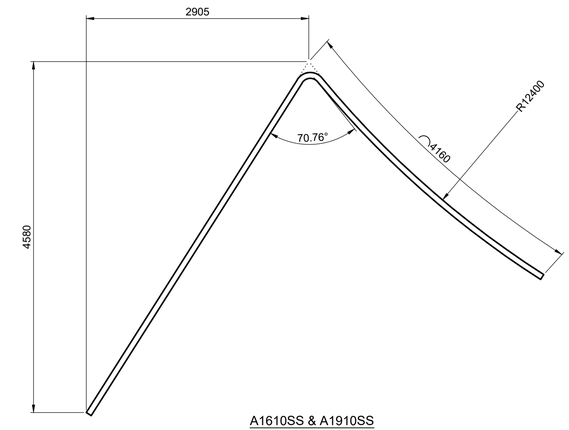
BILL OF REINFORCING STEEL (STAINLESS STEEL)

APPROACH SLAB (A)

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
A1601SS	STR	-	6010	126	1175.27
A1602SS-1	STR	-	5630	1	8.74
A1602SS-2	STR	-	4800	1	7.45
A1602SS-3	STR	-	4000	1	6.21
A1602SS-4	STR	-	3230	1	5.01
A1602SS-5	STR	-	2500	1	3.88
A1602SS-6	STR	-	1790	1	2.78
A1602SS-7	STR	-	1100	1	1.71
A1602SS-8	STR	-	440	1	0.68
A1603SS-1	STR	-	5900	1	9.16
A1603SS-2	STR	-	5700	1	8.85
A1603SS-3	STR	-	5500	1	8.54
A1603SS-4	STR	-	5310	1	8.24
A1603SS-5	STR	-	4830	1	7.50
A1603SS-6	STR	-	4250	1	6.60
A1603SS-7	STR	-	3700	1	5.74
A1603SS-8	STR	-	3170	1	4.92
A1603SS-9	STR	-	2660	1	4.13
A1603SS-10	STR	-	2160	1	3.35
A1603SS-11	STR	-	1680	1	2.61
A1603SS-12	STR	-	1220	1	1.89
A1603SS-13	STR	-	770	1	1.20
A1603SS-14	STR	-	340	1	0.53
A1604SS	STR	-	13560	21	441.95
A1605SS-1	STR	-	6680	1	10.37
A1605SS-2	STR	-	7000	1	10.86
A1605SS-3	STR	-	7340	1	11.39
A1605SS-4	STR	-	7680	1	11.92
A1605SS-5	STR	-	8020	1	12.45
A1605SS-6	STR	-	8360	1	12.97
A1605SS-7	STR	-	8710	1	13.52
A1605SS-8	STR	-	9050	1	14.05
A1605SS-9	STR	-	9030	1	14.01
A1605SS-10	STR	-	8800	1	13.66
A1605SS-11	STR	-	8580	1	13.32
A1605SS-12	STR	-	8360	1	12.97
A1605SS-13	STR	-	8160	1	12.66
A1605SS-14	STR	-	7960	1	12.35
A1605SS-15	STR	-	7770	1	12.06
A1605SS-16	STR	-	7580	1	11.76
A1605SS-17	STR	-	7410	1	11.50
A1605SS-18	STR	-	7240	1	11.24
A1605SS-19	STR	-	7080	1	10.99
A1605SS-20	STR	-	6920	1	10.74
A1605SS-21	STR	-	6780	1	10.52
A1606SS-1	STR	-	5800	1	9.00
A1606SS-2	STR	-	6230	1	9.67
A1606SS-3	STR	-	6700	1	10.40
A1606SS-4	STR	-	7160	1	11.11
A1606SS-5	STR	-	7620	1	11.83
A1606SS-6	STR	-	8080	1	12.54
A1606SS-7	STR	-	8550	1	13.27
A1606SS-8	STR	-	9010	1	13.98
A1606SS-9	STR	-	9470	1	14.70
A1606SS-10	STR	-	9930	1	15.41
A1606SS-11	STR	-	9870	1	15.32
A1606SS-12	STR	-	9500	1	14.74
A1606SS-13	STR	-	9140	1	14.19
A1606SS-14	STR	-	8810	1	13.67
A1606SS-15	STR	-	8500	1	13.19
A1606SS-16	STR	-	8200	1	12.73
A1606SS-17	STR	-	7930	1	12.31
A1606SS-18	STR	-	7660	1	11.89
A1606SS-19	STR	-	7410	1	11.50
A1606SS-20	STR	-	7170	1	11.13
A1606SS-21	STR	-	6960	1	10.80
A1607SS-1	STR	-	4520	16	112.24
A1607SS-2	STR	-	4530	1	7.03
A1607SS-3	STR	-	4540	1	7.05
A1607SS-4	STR	-	4550	1	7.06
A1607SS-5	STR	-	4560	1	7.08
A1607SS-6	STR	-	4580	1	7.11
A1608SS	STR	-	5870	21	191.32
A1609SS	STR	-	1050	125	203.70
A1610SS	BENT	90	9590	1	14.88
A1611SS	BENT	90	2000	1	3.10
A1612SS	BENT	90	2000	1	3.10
A1613SS	BENT	90	7630	1	11.84
A1614SS	BENT	90	2000	1	3.10
A1615SS	BENT	90	2000	1	3.10
A1901SS	BENT	100	6410	369	5286.42
A1902SS-1	BENT	100	6330	1	14.15
A1902SS-2	BENT	100	6040	1	13.50
A1902SS-3	BENT	100	5750	1	12.85
A1902SS-4	BENT	100	5470	1	12.23
A1902SS-5	BENT	100	5200	1	11.62
A1902SS-6	BENT	100	4920	1	11.00
A1902SS-7	BENT	100	4660	1	10.42
A1902SS-8	BENT	100	4400	1	9.83
A1902SS-9	BENT	100	4140	1	9.25
A1902SS-10	BENT	100	3880	1	8.67
A1902SS-11	BENT	100	3630	1	8.11
A1902SS-12	BENT	100	3380	1	7.55
A1902SS-13	BENT	100	3140	1	7.02
A1902SS-14	BENT	100	2890	1	6.46
A1902SS-15	BENT	100	2660	1	5.95
A1902SS-16	BENT	100	2420	1	5.41
A1902SS-17	BENT	100	2180	1	4.87
A1902SS-18	BENT	100	1950	1	4.36
A1902SS-19	BENT	100	1720	1	3.84
A1902SS-20	BENT	100	1500	1	3.35
A1902SS-21	BENT	100	1270	1	2.84
A1902SS-22	BENT	100	1050	1	2.35
A1902SS-23	BENT	100	830	1	1.86
A1902SS-24	BENT	100	630	1	1.41
A1903SS-1	BENT	100	6360	1	14.21
A1903SS-2	BENT	100	6300	1	14.08
A1903SS-3	BENT	100	6230	1	13.92
A1903SS-4	BENT	100	6170	1	13.79
A1903SS-5	BENT	100	6100	1	13.63
A1903SS-6	BENT	100	6040	1	13.50
A1903SS-7	BENT	100	5970	1	13.34
A1903SS-8	BENT	100	5910	1	13.21
A1903SS-9	BENT	100	5840	1	13.05
A1903SS-10	BENT	100	5770	1	12.90
A1903SS-11	BENT	100	5710	1	12.76
A1903SS-12	BENT	100	5620	1	12.56
A1903SS-13	BENT	100	5420	1	12.11
A1903SS-14	BENT	100	5220	1	11.67
A1903SS-15	BENT	100	5030	1	11.24
A1903SS-16	BENT	100	4840	1	10.82
A1903SS-17	BENT	100	4650	1	10.39
A1903SS-18	BENT	100	4460	1	9.97
A1903SS-19	BENT	100	4280	1	9.57
A1903SS-20	BENT	100	4100	1	9.16
A1903SS-21	BENT	100	3920	1	8.76
A1903SS-22	BENT	100	3740	1	8.36
A1903SS-23	BENT	100	3570	1	7.98
A1903SS-24	BENT	100	3400	1	7.60
A1903SS-25	BENT	100	3220	1	7.20
A1903SS-26	BENT	100	3060	1	6.84
A1903SS-27	BENT	100	2890	1	6.46
A1903SS-28	BENT	100	2720	1	6.08
A1903SS-29	BENT	100	2560	1	5.72
A1903SS-30	BENT	100	2400	1	5.36
A1903SS-31	BENT	100	2240	1	5.01
A1903SS-32	BENT	100	2080	1	4.65
A1903SS-33	BENT	100	1930	1	4.31
A1903SS-34	BENT	100	1770	1	3.96
A1903SS-35	BENT	100	1620	1	3.62
A1903SS-36	BENT	100	1470	1	3.29
A1903SS-37	BENT	100	1320	1	2.95
A1903SS-38	BENT	100	1170	1	2.61
A1903SS-39	BENT	100	1020	1	2.28
A1903SS-40	BENT	100	880	1	1.97
A1903SS-41	BENT	100	730	1	1.63
A1903SS-42	BENT	100	600	1	1.34
A1904SS	STR	-	13560	21	636.44
A1905SS-1	STR	-	6680	1	14.93
A1905SS-2	STR	-	7000	1	15.65
A1905SS-3	STR	-	7340	1	16.40
A1905SS-4	STR	-	7680	1	17.16
A1905SS-5	STR	-	8020	1	17.92
A1905SS-6	STR	-	8360	1	18.68
A1905SS-7	STR	-	8710	1	19.47
A1905SS-8	STR	-	9050	1	20.23
A1905SS-9	STR	-	9030	1	20.18
A1905SS-10	STR	-	8800	1	19.67
A1905SS-11	STR	-	8580	1	19.18
A1905SS-12	STR	-	8360	1	18.68
A1905SS-13	STR	-	8160	1	18.24
A1905SS-14	STR	-	7960	1	17.79
A1905SS-15	STR	-	7770	1	17.37
A1905SS-16	STR	-	7580	1	16.94
A1905SS-17	STR	-	7410	1	16.56
A1905SS-18	STR	-	7240	1	16.18
A1905SS-19	STR	-	7080	1	15.82
A1905SS-20	STR	-	6920	1	15.47
A1905SS-21	STR	-	6780	1	15.15
A1906SS-1	STR	-	5800	1	12.96
A1906SS-2	STR	-	6230	1	13.92
A1906SS-3	STR	-	6700	1	14.97
A1906SS-4	STR	-	7160	1	16.00
A1906SS-5	STR	-	7620	1	17.03
A1906SS-6	STR	-	8080	1	18.06
A1906SS-7	STR	-	8550	1	19.11
A1906SS-8	STR	-	9010	1	20.14
A1906SS-9	STR	-	9470	1	21.17
A1906SS-10	STR	-	9930	1	22.19
A1906SS-11	STR	-	9870	1	22.06
A1906SS-12	STR	-	9500	1	21.23
A1906SS-13	STR	-	9140	1	20.43
A1906SS-14	STR	-	8810	1	19.69
A1906SS-15	STR	-	8500	1	19.00
A1906SS-16	STR	-	8200	1	18.33
A1906SS-17	STR	-	7930	1	17.72
A1906SS-18	STR	-	7660	1	17.12
A1906SS-19	STR	-	7410	1	16.56
A1906SS-20	STR	-	7170	1	16.02
A1906SS-21	STR	-	6960	1	15.56
A1907SS-1	STR	-	4520	16	161.64
A1907SS-2	STR	-	4530	1	10.12
A1907SS-3	STR	-	4540	1	10.15
A1907SS-4	STR	-	4550	1	10.17
A1907SS-5	STR	-	4560	1	10.19
A1907SS-6	STR	-	4580	1	10.24
A1908SS	STR	-	5870	21	275.51
A1909SS	STR	-	1000	84	187.74
A1910SS	BENT	100	9590	1	21.43
A1911SS	BENT	100	2000	1	4.47
A1912SS	BENT	100	2000	1	4.47
A1913SS	BENT	100	7630	1	17.05
A1914SS	BENT	100	2000	1	4.47
A1915SS	BENT	100	2000	1	4.47
			Total Mass of Reinforcing Steel (kg):		10762.02



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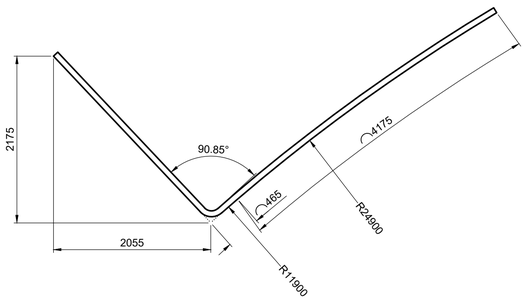

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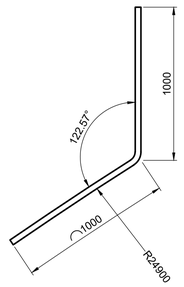

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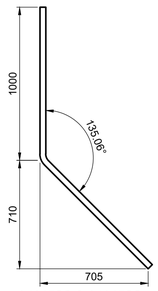

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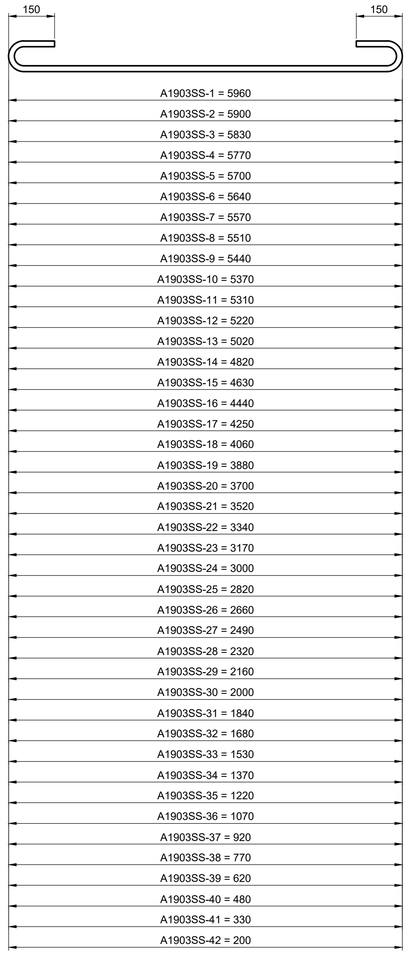

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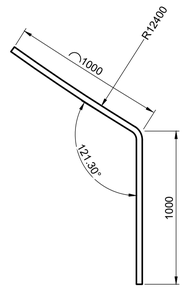

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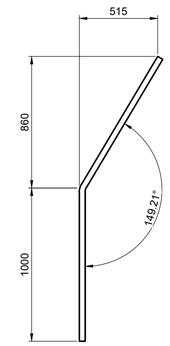

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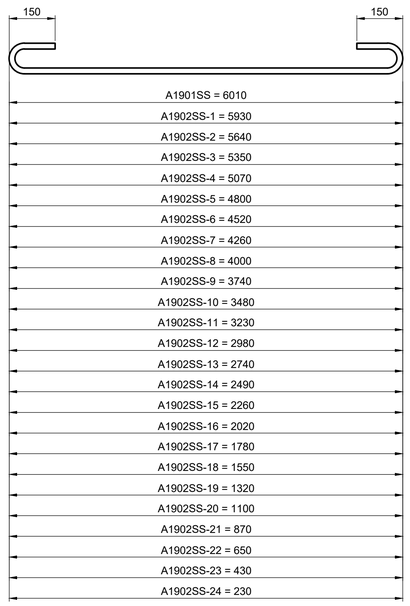

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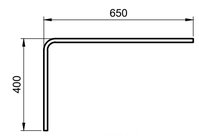

A1609SS

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
MORRISON HERSHFIELD
No. 1736

TENDER No. 971-2022

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPR, U/G STRUCTURES COMMITTEE — DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT 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 INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

BM 23-018
ELEV 235.300 m
S.E. Cor. Notre Dame Ave. & Sherwin Rd., Tblt. in W. Conc. foundation No. 2070 Notre Dame Ave., 0.8 m S. & 0.7 m below Conc. block of N.W. Cor. of bldg.

No.	REVISIONS	YY/MM/DD	BY
0	ISSUED FOR TENDER	22/12/16	AGG

MORRISON HERSHFIELD

DESIGNED BY	AGG	CHECKED BY	TH
DRAWN BY	ALP	APPROVED BY	BE
HOR SCALE / VERT SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION BY: VAIBHAV BANTHIA, P.ENG.	
DATE	22/03/14	DATE	22/12/16

PROFESSIONAL'S SEAL
PROVINCE OF MANITOBA
A.D.G. GILARSKI
Member
32144
2022-12-16
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT FILE NAME
220042500-Rte 90-Bill of Reinforcing.dwg

Winnipeg
THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

REHABILITATION OF ROUTE 90 CULVERT OVER OMAND'S CREEK
BILL OF REINFORCING
APPROACH SLABS

CITY DRAWING NUMBER: C315-21-19
SHEET 19 OF 27
DRAWING NUMBER: 19

ISO A1 - 594mm x 841mm
Plotted: 12/15/2022 6:07 PM by Alex Hepponer
Last Saved: 5/10/2022 12:56 PM by AHepponer
X:\Proj\2022\220042500-CdW Rte 90 Culvert Over Omands Cre\09. CAD\07 Sheets\220042500-Rte 90-Bill of Reinforcing.dwg