

GEORGE ROBB
ARCHITECT

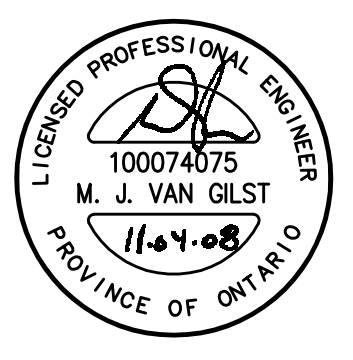
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ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON THE JOB.
ANY AND ALL DISCREPANCIES TO BE REPORTED TO THE ARCHITECT.

ALL DRAWINGS REMAIN THE PROPERTY OF THE ARCHITECT.
DO NOT SCALE DRAWINGS.

No.	Issue	Date
00	ISSUED FOR PERMIT	10.01.28
01	ISSUED FOR TENDER	10.06.01
02	RE-ISSUED FOR TENDER	11.04.08

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VENTILATION AIR SUMMARY: RTU-101							
OCCUPANCY CLASSIFICATION	PERSON RATE (CFM/PERSON)	PERSON COUNT	PERSON TOTAL AIR	AREA RATE (CFM/FT ²)	AREA (FT ²)	AREA TOTAL AIR	TOTAL RATE
GENERAL							
CORRIDOR	0	0	0 CFM	0.06	405	24 CFM	24 CFM
STORAGE ROOM	0	0	0 CFM	0.12	370	44 CFM	44 CFM
OFFICE BUILDING							
OFFICE SPACE	5	2	10 CFM	0.06	275	17 CFM	27 CFM
PUBLIC ASSEMBLY SPACES							
AUDITORIUM SEATING AREA	5	127	635 CFM	0.06	1350	81 CFM	716 CFM
(VENTILATION AIR CALCULATIONS ARE BASED ON ASHRAE 62-2004 REQUIREMENTS)				TOTAL REQUIRED VENTILATION AIR			
				811 CFM			

VENTILATION AIR SUMMARY: RTU-102							
OCCUPANCY CLASSIFICATION	PERSON RATE (CFM/PERSON)	PERSON COUNT	PERSON TOTAL AIR	AREA RATE (CFM/FT ²)	AREA (FT ²)	AREA TOTAL AIR	TOTAL RATE
GENERAL							
STORAGE ROOM	0	0	0 CFM	0.12	260	31 CFM	31 CFM
PUBLIC ASSEMBLY SPACES							
AUDITORIUM SEATING AREA	5	94	470 CFM	0.06	840	50 CFM	520 CFM
(VENTILATION AIR CALCULATIONS ARE BASED ON ASHRAE 62-2004 REQUIREMENTS)				TOTAL REQUIRED VENTILATION AIR			
				552 CFM			

VENTILATION AIR SUMMARY: RTU-103							
OCCUPANCY CLASSIFICATION	PERSON RATE (CFM/PERSON)	PERSON COUNT	PERSON TOTAL AIR	AREA RATE (CFM/FT ²)	AREA (FT ²)	AREA TOTAL AIR	TOTAL RATE
GENERAL							
STORAGE ROOM	0	0	0 CFM	0.12	260	31 CFM	31 CFM
PUBLIC ASSEMBLY SPACES							
AUDITORIUM SEATING AREA	5	94	470 CFM	0.06	840	50 CFM	520 CFM
(VENTILATION AIR CALCULATIONS ARE BASED ON ASHRAE 62-2004 REQUIREMENTS)				TOTAL REQUIRED VENTILATION AIR			
				552 CFM			

VENTILATION AIR SUMMARY: RTU-104							
OCCUPANCY CLASSIFICATION	PERSON RATE (CFM/PERSON)	PERSON COUNT	PERSON TOTAL AIR	AREA RATE (CFM/FT ²)	AREA (FT ²)	AREA TOTAL AIR	TOTAL RATE
GENERAL							
CORRIDOR	0	0	0 CFM	0.06	0	0 CFM	0 CFM
STORAGE ROOM	0	0	0 CFM	0.12	0	0 CFM	0 CFM
MISCELLANEOUS SPACES							
SHIPPING/RECEIVING	0	0	0 CFM	0.12	1566	188 CFM	188 CFM
PUBLIC ASSEMBLY SPACES							
AUDITORIUM SEATING AREA	5	197	985 CFM	0.06	1586	95 CFM	1080 CFM
RETAIL							
SALES (EXCEPT AS BELOW)	7.5	15	113 CFM	0.12	1445	173 CFM	286 CFM
(VENTILATION AIR CALCULATIONS ARE BASED ON ASHRAE 62-2004 REQUIREMENTS)				TOTAL REQUIRED VENTILATION AIR			
				1,554 CFM			

DIFFUSER SCHEDULE				
DWG REF	MANUF.	MODEL	FINISH	REMARKS
SD1	E.H.PRICE	RCD	B12	STEEL CONSTRUCTION, 3 CONES REMOVABLE FROM THE DIFFUSER FACE, C/W EQUALIZING GRID
SD1	E.H.PRICE	520	B12	STEEL CONSTRUCTION, DOUBLE DEFLECTION, 3/4" BLADE SPACING C/W ADJUSTABLE STEEL DAMPER
RG1	E.H.PRICE	535	B12	STEEL CONSTRUCTION, 1/2" BLADE SPACING
RG2	E.H.PRICE	80	B12	EXTRUDED ALUMINUM EGG CRATE WITH 1/2" x 1/2" GRID
TG1	E.H.PRICE	80	B12	EXTRUDED ALUMINUM EGG CRATE WITH 1/2" x 1/2" GRID
EG1	E.H.PRICE	80	B12	EXTRUDED ALUMINUM EGG CRATE WITH 1/2" x 1/2" GRID
GENERAL NOTE: MOUNTING FRAME TO SUIT CEILING TYPES. SEE ARCHITECTURAL REFLECTED CEILING PLAN DRAWINGS FOR CEILING TYPES. PROVIDE INTEGRAL FIRE STOP FLAPS WHERE FIRE DAMPERS ARE INDICATED ON DRAWINGS.				

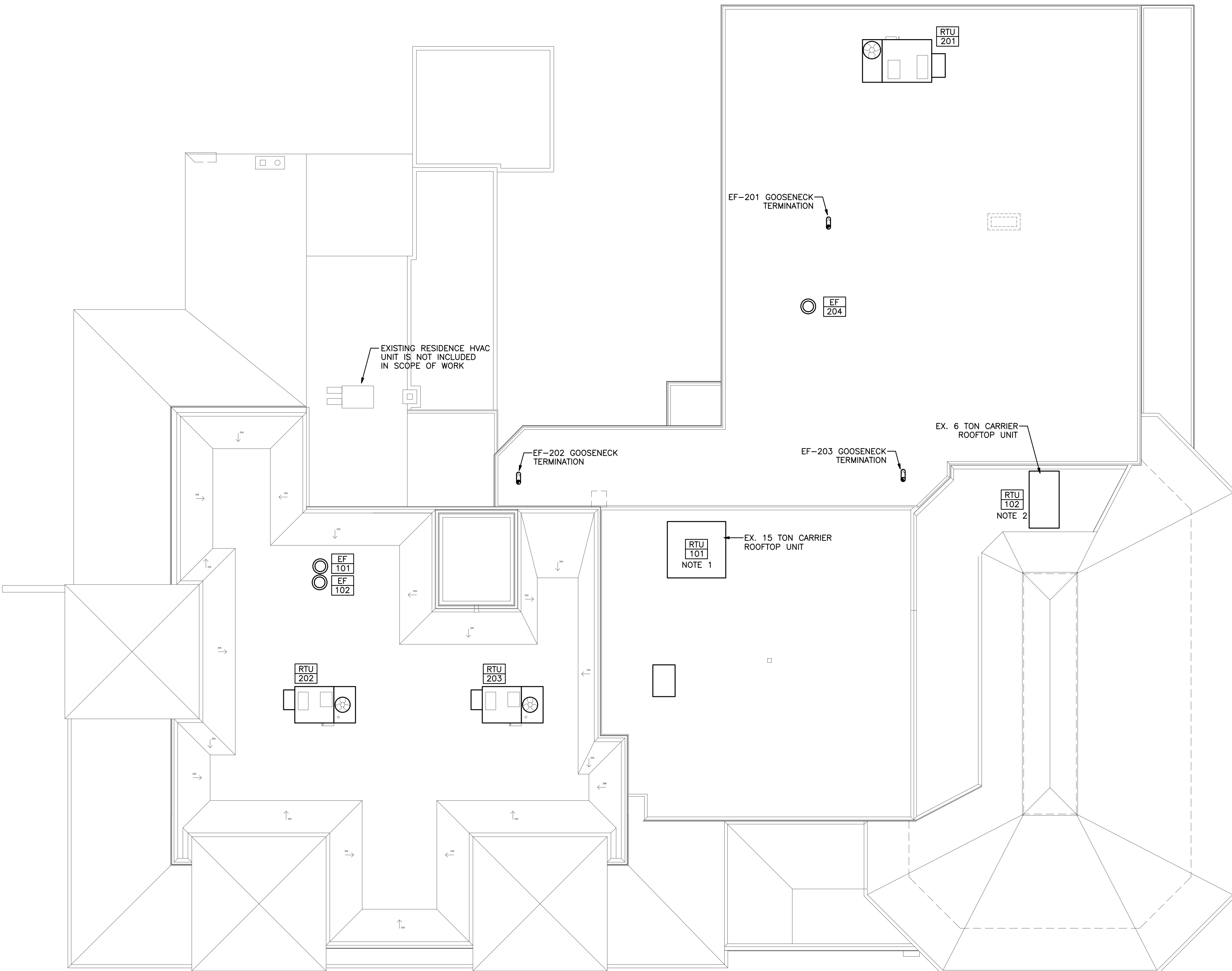
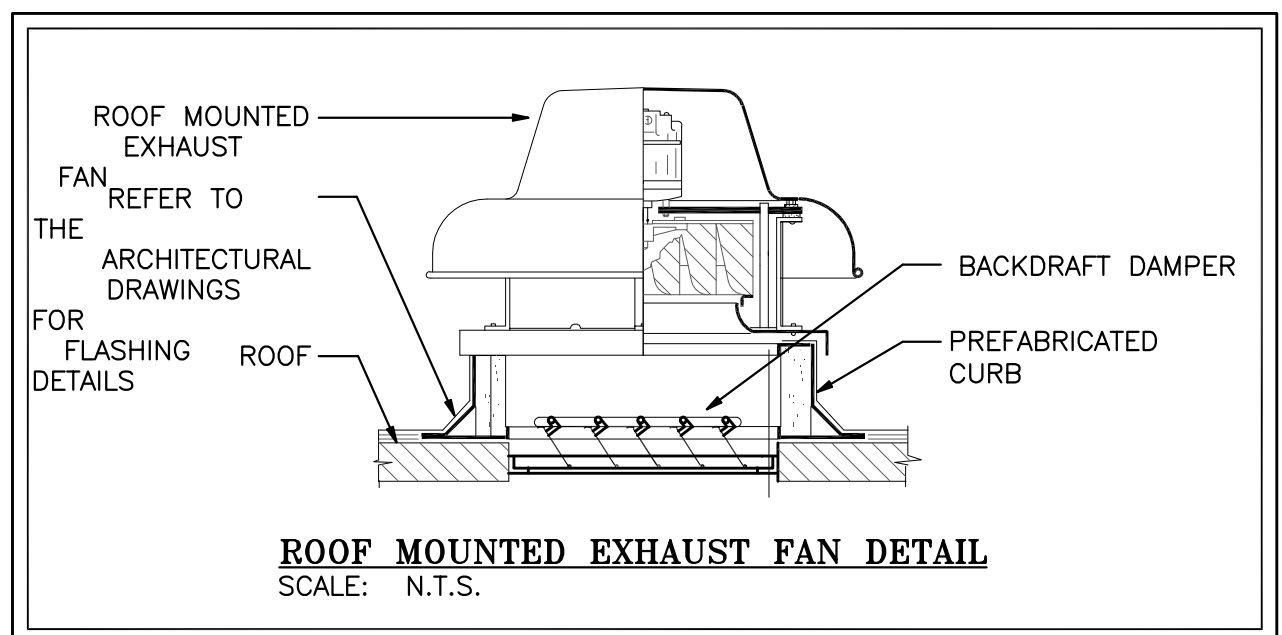
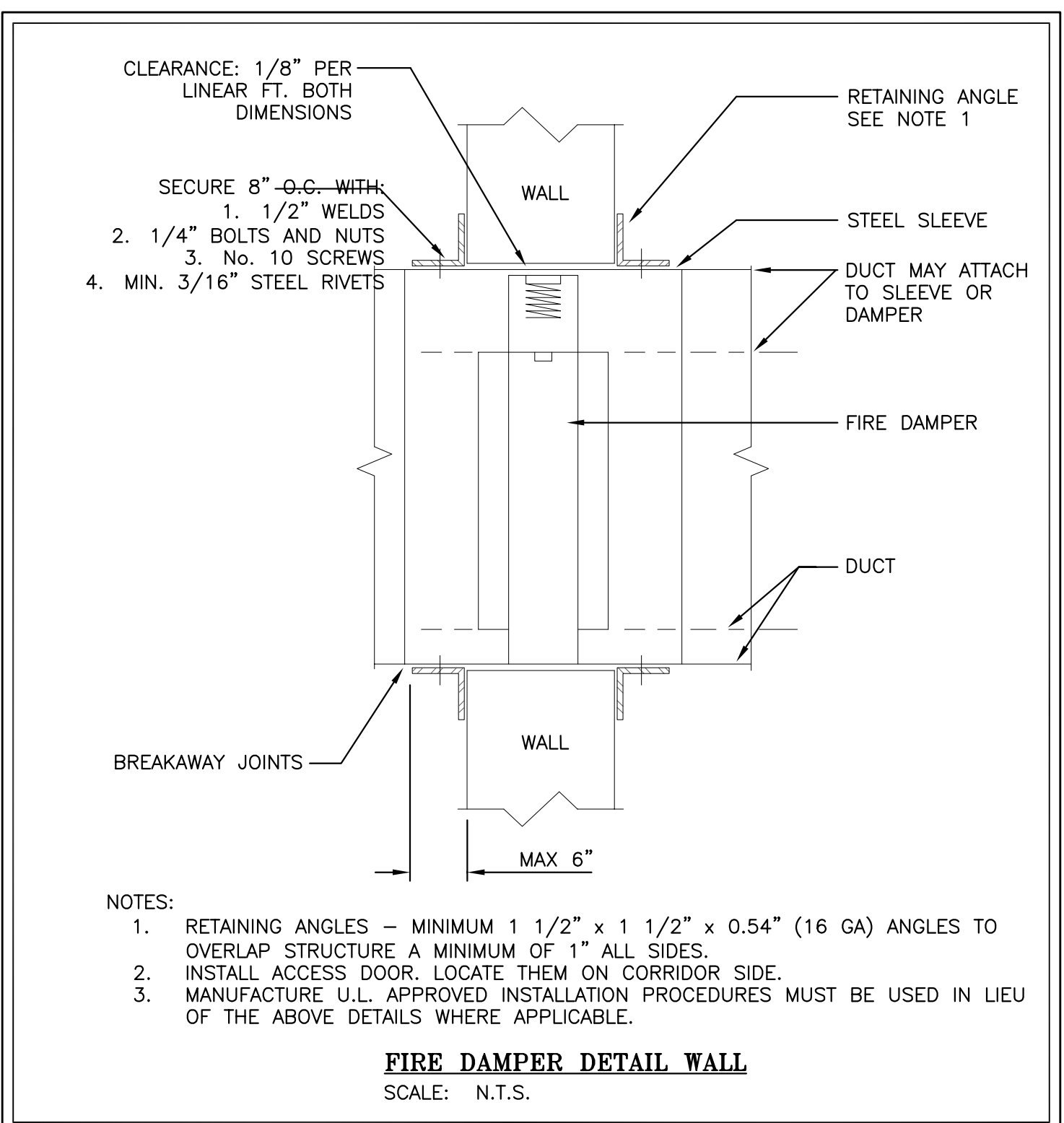
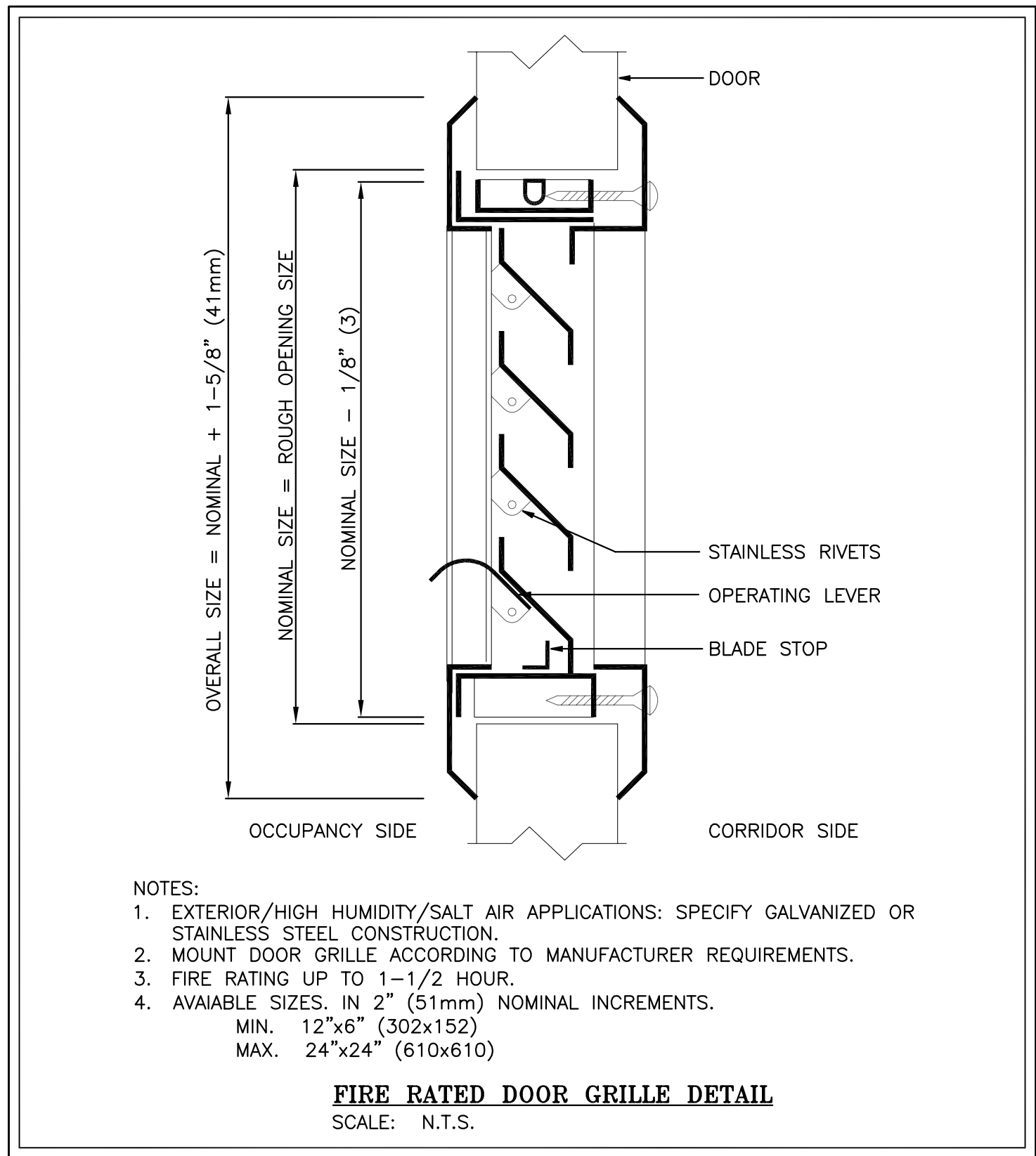
AIR BALANCE SUMMARY (IN CFM OF AIR)					
ITEM	O.A.	R.A.	S.A.	E.A.	PRESSURE
RTU-101	820	2,580	3,400	-	+820
RTU-102	560	1,440	2,000	-	+560
RTU-103	560	1,440	2,000	-	+560
RTU-104	1,560	4,440	6,000	-	+1,560
EF-101	-	-	-	1,000	-1,000
EF-102	-	-	-	225	-225
EF-103	-	-	-	450	-450
EF-104	-	-	-	105	-105
EF-105	-	-	-	105	-105
TOTALS	3,500	9,900	13,400	2,550	+1,615
O.A.=OUTDOOR AIR R.A.=RETURN AIR S.A.=SUPPLY AIR E.A.=EXHAUST AIR NOTE - THE SYSTEM WILL AUTOMATICALLY BALANCE OVER-PRESSURIZATION THROUGH THE BLOWMATIC RELIEF DAMPERS INSTALLED WITH EACH ROOFTOP UNIT					

PACKAGED ROOF TOP CONDITIONER SCHEDULE															
ACCESSORIES: 1) COMPRESSOR ANTICYCLING DEVICE. 2) 2" (50MM) DISPOSABLE FILTERS. 3) SPARE SET OF FILTERS. 4) ECONOMIZER SECTION. 5) GRAVITY RELIEF DAMPERS. 6) ENTHALPY CONTROLS. 7) VVT CONTROL PACKAGE. 8) ISOLATION ROOF/TRANSITION CURB 9) PROGRAMMABLE SENSOR 10) AVERAGING THERMOSTAT 11) PROGRAMMABLE THERMOSTAT 12) DISCONNECT SWITCH															
DWG REF	MANUF.	MODEL	SENS. COOLING [MBH]	TOTAL COOLING [MBH]	HEATING INPUT [MBH]	HEATING OUTPUT [MBH]	EXTERNAL STATIC PRESSURE [in.]	FLOW [CFM]	OUTDOOR AIR FLOW [CFM]	MOTOR [HP]	VOLTAGE	MCA	MOCP	ACCESSORIES	REMARKS
RTU-101	CARRIER	48PG-MC16	147.2	203.0	310.0/248.0	254.2/203.4	1.0	6,000	1,560	0.75	575/3/60	32.4	40	1,2,3,4,5,6,7,8,11,12	- PROVIDE AS PART OF OPTIONAL PRICE #1 - C/W POWER EXHAUSTER
RTU-102	CARRIER	48PG-MC08	73.7	95.4	113.0/79.1	91.5/64.0	0.50	3,000	SEE REMARKS	0.75	575/3/60	15.1	20	1,2,3,4,5,6,8,11,12	- PROVIDE AS PART OF OPTIONAL PRICE #2
RTU-201	CARRIER	48PG-MC09	79.3	112.1	181.0/126.7	148.4/103.9	0.67	3,400	850	1.33	575/3/60	16.2	20	1,2,3,4,5,6,8,11,12	-
RTU-202	CARRIER	48PG-MC06	46.8	65.4	113.0/79.1	91.5/64.0	0.50	2,000	570	0.75	575/3/60	10.4	15	1,2,3,4,5,6,8,11,12	-
RTU-203	CARRIER	48PG-MC06	46.8	65.4	113.0/79.1	91.5/64.0	0.50	2,000	570	0.75	575/3/60	10.4	15	1,2,3,4,5,6,8,11,12	-

SINGLE DUCT VAV TERMINAL UNIT SCHEDULE						
DWG REF	MANUF.	MODEL	ZONE	SIZE (INCHES)	AIR FLOW (CFM)	MIN. FLOW (CFM)
WT-101	CARRIER	33Z-CDR-142C	CORRIDOR	14"	940	280
WT-201	CARRIER	33Z-CDR-162C	CORRIDOR	16"	1,410	420

BYPASS BOXES SCHEDULE				
DWG REF	MANUF.	MODEL	SIZE	AIR QUANTITY [CFM]
BPB-101	E.H.PRICE	LGB	6	350
- 6/W MOTORIZED DAMPERS AND ELECTRIC OPERATORS - SET MINIMUM AIR FLOW TO 0 CFM.				

EXHAUST FAN SCHEDULE									
ACCESSORIES: 1) HANGER RODS 2) HANGING VIBRATION ISOLATORS 3) BASE ISOLATOR KIT 4) FLEXIBLE CONNECTIONS - INLET AND/OR OUTLET 5) MOTORIZED BACKDRAFT DAMPER 6) INDICATE ROOF CURB TO BE PROVIDED BY GENERAL CONTRACTOR AS DETAILED ON ARCHITECTURAL DWGS. 7) ROOF CURB BY FAN MANUFACTURER 8) DISCONNECT SWITCH 9) BELTS, DRIVES AND PULLEYS 10) BROADSCREEN 11) TRANSFORMER AND RELAY FOR 24V CONTROL 12) WEATHER HOOD 13) WALL MOUNT COLLAR 14) BELT DRIVE MOTOR COVERS 15) INSULATED HOUSING 16) DRAIN CONNECTION 17) LOUVERED WALL BOX C/W B.D.D. 18) REVERSE ACTING THERMOSTAT									
DWG REF	MANUF.	MODEL	FLOW [CFM]	ESP [IN.]	ELECTRICAL	RPM	MOTOR	NOISE [SONES]	ACCESSORIES
EF-101	GREENHECK	GB-101	1,000	0.50	120/1/60	1,481	1/4	8.4	1,2,4,8,9,18
EF-102	GREENHECK	GB-81	225	0.25	120/1/60	827	1/6	3.2	3,4,5,7,8,9
EF-201, 202	GREENHECK	SP-A110	105	0.15	120/1/60	950	FHP	1.3	1,2,4,8,
EF-203	GREENHECK	SP-A110	105	0.15	120/1/60	950	FHP	1.3	1,2,4,8,
EF-204	GREENHECK	GB-101	575	0.50	120/1/60	1,131	1/4	4.7	3,4,5,7,8,9
- CONTROL BY R/A T-STAT - CONTROL BY TIMECLOCK - CONTROL BY LIGHT SWITCH - CONTROL BY SEPARATE SWITCH - CONTROL BY TIMECLOCK									



ROOF LAYOUT

SCALE: 1/8" = 1'-0"

H.V.A.C. LEGEND	
SYMBOL	DESCRIPTION
=====BUC=====	NEW DUCTWORK SHOWN DOUBLE LINE
-----BUC-----	REFRIGERANT SUCTION LINE
-----LQ-----	REFRIGERANT LIQUID LINE
-----F.D.-----	FIRE DAMPER
-----M.D.-----	MOTORIZED DAMPER
-----B.D.D.-----	BACK DRAFT DAMPER
-----S.D.-----	SPLITTER DAMPER
-----R.A.T.-----	REVERSE ACTING THERMOSTAT
-----L.C.S.-----	LENNOX COMFORT SENSOR (#18WSB)
-----T.C.-----	TIMECLOCK
-----F.D.C.-----	FLEXIBLE DUCT CONNECTION
-----N.S.A.G.-----	NEW SUPPLY AIR GRILLE
-----N.R.A.G.-----	NEW RETURN AIR GRILLE
-----S.W.G.-----	SIDEWALL GRILLE C/W BALANCE DAMPER TYPICAL AT ALL SIDEWALL GRILLES
-----I.I.D.-----	INTERNALLY INSULATED DUCT
-----E.I.D.-----	EXTERNALLY INSULATED DUCT
-----N.D.-----	NEW DIFFUSER TAG
-----D.C.-----	DIFFUSER/GRILLE SIZE (AND HICK SIZE WHERE APPLICABLE)
-----A.V.-----	AIR VOLUME
-----D.D.-----	DIFFUSER/GRILLE DESIGNATION (REFER TO SCHEDULE FOR TYPE)
-----N.E.-----	NEW EQUIPMENT TAG
-----E.T.-----	EQUIPMENT TYPE
-----E.N.-----	EQUIPMENT NUMBER (REFER TO SCHEDULES FOR INFO)
-----S.C.D.-----	SQUARE CONE DIFFUSER (ROUND IF SHOWN)
-----D.C.C.-----	DUCT COLLAR CONNECTION SIZE AS PER GRILLE AND DIFFUSER SCHEDULE
-----F.D.-----	FLEXIBLE DUCT - MAX. 5'-0" (1.5M)
-----S.D.-----	DIFFUSER SUPPLY DUCT - TO BE THE SAME SIZE AS DIFFUSER COLLAR
-----B.D.-----	BALANCE DAMPER - TYPICAL AT ALL DIFFUSER SUPPLIES
-----S.D.-----	SUPPLY DUCT

- CONSTRUCTION NOTES
1. PROVIDE MECHANICAL SEPARATE PRICE #1 AS FOLLOWS:
DISCONNECT AND REMOVE EXISTING 15 TON ROOFTOP UNIT AND CURB. PROVIDE NEW 15 TON ROOFTOP UNIT AND TRANSITION CURB AS SCHEDULED AND RECONNECT TO EXISTING DUCTWORK. PROVIDE NEW VVT CONTROLS AND CONNECT WITH EXISTING VVT BOXES. PROVIDE NEW TEMPERATURE SENSORS IN EACH ZONE AND CONNECT TO EXISTING VVT BOXES. COORDINATE WITH PLUMBING AND ELECTRICAL TRADES.
 2. PROVIDE MECHANICAL SEPARATE PRICE #2 AS FOLLOWS:
DISCONNECT AND REMOVE EXISTING 6 TON ROOFTOP UNIT AND CURB. PROVIDE NEW 7.5 TON ROOFTOP UNIT AND TRANSITION CURB AS SCHEDULED AND RECONNECT TO EXISTING DUCTWORK AND CONTROLS. PROVIDE CO2 SENSOR AND LOCATE IN RETURN AIR DUCT. PROVIDE FULLY MODULATING OUTDOOR AIR DAMPER AND MAINTAIN MAX. 700 PPM CO2 WHEN IN OCCUPIED MODE. COORDINATE WITH PLUMBING AND ELECTRICAL TRADES.

ADDITION & ALTERATIONS -
EGAN FUNERAL HOME

203 Queen St. S., Bolton, ON

Roof Mechanical Layout,
Details, and Schedules

PROJECT NUMBER	CE-1157
SCALE	1/4" = 1'-0"
DATE	FEB 09, 2009
DRAWN	DJR
CHECKED	MJV
SET NO.	DRAWING NO.

M105