ARLINGTON HIGHLANDS
4000 FIVE POINTS BLVD. - SUITE 101
ARLINGTON, TX 76018

SYMBOL LEGEND

ROOM NAME 000	ROOM MARK		ALIGN TO MULLION CENTERLINE
D03	DOOR MARK	GRID NO. OR LETTER	GRID LINE REFERENCE
14	WINDOW MARK	REVISION NUMBER	REVISION REFERENCE
X	KEYNOTE REFERENCE	0/XX-X	ELEVATION REFERENCE
PT-2	FINISH MARK	X-XX/0	SECTION REFERENCE
X	WALL MARK - REF. SHEET A8.0 FOR WALL TYPES	4 A4.2 2	ELEVATION REFERENCE
ALIGN	ALIGN FINISH TO EXISTING	ELEVATION IN RELATIONSHIP TO MAIN FLOOR OR STATED DATUM	DATUM OR FLOOR ELEVATION
MATCH LINE REFER TO SHEET NO.	MATCH LINE	06/A6-1	ENLARGED PLAN DETAIL REFERENCE
	DIMENSION FINISH TO FINISH	4/A5.0	BUILDING SECTION REFERENCE

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR	HVAC	HEATING, VENTILATION & AIR CONDITIONING
A.D.A.	AMERICANS WITH DISABILITES ACT	INFO.	INFORMATION
ADNL.	ADDITIONAL	MAX.	MAXIMUM
AMP.	AMPERE	M.D.F.	MEDIUM DENSITY FIBER BOARD
BD.	BOARD	MIN.	MINIMUM
BLKG.	BLOCKING	MFR.	MANUFACTURER
CAB.	CABINET	N.I.C.	NOT IN CONTRACT
CLG.	CEILING	N.T.S.	NOT TO SCALE
CLR.	CLEAR OPENING	O.C.	ON CENTER
COL.	COLUMNS	OFGCI	OWNER FURNISHED G.C. INSTALL
CONTR.	CONTRACTOR	OP'G.	OPENING
DWGS.	DRAWINGS	PART.	PARTICLE
E.C.	EXISTING TO BE CAPPED	PR.	PAIR
ELEC.	ELECTRICAL	PREFAB.	PREFABRICATED
EQ.	EQUAL	REF.	REFERENCE
F.E.	FIRE EXTINGUISHER	REQ'D	REQUIRED
FEC	FIRE EXTINGUISHER CABINET	SCHED.	SCHEDULE
FHC	FIRE HOSE CABINET	S.S.	STAINLESS STEEL
FLUOR.	FLUORESCENT	STD.	STANDARD
GA.	GAUGE	T.B.	THERMALLY BROKEN
G.C.	GENERAL CONTRACTOR	TYP.	TYPICAL
GYP. BD.	GYPSUM BOARD	U.O.N.	UNLESS OTHERWISE NOTED
H.M.	HOLLOW METAL	V	VOLTS
HDWR	HARDWARE	VCT	VINYL COMPOSITION TILE
HT.	HEIGHT	V.I.F.	VERIFY IN FIELD
		W/	WITH
		W/O	WITHOUT
		WH	WATER HEATER

PROJECT SUMMARY

- **PROJECT DESCRIPTION** 4000 FIVE POINTS BLVD. SUITE 101 ARLINGTON, TX

TENANT FINISH OUT OF AN EXISTING SHELL BUILDING SPACE.

- **APPLICABLE BUILDING CODES**

JURISDICTION CITY OF ARLINGTON, TX

		CODES
BUILDING	2021 IBC	
FIRE	2021 IFC	
PLUMBING	2021 IPC	
MECHANICAL	2021 IMC	
ELECTRICAL	2020 NEC	
ACCESSIBILITY	TAS	
ENERGY	2021 IECC	
OTHER		

AMENDMENTS

- **BUILDING DATA**

ZONING CLASSIFICATION:	PD
CONSTRUCTION TYPE:	II-B
AUTOMATIC SPRINKLER SYSTEM:	YES
FIRE ALARM SYSTEM:	YES
NUMBER OF STORIES:	01

- **PROJECT DATA**

OCCUPANCY CLASSIFICATION:	A-2
GROSS FLOOR AREA:	3,727 S.F.
TOTAL INT. OCCUPANT LOAD:	166
MINIMUM # OF REQ'D EXITS:	2
INT. SEATING:	92
EXT. SEATING:	38

PROJECT DIRECTORY

- **TENANT:**
SHELL SHACK
13101 PRESTON RD.
STE 110-5056
DALLAS, TX 75240
CONTACT: JIM MAZANY

- **ARCHITECT:**
CIVITARESE MORGAN ARCHITECTURE
3341 REGENT BLVD. SUITE 130-321
IRVING, TX 75063
TEL.: 214.613.0680
FACSIMILE: 469.730.3341
CONTACT: RICK CIVITARESE

- **LANDLORD**
FAIRBOURNE PROPERTIES, LLC
TEL. : 817-466-7474
EMAIL: RLAM@FAIRBOURNE.COM
CONTACT: RACHEL LAM

- **STRUCTURAL CONSULTANT:**
RONALD A. ROBERTS ASSOCIATES
2948 N. STEMMONS FREEWAY
DALLAS, TEXAS 75247
TEL. : 214.637.6299
FACSIMILE: 214.637.6997
CONTACT: ANDREW LLORET

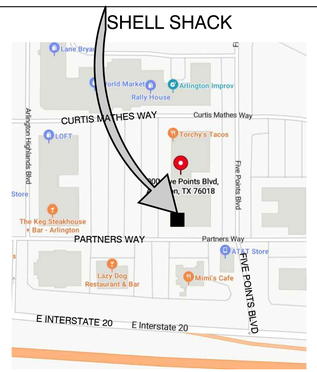
- **PROJECT MANAGER:**
JMK DEVELOPMENT
1900 PRESTON RD
SUITE 267-285
PLANO, TX 75093
TEL.: 972-672-4446
CONTACT: JOHN KING

- **KITCHEN:**
TEXAS METAL EQUIPMENT CO.
EQUIPMENT, DESIGN & FABRICATION
8704 ROYAL LANE
IRVING, TEXAS 75063
TEL.: 214-446-7205
CONTACT: TRACY D. MEESTER

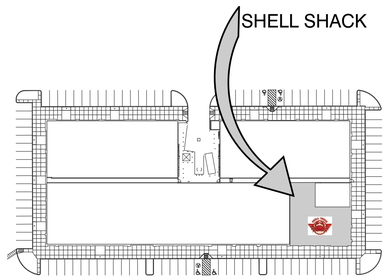
- **MEP CONSULTANT:**
THE ROBERTS GROUP
239 SOUTHLAND DRIVE SUITE-C
LEXINGTON, KY 40503
TEL.: 859 276-2006
CONTACT: VAUGHN HILL

SHEET INDEX

VICINITY MAP



KEY PLAN



REVISION LOG

• REVISION	• DATE	• DESCRIPTION

ISSUED FOR PERMIT 07/08/2025

ARCHITECT

CIVITARESE | MORGAN
ARCHITECTURE
3341 REGENT BLVD. SUITE. 130-321
IRVING, TEXAS 75063
TEL: 214-613-0680 FAX: 469.730.3341

SEAL

REGISTERED ARCHITECT THOMAS M. MORGAN 9415 STATE OF TEXAS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THOMAS M. MORGAN NO. 9415 EXPIRES 09/30/25

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
SUITE 101
ARLINGTON, TX 76018

NO.	REVISIONS:	DATE:

TENANT REVIEW ISSUE DATE: 07.08.25
LANDLORD REVIEW ISSUE DATE: 07.08.25
PERMIT ISSUE DATE: 07.08.25
BID ISSUE DATE: 07.08.25
CONSTRUCTION ISSUE DATE: XX.XX.25

DRAWING TITLE:

COVER SHEET & INDEX

DRAWING NUMBER:

G0.0

ISSUED FOR PERMIT 07/08/2025

GENERAL NOTES

A. GENERAL

1. THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, A.I.A. STANDARD FORM A201 - CURRENT EDITION, ARE HEREBY INCORPORATED INTO THIS DOCUMENT EXCEPT AS SPECIFICALLY MODIFIED BELOW.

2. THE CONTRACTOR SHALL SECURE AND PAY FOR THE BUILDING PERMIT AND OTHER PERMITS AND GOVERNMENTAL FEES, LICENSES AND INSPECTIONS NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK. SCHEDULING OF APPROVALS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION OVER THE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

3. THE CONTRACT DOCUMENTS CONVEY DESIGN INTENT AND THE GENERAL TYPE OF CONSTRUCTION DESIRED ARE INTENDED TO APPLY TO THE FINEST QUALITY OF CONSTRUCTION, MATERIAL AND WORKMANSHIP THROUGHOUT.

4. ITEMS NOTED "BY OWNER" IN THESE CONTRACT DOCUMENTS SHALL BE PROVIDED BY THE OWNER AND INSTALLED BY THE GENERAL CONTRACTOR OR HIS FORCES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL ACCESSORY MATERIALS REQUIRED TO INSTALL SUCH ITEMS AND MAKE FINAL CONNECTIONS.

5. PRIOR TO SUBMITTING A PROPOSAL OR COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VISIT THE PROJECT SITE TO COMPARE THE SCOPE OF WORK SHOWN ON THE DRAWINGS AND OTHER CONTRACT DOCUMENTS WITH EXISTING CONDITIONS. PROMPTLY REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES OR OTHER DETRIMENTAL CONDITIONS TO C/M+A. IF THE CONTRACTOR FAILS TO PERFORM THIS OBLIGATION, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS AND DAMAGES ASSOCIATED WITH ACTIONS REQUIRED TO CORRECT UNREPORTED CONDITIONS THAT OTHERWISE COULD HAVE BEEN AVOIDED.

6. IN THE EVENT THAT DISCREPANCIES ARE FOUND BETWEEN DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST A CLARIFICATION FROM C/M+A IN WRITING. C/M+A'S RESPONSE TO THE CONTRACTOR'S REQUEST FOR INFORMATION SHALL NOT BE CAUSE FOR A CHANGE IN THE CONTRACT AMOUNT UNLESS IT IS AGREED THAT THE ORIGINAL SCOPE OF WORK HAS BEEN ALTERED BY THE RESPONSE.

7. THE SPECIFICATIONS AND ALL CONSULTANT DRAWINGS ARE SUPPLEMENTAL TO THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH THE ARCHITECTURAL DRAWINGS BEFORE THE INSTALLATION OF ANY OF THE CONSULTANTS WORK AND TO BRING ANY DISCREPANCIES OR CONFLICTS TO THE ARCHITECTS ATTENTION FOR CLARIFICATION. IMPROPERLY INSTALLED WORK SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT HIS EXPENSE AND AT NO EXPENSE TO THE ARCHITECT, HIS CONSULTANTS OR THE OWNER.

8. GENERAL CONTRACTOR WILL COORDINATE ALL WORK WITH BUILDING MANAGEMENT AND PERFORM WORK TO MEET ALL REQUIREMENTS OF THE LEASE AGREEMENT. CONTRACTORS WORK IS SUBJECT TO INSPECTION BY THE BUILDING PERSONNEL FOR COMPLIANCE WITH THE TERMS OF THE LEASE AGREEMENT.

9. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL FURNISH A CONSTRUCTION SCHEDULE SHOWING THE CHRONOLOGICAL PHASES OF WORK, SCHEDULE OF VALUES, AND INSURANCE CERTIFICATE. THIS SCHEDULE SHALL INDICATE ORDERING LEAD TIMES, A BEGINNING AND END DATE FOR EACH PHASE AND A PROJECTED COMPLETION DATE FOR THE ENTIRE PROJECT.

10. THE CONTRACTOR IS WHOLLY RESPONSIBLE FOR THE COORDINATION AND SCHEDULING OF THE WORK EFFORTS FOR ALL ENGINEERS, SUBCONTRACTORS, CRAFTSMEN AND TRADESMEN REQUIRED TO COMPLETE THE JOB AND SHALL BE RESPONSIBLE FOR PROVIDING THEM WITH FULL SETS OF CURRENT DRAWINGS, ADDENDUM, AND OTHER SUPPLEMENTAL INFORMATION PERTINENT TO THE COMPLETION OF THE WORK.

11. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE VARIOUS TRADE ITEMS WITHIN THE SPACE AND ABOVE THE CEILINGS (INCLUDING BUT NOT LIMITED TO, STRUCTURAL MEMBERS, CONDUITS, RACEWAYS, LIGHT FIXTURES, CEILING SYSTEM AND ANY SPECIAL STRUCTURAL SUPPORTS REQUIRED) AND SHALL BE RESPONSIBLE FOR MAINTAINING THE FINISH CEILING HEIGHT ABOVE THE FINISH FLOOR INDICATED IN THE DRAWINGS AND THE FINISH SCHEDULE.

12. THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AND ELECTRICAL SERVICE FOR TRADES.

13. UNLESS OTHERWISE STIPULATED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, STORAGE AND PAYMENT OF ALL LABOR, MATERIALS, TAXES, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, TRANSPORTATION AND OTHER FACILITIES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK WHETHER OR NOT IT IS SPECIFICALLY CALLED OUT OR DETAILED ON THE DRAWINGS.

14. THE CONTRACTOR WARRANTS TO THE OWNER THAT MATERIALS AND EQUIPMENT FURNISHED UNDER THE CONTRACT WILL MEET INDUSTRY STANDARDS AND BE NEW AND OF GOOD QUALITY UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS. THE WORK WILL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, FREE FROM DEFECTS AND WILL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER ACCEPTABLE TO THE OWNER.

15. THE CONTRACTOR SHALL PROMPTLY CORRECT IN A PROFESSIONAL MANNER, AT NO COST TO THE OWNER AND WITHOUT CHANGE IN CONTRACT TIME, ALL NON-CONFORMING OR DEFECTIVE WORK AND DAMAGES CAUSED BY HIS WORK OR WORKMEN WHETHER DISCOVERED BEFORE OR AFTER SUBSTANTIAL COMPLETION.

16. THE CONTRACTOR SHALL INSPECT ALL EQUIPMENT AND SYSTEMS FOR PROPER OPERATIONS UPON SUBSTANTIAL COMPLETION OF PROJECT.

17. THE CONTRACTOR SHALL THOROUGHLY CLEAN THE ENTIRE PROJECT SITE AND ADJACENT AFFECTED SPACES TO THE SATISFACTION OF THE OWNER.

18. THE GENERAL CONTRACTOR SHALL PROVIDE THE FOLLOWING REPORTS AND GUARANTEES TO THE ARCHITECT OR OWNER'S REPRESENTATIVE.

A. CITY ELECTRICAL INSPECTOR'S CERTIFICATE OF COMPLIANCE WITH CITY REQUIREMENTS.
B. CITY PLUMBING INSPECTOR'S CERTIFICATE OF COMPLIANCE WITH CITY REQUIREMENTS
C. CITY FIRE MARSHAL'S CERTIFICATE OF COMPLIANCE WITH CITY REQUIREMENTS.
D. CITY BUILDING INSPECTOR'S CERTIFICATE OF COMPLIANCE WITH CITY REQUIREMENTS.
E. STATE DIVISION OF HEALTH CERTIFICATE OF COMPLIANCE WITH CITY REQUIREMENTS.
F. CITY CERTIFICATE OF OCCUPANCY.

19. PLANS ARE DIAGRAMMATICAL.. THE G.C. AND SUB CONTRACTORS ARE REQUIRED TO PERFORM ALL WORK NECESSARY TO PROVIDE A FULLY FUNCTIONAL SYSTEM.

B. DRAWING CONVENTIONS

1. DIMENSIONS TAKE PRECEDENCE OVER SCALE ON THE CONSTRUCTION DRAWINGS. NOTIFY C/M+A OF DISCREPANCIES BETWEEN DRAWING DIMENSIONS AND FIELD CONDITIONS.

2. PLAN DIMENSIONS ARE GIVEN TO FACE OF STUD OR FACE OF EXISTING WALL UNLESS OTHERWISE NOTED.

3. PARTITION THICKNESS IS DERIVED FROM DESCRIPTION OF THE PARTITION CONSTRUCTION AND/OR DESIGNATED DETAIL

4. PARTITIONS THAT INTERSECT INTERIOR OR EXTERIOR GLAZED WALLS ARE TO CENTER ON MULLIONS AND PERPENDICULAR TO EXTERIOR WALL UNLESS DETAILED OTHERWISE.

5. UNLESS OTHERWISE NOTED, PARTITIONS AND OTHER ELEMENTS ON THE DRAWING THAT ARE DRAWN AT AN OBLIQUE ANGLE ARE TO BE CONSTRUCTED AT A 45-DEGREE ANGLE TO THE MAIN GRID.

6. WALLS SHOWN ALIGNED WITH BASE BUILDING STRUCTURE SHALL BE FLUSH AND SMOOTH WITH BASE BUILDING STRUCTURE UNLESS OTHERWISE NOTED.

7. UNLESS DIMENSIONED OTHERWISE, DEPTH OF FURRING ON COLUMNS AND OTHER ELEMENTS IS TO BE HELD TO THE MINIMUM THICKNESS REQUIRED TO CONCEAL MECHANICAL, PLUMBING OR ELECTRICAL COMPONENTS.

8. UNLESS OTHERWISE INDICATED, POSITION DOOR JAMBS 4" OFF THE FACE OF ADJACENT INTERSECTING PARTITIONS OR CENTER ON PARTITION.

9. OUTLETS THAT OCCUR ON OPPOSITE SIDES OF THE SAME PARTITION ARE TO BE STAGGERED HORIZONTALLY A MINIMUM OF 12" TO MINIMIZE SOUND TRANSMISSION.

D. GENERAL CONSTRUCTION

1. CONTRACTOR SHALL VERIFY ALL GRID LINE COORDINATES AND CHECK THEM AGAINST DIMENSIONS SHOWN ON PLANS AND DETAILS. ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCY DURING STAKING.

2. THE CONTRACTOR SHALL FIRMLY ANCHOR PARTITIONS PER JURISDICTION AND INDUSTRY STANDARDS AND USE METAL TRIM ACCESSORIES AT EXPOSED CORNERS, EDGES AND ENDS IN PLASTER AND DRYWALL PARTITIONS.

3. PROVIDE WOOD BLOCKING FOR ALL WALL MOUNTED PLUMBING FIXTURES, TOILET ACCESSORIES, CABINETS, AND TABLES.

4. ALL CONCEALED PLYWOOD, WOOD BLOCKING, AND WOOD STUD/JOIST FRAMING SHALL BE TREATED TO MEET UL FIRE RETARDANT REQUIREMENTS.

5. ALL MATERIALS USED IN UNFINISHED ATTIC SPACE SHALL BE NON-COMBUSTIBLE. ANY WOOD SHALL BE UL RATED NON-COMBUSTIBLE.

6. DO NOT PUNCH OR USE METAL DECK TO SUPPORT SUSPENDED CEILING. SUSPENDED METAL FRAMING-CEILING AND METAL STUD PARTITION FRAMING SHALL BE SUPPORTED FROM STRUCTURAL STEEL ROOF FRAME.

7. ALL ROOF PENETRATIONS SHALL BE CUT, FLASHED AND SEALED BY THE BUILDING ROOFING SYSTEM INSTALLER IN ORDER TO MAINTAIN THE ROOF SYSTEM INTEGRITY AND WARRANTY.

8. THE CONTRACTOR SHALL PROVIDE ACCESS PANELS REQUIRED FOR MECHANICAL, ELECTRICAL AND PLUMBING INSTALLATIONS PER LOCAL BUILDING CODES. LOCATIONS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.

9. CEILING JOINTS IN THE FIELD SHALL BE SQUARE, LEVEL AND PERFECTLY ALIGNED WITH EACH OTHER AND WITH THE RECESSED LIGHT FIXTURES. ALL RECESSED FIXTURES SHALL BE SET FLUSH INTO CEILING.

10. NEW PIPE, CONDUIT AND DUCT PENETRATIONS OF FIRE RATED ASSEMBLIES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH AN UNDERWRITERS LABORATORY TESTED DESIGN.

11. WIRING AND CONDUIT IS TO BE CONCEALED IN BOTH NEW AND EXISTING PARTITIONS WITH ALL OUTLETS, SWITCHES AND SIMILAR DEVICES MOUNTED IN RECESSED JUNCTION BOXES WITH FLUSH COVER PLATES. SURFACE MOUNTED CONDUIT, WIREMOLD, OUTLETS, ETC. WILL NOT BE PERMITTED UNLESS OTHERWISE NOTED.

12. VERIFY EXACT DIMENSIONS OF ALL OWNER AND/ OR TENANT SUPPLIED EQUIPMENT, FEATURES AND FIXTURES TO ASSURE A PROPER FIT WHERE EQUIPMENT, FEATURES AND FIXTURES ARE SHOWN BUILT-IN TO NEW MILLWORK, UNDER COUNTER AND BETWEEN NEW AND EXISTING PARTITIONS.

13. COMMUNICATION, DATA, SECURITY AND SIMILAR SYSTEMS WILL BE FURNISHED AND INSTALLED BY THE TENANT UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. ITS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE TENANT'S VENDORS AND PROVIDE CONDUIT, BOXES AND OTHER ROUGH-IN REQUIREMENTS TO FACILITATE FINAL WIRING INSTALLATION.

14. LOCKSETS SHALL BE "KEYED" IN ACCORDANCE WITH OWNER REQUIREMENTS. "KEYS" ARE TO BE DELIVERED TO TENANT PROPERLY TESTED. THE NUMBER OF MASTER AND PASS KEYS SHALL BE COORDINATED WITH BUILDING MANAGEMENT.

15. PROVIDE WATER RESISTANT SUBSTRATE AT ALL TILE LOCATIONS, PLASTIC PANEL LOCATIONS, AND MECHANICAL ROOM WALLS.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH LOCAL V.O.C. REGULATIONS FOR MATERIALS USED IN CONSTRUCTION.

17. SPACES BEING SURFACED SHALL BE CLOSED TO TRAFFIC AND OTHER WORK DURING THE LAYING OF FLOORING, STONE, WOOD, OR OTHER MATERIAL. FINISHED FLOORS SHALL BE COVERED AFTER INSTALLATION FOR PROTECTION.

E. FIRE / LIFE SAFETY

1. ALL REQUIRED PERMITS AND APPROVALS MUST BE OBTAINED FROM THE FIRE DEPARTMENT BEFORE BUILDINGS ARE OCCUPIED.

2. MAINTAIN THE FUNCTION AND INTEGRITY OF EXISTING FIRE, LIFE/SAFETY AND SECURITY SYSTEMS.

3. PROVIDE OCCUPANCY SIGNS CONFORMING TO APPLICABLE BUILDING CODE REQUIREMENTS

4. PROVIDE ADDITIONAL EXIT SIGNS AND FIRE EXTINGUISHERS IN TYPE, NUMBER AND LOCATION AS DIRECTED BY THE FIRE DEPARTMENT FIELD INSPECTOR.

5. DURING CONSTRUCTION THE GENERAL CONTRACTOR SHALL PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A WITHIN (75 FT.) FOOT TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILDING ON EACH FLOOR

F. REQUIRED APPROVALS AND SUBMITTALS

1. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF C/M+A AND MUST BE SUBMITTED FOR APPROVAL PRIOR TO PURCHASE OR USE.

2. THE CONTRACTOR SHALL HAVE (10) WORKING DAYS FROM AWARD OF THE CONTRACT TO SUBMIT SUBSTITUTIONS OF SPECIFIED PRODUCTS OR WORK FOR REVIEW BY C/M+A AND SHALL INCLUDE CUT SHEETS WITH SPECIFICATIONS AND REASONS FOR SUBSTITUTION. C/M+A SHALL RESPOND IN (10) WORKING DAYS FROM RECEIPT OF SUBMITTAL.

3. THE CONTRACTOR SHALL REVIEW, SIGN, DATE AND SUBMIT DETAILED SHOP DRAWINGS, FINISHES, FIXTURE AND EQUIPMENT CUT SHEETS TO C/M+A FOR REVIEW. C/M+A SHALL HAVE (10) WORKING DAYS TURNAROUND TIME FROM RECEIPT OF SUBMITTAL. ALL SHOP DRAWINGS AND CUT SHEETS SIGNED "REVIEWED" SHALL SUPERSEDE ORIGINAL DRAWINGS IN DESIGN APPEARANCE ONLY. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ERRORS IN THEIR DRAWINGS.

4. IN THE EVENT THAT THE AFOREMENTIONED DRAWINGS, SPECIFICATIONS, ETC. ARE NOT SUBMITTED FOR REVIEW AND APPROVAL, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE REPLACEMENT, CORRECTION OR ACQUISITION OF PRODUCTS TO COMPLY WITH OWNER'S SPECIFICATION AND APPROVAL.

5. THE CONTRACTOR SHALL PROVIDE CHALK LINES ON THE SLAB OF PARTITIONS PRIOR TO FRAMING AND SHALL NOTIFY C/M+A OF ANY DEVIATION FROM CONSTRUCTION DIMENSIONS OR CLEARANCES AS DESIGNATED ON THE DRAWINGS OR OF APPARENT CONSTRUCTION CONFLICTS.

6. UPON SUBSTANTIAL COMPLETION OF WORK, THE HVAC SYSTEM SHALL BE BALANCED BY A QUALIFIED ENGINEER AND A WRITTEN REPORT SHALL BE SUBMITTED TO BUILDING MANAGEMENT.

7. UPON SUBMISSION OF THE "FINAL APPLICATION FOR PAYMENT", THE CONTRACTOR SHALL PROVIDE C/M+A WITH (1) SET OF AS-BUILT DOCUMENTATION INCLUDING DRAWINGS, SPECIFICATIONS, ADDENDA, CHANGE ORDERS, PRODUCT DATA, EQUIPMENT WARRANTIES AND MANUALS, FINISH SAMPLES AND OTHER REQUIRED SUBMITTALS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A WRITTEN WARRANTY COVERING ALL WORK PERFORMED UNDER THE CONTRACT. WARRANTY SHALL BE FOR A PERIOD OF ONE YEAR COMMENCING ON THE DATE OF SUBSTANTIAL COMPLETION AND SHALL BE INCLUDED WITH THIS SUBMITTAL.

8. THE CONTRACTOR SHALL SUPPLY LIEN WAIVERS RELATING TO ALL WORK WITH THE "FINAL APPLICATION FOR PAYMENT" TO BE REVIEWED FOR "FINAL CERTIFICATE OF PAYMENT".

G. CHANGES IN WORK

1. THE TENANT WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO OR DEDUCTING FROM THE WORK - THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY. SUCH WORK SHALL BE EXECUTED UNDER THE CONDITIONS OF THE ORIGINAL CONTRACT EXCEPT THAT ANY CLAIM FOR EXTENSIONS OF TIME CAUSED THEREBY SHALL BE INDICATED ON THE CHANGE ORDER.

2. CLAIMS FOR ADDITIONAL WORK WILL BE SUBMITTED IN WRITING FOR REVIEW BY ARCHITECT AND OWNER AND SHOULD INCLUDE A COMPLETE DESCRIPTION OF THE WORK, MATERIALS BEING USED, THE ROOM NUMBER OR AREA AFFECTED, AND THE AUTHORIZATION UNDER WHICH THE WORK IS BEING PERFORMED.

Description	Supplied By	Installed By	Notes
General			
Builder's risk insurance	Owner		
Building permit fees	Owner		
Utility connection fees	Owner		
Water / Sewage tap fees	Owner		
Signage Permit Fees	Owner		
Construction Barricade	General contractor	General contractor	If required
3rd party testing	Owner		
TAS Accessibility Inspection	Owner		G.C. to coordinate
Progress & final cleaning	General contractor	General contractor	
Asbestos / Environmental inspections	Owner		
Exterior & Patio			
Aluminum Storefront Windows & Doors	General contractor	General contractor	
Steel posts	General contractor	General contractor	
Patio railing	General contractor	General contractor	
Footings	General contractor	General contractor	
Patio dining ledge	General contractor	General contractor	
Patio fans	General contractor	General contractor	
Exterior Painting	General contractor	General contractor	
Exterior wood stain	General contractor	General contractor	
Wood sealer	General contractor	General contractor	
Patio décor	Owner	General contractor	2 resouces for 2 days for installation, 1 forklift & misc. fasteners, (includes interior décor)
Building Signage	Signage Vendor	Signage Vendor	Blocking & electrical connections by General Contractor
Leveling sidewalk near new entry	General contractor	General contractor	Only if site conditions do not meet ADA requirements
Roof			
Roof membrane	Existing	Existing	Patch and repair as required at new equipment install
RTUs	General contractor	General contractor	
Restroom Exhaust fans	General contractor	General contractor	
Exhaust Fans for hood	KES	General contractor	
DOAS unit	KES	General contractor	
Welded duct for hood	General contractor	General contractor	
Condensers	KES	KES	G.C. to lift condensers to roof, provide pathway to roof & provide power disconnects
Interior Finishes			
Tile & Grout	General contractor	General contractor	
Paint & Stain	General contractor	General contractor	
Thin Brick	General contractor	General contractor	
Wood trim & paneling	General contractor	General contractor	
Granite Bar Countertop	General contractor	General contractor	
Expo Counter casework	General contractor	General contractor	
Expo counter Stainless Steel countertop	KES	KES	G.C. to provide field dimensions
Countertop support brackets	General contractor	General contractor	
Handwash / Trash station casework	General contractor	General contractor	
Handwash / Trash station Stainless Steel countertop	KES	KES	
Ceiling tiles & grids	General contractor	General contractor	
Stainless Steel end caps and corner guards	KES	KES	B.O.H. & Bar
Stainless Steel closure panels	KES	KES	
Caulk & Seal @ Millwork	General contractor	General contractor	
800 grit polished dining room concrete w/ sealer	General contractor	General contractor	
Quarry tile flooring & cove base (B.O.H.)	General contractor	General contractor	
Quarry tile flooring & cove base (Bar)	General contractor	General contractor	
Furniture			
Dining Room Tables	Owner	General contractor	
Dining Room Chairs	Owner	General contractor	
Dining Room Booths & Banquettes	General contractor	General contractor	
Patio Tables & chairs	Owner	General contractor	
Patio Dining Ledge	General contractor	General contractor	
Lighting			
Interior light fixtures	General contractor	General contractor	Owner to provide fixture types D,F,G,& K.
Exterior light fixtures	General contractor	General contractor	
Dimming system	Owner	General contractor	G.C. to refer to Marlin installation manual for wiring requirements
Restrooms			
Water Closets	General contractor	General contractor	
Lavatories	General contractor	General contractor	
Faucets	General contractor	General contractor	
Restroom accessories	General contractor	General contractor	Refer to restroom accessory schedule on sheet A5.0 for owner provided items
Toilet partitions	General contractor	General contractor	
Doors & Hardware			
Interior Doors	General contractor	General contractor	
Exterior Doors	General contractor	General contractor	
Hardware & Accessories	General contractor	General contractor	
Miscellaneous			
TVs	Owner	General contractor	Power & blocking provided by G.C.
Mounting brackets for TVs	Owner	General contractor	Blocking provided by General Contractor
AV Cabinet	Owner	General contractor	
Office Millwork	General contractor	General contractor	Blocking provided by General Contractor
Safes	Owner	General contractor	
Electrical Panels	General contractor	General contractor	
Electrical transformer	General contractor	General contractor	
Air Curtain	KES	General contractor	
CO2 Tank	Owner's vendor	Owner's vendor	
Water Heater	General contractor	General contractor	
Mop sink	General contractor	General contractor	
Fire treated IT rack backerboard	General contractor	General contractor	3/4" FRT Plywood
Grease interceptor	Existing	Existing	
Floor Sinks	General contractor	General contractor	
Floor Drains	General contractor	General contractor	
Trench Drains	KES	General contractor	
Décor	Owner	General contractor	2 resouces for 2 days for installation, 1 forklift & misc. fasteners, (includes exterior décor)
Building Numbers	General contractor	General contractor	
Bar gantry	General contractor	General contractor	
Bar foot rail	General contractor	General contractor	
Bar service rail	General contractor	General contractor	
Kitchen equipment	KES	KES	
Kitchen hoods	KES	General contractor	
Stainless steel panels under hoods	KES	KES	
Soda line Chase	General contractor	General contractor	
Soda line set install	Owner's vendor	Owner's vendor	
Final kitchen equipment connections	General contractor	General contractor	
Walk-in cooler / freezer	KES	KES	
Walk-in cooler / freezer lighting	KES	General contractor	
Beer taps	KES	KES	

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ISSUED FOR PERMIT 07/08/2025

SEAL

REGISTERED ARCHITECT THOMAS M. MORGAN 9415 STATE OF TEXAS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THOMAS M. MORGAN NO. 9415 EXPIRES 09/30/25

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
SUITE 101
ARLINGTON, TX 76018

NO.	REVISIONS:	DATE:
1		
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TENANT REVIEW ISSUE DATE: 07.08.25
LANDLORD REVIEW ISSUE DATE: 07.08.25
PERMIT ISSUE DATE: 07.08.25
BID ISSUE DATE: 07.08.25
CONSTRUCTION ISSUE DATE: XX.XX.25

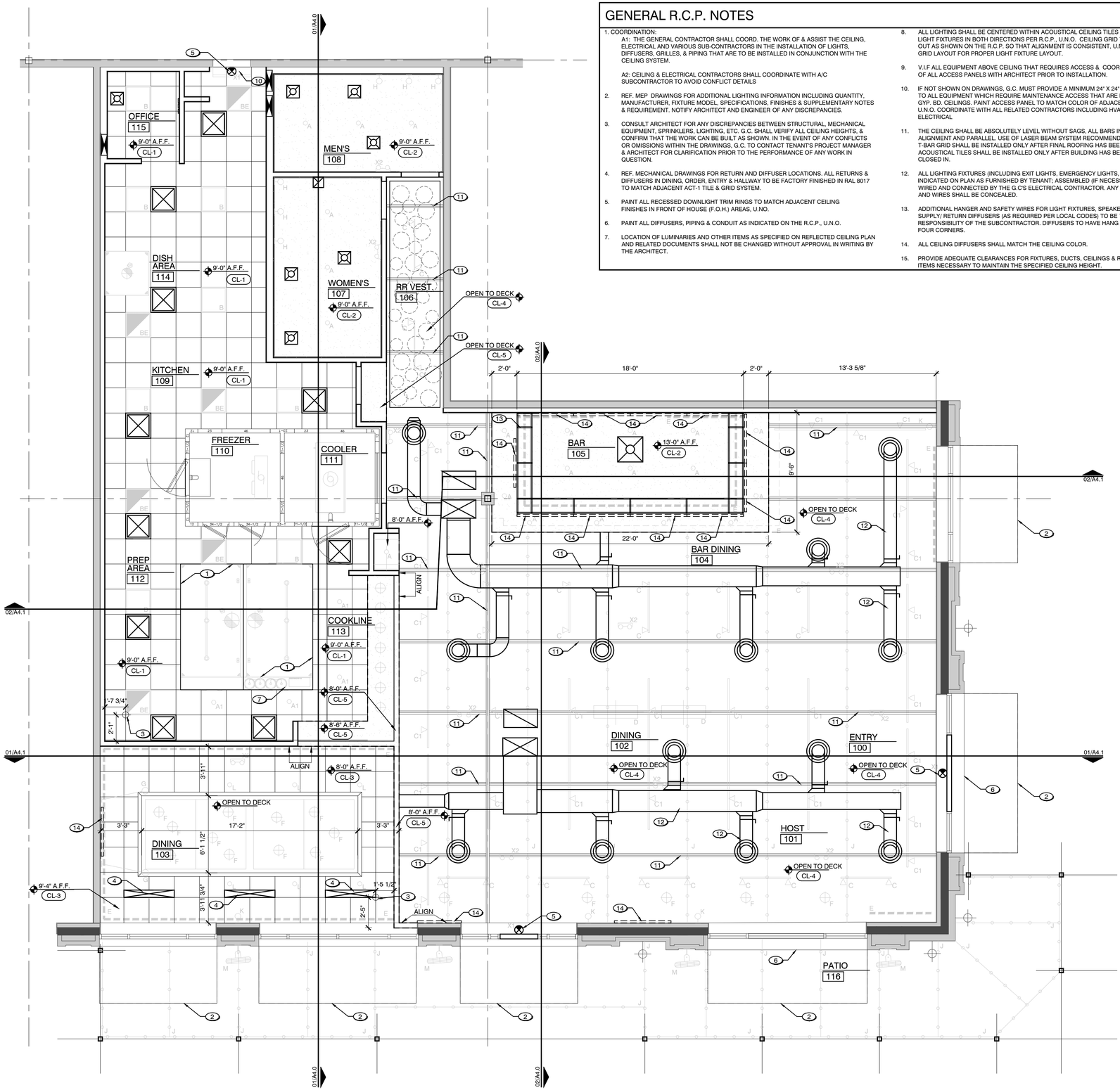
DRAWING TITLE:

GENERAL NOTES

DRAWING NUMBER:

G0.1

ISSUED FOR PERMIT 07/08/2025



GENERAL R.C.P. NOTES

1. COORDINATION:
   A1: THE GENERAL CONTRACTOR SHALL COORD. THE WORK OF & ASSIST THE CEILING, ELECTRICAL AND VARIOUS SUB-CONTRACTORS IN THE INSTALLATION OF LIGHTS, DIFFUSERS, GRILLES, & PIPING THAT ARE TO BE INSTALLED IN CONJUNCTION WITH THE CEILING SYSTEM.

   A2: CEILING & ELECTRICAL CONTRACTORS SHALL COORDINATE WITH A/C SUBCONTRACTOR TO AVOID CONFLICT DETAILS
2. REF. MEP DRAWINGS FOR ADDITIONAL LIGHTING INFORMATION INCLUDING QUANTITY, MANUFACTURER, FIXTURE MODEL, SPECIFICATIONS, FINISHES & SUPPLEMENTARY NOTES & REQUIREMENT. NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES.
3. CONSULT ARCHITECT FOR ANY DISCREPANCIES BETWEEN STRUCTURAL, MECHANICAL EQUIPMENT, SPRINKLERS, LIGHTING, ETC. G.C. SHALL VERIFY ALL CEILING HEIGHTS, & CONFIRM THAT THE WORK CAN BE BUILT AS SHOWN. IN THE EVENT OF ANY CONFLICTS OR OMISSIONS WITHIN THE DRAWINGS, G.C. TO CONTACT TENANT'S PROJECT MANAGER & ARCHITECT FOR CLARIFICATION PRIOR TO THE PERFORMANCE OF ANY WORK IN QUESTION.
4. REF. MECHANICAL DRAWINGS FOR RETURN AND DIFFUSER LOCATIONS. ALL RETURNS & DIFFUSERS IN DINING, ORDER, ENTRY & HALLWAY TO BE FACTORY FINISHED IN RAL 8017 TO MATCH ADJACENT ACT-1 TILE & GRID SYSTEM.
5. PAINT ALL RECESSED DOWNLIGHT TRIM RINGS TO MATCH ADJACENT CEILING FINISHES IN FRONT OF HOUSE (F.O.H.) AREAS, U.NO.
6. PAINT ALL DIFFUSERS, PIPING & CONDUIT AS INDICATED ON THE R.C.P., U.N.O.
7. LOCATION OF LUMINARIES AND OTHER ITEMS AS SPECIFIED ON REFLECTED CEILING PLAN AND RELATED DOCUMENTS SHALL NOT BE CHANGED WITHOUT APPROVAL IN WRITING BY THE ARCHITECT.
8. ALL LIGHTING SHALL BE CENTERED WITHIN ACOUSTICAL CEILING TILES U.N.O. ALIGN LIGHT FIXTURES IN BOTH DIRECTIONS PER R.C.P., U.N.O. CEILING GRID TO BE LAID OUT AS SHOWN ON THE R.C.P. SO THAT ALIGNMENT IS CONSISTENT, U.N.O. FIELD VERIFY GRID LAYOUT FOR PROPER LIGHT FIXTURE LAYOUT.
9. V.I.F ALL EQUIPMENT ABOVE CEILING THAT REQUIRES ACCESS & COORDINATE LOCATION OF ALL ACCESS PANELS WITH ARCHITECT PRIOR TO INSTALLATION.
10. IF NOT SHOWN ON DRAWINGS, G.C. MUST PROVIDE A MINIMUM 24" X 24" ACCESS PANEL TO ALL EQUIPMENT WHICH REQUIRE MAINTENANCE ACCESS THAT ARE LOCATED ABOVE GYP. BD. CEILINGS. PAINT ACCESS PANEL TO MATCH COLOR OF ADJACENT CEILING, U.N.O. COORDINATE WITH ALL RELATED CONTRACTORS INCLUDING HVAC, PLUMBING AND ELECTRICAL
11. THE CEILING SHALL BE ABSOLUTELY LEVEL WITHOUT SAGS, ALL BARS IN TRUE ALIGNMENT AND PARALLEL. USE OF LASER BEAM SYSTEM RECOMMENDED (OPTIONAL). T-BAR GRID SHALL BE INSTALLED ONLY AFTER FINAL ROOFING HAS BEEN COMPLETED. ACOUSTICAL TILES SHALL BE INSTALLED ONLY AFTER BUILDING HAS BEEN COMPLETELY CLOSED IN.
12. ALL LIGHTING FIXTURES (INCLUDING EXIT LIGHTS, EMERGENCY LIGHTS, ETC.) THAT ARE INDICATED ON PLAN AS FURNISHED BY TENANT; ASSEMBLED (IF NECESSARY), INSTALLED, WIRED AND CONNECTED BY THE G.C'S ELECTRICAL CONTRACTOR. ANY AND ALL CORDS AND WIRES SHALL BE CONCEALED.
13. ADDITIONAL HANGER AND SAFETY WIRES FOR LIGHT FIXTURES, SPEAKERS, & AIR SUPPLY/ RETURN DIFFUSERS (AS REQUIRED PER LOCAL CODES) TO BE THE RESPONSIBILITY OF THE SUBCONTRACTOR. DIFFUSERS TO HAVE HANG WIRES ON ALL FOUR CORNERS.
14. ALL CEILING DIFFUSERS SHALL MATCH THE CEILING COLOR.
15. PROVIDE ADEQUATE CLEARANCES FOR FIXTURES, DUCTS, CEILINGS & RELATED OWNER ITEMS NECESSARY TO MAINTAIN THE SPECIFIED CEILING HEIGHT.
16. INSTALL UNDERWRITERS LABORATORIES, INC. (U.L) LABELED DEVICES THROUGHOUT, AS REQUIRED BY CODE.
17. TESTING OF EMERGENCY LIGHTING IS REQUIRED AS PER STATE & LOCAL JURISDICTION. CONTRACTOR TO CALL FOR TESTING PRIOR TO FINAL INSPECTION (TESTING MUST BE BY DISCONNECTING MAIN).
18. PROVIDE NON-COMBUSTABLE BLOCKING AND BRACING REQUIRED FOR FIXTURE INSTALLATION AND ALL ELECTRICAL COMPONENTS.
19. PROVIDE SEISMIC BRACING AND COMPRESSION STRUTS AS REQUIRED BY GOVERNING CODES. LIGHT FIXTURES SHALL BE SUSPENDED IN COMPLIANCE WITH GOVERNING CODES.
20. INSTALLATION OF LIGHTING FIXTURES SHALL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND ACCORDING TO CODE REQUIREMENTS.
21. PROVIDE PENDANT MOUNTING KIT FOR ALL LIGHTING TO BE PENDANT MOUNTED FROM STRUCTURE.
22. G.C. TO PROVIDE AND INSTALL ALL REQUIRED HARDWARE FOR HANGING GRIDS FOR APPROPRIATE CEILING TYPE.
23. G.C. TO COORDINATE LOCATION OF ALL FIRE ALARM DEVICES WITH OWNER PRIOR TO INSTALLATION. NO FIRE ALARM DEVICES SHALL BE INSTALLED ON ANY WALLS WITH THE MENU BOARD UNLESS REQUIRED BY CODE.
24. G.C. TO INSTALL CONDUIT AND PULL STRINGS IN CEILING AS REQUIRED BY CODE. COORDINATE WITH OWNER'S SECURITY AND SOUND SYSTEM VENDOR.
25. ALL LIGHTING FIXTURES DIMENSIONED TO CENTERLINE OF FIXTURES UNLESS NOTED OTHERWISE. TYPICAL THROUGHOUT.

(X) KEYNOTES

1	LINE OF HOOD; REF. KITCHEN DRAWINGS
2	EXIST. CANOPY
3	STARTING POINT OF CEILING GRID.
4	DIFFUSER, PAINT TO MATCH SURROUNDING CEILING
5	EXIT SIGN, THE MINIMUM 90 MINUTE EMERGENCY POWER DURATION.
6	APPROXIMATE LOCATION OF EXTERIOR WALL SIGNAGE. SIGNAGE UNDER SEPERATE PERMIT. REFER TO ELECTRICAL ELEVATIONS FOR ADDITIONAL INFORMATION. GC TO PROVIDE POWER AS REQUIRED.
7	APPROXIMATE LOCATION OF ANSUL SYSTEM ABOVE. REF. KITCHEN & MEP DRAWINGS FOR ADDITIONAL INFO.
8	LIGHTING FIXTURES & SWITCHES FOR COOLER/FREEZER ARE PROVIDED W/ COOLER/FREEZER. FIXTURES & SWITCHES ARE TO BE INSTALLED BY ELEC. CONTRACTOR PER MANUFACTURER'S REQUIREMENTS.
9	NOT USED
10	AIR CURTAIN, REF. ELEC. DRAWINGS FOR ADDITIONAL INFO.
11	LINE OF EXIST. JOIST ABOVE
12	EXPOSED DUCTWORK; REF. MECH. SHEETS
13	BAR GANTRY; REF. DETAILS 03/A8.0, 04/A8.0 & 06/A8.0.
14	LOCATION OF TV.
15	FAUX WD. TRIM; REF. DETAIL 01/A8.2

CEILING FINISH SCHEDULE

C##	DESCRIPTION
CL-1	MANUFACTURER: USG PRODUCT: 2'x2' SHEETROCK BRAND LAY-IN GYPSUM CEILING PANELS, W/ DXL SUSPENSION SYSTEM FINISH FINISH: RE3270 WHITE NOTES: KITCHEN
CL-2	PRODUCT: PAINTED SHEETROCK, SMOOTH FINISH PRODUCT: PROMAR 200 ZERO VOC COLOR/FINISH: SW 6064 RETICENCE NOTES: RESTROOMS, BAR SOFFIT
CL-3	MANUFACTURER: USG PRODUCT: 2'x2' SHEETROCK BRAND LAY-IN GYPSUM CEILING PANELS, W/ DXL SUSPENSION SYSTEM FINISH FINISH: RE3270 WHITE MANUFACTURER: DAKOTA TIN PRODUCT: 2'x2' CORRUGATED METAL CEILING - BARN TIN PREMIUM RUST NOTES: DINING AREA
CL-4	OPEN TO ROOF DECK / JOISTS ABOVE PAINT JOISTS, DECK, CONDUIT, ETC.. COLOR / FINISH: TBD
CL-5	PRODUCT: PAINTED SHEETROCK, SMOOTH FINISH PRODUCT: PROMAR 200 ZERO VOC COLOR/FINISH: SW 9150 ENDLESS SEA, SATIN NOTES: EXPO BULKHEAD

01 Reflected Ceiling Finish Plan
SCALE: 1/4" = 1'-0"

NORTH

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SEAL

REGISTERED ARCHITECT
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9415
STATE OF TEXAS

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CONSTRUCTION ISSUE DATE:	XX.XX.25

DRAWING TITLE:

REFLECTED CEILING FINISH PLAN & SCHEDULES

DRAWING NUMBER:

A2.3

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025

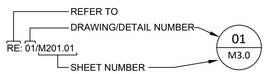
GENERAL NOTES

1. "CONSTRUCTION DOCUMENTS" ARE DEFINED AS ALL DRAWINGS AND SPECIFICATIONS TOGETHER. CONTRACTOR SHALL FULLY EXAMINE AND BECOME FAMILIAR WITH THE CONSTRUCTION DOCUMENTS IN THEIR ENTIRETY. ANY DISCREPANCY OR UNCLEAR INFORMATION FOUND IN THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND ARCHITECT PRIOR TO PERFORMING ANY WORK INVOLVING ANY CONFLICTING INFORMATION. ALL COSTS SUBMITTED SHALL BE BASED ON THOROUGH KNOWLEDGE OF ALL PRODUCTS, MATERIALS, AND LABOR REQUIRED FOR COMPLETE, COORDINATED, PROPERLY INSTALLED, AND FUNCTIONING SYSTEMS. ANY ADDITIONAL COSTS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. DRAWINGS ARE DIAGRAMATIC AND SHOW ONLY GENERAL ARRANGEMENT OF WORK. NOT ALL TRANSITIONS, OFFSETS, SLOPES, ETC. ARE SHOWN THAT MAY BE REQUIRED FOR PROPER INSTALLATION. DRAWINGS DO NOT SHOW DIMENSIONS FOR LOCATING ANY WORK AND SHALL NOT BE SCALED FOR BIDDING, ORDERING, INSTALLATION, OR ANY OTHER PURPOSE.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS OF HIS WORK WITH ALL OTHER TRADES. THIS INCLUDES, BUT IS NOT LIMITED TO: POWER REQUIREMENTS; LOCATIONS OF EQUIPMENT, AIR DEVICES, DUCTWORK, AND PIPING; PROPER SERVICE AND CODE-REQUIRED WORKING CLEARANCES; CONTROLS REQUIREMENTS; ETC.
4. SUBMITTAL REVIEW: SUBMITTALS ARE REVIEWED BY THE ENGINEER ONLY FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, MEANS AND METHODS OF CONSTRUCTIONS, AND COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR IS FULLY RESPONSIBLE FOR ALL SUBMITTALS PROVIDED - EITHER BY HIM DIRECTLY, OR INDIRECTLY BY HIS VENDORS OR SUB-CONTRACTORS. SUBMITTALS PROVIDED BY VENDORS OR SUB-CONTRACTORS SHALL BE THOROUGHLY REVIEWED BY THE SUBMITTING CONTRACTOR FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS AND COORDINATION WITH ALL OTHER TRADES PRIOR TO SUBMITTAL TO THE ENGINEER.
5. IN THE EVENT THERE ARE ANY ISSUES RELATED TO QUALITY OF MATERIALS AND/OR OPERATIONS OF ANY MECHANICAL, ELECTRICAL OR PLUMBING EQUIPMENT, THE OWNER SHALL PUT INTO FORCE ANY ARTICLES OF THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR RELATED TO ITEMS STATED ABOVE.
6. IN THE EVENT ANY ITEMS ARE DEEMED TO BE POOR QUALITY, NOT IN WORKING ORDER OR ANY OTHER DEFICIENCY, THE CONTRACTOR SHALL HAVE THE RIGHT TO ENFORCE ANY AND ALL WARRANTY LANGUAGE AS STATED BETWEEN THEIR (OWNER AND CONTRACTOR) AGREEMENT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY MATERIALS AND LABOR WHETHER SHOWN ON THE DRAWINGS OR NOT. THE OWNER MAINTAINS ALL RIGHTS AND FIRST REFUSAL FOR ANY SUBSTITUTIONS FOR ANY MATERIALS REQUIRED FOR THE COMPLETION OF THIS CONSTRUCTION PROJECT.
8. THE ARCHITECT AND ENGINEER SHALL BE HELD HARMLESS FOR ANY INSTALLATIONS NOT PREVIOUSLY REVIEWED OR DESIGNED.
9. ALL CONDUIT, RACEWAYS, PIPING, DUCTWORK, AND EQUIPMENT SHALL BE APPROVED BY OWNER PRIOR TO INSTALLATION AND COMMENCEMENT OF ANY WORK.
10. INSTALL ALL NEW CONDUIT, PIPING, UTILITIES, ETC. WITHIN NEW WALLS. ALL DUCTWORK SHALL BE INSTALLED CONCEALED ABOVE THE CEILING UNLESS NOTED OTHERWISE.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
(S)	TEMPERATURE SENSOR
(T)	THERMOSTAT
H	HUMIDISTAT
	3/4" DOOR UNDERCUT
	CONNECT TO EXISTING
SD	SMOKE DETECTOR REMOTE TEST STATION

DRAWING DETAIL REFERENCE KEY



HVAC DUCTWORK LEGEND

SINGLE LINE DUCTWORK	DESCRIPTION	DOUBLE LINE DUCTWORK
	ROUND ELBOW DOWN	
	ROUND ELBOW UP	
	OFFSET TO CHANGE ELEVATION (AT 30° WHEN POSSIBLE. ARROW SLOPES DOWN, U.N.O.)	
	ROUND RADIUS ELBOW R = 1	
	90° STRAIGHT TEE	
	90° CONICAL TEE	
	45° LATERAL TAP	
	45° LATERAL CONICAL TEE	
	SIZE OR SHAPE TRANSITION	
	ROUND FLEXIBLE DUCT	
	RECTANGULAR ELBOW DOWN	
	RECTANGULAR ELBOW UP	
	OFFSET TO CHANGE ELEVATION (AT 30° WHERE POSSIBLE. ARROW SLOPES DOWN., U.N.O)	
	RECTANGULAR RADIUS ELBOW R = 1	
	RECTANGULAR ELBOW WITH TURNING VANES	
	SPLIT BRANCH TAKE-OFF WITH SQUARE ELBOW & SPLITTER DAMPER	
	SPLIT BRANCH TAKE-OFF WITH RADIUS ELBOW & SPLITTER DAMPER	
	SPLIT BRANCH TAKE-OFF TEE WITH STATIONARY SPLITTER DAMPER	
	BRANCH TAKE-OFF WITH 45° LEAD IN TAP	
	INSULATED / LINED DUCTWORK (U.N.O.)	
	SQUARE FACED CEILING DIFFUSER 4-WAY DIRECTIONAL THROW (U.N.O.)	
	ROUND FACED CEILING DIFFUSER	
	CEILING RETURN OR EXHAUST AIR GRILLE OR REGISTER	
	SIDEWALL SUPPLY GRILLE OR REGISTER	
	SUPPLY DUCT RISER	
	RETURN AIR DUCT RISER	
	EXHAUST AIR DUCT RISER	
	MANUAL BALANCING DAMPER	
M	AUTOMATIC (MOTOR-OPERATED) DAMPER	M
FD	FIRE DAMPER	FD
GD	GRAVITY BACKDRAFT DAMPER	GD
FS	COMBINATION FIRE AND SMOKE DAMPER WITH SMOKE DETECTOR	FS
SD	SMOKE DETECTOR	SD
	RETURN AIR GRILLE	
	SUPPLY AIR GRILLE	
	SUPPLY AIR GRILLE	
	SUPPLY AIR GRILLE	
	EXISTING DUCTWORK TO BE DEMOLISHED	
	EXISTING DUCTWORK TO REMAIN	
	NEW DUCTWORK	

NOTE: NOT ALL SYMBOLS USED

HVAC ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ACU	AIR - CONDITIONING UNIT
AD	ACCESS DOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
AS	AIR SEPARATOR
CAV	CONSTANT AIR VOLUME TERMINAL
CC	COOLING COIL
CD	CEILING DIFFUSER
CHWP	CHILLED WATER PUMP
CP	CONDENSATE PUMP
CRAC	COMPUTER ROOM AIR CONDITIONER
CR	CEILING REGISTER
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CWP	CONDENSER WATER PUMP
EF	EXHAUST FAN
EDH	ELECTRIC DUCT HEATER
EHC	ELECTRIC HEATING COIL
ER	EXHAUST REGISTER
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FPB	FAN POWERED BOX
GUH	GAS FIRED UNIT HEATER
H	HUMIDIFIER
HP	HEAT PUMP
HRC	HEAT RECOVERY UNIT
HVLS	HIGH VOLUME LOW SPEED
HVU	HEATING AND VENTILATING UNIT
HX	HEAT EXCHANGER
OAF	OUTSIDE AIR FAN
PRV	PRESSURE REDUCING VALVE
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILLE
RAR	RETURN AIR REGISTER
RHC	REHEAT COIL
RTU	ROOF TOP A/C UNIT
SA	SOUND ATTENUATOR (TRAP)
SC	STEAM COIL
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SR	SUPPLY REGISTER
SRV	SAFETY RELIEF VALVE
TEF	TOILET EXHAUST FAN
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME TERMINAL UNIT
VFD (VSD)	VARIABLE FREQUENCY (SPEED) DRIVE
WCC	WATER COOLED CHILLER

NOTE: NOT ALL SYMBOLS USED

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SEAL

STATE OF TEXAS
JASON R. HILL
65493
REGISTERED PROFESSIONAL ENGINEER

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

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CONSTRUCTION ISSUE DATE:	XX.XX.25

DRAWING TITLE:
MECHANICAL GENERAL NOTES & LEGEND

DRAWING NUMBER:

M1.0

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025

MECHANICAL SPECIFICATIONS

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. FURNISH AND INSTALL ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED AND NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND ALL OTHER WORK AND MISCELLANEOUS ITEMS, NOT SPECIFICALLY MENTIONED BUT REASONABLE INFERRED FOR A COMPLETE INSTALLATION, INCLUDING ALL ACCESSORIES AND APPURTENANCES REQUIRED FOR TESTING THE SYSTEM. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS THAT ALL SYSTEMS B'E COMPLETE AND READY FOR OPERATION.

B. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE, FEDERAL, STATE AND LOCAL BUILDING CODES.

C. CONTRACTOR SHALL SECURE AND PAY FOR ALL CONSTRUCTION PERMITS AND LICENSES AND SHALL PAY ALL GOVERNMENTAL AND PUBLIC UTILITY CHARGES AND INSPECTION FEES NECESSARY FOR THE EXECUTION OF THE WORK.

D. CONTRACTOR SHALL ARRANGE FOR AND PAY FOR ALL REQUIRED ENGINEER STAMPS, LICENSES, PERMITS AND INSPECTION FEES FOR DEFERRED DESIGN AND INSPECTION SCOPES OF WORK.

E. SAFETY: THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.

F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOBSITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTIONS HAVE BEEN MADE. CLAIMS FOR EXTRA COMPENSATION FOR WORK THAT COULD HAVE BEEN FORESEEN BY SUCH INSPECTIONS, WHETHER SHOWN ON THE CONTRACT DOCUMENTS OR NOT SHALL NOT BE ACCEPTED OR PAID.

G. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE U.L. LABEL WHERE APPLICABLE UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER UNLESS SPECIFICALLY STATED OTHERWISE FOR A PARTICULAR PIECE OF EQUIPMENT, COMPONET OR SYSTEM.

H. COORDINATION: COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICT AND TO PROVIDE CORRECT ROUGH-IN AND CONNECTION FOR EQUIPMENT FURNISHED UNDER OTHER TRADES. VERIFY EQUIPMENT DIMENSIONS AND REQUIREMENTS WITH PROVISIONS SPECIFIED UNDER THIS SECTION. CHECK ACTUAL JOB CONDITIONS BEFORE FABRICATING WORK. REPORT NECESSARY CHANGES IN TIME TO PREVENT NEEDLESS RE-WORK.

I. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF EQUIPMENT, DUCTWORK AND PIPING SYSTEMS. CONTRACTOR SHALL CHECK ALL INFORMATION AND REPORT ANY APPARENT DISCREPANCIES BEFORE SUBMITTING BID.

1.2 CODE COMPLIANCE

A. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS.

B. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND THE OWNER IN WRITING OF SUCH DIFFERENCE.

C. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, CONTRACTOR SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS.

1.3 GENERAL DEMOLITION REQUIREMENTS:

A. CONTRACTOR SHALL PROTECT THE EXISTING HVAC EQUIPMENT AND SYSTEMS INDICATED TO REMAIN OPERATIONAL PERMANENTLY OR TEMPORARILY. IF DAMAGED OR DISTURBED IN THE COURSE OF THE DEMOLITION WORK, REMOVE DAMAGED PORTIONS AND REPAIR OR REPLACE WITH NEW PRODUCT OF EQUAL CAPACITY, QUALITY AND FUNCTIONALITY.

B. CONTRACTOR SHALL MAKE "SAFE" ALL HVAC EQUIPMENTS. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO ARRANGE THE SHUT OFF OF UTILITIES. THE CONTRACTOR SHALL LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES SERVING BUILDING PRIOR TO PROCEEDING WITH THE REMOVAL OF THE HVAC SYSTEMS. THE CONTRACTOR SHALL NOT RELY ON AN OPERABLE ISOLATION VALVE TO SECURELY ISOLATE A PIPING SYSTEM. CONTRACTOR SHALL PERMANENTLY CAP OR PLUG ALL OPEN PIPE ENDS.

C. CONTRACTOR SHALL ENGAGE THE BUILDING AUTOMATION SYSTEM (BAS) CONTRACTOR SELECTED BY THE OWNER TO REMOVE AND DISCONNECT ANY BAS DEVICE AND COMMUNICATION NETWORK.

D. EXISTING BELOW GRADE UTILITIES:
1. ABANDON EXISTING UTILITIES AND BELOW-GRADE UTILITY STRUCTURES. CUT UTILITIES AT LEAST 12 INCHES BELOW FINISH FLOOR.
2. DEMOLISH EXISTING UTILITIES AND BELOW-GRADE UTILITY STRUCTURES THAT ARE WITHIN 5 FEET OUTSIDE FOOTPRINT INDICATED FOR NEW CONSTRUCTION. ABANDON UTILITIES OUTSIDE THIS AREA.
3. FILL ABANDONED UTILITY STRUCTURES WITH SATISFACTORY SOIL MATERIALS ACCORDING TO PROJECT BACKFILL REQUIREMENTS.

E. CONTRACTOR SHALL BOX AND/OR PALLETIZE ALL HVAC EQUIPMENT AND PROTECT ON SITE UNTIL THE OWNER DETERMINES THE EQUIPMENT'S SALVAGE VALUE. THE CONTRACTOR SHALL REMOVE THESE ITEMS FROM THE SITE AFTER AT THE DIRECTION OF THE OWNER.

F. THE CONTRACTOR SHALL UTILIZE A CERTIFIED REFRIGERANT RECOVERY TECHNICIAN TO EVACUATE THE AIR-CONDITIONING AND REFRIGERATION EQUIPMENT AND RECOVER THE REFRIGERANT IN ACCORDANCE TO 40 CFR 82 AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION BEFORE STARTING DEMOLITION AND REMOVAL OF THE EQUIPMENT. CONTRACTOR SHALL PROVIDE A STATEMENT SIGNED BY REFRIGERANT RECOVERY TECHNICIAN RESPONSIBLE FOR RECOVERING REFRIGERANT, STATING THAT ALL REFRIGERANT THAT WAS PRESENT WAS RECOVERED AND THAT RECOVERY WAS PERFORMED ACCORDING TO EPA REGULATIONS. INCLUDE NAME AND ADDRESS OF TECHNICIAN AND DATE REFRIGERANT WAS RECOVERED.

G. INSTALL TEMPORARY MECHANICAL SYSTEMS LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, EXCEPT WHERE PITCH IS REQUIRED FOR PROPER DRAINAGE.

H. CUTTING AND PATCHING: ALL CUTTING AND PATCHING REQUIRED FOR WORK OF IN THIS DIVISION IS PROVIDED BY THE CONTRACTOR. COORDINATION OF THE WORK WITH THE GENERAL CONTRACTOR IS IMPERATIVE. CONTRACTOR SHALL RECIEVE WRITTEN APPROVAL FROM THE GENERAL CONTRACTOR PRIOR TO SAW-CUTTING OR CORING ANY STRUCTURAL SLABS OR MEMBERS.

I. PROVIDE HANGERS, SUPPORTS AND ANCHORS AS REQUIRED.

1.4 GENERAL REQUIREMENTS

A. INSTALL MECHANICAL AND ELECTRICAL SYSTEMS LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, EXCEPT WHERE PITCH IS REQUIRED FOR PROPER DRAINAGE.

B. INSTALL MECHANICAL AND ELECTRICAL SYSTEMS TO FACILITATE SERVICING, MAINTENANCE, REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.

C. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SCHEDULED EQUIPMENT IN THE CONTRACT DOCUMENTS, CONTRACTOR SHALL BEAR ALL COSTS TO COORDINATE REQUIRED DESIGN MODIFICATIONS AND INSTALLATION.

D. DELIVERY, STORAGE, AND HANDLING OF MATERIAL AND EQUIPMENT SHALL BE STORED AND HANDLED PER MANUFACTURER'S RECOMMENDATIONS. COMPLY WITH MANUFACTURER'S PRODUCT DATA, INCLUDING TECHNICAL BULLETINS, PRODUCT CATALOG INSTALLATION INSTRUCTIONS.

E. EQUIPMENT ROUGH-IN: ROUGH-IN EQUIPMENT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. OBTAIN EXACT ROUGH-IN LOCATIONS FROM GENERAL CONTRACTOR AND/OR OWNER.

F. PROVIDE HANGERS, SUPPORTS AND ANCHORS AS REQUIRED.

G. CUTTING AND PATCHING: ALL CUTTING AND PATCHING REQUIRED FOR WORK OF IN THIS DIVISION IS PROVIDED BY THE CONTRACTOR. COORDINATION OF THE WORK WITH THE GENERAL CONTRACTOR AND OWNER IS IMPERATIVE.

H. FOR THROUGH WALL PENETRATION PROTECTION SYSTEMS COMPLY WITH UL C-AJ 1001 FOR CONCRETE FLOOR AND WALL PENETRATIONS AND UL W-L 1039 FOR GYPSUM WALL BOARD PENETRATIONS.

1.5 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA TO MEET THE FOLLOWING REQUIREMENTS:
1. SHOW COMPLIANCE WITH THE BASIS OF DESIGN
   a. ALL EQUIPMENT DESIGNATED ON THE DRAWINGS
   b. ALL EQUIPMENT LISTED IN A SCHEDULE
   c. ALL DEVICES WHICH IS VISIBLE OR USED BY THE END-USER
2. SUBMIT MANUFACTURER'S ASSEMBLY_TYPE SHOP DRAWING FOR EACH ITEM INDICATING MATERIALS AND METHODS OF ASSEMBLY OF COMPONENTS.
3. SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR METAL DUCTWORK MATERIALS AND PRODUCTS.
4. SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF MECHANICAL INSULATION. SUBMIT SCHEDULE SHOWING MANUFACTURER'S PRODUCT NUMBER, K_VALUE, THICKNESS, AND FURNISHED ACCESSORIES FOR EACH MECHANICAL SYSTEM REQUIRING INSULATION.
5. SUBMIT MAINTENANCE DATA, INCLUDING CLEANING INSTRUCTIONS FOR FINISHES, AND SPARE PARTS LISTS.

1.6 SUBSTITUTIONS: WHEREVER POSSIBLE, MORE THAN ONE MANUFACTURER HAS BEEN LISTED FOR VARIOUS ITEMS OR EQUIPMENT, ANY ONE OF WHICH WILL BE ACCEPTABLE. BASE THE BID ON USE OF MATERIALS SPECIFIED. IF, AFTER AWARD OF THE CONTRACT, A SUBSTITUTE IS PROPOSED, THE REQUEST FOR PERMISSION TO SUBSTITUTE SHALL BE ACCOMPANIED WITH A STATEMENT OF THE AMOUNT OF MONEY TO REDUCE THE CONTRACT IF THE SUBSTITUTION IS PERMITTED. THE OWNER IS THE SOLE JUDGE OF ACCEPTABILITY OF PROPOSED SUBSTITUTIONS. IF A SUBSTITUTE IS PERMITTED AND ANY REDESIGN EFFORT IS THEREBY NECESSITATED, THE REQUIRED REDESIGN SHALL BE AT THE CONTRACTOR'S EXPENSE.

1.7 CONSTRUCT THE HVAC SYSTEM IN COMPLIANCE WITH THE FOLLOWING STANDARDS:

A. SMACNA STANDARDS: COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE", THIRD EDITION, 2005, FOR FABRICATION AND INSTALLATION OF METAL DUCTWORK.

B. SMACNA 1985: SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL, 1985.

C. SMACNA ROUND INDUSTRIAL DUCT CONSTRUCTION STANDARDS.

D. ASHRAE STANDARDS: COMPLY WITH 2012 ASHRAE HANDBOOK - HVAC SYSTEMS AND EQUIPMENT, CHAPTER 19 "DUCT CONSTRUCTION", FOR FABRICATION AND INSTALLATION OF METAL DUCTWORK.

E. NFPA COMPLIANCE: COMPLY WITH NFPA 90A "STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS" AND NFPA 90B "STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS".

F. ACGIH: INDUSTRIAL VENTILATION - A MANUAL OF RECOMMENDED PRACTICE, 20TH EDITION, AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS.

1.8 HYDRONIC PIPING SYSTEMS

A. PIPE AND FITTING MATERIALS, JOINING METHODS, SPECIAL-DUTY VALVES, AND SPECIALTIES FOR THE FOLLOWING SYSTEMS:
1. HOT-WATER HEATING PIPING.
2. CHILLED-WATER PIPING.
3. CONDENSATE-DRAIN PIPING.
4. AIR-VENT PIPING.

B. PERFORMANCE REQUIREMENTS
1. HYDRONIC PIPING COMPONENTS AND INSTALLATION SHALL BE CAPABLE OF WITHSTANDING THE FOLLOWING MINIMUM WORKING PRESSURE AND TEMPERATURE:
   a. HOT-WATER HEATING PIPING: 150 PSIG AT 200 DEG F.
   b. CHILLED-WATER PIPING: 150 PSIG AT 100 DEG F.
   c. CONDENSATE-DRAIN PIPING: 100 DEG F.
   d. AIR-VENT PIPING: 100 DEG F.

C. QUALITY ASSURANCE
1. INSTALLER QUALIFICATIONS:
   a. INSTALLERS OF PRESSURE-SEALED JOINTS: INSTALLERS SHALL BE CERTIFIED BY THE PRESSURE-SEAL JOINT MANUFACTURER AS HAVING BEEN TRAINED AND QUALIFIED TO JOIN PIPING WITH PRESSURE-SEAL PIPE COUPLINGS AND FITTINGS.
2. STEEL SUPPORT WELDING: QUALIFY PROCESSES AND OPERATORS ACCORDING TO AWS D1.1/D1.1M, "STRUCTURAL WELDING CODE - STEEL."
3. WELDING: QUALIFY PROCESSES AND OPERATORS ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE: SECTION IX.
   a. COMPLY WITH PROVISIONS IN ASME B31 SERIES, "CODE FOR PRESSURE PIPING."
   b. CERTIFY THAT EACH WELDER HAS PASSED AWS QUALIFICATION TESTS FOR WELDING PROCESSES INVOLVED AND THAT CERTIFICATION IS CURRENT.
4. ASME COMPLIANCE: COMPLY WITH ASME B31.9, "BUILDING SERVICES PIPING," FOR MATERIALS, PRODUCTS, AND INSTALLATION. SAFETY VALVES AND PRESSURE VESSELS SHALL BEAR THE APPROPRIATE ASME LABEL. FABRICATE AND STAMP AIR SEPARATORS AND EXPANSION TANKS TO COMPLY WITH ASME BOILER AND PRESSURE VESSEL CODE: SECTION VIII, DIVISION 1.

PART 2 - PRODUCTS

2.1 AIR DIFFUSERS, GRILLES AND REGISTERS

A. GENERAL: PROVIDE MANUFACTURER'S STANDARD CEILING AIR DIFFUSERS AND GRILLES WHERE SHOWN; OF SIZE, SHAPE, CAPACITY AND TYPE INDICATED, AND WITH ACCESSORIES AND FINISHES AS LISTED ON AIR DEVICE SCHEDULE. COLOR SELECTION SHALL BE FROM MANUFACTURER'S STANDARD COLOR CHIPS.

B. CEILING COMPATIBILITY: PROVIDE DIFFUSERS WITH BORDER STYLES THAT ARE COMPATIBLE WITH ADJACENT CEILING SYSTEMS, AND THAT ARE SPECIFICALLY MANUFACTURED TO FIT INTO CEILING MODULE WITH ACCURATE FIT AND ADEQUATE SUPPORT. REFER TO ARCHITECTURAL REFLECTIVE CEILING PLANS, ROOM FINISHING SCHEDULE AND SPECIFICATIONS FOR TYPES OF CEILING AND WALLS SYSTEMS WHICH WILL CONTAIN EACH TYPE OF CEILING AIR DIFFUSER, GRILLE AND REGISTERS. ALL AIR DEVICES INSTALLED IN PLASTER, GYP BOARD OR OTHER HARD CEILINGS OR WALLS SHALL BE PROVIDED WITH A SEPARATE MOUNTING FRAME.

C. PROVIDE REMOTE MANUAL BALANCE DAMPER OPERATORS FOR ALL AIR DEVICE WHERE THE BALANCING DAMPER IS ABOVE AN SOLID CEILING. THE MANUAL OPERATOR SHALL BE AN IN THE DUCT OR OUT OF AIR STREAM TYPE WITH A CABLE EXTENDED TO AN ACCESSIBLE LOCATION - EQUAL TO MAT ROTO-TWIST CABLE OPERATED DAMPERS. OUT OF THE AIR STREAM TYPE CABLE SHALL BE TERMINATED AT INCONSPICUOUS WALL OR CEILING LOCATION WITH A MOUNTING BRACKET FOR ACTUATION CABLE SUPPORT WITH A CAP TO SEAL ACCESS HOLE - EQUAL TO MAT-RT-CCM.

D. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE DIFFUSERS OF ONE OF THE FOLLOWING:
1. TITUS
2. KRUEGER
3. PRICE
4. METALAIRE

2.2 DUCTWORK INSULATION MATERIALS

A. MINERAL FIBER BOARD - 3.0 PCF: ASTM C612 TYPE 1A OR 1B WITH FACTORY APPLIED FSK JACKET.

B. MINERAL FIBERGLASS BLANKET - 1.0 PCF: ASTM C 553 TYPE II, ASTM C 1290 TYPE III WITH FACTORY APPLIED FRK JACKET.

C. JACKETS FOR DUCTWORK INSULATION: ASTM C 921, TYPE II FOR DUCTWORK WITH TEMPERATURES BELOW AMBIENT; TYPE I FOR DUCTWORK WITH TEMPERATURES ABOVE AMBIENT.

D. DUCTWORK INSULATION ACCESSORIES: PROVIDE STAPLES, BANDS, WIRES, TAPE, ANCHORS, CORNER ANGLES AND SIMILAR ACCESSORIES AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

E. DUCTWORK INSULATION COMPOUNDS: PROVIDE CEMENTS, ADHESIVES, COATINGS, SEALERS, PROTECTIVE FINISHES AND SIMILAR COMPOUNDS AS RECOMMENDED BY INSULATION MANUFACTURER FOR APPLICATIONS INDICATED.

F. APPLICATION SCHEDULE
1. ITEMS NOT INSULATED:
   a. FACTORY INSULATED FLEXIBLE DUCTS
   b. METAL DUCTS WITH DUCT LINER OF SUFFICIENT THICKNESS TO COMPLY THE ENERGY CODE MINIMUM INSULATION R-VALUES.
2. CONCEALED SUPPLY AND RETURN AIR DUCT INSULATION:
   a. MATERIAL: MINERAL-FIBER BLANKET
   b. THICKNESS: 2 INCHES AND 1.0 PCF
3. EXPOSED SUPPLY AND RETURN AIR DUCT INSULATION:
   a. MATERIAL: MINERAL-FIBER BOARD
   b. THICKNESS: 2 INCHES AND 3.0 PCF
4. EQUIP CLEANING (EF-2) EXHAUST AIR
   a. MATERIAL: MINERAL-FIBER BLANKET
   b. THICKNESS: 2 INCHES AND 1.0 PCF

2.3 DUCTWORK CONSTRUCTION

A. HVAC DUCTWORK MATERIALS
1. GALVANIZED STEEL DUCTWORK: SHALL BE CONSTRUCTED WITH G-90 OR BETTER GALVANIZED STEEL (ASTM A 653/A 653M) LFQ, CHEM TREAT.
2. STAINLESS-STEEL SHEETS: COMPLY WITH ASTM A 480/A 480M, TYPE 304 OR 316, AS INDICATED IN THE "DUCT SCHEDULE" ARTICLE; COLD ROLLED, ANNEALED, SHEET. EXPOSED SURFACE FINISH SHALL BE NO. 2B, NO. 2D, NO. 3, OR NO. 4 AS INDICATED IN THE "DUCT SCHEDULE" ARTICLE.
3. ALUMINUM SHEETS: COMPLY WITH ASTM B 209 ALLOY 3003, H14 TEMPER; WITH MILL FINISH FOR CONCEALED DUCTS, AND STANDARD, ONE-SIDE BRIGHT FINISH FOR DUCT SURFACES EXPOSED TO VIEW.

B. APPLICATION SCHEDULE
1. MEDIUM PRESSURE SUPPLY AIR:
   a. MATERIAL: G-90 GALVANIZED STEEL
   b. PRESSURE CLASS: +4 IN WG
2. LOW PRESSURE SUPPLY AIR:
   a. MATERIAL: G-90 GALVANIZED STEEL
   b. PRESSURE CLASS: +2 IN WG
3. RETURN AIR AND GENERAL TOILET EXHAUST AIR:
   a. MATERIAL: G-90 GALVANIZED STEEL
   b. PRESSURE CLASS: -1 IN WG
4. EQUIP CLEANING (EF-2) EXHAUST AIR:
   a. MATERIAL: TYPE 304 STAINLESS STEEL
   b. PRESSURE CLASS: -1 IN WG
   c. FINISH: NO 2B.

C. MISCELLANEOUS DUCTWORK MATERIALS
1. GENERAL: PROVIDE MISCELLANEOUS MATERIALS AND PRODUCTS TO COMPLETE THE DUCTWORK SYSTEM REQUIREMENTS INCLUDING PROPER CONNECTION OF DUCTWORK AND EQUIPMENT.
2. FITTINGS: PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15º CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45º LATERALS AND 45º ELBOWS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90º BRANCHES ARE INDICATED, PROVIDE CONICAL TYPE TEES.
3. DUCT LINER:
   a. FIBROUS GLASS, COMPLYING WITH THERMAL INSULATION MANUFACTURER'S ASSOCIATION (TIMA) AHC-101; OF THICKNESS INDICATED, WITH ANTIMICROBIAL NEOPRENE COATING ADJACENT TO AIR STREAM.
   b. MANUFACTURERS:
      1) CERTAINTEED "ULTRA*LINER".
      2) KNAUF TYPE "M".
      3) JOHNS MANSVILLE "LINACOUSTIC".
      4) OWENS-CORNING "AEROFLEX".
   c. DUCT LINER ADHESIVE:
      1) COMPLY WITH ASTM C 916 "SPECIFICATIONS FOR ADHESIVES FOR DUCT THERMAL INSULATION." APPLICATION SHALL CONFORM TO MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR THE APPARENT APPLICATION.
      2) ADHESIVES SHALL BE NON-INFLAMMABLE AFTER CURING.
      3) MANUFACTURERS:
         a) Benjamin-Foster.
         b) Duro Dyne "FPG".
         c) Kinco 15-137.
         d) Miracle PF-91.
   d. DUCT LINER FASTENERS:
      1) COMPLY WITH SMACNA "INSTALLATION STANDARDS FOR RECTANGULAR DUCTS USING FLEXIBLE LINER", ARTICLES S2.0 THROUGH S2.11.
      2) COMPLY WITH LINING DETAILS AS SHOWN IN THE REFERENCED SMACNA SECTION, FIGURES 2-22 AND 2-23.
      3) CLINCHED-PIN TYPE FASTENERS SHALL BE "GRIP-NAIL", OR APPROVED EQUAL.
      4) PROJECTING PINS IN TYPE 3 OR TYPE 4 APPLICATIONS SHALL BE CLIPPED OFF CLOSE ENOUGH TO THE RETAINING DISC TO PROVIDE PROPER ANCHORING AND TO PREVENT INJURY TO PERSONNEL.

D. DUCT SEALANT:
1. DUCT SEALER SHALL BE FLEXIBLE, WATER-BASED, ADHESIVE SEALANT DESIGNED FOR USE IN ALL PRESSURE DUCT SYSTEMS. AFTER CURING, IT SHALL BE RESISTANT TO ULTRAVIOLET LIGHT AND SHALL SEAL OUT WATER, AIR, AND MOISTURE. SEALER SHALL BE UL LISTED AND CONFORM TO ASTM E 84.
2. COMPLY WITH REQUIREMENTS TABLE 1-1 IN SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE"
3. MANUFACTURERS:
   a. BENJAMIN-FOSTER
   b. DUCTMATE - PROSEAL.
   c. DURO DYNE S2.
   d. HARDCAST.
   e. UNITED SHEET METAL.

E. DUCTWORK SUPPORT MATERIALS:
1. GENERAL:
   a. EXCEPT AS OTHERWISE INDICATED, PROVIDE HOT-DIPPED GALVANIZED STEEL FASTENERS, ANCHORS, RODS, STRAPS, TRIM AND ANGLES FOR SUPPORT OF DUCTWORK.
   b. COMPLY WITH APPLICABLE PROVISIONS SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE"; CHAPTER 5.

F. FLEXIBLE DUCTS
1. GENERAL:
   a. EITHER SPIRAL WOUND SPRING STEEL WITH FLAMEPROOF VINYL SHEATHING, OR CORRUGATED ALUMINUM; COMPLYING WITH UL181.
   b. COMPLY WITH APPLICABLE PROVISIONS OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE", CHAPER 3.
   c. INSTALLATION SHALL CONFORM TO CONDITIONS UNDER WHICH UL LISTING WAS GRANTED.
2. INSULATION:
   a. INSULATE ALL FLEXIBLE DUCTS, BOTH SUPPLY AND RETURN, WITH NOMINAL 2" THICK CONTINUOUS FLEXIBLE FIBERGLASS SHEATH WITH UL APPROVED VINYL BARRIER JACKET.
   b. INSULATION DENSITY SHALL BE 3/4 LBS/CU.FT.
   c. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE FLEXIBLE DUCTS MANUFACTURED BY ONE OF THE FOLLOWING:
      1) ATCO.
      2) GENFLEX.
      3) THERMAFLEX.

2.4 DUCTWORK FABRICATION

A. SHOP-FABRICATE DUCTWORK IN STANDARD LENGTHS, UNLESS OTHERWISE INDICATED OR REQUIRED TO COMPLETE RUNS. PREASSEMBLE WORK IN SHOP TO GREATEST EXTENT POSSIBLE, SO AS TO MINIMIZE FIELD ASSEMBLY OF SYSTEMS. DISASSEMBLE SYSTEMS ONLY TO EXTENT NECESSARY FOR SHIPPING AND HANDLING. MATCH MARK SECTIONS FOR REASSEMBLY AND COORDINATED INSTALLATION.

B. SHOP-FABRICATE DUCTWORK OF GAUGES AND REINFORCEMENT COMPLYING WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE" AS FOLLOWS:
1. RECTANGULAR, STEEL: CHAPTER 2.
2. FITTINGS AND CONSTRUCTION, CHAPER 4.
3. ROUND, OVAL AND FLEXIBLE DUCT: CHAPTER 3.
4. RECTANGULAR DUCT LONGITUDINAL SEAMS: PITTSBURGH LOCK SHALL BE USED ON ALL LONGITUDINAL SEAMS. ALL LONGITUDINAL SEAMS WILL BE SEALED WITH MASTIC SEALANT.
5. ROUND DUCT SHALL BE EQUAL TO SPIRAL SEAM RL-1. ROUND DUCT WITH SNAPLOCK SEAMS SHALL IS LIMITED TO THE FINAL BRANCH RUN-OUT TO A SINGULAR AIR DIFFUSER NO LONGER THAN 10 FEET IN LENGTH.
6. DUCTMATE OR W.D.C.I. PROPRIETARY DUCT CONNECTION SYSTEMS WILL BE ACCEPTABLE. DUCT CONSTRUCTED USING THESE SYSTEMS WILL REFER TO THE MANUFACTURERS GUIDELINES FOR SHEET GAUGE, INTERMEDIATE REINFORCEMENT SIZE AND SPACING, AND JOINT REINFORCEMENTS.
7. FORMED ON FLANGES (T.D.C./T.D.F./T-25A/T-25B) WILL ONLY BE ACCEPTABLE WHEN SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION OF ANY DUCTWORK. FORMED ON FLANGES WILL BE CONSTRUCTED AS SMACNA T-25 FLANGES.. NO OTHER CONSTRUCTION PERTAINING TO FORMED ON FLANGES WILL BE ACCEPTABLE. FORMED ON FLANGES SHALL BE ACCEPTABLE FOR USE ON DUCTWORK 42" WIDE OR LESS, WITH 2" POSITIVE PRESSURE STATIC OR LESS, AND MUST INCLUDE THE USE OF CORNERS, BOLTS AND CLEAT.
8. FABRICATE DUCT FITTINGS TO MATCH ADJOINING DUCTS, AND TO COMPLY WITH DUCT REQUIREMENTS AS APPLICABLE TO FITTINGS. EXCEPT AS OTHERWISE INDICATED, FABRICATE ELBOWS WITH CENTER LINE RADIUS EQUAL TO ASSOCIATED DUCT WIDTH; AND FABRICATE TO INCLUDE TURNING VANES IN ELBOWS WHERE SHORTER RADIUS IS NECESSARY. LIMIT ANGULAR TAPERS TO 30º FOR CONTRACTING TAPERS AND 20º FOR EXPANDING TAPERS.
9. FABRICATE DUCTWORK WITH DUCT LINER IN EACH SECTION OF DUCT WHERE INDICATED. LAMINATE LINER TO INTERNAL SURFACES OF DUCT IN ACCORDANCE WITH INSTRUCTIONS BY MANUFACTURERS OF LINING AND ADHESIVE, AND FASTEN WITH MECHANICAL FASTENERS.
10. ROUND DUCT JOINTS:
    a. 6"-14" DIAMETER, INTERIOR SLIP COUPLING BEADED AT CENTER, FASTENED TO DUCT WITH SEALING COMPOUND APPLIED CONTINUOUSLY AROUND JOINT BEFORE ASSEMBLING AND AFTER FASTENING.
11. PRESSURE CLASSIFICATIONS:
    a. STATIC PRESSURE RATINGS FOR DUCTWORK SYSTEMS ARE NOTED IN APPLICATION SCHEDULE.
    b. GAUGES OF METAL AND REINFORCING METHODS SHALL CONFORM TO SMACNA REQUIREMENTS.

PART 3 - EXECUTION

3.1 INSPECTION

A. GENERAL: EXAMINE AREAS AND CONDITIONS UNDER WHICH METAL DUCTWORK IS TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER.

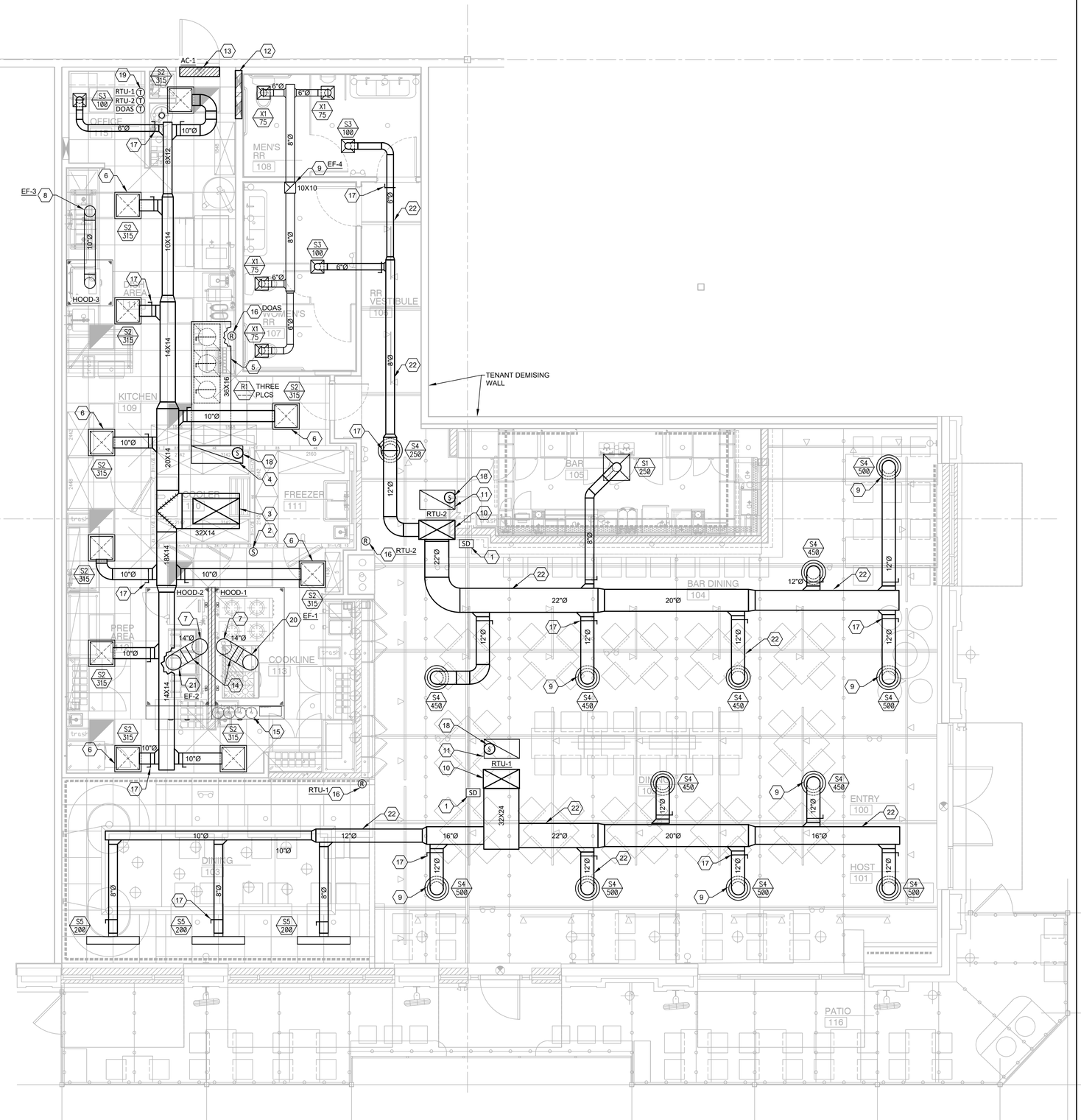
3.2 INSTALLATION OF METAL DUCTWORK

A. INSTALLATION: INSTALL METAL DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS.

B. GENERAL: ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE AIR TIGHT (5% LEAKAGE FOR SYSTEMS RATED 3 IN WG AND UNDER; 1% FOR SYSTEMS RATED OVER 3 IN WG) AND NOISELESS (NO OBJECTIONABLE NOISE) SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE. INSTALL EACH RUN WITH MINIMUM NUMBER OF JOINTS. ALIGN DUCTWORK ACCURATELY AT CONNECTIONS, WITHIN 1/8" MISALIGNMENT TOLERANCE AND WITH INTERNAL SURFACES SMOOTH. SUPPORT DUCTS RIGIDLY WITH SUITABLE TIES, BRACES, HANGERS AND ANCHORS OF TYPE WHICH WILL HOLD DUCTS TRUE TO SHAPE AND TO PREVENT BUCKLING. SUPPORT VERTICAL DUCTS AT EVERY FLOOR.

C. FIELD FABRICATION: COMPLETE FABRICATION OF WORK AT PROJECT AS NECESSARY TO MATCH SHOP FABRICATED WORK AND ACCOMMODATE INSTALLATION REQUIREMENTS.

D. DUCT ROUTING:
1. LOCATE DUCTWORK RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY TO THE BUILDING'S WALLS AND STRUCTURE AND AVOID DIAGONAL RUNS WHEREVER POSSIBLE. LOCATE DUCT AS INDICATED BY DIAGRAMS, DETAILS AND NOTATIONS OR, IF NOT OTHERWISE INDICATED, RUN DUCTWORK IN SHORTEST ROUTE WHICH DOES NOT OBSTRUCT USEABLE SPACE OR BLOCK ACCESS FOR SERVICING BUILDING AND ITS EQUIPMENT.
2. HOLD DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS, AND OTHER STRUCTURAL AND PERMANENT ENCLOSURE ELEMENTS OF BUILDING. PROVIDE CLEARANCE TO 1 INCH WHERE FURRING IS SHOWN FOR ENCLOSURE OR CONCEALMENT OF DUCTS, ALLOW FOR INSULATION THICKNESS.
3. WHEREVER POSSIBLE IN FINISHED AND OCCUPIED SPACES, CONCEAL DUCTWORK FROM VIEW, BY LOCATING IN MECHANICAL SHAFTS, HOLLOW WALL CONSTRUCTION OR ABOVE SUSPENDED CEILINGS.
4. DO NOT ENCASE HORIZONTAL RUNS IN SOLID PARTITIONS, EXCEPT AS SPECIFICALLY SHOWN.
5. COORDINATE LAYOUT WITH STRUCTURA



01 FLOOR PLAN - MECHANICAL

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

GENERAL NOTES

1. COORDINATE THE LOCATION OF ALL AIR DISTRIBUTION DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN INCLUDING LIGHT FIXTURES AND LIFE SAFETY DEVICES.
2. VERIFY LOCATION OF THERMOSTATS/TEMPERATURE SENSORS WITH THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION TO COORDINATE WITH THE LATEST FURNITURE AND MILLWORK PLANS. INSTALL DEVICES AT 48" AFF, UNLESS NOTED OTHERWISE ON THE PLANS.
3. ALL WORK SHALL COMPLY WITH THE LOCAL BUILDING, PLUMBING, AND MECHANICAL CODES, NFPA 90A, AND ANY OTHER APPLICABLE CODES.
4. ALL LOCATIONS OF DEVICES ARE APPROXIMATE. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
5. SEAL NEW OR EXISTING PENETRATIONS IN OF FLOORS, RATED PARTITIONS, AND CORRIDOR WALLS. USE FIRESTOP AT ALL RATED PARTITIONS.
6. COORDINATE ALL FLOOR AND ROOF PENETRATIONS WITH STRUCTURAL.
7. FLEX DUCT LENGTH NOT TO EXCEED 5'-0". PROVIDE MANUAL DAMPER AT ALL TAKE-OFFS.
8. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS.
9. ALL DUCTWORK DIMENSIONS ARE CLEAR INSIDE DIMENSIONS. ADJUST METAL SIZES TO ACCOMMODATE INTERNAL DUCT LINER AS REQUIRED.
10. TURNING VANES ARE REQUIRED AT EACH TURN IN THE DUCT. EXTRACTORS ARE REQUIRED AT EACH SPLIT.
11. PROVIDE FLEXIBLE CONNECTION AT INTAKE AND DISCHARGE OF MOTOR DRIVEN EQUIPMENT.
12. LABEL ALL AIR VOLUME DAMPERS ON OUTSIDE OF DUCT INSULATION.
13. FIELD VERIFY ALL LOCATIONS OF MECHANICAL EQUIPMENT AND EXHAUST FANS TO MAINTAIN A MINIMUM OF 10'-0" OF CLEARANCE BETWEEN ANY NEW AND/OR EXISTING OUTSIDE AIR INTAKES OR OPENINGS INTO BUILDING AND ANY EXHAUST OR VENT DISCHARGES.
14. EQUIPMENT SHALL BE PROVIDED ACCESS TO PER SECTION 306 OF THE INTERNATIONAL MECHANICAL CODE. EXACT LOCATION AND REQUIREMENTS FOR ACCESS SHALL BE COORDINATED WITH ARCHITECT. REFER TO EXACT CODE SECTION FOR ADDITIONAL SPECIFIC REQUIREMENTS.
    a. ALL EQUIPMENT SHALL BE PROVIDED WITH A CLEAR WORKING SPACE NOT LESS THAN 30" DEEP AND 30" WIDE IN FRONT OF CONTROL AREA AND ANY OTHER AREA REQUIRING ACCESS FOR MAINTENANCE, PER IMC 306.1.
    b. EQUIPMENT IN AN ATTICS SHALL HAVE AN UNOBSTRUCTED PASSAGEWAY MEASURING NOT LESS THAN 30" HIGH x 22" WIDE x 20'-0" IN LENGTH ALONG THE PATH BACK TO THE ACCESS OPENING WITH CONTINUOUS, LEVEL FLOORING NOT LESS THAN 24" WIDE. ACCESS OPENING SHALL BE LARGE ENOUGH TO REMOVE THE LAREST PIECE OF EQUIPMENT, BUT NOT LESS THAN 20"x30", PER IMC 306.3.
    c. EQUIPMENT ON ROOFS OR ELEVATED STUCTURES ABOVE 16'-0" SHALL BE PROVIDED WITH PERMANENT ACCESS, PER IMC 306.5.

SHEET KEY NOTES (#)

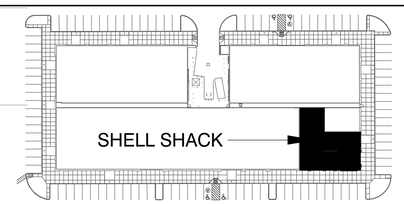
1. CEILING MOUNTED REMOTE SMOKE DETECTOR TEST STATION FOR ROOFTOP UNIT. COORDINATE FINAL LOCATION WITH ARCHITECTURAL RCP.
2. KITCHEN HOOD/FAN TEMPERATURE SENSOR. MOUNT AT 60" A.F.F.
3. MAKEUP AIR DUCT DOWN FROM ROOF MOUNTED DOAS UNIT. REFER TO KITCHEN HOOD AND FAN DRAWINGS FOR MORE INFORMATION.
4. RETURN AIR DUCT DOWN FROM ROOF MOUNTED DOAS UNIT. REFER TO KITCHEN HOOD AND FAN DRAWINGS FOR MORE INFORMATION.
5. PROVIDE RETURN AIR DUCT PLENUM BOX AS INDICATED. RETURN AIR DUCT SHALL BE INTERNALLY LINED.
6. THIS AIR DEVICE SHALL BE PROVIDED WITH A INSULATED PLENUM BOX AND PERFORATED FACE SUPPLY. SEE DETAIL SHEET M3.0. TYPICAL.
7. CONNECT WELDED BLACK IRON GREASE DUCT TO KITCHEN EXHAUST FAN AT THE ROOF/CURB COLLAR AND TRANSITION AS REQUIRED TO AN 14"Ø WELDED BLACK IRON GREASE DUCT FOR EXTENSION/CONNECTION TO TYPE I EXHAUST HOOD. THE DUCT SHALL BE WRAPPED (IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS) WITH 2 LAYERS OF 1-1/2" THICK FIREMASTER DUCT WRAP, AS MANUFACTURED BY 3M CO. (OR APPROVED EQUAL) AS REQUIRED TO ACHIEVE COMPLIANCE WITH THE CODE REQUIRED GREASE DUCT ENCLOSURE. WRAP SHALL EXTEND FROM THE DUCT CONNECTION AT THE HOOD TO THE DUCT PENETRATION/CONNECTION AT THE ROOF/CURB COLLAR, COMPLETE THROUGHOUT THE ENTIRE LENGTH. IF DUCT ACCESS DOORS ARE REQUIRED, THE FIRE PROTECTIVE WRAP MUST BE INSTALLED/MODIFIED, PER THE MANUFACTURER'S INSTRUCTIONS AND PER THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. PROVIDE THE CONNECTING DUCTWORK, WRAP, SUPPORTS, AND OTHER APPURTENANCES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. SEE EXHAUST FAN AND HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
8. CONNECT STAINLESS STEEL DUCT TO DISH EXHAUST FAN AT THE ROOF/CURB COLLAR AND TRANSITION AS REQUIRED TO A 10"Ø WELDED STAINLESS STEEL DUCT FOR EXTENSION / CONNECTION TO TYPE II EXHAUST HOOD SERVING DISH MACHINE AS SHOWN. DUCT SHALL SLOPE BACK TO DISH MACHINE. INSTALLATION AND MATERIALS SHALL MEET THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. PROVIDE THE CONNECTING DUCTWORK, WRAP, SUPPORTS, AND OTHER APPURTENANCES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. SEE EXHAUST FAN AND HOOD DRAWINGS FOR ADDITIONAL INFORMATION.
9. AIR DEVICES IN OPEN DINING AREA TO BE INSTALLED APPROXIMATELY 13'-0" A.F.F.. COORDINATE EXACT LOCATION WITH LIGHTING AND AND STRUCTURE. TYPICAL.
10. ROUTE FULL SIZE SUPPLY AIR DUCT DOWN THRU ROOF FROM ROOFTOP UNIT. PROVIDE AND INSTALL ALL FITTINGS AND TRANSITIONS AS REQUIRED. COORDINATE LOCATIONS WITH STRUCTURAL STEEL.
11. ROUTE FULL SIZE RETURN AIR DUCT DOWN THRU ROOF FROM ROOFTOP UNIT. PROVIDE AND INSTALL ALL FITTINGS AND TRANSITIONS AS REQUIRED. EXTEND RETURN AIR DUCT 12" BELOW ROOF DECK AND TERMINATE WITH 1" EXPANDED METAL. PAINT EXPANDED METAL AND INTERIOR OF RETURN AIR DUCT WITH FLAT BLACK PAINT.
12. COORDINATE INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING WITH ALL TRADES. DO NOT ROUTE DUCTWORK OR PIPING OVER ELECTRICAL PANELS.
13. AIR CURTAIN SUPPLIED BY FOOD SERVICE AND TO BE INSTALLED BY MECHANICAL CONTRACTOR. SEE FOOD SERVICE DRAWINGS FOR MORE INFORMATION.
14. PROVIDED CLEANOUTS ALL ELBOWS IN GREASE DUCT. PROVIDE SIGN THAT READS "GREASE DUCT CLEANOUT, DO NOT OBSTRUCT".
15. EXHAUST HOOD FIRE SUPPRESSION SYSTEM. VERIFY FINAL LOCATION WITH FIRE SUPPRESSION SYSTEM INSTALLER. REFER TO HOOD DRAWINGS FOR MORE INFORMATION.
16. REMOTE TEMPERATURE SENSOR FOR ROOF TOP UNIT INDICATED, MOUNT 54" A.F.F. UNLESS OTHERWISE DIRECTED BY OWNER. INTERLOCK REMOTE SENSORS WITH THERMOSTATS LOCATED IN OFFICE. COORDINATE EXACT LOCATIONS WITH FINISHES.
17. MANUAL BALANCE DAMPER. AIR DEVICE SHALL BE PROVIDED WITH INTEGRAL DAMPER WHEN NOT ACCESSIBLE THRU LAYIN CEILINGS OR ACCESS PANELS. TYPICAL.
18. DUCT MOUNTED SMOKE DETECTOR FOR UNIT SHUT DOWN. DETECTOR SHALL ACTIVATE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT A CONSTANTLY ATTENDED LOCATION. TYPICAL.
19. T-STATS FOR REMOTE SENSORS. COORDINATE EXACT LOCATION WITH OWNER AND OPERATIONS.
20. GREASE EXHAUST UP TO EXHAUST FAN EF-1 ON ROOF. SEE ROOF PLAN FOR MORE INFORMATION.
21. GREASE EXHAUST UP TO EXHAUST FAN EF-2 ON ROOF. SEE ROOF PLAN FOR MORE INFORMATION.
22. ROUND DUCT WORK EXPOSED IN DINING/BAR AREAS ETC.. SHALL BE DOUBLE WALL SPIRAL GALVANIZED GASKETED DUCT WITH 1" THICK INTERNAL INSULATION. CONTRACTOR SHALL NOT USE MASTIC SEALANT AT JOINTS. RECTANGULAR DUCT WORK SHALL BE GALVANIZED WITH 1" THICK INTERNAL INSULATION LINER. TYPICAL FOR EXPOSED DINING, BAR, WAITING, AND VESTIBULE AREAS.

PRIORITY OF CONSTRUCTION SPACE

THE FOLLOWING IS THE ORDER OF PRIORITY FOR CONSTRUCTION

a. FIRST: DUCTWORK
b. SECOND: FIRE PROTECTION PIPING
c. THIRD: ANY PIPING WITH SLOPE REQUIREMENTS
d. FOURTH: OTHER PIPING
e. FIFTH: CONDUIT

KEY PLAN



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SEAL

STATE OF TEXAS
JASON R. HILL
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REGISTERED PROFESSIONAL ENGINEER

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
SUITE 101
ARLINGTON, TX 76018

NO.	REVISIONS:	DATE:

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DRAWING TITLE:
FLOOR PLAN - MECHANICAL

DRAWING NUMBER:
M2.0

ISSUED FOR PERMIT 07/08/2025

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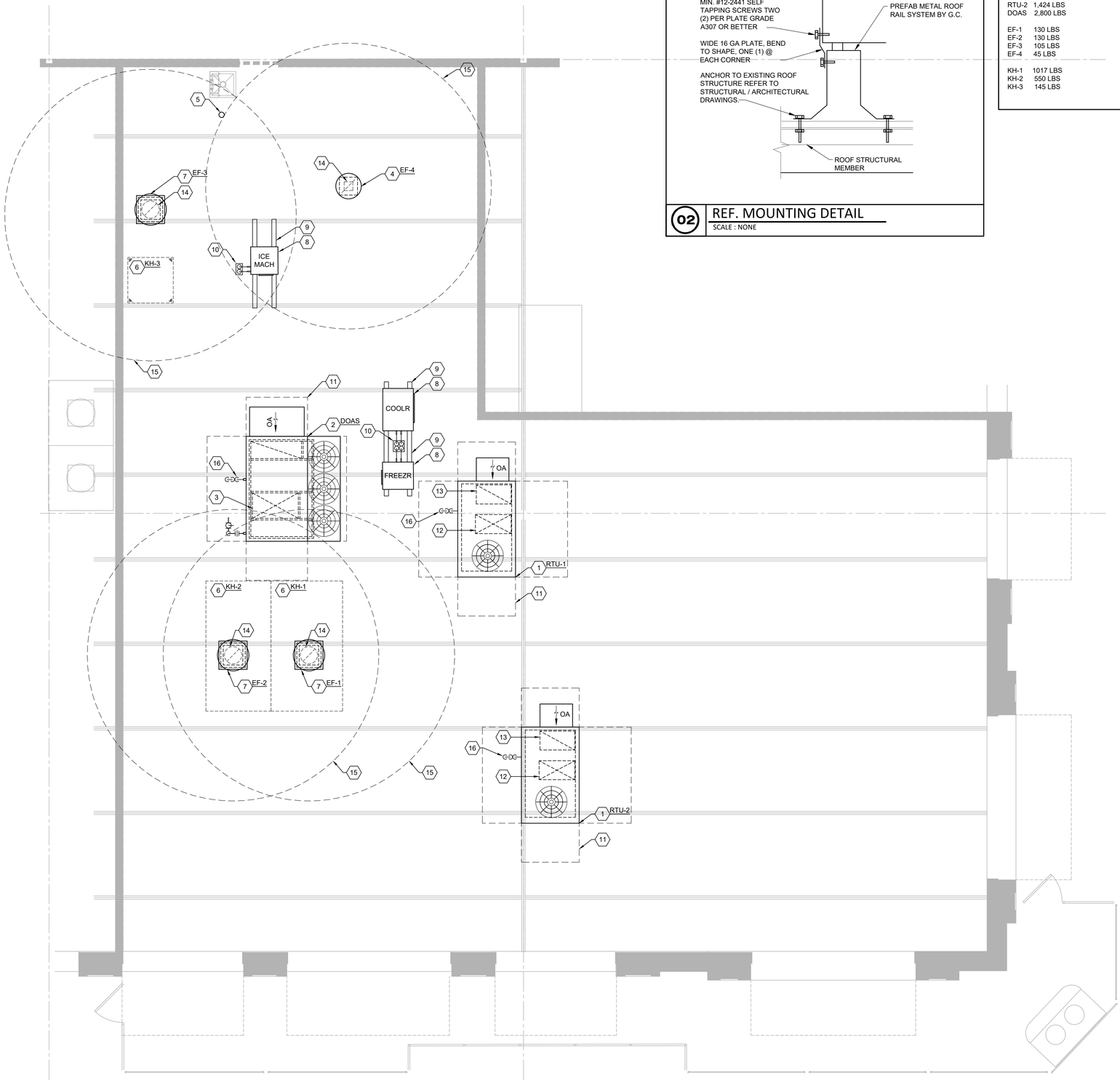
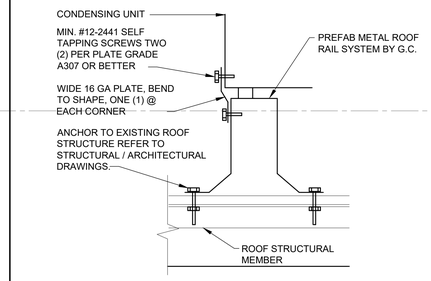


01 ROOF PLAN - MECHANICAL
SCALE : 1/4" = 1'-0"



02 REF. MOUNTING DETAIL
SCALE : NONE

EQUIPMENT WEIGHTS

RTU-1	1,424 LBS
RTU-2	1,424 LBS
DOAS	2,800 LBS
EF-1	130 LBS
EF-2	130 LBS
EF-3	105 LBS
EF-4	45 LBS
KH-1	1017 LBS
KH-2	550 LBS
KH-3	145 LBS

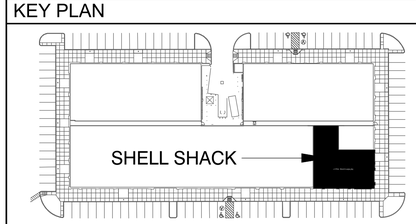
GENERAL NOTES

A. VERIFY THAT VENTS THRU ROOF ARE A MINIMUM OF 10'-0" AWAY FROM ALL OUTSIDE AIR INTAKES OF ALL EXISTING AND NEW MECHANICAL EQUIPMENT ON THE ROOF.
B. COORDINATE WITH STRUCTURE AND ALL MECHANICAL AND ELECTRICAL EQUIPMENT AND PIPING BELOW THE ROOF STRUCTURE.
C. REFER TO ROOFTOP UNIT SCHEDULE ON SHEET M3.1 FOR ROOFTOP UNIT WEIGHTS.
D. REFER TO FOOD SERVICE DRAWINGS FOR HOOD EXHAUST FAN AND MAKE-UP AIR UNIT WEIGHTS.
E. REFER TO EXHAUST FAN SCHEDULE ON SHEET M3.1 FOR EXHAUST FAN WEIGHTS(EF-4 & 8).

SHEET KEY NOTES (#)

1. ROOFTOP UNIT ON FULL PERIMETER CURB. PROVIDE FULLY INSULATED CURB ADAPTOR FOR RTU-1 WHERE UNIT IS LOCATED ON EXISTING CURB. A NEW CURB SHALL BE PROVIDED FOR RTU-2.
2. DOAS DEDICATED OUTDOOR AIR UNIT MOUNTED ON A FULL PERIMETER ROOF CURB. PROVIDE FULLY INSULATED CURB ADAPTOR WHERE UNIT IS LOCATED ON EXISTING CURB. REFER TO HOOD DRAWINGS FOR MORE INFORMATION.
3. MAKEUP AIR DUCT FROM DOAS UNIT DOWN TO CEILING BELOW. SEE MECHANICAL FLOOR PLAN SHEET FOR CONTINUATION.
4. RESTROOM EXHAUST FAN, MOUNTED ON A FULL PERIMETER ROOF CURB. FIELD INSULATE CURB.
5. EXHAUST FLUE OUTLET FROM GAS FIRED WATER HEATER DOWN BELOW. MAINTAIN MINIMUM 10FT FROM ANY OUTDOOR INTAKE.
6. KITCHEN EXHAUST HOOD SUSPENDED FROM STRUCTURE BELOW.
7. KITCHEN HOOD EXHAUST FAN, MOUNT ON FULL PERIMETER NON-COMBUSTIBLE ROOF CURB. INTERLOCK WITH HOOD CONTROLS. FAN DISCHARGE SHALL BE A MINIMUM OF 2" ABOVE PARAPET.
8. REMOTE CONDENSERS FOR COOLER, FREEZER AND ICE MACHINE. FURNISHED WITH THE KITCHEN EQUIPMENT AND INSTALLED BY THE MECHANICAL CONTRACTOR.
9. ROOF RAIL FOR CONDENSING UNIT SUPPORT. REFER TO DETAIL ON SHEET M3.0.
10. REFRIGERANT LINE ROOF PENETRATION. REFER TO DETAIL ON SHEET M3.0.
11. SERVICE CLEARANCE FOR MECHANICAL EQUIPMENT, TYPICAL.
12. SUPPLY AIR DUCT DOWN THROUGH ROOF, REFER TO MECHANICAL PLAN FOR CONTINUATION. TYPICAL.
13. RETURN AIR DUCT DOWN THROUGH ROOF, REFER TO MECHANICAL PLAN FOR CONTINUATION. TYPICAL.
14. EXHAUST DUCT DOWN THROUGH ROOF, REFER TO MECHANICAL PLAN FOR SIZE AND CONTINUATION.
15. 10'-0" MINIMUM EXHAUST CLEARANCE TO ANY OUTDOOR AIR INTAKE. TYPICAL.
16. SEE PLUMBING DRAWINGS FOR CONDENSATE AND GAS PIPE ROUTING, SIZES, AND DETAILS.

KEY PLAN



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DRAWING TITLE:
ROOF PLAN - MECHANICAL

DRAWING NUMBER:
M2.1

ISSUED FOR PERMIT 07/08/2025

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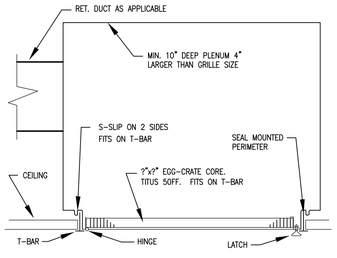


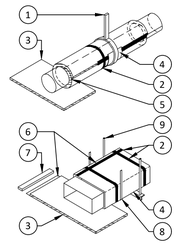
NOTE: CONTRACTOR TO SHOW STORE PERSONNEL HOW TO REMOVE CORE FROM HINGED PANEL.

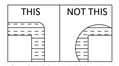
4 M3.0 RETURN AIR GRILLE

NTS

1. CONNECT STRAP TO STRUCTURE ABOVE. REFER TO SMACNA SHEETMETAL CONSTRUCTION STANDARDS.
2. SEAL SEAMS AND PENETRATIONS WITH APPROVED MASTIC REINFORCED W/ 3" GLASS MESH REINFORCEMENT OR 3" FOIL/VAPOR BARRIER TAPE.
3. WRAP FLEXIBLE FIBERGLASS INSULATION AROUND DUCTS AND SECURE WITH OUTWARD-CLINCHING STAPLES.
4. INSTALL NON-COMPRESSIBLE INSULATION MATERIAL AT HANGER SUPPORTS. ALL HANGER SUPPORTS AND SADDLES SHALL BE OUTSIDE OF INSULATION AND VAPOR BARRIER.
5. LAP INSULATION A MINIMUM OF 4 INCHES.
6. 2" TAPE FLAP.
7. DISCARD EXCESS INSULATION.
8. STRAP SUPPORTS. REFER TO SMACNA SHEETMETAL CONSTRUCTION STANDARDS.
9. ALL-THREAD RODS. REFER TO SMACNA SHEETMETAL CONSTRUCTION STANDARDS

NOTE: REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

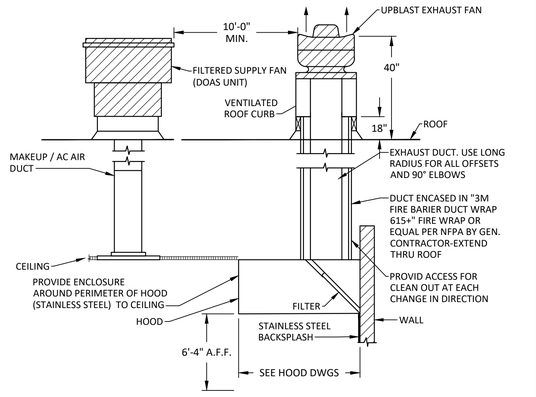




DO NOT COMPRESS WRAP EXCESSIVELY AT CORNERS

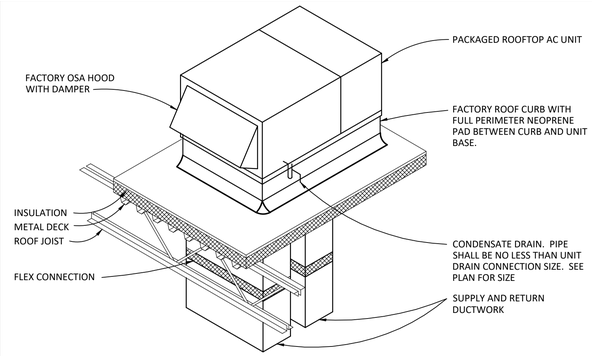
3 M3.0 ROUND / RECTANGULAR DUCT INSULATION DETAIL

NTS



2 M3.0 KITCHEN HOOD SYSTEM DETAIL

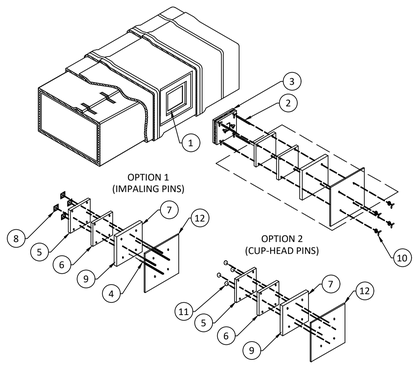
NTS



NOTES:
PROVIDE THROUGH THE CURB ELECTRICAL CONNECTION(S)
INSTALL DUCT SMOKE DETECTOR PER LOCAL CODES

1 M3.0 DOWNFLOW ROOFTOP UNIT DETAIL

NTS

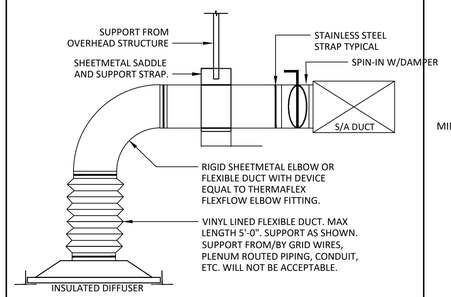


PRE-FABRICATED 1- OR 2- HOUR ACCESS DOOR SYSTEM

1. ACCESS HOLE.
2. 1/2" DIA. BY A MINIMUM 6" ALL-THREADED RODS.
3. 3M™ FIRE BARRIER GREASE DUCT ACCESS DOOR OR DUCTMATE ULTIMATE DOOR™.
4. INSULATION PINS (IMPALING PINS) - WELDED.
5. FIRST LAYER 3M™ FIRE BARRIER DUCT WRAP 615+ WITH 1" OVERLAP BEYOND ACCESS DOOR ON ALL SIDES.
6. SECOND LAYER 3M™ FIRE BARRIER DUCT WRAP 615+ CUT TO SAME SIZE AS FIRST LAYER.
7. THIRD LAYER 3M™ FIRE BARRIER DUCT WRAP 615+ WITH 1" OVERLAP BEYOND SECOND LAYER ON ALL SIDES.
8. SPEED CLIPS.
9. ALUMINUM TAPE COVERING ALL EXPOSED EDGES.
10. 1/4" DIAMETER WING NUTS AND 1/4" WASHERS.
11. INSULATION PINS (CUP-HEAD PINS) - WELDED.
12. ACCESS DOOR COVER - 16 GAUGE CUT SAME SIZE AS THIRD LAYER OF DUCT WRAP WITH CLEARANCE HOLES TO MATCH PATTERN OF ALL-THREADED RODS.

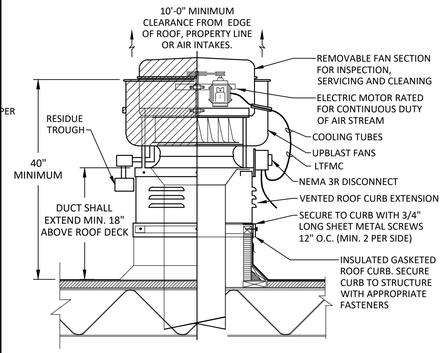
8 M3.0 GREASE DUCT ACCESS DOOR DETAIL

NTS



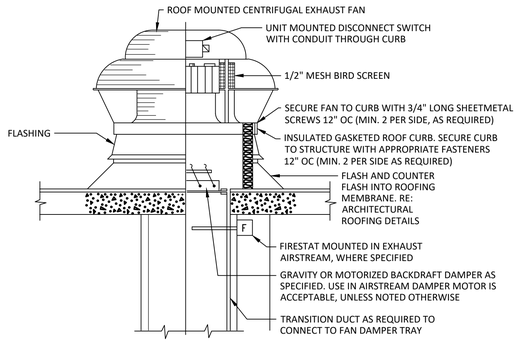
7 M3.0 TYPICAL DIFFUSER DETAIL

NTS



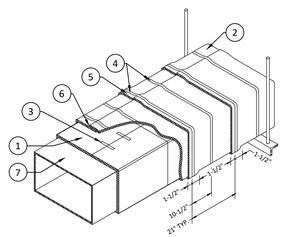
6 M3.0 KITCHEN HOOD FAN DETAIL

NTS



5 M3.0 TYPICAL ROOF EXHAUST FAN DETAIL

NTS



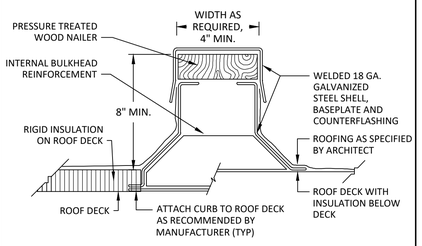
1- OR 2-HOUR SHAFT ALTERNATIVE ZERO CLEARNAC TO COMBUSTIBLES TELESCOPING WRAP TECHNIQUE WITH BANDING FOR DUCTS 24" OR LESS

1. FIRST LAYER 3M™ FIRE BARRIER DUCT WRAP 615+.
2. SECOND LAYER 3M™ FIRE BARRIER DUCT WRAP 615+.
3. 3/4" WIDE FILAMENT TAPE.
4. STEEL BANDING 1/2" WIDE MIN. TYPICAL FOR PERMANENT FASTENING.
5. LONGITUDINAL JOINT BUTT OR MIN. 3" OVERLAP ON INNER LAYER, MIN. 3" OVERLAP ON OUTER LAYER.
6. PERIMETER (LATERAL) JOINT BUT OR MIN. 3" OVERLAP ON INNER LAYER, MIN. 3" OVERLAP ON OUTER LAYER.
7. METALLIC COMMERCIAL COOKING EXHAUST DUCT.

NOTE: SYSTEM INTEGRITY IS LIMITED BY QUALITY OF INSTALLATION. DUCTS ≥ 24" WIDE REQUIRE PINNING ON THE BOTTOM SIDE OF HORIZONTAL DUCTS AND REQUIRE A MINIMUM OF ONE OF THE WIDER SIDES OF A VERTICAL DUCT. VERTICAL DUCTS REQUIRE PINNING ON ALL SIDES > 48".

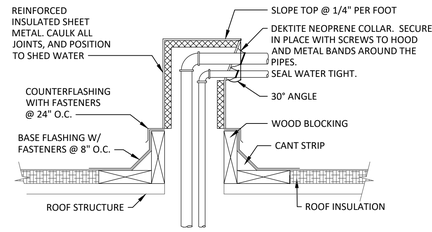
12 M3.0 GREASE DUCT WRAP SYSTEMS

NTS



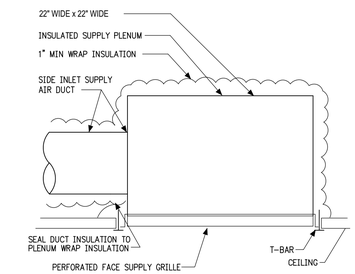
11 M3.0 TYPICAL PIPE/EQUIPMENT ROOF SUPPORT

NTS



10 M3.0 PIPE PENETRATION THRU ROOF DETAIL

NTS



9 M3.0 PERFORATED FACE SUPPLY GRILLE

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MECHANICAL DETAILS

DRAWING NUMBER:
M3.0

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HVAC MATERIALS SCHEDULE

SYSTEM	MATERIAL	INSULATION VALUE
SUPPLY/RETURN (INDOORS)	G-90 OR BETTER GALVANIZED SHEET METAL, SEE NOTE 1	R-6
SUPPLY/RETURN (OUTDOORS)		R-8 (CLIMATE ZONE 0-4)
		R-12 (CLIMATE ZONE 5-8)
GENERAL EXHAUST		N/A
SUPPLY/RETURN FLEX DUCT	UL 181 HELICAL SPRING STEEL W/ VINYL FILM	R-6
CONDENSATE DRAIN (INDOORS)	TYPE L COPPER (PLENUM)	R-3
	PVC	
CONDENSATE DRAIN (OUTDOORS)	TYPE L COPPER (PLENUM)	N/A
	PVC	
REFRIGERANT PIPING (SUCTION)	TYPE K COPPER	R-3
REFRIGERANT PIPING (LIQUID)	TYPE K COPPER	N/A

NOTES:

1. LOW PRESSURE DUCT THICKNESS WHEN LARGE DIMENSION IS:
   1.a. UP TO 12" - 26 GAUGE
   1.b. 13" TO 30" - 24 GAUGE
   1.c. 21" TO 54" - 22 GAUGE
2. REFER TO EQUIPMENT MANUFACTURER'S INSTALLATION MANUAL FOR REFRIGERANT PIPING SIZING AND LINE LENGTH LIMITATIONS.
3. NOT ALL SYSTEMS MAY APPEAR IN PROJECT

BALANCE SCHEDULE

PROJECT SHELL SHACK — **PROJECT NO.** 25031

PROJECT LOCATION ARLINGTON, TEXAS — 7/8/2025

UNIT	SUPPLY AIR	BYPASS AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	PRESSURE
AIR HANDLING UNITS						
RTU-1 (DIN#1)	3500	0	2625	875		875
RTU-2 (DIN#2)	3500	0	2625	875		875
OUTDOOR AIR UNITS						
DOAS (KITCHEN)	3250	0	0	3250		3250
EXHAUST FANS						
EF-1 (HOOD #1)	0		0	0	-1800	-1800
EF-2 (HOOD #2)	0		0	0	-2025	-2025
EF-3 (DISH MACHINE)	0		0	0	-525	-525
EF-4 (RESTROOMS)	0		0	0	-300	-300
TOTAL	10250	0	5250	1750	-4650	**350**

OUTSIDE AIR CALCULATION

PROJECT SHELL SHACK — **PROJECT NO.** 25031

PROJECT LOCATION ARLINGTON, TEXAS — 7/8/2025

BAR	305	DIVIDE	1000	X	100	EQUALS	31	PEOPLE
		31	X	7.5	DIVIDE	0.8		291
		305	X	0.18	DIVIDE	0.8		69
DINING	1540	DIVIDE	1000	X	70	EQUALS	108	PEOPLE
		108	X	7.5	DIVIDE	0.8		1013
		1540	X	0.18	DIVIDE	0.8		347
CORRIDOR		177	X	0.06	DIVIDE	0.8		14
VESTIBULE		129	X	0.06	DIVIDE	0.8		10
STORAGE		39	X	0.06	DIVIDE	0.8		3
OFFICE	43	DIVIDE	1000	X	5	EQUALS	1	PEOPLE
		1	X	5	DIVIDE	0.8		6
		43	X	0.06	DIVIDE	0.8		3
KITCHEN	618	DIVIDE	1000	X	20	EQUALS	13	PEOPLE
		13	X	7.5	DIVIDE	0.8		122
		618	X	0.12	DIVIDE	0.8		93

TOTAL OA REQUIRED	**1971**
TOTAL OA PROVIDED	**6000**

OUTDOOR AIR VENTILATION FORMULA:

BREATHING ZONE AREA (Az) X OCCUPANT DENSITY 1000 ÷ SF = OCCUPANTS
OCCUPANTS X PEOPLE OUTDOOR AIR RATE CFM/PERSON(Rp) = CFM
CFM ÷ ZONE AIR DISTRIBUTION EFFECTIVENESS(Ez) = CFM (1)
+ BREATHING ZONE AREA(Az) X AREA OUTDOOR AIR RATE (Ra) = CFM
CFM ÷ ZONE AIR DISTRIBUTION EFFECTIVENESS(Ez) = CFM (2)
(1) + (2) = TOTAL CFM REQUIRED FOR THAT ZONE

KITCHEN OUTDOOR AIR: BREATHING ZONE AREA (Az) X 0.7 CFM PER SQ. FT = CFM
CFM ÷ ZONE AIR DISTRIBUTION EFFECTIVENESS(Ez) = TOTAL CFM REQUIRED

PACKAGED ROOF-TOP UNIT

MARK	BASIS OF DESIGN		SUPPLY FAN				COOLING @ 100° F. AMBIENT				GAS HEAT					EFFICIENCY	ELECTRICAL			WEIGHT (LBS)	REMARKS
	MANUFACTURER	MODEL	CFM	O.A. CFM	ESP IN. W.G.	HP	TOTAL MBH	SENSIBLE MBH	EAT DB/WB	LAT DB/WB	INPUT MBH	OUTPUT MBH	EFF %	EAT DB	LAT DB	EER/SEER	VOLT/Ø	MCA	MOCP		
RTU-1	TRANE	YSK120A4S	3500	875	1.0	3.0	122.07	98.26	81.5/66.6	55.6/54.9	240	194	81	57.5	108.2	11/15.0	460/3	30	40	1,324	1-12
RTU-2	TRANE	YSK120A4S	3500	875	1.0	3.0	122.07	98.26	81.5/66.6	55.6/54.9	240	194	81	57.5	108.2	11/15.0	460/3	30	40	1,324	1-12

REMARKS (PROVIDE AS NOTED):

1. PROVIDE WITH UNPOWERED, FIELD WIRED, GFCI CONVENIENCE OUTLET.
2. 14" HIGH ROOF CURB.
3. 7 DAY PROGRAMMABLE THERMOSTAT.
4. FACTORY MOUNTED SUPPLY AIR SMOKE DETECTOR.
5. PROVIDE REMOTE SMOKE DETECTOR TEST STATION FOR FIELD MOUNTING IN CEILING BELOW UNIT.
6. TITLE 24 COMPLIANT 0-100% DRY BULB ECONOMIZER WITH FAULT DETECTION DEVICE.
7. BAROMETRIC RELIEF.
8. CLOGGED FILTER & CONDENSATE OVERFLOW SWITCH.
9. THROUGH BASE CONDENSATE.
10. PROVIDE MERV 8 FILTERS BEFORE TEST AND BALANCE.
11. UNIT SUPPLY FAN SHALL BE INTERLOCKED WITH KITCHEN EXHAUST FAN OPERATION TO MAINTAIN BUILDING PRESSURE.
12. PROVIDE WITH MODULATING HOT GAS REHEAT W/CONTROLS (LIMITED TO 50%).

NOTES:

1. PROVIDE ALL ROOFTOP UNITS WITH FACTORY MOUNTED DISCONNECT AND SINGLE POINT POWER CONNECTION.
2. APPROVED MANUFACTURERS ARE: AAON, CARRIER, LENNOX, TRANE, & YORK.
3. COORDINATE EXACT LOCATION OF UNIT WITH STRUCTURAL.
4. INSTALL ALL UNITS LEVEL FOR PROPER CONDENSATE DRAINAGE, SHIM CURBS AS REQUIRED.
5. PROVIDE ALL UNITS WITH HINGED ACCESS PANELS.

FAN SCHEDULE

MARK	SERVES	SYSTEM	CFM	ESP (IN. W.G.)	MOTOR		ELECTRICAL	BASIS OF DESIGN		REMARKS
					HP	RPM	VOLT / Ø	MANUFACTUER	MODEL	
DAOS	KITCHEN	SUPPLY	3250	SEE HOOD DWGS						1
EF-1	HOOD #1	EXHUAST	1800	SEE HOOD DWGS						1
EF-2	HOOD #2	EXHUAST	2025	SEE HOOD DWGS						1
EF-3	HOOD #3	EXHUAST	525	SEE HOOD DWGS						1
EF-4	RESTROOMS	EXHUAST	300	0.375	1/3	1550	115/1	GREENHECK	G-070-DGE	2,3

NOTES:

1. REFER TO KITCHEN HOOD AND FAN DRAWINGS FOR MORE INFORMATION. ACCESSORIES INCLUDE: GREASE BOX, HINGED CURB, AND FAN BASE CERAMIC SEAL.
2. PROVIDE WITH MANUFACTURER'S 14" HIGH ROOF CURB, BACKDRAFT DAMPER, BIRDSCREEN, AND DISCONNECT SWITCH.
3. INTERLOCK FAN WITH TIME CLOCK PROVIDED BY THIS CONTRACTOR. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
4. INTERLOCK FAN WITH THERMOSTAT, SETPOINT 85°F. FAN SHALL NOT RUN WHEN ELECTRIC UNIT HEATER IS ON.

AIR DEVICE SCHEDULE

MARK	MANUFACTURER	MODEL	FACE SIZE	NECK SIZE	MAX FLOW	MAX NC	DESCRIPTION
S1	PRICE	SCD	24X24	10Ø	315	25	SQUARE CONE CEILING DIFFUSER
S2	PRICE	PDS	24X24	10Ø	215	25	PERFORATED CEILING DIFFUSER, NO DIRECTIONAL VANES
S3	PRICE	SCD	12X12	6Ø	150	25	SQUARE CONE CEILING DIFFUSER
S4	PRICE	RCDE	16" ROUND	10Ø	450	25	ROUND CONE DIFFUSER
S5	PRICE	TBD7	48X7	10Ø	200	25	FOUR SLOT - TWO WAY SLOT DIFFUSER WITH PLENUM BOX
R1	PRICE	80SR	24X24	16Ø	1300	25	EGG CRATE GRILLE, INTEGRATED PLENUM, SQUARE TO ROUND ADAPTER
R2	PRICE	PDDR	24X24	18X18	1315	25	PERFORATED CEILING DIFFUSER
R3	PRICE	80SR	12X12	8Ø	150	25	EGG CRATE GRILLE, INTEGRATED PLENUM, SQUARE TO ROUND ADAPTER
X1	PRICE	PDDR	12X12	6Ø	150	25	PERFORATED CEILING DIFFUSER
X2	PRICE	530	10X10	8X8	225	25	SIDEWALL GRILLE, 45° DEFLECTION, 3/4" SPACING, STEEL

NOTES:

1. COORDINATE BORDER AND FINISH WITH ARCHITECTURAL DOCUMENTS.
2. PROVIDE CEILING RADIATION DAMPER AT RATED ASSEMBLIES.
3. PROVIDE MANUAL BALANCER DAMPER FOR EACH SUPPLY AIR DEVICE.
4. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS.

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ENGINEER BUSINESS REGISTRATION #F-3328

SEAL

STATE OF TEXAS — AUSTIN R. HILL — 65493 — REGISTERED PROFESSIONAL ENGINEER

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
SUITE 101
ARLINGTON, TX 76018

NO.	REVISIONS:	DATE:

TENANT REVIEW ISSUE DATE:	07.08.25
LANDLORD REVIEW ISSUE DATE:	07.08.25
PERMIT ISSUE DATE:	07.08.25
BID ISSUE DATE:	07.08.25
CONSTRUCTION ISSUE DATE:	XX.XX.25

DRAWING TITLE:
MECHANICAL SCHEDULES

DRAWING NUMBER:
M4.0

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025

FOR QUESTIONS, CALL THE
Dallas Office
REGION 45
PHONE: (214) 220 - 3999
EMAIL: reg45@captiveaire.com

PATENT NUMBERS

EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

HOOD INFORMATION – JOB#7569549

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1		6630 ND-2	CAPTIVEAIRE	9' 0"	600 DEG	I	HEAVY	200	1800			4"	14"	1800	1684	-0.666"	430 SS WHERE EXPOSED	ALONE	FRONT
2		6030 ND-2	CAPTIVEAIRE	9' 0"	600 DEG	I	HEAVY	225	2025			4"	14"	2025	1894	-0.843"	430 SS WHERE EXPOSED	ALONE	BACK
3		4230 VHB-G	CAPTIVEAIRE	3' 6"	700 DEG	II	N/A	150	525			4"	10"	525	963	-0.069"	430 SS 100%	ALONE	ALONE

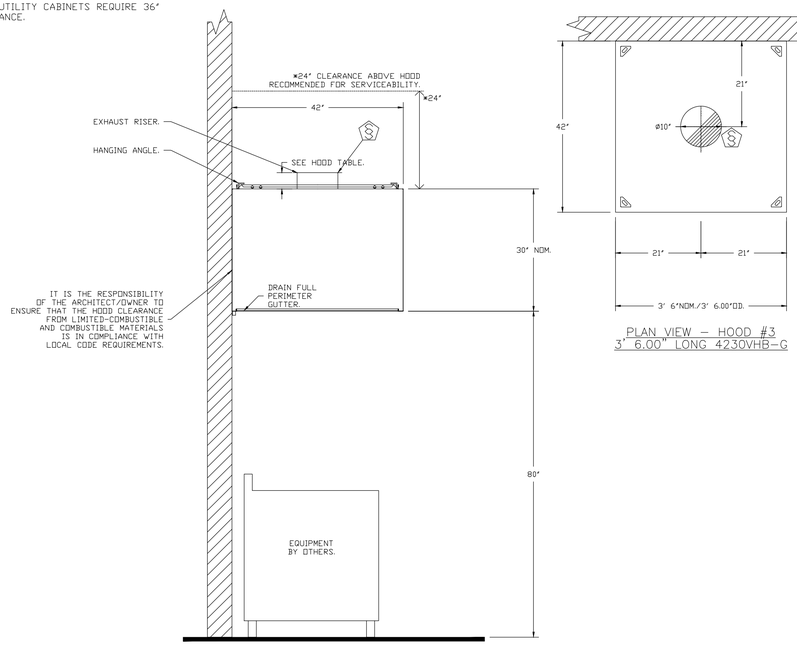
HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1		CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x66"x30"	TANK FS	4.0/4.0/4.0/4.0	DCV-2111	1 LIGHT 1 FAN	YES	1017 LBS
2		CAPTRATE SOLO FILTER	6	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	RIGHT	12"x60"x30"					YES	550 LBS
3							0									NO	145 LBS

CLEARANCE TO COMBUSTIBLES

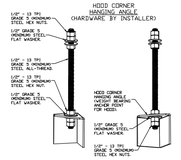
HOODS #	SURFACE	*CLEARANCE
1	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	0"
	RIGHT	18"
2	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	18"
	RIGHT	0"

- *0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.



SECTION VIEW – MODEL 4230VHB-G HOOD – #3

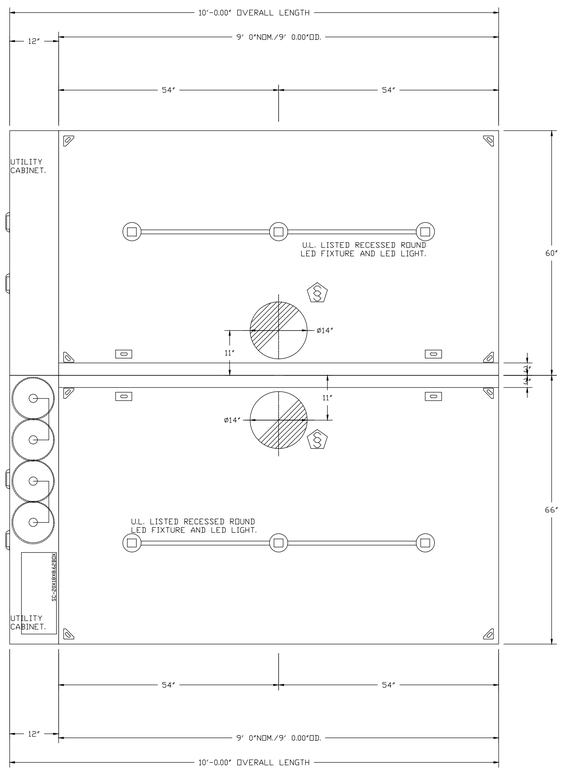
PLAN VIEW – HOOD #3
3' 6.00" LONG 4230VHB-G



ASSEMBLY INSTRUCTIONS:

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" – 13 TPI GRADE 5 (MINIMUM) ALL-THREAD SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" – 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

PLAN VIEW – HOOD #2
9' 0.00" LONG 6030ND-2



PLAN VIEW – HOOD #1
9' 0.00" LONG 6630ND-2

REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

CAPTIVEAIRE
www.captiveaire.com
Dallas Office
1901 Royal Lane Suite 101, DALLAS, TX. 75229 PHONE: (214) 220 - 3999 FAX: 2142200099 EMAIL: reg45@captiveaire.com

Shell Shack Arlington DOAS
Arlington, TX, 76001

DATE: 6/9/2025

DWG.#: 7569549

DRAWN BY: DJL-45

MASTER DRAWING

SHEET NO. 1

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SEAL

STATE OF TEXAS
JASON R. HILL
65493
REGISTERED PROFESSIONAL ENGINEER

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
SUITE 101
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4		
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TENANT REVIEW ISSUE DATE: 07.08.25
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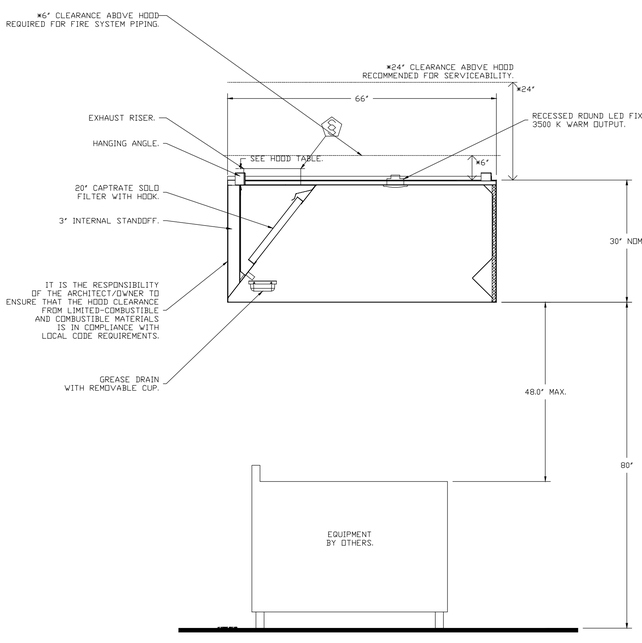
DRAWING TITLE:
MECHANICAL KITCHEN HOODS AND FANS

DRAWING NUMBER:

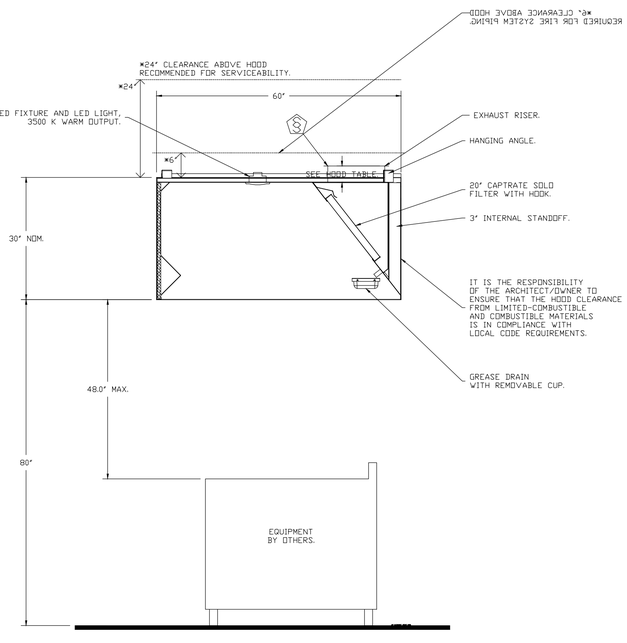
M5.0

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025



SECTION VIEW – MODEL 6630ND-2
HOOD – #1



SECTION VIEW – MODEL 6030ND-2
HOOD – #2

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

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Shell Shack Arlington DOAS
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DRAWN BY: DJL-45

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SHEET NO. 2

ISSUED FOR PERMIT 07/08/2025

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07-08-2025

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4000 FIVE POINTS BLVD.
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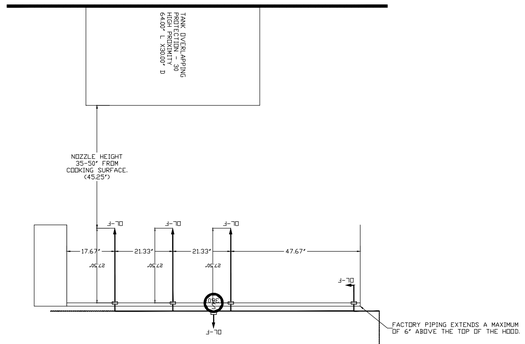
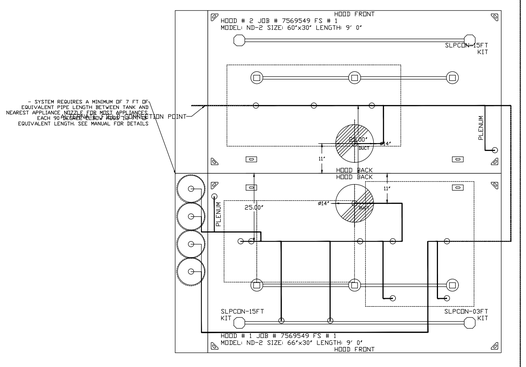
DRAWING TITLE:
MECHANICAL
KITCHEN HOODS
AND FANS

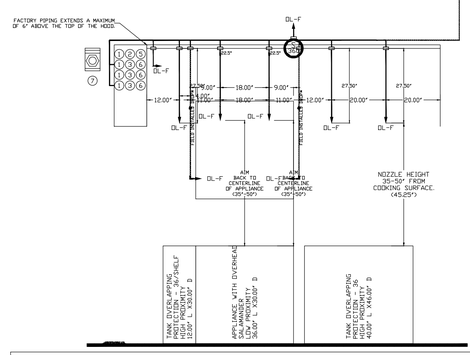
DRAWING NUMBER:

M5.1

ISSUED FOR PERMIT 07/08/2025







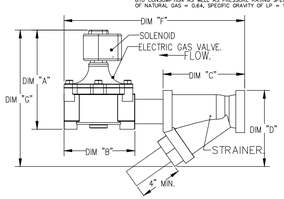
GAS VALVES AND STRAINERS

	GAS VALVE SIZING						GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS		
	TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "G"	PIPE ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
GAS VALVE FOR FS#→	ELECTRICAL	2"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	2,940,500 BTU/HR	1,908,048 BTU/HR	7-5/8"	6-3/8"	7-1/4"	7-13-16"	15-5/8"	13-15/16"	HORIZONTAL/VERTICAL	8214280	4417X68	(SC)CGVA2

ELECTRIC GAS VALVES ONLY-SOLENOID ORIENTATION
3/4"-2" 120VAC GAS VALVES CAN BE MOUNTED WITH THE SOLENOID IN ANY POSITION AT OR ABOVE HORIZONTAL.
2 1/2"-3" 120VAC GAS VALVES MUST BE MOUNTED WITH THE SOLENOID VERTICAL AND UPRIGHT.
240VAC GAS VALVES MUST BE MOUNTED WITH THE SOLENOID VERTICAL AND UPRIGHT.

ALL GAS VALVES/STRAINERS
PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52.

CALCULATIONS
TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP
NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP$^{0.5}$
TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY
NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)$^{0.5}$.



NOTES
- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED 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 PRE-ENGINEERED FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 7569549.
JOB NAME: SHELL SHACK ARLINGTON DDAS.

SYSTEM SIZE: TANK-SP-4 DESIGN FP: 68, MAXIMUM FP: 80.
HOOD # 1 9' 0.00" LONG x 66" WIDE x 30" HIGH.
RISER # 1 SIZE: 14" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 2 9' 0.00" LONG x 60" WIDE x 30" HIGH.
RISER # 1 SIZE: 14" DIA.
HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.

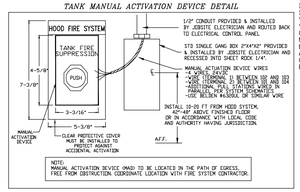
- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

LEGEND - FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

TANK MANUAL ACTIVATION DEVICE DETAIL



INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE. TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR ONE TEST; ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES), ONE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 8", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

FIRE SYSTEM INFORMATION - JOB#7569549

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0/4.0/4.0	80	68	FIRE CABINET LEFT	LEFT, HOOD 1

GAS VALVE(S)

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

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. ND, CLOSE ON TEMP RISE AT 360°F. (A60343SD).	2	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	2	0
		0 - 0 - 361091 3/8" BRASS PLUG.	3	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	4	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 - 0 - 79425 3/8" NPT FEMALE TO 1/2" MALE PROPRESS ADAPTER.	3	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2"NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2"NPT FEMALE CONNECTION, VIEGA.	4	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	4	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300033-001 DIN CONNECTOR, CANFIELD PART #5J560-201-CU0A, TANK FIRE SUPPRESSION, SUBMINIATURE SOLENOID CONNECTION (CED VENDOR 303773).	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	16	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	16	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	15	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION, 15" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES: 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 - 0 - B1145 3/8" BLACK IRON 90 ELL.	4	0
		0 - 0 - CB1-106 CHROME PLATED PIPE FITTING 3/8" NPT 90 DEGREE ELBOW.	2	0
		0 - 0 - CB1-107 CHROME PLATED PIPE FITTING 3/8" NPT UNION.	2	0
		0 - 0 - CB1-22.5 CHROME PLATED PIPE FITTING 3/8" NPT 22.5 DEGREE ELBOW.	2	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - SLPCDN-03FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 2' GAP. KIT CONTAINS 5 FEET OF BLACK MG WIRE, 5 FEET OF TAN MG WIRE, 3 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 - 0 - SLPCDN-15FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 14' GAP OR BACK TO BACK HOODS. KIT CONTAINS 17 FEET OF BLACK MG WIRE, 17 FEET OF TAN MG WIRE, 15 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	12	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	4	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	16	0
		16 - 16 - DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	16	0
		26 - 26 - GSA-3/8 QUIK SEAL - 3/8" (UL).	16	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

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Shell Shack Arlington DDAS
Arlington, TX, 76001

DATE: 6/9/2025

DWG.#: 7569549

DRAWN BY: DJL-45

MASTER DRAWING

SHEET NO. 3

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JASON R. HILL
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REGISTERED PROFESSIONAL ENGINEER
07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

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ARLINGTON, TX 76018

NO.	REVISIONS:	DATE:
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TENANT REVIEW ISSUE DATE:	07.08.25
LANDLORD REVIEW ISSUE DATE:	07.08.25
PERMIT ISSUE DATE:	07.08.25
BID ISSUE DATE:	07.08.25
CONSTRUCTION ISSUE DATE:	XX.XX.25

DRAWING TITLE:
MECHANICAL KITCHEN HOODS AND FANS

DRAWING NUMBER:
M5.2

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025

DOAS/RTU FAN SCHEDULE – JOB#7569549

FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	FAN INFORMATION: BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	ELECTRICAL INFORMATION: HP	PHASE	VOLT	MCA	MOCP	COOLING INFORMATION: OUTSIDE AIR DB	OUTSIDE AIR WB	MIXED AIR DB	MIXED AIR WB	LEAVING AIR DB	LEAVING AIR WB	LEAVING AIR DP	CAPACITY TOTAL	CAPACITY SENS.	IEER	ISMRE2	REHEAT INFORMATION: DISCHARGE DB	DISCHARGE WB	CAPACITY DESIRED	CAPACITY MAX	MOISTURE REMOVAL RATE	GAS HEAT INFORMATION: GAS TYPE	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	AEL MINIMUM ROOM VOLUME: ROOM AREA (FT2)	AIRFLOW (CFM)	HEIGHT (FT)	NOTES
4	DOAS-1	1	CAS-HVAC3-1400-20-20T	CAPTIVEAIRE	20P-3	0	3250	3250	2696	0.650	3.00	3	460	40.4A	45A	91.0°F	77.9°F	91.0°F	77.9°F	55.8°F	54.2°F	53.2°F	256.1 MBH	118.5 MBH	18.2	7.9	70.0°F	59.6°F	50.5 MBH	129.6 MBH	124.2 LBS/HR	NATURAL	261449	211774	57°F	7 IN. W.C. – 14 IN. W.C.	412.4	1031	10	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17

NOTES:
1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
5. ECM MOTOR CONDENSING FANS
6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
7. SUCTION LINE ACCUMULATOR
8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY, 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER
9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
10. 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-13 INSULATION-MINIMUM 20GA EXTERIOR W/ 16GA BASE
11. 81% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP
12. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
13. FULLY MODULATING HOT GAS REHEAT
14. 15 DEGREE LOW AMBIENT OPERATION
15. HAIL GUARD FOR CONDENSING COIL
16. DOWN DISCHARGE/DOWN RETURN
17. MINIMUM ROOM AREA ASSUMED 10' SUPPLY DIFFUSER HEIGHT AND IS CALCULATED PER UL60335-2-40 4TH ED. VALUES BASED ON FACTORY CHARGE. ACTUAL SITE CHARGE MAY DIFFER.

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST: GREASE CUP	EXHAUST: GRAVITY DAMPER	EXHAUST: WALL MOUNT	SUPPLY: SIDE DISCHARGE	SUPPLY: GRAVITY DAMPER	SUPPLY: MOTORIZED DAMPER	SUPPLY: WALL MOUNT
1	EF-1	YES						
2	EF-2	YES						
3	EF-3	YES						

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE	
1	# 1	EF-1	36 LBS	CURB	23.000"W X 23.000"L X 20.000"H	VENTED HINGED.
2	# 2	EF-2	36 LBS	CURB	23.000"W X 23.000"L X 20.000"H	VENTED HINGED.
3	# 3	EF-3	34 LBS	CURB	19.500"W X 19.500"L X 22.000"H	VENTED HINGED.
4	# 4	DOAS-1	104 LBS	CURB	59.500"W X 91.000"L X 14.000"H	INSULATED.

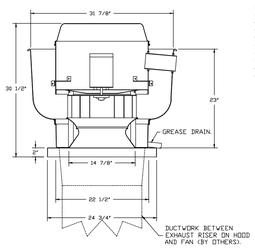
EXHAUST FAN INFORMATION – JOB#7569549

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	EF-1	1	DUR5HFA	CAPTIVEAIRE	1800	1.000	1376	TEAO-ECM	1.000	0.4610	1	115	11.6	570 FPM	94	12.4
2	EF-2	1	DUR5HFA	CAPTIVEAIRE	2025	1.000	1451	TEAO-ECM	1.000	0.5400	1	115	11.6	641 FPM	94	14.2
3	EF-3	1	DU33HFA	CAPTIVEAIRE	525	0.500	1196	TEAO-ECM	0.333	0.1043	1	115	4.3	260 FPM	71	10

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL – DU/DR#5HFA – INSTALLED AT PLANT – FOR GREASE DUCTS
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPMO3 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
2	EF-2	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL – DU/DR#5HFA – INSTALLED AT PLANT – FOR GREASE DUCTS
		1	ECM WIRING PACKAGE – PWM SIGNAL FROM ECPMO3 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
3	EF-3	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL – DU/DR30/33HFA – INSTALLED AT PLANT – FOR GREASE DUCTS
		1	ECM WIRING PACKAGE – MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
4	DOAS -1	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	COOLING OVERRIDE
		1	RTU BLOWER DOOR SWITCH
		1	RTU3 DOWN DISCHARGE, 400, 500 MBH
		1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)
		1	OVERHEAT STAT
		1	TOTAL CFM MONITORING
		1	OCCUPIED SCHEDULING
		1	INTAKE FIRESTAT SET TO 135°F
		1	FREEZESTAT
		1	DISCHARGE FIRESTAT SET TO 240°F
		1	CASLINK BUILDING MONITORING SYSTEM – INTERNET OR CELLULAR CONNECTION REQUIRED
		1	RTU3 CURB DUCT HANGER
		1	24VAC FIRE INPUT
		1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK – ALARM SUPPLIED BY OTHERS
		1	REMOTE TEMPERATURE AND HUMIDITY SPACE SENSOR
		1	RTU3 HAIL GUARD
		1	RTU3 CONVENIENCE OUTLET (GFCI), 15 AMP – REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX
		1	CLOGGED FILTER SWITCH – NOTIFICATION ON HMI
		1	RTU INTAKE/RETURN DAMPER – MANUAL CONTROL VIA HMI
		1	RTU3 DOWN RETURN
		1	2" METAL MESH FILTERS FOR RTU3 OUTDOOR INTAKE
		1	VAV PACKAGE W/ 0-10VDC INPUT CONTROL (5T) VFD INCLUDED)
		1	VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE
		1	LOAD REACTOR MOUNTED IN FAN
		1	20 TON MODULATING COOLING OPTION, 460/480V, R454B REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS.
		1	LOW AMBIENT COOLING OPERATION – DOWN TO 0F AMBIENT
		1	R454B LEAK DETECTOR OPTION FOR RTU3
		1	20 TON MODULATING REHEAT OPTION – SPACE DEWPOINT CONTROL – R454B
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU 75OVA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE
		1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)
		1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET

FANS #1 (EF-1), #2 (EF-2) – DUR5HFA EXHAUST FAN

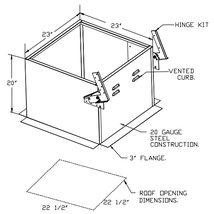


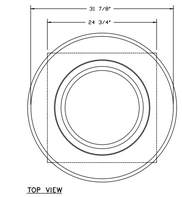
FEATURES:
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

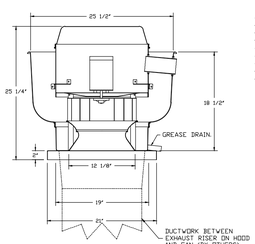
OPTIONS
- GREASE BOX.
- FAN BASE CERAMIC SEAL – DU/DR#5HFA – INSTALLED AT PLANT – FOR GREASE DUCTS.
- ECM WIRING PACKAGE – PWM SIGNAL FROM ECPMO3 PREWIRE (TELCO MOTOR), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.





TOP VIEW

FAN #3 DU33HFA – EXHAUST FAN (EF-3)

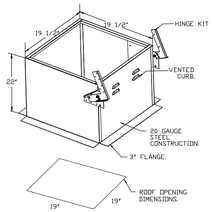


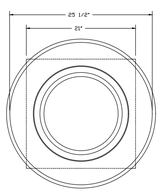
FEATURES:
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS
- GREASE BOX.
- FAN BASE CERAMIC SEAL – DU/DR30/33HFA – INSTALLED AT PLANT – FOR GREASE DUCTS.
- ECM WIRING PACKAGE – MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION.
- 2" YEAR PARTS WARRANTY.





TOP VIEW

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DATE: 6/9/2025

DWG.#: 7569549

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MASTER DRAWING

SHEET NO. 4

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SEAL

STATE OF TEXAS
JASON R. HILL
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07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
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ARLINGTON, TX 76018

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BID ISSUE DATE: 07.08.25
CONSTRUCTION ISSUE DATE: XX.XX.25

DRAWING TITLE:
MECHANICAL KITCHEN HOODS AND FANS

DRAWING NUMBER:

M5.3

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025

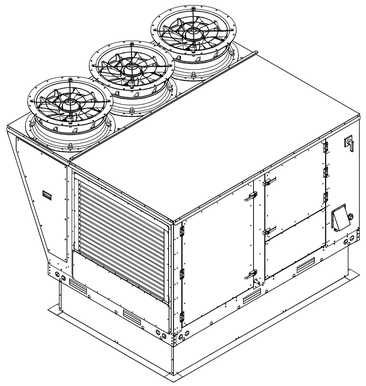
FAN #4 CAS-HVAC3-I.400-20-20T - HEATER (DOAS-1)

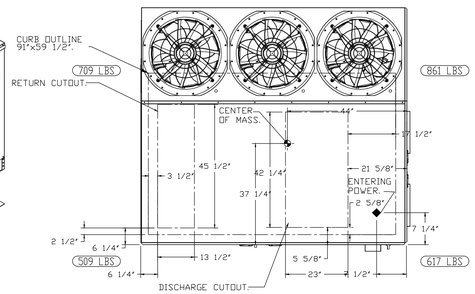
NOTES:
1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2. (_____) DENOTES CORNER WEIGHT.
3. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
4. CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
5. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

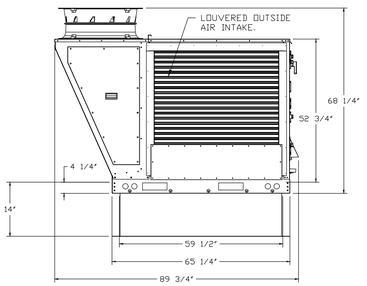
*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

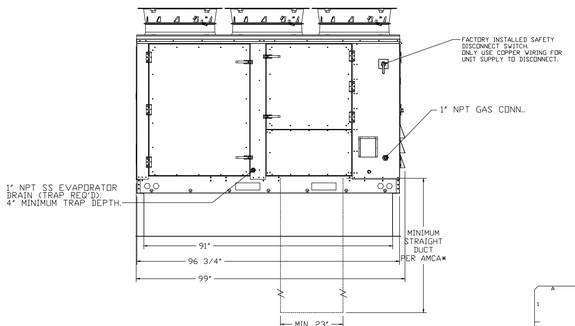
***NOTE: THIS UNIT IS INTENDED TO SERVE IN PLACE OF THE KITCHEN HVAC ROOF TOP UNIT (RTU) IN ADDITION TO PROVIDING APPROPRIATE MAKE-UP AIR FOR THE KITCHEN HOOD(S). RTU AND ASSOCIATED DUCTWORK SHALL BE REMOVED FROM SCOPE UNLESS REQUIRED FOR INTERNAL LOAD ESTIMATES. FINAL DESIGN SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.**

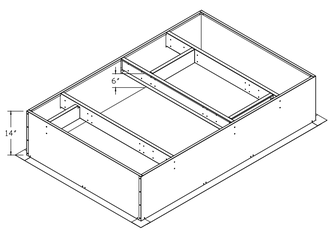
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 23" x 39".

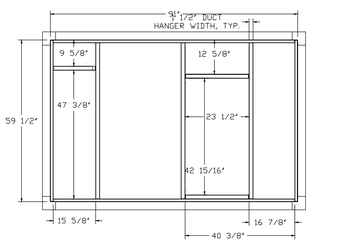


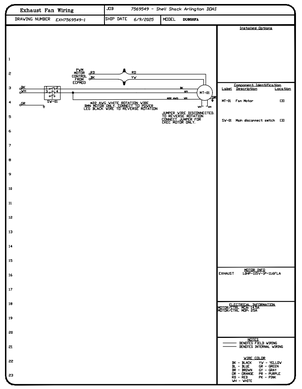


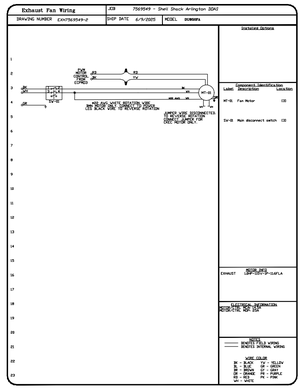


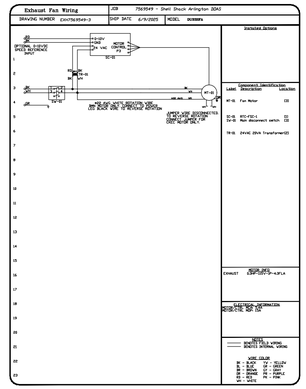


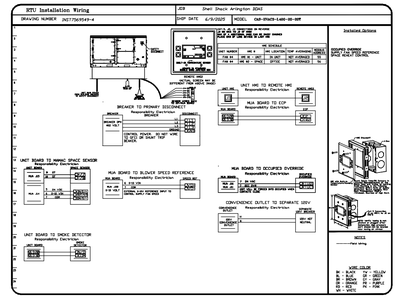


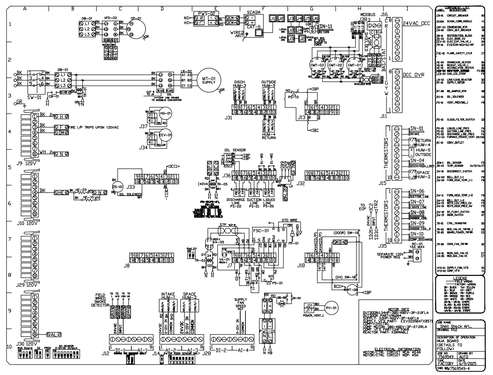


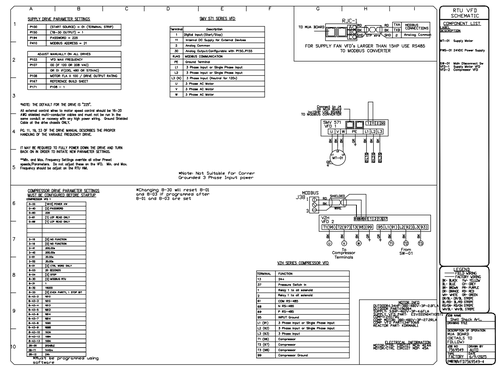












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REVISIONS

	DESCRIPTION:	DATE:
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Shell Shack Arlington DOAS
Arlington, TX, 76001

DATE: 6/9/2025

DWG.#: 7569549

DRAWN BY: DJL-45

MASTER DRAWING

SHEET NO. 5

SEAL

STATE OF TEXAS
JUSTIN R. HILL
65493
REGISTERED PROFESSIONAL ENGINEER

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
SUITE 101
ARLINGTON, TX 76018

NO.	REVISIONS:	DATE:
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TENANT REVIEW ISSUE DATE:	07.08.25
LANDLORD REVIEW ISSUE DATE:	07.08.25
PERMIT ISSUE DATE:	07.08.25
BID ISSUE DATE:	07.08.25
CONSTRUCTION ISSUE DATE:	XX.XX.25

DRAWING TITLE:
MECHANICAL
KITCHEN HOODS
AND FANS

DRAWING NUMBER:

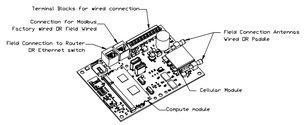
M5.4

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025

ELECTRICAL PACKAGE – JOB#7569549

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	HP	VOLT	FLA
1		DCV-2111	UTILITY CABINET LEFT	UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS DCV	EF-1	EXHAUST	1	1.000	115	11.6
				HOOD # 1	1 FAN		EF-2	EXHAUST	1	1.000	115	11.6
							DDAS-1	SUPPLY	3	3.000	460	4.6



CASlink Monitor and Control

- *Hood control panel to support communications to cloud-based Building Management System.*
- *Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.*
- *Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.*
- *Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.*

MONITORING AND CONTROL POINTS LIST

DCV Packages	*Function*
Room Temperature	*MONITOR*
Duct Temperature(s)	*MONITOR*
MUA Discharge Temperature	*MONITOR*
Kitchen RTU Discharge Temperature	*MONITOR*
Fan Speed	*MONITOR*
Fan Amperage	*MONITOR*
Fan Power	*MONITOR*
VFD Faults	*MONITOR*
Controller Faults	*MONITOR*
Fan Faults	*MONITOR*
Fan Status	*MONITOR*
Fan Status	*MONITOR*
PCU Faults	*MONITOR*
PCU Filter Clog Percentages	*MONITOR*
Fire Condition	*MONITOR*
CORE Fire System	*MONITOR*
Building Pressure	*MONITOR*
PCU Faults	*MONITOR*
PCU Filter Clog Percentages	*MONITOR*
Fire Condition	*MONITOR*
CORE Fire System	*MONITOR*
Building Pressure	*MONITOR*
Prep Time Button	*MONITOR & CONTROL*
Fans Button	*MONITOR & CONTROL*
Lights Button	*MONITOR & CONTROL*
Wash Button	*MONITOR & CONTROL*

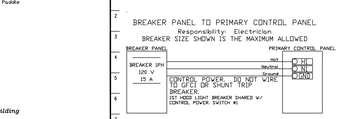
IC Packages	*Function*
Room Temperature(s)	*MONITOR*
Duct Temperature(s)	*MONITOR*
MUA Discharge Temperature	*MONITOR*
Kitchen RTU Discharge Temperature	*MONITOR*
Controller Faults	*MONITOR*
Fan Faults	*MONITOR*
Fan Status	*MONITOR*
PCU Faults	*MONITOR*
PCU Filter Clog Percentages	*MONITOR*
Fire Condition	*MONITOR*
CORE Fire System	*MONITOR*
Building Pressures	*MONITOR*
Fans Button(s)	*MONITOR & CONTROL*
Lights Button(s)	*MONITOR & CONTROL*
Wash Button	*MONITOR & CONTROL*

JOB NO 7569549 | MODEL NUMBER DCV-2111 | JOB NAME Shell Shack Arlington DDAS | DRAWN BY DJL | DATE 6/9/2025 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-1

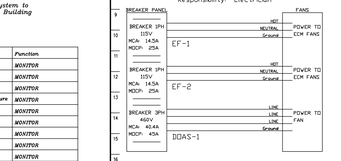
DESCRIPTION OF DESCRIPTION:
Exhaust Control Ventilation, or control for 2 Exhaust fans, 1 Supply fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation/verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

BREAKER PANEL TO PRIMARY CONTROL PANEL
Responsibility: Electrician

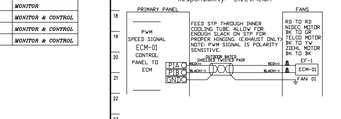
BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED

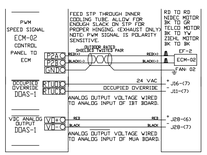


BREAKER PANEL TO FANS
Responsibility: Electrician

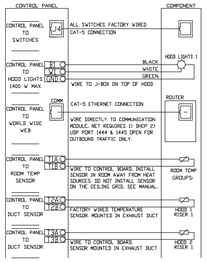


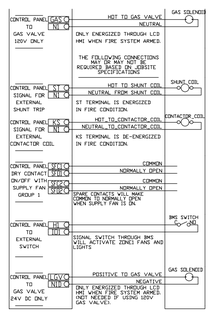
CONTROL PANEL TO FANS
Responsibility: Electrician



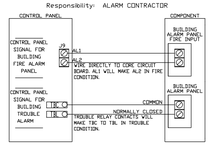


CONTROL PANEL TO ACCESSORY ITEMS
Responsibility: Electrician





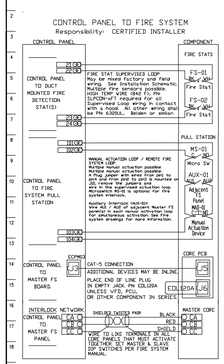
CONTROL PANEL TO FIRE SYSTEM
Responsibility: ALARM CONTRACTOR



JOB NO 7569549 | MODEL NUMBER DCV-2111 | JOB NAME Shell Shack Arlington DDAS | DRAWN BY DJL | DATE 6/9/2025 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-2

DESCRIPTION OF DESCRIPTION:
Exhaust Control Ventilation, or control for 2 Exhaust fans, 1 Supply fan, Exhaust on in Fire, Lights out in Fire, Fans modulate based on duct temperature. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD. Room temperature sensor shipped loose for field installation/verify distance between VFD and Motor; additional cost could apply if distance exceeds 50 feet.

CONTROL PANEL TO FIRE SYSTEM
Responsibility: CERTIFIED INSTALLER



JOB NO 7569549 | MODEL NUMBER DCV-2111 | JOB NAME Shell Shack Arlington DDAS | DRAWN BY DJL | DATE 6/9/2025 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-3

DESCRIPTION OF DESCRIPTION:
Fire System #1 TANK 73 = 42/43/43/43

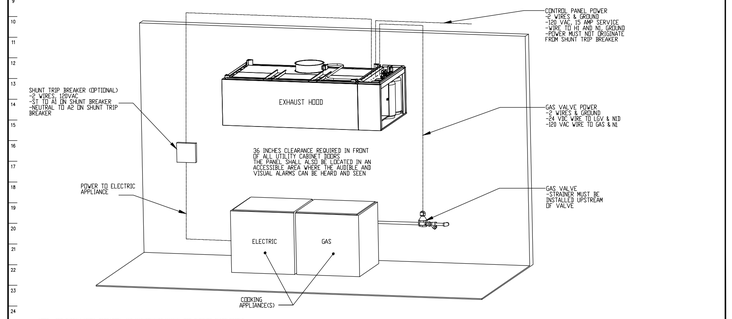
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-1: MASTER

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE GAS VALVE
5. WIRE LOS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
LOS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AUL, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AUL, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N2 (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VAC – 3 WIRES & GROUND, A2 TO N2, LGV TO RED, AND GREEN TO GROUND IF 120 VAC – 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO 7569549 | MODEL NUMBER DCV-2111 | JOB NAME Shell Shack Arlington DDAS | DRAWN BY DJL | DATE 6/9/2025 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-4

DESCRIPTION OF DESCRIPTION:
Fire System #1 TANK 73 = 42/43/43/43

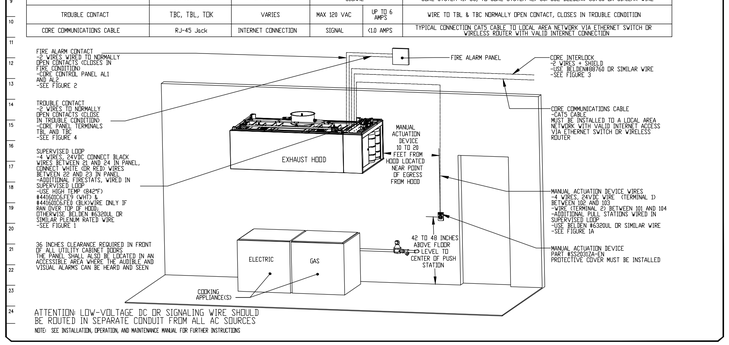
TANK PROTECTION LOW-VOLTAGE DETAIL

10/01/2023 Rev. 3

FS-1: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), *REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. WIRE TO CORE PANEL PER SCHEMATIC
3. VERIFY FINAL FIRE SYSTEM DESIGN
*REMOTE FIRESTAT(S) MAYBE BE REQUIRED DEPENDING ON THE DUCT LAYOUT AND HOOD TEMPERATURE RATING. REFERENCE MANUAL FOR LOCATION AND GUIDELINES.

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 101 AND 104 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED (F SURFACE MOUNTED, USE COVER EXTENSION 511-HOUSE)
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	CORE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 24 HIGH TEMP (400°F) MARGBOOZ17 (24FT) & MARGBOOZ18 (50FT) & MARGBOOZ19 (100FT) DRAWING OR SIMILAR ONLY IF RAN OF SKIRT; OTHERWISE BELDEN 84300UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	CA, CB, CC	CA, CB, CC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (2) CA TO CORE SYSTEM (2) CA, CORE SYSTEM (2) CB, TO CORE SYSTEM (2) CB CORE SYSTEM (1) CC, TO CORE SYSTEM (2) CC. USE BELDEN 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

REVISIONS

DESCRIPTION	DATE:

CAPTIVE-AIRE

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Shell Shack Arlington DDAS
Arlington, TX, 76001

DATE: 6/9/2025

DWG.#: 7569549

DRAWN BY: DJL-45

MASTER DRAWING

SHEET NO. 6

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REGISTERED PROFESSIONAL ENGINEER

07-08-2025

ARCHITECTURAL PROJECT NO.: 115-01

SHELL SHACK

4000 FIVE POINTS BLVD.
SUITE 101
ARLINGTON, TX 76018

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CONSTRUCTION ISSUE DATE:	XX.XX.25

DRAWING TITLE:
MECHANICAL KITCHEN HOODS AND FANS

DRAWING NUMBER:

M5.5

ISSUED FOR PERMIT 07/08/2025

ISSUED FOR PERMIT 07/08/2025