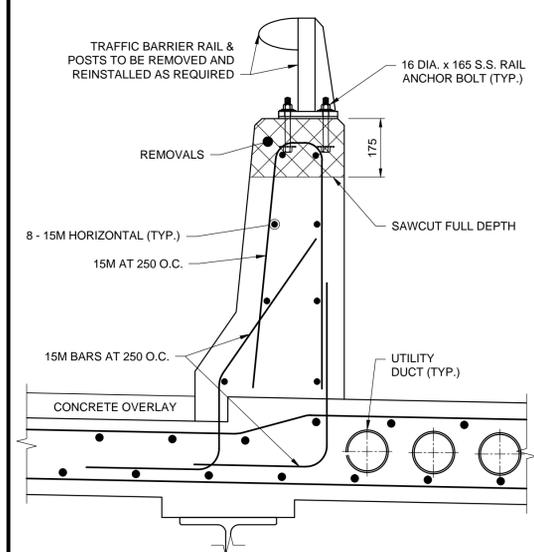
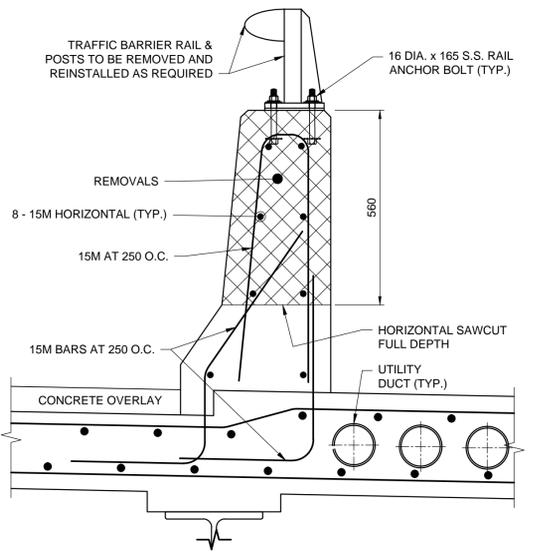


TYPICAL BARRIER REPAIR ELEVATION  
1:20

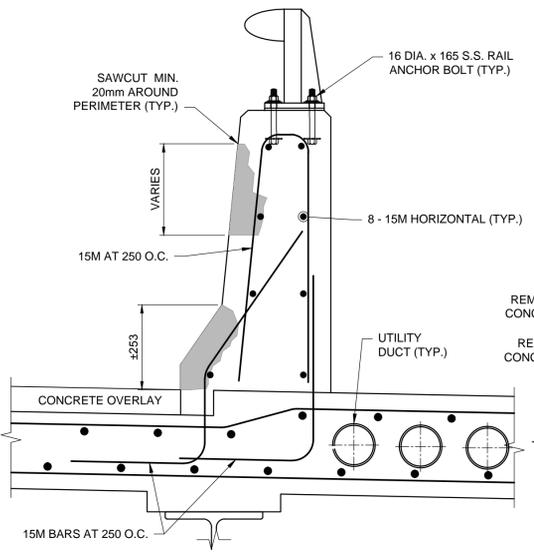
- BARRIER REPAIR METHOD (TYPE 1A)**
1. SAWCUT AND REMOVE AFFECTED PORTION OF BARRIER.
  2. INSTALL 15M U-BAR DOWELS WITH MIN. 200mm EMBEDMENT.
  3. PLACE NEW REINFORCING AS SHOWN.
  4. PLACE NEW BARRIER RAIL POST ANCHOR BOLTS.
  5. APPLY BONDING AGENT TO SURFACES IN CONTACT WITH REPAIR CONCRETE.
  6. PLACE REPAIR CONCRETE.
- BARRIER REPAIR METHOD (TYPE 1B)**
1. SAWCUT AND REMOVE AFFECTED PORTION OF BARRIER.
  2. INSTALL 15M DOWELS WITH MIN. 300mm EMBEDMENT.
  3. PLACE NEW REINFORCING AS SHOWN.
  4. PLACE NEW BARRIER RAIL POST ANCHOR BOLTS.
  5. APPLY BONDING AGENT TO SURFACES IN CONTACT WITH REPAIR CONCRETE.
  6. PLACE REPAIR CONCRETE.
- BARRIER REPAIR METHOD (TYPE 2)**
1. MIN. 20mm SAWCUT AROUND PERIMETER OF REPAIR AREA.
  2. REMOVE ALL FRACTURED OR DETERIORATED CONCRETE TO:
    - 2.1. SOUND CONCRETE.
    - 2.1. MIN. 30mm DEEP, AND
    - 2.2. IF REMOVALS EXCEED HALF DEPTH OF REINFORCING BARS, THEN CONTINUE MIN. 20mm PAST REINFORCING BARS.
  3. CLEAN CONCRETE REPAIR AREA AS SPECIFIED AND APPLY BONDING AGENT.
  4. PLACE REPAIR MATERIAL.



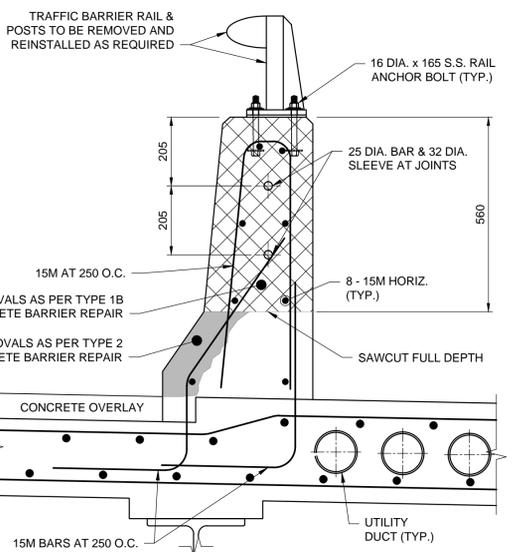
EXISTING



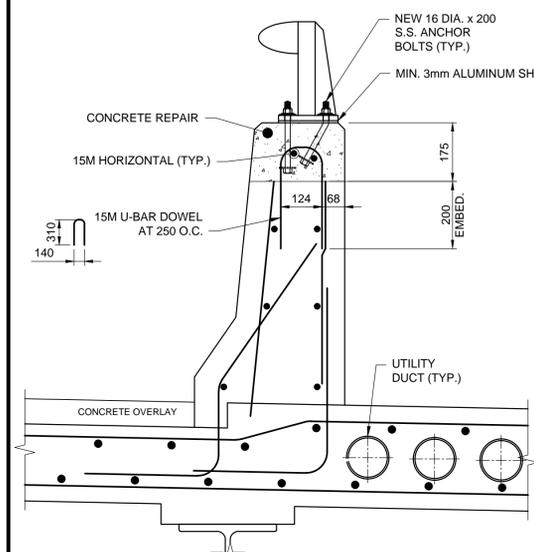
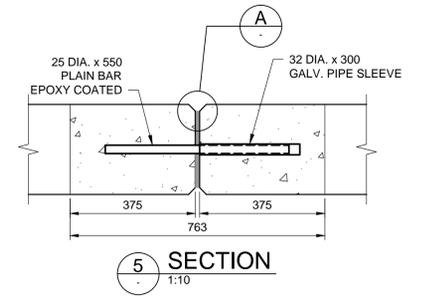
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3 BARRIER REPAIR TYPE 2  
1:10

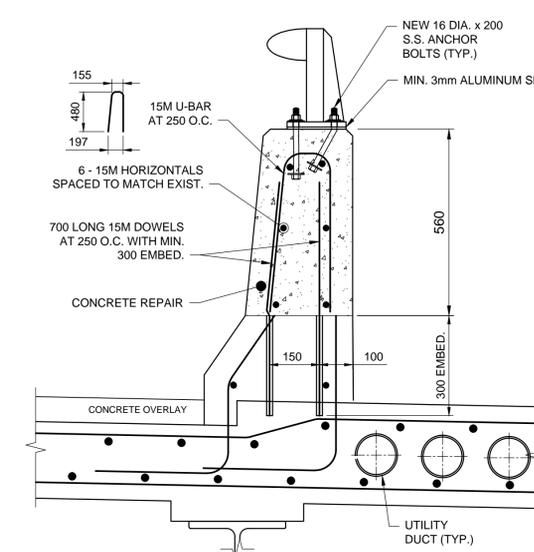


EXISTING



PROPOSED

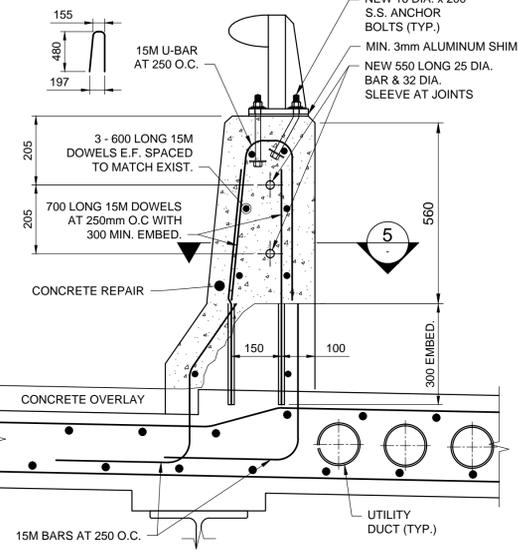
1 BARRIER REPAIR TYPE 1A  
1:10



PROPOSED

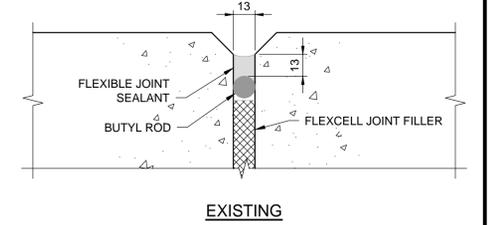
2 BARRIER REPAIR TYPE 1B  
1:10

- NOTES:
1. DIMENSIONS SHOWN OF EXISTING BARRIERS ARE APPROXIMATE.
  2. DIMENSIONS SHOWN OF REPAIR AREAS ARE APPROXIMATE. LAYOUT ACTUAL REPAIR AREAS WITH CONTRACT ADMINISTRATOR ON SITE.
  3. SEE SPECIFICATION FOR REPAIR PREPARATION & CONCRETE REPLACEMENT DETAILS.

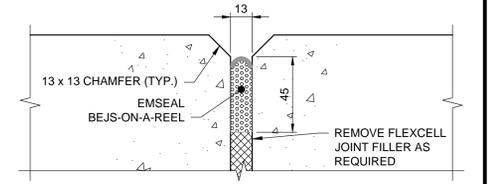


PROPOSED

4 BARRIER REPAIR AT JOINT  
1:10



EXISTING



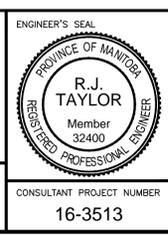
PROPOSED

A CONCRETE BARRIER JOINT REPAIR  
1:2

METRIC  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



B.M. ELEV.	DESIGNED BY	DRA
	DRAWN BY	KB
	CHECKED BY	RJT
	APPROVED BY	SSR
	HOR. SCALE	-
	VERTICAL	-
0 ISSUED FOR TENDER	6/21/16	RJT
NO. REVISIONS	DATE	BY
	DATE	JUNE 21, 2016



**THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT**

2016 BRIDGE MAINTENANCE - ST. JAMES SOUTHBOUND BRIDGE REPAIRS

ST. JAMES SB BARRIER REPAIR DETAILS

CITY DRAWING NUMBER B101-16-03  
SHEET 03 OF 11  
CONSULTANT DRAWING NUMBER --

16-3513