CONSTRUCTION NOTES

GENERAL

1. DO NOT SCALE DRAWINGS.
2. VERIFY ALL DIMENSIONS SHOWN PRIOR TO COMMENCING CONSTRUCTION.
3. VERIFY WEIGHT AND LOCATION OF ALL EQUIPMENT ON STRUCTURE AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION.
4. LOCATE UNDERGROUND SERVICES AND PROTECT THEM AT ALL TIMES DURING CONSTRUCTION.
5. STRUCTURAL DRAWINGS SHOWING THE COMPLETED STRUCTURE DO NOT INDICATE COMPONENTS WHICH MAY BE NECESSARY FOR SAFETY DURING CONSTRUCTION.

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE TO BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH LATEST EDITION OF CSA A23.1 AND CSA A23.2.
2. CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON DRAWINGS:

1. HOUSEKEEPING PADS AND WALL CURBS:
1. 30 MPa;
2. SLUMP MAX. 90 mm;
3. AGGREGATE MAX. 20 mm;
4. ENTRAINED AIR; 3-5%

2. MASONRY FILL:
1. 20 MPa;
2. SLUMP MIN. 200 mm;
3. AGGREGATE MAX. 10 mm;

3. AIR ENTRAINING ADMIXTURES SHALL CONFORM TO REQUIREMENTS OF CSA A266.4.

REINFORCING STEEL

1. ALL REINFORCING STEEL TO BE CSA G30.12 M 400 MPa DEFORMED BARS EXCEPT STIRRUPS WHICH MAY BE 300 MPa GRADE STEEL. ALL REINFORCING TO BE DETAILED IN ACCORDANCE WITH LATEST EDITION OF ACI DETAILING MANUAL, UNLESS OTHERWISE NOTED.
2. REINFORCING STEEL COVER TO CONFORM TO LATEST EDITION OF CSA A23.3 AND AS FOLLOWS:

1. WALL CURBS: 1 ½ IN. (40 mm)
2. HOUSEKEEPING PADS: 1 IN. (25 mm)
3. ALL REINFORCING TO BE HELD IN PLACE AND TIED WITH PROPER ACCESSORIES, SUCH AS HI-CHAIRS AND SPACERS. SUPPLY AND DETAIL ALL ACCESSORIES. HI-CHAIRS TO HAVE 4 LEGS AND TO BE STAPLED OR NAILED TO THE FORMWORK.
4. ALL MISCELLANEOUS PADS AND CURBS TO BE REINFORCED WITH MINIMUM 10 M AT 18" (450 mm) O.C. EACH WAY, TOP UNLESS NOTED OTHERWISE.

MASONRY

1. DO MASONRY WORK TO CAN3-A371-M94 "MASONRY CONSTRUCTION FOR BUILDINGS".
2. CONCRETE BLOCKS TO CONFORM TO CAN3-A165-85 "CSA STANDARDS ON CONCRETE MASONRY UNITS".
1. STANDARD HOLLOW MASONRY UNITS TO BE: H/15/A/M.
3. BRICK: BURNED CLAY BRICK TO CAN/CSA-A82.1:
1. ACCEPTABLE MATERIAL: IXL 246 WHISTLER GRAY ROCKFACED.
4. MORTAR TO CONFORM TO CSA-A179-M94, TYPES BASED ON PROPORTION SPECIFICATIONS.
1. EXTERIOR BEARING WALLS: TYPE S
2. BRICK VENEER: TYPE N
3. COLOURED MORTAR: COLOURING ADMIXTURE NOT TO EXCEED 10% OF MASS OF CEMENT.
5. USE DURAWALL OR EQUAL EVERY SECOND COURSE.
6. TOP COURSE OF ALL BLOCK WALLS TO BE "U" BLOCK WITH 2-15M REINFORCING STEEL CONTINUOUS, AND 20 MPa CONCRETE FILL UNLESS NOTED OTHERWISE.
7. ALL MASONRY WALLS TO BE PROPERLY BRACED UNTIL STRUCTURE IS CLOSED IN.
8. BRICK VENEER TO BE TIED TO BACK-UP STRUCTURE WITH BLOCK SHEAR CONNECTOR AS MANUFACTURED BY FERO HOLDINGS LTD.
9. SUPPORT OPENINGS IN BRICK VENEER UP TO A MAXIMUM OF 39" (1000mm) WITH L4"x4"x1/4" (L100x100x6) STEEL ANGLE. PROVIDE MINIMUM OF 8" (200mm) BEARING EACH SIDE.
10. U-BLOCK LINTELS OVER OPENINGS IN BLOCK WALL TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:
1. UP TO 4'-0" (1200 mm)
1. 8" (200 mm) DEEP U-BLOCK
2. 20 MPa CONCRETE FILL
3. 2 - 15M BOTTOM
4. BEAR MINIMUM 8" (200 mm) EACH END
5. FILL 3 CORES THREE COURSES DEEP IN WALL EACH END TYP.

2. UP TO 8'-0" (2400 mm)
1. 16" (400 mm) DEEP U BLOCK
2. 20 MPa CONCRETE FILL
3. 2 - 15M BOTTOM
4. BEAR MINIMUM 8" (200 mm) EACH END
5. FILL 3 CORES THREE COURSES DEEP IN WALL EACH END TYP.

ROUGH CARPENTRY

1. ALL FLOOR JOISTS AND LINTELS TO BE SPF NO. 2 OR BETTER. WALL STUDS AND PLATES TO BE SPF NO. 2 OR BETTER.
2. ALL WALLS TO BE ADEQUATELY BRACED UNTIL FLOOR STRUCTURE IS INSTALLED.
3. NAILING PATTERNS AND LENGTHS TO CONFORM TO REQUIREMENTS OF PART 9 OF NATIONAL BUILDING CODE OF CANADA.
4. ALL WOOD TRUSSES TO BE DESIGNED IN ACCORDANCE WITH:
1. CAN3-086-M94 "ENGINEERING DESIGN IN WOOD (LIMIT STATES DESIGN)"
2. THE NATIONAL BUILDING CODE OF CANADA
3. THE MANITOBA BUILDING CODE
4. ANY ANTICIPATED SNOW BUILD-UP LOADS.
5. TRUSSES FRAMING INTO BEAMS OR OTHER TRUSSES SHALL BE CONNECTED WITH PROPER METAL FRAMING ACCESSORIES OR EQUAL APPROVED BY ENGINEER.
6. SUBMIT DRAWINGS BEARING SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA FOR REVIEW PRIOR TO FABRICATION.
7. ENGINEERING SHOP DRAWINGS SHALL INCLUDE A LAYOUT PLAN.

RIGID INSULATION

1. MATERIAL: STYROFOAM CAVITYMATE OR APPROVED EQUAL.
2. FASTENING: CONCRETE ANCHORS WITH FLAT DISCS FOR FASTENING OF INSULATION TO CONCRETE. SPACING AS PER INSULATION MANUFACTURERS' WRITTEN RECOMMENDATIONS.
3. INSTALL TO MAINTAIN CONTINUITY OF THERMAL BARRIER, FIT TIGHT TO PENETRATIONS. SEAL JOINTS AND JUNCTIONS.

BATT INSULATION

1. MATERIAL: FIBREGLASS, FRICTION FIT, UNFACED.
2. VAPOUR BARRIER: 6 MIL (.15 mm) POLYETHYLENE. TAPE SEAL ALL JOINTS AND JUNCTIONS.
3. INSTALL INSULATION TO MAINTAIN CONTINUITY OF THERMAL BARRIER, FIT TIGHT TO PENETRATIONS, DO NOT COMPRESS.
4. INSTALL VAPOUR BARRIER ON WARM SIDE OF INSULATION COMPLETELY SEAL BY TAPING JOINTS AND PATCHING TEARS AND PENETRATIONS.

METAL CLADDING

1. DESIGN OF SYSTEM: PROVIDE FOR THERMAL MOVEMENT CAUSED BY TEMPERATURE RANGE OF +40 TO -40 C.
2. PROVIDE FOR MOISTURE DRAINAGE TO EXTERIOR.
3. LINER PANEL: 24 GAUGE GALVANIZED SHEET STEEL.
4. FLASHINGS: OF SAME MATERIAL AS CLADDING.
5. SCREWS: AS RECOMMENDED BY ROOFING SUPPLIER, GALVANIZED, LENGTH AND SIZE TO MEET ROOF SYSTEM DESIGN. HEAD COLOR TO MATCH CLADDING.
6. SYSTEM TO BE FINISHED FREE FROM RATTLES, WIND WHISTLES OR NOISE DUE TO THERMAL MOVEMENTS.
7. SEALANTS: DOW CORNING 795 SILICONE SEALANT. SEALANT COLOUR TO MATCH ADJACENT SURFACES WHERE EXPOSED IN FINISHED ASSEMBLY.

DOORS

1. EXTERIOR DOORS: 1 1/4" (45 mm) STEEL DOOR (18 GAUGE) WITH POLYURETHANE INSULATION FILL.
2. EXTERIOR FRAME: 16 GAUGE PRESSED STEEL FRAME, BATT INSULATION FILL, FIX TO WALL WITH MINIMUM OF 4 ANCHORS PER JAMB.
3. REFER TO SPECIFICATIONS FOR DOOR HARDWARE.

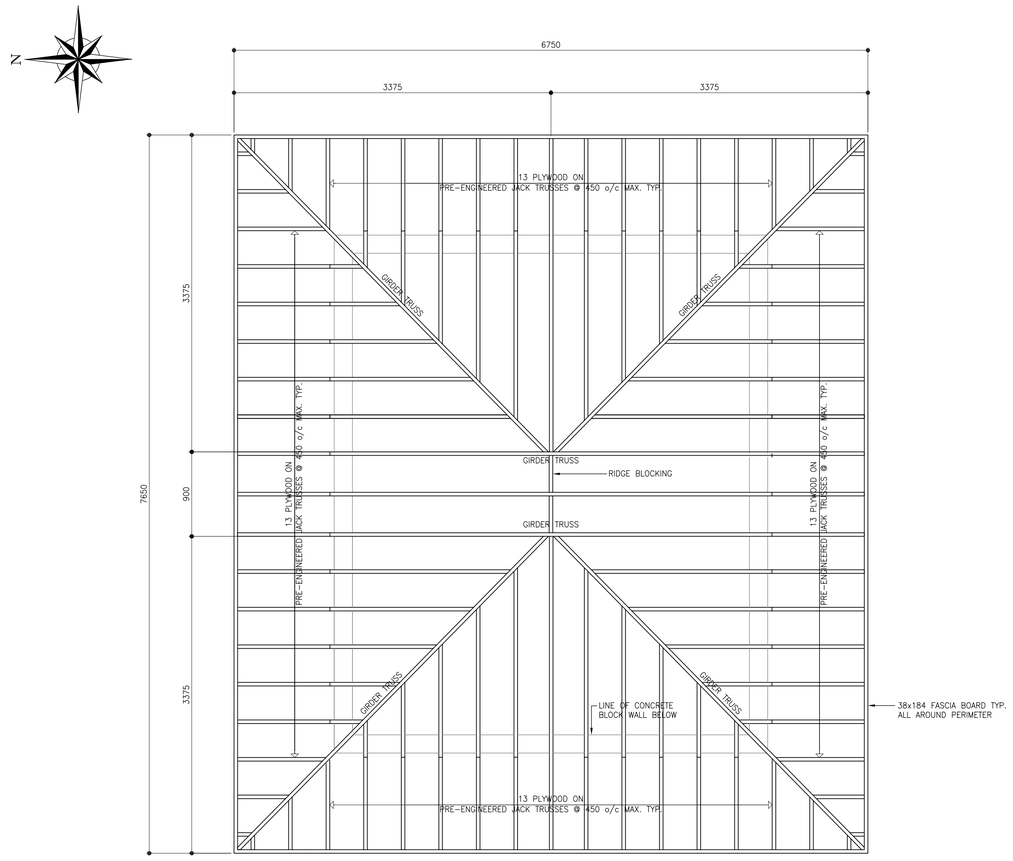
PAINTING

1. REFER TO SPECIFICATION FOR PAINT FINISHES AND FORMULA.
2. SPRINKLE CLEAN SILICA SAND IN PAINT FINISH ON CONCRETE FLOOR TO PROVIDE A SLIP RESISTANT FINISH.
3. COLOR SCHEDULE:

	MARK	COLOR	LOCATION
1.	PT-1:	GP CLC 1202W RENOVATION	AS INDICATED ON THE DRAWINGS
2.	PT-2:	GP CL3173M EXCALIBUR	INT. PLYWOOD WALLS AND CEILING
3.	PT-3:	GP ENVIROGARD GLOSS SAFETY YELLOW	STEEL PIPE BOLLARDS
4.	PT-4:	GP CL3173M EXCALIBUR	CONCRETE FLOOR

CAULKING

1. CAULKING: CLEAR SILICONE
2. BACKER: ETHAFOAM "SB", OVERSIZED 30%

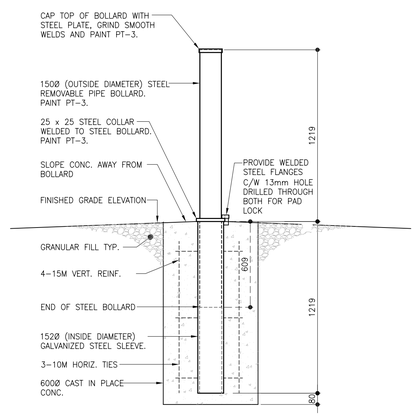


A B02 ROOF FRAMING PLAN
1:30

* REFER TO ROOF PLAN AND ELEVATIONS FOR ROOF SLOPES.

ROOF LOADS

* SPECIFIED ROOF SNOW LOAD = 1.72 kPa
* SPECIFIED ROOF DEAD LOAD = 0.7 kPa



B B02 REMOVABLE BOLLARD DETAIL TYP.
1:20

PRELIMINARY

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

NO.	REVISIONS	DATE	BY
5	ISSUED FOR TENDER	FEB 11 08	PG
4	ISSUED FOR REVIEW 100%	JAN 25 08	PG
3	ISSUED FOR REVIEW 99%	DEC 14 07	PG
2	ISSUED FOR REVIEW 75%	SEP 11 07	RK
1	ISSUED FOR REVIEW	JUN 29 07	CVL

Accutech Engineering Inc.
Tomorrow's Technology Today
605-287 Broadway, Winnipeg, Manitoba Canada R3C-0R9
Phone (204) 944-1555 Fax (204) 944-1444
www.accutecheng.ca

DESIGNED BY	PG	CHECKED BY	PG
DRAWN BY	RK	APPROVED BY	KD
HOR. SCALE / VERTICAL	AS SHOWN	RELEASED FOR CONSTRUCTION	SIGNED BY K. ZUREK
DATE	FEB 11, 2008	DATE	08/02/13

ENGINEER'S SEAL

ORIGINAL SIGNED BY K.R. DRYSDALE 08/02/11

BID OPPORTUNITY 892-2007
PLOT DATE:

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

DUGALD ROAD WASTEWATER PUMPING STATION
ROOF FRAMING PLAN AND NOTES

CONSULTANT DRAWING NUMBER	B02
SHEET	3 OF 14
CITY DRAWING NUMBER	7502