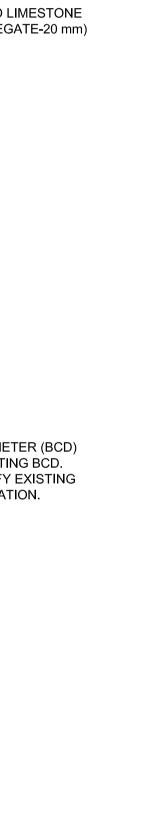


CAST IN PLACE PILE FOUNDATION DETAIL (PEMBINA DODGE) SCALE 1:20

L CONC. PILE

1. ALL ELECTRICAL WORK ASSOCIATED WITH INSTALLATION OF BLOCK HEATER RECEPTACLES AND REINSTALLATION OF LIGHT STANARDS FOR PEMBINA DODGE, VIA RAIL AND MTS CALL CENTRE SHALL BE IN ACCORDANCE WITH CSA C22.1, CANADIAN ELECTRICAL CODE, PART 1, LATEST EDITION AND CSA C22.3 NO.1-M1987



€. EXIST TRACK €. EXIST TRACK PARKING FENCE DETAIL CONSTRUCTION LIMIT PINNED CURB DETAIL MTS PARKING LOT TOP LIMIT OF GRANULAR BACKFILL - TO MATCH EXIST GROUND PROFILE (TYPICAL WITHIN COMPACT SUBGRADE CN RIGHT OF WAY) SEE SHEET 12 FOR SHORING & EXCAVATION LIMITS -INSTALL ELECTRICAL CONDUIT AND CABLE FOR MTS AND VIA RAIL OVERHEAD LIGHTING AND RECONNECT POWER SUPPLY. MATCH EXIST. DIAMETER AND GUAGE TUNNEL SEE SHEET 7 APPROX. LINE OF SHORING SEE SHEET 12 GRANULAR BACKFILL SEE SHEET 53 PAVEMENT STRUCTURE CONSTRUCTION GRADE BY CONTRACT 6 -(THIS CONTRACTO **-**20 -10 **SECTION - STA. 11+820** SCALE: H = 1:100 V = 1:50 PILE CONSTRUCTION NOTES

€. EXIST. TRACK

ALL BACKFILL WITHIN CN RIGHT OF WAY TO BE GRANULAR

€. EXIST TRACK

€ CONTROL

CN ROW

VARIES

- 3.05 CHAINLINK FENCE C/W 3 STRAND BARBED WIRE

EX. ROW

100 ASPHALTIC CONC. PAVT. TYPE 1A

MAX. AGGREGATE SIZE 120 mm

75 LIMESTONE BASE COURSE MAX. AGGREGATE SIZE 20 mm 300 LIMESTONE SUBBASE

-EXIST. ASPHALT

PARKING LOT

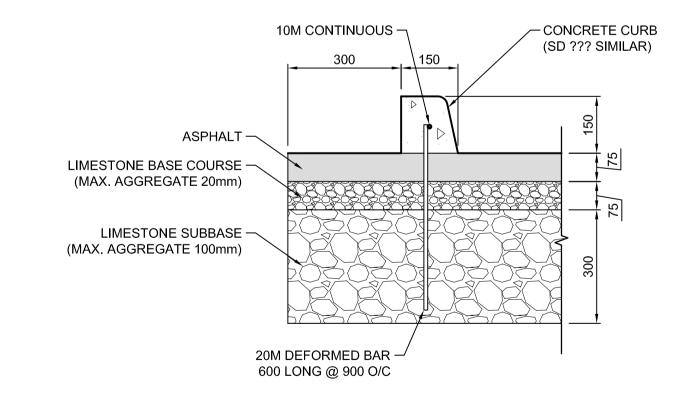
VARIES 1.2±

- 1. REINFORCING STEEL * CSA G30.12 GR. 400
- * VERTICAL BARS FULL LENGTH OF PILE
- * HOT DIP GALVANIZED
- 2. ANCHOR BOLTS CSA G40.21 GR. 300W
- 4-25mm (1") DIA. x 750mm LONG + 100mm HOOK EACH BOLT C/W 2 NUTS & 2 WASHERS TOP 300 THREADED
- HOT DIP GALVANIZED FULL LENGTH BCD = BOLT CIRCLE DIAMETER TO CENTRE OF BOLT GROUP
- 3. ANCHOR BOLTS SHALL BE ALIGNED WITH A TEMPORARY TEMPLATE. PLACEMENT OF ANCHOR BOLTS AND CONCRETE WITHOUT THE TEMPLATE WILL NOT BE PERMITTED.
- 4. TOP OF PILE SHALL BE FORMED WITH A TUBULAR FORM (SONOTUBE) AS FOLLOWS: (a) BORED PILES - MIN. 1000 mm BELOW FINAL GRADE
- 5. CONTRACTOR SHALL REMOVE THE BASE TEMPLATE, NUTS AND FORM, FOLLOWING

(b) "HYDRO-JET EXCAVATED" PILES - MIN. 1500 mm BELOW FINAL GRADE

- A MINIMUM 24 HOUR CONCRETE CURING PERIOD.
- CONCRETE MATERIAL SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES IN ACCORDANCE WITH CSA A23.1-04:
- i) CLASS OF EXPOSURE: S-1

- ii) COMPRESSIVE STRENGTH @ 56 DAYS = 35 MPa iii) WATER/CEMENTING MATERIALS RATIO = 0.4
- iv) AIR CONTENT: CATEGORY 2 PER TABLE 4 OF CSA A23.1-04 (4-7%) v) CEMENT - TYPE HS OR HSb, HIGH SULPHATE RESISTANT.



PINNED CURB DETAIL 65,70 | 70 *|* SCALE 1:10

- 1. MTS PARKING LOT TO BE RESTORED TO EQUAL OR BETTER CONDITION AT COMPLETION OF STAGE 2 TUNNEL CONSTRUCTION
- 2. EXISTING VIA RAIL LIGHT STANDARDS AFFECTED BY TUNNEL CONSTRUCTION TO BE REMOVED AND REPLACED AT COMPLETION OF PROJECT

METRIC

CITY DRAWING NUMBER

U237-09-70

WHOLE NUMBERS INDICATE MILLIMETRES DECIMALIZED NUMBERS INDICATE METRES.

APEGM Certificate of Authorization **Dillon Consulting Limited (MB)**

	LOCATION APPROVED UNDERGROUND STRUCTURES		B.M. ELEV.			DESIGNED BY	RTP		ENGINEER'S SEAL
	SUPV. U/G STRUCTURES DATE COMMITTEE 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.					DRAWN BY TJH/RTP	" I'I'I'I'I'I'I'IIIIIIIIIIIIIIIIIIIIIII	ORIGINAL STAMPED BY D.P.	
						CHECKED BY	DPK	DILLON CONSULTING RELEASED FOR CONSTRUCTION	KRAHN 10/13/2009 Member 4226 PROFESSION
						APPROVED BY	DPK		
ı						HOR. SCALE	1:100		CONCULTANT DDO IFOT NO
		0	ISSUED FOR TENDER	10.13.2009	TJH	VERTICAL	1:50		consultant project no. 088813
		NO.	REVISIONS	DATE	BY	DATE 10/1	3/2009	DATE	000013



Winnipeg

THE CITY OF WINNIPEG TRANSIT DEPARTMENT

SOUTHWEST RAPID TRANSIT CORRIDOR - STAGE 1
TRANSITWAY TUNNEL AT CN RIVERS SUBDIVISION
MILEAGE 1.38 & ASSOCIATED WORKS

SHEET OF 70 73 CONSULTANT DRAWING NUMBER CROSS SECTIONS - STA. 11+820 & DETAILS C4-C3008-T