GENERAL NOTES

1. STRUCTURAL DESIGN BASED ON THE MANITOBA BUILDING CODE 2011 EDITION.
   A) IMPORTANCE CATEGORY: NORMAL
   B) WIND LOAD: q50 = 0.45 kPa
   C) GROUND SNOW LOAD: Ss = 1.9 kPa
   D) ASSOCIATED RAIN LOAD: Sr = 0.2 kPa
2. SEISMIC SITE CLASSIFICATION: NOT APPLICABLE
3. DO NOT SCALE DRAWINGS.
4. ALL DIMENSIONS ARE TO BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS, PROJECT DRAWINGS, AND EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
5. TEMPORARY FALL PROTECTION SHOULD BE PROVIDED FOR LOADING PROCEDURE AT ROOF EDGE.

CAST–IN–PLACE CONCRETE

I CONCRETE

1. ALL CONCRETE IS TO BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF CSA–A23.1–14 "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION" AND CSA–A23.2–14 "METHOD OF TEST FOR CONCRETE".
2. PROVIDE CERTIFICATION THAT MIX PROPORTIONS SELECTED WILL PRODUCE CONCRETE OF QUALITY, YIELD AND STRENGTH AS SPECIFIED IN CONCRETE MIXES, AND WILL COMPLY WITH CSA–A23.1. CERTIFICATION LETTER TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.
3. PROVIDE CERTIFICATION THAT PLANT, EQUIPMENT, AND MATERIALS TO BE USED IN CONCRETE COMPLY WITH REQUIREMENTS OF CSA–A23.1. CERTIFICATION LETTER TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.
4. CONCRETE PROPERTIES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS.

   EXTERIOR SLABS–ON–GRADE: 32 MPa MIN. AT 28 DAYS
   CLASS OF EXPOSURE: C–2
   ENTRAINED AIR/CATEGORY: 1 (5% TO 8%)
   AGGREGATE MAX. 20 mm
   CURING TYPE: TYPE 2 – ADDITIONAL

   UNLESS INDICATED OTHERWISE THE CONTRACTOR SHALL SPECIFY CONCRETE SLUMP APPROPRIATE WITH PLACEMENT METHODS AND SITE CONDITIONS. THE CONTRACTOR SPECIFIED SLUMP MUST BE SHOWN ON THE CERTIFICATION LETTER AND CONCRETE DELIVERY TICKET.

5. UNLESS NOTED OTHERWISE CONCRETE CURING TO CONFORM TO THE LATEST EDITION OF CSA–A23.1–14 AS FOLLOWS:
   A) TYPE 2 – ADDITIONAL: 7 DAYS ≥ 10°C AND FOR A TIME NECESSARY TO ATTAIN 70% OF THE SPECIFIED STRENGTH.
6. AIR ENTRAINING ADMIXTURES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C260/C260M–10a "STANDARD SPECIFICATION FOR AIR ENTRAINING ADMIXTURES FOR CONCRETE". SUPERPLASTICIZING ADMIXTURES SHALL CONFORM TO ASTM C494/C494M "STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR CONCRETE" OR ASTM C1017/C1017M "STANDARD SPECIFICATION FOR CHEMICAL ADMIXTURES FOR USE IN PRODUCING FLOWING CONCRETE" WHEN FLOWING CONCRETE IS APPLICABLE. AIR ENTRAINED ADMIXTURES TO HAVE A DURABILITY FACTOR GREATER THAN 75, WHEN TESTED TO ASTM STANDARDS C666/C666M PROCEDURE A. SPACING FACTOR FOR ANY AIR ENTRAINING ADMIXTURE MUST BE 0.17mm OR LESS WHEN TESTED IN ACCORDANCE WITH ASTM C457 "STANDARD TEST METHOD FOR MICROSCOPICAL DETERMINATION OF PARAMETERS OF THE AIR–VOID SYSTEM IN HARDENED CONCRETE".

II REINFORCING STEEL

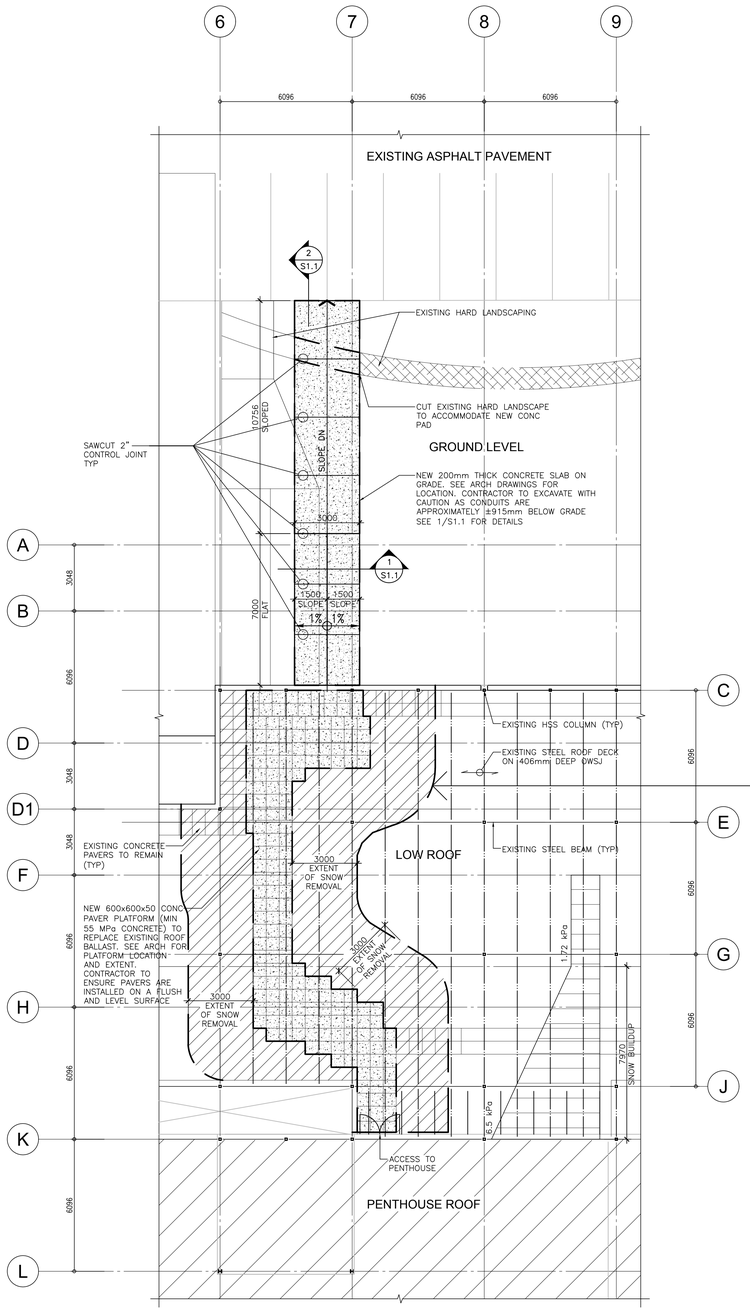
1. ALL REINFORCING STEEL TO BE CSA–G30.18M–09 GRADE 400R DEFORMED BARS. ALL REINFORCING IS TO BE DETAILED IN ACCORDANCE WITH THE LATEST EDITION OF THE REINFORCING STEEL INSTITUTE OF CANADA – MANUAL OF STANDARD PRACTICE, EXCEPT OTHERWISE NOTED.
2. REINFORCING STEEL COVER IS TO CONFORM TO CAN/CSA A23.3–14 "DESIGN OF CONCRETE STRUCTURES FOR BUILDINGS" AND AS FOLLOWS:

   EXTERIOR SLABS–ON–GRADE:
   EXPOSURE CLASS: C–2 40 mm TOP 40 mm BOTTOM

3. ALL REINFORCING TO BE HELD IN PLACE, AND TIED BY THE USE OF PROPER ACCESSORIES, SUCH AS HI–CHAIRS, SPACERS, ETC. TO BE SUPPLIED BY THE REINFORCING STEEL FABRICATOR. HI–CHAIRS TO HAVE 4 LEGS AND TO BE STAPLED OR NAILED TO THE FORMWORK.

III FORMWORK

1. ACCESSORIES SUCH AS HI–CHAIRS, SPACERS, ETC. SHALL BE SUPPORTED BY PADS OF PLYWOOD OR TEMPERED HARDBOARD TO PREVENT PUNCTURING THE VOIDFORM.
2. UNLESS NOTED OTHERWISE PROVIDE SLIP JOINT ALL PAVING OR CONCRETE SLABS ON GRADE AGAINST STRUCTURAL MEMBERS WITH 13 mm . ASPHALT IMPREGNATED FIBREBOARD.
3. ALL CONSTRUCTION JOINT KEYS ARE TO BE A MINIMUM OF 40 mm DEEP.
4. PLACE 10 MIL POLYETHYLENE UNDER ALL SLABS ON FILL.

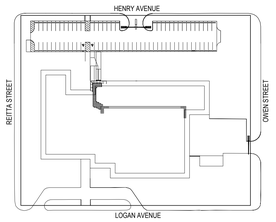



PARTIAL PLAN
1 : 100

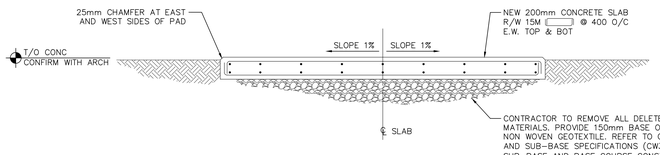
IF PALLET MOVEMENT IS TO OCCUR DURING WINTER MONTHS, SNOW MUST BE CLEARED FROM ROOF WITHIN 3 METRES ALL AROUND CONCRETE PAVER PLATFORM PRIOR TO MOVING PALLET JACK (BT LIFTER LHM230) WITH PALLET/LOAD TO PENTHOUSE ENTRANCE ON GRID LINE 'K'. DO NOT PILE SNOW ON ADJACENT ROOF AREA DURING CLEARING PROCEDURE. MAXIMUM GROSS WEIGHT ALLOWED, AT ANY TIME, IS 1275kg AND INCLUDES THE WEIGHT OF THE PALLET JACKS, PALLET AND LOAD. IF PALLET JACK TYPE AND PALLET/LOAD WEIGHT IS INCREASED, NOTIFY CONSULTANT PRIOR TO LOADING ROOF. IF SUSPENDED MECHANICAL EQUIPMENT AND SERVICES ARE ADDED TO ROOF JOISTS BELOW CONCRETE PAVER PLATFORM, CONTACT CONSULTANT TO INVESTIGATE NEW LOADING CONDITIONS.

THIS PLAN WITH LOADING PROCEDURE SHALL BE POSTED AT ROOF ENTRANCE LOCATIONS

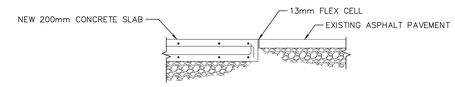
NOTE:
- CONTRACTOR TO CONFIRM LOCATION OF UNDERGROUND SERVICES PRIOR TO SLAB CONSTRUCTION
- DESIGN ROOF DEAD LOAD = 2.4 kPa




KEY PLAN
N.T.S.




1 / S1.1 SECTION
1 : 20




2 / S1.1 SECTION
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

CK A + I D
COUPLAND KRAEMER
ARCHITECTURE + INTERIOR DESIGN Inc.
101, 4632 1ST SE, CALGARY, AB, CANADA, T2G 2L3
TEL. 403.269.7109
FAX. 403.269.7595

300-275 Carlton Street
Winnipeg, Manitoba R3C 5R6
T 204. 943. 7501
F 204. 943. 7507
2015-1219
Crosier Kilgour & Partners Ltd.
CONSULTING STRUCTURAL ENGINEERS


| Revision/Revision | Description/Description | Date/Date |
|---|---|---|
| 0 | ISSUED FOR TENDER | 16/05/16 |
| A | ISSUED FOR REVIEW | 15/12/15 |

Client/client
**PUBLIC HEALTH AGENCY OF CANADA**

Project title/Titre du projet
**JC WILT LABORATORY**
**745 LOGAN AVENUE**
**WINNIPEG, MANITOBA**
**PENTHOUSE ROOF ACCESS**

Approved by/Approuve par
RDM

Designed by/Concept par
NRM

Drawn by/Dessine par
MPP

PWGSC Project Manager/Administrateur de Projets TPSGC

PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client

Drawing title/Titre du dessin
**DEMOLITION CONSTRUCTION**

| Project No./No. du projet | Sheet/Feuille | Revision no./ Le Révision no. |
|---|---|---|
| R.067961.001 | S1.1 | A |