SYM.	PREP'D BY	DATE	APPROVED

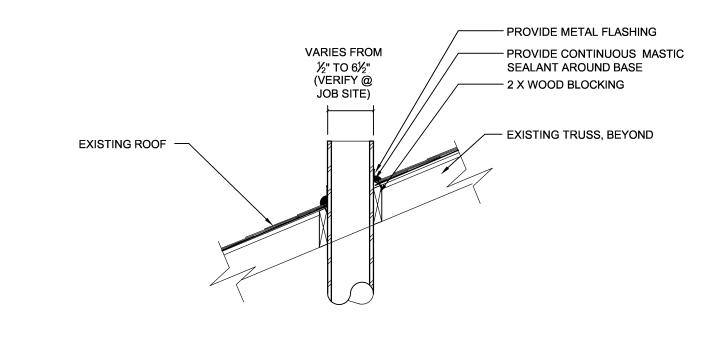
GAS FIRED UNIT HEATER SCHEDI II E

SCHEDULE		
DESIGNATION	UH-A	
LOCATION	VARIOUS	
FUEL	NATURAL GAS	
AIRFLOW (CFM)	505	
THROW	HORIZONTAL	
INPUT (MBH)	30	
MINIMUM INLET GAS PRESSURE (IN. WC.)	6	
MAXIMUM INLET GAS PRESSURE (IN. WC.)	7	
CAPACITY (MBH)	24	
ENTERING AIR TEMPERATURE (DEG F)	60	
LEAVING AIR TEMPERATURE (DEG F)	103	
UNIT VOLTAGE	120	
PHASE	1	
FREQUENCY (HZ)	60	
BASED ON	MODINE	
MODEL	HDS 30	
REMARKS	60	
REMARKS LEGEND:		
PROVIDE INTEGRAL DISCONNECT.		

1.	PROVIDE	INTEGRAL	DISCONNEC
1.	PROVIDE	INTEGRAL	DISCONNEC

ELECTRIC CONVECTOR SCHEDULE		
DESIGNATION EC-A		
LOCATION		BATHROOMS
CABINET STYLE		CABINET
ELECTRIC COLL	MINIMUM CAPACITY (KW)	1.1
ELECTRIC COIL	ENTERING AIR TEMPERATURE (DEG F)	68
	UNIT TOTAL CURRENT (A)	3.6
ELECTRIC DATA UNIT VOLTAGE (V) PHASE FREQUENCY (HZ)		208
		1
		60
BASED ON		CHROMALOX
MODEL		CAF-12F211
REMARKS		1 & 2

1. PROVIDE BUILT-IN SINGLE PHASE TAMPERPROOF THERMOSTAT 2. PROVIDE BUILT-IN DISCONNECT



ROOF PENETRATION DETAIL NOT TO SCALE

DISCLOSURE OF INFORMATION

Contractor shall comply as follows:

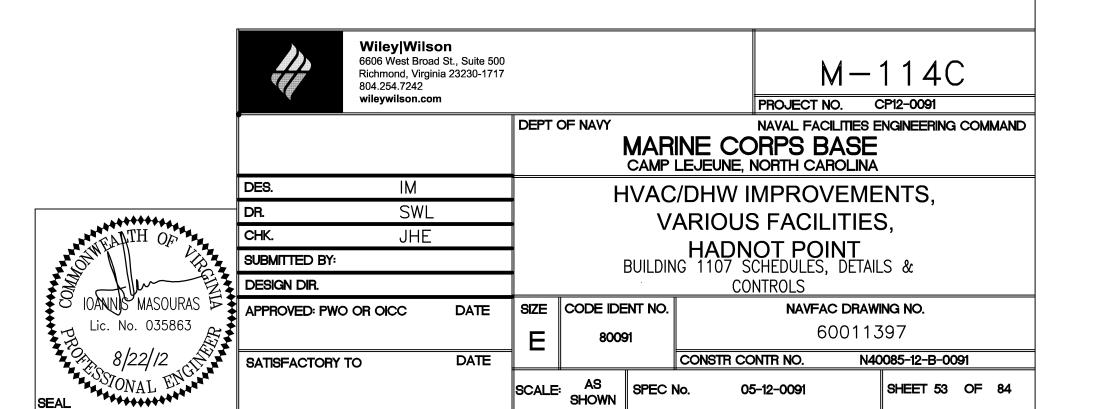
(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless-

(1) The Contracting Officer has given prior written approval; or
(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the

release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release. (c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit

requests for authorization to release through the prime contractor to the Contracting Officer.

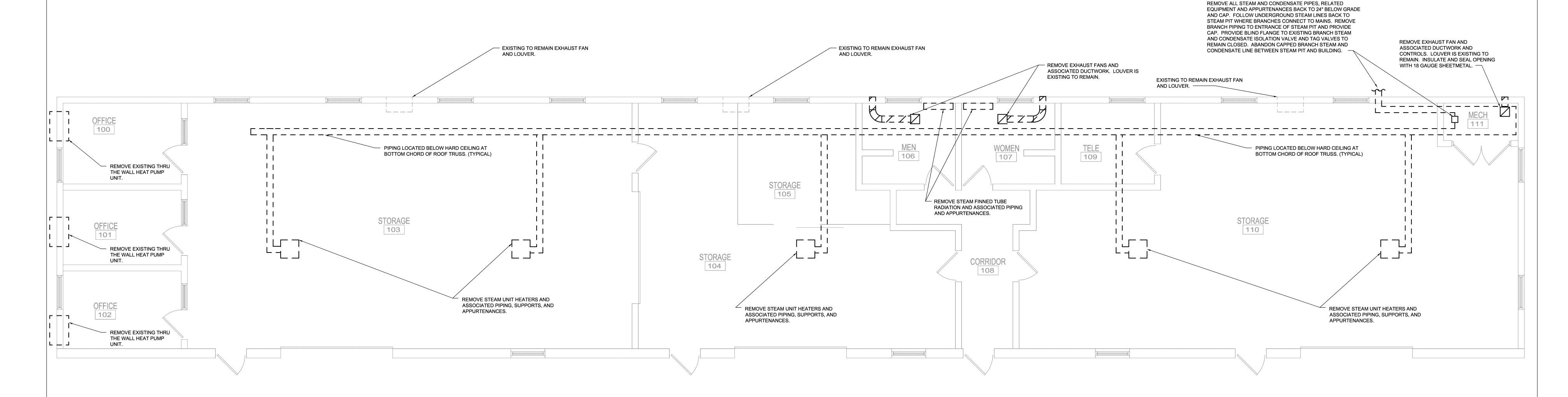


DEMOLITION NOTES:

1. DUCT LOCATIONS APPROXIMATE, CONTRACTOR TO VERIFY AS NECESSARY. 2. SEAL ALL BUILDING PENETRATIONS CREATED DURING DEMOLITION AND NOT RE-USED.

3. REMOVE ALL EQUIPMENT, DUCTWORK, DIFFUSERS, GRILLES, HANGERS AND INSULATION AS SHOWN.

PREP'D BY DATE APPROVED





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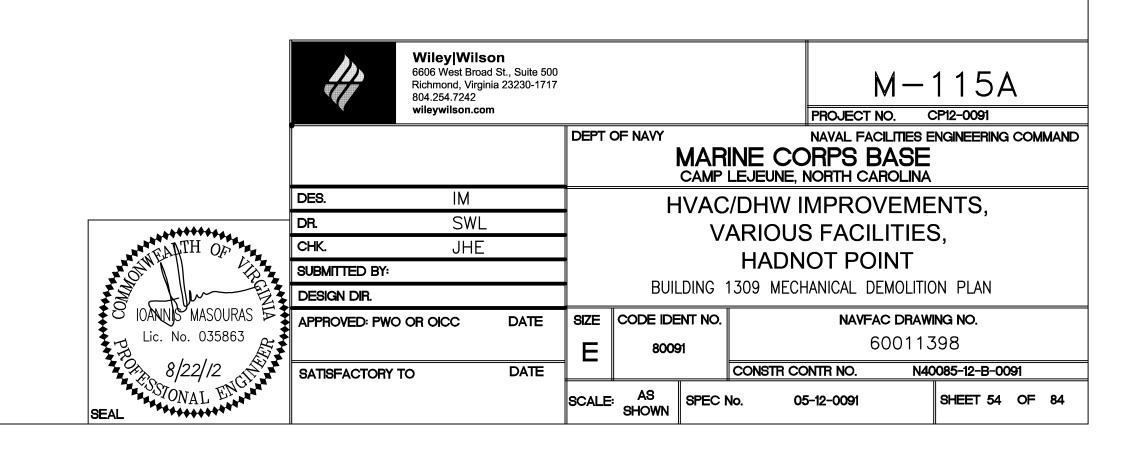
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GENERAL NOTES:

1. THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES. THESE PLANS ARE PARTIALLY DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS.

2. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.

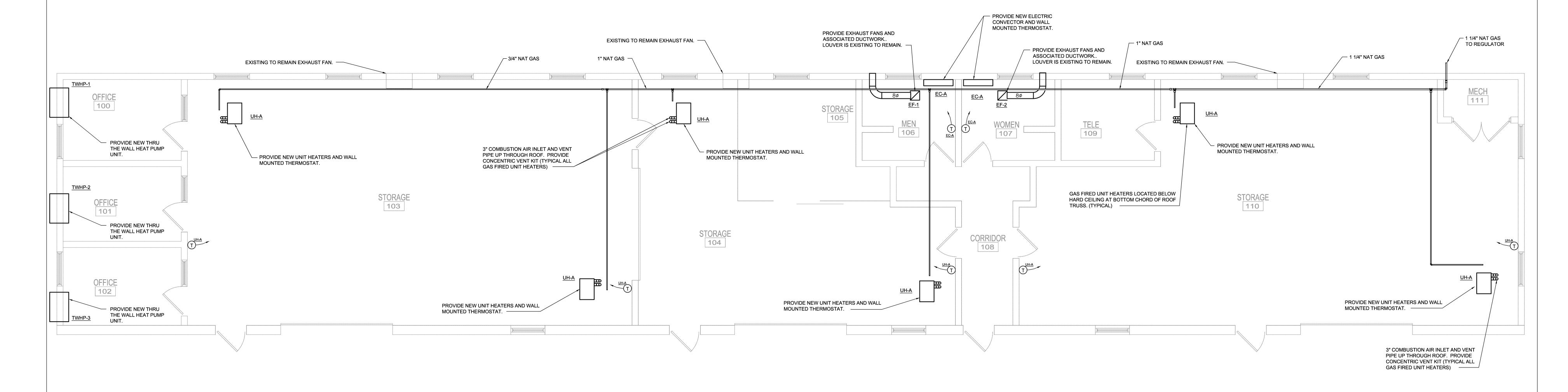
4. INSULATE ENTIRE ATTIC SPACE WITH UNFACED R-30 BATT INSULATION.

3. INSTALL GAS PIPE INC ACCORDANCE WITH 2012 NORTH CAROLINA FUEL GAS CODE.

NATURAL GAS NOTE:

1. TOTAL CONNECTED NATURAL GAS DEMAND FOR THIS BUILDING IS 180 MBH AT 10 IN-H20.

PREP'D BY DATE APPROVED





DISCLOSURE OF INFORMATION

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Wiley|Wilson 6606 West Broad St., Suite 500 Richmond, Virginia 23230-1717 804.254.7242 wileywilson.com M - 115BPROJECT NO. CP12-0091 NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA DEPT OF NAVY IM HVAC/DHW IMPROVEMENTS, SWL VARIOUS FACILITIES, JHE **HADNOT POINT** SUBMITTED BY: BUILDING 1309 MECHANICAL NEW WORK PLAN DESIGN DIR. DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO. APPROVED: PWO OR OICC 60011399 CONSTR CONTR NO. N40085-12-B-0091 DATE SATISFACTORY TO SCALE: AS SPEC No. 05-12-0091 SHEET 55 OF 84

		_	_
SYM.	PREP'D BY	DATE	APPROVED

GAS FIRED UNIT HEATER SCHEDULE

SCHEDULE			
UH-A			
VARIOUS			
NATURAL GAS			
505			
HORIZONTAL			
30			
6			
7			
24			
60			
103			
120			
1			
60			
MODINE			
HDS 30			
60			

1.	PROVIDE	INTEGRAL	DISCONNE	- :C

ELECTRIC CONVECTOR SCHEDULE			
DESIGNATION EC-A			
_OCATION		BATHROOMS	
CABINET STYLE		CABINET	
EL ECTRIC COIL	MINIMUM CAPACITY (KW)	1.1	
ELECTRIC COIL	ENTERING AIR TEMPERATURE (DEG F)	68	
	UNIT TOTAL CURRENT (A)	3.6	
	UNIT VOLTAGE (V)	208	
ELECTRIC DATA	PHASE	1	
FREQUENCY (HZ)		60	
BASED ON		CHROMALOX	
MODEL		CAF-12F211	
REMARKS		1 & 2	

REMARKS LEGEND: 1. PROVIDE BUILT-IN SINGLE PHASE TAMPERPROOF THERMOSTAT 2. PROVIDE BUILT-IN DISCONNECT

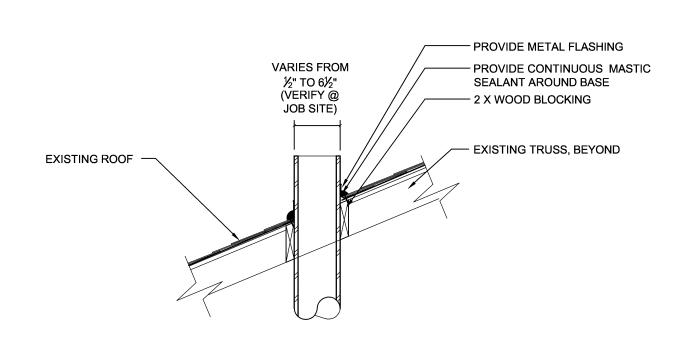
UNIT DESIGNATION		TWHP-1	TWHP-2	TWHP-3
LOCATION		OFFICE	OFFICE	OFFICE
	AIRFLOW	240	240	240
EVAPORATOR	MINIMUM TOTAL COOLING CAPACITY (MBH)	8.8	7.8	8.8
	MINIMUM HEATING CAPACITY (MBH)	8.0	7.2	8.0
ELECTRIC HEAT	HEATER KW	2	2	2
	VOLTAGE (V)	208	208	208
ELECTRICAL	PHASE	1	1	1
	FREQUENCY (Hz)	60	60	60
MINIMUM EFFICIENCY (EER)		11.2	11.5	11.2
BASED ON		TRANE	TRANE	TRANE
INDOOR UNIT MODEL		PTHC0901E	PTHC0701E	PTHC0901E
AMBIENT DESIGN TE	MPERATURE (DEG F)	95	95	95
REMARKS		1, 2, 3	1, 2, 3	1, 2, 3

- 1. PROVIDE NEW WALL SLEEVE TO FIT IN EXISTING MASONRY OPENING.
- 2. PROVIDE STAMPED LOUVER AND EXTERIOR DRAIN KIT PIPED TO EXTERIOR.
- 3. PROVIDE FACTORY MOUNTED THERMOSTAT.

EXHAUST FAN SCHEDULE			
UNIT NO.	EF-1	EF-2	
USAGE	EXHAUST	EXHAUST	
SERVES ROOM(S)	HEAD	HEAD	
DESCRIPTION	CEILING CABINET	CEILING CABINET	
FAN DATA			
AIRFLOW (SCFM)	200	200	
TOTAL SP (IN-H2O)	0.375	0.375	
RPM	966	966	
DRIVE TYPE	DIRECT	DIRECT	
MOTOR DATA			
HORSEPOWER	83 WATTS	83 WATTS	
RPM	1201	1201	
VOLTS	115	115	
PHASE	1	1	
HERTZ	60	60	
SELECTION BASED ON	GREENHECK	GREENHECK	
MODEL	SP-A250	SP-A250	
NOTES	1, 2 & 5	1, 2 & 5	
NOTES LECEND.			

NOTES LEGEND:

- 1. PROVIDE FAN WITH BACK-DRAFT DAMPER.
- 2. PROVIDE FAN WITH SPEED CONTROL. 3. PROVIDE THERMOSTAT CONTROL.
- 4. PROVIDE WALL HOUSING
- 5. PROVIDE ALUMINUM WHEEL, ALUMINUM GRILLE, AND TIME DELAY COMBINATION LIGHT SWITCH CONTROL.



ROOF PENETRATION DETAIL
NOT TO SCALE

DISCLOSURE OF INFORMATION

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- (1) The Contracting Officer has given prior written approval; or
- (2) The information is otherwise in the public domain before the date of release. (b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the
- release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release. (c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit
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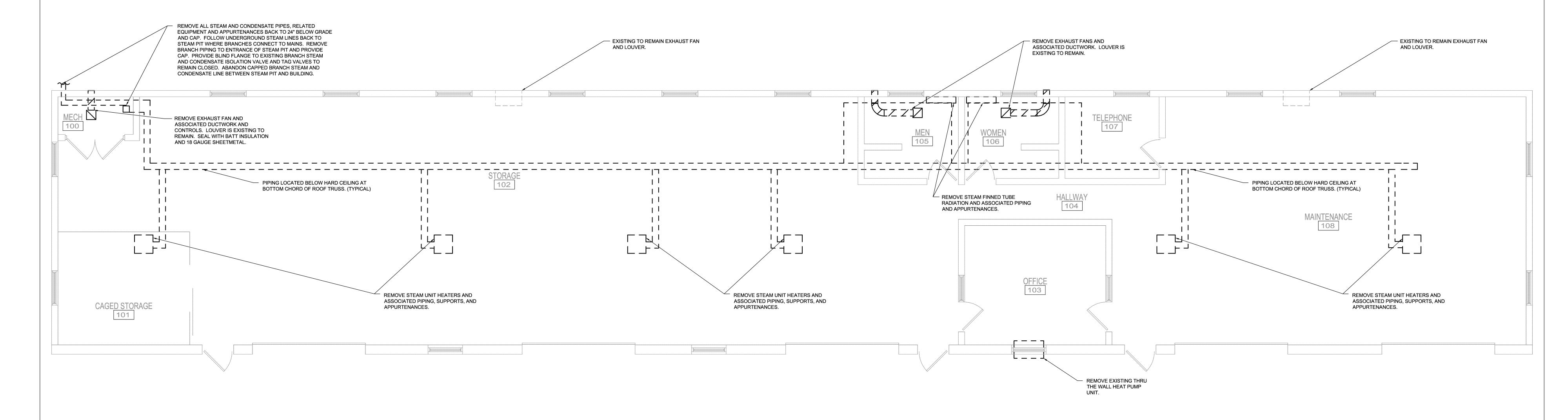
Wiley|Wilson 6606 West Broad St., Suite 500 Richmond, Virginia 23230-1717 804.254.7242 wileywilson.com M - 115CPROJECT NO. CP12-0091 NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA DEPT OF NAVY IM HVAC/DHW IMPROVEMENTS, SWL VARIOUS FACILITIES, JHE HADNOT POINT
BUILDING 1309 SCHEDULES, DETAILS & SUBMITTED BY: DESIGN DIR. CONTROLS DATE SIZE CODE IDENT NO. APPROVED: PWO OR OICC NAVFAC DRAWING NO. 60011400 DATE CONSTR CONTR NO. N40085-12-B-0091 SATISFACTORY TO SCALE: AS SPEC No. 05-12-0091 SHEET 56 OF 84

DEMOLITION NOTES:

1. DUCT LOCATIONS APPROXIMATE, CONTRACTOR TO VERIFY AS NECESSARY. 2. SEAL ALL BUILDING PENETRATIONS CREATED DURING DEMOLITION AND NOT RE-USED.

3. REMOVE ALL EQUIPMENT, DUCTWORK, DIFFUSERS, GRILLES, HANGERS AND INSULATION AS SHOWN.

PREP'D BY DATE APPROVED



BUILDING 1310 MECHANICAL DEMOLITION PLAN

DISCLOSURE OF INFORMATION Contractor shall comply as follows:

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless-

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Wiley|Wilson 6606 West Broad St., Suite 500 Richmond, Virginia 23230-1717 804.254.7242 wileywilson.com M - 116APROJECT NO. CP12-0091 NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA DEPT OF NAVY IM HVAC/DHW IMPROVEMENTS, SWL VARIOUS FACILITIES, JHE **HADNOT POINT** SUBMITTED BY: BUILDING 1310 MECHANICAL DEMOLITION PLAN DESIGN DIR. DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO. APPROVED: PWO OR OICC 60011401 DATE CONSTR CONTR NO. N40085-12-B-0091 SATISFACTORY TO SCALE: AS SPEC No. 05-12-0091 SHEET 57 OF 84

GENERAL NOTES: 1. THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO

ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES. THESE PLANS ARE

PARTIALLY DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS.

2. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.

4. INSULATE ENTIRE ATTIC SPACE WITH UNFACED R-30 BATT INSULATION.

3. INSTALL GAS PIPE INC ACCORDANCE WITH 2012 NORTH CAROLINA FUEL GAS CODE.

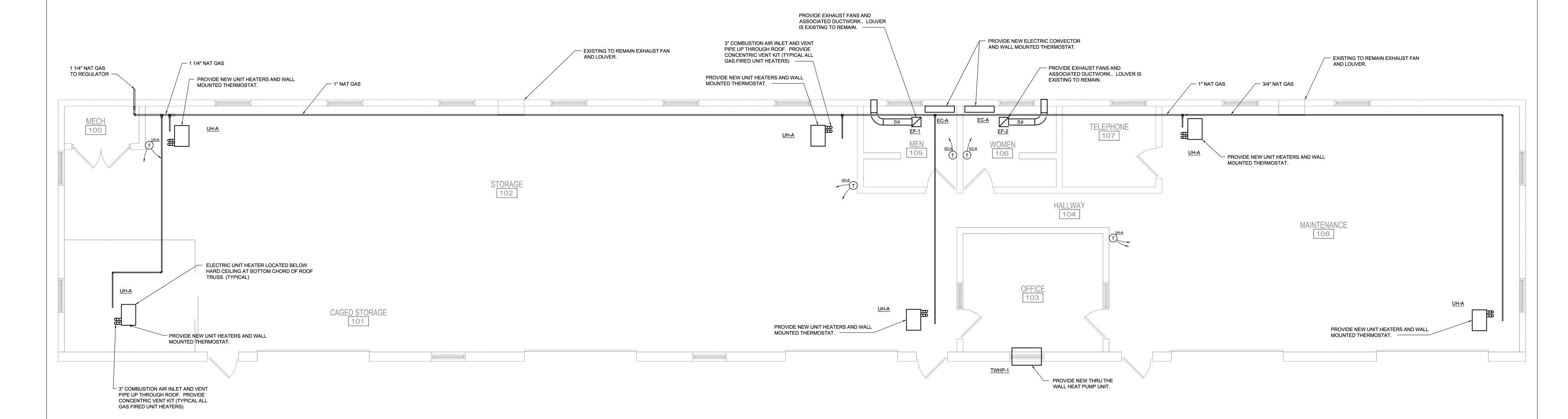
1. TOTAL CONNECTED NATURAL GAS DEMAND

FOR THIS BUILDING IS 180

MBH AT 10 IN-H20.

NATURAL GAS NOTE:

PREP'D BY DATE APPROVED





DISCLOSURE OF INFORMATION

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MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA DEPT OF NAVY IM HVAC/DHW IMPROVEMENTS, SWL VARIOUS FACILITIES, JHE **HADNOT POINT** SUBMITTED BY: BUILDING 1310 MECHANICAL NEW WORK PLAN DESIGN DIR. DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO. APPROVED: PWO OR OICC 60011402 DATE CONSTR CONTR NO. N40085-12-B-0091 SATISFACTORY TO SCALE: AS SPEC No. 05-12-0091 SHEET 58 OF 84

			_
SYM.	PREP'D BY	DATE	APPROVED

GAS FIRED UNIT HEATER SCHEDULE

SCHEDULE				
DESIGNATION	UH-A			
LOCATION	VARIOUS			
FUEL	NATURAL GAS			
AIRFLOW (CFM)	505			
THROW	HORIZONTAL			
INPUT (MBH)	30			
MINIMUM INLET GAS PRESSURE (IN. WC.)	6			
MAXIMUM INLET GAS PRESSURE (IN. WC.)	7			
CAPACITY (MBH)	24			
ENTERING AIR TEMPERATURE (DEG F)	60			
LEAVING AIR TEMPERATURE (DEG F)	103			
UNIT VOLTAGE	120			
PHASE	1			
FREQUENCY (HZ)	60			
BASED ON	MODINE			
MODEL	HDS 30			
REMARKS	60			
REMARKS LEGEND:	REMARKS LEGEND:			

1.	PROVIDE	INTEGRAL	DISCONNE	- :C

ELECTRIC CONVECTOR S	CHEDULE

DESIGNATION		EC-A
LOCATION		BATHROOMS
CABINET STYLE		CABINET
ELECTRIC COIL	MINIMUM CAPACITY (KW)	1.1
ELECTRIC COIL	ENTERING AIR TEMPERATURE (DEG F)	68
	UNIT TOTAL CURRENT (A)	3.6
ELECTRIC DATA	UNIT VOLTAGE (V)	208
ELECTRIC DATA	PHASE	1
	FREQUENCY (HZ)	60
BASED ON	BASED ON	
MODEL		CAF-12F211
REMARKS		1 & 2

REMARKS LEGEND: 1. PROVIDE BUILT-IN SINGLE PHASE TAMPERPROOF THERMOSTAT

2. PROVIDE BUILT-IN DISCONNECT

THRU TH	HE WALL HEAT PUMP S	ALL HEAT PUMP SCHEDULE	
UNIT DESIGNATION		TWHP-1	
LOCATION		OFFICE	
	AIRFLOW	240	
EVAPORATOR	MINIMUM TOTAL COOLING CAPACITY (MBH)	8.8	
	MINIMUM HEATING CAPACITY (MBH)	8.0	
ELECTRIC HEAT	HEATER KW	2	
	VOLTAGE (V)	208	
ELECTRICAL	PHASE	1	
	FREQUENCY (Hz)	60	
MINIMUM EFFICIENCY (I	EER)	11.2	
BASED ON		TRANE	
INDOOR UNIT MODEL		PTHC0901E	
AMBIENT DESIGN TEMP	PERATURE (DEG F)	95	
REMARKS		1, 2, 3	
DEMARKS LECEND.		•	

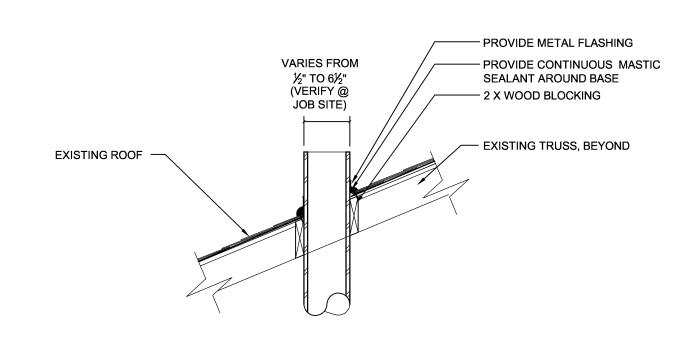
REMARKS LEGEND:

- 1. PROVIDE NEW WALL SLEEVE TO FIT IN EXISTING MASONRY OPENING.
- 2. PROVIDE STAMPED LOUVER AND EXTERIOR DRAIN KIT PIPED TO EXTERIOR. 3. PROVIDE FACTORY MOUNTED THERMOSTAT.

EXHAUST	FAN SCH	EDULE
NIT NO.	EF-1	EF-2
SAGE	EXHAUST	EXHAUST
ERVES ROOM(S)	HEAD	HEAD
ESCRIPTION	CEILING CABINET	CEILING CABINET
AN DATA		
AIRFLOW (SCFM)	200	200
TOTAL SP (IN-H2O)	0.375	0.375
RPM	966	966
DRIVE TYPE	DIRECT	DIRECT
OTOR DATA		
HORSEPOWER	83 WATTS	83 WATTS
RPM	1201	1201
VOLTS	115	115
PHASE	1	1
HERTZ	60	60
ELECTION BASED ON	GREENHECK	GREENHECK
MODEL	SP-A250	SP-A250
OTES	1, 2 & 5	1, 2 & 5
OTEC I ECENID.		-

NOTES LEGEND:

- 1. PROVIDE FAN WITH BACK-DRAFT DAMPER.
- 2. PROVIDE FAN WITH SPEED CONTROL.
- 3. PROVIDE THERMOSTAT CONTROL.
- 4. PROVIDE WALL HOUSING
- 5. PROVIDE ALUMINUM WHEEL, ALUMINUM GRILLE, AND TIME DELAY COMBINATION LIGHT SWITCH CONTROL.



ROOF PENETRATION DETAIL

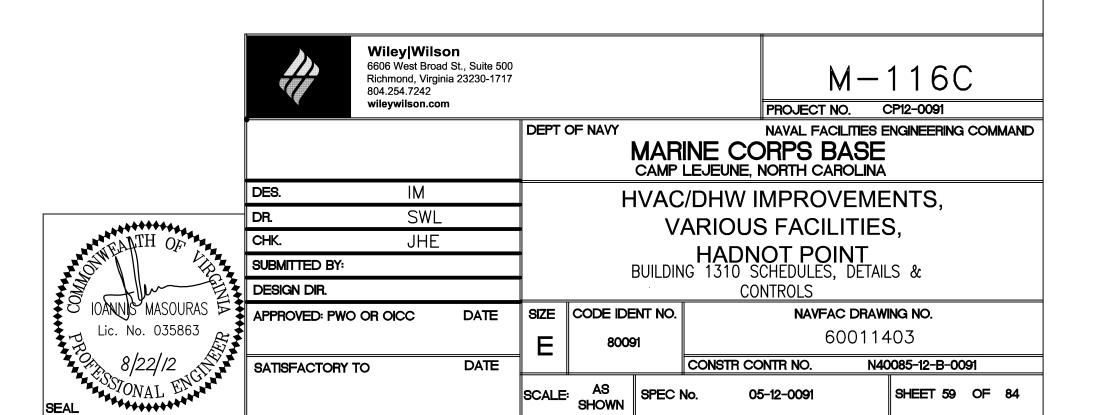
NOT TO SCALE

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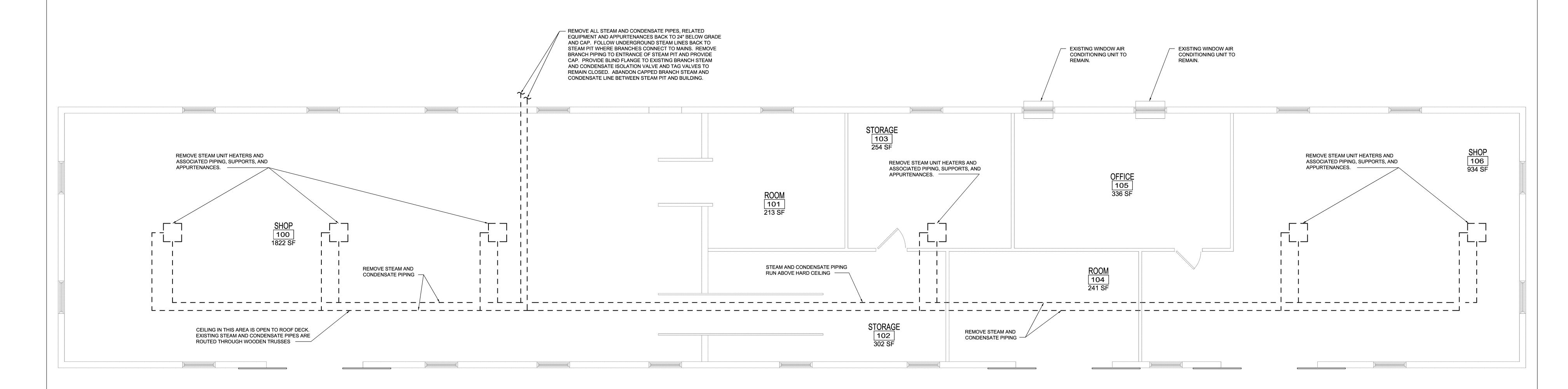


DEMOLITION NOTES:

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3. REMOVE ALL EQUIPMENT, DUCTWORK, DIFFUSERS, GRILLES, HANGERS AND INSULATION AS SHOWN.

PREP'D BY DATE APPROVED





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MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA DEPT OF NAVY IM HVAC/DHW IMPROVEMENTS, SWL VARIOUS FACILITIES, JHE **HADNOT POINT** SUBMITTED BY: BUILDING 1409 MECHANICAL DEMOLITION PLAN DESIGN DIR. DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO. APPROVED: PWO OR OICC 60011404 DATE CONSTR CONTR NO. N40085-12-B-0091 SATISFACTORY TO SCALE: AS SPEC No. 05-12-0091 SHEET 60 OF 84