

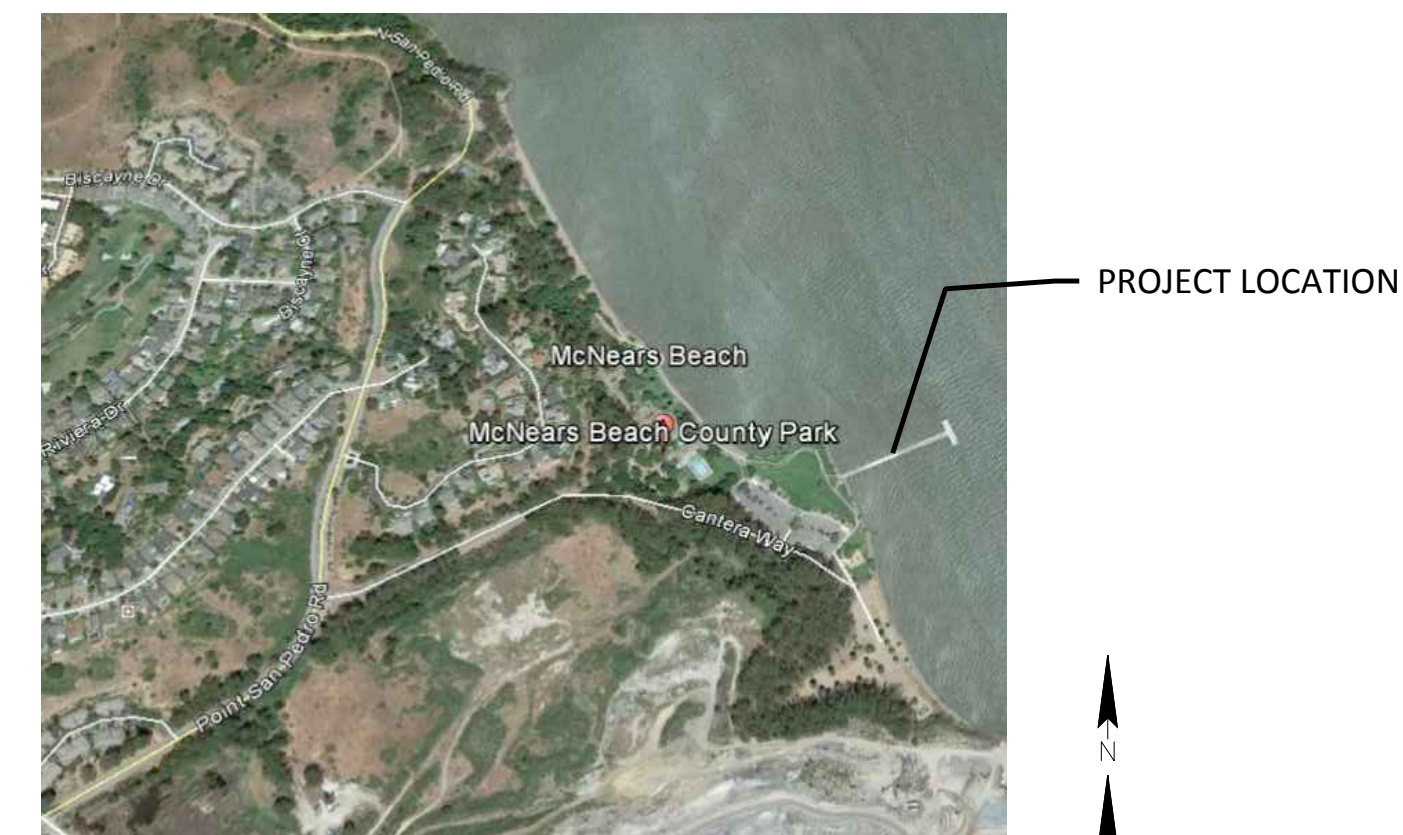


MARIN COUNTY PARKS

PLANS FOR CONSTRUCTION OF

MCNEARS BEACH PARK

PIER REPAIR



LOCATION MAP

DRAWING INDEX

Drawing Number	Drawing Title
General	
G1	TITLE SHEET AND DRAWING INDEX
G2	ABBREVIATION, SYMBOLS, AND TYPICAL REINFORCING DETAIL
G3	SITE PLAN
Structural	
S1	OVERALL PIER PLAN
S2	PIER REPAIR PLAN - 1
S3	PIER REPAIR PLAN - 2
S4	PIER REPAIR PLAN - 3
S5	TEE REPAIR DETAILS - 1
S6	TEE REPAIR DETAILS - 2
S7	TEE REPAIR DETAILS - 3
S8	TEE DIAPHRAGM REPAIRS
S9	TEE JOINT, CURB, AND MISC. REPAIRS
S10	PILE AND PILE CAP REPAIRS

PROJECT DIRECTORY

PROJECT MANAGER
 CHRIS BRAMHAM
 MARIN COUNTY PARKS
 3501 CIVIC CENTER DRIVE, ROOM 260
 SAN RAFAEL, CA 94903
 TELEPHONE: (415) 473-6387

ENGINEERING CONSULTANT
 SUGIARTO LONI
 LIFTECH CONSULTANTS INC.
 344 - 20TH STREET, SUITE 360
 OAKLAND, CA 94612
 TELEPHONE: (510) 832-5606

PERMITTING CONSULTANT
 CHRISTINE BOUDREAU
 BOUDREAU ASSOCIATES LLC
 327 JERSEY STREET
 SAN FRANCISCO, CA 94114
 TELEPHONE: (510) 296-1155

NOTES

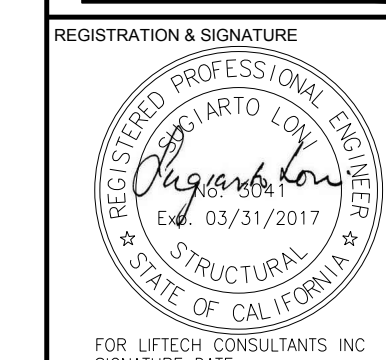
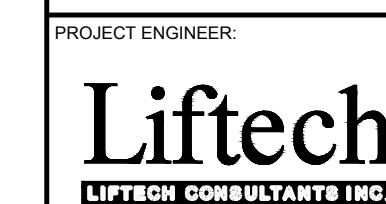
1. THE CONTRACTOR SHALL PROVIDE A SAFE, CONTINUOUS PATH OF TRAVEL FOR PEDESTRIANS AND VEHICULAR TRAFFIC DURING ALL PHASES OF CONSTRUCTION AT THE PROJECT SITE. IF PEDESTRIANS ARE DIRECTED AWAY FROM THE EXISTING PEDESTRIAN TRAVEL WAY DUE TO CONSTRUCTION, A SUITABLE ALTERNATE PATH SHALL BE PROVIDED. A SUITABLE ALTERNATE PATH MAY INCLUDE, BUT IS NOT LIMITED TO, TEMPORARY ACCESSIBLE RAMPS, TRAFFIC CONTROL, PHYSICAL BARRIERS TO SEPARATE PEDESTRIANS FROM TRAFFIC AND SIGNAGE. IT IS CLEARLY UNDERSTOOD THAT IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A SAFE PATH OF TRAVEL AT ALL TIMES.
2. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN ACCESS FOR THE PUBLIC, INCLUDING FISHERMEN, AT THIS PUBLIC PIER AND INSTALL SAFETY SIGNS. CONTRACTOR SHALL SUBMIT A DETAILED PUBLIC ACCESS AND SAFETY SIGN NOTIFICATION PLAN TO THE ENGINEER FOR APPROVAL. THE PLAN SHOULD INCLUDE SIGNS THROUGHOUT THE PARK NOTIFYING OF THE PROJECT AND DIRECTING USERS THROUGH THE WORK ZONE.
3. COMPLY WITH ALL ENVIROMENTAL PERMITS.
4. THE PROJECT SPECIFICATIONS WHICH INCLUDE REPAIR PROCEDURES, ENVIROMENTAL PERMITS, NOISE LEVELS, ETC, IS AN INTREGAL PART OF THE CONSTRUCTION DOCUMENTS.

CALL USA (UNDERGROUND SERVICE ALERT) AT LEAST 24HRS IN ADVANCE OF WORK - 1-(800)-642-2444.

PROJECT:
MCNEAR'S BEACH PARK PIER REPAIR
 201 CANTERA WAY
 SAN RAFAEL, CA 94901



CONTACT:
 CHRIS BRAMHAM
 MARIN COUNTY PARKS
 3501 CIVIC CENTER DRIVE #260
 SAN RAFAEL, CA 94903
 CBRAMHAM@MARINCOUNTY.ORG
 (415)473-3638



DATE:
 06/14/16

ISSUED FOR CONSTRUCTION

No.	Date	Description
1	6/14/16	ISSUED FOR CONSTRUCTION

SHEET TITLE:
 TITLE SHEET AND DRAWING INDEX

SHEET NUMBER:
G1

ABBREVIATION

∠ or ∓	Angle
Δ	Delta
#	Pound, Number
±	Plus or Minus, Approximate
ADDL	Additional
APPROX	Approximate
ASTM	American Society for Testing and Materials
AVE or AVG	Average
AWS	American Welding Society
BRG	Bearing
BOT	Bottom
C	Conduit
CALC	Calculated, Calculations
C/C	Center to Center
CG	Center of Gravity
CIP	Cast Iron Pipe
CL, ⌀	Centerline
CTR	Center
CKRD	Checked
CLR	Clear
CR	Crane Rail
DBL	Double
DEG., °	Degree
DIA, Ø	Diameter
DL	Dead load
DPT	Dye penetrant testing
DWG	Drawing
E	East, Easting
(E)	Existing
EA	Each
ELEV	Elevation
EQ	Equal
EXP	Expansion
EW	Each Way
FIN	Finish
FT, (')	Foot, Feet
FTG	Footing
GALV	Galvanized
GRTG	Grating
HT	Height
IB	Inboard
ID	Inside diameter
IN, (")	Inches
JT	Joint
LB, #	Pound
LL	Live load
LS	Landside
LT	Left, Long Ton

m	Meter
MATL	Material
MAX	Maximum
MECH	Mechanical
ML	Match line
MIN	Minimum
mm	Millimeter
MOD	Modify
MT	Magnetic particle testing or examination
N	North, Northing
NDT	Nondestructive testing
NIC	Not in contract
NO, #	Number
NTS	Not to scale
OB	Outboard
O.C.	On center
OD	Outside diameter
PERP	Perpendicular
PL	Plate
P/S	Prestressed concrete
PSF	Pounds per square foot
PSI	Pounds per square inch
PT	Liquid penetrant testing or examination
PWR	Power
RAD, R	Radius
REF	Reference
REINF	Reinforced, Reinforcing, Reinforcement
REV	Revision
RT	Right
S	South
SCHED	Schedule
SHT	Sheet
SPA	Spaces
SPECS	Specifications
SQ	Square
SF	Square foot
SS	Stainless steel
STIFF	Stiffener
STL	Steel
SYM	Symmetrical
T&B	Top and bottom
THK	Thick
TOR	Top of rail
TYP	Typical
UON	Unless Otherwise Noted
UT	Ultrasonic testing or examination
VERT	Vertical
VT	Visual testing or examination
W	West, Westing
W/	With
WP	Workpoint
WS	Waterside

TYPICAL REINFORCING DETAILS

6d, 3" MIN.

BAR SIZE	D	A OR G	H APPROX.
#3	1 1/2"	4 1/4"	3"
#4	2"	4 1/2"	3"
#5	2 1/2"	5 1/2"	3 3/4"
#6	4 1/2"	8"	4 1/2"
#7	5 1/4"	9"	5 1/4"
#8	6"	10 1/2"	6"

BAR SIZE	D	A
#3	2 1/4"	6"
#4	3"	8"
#5	3 3/4"	0'-10"
#6	4 1/2"	1'-0"
#7	5 1/4"	1'-2"
#8	6"	1'-4"
#9	9 1/2"	1'-7"
#10	10 3/4"	1'-10"
#11	1'-0"	2'-0"

BAR SIZE	C	
	TOP REINF.	BOTT REINF.
#3	1'-4"	1'-4"
#4	1'-5"	1'-4"
#5	1'-10"	1'-5"
#6	2'-2"	1'-8"
#7	3'-2"	2'-5"
#8	3'-7"	2'-9"

BAR SIZE	ld	
	TOP REINF.	BOTT REINF.
#3	1'-0"	1'-0"
#4	1'-1"	1'-0"
#5	1'-5"	1'-1"
#6	1'-8"	1'-3"
#7	2'-5"	1'-10"
#8	2'-9"	2'-1"

NOTES:
 1. ACI 318-05 APPLIES UNLESS OTHERWISE NOTED.
 2. f'c = 5000 psi
 3. CENTER TO CENTER REINF. > 6" AND CENTER OF BAR TO CONCRETE SURFACE > 3"
 4. TOP REINFORCEMENT: HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE.
 5. CONCENTRIC MECHANICAL AND WELD SPLICES IN COMPLIANCE WITH ACI 318-08/318R-08 ARE ACCEPTABLE ALTERNATIVES TO LAP SPLICES.

SYMBOLS

T1
G2 — REPAIR DETAIL IDENTIFICATION LETTER
DRAWING WHERE REPAIR DETAIL IS SHOWN

1
S1 — DETAIL IDENTIFICATION LETTER
INDICATES SHEET WHERE DETAIL IS DRAWN

A
S1 — SECTION IDENTIFICATION LETTER
INDICATES SECTION IS CUT ON THE SAME SHEET

A
S1 — SECTION IDENTIFICATION LETTER
INDICATES SECTION IS CUT ON THE SAME SHEET

DH1 — REPAIR TYPE

PROJECT:
MCNEAR'S BEACH PARK PIER REPAIR
 201 CANTERA WAY
 SAN RAFAEL, CA 94901

PROJECT OWNER:
MARIN COUNTY PARKS
 PRESERVATION-RECREATION



CONTACT:
 CHRIS BRAMHAM
 MARIN COUNTY PARKS
 5601 CIVIC CENTER DRIVE #260
 SAN RAFAEL, CA 94903
 CBRAMHAM@MARINCOUNTY.ORG
 (415) 473-3039

PROJECT ENGINEER:
Liftech
 LIFTECH CONSULTANTS INC.



DATE:
 06/14/16

SUBMITTAL:
 ISSUED FOR CONSTRUCTION

REVISIONS

No.	Date	Description
1	6/14/16	ISSUED FOR CONSTRUCTION

SHEET TITLE:
 ABBREVIATION, SYMBOLS, AND TYPICAL REINFORCING DETAIL

SHEET NUMBER:
G2



ISSUED FOR CONSTRUCTION

REVISIONS	No.	Date	Description
▲	1	6/16/16	ISSUED FOR CONSTRUCTION

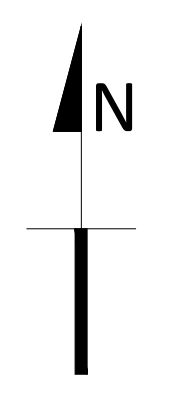
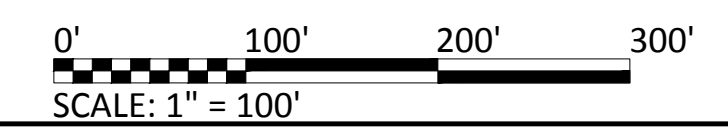


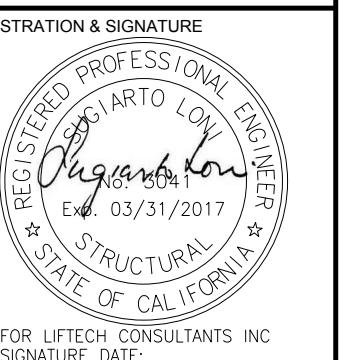
WORK AREA
 GRASS AREA
 PARKING AREA
 CONCRETE SIDEWALK
 CONSTRUCTION ROUTE
 STORAGE/ STAGING AREA

- NOTES:**
1. PRIOR TO BEGINNING WORK CONTRACTOR SHALL ARRANGE A MEETING WITH THE COUNTY TO DOCUMENT THE EXISTING CONDITION OF THE PARK AREAS THAT MAY BE IMPACTED BY THE CONSTRUCTION. THE SITE VISIT SHALL BE RECORDED WITH VIDEO AND PHOTOS OF CURRENT PARK CONDITIONS BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A DUPLICATE COPY TO THE COUNTY.
 2. TRAVEL PATH AND STAGING AREA ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE CONSTRUCTION ROUTE FROM STAGING AREA TO PROJECT SITE WITH THE COUNTY.
 3. CONSTRUCTION TRAFFIC SHALL BE ON UNPAVED ROAD OR ASPHALT PAVEMENT ON PARKING LOT. DO NOT USE CONCRETE SIDEWALK FOR CONSTRUCTION TRAFFIC.
 4. CONTRACTOR SHALL PROTECT TURF, SIDEWALKS, AND OTHER PARK FEATURES. ANY DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT CONTRACTOR'S COST.
 5. STAGING AREA FOR STORAGE OR TRAILER SHALL BE FENCED OFF FROM PUBLIC.
 6. SMALL CARTS ARE THE ONLY VEHICLES PERMITTED ON PIER. FOR TRUCK AND HEAVY EQUIPMENT, CONTRACTOR SHALL SUBMIT CALCULATIONS TO DEMONSTRATE THAT THE PIER CAN SUPPORT THE WHEEL LOADS TO THE ENGINEER FOR APPROVAL.

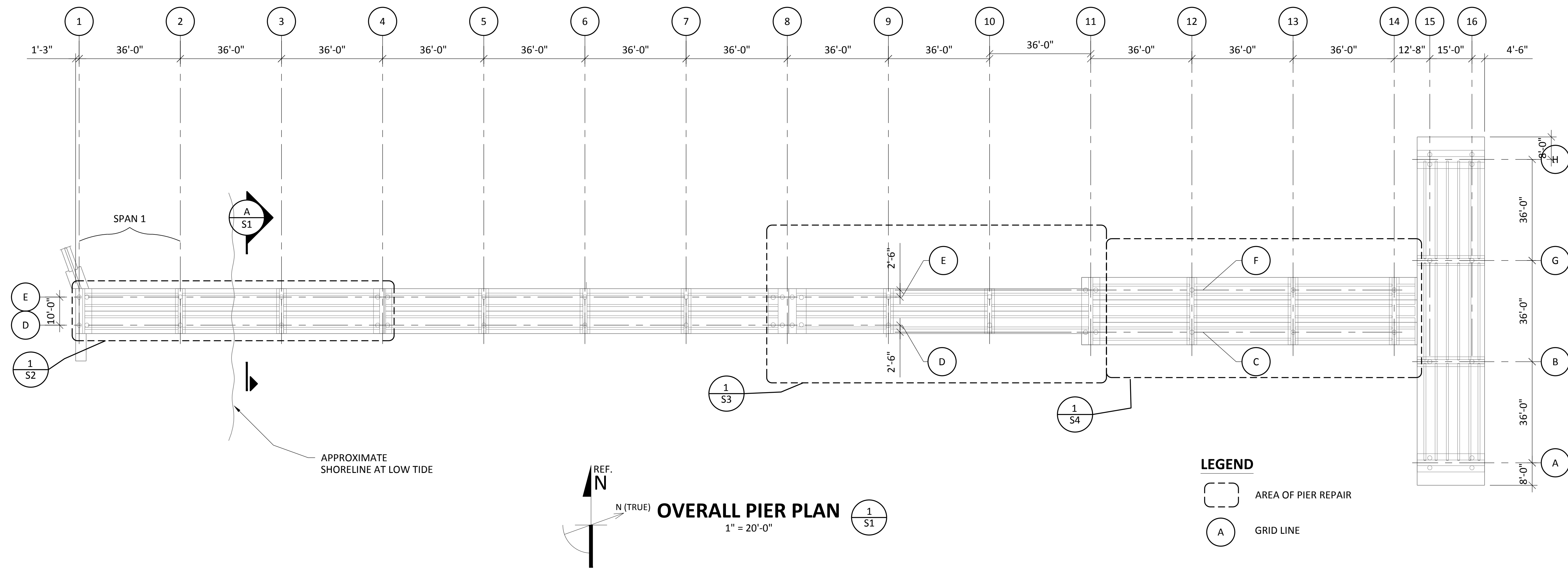
Google earth

SITE PLAN 1/63
 1" = 100'-0"

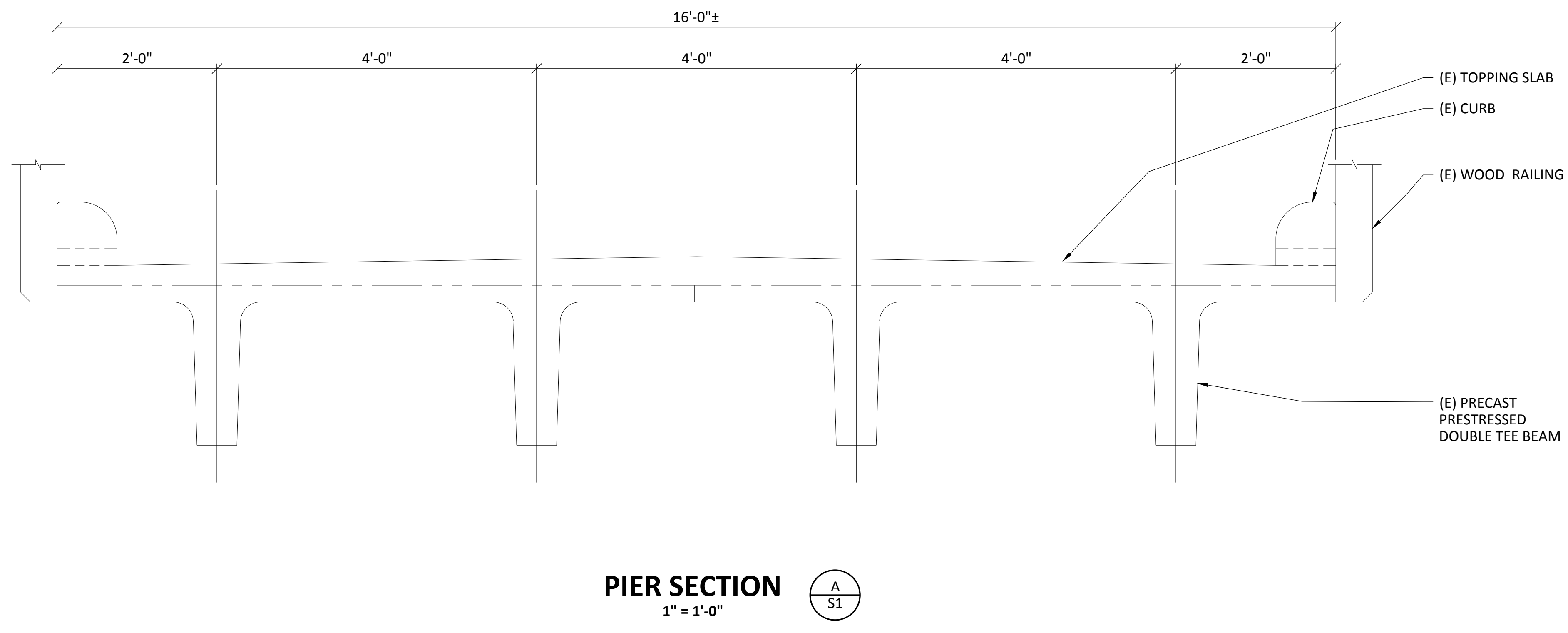


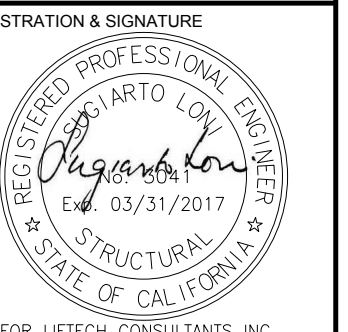


REVISIONS	No.	Date	Description
▲	1	6/14/16	ISSUED FOR CONSTRUCTION

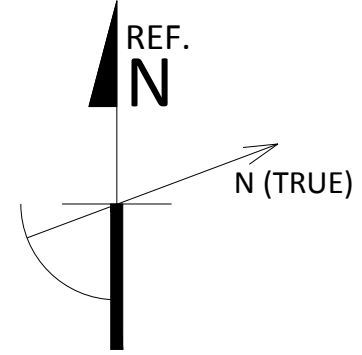
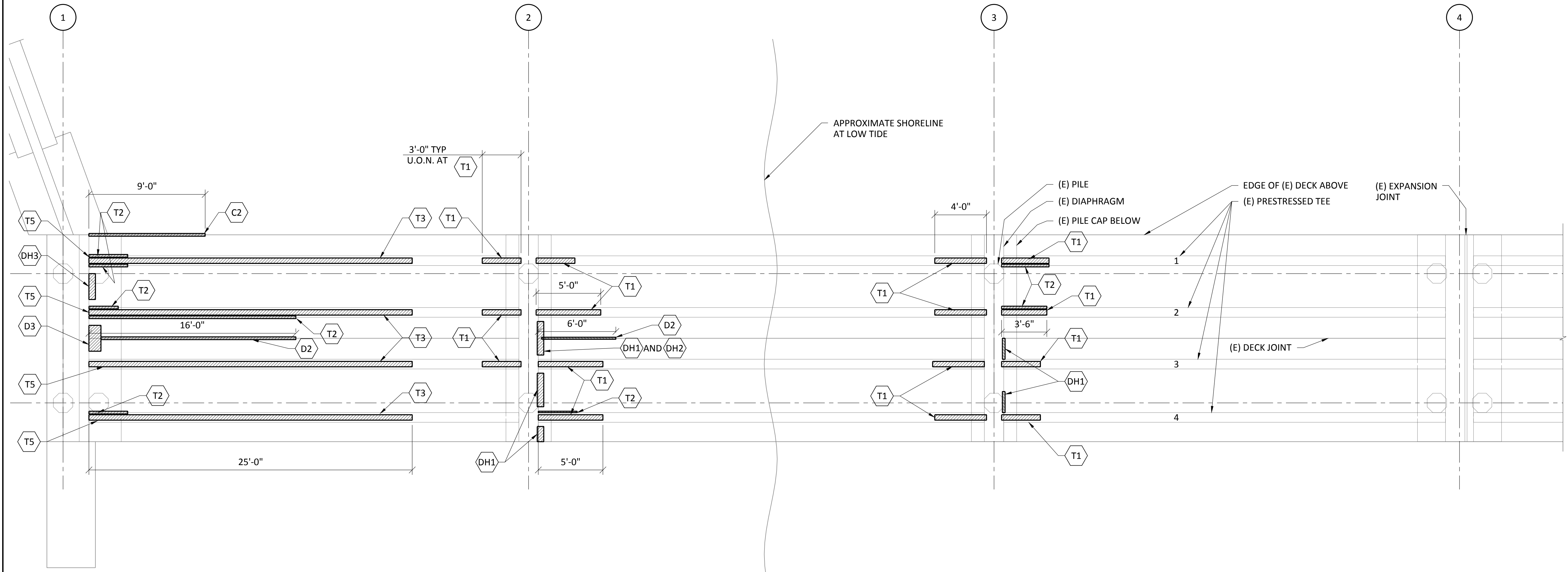


- LEGEND**
- AREA OF PIER REPAIR
 - (A) GRID LINE





REVISIONS	No.	Date	Description
	1	6/14/16	ISSUED FOR CONSTRUCTION



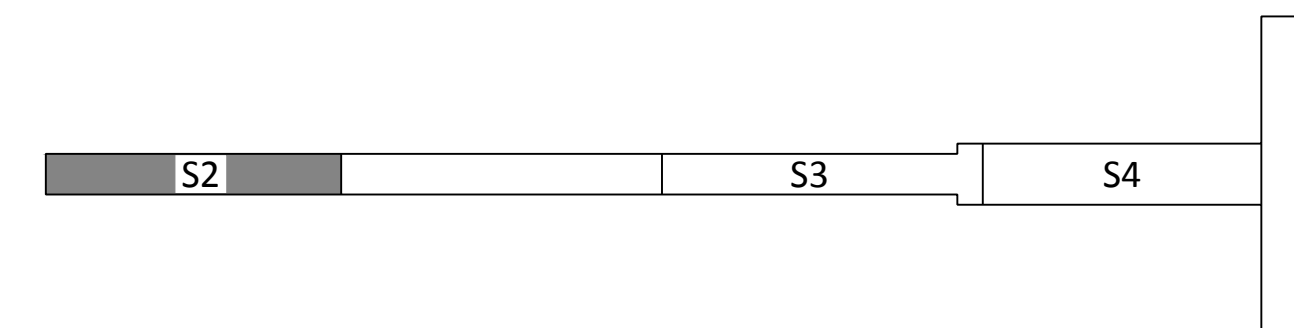
PIER REPAIR PLAN
 1/4" = 1'-0" 1 / S2

NOTES

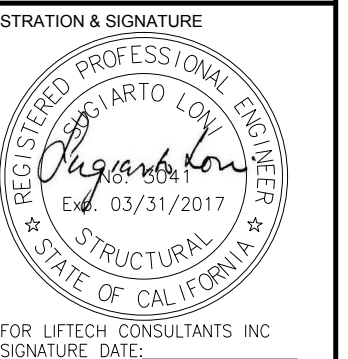
- | | |
|--|---|
| T1 TEE SPALLING/ CRACKING , SEE DETAIL T1/S5 | DH2 DIAPHRAGM CRACKING, SEE DETAIL DH2/S8 |
| T2 TEE WEB SPALLING, SEE DETAILS T2/S5 | DH3 DIAPHRAGM CRACKING AT SPAN 1, SEE DETAIL DH3/S8 |
| T3 TEE CRACKING AT MID SPAN, SEE DETAIL T3/S6 | DH4 DIAPHRAGM CRACKING, SEE DETAIL DH4/S8 |
| T4 LOCALIZED TEE WEB SPALLING, SEE DETAIL T4/S6 | D1 TEE CORROSION AT DECK TIE, SEE DETAIL D1/S9 |
| T5 TEE SPALLING AT SPAN 1, SEE DETAIL T5/S7 | D2 TEE CRACKING AT DECK JOINT, SEE DETAIL D2/S9 |
| T6 TEE WEB SPALLING AT EXPANSION JOINT, SEE DETAIL T6/S7 | D3 TEE CORROSION AT DECK JOINT, SEE DETAIL D3/S9 |
| DH1 SPALLING AT BOTTOM OF DECK, SEE DETAIL DH1/S8 | C1 SPALLING AND CORROSION AT CURB DRAIN HOLES, SEE DETAIL C1/S9 |

LEGEND

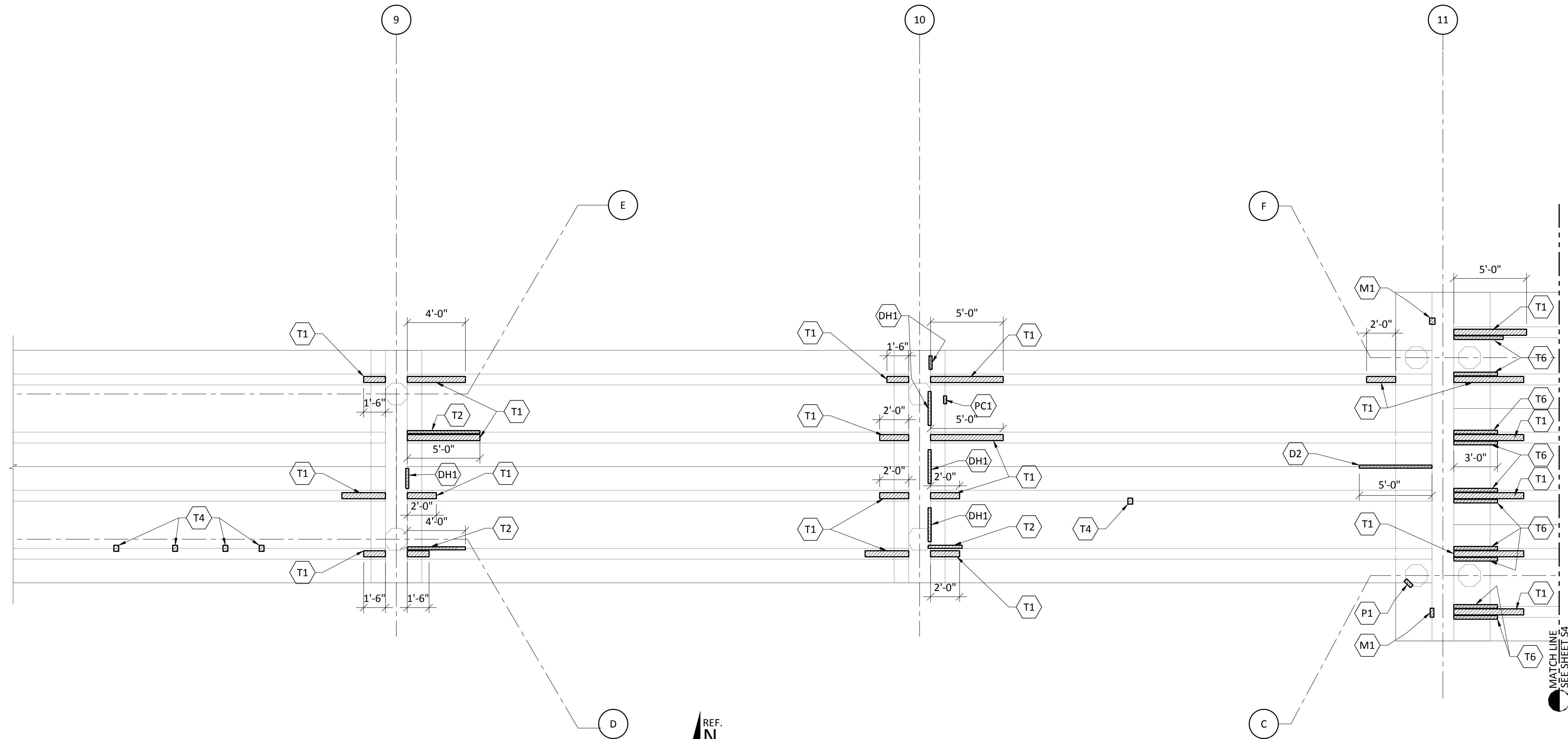
DAMAGED AREA



KEY PLAN



REVISIONS	No.	Date	Description
ISSUED FOR CONSTRUCTION	1	6/14/16	ISSUED FOR CONSTRUCTION



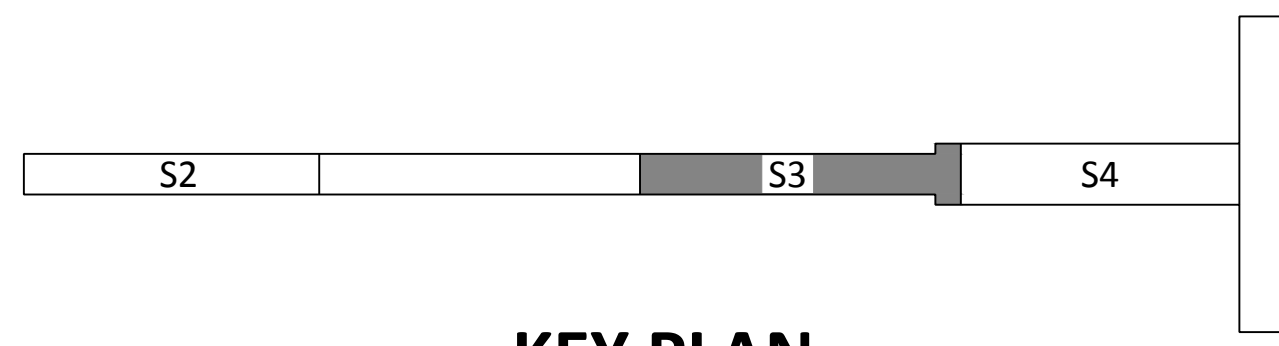
NOTES

- | | | | |
|-----|---|-----|--|
| T1 | TEE SPALLING/ CRACKING , SEE DETAIL T1/S5 | DH2 | DIAPHRAGM CRACKING, SEE DETAIL DH2/S8 |
| T2 | TEE WEB SPALLING, SEE DETAILS T2/S5 | DH3 | DIAPHRAGM CRACKING AT SPAN 1, SEE DETAIL DH3/S8 |
| T3 | TEE CRACKING AT MID SPAN, SEE DETAIL T3/S6 | DH4 | DIAPHRAGM CRACKING, SEE DETAIL DH4/S8 |
| T4 | LOCALIZED TEE WEB SPALLING, SEE DETAIL T4/S6 | D1 | TEE CORROSION AT DECK TIE, SEE DETAIL D1/S9 |
| T5 | TEE SPALLING AT SPAN 1, SEE DETAIL T5/S7 | D2 | TEE CRACKING AT DECK JOINT, SEE DETAIL D2/S9 |
| T6 | TEE WEB SPALLING AT EXPANSION JOINT, SEE DETAIL T6/S7 | D3 | TEE CORROSION AT DECK JOINT, SEE DETAIL D3/S9 |
| DH1 | SPALLING AT BOTTOM OF DECK, SEE DETAIL DH1/S8 | C1 | SPALLING AND CORROSION AT CURB DRAIN HOLES, SEE DETAIL C1/S9 |

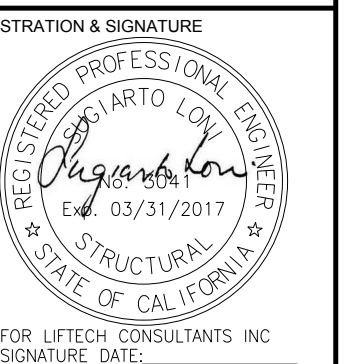
LEGEND

DAMAGED AREA

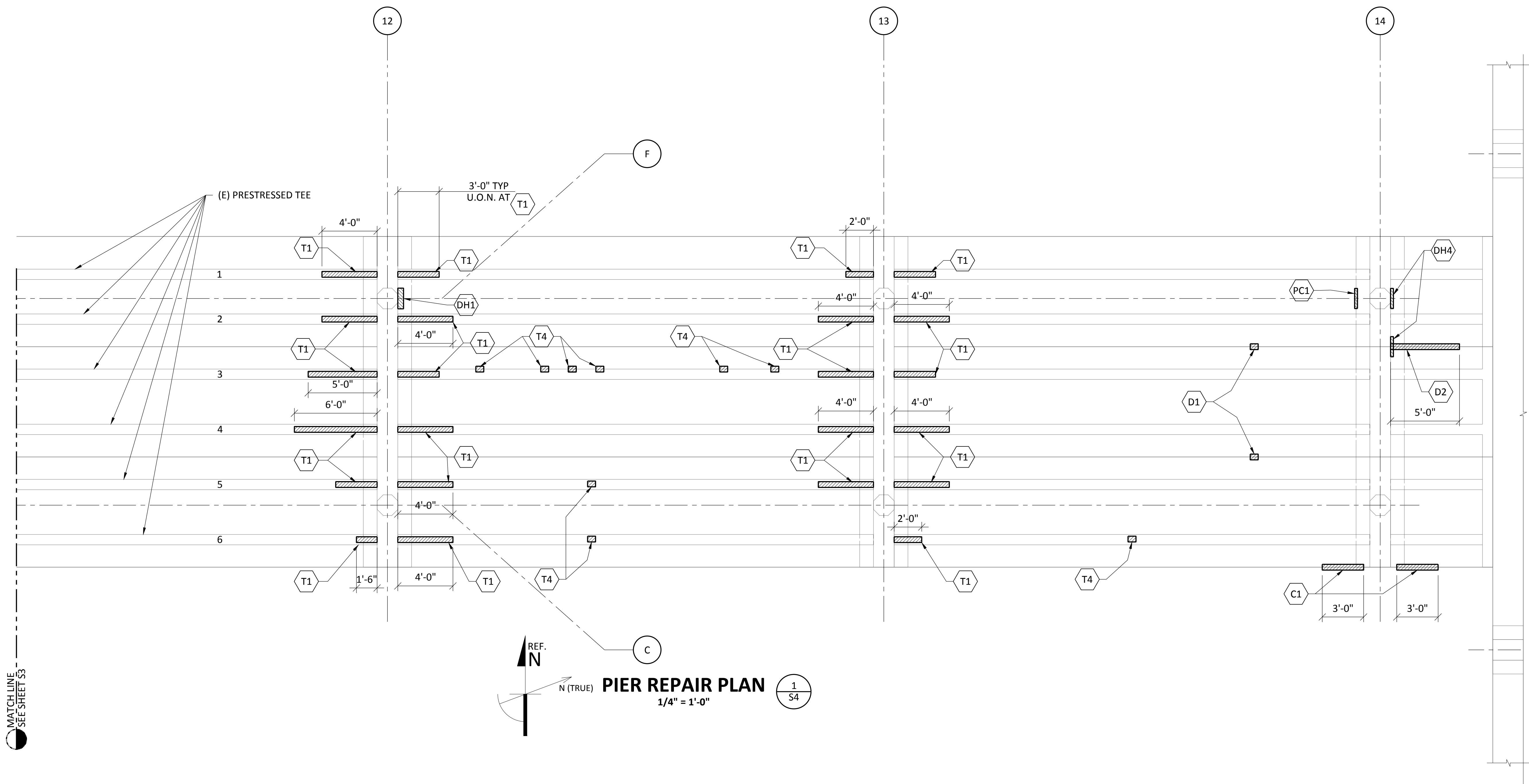
- | | |
|-----|--|
| C2 | CORROSION AT EDGE OF TEE, SEE C2/S9 |
| M1 | HARDWARE CORROSION, SEE DETAIL M1/S9 |
| P1 | SPALLING AT TOP OF PILE, SEE DETAIL P1/S10 |
| PC1 | CORROSION ON PILE CAP, SEE DETAIL PC1/S10 |



KEY PLAN



No.	Date	Description
1	6/14/16	ISSUED FOR CONSTRUCTION



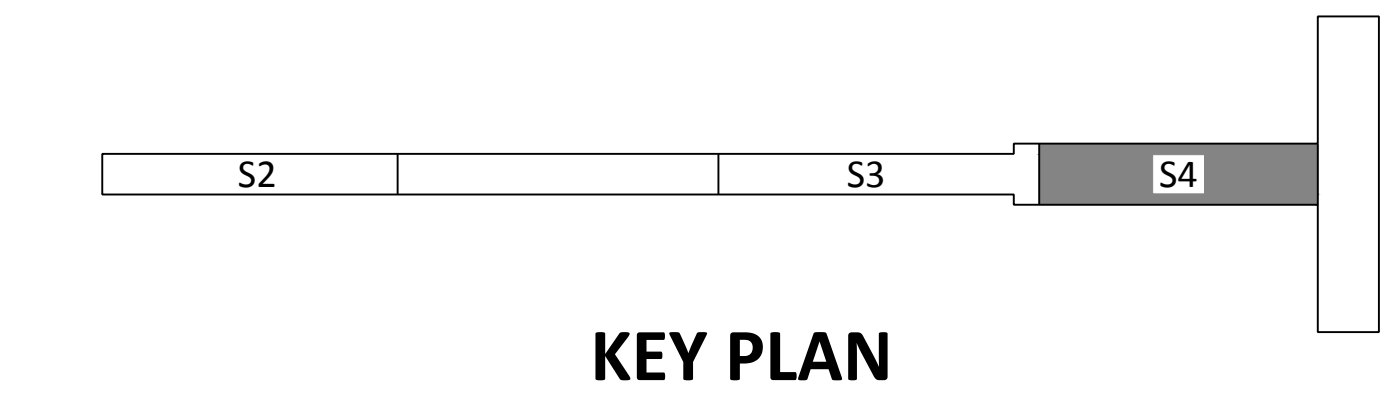
NOTES

- | | | | |
|-----|---|-----|--|
| T1 | TEE SPALLING/ CRACKING , SEE DETAIL T1/S5 | DH2 | DIAPHRAGM CRACKING, SEE DETAIL DH2/S8 |
| T2 | TEE WEB SPALLING, SEE DETAILS T2/S5 | DH3 | DIAPHRAGM CRACKING AT SPAN 1, SEE DETAIL DH3/S8 |
| T3 | TEE CRACKING AT MID SPAN, SEE DETAIL T3/S6 | DH4 | DIAPHRAGM CRACKING, SEE DETAIL DH4/S8 |
| T4 | LOCALIZED TEE WEB SPALLING, SEE DETAIL T4/S6 | D1 | TEE CORROSION AT DECK TIE, SEE DETAIL D1/S9 |
| T5 | TEE SPALLING AT SPAN 1, SEE DETAIL T5/S7 | D2 | TEE CRACKING AT DECK JOINT, SEE DETAIL D2/S9 |
| T6 | TEE WEB SPALLING AT EXPANSION JOINT, SEE DETAIL T6/S7 | D3 | TEE CORROSION AT DECK JOINT, SEE DETAIL D3/S9 |
| DH1 | SPALLING AT BOTTOM OF DECK, SEE DETAIL DH1/S8 | C1 | SPALLING AND CORROSION AT CURB DRAIN HOLES, SEE DETAIL C1/S9 |

- | | |
|-----|--|
| C2 | CORROSION AT EDGE OF TEE, SEE C2/S9 |
| M1 | HARDWARE CORROSION, SEE DETAIL M1/S9 |
| P1 | SPALLING AT TOP OF PILE, SEE DETAIL P1/S10 |
| PC1 | CORROSION ON PILE CAP, SEE DETAIL PC1/S10 |

LEGEND

DAMAGED AREA

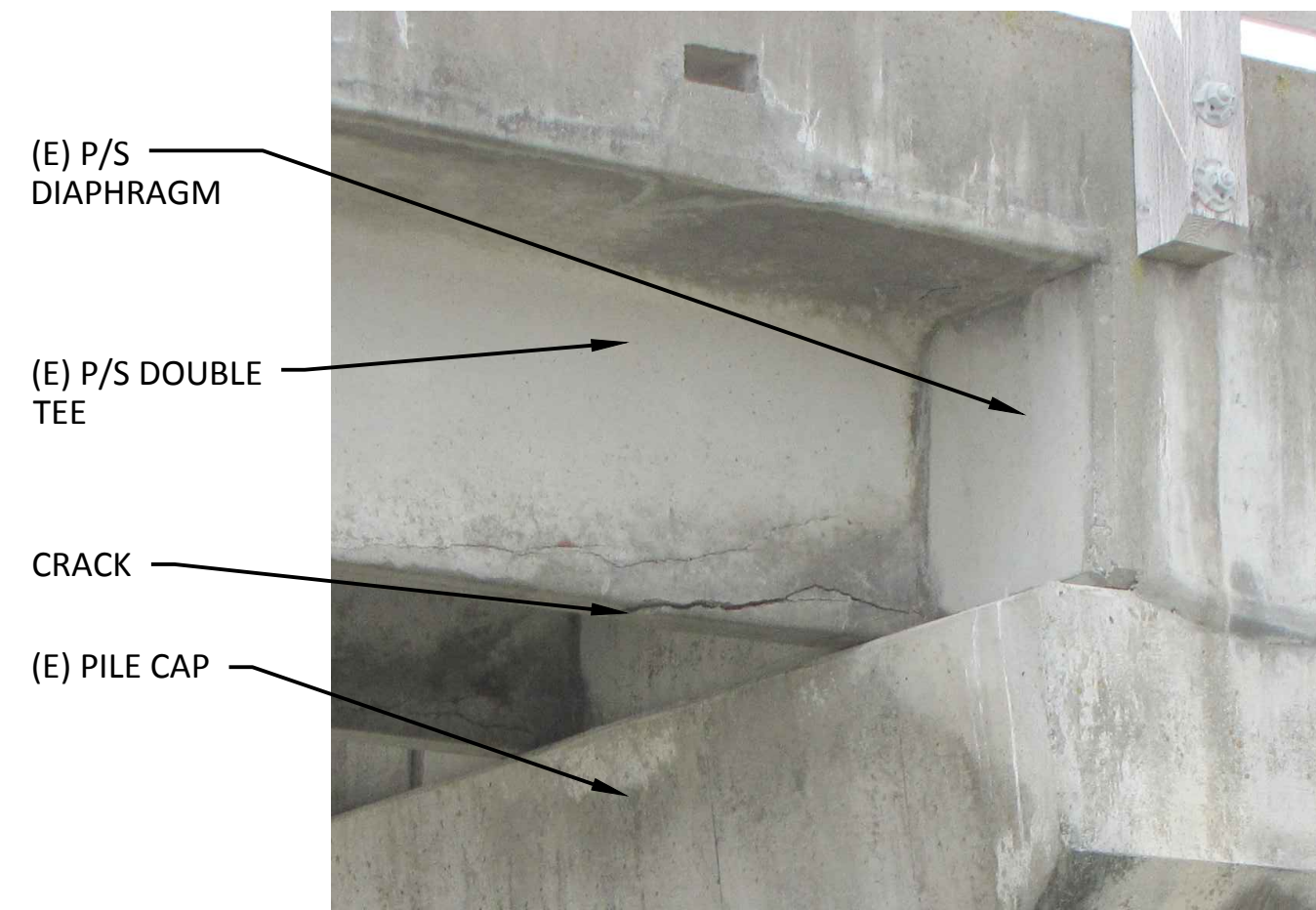


KEY PLAN

MATCH LINE SEE SHEET S3

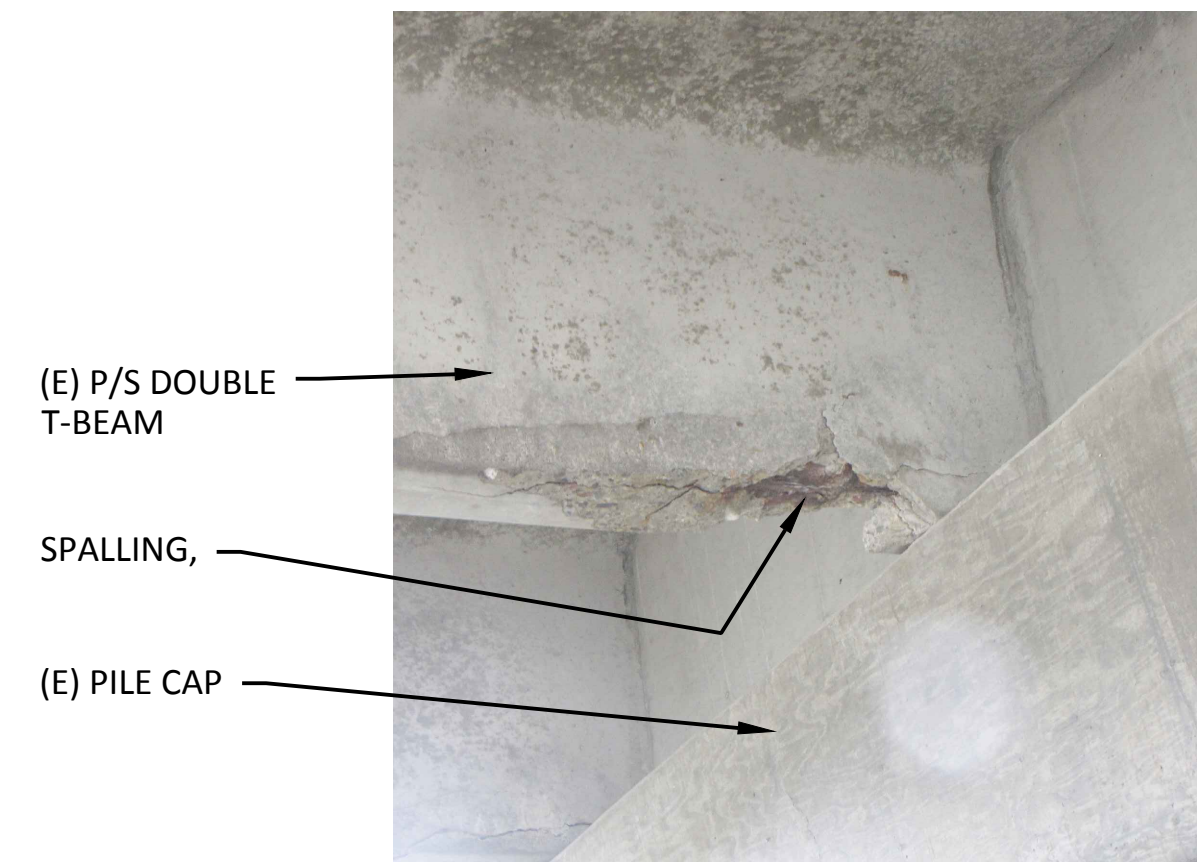
REF. N
 N (TRUE)
PIER REPAIR PLAN
 1/4" = 1'-0"
 1/S4

EXAMPLE PHOTO



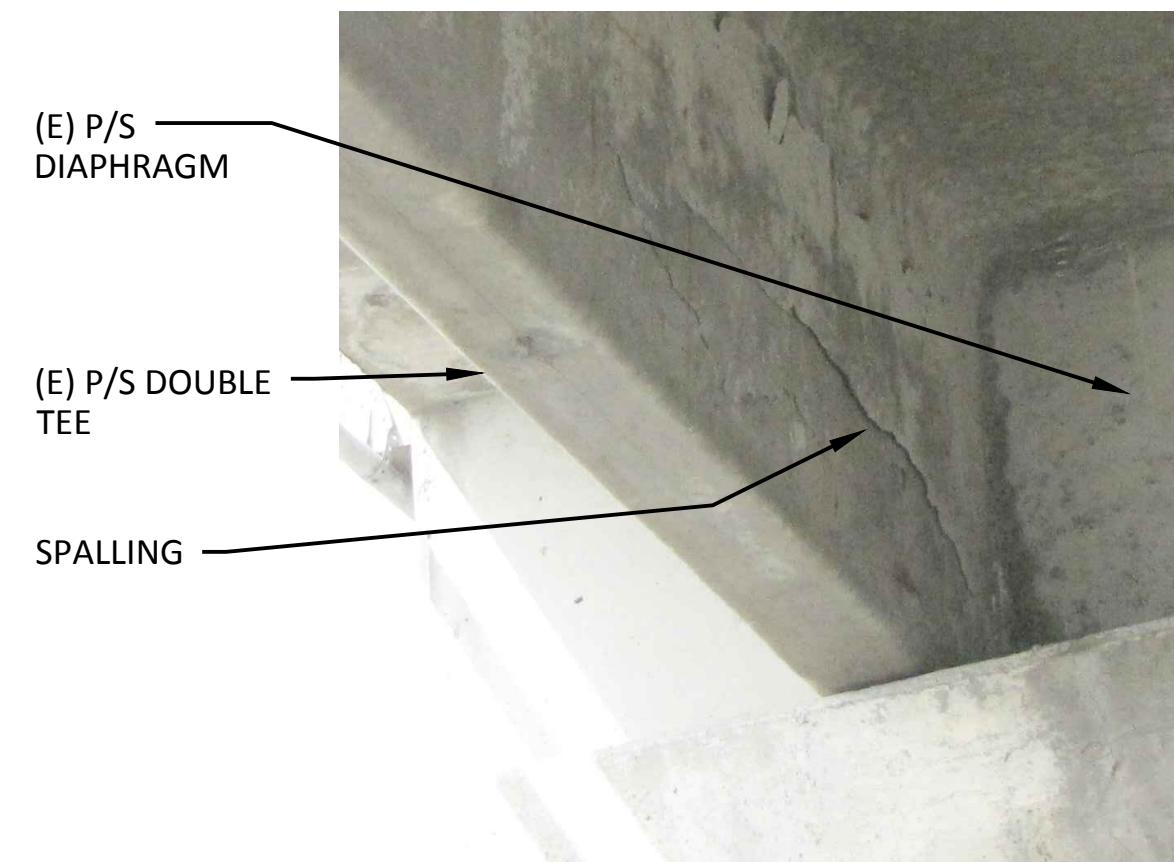
TEE CRACKING AT BOTTOM NEAR PILE CAP

EXAMPLE PHOTO



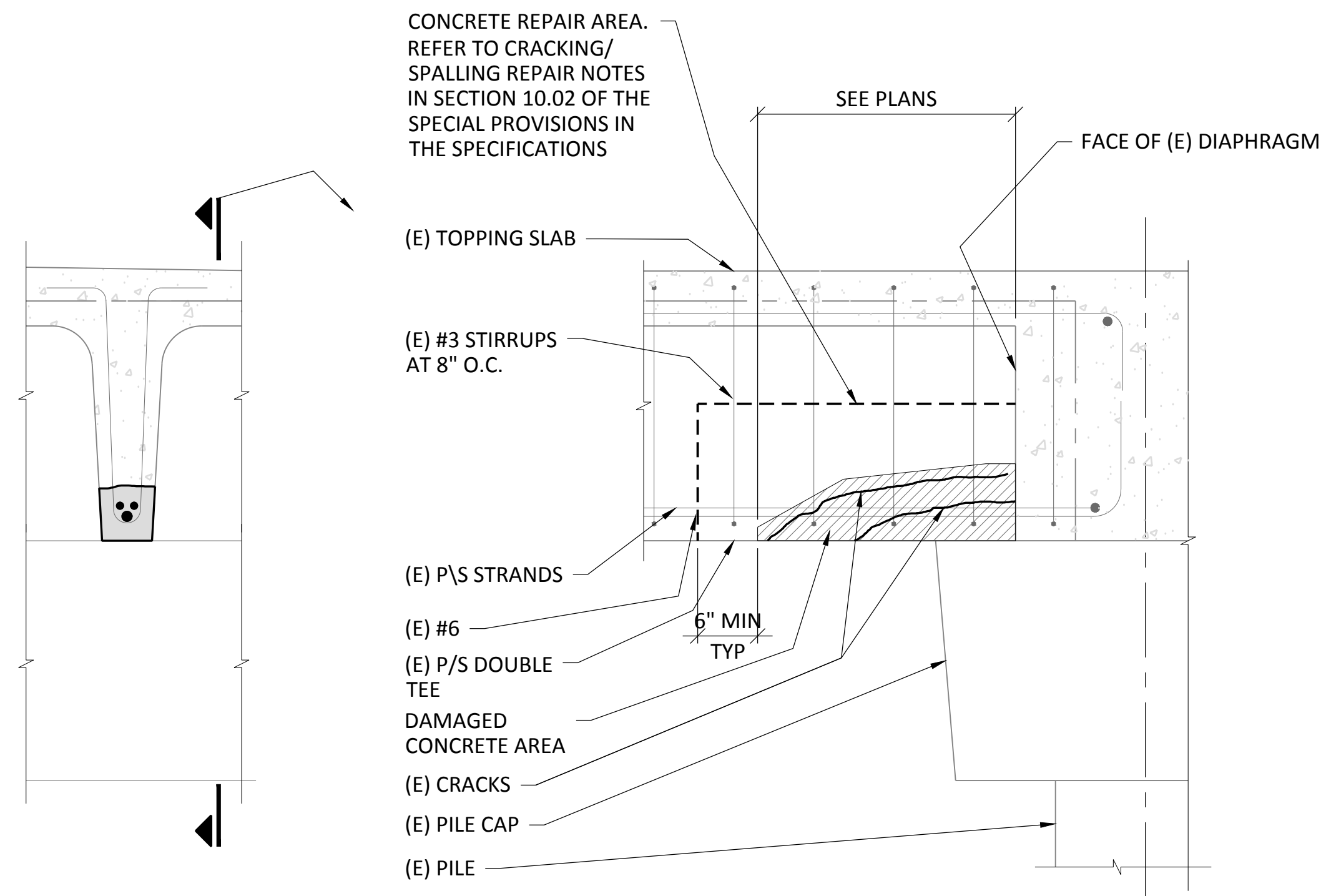
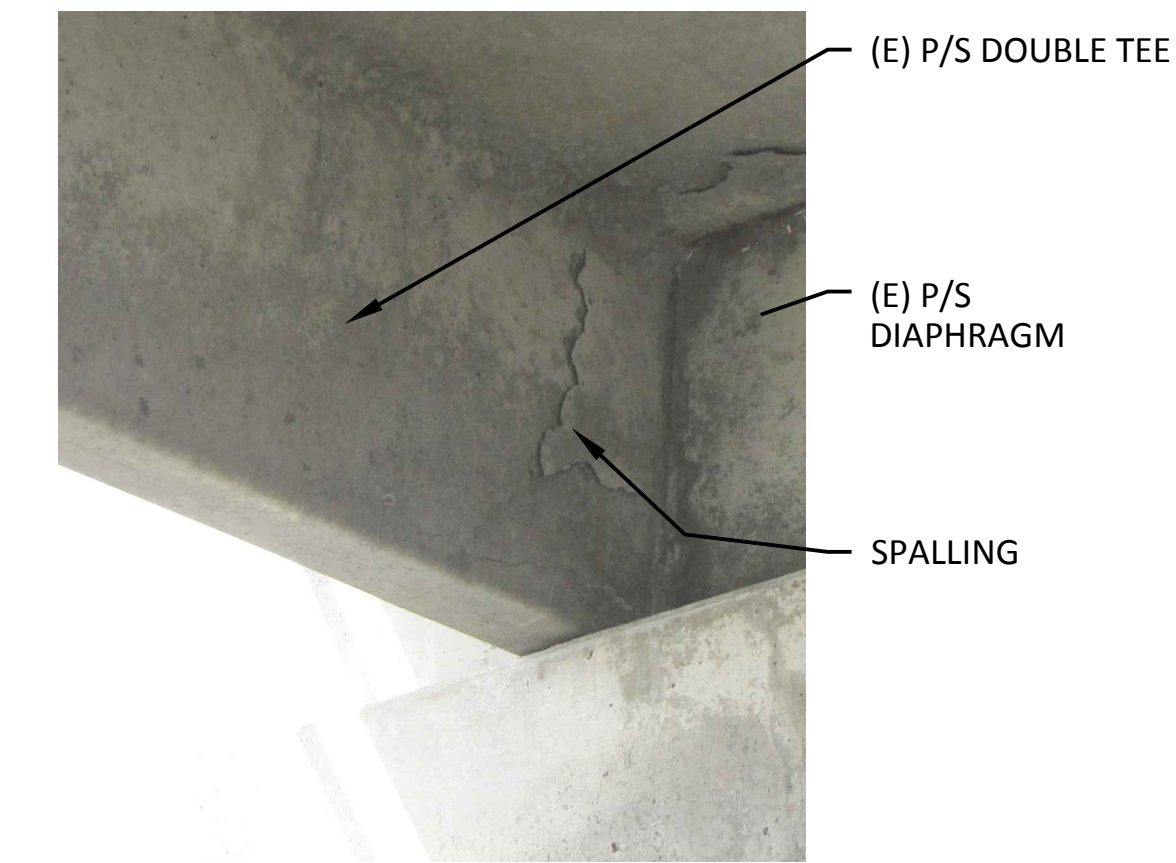
TEE SPALLING AT BOTTOM NEAR AT PILE CAP

EXAMPLE PHOTO



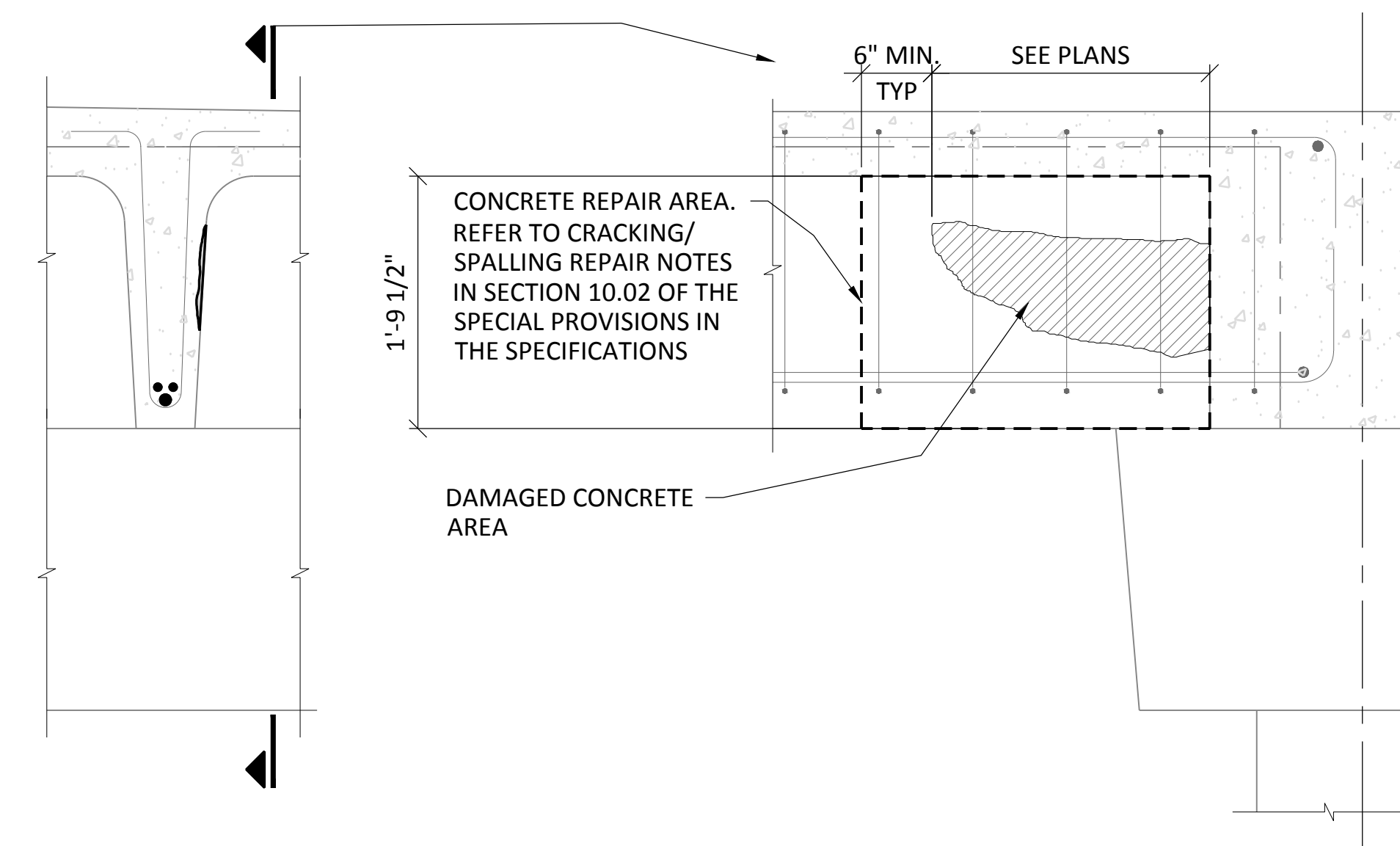
TEE WEB SPALLING NEAR PILE CAP

EXAMPLE PHOTO



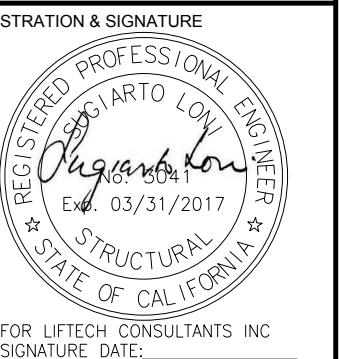
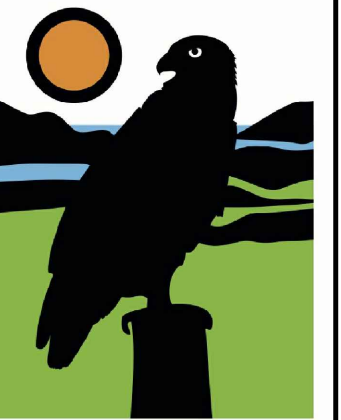
TEE REPAIR T1
1" = 1'-0"

NOTE:
DAMAGE VARIES
COULD EXTEND TO
FULL DEPTH OF WEB



NOTE:
FOR INFORMATION NOT SHOWN
SEE REPAIR DETAIL T1.

TEE REPAIR T2
1" = 1'-0"

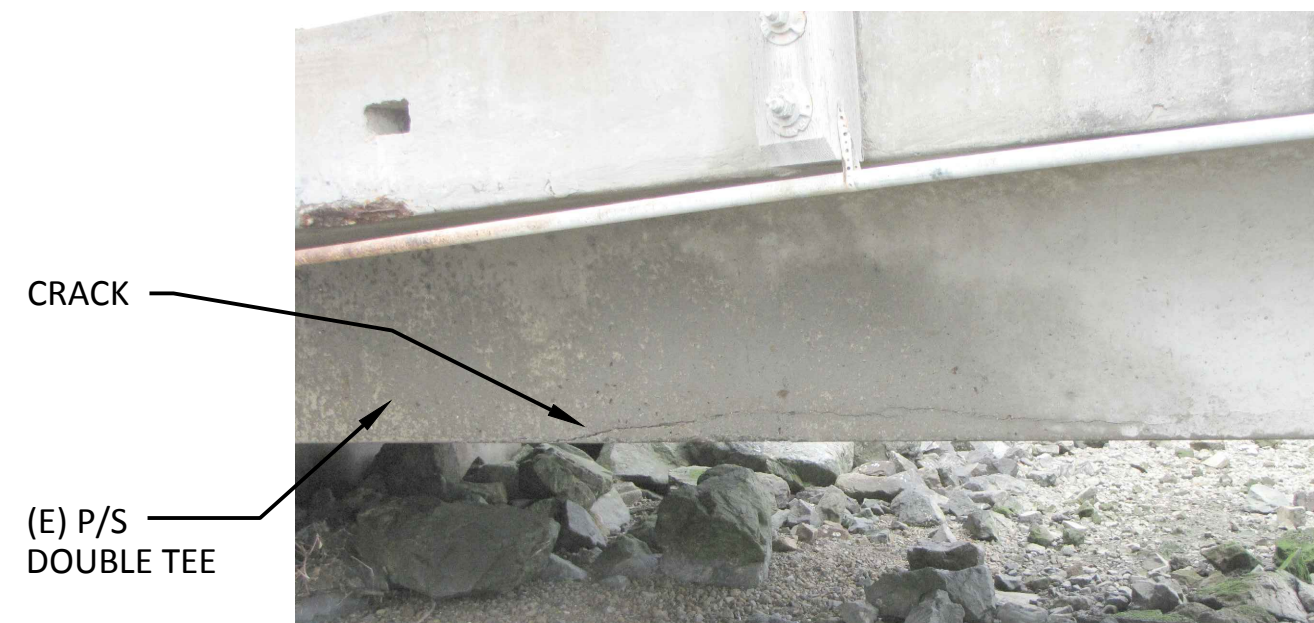


REVISIONS	No.	Date	Description
	1	6/14/16	ISSUED FOR CONSTRUCTION



REVISIONS	No.	Date	Description
	1	6/14/16	ISSUED FOR CONSTRUCTION

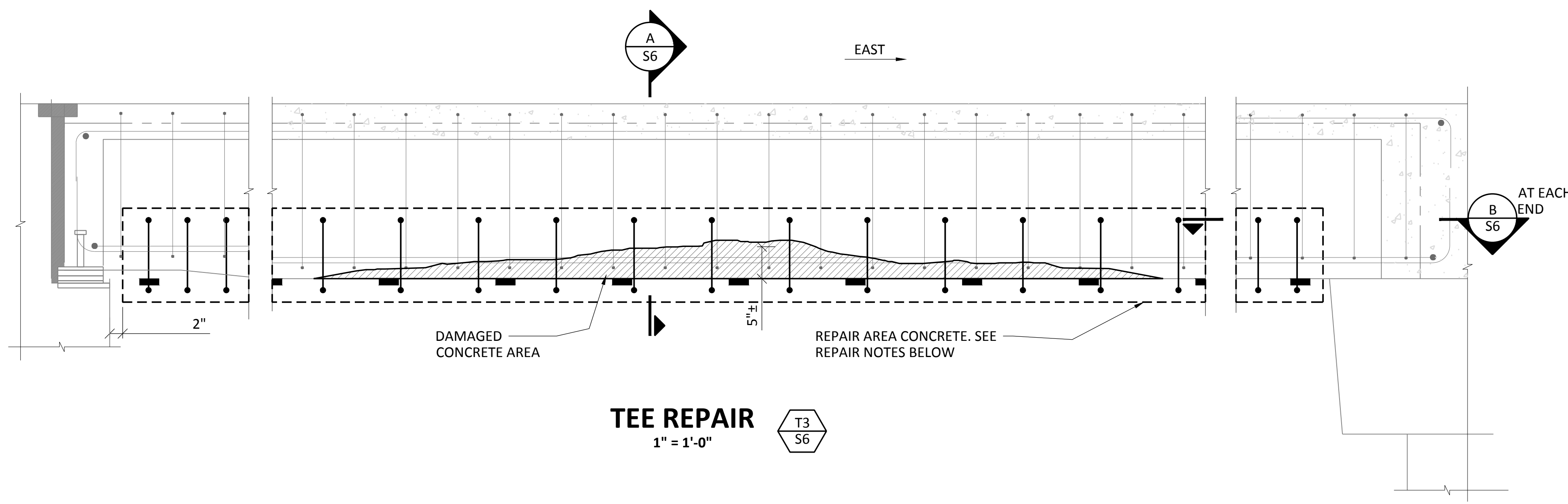
EXAMPLE PHOTO



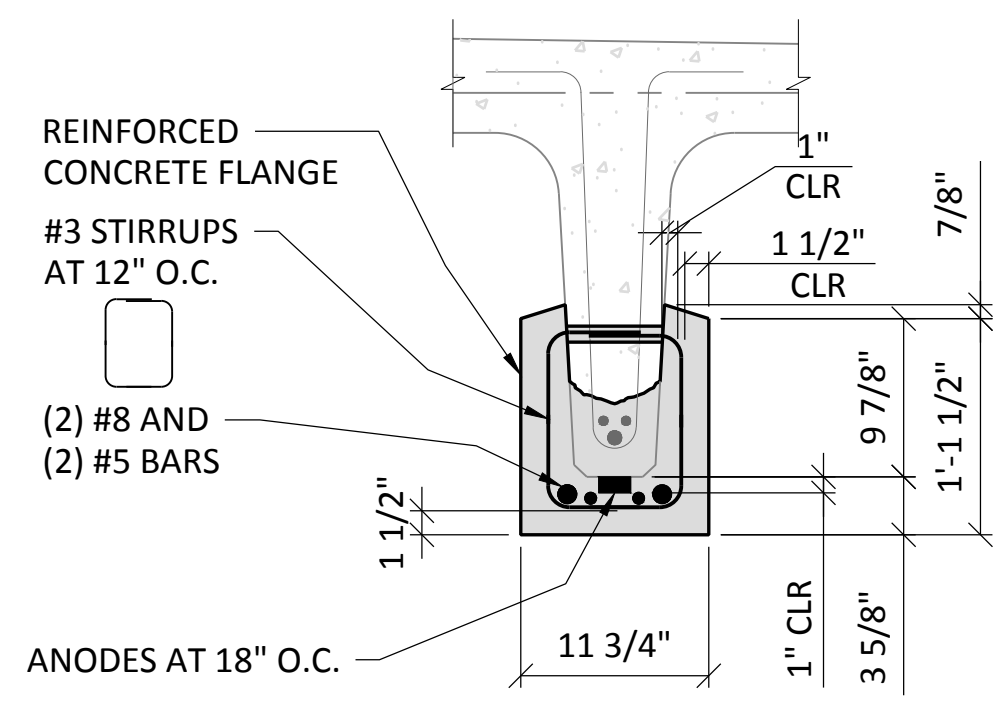
EXAMPLE PHOTO



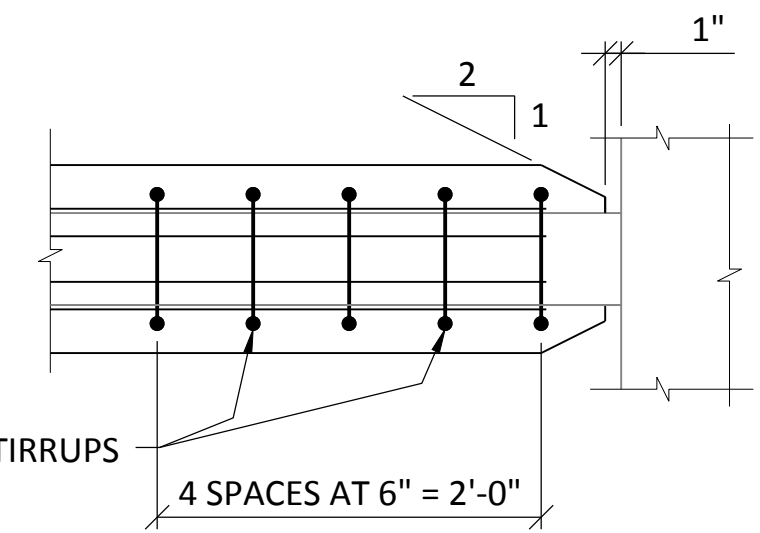
TEE CRACKING AT SPAN 1



TEE REPAIR
 1" = 1'-0" T3 S6



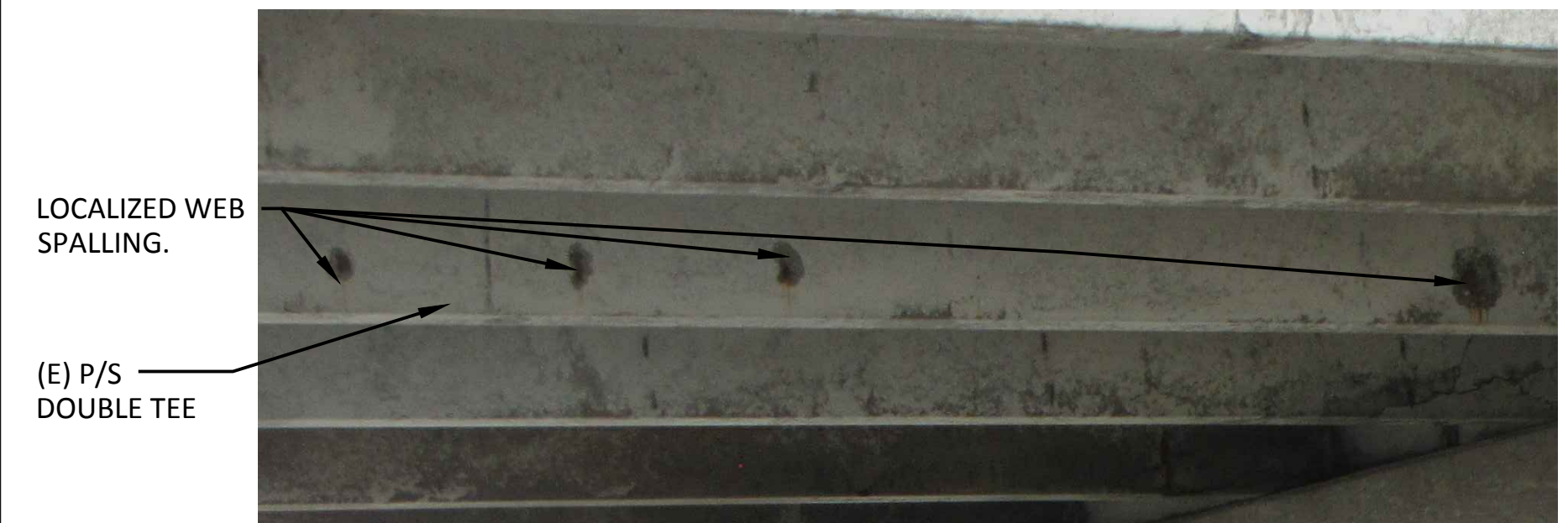
SECTION A
 1" = 1'-0" A S6



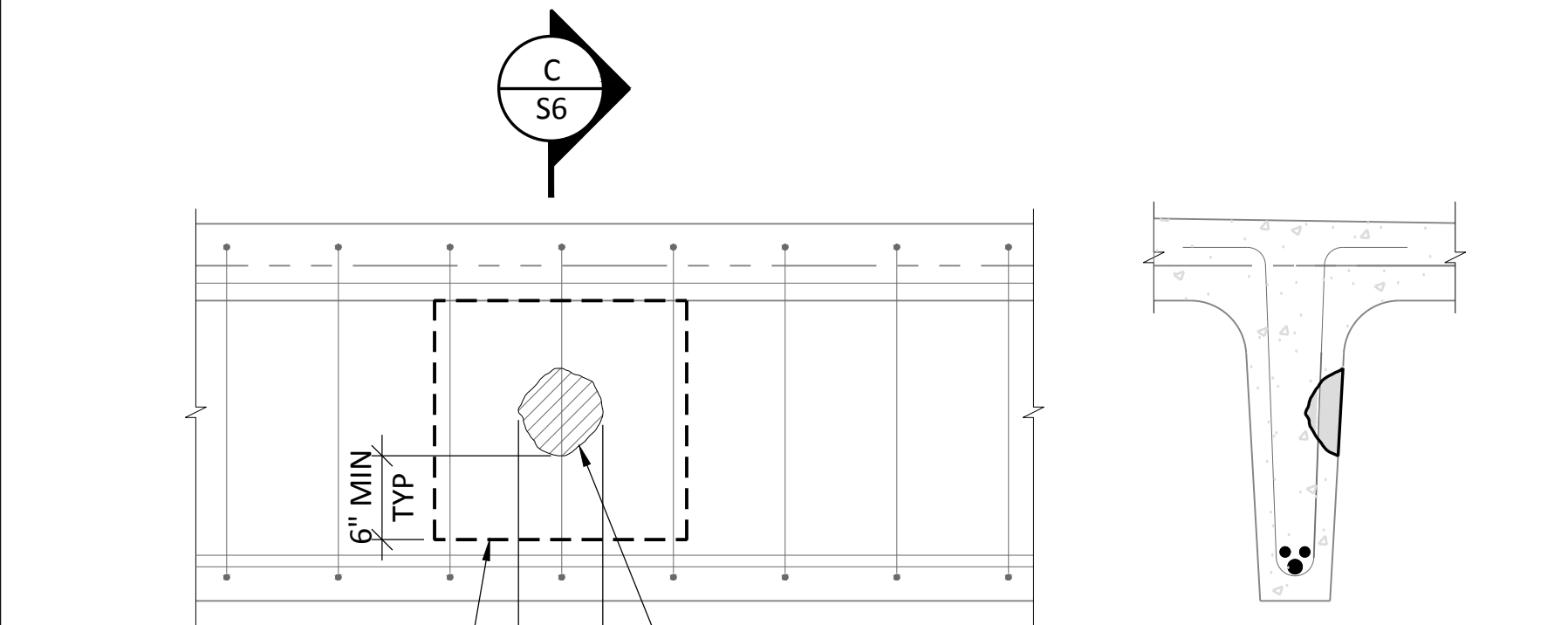
SECTION B
 1" = 1'-0" B S6

- NOTES:
1. FOR ADDITIONAL REPAIRS AT EAST END SEE SHEET S5.
 2. FOR ADDITIONAL REPAIRS AT WEST END SEE SHEET S7.
 3. DO NOT DAMAGE PRESTRESSED STRANDS DURING CONSTRUCTION. FOR REPAIR NOTES, SEE SECTION 10.02 AND 10.13 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

EXAMPLE PHOTO



LOCALIZED TEE WEB SPALLING



CONCRETE REPAIR AREA. REFER TO CRACKING/ SPALLING REPAIR NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

TEE REPAIR
 1" = 1'-0" T4 S6

NOTE:
 FOR INFORMATION NOT SHOWN SEE REPAIR DETAIL T1

SECTION C
 1" = 1'-0" C S6

EXAMPLE PHOTO

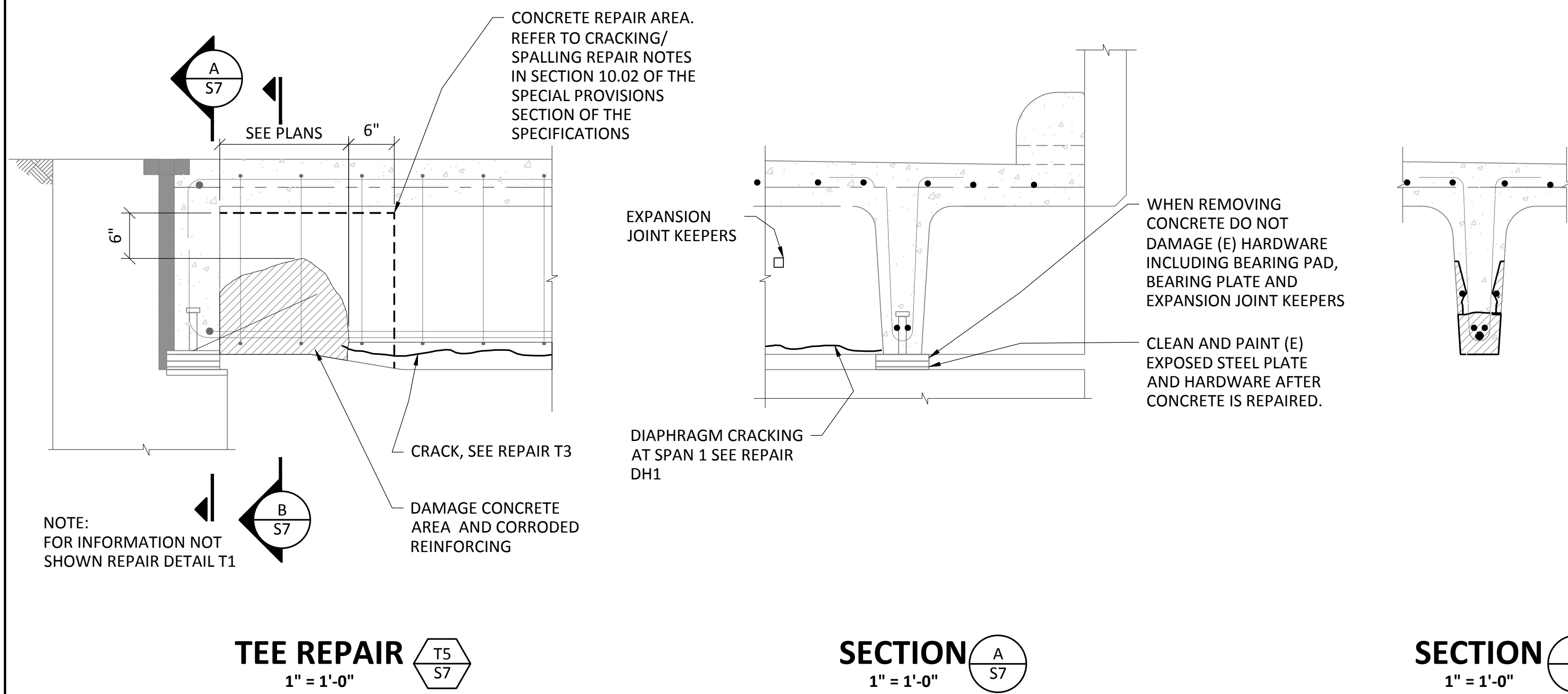


SPALLING AT SUPPORT

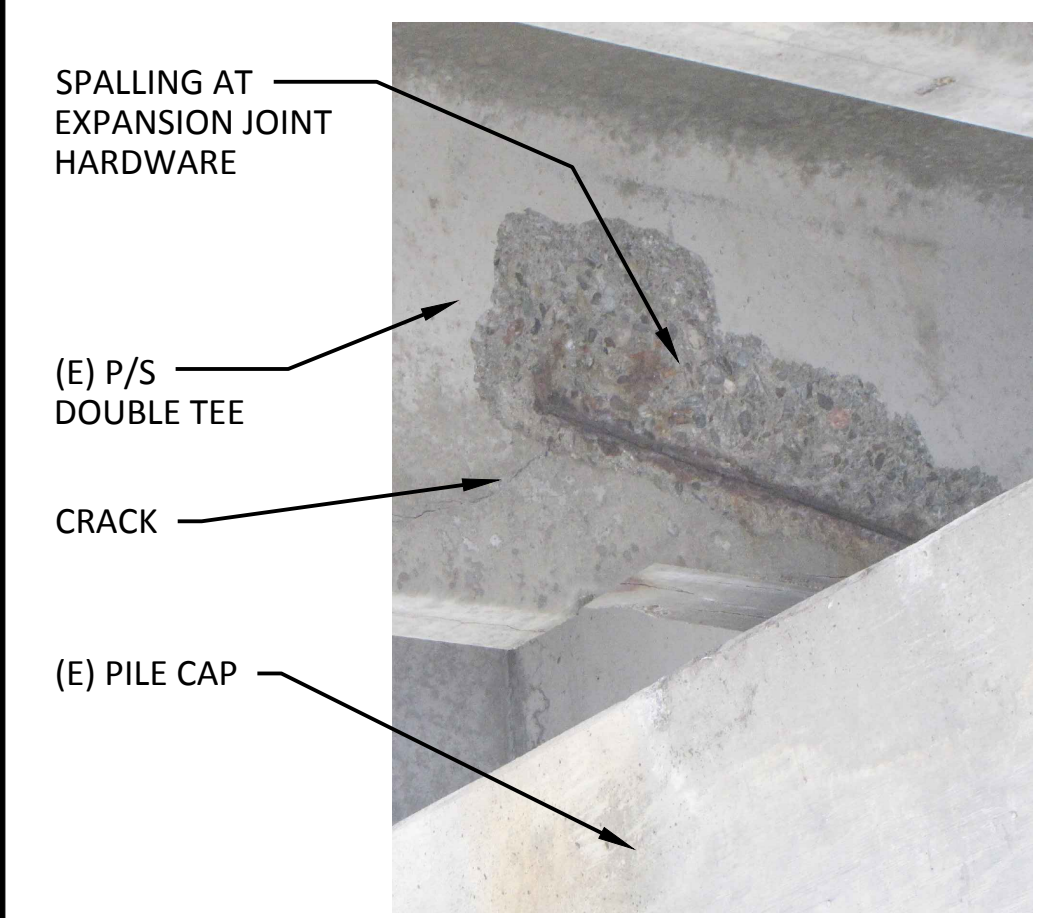
EXAMPLE PHOTO



TEE SPALLING AT SPAN 1

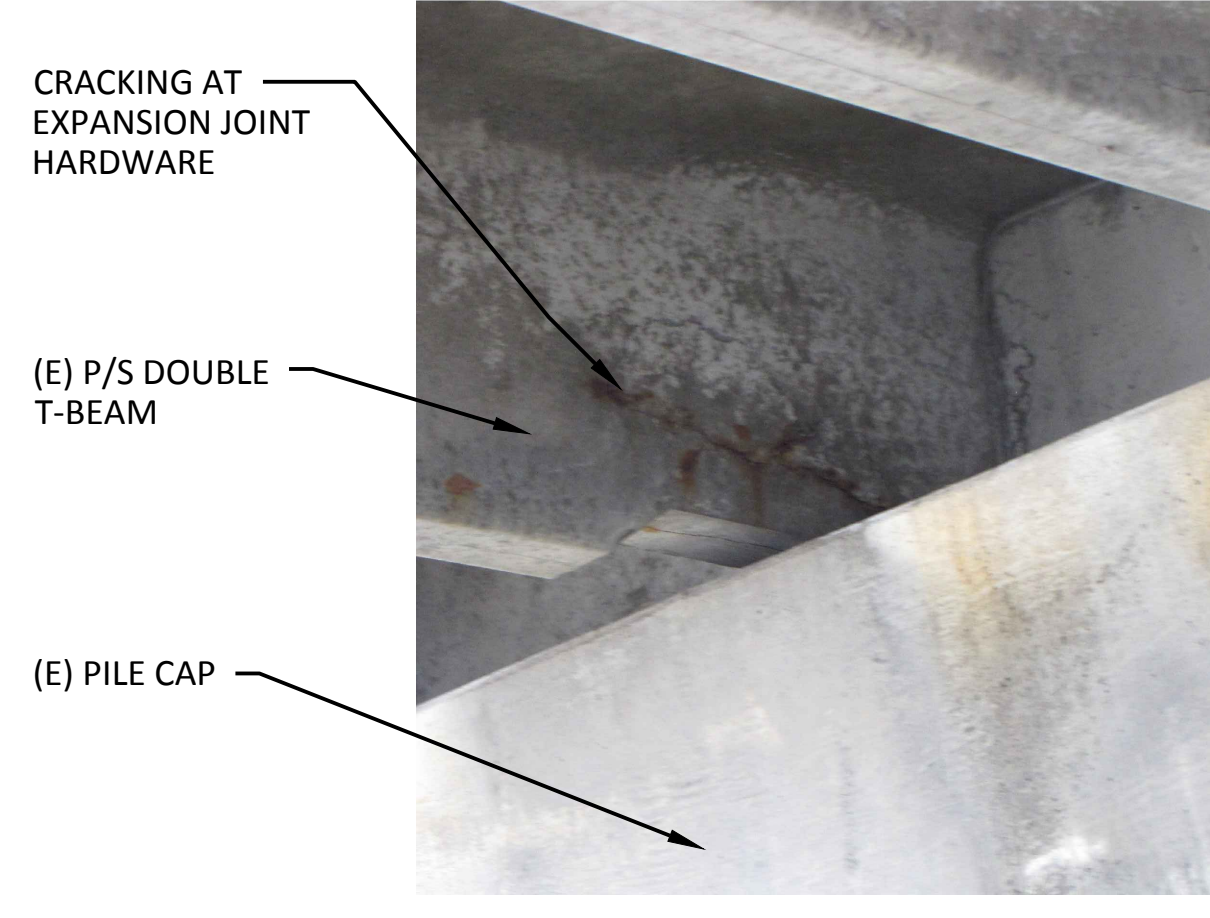


EXAMPLE PHOTO



SPALLING AT EXPANSION JOINT HARDWARE
(E) P/S DOUBLE TEE
CRACK
(E) PILE CAP

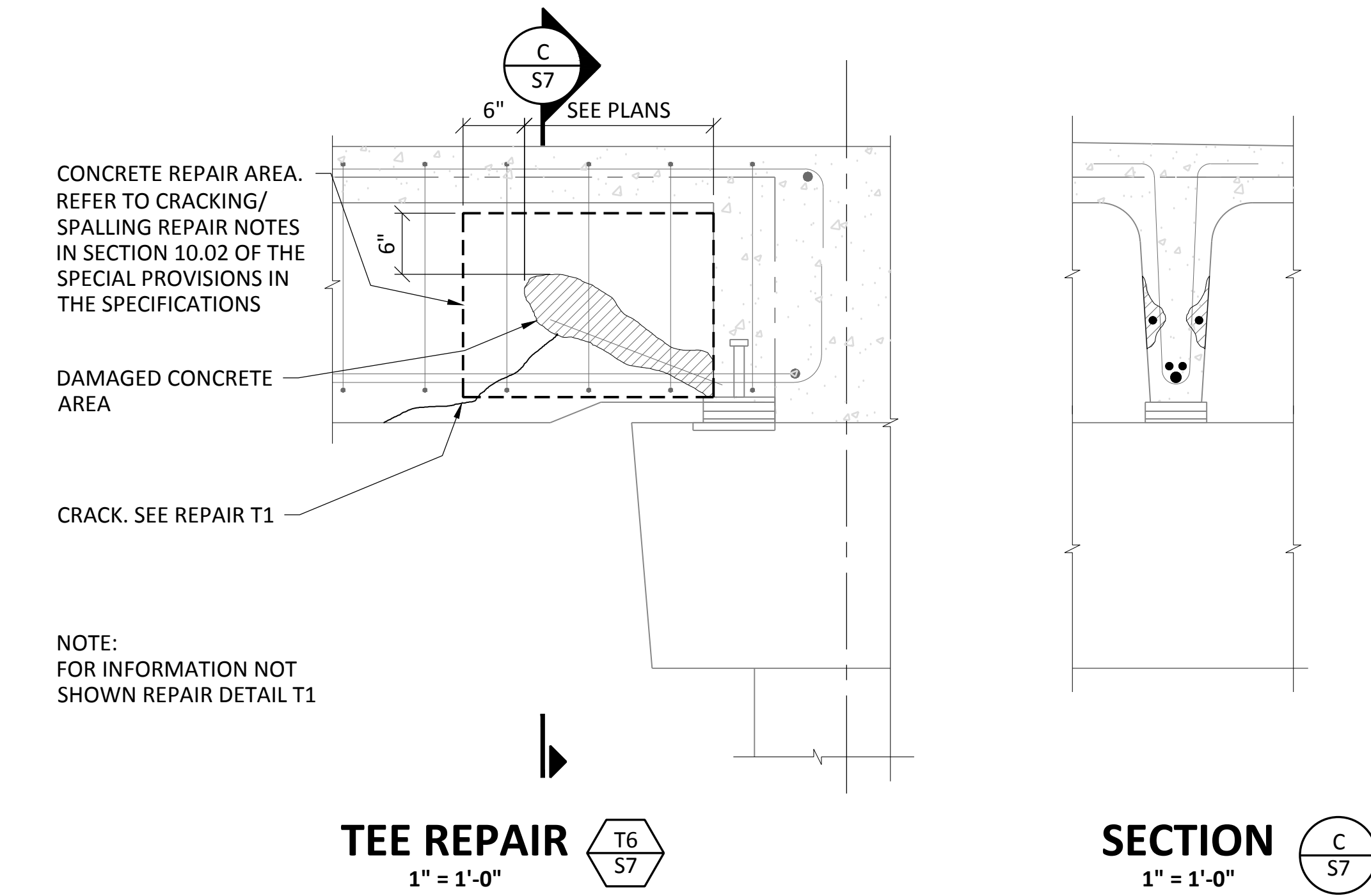
EXAMPLE PHOTO



CRACKING AT EXPANSION JOINT HARDWARE
(E) P/S DOUBLE T-BEAM
(E) PILE CAP

TEE WEB SPALLING AT EXPANSION JOINT HARDWARE

TEE WEB CORROSION AT EXPANSION JOINT HARDWARE



PROJECT: MCNEAR'S BEACH PARK PIER REPAIR
201 CANTERA WAY
SAN RAFAEL, CA 94901

PROJECT OWNER: MARIN COUNTY PARKS
PRESERVATION-RECREATION



CONTACT: CHRIS BRAMHAM
MARIN COUNTY PARKS
5601 CIVIC CENTER DRIVE #260
SAN RAFAEL, CA 94903
CBRAMHAM@MARINCOUNTY.ORG
(415)473-3039

PROJECT ENGINEER:

Liftech
LIFTECH CONSULTANTS, INC.



DATE: 06/14/16

SUBMITTAL:
ISSUED FOR CONSTRUCTION

REVISIONS	No.	Date	Description
	1	6/14/16	ISSUED FOR CONSTRUCTION

SHEET TITLE:
TEE REPAIR DETAILS - 3

SHEET NUMBER:
S7

EXAMPLE PHOTO

SPALLING IN BOTTOM OF DECK

(E) P/S DOUBLE TEE

(E) DIAPHRAGM

SPALLING AT BOTTOM OF DECK NEAR DIAPHRAGM

CONCRETE REPAIR AREA. REFER TO CRACKING/SPALLING REPAIR NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

DAMAGED CONCRETE AREA

6"±

DIAPHRAGM REPAIR DH1
S8

1" = 1'-0"

EXAMPLE PHOTO

SPALLING IN BOTTOM OF DECK, SEE REPAIR DH1

HAIRLINE CRACK IN DIAPHRAGM

(E) DIAPHRAGM

(E) P/S DOUBLE TEE

CRACK IN TEE, SEE TEE REPAIR T1

CRACKING IN DIAPHRAGM

CLEAN AND COAT AREA, REFER TO CLEAN AND COAT NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

1'-2"±

DIAPHRAGM REPAIR DH2
S8

1" = 1'-0"

NOTE:
THIS REPAIR ASSUMES THAT THE CONCRETE IS SOUND, IF NOT NOTIFY ENGINEER.

EXAMPLE PHOTO

(E) DIAPHRAGM

CLEAN AND COAT AREA, REFER TO CLEAN AND COAT NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

8"

SURFACE DAMAGED CONCRETE AREA W/ HAIRLINE CRACK

CRACKING IN DIAPHRAGM AT SPAN 1

DIAPHRAGM REPAIR DH3
S8

NOTE:
THIS REPAIR ASSUMES THAT THE CONCRETE IS SOUND, IF NOT NOTIFY ENGINEER.

CLEAN AND COAT AREA, REFER TO CLEAN AND COAT NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

(E) DIAPHRAGM

(E) DIAPHRAGM

SURFACE DAMAGE CONCRETE AREA

(E) P/S DOUBLE TEE

CRACKING IN DIAPHRAGM AT SPAN 1

DIAPHRAGM REPAIR DH4
S8

NOTE:
THIS REPAIR ASSUMES THAT THE CONCRETE IS SOUND, IF NOT NOTIFY ENGINEER.

PROJECT:
MCNEAR'S BEACH PARK PIER REPAIR
201 CANTERA WAY
SAN RAFAEL, CA 94901

PROJECT OWNER:
MARIN COUNTY PARKS
PRESERVATION-RECREATION

CONTACT:
CHRIS BRAMHAM
MARIN COUNTY PARKS
3601 CIVIC CENTER DRIVE #260
SAN RAFAEL, CA 94903
CBRAMHAM@MARINCOUNTY.ORG
(415)473-3039

PROJECT ENGINEER:
Liftech
LIFTECH CONSULTANTS INC.
REGISTRATION & SIGNATURE
REGISTERED PROFESSIONAL ENGINEER
ARTO LOPEZ
03/31/2017
STRUCTURAL
STATE OF CALIFORNIA
FOR LIFTECH CONSULTANTS, INC.
SIGNATURE DATE

DATE:
06/14/16

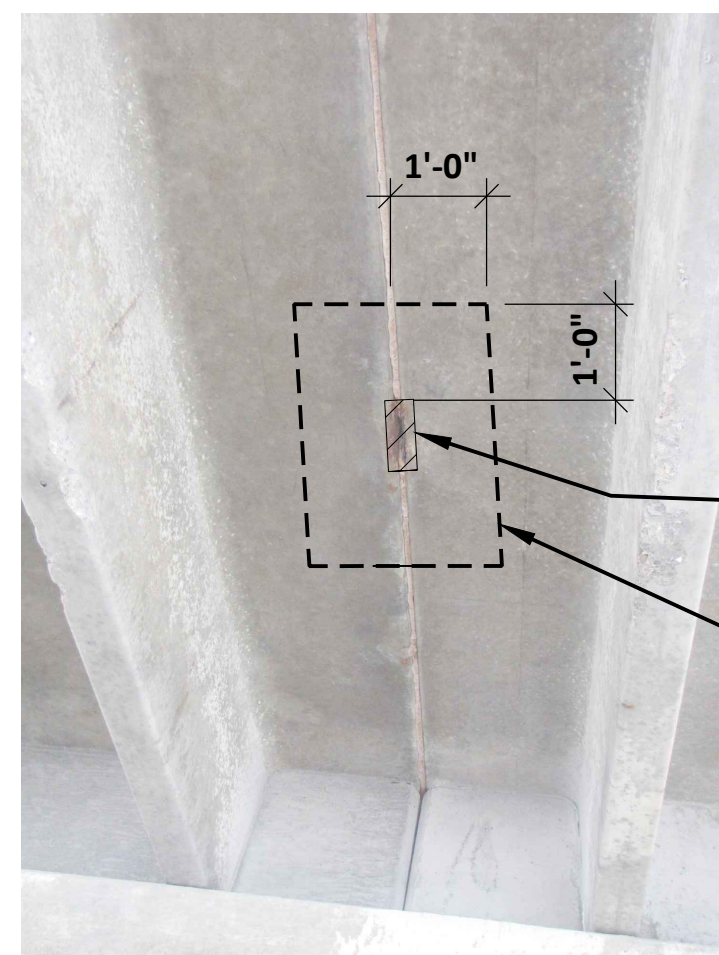
SUBMITTAL:
ISSUED FOR CONSTRUCTION

REVISIONS	No.	Date	Description
	1	6/14/16	ISSUED FOR CONSTRUCTION

SHEET TITLE:
TEE DIAPHRAGM REPAIRS

SHEET NUMBER:
S8

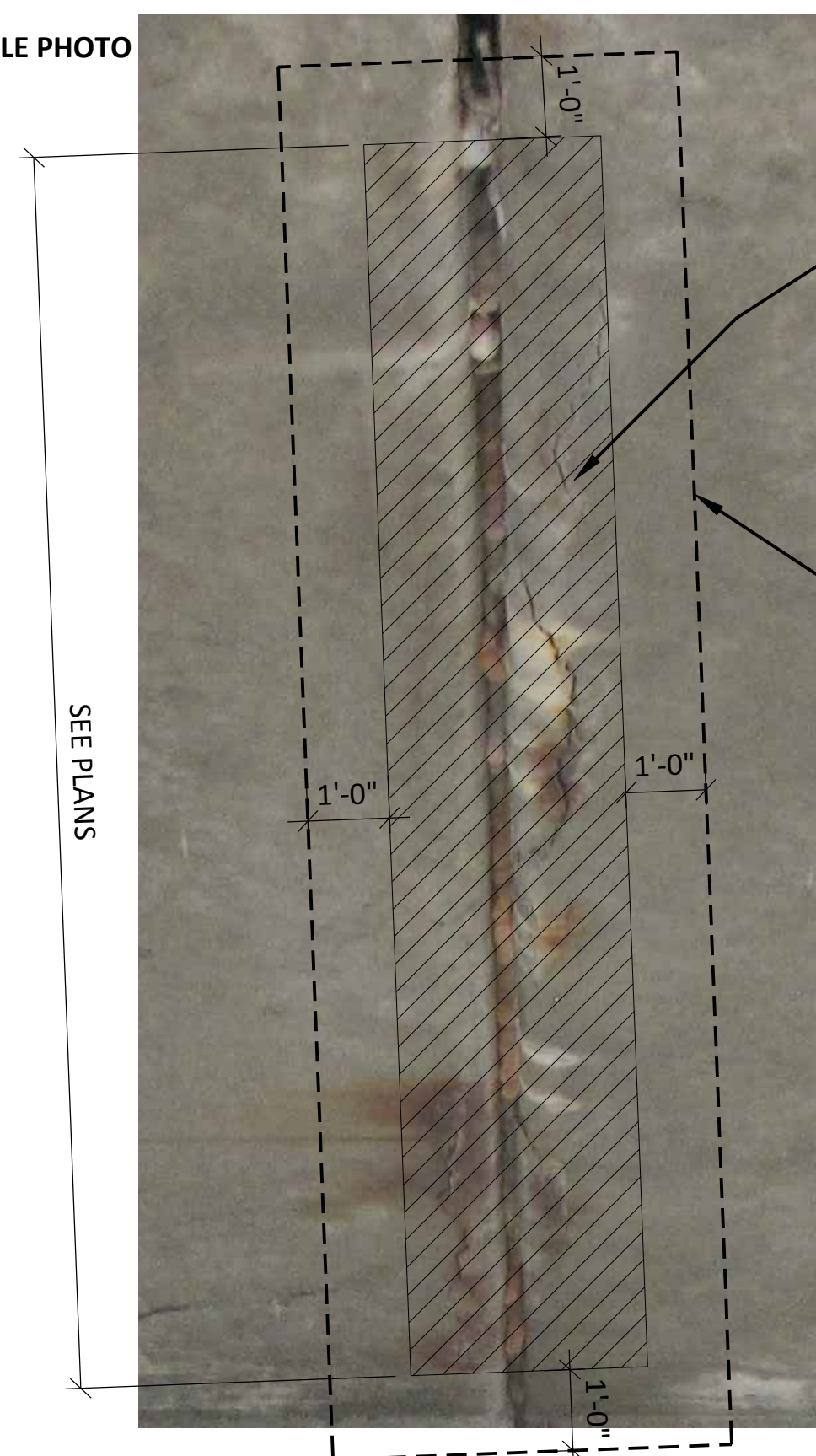
EXAMPLE PHOTO



DAMAGE CONCRETE AREA
12" MIN BEYOND VISIBLE SIGNS OF CORROSION. CLEAN AND COAT. REFER TO CLEAN AND COAT NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

TEE CORROSION AT DECK TIE
DECK JOINT REPAIR D1
S9

EXAMPLE PHOTO



SURFACE DAMAGED CONCRETE AREA W/ HAIR LINE CRACKS

12" MIN BEYOND VISIBLE SIGNS OF CORROSION. REFER TO CLEAN AND COAT NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

NOTE:
THIS REPAIR ASSUMES THAT THE CONCRETE IS SOUND, IF NOT NOTIFY ENGINEER.

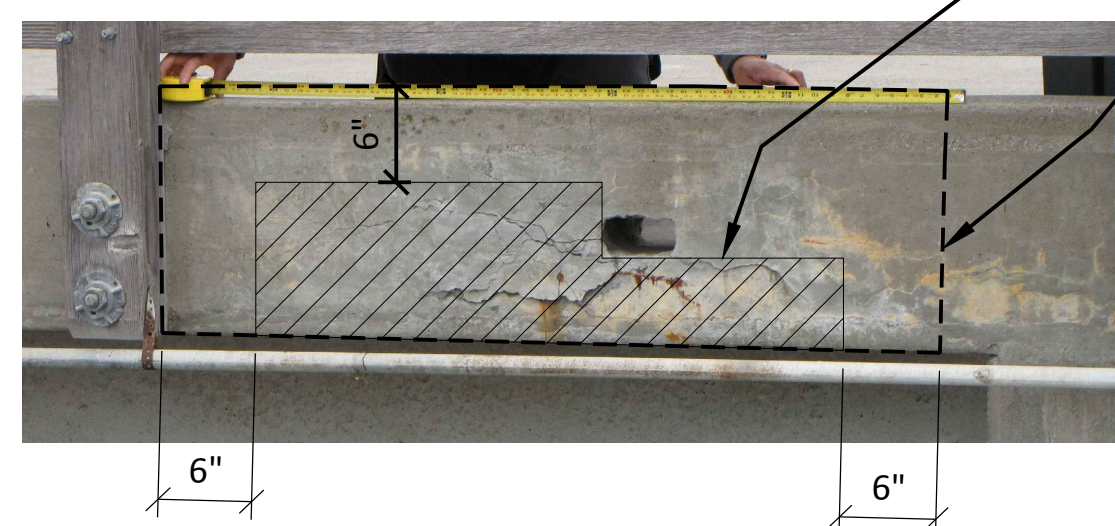
TEE CRACKING AT DECK JOINT
DECK JOINT REPAIR D2
S9

EXAMPLE PHOTO



TEE CRACKING AT DECK JOINT
DECK JOINT REPAIR D3
S9

EXAMPLE PHOTO



DAMAGE CONCRETE AREA
CONCRETE REPAIR AREA. REFER TO CRACKING/ SPALLING REPAIR NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

SPALLING AND CORROSION AT DRAIN HOLES
CURB REPAIR C1
S9

EXAMPLE PHOTO



CONCRETE REPAIR AREA. REFER TO CRACKING/ SPALLING REPAIR NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

DAMAGE CONCRETE AREA

CORROSION AT EDGE OF TEE
CURB REPAIR C2
S9

EXAMPLE PHOTO



HARDWARE CORROSION AT EXPANSION JOINT
HARDWARE REPAIR M1
S9

PROJECT:
MCNEAR'S BEACH PARK PIER REPAIR
201 CANTERA WAY
SAN RAFAEL, CA 94901

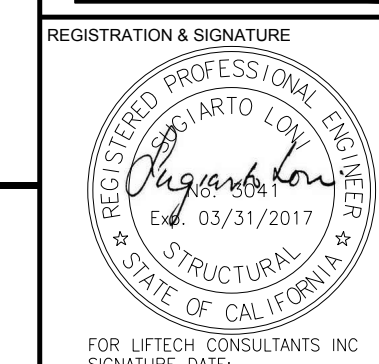
PROJECT OWNER:
MARIN COUNTY PARKS
PRESERVATION-RECREATION



CONTACT:
CHRIS BRAMHAM
MARIN COUNTY PARKS
3601 CIVIC CENTER DRIVE #260
SAN RAFAEL, CA 94903
CBRAMHAM@MARINCOUNTY.ORG
(415)473-3039

PROJECT ENGINEER:

Liftech
LIFTECH CONSULTANTS INC.



FOR LIFTECH CONSULTANTS, INC.
SIGNATURE DATE

DATE:

06/14/16

SUBMITTAL:

ISSUED FOR CONSTRUCTION

REVISIONS

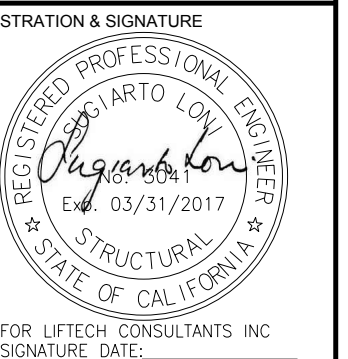
No.	Date	Description
1	6/14/16	ISSUED FOR CONSTRUCTION

SHEET TITLE:

TEE JOINT, CURB, AND MISC. REPAIRS

SHEET NUMBER:

S9



ISSUED FOR CONSTRUCTION

REVISIONS	No.	Date	Description
▲	1	6/14/16	ISSUED FOR CONSTRUCTION

SHEET TITLE:

PILE AND PILE CAP REPAIRS

SHEET NUMBER:

S10

EXAMPLE PHOTO

DAMAGE CONCRETE AREA

CONCRETE REPAIR AREA. REFER TO CRACKING/ SPALLING REPAIR NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

SPALLING AT TOP OF PILE

PILE REPAIR

EXAMPLE PHOTO

12" MIN BEYOND VISIBLE SIGNS OF CORROSION. REFER TO CLEAN AND COAT NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

CORROSION

CORROSION ON PILE CAP

PILE REPAIR

EXAMPLE PHOTO

12" MIN BEYOND VISIBLE SIGNS OF CORROSION. REFER TO CLEAN AND COAT NOTES IN SECTION 10.02 OF THE SPECIAL PROVISIONS IN THE SPECIFICATIONS

CORROSION

PILE REPAIR