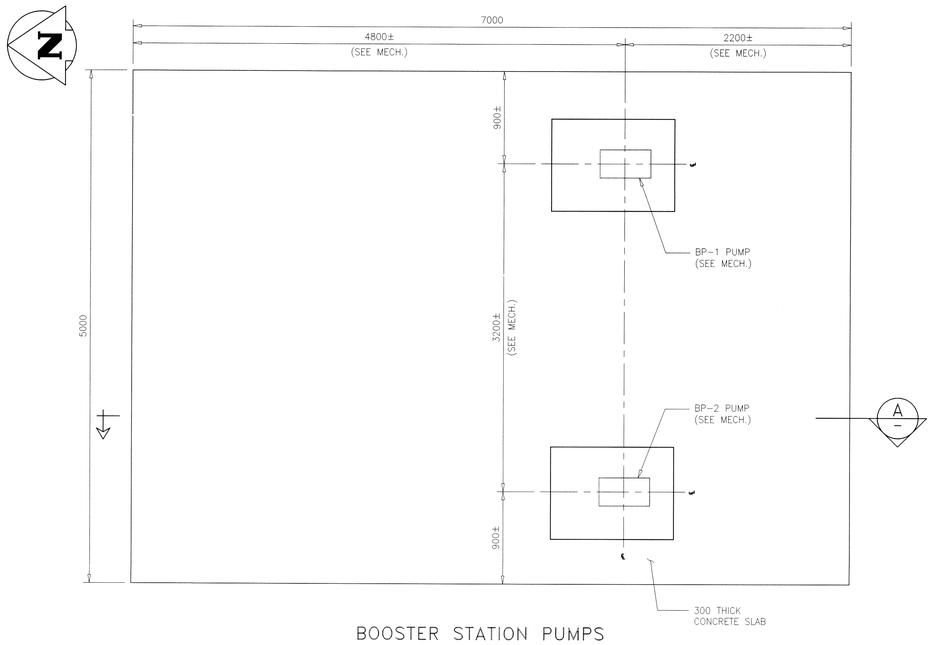
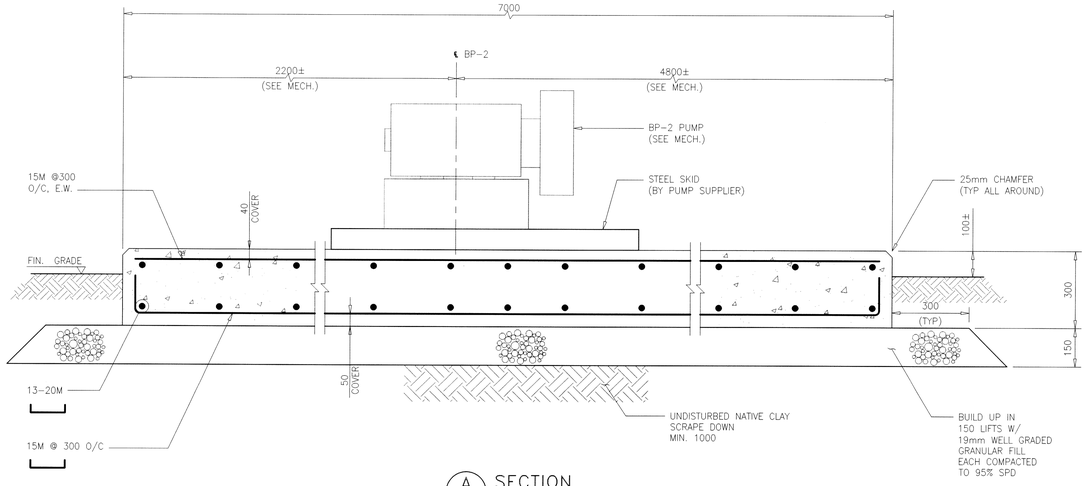


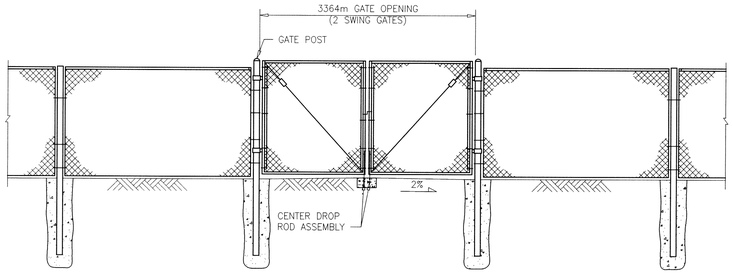
BOOSTER STATION PUMPS FOUNDATION PLAN

SCALE: 1:25



A SECTION

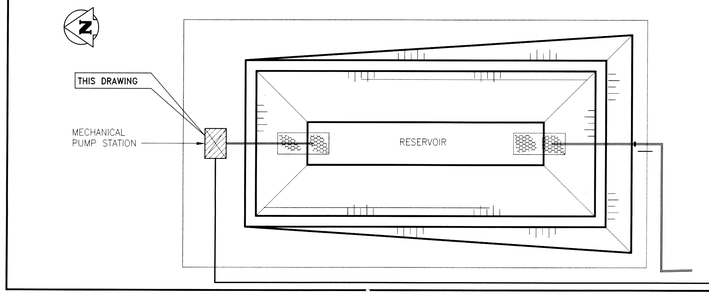
SCALE: 1:10



(DISCHARGE GATE)

CHAIN LINK FENCE GATE DETAIL

SCALE: 1:40



CONCRETE:

1. CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CSA A23.1(LATEST). SEE BELOW FOR MIX REQUIREMENTS.
2. ADMIXTURES SHALL NOT BE USED UNLESS SPECIFIED HEREIN OR APPROVED BY THE DESIGN ENGINEER. CALCIUM CHLORIDE SHALL NOT BE USED.
3. MIX WATER SHALL BE POTABLE.
4. DESIGN, FABRICATE AND ERECT FORMWORK/SHORING IN ACCORDANCE WITH CAN/CSA-S269.3 (LATEST). ALLOW SUFFICIENT CONCRETE CURING TIME PRIOR TO REMOVAL.
5. CONCRETE FINISHING SHALL MEET THE REQUIREMENTS OF CSA A23.1(LATEST).
6. FORM RELEASE AGENT SHALL BE BIODEGRADABLE, NON-STAINING AND NON-VOLATILE.
7. PROVIDE ADEQUATE COLD/HOT WEATHER PROTECTION AS REQUIRED DURING CURING PERIOD.
8. PLACE AND SECURE ALL EMBEDDED ANCHORS, WELD PLATES, SLEEVES, BUCKS, DOWELS, INSERTS, WATERSTOPS, ETC., PRIOR TO PLACING CONCRETE. CO-ORDINATE WITH ALL TRADES FOR EMBEDDING OF ALL OTHER, CONDUIT, SERVICES, BLOCKING, ETC.
9. LOCATE AND FABRICATE ALL CONSTRUCTION JOINTS, CONTROL JOINTS AND EXPANSION JOINTS AS DETAILED ON THE DRAWINGS. JOINTS NOT SHOWN SHALL BE APPROVED BY THE DESIGN ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE.
10. ALL EXPOSED CORNERS TO HAVE 25mm CHAMFER FILLET UNLESS NOTED.
11. SAWCUTS TO BE 3mm WIDE X 25mm DEEP AT A SPACING OF 6100mm MAXIMUM, AS NOTED ON DRAWINGS, WITHIN 24 HOURS OF POUR. SAW CUTS TO BE FILLED WITH SIKA SELF-LEVELLING (POLYURETHANE, HIGH PERFORMANCE, NON-LOADBEARING), SIKA LOADFLEX (STATIC JOINT, INTERIOR, LOADBEARING), SIKA DUOFLEX NS OR SL (NON-SAG OR SELF-LEVELING, POLYSULPHIDE) OR APPROVED EQUAL. INSTALL AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. CAST-IN-PLACE ANCHOR BOLTS SHALL MEET REQUIREMENTS OF ASTM A307(LATEST).
13. EXPANSION ANCHORS SHALL BE HILTI KWIK-BOLTS OR APPROVED EQUAL, UNLESS NOTED. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
14. ADHESIVE ANCHORS SHALL BE HILTI HY200 HAS RODS OR APPROVED EQUAL, UNLESS NOTED. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
15. GROUT REINFORCING DOWELS WITH EPOXY GROUT HILTI HIT-HY200 MAX, OR APPROVED EQUAL. GROUT BASE PLATES WITH NON-SHRINK GROUT SIKA M-BED STANDARD, OR APPROVED EQUAL. PLACE AND CURE ALL GROUT WITHIN TEMPERATURE RANGE RECOMMENDED BY MANUFACTURER.
16. THE CONCRETE SUPPLIER SHALL BE CERTIFIED TO MEET THE REQUIREMENTS OF CSA A23.1 (LATEST).
17. THE CONCRETE SUPPLIER SHALL SUBMIT CONCRETE MIX DATA SUBMISSION FORMS FOR EACH TYPE OF CONCRETE SPECIFIED FOR REVIEW PRIOR TO BATCHING ANY CONCRETE.

CONCRETE MIX DESIGNS:

CONCRETE MIX DESIGN SHALL BE PROPORTIONED TO MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:

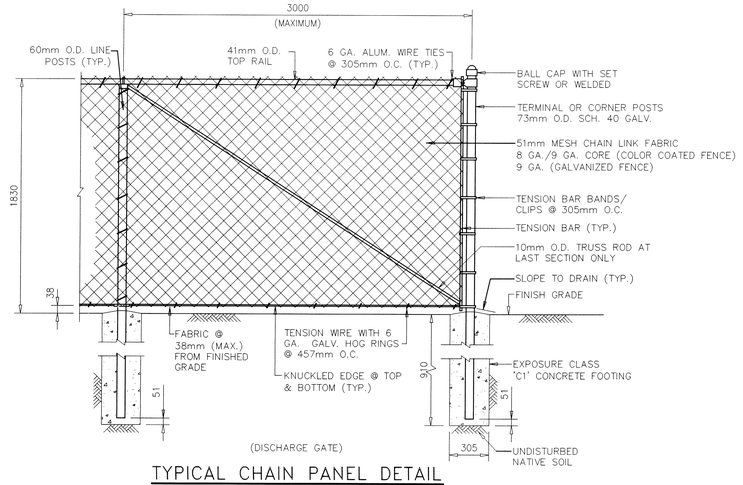
EXTERIOR SLABS (NON-STRUCTURAL):

EXPOSURE CLASS	C-2
MIN. 28 DAY COMP. STRENGTH	32 MPa

REINFORCING STEEL:

1. REINFORCING STEEL TO BE NEW DEFORMED BILLET STEEL BARS CONFORMING TO CSA G30.18 (LATEST). GRADE TO BE 400 MPa.
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. WELDED STEEL WIRE FABRIC SHALL CONFORM TO A1064/A1064M (LATEST). 400 MPa MINIMUM GRADE IN FLAT SHEETS ONLY UNLESS APPROVED OTHERWISE.
4. SUBMIT SHOP DRAWINGS WHICH CLEARLY INDICATE BAR SIZES, SPACINGS, LOCATIONS & QUANTITIES OF REINFORCING STEEL, BENDING & CUTTING SCHEDULES, SUPPORTING & SPACING DEVICES, ETC. FOR REVIEW PRIOR TO FABRICATION. DETAIL, FABRICATE AND PLACE REINFORCING IN ACCORDANCE WITH CSA A23.1(LATEST), CSA A23.3 (LATEST) AND ACI SP-66 (LATEST) UNLESS NOTED. LAP STEEL 36 BAR DIAMETERS (MINIMUM) UNLESS NOTED.
5. TIE, SUPPORT AND SPACE ALL REINFORCING STEEL WITH PROPER APPROVED DEVICES DESIGNED FOR USE IN REINFORCED CONCRETE, TO PREVENT DISPLACEMENT OF REINFORCING AND ENSURE SPECIFIED CONCRETE COVER.
6. PROVIDE MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:

SLAB-ON-GRADE (TOP)	40mm
SLAB-ON-GRADE (BOTTOM)	50mm



(DISCHARGE GATE)

TYPICAL CHAIN PANEL DETAIL

SCALE: 1:20

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

APEGM Certificate of Authorization
KGS Group
No. 245

PETRAK Member 24082 JUL 2016 Professional Engineer

KGS GROUP CONSULTING ENGINEERS

Revision	Description	Date
0	ISSUED FOR TENDER	2016/07/15

Client / Client

Project / Projet

BRANDON RESEARCH CENTER IRRIGATION SYSTEM

Designed by / Conçu par: DJP
Drawn by / Dessiné par: FBV
Approved by / Approuvé par: CMS
PWGSC Project Manager / Administrateur de Projets TPSGC

Drawing title / Titre du dessin:

STRUCTURAL PLAN BOOSTER STATION PUMPS PAD

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R.077363.002	S01 OF 1	0

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