**GENERAL NOTES: ENVIRONMENTAL LOADS:** I = NORMAL

SNOW: Ss = 0.1 KPa (24 HRS) = 103 mmWIND: q 1/50 = 0.50 KPaq 1/10 = 0.40 KPaSEISMIC: Sa(0.2) = 0.15

SITE CLASS: "E" **GENERAL NOTES:** 

-DESIGN CODE: ALBERTA BUILDING CODE - LATEST 2006 DESIGN LOADS: LIVE LOADS

 $SNOW = 1.0 \text{ kPa} (21 \text{ psf}) + BUILD-UP}$ RAIN = AS INDICATED ON DRAWING

### <u>GENERAL</u>

ROOF

-THE CONTRACTOR SHALL OBTAIN WHATEVER FIELD DIMENSIONS ARE NECESSARY TO COMPLETE THE WORK CALLED FOR ON THE DRAWINGS. -DO NOT SCALE THE DRAWINGS. -CHECK WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS. INSERTS AND EMBEDMENTS REQUIRED IN CONCRETE. -VERIFY ALL DIMENSIONS, ELEVATIONS, AND SCOPES OF WORK WITH THE DRAWINGS PRIOR TO COMMENCING CONSTRUCTION.

-IF ANY UNSOUND STRUCTURAL CONDITIONS ARE CREATED OR OBSERVED DURING CONSTRUCTION, REPORT THEM IMMEDIATELY TO TRL & ASSOCIATES LTD. -STRUCTURAL DRAWINGS SHOW THE COMPLETE STRUCTURE. THEY DO NOT SHOW COMPONENTS WHICH MAY BE NECESSARY FOR SAFETY DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY ON AND ABOUT THE WORK SITE DURING CONSTRUCTION. -THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY RELOCATION OF PIPES, CONDUITS, PIPE HANGERS, ETC., THAT INTERFACE WITH CARRYING OUT THIS WORK.

-CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING OR STRENGTHENING AS REQUIRED DURING CONSTRUCTION.

-THESE NOTES AND DRAWINGS ARE TO READ IN CONJUNCTION WITH ALL OTHER

#### CONCRETE NOTES: **GENERAL NOTES:**

RELATED DOCUMENTS.

-ALL CONCRETE, REINFORCEMENT, ACCESSORIES AND PROCEDURES SHALL MEET OR EXCEED THE APPLICABLE CSA STANDARD FOR THAT PRODUCT. USE ONLY PRODUCTS SUITABLE FOR THE INTENDED FINAL USE AND CONDITIONS PREVALENT DURING CONSTRUCTION. PROTECT ALL MATERIALS FROM THE WEATHER DURING STORAGE AND INSTALLATION. -CEMENT: SULPHATE RESISTANT CEMENT (TYPE 50) AS REQUIRED CONFORMING TO CAN/CSA-A5/A8/A362-M89. -AGGREGATES: CLEAN, WELL-GRADED, UNCOATED SAND AND COARSE AGGREGATES FROM AN APPROVED SOURCE CONFORMING TO CAN/CSA-A23.1-M94. -WATER: POTABLE FROM AN APPROVED MUNICIPAL SOURCE. -ADMIXTURES: SHALL CONFORM WITH CAN 3-A266M. -READY MIX CONCRETE: DESIGNED AND SUPPLIED BY THE SUPPLIER IN A QUALITY CONTROLLED PLANT CONFORMING TO CAN/CSA-A23.1-M94. UNLESS NOTED OTHERWISE

CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 25 MPa. SEE SCHEDULE THIS DRAWING FOR DETAILED REQUIREMENTS. -CONCRETE EXPOSED TO FREEZE-THAW CONDITIONS SHALL MEET EXPOSURE CLASSIFICATION F-2, 25 MPa, MAXIMUM WATER/CEMENT RATIO 0.55, AIR CONTENT CATEGORY 2 AS SPECIFIED IN CAN/CSA-A23.1-M94, UNLESS NOTED OTHERWISE.

-CONCRETE EXPOSED TO DEICING CHEMICALS SHALL MEET EXPOSURE CLASSIFICATION C-2, 32 MPa, MAXIMUM WATER/CEMENT RATIO 0.45, AIR CONTENT CATEGORY 1 AS SPECIFIED IN CAN/CSA-A23.1-M94 UNLESS NOTED OTHERWISE. -CONCRETE EXPOSED TO MULTIPLE EXPOSURE CONDITIONS SHALL MEET COMBINED EXPOSURE CLASSIFICATION REQUIREMENTS TO THE MOST SEVERE COMBINATION AS SPECIFIED IN CAN/CSA-A23.1-M94 UNLESS NOTED OTHERWISE. -THE COEFFICIENT FOR VARIATION OF 28 DAY COMPRESSIVE TEST RESULTS SHALL BE IN THE "GOOD OR BETTER" RANGE (15% MAXIMUM VARIATION) AS PER ACI STANDARD 214.

-SLUMP SHALL BE WITHIN THE RANGE OF 50mm TO 100mm (2" TO 4"). GREATER SLUMPS SHALL NOT BE ACCEPTED UNLESS OTHERWISE SPECIFIÈD. -PROVIDE AN APPROVED WATER REDUCING AGENT IN ALL CONCRETE MIX DESIGNS. FLY-ASH SHALL NOT BE USED IN SUSPENDED SLABS OR BEAMS. THE CONTRACTOR USES FLY-ASH AT HIS OWN RISK ON SLAB-ON-GRADE APPLICATIONS. -ALL CONCRETE SHALL BE PLACED IN ITS FINAL POSITION WITHIN 2 HOURS OF ORIGINAL BATCHING.

-THE CONTRACTOR SHALL TEST THE CONCRETE, AT HIS OWN EXPENSE, FOR EACH POUR

AND TYPE OF CONCRETE PLACED IN A GIVEN DAY. LARGE POURS SHALL HAVE A TEST CONDUCTED ON EACH 40 m3 OF CONCRETE PLACED. TEST RESULTS TO BE FORWARDED TO TRL & ASSOCIATES LTD. IN A TIMELY MANNER. -CURING PROCEDURES AND PROTECTION OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD CAN/CSA-A23.1-M94. NEW CONCRETE SHALL NOT BE ALLOWED TO FREEZE UNDER ANY CIRCUMSTANCES. THE CONTRACTOR SHALL PAY THE COSTS RELATED TO DAMAGE BY UNDER STRENGTH OR IMPROPERLY CURED CONCRETE.

## <u>REINFORCEMENT NOTES:</u>

-ALL REINFORCING BARS SHALL BE MANUFACTURED AND MEET THE REQUIREMENTS OF CSA STANDARD G 30.18-M92, BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT. -ALL REINFORCING BARS SHALL BE GRADE 400 MPa(60 ksi). -EPOXY COATED REINFORCEMENT, WHERE SPECIFIED, SHALL BE MANUFACTURED, FABRICATED, STORED, HANDLED, AND INSTALLED IN STRICT ACCORDANCE WITH THE CSA STANDARDS AND INDUSTRY PRACTICE. -SPLICES, BENDS, AND PLACEMENT SHALL CONFORM TO CAN/CSA-A23.1-M94 AND CAN3 A23.3-M94. REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST VERSION OF THE ACI DETAILING MANUAL. PROVIDE MATCHING CORNER BARS FOR ALL HORIZONTAL BARS AS DETAILED.

-ALL REINFORCING STEEL SHALL BE CHAIRED AND SECURELY TIED IN PLACE USING STANDARD TIES AND CHAIRS. -ALL WELDED WIRE MESH SHALL BE MANUFACTURED AND MEET THE REQUIREMENTS OF CSA STANDARD G 30.5-M83 WELDED STEEL WIRE FABRIC FOR CONCRETE REINFORCMENT. -ALL WELDED WIRE MESH (WWM) SHALL BE SUPPLIED IN FLAT SHEETS. ALL WWM SHALL BE CHAIRED IN PLACE TO THE REQUIRED COVER AS SPECIFIED.

# PILE FOUNDATIONS

DATED MAY 2010.

-ALL PILES SHALL BE DESIGNED BY THE PILING CONTRACTOR AND HIS PROFESSIONAL ENGINEER TO CARRY THE SPECIFIED LOADS INDICATED ON THE STRUCTURAL DRAWINGS THE CONTRACTOR SHALL UTILIZE THE INFORMATION CONTAINED IN THE SOILS REPORT IF AVAILABLE. IF NO REPORT IS AVAILABLE, THE PILES SHALL BE DESIGNED BASED ON ON THE CONTRACTORS OWN INVESTIGATIONS AND EXPERIENCE IN THIS AREA. THE FINDINGS OF THE SOILS REPORT, CONTRACTOR INVESTIGATIONS, AND ASSUMPTIONS SHALL BE VERIFIED ON AN ONGOING BASIS DURING THE PILE INSTALLATION. THE PILE DESIGNS SHALL BE REVISED TO CARRY THE SPECIFIED LOADS IF CONDITIONS VARY. -THE PILING CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BEARING THE SEAL OF A PROFFESIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA. THE SHOP DRAWINGS SHALL INDICATE PILE CAPACITY AND REINFORCEMENT AS WELL AS PROPOSED LENGTHS AND CUT-OFFS. THE PILING CONTRACTOR SHALL PROVIDE A SEALED CERTIFICATE OF COMPLIANCE AFTER INSTALLATION. -ALL CONCRETE SHALL FOLLOW THE CONCRETE SCHEDULE THIS DRAWING. -ALL CONCRETE SHALL BE PLACED AS CLOSE TO ITS FINAL POSITION AS POSSIBLE TO PREVENT SEGREGATION OF THE MIX. -SUPPLY AND PLACEMENT OF ALL TEMPORARY SHORING AND BRACING IS THE CONTRACTORS RESPONSIBILITY AND SHALL MEET ALL APPLICABLE STANDARDS AND -PILING CONTRACTOR TO DESIGN FOUNDATIONS AS A PROPRIETARY SYSTEM WITH ALLOWABLE SKIN FRICTION AND BEARING VALUES DETERMINED FROM A SOILS INVESTIGATION. -ALL DISCREPANCIES IN DETAILS AND DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF TRL & ASSOCIATES LTD. PRIOR TO COMMENCING RELATED WORK. -THESE NOTES AND DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELATED

-REFER TO THE SOILS REPORT NO. 102-741-11 PREPARED BY GLOBAL ENGINEERING AND TESTING LTD.

#### <u>GRADE BEAMS</u>

-ALL CONCRETE SHALL FOLLOW THE CONCRETE SCHEDULE THIS DRAWING. -LAP TOP BARS 36 BAR DIAMETERS AT MID SPANS AND BOTTOM BARS 12 BAR DIAMETERS AT PILE/PIER SUPPORT LOCATIONS. WHERE SPLICES ARE LOCATED WITHIN TENSION ZONES OF THE CONCRETE, PROVIDE "CLASS C" LAP SPLICES IN ACCORDANCE WITH

-UNLESS SHOWN OTHERWISE, FOUNDATIONS SHALL BE BACKFILLED EVENLY ON BOTH SIDES TO PREVENT MOVEMENT. BACKFILL HEIGHTS SHALL NOT VARY BY MORE THAN 300mm (12 INCHES) FROM ONE SIDE TO THE OTHER. EXERCISE EXTREME CAUTION DURING BACK FILL OPERATIONS TO PREVENT DAMAGE TO THE CONCRETE. -DEGRADABLE "STYROFOAM" TYPE VOID FORM WITH CASTILATED (TOOTHED) CONFIGURATION SHALL BE USED BELOW ALL GRADE BEAMS SUBJECTED TO FROST ACTION. VOID FORM

FLOOR SLAB SUPPORTED ON GRADE NOTES: -REMOVE ALL TOP SOIL, ORGANICS, FROZEN SOIL, WET AND/OR WEAK SOILS. REFER TO THE SOILS REPORT FOR AVERAGE DEPTHS OF POOR SOIL. PROOF ROLL SUB-GRADE TO FURTHER DETECT SOFT AREAS. NATIVE, UNDISTURBED SOILS SHALL BE COMPACTED TO A UNIFORM DRY DENSITY OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY. -BACKFILL AS REQUIRED BY CONDITIONS WITH 75mm (3 INCH MINUS) PIT RUN GRAVEL OR OTHER PREVIOUSLY APPROVED SOIL. FINAL 150mm (6 INCHES) SHALL BE 25 mm '1 INCH MINUS) WELL GRADED CRUSHED GRAVEL MIX. BACKFILL SHALL BE COMPACTED TO A UNIFORM DRY DENSITY OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY, IN COMPACTED LAYERS NOT EXCEEDING 150mm (6 INCHES). BACKFILL DEPTHS EXCEEDING 1200mm (4 FEET) SHALL BE COMPACTED TO A UNIFORM DRY DENSITY OF 100% STANDARD PROCTÓR MAXIMUM DRY DENSITY, IN COMPACTED LAYERS NOT EXCEEDING 150mm (6 INCHES).

-ALL OF THE ABOVE SHALL BE REVIEWED BY AN APPROVED SOILS TESTING FIRM INCLUDING ALL LIFTS OF BACKFILLING AT THE CONTRACTORS COST. -REINFORCEMENT SHALL BE CHAIRED OFF THE SUB GRADE PRIOR TO PLACING CONCRETE. PRE-MOISTEN THE GRAVEL PRIOR TO PLACING CONCRETE IF NO VAPOUR BARRIER IS -CONCRETE SHALL BE PLACED, SCREEDED AND FLOATED TO ENSURE A WELL COMPACTED, VOID FREE SLAB. THE FLOOR FINISH TOLERANCE SHALL BE CLASSIFIED AS "CONVENTIONAL"

-FINISH SHALL BE IN ACCORDANCE WITH CSA STANDARDS AND AS SPECIFIED ON THE

[WITHIN 3mm OF A 3000mm STRAIGHT EDGE] IN ACCORDANCE

#### STRUCTURAL STEEL NOTES:

WITH CAN/CSA-A23.1-M94.

**GENERAL:** -ALL STRUCTURAL STEEL, MISCELLANEOUS STEEL, ACCESSORIES AND PROCEDURES SHALL MEET OR EXCEED THE APPLICABLE CSA STANDARD FOR THAT PRODUCT. USE ONLY PRODUCTS SUITABLE FOR THE INTENDED FINAL USE AND CONDITIONS PREVALENT DURING CONSTRUCTION. PROTECT ALL MATERIALS FROM THE WEATHER DURING STORAGE AND INSTALLATION. DRAWINGS CONNECTIONS ARE TO BE DESIGNED FOR 50% OF THE FACTORED SHEAR

-DESIGN, DETAIL, AND FABRICATE ALL CONNECTIONS IN A QUALITY CONTROLLED SHOP TO CISC HANDBOOK OF STEEL CONSTRUCTION. UNLESS OTHERWISE INDICATED ON THE CAPACITY OF THE MEMBER, WITH A MINIMUM CONNECTION OF TWO BOLTS. SHOP DRAWINGS BEARING THE STAMP OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA ARE TO BE SUBMITTED FOR THE DESIGN OF ALL CONNECTIONS.

-STRUCTURAL STEEL: STEEL SECTIONS AND PLATES CONFORMING TO CAN3-G40.20-M81 AND CAN3-G40.21-M81, GRADE 350W. -STRUCTURAL STEEL: HOLLOW STRUCTURAL SECTIONS CONFORMING TO CAN3-G40.20-M81 AND CAN3-G40.21-M81, GRADE 350W. -STRUCTURAL STEEL: STEEL PIPE SECTIONS CONFORMING TO ASTM A36 -ANCHOR BOLTS: ANCHOR BOLTS, NUTS AND WASHERS CONFORMING TO ASTM A307-82A (HOT DIPPED GALVANIZED WHERE SPECIFIED ON DRAWINGS). -STRUCTURAL BOLTS: STRUCTURAL BOLTS, NUTS AND WASHERS CONFORMING TO -BOLLARDS: PIPE BOLLARDS FABRICATED FROM STANDARD WALL PIPE OR HSS QUALITY STEEL WITH A MINIMUM WALL THICKNESS OF 6.35 mm (0.25 INCH) (HOT DIPPED GALVANIZED WHERE SPECIFIED ON DRAWINGS). -WELDING: WELDING, MATERIALS AND PROCEDURES CONFORMING TO CSA-W59-1982. ALL WELDING TO BE PERFORMED BY CERTIFIED WELDERS. A COPY OF CERTIFICATE SHALL BE FORWARDED TO TRL & ASSOCIATES LTD. AT THE START OF THE PROJECT WITH THE SHOP DRAWINGS AND AT THE START OF FIELD ERECTION FOR FIELD WELDING -GALVANIZING: HOT DIPPED GALVANIZING CONFORMING TO CSA-G164-M1981, MINIMUM 600 g/m<sup>2</sup> -PAINTING: ONE COAT SHOP PRIMER PAINT (COLOR GREY) COMPLYING WITH

CISC/CPMA STANDARD 1-73A. **EXECUTION:** -FABRICATE AND ERECT STEEL IN ACCORDANCE WITH CSA S16.1. -DO NOT FIELD CUT MEMBERS WITHOUT WRITTEN PERMISSION FROM TRL & ASSOCIATES LTD. -REPAIR ALL DAMAGE TO GALVANIZED FINISHES USING GALVALOY.

OPEN WEB STEEL JOISTS AND STEEL DECKING: -OWSJ SUPPLIER SHALL DESIGN THE JOISTS USING THE SELF WEIGHT OF THE STRUCTURE PLUS THE LIVE LOADS INDICATED PLUS MECH. UNIT LOADS INDICATED ON THE DWGS. THE NOMINAL SPACING AND DEPTH INDICATED ON THE DRAWINGS SHALL BE MAINTAINED. INDUSTRY STANDARD WEB CONFIGURATIONS SHALL BE USED TO ALLOW DUCTWORK TO PASS. -ROOF JOISTS SHALL BE DESIGNED WITH A MAXIMUM LIVE LOAD DEFLECTION OF L/360. CAMBER JOISTS FOR 50 % OF LIVE LOAD AND 100 % OF DEAD LOAD.

-FLOOR JOISTS SHALL BE DESIGNED WITH A MAXIMUM LIVE LOAD DEFLECTION OF L/480. CAMBER JOISTS FOR 50 % OF LIVE LOAD

AND 100 % OF DEAD LOAD. -ALL JOISTS MARKED TJ (TIED JOIST) SHALL INCLUDE AN EXTENDED BOTTOM CHORD AND A CONNECTION TO THE ADJACENT COLUMN OR WALL. -FRAMING FOR 2ND FLOOR MUST BE DESIGNED TO CONTROL VIBRATIONS WITHOUT CONSIDERATIONS OF PARTITIONS. AS A GUIDLINE, STRUCTURAL SYSTEMS SHOULD MEET CRITERIA OF CSA S16.1 APPENDIX G WALKING VIBRATIONS WITH 3% DAMPING

-THE JOIST SUPPLIER SHALL SUBMIT ALBERTA ENGINEER SEALED SHOP DRAWINGS PRIOR TO FABRICATION. -SUPPLY AND INSTALL AN L 75 x 75 x 6  $(3" \times 3" \times 1/4")$  FRAME FOR ALL OPENINGS IN DECKING. -SUPPLY AND INSTALL A C150 x 12 (C6 x 8.2) FRAME AT ALL MECHANICAL UNITS THAT ARE SUPPORTED BY OR HUNG FROM THE DECK OR JOISTS. -ALL DECK MATERIAL AND INSTALLATION SHALL CONFORM TO THE CANADIAN SHEET METAL BUILDING INSTITUTE CODE OF PRACTICE, INCLUDING THE USE OF WELDERS CERTIFIED FOR THE TYPE OF WORK. -ALL DECKING SHALL BE WELDED TO THE STRUCTURAL STEEL AT A MINIMUM OF 300 mm.(12") CENTRES AND BUTTON PUNCHED AT 450 mm (18") CENTRES, EXCEPT AS SHOWN ON THE DRAWINGS. -UNLESS OTHERWISE SPECIFIED, ALL DECKING SHALL BE 38mm x 0.76mm (1 1/2"x22 GA.) WITH A ZFO75 WIPE COAT ZINC COATING.

# STRUCTURAL FIELD REVIEW:

CISC/CPMA STANDARD 1-73A.

-THE CONTRACTOR SHALL COOPERATE WITH ALL TESTING, INSPECTION AND QUALITY CONTROL PERSONNEL REQUIRED ON THE SITE AND WILL PROVIDE CASUAL LABOUR FORCES AS REQUIRED TO ASSIST IN ALL THE FIELD REVIEW PROCEDURES. THE CONTRACTOR SHALL GIVE REASONABLE NOTICE TO THESE AGENCIES PRIOR TO REQUIRING THEIR SERVICES. -ALL REINFORCEMENT SHALL BE REVIEWED IN PLACE PRIOR TO PLACING THE CONCRETE BY TRL & ASSOCIATES LTD. ALL REINFORCEMENT SHALL BE IN PLACE AND SECURED AT THE TIME OF THE REVIEW. PROVIDE 24 HOURS NOTICE PRIOR TO POURS.

-PAINTING: ONE COAT SHOP PRIMER PAINT (COLOR GREY) COMPLYING WITH

# STEEL STUDS

-STEEL STUD STEEL FRAMING INCLUDES WIND BEARING STUDS, AXIAL LOAD BEARING STUDS, FLOOR JOISTS, CEILING JOISTS, ROOF JOISTS AND ROOF RAFTERS. -IN ACCORDANCE WITH CAN3-S136. -CONFORM TO THE REQUIREMENTS OF SPECIFIED FIRE RATED ASSEMBLIES. -DESIGN BRIDGING TO PREVENT MEMBER ROTATION AND MEMBER TRANSLATION PERPENDICULAR TO THE MINOR AXIS. PROVIDE FOR SECONDARY STRESS EFFECTS DUE TO TORSION BETWEEN LINES OF BRIDGING. -MAXIMUM DEFLECTIONS UNDER SPECIFIED LOADS SHALL CONFORM TO THE

FOLLOWING: 1. LIVE LOAD DEFLECTIONS OF WALL STUDS SUPPORTING MATERIALS SUSCEPTIBLE TO CRACKING (EG. MASONRY VENEER L/720. WALL STUDS SUPPORTING ALL OTHER MATERIALS L/360 (EG. METAL CLADDING, SYNTHETIC VENEERS). 2. FLOOR JOISTS L/360. ROOF JOISTS AND RAFTERS 1/360. 4. BUILDING SWAY DUE TO ALL EFFECTS 1/400 OF BUILDING HEIGHT OR 1/500 OF STOREY HEIGHT.

#### STEEL STUD NOTES CONT.:

-THE SPACING OF MEMBERS SHALL NOT EXCEED THE FOLLOWING: 400mm (16") 0/0 FLOOR JOISTS 400mm (16") 0/0 CEILING JOISTS 600mm (24") 0/C ROOF JOISTS 600mm (24") 0/C ROOF RAFTERS 600mm (24") 0/C

5 WIND BEARING METAL STUDS. -WIND BEARING METAL STUDS SHALL CONFORM TO THE MINIMUM SIZES AND SPACINGS DEFINED IN THE SCHEDULE BELOW, UNLESS NOTED OTHERWISE.

WIND BEARING WALL STUDS SUPPORTING MATERIALS OTHER THAN BRICK MASONRY VENEER THICKNESS 0 TO 12'-0" 150 (6") 21 GA. 0.84mm 12'-0" TO 18'-0" 150 (6") 18 GA. 1.22mm 400 (16") o.c. 18'-0" TO 24'-3" 200 (8") 18 GA. 1.22mm 400 (16") o.c.

(B) WIND BEARING STUDS BACKING BRICK MASONRY VENEER THICKNESS 150 (6") 20 GA. 0.92mm

150 (6") 18 GA. 1.22mm

-CONNECTIONS BETWEEN LIGHTWEIGHT STEEL FRAMING MEMBERS SHALL BE BY BOLTS. WELDING OR SHEET METAL SCREWS. RESISTANCES FOR SHEET METAL SCREWS SHALL BE BASED ON THE MANUFACTURER'S LOWER BOUND TEST VALUES MULTIPLIED BY THE

APPROPRIATE RESISTANCE FACTOR, AS GIVEN IN CAN3-S136 M. -SUBMIT SHOP DRAWINGS BEARING THE STAMP AND SIGNATURE OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ALBERTA. INCLUDE ALL NECESSARY SHOP DETAILS AND ERECTION DIAGRAMS. INDICATE MEMBER SIZES, LOCATIONS, THICNESSES EXCLUSIVE OF COATING, COATINGS AND MATERIALS. INCLUDE CONNECTION DETAILS FOR ATTACHING FRAMING TO ITSELF AND FOR ATTACHMENT TO THE STRUCTURE. SHOW SPLICE DETAILS WHERE PERMITTED. INDICATE DESIGN LOADS.

<u>MATERIALS</u> -STEEL COATINGS TO A 591 -- STEEL SHEET, COLD-ROLLED, ELECTROLYTIC

-STEEL TO CAN3-S136 AND SHALL BE IDENTIFIED AS TO SPECIFICATION, TYPE, GRADE AND MECHANICAL PROPERTIES. **EXECUTION** 

-WELDS SHALL CONFORM TO CSA W59 AND/OR ANSI/AWS D1.3, WHICHEVER IS APPLICABLE. TOUCH-UP WELDS WITH ZINC RICH PAINT. -SCREWS - PENETRATION BEYOND JOINED MATERIALS SHALL BE NOT LESS THAN 3 EXPOSED THREADS.

-LIGHTWEIGHT STEEL FRAMING SHALL BE ERECTED TRUE AND PLUMB WITHIN THE SPECIFIED TOLERANCES. -ERECTION TOLERANCES IN ACCORDANCE WITH CSSBI 50M.

-CUTTING OF MEMBERS MAY BE BY SAW OR SHEAR. TORCH CUTTING IS NOT

-SPLICING OF AXIAL LOAD BEARING MEMBERS IS NOT PERMITTED.

#### **CONCRETE SCHEDULE:**

PERMITTED.

LOCATION	TYPE	STRENGTH	% AIR	EXPOSURE	MAX. AGG. SIZE	SLUMP	COMMENTS	_
PILES. EXTERIOR	10	25 MPa	4 TO 7	F-2	20 mm	75±25	NOTE 2	,
PILES, INTERIOR	10	25 MPa	N/A	N/A	20 mm	75±25	NOTE 2	<u>,                                     </u>
GRADE BEAMS	10	30 MPa	4 TO 7	F-2	20 mm	75±25	NOTE 2	
SLAB ON GRADE:								
INTERIOR	10	25 MPa	N/A	N/A	20 mm	75±25	NOTE 3,	,4&6
EXTERIOR	10	32 MPa	5 TO 8	C-2	20 mm	75±25	NOTE 3,	,4,5&
SLAB ON DECK								
INTERIOR	10	30 MPa	N/A	N/A	20 mm	75±25	NOTE 3,	,6
MASONRY CORE FILL	10	20 MPa	N/A	N/A	10 mm	100±25	NOTE 6	

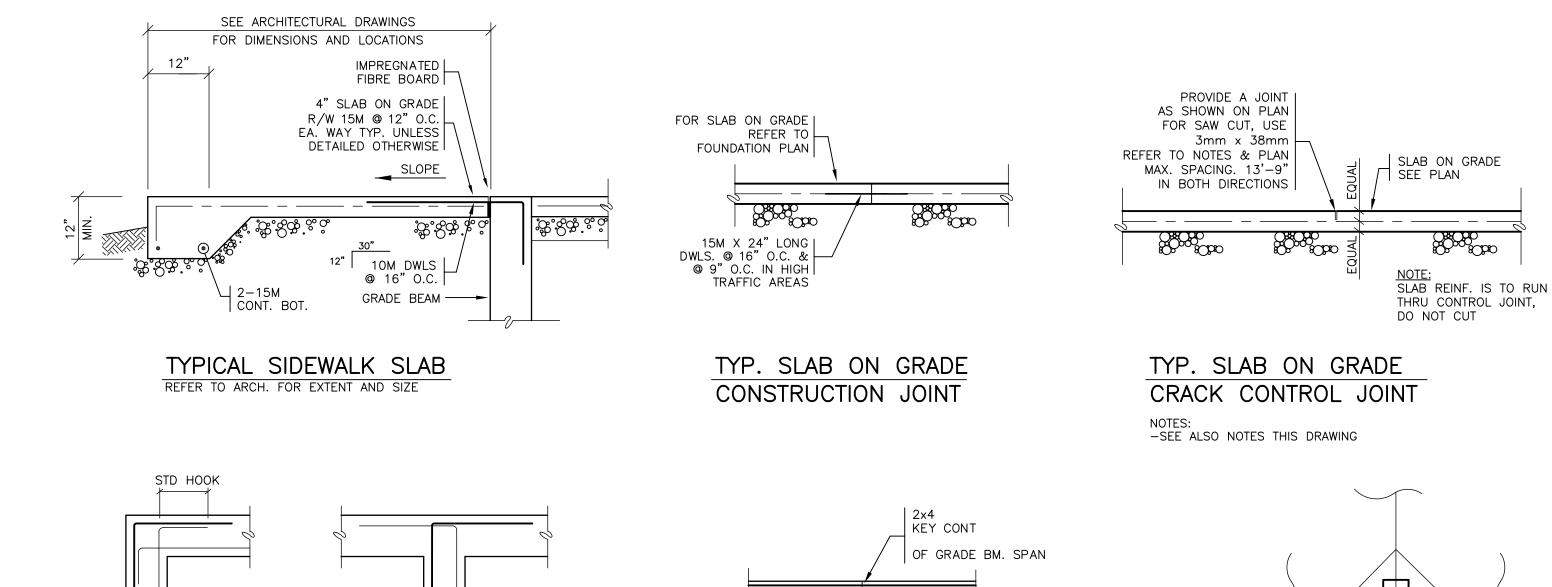
NOTE 2: NEGLIGIBLE SULPHATE CONTENT TO BE VERIFIED BY TESTING FIRM.

NOTE 3: STEEL TROWEL FINISH. NOTE 4: MIX TO BE ADJUSTED FOR DE-ICING CHEMICALS IF LIKELY. NOTE 5: LIGHT BROOM FINISH.

NOTE 6: CONCRETE EXPOSED TO FREEZING, CHEMICALS, OR OTHER EXPOSURE CONDITIONS SHALL HAVE THE MIX DESIGN SPECIFICATIONS MODIFIED ACCORDINGLY. NOTE 7: MINIMUM CEMENT CONTENT 320kg/M^3. REPLACEMENT OF CEMENT CONTENT WITH

## CONCRETE COVER TO REINFORCEMENT SCHEDULE:

LOCATION	COVER mm (	inches)	NOTES
GRADE BEAMS: BOTTOM: SIDES:	50mm 40mm	2" 1.5"	TO STIRRUE
PILES: BOTTOM: SIDES:	300mm 50mm	12" 2"	TO TIES
SLAB ON GRADE: TOP: BOTTOM:	40mm 40mm	1.5" 1.5"	



| PROVIDE CORNER BARS

── SIZE AND SPACING TO

| C/W 24" LG. LEGS

PROVIDE CORNER BARS

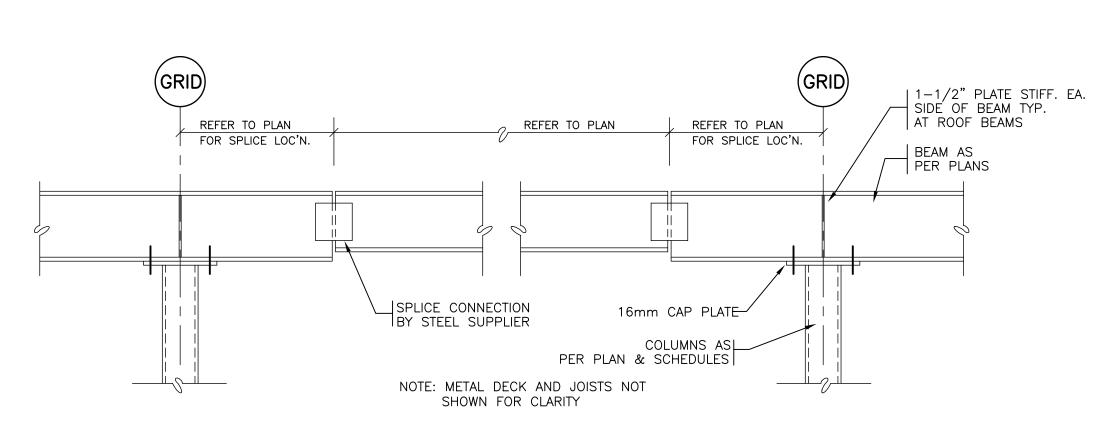
MATCH HORIZ WALL REINF.

SIZE AND SPACING TO

TYP. CORNER BAR DETAILS

NOTES:
-TYPICAL ALL CORNERS AND WALL INTERSECTIONS

C/W 24" LG. LEGS



TYP. GRADE BEAM

CONSTRUCTION JOINT

NOTE: BEAM REINF. IS TO RUN

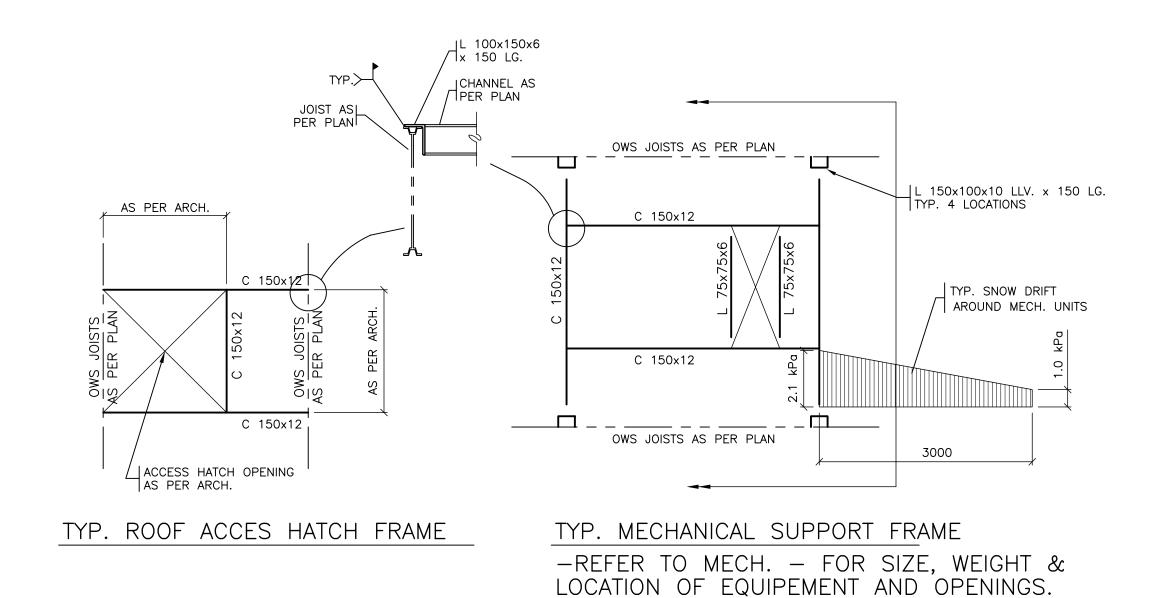
TYP. PLAN FOR SLAB CUT

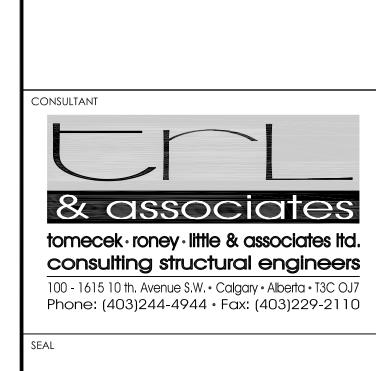
AROUND ALL INT. COLUMNS

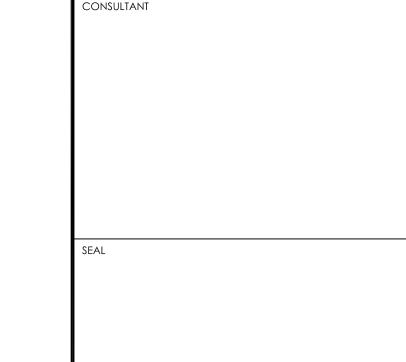
THRU CONST. JOINT,

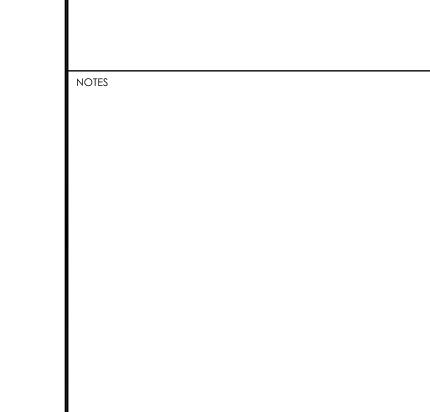
DO NOT CUT

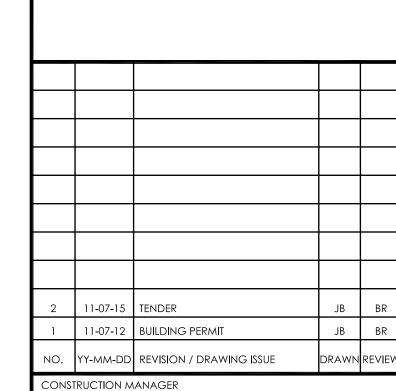
TYPICAL CANTILEVERED SUSPENDED SPAN BEAM DETAIL REFER TO PLAN FOR COLUMN & BEAM TIE JOIST LOCATIONS













2085 SOUTH EDMONTON **ADDITION** 

EDMONTON, AB DRAWING TITLE GENERAL NOTES

10133 - 34th AVENUE NW

**DETAILS** DRAWING ISSUED TENDER

PROJECT NO. PLOT DATE 2011-126 SCALE AS NOTED DRAWING NO.