

PLANS AND SPECIFICATIONS END USER LICENSE AGREEMENT

**IMPORTANT:** THIS END USER LICENSE AGREEMENT ("EULA") IS A LEGAL AGREEMENT BETWEEN YOU (EITHER AN INDIVIDUAL OR, IF PURCHASED OR OTHERWISE ACQUIRED BY OR FOR AN ENTITY, AN ENTITY) THE USER OF THESE PLANS AND SPECIFICATIONS, AND PRINCE-LUND ENGINEERING, PLC. READ IT CAREFULLY BEFORE STARTING CONSTRUCTION AND USING THE PLANS AND SPECIFICATIONS. IT PROVIDES A LICENSE TO USE THE PLANS AND CONTAINS WARRANTY INFORMATION AND LIABILITY DISCLAIMERS. BY USING THE PLANS AND SPECIFICATIONS OR CONSTRUCTING THE ITEMS DEPICTED THEREIN, YOU ARE CONFIRMING YOUR ACCEPTANCE OF THE EULA AND AGREEING TO BECOME BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO BE BOUND BY THESE TERMS, DO NOT CONSTRUCT, AND DO NOT SOLICIT CONSTRUCTION TO BE PERFORMED BY OTHERS, THE ITEMS SHOWN ON THE PLANS AND RETURN THE PLANS AND SPECIFICATIONS TO PRINCE-LUND ENGINEERING, PLC.

1. Definitions

- (a) 'PRINCE-LUND' means PRINCE-LUND ENGINEERING, PLC and its partners, employees, members and agents, if any.
- (b) 'Plans' means the drawings, notes, specifications for construction and other information, prepared by PRINCE-LUND herewith, and corresponding documentation, associated media, printed materials, and online or electronic documentation, and all updates of the above that have been provided to you.
- (c) 'Project' means a single, organized, undertaking for the design, construction, repair, improvement, and/or expansion of structures or facilities as described and illustrated in the Plans.

2. License Grants

- (a) Unless restricted as described below, you may use the Plans to construct the items depicted on them for the intended Project only. The plans are not intended to be used, and you may not use the plans, on any other project or an extension or other derivative of the Project.

- (b) Your license rights under this EULA are non-exclusive.

3. License Restrictions

- (a) You shall require that only persons trained and experienced with projects of a similar nature and complexity may construct the items depicted on the Plans.
- (b) You shall require that excavations, slopes, and trenching meet the requirements of 29 CFR 1926 Subpart P and that a "Competent Person," as defined by the Occupational, Safety and Health Administration (OSHA), familiar with, but not limited to, excavations, trench safety, sheeting and shoring, shall be on site at all times when these work items are being performed.
- (c) You may only make or distribute copies of the Plans, or electronically transfer the Plans from one computer to another or over a network to persons that will perform or manage the construction depicted on the Plans at the Project or who owns the Project. Distribution of any kind to any other person is not permitted.
- (d) You may not alter, merge, modify, adapt or translate the Plans.
- (e) You may not sell, rent, lease, or sublicense the Plans.
- (f) You may not modify the Plans or create derivative works based upon the Plans.
- (g) In the event that you fail to comply with this EULA, PRINCE-LUND may terminate the license and you must destroy all copies of the Plans with all other rights of both parties and all other provisions of this EULA surviving any such termination.

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- (a) PRINCE-LUND ENGINEERING, PLC WARRANTS THAT THE PLANS WERE PREPARED IN A MANNER CONSISTENT WITH THE LEVEL OF CARE AND SKILL ORDINARILY EXERCISED BY MEMBERS OF THE ENGINEERING PROFESSION CURRENTLY PRACTICING IN THE SAME LOCALITY UNDER SIMILAR CONDITIONS.
- (b) NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS MADE, OR INTENDED BY PROVIDING THESE PLANS OR BY FURNISHING ITS FINDINGS, OPINIONS, RECOMMENDATIONS, PROFESSIONAL ADVICE, OR ORAL OR WRITTEN REPORTS OF FINDINGS MADE.
- (c) FURTHERMORE, PRINCE-LUND ENGINEERING, PLC AND ITS SUPPLIERS AND PARTNERS DISCLAIM ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER EXPRESS, IMPLIED, OR OTHERWISE, INCLUDING THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
- (d) NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY PRINCE-LUND ENGINEERING, PLC, ITS DEALERS, DISTRIBUTORS, AGENTS OR EMPLOYEES SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF ANY WARRANTY PROVIDED HEREIN.
- (e) PRINCE-LUND ENGINEERING, PLC shall have no responsibility or liability if the Plans have been altered in any way, or if construction deviates from the Plans without express consent given by PRINCE-LUND in a writing.

6. LIMITATION OF LIABILITY

- (a) PRINCE-LUND'S TOTAL LIABILITY TO YOU FOR ACTUAL DAMAGES FOR ANY CAUSE WHATSOEVER SHALL BE LIMITED TO THE TOTAL MONIES PRINCE-LUND RECEIVED FROM YOU IN EXCHANGE FOR THE PLANS.
- (b) NEITHER PRINCE-LUND ENGINEERING, PLC NOR ITS SUPPLIERS AND PARTNERS SHALL BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, COVER OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, THE PLANS AND BASED ON ANY THEORY OF LIABILITY INCLUDING BREACH OF CONTRACT, BREACH OF WARRANTY, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY OR OTHERWISE, EVEN IF PRINCE-LUND OR ITS REPRESENTATIVES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE.
- (c) SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU AND YOU MAY ALSO HAVE OTHER LEGAL RIGHTS THAT VARY FROM STATE TO STATE.

- (d) THE FOREGOING LIMITATIONS ON LIABILITY APPLY TO ALL ASPECTS OF THIS EULA.

7. Indemnification

You shall, at your own expense, indemnify and hold PRINCE-LUND, and its subconsultants, and all officers, directors, members, and employees thereof, harmless from and against any and all claims, actions, liabilities, losses, damages, judgments, grants, costs, and expenses, including reasonable attorneys' fees (collectively, "Claims"), arising out of any use of the Plans by you, any party related to you, or any party acting upon your authorization in a manner that is not expressly authorized by this Agreement.

8. Basis of Bargain

The Warranty Disclaimer and Limited Liability set forth above are fundamental elements of the basis of the agreement between PRINCE-LUND and you. PRINCE-LUND would not be able to provide the Plans on an economic basis without such limitations. Such Warranty Disclaimer and Limited Liability inure to the benefit of PRINCE-LUND's licensors.

Plans prepared by: PRINCE-LUND ENGINEERING, PLC, PO Box 1268, Traverse City, MI 49685

9. General

This EULA shall be governed by the internal laws of the State of MICHIGAN, without giving effect to principles of conflict of laws. You hereby consent to the exclusive jurisdiction and venue of the state courts sitting in GRAND TRAVERSE County MICHIGAN to resolve any disputes arising under this EULA.

This EULA contains the complete agreement between the parties with respect to the subject matter hereof, and supersedes all prior or contemporaneous agreements or understandings, whether oral or written. You agree that any varying or additional terms contained in any purchase order or other written notification or document issued by you in relation to the Plans licensed hereunder shall be of no effect. The failure or delay of PRINCE-LUND ENGINEERING, PLC to exercise any of its rights under this EULA or upon any breach of this EULA shall not be deemed a waiver of those rights or of the breach.

No PRINCE-LUND ENGINEERING, PLC dealer, agent or employee is authorized to make any amendment to this EULA.

If any provision of this EULA shall be held by a court of competent jurisdiction to be contrary to law, that provision will be enforced to the maximum extent permissible, and the remaining provisions of All questions concerning this EULA shall be directed to: PRINCE-LUND ENGINEERING, PLC, EULA@build-on-prince.com, Attention: Richard E. Prince

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PLANS AND SPECIFICATIONS FOR  
DOUBLE T FLANGE REPAIR &  
STRENGTHENING  
RELATED TO PARKING STRUCTURES

SHEET INDEX

- 1 TITLE SHEET & TERMS OF USE
- 2 GENERAL & STRUCTURAL NOTES
- 3 CFRP PLANS & DETAILS



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TITLE SHEET & TERMS OF USE  
DOUBLE-T FLANGE REPAIR  
FORTEC STABILIZATION SYSTEMS  
VARIOUS LOCATIONS

REVISIONS			DRAWN BY: R.E.P.	DRAWING:
			CH'K'D BY: R.E.P.	UBRACKET
			SCALE: SHOWN	SHEET NUMBER
			DATE: 1/30/19	1 OF 3
			PROJECT I.D. R1901	
DESCRIPTION	DATE	BY		

GENERAL NOTES

1. VERIFY EXISTING CONDITIONS, DIMENSIONS, ELEVATIONS AND QUANTITIES IN THE FIELD PRIOR TO THE FABRICATION AND INSTALLATION OF ANY MATERIALS OR COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES BETWEEN INFORMATION SHOWN ON THESE DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED IMMEDIATELY TO RICHARD E. PRINCE, PE (ENGINEER) AT (231) 642-1099.
2. GENERAL REQUIREMENTS:
  - A. ALL MATERIAL INSTALLED ON THIS PROJECT SHALL CONFORM AND ALL WORK PERFORMED TO THE APPLICABLE SECTIONS OF FORTEC STABILIZATION SYSTEMS PRODUCT GUIDES AND INSTALLATION INSTRUCTIONS, WITH ANY EXCEPTIONS HEREIN NOTED.
3. WORK SEQUENCE AND CONDITION:
  - A. ALL WORK SHALL BE COORDINATED WITH MR. RICHARD PRINCE OF PRINCE-LUND ENGINEERING, PLC AND/OR HIS DESIGNATED ON-SITE REPRESENTATIVE AT (231) 642-1099.
  - B. CONTRACTOR SHALL VERIFY ALL QUANTITIES OF WORK TO BE PERFORMED PRIOR TO START OF WORK. SUBMISSION OF A BID SHALL CONSTITUTE ACCEPTANCE OF QUANTITIES INDICATED.
4. SAFETY AND PROTECTION:
  - A. CONTRACTOR IS SOLELY RESPONSIBLE FOR ON-SITE SAFETY AND SHALL CONTROL THE AREAS OF WORK SUFFICIENTLY TO PROTECT ALL PERSONS WITHIN THOSE AREAS. CONTRACTOR VOLUNTARILY AGREES THAT BY UTILIZING THESE DRAWINGS OR SPECIFICATIONS IN ANY MANNER, THE ENGINEER AND OWNER DO NOT HAVE CONTROL OVER THE WORK AREAS AND THEREFORE DO NOT HAVE THE ABILITY OR RESPONSIBILITY TO PROVIDE A SAFE ENVIRONMENT IN THE AREAS OF WORK.
  - B. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGING, AND IF DAMAGED, SHALL REPLACE TO THE SATISFACTION OF THE OWNER, EXISTING CONSTRUCTION, VEGETATION AND STRUCTURES NOT INDICATED TO BE REMOVED. ALL CONSTRUCTION MATERIAL SPILLS SHALL BE REMOVED AS WORK PROGRESSES.
  - C. CONTRACTOR SHALL SUITABLY PROTECT ALL MATERIALS, IN-PROGRESS WORK, AND FINISHED WORK FROM DAMAGE.
  - D. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROLS DURING CONSTRUCTION TO PREVENT VEHICLES AND PEDESTRIANS FROM ENTERING THE AREAS OF WORK.
5. QUALITY ASSURANCE:
  - A. CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL OF THE WORK; INSPECTION AND TESTING BY THE ENGINEER OR THE OWNER'S TESTING AGENCY ARE SOLELY AT THE DISCRETION OF THE OWNER, AND IN NO WAY RELIEVE THE CONTRACTOR OF SOLE RESPONSIBILITY FOR MAINTAINING A QUALITY ASSURANCE PROGRAM.
  - B. CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED, QUALIFIED AND EXPERIENCED IN THE NECESSARY CRAFT, AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
  - C. CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPERVISION, PLANNING, SCHEDULING, COORDINATION, INSPECTION, TESTING AND CONTROL TO PERFORM THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. TESTING LABORATORY SERVICES:
 

THE OWNER MAY EMPLOY AN INDEPENDENT TESTING AGENCY TO OBSERVE THE CONTRACTOR AND TEST MATERIALS DURING PERFORMANCE OF THE WORK. CONTRACTOR SHALL NOTIFY OWNER'S TESTING AGENCY A MINIMUM OF 24 HOURS IN ADVANCE OF OPERATIONS REQUIRING FIELD OBSERVATIONS AND TESTING BY OWNER'S TESTING AGENCY.
7. CLEANING:
  - A. CONTRACTOR SHALL MAINTAIN ALL AREAS FREE FROM ACCUMULATIONS OF WASTE MATERIALS, DEBRIS AND RUBBISH CAUSED BY CONTRACTOR OPERATIONS AND SHALL LEGALLY DISPOSE OF SAME.
  - B. CONTRACTOR SHALL REMOVE ALL CONSTRUCTION RELATED DEBRIS AND MATERIAL FROM AREAS OUTSIDE THE LIMITS OF THE CONTRACTOR'S WORK AREA ON A DAILY BASIS.

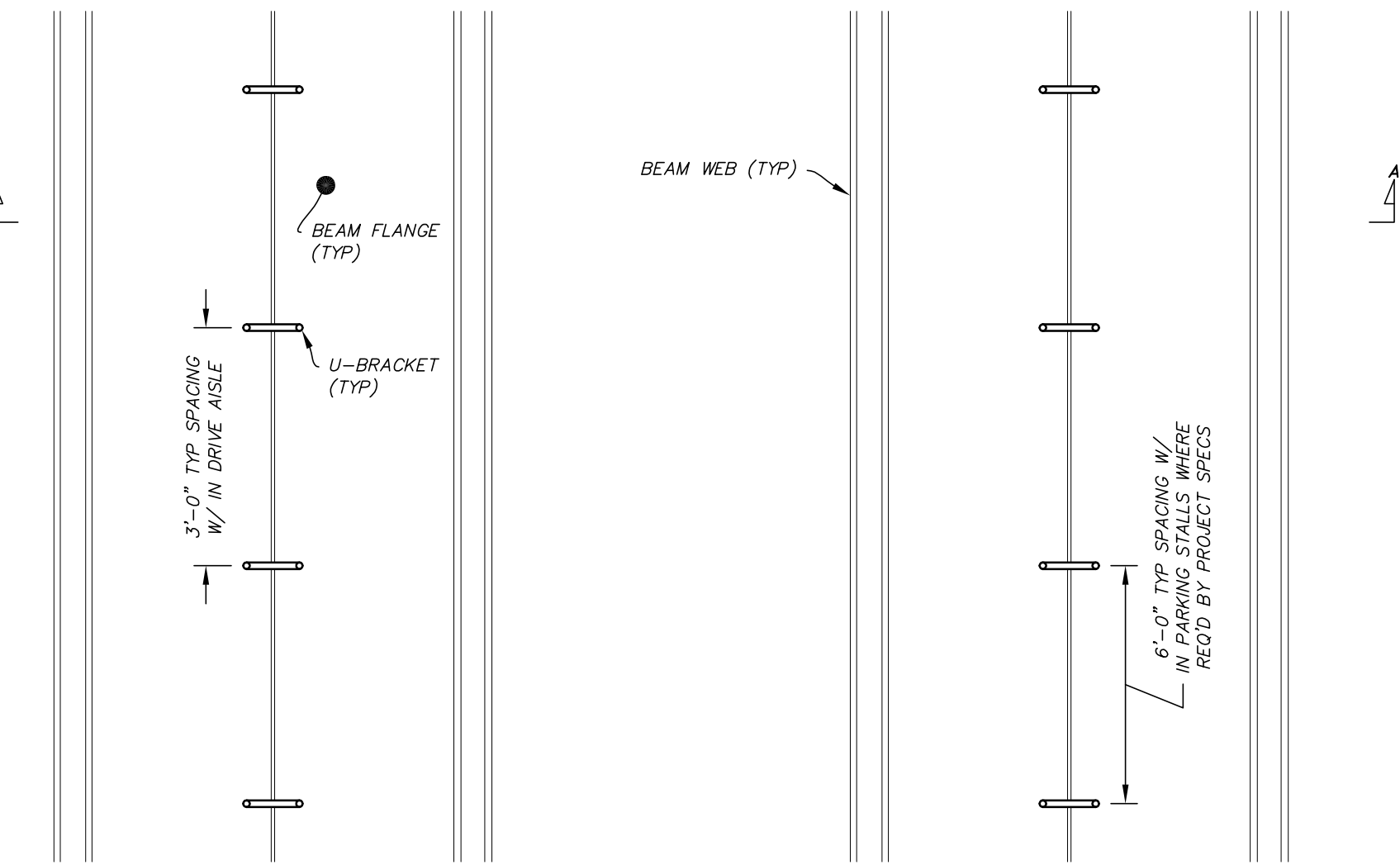
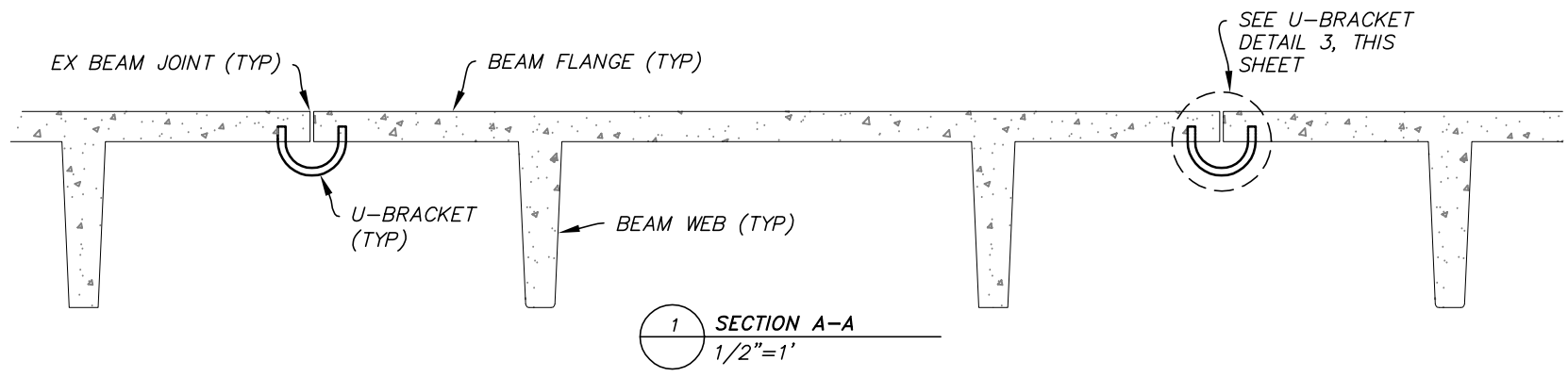
STRUCTURAL NOTES

1. ASSUMPTIONS OF EXISTING CONDITIONS
  - 1.1. EX BEAM WIDTH = UP TO 12 FEET
  - 1.2. EX BEAM LENGTH = UP TO 60 FEET
  - 1.3. EX BEAM WEBS = MIN 6 INCH BY 24 INCH
  - 1.4. EX CONCRETE COMPRESSIVE STRENGTH = 5,000 PSI
  - 1.2. EX STEEL REINFORCEMENT YIELD STRENGTH = 60,000 PSI
  - 1.3. EX SHEAR CAPACITY PROVIDED BY CONCRETE = 21.2 KIPS
  - 1.4. EX SHEAR CAPACITY PROVIDED BY STEEL REINFORCEMENT = 12.5 KIPS
2. DESIGN LOADS
  - 2.1. DEAD LOAD ON BEAM = BEAM SELF WEIGHT = 917 PLF
  - 2.2. LIVE LOAD ON BEAM = 55 PSF
3. IF ANY OF THESE ASSUMPTIONS ARE FOUND TO BE INCORRECT, NOTIFY THE ENGINEER, RICHARD E. PRINCE, PE, IMMEDIATELY AT 231-642-1099 OR 888-418-2695 EXTENSION 1.

ABBREVIATIONS

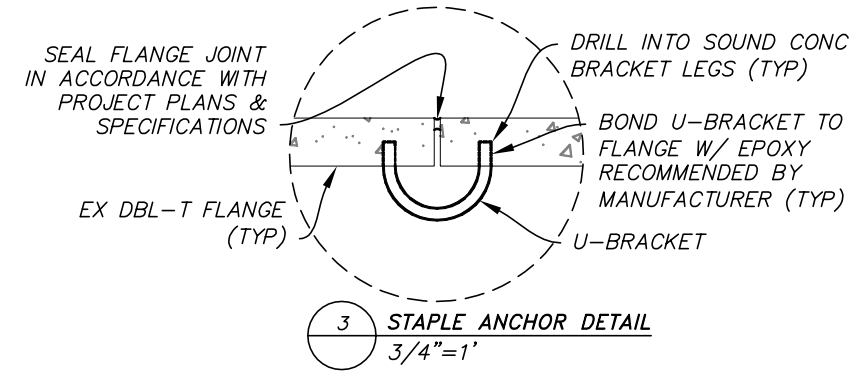
ACP	ASBESTOS CONCRETE PIPE	LAT	LATITUDE OR LATERAL
AG OR AGG	AGGREGATE	MH	MANHOLE
BC	BEGINNING OF CURVE	N	NORTH
BEG	BEGINNING	NAT	NATURAL
BIT	BITUMINOUS	N'LY	NORTHERLY
BOT	BOTTOM	NTS	NOT TO SCALE
BP	BOTTOM OF PIPE	PE	PLAIN END OR POLYETHYLENE
BTWN	BETWEEN	POB	POINT OF BEGINNING
BW	BACK OF WALK	POC	POINT OF COMMENCEMENT
CB	CATCH BASIN	PP	POWER POLE
CF	CURB FACE	PROT	PROTECT
CL	CLASS	PVC	POLYVINYL CHLORIDE
C/L	CENTERLINE	PVMT OR PAV'T	PAVEMENT
CONC	CONCRETE	RCP	REINFORCED CONCRETE PIPE
CPE	AASHTO M294 TYPE S PE PIPE	R/W OR ROW	RIGHT OF WAY
CPVC	CHLORINATED PVC	S	SOUTH
DIP	DUCTILE IRON PIPE	SAN	SANITARY
DIST	DISTANCE OR DISTRICT	SHT	SHEET
DR	DRIVE	S'LY	SOUTHERLY
DRVWY	DRIVEWAY	ST	STREET
E	EAST	TBC	TOP, BACK OF CURB
(E) OR EX	EXISTING	TELEPH	TELEPHONE
EC	END OF CURVE	TP	TOP OF PIPE
ELEC	ELECTRIC	T/A	TOP OF HMA
EG	EDGE OF GUTTER	T/C	TOP OF CONCRETE
ESMT	EASEMENT	TYP	TYPICAL
FH	FIRE HYDRANT	VAR	VARIABLE OR VARIES
GB	GRADE BREAK	VERT	VERTICAL
GS	GROUND SURFACE	W	WEST
HMA	HOT MIX ASPHALT PVMT	W/	WITH
HP	HIGH POINT OR HIGH PRESSURE	W/O	WITHOUT
INV	INVERT	X	CROSS

REVISIONS			DRAWN BY: R.E.P.	DRAWING: UBRACKET
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			SCALE: SHOWN	
			DATE: 1/30/19	
			PROJECT I.D. R1901	2 OF 3
DESCRIPTION	DATE	BY		



**NOTES:**

1. ALL SUBSTRATES SHALL BE PREPARED FOR BONDING IN ACCORDANCE WITH FORTEC STABILIZATION SYSTEMS INSTALLATION GUIDELINES INCLUDING ABRASIVE BLASTING OR GRINDING.
2. ALL SURFACES SHALL BE CLEANED BY HAND OR BY OIL-FREE COMPRESSED AIR AND SHALL BE FREE OF OILS, LOOSE MATERIAL, DEBRIS, AND DUST.
3. SHAPE CORNERS AND EDGES OF THE SUBSTRATE TO A 1/2" OR LARGER RADIUS UNLESS CALLED FOR OTHERWISE ON THE PLANS OR SPECIFICATIONS.
4. ALL BUG HOLES, VOIDS AND UNEVEN SURFACES SHALL BE FILLED WITH THE APPROPRIATE FORTEC STABILIZATION SYSTEMS EPOXY.
5. CONTRACTOR SHALL TAKE CARE TO AVOID DRILLING OR CUTTING REINFORCEMENT IN THE FLANGES OR ELSEWHERE.
6. U-BRACKETS SHALL BE INSTALLED IN SOUND CONCRETE. REPAIR OF FLANGE CONCRETE SHALL TAKE PLACE AND ALLOWED TO CURE PRIOR TO INSTALLATION OF U-BRACKETS.
7. U-BRACKETS SHALL BE INSTALLED PERPENDICULAR TO THE LONGITUDINAL AXIS OF THE BEAM, UNLESS NOTED OTHERWISE.
9. FILL U-BRACKET HOLES AND COAT THE U-BRACKET LEGS WITH EPOXY ADHESIVE AND INSTALL THE ANCHORS INTO THE HOLES.
10. APPLY SUFFICIENT EPOXY TO CREATE A UNIFORM BOND.
11. DETAIL, AND FEATHER OUT EXCESS EPOXY TO ACHIEVE A SMOOTH FINISH.
12. AFTER A MINIMUM 24 HOUR CURE, SOUND THE CFRP COMPOSITE (ACOUSTIC TAP TEST WITH A HAMMER OR OTHER HARD OBJECT) TO CHECK FOR VOIDS. FILL OR REPAIR/PATCH VOIDS IN ACCORDANCE WITH FORTEC STABILIZATION SYSTEMS GUIDELINES.
8. CUT OR DRILL HOLES SLOTS TO RECEIVE THE LEGS OF FORTEC STAPLE ANCHORS. CONTRACTOR SHALL TAKE CARE NOT TO CUT EXISTING STEEL REINFORCEMENT. IF STEEL REINFORCEMENT IS CUT, CONTACT ENGINEER FOR REPAIR RECOMMENDATIONS.



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			PROJECT I.D. R1901	<b>3 OF 3</b>
DESCRIPTION	DATE	BY		