PLAN – CONCRETE RAMP
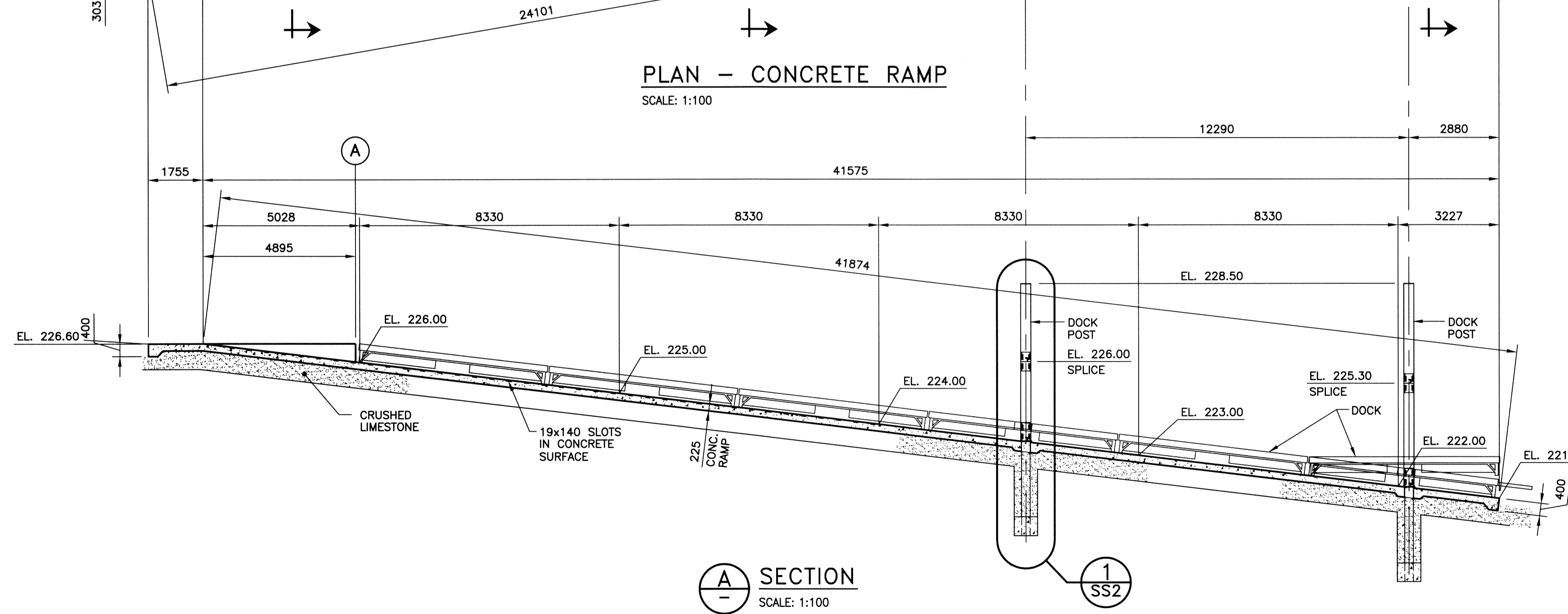SCALE: 1:100

CONCRETE NOTES:

1. CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CAN/CSA-A23.1/A23.2 (LATEST). SEE BELOW FOR MIX REQUIREMENTS.
2. CONCRETE MATERIALS, FORMING, PLACING, FORM REMOVAL, REINFORCING, ETC. TO ACI RECOMMENDATIONS AND ACCEPTABLE PRACTICE.
3. MIX WATER SHALL BE POTABLE. CALCIUM CHLORIDE SHALL NOT BE USED.
4. PROVIDE ADEQUATE COLD WEATHER PROTECTION FOR CONCRETE DURING CURING PERIOD.
5. CONCRETE MIX CONCRETE MIX DESIGN SHALL BE PROPORTIONED AS FOLLOWS:

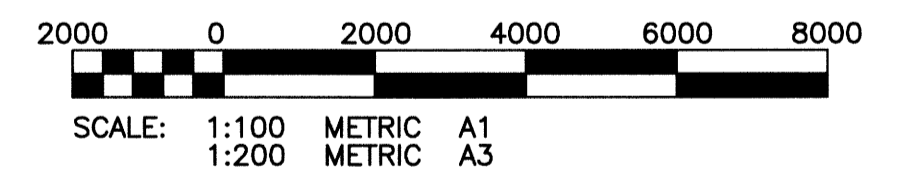|	
EXPOSURE CLASS	C-2
28 DAY COMP. STRENGTH	32 MPa
CEMENT	TYPE GU
W/C RATIO	0.45
AGGREGATE SIZE (MAX.)	19MM
ENTRAINED AIR	5%–8%
SLUMP (MAX.)	90mm (±10mm)

REINFORCING STEEL NOTES:

1. REINFORCING STEEL TO BE NEW DEFORMED BILLET STEEL BARS CONFORMING TO CAN/CSA G30.18–M92. GRADES TO BE; 400 MPa FOR 15M BARS AND LARGER; 300 MPa FOR 10M BARS.
2. REINFORCING STEEL SHALL BE CLEAN, FREE OF RUST, DIRT, LOOSE SCALE, OIL, GREASE OR ANY OTHER MATERIAL WHICH WOULD REDUCE BOND WITH THE CONCRETE.
3. PROVIDE MINIMUM CONCRETE COVER FOR REINFORCING AS SHOWN ON DRAWINGS.

STRUCTURAL AND MISCELLANEOUS STEEL:

1. STRUCTURAL AND MISCELLANEOUS STEEL FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH CAN/CSA S16 (LATEST).
2. STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF CAN/CSA G40.20/G40.21 (LATEST).

PIPE	CSA G40.21–350W
ROLLED SHAPES & PLATES	CSA G40.21–300W
WELDING ELECTRODES	CSA W48.1

3. WELDING SHALL BE IN ACCORDANCE WITH CSA W59 (LATEST), BY WELDERS CERTIFIED AND QUALIFIED IN ACCORDANCE WITH CSA W47.1 (LATEST). ALL WELDS TO BE 6mm UNLESS NOTED OTHERWISE.

GALVANIZING
WHERE NOTED STRUCTURAL STEEL & MISCELLANEOUS STEEL SHALL BE HOT–DIPPED GALVANIZED TO CAN/CSA G164–M92. APPLY GALVALLOY TO ALL GALVANIZED STEEL AREAS THAT HAVE BEEN DAMAGED.

1. SUBGRADE PREPARATION

a) THE SUBGRADE PREPARATION SHALL INCLUDE THE EXCAVATION AND DISPOSAL OF ALL EXISTING SOIL, AND ANY DELETERIOUS OR WET MATERIAL, TO THE DEPTH SHOWN.
b) ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF–SITE AT A LOCATION SELECTED BY THE CONTRACTOR AND APPROVED BY THE CONTRACT ADMINISTRATOR.
c) THE EXCAVATED SUBGRADE SHALL THEN BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

2. GEOTEXTILE

a) THE GEOTEXTILE SHALL CONSIST OF A NON–WOVEN MATERIAL WITH A MINIMUM GRAB TENSILE STRENGTH OF 900 N AND TRAPEZOID TEAR OF 350 N. ACCEPTABLE PRODUCTS SHALL BE PROPEX 4553, LAYFIELD LP8, MIRAFI 180N, OR APPROVED EQUIVALENT.
b) ALL STORAGE, HANDLING, AND INSTALLATION METHODS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AND RECOMMENDATIONS OF THE MANUFACTURER, AS APPROVED BY THE CONTRACT ADMINISTRATOR.
c) PRIOR TO LAYING THE FABRIC, THE SUBGRADE SHALL BE SMOOTH AND ALL DELETERIOUS MATERIAL THAT COULD TEAR OR PUNCTURE THE FABRIC REMOVED. THE FABRIC SHALL BE LOOSELY LAID CONFORMING TO THE BEDDING SURFACE, AVOIDING FOLDS OR WRINKLES. A MINIMUM OF 300mm OF MATERIAL SHALL BE PLACED OVER THE GEOTEXTILE PRIOR TO EQUIPMENT PASSAGE.
d) ANY DAMAGED GEOTEXTILE SHALL BE REPAIRED WITH A MINIMUM OF 600mm OVERLAP ONTO UNDAMAGED GEOTEXTILE PRIOR TO REPLACEMENT OF OVERLYING FILL.

3. GABIONS

a) ALL MATERIAL AND CONSTRUCTION METHODS FOR SUPPLYING AND PLACING THE GABIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND APPROVED BY THE CONTRACT ADMINISTRATOR.
b) THE GABION BASKETS SHALL BE GALVANIZED AND PVC COATED WITH MESH TYPE 8x10 (NOMINAL MESH OPENING 83mm), AS MANUFACTURED BY MACCAFERRI INC.
c) THE GABIONS SHALL BE CONNECTED TOGETHER USING EITHER APPROVED LACING WIRE WITH SINGLE AND DOUBLE LOOPS OR STAINLESS STEEL FASTENERS AT A MAXIMUM SPACING OF 150mm, AS APPROVED BY THE CONTRACT ADMINISTRATOR.
d) THE GABION BACKFILL SHALL CONSIST OF CRUSHED LIMESTONE VARYING BETWEEN 100 AND 200mm IN DIAMETER. THE LIMESTONE SHALL CONSIST OF A CLEAN FREE DRAINING, SOUND, DENSE AND DURABLE CRUSHED ROCK, FREE FROM ORGANICS, ROOTS, CLAY AND ANY OTHER MATERIAL THAT WOULD DETRACT FROM THE STRENGTH AND DRAINAGE CHARACTERISTICS OF CLEAN ROCKFILL. IT SHALL BE DURABLE WHITE CRYSTALLINE MATERIAL. SOFTER BUFF TO YELLOW DOLOMITE OR DOLOSTONE WILL NOT BE ACCEPTED. THE MAXIMUM LA ABRASION LOSS SHALL BE 32% (ASTM C131).
e) PRIOR TO PLACING THE BASKETS, THE SUBGRADE AND GRANULAR BASE FOUNDATION SHALL BE PREPARED AND LEVELED TO RECEIVE THE BASKETS.
f) INDIVIDUAL BASKETS SHALL BE ALIGNED IN ACCORDANCE WITH THE TYPICAL LAYOUT SHOWN, WHICH WILL INCLUDE HORIZONTAL SEAMS ALONG THE LENGTH OF THE WALL, AND STAGGERED BASKETS ACROSS VERTICAL SEAMS.

SCOPE OF WORK – DWG. SS1 AND SS2
- DEMOLITION OF EXISTING RAMP SLAB AND ITEMS AS NOTED ON DEMOLITION DRAWING.
- EXCAVATION TO UNDERSIDE OF NEW FILL.
- INSTALL 2 DOCK POSTS.
- PLACE LIMESTONE FILL.
- POUR RAMP SLAB.
- SUPPLY AND INSTALL GABIONS AND ROCKFILL.
- INSTALL DOCKS.
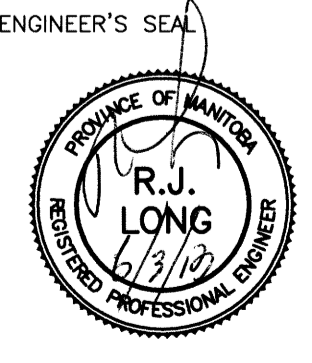 (ALSO REFERENCE LANDSCAPING AND BANK STABILIZATION DWGS.)

PROVIDE ROCK FILL BETWEEN NEW GABIONS/RAMP SLAB AND EXISTING GABIONS. NEW RIP RAP INFILL SHALL PROVIDE SURFACE TREATMENT TO COVER SIDE SLOPES AND EXISTING GABIONS. (TYP. BOTH SIDES OF RAMP SLAB)
NOTE: REMOVE EXISTING GABIONS ON THE UPSTREAM SIDE AND DOWNSTREAM SIDE OF RAMP AS REQUIRED TO INSTALL NEW GABIONS.

OUTLINE OF GABIONS
200W.x150H. CURB
19x140 SLOTS IN CONCRETE SURFACE
12% SLOPE
DOCK ATTACHMENT PLATES – FOR DETAIL SEE SECT. D, DWG. 'SS2'
CONST. JOINT
DOCK POST
LIMIT OF DOCK

A SECTION
SCALE: 1:100

EL. 226.60
EL. 226.00
EL. 225.00
EL. 224.00
EL. 223.00
EL. 222.00
EL. 221.610
EL. 228.50
EL. 226.00 SPLICE
EL. 225.30 SPLICE
DOCK POST
DOCK
CRUSHED LIMESTONE
19x140 SLOTS IN CONCRETE SURFACE
225 CONC. RAMP

NOTE: DEC. 2012 WATER LEVEL 221.820±

CITY PROJECT NO. 184–2013

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

SCALE: 1:100 METRIC A1
1:200 METRIC A3

THE CITY OF WINNIPEG
PLANNING, PROPERTY & DEVELOPMENT DEPARTMENT
Winnipeg

PROJECT TITLE
ST. VITAL PARK BOAT LAUNCH
PLAN AND DETAILS

ENGINEER'S SEAL
R.J. LONG

DESIGNED BY	RJL		CHECKED BY	
DRAWN BY	JF		APPROVED BY	
SCALE:	AS NOTED		RELEASED FOR CONSTRUCTION:	
			DATE	12/12/04

NO.	REVISIONS	DATE	BY
0	ISSUED FOR TENDER	13/03/07	RJL

COMPUTER FILE NAME
12–0109–009

CITY DRAWING NUMBER

CONSULTANT DRAWING NO.
12–0109–009–SS1

LOCATION APPROVED
UNDERGROUND STRUCTURES
SUPV. U/G STRUCTURES 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.

EXISTING	LEGEND–PLAN	PROPOSED	EXISTING	LEGEND–PROFILE	PROPOSED	EXISTING	LEGEND–PROFILE	PROPOSED
	WATERMAIN			HYDRO			WATERMAIN	
	HYDRANT			M.T.S.			HYDRANT, VALVE	
	VALVE			CONCRETE			LAND DRAINAGE SEWER	
	LAND DRAINAGE SEWER			ASPHALT			WASTE WATER SEWER	
	WASTE WATER SEWER			SIDEWALK			Ç PROFILE	
	MANHOLE			KGS TEST HOLE			NORTH/WEST GUTTER	
	CATCH BASIN			PROPERTY LINE			SOUTH/EAST GUTTER	
	CURB INLET			SURVEY BAR			N/W, S/E Ç'S	
	JUNCTIONS			DITCH			N/W, S/E TOP/CURB	
	CULVERT			ELEVATION			NORTH/WEST DITCH	
	GAS						SOUTH/EAST DITCH	