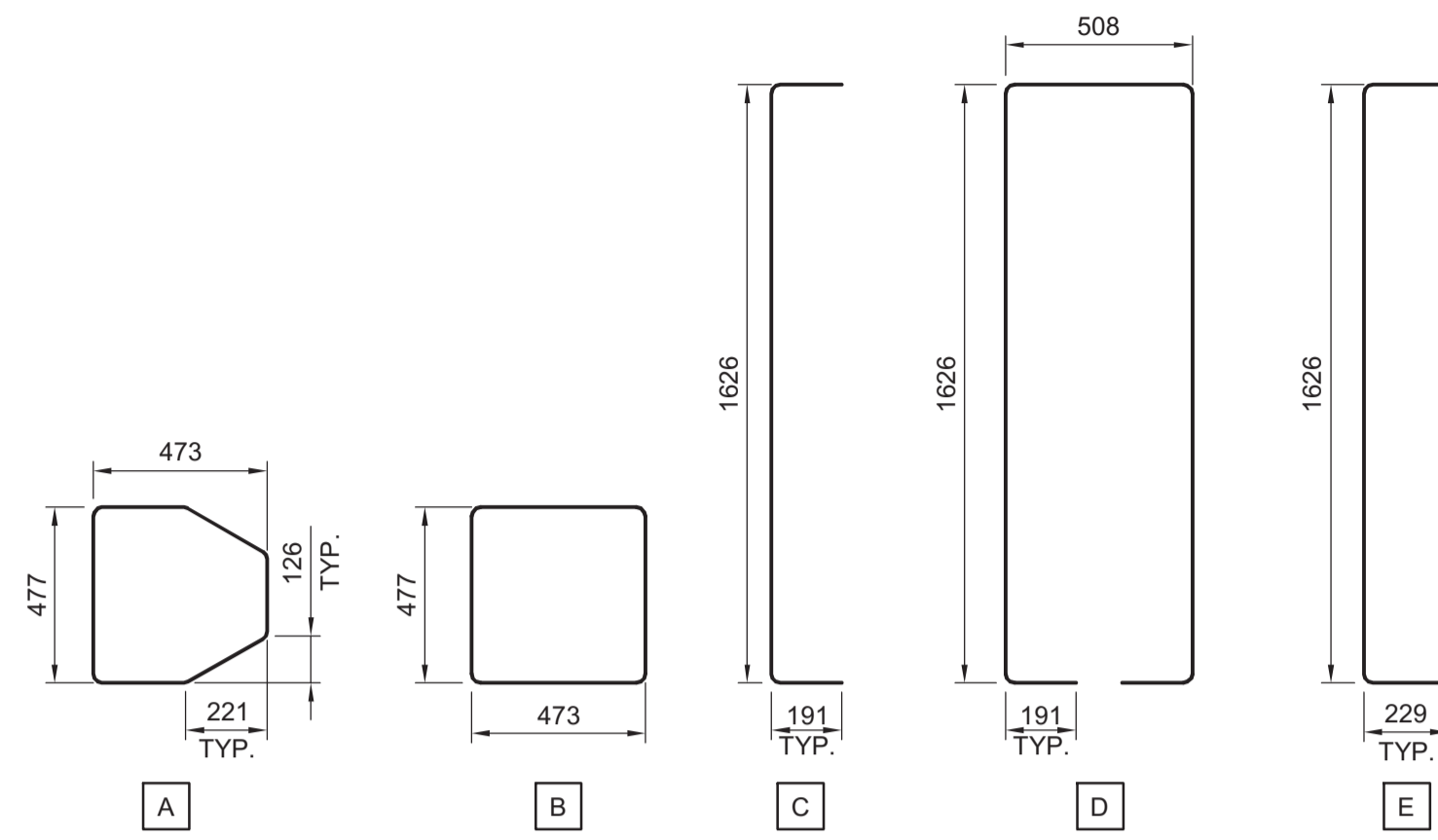
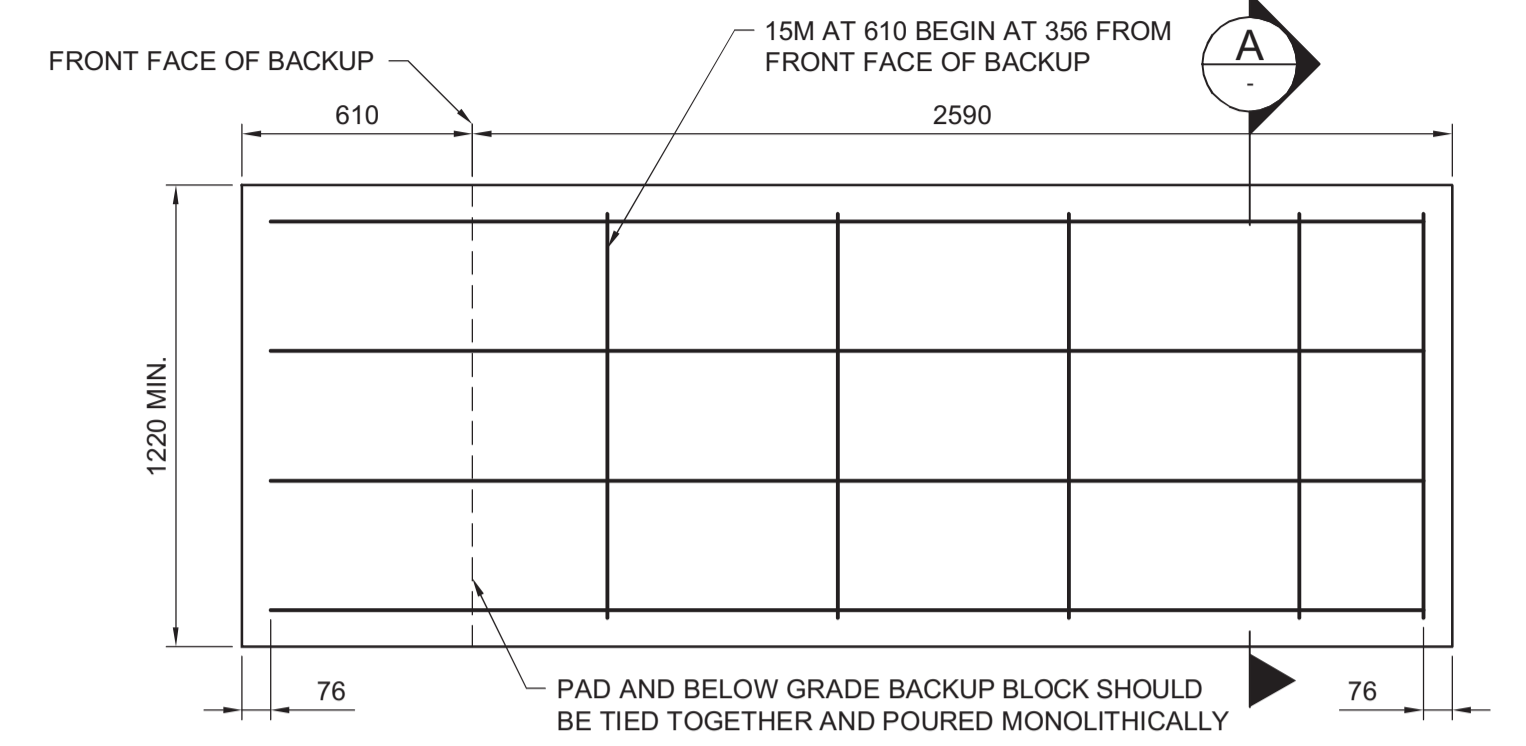


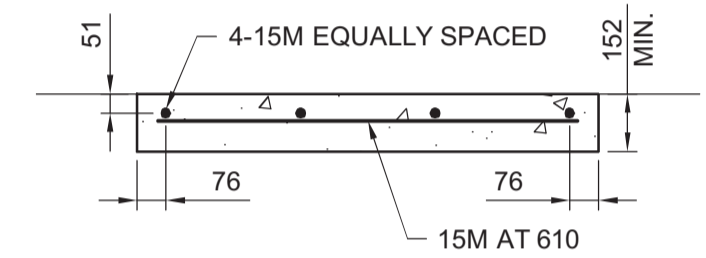
LOCATION PLAN



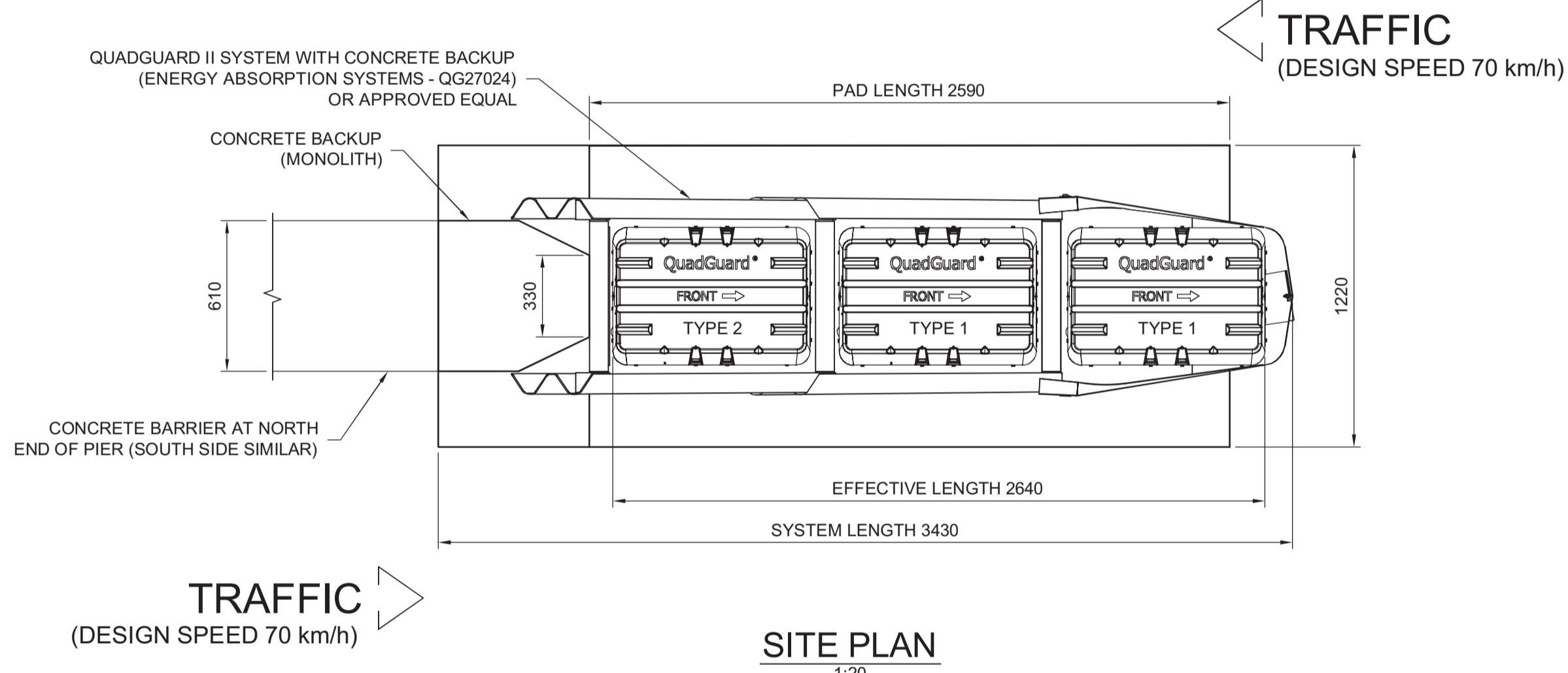
MONOLITH REINFORCING DETAILS
1:20



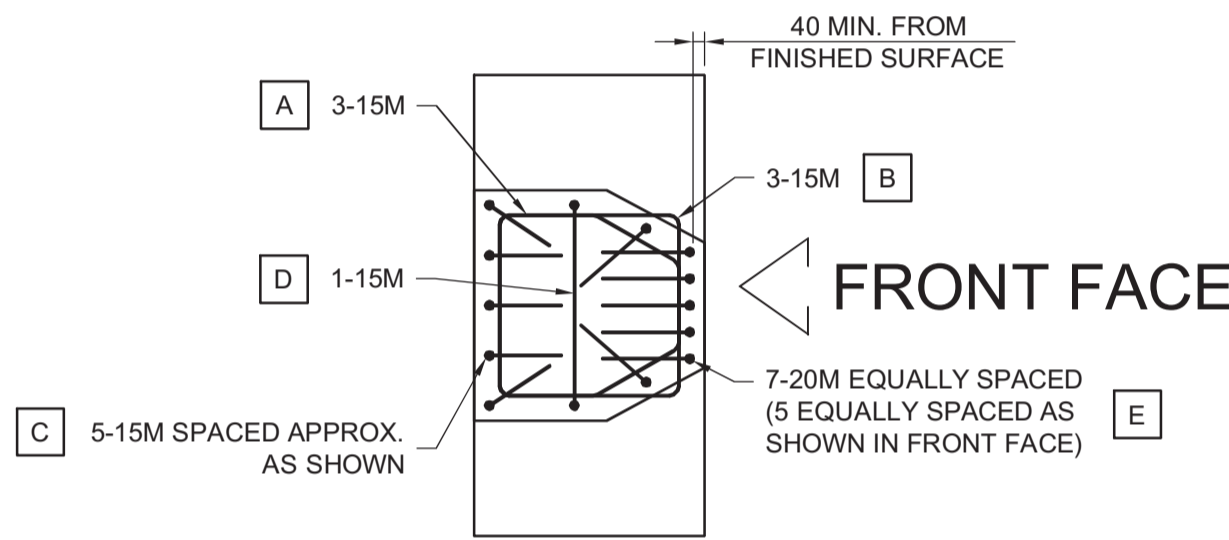
PLAN - PAD REINFORCING
1:20



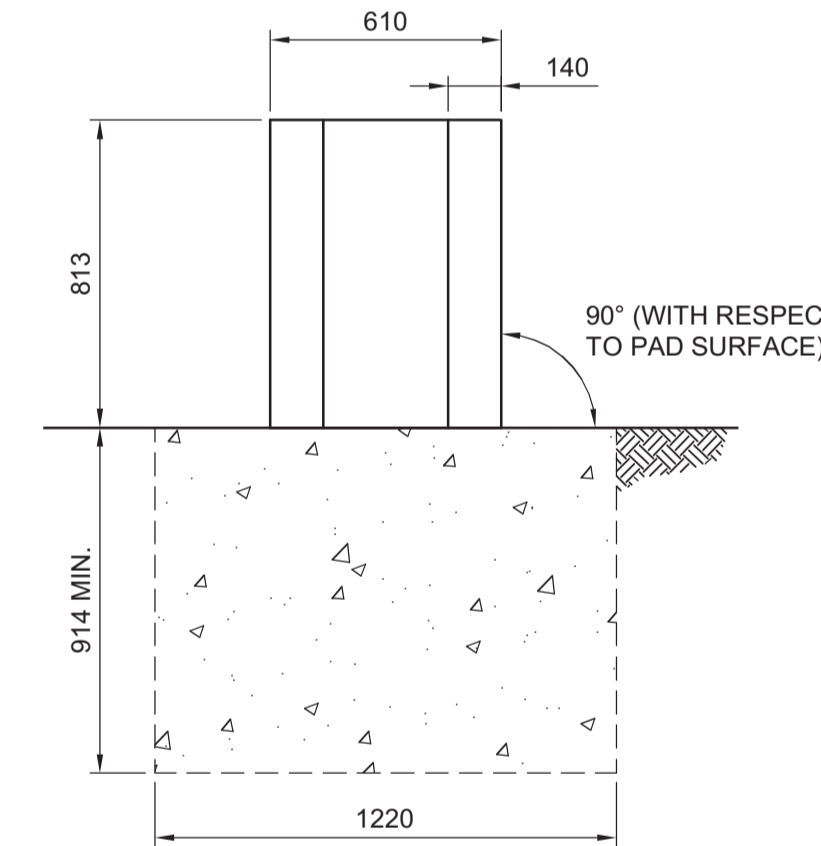
SECTION A
1:20



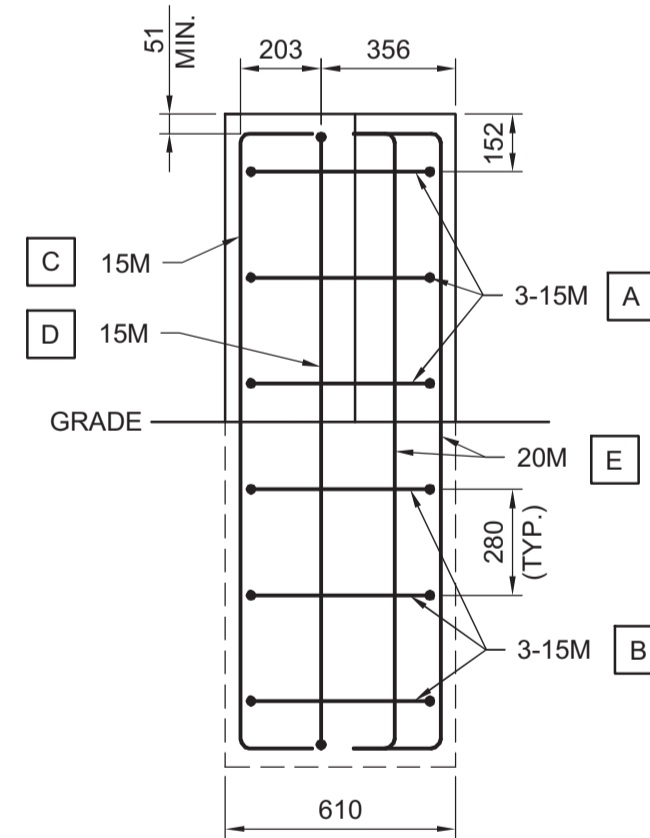
SITE PLAN
1:20



MONOLITH TOP VIEW
1:20



MONOLITH FRONT VIEW
1:20

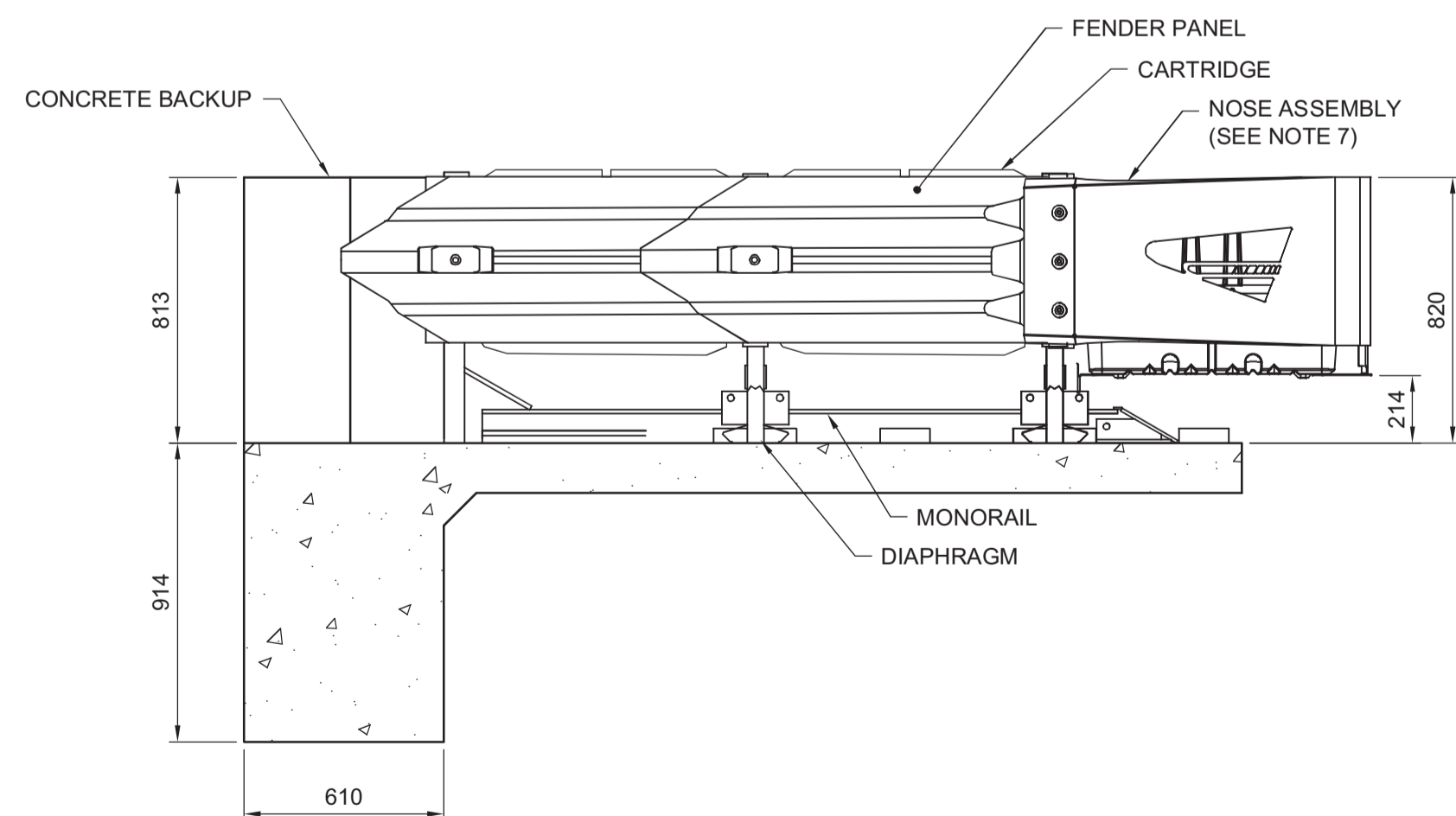


MONOLITH SIDE VIEW
1:20

NOTE: DETAILS AND NOTES SHOW QUADGUARD II SYSTEM WITH CONCRETE BACKUP. EQUIVALENT CRASH CUSHION SYSTEM CAN BE USED PENDING APPROVAL FROM THE CONTRACT ADMINISTRATOR.

CRASH CUSHION WITH CONCRETE BACKUP NOTES:

- IN COMPLIANCE WITH AASHTO 4th EDITION 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
- PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD UPON IMPACT 762 MIN.
- 152 MIN. REINFORCED 28MPa P.C. CONCRETE PAD OR 200 MIN. NON-REINFORCED 28MPa P.C. CONCRETE ROADWAY, MEASURING AT LEAST 3.66m WIDE BY 15.24m LONG.
- WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY AN ADEQUATE TRANSITION FROM THE QUADGUARD II SYSTEM TO THE OBJECT BEING SHIELDED.
- ALL UNITS ARE MILLIMETERS UNLESS OTHERWISE NOTED.
- BACKUP, EXTENSION PANEL, AND NOSE ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
- CURB SHALL BE SD-205 BARRIER CURB (100 HEIGHT) ALONG ENTIRE LENGTH OF QUADGUARD II SYSTEM. CURB SHALL BE SD-205 BARRIER CURB (100 HEIGHT) 15m IN FRONT OF QUADGUARD II SYSTEM IN THE DIRECTION OF TRAVEL.
- THE QUADGUARD II SYSTEM HAS BEEN TESTED TO NCHRP 350.
- CRASH CUSHION SHALL BE SUPPLIED TO ACCOMMODATE A DESIGN SPEED OF 70 km/h.



SIDE VIEW
1:20

ENGINEER'S SEAL FOR CONCRETE PAD AND REINFORCING ONLY. CRASH CUSHION DESIGN AND INSTALLATION SHALL BE AS PER MANUFACTURER'S DETAILS.

BID OPPORTUNITY NO. 712-2013



B.M. ELEV.					
DESIGNED BY	JLD	CHECKED BY	TJP		
DRAWN BY	JLD	APPROVED BY	DPK		
HOR. SCALE:	AS NOTED	RELEASED FOR CONSTRUCTION BY:			
VERTICAL:		DATE	2013/11/21		
A	ISSUED FOR TENDER	2013/11/21	TJP		
NO.	REVISIONS	DATE	BY	DATE	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
DESIGNED BY
T.J. PETERS
2013/11/21
Member
22309
REGISTERED PROFESSIONAL ENGINEER

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT

PLEISSIS ROAD TWINNING AND GRADE SEPARATION AT CN REDDITT SUBDIVISION CONTRACT 3

CITY DRAWING NUMBER U238-2014-2162
SHEET 62 OF 66

CRASH CUSHION WITH CONCRETE BACKUP
CT-0062