

## **GENERAL**

- THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH, AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE NATIONAL BUILDING CODE OF CANADA 2005 AND ALL APPLICABLE LOCAL BYLAWS.
- PRINCIPAL APPLIED DESIGN LOADS ARE INDICATED ON APPROPRIATE DRAWINGS. LIVE LOAD REDUCTION FACTORS IN ACCORDANCE WITH NBC 2005 HAVE BEEN USED TO DESIGN STRUCTURAL SUPPORT ELEMENTS. DO NOT SCALE DRAWINGS.
- VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, DETAILS, CONDITIONS, ETC., SHOWN ON THE STRUCTURAL DRAWINGS WITH THE LATEST ARCHITECTURAL DRAWINGS, OTHER CONSULTANT DRAWINGS AND THE SITE, PRIOR TO CONSTRUCTION OR PREFABRICATION OF ANY BUILDING COMPONENT.
- DISCREPANCIES OR AMBIGUITIES ON THE DRAWINGS AND/OR THE SITE, WHICH AFFECT THE STRUCTURAL FRAMING, SHALL BE REPORTED TO THE CONTRACT ADMINISTRATOR. MODIFICATIONS, ALTERATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE CONTRACT
- LOCATE ALL EXISTING SITE SERVICES PRIOR TO CONSTRUCTION. FOR OPENINGS REFER TO ARCHITECTURAL, MECHANICAL, AND/OR OTHER PERTINENT DRAWINGS. LOCATION OF CONSTRUCTION JOINTS IS THE RESPONSIBILITY OF THE CONTRACTOR BUT APPROVAL MUST BE OBTAINED FROM THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING.
- DESIGN AND INSTALL ALL NECESSARY SHORING, BRACING AND FORMWORK. FORM WORK FOR NEW CONSTRUCTION SHALL BE BRIDGED OVER EXISTING SERVICES. PROCEDURE MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR. 12. NOTIFY THE CONTRACT ADMINISTRATOR AT LEAST 48 HOURS PRIOR TO ALL CONCRETE POURS AND/OR
- INSTALLATION OF INTERIOR SHEATHING, TO ALLOW FOR SITE INSPECTIONS. ANY DEFECTIVE OR UNACCEPTABLE WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR AND THE CITY AT NO COST TO THE CITY OR CONTRACT ADMINISTRATOR. REPRODUCTION OF STRUCTURAL CONSULTANTS DRAWINGS WILL NOT BE ACCEPTED.

## **REINFORCING STEEL**

- REINFORCING STEEL SHALL BE NEW BILLET, DEFORMED BARS IN ACCORDANCE WITH CSA STANDARDS G30.10 MINIMUM YIELD STRENGTH TO BE 400 MPa, EXCEPT 10M BARS MAY BE 300 MPa.
- REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST A.C.I. DETAILING MANUAL. LAP TOP BARS AT CENTER SPAN AND BOTTOM BARS OVER SUPPORTS UNLESS NOTED ON PLANS. ALL REINFORCING TO BE HELD IN PLACE AND TIES BY THE USE OF PROPER ACCESSORIES SUCH AS HI-CHAIRS, SPACERS, ETC., TO BE SUPPLIED BY THE REINFORCING STEEL FABRICATOR.
- SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, GRADE, SPACING, HOOKS, BENDS, AND SUPPORTING/SPACING DEVICES, ETC. FOR REVIEW TO THE DESIGN ENGINEER PRIOR TO FABRICATION OF THE REINFORCING STEEL.
- PRIOR TO PLACING CONCRETE, ENSURE THAT ALL REINFORCING STEEL IS CLEAN, FREE OF LOOSE SCALE, RUST, MUD, OIL OR OTHER FOREIGN MATERIAL WHICH WOULD REDUCE BOND.
- 7. HEATING, QUENCHING AND BENDING OF REINFORCING STEEL ON THE SITE IS NOT ALLOWED.

## **CONCRETE**

ALL CONCRETE WORK SHALL CONFORM TO CSA STANDARD A23.1 (LATEST). PERFORMANCE CONCRETE SPECIFICATIONS:

COMPONENT	CEMENT TYPE	EXPOSURE CLASS		AIR CONTENT CATEGORY	CONCRETE COVER	NOTES
	DESCRIPTION	No.	MPa		mm	
CAST-IN-PLACE	HS	S-1	35	2	50	75 WHEN IN CONTACT WITH SOILS

VIBRATE ALL CONCRETE WORK WITH APPROPRIATE INTERNAL VIBRATORS.

SEE "GENERAL" NOTES REGARDING INSPECTION NOTIFICATION.

- CONCRETE WORKING TIME, FROM BATCHING TO PLACEMENT AND CONSOLIDATION, SHALL NOT EXCEED CONCRETE CONTRACTOR SHALL PLACE ALL COMPONENTS TO BE EMBEDDED IN THE CONCRETE (ie. WELD
- PLATES, DOWELS FOR CONCRETE AND/OR MASONRY, ANCHOR BOLTS, INSERTS, WATER STOP BARS, SLEEVING, ETC.). SEE STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ANY OTHER PERTINENT DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR EDGE TREATMENTS. ETC. VERTICAL FACES SHALL BE FINISHED WITH A LIGHT SANDBLASTING. SANDBLASTING INTENSITY & PROCEDURE MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR PRIOR TO APPLICATION
- THE CONTRACTOR SHALL ENSURE THAT CONCRETE TESTING BE PERFORMED BY AN INDEPENDENT CSA APPROVED TESTING COMPANY. THREE CONCRETE TEST CYLINDERS AND ONE SLUMP TEST SHALL BE TAKEN FOR EVERY 50 (OR LESS) CUBIC METERS, OR EACH DAY CONCRETE IS PLACED, WHICHEVER IS GREATER. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH CSA STANDARD A23.2 (LATEST), AND THE RESULTS SHALL BE FORWARDED TO THE CONTRACT ADMINISTRATOR.
- 9. "VOID FORMS", AS DETAILED ON THE DRAWINGS SHALL BE CARDBOARD FORMS UNLESS OTHERWISE
- 10. UNDER IDEAL WEATHER CONDITIONS, ALLOW MINIMUM CURING TIME AS SCHEDULED BELOW BEFORE REMOVING FORM WORK:
- 11. THE CONCRETE SUPPLIER AND CONCRETE MIXING BATCH PLANT MUST BE A MEMBER IN GOOD STANDING WITH THE MANITOBA READY MIX CONCRETE ASSOCIATION.
- ALL HOLES CORED OR CREATED THROUGH REINFORCED CONCRETE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR ADMINISTRATOR.
- 13. CONSTRUCTION JOINTS TO BE SMOOTHED PRIOR TO SANDBLASTING. 14. FIELD APPLY EPOXY COATING TO DOWELS AT CONSTRUCTION JOINTS.

## FOUNDATION - CAST-IN-PLACE CONCRETE FRICTION PILES

- 1. ALL PILES TO BE CAST-IN-PLACE FRICTION PILES, SIZES AS SHOWN ON PLANS. PILE LENGTH TO BE MEASURED FROM FINISHED CONTOURS OF EXCAVATION AS SHOWN ON THE DRAWINGS AND DETAILS UNLESS NOTED OTHERWISE.
- PILE REINFORCING TO BE AS SHOWN ON THE DRAWINGS. FRICTION PILES ARE DESIGNED FOR AN ASSUMED SKIN FRICTION OF 14.4 KPg IN FIRM CLAY. NOTIFY
- CONTRACT ADMINISTRATOR SHOULD SITE CONDITION VARY FROM THAT ASSUMED. FRICTION PILES ARE DESIGNED FOR FRICTION VALUES IN ACCORDANCE WITH GEOTECHNICAL REPORT
- PILES SHALL NOT BE MORE THAN 50 MM OUT OF THE POSITION SHOWN ON THE FOUNDATION PLAN. EXTEND VERTICAL PILE REINFORCING STEEL 450 MM INTO THE UNDERSIDE OF ANY STRUCTURAL CONCRETE
- MEMBERS SUPPORTED. U.N.O. MECHANICALLY VIBRATE TOP 3.0 METERS OF PILE.

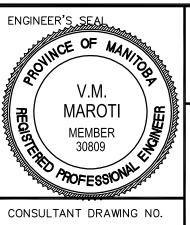
SLEEVE HOLES AS REQUIRED DURING INSTALLATION OF CONCRETE FOR PILES.

Stantec Consulting Ltd. No. 1301 Expiry: April 30, 2010

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	150_WM	WATERMAIN	<u> 1,50 WM</u>		HYDRO		150 WM	WATERMAIN	150 WM
sneet	$\diamond$	HYDRANT	+	· · ·	M.T.S.		_±_,_X_	HYDRANT, VALVE	<u>+</u> ,X
s/uɓis	$\otimes$	VALVE	8		CONCRETE		300 LDS	LAND DRAINAGE SEWER	300 LDS
eg J	<u>300 LDS</u>	LAND DRAINAGE SEWER	300 LDS		ASPHALT		250 WWS	WASTE WATER SEWER	250 WWS
\_ +02	<u>250 WWS</u>	WASTE WATER SEWER	<u>250 WWS</u>		SIDEWALK		×	© PROFILE	
	0	MANHOLE			PROPERTY LINE		$\overline{}$	NORTH OR WEST GUTTER	
3. to		CATCH BASIN		#	SURVEY BAR	-	0	SOUTH OR EAST GUTTER	
M M	$\nabla$	CURB INLET	▼		GEODETIC BENCHMARK		$\diamondsuit$	NORTH OR WEST PL	
9:03		JUNCTIONS		$\rightarrow$	DITCH	<b>—</b>	$\odot$	SOUTH OR EAST PL	
04 0		CULVERT		(31.334)	ELEVATION	(32.231)	Δ	NORTH OR WEST DITCH	
-90 -06		GAS			SIDEWALK RAMP		$\nabla$	SOUTH OR EAST DITCH	
2009-	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED

LOCATION APPROVED UNDERGROUND STRUCTURES		V.	96	Stantec Consulting Ltd.			EN		
SUPV. U/G STRUCTURES DATE COMMITTEE					Stantec	905 Waverl Tel 204-48	ley Street, Winnip 89-5900 Fax 20	oeg, Manitoba 04-453-9012	
NOTE:					DESIGNED BY	V.M.M.	CHECKED BY	K.A.R.	
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					DRAWN BY	T.G.	APPROVED BY	V.M.M.	
THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES	0	ISSUED FOR TENDER	09.06.05	V.M.M.	HOR. SCALE: VERTICAL:	1:250 1:10	RELEASED FOR CONSTRUCTION:		CC
BEFORE PROCEEDING WITH CONSTRUCTION.	NO.	REVISIONS	DATE	BY	DATE 09.05.0	)1	DATE		<u>L</u>

2	V.M. MAROTI MEMBER 30809  CONSULTANT DRAWING NO.
	CONSULTANT DRAWING NO.
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THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT Winnipeg Engineering Division

McPHILLIPS STREET CPR RAIL LINES TO SELKIRK AVENUE MISCELLANEOUS DETAILS STREET RENEWAL

SHEET OF 15 CAD FILE DRAWING NUMBER O5OOOC-20IXXX.DWG CITY DRAWING NUMBER P-3302-9

APEGIN

Certificate of Authorization

**METRIC** 

WHOLE NUMBERS INDICATE MILLIMETRES

DECIMALIZED NUMBERS INDICATE METRES

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED

FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR

1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION

2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY

SEE PROVINCIAL REGULATION 140/92 FOR DETAILS

ÓF EXCAVATION.

INSTALLATIONS.