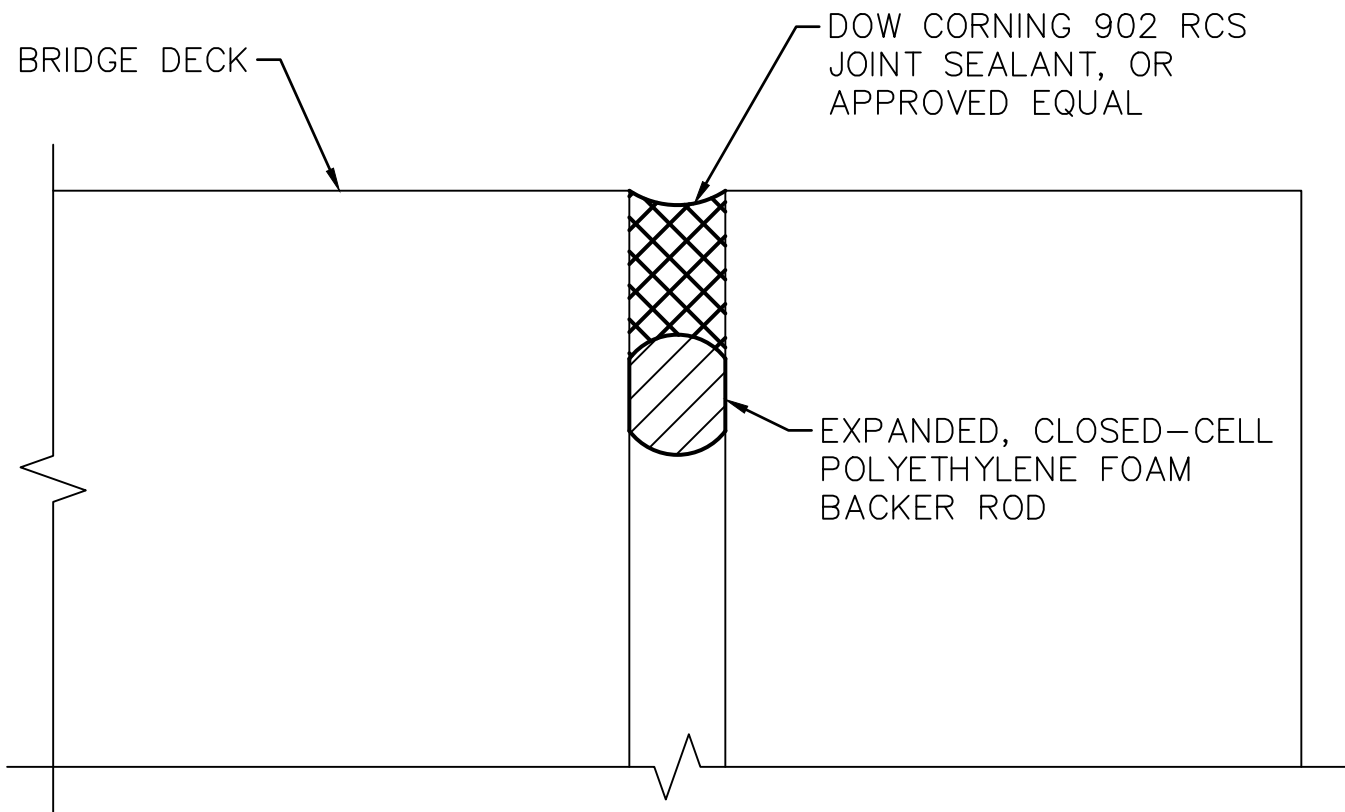
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File: Q:\LB\9389-06\CADD\Active\SheetSet\55C0049\938906\_0049-C-002; Plotted: 4/25/2018 10:36 AM by CARSON, STEVE; Saved: 4/25/2018 8:54 AM by SCARSON



**A**  
C-001 VIEW OF DAMAGED JOINT SEAL  
SCALE: NONE



**B**  
- JOINT SEAL DETAIL  
SCALE: 3" = 1'-0"

| JOINT INFORMATION |                      |              |
|-------------------|----------------------|--------------|
| LOCATION          | MOVEMENT RATING (MR) | SKEW         |
| ABUT. 4           | 1 1/2"               | 35° 24' 25"± |

KEY NOTES

- 1
- REMOVE EXISTING JOINT SEAL IN IT'S ENTIRETY, FURNISH AND INSTALL NEW JOINT SEAL

GENERAL NOTES

1.
- INSTALL BACKER ROD AND SEALANT PER MANUFACTURERS INSTRUCTIONS.
2.
- BACKER ROD SHALL COMPLY WITH ASTM D5249
3.
- BACKER ROD SHALL HAVE A DIAMETER AT LEAST 25% GREATER THAN THE JOINT WIDTH

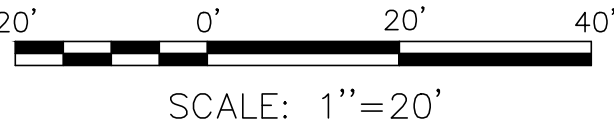
ITEM

JOINT SEAL

QUANTITIES

QUANTITY

40 LF



| MARK | DESCRIPTION | DATE | APPR. |
|------|-------------|------|-------|
|      |             |      |       |
|      |             |      |       |
|      |             |      |       |
|      |             |      |       |
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|      |             |      |       |

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

moffatt & nichol

3780 KILROY AIRPORT WAY, SUITE 600

LONG BEACH, CALIFORNIA 90806

TEL 562 426-9551

FAX 562 424-7488

DATE

4/24/18

OWNER: SANTIAGO CREEK BRIDGE PROJECT

MOFFATT & NICHOL

DESIGNED BY:

BA

CHECKED BY:

DRAWN BY:

SC

DRAWING NO:

C-002

FILE NAME:

938906\_0049-C-002.dwg

PLOT DATE:

---

SCALE:

AS SHOWN

County of Orange

PublicWorks

PREPARED BY:

3780 KILROY AIRPORT WAY, SUITE 600

LONG BEACH, CALIFORNIA 90806

TEL 562 426-9551

FAX 562 424-7488

2018 BRIDGE MAINTENANCE PROJECT

SANTIAGO CREEK BRIDGE No.

55C0049

JOINT SEAL DETAILS

SHEET

C-002

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