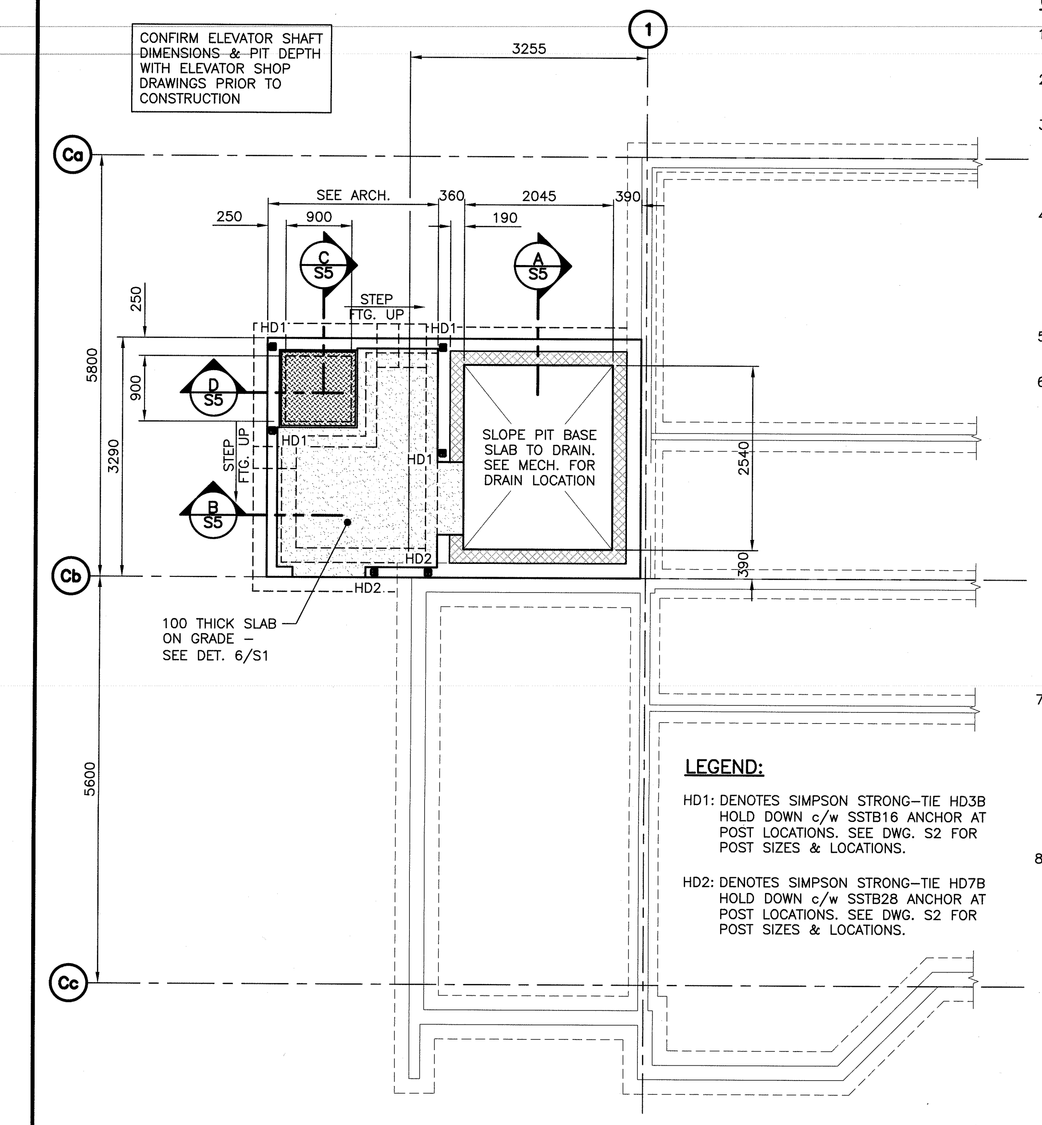


NEW ELEVATOR PIT FOUNDATION PLAN

SCALE: 1:50

0m 1m 2m 3m 4m 5m

GENERAL NOTES:

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL BUILDING CODE OF CANADA, 2010.
2. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT OF NOVA SCOTIA.
3. NO ALTERATIONS TO STRUCTURAL DETAILS SHALL BE MADE WITHOUT THE WRITTEN PERMISSION OF THE DEPARTMENT REPRESENTATIVE. ALL OPENINGS IN SLABS OR WALLS ARE TO BE PRE-FORMED AND ALL HOLES SLEEVED. CONSTRUCTION ERRORS ARE TO BE DOCUMENTED AND REPORTED TO THE DEPARTMENT REPRESENTATIVE BEFORE PROCEEDING WITH SUBSEQUENT WORK.
4. PERIODIC AND DISCRETIONARY INSPECTIONS ARE MADE AT THE JOB SITE BY THE DEPARTMENT REPRESENTATIVE AND ARE NECESSARILY LIMITED IN SCOPE TO OBSERVATION OF WORK IN PROGRESS AT THE TIME OF THE INSPECTION. THESE INSPECTIONS DO NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE CONTINUOUS ON-SITE SUPERVISION OF ALL STRUCTURAL WORK TO ENSURE THAT BOTH THE INTENT AND DETAILS OF THE DRAWINGS AND SPECIFICATIONS ARE BEING FOLLOWED.
5. THE CONTRACTOR SHALL COORDINATE DETAILS SHOWN ON THE STRUCTURAL DRAWINGS WITH ALL OTHER DISCIPLINES DRAWINGS AND SPECIFICATIONS.
6. THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED TO THE DEPARTMENT REPRESENTATIVE FOR REVIEW:
   - .1 CONCRETE REINFORCING STEEL.
   - .2 STRUCTURAL STEEL FABRICATIONS.
   - .3 PROPOSED STEPPED FOOTING LOCATIONS & ELEVATIONS.
   - .4 PRE-FABRICATED WOOD TRUSSES.
   - — STRUCTURAL STEEL FABRICATION DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER, REGISTERED OR LICENSED TO PRACTICE IN THE PROVINCE OF NOVA SCOTIA, WHO WILL BE RESPONSIBLE FOR THE DESIGN OF CONNECTIONS.
   - — ALL DESIGN LOADINGS SHOWN ON THE STRUCTURAL DRAWINGS, FOR THE PURPOSES OF MEMBER AND CONNECTION DESIGN, ARE WORKING LOADS.
   - — FOR PRE-FABRICATED WOOD TRUSSES, SEE TIMBER NOTES.
7. ALL CHEMICAL ANCHORS TO HAVE THE DIAMETER AND EMBEDMENT AS NOTED ON THE DRAWINGS. IF EMBEDMENT IS NOT NOTED, PROVIDE THE STANDARD EMBEDMENT AS NOTED BY THE MANUFACTURER. ALL ANCHORS TO BE INSTALLED AS PER THE MANUFACTURERS RECOMMENDATIONS AND THE INSTALLER SHALL BE TRAINED ON HOW TO INSTALL THE ANCHORS BY A MANUFACTURERS REPRESENTATIVE.
   APPROVED CHEMICAL ADHESIVES ANCHORS ARE:
   - — HILTI HIY HY 150 — MAX CHEMICAL ADHESIVE c/w HILTI HAS — E RODS
   - — AC100 CHEMICAL ADHESIVE BY POWERS FASTENERS c/w A307 THREADED ROD
   - — SET EPOXY BY SIMPSON STRONGTIE c/w A307 THREADED ROD
8. ALL EXPANSION ANCHORS TO HAVE THE DIAMETER AND EMBEDMENT AS NOTED ON THE DRAWINGS. IF EMBEDMENT IS NOT NOTED, PROVIDE THE STANDARD EMBEDMENT AS NOTED BY THE MANUFACTURER. ALL ANCHORS TO BE INSTALLED AS PER THE MANUFACTURERS RECOMMENDATIONS AND THE INSTALLER SHALL BE TRAINED ON HOW TO INSTALL THE ANCHORS BY A MANUFACTURERS REPRESENTATIVE.
   APPROVED EXPANSION ANCHORS ARE:
   - — KWIK BOLT 3 BY HILTI
   - — HEX HEAD POWER BOLT BY POWERS FASTENERS
   - — WEDGE — ALL BY SIMPSON STRONGTIE
9. ALL STANDARDS AND SPECIFICATIONS NOTED SHALL REFLECT "LATEST EDITION".
10. ALL WATER STOPS NOTED AS BENTONITE TO BE EXPANDING BENTONITE BASED CONTINUOUS STRIP WATER STOP. TYPE SHALL BE APLICABLE TO CONCRETE WALL THICKNESS.
11. ALL WATER STOPS NOTED AS RIBBED TO BE EXTRUDED PVC BULB TYPE. SEE SPECS FOR SIZE.

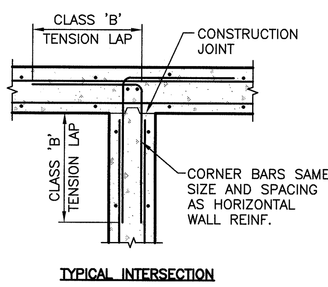
FOUNDATIONS:

1. FOUNDATIONS ARE DESIGNED TO BEAR ON UNDISTURBED NATIVE MATERIAL OR FULLY COMPACTED ENGINEERED FILL WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 250KPA OR ON BEDROCK WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 750KPA, AS PER GONQUEST ENGINEERING LTD. REPORT, DATED 18 SEP 2013, PROJECT# 034-085.
2. FOR THE BUILDING FOOT PRINT, THE AREA IS TO BE OVER-EXCAVATED AND STRUCTURAL FILL TO BE PLACED AND COMPACTED TO PROVIDE A STABLE FOUNDING LAYER TO PREVENT SOFTENING OF THE FOUNDING LAYER UNDER THE BUILDING FOUNDATIONS WHEN AREA IS EXCAVATED. REFER TO CIVIL DRAWINGS & SPECIFICATIONS FOR DETAILS ABOUT THIS FOUNDATION WORK.
3. ALL ENGINEERED (STRUCTURAL) FILL AND BACKFILLING IS TO BE PLACED UNDER THE CONTINUOUS SUPERVISION OF THE GEOTECHNICAL ENGINEER.
4. THE GEOTECHNICAL ENGINEER SHALL INSPECT ALL PROPOSED BEARING SURFACES AND CONFIRM THAT THE ALLOWABLE BEARING CAPACITY STATED IN THE GEOTECHNICAL REPORT, CAN BE ACHIEVED PRIOR TO PLACEMENT OF ANY CONCRETE IN FOOTINGS, AND THAT BEARING SURFACE IS FREE FROM FROST & WATER. IF THE GEOTECHNICAL ENGINEER DEEMS BEARING SURFACE CAN NOT PROVIDE THE ALLOWABLE BEARING CAPACITY, THE CONTRACTOR IS TO LOWER FOOTINGS AS DIRECTED BY GEOTECHNICAL ENGINEER TO A LEVEL THAT CAN PROVIDE THE ALLOWABLE BEARING CAPACITY.
5. BACKFILLING AGAINST WALLS OR GRADE BEAMS SHALL PROCEED IN APPROXIMATELY EQUAL LIFTS ON BOTH SIDES OF THE WALL OR GRADE BEAM, UNLESS NOTED OTHERWISE.
6. NO PIPING/DUCTBANKS/CONDUIT ARE TO PASS UNDER ANY LOAD BEARING FOUNDATIONS. STEP/LOWER FOUNDATIONS TO ALLOW PIPES/DUCTBANKS/CONDUIT TO BE SLEEVED THROUGH THE FOUNDATION WALL OR PASS OVER TOP OF THE ISOLATED FOOTING. CONTRACTOR TO COORDINATE WITH MECHANICAL/ELECTRICAL/CIVIL DRAWINGS. THE LAYOUT OF STEPPED FOOTINGS SHOWN ON THE STRUCTURAL DRAWINGS IS SCHEMATIC ONLY, AND MAY NOT SHOW ALL LOCATIONS WHERE STEPPED FOOTINGS ARE REQUIRED. CONTRACTOR IS TO COORDINATE ALL STEPPED FOOTING LOCATIONS AND DEPTHS WITH ALL SUB-TRADES AND SUBMIT ALL PROPOSED STEPPED FOOTING LOCATIONS AND DEPTHS TO ENGINEER PRIOR TO EXCAVATION FOR FOOTINGS AND REINFORCING AND FORMWORK FABRICATION. REFER TO TYPICAL STEPPED FOOTING DETAIL.

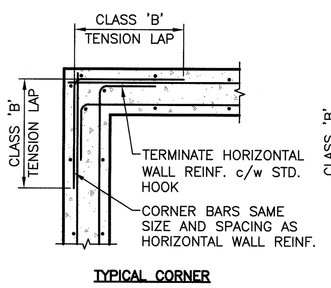
REINFORCED CONCRETE:

1. ALL CONCRETE, CONCRETE MATERIALS, FORMS, WORKING PROCEDURES AND THE LIKE SHALL CONFORM TO CSA A23.1, LATEST EDITION, UNLESS NOTED OTHERWISE.
2. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS & CLASS OF EXPOSURE SHALL BE AS FOLLOWS:
   - .1 BUILDING FOUNDATIONS, ELEVATOR PIT 25 MPa/F-2
   - .2 INTERIOR SLABS ON GRADE ..... 25 MPa/N
   - .3 MUD SLABS ..... 20 MPa/N
   - .4 CURBS, EXTERIOR PADS & WALKWAYS 32 MPa/C-2
   - .5 CONCRETE GROUT FOR MASONRY CELLS ..... 20 MPa/N
   - .1 MAXIMUM AGGREGATE SIZE ..... 3/8" (10mm)
   - .2 MAXIMUM SLUMP ..... 6" (150mm)
   - — ALL AGGREGATE TO BE 3/4" (20mm) IN DIAMETER TYPICAL, EXCEPT 1/2" (13mm) DIA. AT SLABS ON METAL DECK U.N.O..
3. CONCRETE PROTECTIVE COVER TO REINFORCING STEEL SHALL BE AS FOLLOWS:
   - .1 CAST AGAINST GROUND — NO FORMWORK ..... 3" (75mm)
   - .2 EXPOSED TO EARTH OR WEATHER ..... 2" (50mm)
   - .3 SLABS — TOP BARS ..... 1" (25mm)
     — BOTTOM BARS ..... 1 1/4" (30mm)

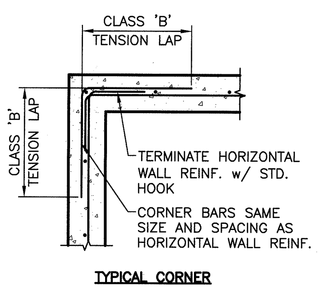
   OTHER SPECIFIC REQUIREMENTS ARE AS NOTED ON THE DRAWINGS.
4. ALL REINFORCING BARS MUST BE ACCURATELY SUPPORTED ON PLASTIC COATED STEEL HIGH CHAIRS TO MAINTAIN EXACT CONCRETE COVER.
5. CONSTRUCTION JOINTS SHALL BE LOCATED SO AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE. LOCATIONS SHALL BE AS SHOWN ON THE DRAWINGS OR CONTRACTOR IS TO SUBMIT PROPOSED CONSTRUCTION JOINTS FOR THE DEPARTMENT REPRESENTATIVE'S APPROVAL. CONSTRUCTION JOINTS SHALL BE KEYED AND REINFORCEMENT SHALL NOT BE INTERRUPTED.
6. ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD POINT STRENGTH OF 400 MPa AND SHALL CONFORM TO CSA G30.18-M, LATEST EDITION.
7. ALL W.W.F. SHALL CONFORM TO ASTM A82 AND ASTM A185, LATEST EDITIONS.
8. UNLESS NOTED OTHERWISE, REINFORCING STEEL SHALL BE PROVIDED WITH A CLASS 'B' TENSION LAP TO CSA A23.3, LATEST EDITION AT ALL SPLICE LOCATIONS



TYPICAL INTERSECTION

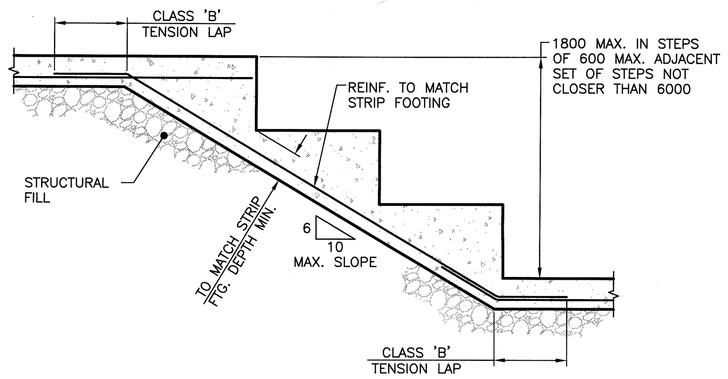


TYPICAL CORNER



TYPICAL CORNER

DETAIL — TYPICAL FOUNDATION WALL PLANS — 1/S1
SCALE : N.T.S.



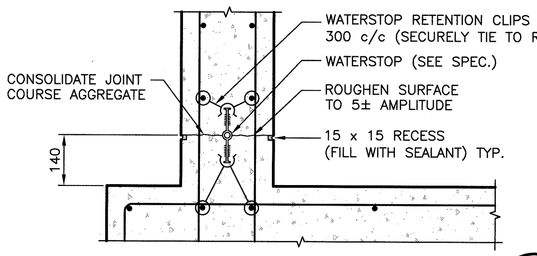
DETAIL — TYPICAL STEPPED FOOTING — 2/S1
SCALE : N.T.S.

NOTES:
- — FOR OPNG. LESS THAN SPACING OF REINFORCEMENT, NO ADDITIONAL REINF. BARS ARE REQUIRED.
- — DOWELS MUST BE PROVIDED WHERE DEVELOPMENT LENGTH EXTENDS INTO FOOTING.
- — BARS MUST BE HOOKED AT DISCONTINUOUS EDGES OR CORNERS.

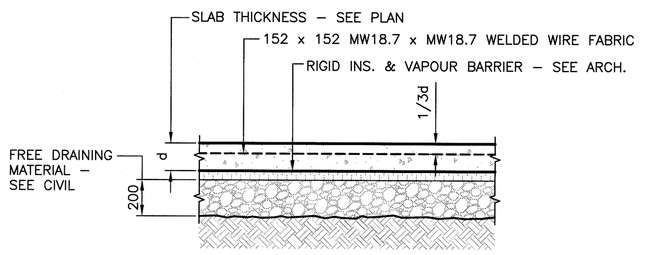
DETAIL — TYPICAL REINFORCING AT RECTANGULAR OPENINGS — 3/S1
SCALE : N.T.S.

NOTES:
- — FOR OPNG. LESS THAN SPACING OF REINFORCEMENT, NO ADDITIONAL REINF. BARS ARE REQUIRED.
- — DOWELS MUST BE PROVIDED WHERE DEVELOPMENT LENGTH EXTENDS INTO FOOTING.
- — BARS MUST BE HOOKED AT DISCONTINUOUS EDGES OR CORNERS.

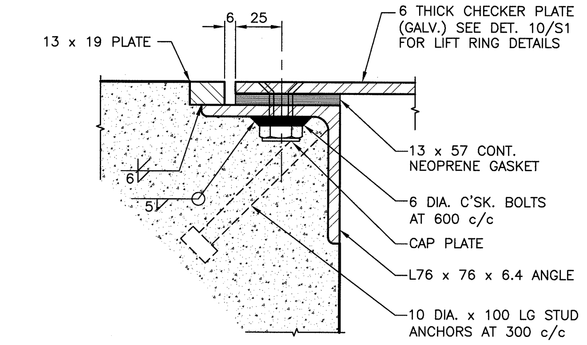
DETAIL — TYPICAL REINFORCING AT ROUND OPENINGS — 4/S1
SCALE : N.T.S.



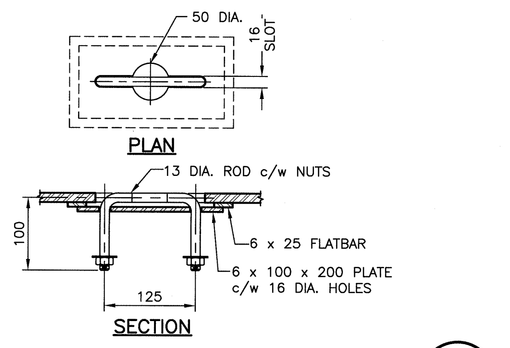
DETAIL — TYPICAL WATERSTOP — 5/S5
SCALE : N.T.S.



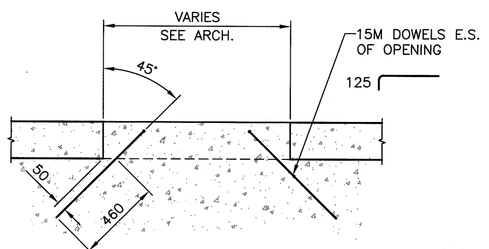
DETAIL — TYPICAL SLAB ON GRADE — 6/S1
SCALE : N.T.S.



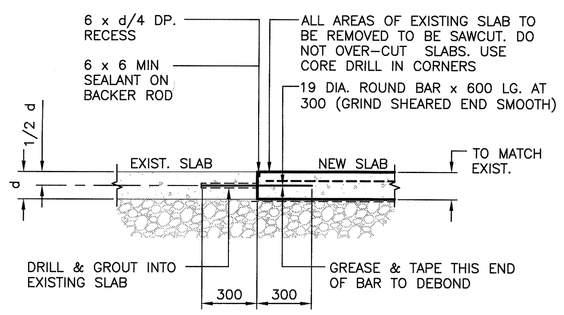
DETAIL — TYPICAL CAST-IN SERVICE PIT COVER PLATE — 9/S5
SCALE : N.T.S.



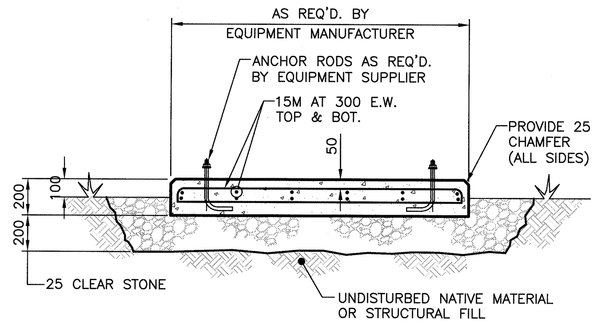
DETAIL — TYPICAL SERVICE PIT COVER LIFT RING — 10/S5
SCALE : N.T.S.



DETAIL — TYPICAL ADD'L. REINF. AT DOOR OPENINGS — 7/S1
SCALE : N.T.S.



DETAIL — TYPICAL NEW TO EXISTING SLAB ON GRADE — 8/S1
SCALE : N.T.S.



DETAIL — TYPICAL EXTERIOR EQUIPMENT PAD SEE MECH. FOR SIZE & LOCATION(S) — 11/S1
SCALE : N.T.S.

PWGSC B1 (2004)

E-DRM/GDO-E: 458404

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REGISTERED PROFESSIONAL ENGINEER — DATE: Sept 24/13 — S. L. Myatt — 8171 — PROVINCE OF NOVA SCOTIA

revisions		date
1	ISSUED FOR TENDER	SEP 24 2013

project / projet
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SYDNEY, NS

drawing / dessin
STRUCTURAL FOUNDATION PLAN & DETAILS

designed	S. MYATT	conçu
date	JUNE 2013	
drawn	S. FRASER	dessiné
date	JUNE 2013	
approved	M. WOODMAN	approuvé
date	JUNE 2013	
Tender		Soumission
PWGSC Project Manager		Administrateur de projets TPSGC
project number	R.049698.003	no. du projet
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