

CODE ANALYSIS

APPLICABLE CODES

	Year		Year
International Building Code	2006	National Electrical Code	2008
International Mechanical Code	2006	Uniform Code for	
International Plumbing Code	2006	Building Conservation	
International Fire Code	2006	ADA Accessibility	
International Energy		Guidelines	
Conservation Code	2006		

THIS PROJECT CONSISTS OF WORK IN CAMPUS STEAM TUNNELS ONLY.

SOUTHERN UTAH UNIVERSITY STEAM TUNNEL VENTILATION UPGRADE DFCM #08111730

A. Occupancy and Group: NA MAINTENANCE AND DISTRIBUTION TUNNEL
Change in Use: Yes No Mixed Occupancy: Yes No
Special Use and Occupancy (e.g. High Rise, Covered Mall): NA

B. Seismic Design Category: NA Design Wind Speed: NA mph
C. Type of Construction (circle one): NA EXISTING CORRUGATED PIPE TUNNEL WITH CONCRETE MANHOLES

$\frac{I}{A}$ $\frac{I}{B}$ $\frac{II}{A}$ $\frac{II}{B}$ $\frac{III}{A}$ $\frac{III}{B}$ $\frac{IV}{HT}$ $\frac{V}{A}$ $\frac{V}{B}$

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours): NA
North: South: East: West:

E. Mixed Occupancies: NO Nonseparated Uses: NO

F. Sprinklers:
Required: NO Provided: NO Type of Sprinkler System: NA

G. Number of Stories: NA Building Height: NA

H. Actual Area per Floor (square feet): NA

I. Tabular Area: NA

J. Area Modifications: NA

$$a) A_a = A_t + \left[\frac{A_t I_f}{100} \right] + \left[\frac{A_t I_s}{100} \right] \quad I_f = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$$

b) Sum of the Ratio Calculations for Mixed Occupancies:

$$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$$

c) Total Allowable Area for:

- One Story: _____
- Two Story: $A_a(2)$ _____
- Three Story: $A_a(3)$ _____

d) Unlimited Area Building: Yes No Code Section: _____

K. Fire Resistance Rating Requirements for Building Elements (hours). NA

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls			Floors - Ceiling Floors		
Interior Bearing Walls			Roofs - Ceiling Roofs		
Exterior Non-Bearing Walls			Exterior Doors and Windows		
Structural Frame			Shaft Enclosures		
Partitions - Permanent			Fire Walls		
Fire Barriers			Fire Partitions		
			Smoke Partitions		

TUNNELS EXITS INTO ALL BUILDINGS IT SERVES. MANHOLES ARE ALSO PROVIDED FOR DIRECT EXIT TO THE OUTDOORS

L. Design Occupant Load: _____
Exit Width Required: _____ Exit Width Provided: _____

M. Minimum Number of Required Plumbing Facilities: NA

- Water Closets - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
- Lavatories - Required (m) _____ (f) _____ Provided (m) _____ (f) _____
- Bath Tubs or Showers: _____
- Drinking Fountains: _____ Service Sinks: _____

FOOTNOTES:

- In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.
- Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
 - High Rise Requirements.
 - Atriums.
 - Performance Based Criteria.
 - Means of Egress Analysis.
 - Fire Assembly Locator Sheet.
 - Exterior and Interior Accessibility Route.
 - Fire Stopping, Including Tested Design Number.



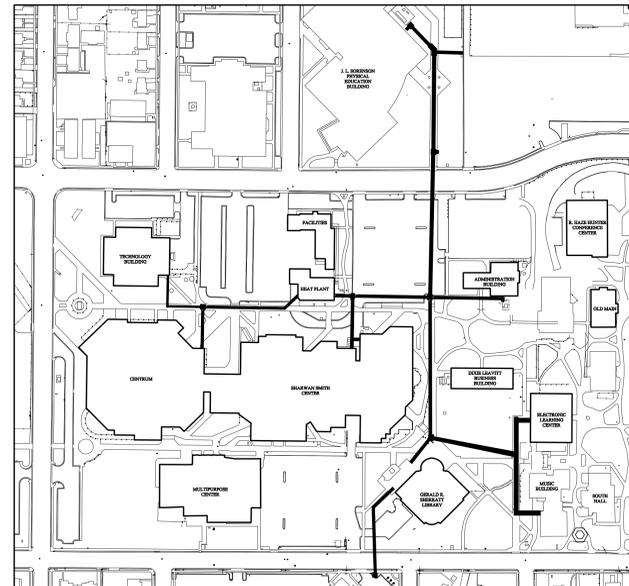
State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building / Salt Lake City, Utah 84114 / 538-3018

DRAWING INDEX:

M000--- TITLE SHEET
MG001- MECHANICAL GENERAL NOTES AND LEGEND
ME101- STEAM TUNNEL VENTILATION PLAN
ME501- MECHANICAL DETAILS AND SCHEDULES
ME502- MECHANICAL DETAILS AND SCHEDULES
ME503- MECHANICAL DETAILS AND SCHEDULES
ME504- MECHANICAL DETAILS AND SCHEDULES
E101----STEAM TUNNEL ELECTRICAL SITE PLAN



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MECHANICAL LEGEND					
SYMBOL	ABR.	DESCRIPTION	SYMBOL	ABR.	DESCRIPTION
GENERAL TERMINOLOGY			WET SIDE		
		SECTION LETTER DESIGNATION			MANUAL ACTUATOR (BALL, BUTTERFLY, NEEDLE, ETC. VALVES)
		SECTION DRAWN ON THIS SHEET			MANUAL ACTUATOR (GATE, GLOBE, S&D, OS&Y, ETC. VALVES)
		DETAIL NUMBER DESIGNATION CORRESPONDING WITH GRID LOCATION			THREADED OR SWEAT VALVE CONNECTION
		MECHANICAL EQUIPMENT DESIGNATION			FLANGED VALVE CONNECTION
		EQUIPMENT ITEM DESIGNATION			BUTTERFLY VALVE
		REVISION DESIGNATOR AND NUMBER			GATE VALVE
		KEY NOTE DESIGNATOR AND NUMBER			CHECK VALVE
	POC	POINT OF CONNECTION		CBV	CIRCUIT BALANCING VALVE
	POR	POINT OF REMOVAL		BV	BALL VALVE
	AFF	ABOVE FINISHED FLOOR		PRV	PRESSURE RELIEF VALVE
	AP	ACCESS PANEL			NEEDLE VALVE
	C EL.	CENTER LINE ELEVATION			AUTOMATIC AIR VENT
	INV. ELEV.	INVERT ELEVATION			MANUAL AIR VENT
	GC	GENERAL CONTRACTOR			STRAINER
	MC	MECHANICAL CONTRACTOR			STRAINER W/ PLUGGED BLOW OFF
	CC	CONTROL CONTRACTOR			PRESSURE GAUGE AND GAUGE COCK - WATER
	EC	ELECTRICAL CONTRACTOR			PRESSURE GAUGE AND GAUGE COCK - STEAM
	NIC	NOT IN CONTRACT			THERMOMETER AND THERMOWELL
	NTS	NOT TO SCALE			FLOW SWITCH
	NC	NORMALLY CLOSED		IBT	INVERTED BUCHEK STEAM TRAP
	NO	NORMALLY OPEN		F&T	FLOAT & THERMOSTATIC STEAM TRAP
					DIRECTION OF FLOW
AIR SIDE			WET SIDE CONT		
	AP	ACCESS PANEL			PITCH DOWN
		EXISTING EQUIPMENT TO BE REMOVED			ELBOW UP
		EXISTING EQUIPMENT TO REMAIN			ELBOW DOWN
		NEW EQUIPMENT			TEE UP
					TEE DOWN
					EXISTING PIPING TO BE REMOVED
					EXISTING PIPING TO REMAIN
					NEW PIPING
					PIPE CAP OR PLUG
					CONCENTRIC REDUCER
					ECCENTRIC REDUCER
					EXPANSION JOINT
					ANCHOR POINT
				CW	CULINARY COLD WATER
				HW	CULINARY HOT WATER
					RECIRCULATED CULINARY HOT WATER
				CHWS	CHILLED WATER SUPPLY
				CHWR	CHILLED WATER RETURN
				LPS	LOW PRESSURE STEAM
				LPR	LOW PRESSURE STEAM RETURN
				MPS	MEDIUM PRESSURE STEAM
				MPR	MEDIUM PRESSURE STEAM RETURN
				HPS	HIGH PRESSURE STEAM
				HPR	HIGH PRESSURE STEAM RETURN
				PC	PUMPED CONDENSATE

GENERAL NOTES:

G-1 MECHANICAL INFORMATION IS NOT LIMITED TO THE MECHANICAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING DRAWINGS BY OTHER DISCIPLINES AND SPECIFICATIONS.

A - EACH DRAWING SHEET AND THE SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH ITEMS SHOWN AND NOTED ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN ALL PLACES. ITEMS IN SPECIFICATIONS OR DRAWINGS LISTED WHICH ARE DIFFERING IN EFFICIENCY OR QUALITY SHALL BE HELD TO THE GREATEST OF: EFFICIENCY, QUALITY OR GOVERNING CODE.

B - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEMS ACCORDING TO THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS.

C - THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITH PROPER SERVICE ACCESS AND CLEARANCES ACCORDING TO MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL REVIEW SUPPLIERS BID PACKAGES FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS, SCHEDULES, AND DESIGN INTENT (ALL EQUIPMENT AND METHODS). THE CONTRACTOR SHALL REMOVE AND REINSTALL CORRECTLY AT HIS OWN EXPENSE ANY EQUIPMENT NOT IN COMPLIANCE.

D - THE CONTRACTOR SHALL CONSULT MANUFACTURERS INSTALLATION INSTRUCTIONS FOR SIZES, METHODS, ACCESSORIES, AND CLEARANCES IN SPACE AVAILABLE PRIOR TO BIDDING PROJECT.

E - ANYTHING NOT CLEAR OR IN CONFLICT WILL BE EXPLAINED BY MAKING APPLICATION TO THE ENGINEER IN WRITING.

G-2 ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE BY WRITTEN PROPOSAL TO THE ARCHITECT. CONTRACTOR SHALL NOT PROCEED WITH ANY CHANGES UNTIL WRITTEN APPROVAL IS GIVEN.

G-3 CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS AT SITE.

G-4 THE WORKING DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR MECHANICAL EQUIPMENT SUPPORTS AND PIPING SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL DRAWINGS. THE CONTRACTOR SHALL PROVIDE OR COORDINATE WITH THE GENERAL CONTRACTOR PROVISIONS FOR PIPE SUPPORTS ANCHORS ETC.

G-5 THE INSTRUCTION TO "PROVIDE" ALSO INCLUDES INSTALLATION.

G-6 THE MECHANICAL CONTRACTOR SHALL VERIFY MOTOR VOLTAGES WITH THE ELECTRICAL DRAWING BEFORE ORDERING MOTORIZED EQUIPMENT AND CONTROLS.

G-7 SUPPLIERS SHALL REVIEW ALL DRAWINGS AND THE SPECIFICATIONS PRIOR TO SUBMITTING PRICES TO THE CONTRACTOR. ALL QUESTIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BIDDING.

G-8 CONTRACTOR SHALL THOROUGHLY REVIEW AND SIGN SUBMITTALS FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS PRIOR TO ENGINEERS REVIEW. SUPPLIERS SHALL HIGHLIGHT OR MARK ALL INFORMATION REQUIRED TO SHOW COMPLIANCE TO THE SPECIFICATIONS. ALL REQUESTED EXCEPTIONS TO THE SPECIFICATIONS, OR SCHEDULES SHALL BE CLEARLY NOTED AND EXPLAINED. SUBMITTAL REVIEW AND ACCEPTANCE IS FOR DESIGN CONCEPT ONLY, AND DOES NOT AT ANY TIME RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO MEET SPECIFICATIONS, CAPACITIES, OR DESIGN INTENT.

G-9 ALL MECHANICAL SHALL BE INSTALLED AND CONFORM TO THE 2006 EDITION OF THE IMC WITH UTAH ANNOTATIONS AND SLCC REQUIREMENTS.

G-10 THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE DRAINING DOWN AND RE-FILLING OF ALL SYSTEMS NECESSARY TO COMPLETE THE WORK OUTLINED BY THIS PROJECT. THIS INCLUDES PROVIDING THE REQUIRED CHEMICAL TREATMENT WHEN RE-FILLING THE SYSTEM. CHEMICAL TREATMENT SHALL BE DONE BY COLLEGE'S WATER TREATMENT SERVICE ORGANIZATION, POWER ENGINEERING.

CONSULTANTS



PROJECT NAME & ADDRESS

**SOUTHERN UTAH
UNIVERSITY
STEAM TUNNEL
VENTILATION
UPGRADE
DFCM #08111730**

Cedar City, Utah

MARK	DATE	REVISION

PROJECT MANAGER:
SLW
DRAWN BY:
LGD
CHECKED BY:
WP
DATE:
05/12/09
WHW JOB NO.:
08018
SHEET TITLE



**MECHANICAL GENERAL
NOTES AND LEGEND**

SHEET NO.

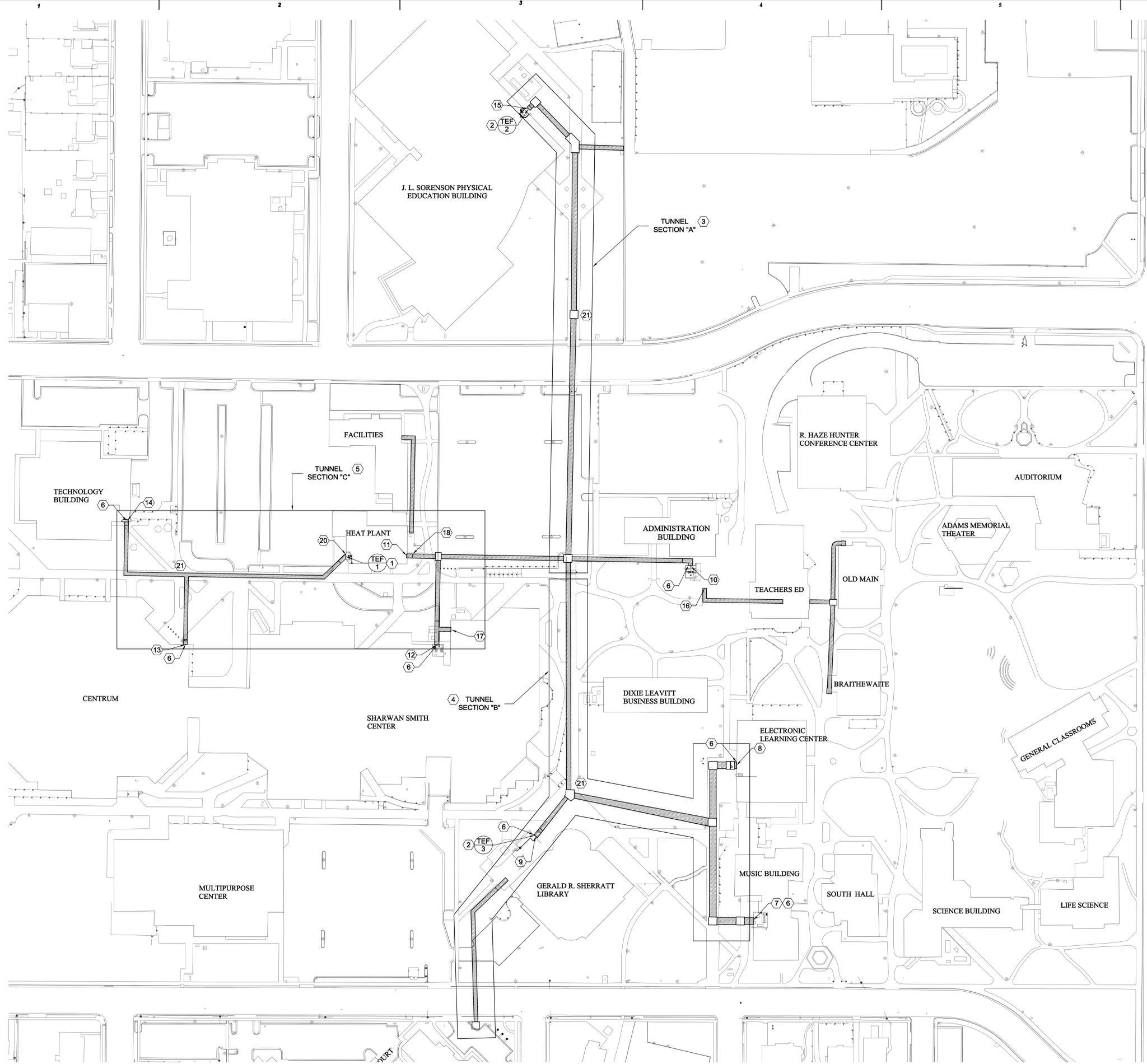
MG001

CONSULTANTS



- SHEET NOTES:**
- ① PROVIDE INLINE EXHAUST FAN. DUCT FROM VENTILATION VESTIBULE AT TUNNEL. TO EXHAUST PENTHOUSE AT ROOF OF HEAT PLANT.
 - ② PROVIDE INLINE EXHAUST FAN. DUCT FROM VENTILATION VESTIBULE AT TUNNEL TO EXHAUST LOUVER ON WALL.
 - ③ PROVIDE VENTILATION FOR TUNNEL SECTION "A", INCLUDING EXHAUST FANS, AND AIR INLETS AS SHOWN.
 - ④ PROVIDE VENTILATION FOR TUNNEL SECTION "B", INCLUDING EXHAUST FANS, AND AIR INLETS AS SHOWN.
 - ⑤ PROVIDE VENTILATION FOR TUNNEL SECTION "C", INCLUDING EXHAUST FANS, AND AIR INLETS AS SHOWN.
 - ⑥ PROVIDE VENTILATION VESTIBULE FOR AIR INLET. PROVIDE WITH FIRE RATED WALLS, FIRE DAMPER, AND BALANCING DAMPER. BALANCE TO CFM SHOWN ON PLANS.
 - ⑦ SEE VENTILATION VESTIBULE DETAIL D4/ME503.
 - ⑧ SEE VENTILATION VESTIBULE DETAIL C4/ME503.
 - ⑨ SEE VENTILATION VESTIBULE DETAIL A4/ME503.
 - ⑩ SEE VENTILATION VESTIBULE DETAIL D4/ME504.
 - ⑪ SEE VENTILATION VESTIBULE DETAIL C4/ME504.
 - ⑫ SEE VENTILATION VESTIBULE DETAIL A4/ME504.
 - ⑬ SEE VENTILATION VESTIBULE DETAIL D4/ME502.
 - ⑭ SEE VENTILATION VESTIBULE DETAIL C4/ME502.
 - ⑮ SEE VENTILATION VESTIBULE DETAIL A4/ME502.
 - ⑯ PROVIDE FIRE DAMPER AND VOLUME DAMPER AT EXISTING VESTIBULE TO TEACH ED BUILDING.
 - ⑰ REPLACE WOOD DOOR WITH RATED DOOR. PROVIDE 2 LAYERS OF SHEET ROCK AT EXPOSED FRAMING IN TUNNEL. EXISTING DOOR IS 35" WIDE BY 4'-7" TALL. FIELD VERIFY. SEE DETAIL.
 - ⑱ SEAL AND FIRECASK PENETRATION INTO TUNNEL FOR WIRES AND CABLES.
 - ⑲ REPLACE SHEET METAL WALL AND DOOR WITH RATED WALL AND DOOR. SEE PICTURE.
 - ⑳ SEE VENTILATION VESTIBULE DETAIL B1/ME504.
 - ㉑ COORDINATE WITH ATC TO PROVIDE TEMP SENSOR AT THIS APPROXIMATE LOCATION FOR COOLING ONLY FAN OPERATION. FIELD VERIFY EXACT LOCATION, MOUNTING, ETC.

- GENERAL NOTES:**
1. FIELD VERIFY EXACT SIZE AND LOCATION OF ALL EXISTING CONDITIONS PRIOR TO FABRICATION OF ANY NEW WORK.



STEAM TUNNEL VENTILATION PLAN
SCALE: 1/8" = 1'-0"

PROJECT NAME & ADDRESS

**SOUTHERN UTAH UNIVERSITY
STEAM TUNNEL VENTILATION UPGRADE
DFCM #08111730**

Cedar City, Utah

MARK	DATE	REVISION

PROJECT MANAGER: SLW
DRAWN BY: LGD
CHECKED BY: WP
DATE: 05/12/09
WHW JOB NO.: 08018
SHEET TITLE



STEAM TUNNEL VENTILATION PLAN

SHEET NO. **ME101**

CONSULTANTS

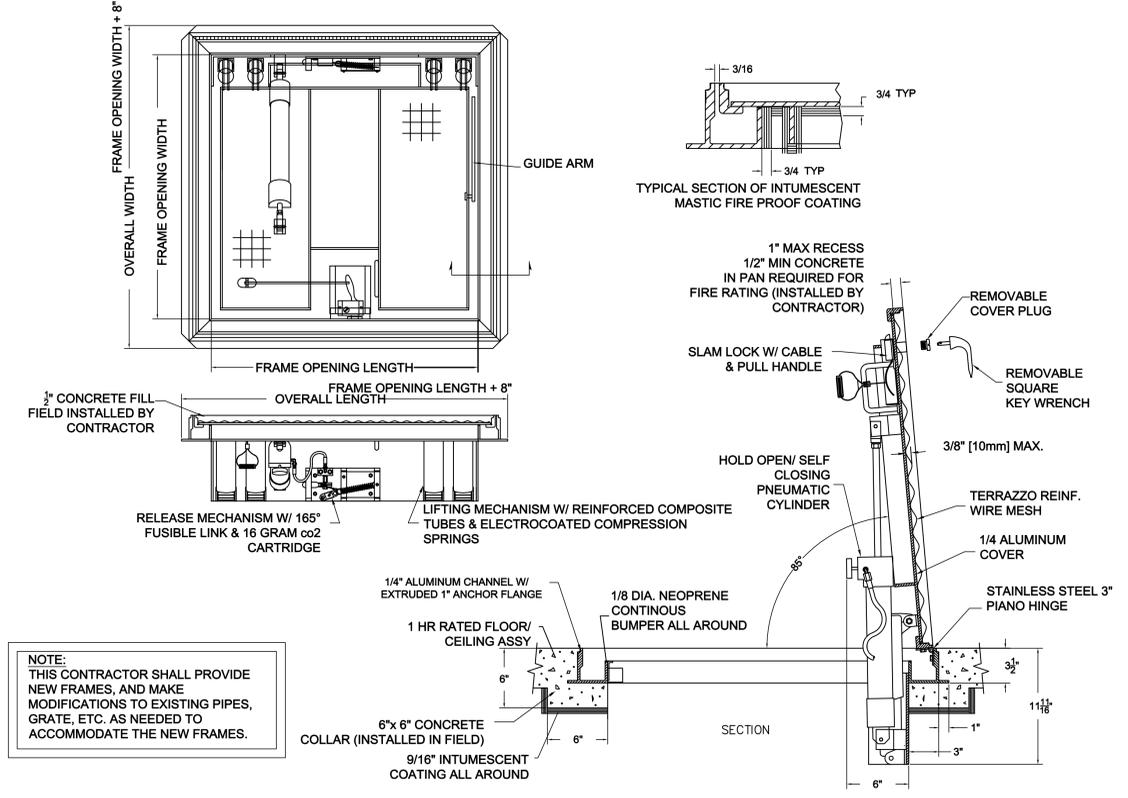


EXHAUST FAN SCHEDULE										
SYMBOL	MANUFACTURER & MODEL No.	SERVES	C.F.M.	STATIC PRESSURE IN. WG.	MAX NOISE SONES	MOTOR			OPER. WT. (LBS)	SCHEDULE NOTES
						V - Ø - Hz	HP	RPM		
TEF 1	COOK 150 SQN-B	TUNNEL SECTIONS C	2000	0.75	14.5	208/3/60	1	1725	150	1,2,3,4
TEF 2	COOK 150 SQN-B	TUNNEL SECTIONS A	3000	0.75	23	208/3/60	1	1725	150	1,2,3,4
TEF 3	COOK 150 SQN-B	TUNNEL SECTIONS B	3000	0.75	23	208/3/60	1	1725	150	1,2,3,4

1. SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
2. PROVIDE SUPPORTS AS NECESSARY TO INSTALL IN CONCRETE MECHANICAL PLENUM. SEE DETAILS THIS SHEET.
3. COORDINATE WITH ATC TO CYCLE FAN WITH NEW COOLING ONLY THERMOSTATS IN TUNNELS.
4. PROVIDE WITH GRAVITY BACKDRAFT DAMPER, OUTLET SAFETY SCREEN, WEATHERPROOFING, AND 1" SPRING ISOLATORS WITH VERTICAL LIMIT STOP.

DOOR SCHEDULE										
BLDG	DOOR			DOOR MATERIAL	TYPE	FRAME		FIRE RATING LABEL	NOTES	MARK
	WD	HGT	THK			FRAME MATERIAL	TYPE			
ADMIN	3'-0"	7'-0"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD1
HEAT PLANT	2'-0"	4'-6"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD2
HEAT PLANT	3'-0"	7'-0"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD3
SHARWAN SMITH CENTER	3'-0"	4'-6"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD4
ELC	2'-0"	4'-2"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD5
LIBRARY	1'-8"	4'-8"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD6
CENTRUM	2'-6"	4'-10"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD7
TECHNOLOGY	3'-0"	7'-0"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD8
PE BUILDING	3'-0"	6'-8"	1-3/4"	GALVANIZED H.M.	5	GALVANIZED H.M.	5	60 MIN	1,2,3	MD9
SHARWAN SMITH	3'-0"	3'-0"	-	FLOOR ACCESS	-	ANGLE FRAME	-	60 MIN	2	MD10

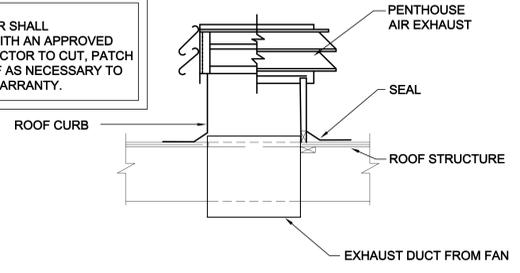
1. PROVIDE STORE ROOM FUNCTION LOCK SET PER SUU CAMPUS STANDARDS, SCHLAGE D SERIES OR PRIOR APPROVED EQUAL. COORDINATE WITH SUU TO PROVIDE CYLINDERS, KEYS TO MATCH CAMPUS WIDE MECHANICAL ROOMS. PROVIDE PADDLE PANIC HARDWARE ON TUNNEL SIDE OF DOOR. SEE SPECIFICATIONS.
2. FIELD VERIFY ALL DIMENSIONS, FRAMES, ETC. PRIOR TO ORDERING OR FABRICATING DOORS.
3. PROVIDE WITH AUTOMATIC CLOSER.



NOTE:
THIS CONTRACTOR SHALL PROVIDE NEW FRAMES, AND MAKE MODIFICATIONS TO EXISTING PIPES, GRATE, ETC. AS NEEDED TO ACCOMMODATE THE NEW FRAMES.

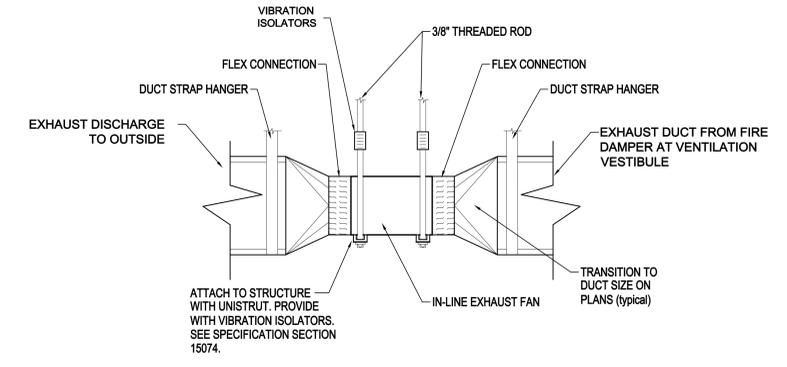
B2 FIRE RATED FLOOR SERVICE DOOR
SCALE: NONE

NOTE:
THIS CONTRACTOR SHALL SUB-CONTRACT WITH AN APPROVED ROOFING CONTRACTOR TO CUT, PATCH AND REPAIR ROOF AS NECESSARY TO MAINTAIN ROOF WARRANTY.

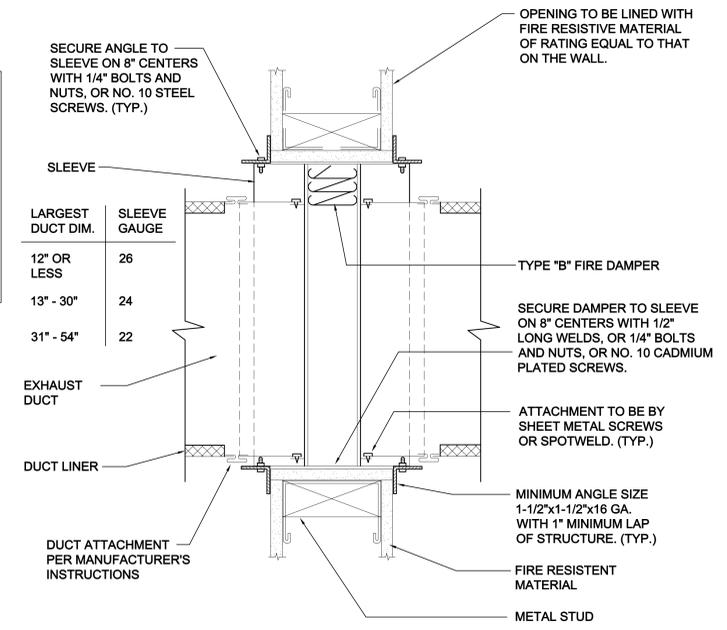


A3 PENTHOUSE DETAIL
SCALE: NONE

NOTES:
1. CLEARANCE BETWEEN WALL STRUCTURE AND DAMPER SLEEVE SHALL BE 1/8" PER FOOT OF HEIGHT (OR WIDTH), OF DAMPER ASSEMBLY.
2. COORDINATE INSTALLATION WITH MANUFACTURERS INSTALLATION INSTRUCTIONS PRIOR TO BIDDING. MANUFACTURERS GUIDELINES SHALL GOVERN.



C5 IN-LINE EXHAUST FAN DETAIL
SCALE: NONE



A5 LOW PRESSURE DUCT FIRE DAMPER INSTALLATION
SCALE: NONE

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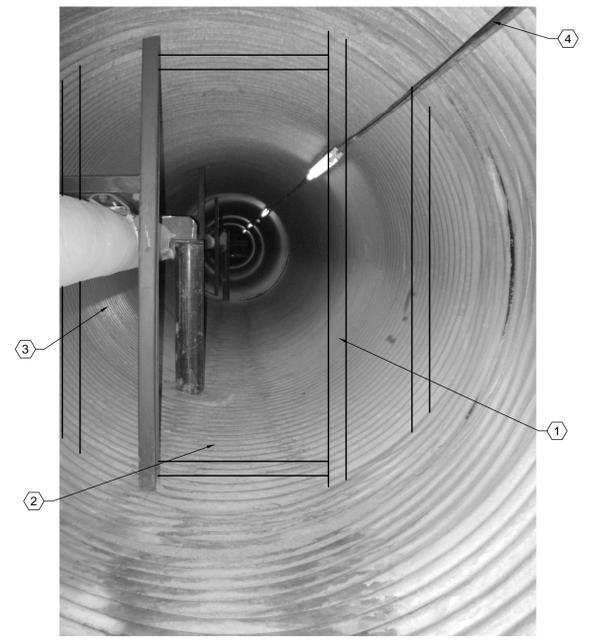
PROJECT MANAGER: SLW
DRAWN BY: LGD
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SHEET TITLE
MECHANICAL DETAILS AND SCHEDULES

SHEET NO.
ME501

CONSULTANTS



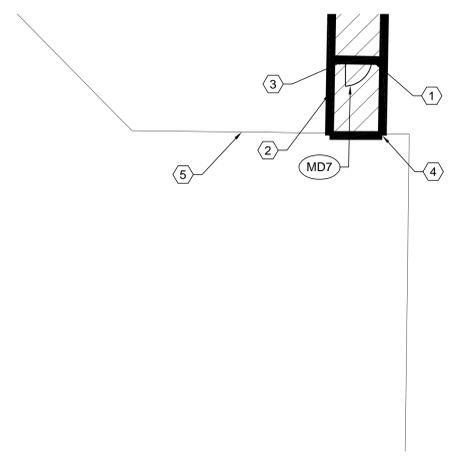
D2 CENTRUM PHOTO DETAIL
SCALE: NONE



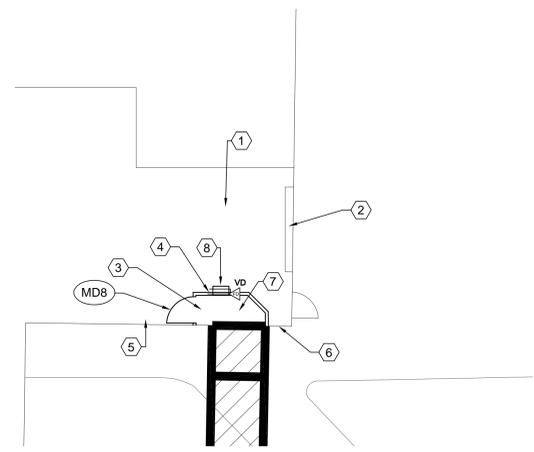
C2 TECHNOLOGY BLDG. PHOTO DETAIL
SCALE: NONE



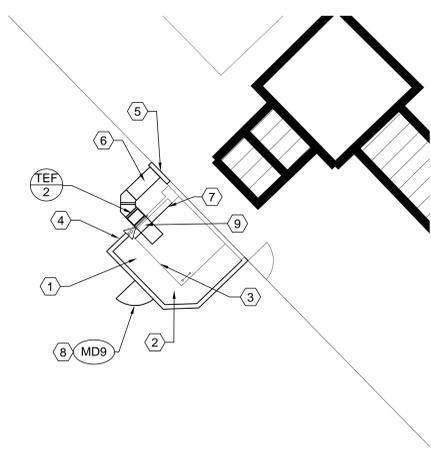
A2 J.L. SORSENSEN PHYSICAL EDUCATION BUILDING PHOTO DETAIL
SCALE: NONE



D4 CENTRUM VENTILATION VESTIBULE DETAIL
SCALE: 1/8" = 1'-0"



C4 TECHNOLOGY BLDG. VENTILATION VESTIBULE PLAN VIEW DETAIL
SCALE: 1/8" = 1'-0"



A4 J.L. SORSENSEN PHYSICAL EDUCATION BUILDING VENTILATION VESTIBULE PLAN VIEW DETAIL
SCALE: 1/8" = 1'-0"

CENTRUM BLDG DETAIL NOTES:

- ① PROVIDE NEW 1 HOUR RATED WALL AND DOOR IN TUNNEL.
- ② NEW DOOR SHALL BE APPROXIMATE 30"X58". FIELD VERIFY.
- ③ PROVIDE NEW 16/12 FIRE DAMPER AND VOLUME DAMPER UNDERNEATH STEAM LINE. BALANCE TO 1000 CFM.
- ④ COORDINATE WITH DIVISION 16 TO RELOCATE LIGHT SWITCH TO NEW WALL. PROVIDE NEW LIGHT IN TUNNEL ON SOUTH SIDE OF NEW WALL.
- ⑤ RE-INSULATE EXISTING STEAM PRV STATION. INCLUDE INSULATION FOR TWO 6" STRAINERS, FIVE 6" GATE VALVES, TWO 3" PRV'S.

TECHNOLOGY BLDG DETAIL NOTES:

- ① PROVIDE NEW FIRE SPRINKLER HEAD IN THIS ROOM. TIE INTO EXISTING LINE.
- ② EXISTING OVERHEAD DOOR.
- ③ PROVIDE NEW VENTILATION VESTIBULE WITH 1 HOUR RATED WALLS AND DOOR PER SPECIFICATIONS. SHEET ROCK WALL SHALL BE RAN UP BETWEEN EXISTING CONCRETE TEES.
- ④ PROVIDE RATED SEAL AROUND ALL PENETRATIONS OF NEW WALL INCLUDING 1 DUCT, 2 PIPES, MISC. CONDUIT, WIRE, ETC.
- ⑤ MODIFY EXISTING STORAGE RACK AS NECESSARY. COORDINATE WITH SUU TO MOVE MATERIALS ON RACK.
- ⑥ COORDINATE WITH DIVISION 16 TO RELOCATE FIRE ALARM AND HORN STROBE.
- ⑦ COORDINATE WITH DIVISION 16 TO PROVIDE NEW LIGHT AND SWITCH IN NEW VESTIBULE.
- ⑧ PROVIDE NEW 16/12 FIRE DAMPER AND VOLUME DAMPER. BALANCE TO 1000 CFM.

PE BLDG DETAIL NOTES:

- ① PROVIDE NEW VENTILATION VESTIBULE WITH 1 HOUR RATED WALLS AND DOOR. NEW WALL 32" FROM PIT.
- ② PROVIDE NEW 1 HOUR RATED CEILING AT VENTILATION VESTIBULE. TOP OF CEILING SHALL BE AT 7'-0" WITH 18" CLEAR ABOVE CEILING TO THE BOTTOM OF THE EXISTING PIPING. PROVIDE WOOD DECK ABOVE CEILING FOR ACCESS TO MECHANICAL PIPING AND EQUIPMENT.
- ③ REPLACE THIS SECTION OF RAIL WITH REMOVABLE SAFETY CHAIN.
- ④ COORDINATE EXACT LOCATION OF WALL WITH EXISTING PUMP PAD.
- ⑤ EXISTING EXHAUST PLENUM AND LOUVER SHALL REMAIN.
- ⑥ PROVIDE NEW 20 X 16 EXHAUST AIR DUCT FROM NEW FAN TO EXISTING EXHAUST LOUVER. MODIFY EXISTING EXHAUST PLENUM AS NECESSARY.
- ⑦ PROVIDE NEW 1/4" X 12" STEEL PLATE ALONG EDGE OF EXISTING PIT TO HELP SUPPORT NEW WALL.
- ⑧ PROVIDE NEW 1 HOUR RATED DOOR AT NEW VENTILATION VESTIBULE.
- ⑨ PROVIDE NEW FIRE DAMPER AND EXHAUST DUCT AT NEW VESTIBULE CEILING. ROUTE TO NEW EXHAUST FAN.

PROJECT NAME & ADDRESS

SOUTHERN UTAH UNIVERSITY STEAM TUNNEL VENTILATION UPGRADE
DFCM #08111730

Cedar City, Utah

MARK	DATE	REVISION

PROJECT MANAGER: SLW
DRAWN BY: LGD
CHECKED BY: WP
DATE: 05/12/09
WHW JOB NO.: 08018
SHEET TITLE



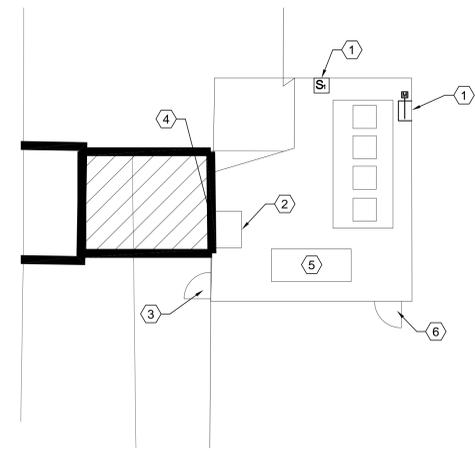
MECHANICAL DETAILS AND SCHEDULES

SHEET NO. **ME502**

CONSULTANTS



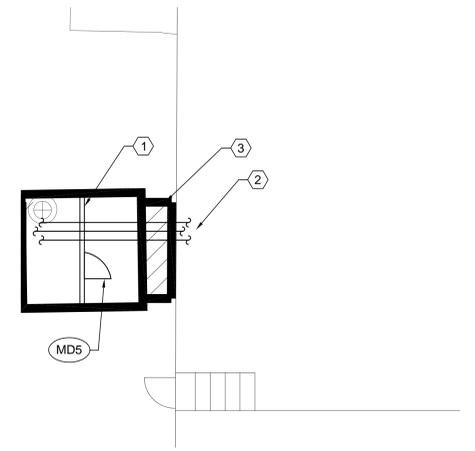
- MUSIC BLDG DETAIL NOTES:
- ① REMOVE EXISTING EXHAUST FAN. REPLACE WITH 12"X12" AUTO DAMPER AND TEMP SENSOR IN SPACE. FIELD VERIFY EXACT SIZE OF NEW AUTO DAMPER PRIOR TO ORDERING.
 - ② EXISTING FLOOR ACCESS TO TUNNEL SHALL REMAIN.
 - ③ EXISTING DOOR TO HALL.
 - ④ EXISTING OPENING TO TUNNEL SHALL REMAIN.
 - ⑤ EXISTING CHILLER.
 - ⑥ EXISTING DOOR TO ELECTRICAL ROOM.



D4 MUSIC BUILDING
VENTILATION PLAN VIEW DETAIL
SCALE: 1/4" = 1'-0"



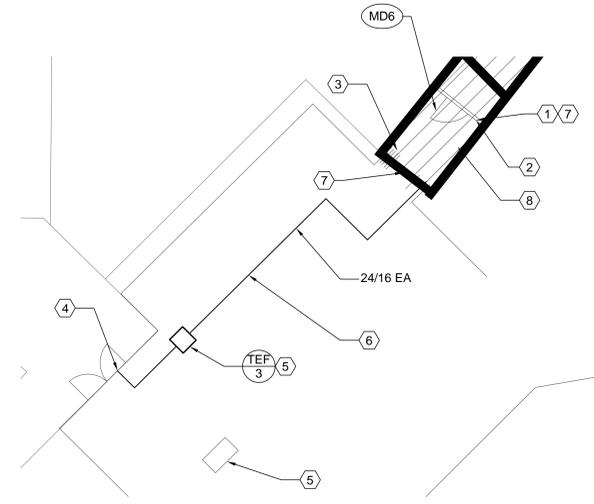
- ELC BUILDING DETAIL NOTES:
- ① PROVIDE NEW 1 HOUR RATED WALL AND DOOR IN TUNNEL, APPROXIMATELY 4' WIDE BY 4'-6.5" TALL. FIELD VERIFY. PROVIDE RATED SEAL AT STEAM, CONDENSATE, CONDUIT, AND CABLE TRAY PENETRATIONS OF NEW WALL.
 - ② STEAM, CONDENSATE, AND CABLE TRAY TAKE UP 20" OF WIDTH. 2'-4" AVAILABLE FOR A 2' DOOR.
 - ③ PROVIDE 18/12 FIRE DAMPER AND VOLUME DAMPER ABOVE STEAM PIPING. BALANCE TO 1000 CFM.



C4 ELECTRONIC LEARNING CENTER
VENTILATION VESTIBULE PLAN VIEW DETAIL
SCALE: 1/4" = 1'-0"



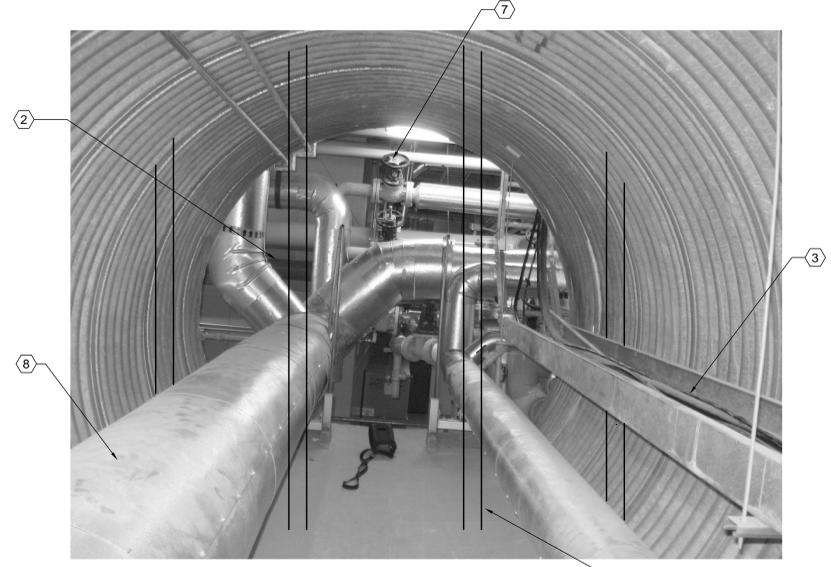
- LIBRARY DETAIL NOTES:
- ① PROVIDE NEW 1 HOUR RATED WALL IN TUNNEL. CONNECT NEW STEEL STUDS TO EXISTING CORRUGATED PIPE TUNNEL. PROVIDE NEW 1 HOUR RATED DOOR. PROVIDE RATED SEAL AT STEAM, CONDENSATE, CONDUIT, AND CABLE TRAY PENETRATIONS OF NEW WALL.
 - ② PROVIDE NEW 24/16 EXHAUST DUCT ABOVE STEAM LINE WITH FIRE DAMPER AT WALL.
 - ③ EXISTING CONDENSATE AND CABLE TRAY ON THIS SIDE OF TUNNEL.
 - ④ CONNECT NEW EXHAUST DUCT TO EXISTING EXHAUST LOUVER ABOVE DOOR.
 - ⑤ PROVIDE NEW INLINE EXHAUST FAN. FIELD VERIFY EXACT LOCATION.
 - ⑥ ROUTE DUCT ABOVE LIGHTS, PAINT GREEN TO MATCH OTHER DUCT.
 - ⑦ 20" DOOR X 58" TALL.
 - ⑧ EXISTING STEAM LINE ON THIS SIDE OF TUNNEL.



A4 GERALD R. SHERRATT LIBRARY
VENTILATION VESTIBULE PLAN VIEW DETAIL
SCALE: 1/4" = 1'-0"



C2 ELECTRONIC LEARNING CENTER PHOTO DETAIL
SCALE: NONE



A2 GERALD R. SHERRATT LIBRARY PHOTO DETAIL
SCALE: NONE

PROJECT NAME & ADDRESS

**SOUTHERN UTAH UNIVERSITY
STEAM TUNNEL VENTILATION UPGRADE
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SHEET TITLE

MECHANICAL DETAILS AND SCHEDULES

SHEET NO. **ME503**

CONSULTANTS



PROJECT NAME & ADDRESS

**SOUTHERN UTAH
UNIVERSITY
STEAM TUNNEL
VENTILATION
UPGRADE
DFCM #08111730**

Cedar City, Utah

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PROJECT MANAGER: SLW
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WHW JOB NO.: 08018
SHEET TITLE:

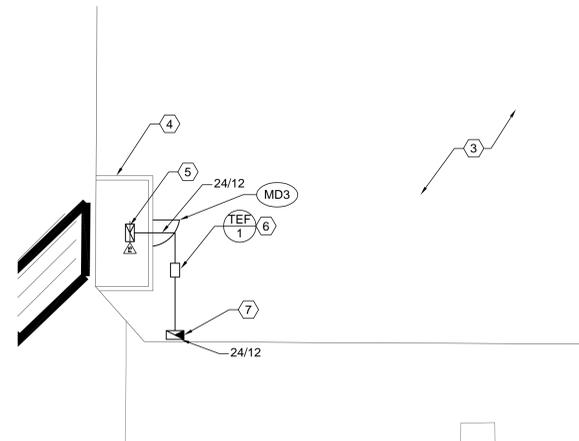


**MECHANICAL DETAILS
AND SCHEDULES**

SHEET NO. **ME504**



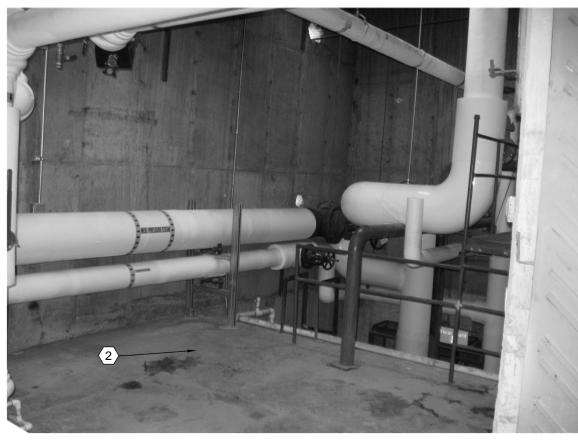
D1 HEAT PLANT WEST PHOTO DETAIL
SCALE: NONE



**B1 HEAT PLANT WEST VENTILATION
VESTIBULE PLAN VIEW DETAIL**
SCALE: 1/8" = 1'-0"



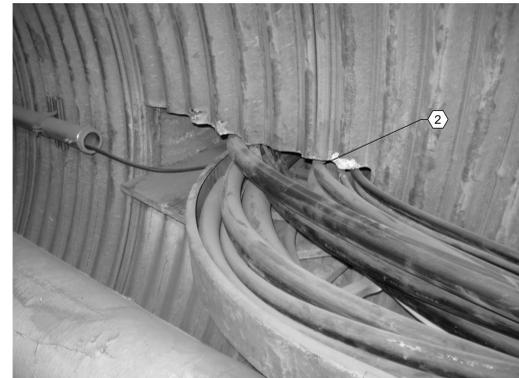
A1 SHARWAN SMITH CENTER PHOTO DETAIL #2
SCALE: NONE



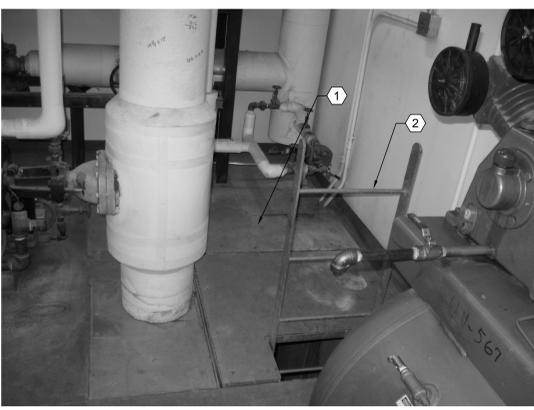
**D3 ADMIN. BUILDING STEAM
PIT PHOTO DETAIL**
SCALE: 1/8" = 1'-0"



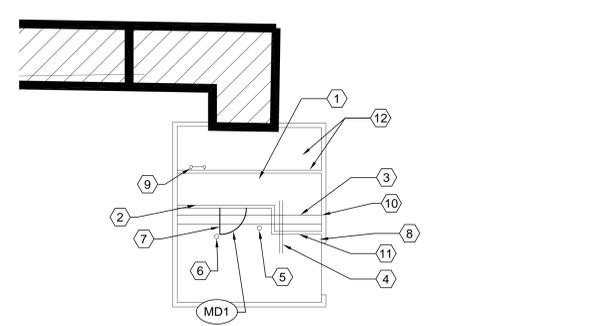
C3 HEAT PLANT EAST PHOTO DETAIL #1
SCALE: NONE



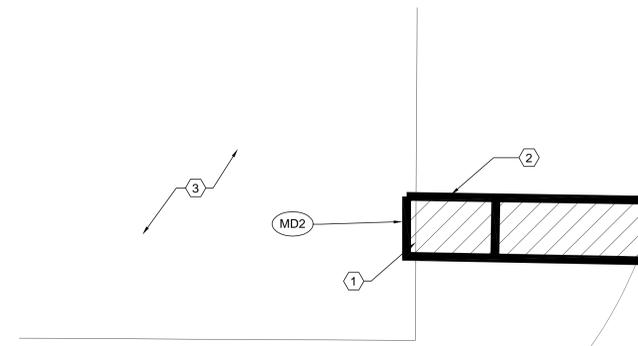
B3 HEAT PLANT EAST PHOTO DETAIL #2
SCALE: NONE



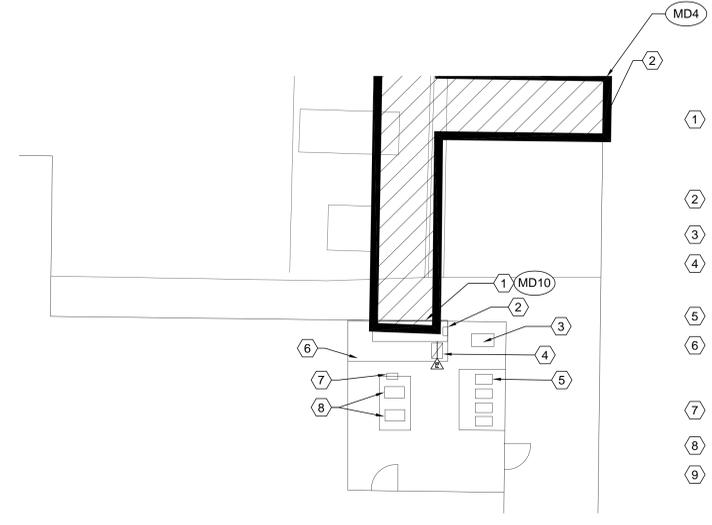
A3 SHARWAN SMITH CENTER PHOTO DETAIL #1
SCALE: NONE



**D4 ADMIN. BUILDING VENTILATION
VESTIBULE PLAN VIEW DETAIL**
SCALE: 1/8" = 1'-0"



**C4 HEAT PLANT EAST VENTILATION
VESTIBULE PLAN VIEW DETAIL**
SCALE: 1/8" = 1'-0"



**A4 SHARWAN SMITH CENTER VENTILATION
VESTIBULE PLAN VIEW DETAIL**
SCALE: 1/8" = 1'-0"

ADMIN BUILDING DETAIL NOTES:

- COORDINATE WITH DIVISION 16 TO PROVIDE NEW SMOKE DETECTOR.
- PROVIDE NEW 1 HOUR RATED WALL AND DOOR PER SPECIFICATIONS. FIELD VERIFY EXACT LOCATION.
- EXISTING DUCT, COORDINATE WITH NEW WALLS.
- EXISTING PIPE, COORDINATE WITH NEW WALLS.
- EXISTING SMOKE DETECTOR, SHALL REMAIN.
- REPLACE CLEAN OUT COVER WITH FLUSH MOUNTED FLOOR COVER TO MAKE SURE DOOR CAN OPEN.
- PROVIDE NEW 3'-0" DOOR WITH FLOOR MOUNTED DOOR STOP.
- EXISTING LIGHT SWITCH, COORDINATE WITH NEW WALL.
- EXISTING LADDER AND RAIL SHALL REMAIN.
- PROTECT EXISTING COMMUNICATIONS AND WIRING IN THIS AREA.
- PROVIDE NEW 20 X 20 FIRE DAMPER AND VOLUME DAMPER, BALANCE TO 3000 CFM.
- EXISTING RAILING AT EXISTING STEAM PIT SHALL REMAIN.

HEAT PLANT DETAIL NOTES:

- REPLACE EXISTING STEEL GRATING WITH NEW 1 HOUR RATED WALL AND DOOR PER SPECIFICATIONS. PROVIDE RATED SEAL AT ALL PIPE AND CONDUIT PENETRATIONS AT NEW WALL.
- PROVIDE RATED SEAL AT WIRE PENETRATIONS TO TUNNEL.
- PROTECT EXISTING BOILERS AND ALL ASSOCIATED EQUIPMENT, PIPING, ETC.
- PROVIDE 6' W X 18" D X 7' T VENTILATION VESTIBULE WITH 1 HOUR RATED WALLS, DOOR, AND CEILING PER SPECIFICATIONS. PROVIDE WOOD DECK ABOVE CEILING FOR ACCESS TO MECHANICAL EQUIPMENT, PIPING, ETC. REMOVE EXISTING TUNNEL ACCESS DOOR.
- PROVIDE NEW EXHAUST DUCT AND FIRE DAMPER FROM TOP OF NEW VESTIBULE TO NEW EXHAUST FAN.
- PROVIDE NEW INLINE EXHAUST FAN. ROUTE DISCHARGE TO ROOF.
- PROVIDE NEW ROOF MOUNTED EXHAUST PENTHOUSE. CUT AND PATCH ROOF, AND MAINTAIN WARRANTY. FIELD VERIFY EXACT ROUTING AND LOCATION.

SHARWAN SMITH DETAIL NOTES:

- EXISTING 39" X 39" OPENING FOR EXISTING ACCESS DOOR. REPLACE WITH NEW FLUSH MOUNTED, RATED, FLOOR ACCESS DOOR PER SPECIFICATIONS.
- MODIFY LADDER TO ACCOMMODATE NEW DOOR.
- PROTECT EXISTING COMPRESSOR.
- PROVIDE 18 X 12 NEW AIR INLET WITH FIRE DAMPER AND VOLUME DAMPER, BALANCE TO 1000 CFM.
- PROTECT EXISTING PUMPS.
- REPLACE EXISTING METAL COVER WITH 1 HOUR RATED CHECKERPLATE FLOOR COVER. FIRE CAULK ALL PENETRATIONS AND GAPS.
- PROTECT EXISTING CONDENSATE PUMP.
- PROTECT EXISTING CONVERTORS.
- REPLACE EXISTING WOOD DOOR AND FRAME WITH NEW 1 HOUR RATED DOOR AND FRAME PER SPECIFICATIONS.

