

UNIVERSITY OF SOUTH CAROLINA

PEDESTRIAN BRIDGE REPAIRS

BATES/BLATT OVERPASS

BLOSSOM STREET OVERPASS

PICKENS STREET OVERPASS

COLUMBIA SC

DRAWING SHEET INDEX

CS COVER SHEET
 R1.0 BATES/BLATT OVERPASS
 R2.0 BLOSSOM STREET OVERPASS
 R3.0 PICKENS STREET OVERPASS
 DT1.1 DETAILS

THE CONTRACT DOCUMENTS ARE PREPARED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2009 EDITION AND THE INTERNATIONAL EXISTING BUILDING CODE, 2009 EDITION.



**BRITT PETERS
AND
ASSOCIATES**
I N C.
consulting engineers

101 W. Campdown Way
Suite 601
Greenville, SC 29601
Tel: (864) 238-5140
Fax: (864) 238-5140
www.brittpeters.com

Seals:




s/lbl

University of South
Carolina Pedestrian
Bridges
2012 Repairs
Columbia, SC

Revisions	
Mark	Description
0	Issued For USC Procurement

Sheet Title
Cover Sheet

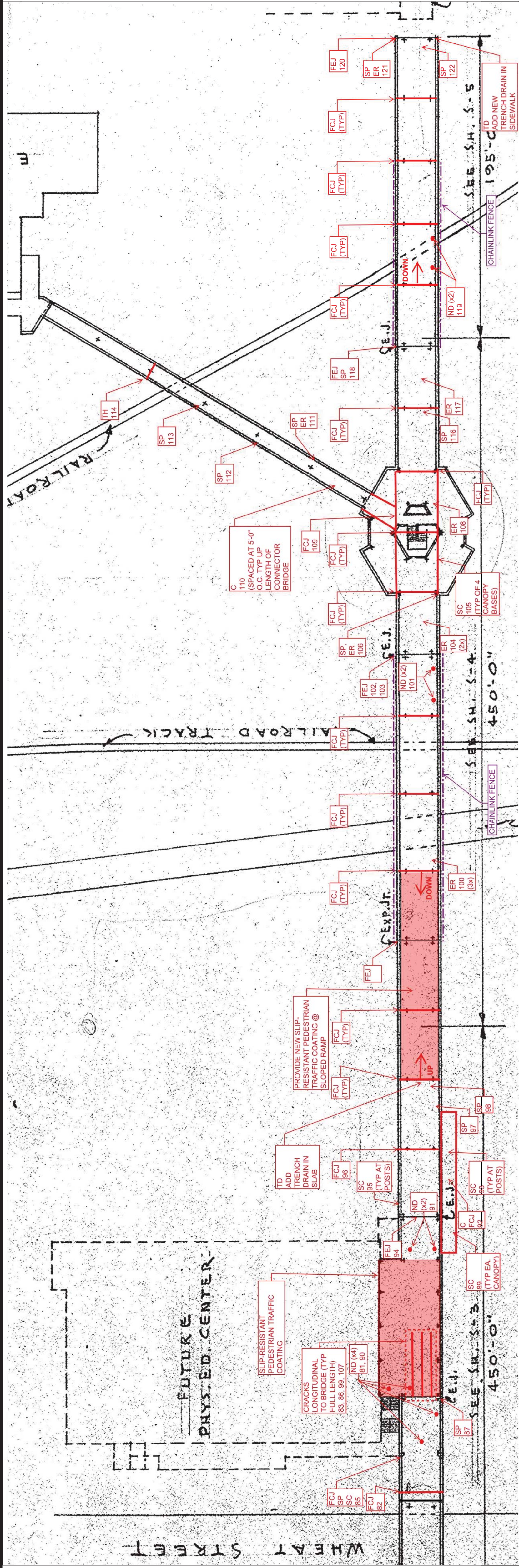
EFS	
Drawn	WBU
Designed	WBU
Checked	WBU
Date	09/28/12
Job No.	12394
Sheet No.	

CS

Mark	Date	Description	Revisions
0	Feb. 11, 2013	Issued For USC Procurement	

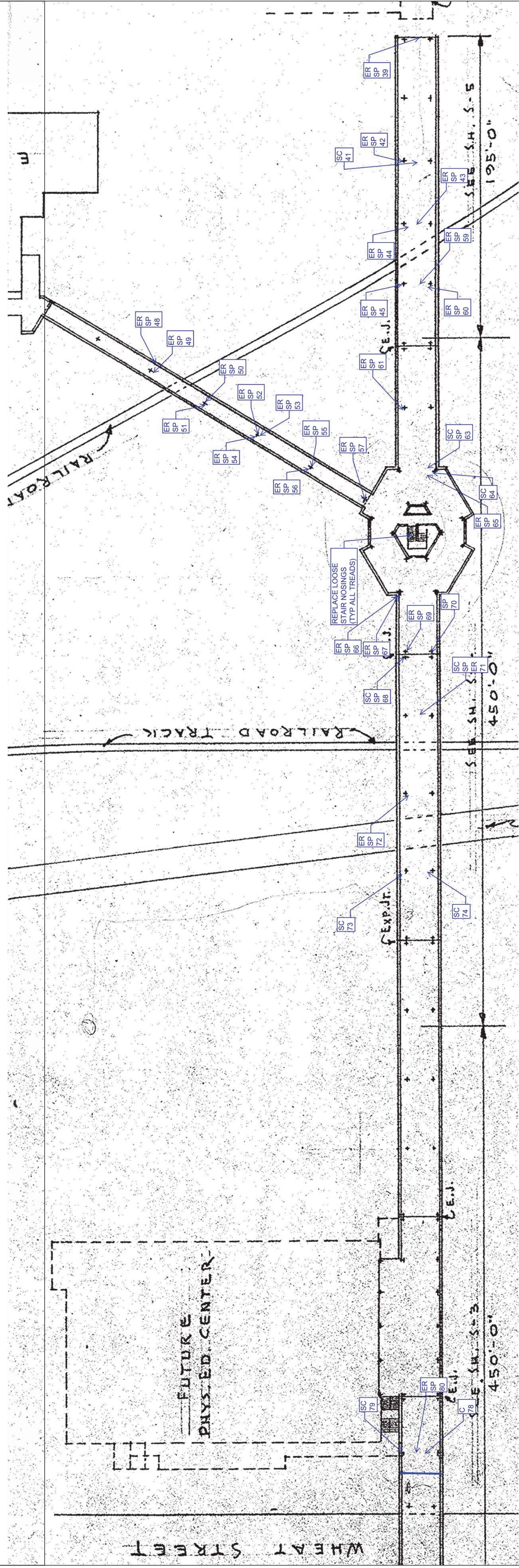
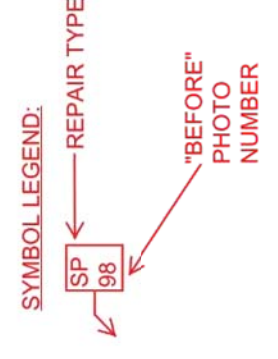
Sheet Title	Bates & Blatt Overpass Structure
-------------	----------------------------------

Drawn	EFS
Designed	WBU
Checked	WBU
Date	09/28/12
Job No.	12394
Sheet No.	R1.0



ITEM	REPAIR DESCRIPTION	ABBR	UM	EST QTY	REF. DETAIL
1	CONCRETE SPALL REPAIR	SP	SF	60	3/DIT1.1
2	CONCRETE CRACK REPAIR	C	LF	3360	1/DIT1.1
3	REMOVE EXPOSED REINFORCEMENT/PATCH SLAB	ER	SF	20	3/DIT1.1 SIM.
4	REPAIR CORRODED REINFORCEMENT	ER	LF	5	2/DIT1.1
5	REMOVE/REPLACE OR ADD CAULK JOINT	FCJ	LF	420	5/DIT1.1
6	REMOVE/REPLACE OR ADD EXPANSION JOINT	FEJ	LF	120	6/DIT1.1
7	SCRAPE AND PAINT CORRODED STEEL	SC	SF	385	-
8	REPAIR TRIP HAZARD	TH	EA	1	-
11	ADD DRAINS FOR STANDING WATER	ND	EA	10	-
11a	ADD TRENCH DRAIN IN SIDEWALK AT BRIDGE ENTRANCE	TD	EA	1	4/DIT1.1 SIM.
11b	ADD TRENCH DRAIN AT BOTTOM OF RAMP	TD	EA	1	4/DIT1.1
12	PREP AND INSTALL SLIP-RESISTANT PED. TRAFFIC COATING ON SLOPED RAMP	-	SF	6000	-
20	TRAFFIC CONTROL, SIGNAGE, & MOBILIZATION	-	LS	1	-

BATES / BLATT OVERPASS STRUCTURE
(TOP SIDE / DECK)
N.T.S.



ITEM	REPAIR DESCRIPTION	ABBR	UM	EST QTY	REF. DETAIL
14	REMOVE/REPLACE LOOSE STAIR NOSINGS	-	EA	40	-
15	CONCRETE SPALL REPAIR	SP	SF	75	3/DIT1.1
16	CONCRETE CRACK REPAIR	C	LF	5	1/DIT1.1
17	REPAIR CORRODED REINFORCEMENT	ER	LF	70	2/DIT1.1
18	SCRAPE AND PAINT CORRODED STEEL	SC	SF	70	-

BATES/BLATT OVERPASS STRUCTURE
(UNDERSIDE & FRAMING)
N.T.S.



INSTALLER NOTE:
AREA DRAIN LOCATIONS TO BE FIELD VERIFIED AND COORDINATED WITH OWNER. DRAINS INSTALLED OVER THE ROOF OF THE BLATT BUILDING SHALL BE PIPED TO DRAIN OUTSIDE THE FOOTPRINT OF THE BUILDING BELOW.

NOTES:
1) AREA DRAINS INSTALLED IN CONCRETE DECK SHALL BE ZURN Z530 MEDIUM-DUTY WIDE FLANGE DECK DRAINS.
2) TRENCH DRAINS SHALL BE ACO H100 NEUTRAL CHANNEL DRAINS.
INSTALL PER MANUFACTURER RECOMMENDATIONS AND GUIDELINES.
3) G.C. TO FIELD VERIFY LOCATIONS & QUANTITIES PRIOR TO COMMENCEMENT OF WORK.

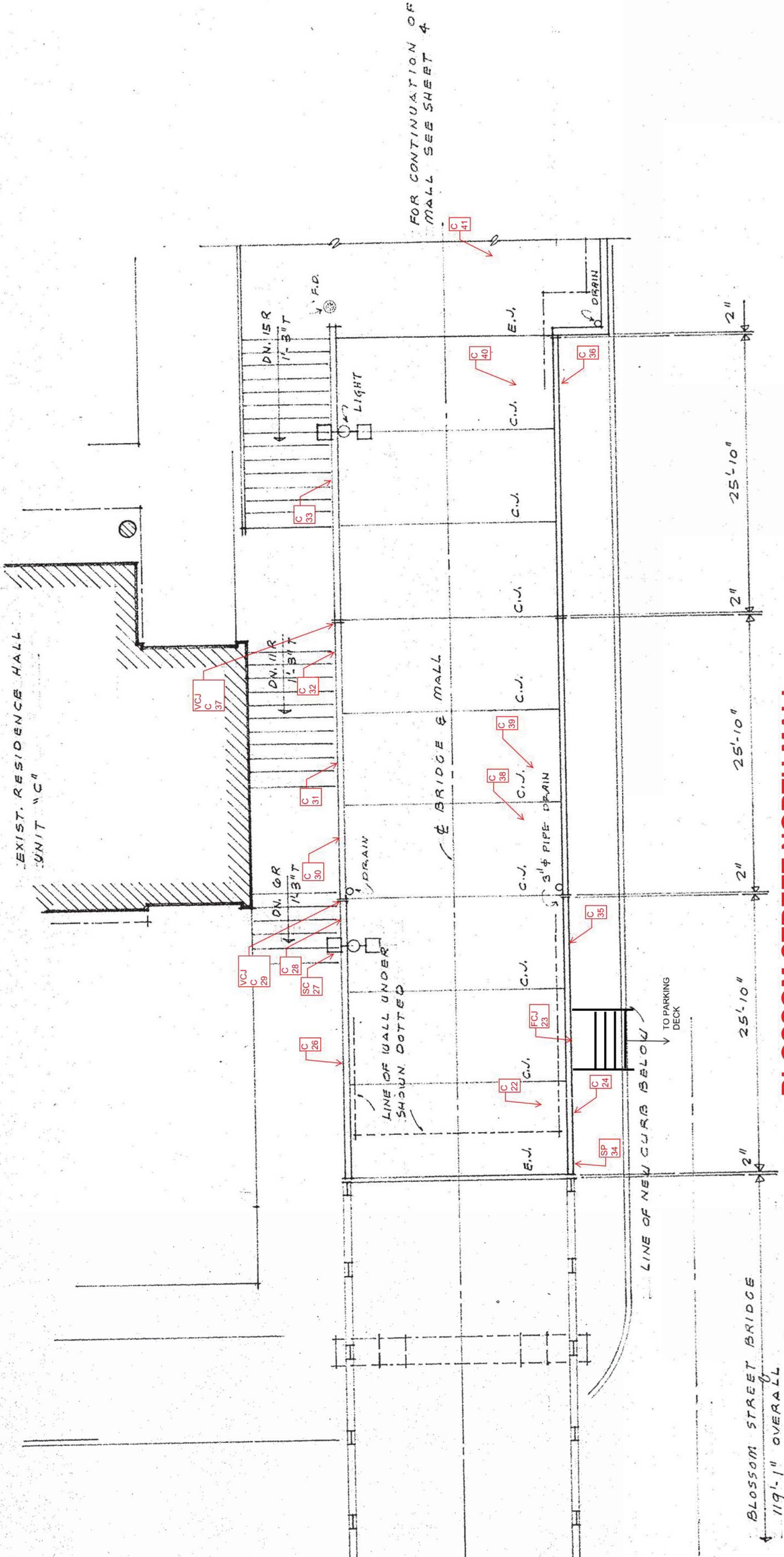
Mark	Date	Description	Revisions
0	Feb. 11, 2013	Issued For USC Procurement	

Sheet Title	
Blossom Street Overpass Structure	

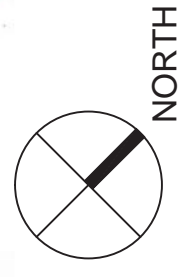
Drawn	EFS
Designed	WBU
Checked	WBU
Date	09/28/12
Job No.	12394
Sheet No.	

R2.0

EXISTING DRAWINGS COURTESY OF THE UNIVERSITY OF SOUTH CAROLINA

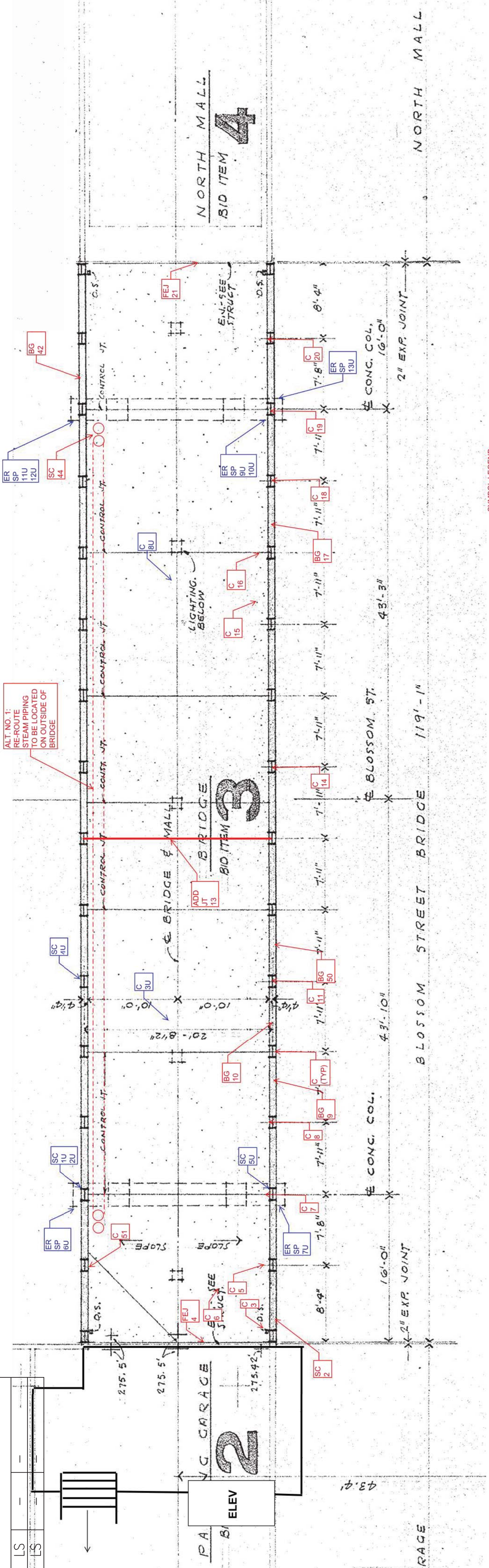


BLOSSOM STREET NORTH MALL (TOPSIDE)
N.T.S.

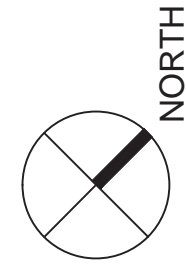


ITEM	REPAIR DESCRIPTION	ABBR	UOM	EST QTY	REF. DETAIL
TOPSIDE - REPAIR PROCEDURES					
1	CONCRETE SPALL REPAIR	SP	SF	40	3/D11.1
2	CONCRETE CRACK REPAIR	C	LF	650	1/D11.1
5	REMOVE/REPLACE OR ADD CAULK JOINT	FCJ	LF	20	5/D11.1
6	REMOVE/REPLACE OR ADD EXPANSION JOINT	FEJ	LF	40	6/D11.1
13	REPLACE BROKEN WINDOW GLASS	BG	EA	5	-
UNDERSIDE - REPAIR PROCEDURES					
17	REPAIR CORRODED REINFORCEMENT	ER	LF	20	2/D11.1
18	SCRAPE AND PAINT CORRODED STEEL (MINUS ROOF DECK)	SC	SF	7250	-
18A	SCRAPE AND PAINT CORRODED STEEL (COMPLETE STRUCT)	SC	SF	9750	-
20	TRAFFIC CONTROL, SIGNAGE, & MOBILIZATION	-	LS	1	-
ALTERNATES					
A1	RE-ROUTE STEAM PIPING LOCATION (ADD)	-	LS	-	-
A2	REMOVE/REPLACE STEEL ROOF DECK (DEDUCT)	-	LS	-	-

NOTES:
1) G.C. TO FIELD VERIFY LOCATIONS & QUANTITIES PRIOR TO COMMENCEMENT OF WORK.



BLOSSOM STREET BRIDGE (TOPSIDE & UNDERSIDE)
N.T.S.



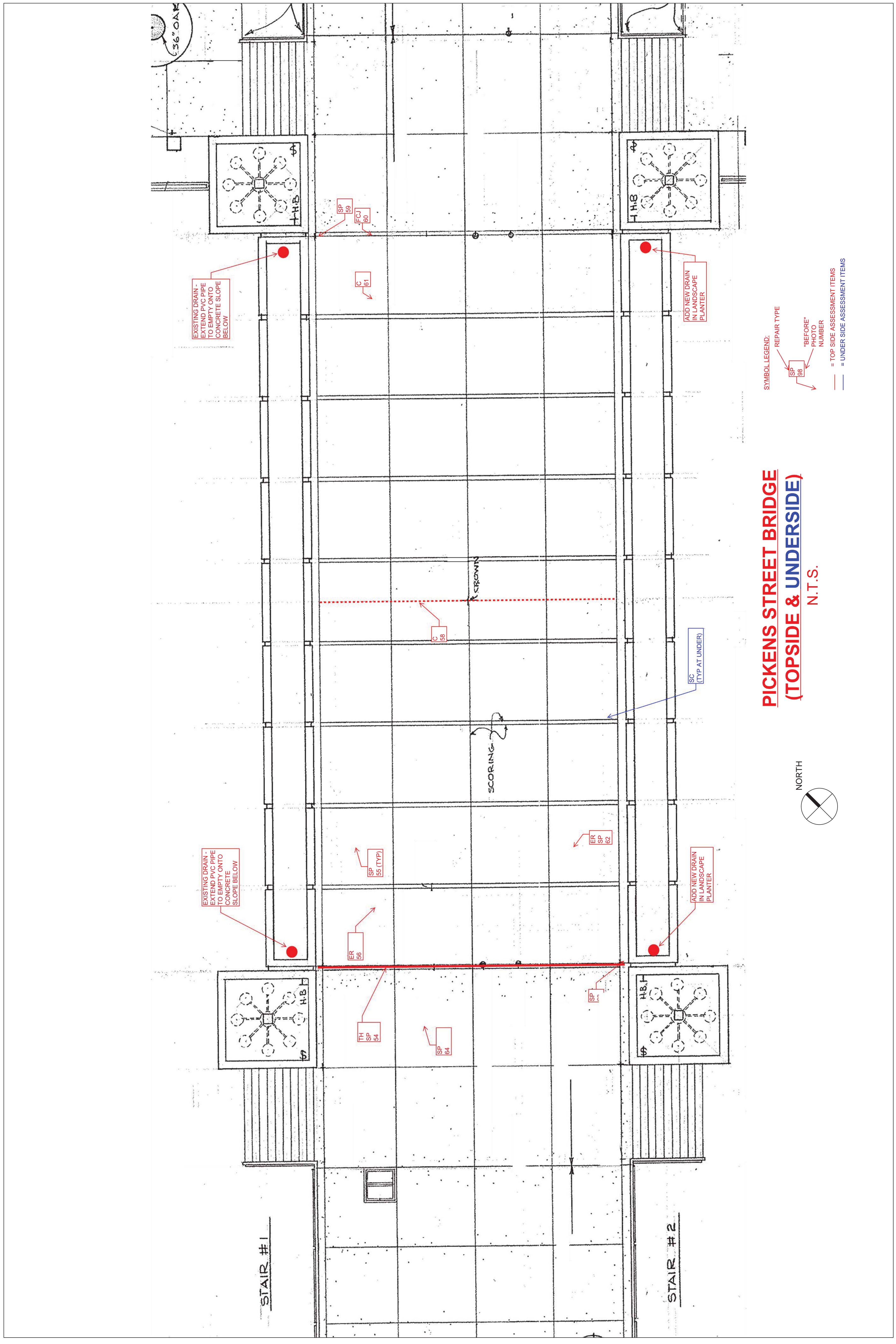
SYMBOL LEGEND:
REPAIR TYPE
BEFORE NUMBER
AFTER NUMBER
- TOP SIDE ASSESSMENT ITEMS
- UNDER SIDE ASSESSMENT ITEMS

Mark	Date	Description	Issued For
0	Feb. 11, 2013		USC Procurement

Sheet Title
Pickens Street Overpass Structure

Drawn	EFS
Designed	WBU
Checked	WBU
Date	09/28/12
Job No.	12394
Sheet No.	

R3.0



**PICKENS STREET BRIDGE
(TOPSIDE & UNDERSIDE)
N.T.S.**

SYMBOL LEGEND:
 REPAIR TYPE
 "BEFORE" PHOTO NUMBER
 = TOP SIDE ASSESSMENT ITEMS
 = UNDER SIDE ASSESSMENT ITEMS

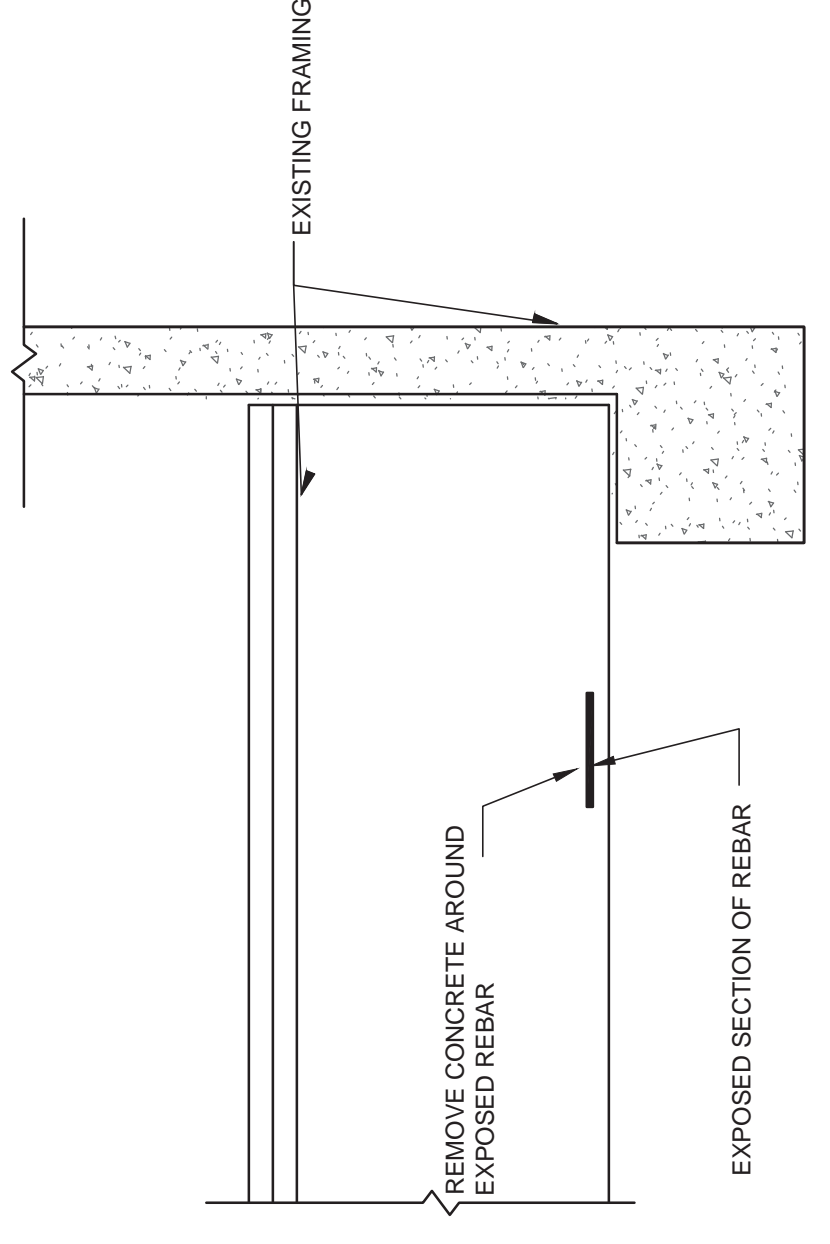
ITEM	REPAIR DESCRIPTION	ABBR	UOM	EST QTY	REF.	DETAIL
TOPSIDE - REPAIR PROCEDURES						
1	CONCRETE SPALL REPAIR	SP	SF	50	3/DT1.1	
2	CONCRETE CRACK REPAIR	C	LF	60	1/DT1.1	
3	REMOVE EXPOSED DECK REINFORCEMENT AND PATCH SLAB	ER	SF	40	5/DT1.1	
5	REMOVE/REPLACE OR ADD CAULK JOINT	FCJ	LF	40	5/DT1.1	
8	REPAIR TRIP HAZARD	TH	EA	1	-	
9	ADD DRAIN IN LANDSCAPE PLANTER	-	EA	2	-	
10	EXTEND EXISTING DRAIN OUTLETS IN LANDSCAPE PLANTER	-	EA	2	-	
20	TRAFFIC CONTROL SIGNAGE & MOBILIZATION	-	LS	1	-	
UNDERSIDE - REPAIR PROCEDURES						
18	SCRAPE AND PAINT CORRODED STEEL	SC	SF	3170	-	

- NOTES:
 1) PLANTER DRAINS SHALL BE 4" DIAMETER SIOUX CHIEF MANUFACTURING PLANTER AREA DRAINS INSTALLED PER THE MANUFACTURERS RECOMMENDATIONS.
 2) G.C. TO FIELD VERIFY LOCATIONS & QUANTITIES PRIOR TO COMMENCEMENT OF WORK.

Revisions	Mark	Date	Description
	0	Feb. 11, 2013	Issued For USC Procurement

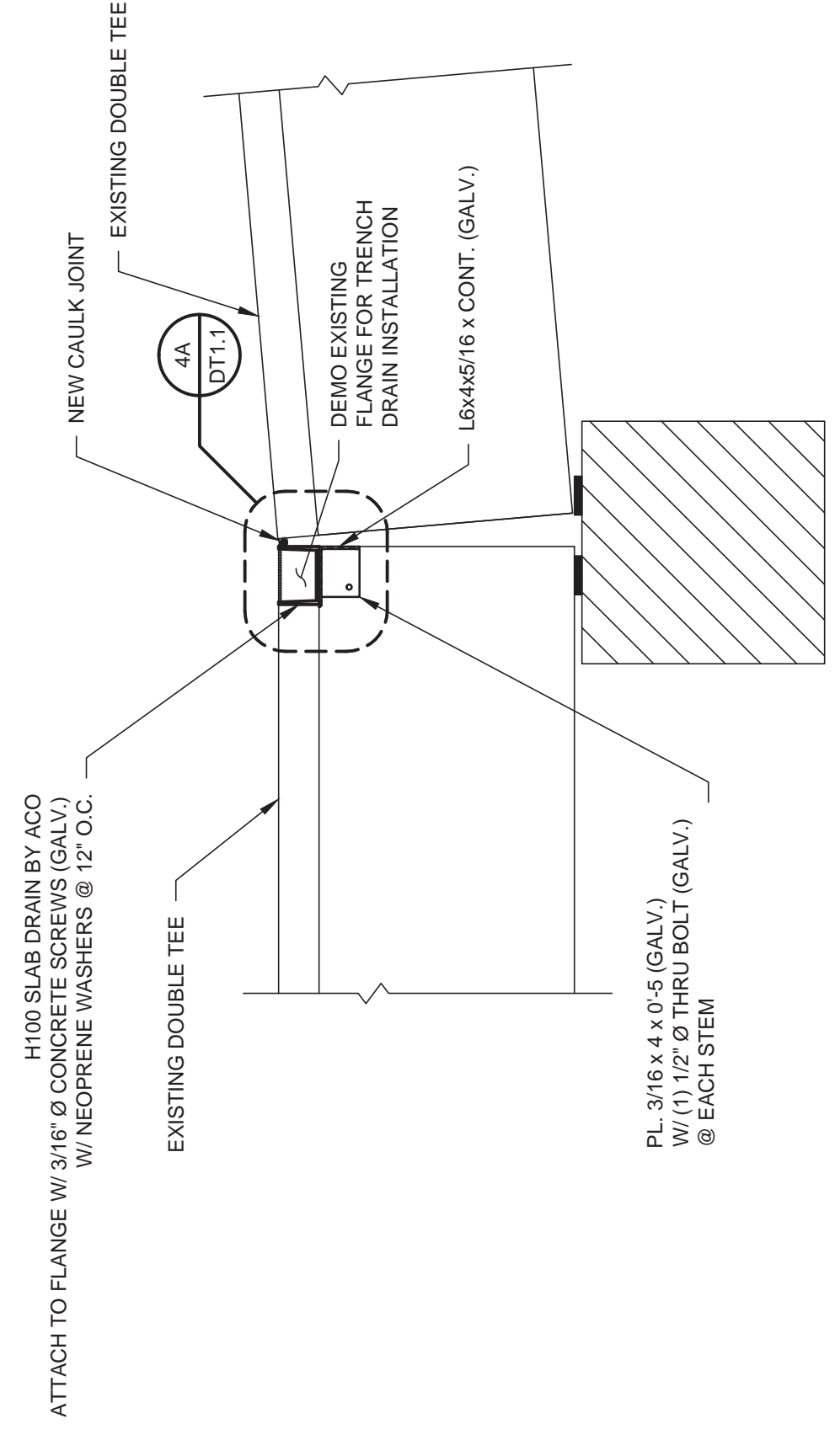
Sheet Title	Repair Details
-------------	----------------

Drawn	WBU	Checked	WBU	Date	09/28/12	Job No.	12394
Sheet No.	DT1.1						

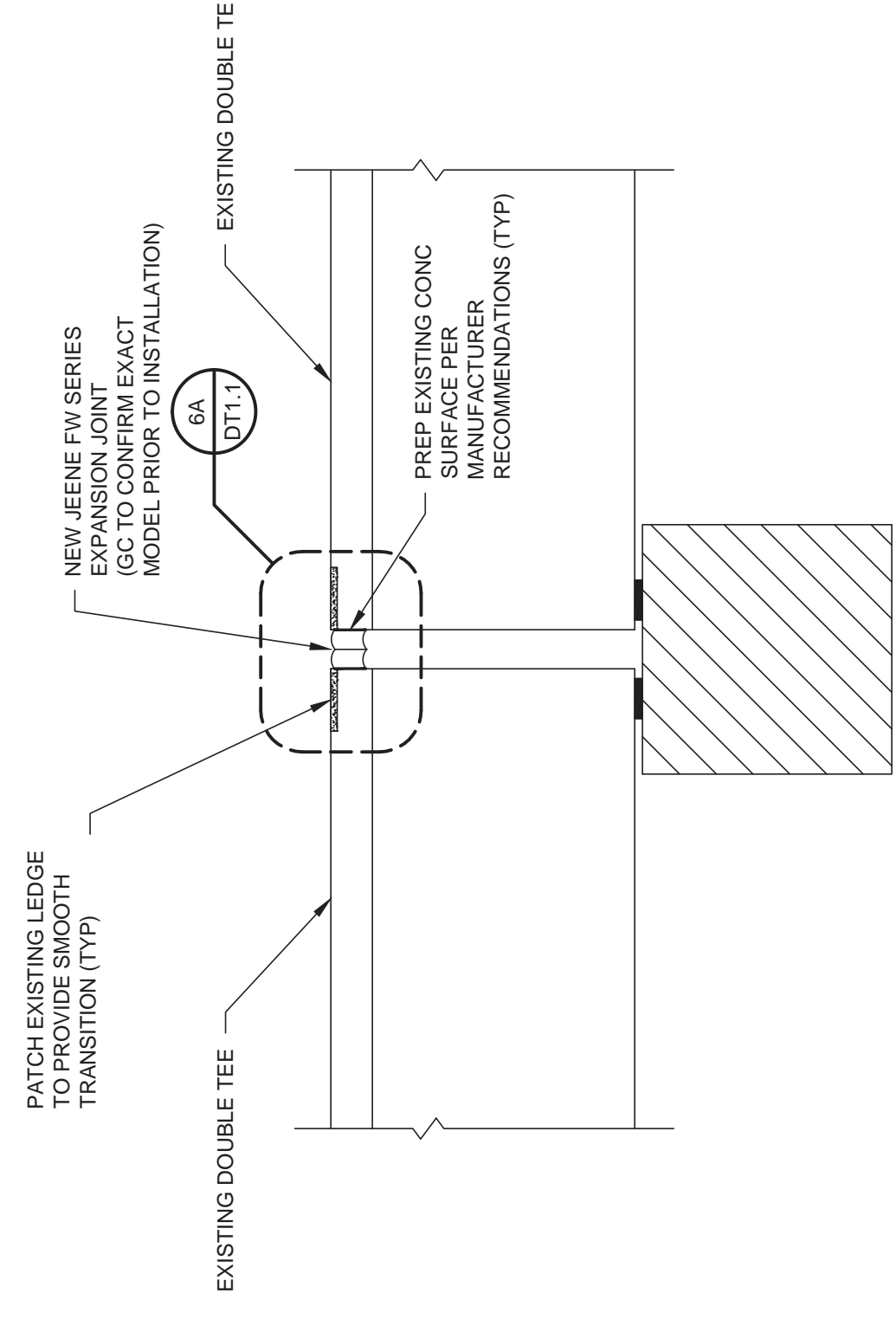


- SURFACE PREPARATION STEPS:**
- REMOVE CONCRETE SURROUNDING STEEL IN SLAB AND REPAIR SURFACE. REFER TO SPALL REPAIR DETAIL SPECIFICATION. (REFER TO SPALL REPAIR DETAIL)
 - INSPECT DAMAGED REINFORCING TO DETERMINE IF REPLACEMENT IS REQUIRED (NOTIFY ENGINEER TO CONFIRM IF REINFORCING NEEDS REPLACEMENT)
 - CLEAN REINFORCING WITH WIRE BRUSH.
 - REPAIR CONCRETE SURFACE (REFER TO SPALL REPAIR DETAIL).
- REPAIR PROCEDURE:**
- INSPECT REINFORCING TO DETERMINE IF BARS NEED TO BE REPLACED OR SUPPLEMENTED. REFER TO SPALL REPAIR DETAIL SPECIFICATION FOR APPROPRIATE SOLUTION.
 - IF REINFORCING IS TO BE REPLACED, CONSULT ENGINEER OF RECORD FOR APPROPRIATE SOLUTION.
 - APPLY SIKA ARMATEC 110 PROTECTIVE COATING TO REINFORCING.
 - PATCH AREA IN ACCORDANCE WITH SPALL REPAIR DETAIL.
- NOTE: REFER TO JOB SPECIFICATIONS AND ACI CONCRETE REPAIR GUIDE (ACI 546R-04) FOR ADDITIONAL INFORMATION.**

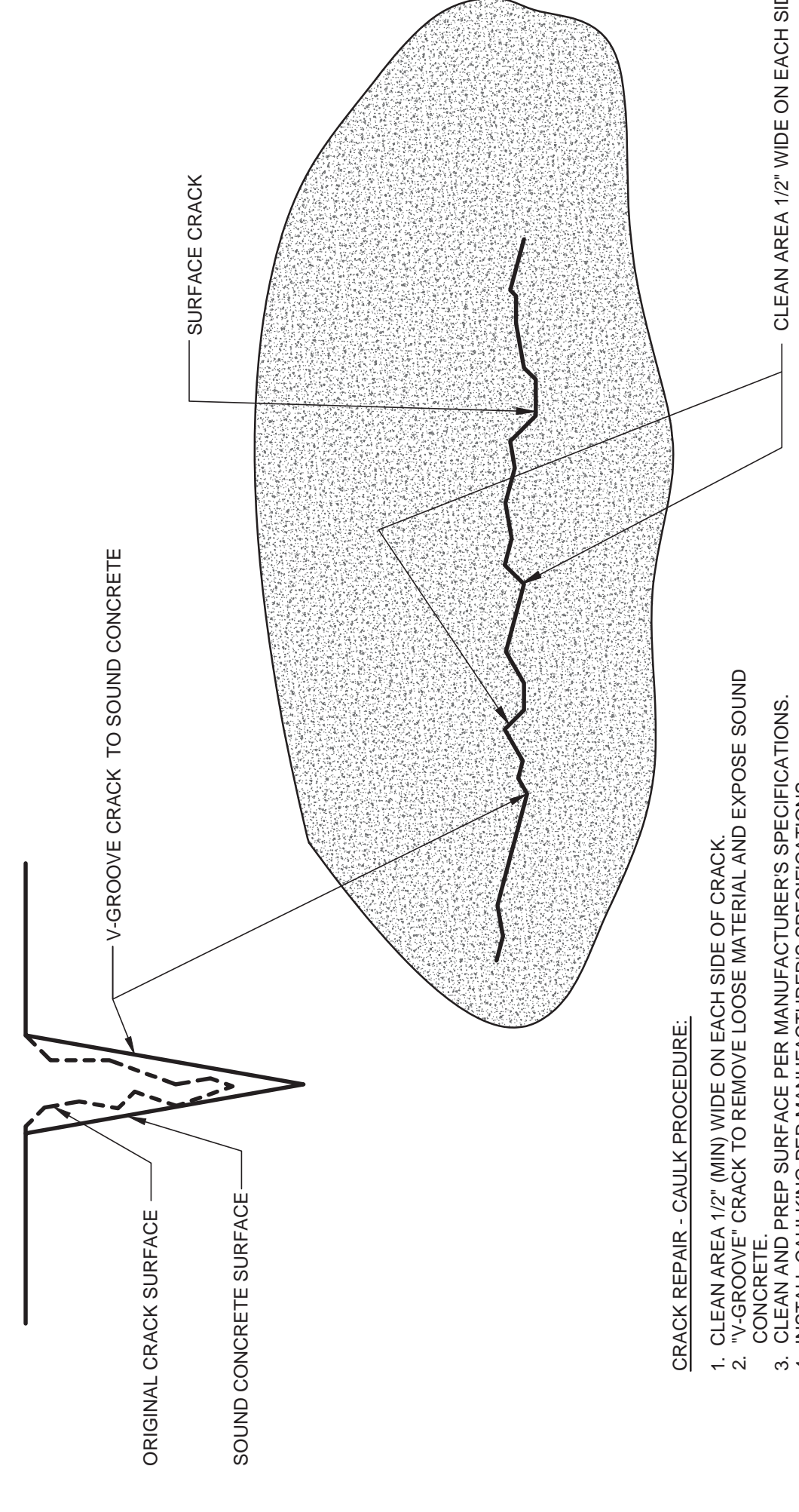
2 TYP. REBAR REPAIR DETAIL
DT1.1 3/4" = 1'-0"



4 TYP. TRENCH DRAIN INSTALLATION DETAIL
DT1.1 3/4" = 1'-0"

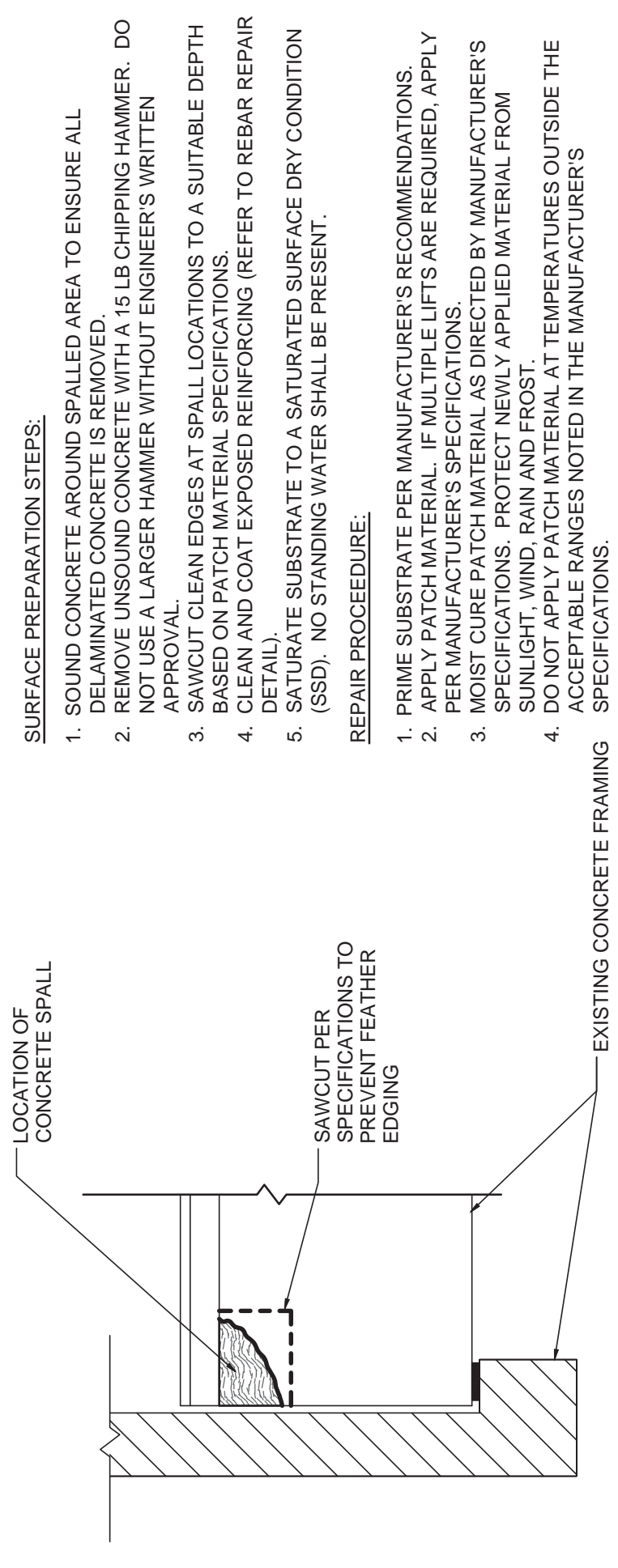


6 FAILED EXPANSION JOINT REPLACEMENT
DT1.1 3/4" = 1'-0"



- CRACK REPAIR - CAULK PROCEDURE:**
- CLEAN AREA 1/2" (MIN) WIDE ON EACH SIDE OF CRACK.
 - "V-GROOVE" CRACK TO REMOVE LOOSE MATERIAL AND EXPOSE SOUND CONCRETE.
 - CLEAN AND PREP SURFACE PER MANUFACTURER'S SPECIFICATIONS.
 - ALLOW CAULK TO FULLY CURE.

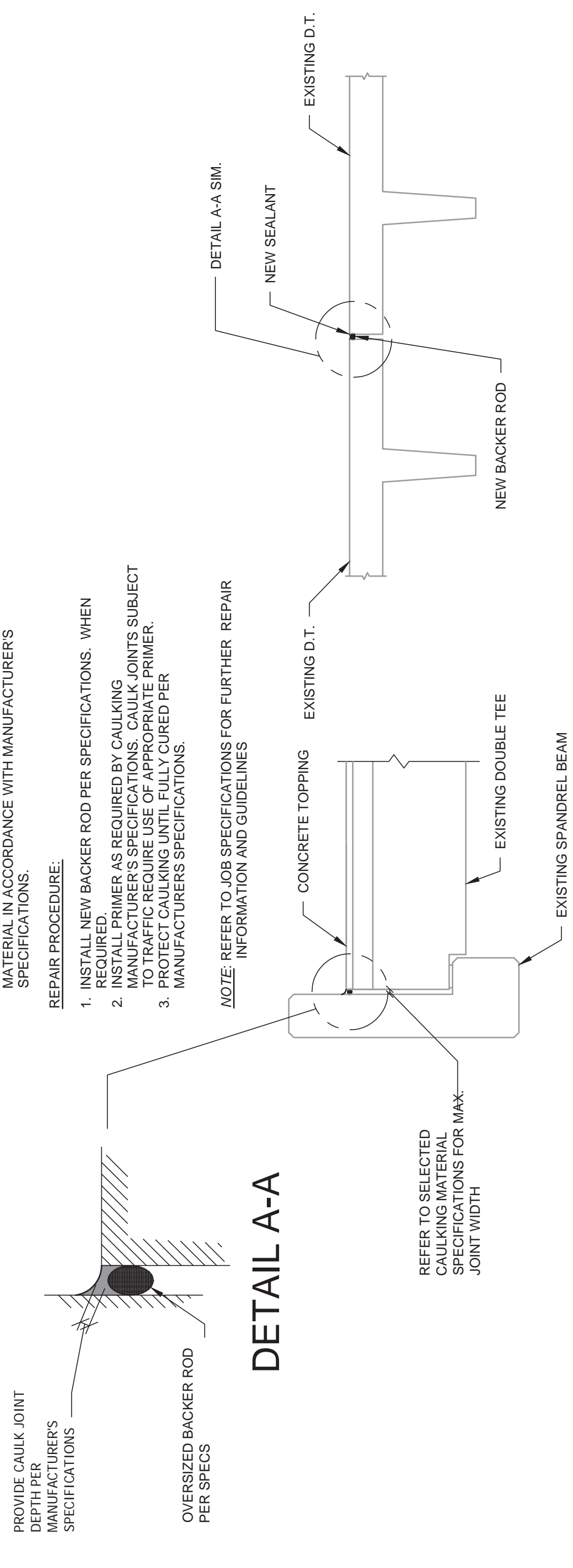
1 TYP. CRACK REPAIR DETAIL
DT1.1 3/4" = 1'-0"



NOTE:
REFER TO JOB SPECIFICATIONS AND ACI RAP-3 OR RAP-6 FOR FURTHER REPAIR INFORMATION AND GUIDELINES

3 TYP. SPALL REPAIR DETAIL
DT1.1 3/4" = 1'-0"

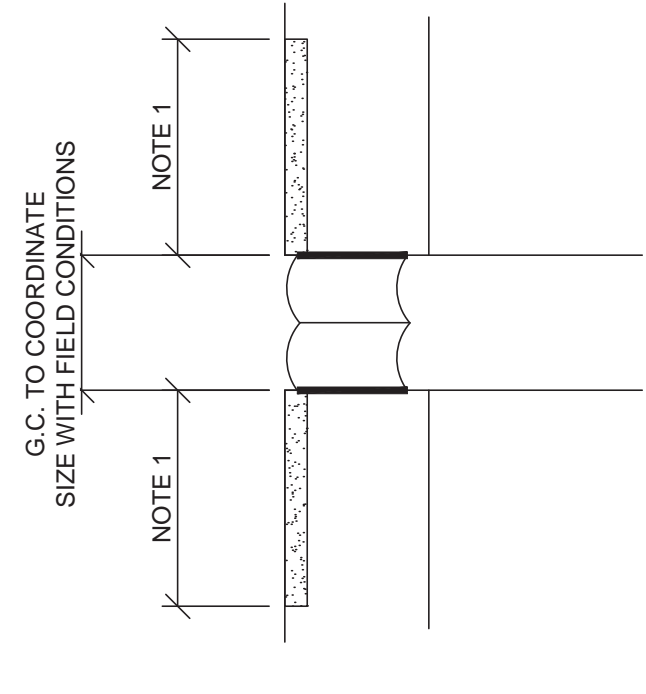
- SURFACE PREPARATION STEPS:**
- THOROUGHLY AND COMPLETELY REMOVE EXISTING CAULK AND BACKER ROD. SUBSTRATE TO RECEIVE NEW CAULKING MATERIAL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- REPAIR PROCEDURE:**
- INSTALL NEW BACKER ROD PER SPECIFICATIONS. WHEN REQUIRED.
 - INSTALL PRIMER AS REQUIRED BY CAULKING MANUFACTURER'S SPECIFICATIONS. SUBJECT TO AGENCIES REQUIREMENTS FOR APPROPRIATE PRIMER.
 - PROTECT CAULKING UNTIL FULLY CURED PER MANUFACTURER'S SPECIFICATIONS.
- NOTE: REFER TO JOB SPECIFICATIONS FOR FURTHER REPAIR INFORMATION AND GUIDELINES**



REFER TO SELECTED CAULKING MATERIAL SPECIFICATIONS FOR MAX. JOINT WIDTH

5 CAULK JOINT REPAIR DETAIL
DT1.1 3/4" = 1'-0"

4A ENLARGED TRENCH DRAIN DETAIL
DT1.1 3/4" = 1'-0"



NOTES:
1) PROVIDE FLANGE EMBEDMENT PER MANUFACTURER'S RECOMMENDATIONS.

6A ENLARGED EXP. JT. DETAIL
DT1.1 3/4" = 1'-0"