

GENERAL

1.

THESE DRAWINGS SHOW PARTIAL UPGRADE WORKS OF EXISTING STRUCTURE ONLY AS STAGED WORKS. SEISMIC UPGRADE WORKS AT WINCH BUILDING, CEW & FEDERAL BUILDING AND UPPER LEVELS OF POST OFFICE WILL BE CARRIED OUT IN THE FUTURE.
- WHEN ALL FUTURE UPGRADE WORKS ARE COMPLETE, THE SEISMIC CAPACITY OF THE ENTIRE BUILDING WILL CONFORM TO 75% OF THE REQUIREMENTS OF THE SEISMIC PROVISIONS IN THE 2010 NATIONAL BUILDING CODE OF CANADA.
2.

THIS SET OF DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE STRUCTURAL SPECIFICATIONS AND WITH THE DRAWINGS AND SPECIFICATIONS FROM ALL OTHER CONSULTANTS. ANY DISCREPANCIES NOTED SHALL BE REPORTED IMMEDIATELY FOR CLARIFICATION.
3.

THIS SET OF DRAWINGS SHOWS THE COMPLETED STRUCTURE AND DOES NOT SHOW WORK WHICH MAY BE REQUIRED FOR SAFETY DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR GENERAL SAFETY ON AND ABOUT THE JOB SITE DURING THE CONSTRUCTION PERIOD AND FOR DESIGN AND ERECTION OF ALL FALSEWORK, SHORING, BRACING ETC. TO ENSURE THE SAFETY OF ALL CONSTRUCTION TEMPORARY LOADS AND TO COMPLETE THE WORK. ADHERE STRICTLY TO ALL REQUIREMENTS OF THE WORKERS' COMPENSATION BOARD OF BRITISH COLUMBIA. ALL TEMPORARY WORKS AND SHORING ETC. SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN BRITISH COLUMBIA.
4.

ALL CODE REFERENCES ARE TO LATEST EDITIONS AS REFERENCED IN THE 2010 NATIONAL BUILDING CODE OF CANADA.

FIELD REVIEW:

1.

DEPARTMENTAL REPRESENTATIVE THROUGH CWMM CONSULTING ENGINEERS PROVIDES FIELD REVIEW FOR THE WORK SHOWN ON THE STRUCTURAL DRAWINGS. THIS REVIEW IS A PERIODIC REVIEW AT THE PROFESSIONAL JUDGMENT OF DEPARTMENTAL REPRESENTATIVE. THE PURPOSE IS TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS AND TO FULFILL THE REQUIREMENTS FOR THE COMPLETION OF LETTERS OF ASSURANCE REQUIRED BY THE APPLICABLE BUILDING CODE.
2.

ALL NON-CONFORMING WORKS THAT REQUIRE REMEDIAL ACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY EXTRA TIME OR COST INCURRED TO PWGSC IN RECTIFYING THE WORK SHALL BE BORNE BY THE CONTRACTOR IN ACCORDANCE WITH THE CONTRACT.
3.

ENSURE THAT WORK TO BE INSPECTED IS COMPLETE AT THE TIME OF INSPECTION AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ADDITIONAL INSPECTIONS REQUIRED DUE TO THE INCOMPLETE WORK OR POORLY EXECUTED WORK, AS JUDGED BY DEPARTMENTAL REPRESENTATIVE, AS WELL AS ADDITIONAL DESIGN OR REMEDIAL WORK CAUSED BY DEVIATIONS FROM THESE DRAWINGS MAY BE CHARGED TO THE CONTRACTOR.
4.

A MINIMUM 48 HOURS NOTICE SHALL BE GIVEN TO THE DEPARTMENTAL REPRESENTATIVE BY THE CONTRACTOR FOR ANY INSPECTION TO BE CARRIED OUT.

SHOP DRAWINGS:

1.

MANUFACTURERS OF ALL STRUCTURAL ELEMENTS SHALL SUBMIT COMPLETE SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA TO THE ARCHITECT AND CWMM CONSULTING ENGINEERS LTD. FOR REVIEW PRIOR TO FABRICATION. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH SPECIFICATIONS AND TO ALLOW MINIMUM TWO WEEKS FOR REVIEW. THIS SUBMISSION OR ITS REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR PROVIDING PROPER ENGINEERING DESIGN, METHODS, EQUIPMENT, WORKMANSHIP, SAFETY PRECAUTION AND PRIOR REVIEW OF THESE ELEMENTS. THE PROFESSIONAL ENGINEER SEALING THE SHOP DRAWINGS SHALL BE RESPONSIBLE FOR INSPECTION OF HIS DESIGN COMPONENTS FOR COMFORMANCE WITH HIS DESIGN AND SHOP DRAWINGS.
2.

THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL CONFIRM AND CO-ORDINATE DIMENSIONS, LOCATIONS AND NUMBER OF THE STRUCTURAL ELEMENTS FOR WHICH SHOP DRAWINGS ARE TO BE PRODUCED.

NON-STRUCTURAL COMPONENTS:

1.

NON-STRUCTURAL COMPONENTS ARE NOT THE RESPONSIBILITY OF CWMM CONSULTING ENGINEERS LTD. SUCH COMPONENTS OF THE PROJECT ARE DESIGNED, DETAILED, SPECIFIED AND REVIEWED IN THE FIELD BY OTHERS. LETTERS OF CERTIFICATION OF ADEQUACY, INSTALLATION ETC. OF SUCH COMPONENTS ARE BY OTHERS.
2.

MANUFACTURERS OF NON-STRUCTURAL COMPONENTS WHICH AFFECT THE STRUCTURAL FRAMING SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND CWMM CONSULTING ENGINEERS LTD. FOR REVIEW. THE SHOP DRAWINGS SHALL CLEARLY INDICATE LOADS IMPOSED ON THE STRUCTURE. REVIEW WILL BE LIMITED TO THE EFFECT OF THE COMPONENTS ON THE STRUCTURAL FRAMING.
3.

EXAMPLES OF NON-STRUCTURAL COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO:

-

ARCHITECTURAL COMPONENTS SUCH AS HANDRAILS, GUARDRAILS, RAILINGS, FLAG POST, REMOVABLE CANOPIES, CEILINGS, VEHICLE PROTECTION SYSTEMS, ORNAMENTAL COMPONENTS, ETC.

-

ARCHITECTURAL PRECAST CONCRETE AND ITS ATTACHMENTS.

-

ARCHITECTURAL GLASS BLOCKS AND THEIR ATTACHMENTS.

-

BRICK AND BLOCK VENEERS, THEIR REINFORCING IF ANY AND TIES

-

LANDSCAPING COMPONENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.

-

CURTAIN WALL SYSTEMS, CLADDING, SKYLIGHT, WINDOW MULLIONS, ETC.

-

INTERIOR AND EXTERIOR NONLOAD BEARING STEEL STUD WALLS.

-

SUPPORT AND BRACING OF MECHANICAL AND ELECTRICAL SYSTEMS AND EQUIPMENTS FOR NON-GRAVITY AND SEISMIC LOADS.

-

WINDOW WASHING EQUIPMENTS AND ITS ATTACHMENT.

-

NON-STRUCTURAL MASONRY.

EXISTING STRUCTURES:

1.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS TO AND OF EXISTING STRUCTURES. NOTIFY THE DEPARTMENTAL REPRESENTATIVE IMMEDIATELY IF DISCREPANCIES ARE NOTED.
2.

THE CONTRACTOR SHALL AT HIS OWN EXPENSE REPAIR AND MAKE GOOD ANY DAMAGE TO THE EXISTING STRUCTURE, EQUIPMENT AND FINISHES CAUSED BY THE CONSTRUCTION ACTIVITIES. REPAIRS SHALL BE TO THE SATISFACTION OF THE DEPARTMENTAL REPRESENTATIVE.
3.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY SUPPORT OF ANY ADJACENT EXISTING STRUCTURES DURING CONSTRUCTION. UNDERPINNING OR BRACING SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA. SUBMIT 4 COPIES OF SIGNED AND SEALED DESIGN DRAWINGS TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW OF CONFORMANCE WITH GENERAL DESIGN CRITERIA.

DESIGN LOADS:

1.

THE EXISTING STRUCTURE HAS BEEN PARTIALLY RETROFITTED. WHEN ALL THE FUTURE UPGRADING WORKS ARE COMPLETED IN THE FUTURE, THE STRUCTURE WOULD BE ABLE TO WITHSTAND 75% OF THE SEISMIC FORCE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE 2010 NATIONAL BUILDING CODE OF CANADA.
- GROUND SNOW: Ss = 1.8 kPa
RAIN LOAD: Sr = 0.2 kPa
- EARTHQUAKE FACTORS:

Sa(0.2)	Sa(0.5)	Sa(1.0)	Sa(2.0)
0.94	0.64	0.33	0.17

PGA=0.46g
I_E = 1 FOR STRENGTH
I_E = 1 FOR SERVICEABILITY
(CLAUSE 4.1.8.13 FOR SERVICEABILITY)
F_a = 0.976 F_v = 0.73
R_d = 1.5 R_o = 1.3
- SITE CLASS B

CONSTRUCTION LOADS:

1.

CONSTRUCTION LOADS ON COMPLETED FLOORS MUST NOT EXCEED THE LOAD CARRYING CAPACITY OF FLOOR AT THE TIME OF THE LOADING UNLESS IT IS PROPERLY SHORED TO SUPPORT THE INTENDED LOAD. MOVING OF HEAVY EQUIPMENT AND PILING UP OF MATERIAL SHALL NOT BE PERMITTED UNLESS DESIGNED SHORING IS IN PLACE.
2.

SHORING DESIGNED BY CONTRACTOR. INFORM DEPARTMENTAL REPRESENTATIVE PRIOR TO LOAD APPLICATION.

FOUNDATION AND SITE WORK

1.

REFER TO GEOTECHNICAL REPORT PREPARED BY STANTEC CONSULTING LTD. DATED OCT. 03, 2012 AND ALL ITS SUPPLEMENTS AND AMENDMENTS FOR EXCAVATION, BACKFILLING, FILL MATERIALS, COMPACTION, FROST PROTECTION, PILING AND OTHER SITE PREPARATION REQUIREMENTS NOT SHOWN ON THESE DRAWINGS.
2.

DESIGN ALLOWABLE SOIL BEARING CAPACITIES (AS PER GEOTECHNICAL REPORT):

SEISMIC ELEMENT FOOTING (UNDER FACTORED LOADS) ULS= 2000 kPa (ON ROCK)
ULS= 225 kPa (ON SOIL)
3.

DESIGN LOAD FOR ROCK ANCHORS (MICROPILES) SHALL BE:

#20 ROCK ANCHORS (MICROPILES) - FACTORED YIELD LOAD = 1486 KN (TENSION & COMPRESSION)
(YIELD STRENGTH = 1748 KN)

#11 ROCK ANCHORS (MICROPILES) - FACTORED YIELD LOAD = 442 KN (TENSION & COMPRESSION)
(YIELD STRENGTH = 520 KN)

#11 ROCK ANCHORS LENGTH - DRILLED INTO ROCK = 4m
4.

MIRCOPILES SHALL BE INSTALLED AS PER THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
5.

PILE CONTRACTOR SHALL SUBMIT INSTALLATION DETAILS TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW PRIOR TO ANY FABRICATION. PILING DETAILS MUST INCLUDE PILING PROCEDURES, SPLICING DETAILS, TIP AND HEAD DETAILS AND ANY OTHER PERTINENT INFORMATION.
6.

THE PILE LENGTH INDICATED ON THE DRAWINGS AND IN THE GEOTECHNICAL REPORT ARE GENERAL AND SHALL BE USED FOR ESTIMATING AND BIDDING PURPOSES. ACTUAL PILE LENGTH MAY VARY AS A RESULT OF LOCAL SOIL CONDITIONS AND OTHER UNKNOWN FACTORS.
7.

ANY FOOTING ELEVATIONS INDICATED ON THE DRAWINGS ARE GENERAL AND SHALL BE USED FOR ESTIMATING AND BIDDING PURPOSES. FOOTINGS MAY HAVE TO BE PLACED AT DIFFERENT ELEVATIONS AS A RESULT OF LOCAL SOILS CONDITIONS, UNDERGROUND SERVICES AND TO ACCOMMODATE OTHER MECHANICAL AND ELECTRICAL SERVICES. FOLLOW TYPICAL DETAILS SHOWN ON THESE DRAWINGS FOR FOOTING PLACEMENT RELATIVE TO ADJACENT FOOTINGS, SUMP AND OTHER EXCAVATED STRUCTURES AND LOCATE AS DIRECTED BY GEOTECHNICAL ENGINEER.
8.

THE BASES OF FOUNDATIONS SHALL BE PROTECTED FROM RAIN, SNOW AND ANY WATER INFILTRATION.
9.

NO FOUNDATIONS MAY BE POURED BEFORE THE BEARING MATERIAL HAS BEEN INSPECTED BY THE DEPARTMENTAL REPRESENTATIVE. NOTIFY THE DEPARTMENTAL REPRESENTATIVE MINIMUM 24 HOURS BEFORE INSTALLATION OF FOOTING REINFORCEMENT.
10.

COORDINATE CONSTRUCTION WITH UNDERSLAB SERVICES AS SHOWN ON MECHANICAL, ELECTRICAL, ARCHITECTURAL DRAWINGS.
11.

REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SITE DRAINAGE, GROUND ELEVATIONS AND DRAINAGE SLOPES.
12.

CENTRE ALL PILES AND PILE CAPS UNDER COLUMNS OR WALLS UNLESS NOTED OTHERWISE.
13.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY SUPPORT OF THE ADJACENT STRUCTURE DURING CONSTRUCTION. UNDERPINNING OR BRACING SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER, REGISTERED IN BRITISH COLUMBIA. SUBMIT 4 COPIES OF DESIGN DRAWINGS, SEALED BY A PROFESSIONAL ENGINEER, TO THE DEPARTMENTAL REPRESENTATIVE FOR REVIEW OF CONFORMANCE WITH GENERAL DESIGN CRITERIA.

REINFORCED CONCRETE CONCRETE:

1.

CODE CONFORMANCE - REFER TO SPECIFICATION.
2.

CONCRETE PROPERTIES:

-

SPECIFYING METHOD AS PER ALTERNATE 1 IN TABLE 5 IN CSA-A23.1.

-

NORMAL DENSITY CONCRETE.

-

AIR CONTENT TO CSA-A23.1 TABLE 2 & 4 TO SUIT APPROPRIATE EXPOSURE CLASS.

-

SLUMP TO CSA-A23.1 CLAUSE 4.3.2.3. WHEN SUPERPLASTICIZERS ARE USED, THE SLUMP MAY BE INCREASED BUT SHALL KEPT BELOW THE POINT WHERE SEGREGATION WILL OCCUR. THE COST OF SUPERPLASTICIZERS SHALL BE INCLUDED IN THE COST OF THE CONCRETE. SMALLER AGGREGATE SIZE MAY BE USED WHERE NECESSARY TO INCREASE SLUMP.

MEMBER	MINIMUM 28-DAYS STRENGTH (MPa)	MAXIMUM AGGREGATE SIZE (mm)	EXPOSURE CLASS	AIR CONTENT CATAGORY
WALLS IN CONTACT W/ SOIL	35	14	S-3	2
EXTERIOR COLUMNS	30	20	F-2	2
INTERIOR COLUMNS	30	20	N	-
OTHER WALLS, BEAMS	35	14	N	-
FOOTINGS	30	20	S-3	2
INTERIOR SLABS	25	20	N	-
TOPPING ON METAL DECK	20	10	N	-
SLAB ON GRADE - INTERIOR	25	20	N	-
SLAB ON GRADE - EXTERIOR	32	20	C-4	2

3.

ADHERE STRICTLY TO CSA-A23.1 FOR PROPER PREPARATION FOR COLD WEATHER CONCRETE WORK.
4.

CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO A MATERIALS CONSULTANT FOR APPROVAL AND TO DEPARTMENTAL REPRESENTATIVE FOR REVIEW PRIOR TO ANY CONCRETE WORK.
5.

CONCRETE AND MATERIALS TESTING AGENCY MUST BE CSA CERTIFIED. SUBMIT ALL CONCRETE TEST RESULTS TO DEPARTMENTAL REPRESENTATIVE.

FORMING:

1.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ALL FORMWORK AND SHORING AND FOR COMPLYING WITH ALL WORKERS' COMPENSATION BOARD REGULATIONS PERTAINING TO FORMWORK CONSTRUCTION, DESIGN AND INSPECTION. FORMWORK AND SHORING SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF BRITISH COLUMBIA.
2.

REFER TO ARCHITECTURAL DRAWINGS FOR REVEALS, RECESSES, CHAMFERS, FINISHES AND OTHER ARCHITECTURAL REQUIREMENTS NOT INDICATED ON THESE DRAWINGS.
3.

SUPPLY AND SET ANCHOR BOLTS, SLEEVES, PIPE HANGERS, EXPANSION JOINTS AND OTHER INSERTS AND OPENINGS AS INDICATED IN THESE DRAWINGS AND THEIR ACCOMPANYING SPECIFICATIONS OR IN DOCUMENTS BY OTHER CONSULTANTS.
4.

ALL DOWELS, ANCHOR BOLTS, EMBEDDED PLATES AND OTHER INSERTS SHALL BE PLACED BEFORE THE CONCRETE IS POURED.
5.

STRIPPING AND RESHORING NOTES:

-

DO NOT REMOVE FORMS AND SHORING BEFORE THE CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO ENSURE THE SAFETY OF THE STRUCTURE AND NOT BEFORE THE FOLLOWING MINIMUM AND LONG TERM PERFORMANCE PERIODS OF TIME AFTER PLACING CONCRETE:

24 HOURS 7 DAYS	COLUMN, WALLS AND BEAM SIDES BEAM UNDERSIDE
--------------------	--

CONCRETE REINFORCING:

1.

CODE CONFORMANCE:

ALL REBARS EXCEPT AS NOTED BELOW CSA-G30.18 GRADE 400R
REBARS TO BE WELDED CSA-G30.18 GRADE 400W
2.

MINIMUM EMBEDMENT LENGTHS FOR DOWELS SHALL BE AS FOLLOW, UNLESS NOTED OTHERWISE:

BAR	25MPa	30MPa	35MPa
10M	300	300	300
15M	450	400	400
20M	600	550	500
25M	900	850	800
30M	1100	1000	950
35M	1300	1150	1100

* INCREASE LENGTHS BY 30% FOR BARS WITH DEPTH OF CONCRETE CAST BELOW GREATER THAN 300mm (TOP BARS).
3.

MINIMUM SPLICE LENGTH SHALL BE CLASS B AS FOLLOW, UNLESS NOTED OTHERWISE:

BAR	COMPRESSION SPLICE	TENSION SPLICE		
	25MPa	30MPa	35MPa	
10M	350	450	400	400
15M	500	600	550	500
20M	600	750	700	650
25M	750	1200	1100	1000
30M	900	1400	1300	1200
35M	1050	1650	1500	1400

* ALL SPLICES SHALL BE TENSION SPLICES UNLESS NOTED ON DRAWINGS.
* INCREASE LENGTHS BY 30% FOR BARS WITH DEPTH OF CONCRETE CAST BELOW GREATER THAN 300mm (TOP BARS).
4.

MINIMUM CLEAR COVER FOR REINFORCING BARS SHALL BE AS FOLLOW, UNLESS NOTED OTHERWISE:

	EXPOSURE CONDITION	
	N	EARTH OR WEATHER F-1, F-2
CAST AGAINST EARTH	-	75
COLUMNS - TRANSV. REINF.	40	40
COLUMNS - PRINC. REINF.	50	50
WALLS & SHEARWALLS	25	40
SLAB	25	40

* TRANSVERSE REINFORCEMENT INCLUDES TIES, STIRRUPS AND SPIRALS.
* THE RATIO OF THE COVER TO THE MAXIMUM AGGREGATE SIZE AND THE RATIO OF COVER TO NOMINAL BAR DIAMETER SHALL BE AT LEAST 1.0 FOR N CLASS EXPOSURE, AND 1.5 FOR EXPOSED SURFACES F-2 CLASSES.
* THE COVER FOR BUNDLED BARS SHALL BE THE SAME AS THAT FOR A SINGLE BAR WITH EQUIVALENT AREA.
5.

DO NOT CUT REINFORCING BARS OR PULL BACK TOP BARS AT MINOR OPENINGS OR INSERTS WITHOUT PRIOR APPROVAL FROM DEPARTMENTAL REPRESENTATIVE. SPLAY BARS AROUND OPENING OR INSERT.
6.

USE ONLY NON-CORRODING BAR SUPPORTS WHERE CONCRETE SURFACES ARE TO BE EXPOSED TO WEATHER, EARTH, DE-ICING SALTS, OR CORROSIVE CHEMICALS.
7.

NO WELDING OF REBAR SHALL BE PERMITTED UNLESS NOTED OTHERWISE OR APPROVED IN WRITING BY THE DEPARTMENTAL REPRESENTATIVE. THE WELDING PROCEDURE SHALL CONFORM TO CSA W186.

EXISTING CONCRETE SURFACE PREPARATION:

1.

WHERE EXISTING CONCRETE WALLS ARE TO BE THICKENED AND ALL INTERFACES BETWEEN EXISTING CONCRETE AND NEW CONCRETE, ROUGHEN EXISTING SURFACE PRIOR TO POURING NEW CONCRETE. INTERFACE SHALL BE CLEAN, FREE OF LAITANCE AND ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 5mm.

ANCHORS / REBAR DOWELS TO EXISTING STRUCTURE:

1.

ANCHORAGE TO CONCRETE OR SOLID GRAINTE: U.N.O., USE HILTI HIT-HY 200 ADHESIVE ANCHORING SYSTEM OR APPROVED EQUIVALENT.
2.

ANCHORAGE TO SOLID GROUND MASONRY OR HOLLOW MASONRY OR MULTI-WYTHE MASONRY: U.N.O., USE HILTI HIT-HY 70 MASONRY ADHESIVE ANCHORING SYSTEM OR APPROVED EQUIVALENT.
3.

INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
4.

DRILL HOLES WITH HILTI SAFE SET™ OR APPROVED EQUIVALENT.
5.

OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFI SYSTEM OR APPROVED EQUIVALENT.
6.

THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE DEPARTMENTAL REPRESENTATIVE MAY REQUEST DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
7.

INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
8.

EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY HILTI FERROSCAN, GPR, X-RAY, CHIPPING OR OTHER MEANS. LOCALLY ADJUST ANCHOR LOCATIONS TO AVOID CUTTING EXISTING REINFORCING BARS.
9.

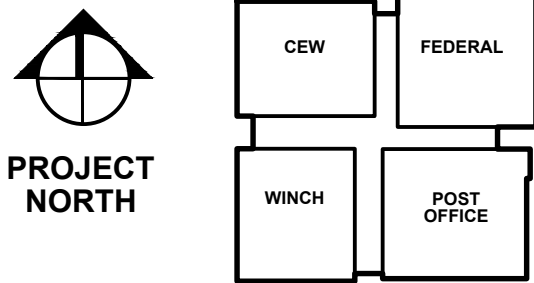
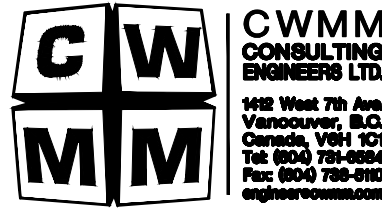
CONTRACTOR SHALL INFORM DEPARTMENTAL REPRESENTATIVE FOR SITE REVIEW OF DRILLED HOLE DEPTH PRIOR TO APPLY EPOXY TO THE ANCHORS / REBAR DOWELS.
10.

MINIMUM 1% OF ANCHORS AND REBAR DOWELS (2 MINIMUM PER REBAR DIAMETERS & PER ANCHOR DIAMETER) SHALL BE SELECTED BY DEPARTMENTAL REPRESENTATIVE FOR LOAD TESTS TO THE MANUFACTURE'S RECOMMENDATIONS.

DRAWING LIST (STRUCTURAL)

S101	GENERAL NOTES SHEET 1
S102	GENERAL NOTES SHEET 2 AND TYPICAL DETAILS
S201	LEVEL B2 KEY PLAN
S202	LEVEL B1 (LOWER MALL) KEY PLAN
S203	LEVEL L1 (UPPER MALL) KEY PLAN
S204	LEVEL L2 FLOOR & GALLERIA ROOF KEY PLAN
S301	LEVEL B2 FLOOR PLAN - FEDERAL BUILDING
S302	LEVEL B1 FLOOR PLAN - FEDERAL BUILDING
S303	LEVEL L1 FLOOR PLAN - GALLERIA WALKWAY
S304	LEVEL L2 FLOOR PLAN - FEDERAL BUILDING
S305	GALLERIA ROOF PLAN
S311	SECTIONS & DETAILS SHEET-1 (GALLERIA & ATRIUM)
S312	SECTIONS & DETAILS SHEET-2 (GALLERIA & ATRIUM)
S313	SECTIONS & DETAILS SHEET-3 (GALLERIA & ATRIUM)
S314	SECTIONS & DETAILS SHEET-4 (GALLERIA & ATRIUM)
S315	SECTIONS & DETAILS SHEET-5 (GALLERIA & ATRIUM)
S316	SECTIONS & DETAILS SHEET-6 (GALLERIA & ATRIUM)
S317	SECTIONS & DETAILS SHEET-7 (GALLERIA & ATRIUM)
S318	SECTIONS & DETAILS SHEET-8 (GALLERIA & ATRIUM)
S401	LEVEL B2 FLOOR PLAN (WINCH - POST OFFICE)
S402	LEVEL B1 (LOWER MALL) FLOOR PLAN (WINCH - POST OFFICE)
S403	LEVEL 1 (UPPER MALL) FLOOR PLAN (WINCH - POST OFFICE)
S411	SECTIONS & DETAILS SHEET-1 (WINCH - POST OFFICE)
S412	SECTIONS & DETAILS SHEET-2 (WINCH - POST OFFICE)
S413	SECTIONS & DETAILS SHEET-3 (WINCH - POST OFFICE)
S414	SECTIONS & DETAILS SHEET-4 (WINCH - POST OFFICE)
S415	SECTIONS & DETAILS SHEET-5 (WINCH - POST OFFICE)
S416	SECTIONS & DETAILS SHEET-6 (WINCH - POST OFFICE)
S417	SECTIONS & DETAILS SHEET-7 (WINCH - POST OFFICE)
S418	SECTIONS & DETAILS SHEET-8 (WINCH - POST OFFICE)
S501	ENTRANCE CANOPY, BANNERS & MISCELLANEOUS DETAILS

11787



5	ISSUED FOR STRUCTURAL ADDENDUM #1	JUN. 3, 2013
4	ISSUED FOR TENDER	APR. 24, 2013
3	ISSUED FOR 90% REVIEW	JAN. 10, 2013
2	ISSUED FOR 90% COORDINATION	JAN. 04, 2013
1	ISSUED FOR 60% CO-REVISION	NOV. 15, 2012
0	DESIGN DEVELOPMENT	SEP. 10, 2012

Revision/ Révision	Description/Description	Date/Date
--------------------	-------------------------	-----------

Client/client

Project title/Titre du projet
757 W HASTINGS ST, VANCOUVER

SINCLAIR CENTRE
SINCLAIR CENTRE
REVITALIZATION
PROJECT

Consultant Signature Only

Designed by/Concept par

SZ

Drawn by/Dessiné par

BML/H

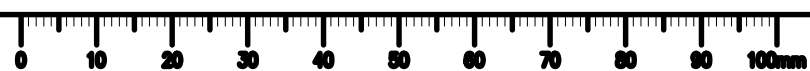
PWGSC Project Manager/Administrateur de Projets TPSGC
TOM DUNPHY

Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architectural et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin

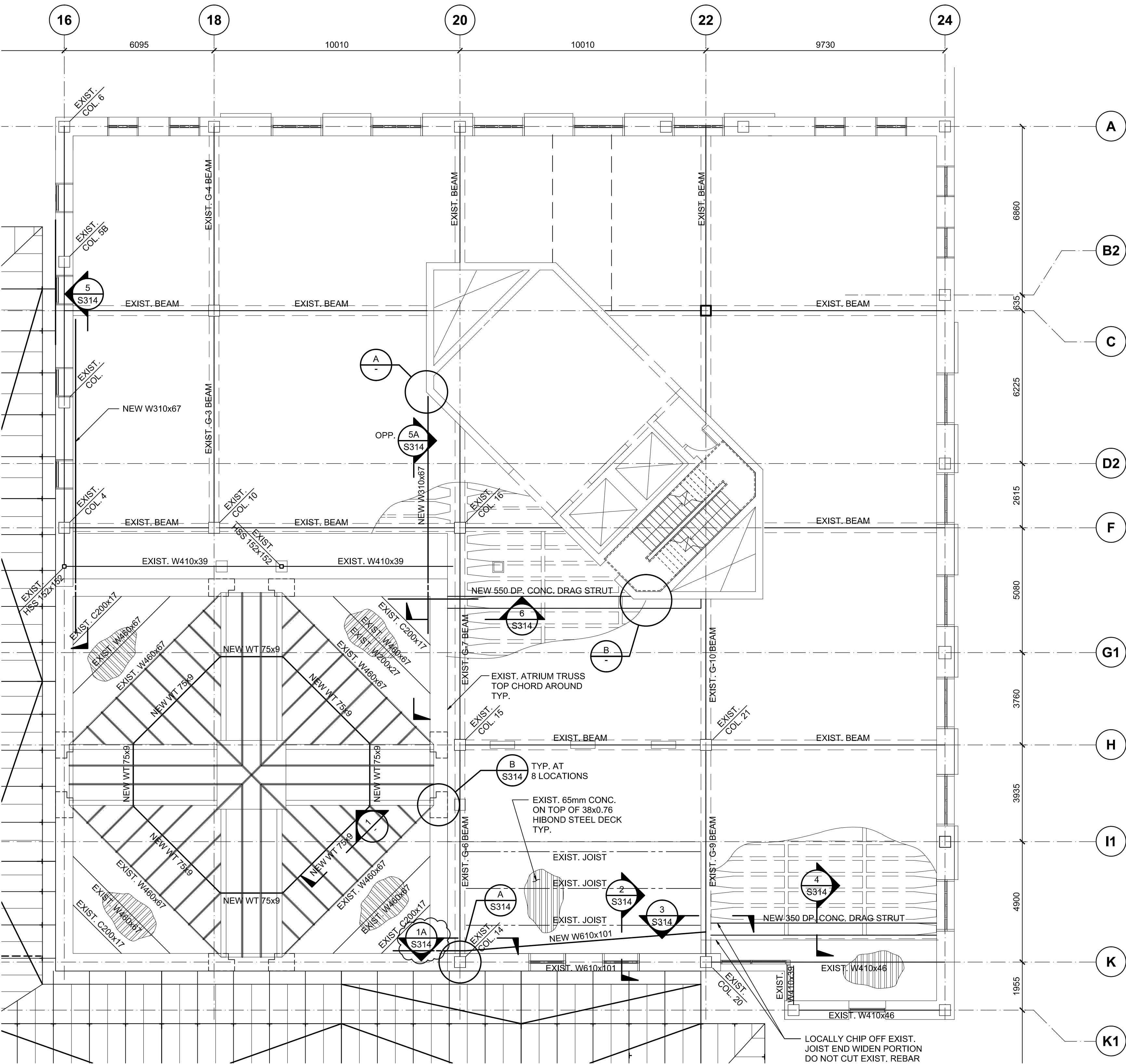
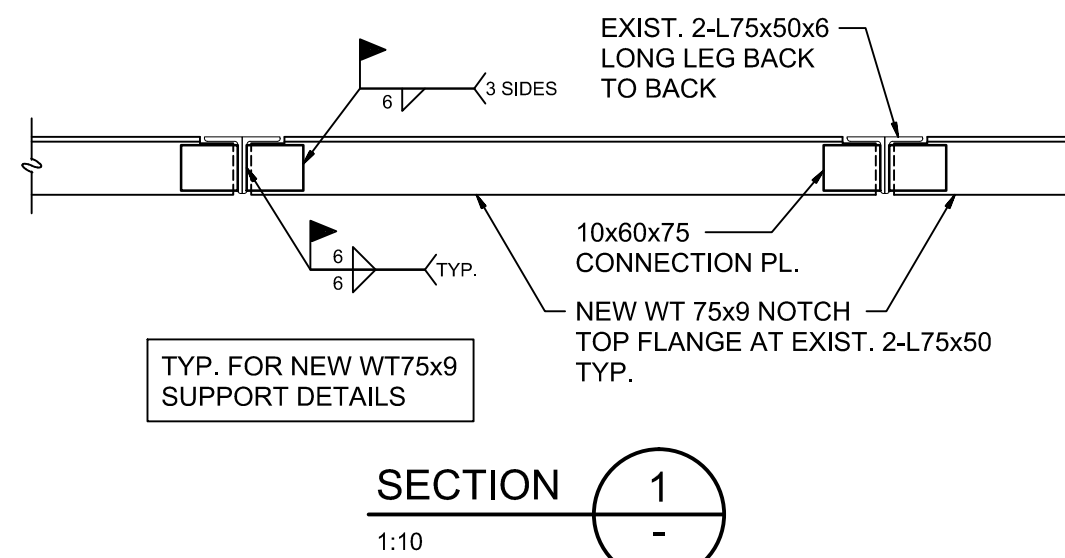
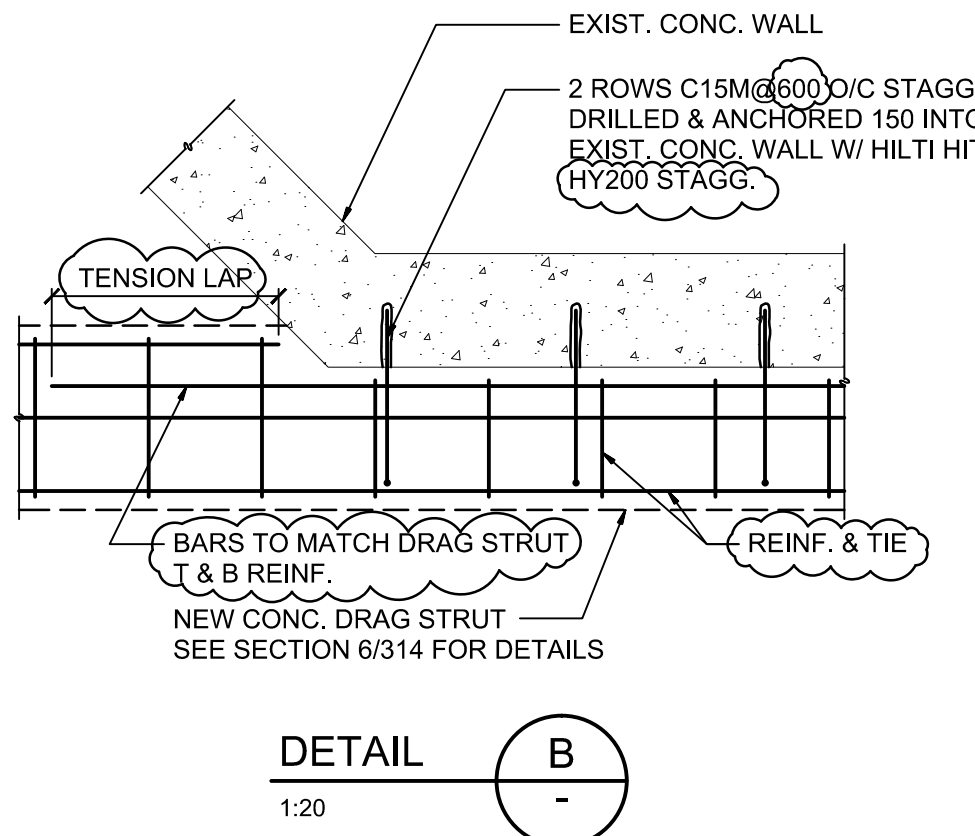
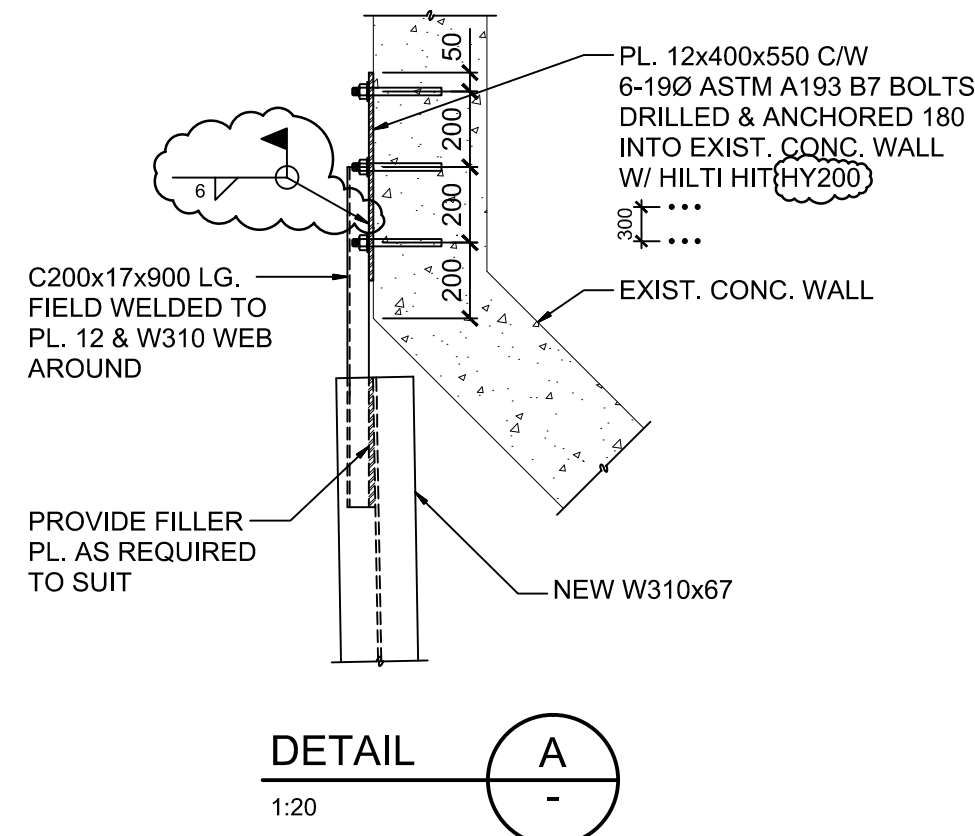
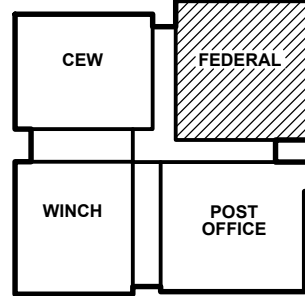
GENERAL NOTES
SHEET 1

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.041365.001	S101 OF	0





PROJECT
NORTH



1 LEVEL L2 FLOOR PLAN - FEDERAL BUILDING
S204 1:100

Revision/Revision	Description/Description	Date/Date
5	ISSUED FOR STRUCTURAL ADDENDUM #1	JUN. 3, 2013
4	ISSUED FOR TENDER	APR. 24, 2013
3	ISSUED FOR 90% REVIEW	JAN. 15, 2013
2	ISSUED FOR 90% COORDINATION	JAN. 04, 2013
1	ISSUED FOR 60% CO-REVISION	NOV. 15, 2012
0	DESIGN DEVELOPMENT	2012/09/10

Project title/Titre du projet
757 W HASTINGS ST, VANCOUVER
SINCLAIR CENTRE
SINCLAIR CENTRE
REVITALIZATION
PROJECT

Consultant Signature Only

Designed by/Concept par
SZ

Drawn by/Dessiné par
BM/LH

PWOSC Project Manager/Administrateur de Projets TPSGC
TOM DUNPHY

Regional Manager, Architectural and Engineering Services
Gestionnaire régionale, Services d'architecture et de génie, TPSGC
PREETIPAL PAUL

Drawing title/Titre du dessin

LEVEL L2 FLOOR PLAN
- FEDERAL BUILDING

Project No./No. du
projet
R.041365.001

Sheet/Feuille
S304
OF

Revision no./
La Révision
no.
0

11787