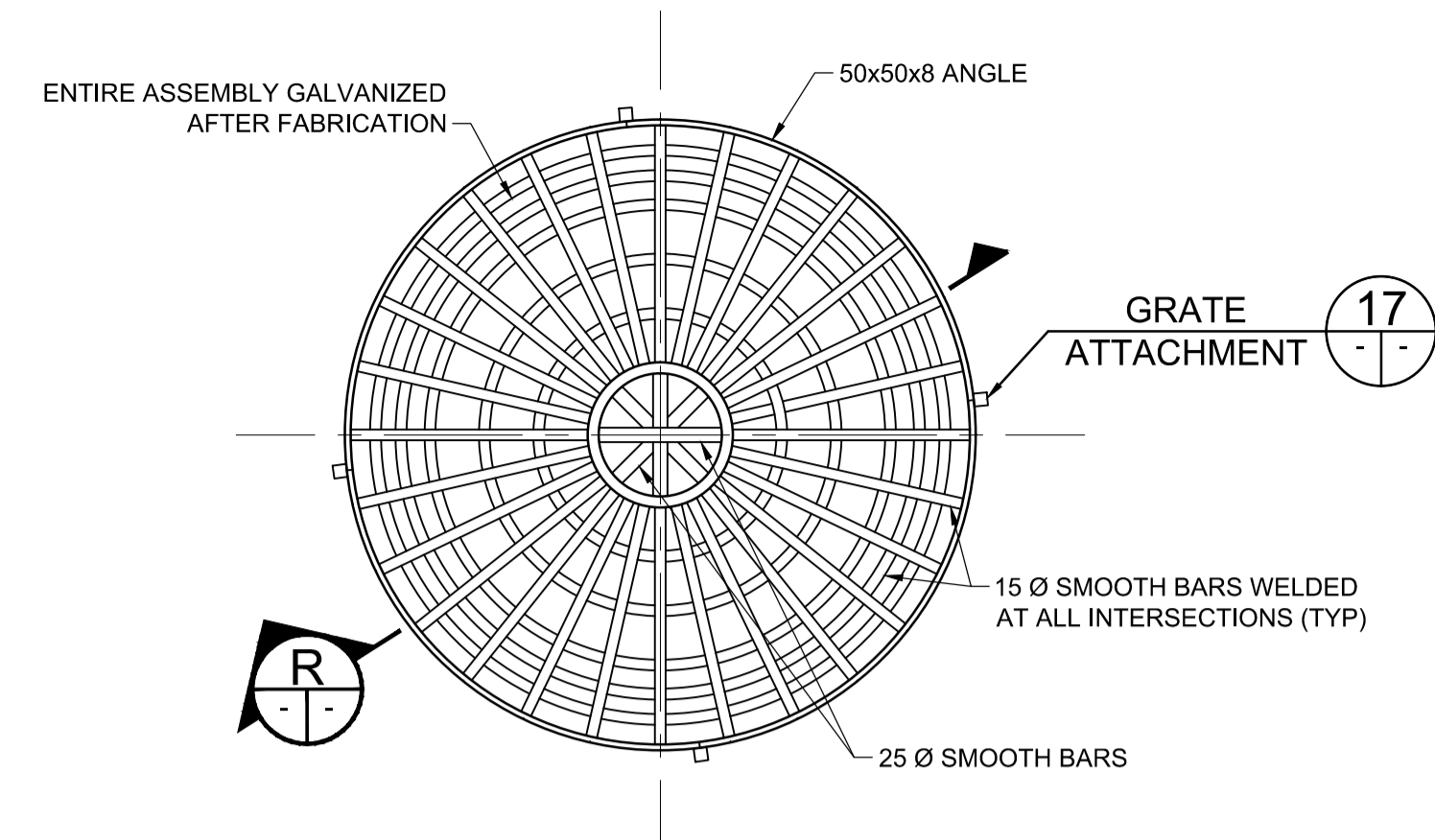
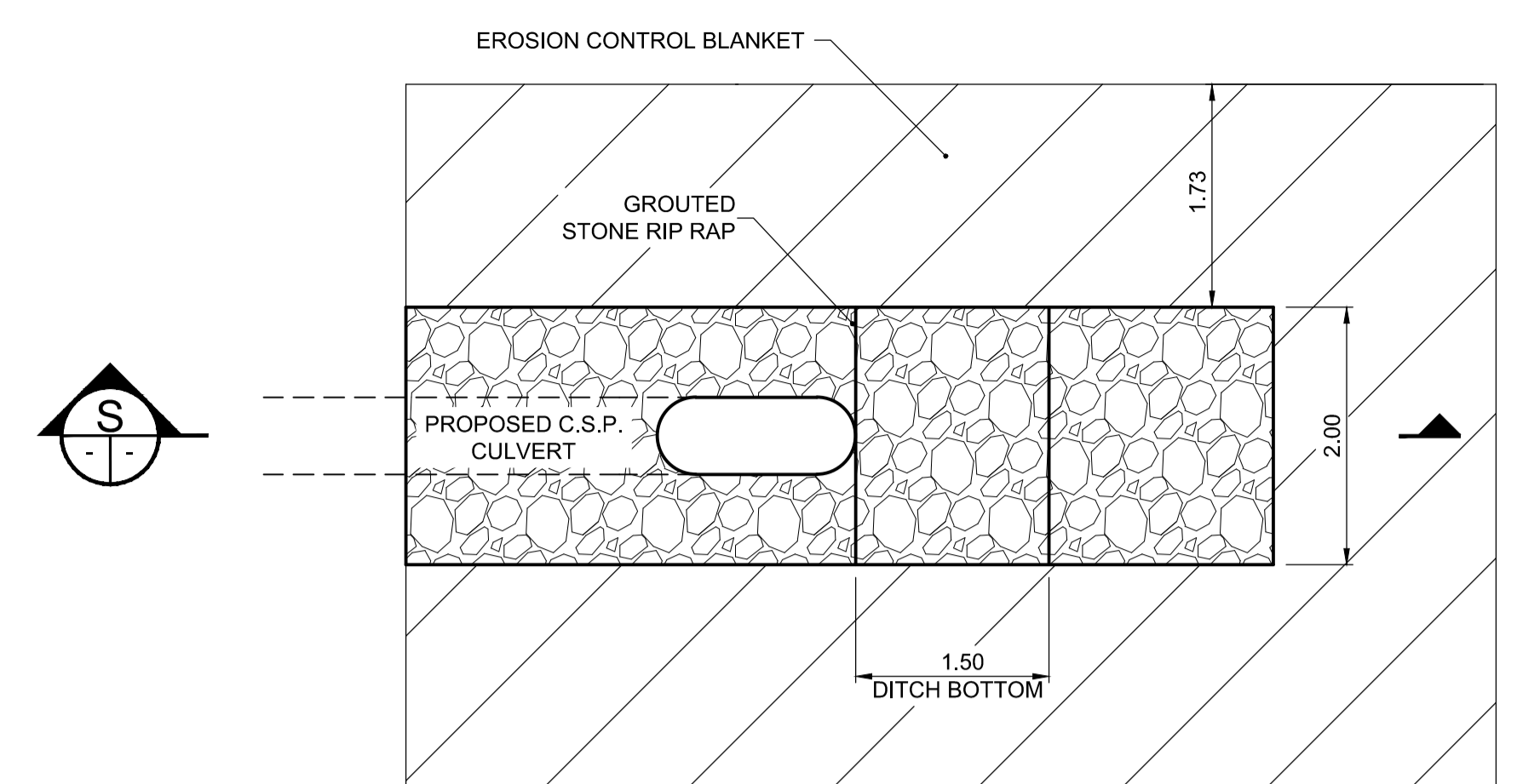


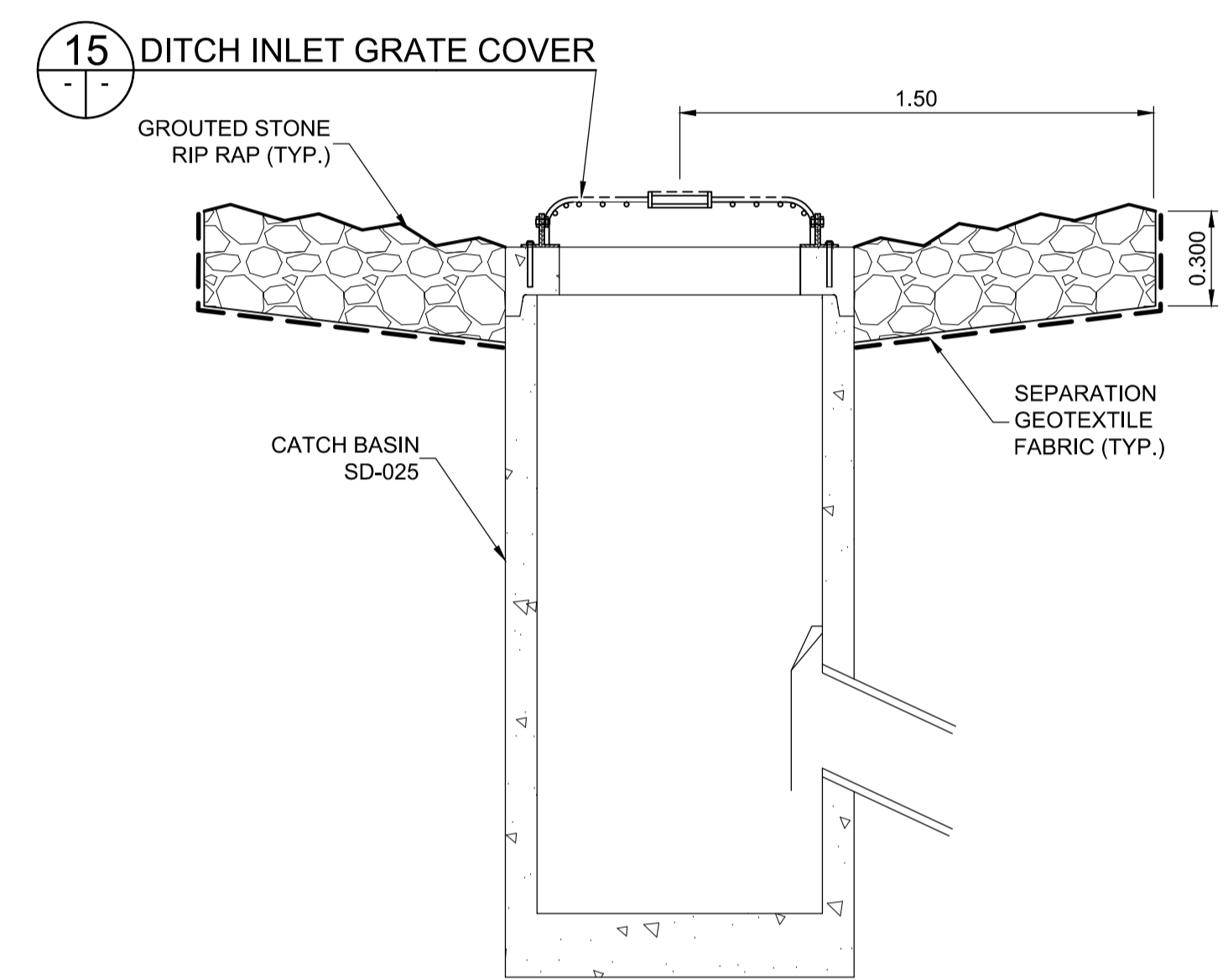
4 GROUTED STONE RIP RAP AT CATCH BASIN
86, 87, 89, 91 | 105 SCALE 1:50



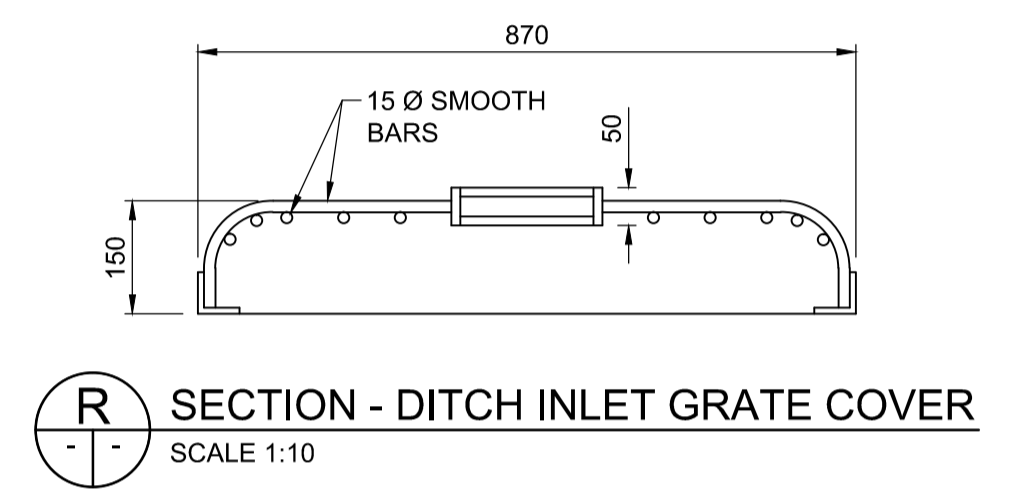
15 DITCH INLET GRATE COVER
SCALE 1:10



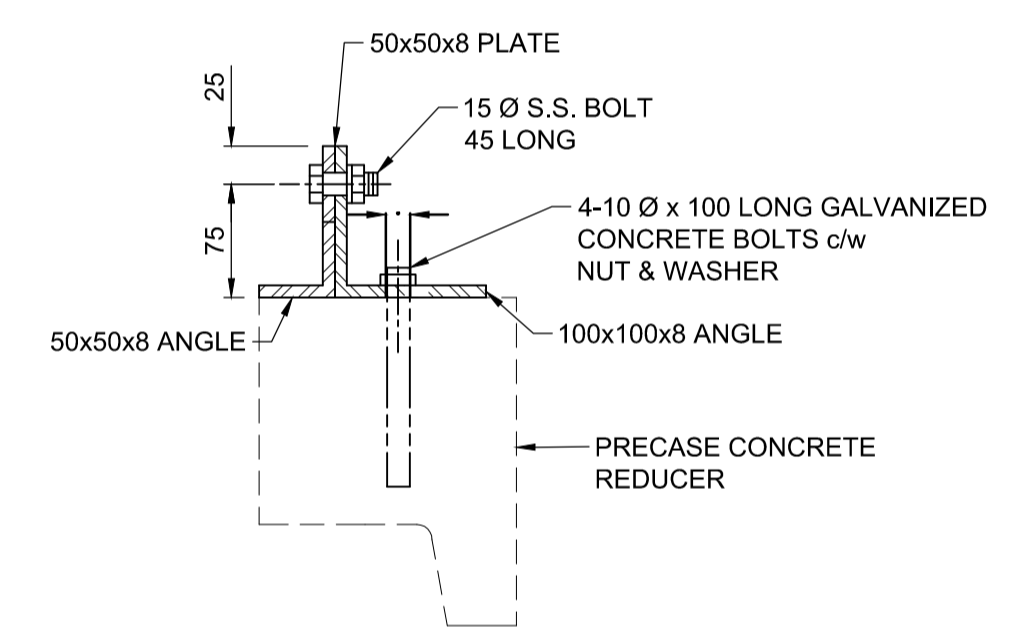
7 GROUTED RIP RAP END CULVERT
87, 89, 90 | 105 SCALE 1:50



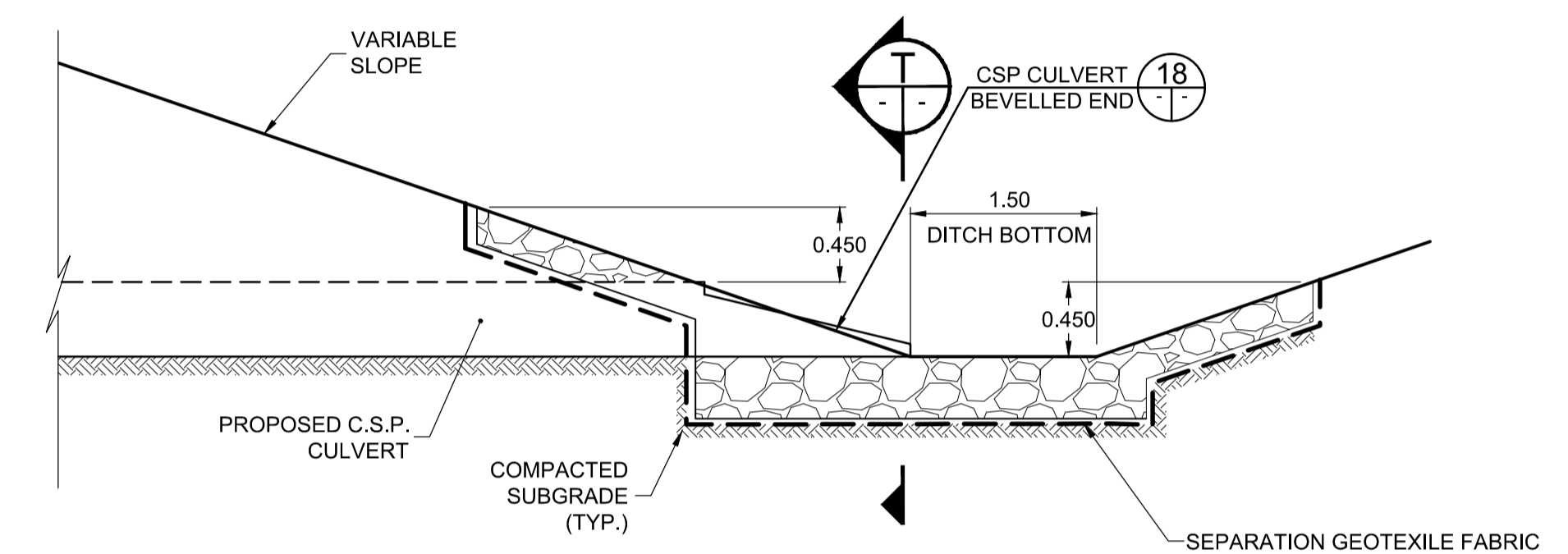
15 DITCH INLET GRATE COVER



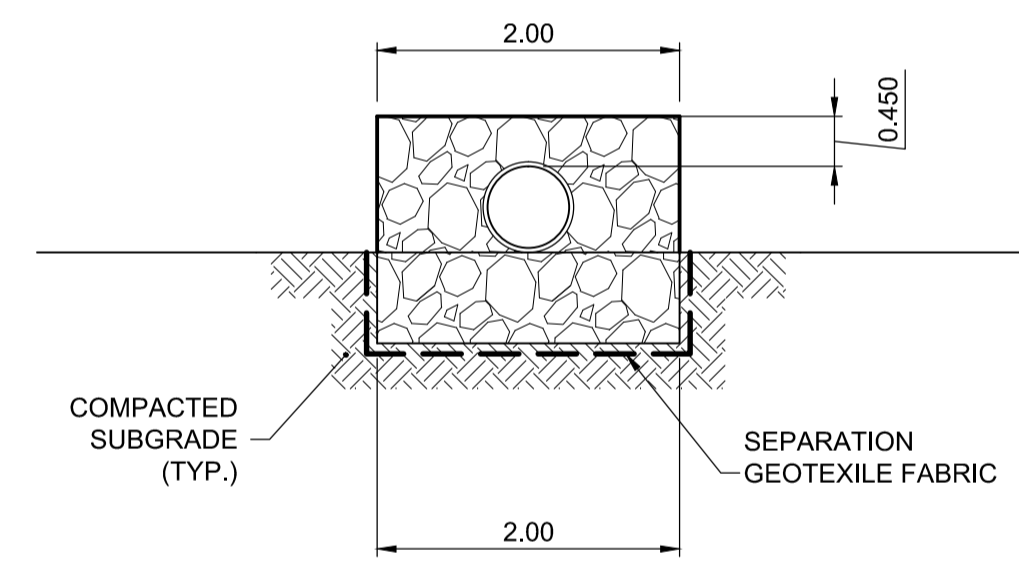
R SECTION - DITCH INLET GRATE COVER
SCALE 1:10



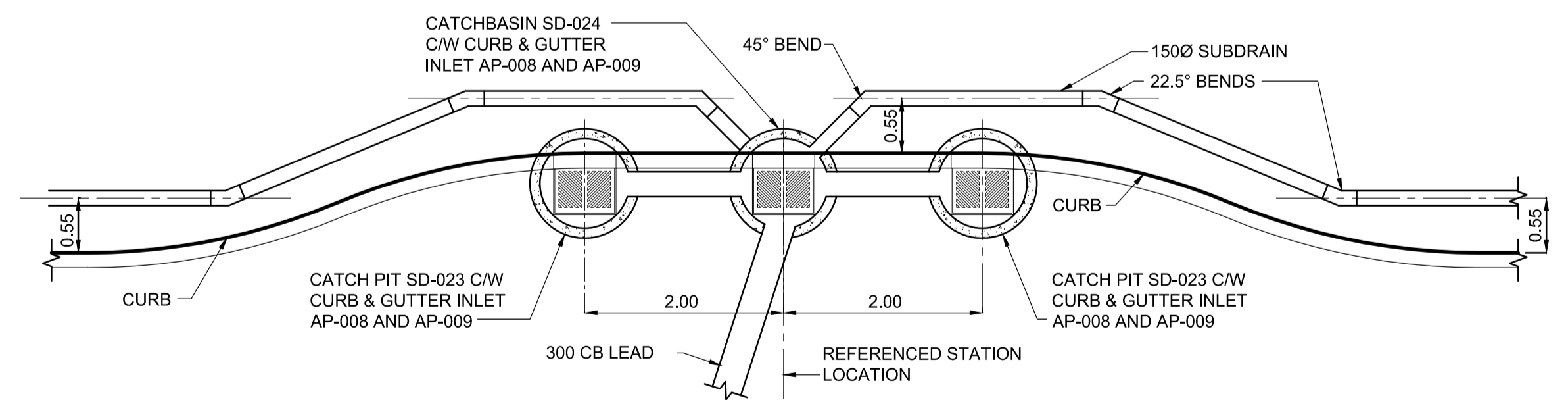
17 GRATE ATTACHMENT
SCALE 1:5



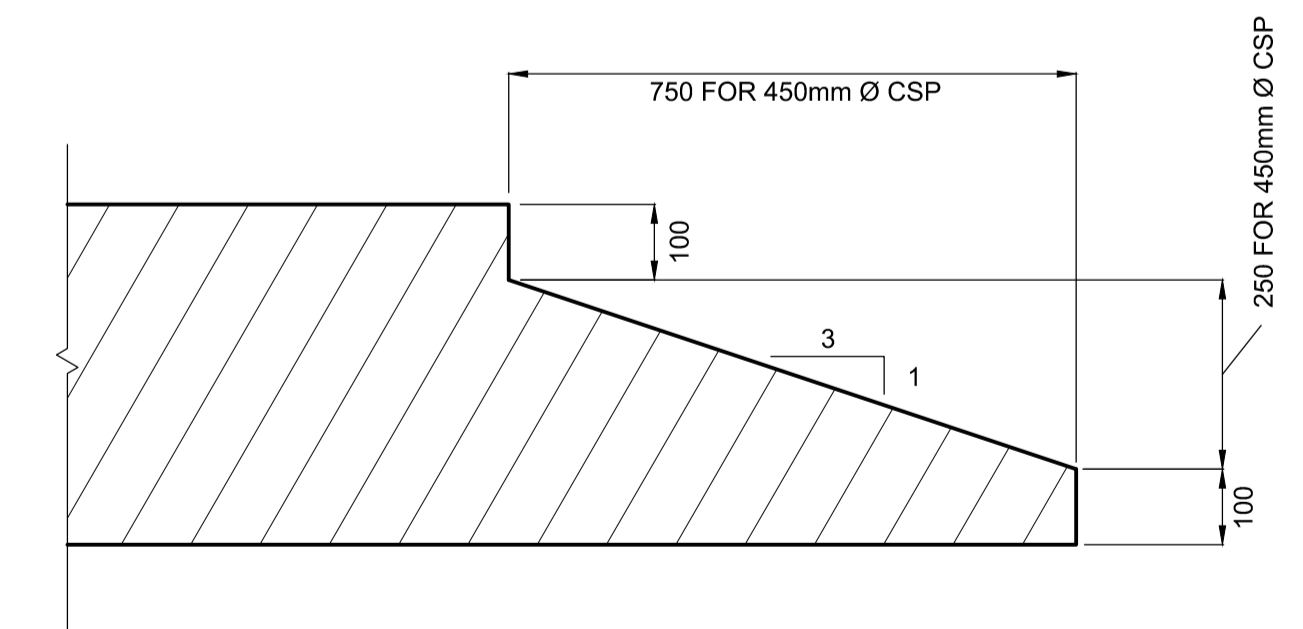
S SECTION
SCALE 1:50



T SECTION
SCALE 1:50



12 TRIPLE INLETS WITH LEADS
90, 93 | 105 SCALE 1:50



18 CSP CULVERT BEVELLED END
SCALE 1:10



METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.
- OBTAIN EXCAVATION PERMITS PRIOR TO CONSTRUCTION.
- A MINIMUM VERTICAL SEPARATION OF 300 mm FROM GAS MAINS AND 100 mm FROM GAS SERVICE MUST BE MAINTAINED BETWEEN ANY MANITOBA HYDRO FACILITY AND ANY NEW INSTALLATIONS.
- A MINIMUM 900 mm OF COVER SHALL BE MAINTAINED IN ALL AREAS WHERE EQUIPMENT WILL BE CROSSING, TRAVELING OR COMPACTING OVER THE HIGH PRESSURE GAS MAINS.
- IF EQUIPMENT MUST CROSS, TRAVEL, OR COMPACT OVER THE GAS MAIN WITH LESS THAN THE MINIMUM DEPTH COVER, EARTH BRIDGING OR STEEL PLATES SHALL BE PLACED OVER THE MAIN AND EXTEND A MINIMUM OF 1.0 METRE ON EITHER SIDE AT EACH CROSSING LOCATION.

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150 WM	WATERMAIN	150 WM	MTS	M.T.S.	150 mm W.M.	WATERMAIN	150 mm W.M.
+	HYDRANT	+	MTS	CONCRETE	+	HYDRANT	+
+	VALVE	+	MTS	ASPHALT	+	VALVE	+
300 LDS	LAND DRAINAGE SEWER	300 LDS	MTS	PLANING	300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.
250 WWS	WASTE WATER SEWER	250 WWS	MTS	SIDEWALK	250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.
○	MANHOLE	○	MTS	PAVING STONES	○	MANHOLE	○
□	CATCH BASIN	□	MTS	PROPERTY LINE	□	CATCH BASIN	□
●	TEST HOLES	●	MTS	SURVEY BAR	●	TEST HOLES	●
+	JUNCTIONS	+	MTS	CURB RAMP	+	JUNCTIONS	+
+	CULVERT	+	MTS	DITCH	+	CULVERT	+
100 GAS	GAS	100 GAS	MTS	SWALE	100 GAS	GAS	100 GAS
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE
EXISTING	LEGEND-PROFILE	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED	EXISTING	LEGEND-PROFILE

UNDERGROUND STRUCTURES	B.M. 654008 N: 5515764.610 E: 633359.697	654210 N: 5514436.957 E: 630550.534	DESIGNED BY	MRD
SUPV. U/G STRUCTURES COMMITTEE			DRAWN BY	PMW
DATE			CHECKED BY	
			APPROVED BY	
			HOR. SCALE	AS SHOWN
			VERTICAL	
			ISSUED FOR TENDER	13/08/08
			DATE	2013/08/08
			BY	
			DATE	

ENGINEER'S SEAL	DESIGN TEAM
CONSULTANT PROJECT NUMBER	RELEASED FOR CONSTRUCTION
12-6606	

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT	
WAVERLEY WEST ARTERIAL ROADS PROJECT (WWARP) PART 3 - CONTRACT 2 ROUTE 90 TO ROUTE 165 OVERPASS (KENASTON BLVD.) AND ASSOCIATED WORKS	
CITY DRAWING NUMBER	B242-13-105
SHEET	105 OF 128
CONSULTANT DRAWING NUMBER	P-3349-105

W.A. Joblo M.R. DOUCET Member 22306 REGISTERED PROFESSIONAL ENGINEER	DILLON CONSULTING	12-6606	DETAILS 1 OF 3
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