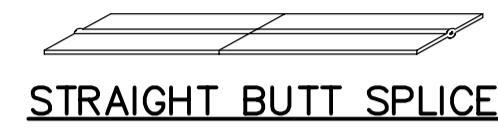
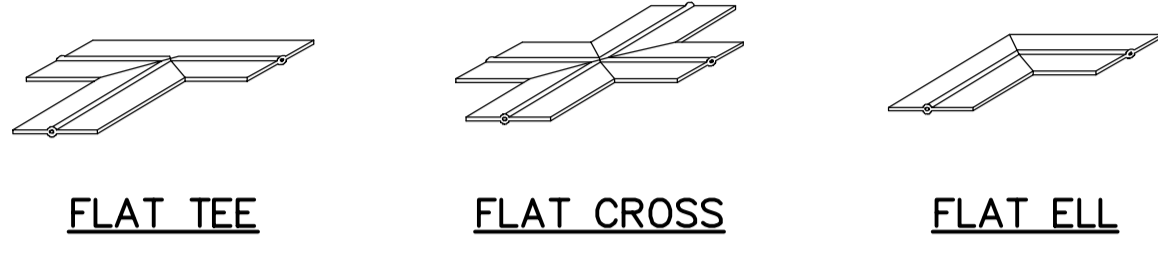


**VERTICAL TEE**      **VERTICAL CROSS**      **VERTICAL ELL**



**STRAIGHT BUTT SPLICE**

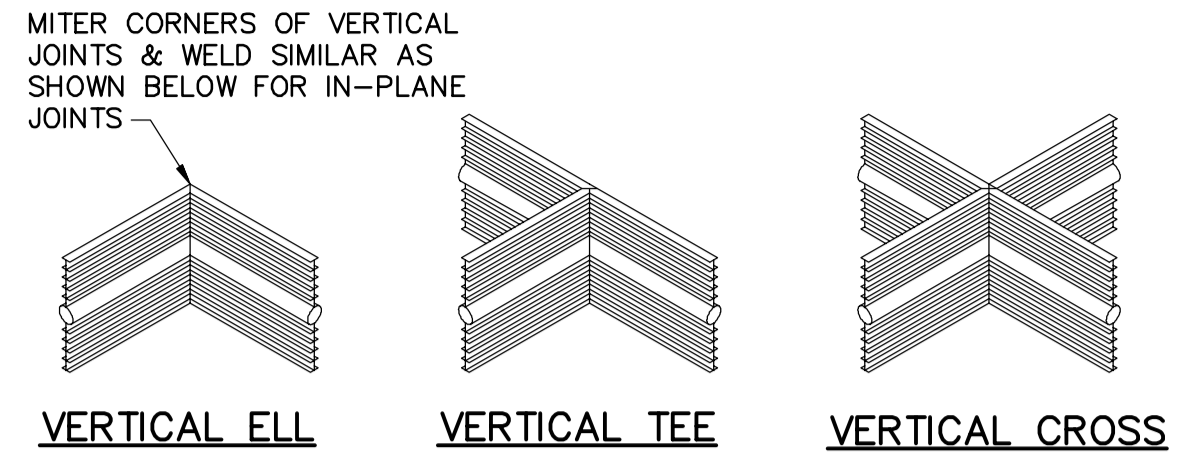


**FLAT TEE**      **FLAT CROSS**      **FLAT ELL**

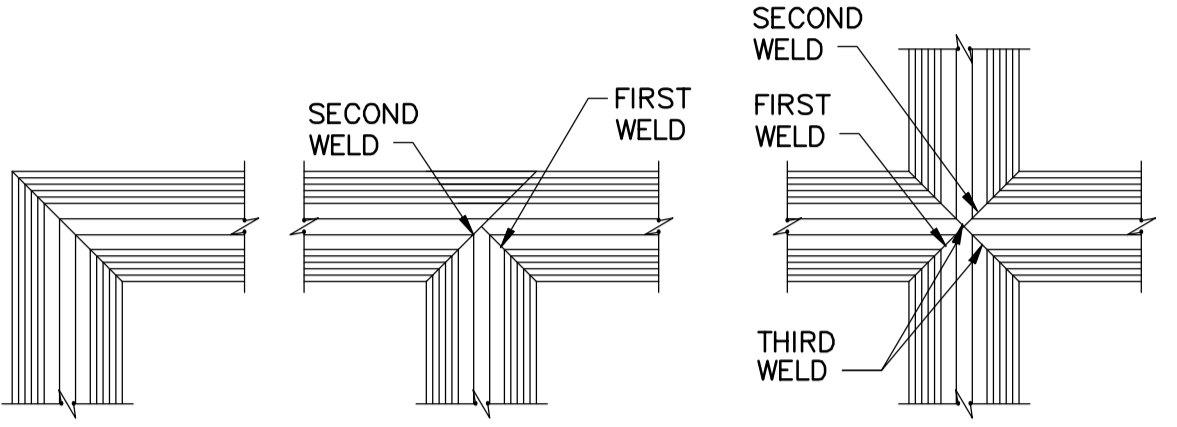
**NOTES:**

1. JOIN WATERSTOP TO FORM A CONTINUOUS UNBROKEN WATERSEAL.
2. ASSEMBLE 'TEES', 'CROSSES', AND 'ELLS' ACCURATELY.
3. WELD STRAIGHT BUTT SPLICE WATERSTOP IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
4. WELD TO PENETRATE FULL DEPTH OF THE WATERSTOP MATERIAL AT SPLICES.

**1** PVC WATERSTOP  
N.T.S.



**VERTICAL ELL**      **VERTICAL TEE**      **VERTICAL CROSS**

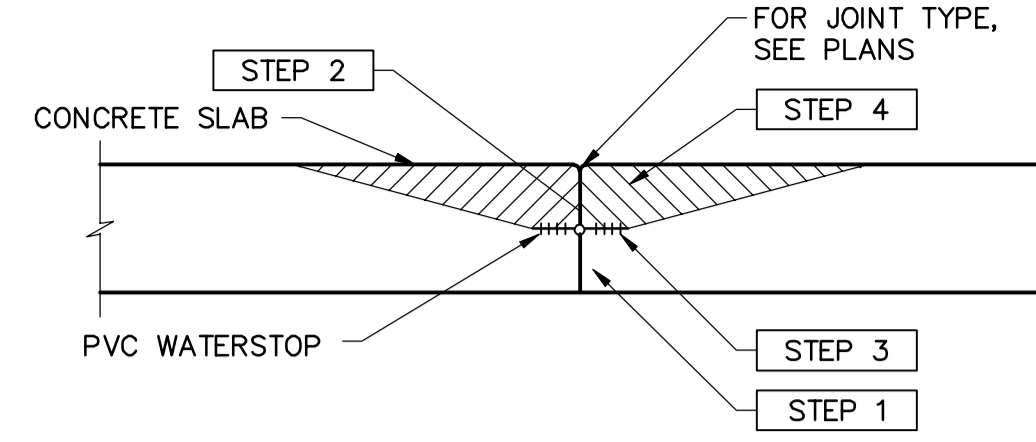


**FLAT ELL**      **FLAT TEE**      **FLAT CROSS**

**NOTE:**

ALL WELDS SHOWN SHALL BE BY WATERSTOP MANUFACTURER (SEE SPECIFICATIONS)

**2** WATERSTOP JOINTS  
N.T.S.



**NOTES:**

PLACEMENT SEQUENCE SHOWN REQUIRED ON BOTH SIDES OF JOINTS, IN ALL CONCRETE SLAB AND FOOTING POURS WITH HORIZONTALLY PLACED PLASTIC WATERSTOPS.

**STEP 1**

PLACE CONCRETE BELOW WATERSTOP FIRST, REMOVE ALL AIR VOIDS BY VIBRATING THOROUGHLY.

**STEP 2**

TO CONFIRM THERE ARE NO AIR VOIDS, LIFT WATERSTOP. A CONTINUOUS IMPRESSION OF THE WATERSTOP, INCLUDING EDGE OF BULB, SHOULD BE VISIBLE IN THE FRESH CONCRETE. CONTINUE THIS PROCEDURE ALONG THE ENTIRE POURED JOINT, END TO END. IF A CONTINUOUS IMPRESSION IS CONFIRMED, PROCEED WITH STEP 4. IF A VOID LARGER THAN 6mm IN DIAMETER IS PRESENT ANYWHERE IN THE WATERSTOP IMPRESSION, PROCEED WITH STEP 3.

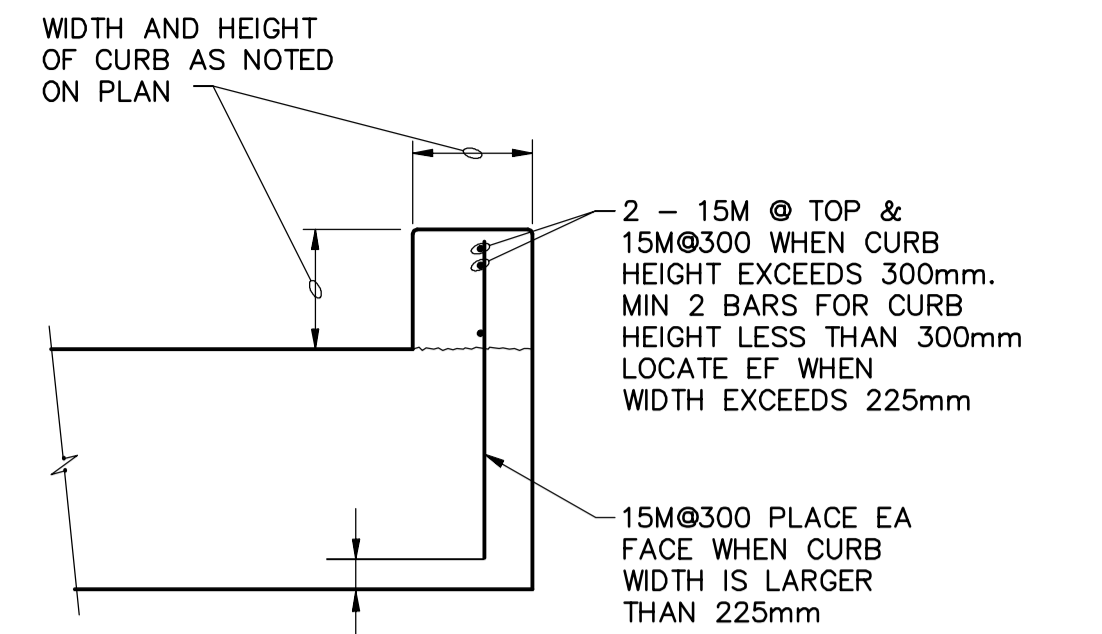
**STEP 3**

IF A VOID LARGER THAN 6mm IN DIAMETER IS PRESENT IN THE WATERSTOP IMPRESSION, ADDITIONAL CONCRETE SHALL BE PLACED UNDER THE WATERSTOP, VIBRATED, AND STEP 2 REPEATED.

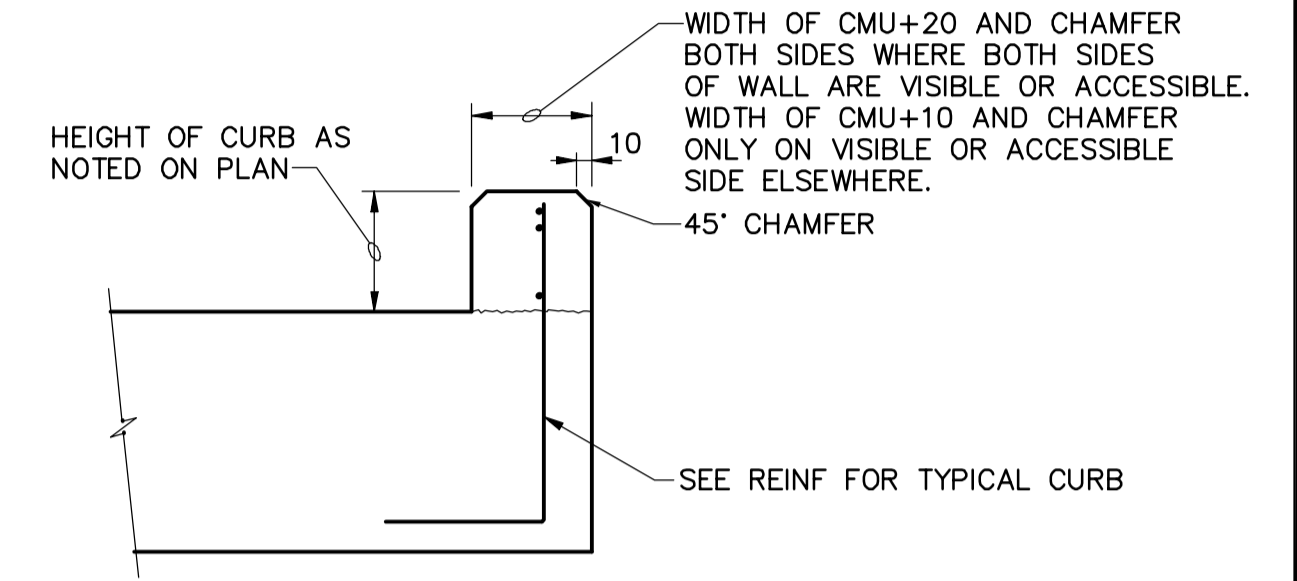
**STEP 4**

FINISH PLACING CONCRETE ABOVE THE WATERSTOP TO TOP OF SLAB.

**3** CONCRETE PLACEMENT SEQUENCE  
N.T.S.

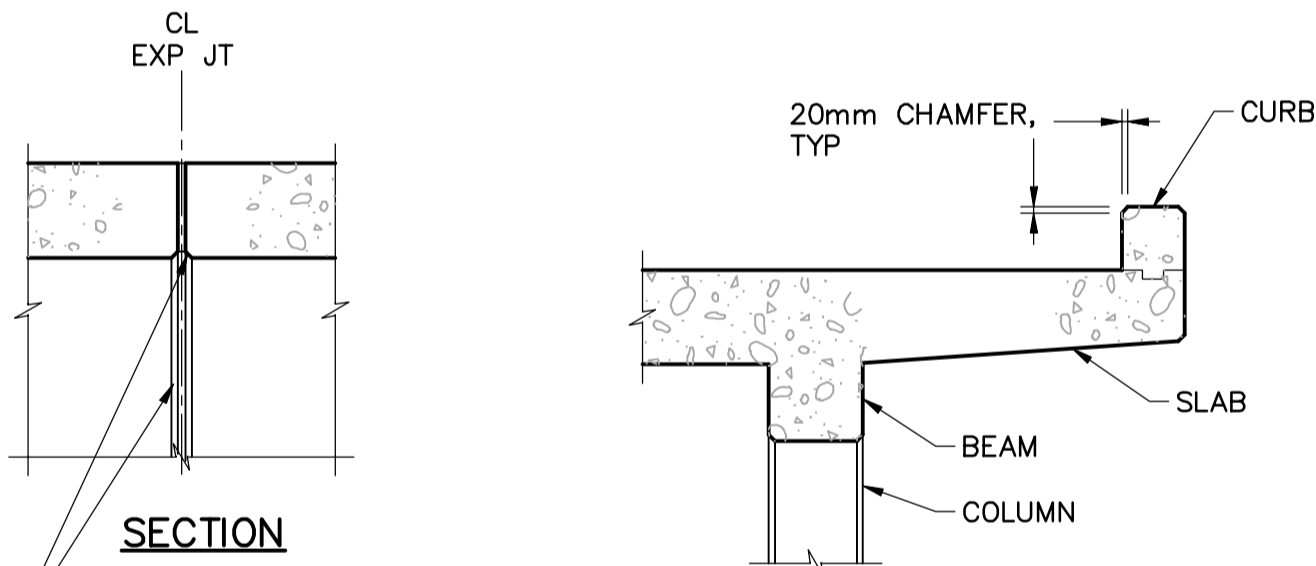


**TYPICAL CURB**



**CURB FOR CMU WALLS**

**4** CONCRETE CURB  
N.T.S.



**SECTION**

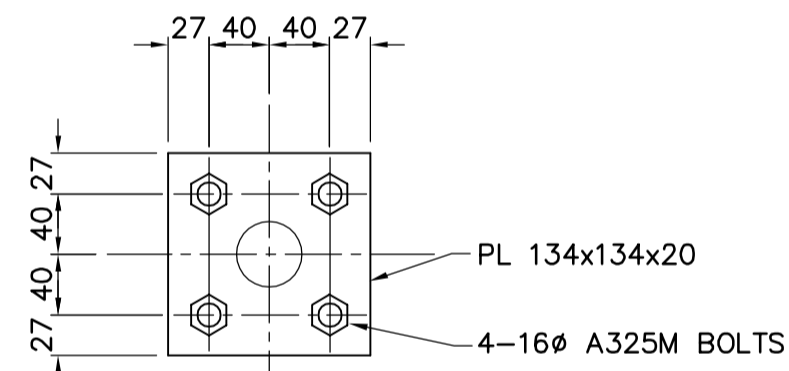
PROVIDE CHAMFER AT EXPANSION JOINT AT SOFFIT OF SLABS AND ON WALLS IN DRY AREAS

**SECTION**

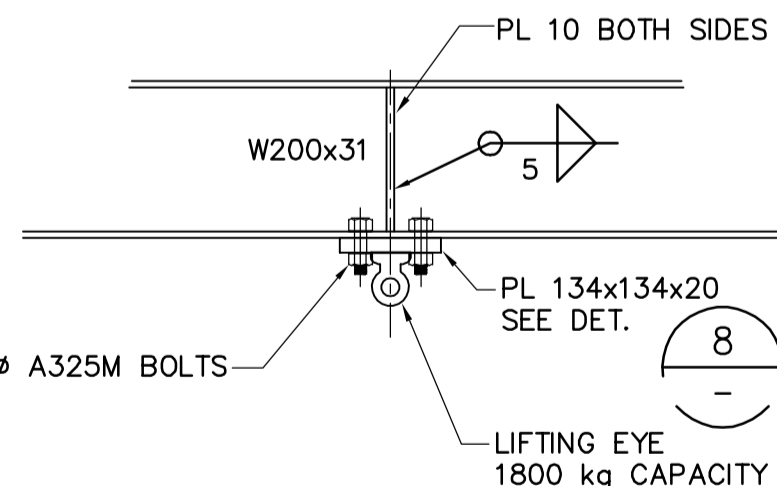
**NOTE:**

PROVIDE CHAMFER ALONG EXPOSED EDGES ON CONCRETE SLABS, BEAMS, CURBS, COLUMNS, WALL OPENINGS AND SIMILAR ITEMS UNLESS OTHERWISE NOTED OR DIRECTED.

**5** CHAMFERS  
N.T.S.



**8** DETAIL  
1:5

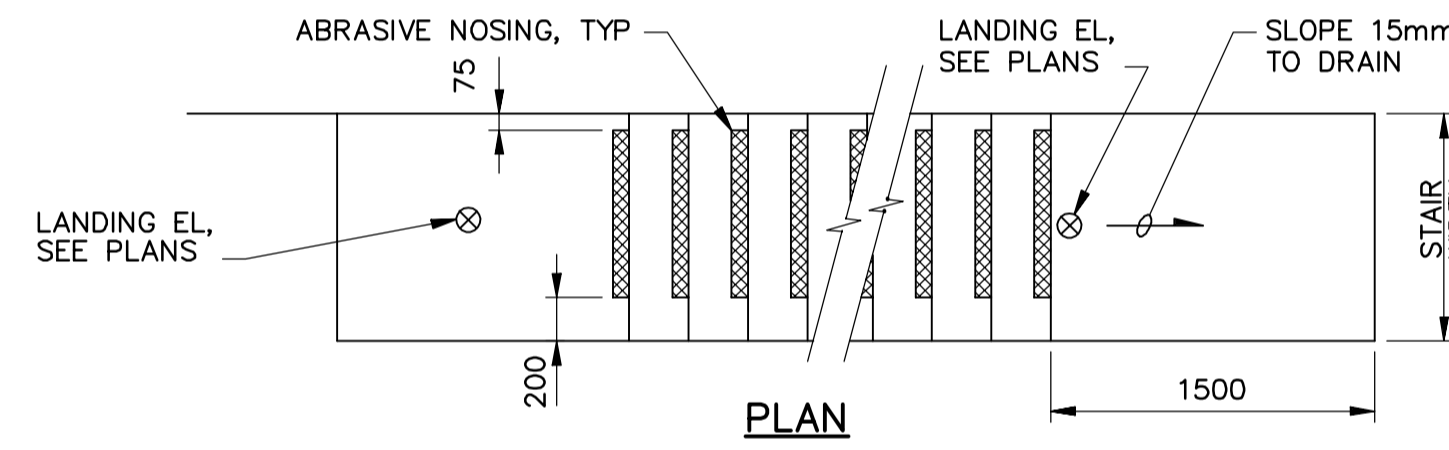


**NOTE:**

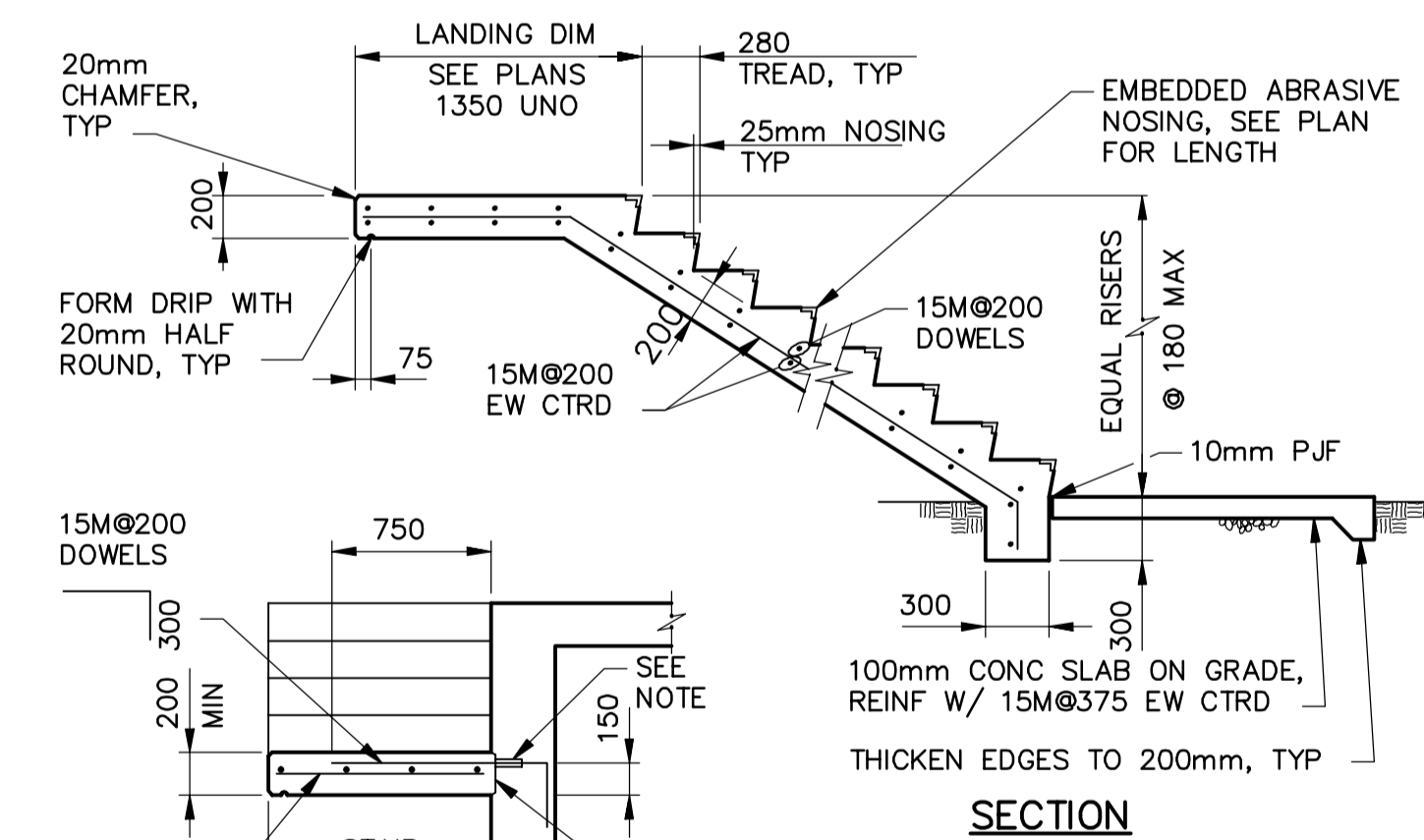
1. FIELD VERIFY LOCATIONS PRIOR TO FABRICATION. COORDINATE W/ MECHANICAL SUCONTRACTOR.

**LIFTING EYE SUPPORT**

**6** LIFTING EYE  
1:10



**PLAN**



**SECTION**

**NOTE:**

CONTRACTOR'S OPTION TO USE THREADED REINFORCING WITH MECHANICAL THREADED CONNECTORS FOR FORMING.

**7** CONCRETE STAIR - WITHOUT CLOSURE WALL  
N.T.S.



Certificate of Authorization  
CH2M HILL Canada Ltd.  
No. 1441 Expiry: April 30, 2007

|                      |          |                               |               |
|----------------------|----------|-------------------------------|---------------|
| B.M. ELEV.           |          |                               |               |
| DESIGNED BY          | MH       | CHECKED BY                    | AP            |
| DRAWN BY             | CR       | APPROVED BY                   | AHL           |
| SCALE:               | NTS      | RELEASED FOR CONSTRUCTION BY: | R. SOROKOWSKI |
| 00 ISSUED FOR TENDER | 07/01/31 | DATE                          | 2006/08/21    |
| NO. REVISIONS        | DATE     | BY                            | DATE          |



DESIGNED BY: MH

DRAWN BY: CR

SCALE: NTS

00 ISSUED FOR TENDER

NO. REVISIONS



CHECKED BY: AP

APPROVED BY: AHL

RELEASED FOR CONSTRUCTION BY: R. SOROKOWSKI

DATE: 2007/01/31

DATE: 2006/08/21

ENGINEER'S SEAL

ORIGINAL SIGNED BY

D. KRUGER

2007/01/31

CONSULTANT DRAWING NO.

WJ-S0453



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

WATER TREATMENT PLANT  
SODIUM HYPOCHLORITE BUILDING  
SODIUM HYPOCHLORITE AND CHEMICAL STORAGE BUILDINGS

STRUCTURAL  
SODIUM HYPOCHLORITE BUILDING  
STANDARD DETAILS

CITY FILE NUMBER

SHEET OF

CITY DRAWING NUMBER

1-0601J-A-S0453-001-000