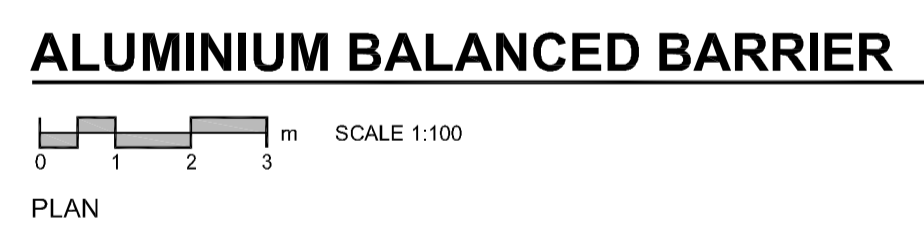
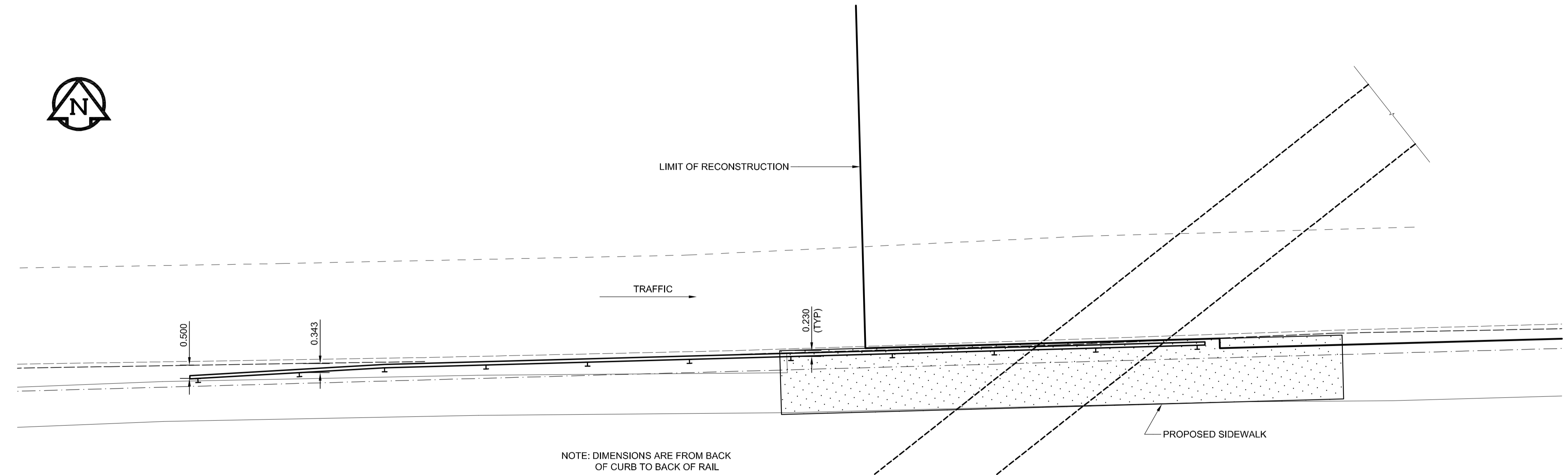
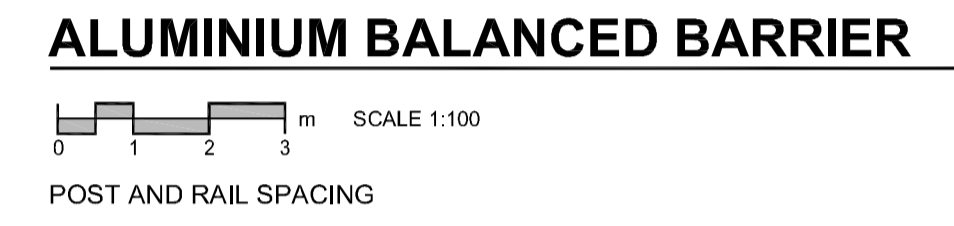
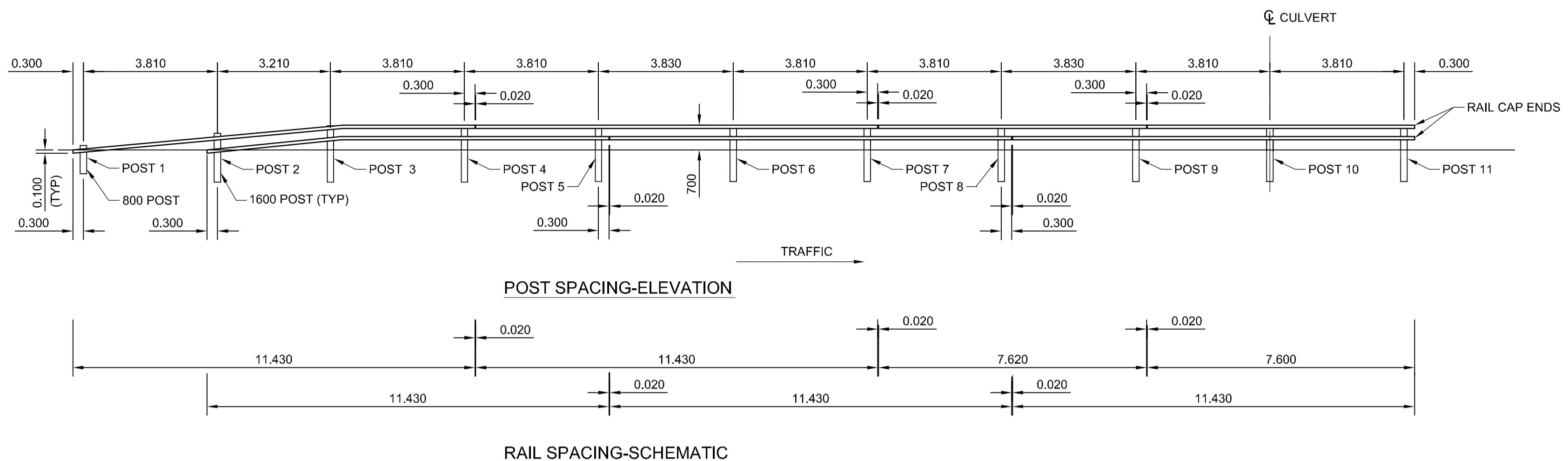


BILL OF MATERIALS	
APPROACH GUARDRAIL	
ITEMS	NEW
BARRIER RAIL 11430	5
BARRIER RAIL 7620	2
STANDARD SPLICE BAR	5
BARRIER POST-1600 LONG	10
BARRIER POST-800 LONG	1
RAIL CLAMP BAR	42
RAIL END CAPS	2
13-13x25 SS HEX HEAD CAP SCREWS	104
27 ODx14 IDx2 TH. SS WASHERS	104
ALUMINIUM SHIMS	AS REQ'D

- NOTES
- POST SPACINGS INCLUDE ARC LENGTHS.
 - ALL DIMENSIONS SHOWN ARE IN MILLIMETRES.
 - POST 10 MUST BE INSTALLED SO THAT IT DOES NOT DAMAGE THE TOP OF THE PROPOSED BOX CULVERT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES AND USING HYDROVAC IF NECESSARY. (INCIDENTAL TO POST INSTALLATION)
 - THE SURFACES OF POSTS AND RAILS IN CONTACT WITH THE GROUND SHALL BE PAINTED WITH TWO COATS OF ALKALI-RESISTANT BITUMINOUS PAINT.
 - A 300mm BOXOUT SHALL BE LOCATED FOR EACH POST TO BE INSTALLED IN PROPOSED SIDEWALK. AFTER POST INSTALLATION THE BOXOUT SHALL BE ASPHALTED IN ACCORDANCE WITH CW3650.



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES



THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
TRANSPORTATION ENGINEERING DIVISION

MARION STREET
Crossing of Dugald Drain Replacement
Aluminium Balanced Barrier
Approach Guardrail Details I

CITY DRAWING NUMBER: P-3312-04
SHEET 4 OF 6
DRAWING No. 04
REV 0

EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PLAN	NEW
○	MANHOLE	●	○	MANHOLE	●	▨	CONCRETE PAVEMENT	▨
□	CATCH BASIN / CATCH PIT	■	□	CATCH BASIN / CATCH PIT	■	▨	ASPHALT PAVEMENT	▨
△	C & G INLET WITH BOX	▨	△	C & G INLET WITH BOX	▨	▨	CONC. SIDEWALK/MEDIAN	▨
⊙	TREE	▨	⊙	TREE	▨	▨	PAVING STONE	▨
⊕	TEST HOLE	▨	⊕	TEST HOLE	▨	▨	GRAVEL	▨
⊕	PROPERTY LINE	▨	⊕	PROPERTY LINE	▨	▨	CURB RAMP	▨
⊕	SURVEY BAR	▨	⊕	SURVEY BAR	▨	▨	PAVT PLANING/REMOVAL	▨
⊕	FENCE	▨	⊕	FENCE	▨			
⊕	BOC/EOPAVT	▨	⊕	BOC/EOPAVT	▨			
⊕	ELEVATION	▨	⊕	ELEVATION	▨			

LOCATION APPROVED UNDERGROUND STRUCTURES

BM 33-006
ELEV 231.595m

DESIGNED BY: JGK
CHECKED BY: RPB
DRAWN BY: DJH
APPROVED BY: TGS

HOR. SCALE: AS SHOWN
VERT. SCALE: AS SHOWN

DATE: 09/06/04

ISSUED FOR CONSTRUCTION: 09/07/08
BY: DJH

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DESIGNED BY: JGK
CHECKED BY: RPB
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APPROVED BY: TGS

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VERT. SCALE: AS SHOWN

DATE: 09/06/04

PROFESSIONAL'S SEAL

PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
J.G. KENNEDY
Member 22328
JUL 8 09

CONSULTANT DRAWING NO.
0265-410-00_01-CT1004_RX