

ROOF TOP UNIT SCHEDULE (CARRIER OR APPROVED EQUAL)							
TAG	MODEL	HEATING CAPACITY		COOLING CAPACITY (NET)	AIR VOL (CFM)	POWER	REMARKS
		INPUT	OUTPUT				
AC-1	EXIST LENNOX 12.5 TON L66-15052B	270 MBH		12.5 TON	4500	575V/3/60	
AC-2	EXIST LENNOX 12.5 TON GSC16-1603	270 MBH		12.5 TON	4500	575V/3/60	
AC-3	EXIST LENNOX 12.5 TON L66-15052B	270 MBH		12.5 TON	4500	575V/3/60	
AC-4	EXIST LENNOX 12.5 TON GSC16-120	270 MBH		12.5 TON	4500	575V/3/60	
AC-5	NEW 48TCE 008	180 MBH	148 MBH	7.5 TONS	3000	575V/3/60	EACH UNIT TO BE C/W - 50MM DISPOSABLE FILTER - ROOF CURB - ECONOMIZER
AC-6	NEW 48TCE 008	180 MBH	148 MBH	7.5 TONS	3000	575V/3/60	- CONTROL TRANSFORMER - 24 VOLT SPACE HEAT/ COOL THERMOSTAT - BELT DRIVE - HAIL GUARD

UNIT HEATER SCHEDULE (EXISTING)						
UNIT NO.	MODEL	INPUT (BTUH)	EFFICIENCY (%)	MOTOR	'B' VENT	REMARKS
UH-1		150	80	1/8 HP, 120V	6"	C/W WITH: - STANDING PILOT - CONTROL TRANSFORMER - 24V SPACE THERMOSTAT

GAS DISTRIBUTION-- VALUE VILLAGE BAY			
DEVICE	INPUT (MBH)	QTY	TOTAL LOAD (MBH)
UNIT HEATERS	150	1	150
ROOF TOP UNITS (EXISTING)	270	2	540
ROOF TOP UNITS (EXISTING)	240	2	480
ROOF TOP UNITS (NEW)	180	2	360
FUTURE ALLOW.	0		0
TOTAL LOAD			1530

GENERAL

- PERFORM WORK GENERALLY IN ACCORDANCE WITH THE STANDARDS OF MATERIALS AND WORKMANSHIP ESTABLISHED IN THE BASE BUILDING CONTRACT DOCUMENTS AND AS FURTHER SPECIFIED.
- EXAMINE THE SITE PRIOR TO SUBMITTING TENDER. REPORT ANY DEFICIENCIES IN THE DOCUMENTS OR CONFLICTS BETWEEN EXISTING STRUCTURE AND PROPOSED WORK, IN WRITING, TO THE CONSULTANT. NO ADDITIONAL COST ALLOWANCE WILL BE MADE FOR CONDITIONS WHICH EXISTED AT TIME OF TENDER.
- ENSURE PIPING, DUCTWORK AND OTHER ITEMS CAN BE INSTALLED AS SHOWN PRIOR TO FABRICATION AND INSTALLATION. MAKE CHANGES AT NO COST TO THE OWNER, WHERE WORK IS FABRICATED OR INSTALLED PRIOR TO REACHING A SOLUTION WHERE WORK CONFLICTS WITH THE EXISTING BUILDING OR CONFLICT WITH OTHER TRADES OCCURS.
- ENSURE REPORTED DEFICIENCIES ARE CORRECTED. REINSPECTION COSTS OF PREVIOUSLY REPORTED DEFICIENCIES WHICH REMAIN AFTER CERTIFICATION OF COMPLETION WILL BE WITHHELD FROM THE CONTRACTOR'S FINAL PAYMENT.
- REUSE REMOVED EQUIPMENT (INCLUDING SPRINKLER HEADS) IN NEW WORK AFTER REPAIRING AND RECONDITIONING ANY DEFECTIVE ITEMS. TURN OVER UNUSED EQUIPMENT TO OWNER.
- OBTAIN LANDLORD'S APPROVAL PRIOR TO X-RAYING AND CORE DRILLING FLOOR SLABS. ALL CORE HOLES ARE TO BE SEALED WITH FIRE STOPPING.

GUARANTEE

- FURNISH OWNER WITH A WRITTEN GUARANTEE FOR A PERIOD NOT LESS THAN ONE YEAR FROM DATE OF COMPLETION OF THE WORK.
- GUARANTEE TO REPLACE OR REPAIR AT NO COST TO THE OWNER ANY DEFECTIVE MATERIAL OR WORKMANSHIP EXCEPT WHERE, IN THE OPINION OF THE ENGINEERS, SUCH DEFECTS ARE DUE TO MISUSE OR NEGLECT BY THE OWNER.

PERMITS, CERTIFICATES, CODES AND FEES

- GIVE NECESSARY NOTICES, OBTAIN NECESSARY PERMITS AND PAY REQUIRED FEES AND TAXES IN ORDER THAT THE WORK UNDER THIS CONTRACT MAY BE CARRIED OUT.

SHOP DRAWINGS

- SUBMIT SHOP DRAWINGS OF ALL MECHANICAL EQUIPMENT FOR REVIEW PRIOR TO FABRICATION OR PURCHASE.

AS-BUILT DRAWINGS

- PROVIDE ONE MARKED UP SET OF PRINTS OF WORK, INDICATING AS-BUILT CONDITIONS, WITHIN 10 WORKING DAYS AFTER FINAL INSPECTION OF WORK TO THE MECHANICAL CONSULTANT.

DUCTWORK

- CONSTRUCT DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE, LATEST EDITION, TO MATCH BASE BUILDING CONSTRUCTION. INSTALL DAMPERS WHERE SHOWN ON DRAWINGS, AND WHERE REQUIRED, TO PROPERLY BALANCE THE SYSTEM.
- MASTIC ALL DUCT JOINTS USING BAKOR DUCK-SEAL POLYMERIC HIGH VELOCITY DUCT SEALER. PATCH EXISTING DUCTWORK WHERE REQUIRED TO MAKE AIRTIGHT. DO NOT USE TAPE.
- PROVIDE FLEXIBLE DUCT CONNECTIONS OF FLEXMASTER TL TRIPLELOCK NOT TO EXCEED 1.5M AT INLETS TO DIFFUSERS AND GRILLES.
- DUCTWORK LESS THAN 28 GAGE IS NOT ACCEPTABLE.

DUCT INSULATION

- DUCT DIMENSIONS GIVEN ARE INTERNAL OR FREE AREA DIMENSIONS. ENLARGE DUCTWORK TO ACCOMMODATE INTERNAL INSULATION, WHERE SPECIFIED.
- INSULATE ALL RECTANGULAR SUPPLY AND RETURN DUCTWORK WITH 25 MM THICK RIGID FIBREGLASS INTERIOR DUCT INSULATION.
- INSULATE ALL ROUND SUPPLY DUCTWORK WITH 25 MM FLEXIBLE FOIL FACED FIBREGLASS EXTERIOR DUCT INSULATION.
- INSULATE THE FIRST 3 M OF EXHAUST SUPPLY DUCTWORK FROM ROOF OR WALL TERMINAL, LOCATED INDOORS, WITH 25 MM FLEXIBLE FOIL FACED FIBREGLASS EXTERIOR DUCT INSULATION.
- DO NOT APPLY EXTERNAL INSULATION TO INTERNALLY INSULATED DUCTWORK.

PIPING MATERIALS

- PROVIDE NEW PIPING MATERIAL, FREE FROM RUST AND DIRT AND IN FIRST CLASS CONDITION.
- USE DIELECTRIC COUPLINGS WHERE JOINING COPPER TO STEEL PIPE.
- MAKE REDUCTIONS IN DRAINAGE AND VENT PIPING WITH ECCENTRIC REDUCING FITTINGS.
- GRADE HORIZONTAL DRAINAGE AND VENT PIPING IN DIRECTION OF FLOW IN ACCORDANCE WITH PLUMBING CODE.
- PROVIDE CLEANOUTS IN DRAINAGE PIPING IN ACCORDANCE WITH PLUMBING CODE AND IN ACCESSIBLE LOCATIONS.
- CHROME PLATE EXPOSED PIPING OF ANY MATERIAL IN WASHROOMS.
- CONFORM TO THE FOLLOWING SCHEDULE:
SANITARY DRAINAGE & VENT ABOVE GRADE -

65 MM AND SMALLER - DWV COPPER PIPE WITH WROUGHT COPPER OR CAST BRASS FITTINGS & 50/50 LEAD/TIN SOLDER JOINTS.

SANITARY DRAINAGE & VENT BELOW SLAB -

75 MM AND LARGER - PVC-SDR 35 WITH PVC FITTINGS AND SOLVENT WELDED JOINTS.

DOMESTIC HOT & COLD WATER -

TYPE L HARD COPPER WITH WROUGHT COPPER FITTINGS WITH 95/5 TIN/ANTIMONY SOLDER JOINTS.

GAS PIPING -

STEEL SCHEDULE 40 BLACK WITH MALLEABLE FITTINGS RATED FOR 1035 KPA. PROVIDE WITH THREADED OR WELDED JOINTS AS REQUIRED BY CODE. ALL EXTERIOR PIPE IS TO BE PRIMED AND PAINTED YELLOW. ALL INTERIOR PIPE IS TO BE Banded AS PER CODE.

FIRE PROTECTION -

STEEL SCHEDULE 40 BLACK WITH SCREWED MALLEABLE IRON FITTINGS.

CONNECTIONS

- CONNECT TO EXISTING BUILDING SERVICES PIPING WHERE SHOWN ON THE DRAWINGS, COORDINATE WITH BUILDING OPERATIONS STAFF FOR SUITABLE ROUTING AND CONNECTION.
- PROVIDE ANGLE STOPS IN EACH HOT AND COLD WATER CONNECTION TO PLUMBING FIXTURES.

PIPE INSULATION

- INSULATE DOMESTIC HOT AND COLD WATER LINES WITH 25 MM THICK ONE PIECE OR SECTIONAL, HEAVY DENSITY GLASS FIBRE INSULATION WITH FACTORY APPLIED ALL SERVICE JACKET, FIBREGLAS 850 PIPE INSULATION. MAINTAIN VAPOUR BARRIER ON COLD WATER LINES.

CLEANOUTS

- CAST BRONZE OR CAST IRON CLEANOUTS WITH RUST RESISTANT COATING AND REMOVABLE PARTS AND STAINLESS STEEL RETAINING SCREWS.

FIRE PROTECTION

- PROVIDE AUTOMATIC, CHROME PLATED, PENDANT-TYPE SPRINKLER HEADS GRINNELL MODEL F950 COMPLETE WITH CHROME ESCUTCHEON PLATES.
- PROVIDE AUTOMATIC, CHROME PLATED UPRIGHT-TYPE SPRINKLER HEADS GRINNELL MODEL F950.
- CONTRACT LANDLORD'S APPROVED FIRE PROTECTION SYSTEM FOR ALL SPRINKLER WORK. SPRINKLER CONTRACTOR TO SUBMIT CERTIFICATE OF COMPLIANCE WITH THE ALBERTA BUILDING CODE. SUBMIT CERTIFIED SPRINKLER DRAWINGS BEARING THE STAMP OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ALBERTA FOR CITY APPROVAL AND PROVIDE ASSURANCE OF FIELD REVIEW AND COMPLIANCE TO THE CITY BUILDING INSPECTOR.

HYDROSTATIC TESTING

- PRESSURE TEST DOMESTIC HOT AND COLD WATER LINES WITH WATER AT 150% OF MAXIMUM OPERATING PRESSURE, FOR SIX HOURS WITHOUT LOSS OF PRESSURE. MINIMUM TEST PRESSURE 690 KPA.
- PRESSURE TEST SPRINKLER LINES WITH WATER AT 1400 KPA PRESSURE FOR TWO HOURS WITHOUT LOSS OF PRESSURE. TEST AT MAXIMUM OPERATING PLUS 345 KPA WHERE SYSTEM PRESSURE EXCEEDS 1000 KPA.
- PRESSURE TEST NATURAL GAS PIPING AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.

DESIGN & INSTALL ALL MECHANICAL SYSTEMS TO THE FOLLOWING CODES AND STANDARDS.

ALBERTA BUILDING CODE - LATEST EDITION
ALBERTA FIRE CODE - LATEST EDITION
NATIONAL BUILDING CODE - LATEST EDITION
NATIONAL FIRE CODE - LATEST EDITION
NFPA-13 & ALL OTHER APPLICABLE NFPA SECTIONS
CANADIAN PLUMBING CODE - LATEST EDITION
NATURAL GAS INSTALLATION CODE CGA-B149
SMACNA

FIELD REVIEW!

THE ENGINEERS HAVE BEEN RETAINED ONLY FOR PERIODIC SITE INSPECTIONS TO ENSURE GENERAL COMPLIANCE OF THE REVIEWED PORTIONS OF THE PROJECT TO THE CONTRACT DOCUMENTS.

SITE SAFETY!

THE ENGINEERS ASSUME NO RESPONSIBILITY FOR ON-SITE WORKER SAFETY FOR OTHER THAN THEIR OWN EMPLOYEES. THE OWNER AND/OR CONTRACTOR SHALL BEAR RESPONSIBILITY FOR SITE SAFETY AS PER THE OCCUPATIONAL HEALTH AND SAFETY ACT.

PLANS EXAMINATION!

DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNTIL REVIEWED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION. THIS AUTHORITY, BASED ON APPLICABLE CODES, MAY REQUIRE REVISIONS AND/OR ADDITIONS AND THIS MAY RESULT IN EXTRA COSTS. THESE COSTS ARE UNDETERMINED AND THEREFORE, ARE THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR.

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DRAWING REVIEW!

DRAWINGS MUST NOT BE SCALED. THE CONTRACTOR MUST CROSS-REFERENCE ALL ARCHITECTURAL, STRUCTURAL, FOUNDATION, ELECTRICAL AND MECHANICAL DRAWINGS AND VERIFY ALL DIMENSIONS, DRAWINGS AND SPECIFICATIONS ON SITE. ANY DISCREPANCIES MUST BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK.

REVISIONS			
NO.	DESCRIPTION	DATE	CK
1	ISSUED FOR REVIEW	17/06/11	
2	ISSUED FOR BP	07/07/11	

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CLIENT

VISIONS
CALGARY, ALBERTA

PROJECT

VALUE VILLAGE
EDMONTON, ALBERTA

TITLE

MECHANICAL SCHEDULES &
SPECIFICATION

SCALE AS NOTED	DATE JUNE 2011	DRAWING NO. M-2
DRAWN BY DP	CHECKED BY	
JOB #: 11-697	DWG:	REVISION: 1
PLOTTED:	COPIED:	