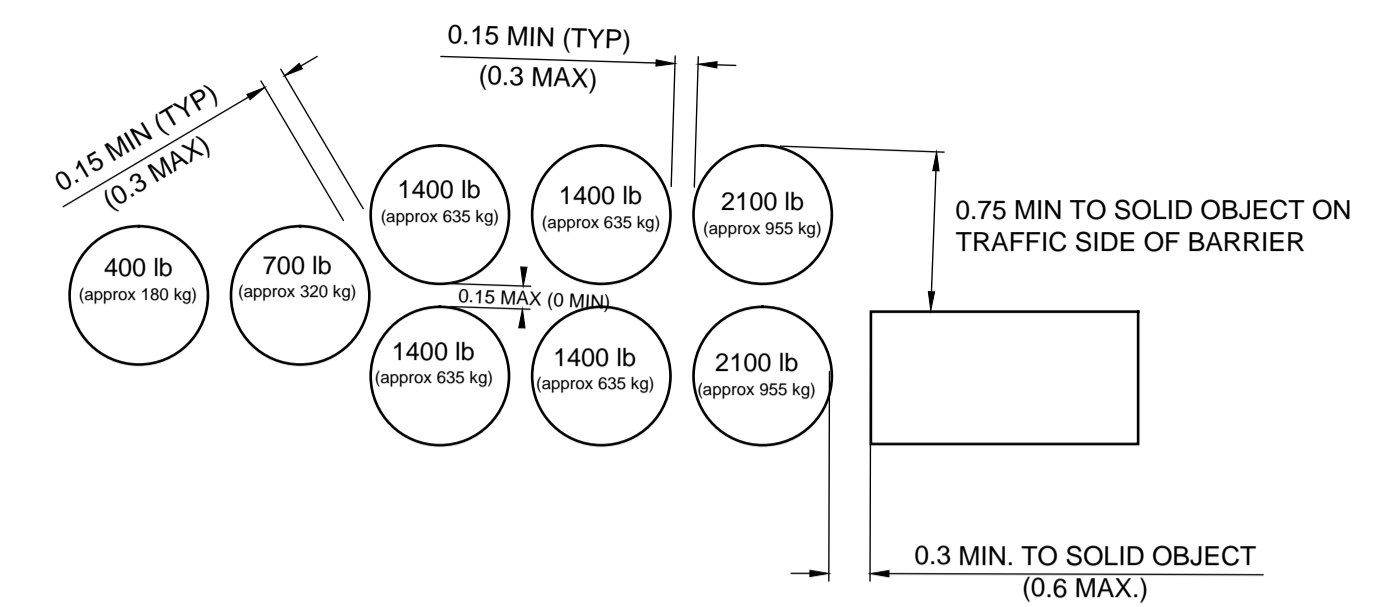
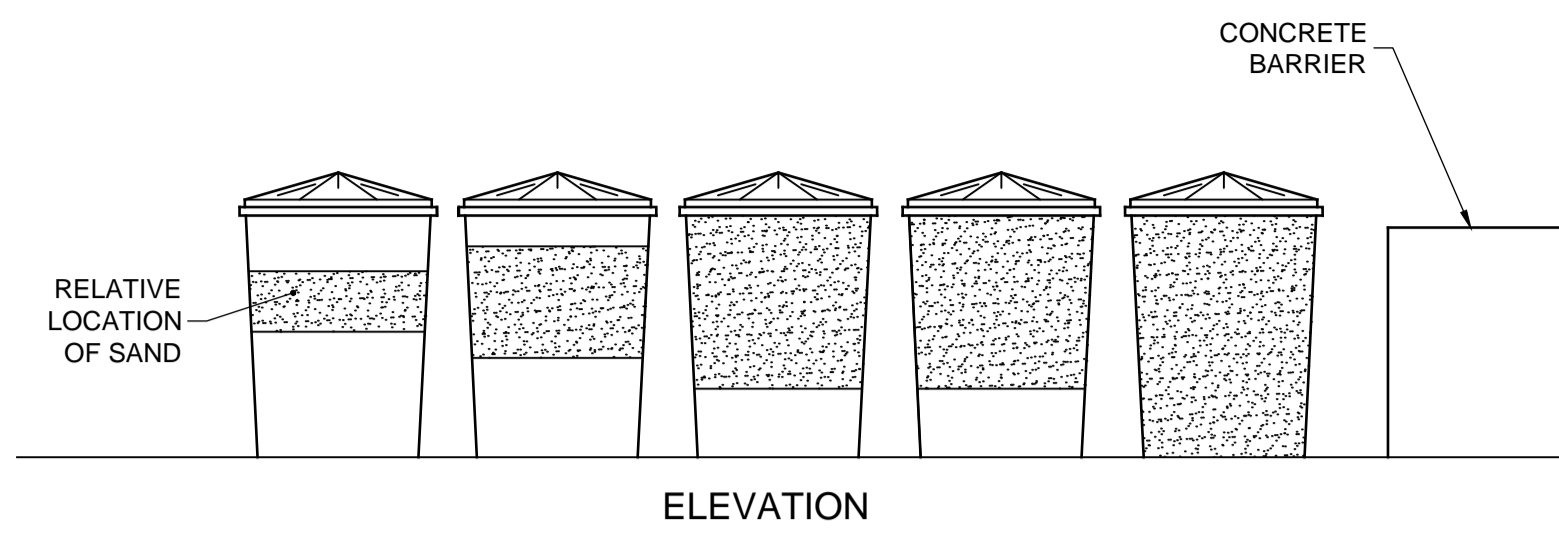


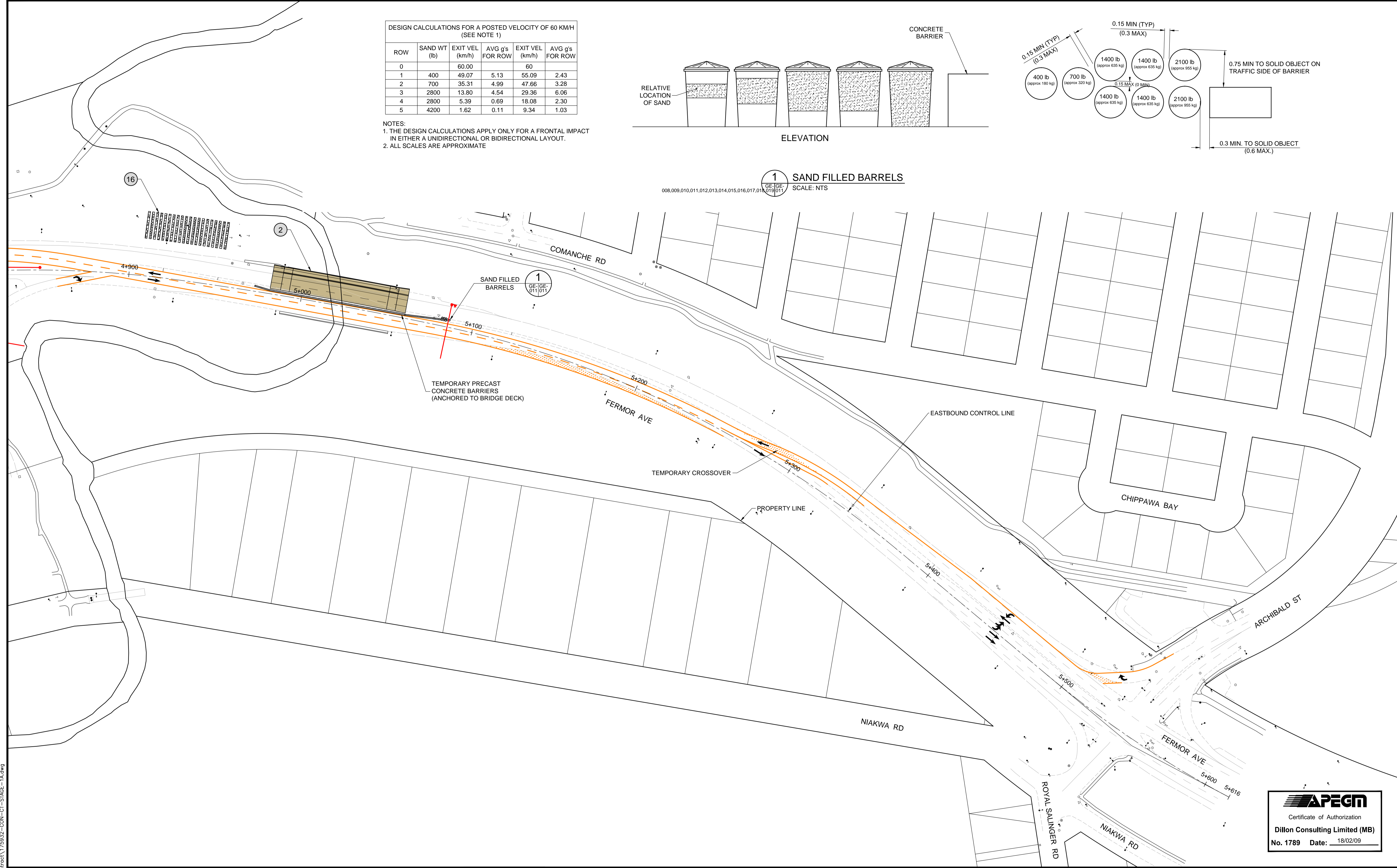
DESIGN CALCULATIONS FOR A POSTED VELOCITY OF 60 KM/H (SEE NOTE 1)

ROW	SAND WT (lb)	EXIT VEL (km/h)	AVG g's FOR ROW	EXIT VEL (km/h)	AVG g's FOR ROW
0		60.00		60	
1	400	49.07	5.13	55.09	2.43
2	700	35.31	4.99	47.66	3.28
3	2800	13.80	4.54	29.36	6.06
4	2800	5.39	0.69	18.08	2.30
5	4200	1.62	0.11	9.34	1.03

NOTES:
 1. THE DESIGN CALCULATIONS APPLY ONLY FOR A FRONTAL IMPACT IN EITHER A UNIDIRECTIONAL OR BIDIRECTIONAL LAYOUT.
 2. ALL SCALES ARE APPROXIMATE



1 SAND FILLED BARRELS
 SCALE: NTS



APEGM
 Certificate of Authorization
Dillon Consulting Limited (MB)
 No. 1789 Date: 18/02/09

LEGEND - CONSTRUCTION STAGING

MAJOR UNDERGROUNDS CONSTRUCTION	TEMPORARY ROADWAY CONSTRUCTION	VEHICULAR TRAFFIC
EXISTING PROPERTY LINE	TEMPORARY MEDIAN CONSTRUCTION	PEDESTRIAN/CYCLIST TRAFFIC
PROPOSED PROPERTY LINE REMOVAL	PERMANENT ROADWAY CONSTRUCTION	LANE CLOSED
ADJUSTMENT	PERMANENT MEDIAN CONSTRUCTION	SIDEWALK CLOSED
	TEMPORARY SIDEWALK/MUP CONSTRUCTION	
	PERMANENT SIDEWALK/MUP CONSTRUCTION	
	BRIDGE/UNDERPASS CONSTRUCTION	
	STAGE 1A-1 ROADWAY CONSTRUCTION	
	STAGE 1A-2 ROADWAY CONSTRUCTION	

UNDERGROUND STRUCTURES		B.M. ELEV.	DESIGNED BY	ENGINEER'S SEAL	THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT FERMOR AVENUE BRIDGE OVER SEINE RIVER BRIDGE REHABILITATION, PEDESTRIAN-CYCLIST UNDERPASS STRUCTURE AND ROADWORKS FROM ST. ANNE'S ROAD TO ARCHIBALD STREET CONSTRUCTION STAGING - STAGE 1A (2 OF 2)
SUPV. U/G STRUCTURES	DATE		JAT		
<small>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.</small>			DRAWN BY: PMW CHECKED BY: JNC APPROVED BY: JNC HOR. SCALE: 1:1000 VERTICAL: -		
0	ISSUED FOR TENDER	18/02/09	JNC	CONSULTANT PROJECT NUMBER 17-5932	CITY DRAWING NUMBER P-3489-2017-GE-011 SHEET 011 OF 021 CONSULTANT DRAWING NUMBER GE-011
NO.	REVISIONS	DATE	BY	DATE	

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