

SYMBOLS (NOT ALL USED)

Table containing symbols and their corresponding descriptions under categories: GENERAL, DUCT ACCESSORIES & CONTROLS INSTRUMENTATION, LINETYPE, EQUIPMENT AIR MOVING DEVICE & COMPONENTS, FITTING & PIPING SPECIALTIES, and DEMOLITION NOTES.

ABBREVIATIONS (NOT ALL USED)

Table listing abbreviations and their full names, such as AFF ABOVE FINISHED FLOOR, ANH AIR HANDLING UNIT, ALU ALUMINUM, etc.

GENERAL NOTES

- 1. ALL WORK, INSTALLATION, AND MATERIALS SHALL COMPLY WITH ALL CURRENT GOVERNING CODES, BUILDING STANDARDS, REGULATIONS, SPECIFICATIONS, AND ALL OTHER REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION. WHERE REQUIREMENTS BETWEEN THESE VARY, THE MOST STRINGENT SHALL APPLY.

MECHANICAL NOTES

- 1. ALL DRAWINGS AND LAYOUTS ARE DIAGRAMMATIC TO SHOW DESIGN INTENT ONLY. LOCATIONS OF DUCTWORK, PIPING, AND EQUIPMENT ARE APPROXIMATE. DUCT PIPE OFFSETS, TRANSITIONS, TRANSITIONS AND HANGERS MAY NOT BE INDICATED. CONTRACTOR SHALL PROVIDE ALL TRANSITIONS AND STRINGINGS NECESSARY FOR COMPLETE AND FUNCTIONING SYSTEMS. IF FIELD CONDITIONS DIFFER SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS AND AFFECT MECHANICAL WORK OR THE RECORD DRAWING SHALL BE ACCURATELY REVISED TO SHOW THE CHANGES AS COMPLETED.

CODES AND STANDARDS

- CODES
• CALIFORNIA CODE OF REGULATIONS (CCR)
• TITLE 19: STATE FIRE MARSHAL REGULATIONS
• TITLE 20: CALIFORNIA CODE OF REGULATIONS OF REGULATORY AGENCIES
• TITLE 24: CALIFORNIA BUILDING STANDARDS CODE

MECHANICAL SHEET INDEX

Table with columns for sheet number, title, and description, listing sheets M001 through M089.

Table with columns for Date and Description, listing dates 01/07/2022 and 06/20/2022.

RESPONSIBILITY MATRIX

Table showing responsibility for various items, with columns for FURNISHED (GENERAL CONTRACTOR, OWNER, LANDLORD) and INSTALLED (GENERAL CONTRACTOR, OWNER, LANDLORD).

DESCRIPTION

Table listing descriptions of items such as DIVISION 23: HEATING, VENTILATING, AND AIR CONDITIONING, with specific sub-items like 23.1.1 HVAC DUCTWORK AND PIPING IDENTIFICATION.



WESTFIELD TOPANGA
6600 TOPANGA CANYON BLVD.
SPACE #F10
CANOGA PARK, CA 91303

Gensler
500 South Figueroa Street
Los Angeles, California 90071
United States
Contact:
Bryan Walsingham
Tel 213.327.3600
Fax 213.327.3601



2361 ROSECRANS AVENUE
SUITE 368
EL SEQUOIO, CA 90245
Tel 310.725.1500
Fax 310.725.4699



505 COLLINS ST
PO BOX 3505
SOUTH ATTLEBORO
MA 02703
Tel 508.399.6000
Fax 508.761.3620
Contact:
Michael Henderson
Tel 508.399.2392

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 1 of 12)
 Date Prepared: 12/20/2021

A. GENERAL INFORMATION

01 Project Location (City)	Caroga Park	04 Total Conditioned Floor Area	672
02 Climate Zone	9	05 Total Unconditioned Floor Area	0
03 Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	1
<input type="checkbox"/> Office (O)	<input type="checkbox"/> Retail (R)	<input type="checkbox"/> Non-refrigerated Warehouse (W)	
<input type="checkbox"/> Hotel/Motel Guest Rooms (H-1)	<input type="checkbox"/> School (E)	<input type="checkbox"/> Healthcare Facility (H)	
<input type="checkbox"/> High-Rise Residential (R-2/J-R)	<input type="checkbox"/> Relocatable Class Bldg (E)	<input type="checkbox"/> Other (write in)	See Table J

B. PROJECT SCOPE
 This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §150.5.2, or §141.0(b)(2) for alterations.

01	02	03
Air System(s)	Wet System Components	Dry System Components
<input checked="" type="checkbox"/> Heating Air System	<input type="checkbox"/> Water Economizer	<input type="checkbox"/> Air Economizer
<input type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
Mechanical Controls	System Piping	Fan Systems
<input checked="" type="checkbox"/> Mechanical Controls (existing to remain, altered or new)	<input type="checkbox"/> Cooling Towers	<input checked="" type="checkbox"/> Ductwork (existing to remain, altered or new)
<input type="checkbox"/> Chillers	<input checked="" type="checkbox"/> Ventilation	
<input type="checkbox"/> Boilers	<input type="checkbox"/> Zonal Systems/Terminal Boxes	

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 4 of 12)
 Date Prepared: 12/20/2021

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
 Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode			Cooling Mode			Design Efficiency
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	
FOH/BOH	>=65,000 and <135,000					EER	11.2	12.2

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
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Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 5 of 12)
 Date Prepared: 12/20/2021

H. FAN SYSTEMS & AIR ECONOMIZERS
 This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(d), and §140.4(m) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	Kitchen	Economizer ¹	NA: Special OA Filtration	Economizer Controls	Designed per §140.4(e) and (m)	System Fan Type	Constant Volume	
01	02	03	04	05	06	07	08	
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit ²	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	Design Airflow through Device (CFM)	
SF	Supply	1	2200	BHP	0.67	Fully ducted return/exhaust	2385	
Total System Design Supply Airflow (CFM):						2200	Total System Design (BHP):	0.67

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 7 of 12)
 Date Prepared: 12/20/2021

J. VENTILATION AND INDOOR AIR QUALITY

System Name	FOH/BOH	System Design OA CFM Airflow ¹	221	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)(2) ¹
08	09	10	11	12	13	14
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c) ¹	Conditioned Floor Area (ft ²)	# of Shower heads/toilets	# of people ²	Required Min OA CFM	Provided per Design CFM
101-FOH	Cafeteria/fastfood dining	225		112.5	0	0
102-BOH	Cafeteria/fastfood dining	120		60	0	0
102-BOH	Cafeteria/fastfood dining	97		48.5	0	0
17	Total System Required Min OA CFM	221	18	Ventilation for this System Complex?	Yes	Yes

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 8 of 12)
 Date Prepared: 12/20/2021

K. TERMINAL BOX CONTROLS
 This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK AND PIPING)
 This table is used to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(f) for duct leakage testing.

System Name	FOH/BOH	System Design OA CFM Airflow ¹	221	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)(2) ¹
08	09	10	11	12	13	14
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c) ¹	Conditioned Floor Area (ft ²)	# of Shower heads/toilets	# of people ²	Required Min OA CFM	Provided per Design CFM
101-FOH	Cafeteria/fastfood dining	225		112.5	0	0
102-BOH	Cafeteria/fastfood dining	120		60	0	0
102-BOH	Cafeteria/fastfood dining	97		48.5	0	0
17	Total System Required Min OA CFM	221	18	Ventilation for this System Complex?	Yes	Yes

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 10 of 12)
 Date Prepared: 12/20/2021

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Yes	No	Form/Title	Systems To be Field Verified	Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.		<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-03-A - Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes" if Constant Volume Single Zone HVAC systems are included in the scope, permit applicant should move this form to "Yes".		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-04-A - Air Distribution Duct Leakage		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-05-A - Air Economizer Controls		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)(3) for any variable outdoor ventilation flow rates based on maintaining interior carbon dioxide (CO ₂) concentration setpoints.		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-08-A Valve Leakage Test		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-11-A Automatic Demand Shed Controls		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance		<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance NOTE: This form does not automatically move to "Yes" if Distributed Energy System DX AC systems are included in the scope permit applicant should move this form to "Yes".		<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 11 of 12)
 Date Prepared: 12/20/2021

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
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Yes	No	Form/Title	Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-04-H Duct Leakage Test NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-24 Enclosure Air Leakage Worksheet NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-27 High-Rise Residential NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-33 Local Mechanical Exhaust NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 12 of 12)
 Date Prepared: 12/20/2021

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
 This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01	02
Compliance with Mandatory Measures documented through MCH	Plan sheet or construction document location
Mandatory Measures Note Block	M-Sheets

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 2 of 12)
 Date Prepared: 12/20/2021

C. COMPLIANCE RESULTS
 Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES WITH EXCEPTIONAL CONDITIONS" refer to Table D, or the table indicated as not compliant for guidance.

01	02	03	04	05	06	07	08	09
System Summary	AND	AND	AND	AND	AND	AND	AND	AND
§110.1, §110.2, §140.4	§140.4(f)	§140.4(f), §140.4(g)	§120.2, §140.4(i)	§120.1	§140.4(f)	§120.3, §140.4(f)	§110.2(a)(2)	Compliance Results
(See Table G)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	COMPLIES
Mandatory Measures Compliance (See Table Q for Details)								

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 5 of 12)
 Date Prepared: 12/20/2021

I. SYSTEM CONTROLS
 This table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)(2) for altered space conditioning systems.

System Name	FOH/BOH	Economizer ¹	NA: Special OA Filtration	Economizer Controls	Designed per §140.4(e) and (m)	System Fan Type	Constant Volume	
01	02	03	04	05	06	07	08	
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit ²	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	Design Airflow through Device (CFM)	
SF	Supply	1	2200	BHP	0.67	Fully ducted return/exhaust	2385	
Total System Design Supply Airflow (CFM):						2200	Total System Design (BHP):	0.67

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 6 of 12)
 Date Prepared: 12/20/2021

J. VENTILATION AND INDOOR AIR QUALITY
 This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(c)(3) for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

01	02	03	04	05	06	07	08	09
01	<input type="checkbox"/>	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.						
02	<input checked="" type="checkbox"/>	Check this box if the project included Nonresidential or Hotel/Motel spaces						
03	<input type="checkbox"/>	Check this box if the project included new or altered high-rise residential dwelling units.						
Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)(3).								

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 8 of 12)
 Date Prepared: 12/20/2021

L. DISTRIBUTION (DUCTWORK AND PIPING)
 The answers to the questions below apply to the following duct systems: FOH/BOH Duct leakage testing triggered for these systems? No

System Name	FOH/BOH	System Design OA CFM Airflow ¹	221	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)(2) ¹
08	09	10	11	12	13	14
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c) ¹	Conditioned Floor Area (ft ²)	# of Shower heads/toilets	# of people ²	Required Min OA CFM	Provided per Design CFM
102-BOH	Cafeteria/fastfood dining	230		115	0	3310
17	Total System Required Min OA CFM	221	18	Ventilation for this System Complex?	Yes	Yes

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 9 of 12)
 Date Prepared: 12/20/2021

M. COOLING TOWERS
 This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
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Yes	No	Form/Title	Field Inspector
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-01-E - Must be submitted for all buildings	<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 11 of 12)
 Date Prepared: 12/20/2021

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
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Yes	No	Form/Title	Field Inspector
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-04-H Duct Leakage Test NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-24 Enclosure Air Leakage Worksheet NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-27 High-Rise Residential NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRVC-MCH-33 Local Mechanical Exhaust NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 12 of 12)
 Date Prepared: 12/20/2021

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
 This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01	02
Compliance with Mandatory Measures documented through MCH	Plan sheet or construction document location
Mandatory Measures Note Block	M-Sheets

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 1 of 12)
 Date Prepared: 12/20/2021

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
 This table is used to demonstrate compliance for mechanical equipment with mandatory requirements found in §110.1 and §110.2(a), and prescriptive requirements found in §140.4(f), §140.4(g), and §140.4(h) or §141.0(b)(2) for alterations.

01	02	03	04	05	06	07	08	09	10	11	
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 / Title 20	Smallest Size Available ¹ §140.4(f)	Heating Output ^{1,3}			Cooling Output ^{1,3}			Total Heating Load (kBtu/h)	Total Cooling Load (kBtu/h)
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)			
Kitchen	Unitary AC/ Condensers	AC, air-cooled pkg (3 phase)	NA: Load Controls	170.66	170.66	0	63.75	60	174.89	70.19	
FOH/BOH	Unitary AC/ Condensers	AC, air cooled, split (3 phase)	NA: Load Controls	0	0	0	53.04	53.5	10.6	57.27	

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

Mechanical Systems
 CERTIFICATE OF COMPLIANCE
 Project Name: Shake Shack Topanga
 Project Address: 6600 Topanga Canyon Blvd #F1010
 Report Page: (Page 6 of 12)
 Date Prepared: 12/20/2021

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode			Cooling Mode			Design Efficiency
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	
Kitchen	<=65,000					AFUE	0.80	10
Total System Design Supply Airflow (CFM):						2200		

STATE OF CALIFORNIA
Domestic Water Heating System
 NRC-C-PLB-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-C-PLB-E
 This document is used to demonstrate compliance for nonresidential occupancies with requirements in §110.1, §110.3, §120.3, and §140.5, and with requirements in §141.0 for additions and alterations, for domestic water heating systems used with the prescriptive path. For high-rise residential and hotel/motel occupancies compliance is demonstrated with requirements in §110.1, §110.3, §120.3, §150.0, and §150.1(a), and with requirements §150.2 for additions.
 Project Name: Shake Shack Topanga Report Page: (Page 1 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

A. GENERAL INFORMATION

01 Project Location (City)	Canoga Park	02 Climate Zone	9
03 Occupancy Types Within Project (select all that apply):			
<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel	
<input type="checkbox"/> State Building	<input type="checkbox"/> Healthcare Facility	<input type="checkbox"/> Other (Write In)	

B. PROJECT SCOPE
 This table includes domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in §120.6, §150.1(a), and §150.2(a) or §150.2(b) for additions or alterations. Solar water heating systems are documented on the NRC-C-SRA compliance document. Combined hydronic water heating systems are documented on the NRC-C-MCH compliance document.

01 My project consists of (check all that apply):	02 System Type: ^{1,2}	03 System Components
<input checked="" type="checkbox"/> New system (DHW system being installed for the first time in newly constructed building)	Individual System (serving nonresidential spaces)	<input checked="" type="checkbox"/> Equipment <input checked="" type="checkbox"/> Distribution <input checked="" type="checkbox"/> Controls
<input type="checkbox"/> System Alteration (equipment, distribution or controls)		<input type="checkbox"/> Equipment <input type="checkbox"/> Distribution <input type="checkbox"/> Controls

FOOTNOTES: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.
 Dwelling units refers to hotel/motel guest rooms and units in a high-rise residential occupancy.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Domestic Water Heating System
 NRC-P-PLB-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-P-PLB-E
 Project Name: Shake Shack Topanga Report Page: (Page 4 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

TABLE 120.3-A PIPE INSULATION THICKNESS					
Fluid Temperature Range (°F)	Conductivity Range (Btu-in per foot per ft² per °F)	Insulation Mean Rating Temp. (°F)	Nominal Pipe Diameter (in)		
			< 1	1 to < 1.5	1.5 to < 4
105-140	0.22 - 0.28	300	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11

H. DOMESTIC HOT WATER CONTROLS
 This table is used to demonstrate compliance with control requirements in §110.1 for all occupancies. For high-rise residential and hotel/motel occupancies, compliance is also demonstrated with requirements in §150.1(a).

	Yes	No	Not Applicable	Requirement
01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per §110.3(a).
02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per §110.3(c)(1) unless covered by California Plumbing Code §133.4
03	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)(2) unless systems serve healthcare facility.
04	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For recirculation systems serving multiple dwelling units, design includes automatic pump controls per §150.1(c)(8B), or §150.2 for additions or alterations.
05	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix B.4.4.2 per §150.1(a)(8).
06	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	For replacement single heat pump water heaters serving individual dwelling units in climate zone 1-15, design includes communication interface that meets demand responsive control requirements of §110.1(a) per §150.2(b)(1)(H).

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Process Systems
 NRC-PC-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-PC-E
 This document demonstrates compliance for process systems that are within the scope of the permit application and are regulated by mandatory requirements in §120.6, or prescriptive requirements in §140.0. This compliance document is used for newly constructed, addition and alteration projects.
 Project Name: Shake Shack Topanga Report Page: (Page 1 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

A. GENERAL INFORMATION

01 Project Location (City)	Canoga Park	04 Total Conditioned Floor Area	672
02 Climate Zone	9	05 Total Unconditioned Floor Area	0
03 Occupancy Types Within Project:			
<input type="checkbox"/> Office	<input type="checkbox"/> Retail	<input type="checkbox"/> Non-refrigerated Warehouse	
<input type="checkbox"/> Hotel/ Motel	<input type="checkbox"/> School	<input type="checkbox"/> Healthcare Facility	
<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Relocatable Class Bldg	<input checked="" type="checkbox"/> Other (write in)	

B. PROJECT SCOPE
 This table includes process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in §120.6, or prescriptive requirements in §140.0.
 My project consists of: (check all that apply):

01	02
<input type="checkbox"/> Refrigerated Spaces < 3,000 ft² Total (not Title 24, Part 6 requirements)	<input type="checkbox"/> Elevator Lighting & Ventilation Controls (mandatory §120.6(f))
<input type="checkbox"/> Refrigerated Spaces ≥ 3,000 ft² Total (mandatory §120.6(a))	<input type="checkbox"/> Escalator & Moving Walkway Speed Controls (mandatory §120.6(e))
<input type="checkbox"/> Food Stores > 8,000 ft² cfa (mandatory §120.6(b))	<input type="checkbox"/> Computer Rooms > 20 W/ft² Power Density (prescriptive §140.5(a)) ¹
<input type="checkbox"/> Enclosed Parking Garage Exhaust > 10,000 cfm (mandatory §120.6(d))	<input type="checkbox"/> Commercial Kitchen Ventilation/Exhaust (prescriptive §140.5(b)) ¹
<input type="checkbox"/> Newly Installed Process Boilers (mandatory §120.6(f))	<input type="checkbox"/> Laboratory Exhaust/Factory Exhaust & Fume Hood (prescriptive §140.5(c)) ¹
<input type="checkbox"/> Compressed Air Systems Combined HP > 25 (mandatory §120.6(e))	

FOOTNOTES: These building features can comply using the performance method. If using the performance method for these features, compliance shall be demonstrated on the NRC-C-PWF-E.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Process Systems
 NRC-PC-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-PC-E
 Project Name: Shake Shack Topanga Report Page: (Page 4 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

G. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks: These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTC). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRC/

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-01-F Compressed Air Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-02-F Kitchen Exhaust	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-03-F Garage Exhaust	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-04-F Refrigerated Warehouses - Evaporator Fan Motor Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-05-F Refrigerated Warehouses - Evaporative Condenser Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-06-F Refrigerated Warehouses - Air Cooled Condenser Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-16-F Refrigerated Warehouses - Adiabatic Condenser Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-07-F Refrigerated Warehouses - Variable Speed Compressor	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-08-F Refrigerated Warehouses - Electric Resistance Underlab Heating System	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-12-F Elevator Lighting & Ventilation Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-13-F Escalators & Moving Walkways Speed Controls	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-14-F Lab Exhaust Ventilation Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-15-F Fume Hood Automatic Sash Closure Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Domestic Water Heating System
 NRC-P-PLB-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-P-PLB-E
 Project Name: Shake Shack Topanga Report Page: (Page 2 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

C. COMPLIANCE RESULTS
 Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to table D, or the table indicated as not compliant for guidance.

01	02	03	04
Domestic Hot Water Equipment	Distribution Systems	Controls	Compliance Results
Table F	Table G	Table H	
Yes	Yes	Yes	COMPLIES

D. EXCEPTIONAL CONDITIONS
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Domestic Water Heating System
 NRC-P-PLB-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-P-PLB-E
 Project Name: Shake Shack Topanga Report Page: (Page 1 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks: These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRC/

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PLB-01-E Must be submitted for all buildings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PLB-02-E Must be submitted for high-rise residential and hotel/motel central hot water distribution systems to be recognized for compliance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PLB-03-E Must be submitted for high-rise residential and hotel/motel single dwelling unit hot water distribution systems to be recognized for compliance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 There are No Certificates of Acceptance applicable to service water heating requirements.

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
 Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks: These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Provider's registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRC/

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCV-PLB-21-H High-Rise Residential Central Hot Water Distribution HERS Verification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCV-PLB-22-H High-Rise Residential Individual Dwelling Unit Hot Water Distribution HERS Verification	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Process Systems
 NRC-PC-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-PC-E
 Project Name: Shake Shack Topanga Report Page: (Page 2 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

C. COMPLIANCE RESULTS
 Results in this table are automatically calculated from data input and calculations in Tables F through O. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable table referenced below.

01	02	03	04	05	06	07	08	09	10	11
Refrigerated Warehouse/Space (See Table F)	Commercial Refrigeration (See Table G)	Parking Garage (See Table H)	Process Boilers (See Table I)	Compressed Air Systems (See Table J)	Escalators & Moving Walkways (See Table K)	Computer Rooms (See Table L)	Commercial Kitchens (See Table M)	Laboratory/Factory Exhaust (See Table N)		Compliance Results
										COMPLIES

D. EXCEPTIONAL CONDITIONS
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. REFRIGERATED WAREHOUSES/SPACES
 This section does not apply to this project.

G. COMMERCIAL REFRIGERATION
 This section does not apply to this project.

H. ENCLOSED PARKING GARAGE EXHAUST
 This section does not apply to this project.

I. PROCESS BOILER
 This section does not apply to this project.

J. COMPRESSED AIR SYSTEMS
 This section does not apply to this project.

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Process Systems
 NRC-PC-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-PC-E
 Project Name: Shake Shack Topanga Report Page: (Page 4 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

G. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
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Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-01-E Covered Process	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Domestic Water Heating System
 NRC-P-PLB-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-P-PLB-E
 Project Name: Shake Shack Topanga Report Page: (Page 3 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

F. DOMESTIC HOT WATER EQUIPMENT
 This table is used to demonstrate compliance with mandatory equipment requirements in §120.1 and §120.3. For high-rise residential and hotel/motel occupancies, compliance with prescriptive requirements in §150.1(a) must also be demonstrated and with §150.2 for addition and alteration scopes.

01	02	03	04	05	06
Name or Item Tag	Equipment Type	Volume (gal)	Max GPM/1 Hour Rating (FHR)	Rated Uniform Energy Factor (UEF)	Minimum Required Uniform Energy Factor (UEF) ¹
1	Residential-Duty Commercial Gas-Fired Storage (75,000-105,000 BTUH)	61-75	GPM >= 4.0	0.81	0.6

FOOTNOTE: Compliant equipment may be found in the Modernized Appliance Efficiency Database System (MAEDBS) on the Energy Commission website: <https://caenergysystems.energy.ca.gov/Pages/Search/AdvancedSearch.aspx>

Water Heating Equipment All Occupancies

01	02	03	04	05	06
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Unfired storage tank insulation shall have Internal + External >=R-16 OR External >=R-12. Label required per §110.3(a)(3)
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	New state buildings 60% of energy for service water heating from solar energy or recovered energy per §110.3(a)(5)
20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Isolation valves for instantaneous water heater with input rating <= 8.8 MBTUH or 2 kW has been specified per §110.3(a)(6)

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2021-12-20 09:23:25

STATE OF CALIFORNIA
Domestic Water Heating System
 NRC-P-PLB-E CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRC-P-PLB-E
 Project Name: Shake Shack Topanga Report Page: (Page 4 of 6)
 Project Address: 6600 Topanga Canyon Blvd #F10 Date Prepared: 12/20/2021

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM
 This table is used to demonstrate compliance for nonresidential occupancies with distribution requirements in §120.3 and §150.1. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements §110.3(a), §120.3, §150.1, §150.1(a), §150.1(b), §150.1(c), §150.1(d), §150.1(e), §150.1(f), §150.1(g), §150.1(h), §150.1(i), §150.1(j), §150.1(k), §150.1(l), §150.1(m), §150.1(n), §150.1(o), §150.1(p), §150.1(q), §150.1(r), §150.1(s), §150.1(t), §150.1(u), §150.1(v), §150.1(w), §150.1(x), §150.1(y), §150.1(z), §150.1(aa), §150.1(ab), §150.1(ac), §150.1(ad), §150.1(ae), §150.1(af), §150.1(ag), §150.1(ah), §150.1(ai), §150.1(aj), §150.1(ak), §150.1(al), §150.1(am), §150.1(an), §150.1(ao), §150.1(ap), §150.1(aq), §150.1(ar), §150.1(as), §150.1(at), §150.1(au), §150.1(av), §150.1(aw), §150.1(ax), §150.1(ay), §150.1(az), §150.1(ba), §150.1(bb), §150.1(bc), §150.1(bd), §150.1(be), §150.1(bf), §150.1(bg), §150.1(bh), §150.1(bi), §150.1(bj), §150.1(bk), §150.1(bl), §150.1(bm), §150.1(bn), §150.1(bo), §150.1(bp), §150.1(bq), §150.1(br), §150.1(bs), §150.1(bt), §150.1(bu), §150.1(bv), §150.1(bw), §150.1(bx), §150.1(by), §150.1(bz), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §150.1(cs), §150.1(ct), §150.1(cu), §150.1(cv), §150.1(cw), §150.1(cx), §150.1(cy), §150.1(ca), §150.1(cb), §150.1(cc), §150.1(cd), §150.1(ce), §150.1(cf), §150.1(cf), §150.1(ch), §150.1(ci), §150.1(cj), §150.1(ck), §150.1(cl), §150.1(cm), §150.1(cn), §150.1(co), §150.1(cp), §150.1(cq), §150.1(cr), §15

MECHANICAL PLAN NOTES

IT IS THE RESPONSIBILITY OF TENANT, TENANT'S ARCHITECT, AND TENANT'S CONTRACTOR TO VERIFY ALL EXISTING FIELD CONDITIONS INCLUDING, BUT NOT LIMITED TO THE VERIFICATION OF BUILDING DIMENSIONS, CLEAR HEIGHTS, ADA ACCESSIBILITY, SLAB CONDITIONS, AND UTILITY SERVICE ENTRANCES AND SIZES, WHICH MAY AFFECT TENANT'S WORK. FAILURE OF TENANT, TENANT'S ARCHITECT, OR TENANT'S CONTRACTOR TO VERIFY EXISTING CONDITIONS SHALL NOT RELIEVE TENANT OF ANY EXPENSES OR RESPONSIBILITIES RESULTING FROM SUCH FAILURE, NOR SHALL LANDLORD HAVE ANY LIABILITY OR OBLIGATION TO THE TENANT ARISING FROM SUCH FAILURE.

ANY AND ALL EXISTING ROOF-TOP EQUIPMENT (HVAC UNITS, CURBS, FANS, CONTROLS, PIPING, VENTS, ETC.) THAT IS NOT TO BE RE-USED BY TENANT MUST BE REMOVED AND PROPERLY DISCARDED AT TENANT'S EXPENSE. NO TENANT EQUIPMENT WHATSOEVER IS TO BE ABANDONED IN PLACE. THIS DOES NOT APPLY TO COMMON EQUIPMENT THAT SERVES MULTIPLE TENANTS.

TENANT MAY, AT LANDLORD'S SOLE DISCRETION, RECYCLE EXISTING CONSTRUCTION, EQUIPMENT, AND ANY MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS (INCLUDING HVAC), PROVIDED SUCH REUSE IS APPROPRIATE FOR TENANT'S APPLICATION AND OCCUPANCY, AND ARE RECONDITIONED, REPAIRED, AND/OR REFURBISHED AS REQUIRED TO BRING THE EXISTING ITEMS TO A "LIKE-NEW" CONDITION.

REUSE OF EXISTING IMPROVEMENTS SHALL BE CLEARLY INDICATED ON TENANT'S DRAWINGS, AND SUBJECT TO LANDLORD'S PRIOR WRITTEN APPROVAL. LANDLORD MAKES NO WARRANTY OR REPRESENTATION AS TO THE CONDITION OR SUITABILITY OF ANY IMPROVEMENTS THAT MAY BE APPROVED FOR REUSE BY TENANT.

TENANT'S APPLICATION AND/OR RE-USE OF EXISTING SYSTEMS OR CONSTRUCTION SHALL NOT INTERFERE WITH, OR COMPROMISE THE INTEGRITY OF, LANDLORD'S BASE BUILDING SYSTEMS, OR IMPACT THE INSTALLED IMPROVEMENT AND SYSTEMS OF ADJACENT TENANT SPACES, OR COMMON AREAS.

ANY CHANGES, ADDITIONS, OR UPGRADES TO EXISTING IMPROVEMENTS PROPOSED BY TENANT, SHALL BE (A) APPROVED BY LANDLORD, (B) APPROPRIATELY DESIGNED AND/OR ENGINEERED BY TENANT'S CONSULTANTS TO CODE, (C) COMPLY WITH LANDLORD'S STANDARD PROJECT DETAILS, AND (D) PERFORMED AT TENANT'S EXPENSE.

IF AT ANY TIME, A FAILURE OCCURS AS A RESULT OF TENANT'S CHANGE, ADDITION, OR UPGRADE TO AN EXISTING SYSTEM, TENANT SHALL REPAIR/REPLACE THE SYSTEM AND ALL SUPPLEMENTAL AND CORRESPONDING IMPROVEMENTS AS REQUIRED, IN AN IMMEDIATE FASHION AND WITH URGENCY.

TENANT'S ROOFTOP AND SUSPENDED HVAC EQUIPMENT MUST BE SUPPORTED IN STRICT ACCORDANCE WITH LANDLORD'S STANDARD PROJECT DETAILS. THE TENANT IS RESPONSIBLE FOR VERIFYING THAT THE EXISTING STRUCTURAL ROOF FRAMING MEMBERS ARE PROPERLY SIZED AND SPACED TO ACCOMMODATE TENANT'S EQUIPMENT AS LOCATED BY TENANT'S DRAWINGS. IF TENANT'S EQUIPMENT OR OTHER SUPPORTED LOADS EXCEED THE MAXIMUM ALLOWED BY LANDLORD'S STANDARD PROJECT DETAILS OR, IF IN THE LANDLORD'S OPINION, SUCH LOADS REQUIRE SUPPLEMENTAL STRUCTURAL ANALYSIS, TENANT SHALL, AT TENANT'S EXPENSE, EMPLOY A STRUCTURAL ENGINEER, LICENSED IN THE AREA OF JURISDICTION WHERE THE WORK IS TO BE PERFORMED, TO EVALUATE AND DESIGN THE REQUIRED SUPPORT NECESSARY TO MAINTAIN THE STRUCTURAL INTEGRITY OF LANDLORD'S INVESTMENT. ALL STRUCTURAL CALCULATIONS AND MODIFICATIONS ARE SUBJECT TO A PEER REVIEW OF TENANT'S PLANS FROM LANDLORD'S STRUCTURAL ENGINEER OF RECORD, UNDER CONTRACT WITH THE TENANT, AT TENANT'S EXPENSE.

ALL WORK AFFECTING OR PERTAINING TO THE ROOF, INCLUDING ROOF PENETRATION AND INSTALLATION OF STRUCTURAL SUPPORTS, CURBING AND FLASHING ON OR TO THE ROOF, SHALL BE PERFORMED IN ACCORDANCE WITH LANDLORD'S STANDARD PROJECT DETAILS. ALL ROOF WORK, INCLUDING CUTTING OF THE ROOF MEMBRANE, REPAIR, OR MAINTENANCE OF SUCH WORK SHALL ONLY BE PERFORMED BY THE LANDLORD'S DESIGNATED ROOF CONTRACTOR UNDER CONTRACT WITH THE TENANT, AT TENANT'S EXPENSE.

THE TENANT IS REQUIRED TO INSTALL "TRAFFIC/WALK OFF PADS" TO AND AROUND ALL TENANT'S ROOF-TOP EQUIPMENT FROM THE ROOM ACCESS LADDER/HATCH. CONTACT LANDLORD'S PROPERTY OPERATIONS DIRECTOR AND/OR REQUIRED ROOFING CONTRACTOR FOR MATERIAL/PRODUCT SPECIFICATIONS AND PLACEMENT.

TENANT SHALL HAVE ALL ROOF TOP UNITS AND EQUIPMENT LABELED WITH TENANT NAME, SPACE NUMBER AND EQUIPMENT IDENTIFIER - I.E. RTU-1, EF-1, ETC. IN ACCORDANCE WITH LANDLORD'S STANDARD PROJECT DETAILS.

ROOF TOP UNITS AND EQUIPMENT MUST BE LOCATED A MINIMUM OF 5'-0" OFF DEMISING WALLS AND ARE SUBJECT TO LANDLORD AND/OR JURISDICTIONAL SCREENING REQUIREMENTS, AT TENANT'S EXPENSE.

NEW ROOFTOP UNITS SHALL BE SET ON A NEW FACTORY SUPPLIED CURB. NO CURB ADAPTERS ARE PERMITTED.

ROOF CURBS SHALL BE NO LESS THAN 12" IN HEIGHT, SIT LEVEL, AND PARALLEL WITH THE ROOF-TOP UNIT, AND PROPERLY FLASHED IN ACCORDANCE WITH LANDLORD'S STANDARD PROJECT DETAILS. SURROUNDING SURFACES SHALL BE PROPERLY SLOPED TO MAINTAIN PROPER DRAINAGE. NO HORIZONTAL PLANES WILL BE PERMITTED.

ALL DUCTWORK, CONDENSATE PIPING, AND ELECTRICAL CONDUIT SHOULD BE INSTALLED WITHIN THE CURB PERIMETER. PITCH POCKETS ARE NOT PERMITTED.

ROOFTOP UNITS REQUIRE A HAIL GUARD ON THE CONDENSER COIL.

ALL EXTERIOR CONDENSATE PIPING MUST BE ROUTED TO AN INTERIOR FLOOR DRAIN, HUB, OR MOP SINK WITHIN THE TENANT'S SPACE. CONDENSATE CANNOT DRAIN ONTO THE ROOF, OR BE PIPED TO A DOWN SPOUT, SCUPPER, OR STORM DRAIN, ETC.

TENANT MAY BE REQUIRED TO INSTALL FIRE DAMPERS, AND/OR TIE INTO AN EXISTING SMOKE EVACUATION SYSTEM. CONTACT LANDLORD'S REQUIRED FIRE ALARM VENDOR FOR SYSTEM DETAILS AND EQUIPMENT SPECIFICATIONS.

ABSOLUTELY NO ATTACHMENTS, PENETRATIONS, OR BRACING OF ANY KIND SHALL BE MADE TO THE UNDERSIDE OF LANDLORD'S ROOF DECK WITHOUT EXCEPTION. TENANT'S IN FIRST LEVEL SPACES WITH CONCRETE PANE DECK DIRECTLY ABOVE SHALL UTILIZE CLAMPS AND UNISTRUT TO THE GREATEST EXTENT POSSIBLE. PENETRATIONS TO THE BOTTOM FLUTE MAY BE PERMITTED, BUT ONLY AS APPROVED BY THESE DRAWINGS.

SLAB ON GRADE PENETRATIONS AND TRENCHING ARE TYPICALLY NOT ALLOWED. TENANT MAY CHANNEL OR SAW-CUT SLABS ON GRADE ONLY WITH LANDLORD'S PRIOR WRITTEN APPROVAL. DRAWINGS MUST PROVIDE A TRENCH REPAIR DETAIL THAT RESTORES AND MAINTAINS THE STRUCTURAL INTEGRITY OF LANDLORD'S SLAB.

TENANT MAY NOT CHANNEL, JACK-HAMMER, OR SAW-CUT SUSPENDED STRUCTURAL OR POST TENSIONED SLABS. CORING OF THE SLAB MAY BE PERMITTED WITH LANDLORD'S PRIOR WRITTEN APPROVAL OF THE CORE SIZE AND LOCATION. TENANT IS RESPONSIBLE FOR HAVING SUSPENDED STRUCTURAL AND POST TENSIONED SLABS X-RAYED PRIOR TO MAKING ANY PENETRATIONS. PENETRATIONS FOR POWER DRIVEN FASTENERS WITH A MAXIMUM 3/4" PENETRATIONS INTO PT SLABS WILL BE PERMITTED, AS WELL AS PENETRATIONS FOR ANCHOR BOLTS, IF IT CAN BE SHOWN THAT THE INSERTS WILL NOT SPALL THE CONCRETE AND ARE LOCATED TO AVOID ANY TENDONS, PRIMARY REINFORCEMENTS, AND ANCHORAGES. IF IN THE OPINION OF LANDLORD, TENANT'S PENETRATIONS REQUIRE ADDITIONAL STRUCTURAL REVIEW, TENANT SHALL PROVIDE ADDITIONAL STRUCTURAL REVIEW UPON LANDLORD'S REQUEST, AT TENANT'S EXPENSE. ALL PENETRATIONS SHALL BE SLEEVED, SEALED, FIRE STOPPED, AND WATERPROOFED. THE PENETRATION SLEEVE SHALL EXTEND A MINIMUM OF 4" ON EITHER SIDE OF THE SLAB, AND BE LABELED WITH THE REQUIRED NFPA RATING.

IF THE POTENTIAL EXISTS, IN NORMAL COURSE OF TENANT'S BUSINESS, FOR SOUNDS OR VIBRATIONS OF ANY KIND TO TRANSMIT THROUGH SHARED WALLS, FLOORS, CEILINGS, OR COMMON AREAS, TENANT SHALL BE REQUIRED TO PROVIDE ADDITIONAL SOUND ATTENUATION AND/OR INSTALL VIBRATION ISOLATORS AS NECESSARY TO PRESERVE AND PROMOTE THE "QUIET ENJOYMENT" OF THE CENTER. IN SOME CASES, TENANT MAY BE REQUIRED TO OBTAIN AN ACOUSTIC STUDY FROM LANDLORD'S ACOUSTICAL CONSULTANT, UNDER CONTRACT WITH THE TENANT, AT TENANT'S EXPENSE.

ANY BUILDING EQUIPMENT, COMPONENT, UTILITY, AND/OR SERVICE EXTENDING TO OTHER TENANT SPACES OR MALL COMMON AREAS THAT EXISTS IN TENANT'S SPACE MUST REMAIN INTACT, AND ACCESSIBLE TO LANDLORD. TENANT SHALL INSTALL ACCESS PANELS AS REQUIRED TO MAINTAIN THIS ACCESS. PANELS SHALL BE CLEARLY LABELED TO IDENTIFY ENCLOSED SYSTEMS.

TENANT'S HVAC AND EXHAUST SYSTEMS SHALL BE BALANCED AT TENANT'S EXPENSE BY A CERTIFIED, INDEPENDENT AIR BALANCE CONTRACTOR, NOT AFFILIATED WITH TENANT'S MECHANICAL CONTRACTOR. TENANT SHALL FURNISH LANDLORD WITH A COPY OF THE CERTIFIED AIR BALANCE REPORT UPON COMPLETION OF TENANT'S WORK.

ALL VENTILATION, EXHAUST, AND MAKE-UP AIR SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH LANDLORD'S STANDARD PROJECT DETAILS, AND SHALL AT MINIMUM:

- MEET CODE AND HEALTH SAFETY REQUIREMENTS FOR TENANT'S USE AND OCCUPANCY.

- REQUIRE THE USE OF LANDLORD'S DESIGNATED ROOFER.

- INCLUDE A FACTORY FABRICATED CURB.

PROVIDE A DECK REINFORCEMENT DETAIL.

BE SIZED TO OVERCOME THE INTRODUCTION OF OUTSIDE AIR THROUGH ALL SOURCES, PLUS 10%.

BE DESIGNED TO KEEP FOOD PREPARATION AREAS NEGATIVE TO FOOD SERVICE AND/OR COMMON AREAS.

PROVIDE AN INDICATOR/PILOT LAMP 12" ABOVE TENANT'S THERMOSTAT FOR VISUAL INDICATION OF EXHAUST OPERATION. MAINTAIN CONTINUOUS FAN OPERATION DURING OCCUPIED HOURS.

CHILLED WATER AND HEATING HOT WATER NOTES:

TENANT MUST USE LANDLORD DETAILS FOR CONNECTION TO THE BASE BUILDING CHILLED WATER AND HEATING HOT WATER SYSTEM, TO PERFORM FINAL TIE-IN TO THE CHILLED WATER AND HEATING HOT WATER SYSTEM. CONTRACTOR MUST PROVIDE DOCUMENTATION AS REQUIRED BY TENANT CRITERIA AND RULES AND REGS FOR PRESSURE TESTING, FLUSHING, AND CHEMICAL TREATMENT. TENANT MUST USE AN APPROVED LANDLORD CONTRACTOR TO PERFORM FINAL TIE-IN.

KITCHENS:

RESTAURANT TENANTS SHALL PROVIDE UTILITY SET UPBLAST TYPE EXHAUST FANS TO EXHAUST SMOKE, HEAT, AND GREASE LADEN VAPORS TO THE OUTSIDE THROUGH THE ROOF. MAKE-UP AIR SHALL BE PROVIDED BY TENANT SO THAT THE SPACE IS MAINTAINED UNDER NEGATIVE PRESSURE RELATIVE TO THE PROJECT PUBLIC AREAS. AT NO TIME SHALL TENANT'S COOKING OR FOOD SERVICE COODS MIGRATE INTO THE PUBLIC AREAS OUTSIDE THE TENANT SPACE.

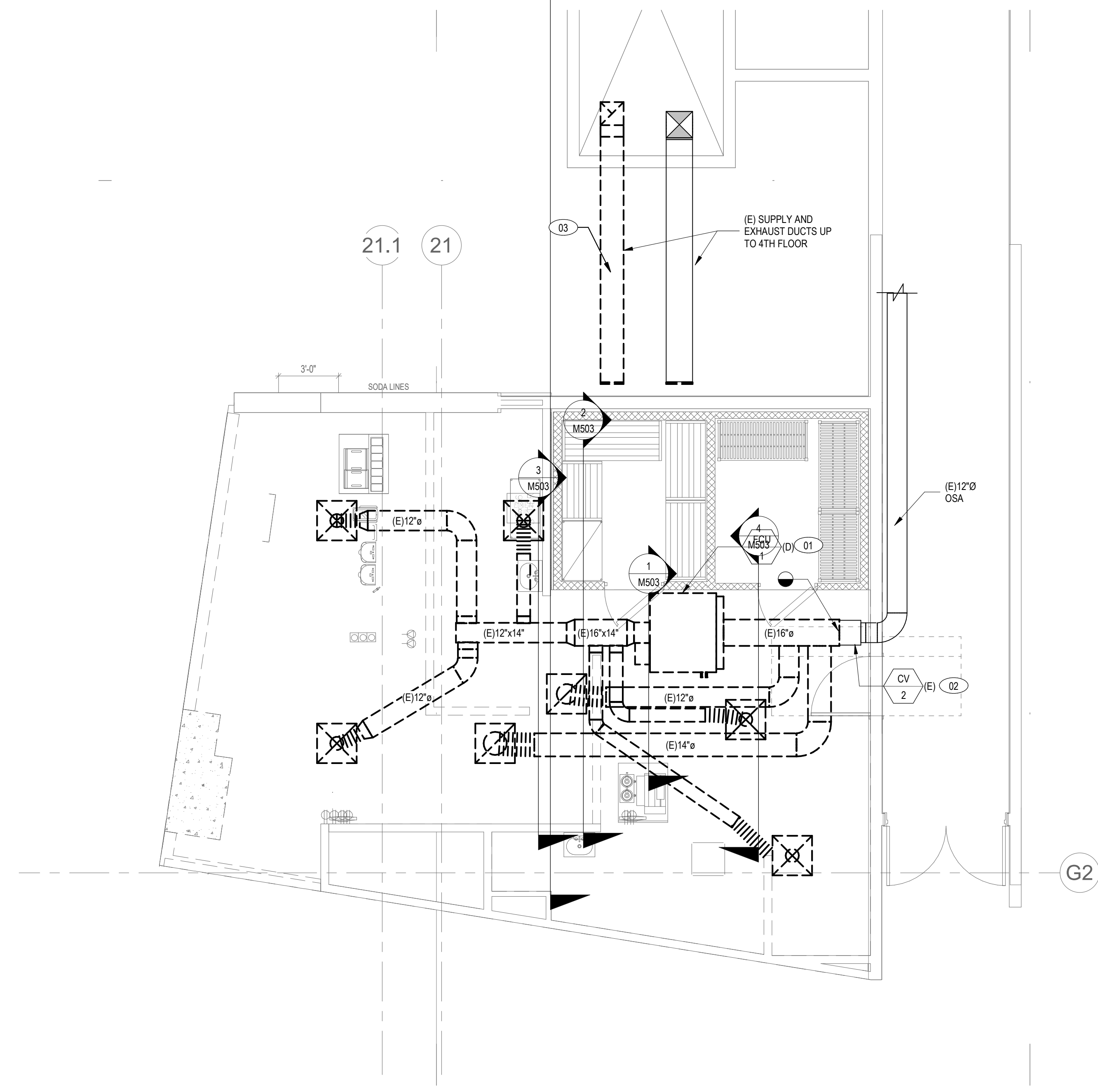
TENANT SHALL MAINTAIN A WATER-TIGHT AREA WITHIN THE ENCLOSED PORTION OF THE PREMISES FOR THE STORAGE AND CONTAINMENT OF ALL FRYABLE GREASE, FATS, AND OTHER COOKING OILS IN ACCORDANCE WITH LEASE REQUIREMENTS.

EXHAUST SYSTEM/GREASE GUARD CONTAINMENT:

ALL RESTAURANT TENANTS ARE REQUIRED TO INSTALL A ROOF PROTECTION SYSTEM AROUND ALL COOKING/EXHAUST EQUIPMENT TO PROTECT THE ROOF FROM GREASE DAMAGE AND STAINING. EXHAUST FANS HANDLING GREASE LADEN VAPORS SHALL BE EQUAL TO 20W AIR BR10 SERIES, AND BE UL LISTED, CLASSIFIED AS THE VERTICAL DISCHARGE TYPE, WITH A GREASE CONTAINMENT SYSTEM MANUFACTURED BY GREASE GUARD, LLC (800) 913-7034, WHICH SHALL BE CLEANED AT REGULAR INTERVALS. SOME TENANTS ARE REQUIRED TO HAVE POLLUTION CONTROL UNITS. EXHAUST FANS SHALL HAVE A GREASE COLLECTING PAN AROUND THE PERIMETER/BASE OF THE FAN, AND BE EQUIPPED WITH A GREASE ABSORBING FILTER ("GREASE GUARD") AS MANUFACTURED BY GREASE GUARD LLC.

DEMOLITION KEY NOTES

- 01 DEMOLISH EXISTING FCU-1, THERMOSTAT, AND CONNECTED SUPPLY AND RETURN DUCTWORK AND GRILLES AS SHOWN. DISCONNECT COW PIPING AND PREPARE FOR REMODEL.
- 02 CV-2 SHALL REMAIN IN PLACE. PREPARE CV-2 OUTLET FOR CONNECTION TO NEW FAN COIL.
- 03 DEMOLISH (E) EXHAUST DUCT FROM 2ND FLOOR UP TO 4TH FLOOR ROOF.



1 MECHANICAL FLOOR PLAN - DEMO

SCALE: 1/4" = 1'-0"



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Contact:
Michael Henderson
Tel 508.399.2392

Date	Description
01/07/2022	ISSUE FOR PERMIT/BD
06/20/2022	ISSUE FOR CONSTRUCTION

Seal / Signature



Project Name
SHAKE SHACK - TOPANGA MALL

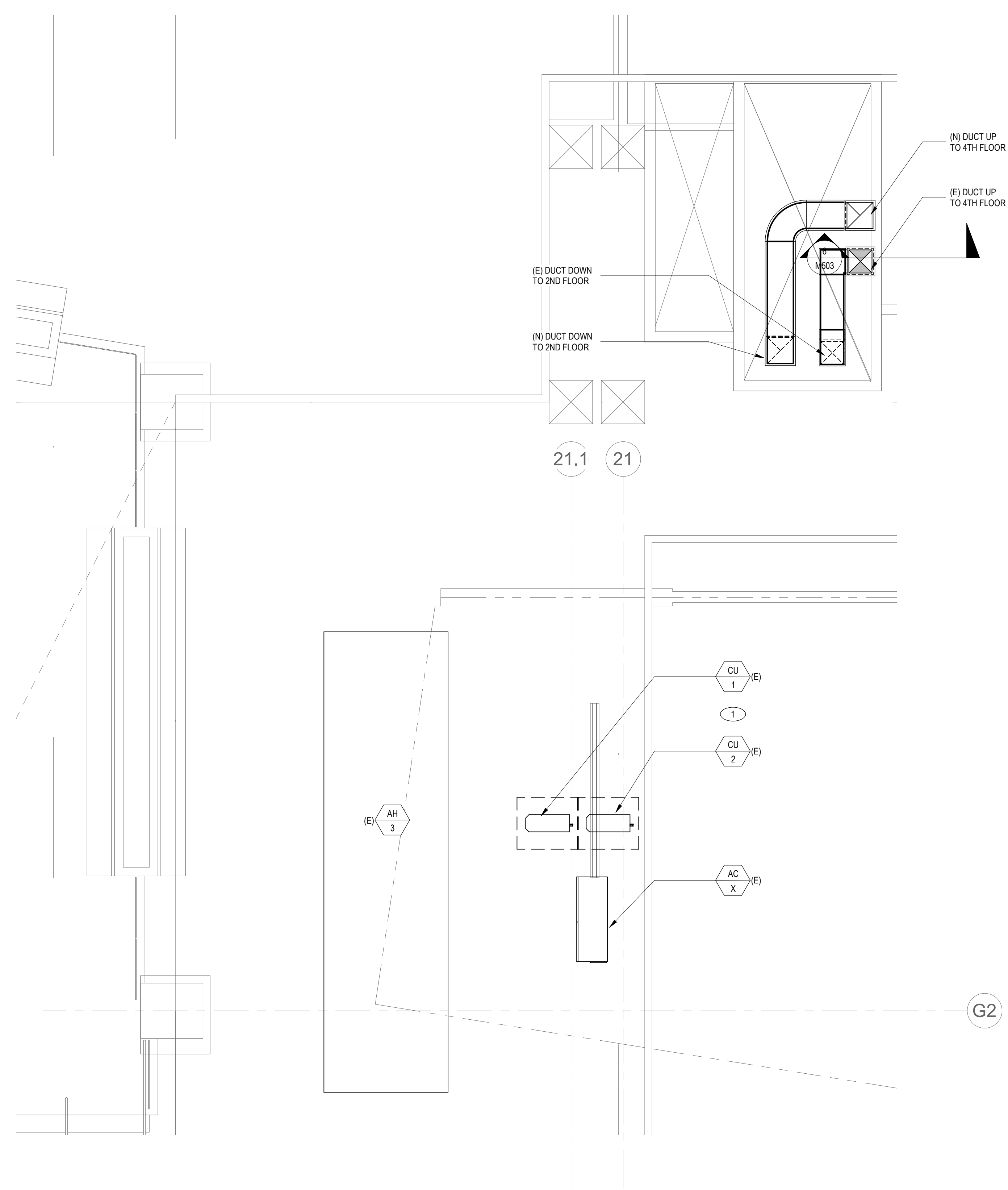
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Description
MECHANICAL FLOOR PLAN - DEMO

Scale
1/4" = 1'-0"

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01 MECHANICAL 3RD FLOOR ROOF PLAN

SCALE: 1/4" = 1'-0"

RENOVATION KEY NOTES

- 1 (E) CONDENSING UNITS SERVING WALK-IN REFRIGERATOR AND FREEZER ON 2ND FLOOR. UNITS TO REMAIN IN PLACE.



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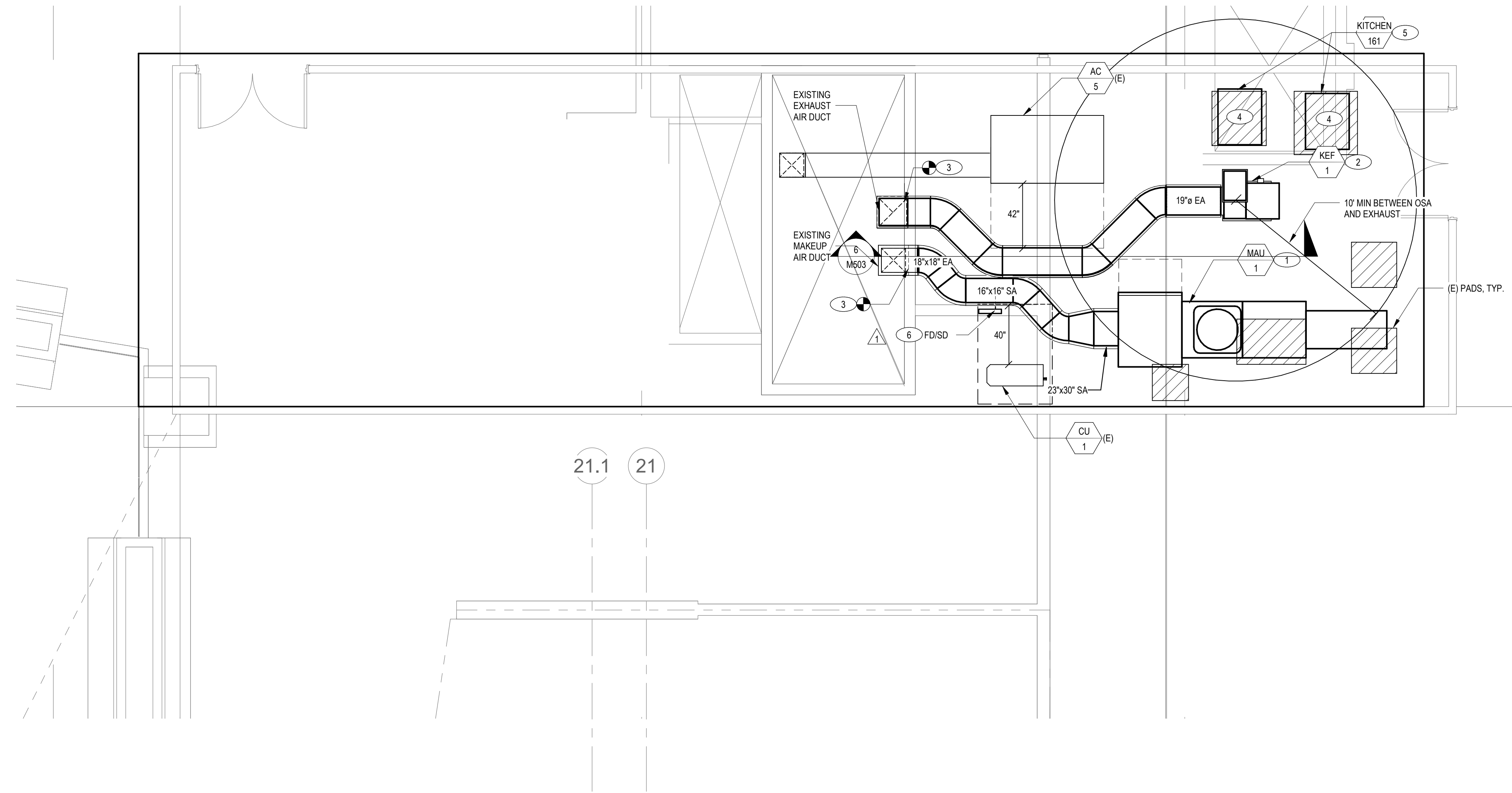
Project Number
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Description
MECHANICAL 3RD FLOOR ROOF PLAN - EXISTING

Scale
1/4" = 1'-0"

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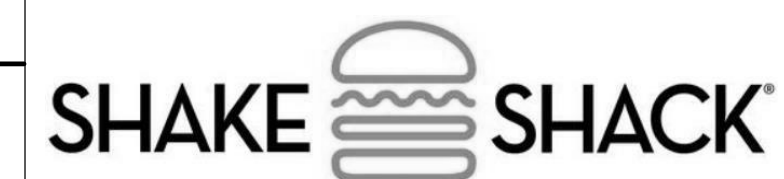
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01 MECHANICAL 4TH FLOOR ROOF PLAN
SCALE: 1/4" = 1'-0"

RENOVATION KEY NOTES

- 1 MAKEUP AIR UNIT FURNISHED BY CAPTIVEAIRE AND INSTALLED BY MECHANICAL CONTRACTOR. COORDINATE PLATFORM REQUIREMENTS WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- 2 KITCHEN HOOD EXHAUST FAN FURNISHED BY CAPTIVEAIRE AND INSTALLED BY MECHANICAL CONTRACTOR. INSTALL PER MANUFACTURER'S RECOMMENDATION.
- 3 CONNECT NEW EXHAUST DUCT AND MAKEUP AIR DUCT TO EXISTING DUCTS. EXISTING DUCTS DOWN THRU SHAFT TO SERVE 2ND FLOOR.
- 4 DEMOLISH EXISTING SUPPORTS ON PADS. PREPARE FOR CONDENSING UNIT INSTALLATION.
- 5 CUSTARD MACHINE CONDENSING UNITS TO BE PROVIDED BY VENDOR. INSTALLED PER MANUFACTURER'S RECOMMENDATION. REFER TO KITCHEN EQUIPMENT SCHEDULE #161 FOR SPECIFICATIONS.
- 6 PROVIDE DUCT DETECTOR ON MAU DUCTWORK. FOR MORE INFORMATION SEE FIRE ALARM DRAWINGS.



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03/22/2022	ADDENDUM #1
06/20/2022	ISSUE FOR CONSTRUCTION

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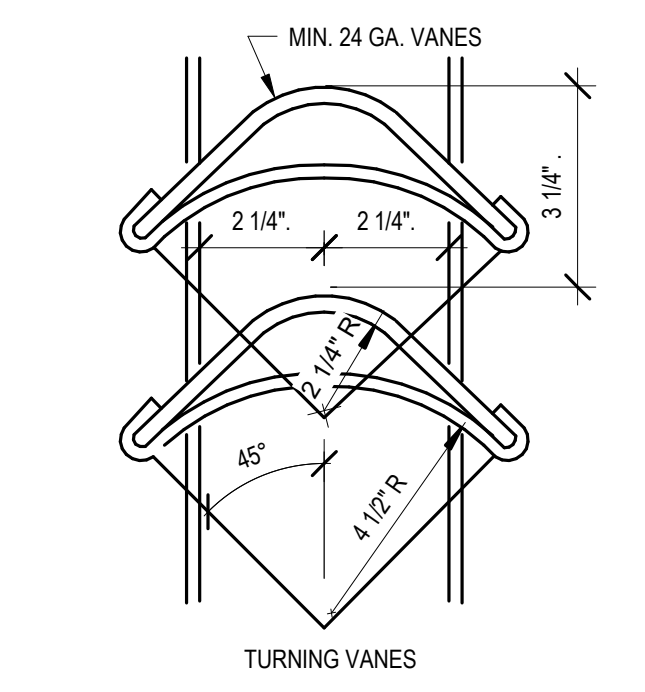
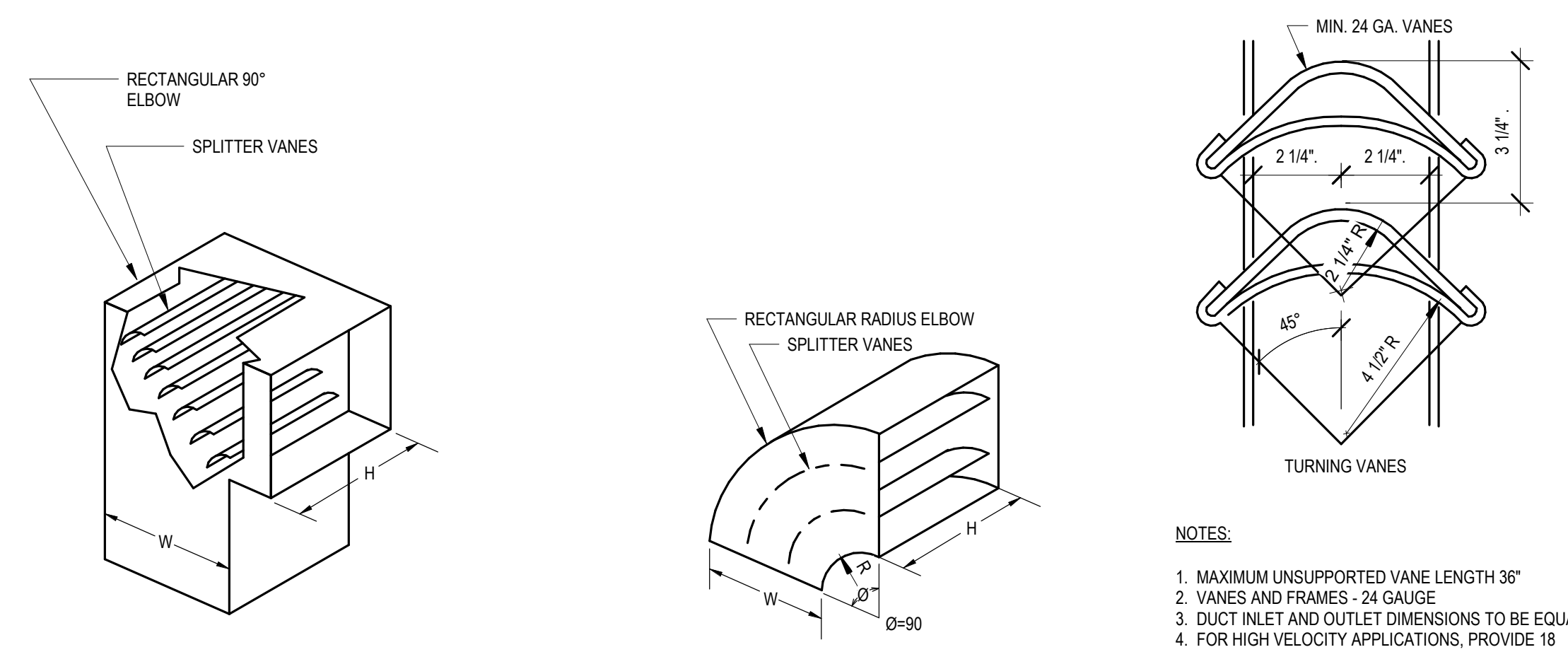
Project Name
SHAKE SHACK - TOPANGA MALL

Project Number
05.3781.000

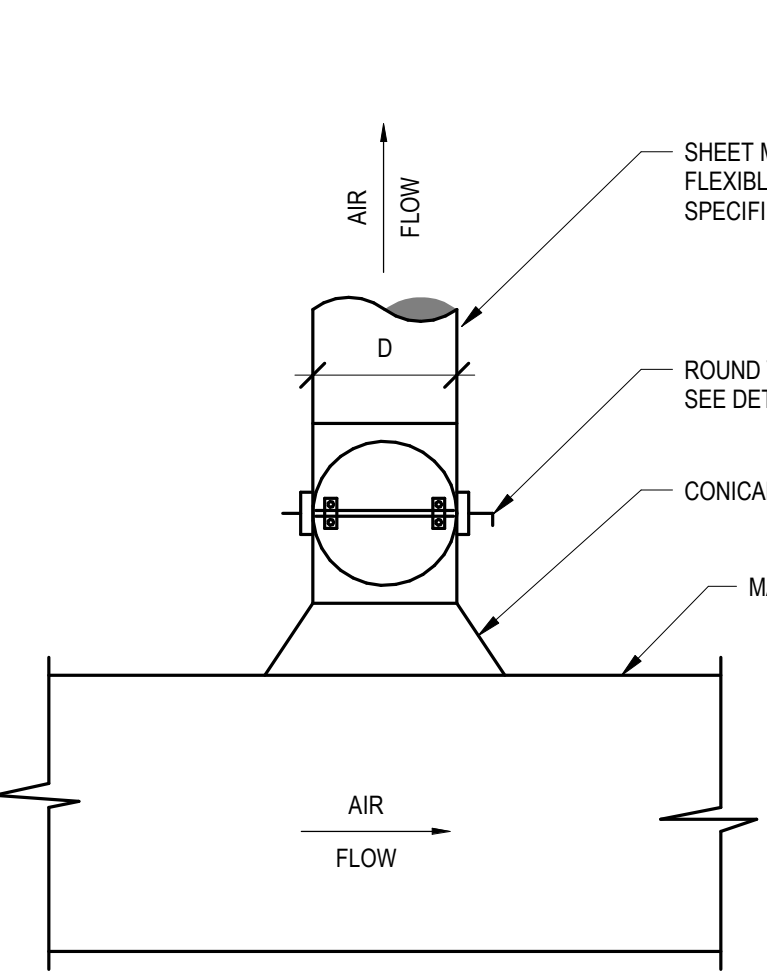
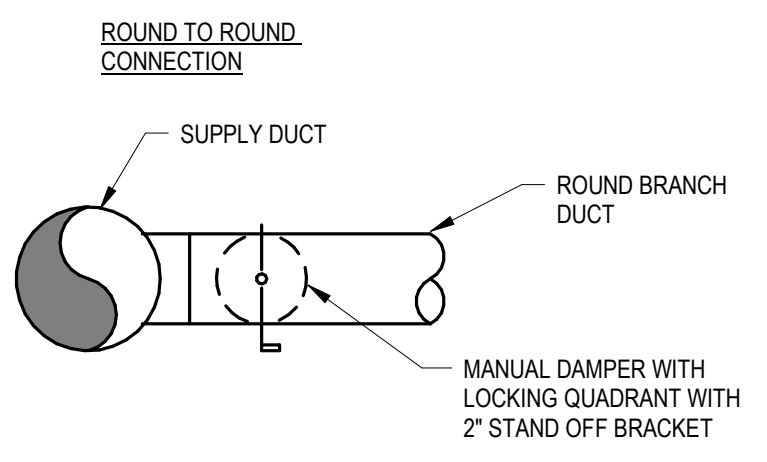
Description
MECHANICAL 4TH FLOOR ROOF PLAN - RENOVATION

Scale
1/4" = 1'-0"

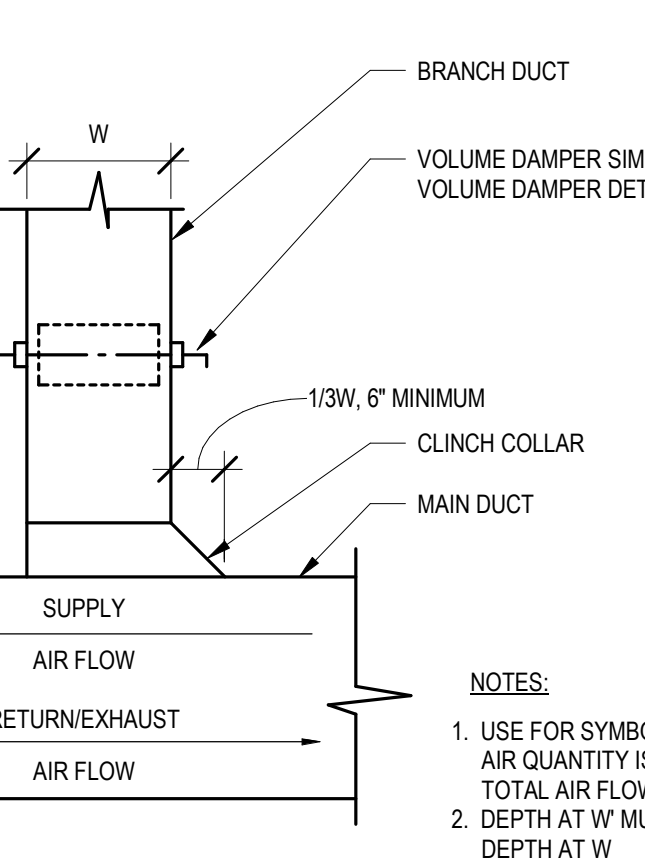
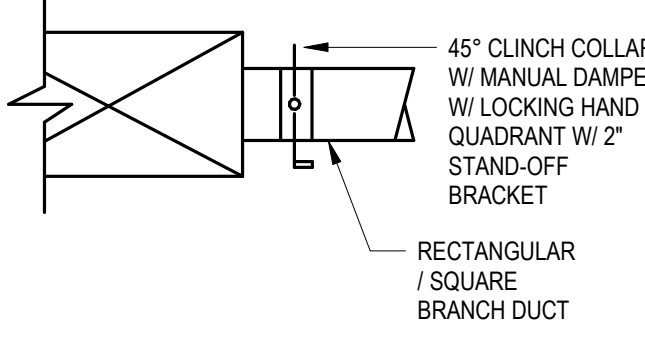
M141



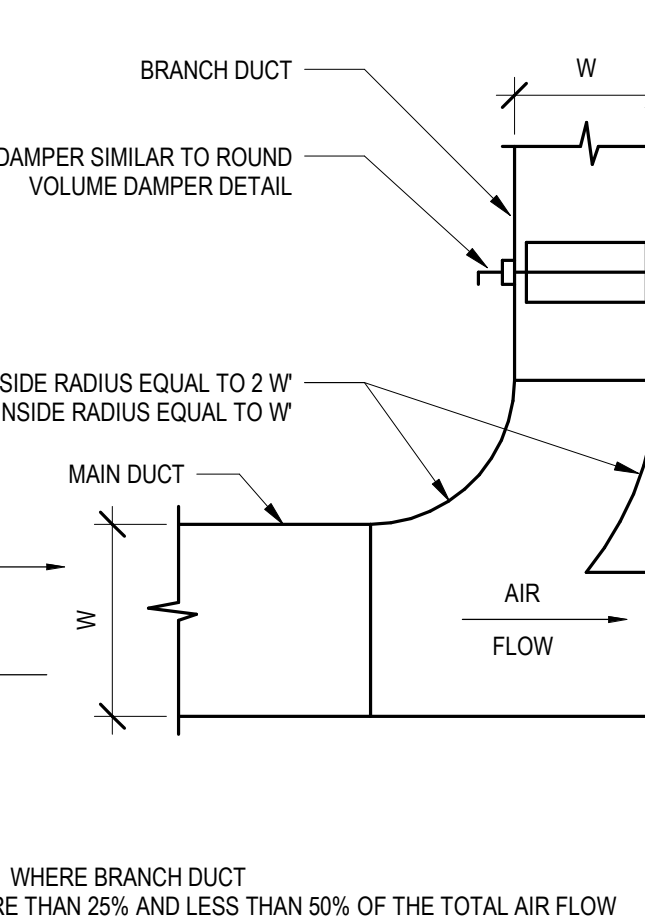
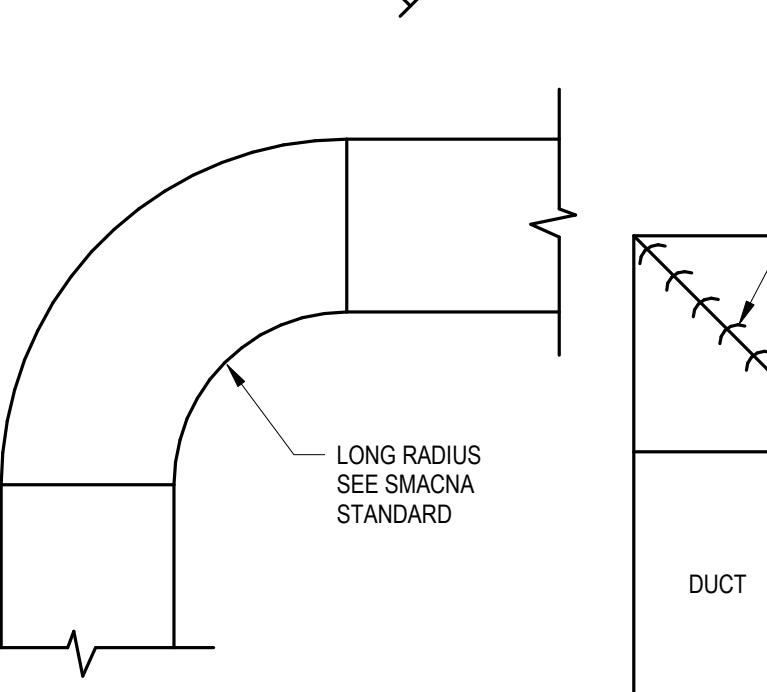
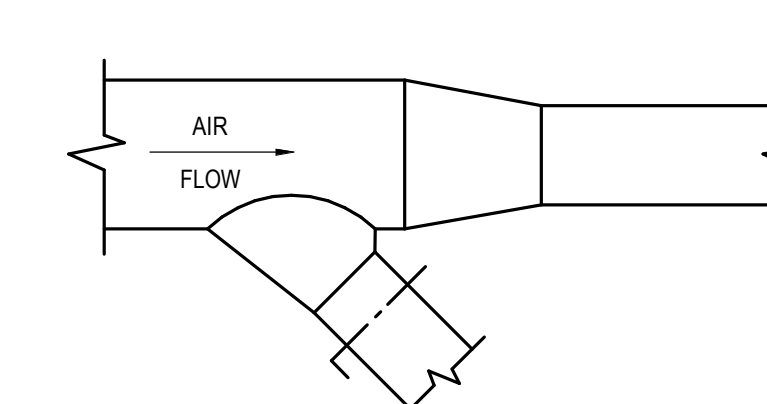
NOTES:
 1. MAXIMUM UNSUPPORTED VANE LENGTH 36"
 2. VANES AND FRAMES - 24 GAUGE
 3. DUCT INLET AND OUTLET DIMENSIONS TO BE EQUAL
 4. FOR HIGH VELOCITY APPLICATIONS, PROVIDE 18 GAUGE CHANNEL AND TRACK WELD VANE EDGES TO CHANNEL, TYPICAL BOTH ENDS.
 5. FRAMES AND CHANNELS - BOLTED OR TACK WELDED TO ELBOW



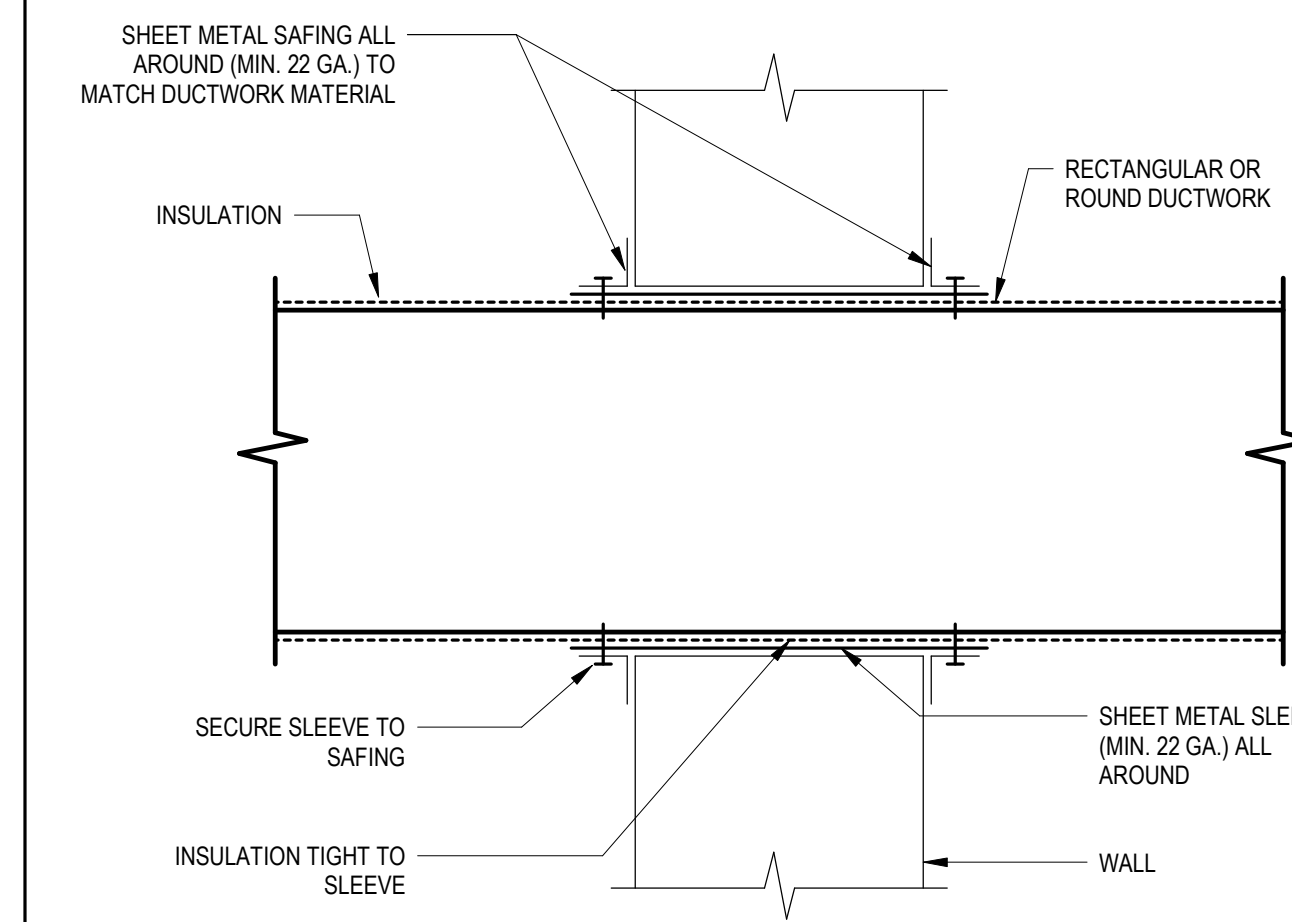
NOTES:
 1. USE FOR SYMBOL \perp WHERE BRANCH DUCT AIR QUANTITY IS LESS THAN 25% OF THE TOTAL AIR FLOW
 2. DEPTH OF MAIN DUCT MUST BE 2" LARGER THAN CONICAL DIAMETER



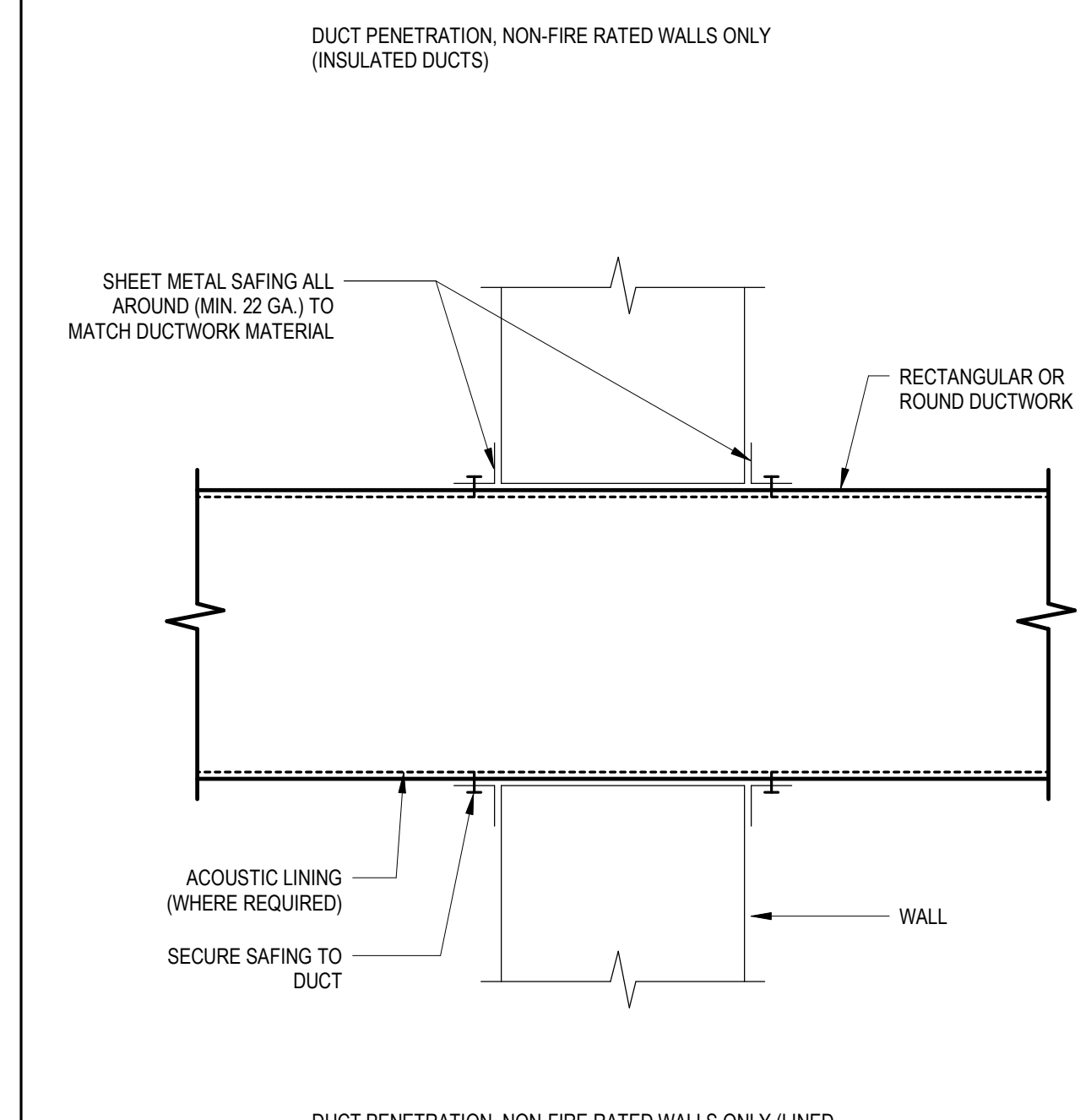
NOTES:
 1. USE FOR SYMBOL \perp WHERE BRANCH DUCT AIR QUANTITY IS LESS THAN 25% OF THE TOTAL AIR FLOW
 2. DEPTH AT W MUST BE AT LEAST 2" THAN DEPTH AT H



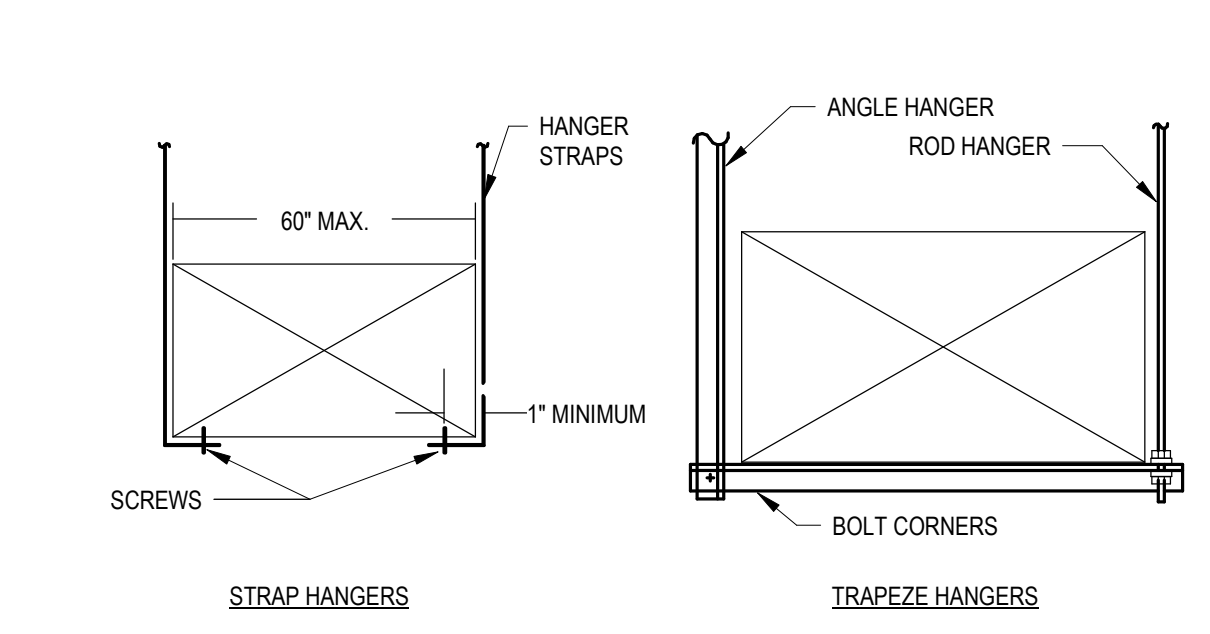
NOTES:
 1. USE FOR SYMBOL \perp WHERE BRANCH DUCT AIR QUANTITY IS MORE THAN 25% AND LESS THAN 50% OF THE TOTAL AIR FLOW
 2. DEPTH OF DUCT FOR W AND H SHOULD BE EQUAL



NOTE:
 INTERIOR WALL REQUIRE SAFFING ON ONE SIDE ONLY ON CONCEALED DUCTS AND ON BOTH SIDES OF WALL ON EXPOSED DUCTS.

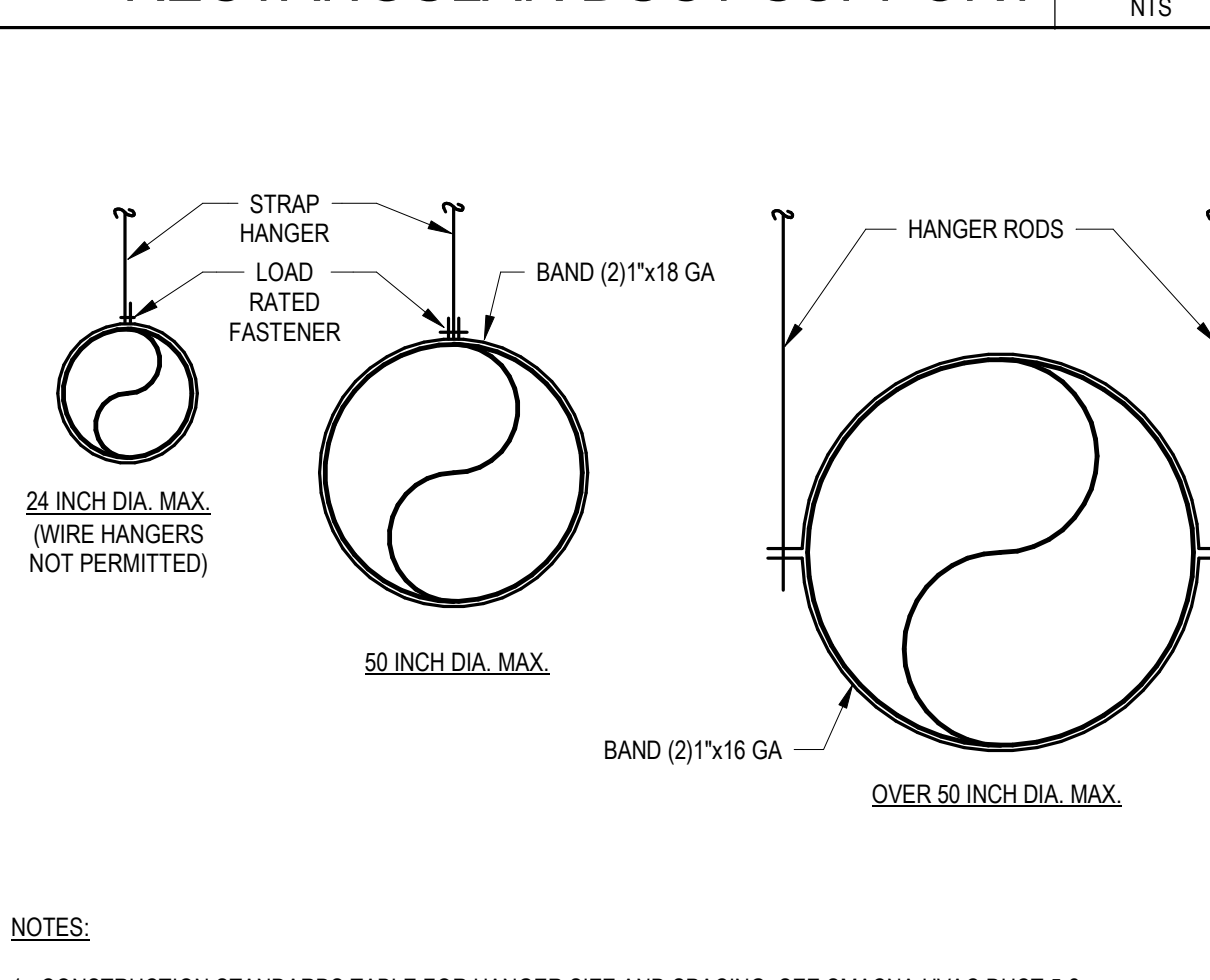


NOTE:
 INTERIOR WALL REQUIRE SAFFING ON ONE SIDE ONLY ON CONCEALED DUCTS AND ON BOTH SIDES OF WALL ON EXPOSED DUCTS.

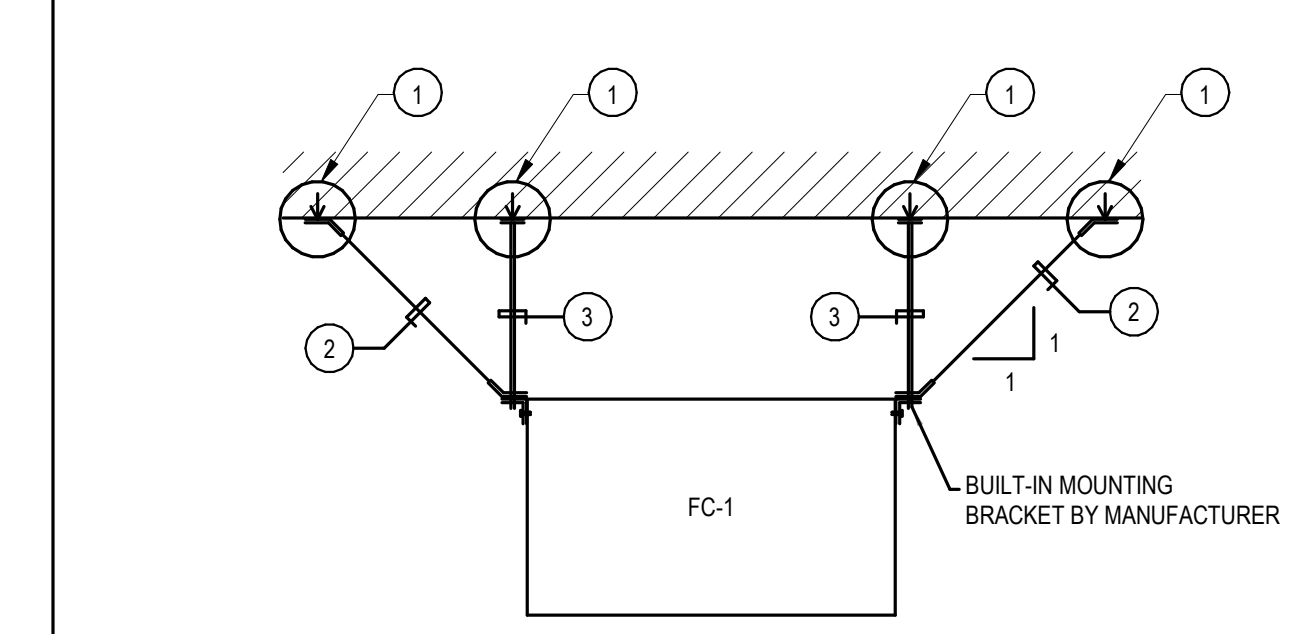


NOTES:
 1. FOR HANGERS SIZE AND SPACING, SEE SMACNA HVAC DUCT CONSTRUCTION STANDARDS TABLE 5-1. FOR TRAPEZE ALLOWABLE LOAD SEE TABLE 5-3.
 2. FOR UPPER ATTACHMENT TO BUILDING, SEE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FIG. 5-1 & FIG. 5-2, WITH SPECIFIC BUILDING STRUCTURAL ENGINEER APPROVAL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DETAILS AND SUPPORT LOCATIONS.
 3. ALL DUCT HANGER AND ATTACHMENTS SHALL BE REVIEWED AND APPROVED BY SEOR BEFORE FABRICATION AND INSTALLATION.

RECTANGULAR DUCT SUPPORT SCALE NTS **5**

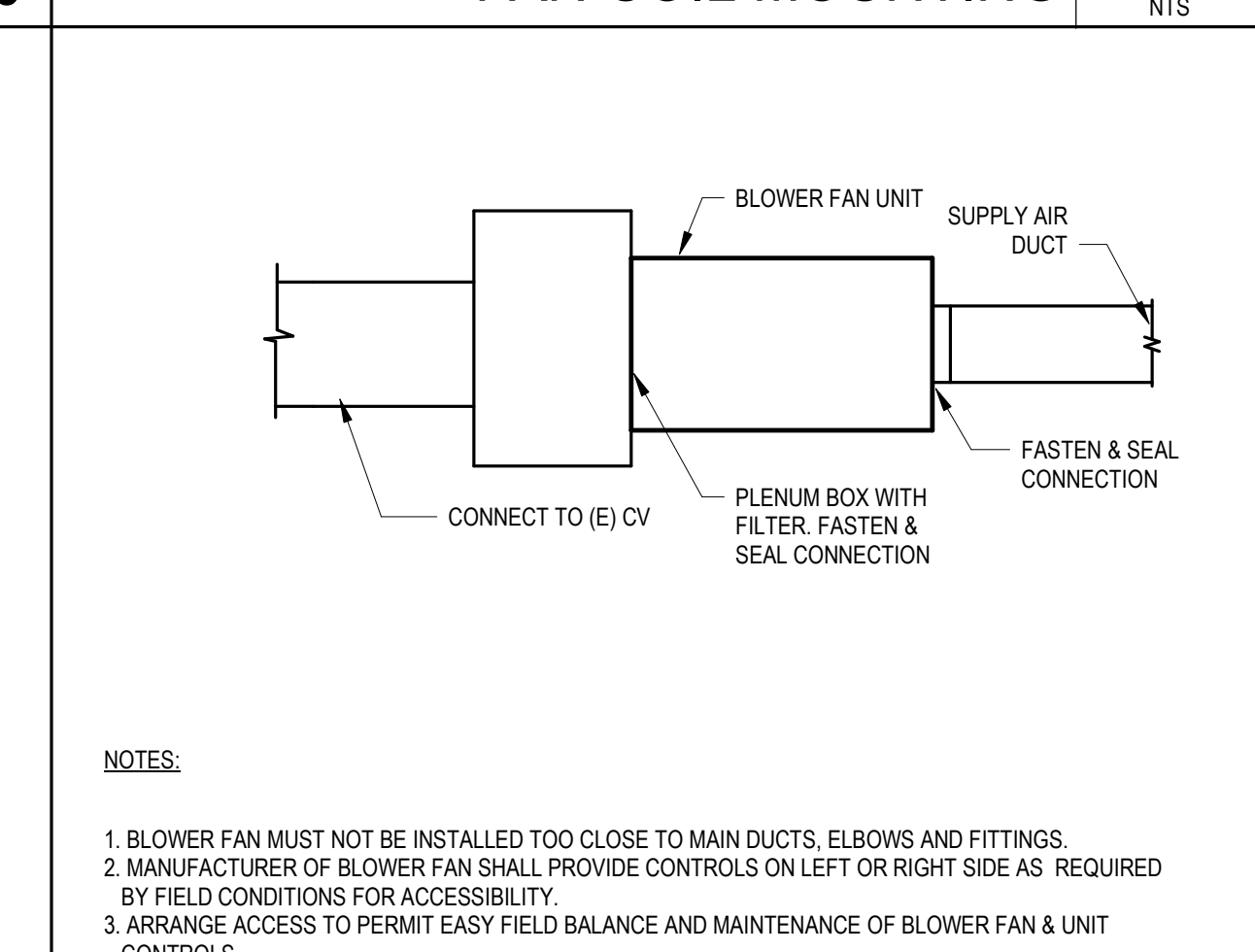


NOTES:
 1. CONSTRUCTION STANDARDS TABLE FOR HANGER SIZE AND SPACING. SEE SMACNA HVAC DUCT 5-2.
 2. DUCT CONSTRUCTION STANDARDS FOR UPPER ATTACHMENT TO BUILDING SEE SMACNA HVAC FIG. 5-1 TO 5-4, WITH SPECIFIC BUILDING STRUCTURAL ENGINEER APPROVAL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DETAILS AND SUPPORT LOCATIONS.
 3. ALL DUCT HANGER AND ATTACHMENTS SHALL BE REVIEWED AND APPROVED BY SEOR BEFORE FABRICATION AND INSTALLATION.



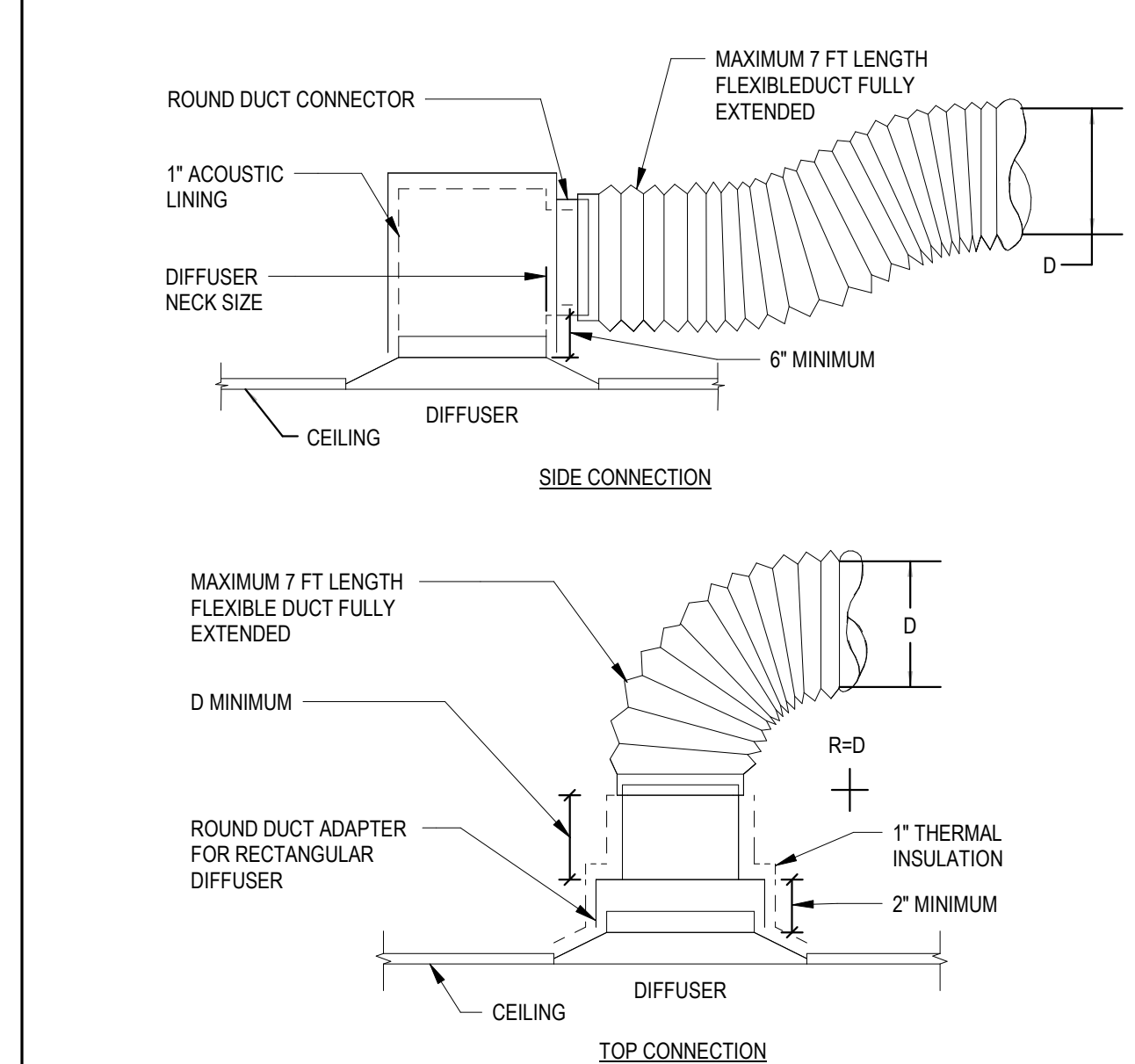
NOTES:
 1. 3/8" DIA. HILTI KWIK BOLT TZ WITH 2" EMBED.
 2. 1/4" AIRCRAFT 7X7 WIRE ROPE (TYP-4), 2 WIRE ROPES CUPS EACH END.
 3. 3/8" HANGER ROD (TYP-4)

FAN COIL MOUNTING SCALE NTS **1**

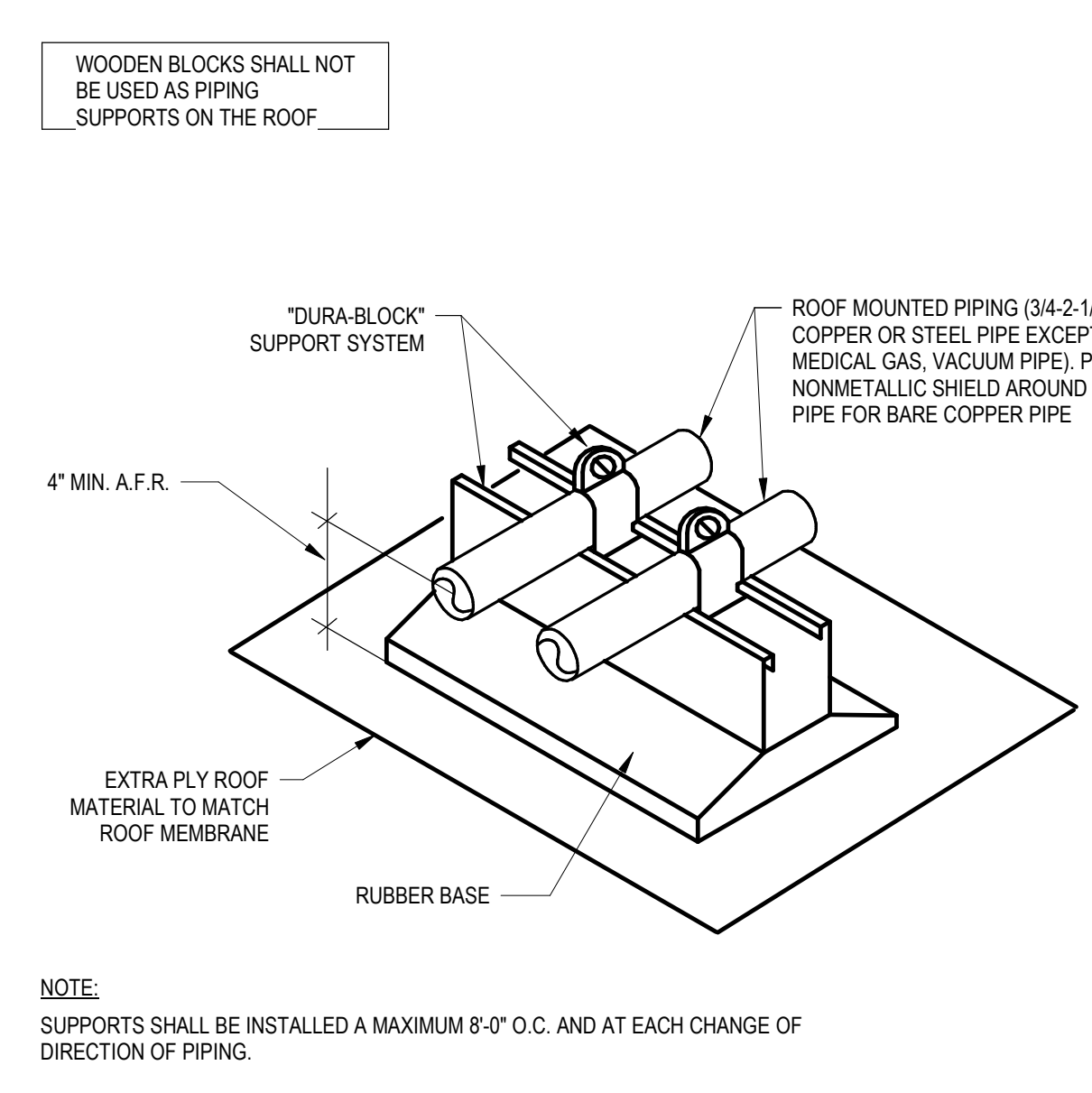


NOTES:
 1. BLOWER FAN MUST NOT BE INSTALLED TOO CLOSE TO MAIN DUCTS, ELBOWS AND FITTINGS.
 2. MANUFACTURER OF BLOWER FAN SHALL PROVIDE CONTROLS ON LEFT OR RIGHT SIDE AS REQUIRED BY FIELD CONDITIONS FOR ACCESSIBILITY.
 3. ARRANGE ACCESS TO PERMIT EASY FIELD BALANCE AND MAINTENANCE OF BLOWER FAN & UNIT CONTROLS.

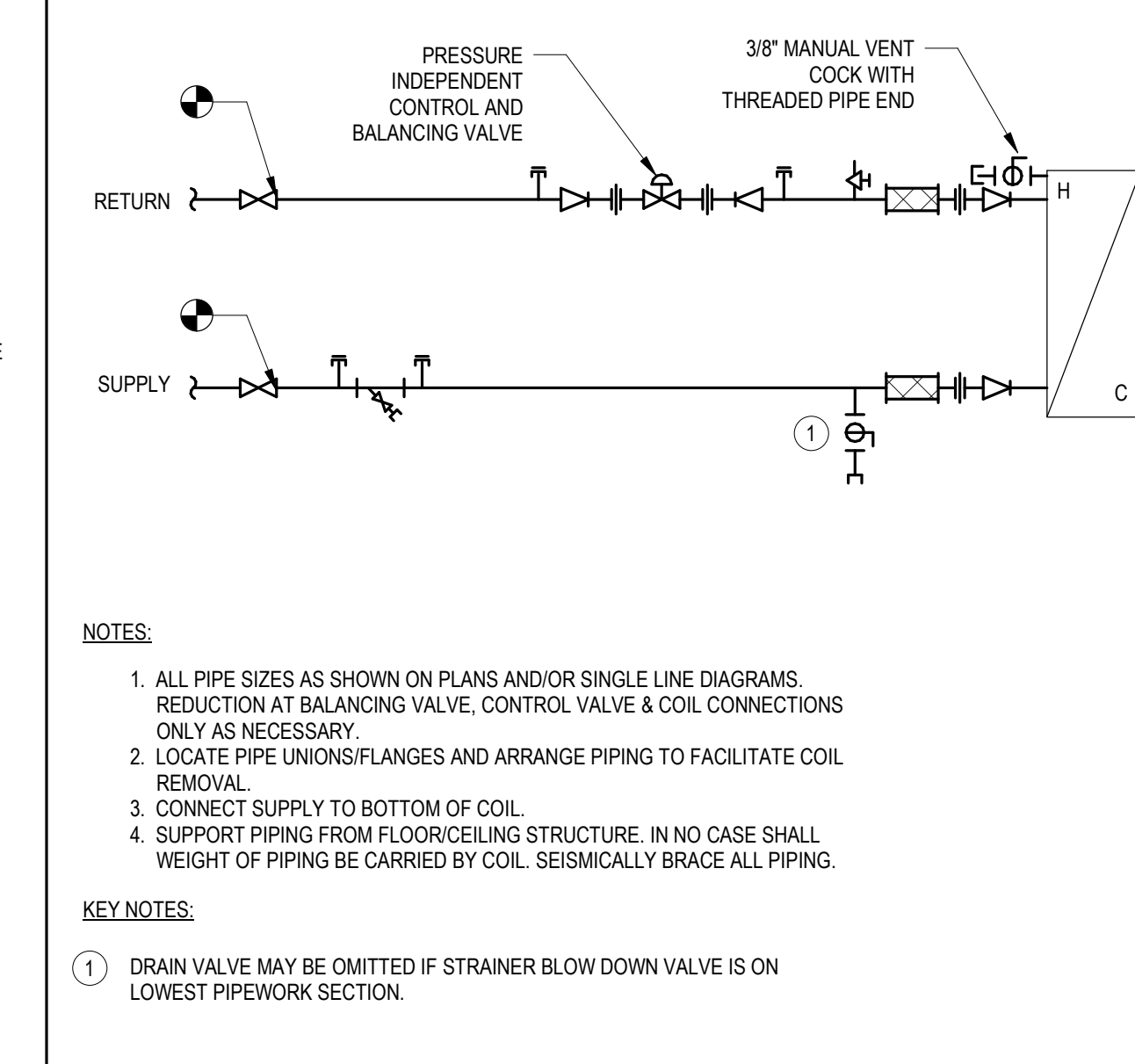
DUCT WALL PENETRATION SCALE NTS **8**



HORIZONTAL ROUND DUCT SUPPORT DETAIL SCALE NTS **6**



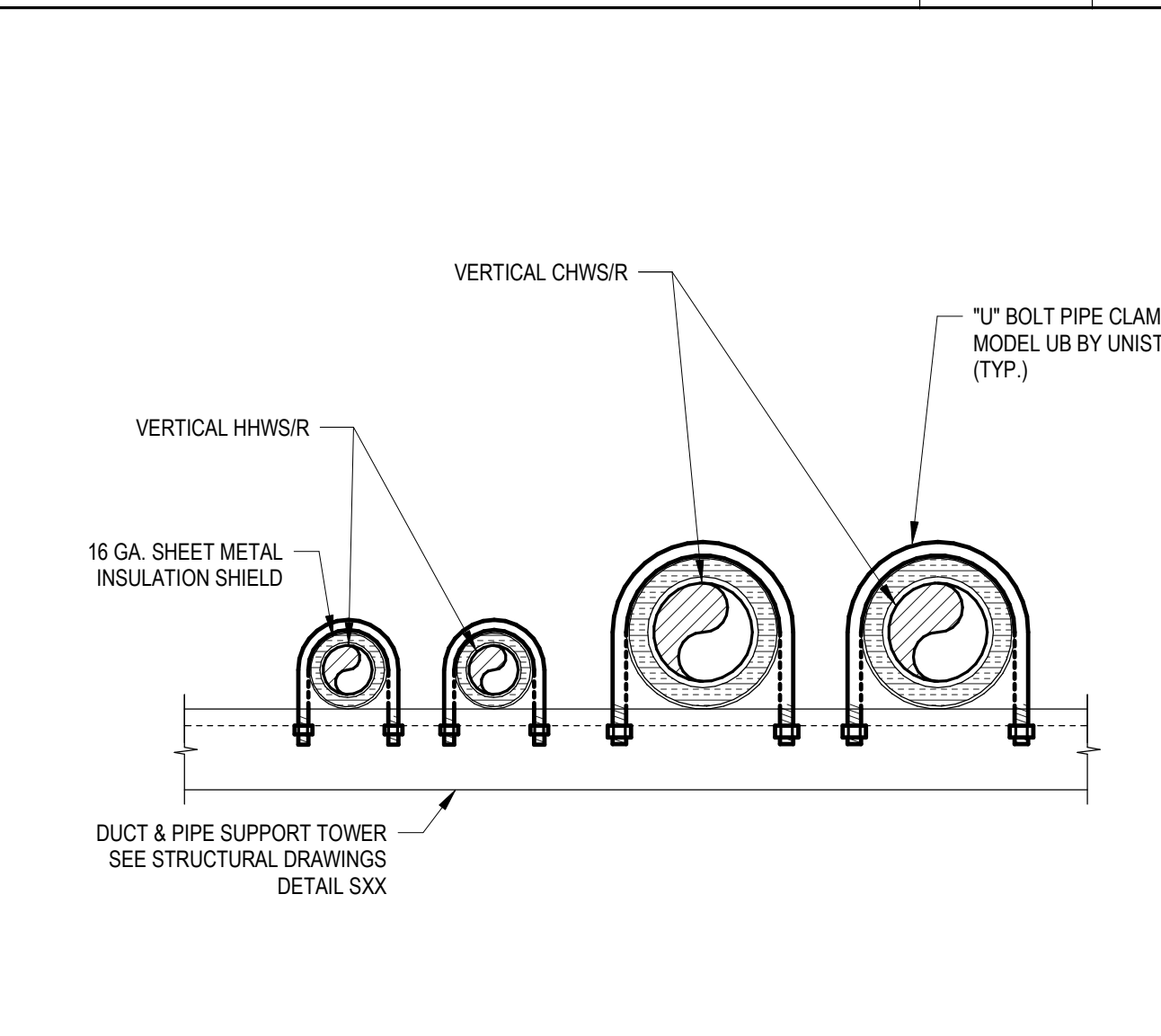
FAN COIL INSTALLATION SCALE NTS **2**



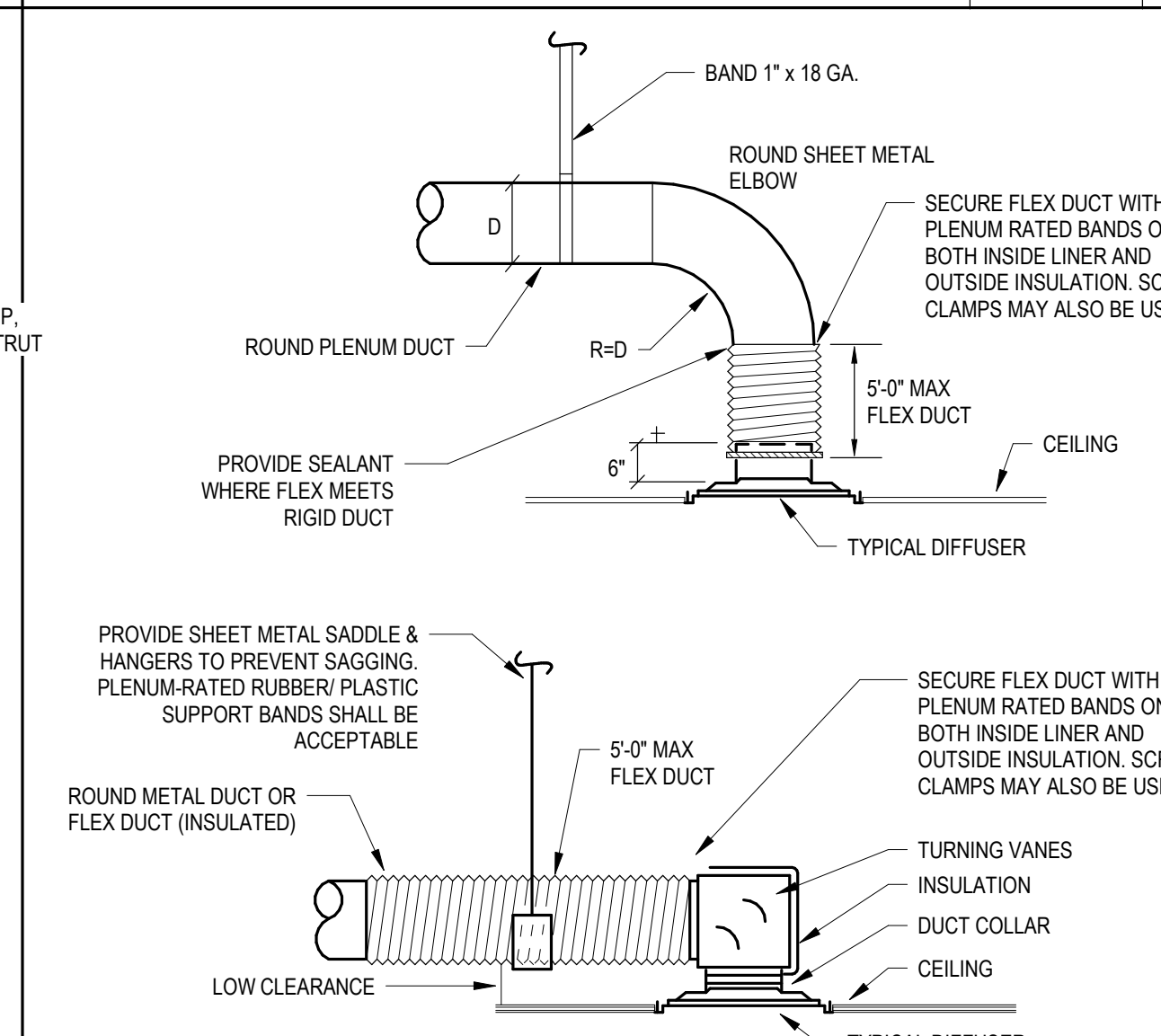
NOTES:
 1. ALL PIPE SIZES AS SHOWN ON PLANS AND/OR SINGLE LINE DIAGRAMS. REDUCTION AT BALANCING VALVE, CONTROL VALVE & COIL CONNECTIONS ONLY AS NECESSARY.
 2. LOCATE PIPE UNIONS/FLANGES AND ARRANGE PIPING TO FACILITATE COIL REMOVAL.
 3. CONNECT SUPPLY TO BOTTOM OF COIL.
 4. SUPPORT PIPING FROM FLOOR/CEILING STRUCTURE. IN NO CASE SHALL WEIGHT OF PIPING BE CARRIED BY COIL. SEISMICALLY BRACE ALL PIPING.

KEY NOTES:
 ① DRAIN VALVE MAY BE OMITTED IF STRAINER BLOW DOWN VALVE IS ON LOWEST PIPEWORK SECTION.

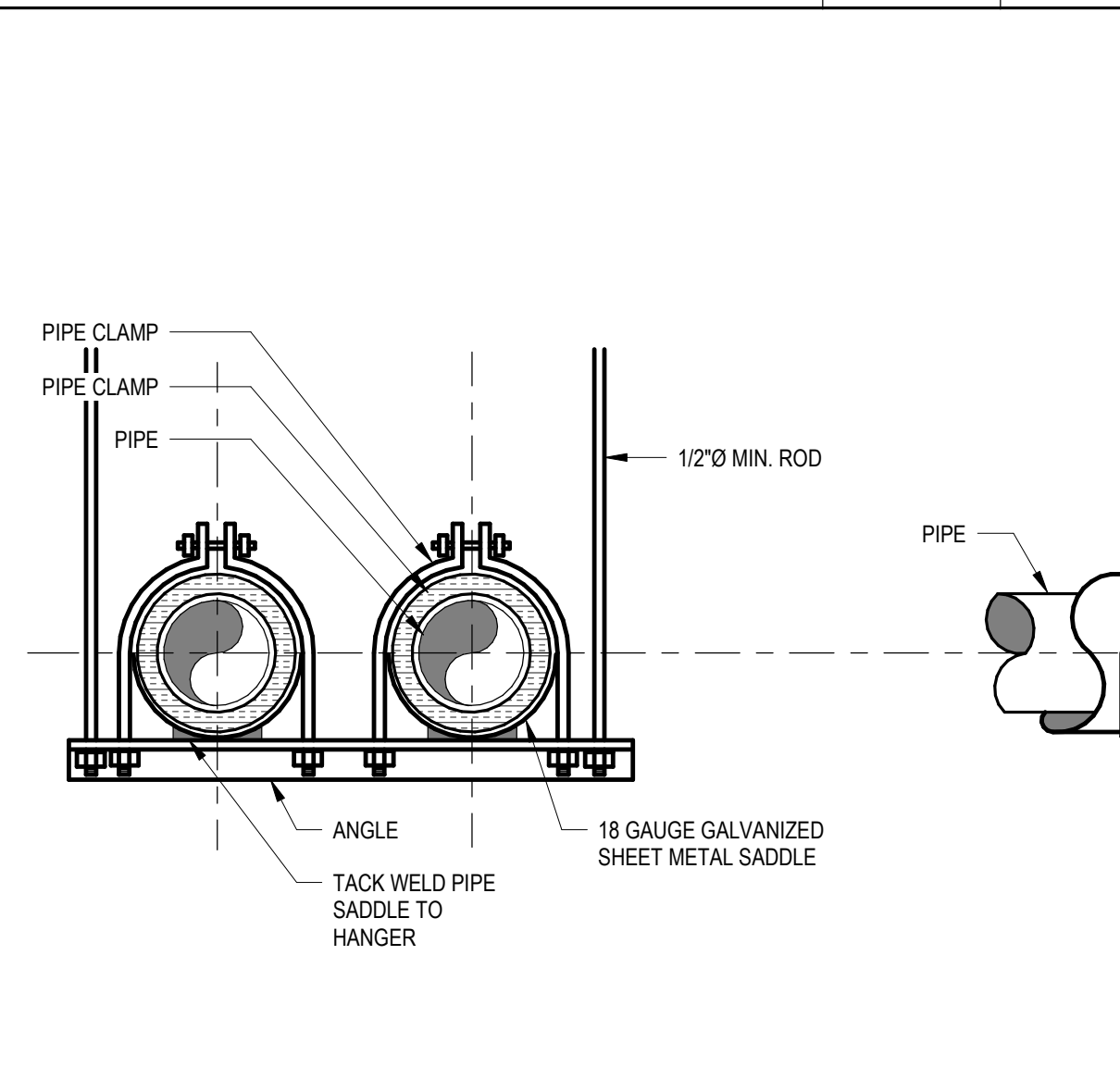
DUCTWORK CONNECTION DETAIL SCALE NTS **11**



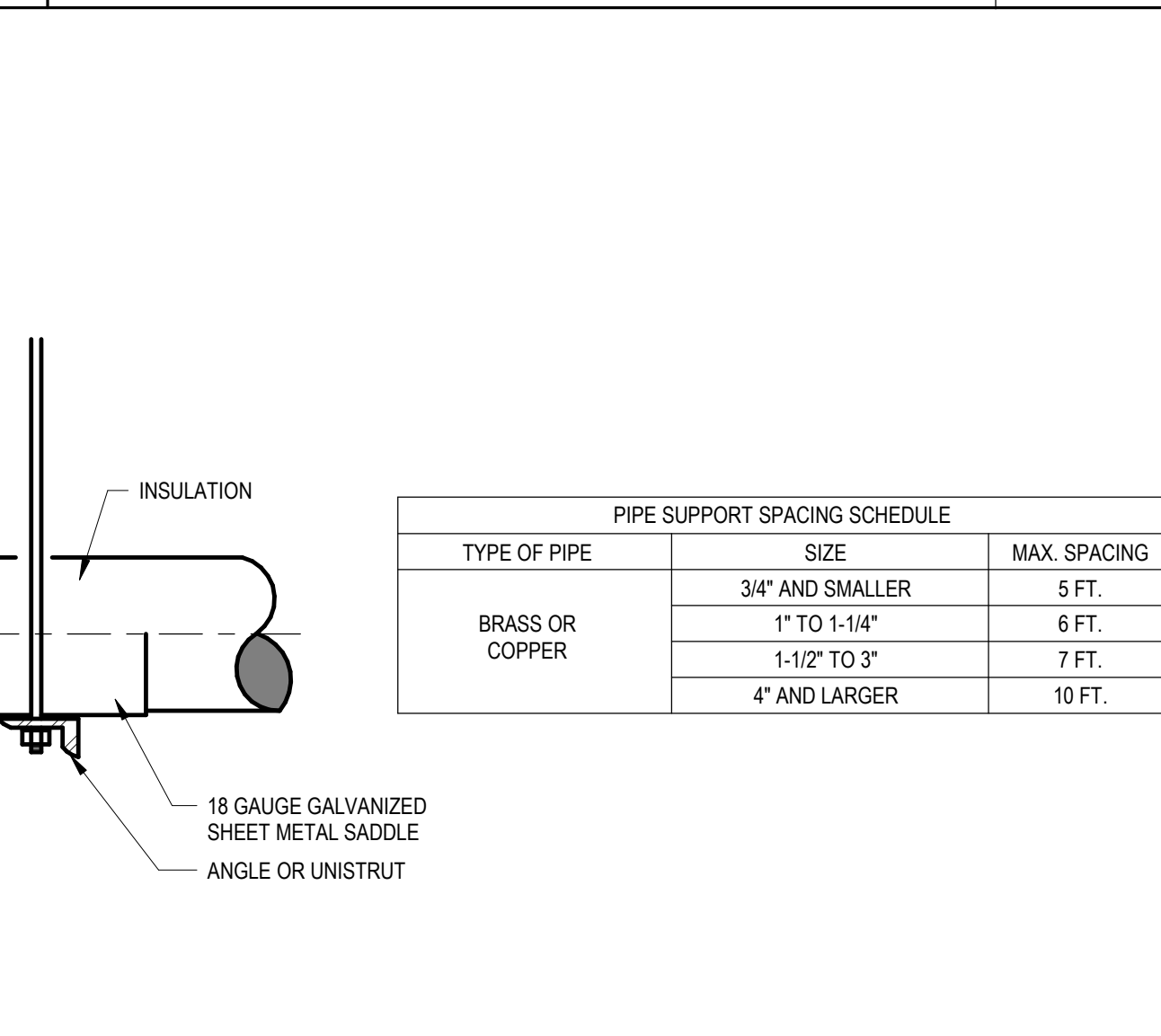
DIFFUSER CONNECTION DETAIL SCALE NTS **9**



ROOF PIPE SUPPORT SCALE NTS **7**



CHW COIL WITH 2-WAY VALVE DETAIL SCALE NTS **3**



PIPE SUPPORT SPACING SCHEDULE		
TYPE OF PIPE	SIZE	MAX. SPACING
BRASS OR COPPER	3/4" AND SMALLER	5 FT.
	1" TO 1-1/4"	6 FT.
	1-1/2" TO 3"	7 FT.
	4" AND LARGER	10 FT.

PIPE WALL PENETRATION SCALE NTS **13**



VERTICAL PIPES ATTACHMENT SCALE NTS **12**



DIFFUSER CONNECTION DETAIL SCALE NTS **10**



PIPE HANGER DETAIL SCALE NTS **4**



PIPE HANGER DETAIL SCALE NTS **4**



SHAKE SHACK

WESTFIELD TOPANGA
 6600 TOPANGA CANYON BLVD.
 SPACE #FC10
 CANOGA PARK, CA 91303

Gensler

500 South Figueroa Street
 Los Angeles, California 90071
 United States
 Contact:
 Bryan Walsingham
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 Michael Henderson
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Date	Description
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Project Name
SHAKE SHACK - TOPANGA MALL

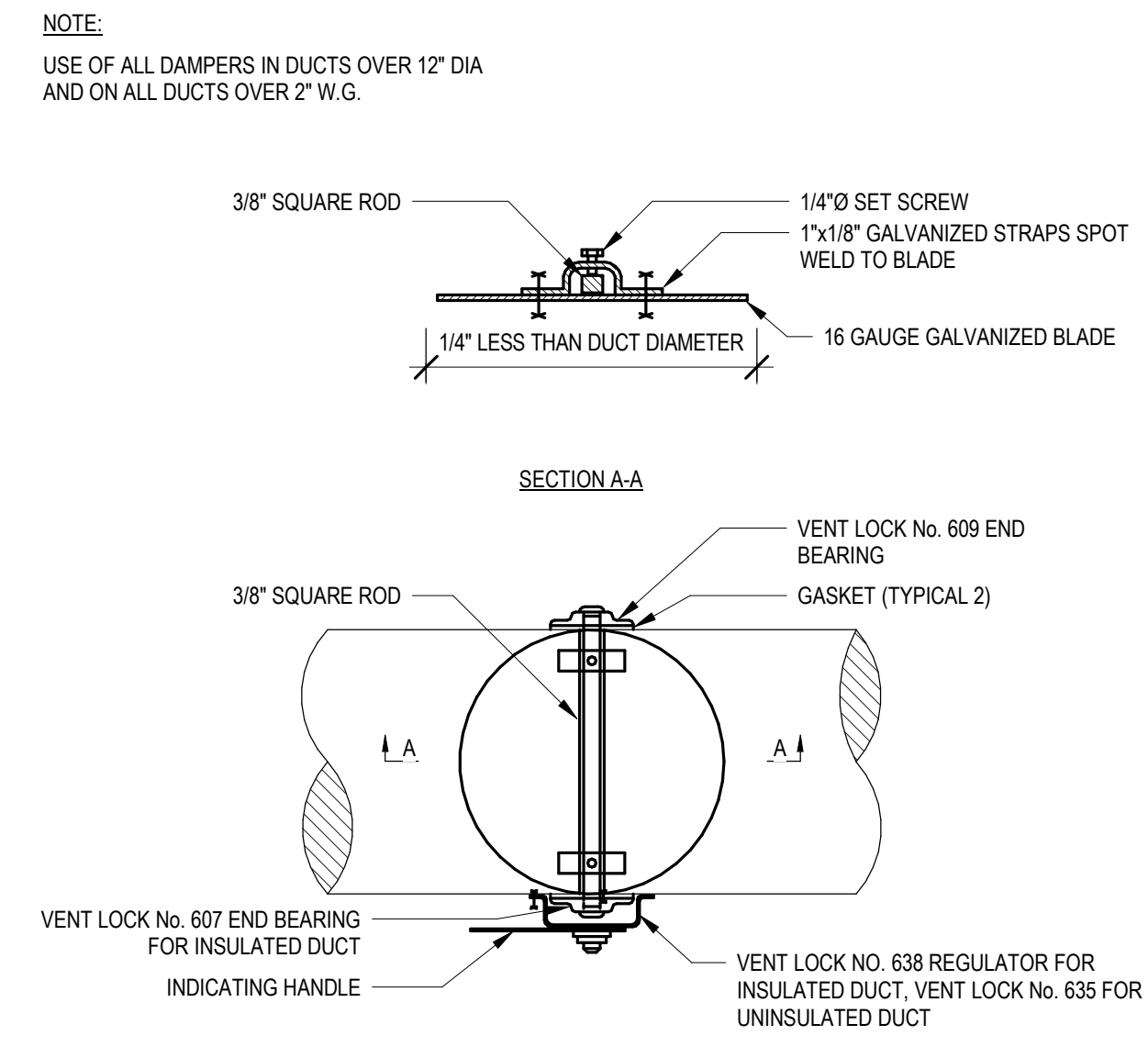
Project Number
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Description
MECHANICAL DETAILS

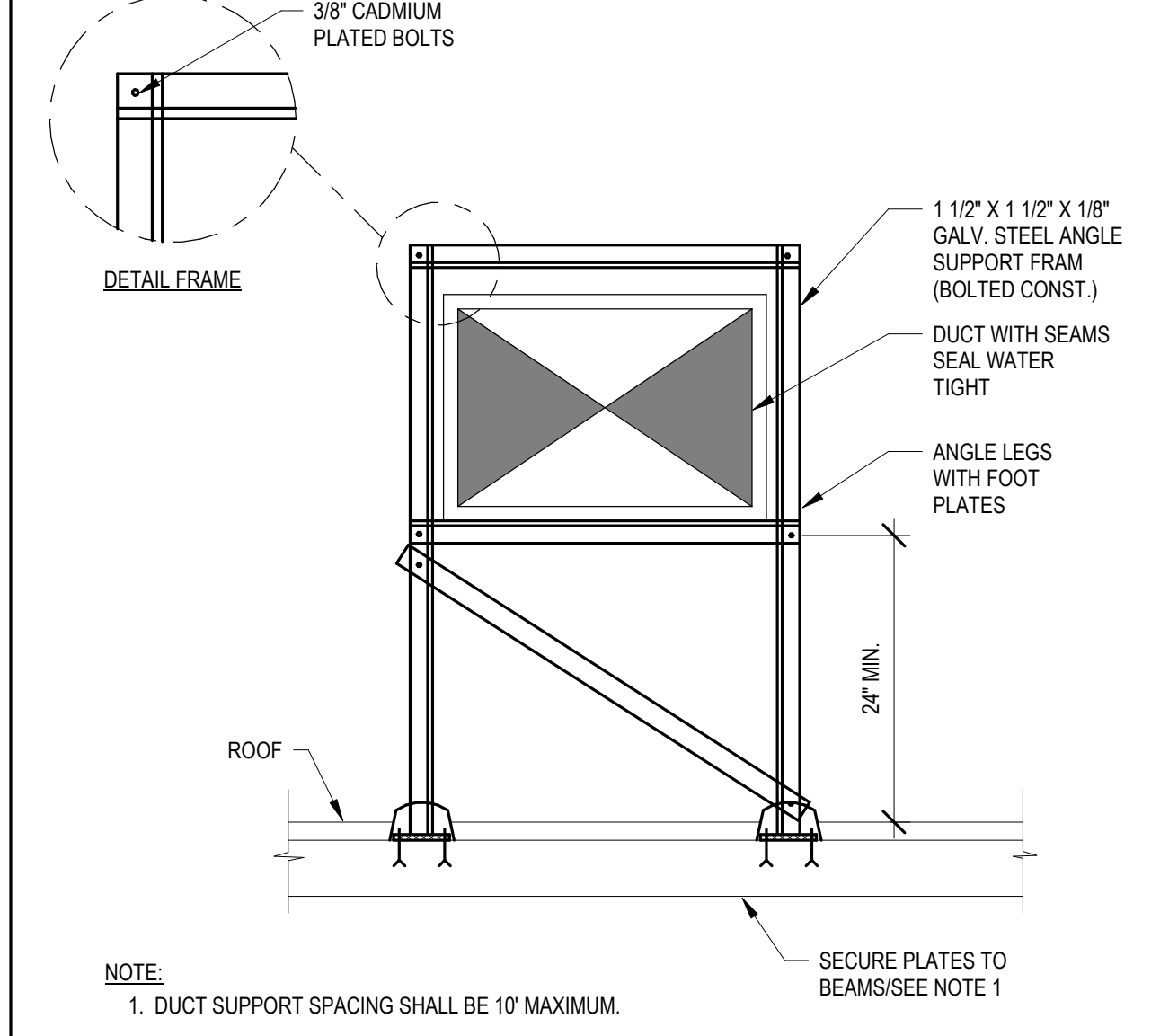
Scale
 NTS

M501

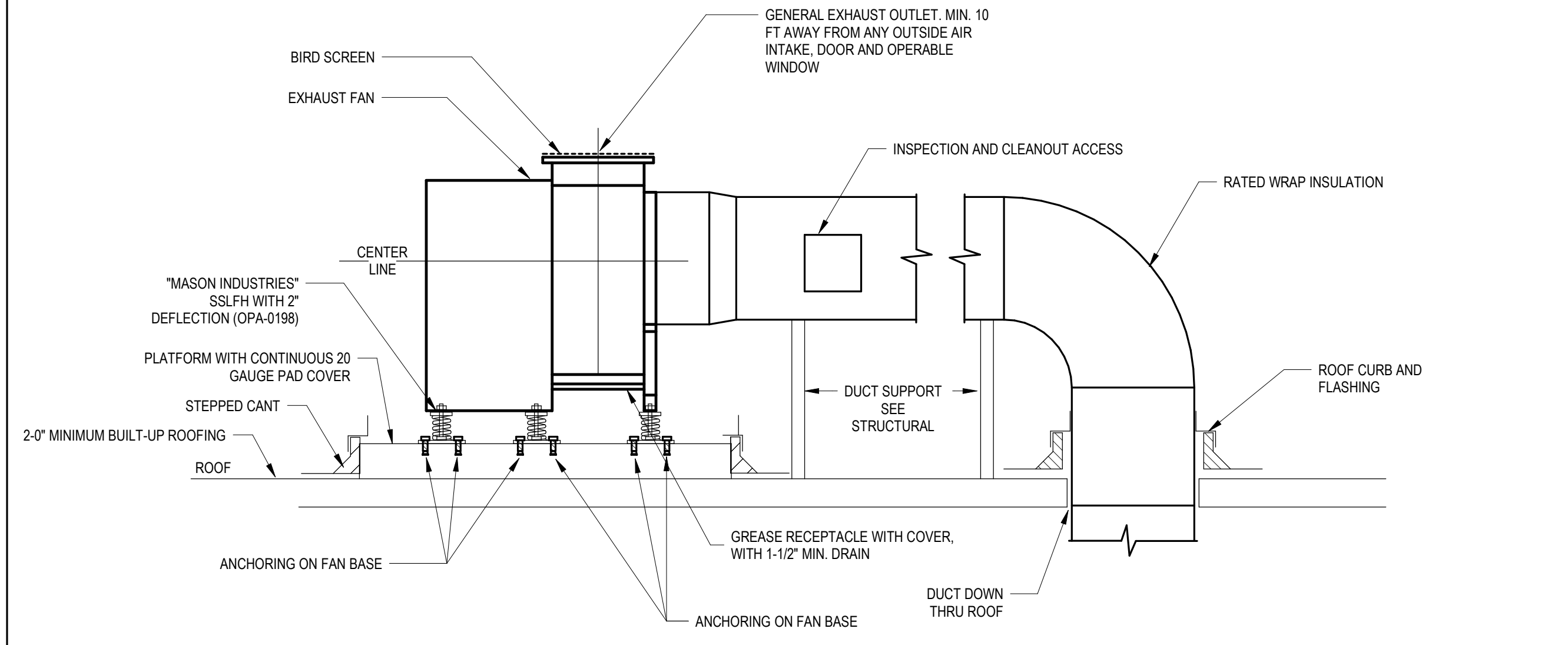
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ROUND VOLUME DAMPER SCALE NTS **4**



ROOF DUCT SUPPORT SCALE NTS **1**



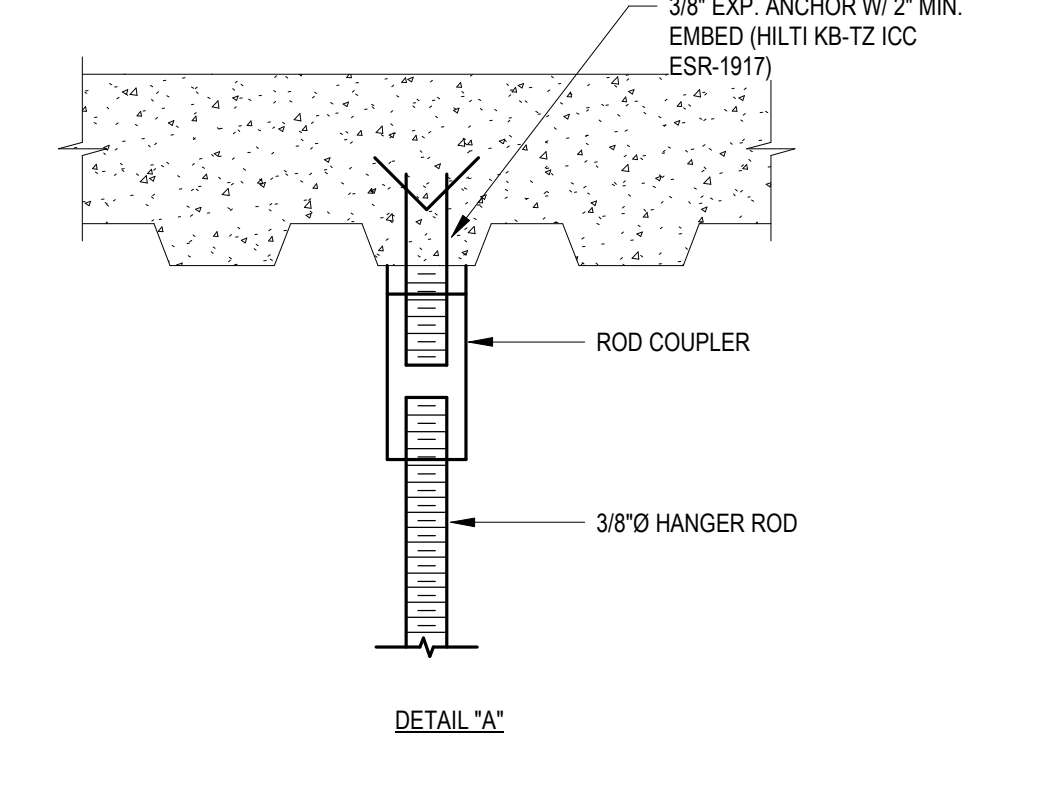
ROOF MOUNTED UTILITY SET EXHAUST FAN WITH SPRING SCALE NTS **6**

HANGER SPACING AND COMPONENT VERIFICATION CHART FOR STEEL PIPE

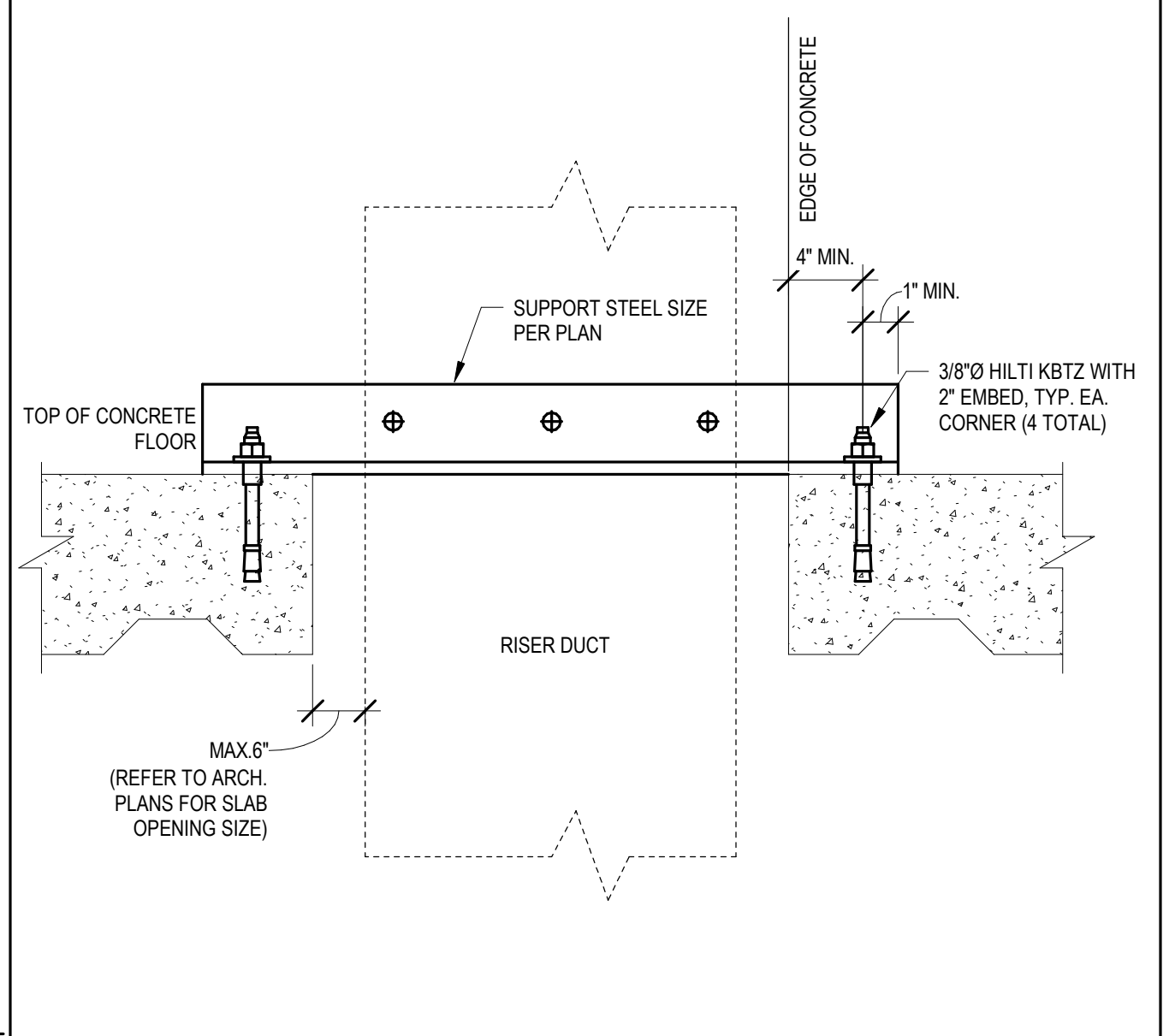
PIPE SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
MAXIMUM HANGER SPAN (FT)	8	8	10	10	10	10
WEIGHT OF PIPE (LBS) / PER FT	0.9	1.1	1.7	2.3	2.7	3.7
WEIGHT OF 1.5" INSUL. (LBS) / PER FT	0.3	0.3	0.7	0.8	0.9	1
WEIGHT OF WATER (LBS) / PER FT	0.1	0.2	0.4	0.7	0.9	1.5
TOTAL WEIGHT (LBS) / PER FT	1.3	1.7	2.8	3.8	4.5	6.2
MAX. WEIGHT PER SPAN (LBS) - INCLUDES PIPE, WATER, & INSULATION	10.5	13.4	27.7	38	44.8	61.5
HANGER ROD SIZE	3/8"					

HANGER SPACING AND COMPONENT VERIFICATION CHART FOR COPPER PIPE

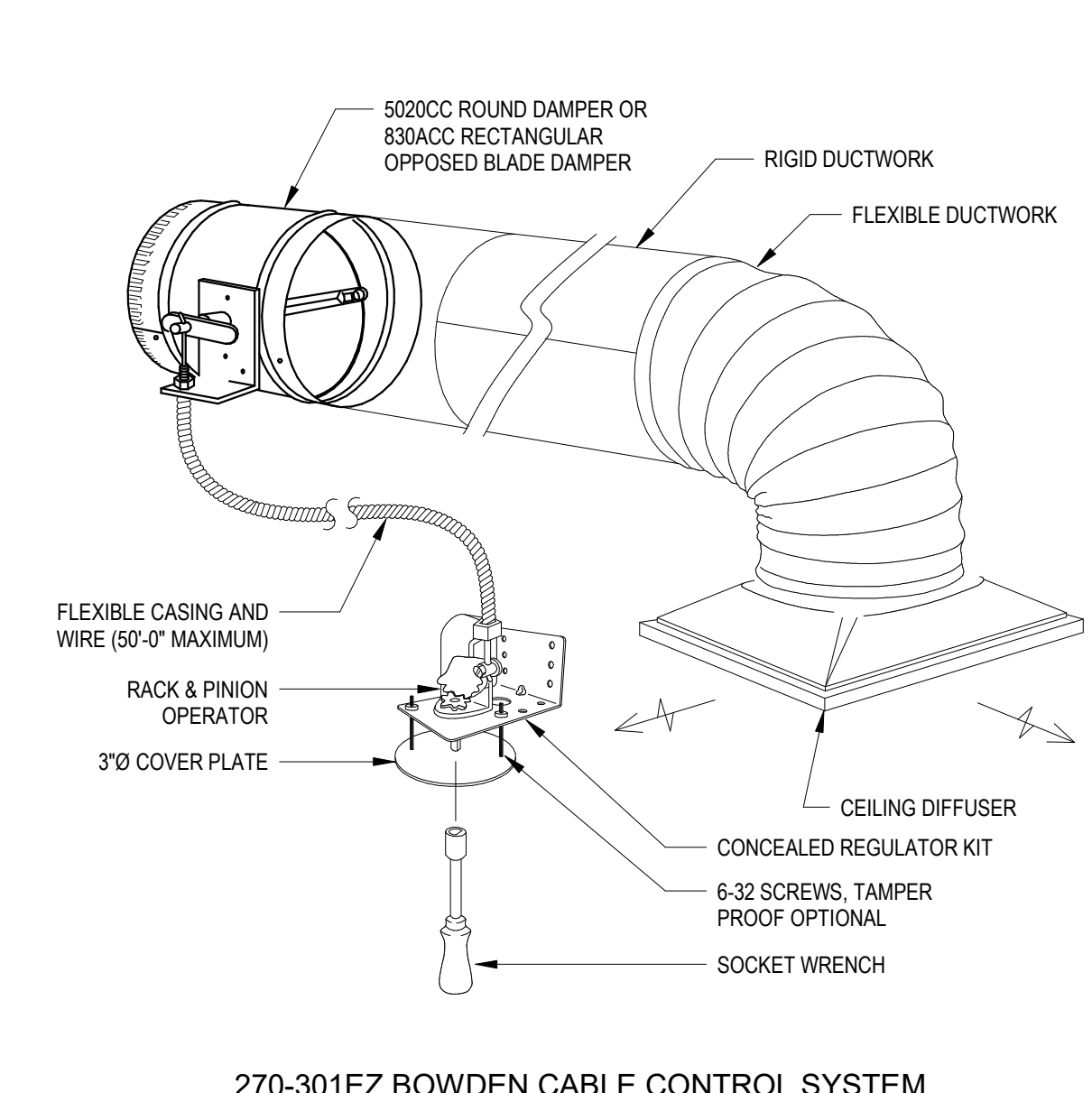
PIPE SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
MAXIMUM HANGER SPAN (FT)	5	5	6	6	6	8
WEIGHT OF PIPE (LBS) / PER FT	0.3	0.5	0.7	0.9	1.1	1.8
WEIGHT OF 1.5" INSUL. (LBS) / PER FT	0.3	0.3	0.6	0.7	0.7	0.7
WEIGHT OF WATER (LBS) / PER FT	0.1	0.2	0.4	0.5	0.8	1.3
TOTAL WEIGHT (LBS) / PER FT	0.7	1	1.6	2.1	2.6	3.8
MAX. WEIGHT PER SPAN (LBS) - INCLUDES PIPE, WATER, & INSULATION	3.6	4.9	9.7	12.7	15.6	30.3
HANGER ROD SIZE	3/8"					



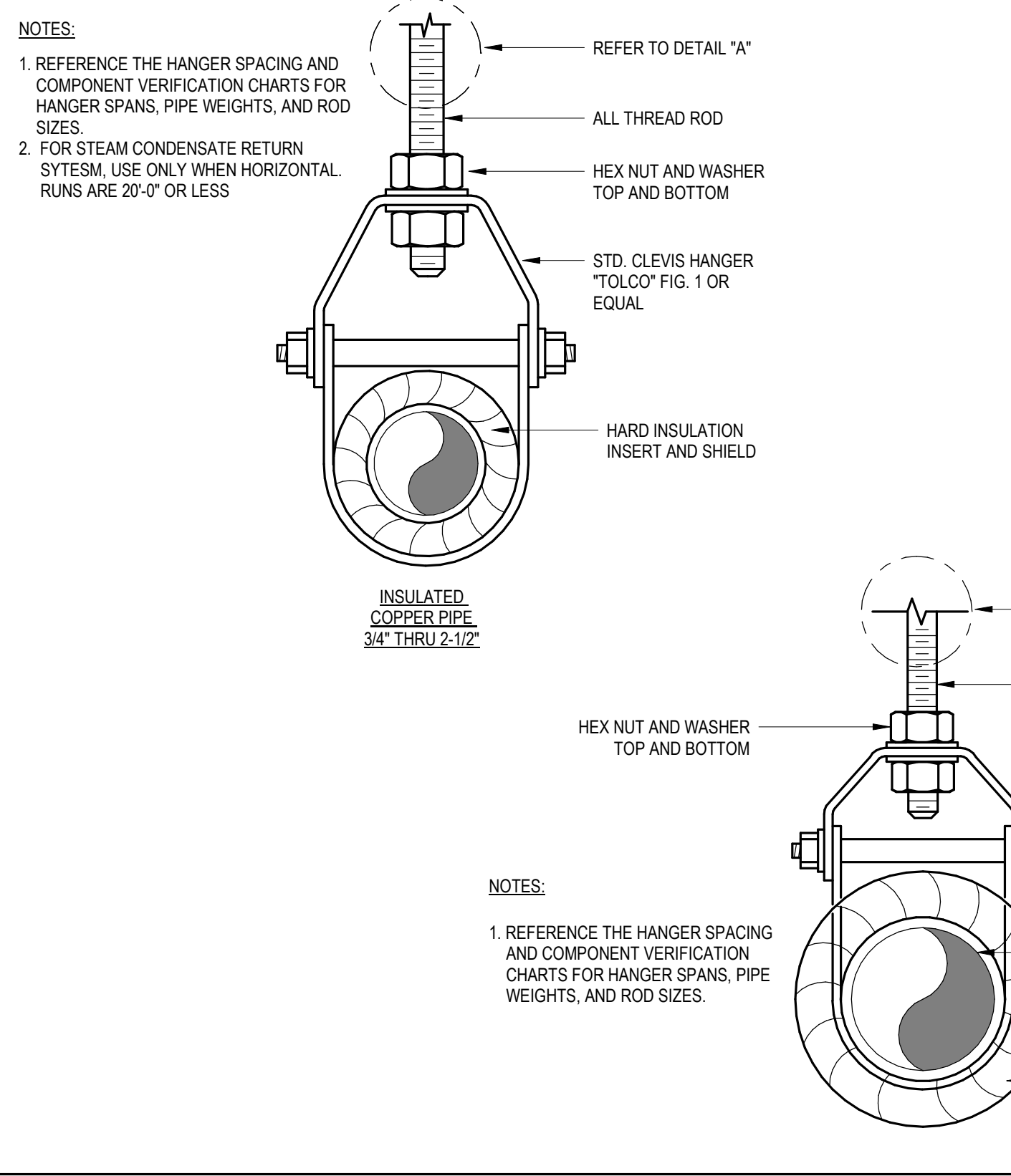
PIPE ATTACHMENT DETAIL SCALE NTS **2**



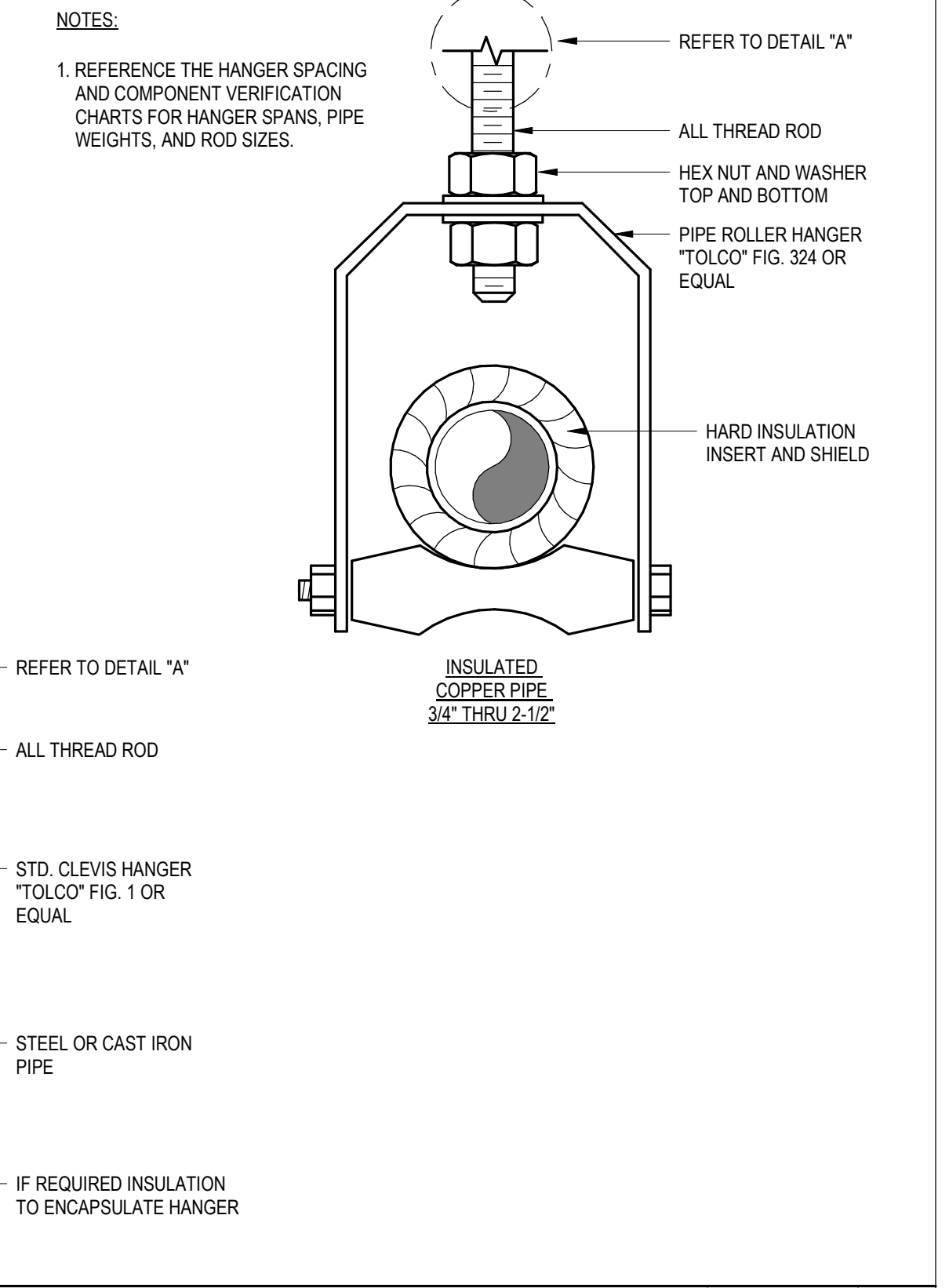
RISER DUCT SUPPORT DETAIL SCALE NTS **8**



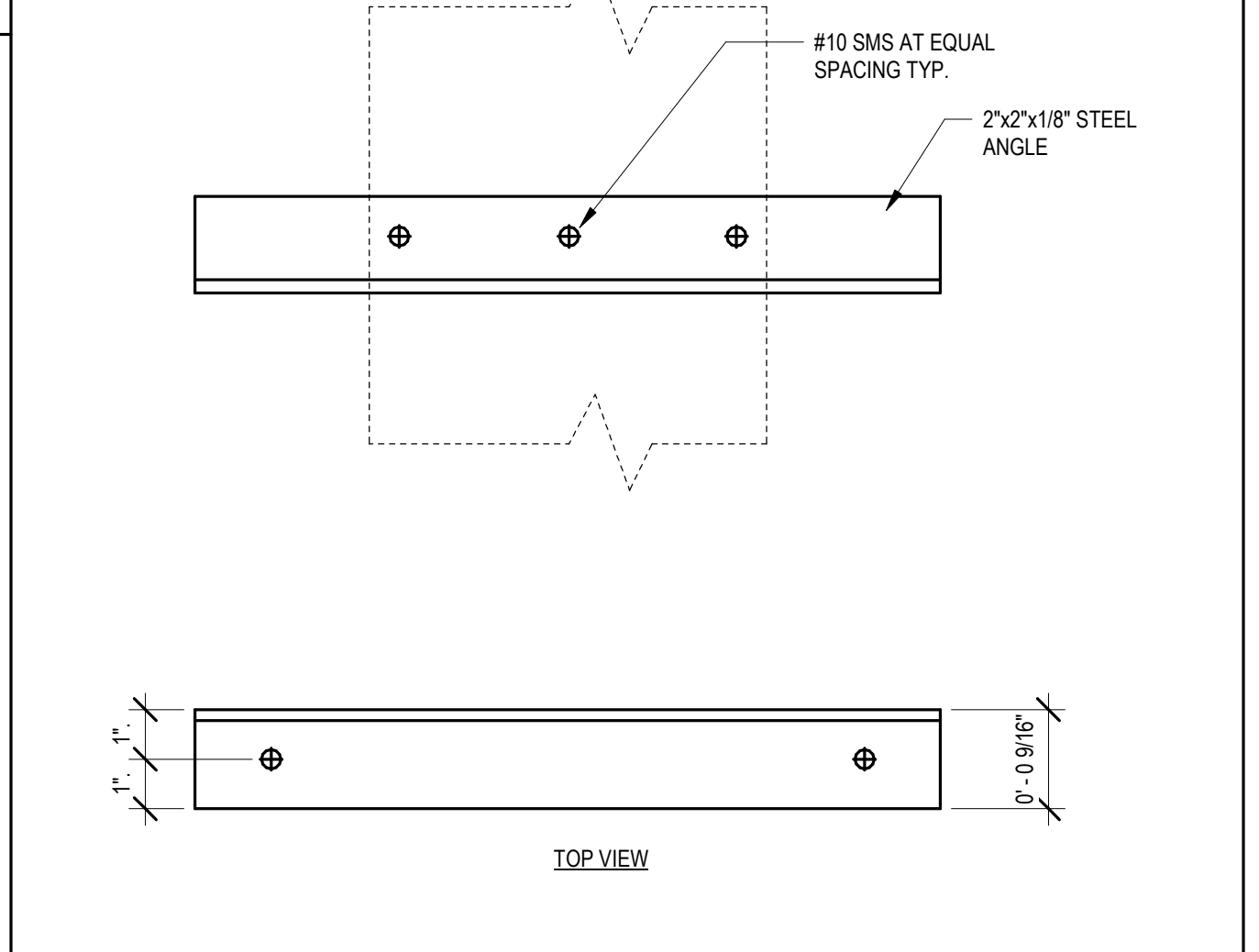
REMOTE CABLE CONTROLLED VOLUME DAMPER SCALE NTS **7**



LAMICOID NAMEPLATE DETAIL SCALE NTS **5**



THERMOSTAT MOUNTING SCALE NTS **3**



270-301EZ BOWDEN CABLE CONTROL SYSTEM
NO SCALE

NOTE:

- COORDINATE EXACT LOCATION OF CEILING MOUNTED CONCEALED REGULATOR WITH ARCHITECT PRIOR TO INSTALLATION.
- THE 270-301EZ BOWDEN CABLE CONTROL SYSTEM IS DESIGNED TO BE IMBEDDED IN THE CEILING FLUSH WITH THE FINISHED SURFACE. DAMPER POSITION INDICATOR VISIBLE UNDER COVER PLATE.
- CABLE SHALL CONSIST OF BOWDEN CABLE 0.054" STAINLESS STEEL CONTROL WIRE ENCAPSULATED IN 1/16" FLEXIBLE GALVANIZED SPIRAL WIRE SHEATH.
- LOCKING RACK AND PINION GEAR DRIVE SHALL BE CONSTRUCTED OF 14 GAUGE STEEL AND SHALL BE USED TO CONVERT ROTARY MOTION INTO PUSH-PULL MOTION.
- CONTROL SHAFT SHALL BE "D"-STYLE FLATTENED 1/4" DIAMETER WITH 285° ROTATION PROVIDING 1-1/2" LINEAR TRAVEL CAPABILITY.

NOTE:

- CONTRACTOR SHALL PROVIDE LAMICOID EQUIPMENT NAMEPLATE FOR ALL EQUIPMENT WITHIN THE AREA OF WORK. NAMEPLATE SHALL BE MINIMUM 6" LONG X 4" TALL. UNIT SHALL BE IMPRINTED WITH 1/2" TALL LETTERING, CENTERED HORIZONTALLY ON NAMEPLATE. DIRECTLY BELOW UNIT DESIGNATION INCLUDE SERVICE AREA AND UNIT ELECTRICAL FED FROM SOURCE IN 3/8" LETTERING. E.G. "TED FROM PANEL X CIRCUIT 1.3.5". SUBMIT EQUIPMENT NAMEPLATE INFORMATION AND SAMPLE PRIOR TO ORDERING AND INSTALLATION. ALL TEXT SHALL BE WHITE.

LAMICOID NAMEPLATE, COLORED BY SYSTEM:
BLACK-UTILITY POWER
RED-SEP POWER
BLUE-UPS POWER

NOTE:
PROVIDE LAMICOID NAMEPLATE FOR: ENTER EQUIPMENT NAME HERE (I.E. AHU,XX, FC,XX)

Date	Description
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06/20/2022	ISSUE FOR CONSTRUCTION

Seal / Signature



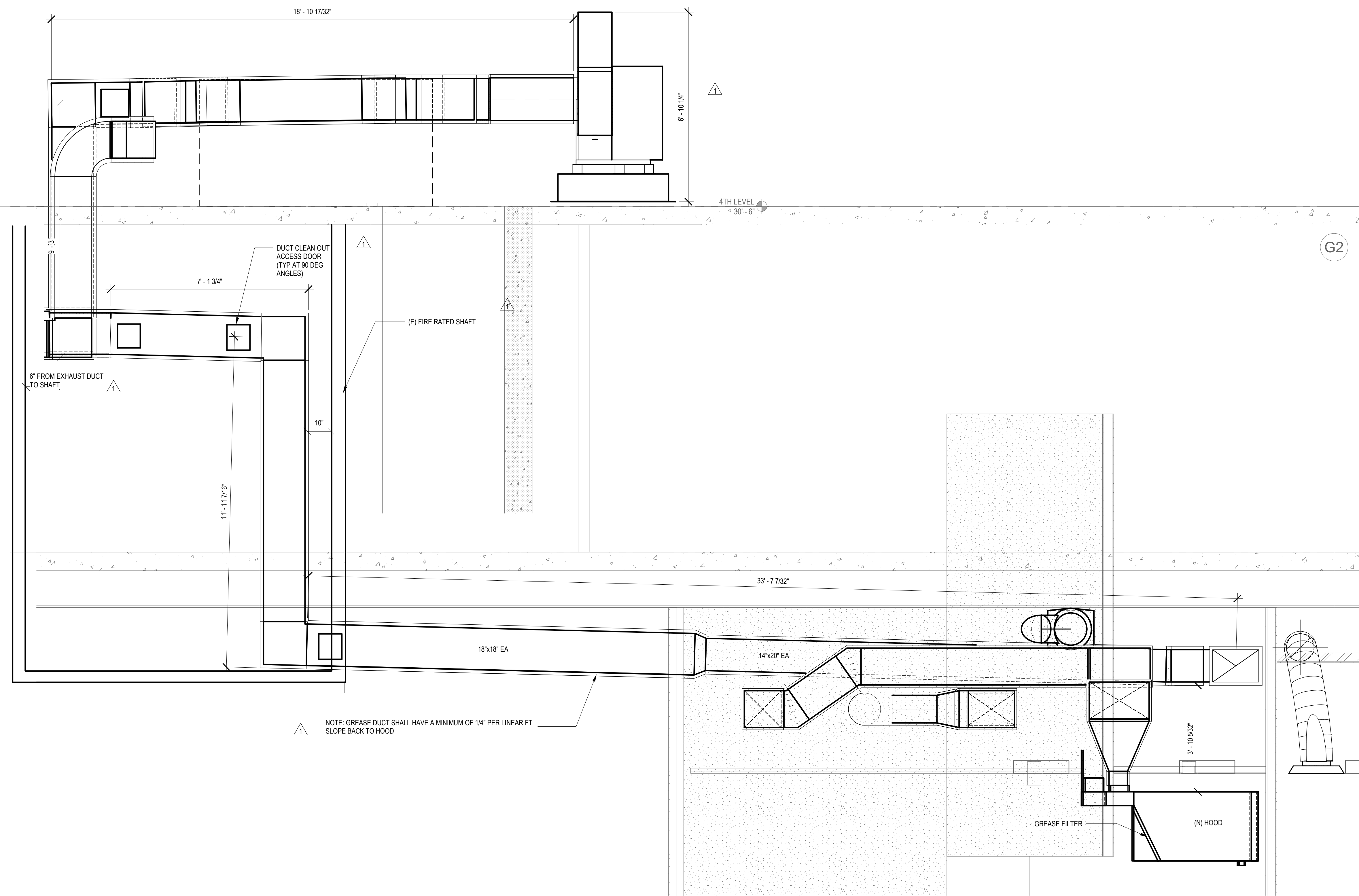
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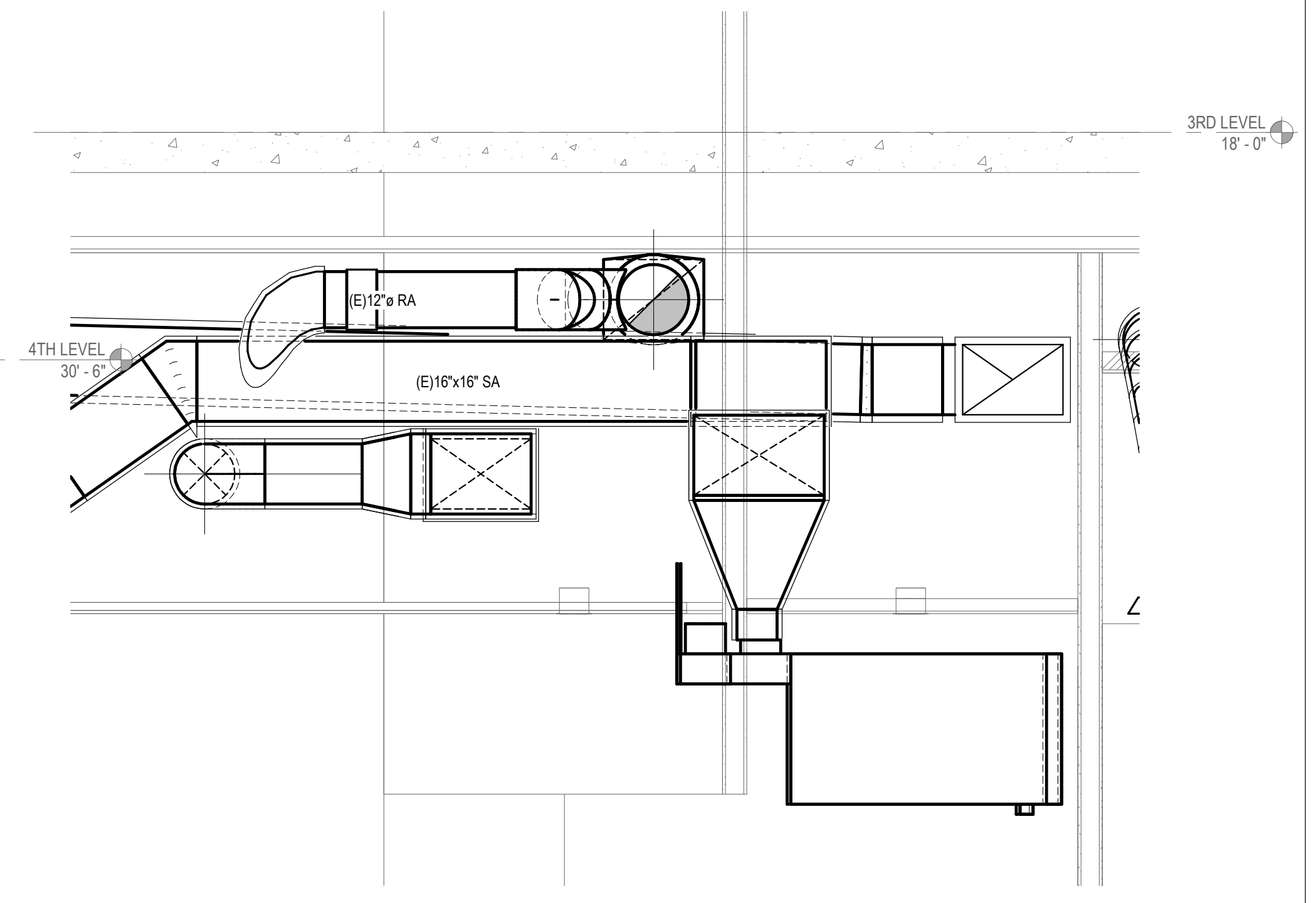
Description
MECHANICAL DETAILS

Scale
As indicated

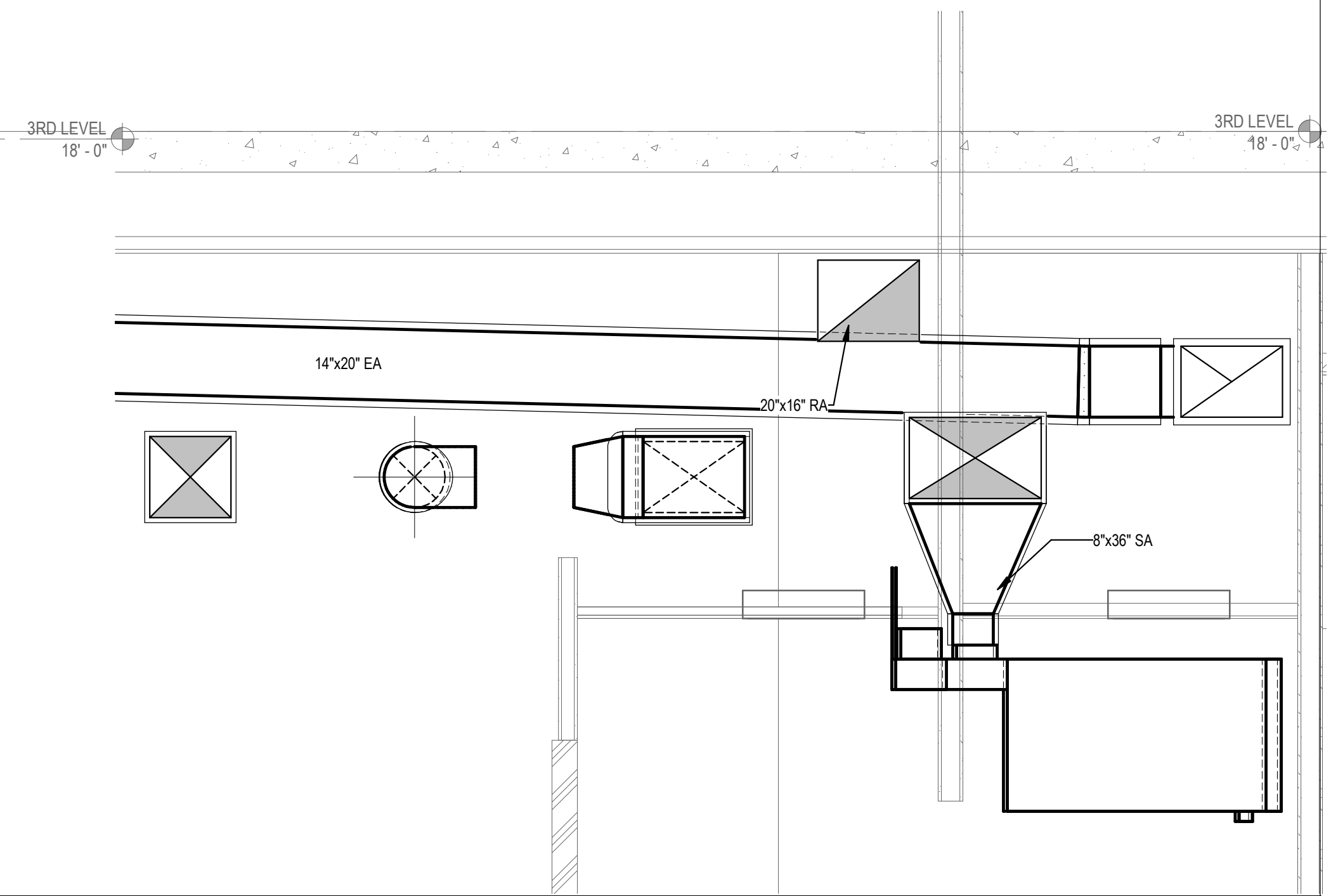
M502



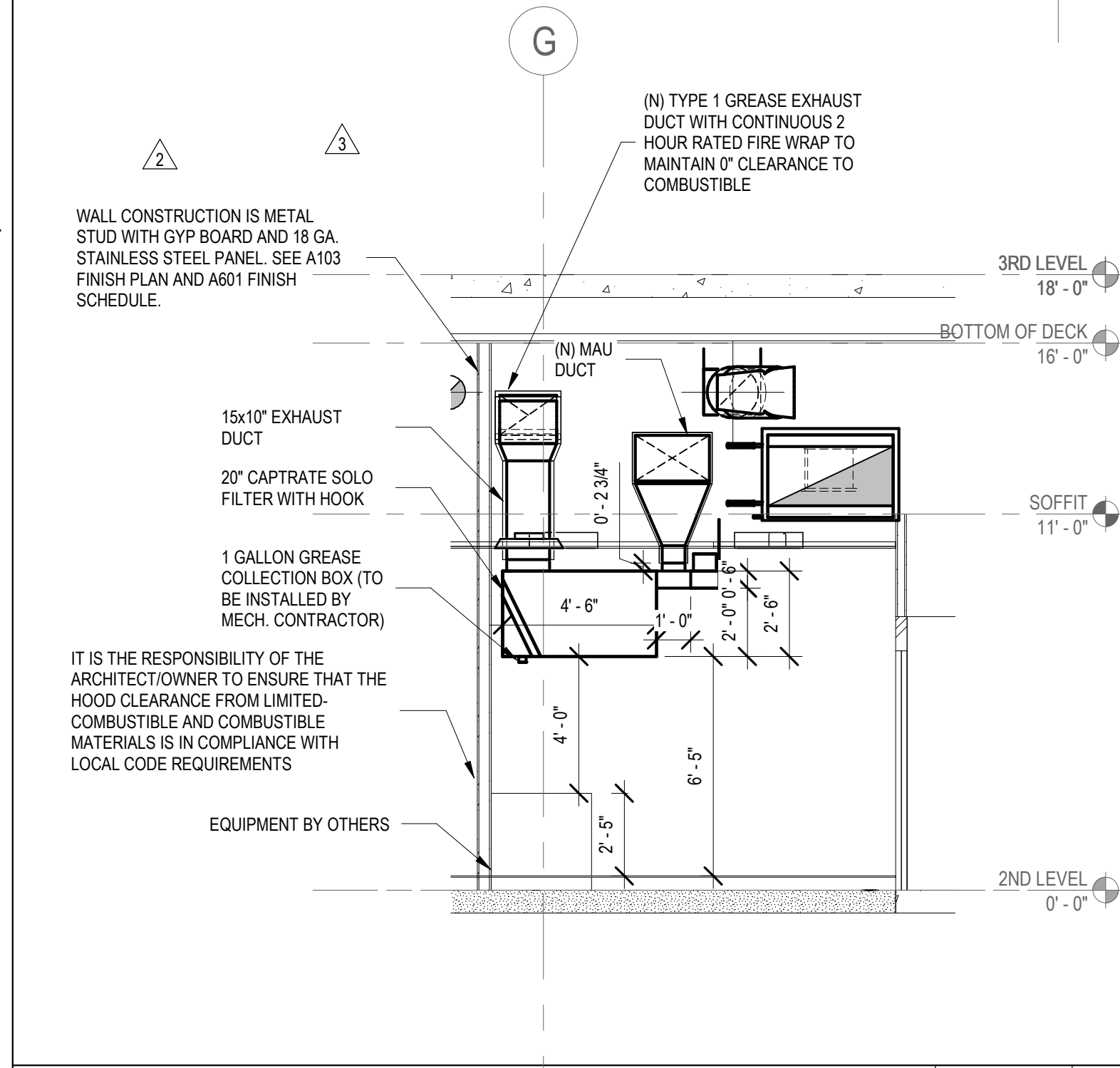
EXHAUST FAN ROUTING SCALE 1/2" = 1'-0" **5**



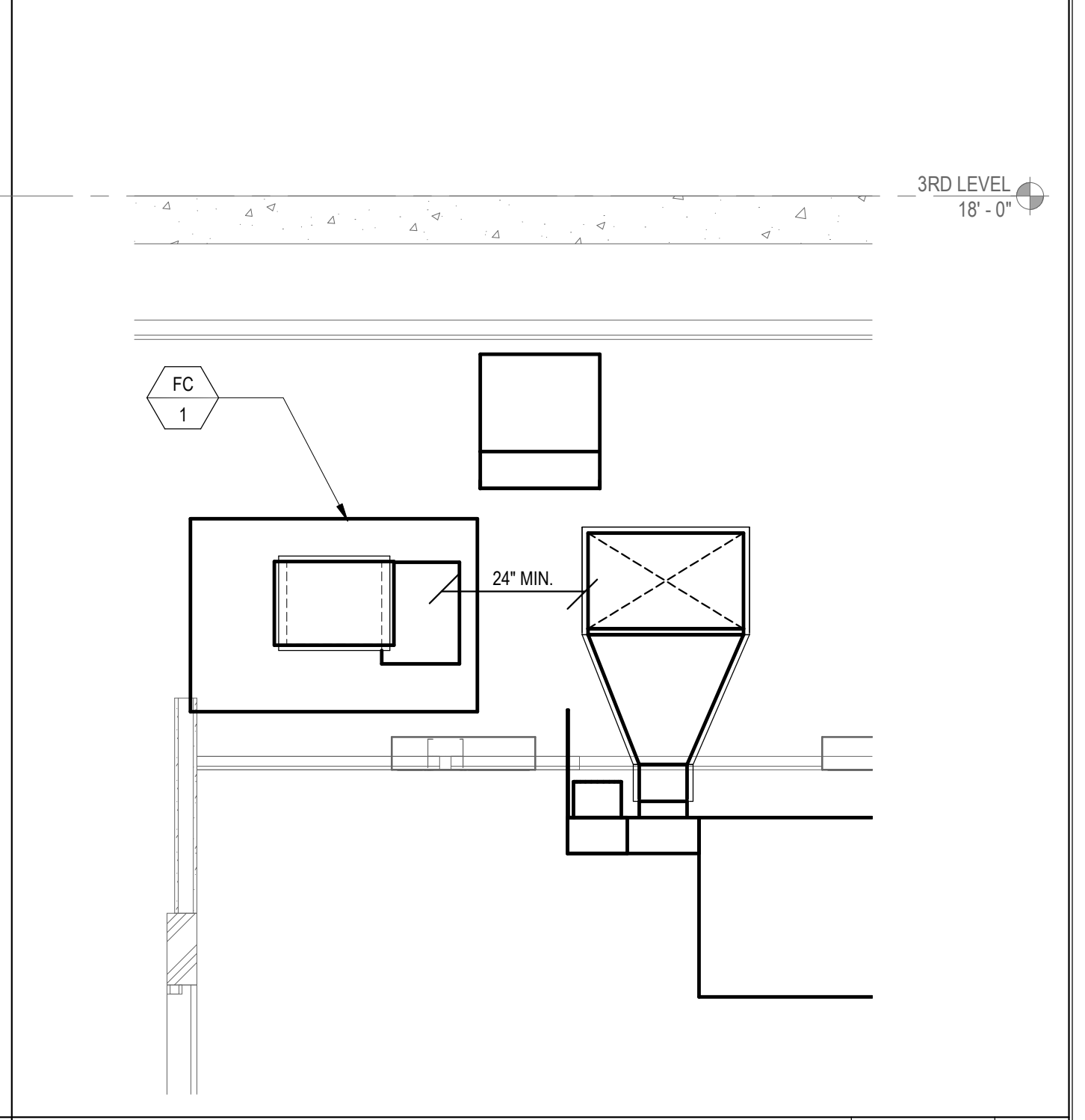
Section 3 SCALE 1/2" = 1'-0" **3**



Section 2 SCALE 1/2" = 1'-0" **2**



KITCHEN HOOD DIMENSIONS SCALE 1/4" = 1'-0" **4**



FAN COIL CLEARANCE SCALE 1/2" = 1'-0" **1**

Date	Description
01/07/2022	ISSUE FOR PERMIT/BD
1 03/22/2022	ADDENDUM #1
2 04/13/2022	ADDENDUM #2
3 04/21/2022	ADDENDUM #3
06/20/2022	ISSUE FOR CONSTRUCTION

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Project Name
SHAKE SHACK - TOPANGA MALL

Project Number
05.3781.000

Description
MECHANICAL ELEVATIONS

Scale
As indicated

M503

AIR BALANCE TABLE (FOH, KITCHEN, BOH)

	HVAC SUPPLY (CFM)	HVAC RETURN (CFM)	HVAC OSA (CFM)	HOOD OSA (CFM)	HOOD EXHAUST (CFM)	GENERAL EXHAUST (CFM)	AREA SERVED
FC-1	2200	1800	240 [△]	-	-	-	FOH, KITCHEN, BOH
MAU-1	2520	-	-	2520	-	-	KITCHEN HOOD
KEF-1	-	-	-	-	3150	-	KITCHEN HOOD
TOTAL	4720	1800	240 [△]	2520	3150	-	-
PRESSURIZATION			2760 [△]		3150		

KITCHEN STATIC PRESSURE CALCULATIONS

HOOD CFM: -3150 CFM
MAU CFM = + 2520
FCU CFM : +200
TOTAL = -430 CFM

FREE AREA OPEN TO MALL: 7.33'x7' = 51.3 SF

$((CFM/SF)/4005)^2 = "WC$
 $((-430/51.3)/4005)^2 = -0.00000438"$

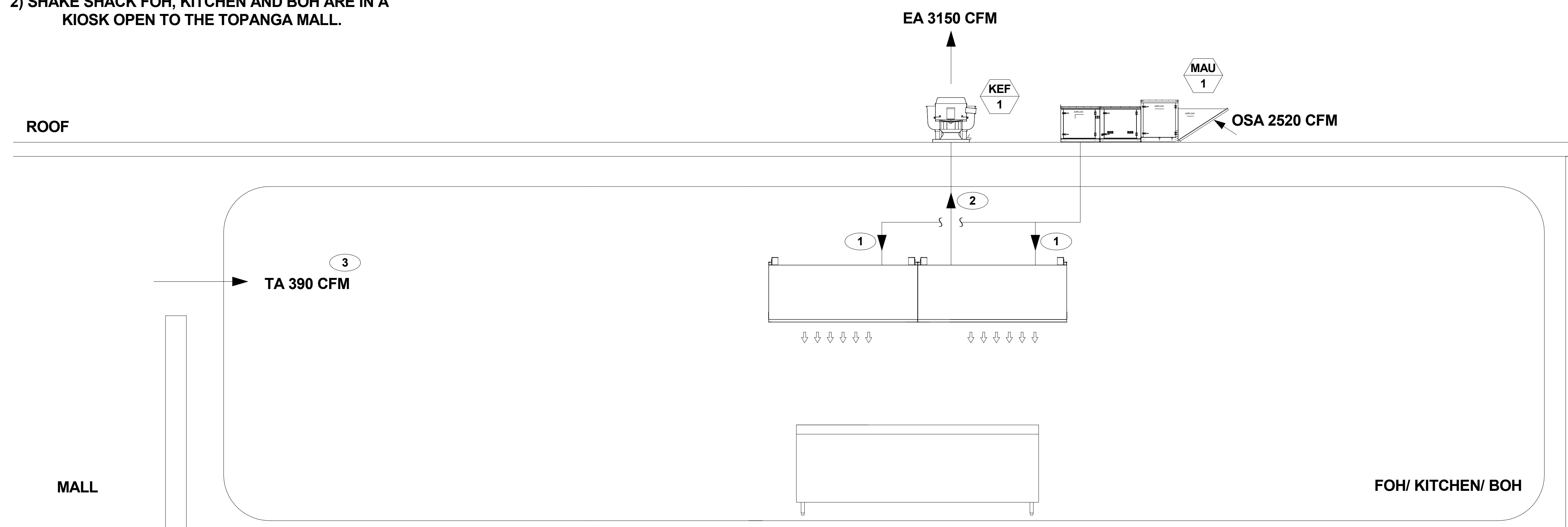
-0.00000438" W.C. < 0.2" W.C.

NOTE:

- 1) FOH, KITCHEN, BOH ARE ALL PART OF ONE OPEN ZONE.
- 2) SHAKE SHACK FOH, KITCHEN AND BOH ARE IN A KIOSK OPEN TO THE TOPANGA MALL.

TOTAL PRESSURIZATION DIFFERENCE = -390

NOTE: AIR WILL TRANSFER INTO THE KIOSK FROM THE SURROUNDING MALL



KEYNOTES:

1. MAKE UP AIR TO SUPPLY KITCHEN HOOD.
2. KITCHEN HOOD EXHAUST.
3. TRANSFER AIR TO KITCHEN FROM ADJACENT SPACE.

Date	Description
01/07/2022	ISSUE FOR PERMIT/BID
03/22/2022	ADDENDUM #1
06/20/2022	ISSUE FOR CONSTRUCTION

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Project Name

SHAKE SHACK - TOPANGA MALL

Project Number

05.3781.000

Description

MECHANICAL AIRFLOW DIAGRAMS

Scale

NTS

M601



WESTFIELD TOPANGA
6600 TOPANGA CANYON BLVD.
SPACE #FC10
CANOGA PARK, CA 91303

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United States
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Contact:
Michael Henderson
Tel 508.399.2392

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Project Name

SHAKE SHACK - TOPANGA MALL

Project Number

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Description

MECHANICAL CONTROL DIAGRAMS

Scale

NTS

M602

FOH, KITCHEN AND BOH

MAU-1

- MAKE-UP UNIT SUPPLY AIR FAN SHALL BE ENERGIZED AND THE OUTSIDE AIR DAMPER SHALL OPEN 100% WHEN EXHAUST FAN KEF-1 IS ENERGIZED.
- MAKE-UP UNIT SUPPLY AIR FAN SHALL BE DE-ENERGIZED BY ANY KITCHEN EXHAUST HOOD FIRE EXTINGUISHING SYSTEM, OR SMOKE DETECTOR ALARMS.
- DX COOLING SHALL ENABLE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE BETWEEN 75 DEG-F (ADJ.) AND 60 DEG-F (ADJ.).

KITCHEN EXHAUST FAN (KEF-1)

- KEF-1 SHALL BE ENERGIZED BY CONTACTORS IN HOOD CONTROL PANEL. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.
- INTERLOCK THE MAKEUP AIR UNIT WITH KEF-1 SO THE MAKEUP AIR UNIT SUPPLY AIR FAN IS ENERGIZED WHEN THE EXHAUST FANS ARE ENERGIZED.
- UPON ALARM FROM KITCHEN EXHAUST HOOD FIRE EXTINGUISHING SYSTEM, EXHAUST FANS SHALL CONTINUE TO RUN.
- NORMAL TEMPERATURE TEST: EXHAUST FAN SHALL OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300 DEG-F UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

KITCHEN EXHAUST HOODS (KEH-1 AND KEH-2)

- THE ELECTRICAL PACKAGE, TYPICALLY FP, IS DESIGNED TO THERMOSTATICALLY ACTIVATE THE EXHAUST FAN FOR AN EXHAUST HOOD WHENEVER ELEVATED TEMPERATURES ARE SENSED IN THE EXHAUST SYSTEM. THIS OPTION WILL MEET THE REQUIREMENTS OF BY PROVIDING A THERMOSTAT(S) MOUNTED IN THE DUCT OR HOOD RISER TO SENSE INCREASED EXHAUST TEMPERATURES.
- CONTROLS SHALL BE LISTED BY ETL (UL 508A). THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBES(S) LOCATED IN THE DUCT RISER SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A ROOM TEMPERATURE SENSOR IS ALSO PROVIDED FOR FIELD INSTALLATION IN THE KITCHEN SPACE IN ORDER TO START THE FAN(S) BASED ON THE TEMPERATURE DIFFERENTIAL BETWEEN THE ROOM AND THE EXHAUST AIR IN THE DUCT, RATHER THAN FIXED SET-POINTS. THE SYSTEM IS FACTORY PRE-SET TO ACTIVATE THE FANS AT 10 DEG-F ABOVE THE ROOM TEMPERATURE.
- ONCE THE DUCT TEMPERATURE REACHES THE ACTIVATION POINT, THE EXHAUST FANS WILL BE ACTIVATED. THE CONTROLS ALSO PROVIDE HYSTERESIS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND THE HEAT IN THE EXHAUST SYSTEM IS REDUCED. THE HYSTERESIS IS FACTORY SET 2 DEGREES AND WILL KEEP THE EXHAUST RUNNING UNTIL THE TEMPERATURE FALLS 2 DEGREES BELOW THE ACTIVATION SET POINT. A HYSTERESIS TIMER ALSO EXISTS TO KEEP THE FANS RUNNING FOR AT LEAST 30 MIN AFTER BEING ACTIVATED BY THE TEMPERATURE RISE.
- THE ACTIVATION AND HYSTERESIS SETTINGS MAY BE FIELD ADJUSTED ON THE BOARD LCD INTERFACE LOCATED INSIDE THE CONTROL ENCLOSURE TO MEET APPLICATION NEEDS. THE PANEL IS FACTORY CONFIGURED TO SHUT DOWN SUPPLY FANS, TURN ON THE EXHAUST FANS AND TURN OFF THE HOOD LIGHTS IN A FIRE CONDITION.

FC-1

- FC UNIT SHALL BE COMPLETE WITH A BMS TEMPERATURE SENSOR. TEMP SENSOR SCHEDULE SHALL FOLLOW OCCUPANCY SCHEDULE OF TOPANGA MALL.
- TEMP SHALL BE 70F MIN. AND 74F MAX (ADJ.)

SEQUENCE OF OPERATION

1
NTS

STATIC PRESSURE CALCULATIONS: KEF-1

EXHAUST FAN CFM = 3150 CFM

EXHAUST DUCT VELOCITY TO FAN = 1630 FPM, 1500 FPM

STATIC PRESSURE LOSSES:

HOOD = 0.524"
15"x10" HOOD RISERS AND GREASE FILTERS = 0.2"
18"x18" DUCTS AND FITTINGS = 1.04"
19" DUCTS AND FITTINGS = .008"
20% SAFETY FACTOR = 0.56"
TOTAL S.P. = 2.13"

FAN COIL UNIT

ITEM	ITEM NO.	MANUFACTURER	MODEL	AREA SERVED	CFM / OSA CFM	SENSIBLE COOLING CAPACITY BTUHR	E.S.P.	BHP	EAT DB/WB (DEG-F)	LAT DB/WB (DEG-F)	WATER				V, PH, HZ	FLA	WT. (LBS)	REMARKS
											EWTLWT	FLUID FLOW RATE (GPM)	PRESSURE DROP (FT WG)	COIL ROWS				
FC	1	CARRIER	42BHE30	KITCHEN / BOH	2200/240	73,279	0.75	0.67	80/67	56.5/55.6	45/55	14.5	3.5	4 ROWS	208-1-60	6.6	364	1, 2, 3, 4

NOTES:

1. PROVIDE WITH BMS CAPABLE TEMPERATURE SENSOR.
2. INCLUDE 4" MERV-13 FILTER BOX BY MANUFACTURER
3. BLOWER COIL SHALL BE TIED INTO (E) CV-2 FOR OUTSIDE AIR.
4. PROVIDE DUCT MOUNTED UV LIGHTS.

DX COOLING/GAS HEATING MAKEUP AIR UNIT SCHEDULE

ITEM	ITEM NO.	MANUFACTURER	MODEL	AREA SERVED	CFM	E.S.P. (IN. WG.)	SUPPLY FAN					COOLING							HEATING				FILTER EFF. (%)	WT. (LBS)	REMARKS										
							FAN RPM	FAN BHP	HP	V	PH	FLA	MCA	MOCOP	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	TOTAL CAPACITY MBH	SENSIBLE CAPACITY MBH	SEER	V				PH	RLA	MCA	MOCOP	INPUT (MBH)	OUTPUT (MBH)	TEMP RISE (DEG-F)	EFF.	INLET (IN.)	INLET GAS PRESSURE
MAU	1	CAPTIVEAIRE	A2-D.250-20D-MPU	KITCHEN	2520	3.7	2147	4.461	7.5	208	3	21.1	26.4	45	95	78	81.4	72.0	60.0	35.0	14	208	3	17.4	21.4	30	170.66	157.007	60.0	92%	1" NPT	7"-14" WC	MERV-13	1436	1, 2, 3, 4, 5, 6, 7, 8

NOTES:

1. PROVIDE WITH CASLINK BUILDING MONITORING SYSTEM FOR FUTURE CONNECTION.
2. PROVIDE WITH INLET AND MANIFOLD PRESSURE GAUGES.
3. PROVIDE WITH MOTORIZED BACKDRAFT DAMPER.
4. PROVIDE WITH FAN VFD.
5. PROVIDE WITH RIGID CURB, COORDINATE CURB REQUIREMENTS WITH MANUFACTURER.
6. SEE M806 AND M807 FOR FIELD WIRING.
7. PROVIDE UNIT MOUNTED UV LIGHTS.
8. PROVIDE WITH HAIL GUARD

KITCHEN EXHAUST FAN SCHEDULE

ITEM	ITEM NO.	MANUFACTURER	MODEL	AREA SERVED	SUPPLY FAN					ELECTRICAL					WT. (LBS.) W/ CURB	REMARKS
					CFM	ESP	TYPE	DRIVE	RPM	HP	V	PH	HZ	FLA		
KEF	1	CAPTIVEAIRE	USB18DD-RM	KITCHEN HOOD	3150	2.2	UTILITY - SIDE DISCHARGE	DIRECT	1520	3.0	208	3	60	9.5	452	1, 2

NOTES:

1. PROVIDE WITH FACTORY VENTED CURB, GREASE CUP, ECM WIRING PACKAGE, AND FAN BASE CERAMIC SEAL.
2. SEE M805 FOR FIELD WIRING.

KITCHEN EXHAUST HOOD SCHEDULE

ITEM	ITEM NO.	MANUFACTURER	MODEL	LENGTH X WIDTH	EXHAUST COLLAR				SUPPLY COLLAR				HOOD CONSTRUCTION	FIRE SYSTEM	FIRE SYSTEM PIPING	WT. (LBS)	REMARKS
					CFM	LENGTH	WIDTH	ESP	CFM	LENGTH	WIDTH	ESP					
KEH	1	CAPTIVEAIRE	5430 ND-2-ACPSP-F	9'-0" X 6'-4"	1575	15"	10"	-0.524"	1260	128"	22"	0.152	430 SS	ANSUL R102	YES	854	1, 2, 3, 4
KEH	2	CAPTIVEAIRE	5430 ND-2-ACPSP-F	9'-0" X 6'-4"	1575	15"	10"	-0.524"	1260	108"	22"	0.152	430 SS	-	-	657	1, 2, 3

NOTES:

1. INSTALLED PER MANUFACTURER'S RECOMMENDATION.
2. PROVIDE WITH UL APPROVED MANUAL AIR VOLUME DAMPER ON EXHAUST COLLAR BY HOOD MANUFACTURER.
3. SEE M801-M804 FOR ADDITIONAL REQUIREMENTS AND FIELD WIRING.
4. HOOD COMPLETE WITH ANSUL SYSTEM

AIR DISTRIBUTION SCHEDULE

MARK NO.	MANUFACTURE MODEL NUMBER	NECK SIZE (IN)	CFM RANGE	MAX NC LEVEL	REMARKS
CD-1	PRICE SMCD	6x8"	60-100	30	NOTE 1,2,3,5
	PRICE SMCD	8x8"	101-200	30	NOTE 1,2,3,5
	PRICE SMCD	10x10"	201-330	30	NOTE 1,2,3,5
	PRICE SMCD	12x12"	331-470	30	NOTE 1,2,3,5
CR-1	PRICE 80SR	6"	60-100	30	NOTE 1,2,3,4
	PRICE 80SR	8"	101-200	30	NOTE 1,2,3,4
	PRICE 80SR	10"	201-375	30	NOTE 1,2,3,4
	PRICE 80SR	12"	376-500	30	NOTE 1,2,3,4
	PRICE 80SR	14"	500-750	30	NOTE 1,2,3,4
	PRICE 80SR	16"	751-900	30	NOTE 1,2,3,4

NOTES:

1. FURNISH WITH OFF-WHITE BAKED ENAMEL FINISH UON. COORDINATE EXACT FINISHES WITH ARCH.
2. PROVIDE OPTIONAL INSULATION ON SUPPLY DIFFUSERS. OMIT INSULATION ON RETURN DIFFUSERS.
3. PROVIDE LAY IN TYPE 24x24 BORDER, OTHERWISE COORDINATE BORDER TYPE WITH ARCH. PRIOR TO ORDERING.
4. PROVIDE WITH INTEGRATED PLENUM AND BEADED NECK.
5. WITH SQUARE TO ROUND ADAPTOR.

DUCT SIZING CHART

AIRFLOW (CFM)	SIZE (IN)
0-189	10X6 OR 6"
190-299	10X6 OR 8"
300 TO 429	14X6 OR 10"
430 TO 599	16X8 OR 12"
600 TO 799	20X8 OR 14"
800 TO 999	24X10 OR 16"
1000 TO 1199	30X10 OR 18"
1200 TO 1450	30X12 OR 20"

FOR COMMERCIAL KITCHEN EXHAUST DUCT, AIR VELOCITY SHALL NOT BE LESS THAN 500 FPM AND NOT EXCEED 2500 FPM.

VENTILATION CALCULATIONS:

FRONT OF HOUSE 101 AND BACK OF HOUSE 102 = 790 SF

LAMC TABLE 402.1 - (CATEGORY - KITCHEN (COOKING))

7.5 CFM/PERSON
20 PEOPLE/1000 SF
=15.8 PEOPLE

0.12 CFM/SF
(7.5*15.8) + (0.12*770) = 213.3 CFM

TITLE 24 TABLE 120.1A - (CATEGORY - ALL OTHERS)

0.15 CFM/SF, (0.15 CFM/SF * 790 SF) = 118.5 CFM
15 CFM/PERSON, (15 CFM/PERSON * 15.8 PEOPLE) = 237 CFM

= 240 CFM OSA

Seal / Signature



Project Name

SHAKE SHACK - TOPANGA MALL

Project Number

05.3781.000

Description

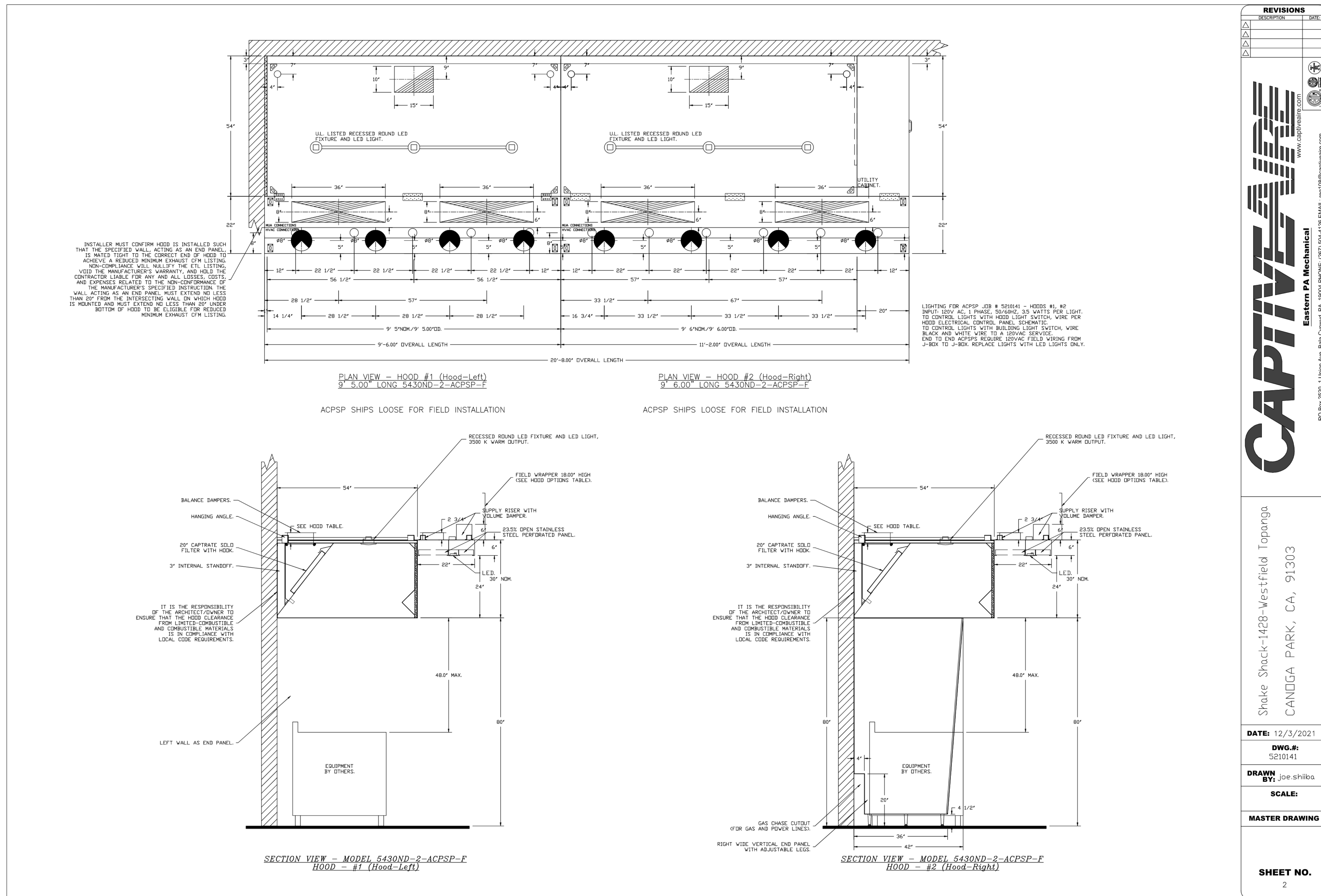
MECHANICAL SCHEDULES

Scale

NTS

M701

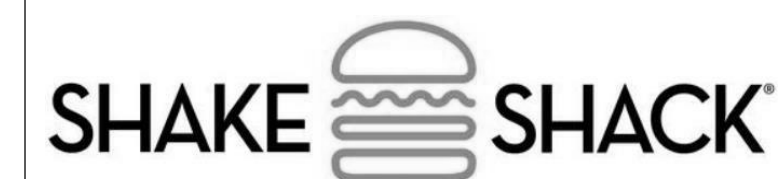
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Shake Shack-1428-Westfield Topanga
CANDIGA PARK, CA, 91303

DATE: 12/3/2021
DWG.#: 5210141
DRAWN BY: Joe Shilba
SCALE:
MASTER DRAWING
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Date	Description
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Project Name
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Project Number
05.3781.000

Description
CAPTIVEAIRE DRAWINGS

Scale
NTS

M802

FIRE SYSTEM INFORMATION - JOB#5210141

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL RISER	3.0/3.0/3.0/3.0	40	FIRE CABINET RIGHT	RIGHT, HOOD 2

CAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		MECHANICAL	2.000	CAPTIVEAIRE SYSTEMS

NOTES

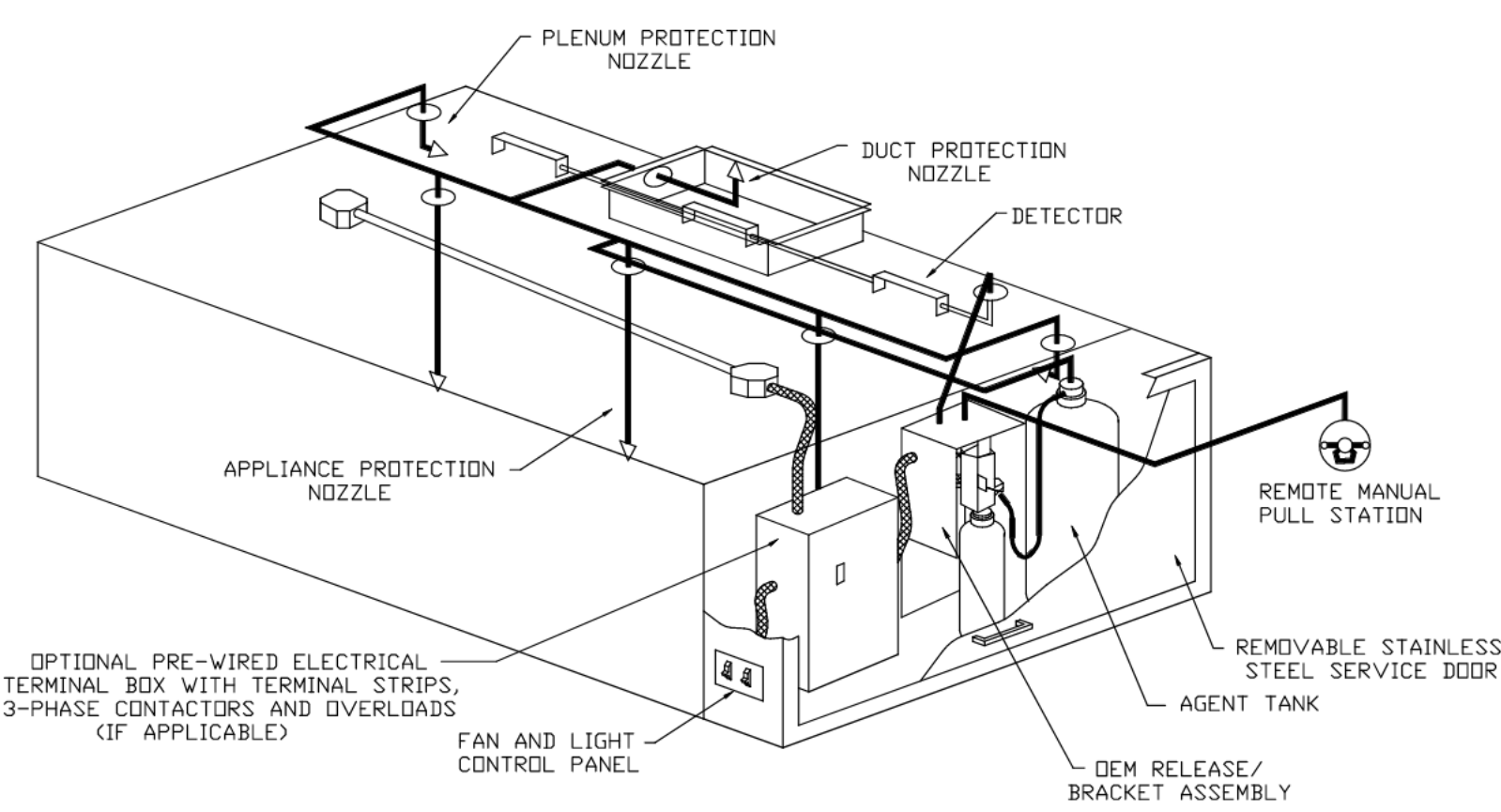
- FIELD PIPE DROPS AS SHOWN
- SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS FIRE SYSTEM COMPLIES WITH UL 300 REQUIREMENTS.

JOB #: 5210141
 JOB NAME: SHAKE SHACK-1428-WESTFIELD TOPANGA.

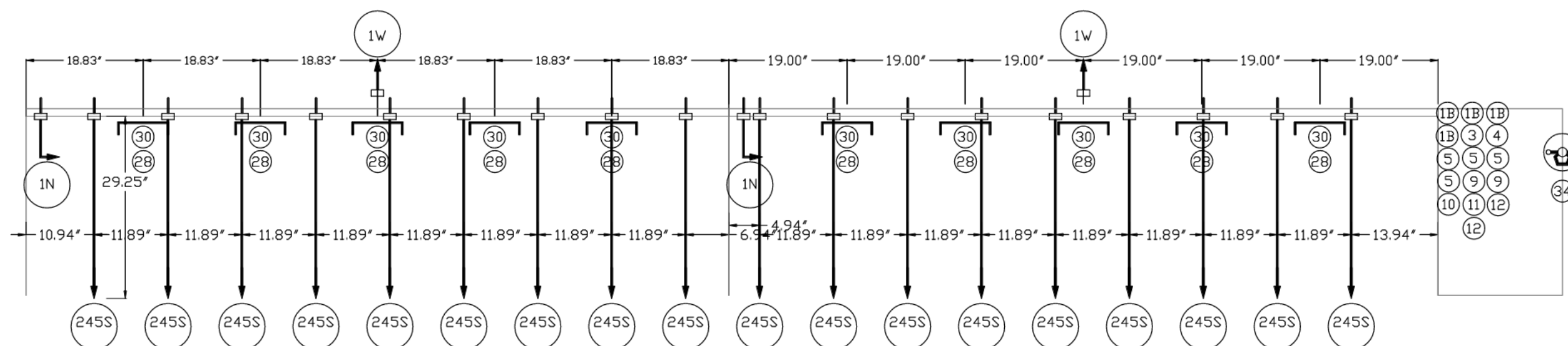
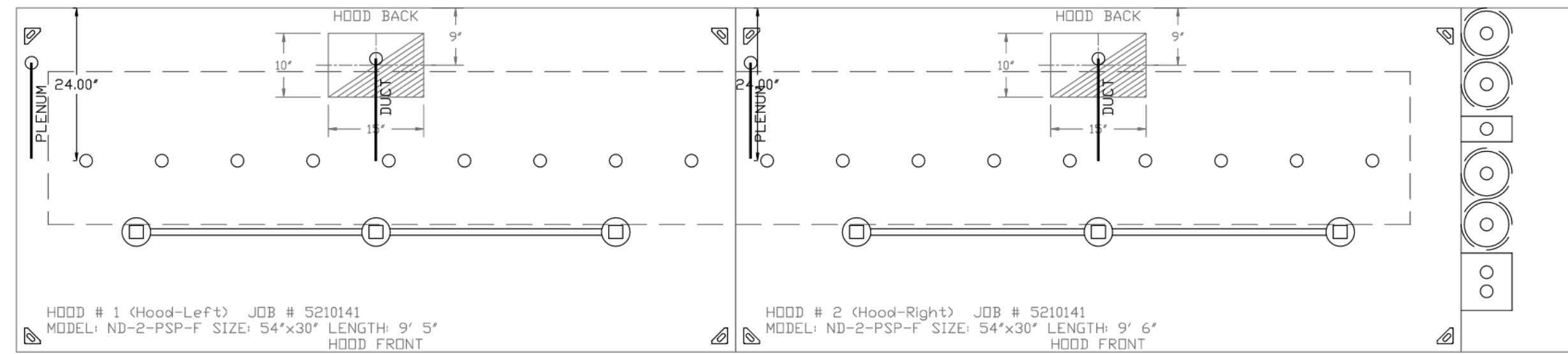
SYSTEM SIZE: ANSUL-3.0/3.0/3.0/3.0 TOTAL FP REQUIRED: 40.
 HOOD # 1 9' 6.00" LONG x 54" WIDE x 30" HIGH.
 RISER # 1 SIZE: 10" x 15"
 HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.
 HOOD # 2 9' 5.00" LONG x 54" WIDE x 30" HIGH.
 RISER # 1 SIZE: 10" x 15"
 HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.

LEGEND - WALL MOUNTED ANSUL SYSTEM

- 1A 1.5 GALLON TANK.
- 1B 3.0 GALLON TANK.
- 2 AUTOMAN RELEASE.
- 3 3 GALLON TANK ENCLOSURE.
- 3A 6 GALLON TANK ENCLOSURE.
- 4 REGULATED ACTUATOR.
- 5 ANSULEX LIQUID AGENT (3 GAL.).
- 6 ANSULEX LIQUID AGENT (1.5 GAL.).
- 7 CARTRIDGE (101-20).
- 8 CARTRIDGE (101-10).
- 9 CARTRIDGE (101-30).
- 9A CARTRIDGE (L-T-A-101-30).
- 9B DOUBLE TANK CARTRIDGE.
- 10 TEST LINK.
- 11 DOUBLE MICROSWITCH.
- 2W DUCT NOZZLE (419337).
- 1W NOZZLE ASSEMBLY (419336).
- 1F NOZZLE ASSEMBLY (419333).
- 1N NOZZLE ASSEMBLY (419335).
- 1/2N NOZZLE ASSEMBLY (419334).
- 3N NOZZLE ASSEMBLY (419338).
- 245 NOZZLE ASSEMBLY (419340).
- 230 NOZZLE ASSEMBLY (419339).
- 2120 NOZZLE ASSEMBLY (419343).
- 290 NOZZLE ASSEMBLY (419342).
- 260 NOZZLE ASSEMBLY (419341).
- 28 DETECTOR BRACKET.
- 29 LOW TEMP FUSIBLE LINK.
- 30 HIGH TEMP FUSIBLE LINK.
- MGV MECHANICAL GAS VALVE.
- EGV ELECTRICAL GAS VALVE.
- 34 REMOTE MANUAL PULL STATION.
- S SWIVEL ADAPTOR.



TYPICAL ANSUL R-102 SYSTEM LAYOUT



ANSUL OVERLAPPING HIGH PRIORITY 5'4.00" L X 24.00" D

REVISIONS	
NO.	DESCRIPTION

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Shake Shack-1428-Westfield Topanga
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 DWG.#: 5210141
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 SCALE:
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Project Name
SHAKE SHACK - TOPANGA MALL
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05.3781.000
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CAPTIVEAIRE DRAWINGS

Scale
 NTS

M803

SECTION VIEW

1 GALLON GREASE COLLECTION BOX AND WALL MOUNTING BRACKET SHIPPED LOOSE FOR FIELD INSTALLATION BY MECHANICAL CONTRACTOR.

EQUIPMENT BY OTHERS

1.5" I.P.S. GREASE DRAIN TO BE CAPPED OFF WITH 1.5"NPT CAP ON EACH OUTER END OF HOODS

2" Distance from edge of the hood

1.5" I.P.S. GREASE DRAIN TO BE CAPPED OFF WITH 1.5"NPT CAP ON EACH OUTER END OF HOODS

2 INCHES FROM THE EDGE OF THE HOOD

RIGHT OR LEFT SIDE OF HOOD

3 TO 4 INCHES FROM BOTTOM OF THE HOOD

Ø.025 THRU x6 *

* Mounting hardware not included
**Must be mounted to stud or wall anchor

Left & Right hand Grease Cup Install

1.5" I.P.S. GREASE DRAIN TO BE CAPPED OFF WITH 1.5"NPT CAP ON EACH OUTER END OF HOODS

One Gallon Grease Cup Installation

Instructions below outline single, or dual, one gallon grease cup installation for ND-2 hood models.

The one gallon grease cup comes as an assembly of stainless steel wall mounting bracket and one gallon cup. The mounting bracket should be installed 2" from the edge of the containment plenum and 3"-4" below the bottom of the hood.

Piping from the hood grease drain should route to the opening of the grease cup, but not into the cup, otherwise the cup will not be able to be removed and emptied.

90° AND 6" PIPE NIPPLE (A0008526, W/DRAINNIPPLE)

45° ELBOW (A0008529, W/DRAINELBOW)

PIPE SUPPORT (A0012405, W/DRAINCLAMP)

Support the bottom of the drain pipe using 15" adjustable pipe support. Do not allow drain pipe to drop into the grease cup, otherwise cup will catch when removing and cleaning the grease cup

Gallon Grease Cup Assembly

1 GALLON GREASE COLLECTION BOX AND WALL MOUNTING BRACKET SHIPPED LOOSE FOR FIELD INSTALLATION BY MECHANICAL CONTRACTOR.

1 Mounting Bracket
2 Gallon Grease Cup

REVISIONS	DESCRIPTION	DATE

CAPTIVE

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Shake Shack-1428-Westfield Topanga
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DATE: 12/3/2021
DWG.#: 5210141
DRAWN BY: Joe Shilba
SCALE:
MASTER DRAWING

SHEET NO.
4

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NTS

FAN #2 USB180D-RM - EXHAUST FAN (REF-1)

TOP VIEW

SIDE VIEW

FRONT VIEW

UNIT PLAN VIEW CORNER WEIGHTS:

89 LBS (top-left), 73 LBS (top-right), 141 LBS (bottom-left), 101 LBS (bottom-right)

FEATURES:

- ROOF MOUNTED FANS.
- UL705.
- UL765 AND UL-C-5645 (RESTAURANT MODEL)
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C).
- HEAT SLINGER.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- GREASE CLASSIFICATION TESTING.
- 2" DRAIN.
- MOTOR WEATHER COVER.
- FULLY SEALED SCROLL HOUSING.
- SCROLL ACCESS DOOR.
- FLANGE 1 1/4".

NOTES:

UTILITY SET GREASE CUP:
 B18 = 24" DISCHARGE EXTENSION
 B1 = DISCHARGE ORIENTATION VERTICAL
 UPPER LEFT = CW INLET SIDE
 B18 = INLET CONNECTION STANDARD 20" FLANGED GREASE DUCT
 UTILITY SET = SPRING VIBRATION ISOLATORS - B18 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE
 2 YEAR PARTS WARRANTY.

INLET/OUTLET NOTES:
 LENGTH OF THE STRAIGHT DUCT ON THE INLET AND OUTLET TO BE 3 TIMES THE EQUIVALENT DUCT DIAMETER BEFORE CONNECTING TO ANY FITTINGS SUCH AS ELBOWS TO AVOID SYSTEM EFFECT.

CORNER WEIGHTS ARE CALCULATED BASED ON VERTICAL DISCHARGE. SUPPORT DUCT PROPERLY BEFORE FAN TO ENSURE CORNER WEIGHTS ARE NOT AFFECTED.

NORMAL TEMPERATURE TEST DIRECT DRIVE EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 350°F (176°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUE FOR PERMIT/BID	01/07/2022
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Exhaust Fan Wiring

DRIVING NUMBER	WIRING NUMBER	WIRING DATE	MODEL	REVISIONS
C1422041-2	12/3/2021	12/3/2021	180000-02	

Legend:

- SHIELDED WIRE
- SHIELDING WIRE
- USE COLOR
- BLACK
- BLUE
- GREEN
- RED
- WHITE

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Shake Shack-1428-Westfield Topanga
 CANOGA PARK, CA, 91303

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SCALE:
MASTER DRAWING

SHEET NO.
 6

Seal / Signature



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Description
 CAPTIVEAIRE DRAWINGS

Scale
 NTS

FAN #2 A2-D250-200-MPU = HEATER SMAU-13
 1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN.
 2. INTAKE REED WITH EZ FILTERS.
 3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
 4. GAS PRESSURE GAUGE - 0-30" R.S. DIAMETER, 1/4" THREAD SIZE.
 5. GAS PRESSURE GAUGE - 0-30" R.S. DIAMETER, 1/4" THREAD SIZE.
 6. LOW FINE START - ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FINE POSITION.
 7. NOTICED BACK DRAFT DAMPER 25.75" X 24" F.W. SIZE. 2 STANDARD 8" MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED.
 8. COMMERCIAL SMOKE DETECTOR INTERLOCK - DETECTOR BY OTHERS.
 9. CLOGGED FILTER SWITCH WITH NOTIFICATION ON HMI.
 10. 2 TON, SINGLE CIRCUIT MODULAR PACKAGED AC CEILING OPTION FOR SIZE 2 R.F.H. MODULAR PACKAGED UNIT, INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING (1.000 TO 2.750 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW, CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE, ANY OTHER CHANGE WILL REQUIRE OIL CONDENSERS REQUIRE SEPARATE DRAIN, 2 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION COIL + ACTUATOR.
 11. FREEZE/STAT FACTORY SET AT 35°F AND 10 MINUTES.
 12. PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LOW CFM APPLICATIONS.
 13. SEPARATE LEVAV WIRING PACKAGE FOR MAKE-UP AIR UNIT. OPTION MUST BE SELECTED WHEN MOUNTING UNIT IN PREVIRE PANEL OR WITH 20" PACKAGE. PROVIDES SEPARATE LEVAV INPUT TO SUPPLY FAN. THIS LEVAV SIGNAL MUST BE RUN BY ELEC. ROOM FROM BLDG TO HMA SWITCH.
 14. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
 15. 2 YEAR PARTS WARRANTY.

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET AMCA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 208. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIIUS THROAT, RADIIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT SYSTEM EFFECT WILL DRAMATICALLY INCREASE STATIC PRESSURE AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 26" X 26".

SUPPLY SIDE HEATER INFORMATION
 WINTER TEMPERATURE = 42°F, TEMP. RISE = 60°F.
 BTUS CALCULATED OFF ACTUAL AIR DENSITY.
 OUTPUT BTUS AT ALTITUDE OF 0.0 FT. = 151579.
 INPUT BTUS AT ALTITUDE OF 60. FT. = 175629.
 OUTPUT BTUS AT ALTITUDE OF 792 FT. = 157057.
 INPUT BTUS AT ALTITUDE OF 792 FT. = 175666.

REVISIONS

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Installation Wiring

120 V 1 Ph. 240 V 3 Ph. 208/480/600 V 3 Ph.

See above details - Power Connection

CAPTIVE
 Eastern PA Mechanical
 www.captiveeast.com
 PO Box 2520, 1 Union Ave, State College, PA, 16804 PHONE: (817) 504-4725 EMAIL: info@captiveeast.com

Shake Shack-1428-Westfield Topanga
 CANOGA PARK, CA, 91303

DATE: 12/3/2021
 DWG.#: 5210141
 DRAWN BY: Joe shilba
 SCALE:
 MASTER DRAWING

SHEET NO. 7

Date	Description
01/07/2022	ISSUE FOR PERMIT/BD
06/20/2022	ISSUE FOR CONSTRUCTION

Seal / Signature



Project Name
SHAKE SHACK - TOPANGA MALL

Project Number
05.3781.000

Description
CAPTIVEAIRE DRAWINGS

Scale
 NTS

