DESCRIPTION: GENERAL NOTES DATE: 2007.10.04 FILE NAME: 7080S01.DWG

PROJECT No: 2004-023

ADDRESS: 1400 HENDERSON HWY.

FOUNDATION

1. FOOTING CONCRETE TO BE A CLASS F-2 (25MPa @28d) EXPOSURE.
2. A GEOTECHNICAL ENGINEER IN EMPLOY OF THE CITY SHALL INSPECT AND APPROVE BEARING SURFACE AND CONDITIONS BEFORE CONTRACTOR IS ALLOWED TO PLACE CONCRETE FOR FOOTINGS.

CONCRETE

1. ALL CONCRETE CONSTRUCTION, COLD WEATHER CONSTRUCTION & CONCRETE TESTING TO BE IN ACCORDANCE WITH THE LATEST EDITION OF CSA STANDARDS A23.1 AND A23.2.
2. ALL CONCRETE TO BE NORMAL WEIGHT HARD ROCK CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 20 MPA WITH A CLASS C-1 EXPOSURE UNLESS SPECIFIED OTHER. CONCRETE IN CONTACT WITH NATIVE SOIL SHALL HAVE A CLASS S-2 EXPOSURE. CONCRETE FOR ALL INTERIOR SLABS AND TOPPING TO BE 25 MPA WITH A CLASS N EXPOSURE.
3. ALL EXTERIOR CONCRETE SLABS, CURBS, TOPPING & PADS TO BE 32 MPA WITH A CLASS C-1 EXPOSURE.
4. CONCRETE SLUMP TO BE COORDINATED BETWEEN CONTRACTOR AND CONCRETE SUPPLIER CONSIDERING THE PERFORMANCE CRITERIA AND THE CONTRACTOR'S CRITERIA FOR CONSTRUCTION AND PLACEMENT.
5. MISCELLANEOUS CONCRETE ELEMENTS (PITS, TRENCHES, ETC.) TO BE MINIMUM 150mm THICK REINFORCED WITH 10M @ 12" O/C EACH WAY UNLESS NOTED OTHERWISE.

REINFORCING

1. REINFORCING STEEL SHALL BE GRADE 400 DEFORMED NEW BILLET STOCK CONFORMING TO LATEST CSA SPECIFICATION G30.18-M92. WELDED WIRE MESH SHALL CONFORM TO CSA G30.5-M1983, (R1991). GRADE 300 STEEL MAY BE USED FOR ALL STIRRUPS AND TEMPERATURE STEEL.
2. CONCRETE COVER TO BE AS FOLLOWS:
   A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 75mm (3").
   B. EXPOSED TO EARTH OR WEATHER 50mm (2").
   C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      i) SLABS 20mm (3/4")
      ii) BEAMS 40mm (1 1/2")
3. TOP STEEL IN GRADE BEAMS TO BE SPLICED AT CENTER SPAN AND BOTTOM STEEL TO BE SPLICED OVER SUPPORTS. SPLICE LENGTHS:
   A. TENSION ZONE SPLICE TO BE AVOIDED WHEREVER POSSIBLE, BUT IF REQUIRED, LENGTH SHOULD BE SPECIFIED BY THE DESIGN ENGINEER.
   B. COMPRESSION ZONE SPLICE SHOULD NOT BE LESS THAN 30 BAR DIAMETERS.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL ROLLED SECTIONS AND STRUCTURAL PLATES SHALL CONFORM TO THE LATEST EDITION OF CSA STANDARDS G40.21-M 350W. ALL HOLLOW STRUCTURAL SECTION SHALL CONFORM TO THE LATEST EDITION OF CSA STANDARD G40.21-M 350W.
2. ALL ANCHOR BOLTS SHALL CONFORM TO THE LATEST EDITION OF ASTM A307 UNLESS OTHERWISE NOTED. BOLTED CONNECTION SHALL BE TORQUE-TESTED IN ACCORDANCE WITH THE LATEST EDITION OF CSA S16.1. ANCHOR BOLTS TO BE 3/4"ø x18" C/W 3" HOOK.
3. ALL WELDERS AND WELDING PROCEDURES TO BE CERTIFIED BY CANADIAN WELDING BUREAU.
4. STEEL FABRICATOR TO DESIGN AND SUPPLY ANGLES AS INDICATED FOR SUPPORT AND SUSPENSION OF MECHANICAL EQUIPMENT.
5. PROVIDE STIFFENER PLATES TO BOTH SIDES AT WEBS OF BEAMS BEARING OVER COLUMNS. THE PLATES ARE TO BE OF THE SAME THICKNESS AS COLUMN FLANGES FOR W-SHAPES, COLUMN WALL FOR HSS SHAPES OR 9mm WHICHEVER IS GREATER.

ITEMS EMBEDDED IN CONCRETE

SEE ALSO CSA-A23.1 - CLAUSE 12.5
EXCEPT WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, PIPES, CONDUITS, AND SLEEVES EMBEDDED IN CONCRETE SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:

1. GENERAL
   A. NOT WITHSTANDING THE SATISFYING OF THESE GUIDELINES, THE CONDUIT, SLEEVES, PIPES ETC. SHALL NOT IMPAIR THE STRUCTURAL STRENGTH AND SHALL BE MOVED IF SO DIRECTED BY THE CONTRACT ADMINISTRATOR.
   B. CENTERLINE SPACING TO BE NOT LESS THAN 3 DIAMETERS.
   C. CENTERLINE SPACING BETWEEN PARALLEL CONDUIT AND REINFORCING BARS TO BE 3 DIAMETERS.
   D. ADD REINFORCING AT POINTS OF CONGESTION AS DIRECTED BY THE CONTRACT ADMINISTRATOR.
2. FOR SLABS - CONDUITS IN THE PLANE OF THE SLAB:
   A. LOCATE BETWEEN TOP AND BOTTOM REINFORCING. (WHERE APPLICABLE)
   B. MAXIMUM SIZE IN ONE LAYER TO BE NOT MORE THAN 1/4 OF CONCRETE THICKNESS.
   C. THREE LAYERS OR MORE CROSSING WILL NOT BE PERMITTED.
3. FOR WALLS - CONDUIT/ PIPES NOT ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE CONTRACT ADMINISTRATOR.

NON-STRUCTURAL ELEMENTS

1. "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT THE RESPONSIBILITY OF CONTRACT ADMINISTRATOR. THEY ARE DESIGNED, DETAILED AND REVIEWED IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THOSE OF THE CONTRACT ADMINISTRATOR. WHERE STRUCTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE PROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL ALSO PROVIDE ANY LETTERS REQUIRED BY BUILDING PERMIT AUTHORITIES.
2. EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO:
   A. ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, CEILINGS, MILLWORK ETC.
   B. LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.
   C. CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.
   D. ARCHITECTURAL PRECAST, PRECAST CLADDING.
   E. MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS, AND THEIR ATTACHMENT DETAILS.
   F. ELEVATORS AND CONVEYING SYSTEMS.
   G. BRICK OR BLOCK VENEERS AND THEIR ATTACHMENTS.
   H. NON-LOAD BEARING MASONRY.
   I. NON-STRUCTURAL CONCRETE TOPPINGS
   J. ALUMINUM SKYLIGHTS.
3. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR. THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE EFFECT ON THE PRIMARY STRUCTURAL SYSTEM.

STRUCTURAL MOVEMENTS/ TOLERANCES

THIS STRUCTURE WILL UNDERGO NORMAL TYPES OF MOVEMENT AND DEFLECTION AND THE NON-STRUCTURAL COMPONENTS MUST BE DETAILED TO ACCOMMODATE THIS.
DRYWALL PARTITIONS, MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT AND BUILDING FIXTURES MUST BE DETAILED AND INSTALLED TO ACCOMMODATE SLAB MOVEMENT.
ALL STRUCTURES ARE SUBJECT TO CONSTRUCTION TOLERANCES. THIS SHOULD BE ALLOWED FOR IN DETAILING NON-STRUCTURAL COMPONENTS.

LUMBER

1. FRAMING LUMBER SHALL CONFORM TO THE LATEST EDITION OF CSA 0141 AND SHALL BE OF THE FOLLOWING MINIMUM GRADES:
   LINTELS, JOISTS, AND BEAMS: S-P-F NO. 2
   STUD WALLS: S-P-F NO. 2
2. ALL SHEATHING MATERIAL TO BE 1/2" STD. SPRUCE PLYWOOD IN ACCORDANCE WITH CSA 0325 UNLESS NOTED OTHERWISE. ALL SHEETS TO BE STAGGERED. FASTEN SHEETS WITH 3" COMMON NAILS AT 12" O/C ALONG ALL STUDS AND AT 6" O/C ALONG EDGES OF SHEET, UNLESS NOTED OTHERWISE.
3. ALL FLOOR AND ROOF JOISTS TO HAVE CONTINUOUS CROSS BRIDGING AT 6'-0" MAX. SPACING UNLESS NOTED OTHERWISE.

DESIGN LOADS

SNOW LOAD	Ss = 1.9 kPa (1/50)	Sr = 0.2 kPa
WIND LOAD	0.45 kPa (1/50)	0.35 kPa (1/10)
SEISMIC LOADS	NOT APPLICABLE	
FLOOR LOADS	REFER TO PLAN	

CONTRACTOR TO ENSURE THAT CONSTRUCTION LOADS DO NOT EXCEED DESIGN LOADS.

ABBREVIATIONS

ALT.--------- ALTERNATE
BOT.--------- BOTTOM
B.W.--------- BOTH WAYS
C/W--------- COMPLETE WITH
D.L.--------- DEAD LOAD
E.E.--------- EACH END
E.F.--------- EACH FACE
E.S.--------- EACH SIDE
E.W.--------- EACH WAY
H.1E--------- HOOK ONE END
H.2E--------- HOOK TWO ENDS
H & V--------- HORIZONTAL AND VERTICAL
HORIZ.--------- HORIZONTAL
L.L.--------- LIVE LOAD
MAX.--------- MAXIMUM
MIN.--------- MINIMUM
N.T.S.-------- NOT TO SCALE
O/C--------- ON CENTER
R/W--------- REINFORCED WITH
S.D.L.--------- SUPERIMPOSED DEAD LOAD
SIM.--------- SIMILAR
S.O.G.--------- SLAB ON GRADE
STAG.--------- STAGGER
S.J.--------- STRUT JOIST
TYP.--------- TYPICAL
T/O--------- TOP OF
T1E--------- TIE ONE END
T & B-------- TOP AND BOTTOM
T & C-------- TENSION AND COMPRESSION
U.N.O.-------- UNLESS NOTED OTHERWISE
VERT.--------- VERTICAL

FIELD REVIEW BY CONTRACT ADMINISTRATOR

THE CONTRACT ADMINISTRATOR PROVIDES FIELD REVIEW ONLY FOR THE WORK SHOWN ON THESE STRUCTURAL DRAWINGS. THIS REVIEW IS NOT A "FULL TIME" REVIEW BUT IS A PERIODIC REVIEW AT THE SOLE DISCRETION OF THE CONTRACT ADMINISTRATOR IN ORDER TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY THE CONTRACT ADMINISTRATOR. FIELD REVIEW BY THE CONTRACT ADMINISTRATOR IS NOT CARRIED OUT FOR THE CONTRACTOR'S BENEFIT, NOR DOES IT MAKE THE CONTRACT ADMINISTRATOR GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACT ADMINISTRATOR SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OF FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE CONTRACT ADMINISTRATOR WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON THE CONTRACT ADMINISTRATOR'S DRAWINGS. THE EXTENT OF THIS REVIEW IS AT THE SOLE DISCRETION OF THE CONTRACT ADMINISTRATOR AND IS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE STRUCTURAL DESIGN CONCEPT. THE REVIEW IS NOT AN APPROVAL OF THE DESIGN, DETAILS AND DIMENSIONS INHERENT IN THE SHOP DRAWINGS. RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OR FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

GENERAL NOTES

1. THIS SET OF DRAWINGS SHOWS THE COMPLETED PROJECT. THEY DO NOT INCLUDE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES. FORM WORK, FALSE WORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK.

2. THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION" OR "ISSUED FOR TENDER" IN THE REVISION'S COLUMN.

3. THE INFORMATION ON THIS DRAWING SHALL NOT BE USED FOR ANY OTHER THAN THE SPECIFIED WORKS OR PART OF THE WORKS FOR WHICH IT HAS BEEN AUTHORIZED BY THE CONTRACT ADMINISTRATOR.

4. SECTION MARKER SHOWN THUS (# / S#) MEANS SECTION # SHOWN ON DRAWING SHEET S#.

5. SEE ARCHITECTURAL DRAWINGS FOR FLOOR AND ROOF ELEVATIONS, RECESSED, DRAINAGE SLOPES, DETAILED DIMENSIONS FOR DOORS, WINDOWS AND OTHER OPENINGS ETC.

6. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, NAILERS, INSERTS, ETC. TO BE ENCASED IN CONCRETE.

7. THE CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN STRUCTURAL AND OTHER DISCIPLINES DRAWINGS FOR CLARIFICATION.

8. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT THE WRITTEN PERMISSION OF THE CONTRACT ADMINISTRATOR. CONTRACTOR TO PROVIDE APPROPRIATE ATTACHMENTS AND CONNECTIONS FOR MECHANICAL, ELECTRICAL, AND OTHER SERVICES WITHOUT CUTTING OR DRILLING.

9. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND LANDSCAPE DRAWINGS FOR LOCATIONS, CONFIGURATIONS, EXTENT, AND SIZES OF ALL CURBS, UPSTANDS, DOWNTURNS: AND FOR OPENINGS THROUGH FLOORS AND WALLS FOR DUCTS.

10. FIRE RESISTANCE RATINGS:
    SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR PRECISE LOCATION OF REQUIRED FIRE RESISTANCE RATINGS.

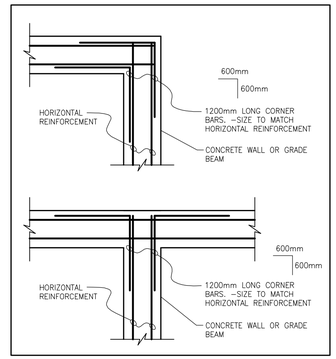
11. THE CONTRACTOR SHALL PROVIDE REASONABLE NOTICE TO THE CONTRACT ADMINISTRATOR PRIOR TO POURING CONCRETE OR CONCEALING ANY STRUCTURAL COMPONENTS. THE PURPOSE OF THIS NOTICE IS TO ENABLE THE CONTRACT ADMINISTRATOR TO CONDUCT ANY REQUIRED FIELD REVIEWS.

12. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTENT AND RECOMMENDATIONS OF THE GEOTECHNICAL REPORTS.

13. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL COMPONENTS TO THE CONTRACT ADMINISTRATOR FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. SHOP DRAWINGS TO INCLUDE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER FOR DESIGN OF COMPONENTS AND/ OR CONNECTIONS AS REQUIRED.

LIST OF STRUCTURAL DRAWINGS

NOTES :



1 / S1.0 TYPICAL CORNER BARS
SCALE: 1/2"=1'-0"

NO.	REVISION/DESCRIPTION	BY	DATE
1.	ISSUED FOR TENDER	NM	OCT 04/07

CONSULTANT

TOWER PROJECT NO. : 7080

TOWER ENGINEERING GROUP
208 - 897 CORYDON AVE. WINNIPEG, MB. R3M 0W7
TEL: (204) 925-1150 FAX: (204) 925-1155
EMAIL: towereng@towereng.ca WEB: www.towereng.ca

SEALS

APEGM
Certificate of Authorization
Tower Engineering Group
No. 1918 Expiry: April 30, 2008

DRAWN BY	SM	CHECKED BY	APPROVED
DATE	2007.10.04	USER APPROVAL	

CITY OF WINNIPEG
PLANNING, PROPERTY & DEVELOPMENT DEPARTMENT
CIVIC ACCOMMODATIONS DIVISION
300 - 65 GARRY ST. R3C 4K4

PROJECT

COMMUNITY POLICE SERVICE CENTRE

1400 HENDERSON HWY.

SHEET TITLE

GENERAL NOTES

SCALE	PROJECT NO.	SHEET NO.
AS SHOWN	2004-023	S1.0

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1