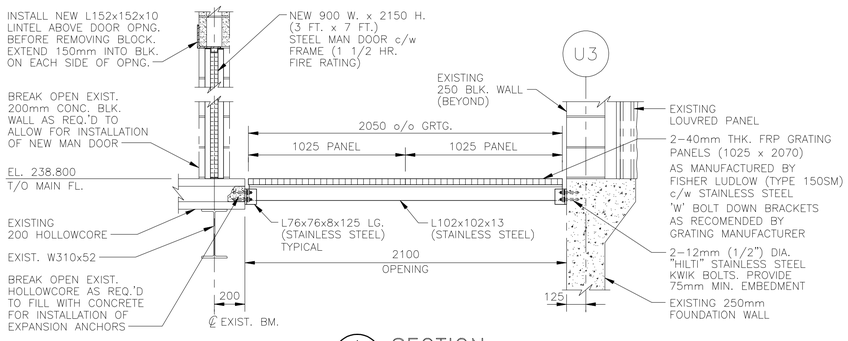
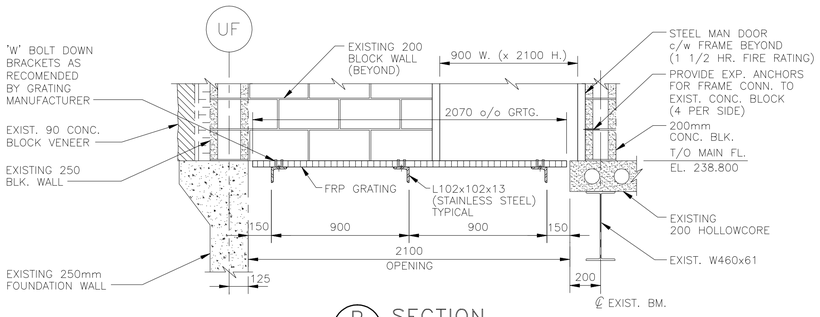


A US2.1 SECTION
SCALE: 1:20



B US2.1 SECTION
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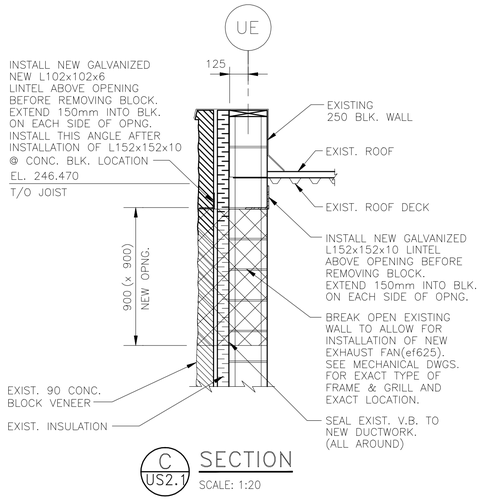

C US2.1 SECTION
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NOTES: (CONT.'D) FROM DWG. LS2.1:

AIR/VAPOUR BARRIER:

1. AIR/VAPOUR BARRIER AROUND ENTIRE HEATED AREA OF BUILDING AND AS DETAILED SHALL CONSIST OF SELF-ADHERING MODIFIED BITUMENOUS MEMBRANE ON CONCRETE BLOCK WALLS AND ROOF, 6 MIL (0.15mm) POLYETHYLENE IN AREAS AS DETAILED, THE AIR/VAPOUR BARRIER SHALL ALSO INCLUDE ALL OTHER TRANSITION MATERIALS AND CLOSURES.
2. VAPOUR/AIR BARRIER SHALL COMPLETELY SEPARATE THE HEATED INTERIOR OF THE BUILDING FROM UNHEATED EXTERIOR. BARRIER SHALL BE CONTINUOUS WITH ALL INTERFACES BETWEEN DISSIMILAR COMPONENTS LAPPED AND/OR SEALED AS DETAILED AND NOTED. INSTALL ALONG INSIDE FACE OF THERMAL INSULATION.
3. SBS MODIFIED BITUMENOUS MEMBRANE TO BE "SOPRASEAL STICK 1100T" (OR APPROVED EQUAL IN ACCORDANCE WITH B6), A COMPOSITE 1.0mm SHEET MEMBRANE COMPRISING OF RUBBERIZED ASPHALT BONDED TO A TRI-LAMINATE WOVEN POLYETHYLENE, AS MANUFACTURED BY SOPREMA. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS USING MANUFACTURER'S SURFACE CONDITIONER AND MASTICS, ETC.. INSTALL OVER CONCRETE BLOCK ON EXTERIOR WALLS AND AS DETAILED, INCLUDING TRANSITION STRIPS OVER MASONRY THROUGH-WALL FLASHING. ALLOW SUFFICIENT WIDTH FOR LAPPING WITH OTHER AIR/VAPOUR BARRIER MATERIALS. SEAL TO OTHER AIR/VAPOUR BARRIER MATERIALS WITH COMPATIBLE BITUTHENE MASTIC ALONG A CLAMPED INTERFACE. SEAL AROUND ALL PENETRATIONS SUCH AS BRICK LEDGE ANGLE BRACKETS AND MECHANICAL PENETRATIONS.
4. POLYETHYLENE TO BE 6 MIL THICK VIRGIN MATERIAL IN ACCORDANCE WITH CAN2-51-34M86. MINIMIZE LAPS BY USING MAXIMUM AVAILABLE SHEET SIZE. ALL LAPS TO BE 300mm MINIMUM AND SEALED WITH ACOUSTICAL SEALANT. PROVIDE STRUCTURAL BACKING ALONG ALL LAPS BY FULLY CLAMPING BETWEEN INTERIOR WALL SHEATHING AND FRAMING. SEAL ALONG FLOOR AND ROOF STRUCTURE AS DETAILED.
5. SEE ROOF NOTES FOR ROOF AIR/VAPOUR BARRIER AND ASSOCIATED TRANSITION STRIPS.

ROOFING (SBS MODIFIED):

LOW SLOPE ROOF COMPONENTS

1. ROOFING SYSTEM SHALL BE SOPREMA SOPRAFIX SYSTEM (OR APPROVED EQUAL) WHICH CONSISTS OF THERMAL BARRIER BOARD, SELF-ADHESIVE SBS MODIFIED BITUMEN VAPOUR/AIR BARRIER, POLYISOCYANTURATE INSULATION (THICKNESS TO MATCH EXISTING), 2 PLY SBS MODIFIED BITUMEN MEMBRANE.
2. THERMAL BARRIER TO BE 1/2" FIBREGLASS MAT FACED GYPSUM ROOF BOARD. INSTALL AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS. ACCEPTABLE PRODUCT: DENSDECK ROOF BOARD BY GEORGIA-PACIFIC OR APPROVED EQUAL IN ACCORANCE WITH B6.
3. VAPOUR/AIR BARRIER TO BE SELF-ADHESIVE, COMPOSED OF BITUMEN MODIFIED WITH THERMOPLASTIC POLYMERS AND HIGH-DENSITY POLYETHYLENE FILM. THE SELF-ADHESIVE UNDERFACE IS COVERED WITH A SILICONE RELEASE SHEET. ACCEPTABLE PRODUCT: SOPRAVAP'R BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
4. RIGID INSULATION TO BE A CLOSED-CELL POLYISOCYANURATE FOAM CORE INTEGRALLY LAMINATED TO HEAVY NON-ASPHALTIC FIBRE-FREINFORCED FELT FACERS. ACCEPTABLE PRODUCT: COLGRIP B BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
5. ALL WOOD BLOCKING USED IN ROOF CONSTRUCTION TO BE PRESSURE TREATED (PWF) MATERIAL, IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S REQUIREMENTS, FASTENED TO STEEL DECK WITH CORROSION RESISTANT FASTENERS.
6. ROOF MEMBRANE TO BE THE SOPRAFIX, 2 PLY SBS MODIFIED BITUMEN MEMBRANE SYSTEM. ALL COMPONENTS OF THE ROOF MEMBRANE SYSTEM TO BE THE PRODUCTS OF A SINGLE MANUFACTURER. ACCEPTABLE MANUFACTURER: SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
7. BASE SHEET TO BE A GLASS MAT REINFORCED AND SBS MODIFIED BITUMEN C/W A DUO SELVEDGE. BASE SHEET TO BE MECHANICALLY FASTENED THROUGH INSULATION INTO DECKING. ACCEPTABLE PRODUCT: SOPRAFIX BASE 630 BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
8. CAP SHEET TO BE A NON-WOVED POLYESTER REINFORCEMENT AND SBS MODIFIED BITUMEN. COLOURED GRANULES ON TOP FACE AND THERMOFUSIBLE PLASTIC FILM ON BOTTOM FACE. CAP SHEET TO BE TORCH APPLIED TO BASE SHEET. COLOUR TO MATCH EXISTING. ACCEPTABLE PRODUCT: SOPRAFIX CAP 650 BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
9. BASE SHEET FLASHING AND CAP SHEET FLASHING TO BE AS PER ROOFING MANUFACTURER'S REQUIREMENTS. ACCEPTABLE PRODUCT: BASE FLASHING - SOPRAFLASH FLAM STIK, CAP FLASHING - SOPRAFLAM 180 OR BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
10. ALL ROOF MEMBRANE COMPONENTS TO BE INSTALLED ON SUBSTRATE HAVING THE APPROPRIATE WATER CONTENT AND SURFACE PREPARATION AS INDICATED BY THE MANUFACTURER.
11. ALL ROOF MEMBRANE COMPONENTS TO BE SHIPPED, STORED, HANDLED AND INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. ALL ROOFING TO BE DONE IN ACCORDANCE WITH REQUIREMENTS OF THE "CANADIAN ROOFING CONTRACTOR'S ASSOCIATION" (C.R.C.A.) AND PRODUCT MANUFACTURER'S.

ROOFING (SBS MODIFIED):

STEEP SLOPE ROOF COMPONENTS

1. ROOFING SYSTEM SHALL BE SOPREMA 1 PLY, STEEP SLOPE SYSTEM WHICH CONSISTS OF MECHANICALLY FASTENED CAP SHEET WITH TORCHED SEAMS (OR APPROVED EQUAL IN ACCORDANCE WITH B6).
2. CAP SHEET TO BE A COMPOSITE REINFORCED AND SBS MODIFIED BITUMEN MEMBRANE WITH 200mm HEAT-WELDED LAPS. TOP SURFACE IS PROTECTED WITH COLOUR GRANUALS. COLOUR TO MATCH EXISITING. ACCEPTABLE PRODUCT: UNILAY 750 BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
3. FLASHING AND REINFORCEMENT STRIPS TO BE AS PER MANUFACTURER'S INSTRUCTIONS AND STANDARD DETAILS. ACCEPTABLE PRODUCT: SOPRAFLASH FLAM STIK BY SOPREMA OR APPROVED EQUAL IN ACCORDANCE WITH B6.
4. ALL ROOF MEMBRANE COMPONENTS TO BE INSTALLED ON SUBSTRATE HAVING THE APPROPRIATE WATER CONTENT AND SURFACE PREPARATION AS INDICATED BY THE MANUFACTURER.
5. ALL ROOF MEMBRANE COMPONENTS TO BE SHIPPED, STORED, HANDLED AND INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
6. ALL ROOFING TO BE DONE IN ACCORDANCE WITH REQUIREMENTS OF THE "CANADIAN ROOFING CONTRACTOR'S ASSOCIATION" (C.R.C.A.) AND PRODUCT MANUFACTURER'S.

INSULATED METAL CLADDING:

1. INSULATED METAL CLADDING WALL SYSTEM SHALL CONSIST OF PREFINISHED METAL CLADDING, GALVANIZED SUB-GIRTS AND RIGID INSULATION.
2. METAL CLADDING (EXTERIOR) TO BE PREFORMED PREFINISHED 22 GA. GALVANIZED SHEET STEEL TO MILL STANDARD. COLOUR AND FINISH TO MATCH EXISTING.
3. SUB-GIRT SYSTEM TO BE 'Z' AND 'J' TYPE SECTIONS AS DETAILED, FABRICATED OF 0.06" (16 GA.) GALVANIZED SHEET STEEL. FASTEN SUB-GIRTS TO CONCRETE BLOCK USING TAPCON SCREWS NOT EXCEEDING 400mm O/C
4. INSULATION TO BE RIGID INSULATION TO MATCH EXISTING THICKNESS. ACCEPTABLE PRODUCT: STYROFOAM CAVITYMATE BY DOW
5. FLASHING AND OTHER ASSOCIATED TRIM TO BE SHOP/SITE FORMED AS APPROPRIATE. MATERIAL THICKNESS TO BE 24 GA., FINISH AND COLOUR TO MATCH EXISTING FLASHING. CONCEALED MEMBERS MAY BE GALVANIZED FINISH.
6. FASTENERS TO BE SELF-DRILLING SCREWS AS RECOMMENDED BY THE CLADDING MANUFACTURER. EXPOSED FASTENERS TO BE SUPPLIED WITH A COLOUR COORDINATED NYLON HEAD AND A FULLY BONDED ELASTOMERIC WEATHER SEAL WASHER. SPACING SHALL NOT EXCEED 380mm O/C.
7. SEALANT TO BE 2 COMPONENT POLYSULPHIDE SEALANT. APPLY IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. JOINTS TO BE FREE OF OIL, GREASE, SNOW, ICE, OR ANY FOREIGN MATTER IMPEDING ADHESION.

400 0 400 800 1200 1600
SCALE: 1:20mm (24"x36")
1:40mm (11"x17")

APEGM Certificate of Authorization
KGS Group
No. 245 Date: 10/12/21

KGS GROUP CONSULTING ENGINEERS

B.M. ELEV.	FIELD BOOK #:
POSTED TO LBIS	

NO.	REVISIONS	DATE	BY
00	ISSUED FOR TENDER	2010-12-21	RJL

ALLIANCE Engineering Services Inc.

DESIGNED BY	RJL	CHECKED BY	RJL
DRAWN BY	JF	APPROVED BY	
HOR. SCALE	AS NOTED	RELEASED FOR CONSTRUCTION	
VERTICAL	AS NOTED		
DATE	2010-10-25	DATE	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
R.J. LONG
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NO.
US2.4

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

2010 HVAC REPLACEMENT AND ASSOCIATED WORKS
WEWPCC
AREA U - UTILITY BUILDING
BUILDING SECTIONS

SHEET 1 OF 1
CITY DRAWING NUMBER
1-0103V-S0004-001