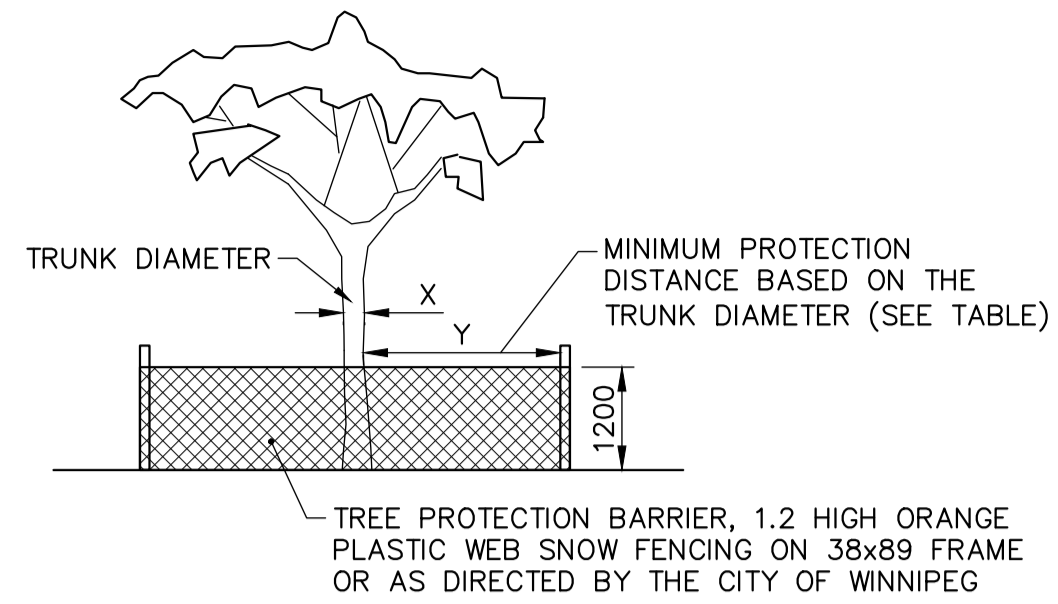
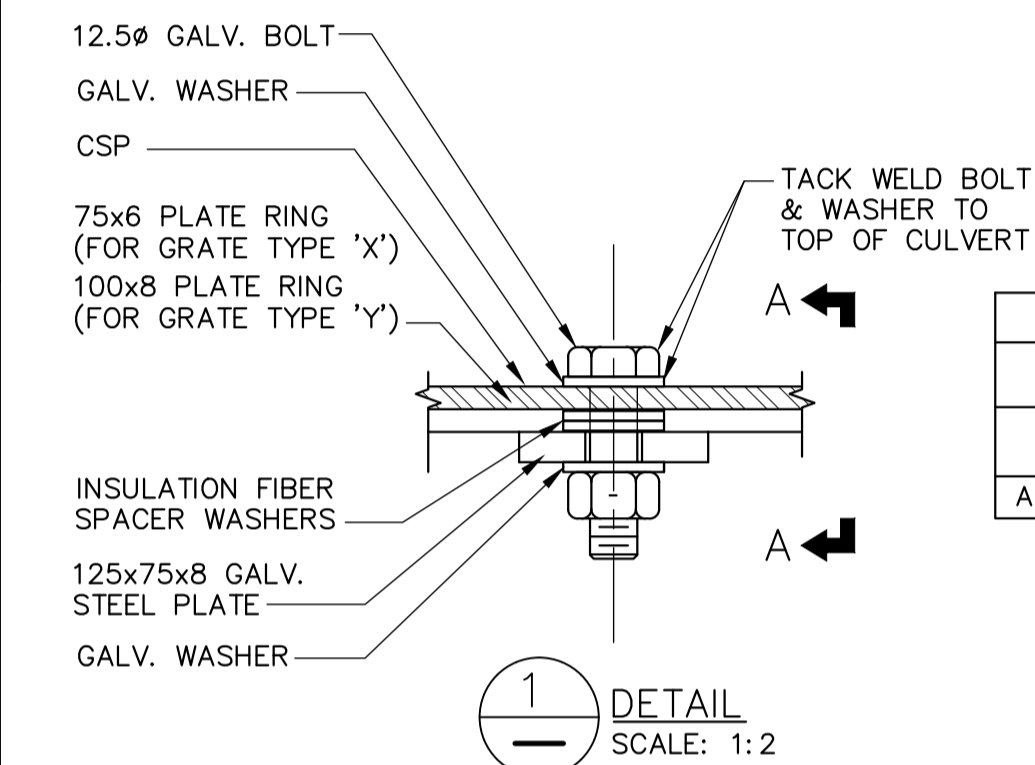
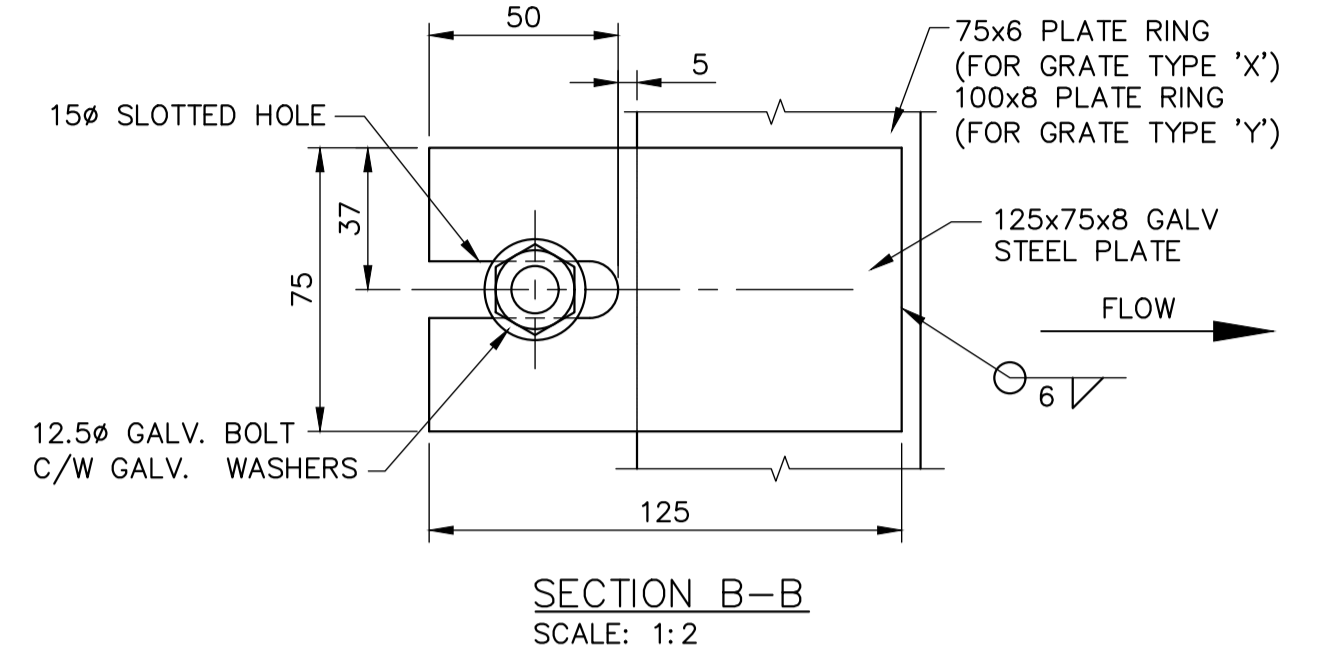
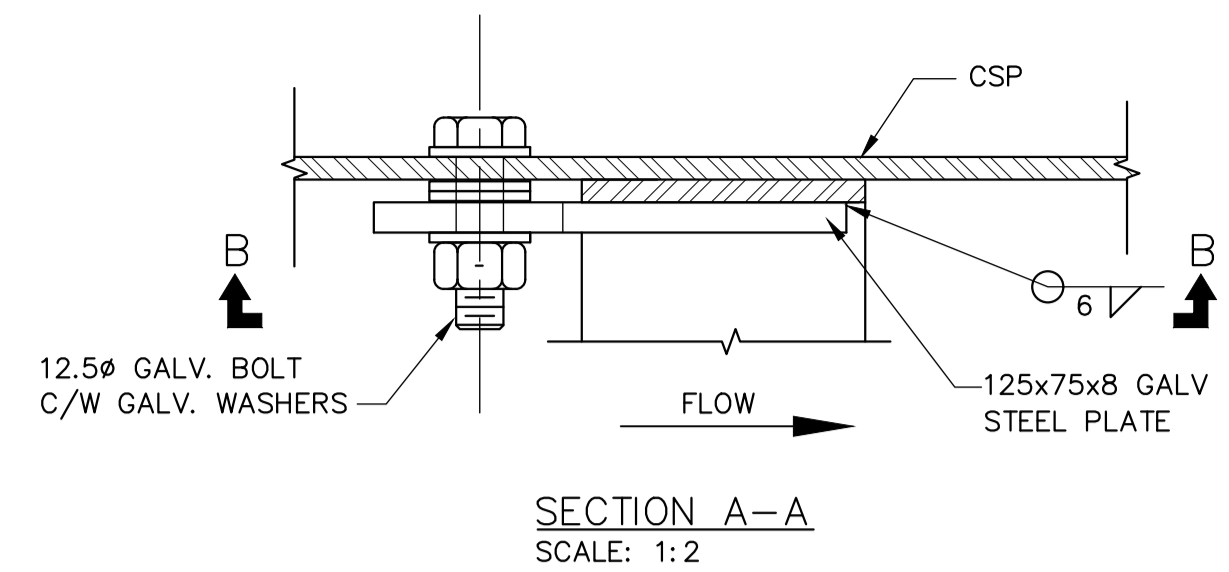
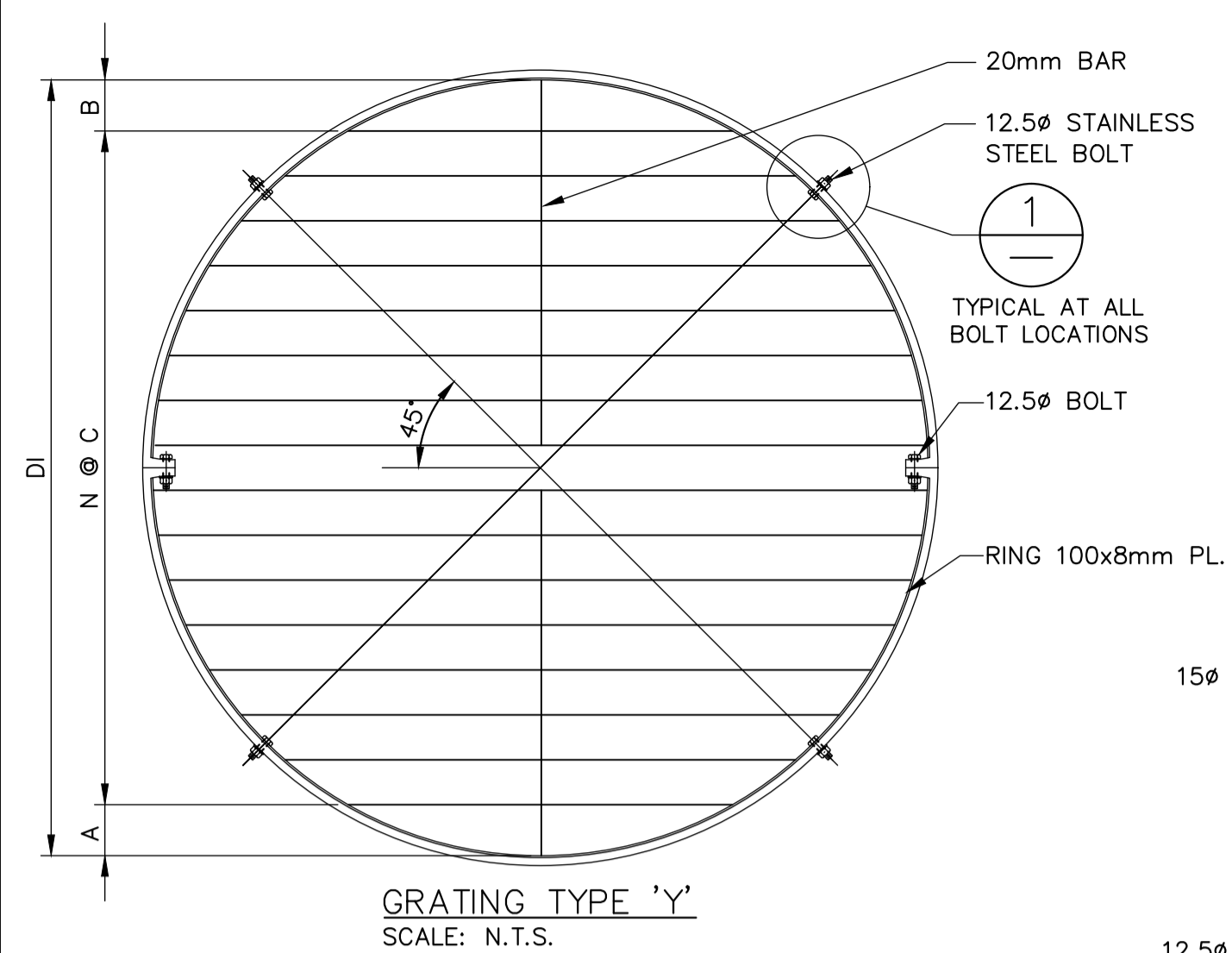


TYPICAL DECIDUOUS TREE PLANTING DETAIL
SCALE: N.T.S.



TREE PROTECTION DETAIL
SCALE: N.T.S.

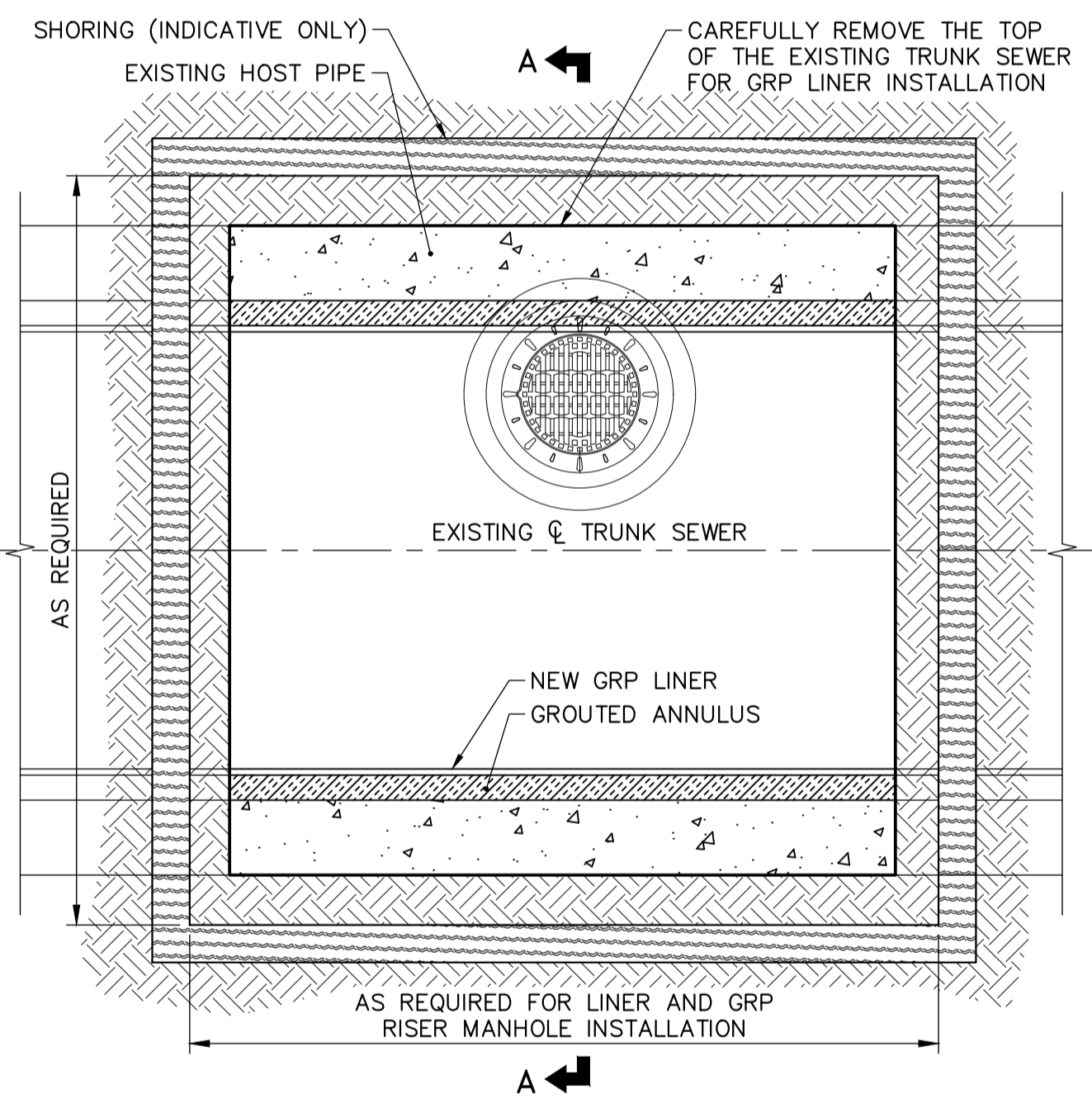
TREE PROTECTION ZONES	
X=TRUNK DIAMETER	Y=MINIMUM PROTECTION DISTANCE REQUIRED
< 100	2.0
110 - 400	2.4
410 - 500	3.0
510 - 600	3.8
610 - 700	4.2
710 - 800	4.8
810 - 900	5.4
910 - 1000	6.0



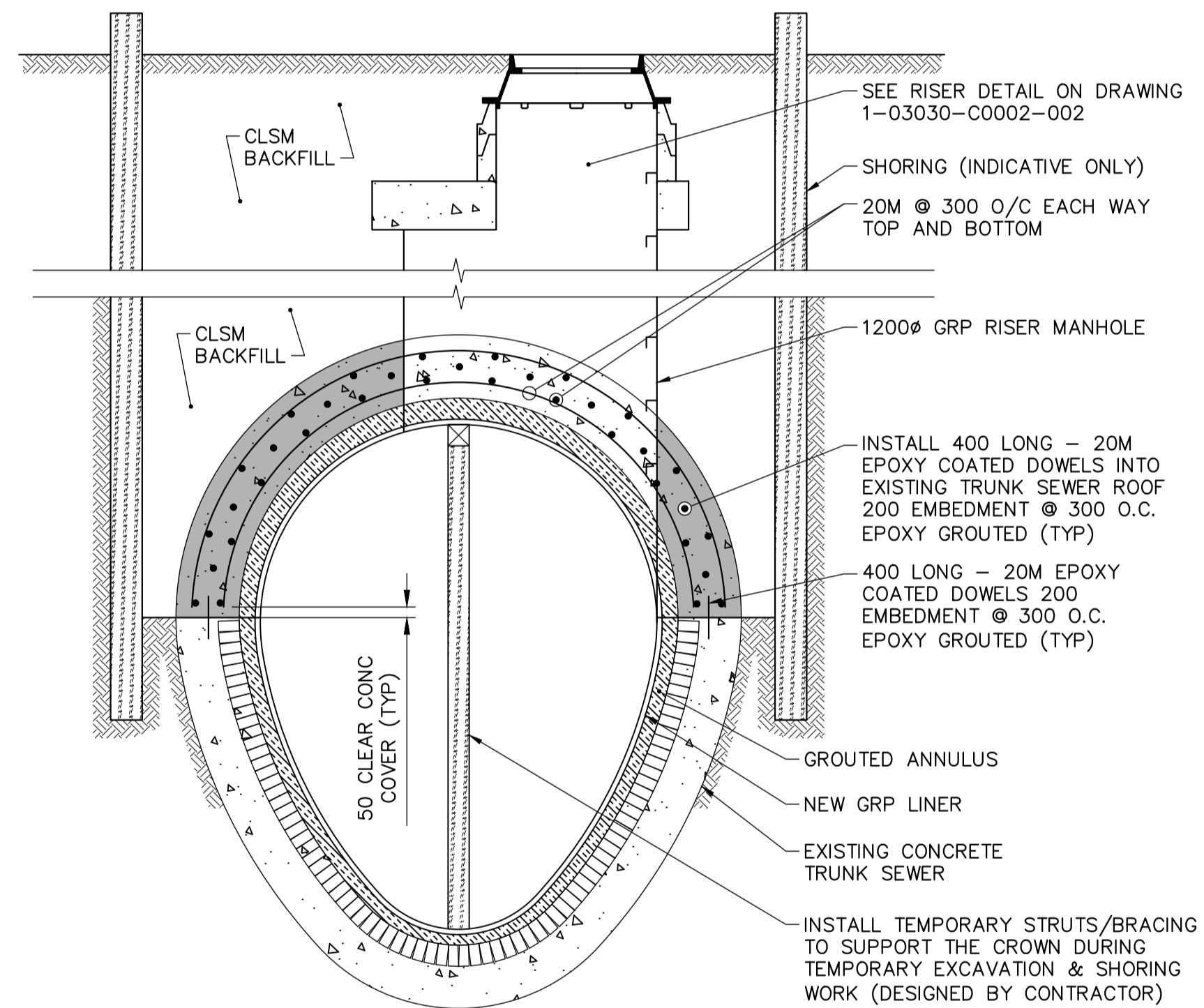
OUTFALL DEBRIS GRATE											
LOCATION	PIPE		END CONDITION	GRATING							
	DIAMETER D	MATERIAL		DIAMETER D1	TYPE	BAR DIA.	A	B	C	N	WEIGHT (lbs)
ARCHIBALD STREET (SE-1)	2600	CSP	1	2580 \pm	Y	25	170	170	140	16	415 \pm

- NOTE:
1. ALL PLATES AND BARS ARE CSA G40.21-300W.
 2. ALL COMPONENTS ARE GALVANIZED.
 3. ALL BOLTS ARE GALVANIZED CONFORMING TO ASTM A320 GRADE B8M

DEBRIS GRATE DETAILS
SCALE: N.T.S.

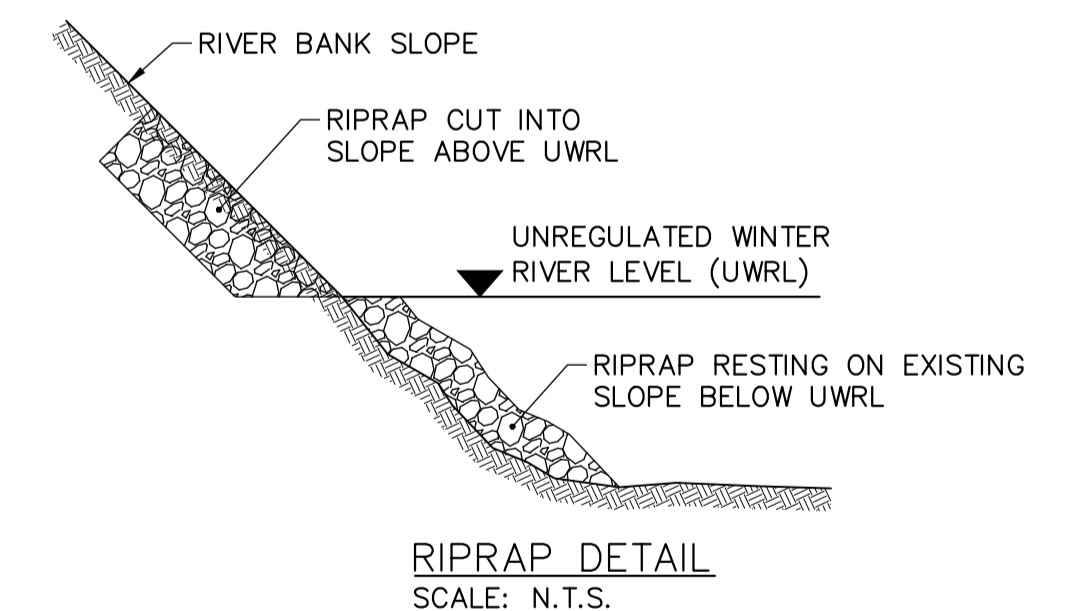
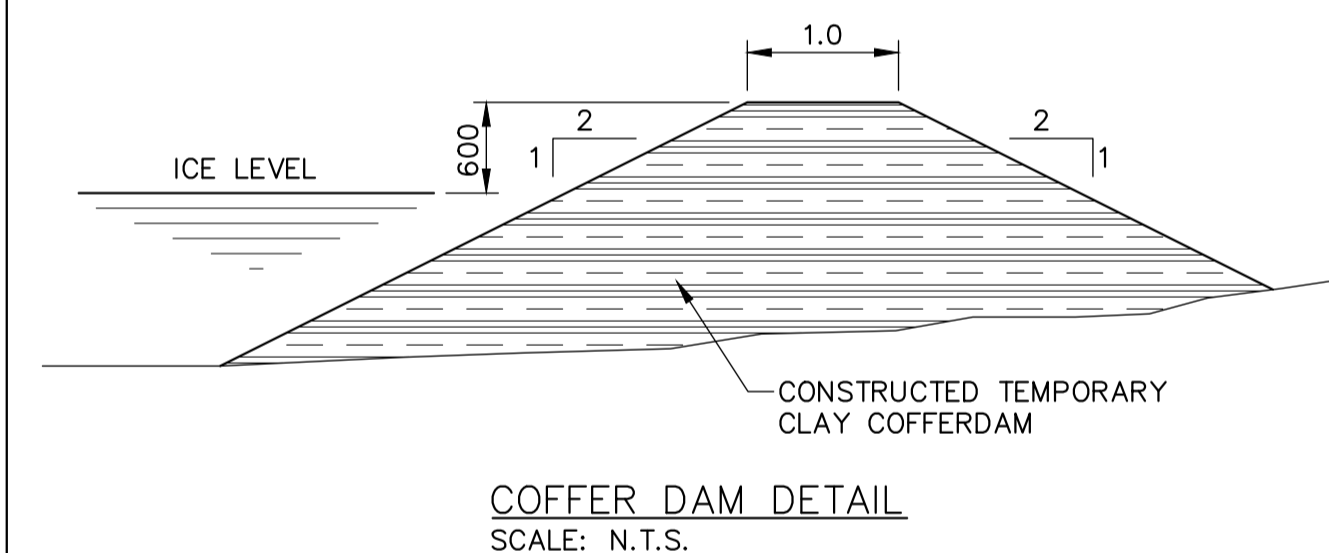
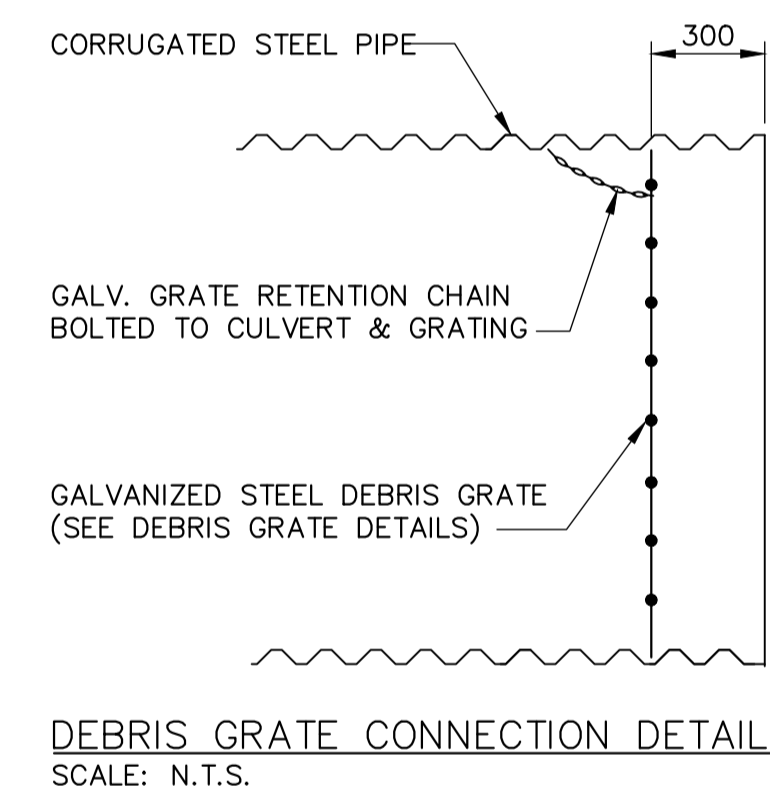


NOTE:
SHORING TO BE DESIGNED BY THE CONTRACTOR TO FACILITATE INSTALLATION OF GRP LINER SEGMENTS AND GRP RISER MANHOLE



SECTION A-A
SCALE: N.T.S.

TRUNK SEWER ACCESS SHAFT DETAIL
SCALE: N.T.S.



LOCATION APPROVED UNDERGROUND STRUCTURES		B.M. ELEV.	KGS GROUP	
SUPV. U/G STRUCTURES COMMITTEE	DATE		DESIGNED BY NGV	CHECKED BY RBO
NOTE:			DRAWN BY GEL	APPROVED BY RBO
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.			SCALE: HORIZONTAL AS NOTED	RELEASED FOR CONSTRUCTION
			VERTICAL NA	
			DATE 2020 04 08	DATE
			ISSUED FOR TENDER 2020 04 09	RBO
			NO. REVISIONS	DATE BY

ENGINEER'S SEAL	
CONSULTANT DRAWING NUMBER	1-03030-C0002-001
TENDER NUMBER: 170-2020	FILE PATH: P:\Projects\2019\19-0107-015\Draw\Mun\

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

ARCHIBALD STREET OUTFALL
RENEWAL AND REHABILITATION

MISCELLANEOUS DETAILS
SHEET 1 OF 2

SHEET 4 OF 5
CITY DRAWING NUMBER
1-03030-C0002-001

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES