VERTICAL CLEARANCE AT ABUTMENTS = 7000 ±
VERTICAL CLEARANCE THRU CENTRE HALF = 3300 ±

C.P.R. R.O.W.

EXIST. MASONRY ARCH RAILWAY BRIDGE

7500 CLR. SPAN

EXISTING MASONRY WINGWALLS (LIMESTONE ROCK) SLOPES DOWN 2:1 TYPICAL

1825 mm CHAIN LINK FENCE EXISTING AT TOP OF DYKE MAY BE REMOVED AND REINSTALLED TO FACILITATE CONSTRUCTION

POSSIBLE LOCATION OF TEMPORARY COFFER DAM

CONSTRUCT NEW CONCRETE RETAINING WALL - REMOVE AND REINSTALL GROUTED FIELD STONE RIPRAP AND ROCK FILL TO FACILITATE CONSTRUCTION

100 mm Ø DRAIN HOLES (3 LOCATIONS)

EXIST 500 mm Ø CSP. OUTFALL THRU ROCK DYKE (TYPICAL) INV. EL. 232.805

MATCH EXIST. RIPRAP SWALE AT CULVERT OUTFALL

STURGEON CR. (N.S.W.L. EL 231.960)

6500

EXISTING CONC. RETAINING WALL (TOP EL 232.580)

INV EL 233.027

3960 ± (200 mm ± BASE SLAB TO LIMIT OF WINGWALLS) EL. 230.74 ±

200 (TYP)

4900

12000 ±

EXIST 2-CELL CONC. BOX CULVERT

EXIST. 1825 mm HIGH CHAIN LINK FENCE

EXISTING GROUTED FIELD STONE RIP RAP ON TOP OF ROCK FILL 2:1 SLOPE AROUND PERIMETER OF EXIST. STRUCTURES (TYP.)

EXIST. BALANCED ALUM. TRAFFIC BARRIER

SASKATCHEWAN AVE.

RE: 1.2 DYKE EACH SIDE OF BOX CULVERT 4500 ± WIDE AT TOP

GROUT

13 x 13 FLEXIBLE SEALANT

FOAM ROD

13 mm FLEXCELL

DETAIL B
N.T.S.

PLAN
1:75

EXISTING BOX CULVERT WINGWALL

32-W15017 @ 300 E.F.

32-W15018 @ 300 E.F.

6-W15001 @ 300 E.F.

18-W15016 (SEE SECT.1)

6-W15015 @ 300 E.F.

EXIST. MASONRY WINGWALL

6-W15002 @ 300 E.F.

18-W15016 (SEE SECT.1)

1500

2700

2700

6-W15015 T/B

100 mm Ø DRAIN HOLE

EXISTING FOOTING

75 mm LEVELING BASE

W15003 TO W15008

W15009 TO W15014

32 PAIRS OF W15019 @ 300
NOTE FEATHER CAGES AT DEFLECTION POINTS

ELEVATION
N.T.S.

NOTES:
1) CONCRETE - f'_c = 30 MPa - TYPE 50 CEMENT
2) REINFORCING STEEL - CSA G30.12-M77 GRADE 400 STEEL
3) CLEAR COVER TO REINF. STEEL = 50 mm
4) 20 x 20 CHAMFER AT ALL EXPOSED CONC. EDGES.

LOCATION PLAN

REINFORCING SCHEDULE

MARK	NO. BARS	SIZE	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	L	R	SHAPE	WEIGHT
W15001	12	15	9400	ST														101.7
W15002	12	15	5300	ST														71.6
W15003	2	15	5100	ST														17.6
W15004	2	15	5346	ST														18.5
W15005	2	15	5176	ST														16.1
W15006	2	15	9980	ST														153
W15007	2	13	9670	ST														190
W15008	2	15	9400	ST														138
W15009	2	15	9100	ST														129
W15010	2	15	8840	ST														121
W15011	2	15	3550	ST														11.2
W15012	2	15	3320	ST														10.9
W15013	2	15	3000	ST														9.6
W15014	2	15	2800	ST														8.8
W15015	24	15	1800	1		600	600					353		486				45.2
W15016	36	15	4600	ST														33.9
W15017	64	15	1900	2		300	160											19.9
W15018	32	15	1260	2		500	200	500										60.3
W15019	64	15	2000	2		300	160	500										20.0
															TOTAL WEIGHT =			8638 kg/m

NOTES:
1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" & "B" ON STANDARD BENT & DOG HOOKS.
2. "J" DIMENSION IS NOT SHOWN TO BE USED ONLY WHERE NECESSARY TO RESTRICT BEND RADII. STANDARD STANDARD HOOKS ARE TO BE USED.
3. SHAPE "J" IS NOT SHOWN WILL BE CUT/BENT TO SUIT FIELD. TYPE "J" BENDS = 7 Dia EXCEPT "J" IS SHALL BE SHOWN.
4. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO FIT WITHIN CONCRETE.
5. WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS WHICH REQUIRE CLOSER TOLERANCE SHOULD HAVE LIMITS INDICATED.
6. FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC. SEE TABLES.

BAR BENDING DETAILS

RECORD DRAWING
APPROVED BY: [signature] DATE: 2001 11

SECTION 1
(TYP. DIMENSIONS)
1:20

600 mm GROUTED FIELD STONE RIP RAP TO MATCH EXISTING

EL. 232.58

W15016 DOWELS INTO EXIST. WINGWALL (150 EMBEDMENT) DIP INTO EPOXY AND DRIVE INTO 16 Ø PREDRILLED HOLES (TYP. EA. END)

5 SPACES @ 300 = 1500

N.S.W.L. EL 231.96

APPROX. LINE OF EXIST. GRAD. NORTH OF RIP RAP SWALE

PLACE RANDOM FIELD STONE RIP RAP IN FRONT OF WALL TO MATCH EXIST. RIVERBED

RANDOM FIELD STONE RIP RAP

75 TYP.

40

450

225

EL. 230.74 ±

NEW RETAINING WALL FTG. TO REST ON EXIST. 200 mm BASE SLAB EL. 230.74 ±

900 300 300

1500

W15018
W15017
W15001
1640 ±
100 mm Ø DRAIN HOLE SEE ELEVATION
50 x 125 SHEAR KEY (TYPICAL)
EL. 230.74 ±
W15003 TO W15008
W15019
75 mm CONC. WORK'G BASE - TOP SURFACE TO BE AT EXIST. BASE SLAB ELEVATION

SECTION 2
(TYP. REINFORCING)
1:20

LOCATION APPROVED
UNDERGROUND STRUCTURES
N/A
U/G STRUCTURES COMMITTEE — DATE

NOTE
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE AS TO WHETHER ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE RESPONSIBLE UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO	REVISIONS	DATE	BY

DILLON
Consulting Engineers • Planners
Environmental Scientists

DES/GNED BY	B.A.N.	CHECKED BY	R.A.W.
DRAWN BY	K.C.	APPROVED	
HOR. SCALE / VERTICAL	AS NOTED		
DATE	AUG /89		

PROVINCE OF MANITOBA — 89-08-04 — B.A.J. MERWICK — REGISTERED PROFESSIONAL ENGINEER

THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION

1989 BRIDGE MAINTENANCE
MISCELLANEOUS CONCRETE REHABILITATION WORKS

C309-89-01

SASKATCHEWAN AVE. AT STURGEON CREEK
CONCRETE RETAINING WALL

B-5843-01

M.M.D. 1675-00

[redacted]