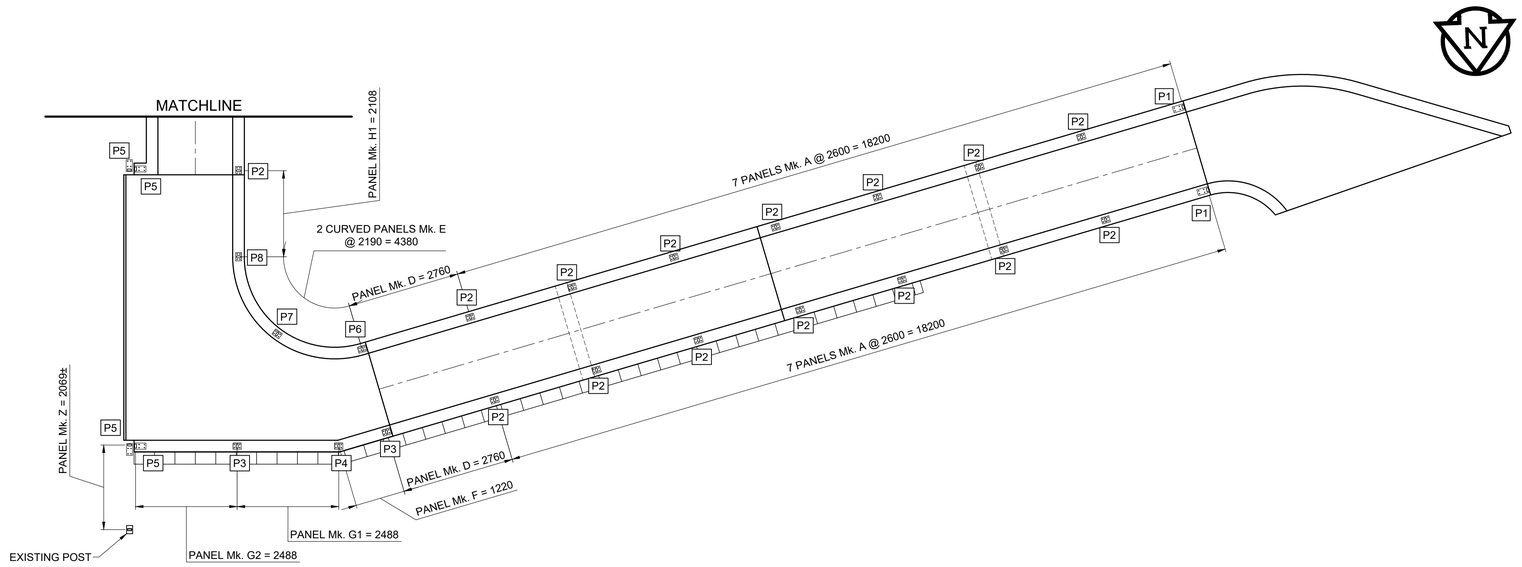
ISO A1 - 594mm x 841mm

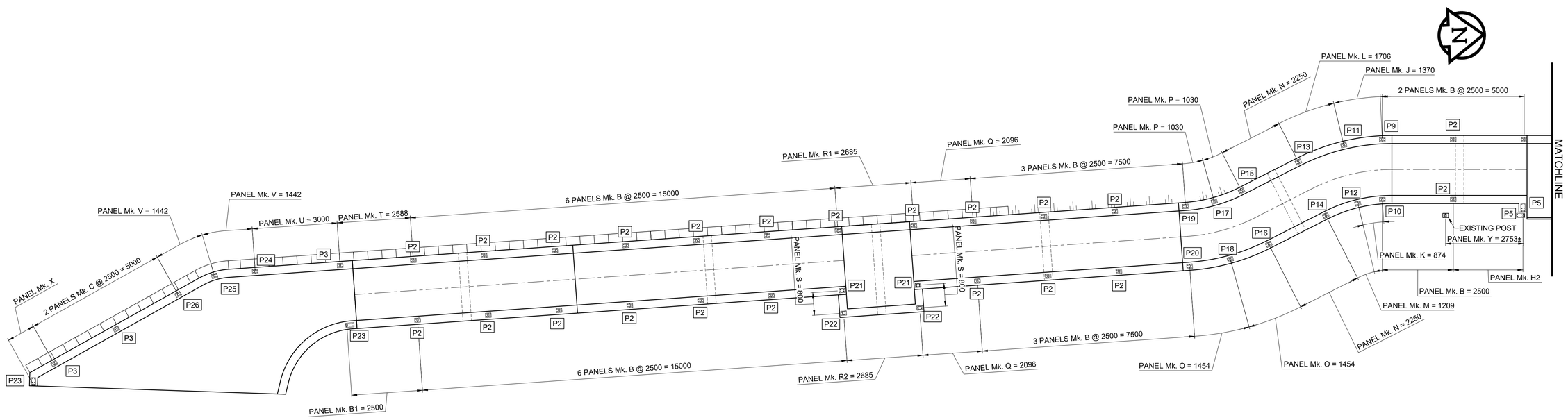
ALUMINUM PEDESTRIAN HANDRAIL QUANTITIES	
PANEL Mk.	QTY
A	12
END A	2
B	21
END B1	1
C	2
D	2
E	2
F	1
G1	1
END G2	1
H1	1
END H2	1
J	1
K	1
L	1
M	1
N	2
O	2
P	2
Q	2
R1	1
R2	1
S	2
T	1
U	1
V	2
X	1
Y	1
Z	1
TOTAL NUMBER OF PANELS = 68	

ALUMINUM POST QUANTITIES		
POST Mk.	QTY	REMARK
P1	2	END POST
P2	37	INTERMEDIATE POST
P3	5	INTERMEDIATE POST
P4	1	INTERMEDIATE POST
P5	4	END POST
P6	1	INTERMEDIATE POST
P7	1	INTERMEDIATE POST
P8	1	INTERMEDIATE POST
P9	1	INTERMEDIATE POST
P10	1	INTERMEDIATE POST
P11	1	INTERMEDIATE POST
P12	1	INTERMEDIATE POST
P13	1	INTERMEDIATE POST
P14	1	INTERMEDIATE POST
P15	1	INTERMEDIATE POST
P16	1	INTERMEDIATE POST
P17	1	INTERMEDIATE POST
P18	1	INTERMEDIATE POST
P19	1	INTERMEDIATE POST
P20	1	INTERMEDIATE POST
P21	2	CORNER POST
P22	2	CORNER POST
P23	2	END POST
P24	1	INTERMEDIATE POST
P25	1	INTERMEDIATE POST
P26	1	INTERMEDIATE POST
TOTAL NUMBER OF POSTS = 73		



HANDRAIL PLAN

SCALE: 1:75



HANDRAIL PLAN

SCALE: 1:75

NOTES:

1. ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B221 ALLOY 6351-T6.
2. THE M.I.G. PROCESS OF WELDING SHALL BE USED.
3. RAIL POSTS AND BALUSTERS SHALL BE SET PLUMB.
4. PLACE NEOPRENE PAD UNDER EACH POST BETWEEN BASE PLATE OR SHIM AND CONCRETE SURFACE. ALUMINUM SHIMS MAY BE REQUIRED FOR VERTICAL ALIGNMENT.
5. HANDRAIL ANCHOR INSERTS SHALL BE ACROW-RICHMOND TYPE DGRS-1.

BID OPPORTUNITY No. 602-2018

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
MORRISON HERSHFIELD
No. 1736

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

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.

BM
ELEV

No.	REVISIONS	YY/MM/DD	BY
B	ISSUED FOR TENDER	18/09/04	BAP
A	ISSUED FOR 95% DESIGN REVIEW	18/08/07	BAP

MORRISON HERSHFIELD

DESIGNED BY	YM	CHECKED BY	BAP
DRAWN BY	ALP	APPROVED BY	BE
HOR SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION	N/A
VERT SCALE	AS SHOWN	DATE	
DATE			

PROFESSIONAL'S SEAL
PROVINCE OF MANITOBA
B.A.F. PHILLPS
Member
32723
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT FILE NAME
W160034 - DD SR HANDRAIL.DWG

Winnipeg
THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

EMPRESS STREET PROJECT
PEDESTRIAN ACCESSIBILITY RAMPS
SOUTH RAMP
PEDESTRIAN HANDRAIL PLAN

CITY DRAWING NUMBER: P-3494-128
SHEET 128 OF 168
DRAWING No. 128 REV B

O:\Winnipeg\Proj\W160034 Design\1 Drawings\06 Sheets\Detailed Design\Structural\W160034 - DD SR HANDRAIL.dwg Last Saved: 9/6/2018 8:52 PM by TNelirinck Plotted: 9/6/2018 9:29 PM by Alex Heppner