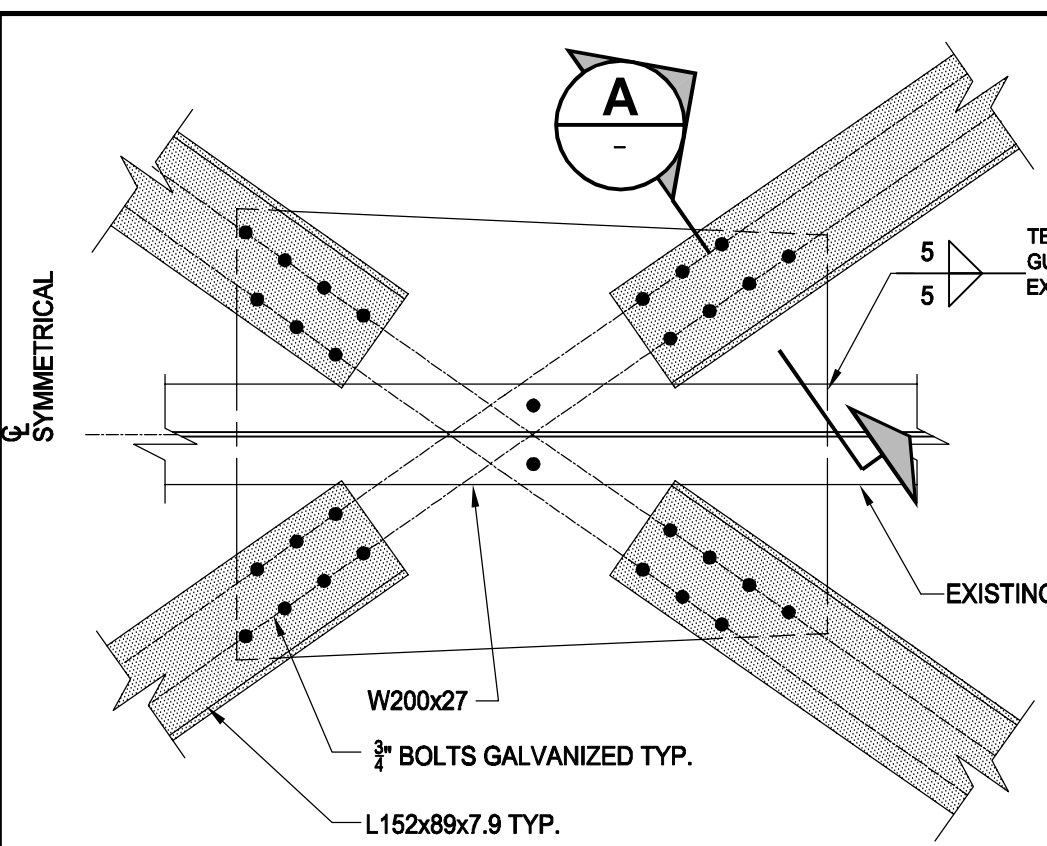


D SIZE 22" x 34" (559mm x 864mm)

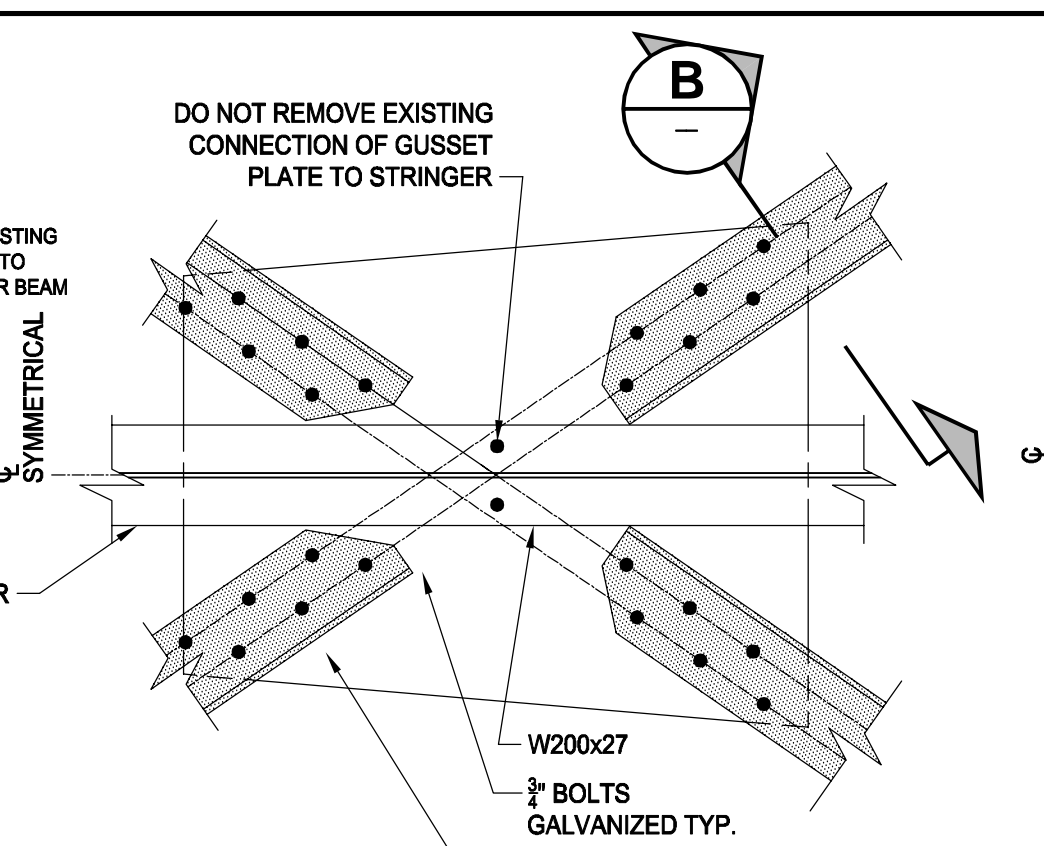
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AECOM REVIEW DRAFT CHK KC

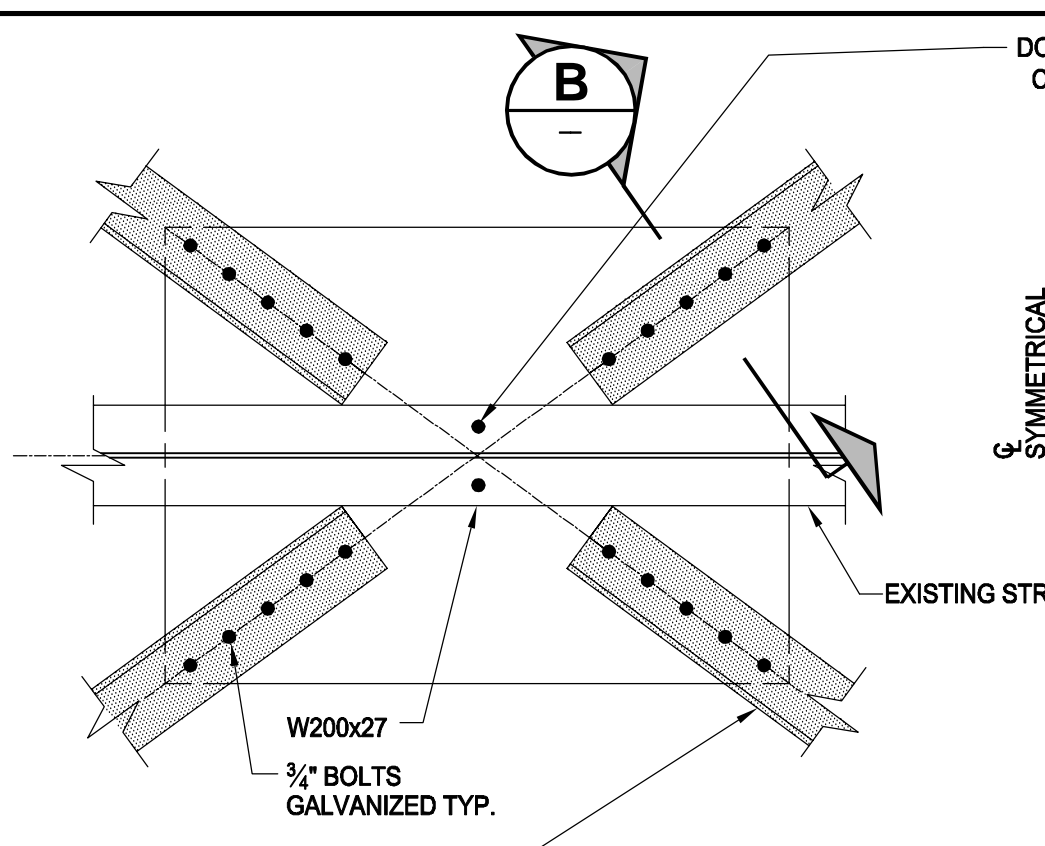


**DETAIL 1**  
SCALE 1:10

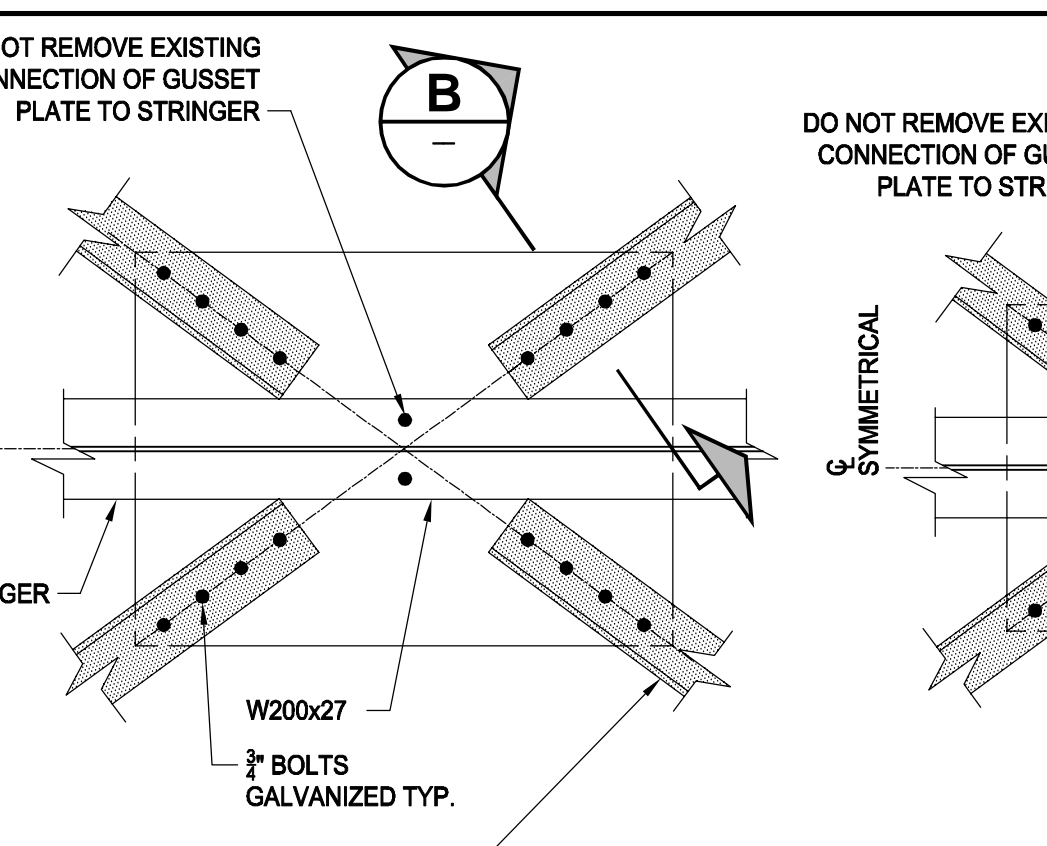
- NOTES FOR DETAIL 1:**
- CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO SITE WORK, INCLUDING LOCATIONS OF ALL RIVET HOLES, PLATE DIMENSIONS, EDGE DISTANCE ETC.
  - REPLACE EXISTING RIVETS WITH BLACK A325 BOLTS PRIOR TO ZINC METALIZING (1 RIVET AT A TIME) INCLUDING CONNECTION OF GUSSET PLATE TO STRINGERS.
  - TEMP. WELD EXISTING GUSSET PLATE TO EXISTING STRINGER.
  - REPLACE BLACK A325 BOLTS WITH GALVANIZED A325 BOLTS AFTER ZINC METALIZING (JUST SNUG TIGHT)
  - ADD TEMPORARY MECHANISM TO KEEP BOLTS IN PLACE AND EXISTING GUSSET PLATE TIGHT TO EXISTING ANGLES AND REMOVE NUTS FROM BOLTS
  - INSTALL ADDITIONAL 10mm PLATE TO UNDERSIDE OF EXISTING GUSSET PLATE.
  - INSTALL PROPOSED ANGLES AND REINSTALL NUTS, THEN TIGHTEN BOLTS
  - REMOVE TEMPORARY MECHANISM (INCLUDING TEMP. WELD OF EXISTING GUSSET PLATE TO EXISTING STRINGER) AND TOUCH UP GALVANIZING AND METALIZING



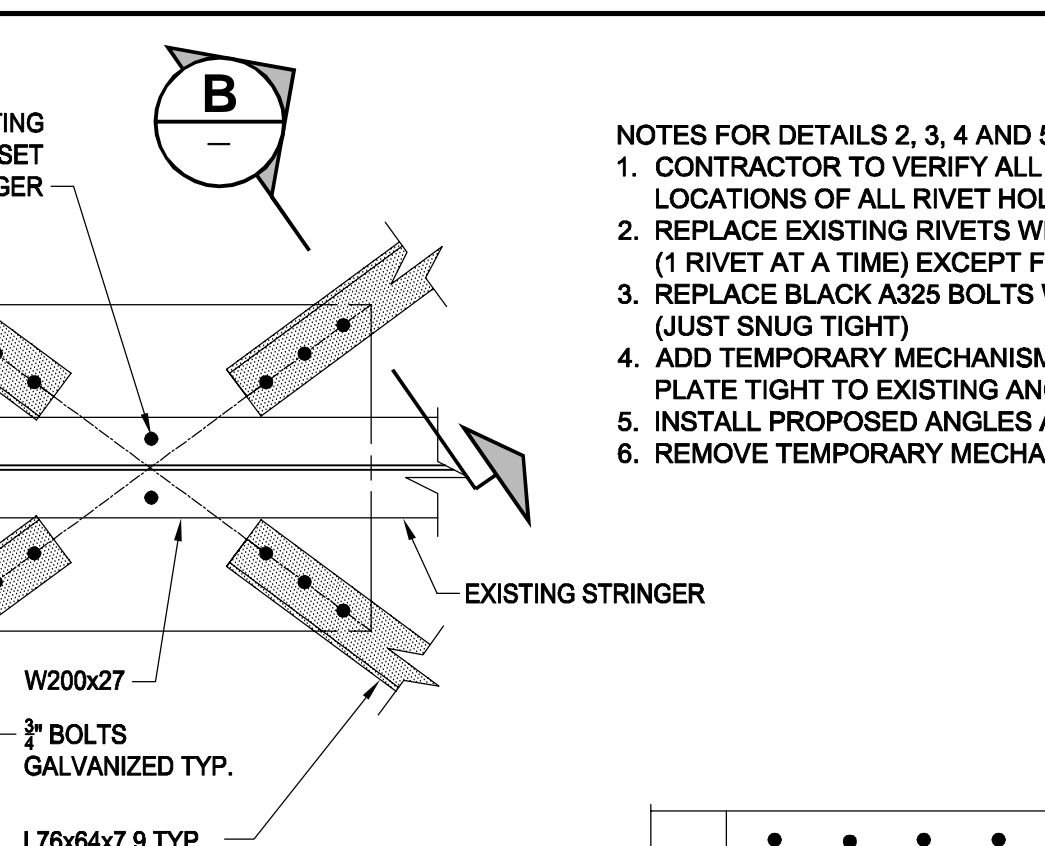
**DETAIL 2**  
SCALE 1:10



**DETAIL 3**  
SCALE 1:10

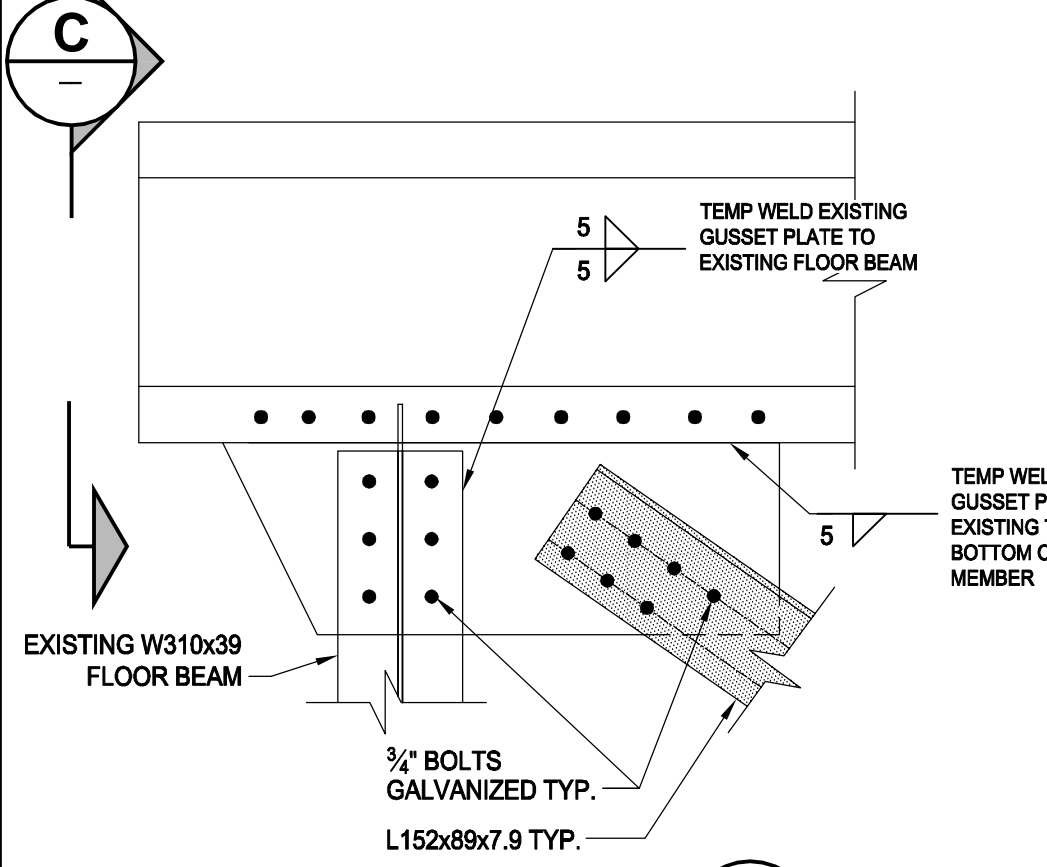


**DETAIL 4**  
SCALE 1:10

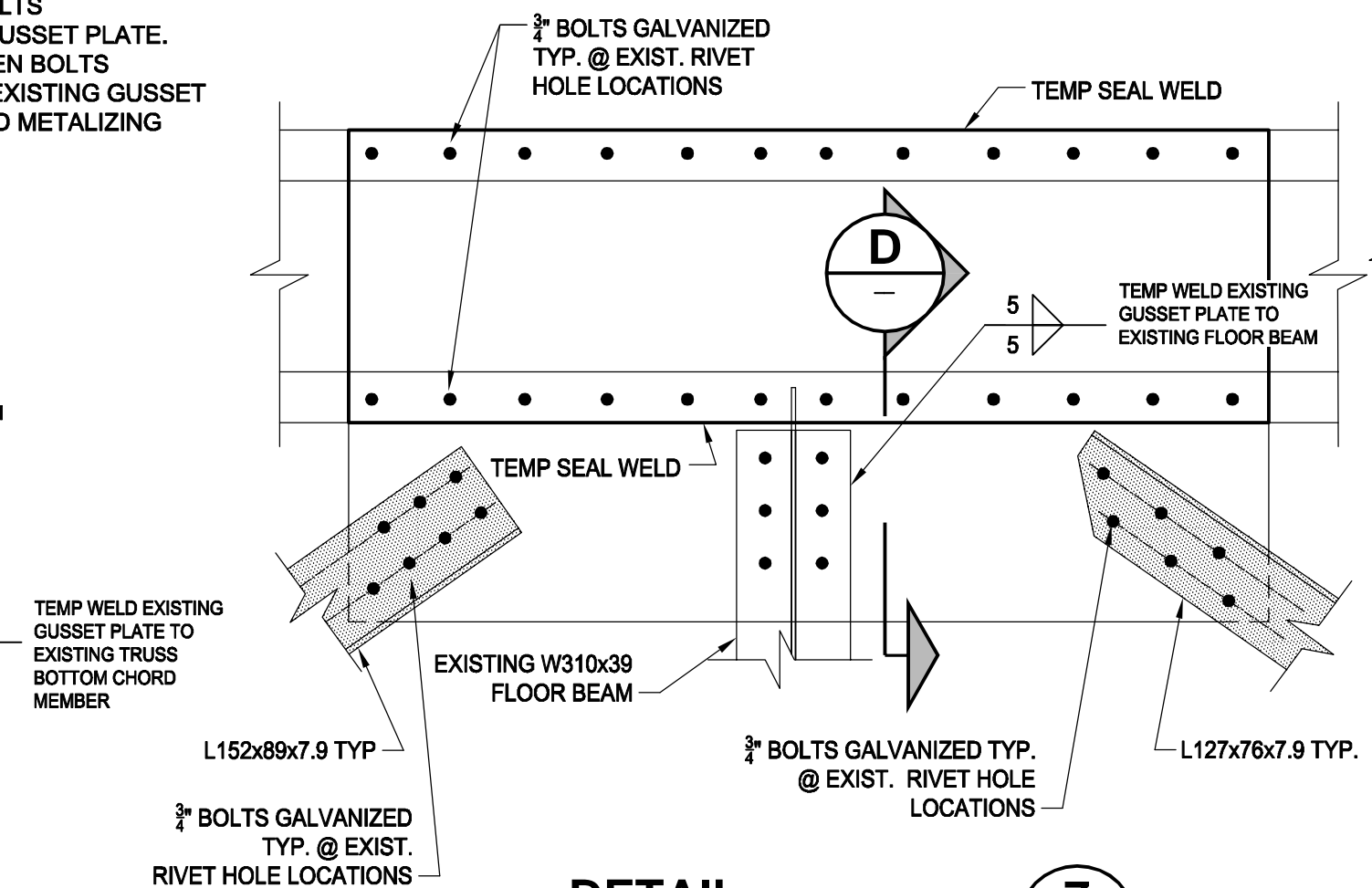


**DETAIL 5**  
SCALE 1:10

- NOTES FOR DETAILS 2, 3, 4 AND 5:**
- CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO SITE WORK, INCLUDING LOCATIONS OF ALL RIVET HOLES, PLATE DIMENSIONS, EDGE DISTANCE ETC.
  - REPLACE EXISTING RIVETS WITH BLACK A325 BOLTS PRIOR TO ZINC METALIZING (1 RIVET AT A TIME) EXCEPT FOR CONNECTION OF GUSSET PLATE TO STRINGERS (JUST SNUG TIGHT)
  - REPLACE BLACK A325 BOLTS WITH GALVANIZED A325 BOLTS AFTER ZINC METALIZING (JUST SNUG TIGHT)
  - ADD TEMPORARY MECHANISM TO KEEP BOLTS IN PLACE AND EXISTING GUSSET PLATE TIGHT TO EXISTING ANGLES WHILE NUTS ARE REMOVED FROM BOLTS
  - INSTALL PROPOSED ANGLES AND REINSTALL NUTS, THEN TIGHTEN BOLTS
  - REMOVE TEMPORARY MECHANISM AND TOUCH UP GALVANIZING AND METALIZING

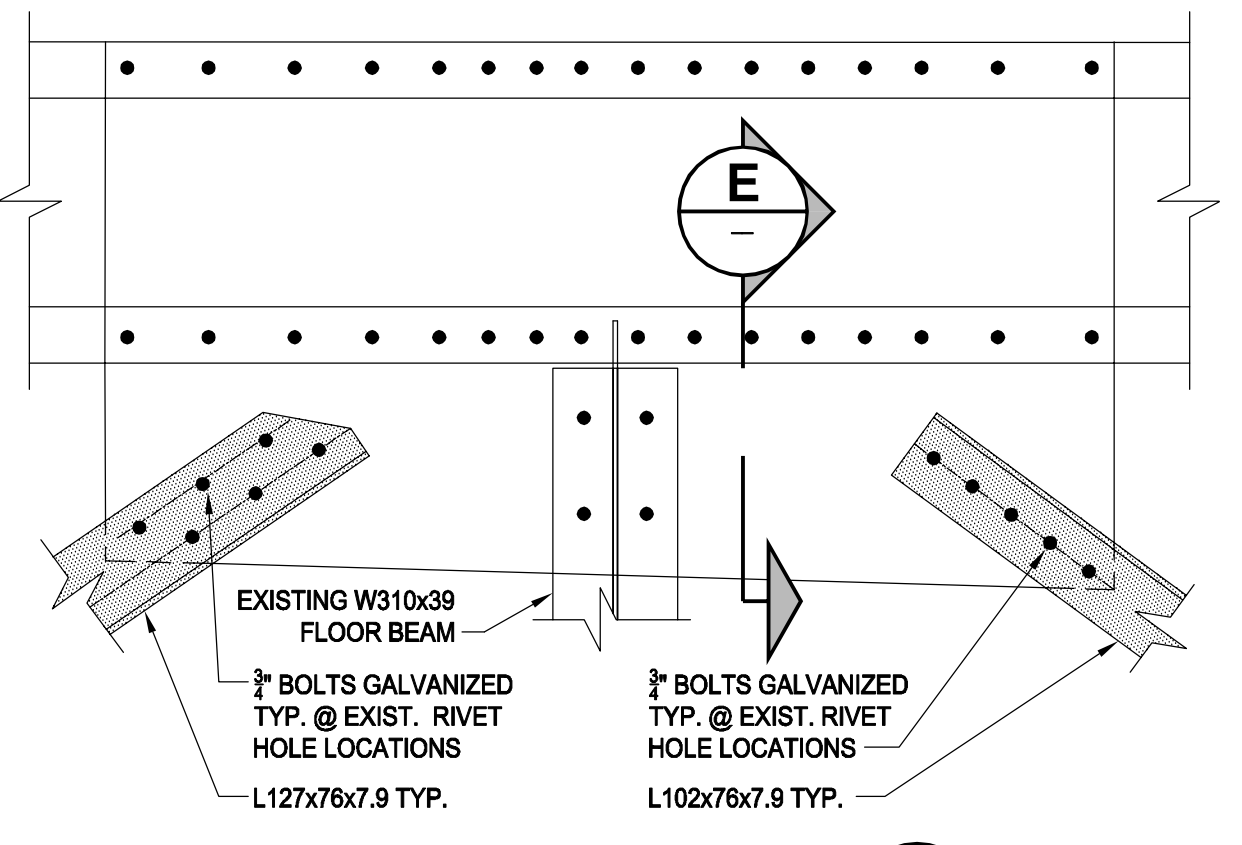


**DETAIL 6**  
SCALE 1:10

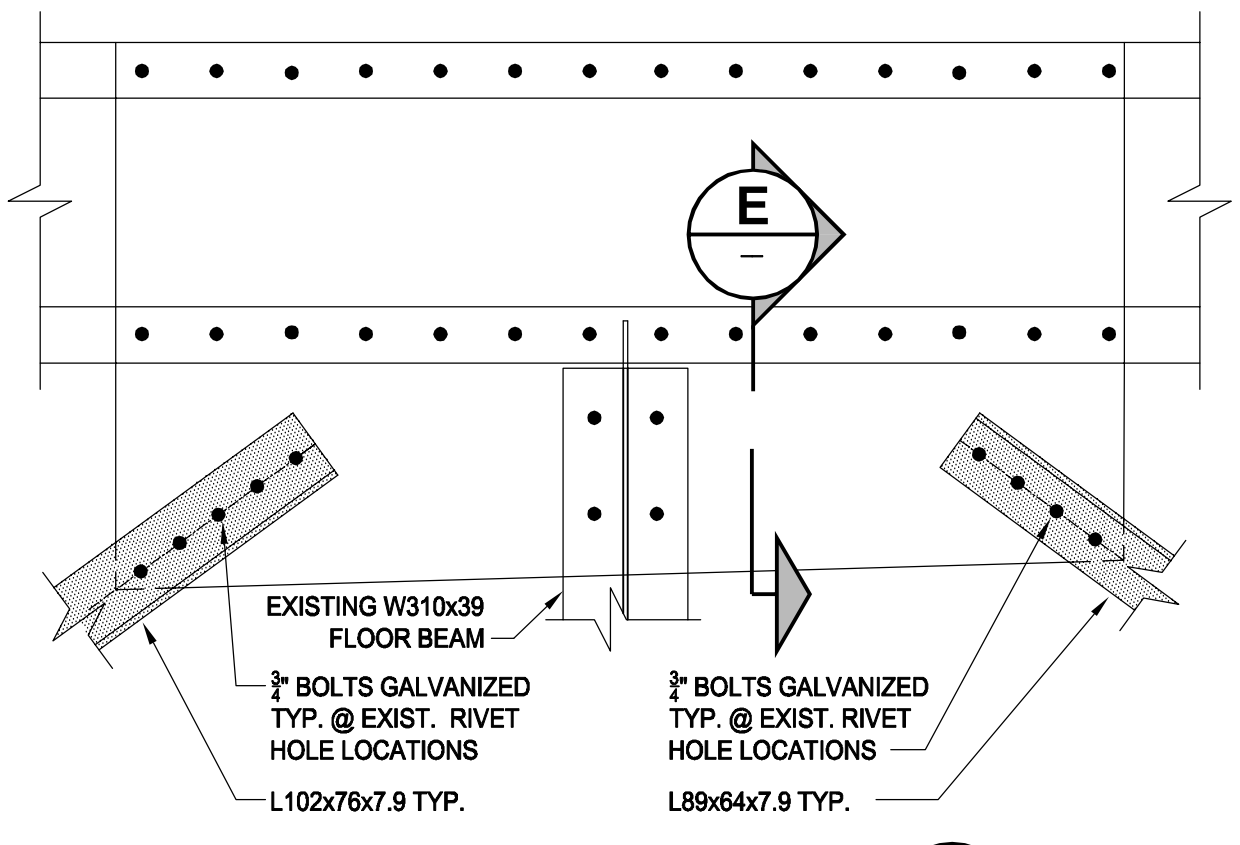


**DETAIL 7**  
SCALE 1:10

- NOTES FOR DETAILS 6 AND 7:**
- CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO SITE WORK, INCLUDING LOCATIONS OF ALL RIVET HOLES, PLATE DIMENSIONS, EDGE DISTANCE ETC.
  - TEMP WELD EXISTING PLATE TO EXISTING FLOOR BEAM AND BOTTOM CHORD.
  - REPLACE EXISTING RIVETS WITH BLACK A325 BOLTS PRIOR TO ZINC METALIZING (1 RIVET AT A TIME)
  - REPLACE BLACK A325 BOLTS WITH GALVANIZED A325 BOLTS C/W BEVELED WASHER ON CHANNELS AFTER ZINC METALIZING (JUST SNUG TIGHT)
  - ADD TEMPORARY MECHANISM TO KEEP BOLTS IN PLACE AND EXISTING GUSSET PLATE TIGHT TO EXISTING ANGLES AND REMOVE NUTS FROM BOLTS
  - INSTALL ADDITIONAL 10mm PLATE TO UNDERSIDE OF EXISTING GUSSET PLATE.
  - INSTALL PROPOSED ANGLES AND REINSTALL NUTS, THEN TIGHTEN BOLTS
  - REMOVE TEMPORARY MECHANISM (INCLUDING TEMP WELDS OF EXISTING GUSSET PLATE TO EXISTING FLOOR BEAM AND BOTTOM CHORD) AND TOUCH UP GALVANIZING AND METALIZING

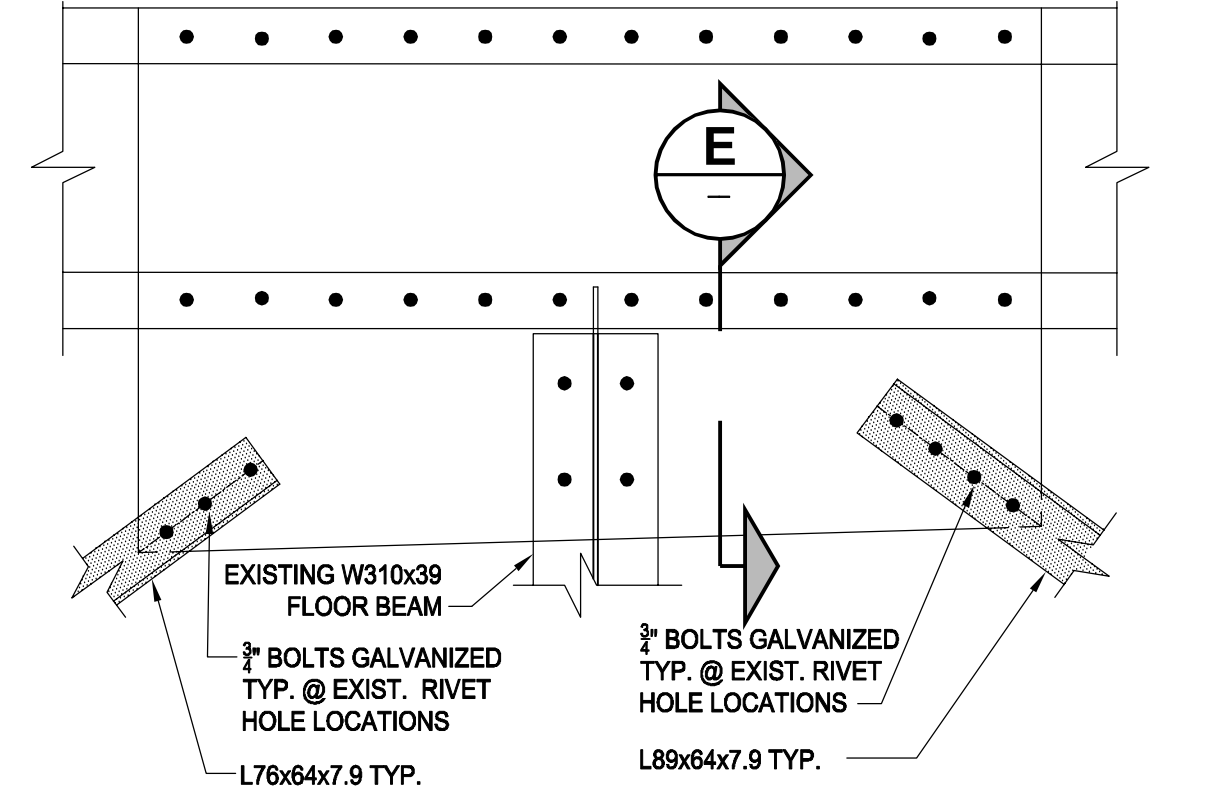


**DETAIL 8**  
SCALE 1:10

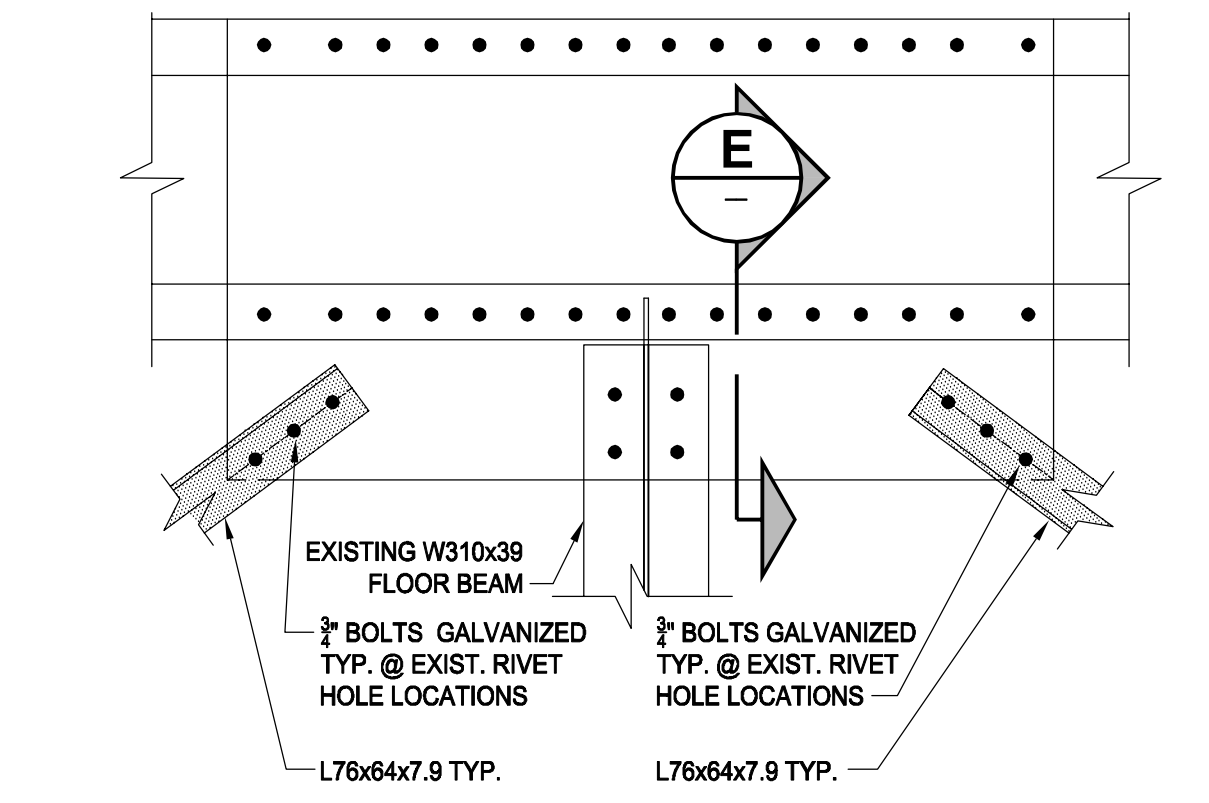


**DETAIL 9**  
SCALE 1:10

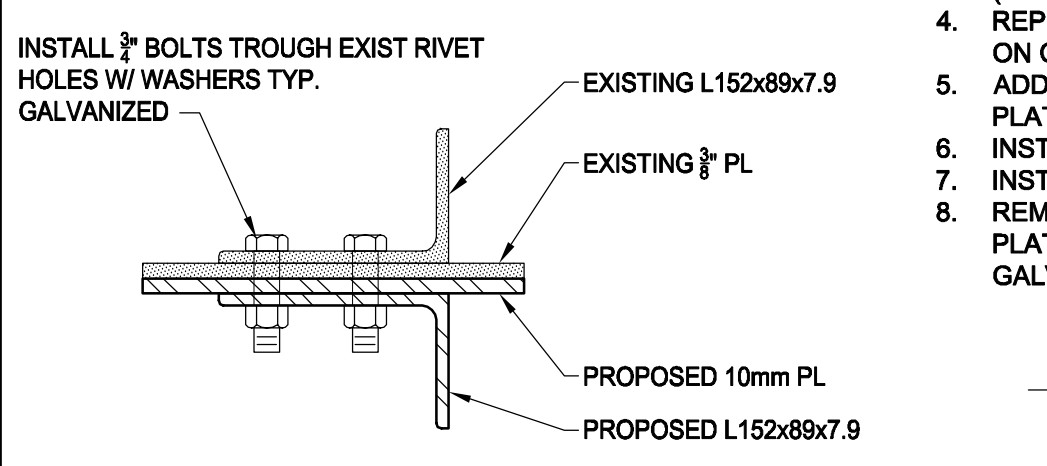
- NOTES FOR DETAILS 8, 9, 10 AND 11:**
- CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO SITE WORK, INCLUDING LOCATIONS OF ALL RIVET HOLES, PLATE DIMENSIONS, EDGE DISTANCE ETC.
  - REPLACE EXISTING RIVETS WITH BLACK A325 BOLTS FOR HORIZ DIAGONAL MEMBERS ONLY PRIOR TO ZINC METALIZING (1 RIVET AT A TIME)
  - REPLACE BLACK A325 BOLTS WITH GALVANIZED A325 BOLTS AFTER ZINC METALIZING (JUST SNUG TIGHT)
  - ADD TEMPORARY MECHANISM TO KEEP BOLTS IN PLACE AND EXISTING GUSSET PLATE TIGHT TO EXISTING ANGLES AND REMOVE NUTS FROM BOLTS
  - INSTALL PROPOSED ANGLES AND REINSTALL NUTS, THEN TIGHTEN BOLTS
  - REMOVE TEMPORARY MECHANISM AND TOUCH UP GALVANIZING AND METALIZING



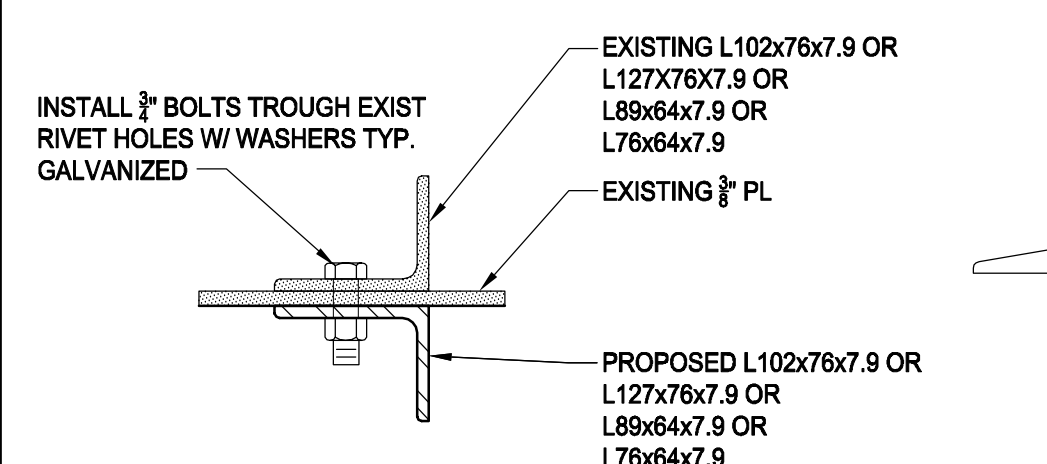
**DETAIL 10**  
SCALE 1:10



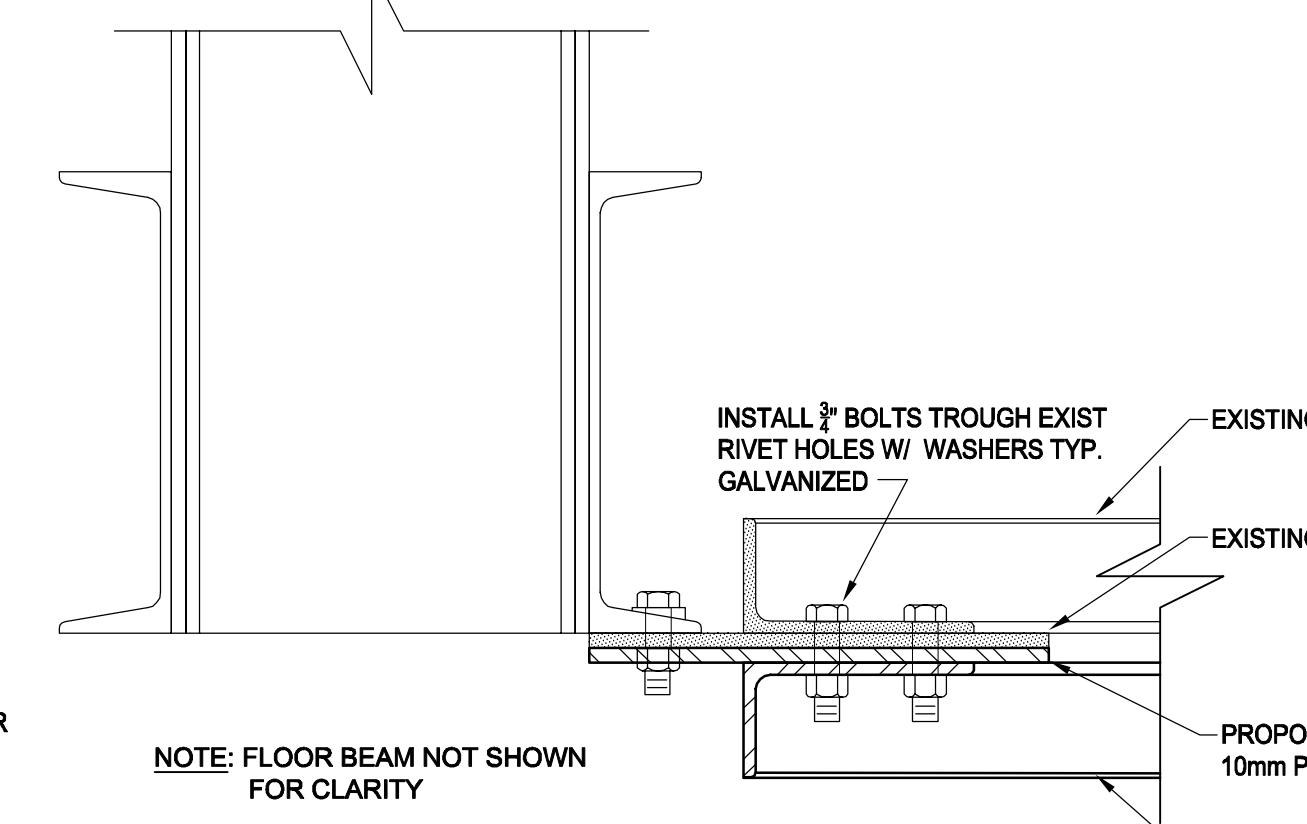
**DETAIL 11**  
SCALE 1:10



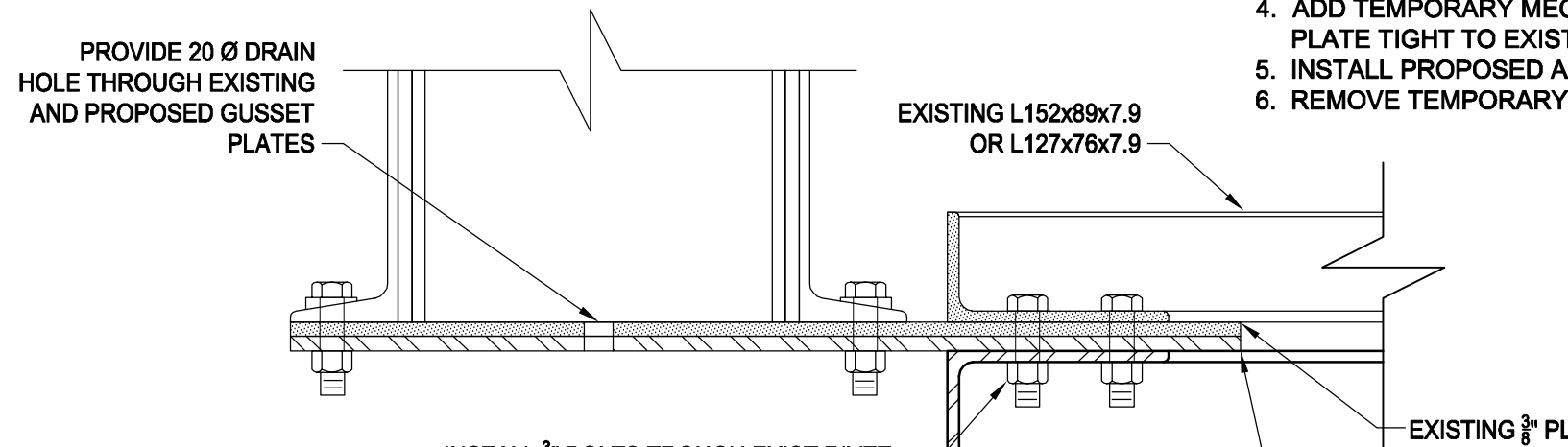
**SECTION A**  
SCALE 1:5



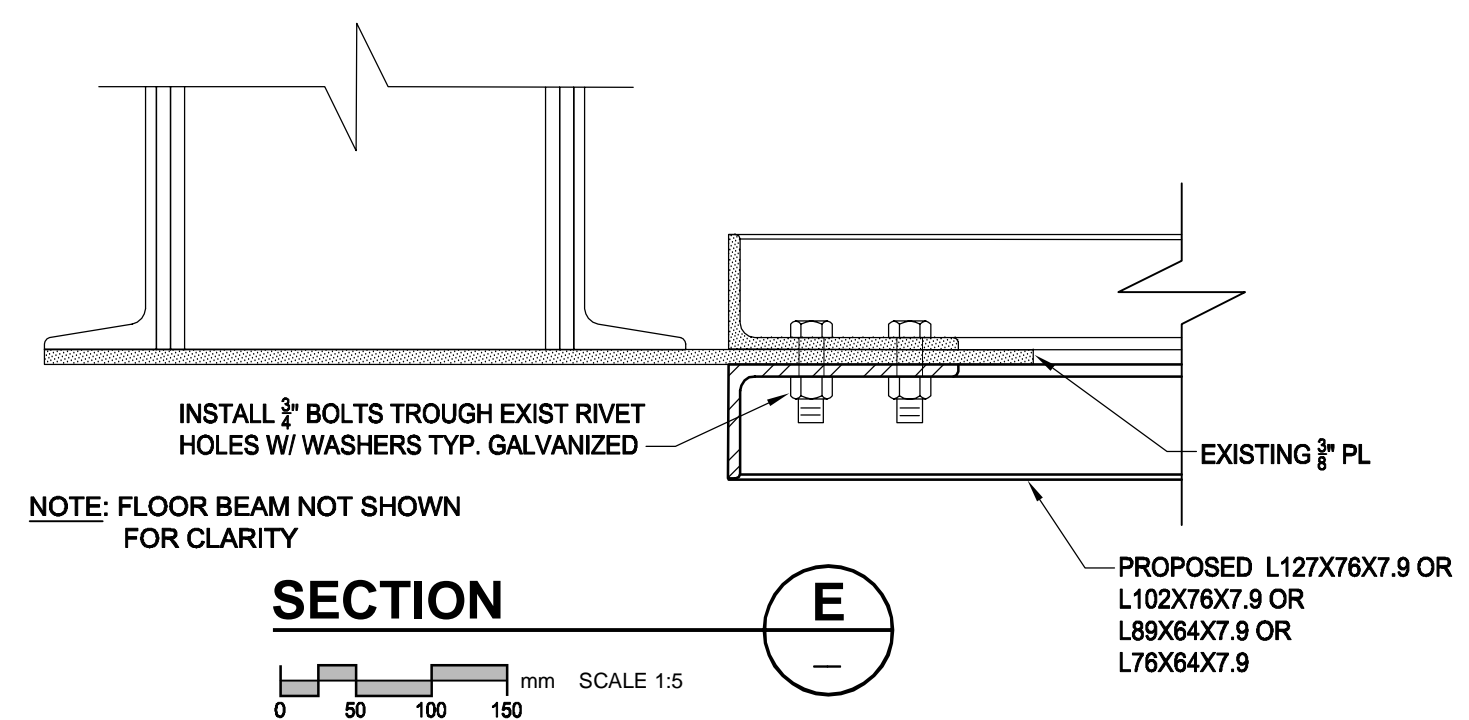
**SECTION B**  
SCALE: NTS



**SECTION C**  
SCALE 1:5



**SECTION D**  
SCALE 1:5



**SECTION E**  
SCALE 1:5

**LOCATION APPROVED UNDERGROUND STRUCTURES**

SUPR. U/G STRUCTURES	DATE
COMMITTEE	

**NOTE:** LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

0	ISSUED FOR CONSTRUCTION	11/05/09	KC
NO.	REVISIONS	YYMMDD	BY

**AECOM**

DESIGNED BY	FT/ARB	CHECKED BY	SBB/KC
DRAWN BY	DJH	APPROVED BY	EBL
HOR. SCALE	AS NOTED	RELEASED FOR CONSTRUCTION	
VERT. SCALE	AS NOTED		
DATE	May 11/11		

**PROFESSIONAL'S SEAL**

REVISION '0'  
Issued For Construction  
Sealed By:  
S. B. BISWANGER  
May 9 2011

CONSULTANT DRAWING NO.  
D265-230-02\_01-S-4004\_RX.dwg

**THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT**

**REHABILITATION / REPLACEMENT OF THE MIDTOWN FEEDERMAIN AT THE AT ASSINBOINE RIVER**

**STRUCTURAL**

REVISION '0'  
Issued For Construction  
Sealed By:  
S. B. BISWANGER  
May 9 2011

SHEET 9 OF 18  
CITY DRAWING NUMBER  
D-12235  
REV 0

BID OPPORTUNITY NO. 854-2010