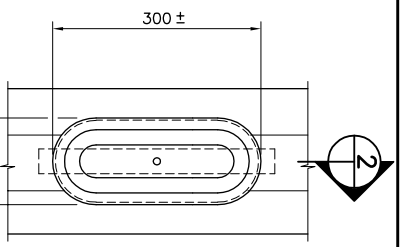


**STRUCTURAL STEEL REPAIRS BY WELDING**  
N.T.S.

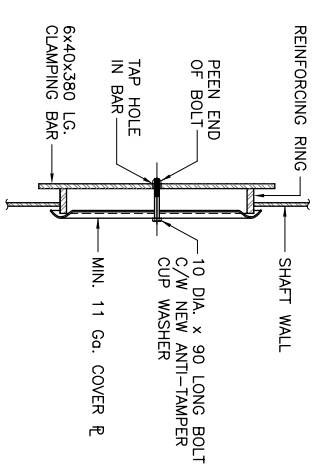
STRUCTURAL STEEL REPAIR SCHEDULE	
STRUCT. No.	R DIMENSIONS (mm)

**NONE REQUIRED**

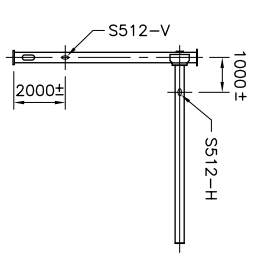
- NOTES:
1. REPAIR DENTS BY WELDING P AS SHOWN
  2. PLATE DIMENSIONS SHOWN ARE MINIMUM REQUIRED. DIMENSIONS MAY BE INCREASED TO REPAIR TWO OR MORE DENTS IN CLOSE PROXIMITY BY A SINGLE PLATE
  3. CENTER PLATE OVER DENT AND ORIENTATE IT TO COVER MAXIMUM DAMAGED AREA
  4. BEND PLATE TO SUIT SHAPE OF MEMBER BEFORE WELDING



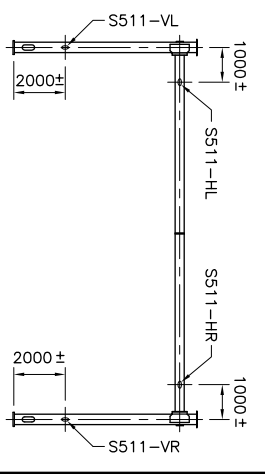
**HANDHOLE COVER DETAIL**  
N.T.S. (INCIDENTAL TO FULL REFURBISHMENT)



**SECTION 2**

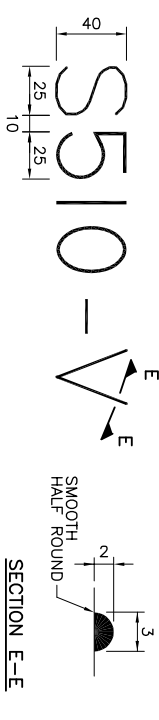


**CANTILEVER STRUCTURES**  
SHOWN FOR SS12  
TYPICAL FOR ALL CANTILEVER STRUCTURES



**BRIDGE TYPE STRUCTURES**  
SHOWN FOR SS11  
TYPICAL FOR ALL BRIDGE SIGN STRUCTURES

**LOCATION OF STRUCTURE IDENTIFICATION NUMBER**  
(ON FRONT FACE OF ALL MEMBERS) (INCIDENTAL TO FULL REFURBISHMENT)



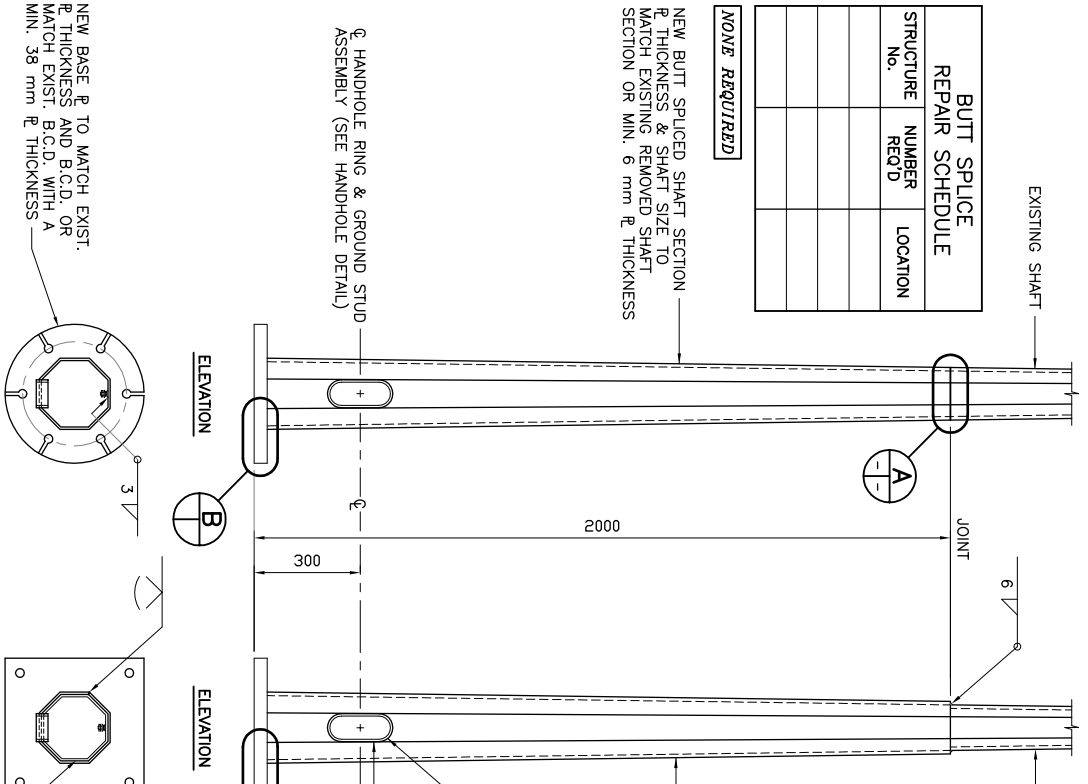
**TYPICAL STRUCTURE IDENTIFICATION NUMBER SIZE**

- NOTES:
1. PROVIDE 'RAISED' IDENTIFICATION NO. WITH WELDING ELECTRODE FOR ALL SIGN STRUCTURES
  2. GRIND ALL SHARP POINTS AND EDGES

BUTT SPUCE REPAIR SCHEDULE		
STRUCTURE No.	NUMBER REQ'D	LOCATION

**NONE REQUIRED**

NEW BUTT SPUCED SHAFT SECTION R THICKNESS & SHAFT SIZE TO MATCH EXISTING REMOVED SHAFT SECTION OR MIN. 6 mm R THICKNESS

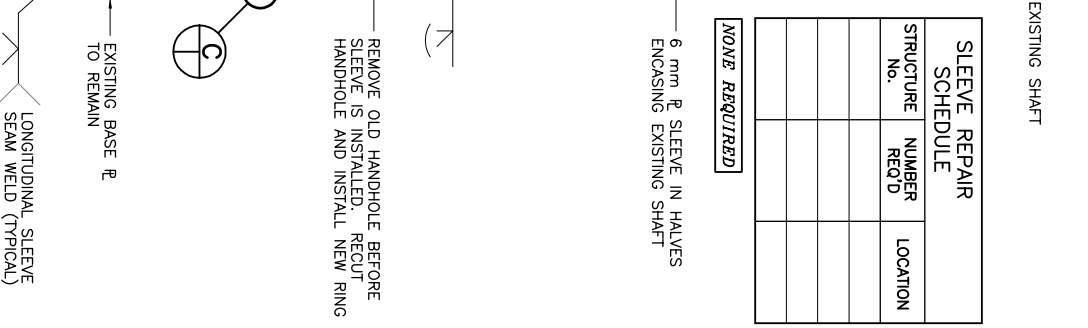


SLEEVE REPAIR SCHEDULE		
STRUCTURE No.	NUMBER REQ'D	LOCATION

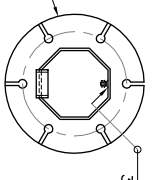
**NONE REQUIRED**

6 mm R SLEEVE IN HALVES ENCASES EXISTING SHAFT

REMOVE OLD HANDHOLE BEFORE SLEEVE IS INSTALLED. RECUT HANDHOLE AND INSTALL NEW RING



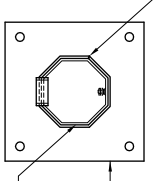
**PLAN**



**BUTT SPUCE REPAIR**

**VERTICAL MEMBER REPAIRS**  
N.T.S.

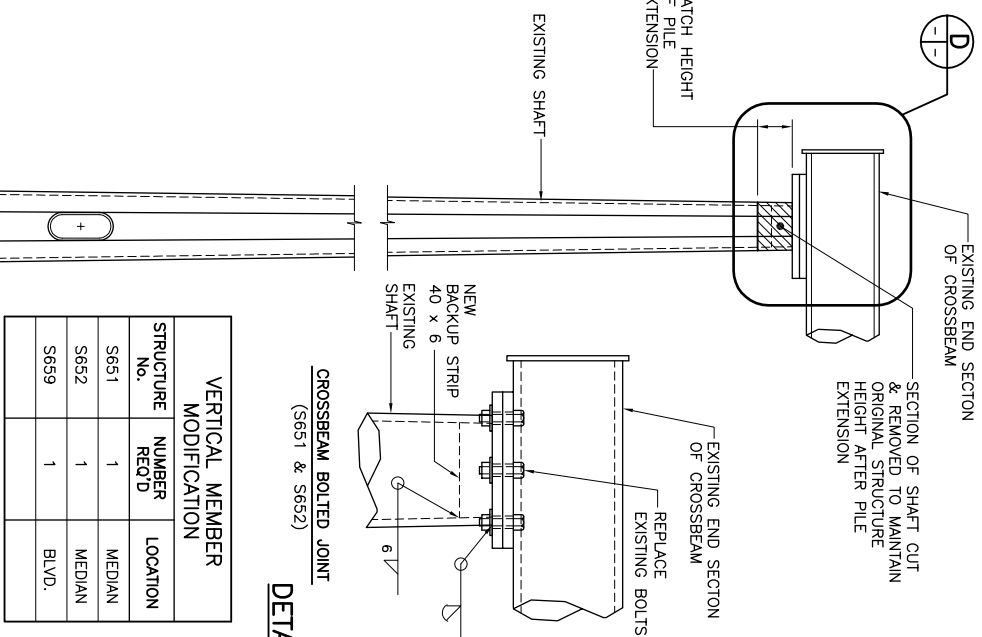
**PLAN**



**SLEEVE REPAIR**

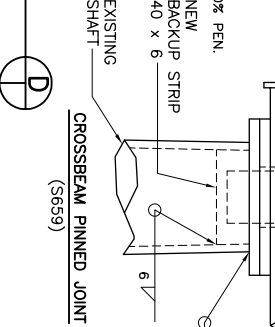
NEW BASE R TO MATCH EXIST. R THICKNESS AND B.C.D. OR MATCH EXIST. B.C.D. WITH A MIN. 38 mm R THICKNESS

**VERTICAL MEMBER MODIFICATION**  
N.T.S.

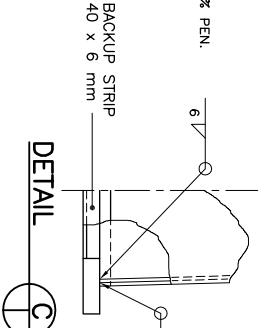


VERTICAL MEMBER MODIFICATION		
STRUCTURE No.	NUMBER REQ'D	LOCATION
S651	1	MEDIAN
S652	1	MEDIAN
S659	1	BLVD.

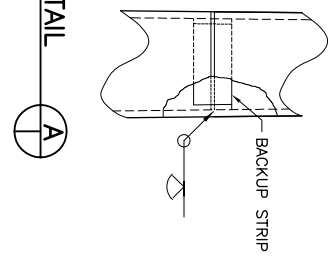
**DETAIL D**



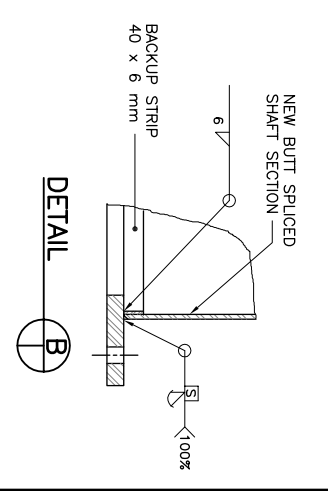
**DETAIL D**



**DETAIL A**



**DETAIL B**



NO.	REVISIONS	DATE	BY

DESIGNED BY: S.S.R.  
DRAWN BY: N.B.G.  
CHECKED BY: S.S.R.  
APPROVED BY: S.S.R.  
SCALE: HORIZ. AS SHOWN  
VERT. 1/4"  
DATE: JULY 2004  
AUTHORISED BY: [Signature]  
DATE: [Signature]

**DILLON CONSULTING**

ENGINEER'S SEAL  
S.S. RIHAL  
REGISTERED PROFESSIONAL ENGINEER

**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT

Winipeg  
OVERHEAD SIGN SUPPORT  
STRUCTURE MAINTENANCE WORKS  
2004 PROGRAM

MISCELLANEOUS DETAILS  
SHEET 2 OF 3

CITY DRAWING NUMBER  
OHSS-04-05  
SHEET 5 OF 7