

DUCTWORK LEGEND		ABBREVIATIONS	
<div><div><div>-----</div><div></div><div>DENOTES DEMOLITION</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>SUPPLY AIR UP &amp; DOWN</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>RETURN AIR UP &amp; DOWN</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>EXHAUST AIR UP &amp; DOWN</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>ROUND DUCT UP &amp; DOWN</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>VOLUME DAMPER</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>MOTORIZED CONTROL DAMPER</div></div><div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>DUCT SIZE (FIRST FIGURE – SIDE SHOWN) (SECOND FIGURE – SIDE NOT SHOWN)</div></div></div></div></div></div></div></div></div></div>		<div><div><div>(A)</div><div>EXISTING</div></div><div><div>E/A</div><div>EXHAUST AIR</div></div><div><div>IBC</div><div>INTERNATIONAL BUILDING CODE</div></div><div><div>IMC</div><div>INTERNATIONAL MECHANICAL CODE</div></div><div><div>IN</div><div>INCHES</div></div><div><div>L-X</div><div>LOUVER DESIGNATION</div></div><div><div>MOD</div><div>MOTOR OPERATED DAMPER</div></div><div><div>NEC</div><div>NATIONAL ELECTRICAL CODE</div></div><div><div>O/A</div><div>OUTSIDE AIR</div></div><div><div>OD</div><div>OUTSIDE DAMPER</div></div><div><div>R/A</div><div>RETURN AIR</div></div><div><div>S/A</div><div>SUPPLY AIR</div></div><div><div>UPC</div><div>UNIFORM PLUMBING CODE</div></div></div>	
LOGIC			
<div><div><div><div><div></div><div></div></div><div>POINT OF CONNECTION</div></div><div><div><div><div>5</div><div>M2</div></div><div></div></div><div>DETAIL NUMBER</div><div>SHEET LOCATED ON</div></div><div><div><div><div></div><div>5</div><div>M2</div></div><div></div></div><div>DIRECTION OF VIEW</div><div>SECTION NUMBER</div><div>SHEET LOCATED ON</div></div><div><div><div><div></div><div></div></div><div>1</div></div><div>SHEET NOTES</div></div></div></div>			

LOUVER SCHEDULE							
SYMBOL	MANUFACTURER	MODEL	SERVICE	MATERIAL	FINISH	SIZE (IN.)	REMARKS
L-1	COOK	8TRE	INTAKE	ALUMINUM	MILL	PER PLANS	ROOF MOUNTED INTAKE LOUVERS, COLOR PER ARCHITECT.
L-2	RUSKIN	EFL6375DX	INTAKE	ALUMINUM	MILL	PER PLANS	---
L-3	RUSKIN	EFL6375DX	EXHAUST	ALUMINUM	MILL	PER PLANS	---

## GENERAL

THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM AS-BUILT DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.

PLANS – THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM PER THE FOLLOWING PLANS AND SPECIFICATIONS. THE DRAWINGS ARE PARTLY DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF PIPING AND DUCTS, UNLESS SPECIFICALLY DIMENSIONED.

COMPLETE PROJECT – THE INTENT OF THIS PROJECT IS TO LET ONE CONTRACT WHICH INCLUDES ALL WORK REQUIRED FOR A COMPLETE JOB.

PERMITS – THE CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND FEES.

CODE – ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), UNIFORM PLUMBING CODE (UPC) AND NATIONAL ELECTRICAL CODE (NEC), AS AMENDED BY THE STATE OF ALASKA. SHEET METAL WORK SHALL BE DONE IN ACCORDANCE WITH SMACNA STANDARDS.

EQUIPMENT SUBSTITUTIONS – ALL EQUIPMENT LISTED IS REPRESENTATIVE OF THE STANDARD OF QUALITY AND PERFORMANCE REQUIRED. "OR EQUAL" SUBSTITUTIONS WILL BE CONSIDERED IF THE SUBSTITUTE CATALOG CUTS ARE SUBMITTED AND ARE SHOWN TO BE OF EQUAL OR BETTER QUALITY, INCLUDING EFFICIENCY OF PERFORMANCE, SIZE AND WEIGHT.

WARRANTY – ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE GUARANTEE PERIOD.

ELECTRICAL WORK – ALL ELECTRICAL WORK IS TO BE PERFORMED BY A LICENSED ELECTRICIAN, IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, NEC.

MATERIALS – ALL MATERIALS OTHER THAN OWNER SUPPLIED SHALL BE NEW AND UNUSED, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND IN THE BEST PRACTICE OF THE CRAFT. OBTAIN OWNER'S APPROVAL OF ALL PRODUCTS PRIOR TO ORDERING OR INSTALLING ANY PART OF ANY SYSTEM.

SUBMITTALS – SUBMITTALS SHALL BE IN BOOKLET FORM. THE DATA SHALL BE ARRANGED AND INDEXED UNDER BASIC CATEGORIES. SUBMIT ON COMPUTER ROOM AIR CONDITIONING UNITS AND CONDENSING UNITS.

OPERATION AND MAINTENANCE MANUAL – PROVIDE THE OWNER WITH AN OPERATING AND MAINTENANCE MANUAL, TO INCLUDE MANUFACTURER'S SPECIFICATIONS, OPERATING AND MAINTENANCE INSTRUCTIONS, WARRANTY INFORMATION ON EACH PIECE OF EQUIPMENT, AND SCHEMATIC DIAGRAMS AS WELL AS A SOURCE OF SUPPLY FOR SPARE PARTS AND SERVICE.

ACCESS – PROVIDE WORKABLE ACCESS TO ALL SERVICEABLE AND/OR OPERABLE EQUIPMENT.

EQUIPMENT INSTALLATION – INSTALL ALL EQUIPMENT WHERE NOTED ON THE DRAWINGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE MISCELLANEOUS APPURTENANCES, ACCESSORIES, SUPPORTS AND CONTROL CONNECTIONS REQUIRED FOR COMPLETE AND OPERATING SYSTEMS. MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES.

SEISMIC RESTRAINT – ALL EQUIPMENT INSTALLED UNDER THIS PROJECT SHALL BE BRACED FOR A SEISMIC EVENT IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE.

LOW PRESSURE DUCTWORK – FABRICATE AND SUPPORT IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND ASHRAE HANDBOOKS, EXCEPT AS INDICATED.

DUCTWORK – PROVIDE GALVANIZED SHEET METAL RECTANGULAR OR ROUND DUCT WHERE CALLED OUT ON THE PLANS. SEAL ALL DUCT SEAMS AND JOINTS AIRTIGHT. USE TURNING VANES IN ALL SQUARE ELBOWS AND FLAT OVAL ELBOWS. INSTALL VOLUME DAMPERS AND EXTRACTORS WHERE SHOWN ON THE DRAWINGS. ALL SHEET METAL WORK TO BE CONSTRUCTED, INSTALLED, TESTED AND BALANCED IN ACCORDANCE WITH SMACNA STANDARDS. SUPPORT LOW AND MEDIUM PRESSURE DUCTWORK PER SMACNA GUIDELINES.

LOUVERS – LOUVERS SHALL BE STATIONARY DRAINABLE TYPE WITH DRAIN GUTTERS IN EACH BLADE AND DOWNSPOUTS IN JAMBS AND MULLIONS. LOUVERS SHALL HAVE A MINIMUM OF 54% FREE AREA. STATIONARY DRAINABLE BLADES SHALL BE CONTAINED WITHIN A 6" FRAME. LOUVER COMPONENTS (HEADS, JAMBS, SILLS, BLADES, & MULLIONS) SHALL BE FACTORY ASSEMBLED BY THE LOUVER MANUFACTURER. LOUVER DESIGN SHALL WITHSTAND A WIND LOAD ASSEMBLED BY THE LOUVER MANUFACTURER. LOUVER DESIGN SHALL WITHSTAND A WIND LOAD OF 20 LBS. PER SQ. FT. EQUIVALENT OF A 90 MPH WIND.

LOUVER (ROOF MOUNTED) – THE UNIT SHALL BE A ALUMINUM, ROOFCURB MOUNTED ROOF CAP. THE UNIT SHALL BE CONSTRUCTED OF FOUR STATIONARY DRAINABLE TYPE LOUVERS WITH DRAIN GUTTERS IN EACH BLADE AND DOWNSPOUTS IN JAMBS AND MULLIONS. THE SPUN ALUMINUM STRUCTURAL COMPONENTS SHALL BE CONSTRUCTED OF MINIMUM 16 GAUGE MARINE ALLOY ALUMINUM, BOLTED TO A RIGID ALUMINUM SUPPORT STRUCTURE. THE ALUMINUM BASE SHALL HAVE CONTINUOUSLY WELDED CURB CAP CORNERS FOR MAXIMUM LEAK PROTECTION. BIRDSCREEN CONSTRUCTED OF 1/2" NON-CORRODING MESH SHALL BE MOUNTED ACROSS THE AIR OPENING.

DAMPERS – PROVIDE FOAM INJECTED THERMALLY ISOLATED DAMPERS. ALUMINUM AIRFOIL BLADES TO BE INJECTED WITH POLYURETHANE FOAM. JAMB SEALS TO BE POLYCARBONATE. BLADE SEALS TO BE RUSKIPRENE. DAMPER TO BE RATED FROM -70 TO + 200 DEG F. RUSKIN CDTI-50BF OR EQUAL.

STATE OF ALASKA

40TH

ME-9975

2/2/2017

REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA

REGISTERED PROFESSIONAL ENGINEER

ME-9975

2/2/2017

BDS INC. ENTITY#

25796D

BDS

ARCHITECTS

Architecture | Planning | Roof Technology

3330 C St, Suite 200

Anchorage, Ak 99503

T: 907.562.6076 | F: 907.562.6635

W: [www.bdsak.com](http://www.bdsak.com)

SOLDOTNA, ALASKA

UAA KPC

BROCKEL BLDG

REROOF

UAA PROJECT NO:

16-0111

BDS PROJECT NO:

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PHASE

BID DOCUMENTS

DATE

FEBRUARY 28, 2017

DRAWING TITLE

LEGEND,

ABBREVIATIONS &

SCHEDULES

M1