

Bergmeyer

LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090
BOS
51 Sleeper St.
Boston, MA 02210
617.542.1025

CONSULTANTS:

SEA/ SIGNATURE:



NEW GROUND UP AND DRIVE THRU OF QUICK SERVICE RESTAURANT

1348 - LEE'S SUMMIT



2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

FIELD NOTICE #2: 2021-05-17

PERSPECTIVE VIEW



2 3 4 5

PROJECT TEAM

OWNER'S DESIGN PROJECT MANAGER
SHAKE SHACK
225 VARICK ST, SUITE 301
NEW YORK, NY 10014
CONTACT: THEA WILLIAMSON
T: 347.640.0862

OWNER'S CONSTRUCTION PROJECT MANAGER
SHAKE SHACK
225 VARICK ST, SUITE 301
NEW YORK, NY 10014
CONTACT: CHRIS PIPER
T: 646.661.0598

LANDLORD
DRAKE DEVELOPMENT
7200 W. 132ND ST., SUITE 150
OVERLAND PARK, KS 66213
CONTACT: IAN MUSSMAN
T: 913.662.2630

ARCHITECT
BERGMAYER ASSOCIATES, INC.
51 SLEEPER STREET, 6TH FLOOR
BOSTON, MA 02210
PRINCIPAL IN CHARGE: MIKE DAVIS
PROJECT MANAGER: CHRISTINA SANDORE
T: 617.542.1025

MEP ENGINEER
SCHWACKEL ENGINEERS, INC.
3035 SOUTH 22ND STREET
OMAHA, NE 68124
CONTACT: DUSTIN VOLLENBURG
T: 531.320.9292

STRUCTURAL ENGINEER
H4O STRUCTURAL ENGINEERING
51 MELCHER ST FLR 1
BOSTON, MA 02210
CONTACT: RENS HAYES
T: 617.938.3349 x 7011

KITCHEN CONSULTANT
TRIMARK UNITED EAST FOOD SERVICE DESIGN
505 COLLINS STREET
SOUTH ATTLEBORO, MA 02703
CONTACT: MICHAEL HENDERSON
T: 508.399.2392

CIVIL ENGINEER
BERGMAYER ASSOCIATES, INC.
5507 HIGH MEADOW CIRCLE
MANHATTAN, KS 66503
CONTACT: SAM MALINOVSKY
T: 785.241.1024

GENERAL CONTRACTOR
SPEEGEL GLASS CONSTRUCTION COMPANY
18 WORTHINGTON ACCESS DRIVE
MARYLAND HEIGHTS, MO 63043
CONTACT: TIM SPIEGEL GLASS
E: TIM@SPIEGELGLASS-GC.COM
T: 314.575.9938

SHEET INDEX AND ISSUE MATRIX

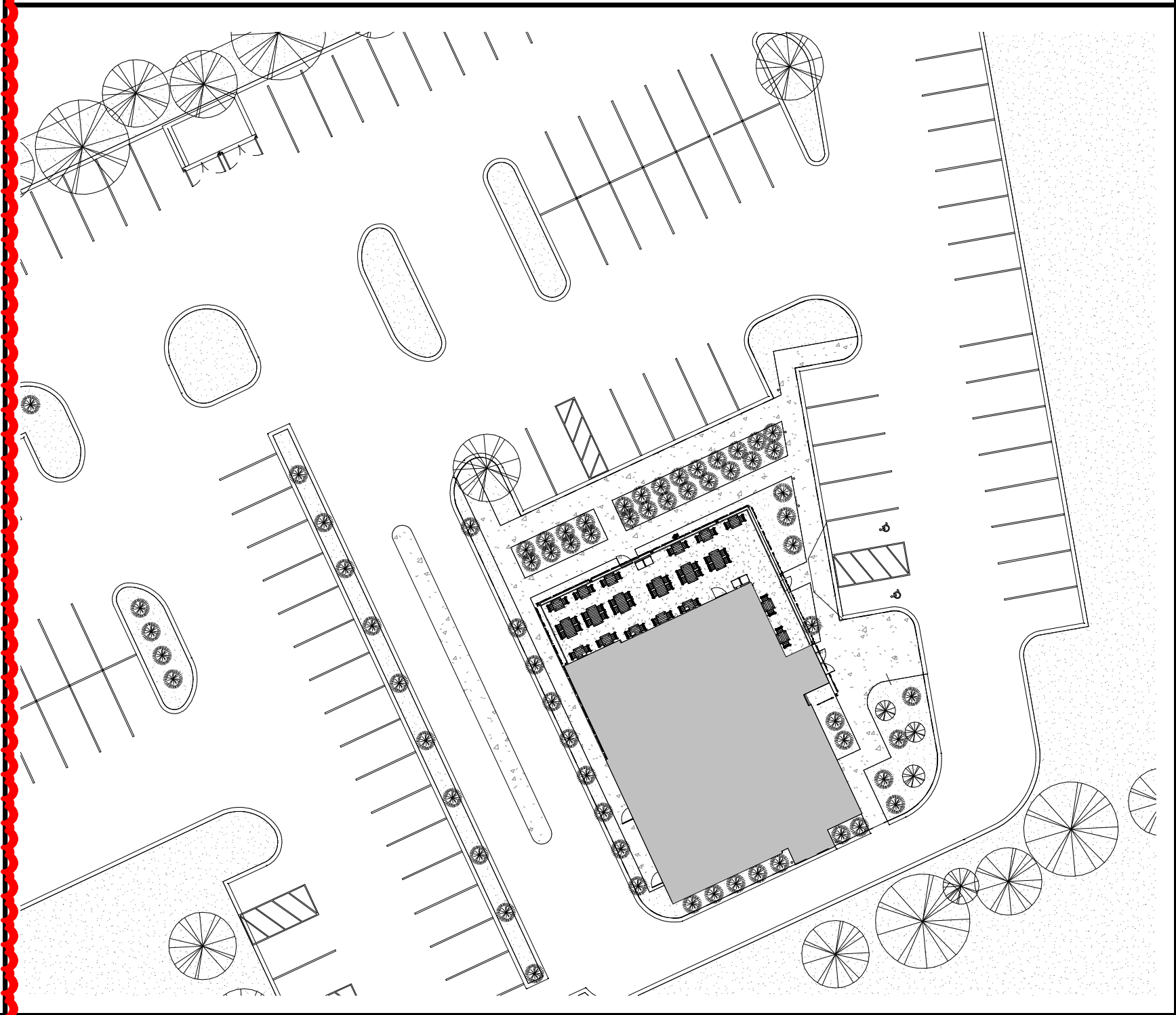
SHEET NO.	SHEET NAME	PERMIT/BID ISSUE DATE	NO.	ISSUE DATE	REVISION DESCRIPTION
00	GENERAL				
T001	TITLE SHEET	2021-01-11	5	2021-05-17	FIELD NOTICE #2
T002	RESPONSIBILITY SCHEDULE & VENDOR CONTACTS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
T003	SYMBOLS, GENERAL NOTES & ABBREVIATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
T004	CODE ANALYSIS, OCCUPANCY & EGRESS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
01	CIVIL				
C-1	SITE PLAN	2021-01-11	5	2021-05-17	FIELD NOTICE #2
C-2	UTILITY PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
C-3	GRADING PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
02	SITE				
AS101	ARCHITECTURAL SITE PLAN	2021-01-11	5	2021-05-17	FIELD NOTICE #2
AS102	ENLARGED PATIO PLAN AND EXTERIOR DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
03	STRUCTURAL				
S000	ISOMETRIC VIEWS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S001	GENERAL NOTES I	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S002	GENERAL NOTES II	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S003	LOADING PLANS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S100	FOUNDATION PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S101	CANOPY FRAMING PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S102	ROOF FRAMING PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S200	COLUMN SCHEDULE	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S201	BUILDING SECTIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S300	LATERAL FRAME ELEVATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S400	CONCRETE DETAILS I	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S401	CONCRETE DETAILS II	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S500	STEEL DETAILS I	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S501	STEEL DETAILS II	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
S502	STEEL DETAILS III	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
04	ARCHITECTURAL				
A100	CURB & FOUNDATION PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A101	GENERAL ARRANGEMENT PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A102	DIMENSIONED PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A103	FLOOR FINISH PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A104	FURNITURE & EQUIPMENT PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A105	SIGNAGE AND GRAPHICS PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A120	REFLECTED CEILING PLAN	2021-01-11	5	2021-05-17	FIELD NOTICE #2
A150	ROOF PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A201	EXTERIOR ELEVATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A210	INTERIOR ELEVATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A211	INTERIOR ELEVATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A301	BUILDING SECTIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A302	EXTERIOR WALL SECTIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A303	EXTERIOR WALL SECTIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A304	EXTERIOR WALL SECTIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A305	EXTERIOR WALL SECTIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A401	INTERIOR SECTIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A402	ENLARGED MANAGER'S OFFICE PLAN	2021-01-11	5	2021-05-17	FIELD NOTICE #2
A403	ENLARGED WOMEN'S RESTROOM PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A404	ENLARGED MEN'S RESTROOM PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A501	EXTERIOR DETAILS - PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A502	EXTERIOR DETAILS - SECTION	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A503	EXTERIOR DETAILS - SECTION	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A504	EXTERIOR DETAILS - ROOF	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A510	WALL TYPES	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A520	ATAS METAL PANEL TRIM DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A530	INTERIOR DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A540	MELLWORK DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A601	FINISH SCHEDULE	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A602	DOOR, HARDWARE & SCHEDULES	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A603	STOREFRONT SCHEDULES & ELEVATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A701	ARCHITECTURAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A702	ARCHITECTURAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A703	ARCHITECTURAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A704	ARCHITECTURAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A705	ARCHITECTURAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A801	EXTERIOR RENDERINGS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
A802	INTERIOR RENDERINGS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
05	KITCHEN EQUIPMENT				
QF001	FOODSERVICE GENERAL NOTES, LEGENDS, SHEET INDEX	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF001	FOODSERVICE EQUIPMENT PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF102	FOODSERVICE SCHEDULES	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF102A	FOODSERVICE UTILITY SCHEDULES	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF102B	FOODSERVICE UTILITY SCHEDULES	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF201	FOODSERVICE PLUMBING IN-SLAB ROUGH-IN PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION

SHEET NO.	SHEET NAME	PERMIT/BID ISSUE DATE	NO.	ISSUE DATE	REVISION DESCRIPTION
QF202	FOODSERVICE PLUMBING ABOVE SLAB ROUGH-IN PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF301	FOODSERVICE ELECTRICAL ROUGH-IN PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF401	FOODSERVICE SPECIAL CONDITIONS PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
QF501	FOODSERVICE ELEVATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
06	FIRE PROTECTION				
F001	FIRE PROTECTION ABBREVIATIONS & SYMBOLS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
F101	FIRE PROTECTION PLAN	2021-01-11	4	2021-05-03	FIELD NOTICE #1
F501	FIRE PROTECTION DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
F590	FIRE PROTECTION SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
F591	FIRE PROTECTION SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
07	MECHANICAL				
M001	MECHANICAL ABBREVIATIONS & SYMBOLS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M101	MECHANICAL FLOOR PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M102	MECHANICAL REFRIGERANT PIPING LAYOUT PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M150	MECHANICAL ROOF PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M501	MECHANICAL DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M502	MECHANICAL DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M590	MECHANICAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M591	MECHANICAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M592	MECHANICAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M593	MECHANICAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M601	MECHANICAL SCHEDULES	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M701	HALTON DRAWINGS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M702	HALTON DRAWINGS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M703	HALTON DRAWINGS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M704	HALTON DRAWINGS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
M705	HALTON DRAWINGS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
08	PLUMBING				
P001	PLUMBING ABBREVIATIONS & SYMBOLS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P101	PLUMBING WASTE & VENT PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P120	PLUMBING WATER & GAS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P150	PLUMBING ROOF PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P501	PLUMBING DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P502	PLUMBING DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P590	PLUMBING SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P591	PLUMBING SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P592	PLUMBING SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P601	PLUMBING SCHEDULE	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
P601	PLUMBING RISERS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
09	ELECTRICAL				
E001	ELECTRICAL ABBREVIATION & SYMBOL LEGEND	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E100	SITE ELECTRICAL PLAN	2021-01-11	5	2021-05-17	FIELD NOTICE #2
E101	ELECTRICAL POWER PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E102	LOW VOLTAGE SYSTEMS PLAN	2021-01-11	5	2021-05-17	FIELD NOTICE #2
E120	ELECTRICAL LIGHTING PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E150	ELECTRICAL ROOF PLAN	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E501	ELECTRICAL DETAILS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E590	ELECTRICAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E591	ELECTRICAL SPECIFICATIONS	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E601	ELECTRICAL SCHEDULES & ONE-LINE	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E620	LIGHTING SCHEDULES	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E621	LUTRON VIVE ONE-LINE	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E622	LUTRON VIVE ONE-LINE	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION
E623	LUTRON VIVE ONE-LINE	2021-01-11	3	2021-04-26	ISSUED FOR CONSTRUCTION

AREA / LOCATION MAP



KEY MAP



PROJECT NARRATIVE

THIS PROJECT IS NEW CONSTRUCTION, FREE STANDING SINGLE STORY QUICK SERVICE RESTAURANT. THE INTENDED USE GROUP IS A2: NEW STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION COMPONENTS ARE PROPOSED.

THE BUILDING WILL BE SPRINKLERED.

SEAT COUNT	
INTERIOR SEATS	125
EXTERIOR SEATS	50
TOTAL SEATS	175
SQUARE FOOTAGE	
INTERIOR SF	3360 SF
EXTERIOR SF	1039 SF
TOTAL SF	4399 SF

NO.	BY	DATE	DESCRIPTION
5		2021-05-17	FIELD NOTICE #2
4		2021-05-03	FIELD NOTICE #1
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM #2
1		2021-03-09	ADDENDUM #1
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET



SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

FIELD NOTICE #2

TITLE SHEET

DRAWN BY: CS & WQL
CHECKED BY: JS
JOB NO: 2008.00

T001

NATIONAL ACCOUNTS & VENDOR LIST

GC TO CONFIRM ALL REQUIRED CONTRACTORS WITH SHAKE SHACK AND LANDLORD.

GC PROVIDED ITEMS	OWNER PROVIDED ITEMS	OWNER PROVIDED ITEMS CONT.
LIGHTING (11) SPECIALTY LIGHTING GROUP CONTACT: SANDY KINNE T: 800.767.0110 x 210 E: SANDY.KINNE@SSLIGHTING.COM CONTACT: ANUSH KAZARIAN T: 800.767.0110 x 252 E: ANUSH.KAZARIAN@SSLIGHTING.COM HVAC EQUIPMENT (2) CARRIER STRATEGIC ACCOUNTS CONTACT: BOB ECKWEILER T: 973.222.6742 E: BOB.ECKWEILER@CARRIER.UTC.COM ALUMINUM PANELS (3) ATAS INTERNATIONAL INC. CONTACT: DAVID WEIDL T: 684.563.5409 E: DWEIDL@ATAS.COM TILE (4) CREATIVE MATERIALS CORPORATION (CMC) CONTACT: DOUG SALATINO T: 518.713.5371 E: DSALATINO@CREATIVEMATERIALSCORP.COM CONTACT: ALLISON PICHÉ T: 518.713.5396 E: APICHÉ@CREATIVEMATERIALSCORP.COM SAFE VENDOR (5) ACME SAFE COMPANY CONTACT: DINA OLIVER T: 212.226.2600 x284 E: DOLIVER@ACMESAFENYORK.COM BLACK IRON WATER LEAK TEST (10) ENVIROMATIC CONTACT: DON PFLEDERER T: 800.325.8476 E: INSPECTIONS@ENVIROMATIC.COM TESTING AND BALANCING (12) NATIONAL TAB CONTACT: WILL TURNBOUGH T: 314.954.6244 E: WILL@NATIONALTAB.COM SHADES (14) ROLL-A-SHADE CONTACT: ALLIE SMITH T: 951.245.9377 x123 E: ALLIE.SMITH@ROLLASHADE.COM INSTAKEEY KEY CONTROL & LOCKS (16) CUSHMAN WAKEFIELD CONTACT: HALEY D'ANNA T: 603.362.7500 T: 978.284.2029 E: HDANNA@CUSHWAKE.COM KITCHEN EPOXY FLOORING (17) DURA-FLEX CONTACT: JOHN CONWAY T: 609.238.1265 E: JOHN@DURA-FLEX.COM SPECIAL / DEPUTY / 3RD PARTY INSPECTIONS (18) TERRACON CONTACT: ALICIA H. DUNSTAN, PE T: 603.361.9048 E: ALICIA.DUNSTAN@TERRACON.COM WELDED SEAM FLOORING (WALK-IN) (19) PROTECT-ALL CONTACT: JERRY LEE T: 989.739.6600 x6000 E: JLEE@PROTECT-ALLFLOORING.COM ROOFING MEMBRANE SYSTEM (20) DURO-LAST CONTACT: MIKE SUMAN T: 617.370.5569 E: MSUMAN@DURO-LAST.COM RESTROOM ACCESSORIES (21) HAINES, JONES & CADBURY CONTACT: WHITNEY ASHBIDGE T: 954.588.8194 E: WHITNEY.ASHBRIDGE@HJCINC.COM	CO. AND N. EQUIPMENT (25) MUJO CONTACT: DEBBIE OLIVER T: 707.553.0802 E: DOLIVER@MUJO.CO.COM CONTACT: BRENT FAIRCHILD T: 772.323.3693 E: BRENTCHIL@MUJO.CO.COM EXHAUST HOOD & FANS (26) HALTON CONTACT: DAVID HARRING T: 902.445.6239 E: DAVID.HARRING@HALTON.COM KITCHEN EQUIPMENT CONTRACTOR (27) TRIMARK UNITED EAST CONTACT: STEPHEN DUNGEY T: 828.431.3410 E: STEPHEN.DUNGEY@TRIMARKUSA.COM SODA SYSTEM (28) COCA-COLA CONTACT: BRIGGETTE MOORE T: 800.304.2692 EXT 2646 E: BRIGGMOORE@COCA-COLA.COM OIL RECOVERY SYSTEM (29) RESTAURANT TECHNOLOGIES, INC. (RTI) CONTACT: AMIEE KRUEGER T: 850.525.9366 E: AKRUEGER@RTI-INC.COM SPECIALTY BEVERAGE EQUIPMENT (30) HARNEY TEA CONTACT: ANDREW WILSON T: 845.233.0205 E: ANDREW@HARNEYTEAS.COM LOW VOLTAGE CONTRACTOR (31) SPENCER TECHNOLOGIES CONTACT: LYNNE THOMPSON T: 440.417.4666 E: LYTHOMPSON@SPENCERTECH.COM CONTACT: BRITTANY WINGHELL T: 508.618.6244 E: BWINGHELL@SPENCERTECH.COM SECURITY SYSTEM (33) PROTECTION 1 (A)T SECURITY CONTACT: CHRISTIE KANUKA T: 214.277.7206 E: CKANUKA@A)T.COM CONTACT: MICHAEL KREY T: 973.865.6092 E: MICHAELKREY@A)T.COM SIGNAGE CONTRACTOR (35) JONES SIGN CONTACT: SARAH KOSTKA T: 414.687.3175 E: SKOSTKA@JONESIGN.COM DINING TABLES (INDOOR) (36) COUNTER EVOLUTION CONTACT: JIM MALONE T: 917.297.9737 E: JIM@COUNTEREV.COM DINING CHAIRS, STOOLS & OUTDOOR TABLES (37) LUNRL CONTACT: JASON HORVATH T: 718.886.6619 E: JASON@LUNRLDESIGN.COM DINING BOOTHS & PICNIC TABLES (38) STACH CONTACT: BEN GORDON C: 985.319.8627 E: BEN@STACH.COM CABLE (40) DIRECTV CONTACT: JEROME HAWKES T: 303.264.0020 E: JH24216@ATT.COM	TRASH & RECYCLING BINS (OUTDOOR) (41) FACILITY CONCEPTS INC. CONTACT: WILLIAM DAY T: 800.915.8690 x 117 E: WDAY@FCIUS.COM CHEMICALS / DISHWASHER / WATER SOFTENER (43) SSOC / KAY CHEMICAL CONTACT: MARTIN BRADSHAW@ECOLAB.COM T: 612.220.6286 E: MARTIN.BRADSHAW@ECOLAB.COM SITE CAMERA (44) EARTH CAM CONTACT: MARIA CURY T: 201.488.1111 x1031 E: MARIA@EARTHCAM.COM

SUBMITTAL MATRIX

GC TO ALSO REVIEW ARCHITECTURAL SPECIFICATIONS (A700S) FOR REQUIRED SUBMITTALS THAT MIGHT NOT BE LISTED BELOW.

SUBMITTAL	RECD REVIEW TIME	ARCHITECT	SHAKE SHACK	COMMISSIONING AGENT	PHYSICAL SAMPLE RECD	SUBMITTAL FOR RECORD	SUBMITTAL FOR RECORD ONLY
ANCHOR BOLTS SHOP DRAWINGS	5	X				X	
ATAS - DETAILED SHOP DRAWINGS (SUBMITTED BY OWNER VENDOR DIRECTLY TO OWNER / AOR PRIOR TO CONSTRUCTION)	5	X					X
CONCRETE MIX DESIGN	5	X				X	
CONSTRUCTION PREFUNCTIONAL CHECKLISTS	5	X		X			X
DECORATIVE METAL SHOP DRAWINGS	5	X				X	
DIFFUSERS, GRILLS & REGISTERS	5	X					
DOORS, FRAMES & HARDWARE	7	X				X	
DUCTWORK LAYOUT (IF THERE ARE SIGNIFICANT CHANGES IN FIELD)	5	X		X		X	
ELECTRICAL DISTRIBUTION EQUIPMENT	5	X				X	
ELEVATOR & VERTICAL TRANSPORTATION SHOP DRAWINGS	5	X					X
EPOXY FLOOR	5	X					X
FIRE ALARM SHOP DRAWINGS & DEVICE CUT SHEETS	5	X ¹		X		X	
FIRE SPRINKLER SHOP DRAWINGS, HYDRAULIC CALCULATIONS & DEVICE CUT SHEETS	5	X ¹		X		X	
HVAC EQUIPMENT (IF CARRIER - SUBMITTED BY OWNER VENDOR DIRECTLY TO OWNER/AOR PRIOR TO CONSTRUCTION)	5	X ¹		X		X	
LIGHT FIXTURES (SUBMITTED BY OWNER VENDOR DIRECTLY TO OWNER / AOR PRIOR TO CONSTRUCTION)	5	X		X		X	
MEP TESTS, START-UP, AND PROGRAMMING REPORTS	5	X		X		X	
MILLWORK - MATERIAL SUBMITTALS (IF DIFFERS FROM SPEC)	5	X		X		X ¹	
MILLWORK - SHOP DRAWINGS (CUSTOM ITEMS & DESIGN FEATURES ONLY)	5	X					
PLUMBING FIXTURES	5	X		X		X	
RAILING SHOP DRAWINGS	5	X				X	
REBAR	5	X				X	
RESTROOM PARTITIONS	5	X				X	
STAIR SHOP DRAWINGS	5	X ¹					X
STOREFRONT - PRODUCT DATA SUBMITTAL (IF DIFFERS FROM SPEC)	5	X					
STOREFRONT - SHOP DRAWINGS	5	X					
STRUCTURAL STEEL SHOP DRAWINGS	7	X ¹				X	
TILE (IF DIFFERS FROM SPEC)	5	X			X ¹	X	
WINDOW FILM	5	X					

NOTES

- SOME ITEMS MAY NOT APPLY TO THIS PROJECT
- RECD REVIEW TIME IS IN BUSINESS DAYS
- PLEASE SEND ALL PHYSICAL SAMPLES DIRECTLY TO SHAKE SHACK FOR APPROVAL: FOR ARCHITECT SAMPLES SEND TO:

SHAKE SHACK - DESIGN TEAM
 ATTN: ALLISON PALMADRESSO
 ATTN: MO-1348-LEES SUMMIT
 225 VARIOCK ST, SUITE 301
 NEW YORK, NY 10014

BERGMEYER ASSOCIATES
 ATTN: JUANITA LEVINE
 ATTN: MO-1348-LEES SUMMIT
 51 SLEEPER STREET, 6TH FLOOR
 BOSTON, MA 02210

X¹ - SHIP PHYSICAL SAMPLE DIRECT TO ARCHITECT AT THE ADDRESS LISTED ABOVE

X¹ - SHOPS & CALCULATIONS TO BE SIGNED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED





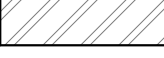
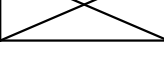

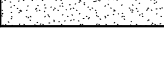
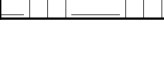
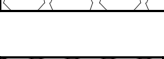
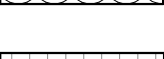

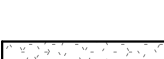




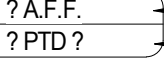
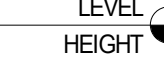


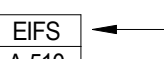
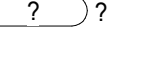


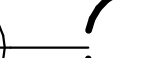



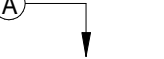






RESPONSIBILITY SCHEDULE

THIS SCHEDULE IS PROVIDED FOR QUICK REFERENCE ONLY.
 THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS.
 CONFLICTS BETWEEN THIS SCHEDULE AND THE REST OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PRIOR TO BEGINNING WORK.

DESCRIPTION	FURNISHED			INSTALLED			REMARKS
	GENERAL CONTRACTOR	OWNER	LANDLORD	GENERAL CONTRACTOR	OWNER	LANDLORD	
DIVISION 01: GENERAL REQUIREMENTS							
1.1 PERMITS AND FEES							
1.1.1 PERMIT FEES	•			•			GENERAL CONTRACTOR TO PULL PERMITS FOR THE BUILDING, MECHANICAL, ELECTRICAL, PLUMBING, HEALTH, AND/OR ENVIRONMENT
1.1.2 OTHER PERMITS AND FEES	•			•			GENERAL CONTRACTOR TO SECURE AND PAY FOR OTHER REQUIRED PERMITS AND FEES NOT NOTED IN LINE ITEM 1.1.1
1.2 TEMPORARY UTILITIES			•			•	
1.3 TEMPORARY BARRICADES OR SITE FENCING			•			•	
1.3.1 BARRICADE GRAPHICS		•			•		
1.4 CONSTRUCTION DUMPSTERS AND TRASH BINS	•			•			GENERAL CONTRACTOR TO COORDINATE WITH LANDLORD, WASTE MANAGEMENT, CITY AND COUNTY
1.5 FINAL CLEANING	•			•			SITE TO BE PROFESSIONALLY CLEANED PRIOR TO STOCKING, TRAINING AND OPENING
1.6 CERTIFICATE OF OCCUPANCY	•			•			TO INCLUDE BUILDING, FIRE AND HEALTH INSPECTIONS
1.7 SITE PREPARATION FOR NEW PAD		•			•		
DIVISION 02: EXISTING CONDITIONS							
2.1 DEMOLITION			•		•		
DIVISION 03: CONCRETE							
3.1 CONCRETE SLAB AND FOUNDATION	•			•			REFER TO STRUCTURAL DRAWINGS AND ARCHITECTURALS FOR ADDITIONAL INFORMATION
3.2 CONCRETE CUTTING AND CORING	•						SCOPE OF WORK INCLUDES ALL CORING REQUIRED BY OWNER-VENDOR SCOPE COORDINATE WITH OWNER-VENDOR INCLUDE SCAN OR X-RAY AS NEEDED
DIVISION 04: MASONRY							
4.1 MASONRY AND STUCCO	•			•			
DIVISION 05: METALS							
5.1 STRUCTURAL STEEL	•			•			SCOPE OF WORK INCLUDES ROOF AND WALL PENETRATIONS
5.2 SIGN STEEL BEAM	•			•			SCOPE OF WORK TO INCLUDE INTERIOR AND EXTERIOR BEAMS
5.3 ROOF LADDER AND HATCH	•			•			
5.4 FRAMING	•			•			
5.5 REVEALS AND TRIMS	•			•			
5.6 UNISTRUT, THREADED ROD AND AIRCRAFT CABLE	•			•			
5.7 STEEL STAIRS AND RAILINGS	•			•			
DIVISION 06: WOOD, PLASTICS AND COMPOSITES							
6.1 STURCTURAL FRAMING	•			•			SCOPE OF WORK TO INCLUDE REINFORCEMENT IN ROOF PENETRATIONS
6.2 PATIO TRELLIS	•			•			
6.3 FINISH CARPENTRY	•			•			
6.3.1 WOOD TRIM, WAINSCOT, MILLWORKS WALLS	•			•			
6.3.2 RECLAIMED WOOD	•			•			
6.4 ARCHITECTURAL WOODWORK	•			•			
6.4.1 MILLWORK CASEWORK	•			•			
6.4.2 REQUIRED WALL AND CEILING BACKING	•			•			
6.5 WOOD PANELING	•			•			
DIVISION 07: THERMAL AND MOISTURE PROTECTION							
7.1 INSULATION	•			•			
7.2 ROOF PENETRATIONS	•			•			
7.3 PRE-FINISHED PARAPET COPING	•			•			
7.3 SEALANTS AND CAULKING	•			•			
7.4 EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)	•			•			
DIVISION 08: OPENINGS							
8.1 DOORS AND FRAMES	•			•			
8.2 METAL CEILING ACCESS PANELS	•			•			
8.3 STOREFRONT SYSTEMS AND CURTAIN WALL	•			•			
8.4 DOOR HARDWARE	•			•			
8.5 INTERIOR BUTT GLAZING AND METAL CHANNEL FRAME	•			•			
DIVISION 09: FINISHES							
9.1 GYPSUM WALLBOARD AND ACCESSORIES	•			•			
9.2 SUSPENDED GYPSUM BOARD CEILING AND FRAMING	•			•			
9.3 SUSPENDED T BAR LAYVIN CEILING	•			•			
9.4 WALL TILES	•			•			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 4 VENDOR SUBSTITUTION IS NOT PERMITTED
9.5 PRE-FINISHED CORRUGATED METAL PANELING AND FLAT STOCK	•			•			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 3 VENDOR SUBSTITUTION IS NOT PERMITTED
9.6 FLOORING							
9.6.1 TILE FLOORING	•			•			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 4 VENDOR SUBSTITUTION IS NOT PERMITTED
9.6.2 CONCRETE POLISHING AND SEALER	•			•			
9.6.3 THRESHOLDS	•			•			
9.6.4 REDUCERS	•			•			
9.6.5 PRE-FINISHED WALK-IN COOLER AND FREEZER	•	•		•	•		PROVIDED BY VENDOR NO. 27
9.7 INTERIOR PAINT	•			•			

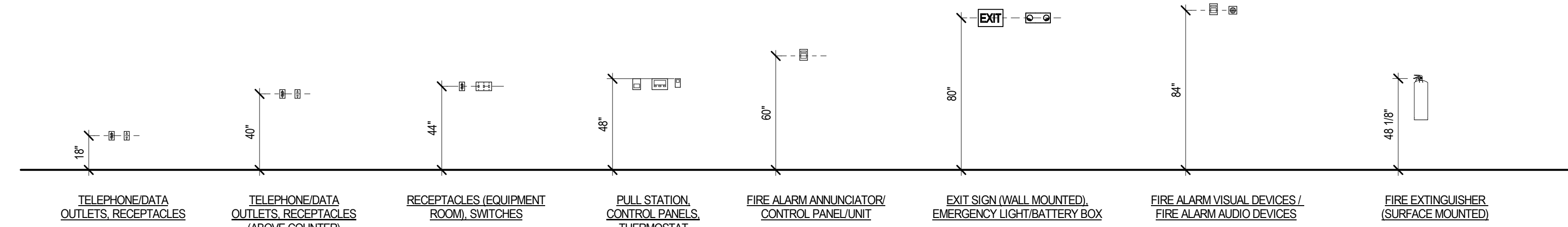
DESCRIPTION	FURNISHED			INSTALLED			REMARKS
	GENERAL CONTRACTOR	OWNER	LANDLORD	GENERAL CONTRACTOR	OWNER	LANDLORD	
DIVISION 10: SPECIALTIES							
10.1 IDENTIFICATION DEVICES							
10.1.1 EXTERIOR BUILDING MOUNTED SIGNAGE		•			•		GENERAL CONTRACTOR TO COORDINATE AND REVIEW SIGN PACKAGE WITH VENDOR NO. 35 FOR ADDITIONAL SCOPE OF WORK (E.G. PROVIDING POWER AND BLOCKING)
10.1.2 TACTILE SIGNAGE		•			•		SUPPLIED BY VENDOR NO. 35
10.1.3 SERVICE DOOR IDENTIFICATION		•			•		
10.1.4 ACCESSIBILITY AND MISCELLANEOUS RESTROOM SIGNAGE		•			•		
10.1.5 BAND LETTERS		•			•		
10.1.6 ARTWORK AND ARTIFACTS		•			•		GENERAL CONTRACTOR TO COORDINATE LOCATIONS WITH OTHER FOR ADDITIONAL SCOPE OF WORK (E.G. PROVIDING BLOCKING)
10.1.7 MENU BOARD, WINE RACK, AND MERCHANDISE DISPLAYS		•			•		GENERAL CONTRACTOR TO COORDINATE WITH VENDOR NO. 35 FOR ADDITIONAL SCOPE OF WORK (E.G. PROVIDING BLOCKING)
10.2 FIRE PROTECTION DEVICES							
10.2.1 FIRE EXTINGUISHERS AND CABINETS	•						
10.2.2 RISER ROOM IDENTIFICATION	•				•		GENERAL CONTRACTOR TO COORDINATE WITH THE FIRE DEPARTMENT
10.3 TOILET ROOMS							
10.3.1 TOILET ROOM ACCESSORIES	•						SUPPLIED BY VENDOR NO. 21
10.3.2 TOILET ROOM HARDWARE	•						
10.3.3 HAND DRYERS	•				•		SUPPLIED BY VENDOR NO. 21
10.4 KITCHEN DISPLAY SYSTEM (KDS) MOUNTS		•			•		SUPPLIED AND INSTALLED BY VENDOR NO. 27
10.5 GLOVE BOXES		•			•		
10.6 OFFICE SAFE	•						GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 5 AND TO INCLUDE BOLT-DOWN SERVICES VENDOR SUBSTITUTION IS NOT PERMITTED REFER TO ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION
10.7 FIBERGLASS REINFORCED PANELS (FRP) AND ACCESSORIES	•				•		
10.8 STAINLESS STEEL KITCHEN WALL PANELS	•				•		SUPPLIED AND INSTALLED BY VENDOR NO. 27
10.9 STAINLESS STEEL KITCHEN CORNER GUARDS AND END CAPS	•				•		GENERAL CONTRACTOR TO PROVIDE SUBSTRATE STAINLESS SUPPLIED AND INSTALLED BY VENDOR NO. 27
DIVISION 11: EQUIPMENT							
11.1 FOOD SERVICE EQUIPMENT		•			•		SUPPLIED AND INSTALLED BY VENDOR NO. 27
11.2 STAINLESS STEEL FABRICATED COUNTERS AND SHELVING		•			•		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE FINAL UTILITY CONNECTIONS
11.3 CONDIMENT COUNTER		•			•		SUPPLIED AND INSTALLED BY VENDOR NO. 27
11.4 STORAGE RACKS AND SHELVING		•			•		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE FINAL UTILITY CONNECTIONS
11.5 SODA SYSTEM							
11.5.1 SYSTEM COMPONENTS		•			•		GENERAL CONTRACTOR TO COORDINATE WITH VENDOR NO. 27 FOR ADDITIONAL SCOPE OF WORK (E.G. PROVIDING BLOCKING)
11.5.2 CONDUIT	•				•		SUPPLIED AND INSTALLED BY VENDOR NO. 28
11.6 CARBON DIOXIDE (CO2) SYSTEM		•			•		GENERAL CONTRACTOR TO COORDINATE WITH VENDOR NO.28
11.6.1 CO2 TANKS	•				•		SUPPLIED AND INSTALLED BY VENDOR NO. 25
11.6.2 CO2 LINES	•				•		
11.6.3 CONDUIT	•				•		
11.6.4 EXTERIOR FILL BOX	•				•		
11.7 OIL RECOVERY SYSTEM							
11.7.1 OIL TANKS	•				•		SUPPLIED AND INSTALLED BY VENDOR NO. 29
11.7.2 OIL LINES	•				•		
11.7.3 CONDUIT	•				•		GENERAL CONTRACTOR TO COORDINATE WITH VENDOR NO.29
11.7.4 EXTERIOR FILL BOX	•				•		
DIVISION 12: FURNISHINGS							
12.1 FIXED SEATING (BOOTHS, BENCHES, ETC.)		•			•		SUPPLIED BY VENDORS NO. 36, 37, AND 38
12.2 TABLE TOP BASES		•			•		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE DELIVERY COORDINATION AND STAGING OF MATERIALS, TABLE ASSEMBLY, BOTH AND HIGHT-TOP ANCHORING, AND INSTALLATION OF HOOKS AND BRACKETS
12.3 CHAIRS AND STOOLS		•			•		
12.4 OFFICE MILLWORK		•			•		SUPPLIED BY VENDOR NO. 36
12.5 WINDOW SHADES		•			•		SUPPLIED BY VENDOR NO. 37
12.6 OFFICE AND BACK OF HOUSE MISCELLANEOUS SUPPLIES		•			•		GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 14 VENDOR SUBSTITUTION IS NOT PERMITTED
12.7 KIOSK TABLE		•			•		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RECEIPT AND INSTALLATION OF MATERIALS
12.8 KIOSK PADS		•			•		
12.9 INTERIOR TRASH RECEPTACLES		•			•		SUPPLIED AND INSTALLED BY VENDOR NO. 27
12.10 SITE FURNISHINGS							
-12.10.1 UMBREALLAS AND BASES		•			•		SUPPLIED BY VENDOR NO. 39
12.10.2 PATIO CEILING FANS		•			•		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RECEIPT, ASSEMBLY, AND INSTALLATION OF MATERIALS
-12.10.3 MOBILE PLANTER BOXES		•			•		GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 1
12.10.4 FIXED PLANTER BOXES AND LINERS		•			•		VENDOR SUBSTITUTION IS NOT PERMITTED
12.10.5 PATIO RAILING AND GATES		•			•		SUPPLIED BY VENDOR NO. 37
12.10.6 EXTERIOR TRASH RECEPTACLES		•			•		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RECEIPT, ASSEMBLY, AND INSTALLATION OF MATERIALS
12.11 WALK-OFF MATTS		•			•		
12.12 EMPLOYEE LOCKERS		•			•		
DIVISION 13: SPECIAL CONSTRUCTION							
13.1 WALK-IN FREEZER AND COOLER		•			•		GENERAL CONTRACTOR TO COORDINATE INSTALLATION DETAILS WITH VENDOR NO. 27
13.2 REFRIGERATED TRASH ENCLOSURE		•			•		GENERAL CONTRACTOR TO COORDINATE INSTALLATION DETAILS WITH VENDOR NO. 27
DIVISION 32: EXTERIOR IMPROVEMENTS							
32.1 IRRIGATION SYSTEM	•				•		GENERAL CONTRACTOR TO COORDINATE WITH LANDLORD FOR POINT OF CONNECTION
32.2 PARKING LOT PATCH SEAL AND STRIP		•	•			•	
32.3 RAMPS	•				•		SCOPE OF WORK IS LIMITED TO THE CONSTRUCTION LINE REFER TO CIVIL PLANS FOR ADDITIONAL INFORMATION
32.4 PAVING AND HARDSCAPE	•				•		SCOPE OF WORK IS LIMITED TO THE CONSTRUCTION LINE REFER TO CIVIL PLANS FOR ADDITIONAL INFORMATION
32.5 CONCRETE CURBS	•				•		SCOPE OF WORK IS LIMITED TO THE CONSTRUCTION LINE REFER TO CIVILE PLANS FOR ADDITIONAL INFORMATION
32.6 TRASH ENCLOSURE		•			•	•	SCOPE OF WORK IS LIMITED TO THE CONSTRUCTION LINE REFER TO CIVILPLANS FOR ADDITIONAL INFORMATION PROVIDE LANDSCAPE MAINTENANCE CONTRACT PROPOSAL TO OWNER FOR REVIEW AND APPROVAL
32.7 LANDSCAPE PLANT MATERIAL							

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NOT USED	MATERIALS	SYMBOLS	ABBREVIATIONS
	<div><div></div>CONCRETE</div> <div><div></div>GROUT</div> <div><div></div>FINISH LUMBER</div> <div><div></div>TILE</div> <div><div></div>STEEL & OTHER METALS</div> <div><div></div>WOOD BLOCKING, SHIM</div> <div><div></div>PLYWOOD, PL FACE</div> <div><div></div>SOLID SURFACE</div> <div><div></div>GROUND FILL</div> <div><div></div>CRUSHED STONE</div> <div><div></div>INSULATION, LOOSE</div> <div><div></div>INSULATION, RIGID</div> <div><div></div>SEALANT, BACKER</div> <div><div></div>GYP. BD.</div>	<div><div></div>ROOM NAME</div> <div><div></div>ROOM NUMBER</div> <div><div></div>KEYNOTE</div> <div><div></div>DOOR NUMBER</div> <div><div></div>CEILING HEIGHT</div> <div><div></div>CEILING TYPE AND FINISH</div> <div><div></div>LEVEL HEIGHT</div> <div><div></div>REVISION</div> <div><div></div>CENTERLINE</div> <div><div></div>FINISH TAG</div> <div><div></div>EXTERIOR WALL SYSTEM TAG</div> <div><div></div>REFERENCE SHEET</div> <div><div></div>FIXTURE TAG</div> <div><div></div>POINT OF BEGINNING</div> <div><div></div>SECTION</div> <div><div></div>DETAIL CALLOUT</div> <div><div></div>ELEVATION</div> <div><div></div>PLAN DETAIL</div> <div><div></div>COLUMN GRID</div> <div><div></div>ALIGN</div> <div><div></div>3D VIEW DIRECTION</div> <div><div></div>DIRECTION OF WOOD GRAIN</div>	<div><div>@</div>DETAIL</div> <div><div>ABV</div>ABOVE</div> <div><div>ABT</div>ABOVE FINISHED FLOOR</div> <div><div>AP</div>ACCESS PANEL</div> <div><div>ACT</div>ACOUSTICAL CEILING TILE</div> <div><div>ADA</div>AMERICANS W/ DISABILITIES ACT</div> <div><div>ADJ</div>ADJACENT</div> <div><div>ADJT</div>ADJUSTABLE</div> <div><div>AGG</div>AGGREGATE</div> <div><div>A/C</div>AIR CONDITIONING</div> <div><div>ALT</div>ALTERNATE</div> <div><div>AL</div>ALUMINUM</div> <div><div>ANC</div>ANCHOR, ANCHORAGE</div> <div><div>AB</div>ANCHOR BOLT</div> <div><div>AND</div>AND/ODD</div> <div><div>ARCH</div>ARCHITECT, ARCHITECTURAL</div> <div><div>AD</div>AREA DRAIN</div> <div><div>ASPH</div>ASPHALT</div> <div><div>AT</div>ASPHALT TILE</div> <div><div>BL</div>BASE LINE</div> <div><div>BM</div>BEAM</div> <div><div>BRG</div>BEARING</div> <div><div>SPL</div>BEARING PLATE</div> <div><div>BEL</div>BELOW</div> <div><div>BM</div>BENCH MARK</div> <div><div>BLK</div>BLOCK</div> <div><div>BLKG</div>BLOCKING</div> <div><div>BD</div>BOARD</div> <div><div>BS</div>BOTH SIDES</div> <div><div>BO</div>BOTTOM OF</div> <div><div>BRKT</div>BRACKET</div> <div><div>BRS</div>BRASS</div> <div><div>BRK</div>BRICK</div> <div><div>BRZ</div>BRONZE</div> <div><div>BLDG</div>BUILDING</div> <div><div>BLR</div>BUILT UP ROOFING</div> <div><div>OPT</div>CARPET</div> <div><div>CSMT</div>CASEMENT</div> <div><div>CLG</div>CEILING</div> <div><div>CLG HT</div>CEILING HEIGHT</div> <div><div>CEMT</div>CEMENT</div> <div><div>CL</div>CENTER LINE</div> <div><div>CLR</div>CLEAR, CLEARANCE</div> <div><div>COL</div>COLUMN</div> <div><div>CONC</div>CONCRETE</div> <div><div>CMU</div>CONCRETE MASONRY UNIT</div> <div><div>CONN</div>CONNECTION</div> <div><div>CONST</div>CONSTRUCTION</div> <div><div>CONT</div>CONTINUE, CONTINUOUS</div> <div><div>CONTR</div>CONTRACTOR</div> <div><div>CG</div>CORNER GUARD</div> <div><div>CORR</div>CORRUGATED</div> <div><div>CTR</div>COUNTER</div> <div><div>DTL</div>DETAIL</div> <div><div>DIAG</div>DIAGONAL</div> <div><div>DIA</div>DIAMETER</div> <div><div>DIM</div>DIMENSION</div> <div><div>DIV</div>DIVISION</div> <div><div>DR</div>DOOR</div> <div><div>DN</div>DOWN</div> <div><div>DWG</div>DRAWING</div> <div><div>EA</div>ELECTRICAL</div> <div><div>EL</div>ELEVATION</div> <div><div>ELEV</div>ELEVATOR</div> <div><div>EMER</div>EMERGENCY</div> <div><div>EQ</div>EQUAL</div> <div><div>EQUIP</div>EQUIPMENT</div> <div><div>ETR</div>EXISTING TO REMAIN</div> <div><div>ENC</div>ELECTRIC WATER COOLER</div> <div><div>EXH</div>EXHAUST</div> <div><div>EXT</div>EXTERIOR</div> <div><div>FA</div>FIRE ALARM</div> <div><div>FD</div>FLOOR DRAIN</div> <div><div>FE</div>FIRE EXTINGUISHER</div> <div><div>FEC</div>FIRE EXTINGUISHER CABINET</div> <div><div>FF</div>FINISH FACE</div> <div><div>FF EL</div>FINISH FLOOR ELEVATION</div> <div><div>FIN</div>FINISH</div> <div><div>FIXT</div>FIXTURE</div> <div><div>FLR</div>FLOOR</div> <div><div>FLUOR</div>FLUORESCENT</div> <div><div>FOC</div>FACE OF CONCRETE</div> <div><div>FOF</div>FACE OF FINISH</div> <div><div>FOS</div>FACE OF STUD</div> <div><div>FRT</div>FIRE RETARDANT TREATED</div> <div><div>FT</div>FOOT (FEET)</div> <div><div>FTG</div>FOOTING</div> <div><div>GA</div>GAGE, GAUGE</div> <div><div>GALV</div>GALVANIZED</div> <div><div>GC</div>GENERAL CONTRACTOR</div> <div><div>GL</div>GLASS, GLAZING</div> <div><div>GCMU</div>GLAZED CONCRETE MASONRY</div> <div><div>GLAM</div>GLUED LAMINATE</div> <div><div>GQ</div>GRADE, GRADING</div> <div><div>GWB</div>GYP/SUM WALL BOARD</div> <div><div>GYP</div>GYP/SUM</div> <div><div>HC</div>HOLLOW CORE</div> <div><div>HCWD</div>HOLLOW CORE WOOD DOOR</div> <div><div>HDWD</div>HARDWOOD</div> <div><div>HDWR</div>HARDWARE</div> <div><div>HM</div>HOLLOW METAL</div> <div><div>HMF</div>HOLLOW METAL FRAME</div> <div><div>HORIZ</div>HORIZONTAL</div> <div><div>H.P.</div>HIGH POINT</div> <div><div>HT</div>HEIGHT</div> <div><div>HVAC</div>HEATING, VENTILATION & COOLING</div> <div><div>HW</div>HOT WATER</div> <div><div>IN</div>INCH</div> <div><div>INCL</div>INCLUDE, (ED), (ING)</div> <div><div>ID</div>INSIDE DIAMETER</div> <div><div>INSUL</div>INSULATION</div> <div><div>INT</div>INTERIOR</div> <div><div>JC</div>JANITORY CLOSET</div> <div><div>JT</div>JOINT</div> <div><div>JF</div>JOINT FILLER</div> <div><div>KEC</div>KITCHEN EQUIPMENT CONTRACTOR</div> <div><div>KPL</div>KICK PLATE</div> <div><div>KIT</div>KITCHEN</div> <div><div>L</div>LONG (LENGTH)</div> <div><div>LIT</div>LIGHT TRACK</div> <div><div>LAM</div>LAMINATE</div> <div><div>LAV</div>LAVATORY</div> <div><div>LBS</div>POUNDS</div> <div><div>LF</div>LINEAR FOOT</div> <div><div>LGL</div>LAMINATED GLASS</div> <div><div>LH</div>LEFT-HANDED</div> <div><div>LAND</div>LANDSCAPE</div> <div><div>L.O.D.</div>LEASE OUTLINE DRAWING</div> <div><div>L.P.</div>LOW POINT</div> <div><div>LT</div>LIGHT</div> <div><div>LTL</div>UNTEL</div> <div><div>MAT</div>MATERIAL</div> <div><div>MAX</div>MAXIMUM</div> <div><div>MBR</div>MEMBER</div> <div><div>MOD</div>MEDIUM DENSITY OVERLAY</div> <div><div>MECH</div>MECHANICAL</div> <div><div>MFR</div>MANUFACTURER</div> <div><div>MIN</div>MINIMUM</div> <div><div>MISC</div>MISCELLANEOUS</div> <div><div>MOD</div>MODIFIED</div> <div><div>MTD</div>MOUNTED</div> <div><div>MTL</div>METAL</div> <div><div>NAT</div>NATURAL</div> <div><div>NIC</div>NOT IN CONTRACT</div> <div><div>NO</div>NUMBER</div> <div><div>NCM</div>NOMINAL</div> <div><div>NR</div>NOISE REDUCTION</div> <div><div>NTS</div>NOT TO SCALE</div> <div><div>OA</div>OVERALL</div> <div><div>OC</div>ON CENTER</div> <div><div>OD</div>OUTSIDE DIAMETER</div> <div><div>OPP</div>OPPOSITE</div> <div><div>ORD</div>OVERFLOW ROOF DRAIN</div> <div><div>P</div>PAINT</div> <div><div>PBD</div>PARTICLE BOARD</div> <div><div>PERF</div>PERFORATED</div> <div><div>PLAM</div>PLASTIC LAMINATE</div> <div><div>PLBG</div>PLUMBING</div> <div><div>PLT</div>PLATE</div> <div><div>PLYWD</div>PLYWOOD</div> <div><div>POS</div>POINT OF SALE</div> <div><div>PPL</div>PEOPLE</div> <div><div>PR</div>PAIR</div> <div><div>PTD</div>PAINTED</div> <div><div>P.T.</div>PRESSURE TREATED</div> <div><div>PTN</div>PARTITION</div> <div><div>PVC</div>POLYVINYL CHLORIDE</div> <div><div>R</div>RISER</div> <div><div>RAD</div>RADIUS</div> <div><div>RD</div>ROOF DRAIN</div> <div><div>REC</div>RECESS</div> <div><div>REQD</div>REQUIRED</div> <div><div>REF</div>REFERENCE</div> <div><div>RESIL</div>RESILIENT</div> <div><div>REV</div>REVISION</div> <div><div>RH</div>RIGHT HAND</div> <div><div>RM</div>ROOM</div> <div><div>RO</div>ROUGH OPENING</div> <div><div>SC</div>SOLID CORE</div> <div><div>SCHED</div>SCHEDULE</div> <div><div>SCRN</div>SCREEN</div> <div><div>SD</div>SMOKE DETECTOR</div> <div><div>SECT</div>SECTION</div> <div><div>SF</div>SQUARE FOOT (FEET)</div> <div><div>SHT</div>SHEET</div> <div><div>SIM</div>SIMILAR</div> <div><div>STR</div>STRUCTURAL INSULATED PANEL</div> <div><div>SND INS</div>SOUND INSULATION</div> <div><div>SPEC</div>SPECIFICATION</div> <div><div>SPK</div>SPEAKER</div> <div><div>SPL</div>SPECIAL</div> <div><div>SQ</div>SQUARE</div> <div><div>SS</div>STAINLESS STEEL/OUT</div> <div><div>STD</div>STANDARD</div> <div><div>STG</div>SEATING</div> <div><div>STL</div>STEEL</div> <div><div>STN</div>STAIN</div> <div><div>STO</div>STONE TILE</div> <div><div>SYM</div>SYMMETRY, (ICAL)</div> <div><div>SYS</div>SYSTEM</div> <div><div>SUSP</div>SUSPENDED</div> <div><div>T</div>TREAD</div> <div><div>T&G</div>TONGUE & GROOVE</div> <div><div>THK</div>THICKNESS</div> <div><div>THR</div>THRESHOLD</div> <div><div>TO</div>TOP OF</div> <div><div>TOB</div>TOP OF BEAM</div> <div><div>TOC</div>TOP OF CONCRETE</div> <div><div>TOU</div>TOP OF JOIST</div> <div><div>TOM</div>TOP OF MASONRY</div> <div><div>TOS</div>TOP OF SLAB</div> <div><div>TOS</div>TOP OF STEEL</div> <div><div>TOW</div>TOP OF WALL</div> <div><div>TRPS</div>TORPING</div> <div><div>TYP</div>TYPICAL</div> <div><div>UC</div>UNDERCUT</div> <div><div>UNF</div>UNFINISHED</div> <div><div>UNO</div>UNLESS NOTED OTHERWISE</div> <div><div>UTL</div>UTILITY</div> <div><div>VCT</div>VINYL COMPOSITE TILE</div> <div><div>VERT</div>VERTICAL</div> <div><div>VIF</div>VERIFY IN FIELD</div> <div><div>VG</div>VERTICAL GRAIN</div> <div><div>VF</div>VINYL FABRIC</div> <div><div>VT</div>VINYL TILE</div> <div><div>W</div>WITH</div> <div><div>W/O</div>WITHOUT</div> <div><div>WA</div>WALL ANCHOR</div> <div><div>WC</div>WATER CLOSET</div> <div><div>WD</div>WOOD</div> <div><div>WF</div>WIDE FLANGE</div> <div><div>W/FAB</div>WALL FABRIC</div> <div><div>WH</div>WATER HEATER</div> <div><div>WIN</div>WINDOW</div> <div><div>WP</div>WORKING POINT</div> <div><div>WMF</div>WELDED WIRE FABRIC</div>

TYPICAL MOUNTING HEIGHTS

ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL, U.N.O.
ALSO REFER TO E-SHEETS FOR TYPICAL MOUNTING HEIGHTS
DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE, WHEREVER POSSIBLE



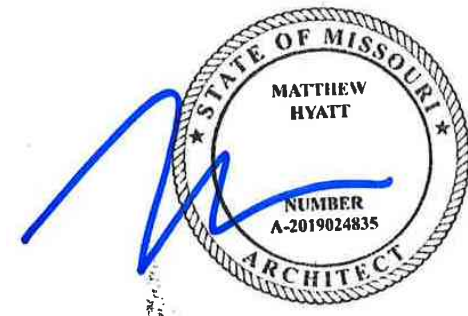
NOT USED

Bergmeyer

LA
800 South Figueroa St.
Brea, CA 92607
617.542.1080

CONSULTANTS:

SEAU/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

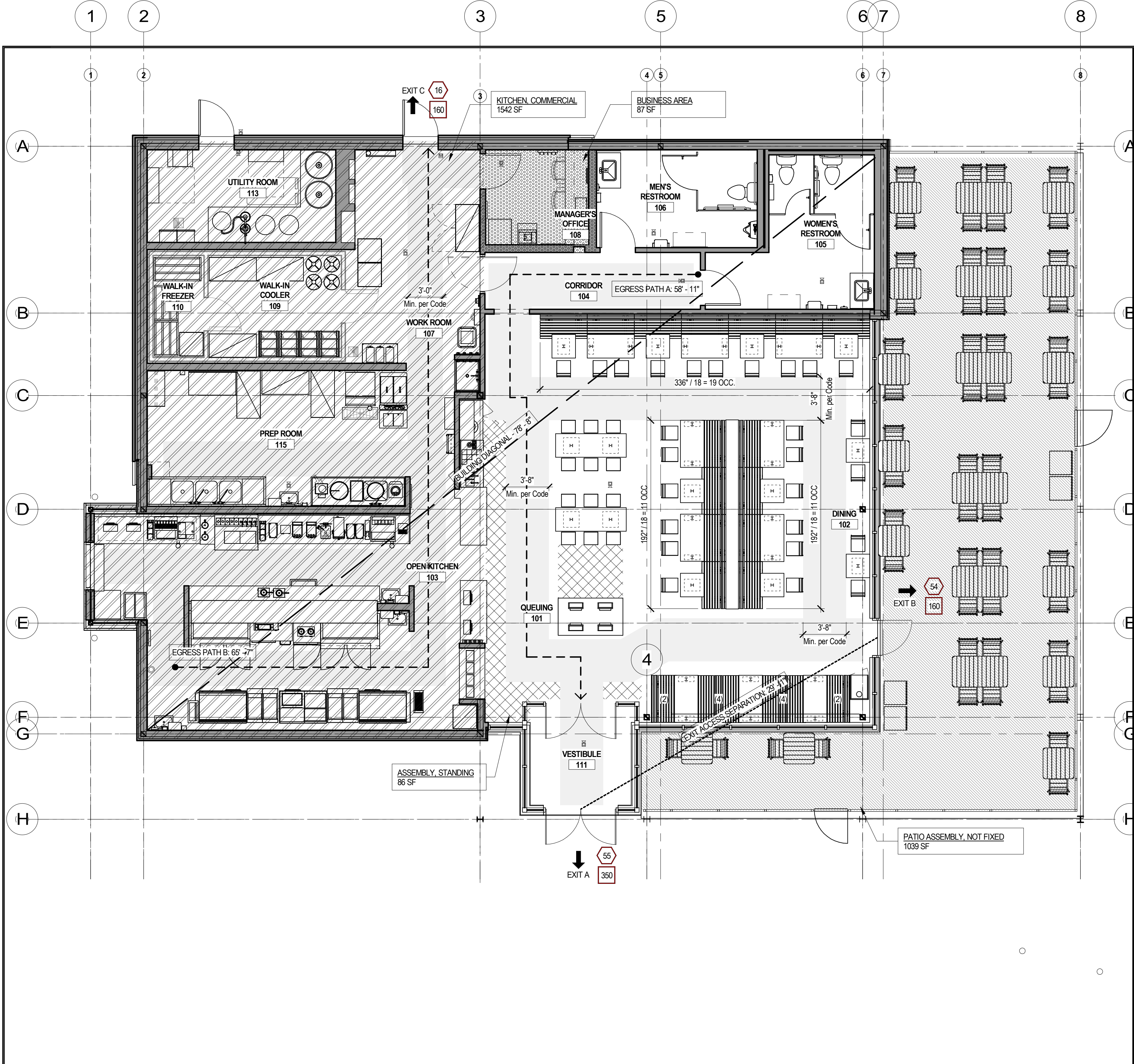
ISSUED FOR
CONSTRUCTION

SYMBOLS, GENERAL
NOTES & ABBREVIATIONS

DRAWN BY:	CS & WOL
CHECKED BY:	JS
JOB NO:	20088.00

T003

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EMERGENCY EGRESS & OCCUPANCY PLAN

BUILDING CODES		CODE ANALYSIS					
STATE BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE WITH ORDINANCE 8536		GENERAL					
FIRE / LIFE SAFETY CODE: 2018 INTERNATIONAL FIRE CODE WITH ORDINANCE 8537		DESCRIPTION		CODE REF.	REQUIREMENT	PROPOSED	
ACCESSIBILITY CODE: ICC/ANSI A117.1-2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES		CONSTRUCTION TYPE		TABLE 601	-	I-B	
PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE		USE GROUP		303.3	A-2	A-2	
FUEL GAS CODE: 2018 INTERNATIONAL FUEL GAS CODE		SPRINKLERED		903.2.1.2	NOT REQUIRED IF FIRE AREA IS LESS THAN 5,000 SF	YES	
MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE		DESIGN OCCUPANCY LOAD					
ENERGY CODE: ASHRAE 90.1 2016		DESCRIPTION		CODE REF.	AREA	FACTOR (SQ FT / person)	TOTAL OCCUPANTS
ELECTRICAL CODE: 2017 NATIONAL ELECTRIC CODE		ASSEMBLY, STANDING		TABLE 1004.1.2	66 SF	5 NET	18 OCCUPANTS
		ASSEMBLY, SEATING - FIXED		1004.6	-	1 PER 24" OF BOOTH SEAT LENGTH, 1 PER 18" BENCH LENGTH	53 FIXED SEATS
		ASSEMBLY, SEATING - NOT FIXED		TABLE 1004.5	-	15 NET	38 LOOSE SEATS
		KITCHENS, COMMERCIAL		NFPA 101 TABLE 7.3.1.2	1542 SF	200 GROSS	8 (ACTUAL: 15 EMPLOYEES)
		BUSINESS AREA		TABLE 1004.1.2	87 SF	150 GROSS	1 OCCUPANT
		PATIO SEATING - FIXED		1004.4	-	1 PER 24" OF BOOTH SEAT LENGTH, 1 PER 18" BENCH LENGTH	-
		PATIO SEATING - NOT FIXED		TABLE 1004.5	1039 SF	15 NET	50 LOOSE SEATS (ACTUAL: 70 OCCUPANTS)
		TOTAL OCCUPANCY COUNTS		ACCESSIBLE SEATING REQUIREMENT: (IBC 2018 - 1108.2.9.1) INTERIOR: 90 SEATS @ 5% ACCESSIBLE = 5 ACCESSIBLE SEATS EXTERIOR: 90 SEATS @ 5% ACCESSIBLE = 5 ACCESSIBLE SEATS			125 OCCUPANTS 70 OCCUPANTS TOTAL DESIGN OCCUPANT LOAD: 155 OCCUPANTS 300 OCCUPANTS (SEE PLUMBING FACILITIES BELOW)
				INTERIOR OCCUPANT LOAD: EXTERIOR OCCUPANT LOAD TOTAL DESIGN OCCUPANT LOAD PLUMBING FIXTURE COUNT DESIGNED FOR:			
BUILDING DEPARTMENT		EGRESS					
BUILDING DEPARTMENT ADDRESS:		DESCRIPTION		CODE REF.	REQUIREMENT	PROPOSED	
220 SE GREEN LEE'S SUMMIT, MO 64063		REQUIRED NUMBER OF EXITS		TABLE 1006.2.1	2 EXITS SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD EXCEEDS 49	3 EXITS	
T: 816.969.1220		MAXIMUM TRAVEL DISTANCE		TABLE 1017.2	SPRINKLERED: 250'	65' - 7"	
HOURS OF OPERATION: MONDAY-FRIDAY: 8:00AM - 5:00PM (EXCEPT HOLIDAYS)		EXIT ACCESS DOORWAY ARRANGEMENT		1007.1.1	78" - 8" MAX OVERALL DIM / 3 = 26'-4" MIN SEPARATION	29' - 1"	
		MINIMUM AISLE WIDTH		1029.9.1	42" AISLES HAVING SEATS ON BOTH SIDES; 36" WHEN AISLE SERVES LESS THAN 50 SEATS	36" MIN	
		CORRIDOR WIDTH		TABLE 1020.2	44" MIN	44" MIN	
		DOOR WIDTH		1010.1.1	32" MIN CLR OPENING (OR 36" DOOR)	32" MIN CLR OPENING (36" DOOR)	
		FINISHES					
		DESCRIPTION		CODE REF.	REQUIREMENT	PROPOSED	
		INTERIOR WALL & CEILING FINISH CLASSIFICATION		TABLE 803.11	ROOMS AND ENCLOSED SPACES (SPRINKLERED); CLASS C	CLASS C	
		FIRE RESISTIVE SEPARATIONS					
		DESCRIPTION		CODE REF.	REQUIREMENT	PROPOSED	
		BUILDING ELEMENTS		TABLE 601 / 602	PRIMARY STRUCTURAL FRAME BEARING WALLS - EXTERIOR: 0 HR BEARING WALLS - INTERIOR: 0 HR NON BEARING WALLS & PARTITIONS - EXTERIOR: 5' x < 10': 0 HR X ≥ 30': 0 HR NON BEARING WALLS & PARTITIONS - INTERIOR: FLOOR CONSTRUCTION: 0 HR ROOF CONSTRUCTION: 0 HR	PRIMARY STRUCTURAL FRAME BEARING WALLS - EXTERIOR: 0 HR BEARING WALLS - INTERIOR: 0 HR NON BEARING WALLS & PARTITIONS - EXTERIOR: 5' x < 10': 0 HR X ≥ 30': 0 HR NON BEARING WALLS & PARTITIONS - INTERIOR: FLOOR CONSTRUCTION: 0 HR ROOF CONSTRUCTION: 0 HR	
		RECD SEPARATION OF OCCUPANCIES (HOURS)		TABLE 508.4	1 HR BETWEEN ASSEMBLY AND BUSINESS OR MERCANTILE IF SPRINKLERED	N/A	
		PLUMBING FACILITIES					
		DESCRIPTION		CODE REF.	REQUIREMENT	PROPOSED	
		WATER CLOSETS		TABLE 2902.1	MALE: 1 PER 75; FEMALE: 1 PER 75	1 MALE; 1 URINAL; 2 FEMALE	
		LAVATORIES		TABLE 2902.1	1 PER 200	1 MALE; 1 FEMALE	
		OTHER		TABLE 2902.1	1 SERVICE SINK	1 SERVICE SINK	
		DRINKING FOUNTAINS		IPC 2018 410.4	WHERE WATER IS SERVED IN RESTAURANTS, DRINKING FOUNTAINS SHALL NOT BE REQUIRED	0 (WATER IS SERVED IN RESTAURANT)	
SUMMARY OF BUILDING / SEATS							
NEW CONSTRUCTION 1 STORY BUILDING							
HEIGHT: 16' T.O. ROOF, 20'-2" T.O. HIGHEST PARAPET							
AREA: 3,360 SF							
SEAT COUNT							
INTERIOR SEATS 125							
EXTERIOR SEATS 50							
TOTAL SEATS 175							
SQUARE FOOTAGE							
INTERIOR SF 3360 SF							
EXTERIOR SF 1039 SF							
TOTAL SF 4399 SF							
TRAVEL DISTANCE CALCULATIONS							
TRAVEL PATH		TRAVEL DISTANCE					
BUILDING DIAGONAL 78' - 8"							
EXIT ACCESS SEPARATION 29' - 1"							
PATH A 65' - 1"							
PATH B 65' - 7"							

ACCESSIBILITY & LIFE SAFETY ANALYSIS PLAN

ACCESSIBLE CLEARANCES																																			
<p>1. WHERE DINING SURFACES ARE PROVIDED, AT LEAST 5%, BUT NOT LESS THAN 1", SHALL BE ACCESSIBLE. 2. ADA SEATING MUST BE LOCATED ON AN ACCESSIBLE ROUTE. 3. TABLE TOP HT MUST BE BETWEEN 28" - 34" AFF. 4. KNEE CLEARANCE MUST BE AT LEAST 27" X 30" X 19"D</p>																																			
SYMBOL LEGEND																																			
<table><tr><th>SYMBOL</th><th>DESCRIPTION</th></tr><tr><td></td><td>NEW PARTITION (FULL HEIGHT)</td></tr><tr><td></td><td>NEW PARTITION (PARTIAL HEIGHT - SEE ELEV. FOR MORE INFO)</td></tr><tr><td></td><td>PREFAB WALLS BY KEC</td></tr><tr><td></td><td>NEW DOOR</td></tr><tr><td></td><td>FIRE EXTINGUISHER (SEE FIRE EXTINGUISHER SCHEDULE)</td></tr><tr><td></td><td>FIRE ALARM DEVICE, REFER TO FP</td></tr><tr><td></td><td>EXIT SIGN</td></tr><tr><td></td><td>PULL STATION</td></tr></table>	SYMBOL	DESCRIPTION		NEW PARTITION (FULL HEIGHT)		NEW PARTITION (PARTIAL HEIGHT - SEE ELEV. FOR MORE INFO)		PREFAB WALLS BY KEC		NEW DOOR		FIRE EXTINGUISHER (SEE FIRE EXTINGUISHER SCHEDULE)		FIRE ALARM DEVICE, REFER TO FP		EXIT SIGN		PULL STATION	<table><tr><th>SYMBOL</th><th>DESCRIPTION</th></tr><tr><td></td><td>CLEAR EGRESS PATH 3'-0" TYP. U.N.O.</td></tr><tr><td></td><td>OCCUPANCY LOAD HATCH ASSEMBLY (STANDING) 1 OCCUPANT PER 5 SF (NET)</td></tr><tr><td></td><td>OCCUPANCY LOAD HATCH KITCHEN COMMERCIAL 1 OCCUPANT PER 200 SF (GROSS)</td></tr><tr><td></td><td>OCCUPANCY LOAD HATCH BUSINESS AREA 1 OCCUPANT PER 150 SF (NET)</td></tr><tr><td></td><td>EMERGENCY EXIT</td></tr><tr><td></td><td>REQUIRED CAPACITY OF MEANS OF EGRESS BASED ON OCCUPANT LOAD</td></tr><tr><td></td><td>MAXIMUM CAPACITY OF MEANS OF EGRESS</td></tr></table>	SYMBOL	DESCRIPTION		CLEAR EGRESS PATH 3'-0" TYP. U.N.O.		OCCUPANCY LOAD HATCH ASSEMBLY (STANDING) 1 OCCUPANT PER 5 SF (NET)		OCCUPANCY LOAD HATCH KITCHEN COMMERCIAL 1 OCCUPANT PER 200 SF (GROSS)		OCCUPANCY LOAD HATCH BUSINESS AREA 1 OCCUPANT PER 150 SF (NET)		EMERGENCY EXIT		REQUIRED CAPACITY OF MEANS OF EGRESS BASED ON OCCUPANT LOAD		MAXIMUM CAPACITY OF MEANS OF EGRESS
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FIRE EXTINGUISHER SCHEDULE																																			
(VERIFY WITH LOCAL FIRE DEPARTMENT) (PER IBC 906 AND NFPA 1-13.5)																																			
SYMBOL	DESCRIPTION																																		
	TYPE 2A EXTINGUISHER (DRY CHEMICAL) 2A FOR CLASS A HAZARDS IN ORDINARY (MODERATE) HAZARD OCCUPANCY. (1) EXTINGUISHER PROVIDES 1,500 SF OF PROTECTION IN DINING AREAS - DISTANCE TO EXTINGUISHER NOT TO EXCEED 75'-0"																																		
	TYPE K EXTINGUISHER (DRY CHEMICAL) K PROVIDED FOR HAZARDS WHERE THERE IS A POTENTIAL FOR FIRES INVOLVING COMBUSTIBLE COOKING MEDIA - DISTANCE TO EXTINGUISHER NOT TO EXCEED 30'-0"																																		
KEYNOTES																																			
<ol style="list-style-type: none">RECESSED FIRE EXTINGUISHER CABINET.FIRE EXTINGUISHER LOCATED UNDER COUNTERSURFACE MOUNTED FIRE EXTINGUISHERACCESSIBLE ENTRANCE WITH LEVEL ENTRY																																			
EGRESS COMPONENT CALCULATIONS																																			
EXIT A: 70" CLEAR WIDTH 70' / 2' = 35 MAX OCC (2) DOORS W/ PANIC HARDWARE EXIT B: 32" CLEAR WIDTH 32' / 2' = 160 MAX OCC (1) DOOR W/ PANIC HARDWARE EXIT C: 32" CLEAR WIDTH 32' / 2' = 160 MAX OCC (1) DOOR W/ PANIC HARDWARE																																			
GENERAL NOTES																																			
<ol style="list-style-type: none">ALL EXIT DOORS SHALL BE OPERABLE FROM INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. SPECIAL LOCKING DEVICES SHALL BE OF AN APPROVED TYPE.DOOR MUST OPEN OVER A LANDING NOT MORE THAN 12" BELOW THRESHOLD & THE THRESHOLD SHALL BE BEVELED SUCH THAT THERE IS A 1/4" MAX DROP.GO TO VERIFY AND COORDINATE FIRE EXTINGUISHER TYPES, LOCATIONS & QUANTITIES WITH LOCAL FIRE PREVENTION OFFICIAL AND OWNER PRIOR TO INSTALLATION.																																			

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 64081 05/17/2021

Bergmeyer

CONSULTANTS:

SEA/ SIGNATURE:

51 Sleepers St. Suite 1000
Bellaire, MO 640210
617.542.1025

800 South Figueroa St.
Los Angeles, CA 90017
212.337.1080

3

2021-04-26

ISSUED FOR CONSTRUCTION

2021-01-11

PERMIT/BID SET

2020-12-21

75% SET

NO.

BY

DATE

DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

CODE ANALYSIS, OCCUPANCY & EGRESS

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 2008.00

T004

Bergmeyer

CONSULTANTS:
SM Engineering
5507 High Meadow Circle
Manhattan, Kansas, 66503
smcivleng@gmail.com
785.341.9747

SEAL/ SIGNATURE:

REVISIONS
3-9-21 ADDENDUM A

NO.	BY	DATE	DESCRIPTION
5		5-17-21	FIELD NOTICED #2
4		5-2-21	FIELD NOTICED #1
3		4-28-21	ISSUED FOR CONSTRUCTION
2		3-31-21	ADDENDUM #2
1		3-9-21	ADDENDUM #1
1		1-21	PERMIT/BID SET

SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

PERMIT SET

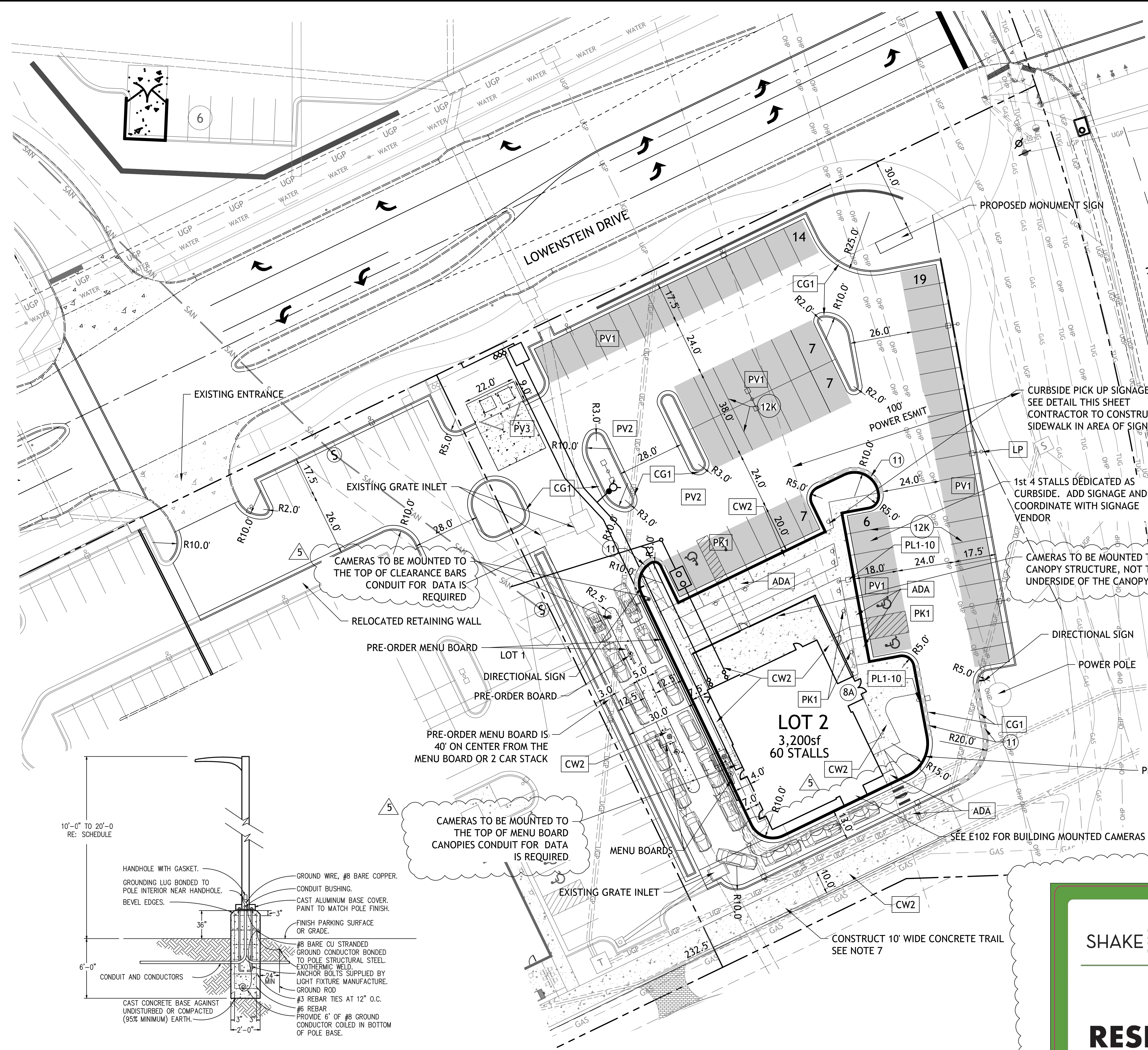
SITE PLAN

DRAWN BY: GO

CHECKED BY: SM

JOB NO: 20068.00

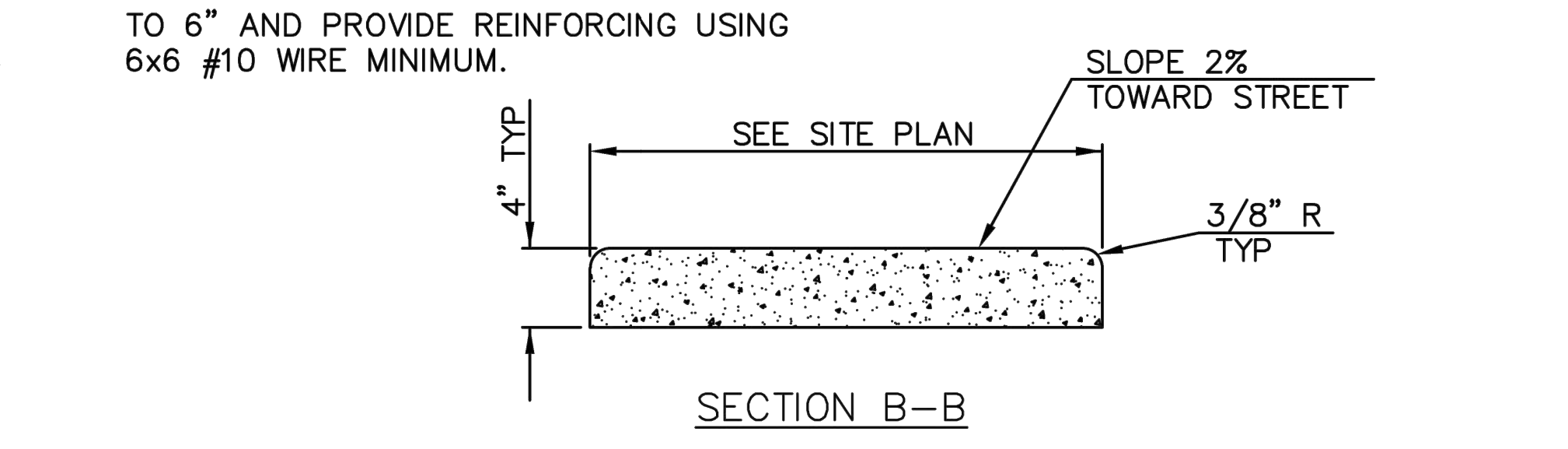
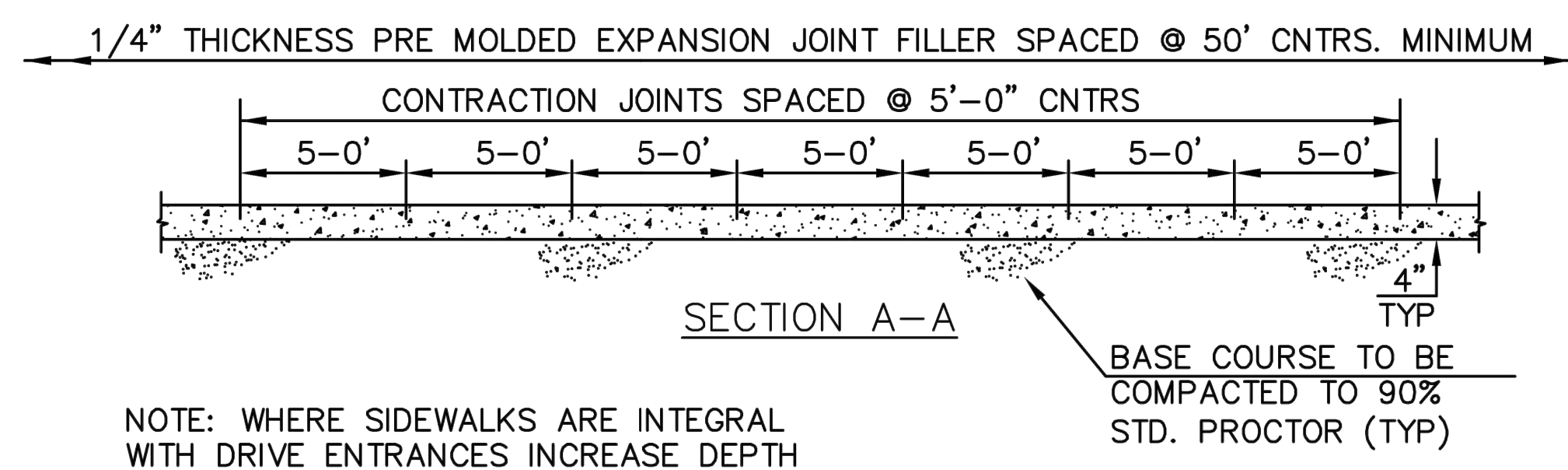
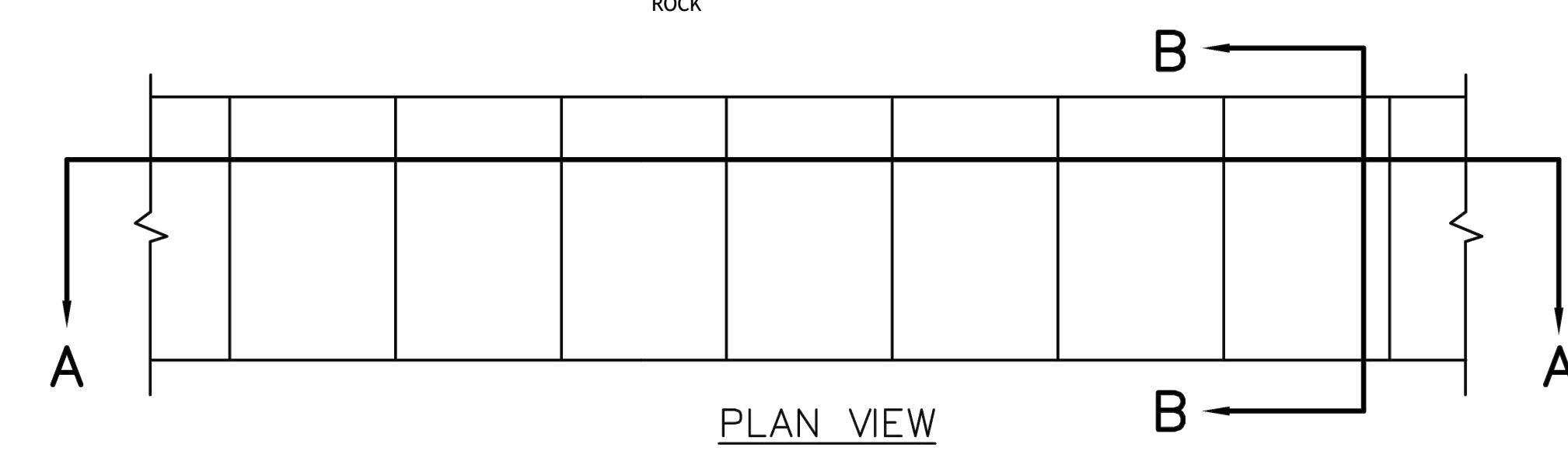
C-1



SITE DATA
TOTAL SITE 1.63ac (71,216sf)
TOTAL IMPERVIOUS AREA 34,469sf
OPEN SPACE 36,747sf (51.5%)
TOTAL BUILDING 3,200sf
FAR 0.044
TOTAL REQUIRED 3,200 @ 14/1000
PARKING PROVIDED 61*
* THE REQUIRED PARKING IS SUPPLEMENTED BY OVERALL SHARED PARKING PROVISIONS.

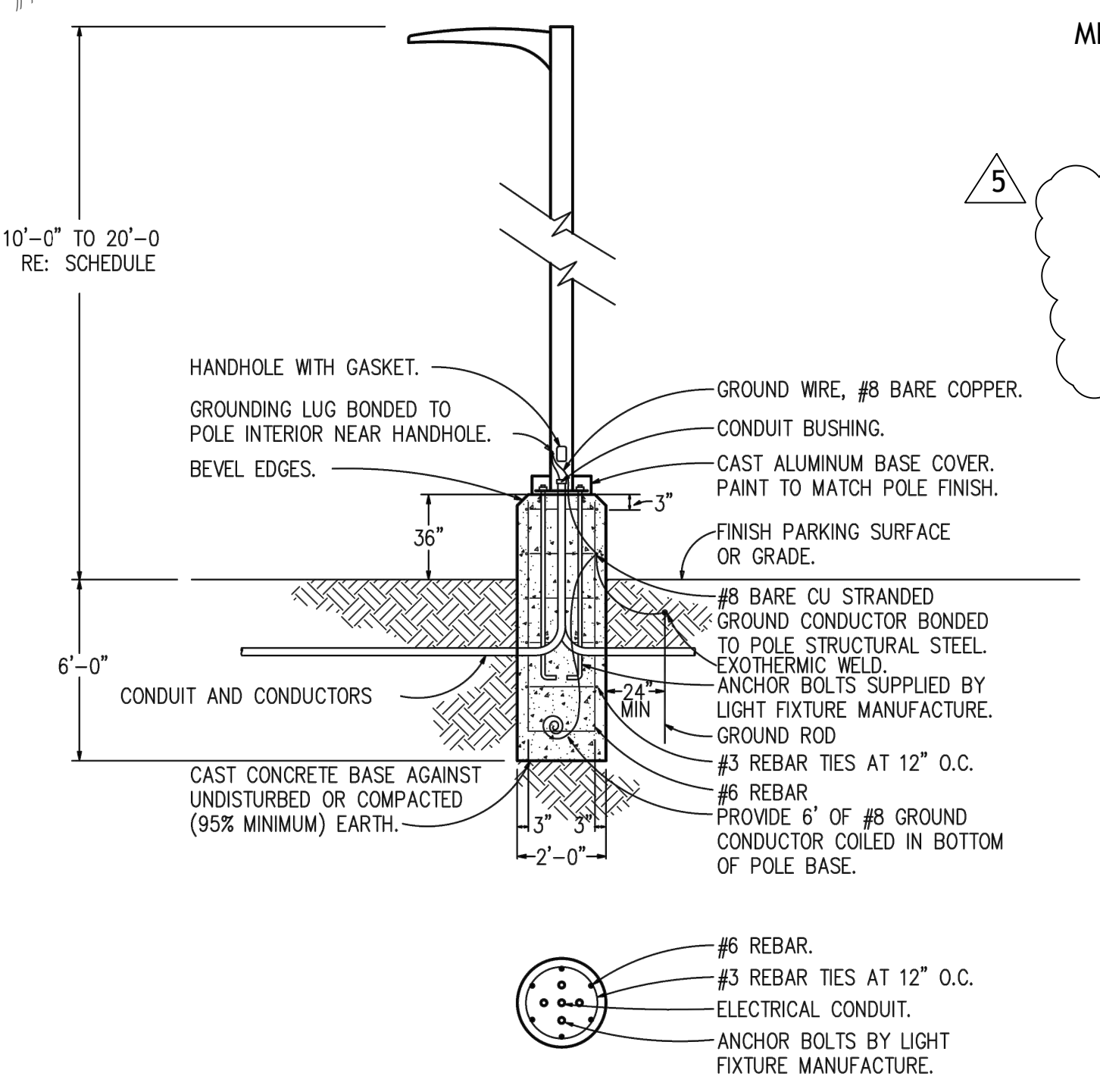
NOTE:
1. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES AND RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
2. THESE PLANS HAVE NOT BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEW AND COORDINATION OF ALL DRAWINGS AND CONTRACTOR DOCUMENTS.
3. ALL DIMENSIONS ARE PERPENDICULAR TO PROPERTY LINE.
4. ACTUAL SIGN LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER.

CONSTRUCTION NOTES:
1. COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH OWNER.
2. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED IN THESE PLANS ARE TO MEET OR EXCEED THE STANDARD SPECIFICATIONS.
3. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND IN ACCORDANCE WITH REGULATIONS OF THE AUTHORITIES CONCERNED.
4. PUBLIC CONVENIENCE AND SAFETY: THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC, AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS ALONG AND ADJACENT TO STREETS IN THE CONSTRUCTION AREA.
5. ALL DIMENSIONS SHOWN ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.
6. ACCESSIBLE STALLS SHOWN WITH A "YAN" SHALL BE 16'-0" MIN. AND SHALL HAVE A SIGN DESIGNATING "YAN-ACCESSIBLE". SEE DETAIL 102.
7. CONCRETE TRAIL TO BE 6" CONCRETE ON 6" TYPE 5 MODOT BASE ROCK



CONCRETE SIDEWALK

NOTE: CONCRETE SHALL BE CLASS A WITH $f'_c = 3000$ PSI.



1 LIGHT POLE BASE DETAIL

NO SCALE

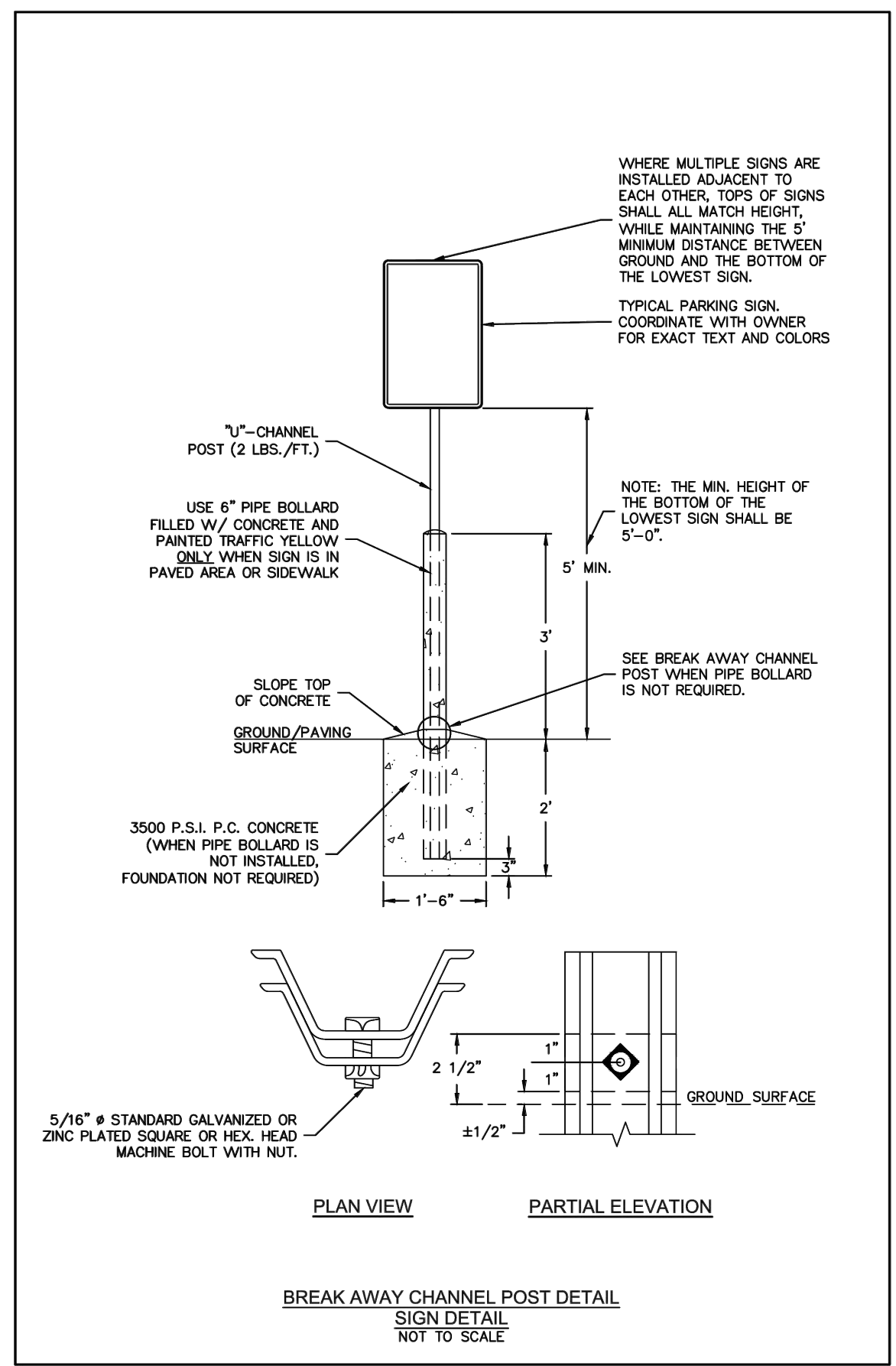
LEGEND
CONSTRUCTION BY OTHERS

LIGHTING FIXTURE SCHEDULE									
MASK	MANUFACTURER	FIXTURE DESCRIPTION	MODEL NUMBER	MOUNTING	COLOR	QTY	LAMP TYPE	CODE	DRIVE CURRENT (QUANTITY/TYP)
PL1	McGRAW-EDISON	DARK SKY COMPLIANT AREA LIGHT FIXTURE WITH DIRECT ARM MOUNT AT 90 DEGREES, 10FT ABOVE FINISHED GRADE, 8FT ALUMINUM POLE WITH VIBRATION DAMPER	FIXTURE: GLEON-AF-01-LED-ET-SL4-BZ POLE: SSAMBNW10V	POLE	4000K	1 PER POLE	LED		(1) 1000mA

**RESERVED
FOR
CURBSIDE
PICK-UP**

Tap "I'm Here!" in our
app to let us know.

SHACK TRACK



Bergmeyer

CONSULTANTS:
SM Engineering
5507 High Meadow Circle
Manhattan, Kansas, 66503
smcivleng@gmail.com
785.341.9747

SME

SEAL/ SIGNATURE:

801/11/21
5-14-21

REVISIONS
3-9-21 ADDENDUM A

5		5-17-21	FIELD NOTICED #2
4		5-3-21	FIELD NOTICED #1
3		4-28-21	ISSUED FOR CONSTRUCTION
2		3-31-21	ADDENDUM #2
1		3-9-21	ADDENDUM #1
		1-1-21	PERMIT/BID SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

PERMIT SET

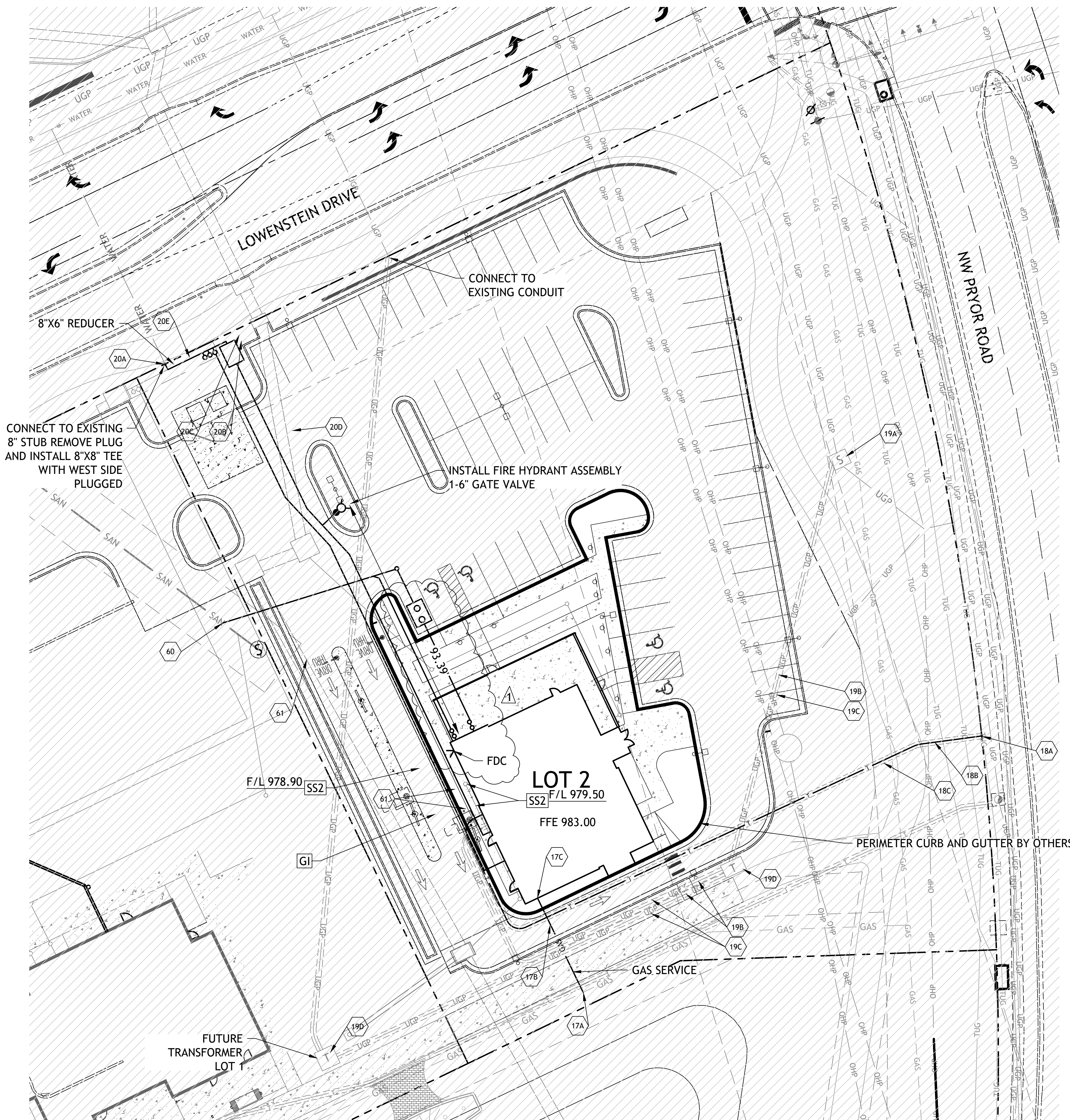
UTILITY PLAN

DRAWN BY: GO

CHECKED BY: SM

JOB NO: 20068.00

C-2



UTILITY NOTES:

1. ALL UTILITY AND STORM SEWER TRENCHES CONSTRUCTED UNDER AREAS THAT RECEIVE PAVING SHALL BE BACKFILLED TO 18 INCHES ABOVE THE TOP OF THE PIPE WITH SELECT GRANULAR MATERIAL PLACED ON EIGHT-INCH LIFTS, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
2. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCE OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. SM ENGINEERING AND OWNER ARE TO BE HELD HARMLESS.
3. ALL WATER AND SANITARY SEWER SYSTEMS THAT ARE TO BE PUBLIC LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS PREVIOUSLY APPROVED BY THE CITY OF LEE'S SUMMIT AND THE STATE OF MISSOURI AND SHALL BE INSPECTED BY THE CITY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT THIS INSPECTION OCCURS.
4. LOCATIONS SHOWN FOR PROPOSED WATER LINES ARE APPROXIMATE. VARIATIONS MAY BE MADE, WITH APPROVAL OF THE ENGINEER, TO AVOID CONFLICTS.
5. CONTRACTOR TO INSTALL TRACING TAPE ALONG ALL NON-METALLIC WATER MAINS AND SERVICE LINES PER SPECIFICATIONS.
6. CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF NEW UTILITIES.
7. WATER LINES SHALL HAVE A MINIMUM COVER OF 42 INCHES. ALL VALVES ON MAINS AND FIRE HYDRANT LEADS SHALL BE WITH VALVE BOX ASSEMBLIES. THE SIZE OF VALVE BOX ASSEMBLY TO BE INSTALLED IS DETERMINED BY THE TYPE AND SIZE OF VALVE. VALVE BOX CAPS SHALL HAVE THE WORD "WATER".
8. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN PARALLEL WATER AND SANITARY SEWER LINES. WHEN IT IS NECESSARY FOR ANY WATER LINE TO CROSS A SANITARY SEWER LINE, THE SEWER LINE SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE AT LEAST 10 FEET EITHER SIDE OF THE WATER LINE UNLESS THE WATER LINE IS AT LEAST 2 FEET CLEAR DISTANCE ABOVE THE SANITARY SEWER LINE.
9. INSTALL 2" TYPE "K" COPPER FROM THE MAIN TO THE METER AND EITHER TYPE "K" OR POLYETHYLENE PLASTIC TUBING (PE 3608) FROM METER TO STOP AND WASTE VALVE INSIDE BUILDING.
10. CONTRACTOR RESPONSIBLE FOR PROVIDING CASEMENT FOR ELECTRICAL SERVICE PER KCP&L

NOTES

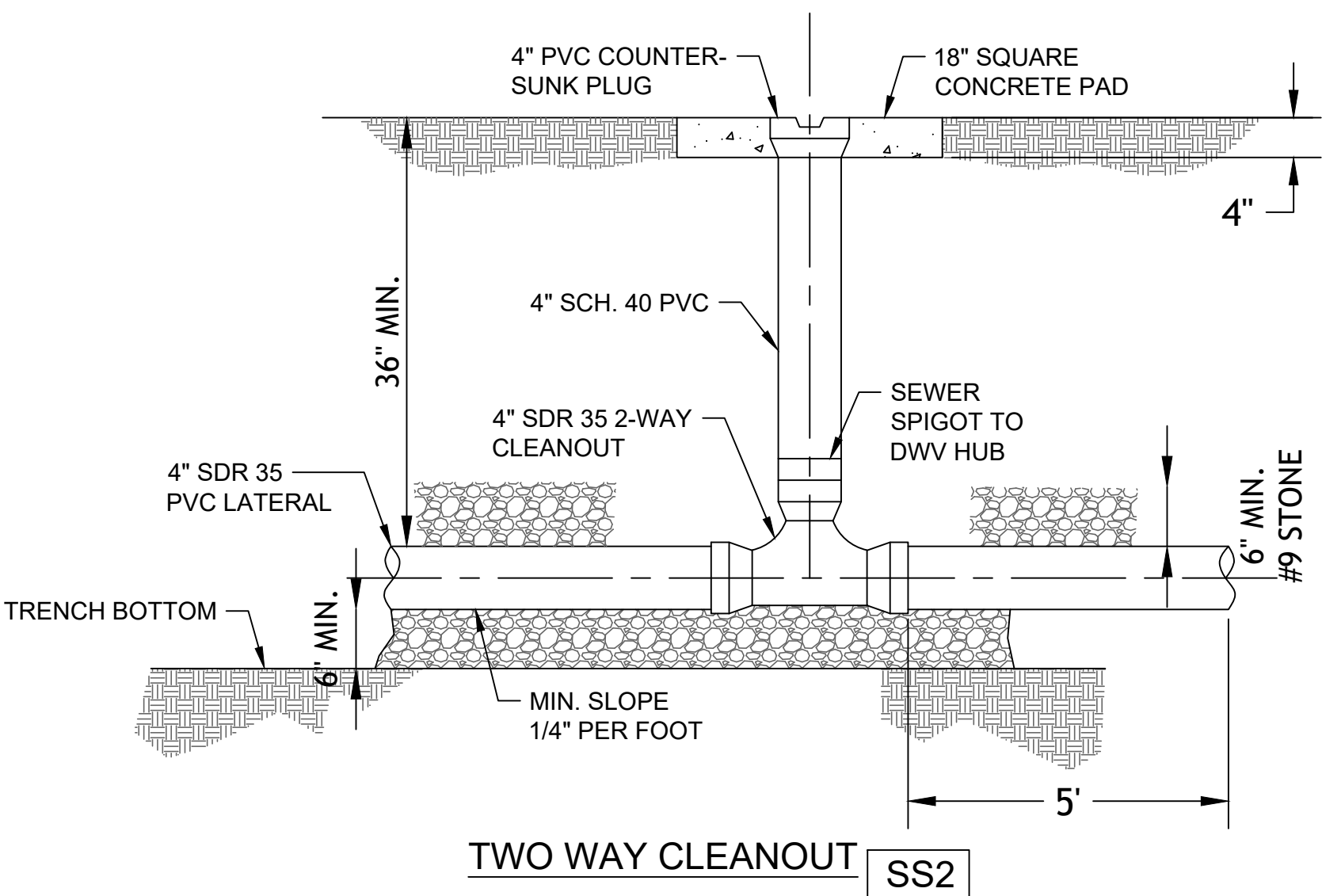
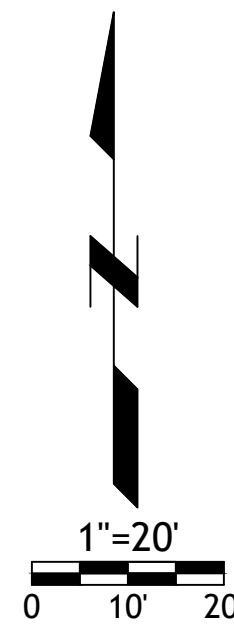
- 17A POINT OF CONNECTION - GAS SERVICE
- 17B GAS SERVICE (BY GAS COMPANY)
- 17C GAS METER
- 18A POINT OF CONNECTION - TELEPHONE SERVICE - COORDINATE WITH TELEPHONE COMPANY
- 18B UNDERGROUND TELEPHONE SERVICE PER LOCAL TELEPHONE COMPANY
- 18C 2-2" CONDUIT INSTALLED BY CONTRACTOR - TELEPHONE SERVICE
- 19A POINT OF CONNECTION - ELECTRICAL SERVICE
- 19B ELECTRICAL SERVICE (SEE NOTE 10)
- 19C 4" CONDUIT INSTALLED BY CONTRACTOR - ELECTRIC SERVICE
- 19D TRANSFORMER - PER EVERGY DETAIL 700-103
- 20A POINT OF CONNECTION - WATER SERVICE
- 20B 2" TAP WITH 2" SERVICE LINE
- 20C 2" METER
- 20D 6" FIRE LINE
- 60 6" SANITARY SEWER SERVICE LINE SDR-26 PVC CONNECTION SHALL BE A CUT-IN WYE
- 61 4" SANITARY SEWER SERVICE LINE SDR 26 PVC
- 20E INSTALL 6" BACKFLOW PREVENTION ASSEMBLY IN 8'X6' VAULT OR AS REQUIRED PER CLEARANCE SEE DETAIL WAT-5

LEGEND

CONSTRUCTION BY OTHERS

UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES, FIELD SURVEY INFORMATION OF ABOVE GROUND OBSERVABLE EVIDENCE, AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.



Bergmeyer

LA
800 South Figueroa St.
Brea, CA 92603
714.981.1000
714.981.1001

BGS
51 Steiner St.
Brea, CA 92603
714.981.1000
714.981.1001

CONSULTANTS:
SM Engineering
5507 High Meadow Circle
Manhattan Kansas, 66503
smcivleng@gmail.com
785.341.9747

SME

SEALED SIGNATURE:

80-1111-1
5-14-21

REVISIONS
3-9-21 ADDENDUM A

5	5-17-21	FIELD NOTICED #2
4	5-3-21	FIELD NOTICED #1
3	4-28-21	ISSUED FOR CONSTRUCTION
2	3-31-21	ADDENDUM #2
1	3-9-21	ADDENDUM #1
1	1-1-21	PERMIT/BID SET

NO.	BY	DATE	DESCRIPTION
-----	----	------	-------------

SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

PERMIT SET

GRADING PLAN

DRAWN BY: GO

CHECKED BY: SM

JOB NO: 20068.00

C-3



GRADING NOTES:

- EARTHWORK UNDER THE BUILDING SHALL COMPLY WITH THE PROJECT ARCHITECTURAL PLANS. OTHER FILL MATERIAL SHALL BE MADE IN LIFTS NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. FILL MATERIAL MAY INCLUDE ROCK FROM ON-SITE EXCAVATION IF CAREFULLY PLACED SO THAT LARGE STONES ARE WELL DISTRIBUTED AND VOIDS ARE COMPLETELY FILLED WITH SMALLER STONES, EARTH, SAND OR GRAVEL TO FURNISH A SOLID EMBANKMENT. NO ROCK LARGER THAN THREE INCHES IN ANY DIMENSION NOR ANY SHALE SHALL BE PLACED IN THE TOP 12 INCHES OF EMBANKMENT.
- AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.
- IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED, A QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE OWNER THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOF ROLLING AND UNDERCUTTING SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER.
- CONTRACTOR SHALL USE SILT FENCE OR OTHER MEANS OF CONTROLLING EROSION ALONG THE EDGE OF THE PROPERTY OR OTHER BOTTOM OF SLOPE LOCATIONS.
- CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
- IT IS NOT THE DUTY OF THE ENGINEER OR THE OWNER TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE AT ANY TIME DURING CONSTRUCTION.
- PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTIONS.
- HANDICAP STALLS SHALL MEET ADA REQUIREMENTS AND SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION AT THE BUILDING ENTRY AND ACCESSIBLE PARKING STALLS. SLOPES EXCEEDING 2.0% WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR TO ADJUST DEPTHS OF EXISTING SERVICE LINES AS NECESSARY
- ALL CONSTRUCTION TRAFFIC, TEMPORARY TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO REQUIREMENTS OF THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- SITE BEING ROUGH GRADED TO 12.5' BELOW FINISHED GRADE
- CONTRACTOR TO PLACE 8" LOW PERMEABILITY LVC FOR BUILDING PAD

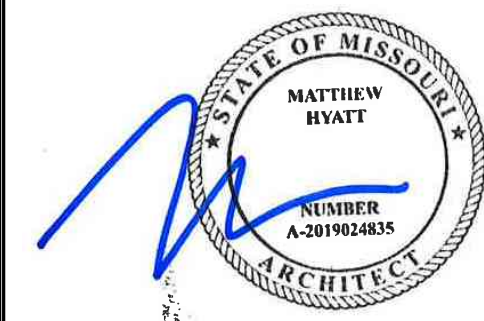
Bergmeyer

BOS
51 Sleeper St.
Bedford, MA 02210
617.542.1025

LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

CONSULTANTS:

SEA/ SIGNATURE:



PROVIDED FOR REFERENCE ONLY

SITE PLAN - ARCHITECTURAL

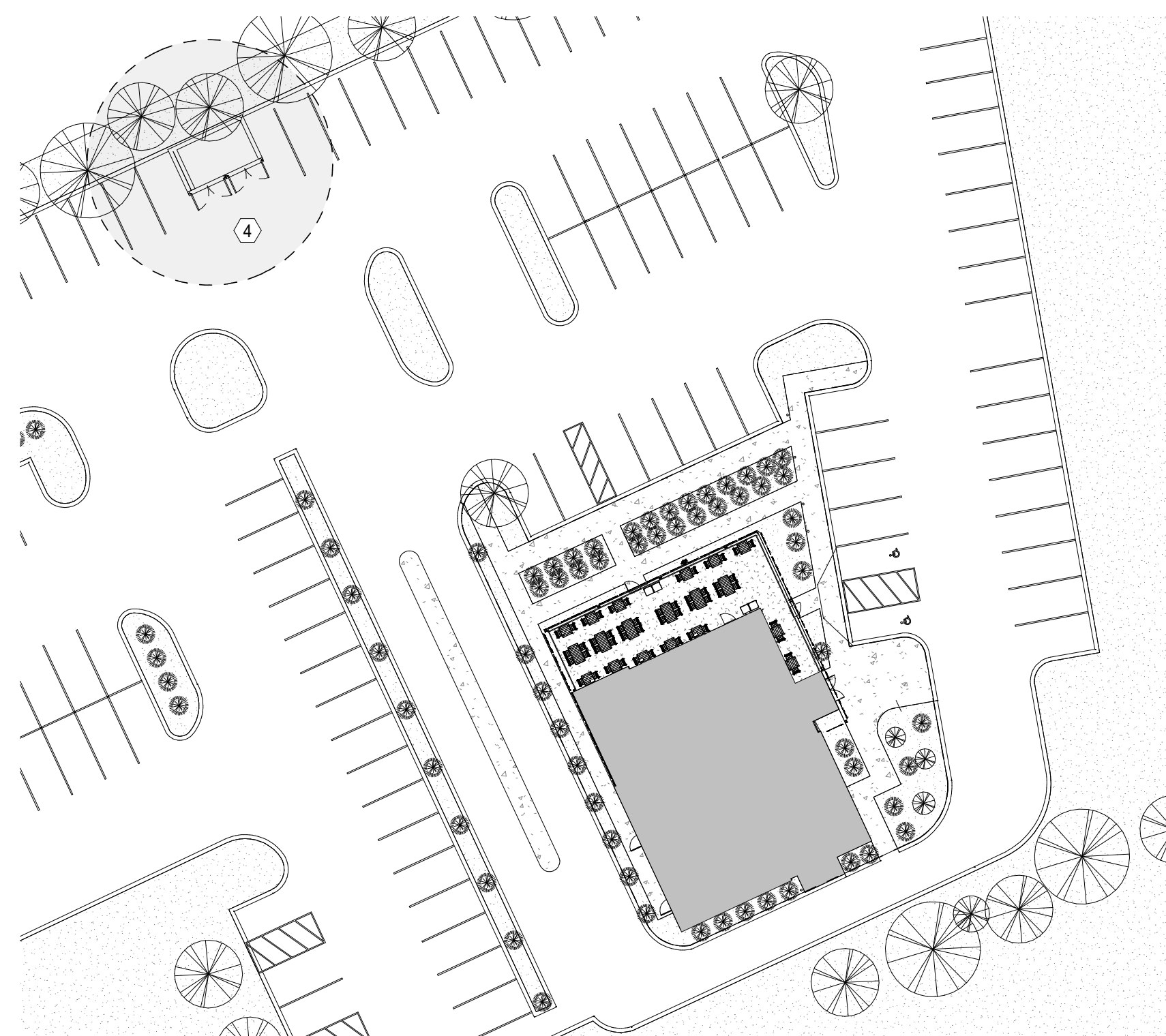
CURBSIDE SIGNAGE



SIGNAGE PROVIDED BY OWNERS VENDOR,
CONFIRM LOCATIONS WITH OWNER PRIOR TO
INSTALL.

REFER TO CIVIL DRAWINGS FOR LOCATIONS
AND MOUNTING DETAILS.

KEY PLAN - TRASH ENCLOSURE LOCATION



KEYNOTES

- 1 NEW LANDSCAPED AREA
- 2 SIDEWALK AND PAVING
- 3 NEW FLUSH CURB
- 4 LOCATION OF TRASH ENCLOSURE; BY LANDLORD
- 5 LOCATION OF UNDERGROUND GREASE TRAP, BY LANDLORD
- 6 ACCESSIBLE ENTRY
- 7 EXTERIOR SIGN BAND AND CANOPY
- 8 DRIVE THRU WINDOW
- 9 SITE CAMERA TO BE INSTALLED BY SC WHILE THE SHACK IS UNDER CONSTRUCTION. CAMERA LOCATION TO BE COORDINATED WITH OWNER. CONTACT OWNER FOR ORDER PROCESS AND INSTALLATION PROCEDURE.
- 10 LOCATION OF NEW CO2 & RTI FILL BOXES. REFER TO A100
- 11 NEW BOLLARDS. REFER TO CIVIL
- 12 PATIO FURNITURE. REFER TO FURNITURE & EQUIPMENT PLAN
- 13 CURBSIDE PICK UP SIGNAGE ON BOLLARD. REFER TO CIVIL

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW DOOR
	KEYNOTE
	LANDSCAPED AREA; EXISTING TO REMAIN
	NOT IN CONTRACT
	CONSTRUCTION LIMIT LINE

GENERAL NOTES

- A. REFER TO EXTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION ON BUILDING ELEMENTS
- B. REFER TO EXTERIOR ELEVATIONS AND E-SHEETS FOR ADDITIONAL INFORMATION ON EXTERIOR LIGHTING
- C. ALL WORK WITHIN CONSTRUCTION LIMIT LINE IS THE RESPONSIBILITY OF THE TENANT GC. ALL WORK OUTSIDE OF THE CONSTRUCTION LIMIT LINE IS LANDLORD AND LANDLORD GC RESPONSIBILITY
- D. REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR MOUNTED CAMERAS

5	2021-05-17	FIELD NOTICE #2
3	2021-04-26	ISSUED FOR CONSTRUCTION
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET



SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

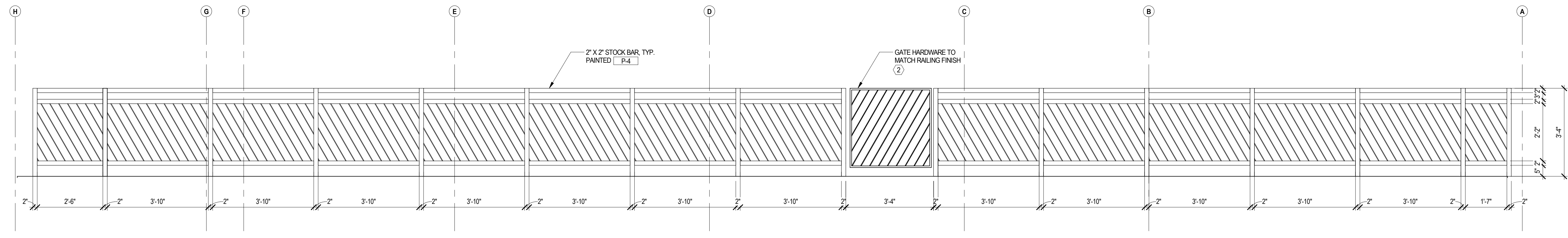
ARCHITECTURAL SITE
PLAN

DRAWN BY: CS & WQL

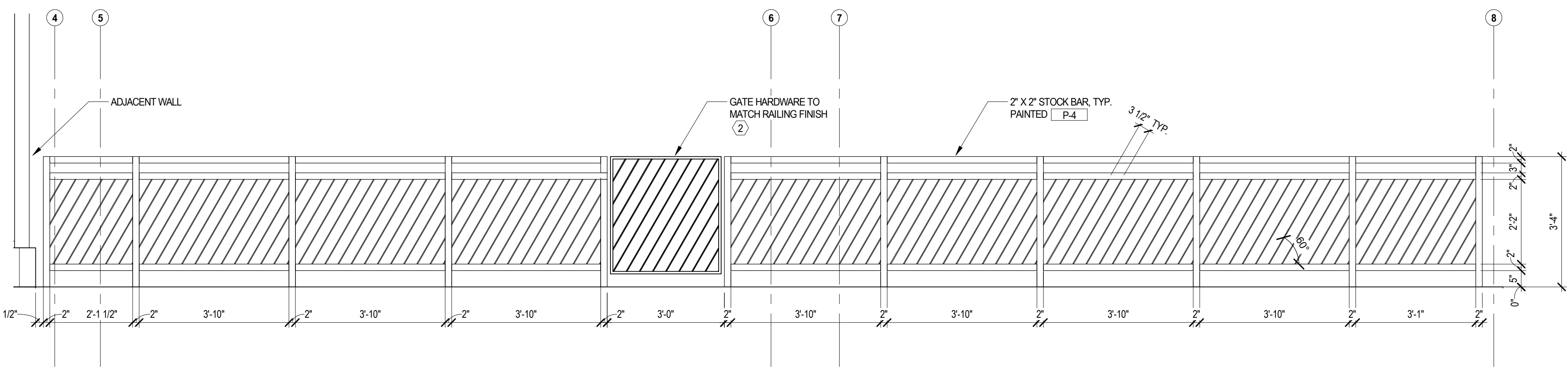
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JOB NO: 20088.00

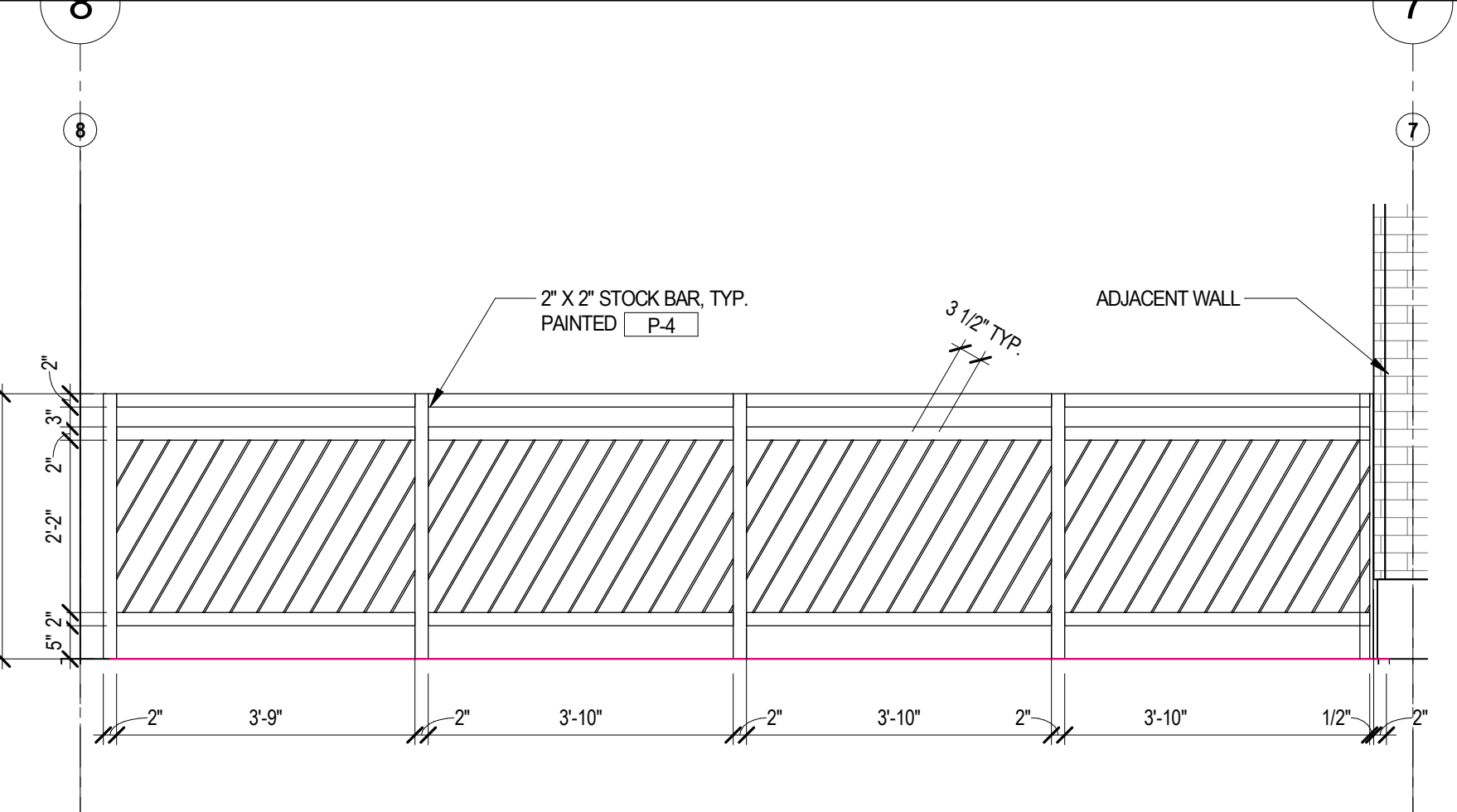
AS101



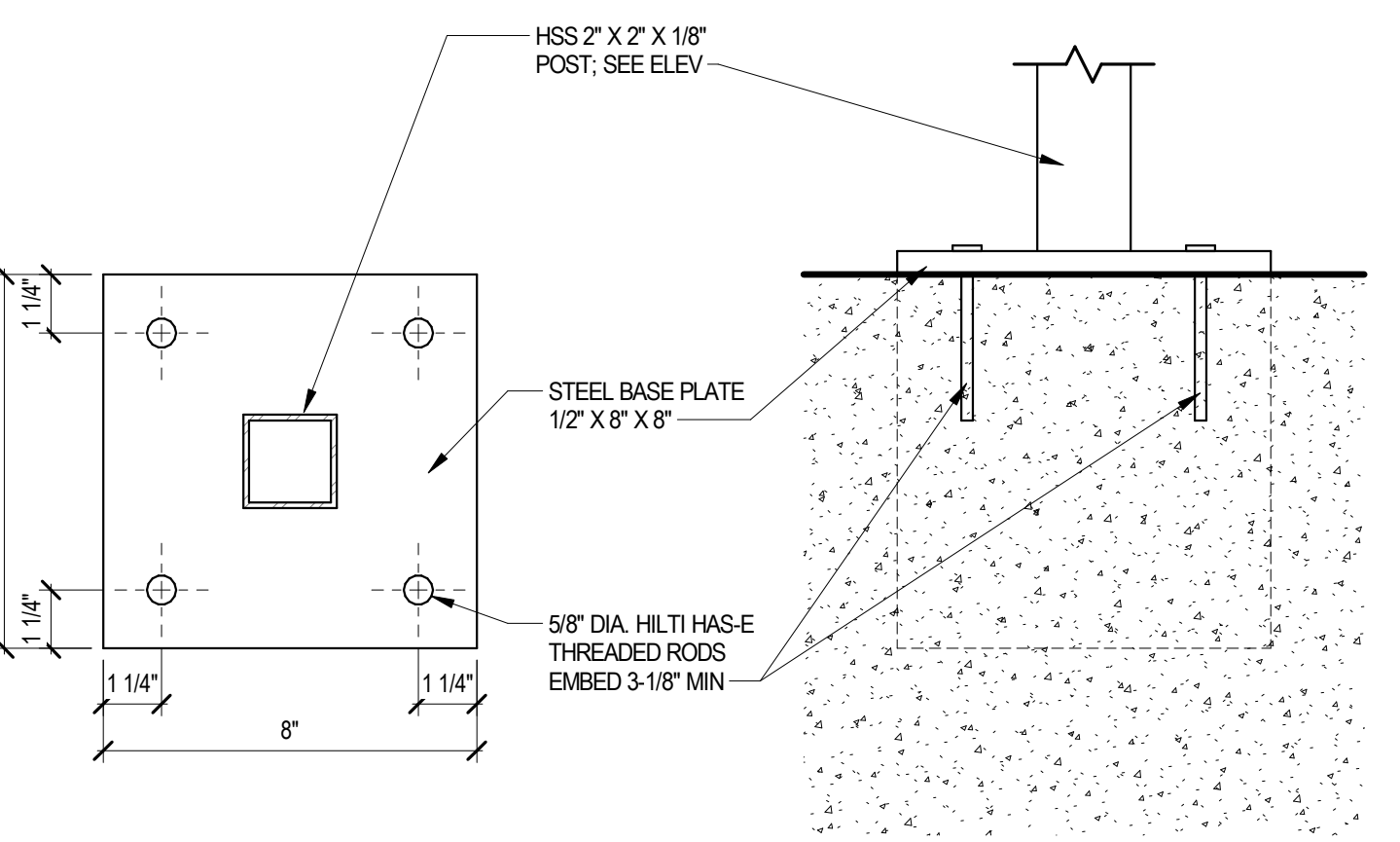
EXTERIOR PATIO ELEVATION - WEST



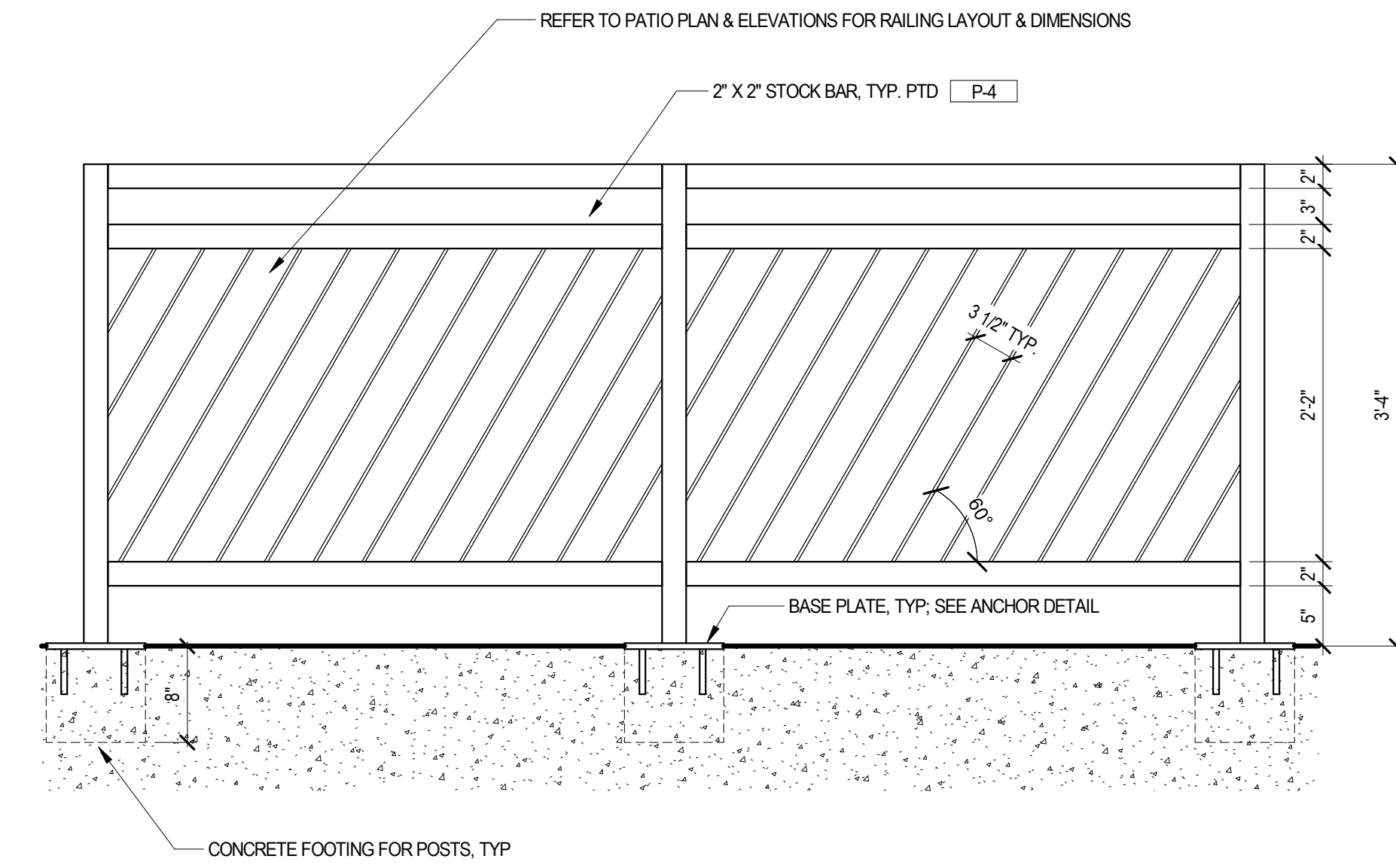
EXTERIOR PATIO ELEVATION - SOUTH



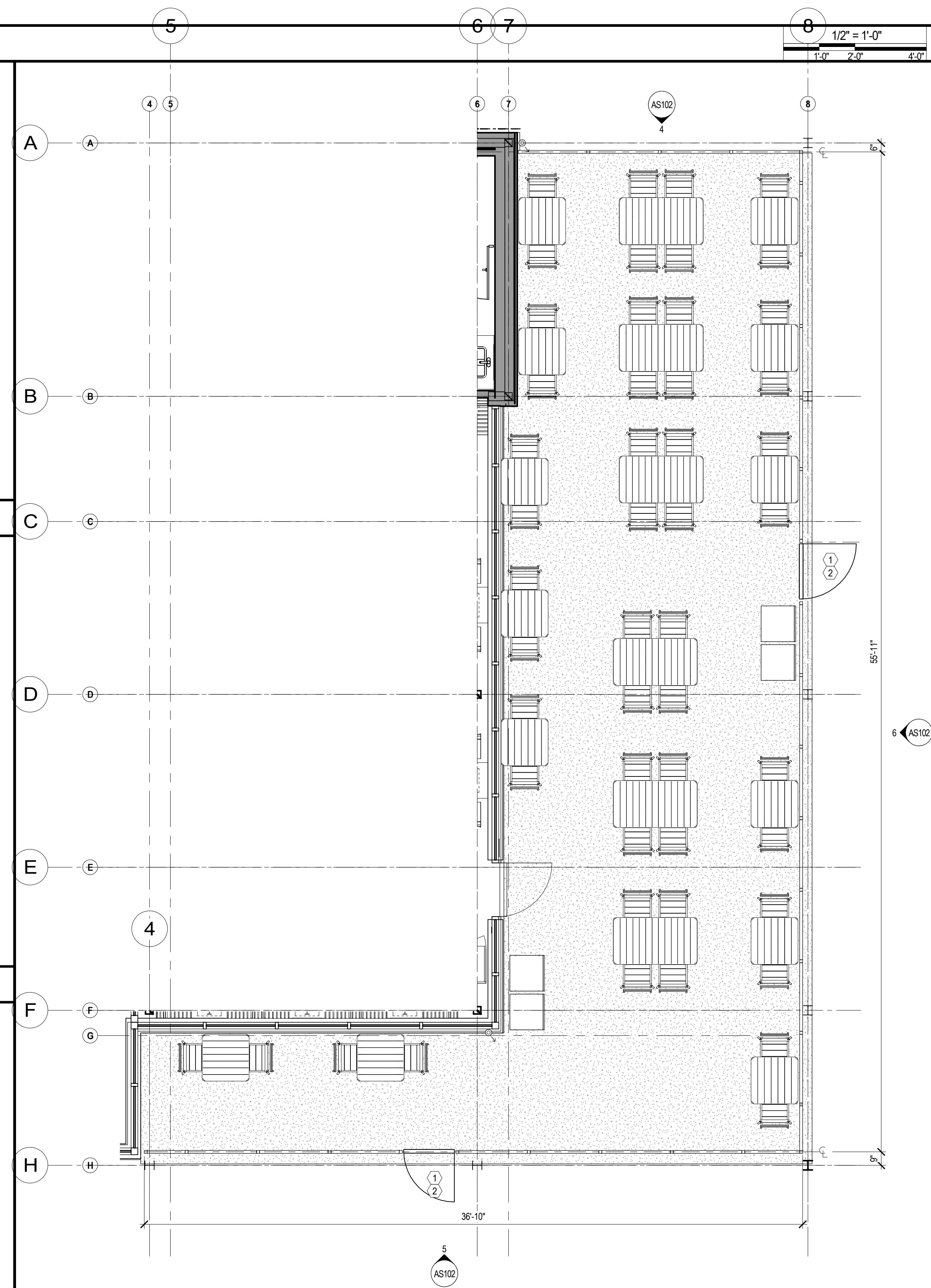
EXTERIOR PATIO ELEVATION - NORTH







TYPICAL RAILING POST ANCHOR DETAIL



TYPICAL PATIO RAILING



ENLARGED PLAN - PATIO

SYMBOL LEGEND		KEYNOTES
SYMBOL	DESCRIPTION	① GATE; SEE ELEVATION FOR MORE INFORMATION ② PROVIDE PANIC HARDWARE; COLOR TO MATCH RAILING
	KEYNOTE	
	ALIGN	
	FINISH TAG; REFER TO FINISH SCHEDULE ON SHEET A601	
	DOOR TAG; REFER TO DOOR SCHEDULE ON SHEET A602	
		GENERAL NOTES
		1. REFER TO SCHEDULES FOR CORRELATION WITH OTHER SHEETS. 2. SEE FINISH SCHEDULE FOR FINISHES. 3. SEE DOOR SCHEDULE FOR DOOR TYPES AND SIZES. 4. SEE ELEVATION SCHEDULE FOR ELEVATIONS. 5. SEE MATERIAL SCHEDULE FOR MATERIALS. 6. SEE SPECIFICATIONS FOR DETAILS. 7. SEE NOTES FOR ADDITIONAL INFORMATION. 8. SEE DRAWING FOR DIMENSIONS. 9. SEE NOTES FOR CONSTRUCTION DETAILS. 10. SEE NOTES FOR MATERIAL SPECIFICATIONS.

KEYNOTES

- ① GATE; SEE ELEVATION FOR MORE INFORMATION
- ② PROVIDE PANIC HARDWARE; COLOR TO MATCH RAILING

GENERAL NOTES

Bergmeyer

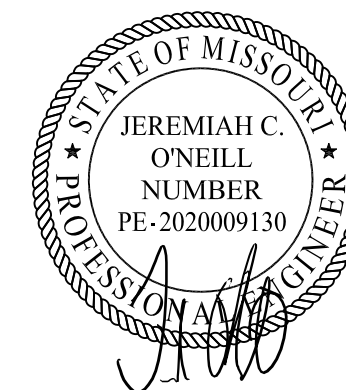
LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

BOS
51 Sleeper St.
Boston, MA 02210
617.542.1025

CONSULTANTS:

H+O
STRUCTURAL ENGINEERING
100 SUMMER ST, SUITE 1600
BOSTON, MA 02210
617-938-3349

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

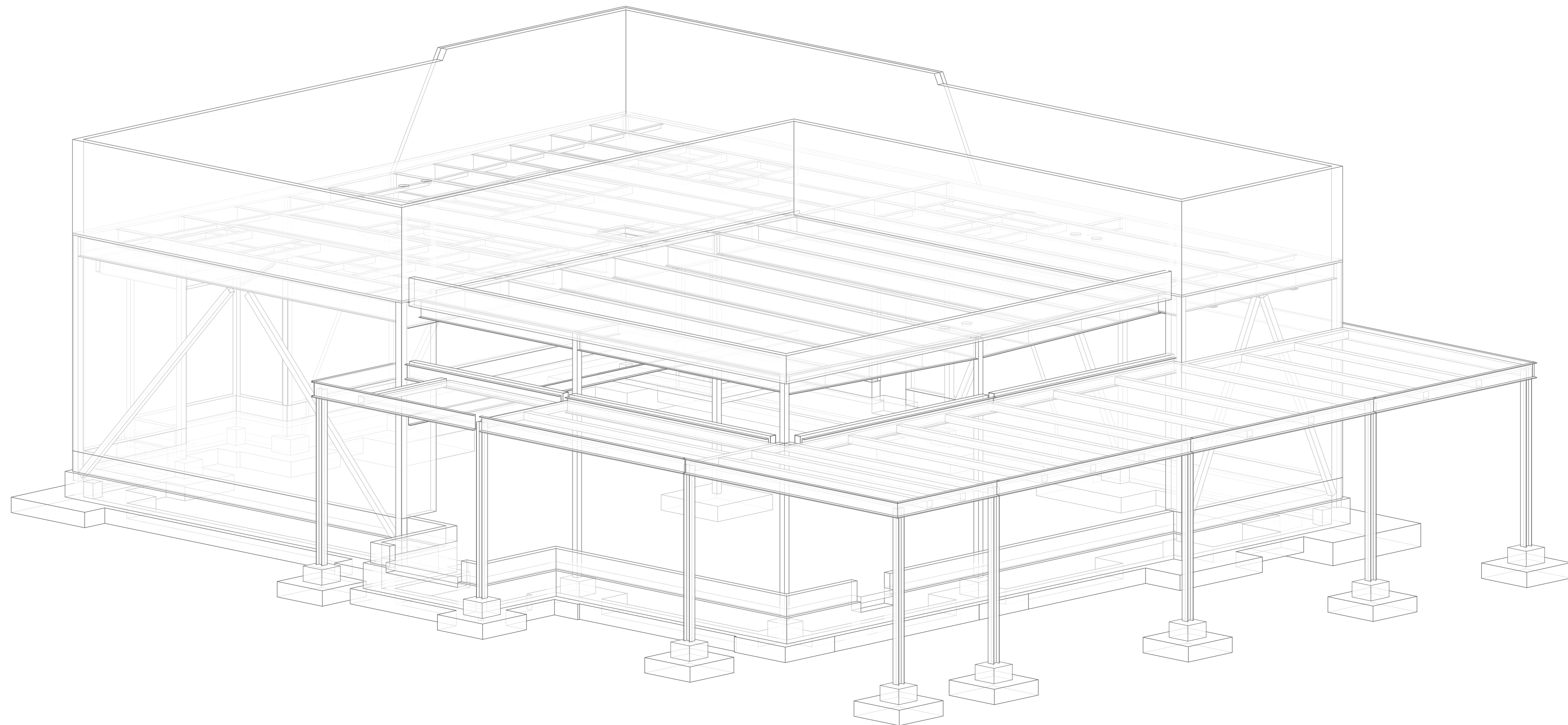
ISOMETRIC VIEWS

DRAWN BY: ESP

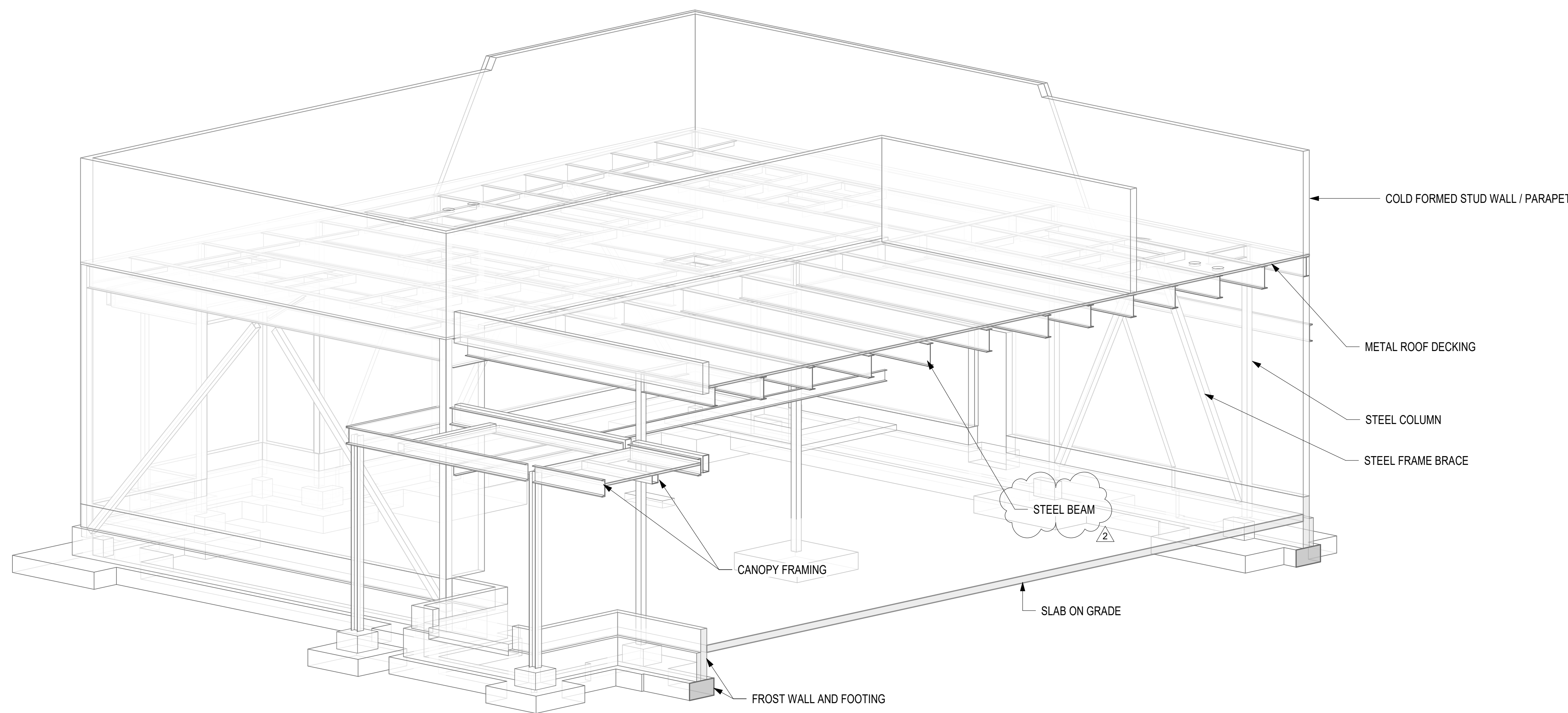
CHECKED BY: RFH

JOB NO: 20-128

S000



FULL ISOMETRIC
SCALE:



SECTION ISOMETRIC
SCALE:

ISOMETRIC VIEWS

- ISOMETRIC VIEWS ARE PROVIDED FOR REFERENCE ONLY AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.
- CERTAIN ELEMENTS MAY BE OMITTED FROM ISOMETRIC VIEWS. REFER TO PLANS, SECTIONS, AND DETAILS FOR ALL INFORMATION.

C:\Users\jrd\OneDrive\Documents\2021-22\Shake Shack Lee's Summit - Structural - R2019.rvt 5/12/2021 2:27:52 AM C:\Users\jrd\OneDrive\Documents\2021-22\Shake Shack Lee's Summit - Structural - R2019.rvt

DRAWING LIST	
DRAWING #	DRAWING NAME
S000	ISOMETRIC VIEWS
S001	GENERAL NOTES I
S002	GENERAL NOTES II
S003	LOADING PLANS
S100	FOUNDATION PLAN
S101	CANOPY FRAMING PLAN
S102	ROOF FRAMING PLAN
S200	COLUMN SCHEDULE
S201	BUILDING SECTIONS
S300	LATERAL FRAME ELEVATIONS
S400	CONCRETE DETAILS I
S401	CONCRETE DETAILS II
S500	STEEL DETAILS I
S501	STEEL DETAILS II
S502	STEEL DETAILS III

GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STATE BUILDING CODE OF THE COMMONWEALTH OF MASSACHUSETTS, NINTH EDITION.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO COMMENCING WORK. WHERE DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION COULD AFFECT THE NEW CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE FIELD MEASUREMENTS IN TIME FOR THEIR INCORPORATION IN THE SHOP DRAWINGS. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES THAT MAY EXIST.
- SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPES, LOCATIONS OF DEPRESSED FLOOR AREAS, AND FLOOR OPENINGS. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCY TO THE ARCHITECT AND ENGINEER PRIOR TO CONSTRUCTION.
- PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE STRUCTURAL, ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS AND SHALL VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH THE MECHANICAL CONTRACTOR. PROVIDING ALL OPENINGS REQUIRED BY THE MECHANICAL, ELECTRICAL, OR PLUMBING TRADES SHALL BE A PART OF THE GENERAL CONTRACT. WHETHER OR NOT SHOWN IN THE STRUCTURAL DRAWINGS, ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR REVIEW. WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES, SHALL BE INCLUDED IN THE CONTRACTOR'S WORK.
- THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE SAFETY OF ADJACENT STRUCTURES, PROPERTY, HIS WORKMEN, AND THE PUBLIC, AS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
- STRUCTURAL DRAWINGS MAY REPRESENT CONSTRUCTION WITH A REFERENCE SCALE. DUE TO THE INHERENT PROBLEMS OF DRAWING DEVELOPMENT AND PRESENTATION NOT ALL WORK MAY BE SHOWN "EXACT" IN THAT SCALE. DO NOT "SCALE" DRAWINGS TO OBTAIN ANY MISSING INFORMATION OR TO INTERPRET ANY INFORMATION NOT SPECIFICALLY DIMENSIONED FOR "EXACT" DETAILING OR CONSTRUCTION PURPOSES.
- THE CONTRACT DOCUMENTS REPRESENT FINAL CONDITIONS. STABILITY OF THE STRUCTURE DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE DESIGN AND FURNISH OF TEMPORARY SUPPORTS, SHORING AND/OR BRACING REQUIRED FOR SAFETY AND STABILITY DURING CONSTRUCTION.

FOUNDATIONS:

- THE FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PREPARED BY COOK, FLATT & STROBEL ENGINEERS, P.A., DATED NOVEMBER 17, 2020.
- THE FOUNDATION DESIGN IS BASED ON AN ALLOWABLE BEARING CAPACITY OF 3000 PSF. ALL EXCAVATIONS FOR FOOTINGS SHALL EXTEND DOWN TO SUITABLE BEARING SUBGRADE AS DETERMINED BY A GEOTECHNICAL ENGINEER.
- UNSUITABLE MATERIAL SHALL BE REMOVED DOWN TO SOUND BEARING AND REPLACED WITH WELL COMPACTED FILL. THE GEOTECHNICAL ENGINEER SHALL BE CONSULTED TO DETERMINE WHAT IS DEEMED SUITABLE MATERIAL.
- EXTERIOR FOOTINGS THAT WILL BE EXPOSED TO FREEZE THAW CYCLES SHALL EXTEND A MINIMUM OF 4'-0" BELOW FINISHED GRADE.
- FOUNDATIONS SHALL NOT BE PLACED ON FROZEN GROUND OR IN PUDDLED WATER.
- UNLESS DIRECTED OTHERWISE BY THE GEOTECHNICAL ENGINEER, ALL FOOTINGS EXCAVATIONS SHALL BE FINISHED BY HAND.
- ALL FOOTINGS AND PIERS SHALL BE CENTERED BELOW THE MEMBERS THEY SUPPORT, UNLESS NOTED OTHERWISE.
- ALL DOUELS INTO FOUNDATIONS SHALL MATCH THE SIZE, QUANTITY, AND SPACING OF THE WALL, COLUMN, PIER, ETC. ABOVE, UNLESS NOTED OTHERWISE.
- ALL WALLS SHALL BE TEMPORARILY BRACED UNTIL THE PERMANENT WALL BRACING IS IN PLACE. THE WALL SHALL NOT BE BACKFILLED UNTIL THE PERMANENT BRACING IS IN-PLACE, UNLESS THE CONTRACTOR HAS PROVIDED BRACING SPECIFICALLY DESIGNED FOR THOSE LOADS. AT WALLS THAT HAVE FILL ON BOTH SIDES, THE WALL SHALL BE BACKFILLED SIMULTANEOUSLY ON BOTH SIDES, IN ORDER TO NOT CREATE AN UNBALANCED SOIL LOADING ON THE WALL.
- CONTRACTOR SHALL COORDINATE ALL UNDERFLOOR DRAINAGE AND PLUMBING WITH THE MEP AND GEOTECHNICAL DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE CONTROL OF GROUNDWATER LEVELS (DEWATERING) AS REQUIRED TO COMPLETE THE FOUNDATION WORK IN THE DRY. THE METHOD OF DEWATERING SHALL NOT ADVERSELY IMPACT THE GROUND WATER LEVEL OF ADJACENT STRUCTURES.

WOOD FRAMING:

- LUMBER AND ITS FASTENINGS, SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATIONS OF STRESS-GRADE LUMBER AND ITS FASTENINGS, CURRENT EDITION, AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. CURRENT EDITION OF WOOD GRADING RULES ARE TO BE FOLLOWED. ALL CONNECTIONS SHALL CONFORM TO THE CURRENT EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, AND THE CONTRACT DOCUMENTS.
- UNLESS OTHERWISE NOTED, ALL JOISTS, STUDS, UNTELSHEADERS AND PLATES SHALL BE SPRUCE-PINE-FIR (SPF) NO 2 WITH Fc=1,150PSI; Fb=875PSI; Fv=135PSI; E=1,400,00PSI (MC19); SOLID WOOD POSTS SHALL BE DOUGLAS-FIR LARCH NO 2 WITH Fc=1,350 PSI. LUMBER SIZES SHOWN IN THE DRAWINGS ARE NOMINAL SIZE. ACTUAL SIZES SHALL CONFORM TO AMERICAN LUMBER STANDARD PS-20-70. MATERIALS MUST BE GRADE MARKED.
- FOR OVERLAY FRAMING AT ROOFS OR OTHER CONVENTIONAL ROOF FRAMING, CONTRACTOR SHALL PROVIDE 2X FRAMING IN ACCORDANCE WITH ROOF RAFTER TABLE IN THE APPLICABLE BUILDING CODE.
- POSTS SUPPORTING HEADERS AND BEAMS SHALL CONTINUE FROM POINT OF LOAD APPLICATION TO THE FOUNDATION.
- ALL FLUSH CONNECTIONS SHALL HAVE METAL BEAM OR JOIST HANGERS.
- ALL BEAM OVER POST CONNECTIONS SHALL HAVE A METAL POST CAP, SUCH AS SIMPSON LPC OR BC TYPE POST CAPS, U.N.O.
- BOLT HOLES THROUGH WOOD SHALL BE DRILLED 1/16" MAXIMUM LARGER THEN TWO DIAMETER OF THE BOLTS TO BE INSTALLED.
- BOLTS THROUGH WOOD SHALL BE FITTED WITH STANDARD WASHERS AT HEAD AND NUT ENDS.
- EDGE OF A BORED HOLE SHALL NOT BE WITHIN 5/8 INCH OF THE STUDS EDGE. BORED HOLES SHALL NOT BE LOCATED AT CUT OR NOTCH IN THE STUDS.
- ALL WOOD FRAMING EXPOSED TO WEATHER SHALL BE PRESERVATIVE PRESURE TREATED SOUTHERN PINE NO. 2 OR BETTER.
- PRESERVATIVE TREATED PSLS MAY BE DRILLED OR CUT TO LENGTH (IF APPROVED BY EOR), BUT SHALL NOT BE RIPPED, NOTCHED, OR RESIZED ALONG THE LENGTH OF THE MEMBER.
- FRAMING LUMBER SHALL BE SOUND, THOROUGHLY SEASONED, SURFACED FOUR SIDES, WELL MANUFACTURED AND FREE FROM WARP NOT CORRECTABLE BY BRIDGING, BLOCKING OR NAILING. MOISTURE CONTENT SHALL BE A MAXIMUM OF 19 PERCENT.
- WOOD STRUCTURAL PANELS SHALL BE INSTALLED WITH A 1/8" GAP BETWEEN PANEL ENDS AND EDGES.
- ALL INTERIOR LOAD BEARING WALLS SHALL HAVE ONE ROW OF BLOCKING AT THE MID-HEIGHT OF THE STUDS. ANY WALL THAT IS NOT SHEATHED ON BOTH SIDES WITH EITHER WOOD STRUCTURAL PANELS OR GYPSUM BOARD, SHALL HAVE WOOD BLOCKING SPACED AT NO MORE THAN 4'-0" O.C.
- WOOD JOISTS JOISTS SHALL BE TOE NAILED TO WOOD SUPPORT WITH TWO 10D NAILS.
- WOOD JOISTS SHALL HAVE MINIMUM BEARING OF 1' 2".
- WOOD JOIST ENDS SHALL BE LAPPED OVER BEARING AND NAILED TOGETHER WITH 3-16D NAILS; MINIMUM LAP, 4".
- JOIST OVERHANG SHALL NOT EXCEED 12" UNLESS OTHERWISE NOTED.
- JOIST BRIDGING SHALL BE PROVIDED AT ALL JOIST SPANS EXCEEDING 8FT AND BE INSTALLED IN AN OFFSET FASHION. MAXIMUM SPACING = 8FT. JOIST BLOCKING SHALL BE FULL DEPTH TO MATCH THE JOIST DEPTH.
- AT FLOOR OPENING UP TO 2'-0" IN WIDTH DOUBLE THE JOISTS AT EACH SIDE OF THE OPENING. AT LARGER OPENINGS NOT SHOWN ON THE FRAMING PLAN SHALL BE CALLED TO THE ATTENTION OF THE E.O.R.
- BUILT-UP STUDS COLUMNS SHALL BE NAILED TOGETHER AS FOLLOWS (D=NAIL DIAMETER):
- POST NAILING - ADJACENT NAILS SHALL BE DRIVEN FROM OPPOSITE SIDES OF COLUMN.
- POST NAILING - ALL NAILS SHALL PENETRATE ALL LAMINATIONS AND AT LEAST 3/4 THE THICKNESS OF THE OUTERMOST LAMINATION.
- POST NAILING - THE NAIL END DISTANCE FROM THE END OF COLUMN SHALL BE BETWEEN 15D AND 18D
- POST NAILING - THE SPACING BETWEEN ADJACENT NAILS IN A ROW SHALL NOT BE GREATER THAN EITHER 20D OR 6" MIN (WHERE TMIN=THICKNESS OF THE THINNEST LAMINATION)
- POST NAILING - THE SPACING BETWEEN ROWS OF NAILS SHALL BE BETWEEN 10D AND 20D
- POST NAILING - THE NAIL EDGE DISTANCE SHALL BE BETWEEN 5D AND 20D
- POST NAILING - PROVIDE 2 LONGITUDINAL ROWS OF NAILS MINIMUM.
- SOLE PLATES SHALL BE NAILED TO SUBFLOOR AND JOISTS WITH 16D NAILS AT EACH JOIST. SEE SHEAR WALL NAILING SCHEDULES FOR ADDITIONAL NAILING REQUIREMENTS.
- TOP PLATES FOR BEARING PARTITIONS SHALL BE 2X 2x (STUD WALL DEPTH) OR A CONTINUOUS HEADER. PLATE MEMBERS OF PRINCIPAL PARTITIONS SHALL BE LAPPED A MINIMUM OF 48" AND NAILED WITH (16)-16D STAGGERED. WHERE 48" LAP CANNOT BE ACHIEVED, A CS16 STRAP WITH (22)-10D NAILS SHOULD BE USED TO SPLICE THE PLATE.
- TOP PLATES FOR NON-BEARING PARTITIONS TO BE DOUBLE. NAIL PLATE TO STUD WITH TWO 16D NAILS. WHEN TOP PLATE IS PARALLEL TO CEILING OR FLOOR FRAMING INSTALL 2 X 4 CROSS BLOCKING NOT MORE THAN 4'-0" O.C.
- WHEN TOP PLATES ARE CUT FOR PIPING OR DUCT WORK, REINFORCE WITH STEEL STRAPS.
- SILL PLATES AT BEARING DIRECTLY ON CONCRETE SHALL BE PRESSURE TREATED LUMBER, 0.25CCA MINIMUM SOUTHERN PINE NO 2 OR BETTER.
- BEAMS AND GIRDERS WILL NOT REST LESS THAN 4" ON SUPPORTS.
- WHERE BEAMS AND GIRDERS OF NOMINAL 2" MEMBERS ARE SPECIFIED, NAIL TOGETHER WITH TWO ROWS OF 16D NAILS SPACED NOT MORE THAN 24" O.C., LOCATE END JOISTS IN MEMBERS OVER SUPPORTS.
- ALL BEAMS MUST SPLICE ONLY OVER SUPPORTS UNLESS SPECIFICALLY INSTRUCTED OTHERWISE BY STRUCTURAL ENGINEER.
- ALL BUILT-UP WOOD BEAMS WIDER THAN 6" WILL BE BOLTED WITH 5/8" DIAMETER THROUGH-BOLTS AT 2'-0" O.C. STAGGERED SPACING, UNLESS OTHERWISE NOTED.
- ALL INTERIOR WALLS SHALL HAVE A JOIST LOCATED DIRECTLY BELOW (AT PARALLEL WALLS) OR CONTINUOUS BLOCKING (AT PERPENDICULAR WALLS).
- NAILING INSTALLATION AND MATERIAL ARE TO BE IN COMPLIANCE WITH A.I.T.C., NDS AND IN ACCORDANCE WITH THE APPLICABLE LOCAL BUILDING CODE.
- NAILS SHALL HAVE A MINIMUM PENETRATION OF 6 TIMES THE WIRE DIAMETER UNLESS OTHERWISE NOTED ON PLANS.
- EDGE DISTANCE FOR ALL NAILS SHALL BE MINIMUM OF 2 TIMES THE WIRE DIAMETER UNLESS OTHERWISE NOTED ON PLANS.
- ALL NAILS SHOWN IN NAILING SCHEDULE SHALL BE COMMON, THREADED, HARDENED STEEL NAILS MAY BE SUBSTITUTED FOR COMMON SIZE NAILS OF CORRESPONDING SIZE FOR PLYWOOD. USE ANNULAR-RING, COMMON WIRE, GALVANIZED NAILS FOR PLYWOOD. GALVANIZED NAILS SHALL BE HOT-DIP GALVANIZED, ASTM-A153.
- ALL FASTENERS USED IN PRESSURE TREATED WOOD SHALL BE COATED, TREATED, AND APPROVED FOR USE IN PRESSURE TREATED WOOD.
- ALL FASTENERS USED IN FIRE TREATED LUMBER SHALL BE COATED AND APPROVED FOR THAT USE BY THE MANUFACTURER.
- BORED HOLES IN WOOD STUD WALLS SHALL NOT EXCEED A DIAMETER GREATER THAN 40% OF THE STUD DEPTH, I.E. 2x4 SHALL NOT HAVE A HOLE GREATER THAN 1 3/8" DIAMETER. HOLE EDGE SHALL BE 5/8" CLEAR OF STUD EDGE. WOOD POSTS SHALL NOT HAVE BORED HOLES WITHOUT APPROVAL FROM E.O.R.

LVL, PSL, GLULAM (GL) LUMBER:

- "LVL" LUMBER SHALL BE FABRICATED FROM ULTRASONICALLY GRADED SOUTHERN PINE VENEERS IN ACCORDANCE WITH NER 125.
- "PSL" LUMBER SHALL BE FABRICATED FROM LONG, THIN STRANDS OF EITHER EASTERN OR WESTERN SPECIES WOOD BONDED TOGETHER WITH A MICROWAVE PROCESS.
- EASTERN "PSL" LUMBER (ES) MAY INCLUDE SOUTHERN PINE OR YELLOW POPLAR. WESTERN "PS LUMBER (WS) MAY INCLUDE DOUGLAS FIR, LODGEPOLE PINE, WESTERN HEMLOCK OR WHITE FIR.
- "PSL" LUMBER SHALL BE FABRICATED IN PARALLEL STRANDS (PSL) IN CONFORMANCE WITH NER 232.
- "GL" LUMBER SHALL BE FABRICATED FROM LAMINATED 2X LUMBER ACCORDING TO STANDARDS SET FORTH IN NDS AND OTHER APPLICABLE CODES. HEAL CUTS ON BEAMS MUST NOT OVERHANG INSIDE FACE OF SUPPORT MEMBER.
- "LVL" AND "PSL" MEMBERS SHALL BE FABRICATED WITHOUT CAMBER. GLULAM MEMBERS MAY BE CAMBERED TO REMOVE DEAD LOAD DEFLECTION.
- THE "LVL", "PSL" AND "GL" MEMBERS SHALL BE PROTECTED FROM THE WEATHER WHILE IN STORAGE. CARE SHALL BE EXERCISED DURING HANDLING TO PREVENT DAMAGE TO THE SAME.
- ADHESIVES SHALL COMPLY WITH ASTM D2559-76 ADHESIVES FOR STRUCTURAL LAMINATED PRODUCTS FOR USE UNDER EXTERIOR (WET USE) EXPOSURE CONDITIONS.
- THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM DESIGN STRESSES:

A. SHEAR MODULUS OF ELASTICITY (G)

a. LVL=125,000 PSI
b. PSL=112,500 PSI
c. GL=125,000 PSI

B. MODULUS OF ELASTICITY (E)

a. LVL=2.0X106 PSI
b. PSL=1.8X106 PSI
c. GL=2.0X106 PSI

C. FLEXURAL STRESS, (F'B)

a. LVL=2,800 PSI
b. PSL=2,400 PSI
c. GL=2,400 PSI

D. COMPRESSION PERPENDICULAR TO THE GRAIN (F'CPERP)

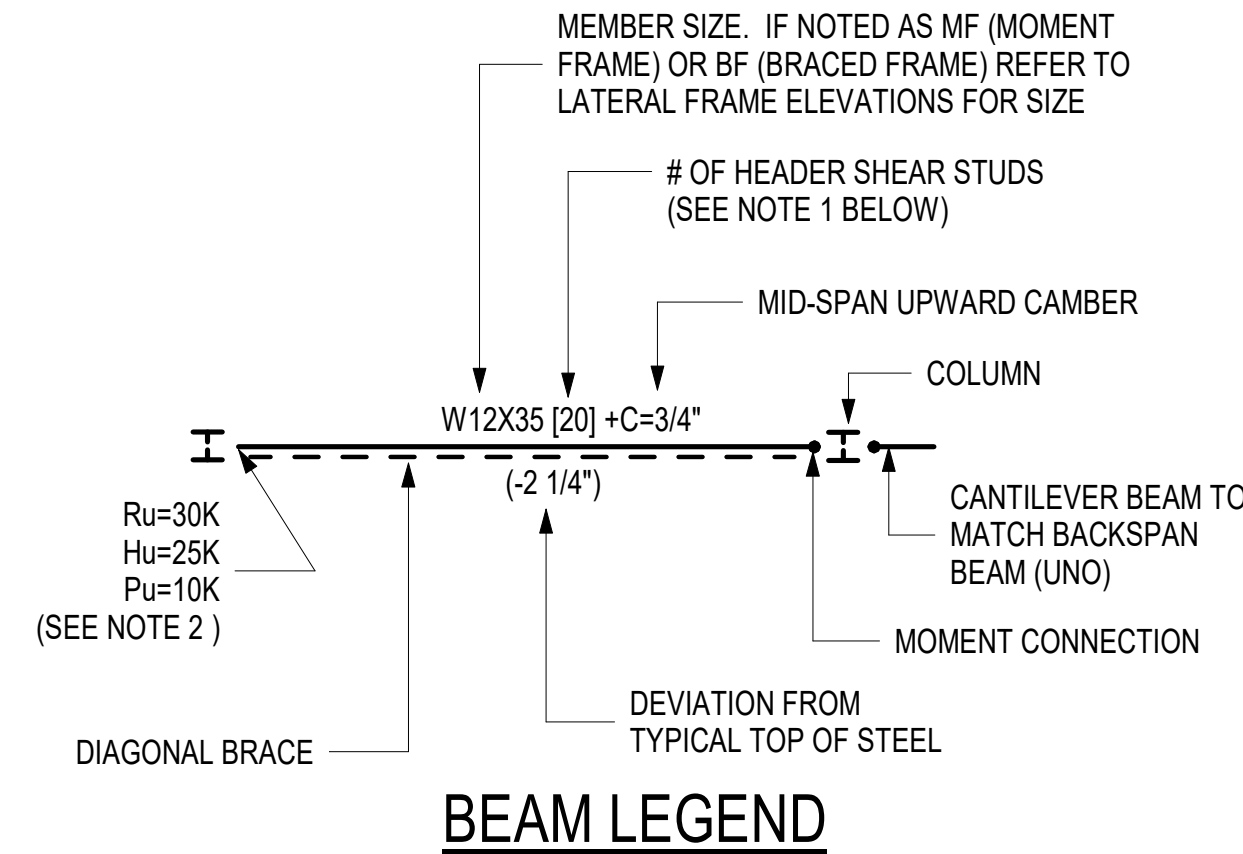
a. LVL=750 PSI
b. PSL=545 PSI
c. GL=740 PSI

E. COMPRESSION PARALLEL TO GRAIN (F'CPARALLEL)

a. LVL=2,510 PSI
b. PL=2,500 PSI
c. GL=2,400 PSI

F. HORIZONTAL SHEAR (FV)

a. LVL=285 PSI
b. PSL=190 PSI
c. GL=290 PSI



NOTES:

- STUD COUNTS ARE SHOWN ON PLAN. THE FOLLOWING MINIMUMS SHALL BE PROVIDED AT ALL BEAMS: (a) AT MOMENT FRAME AND BRACED FRAME BEAMS PROVIDE A MINIMUM OF (1) SHEAR STUD PER 1 FT.; (b) AT ALL OTHER BEAMS PROVIDE A MINIMUM OF (1) SHEAR STUD PER 2 FT.
- THE GENERAL NOTES PROVIDE END SHEAR REACTIONS FOR BEAM CONNECTION DESIGN, WHERE BEAM END REACTIONS ARE POSTED ON PLAN, THE GREATER OF THE GENERAL NOTES AND THE POSTED VALUE SHALL BE USED FOR DESIGN. BEAM END REACTIONS POSTED ON PLANS ARE FACTORED.

Ru= FACTORED SHEAR REACTION (VERTICAL DIRECTION)

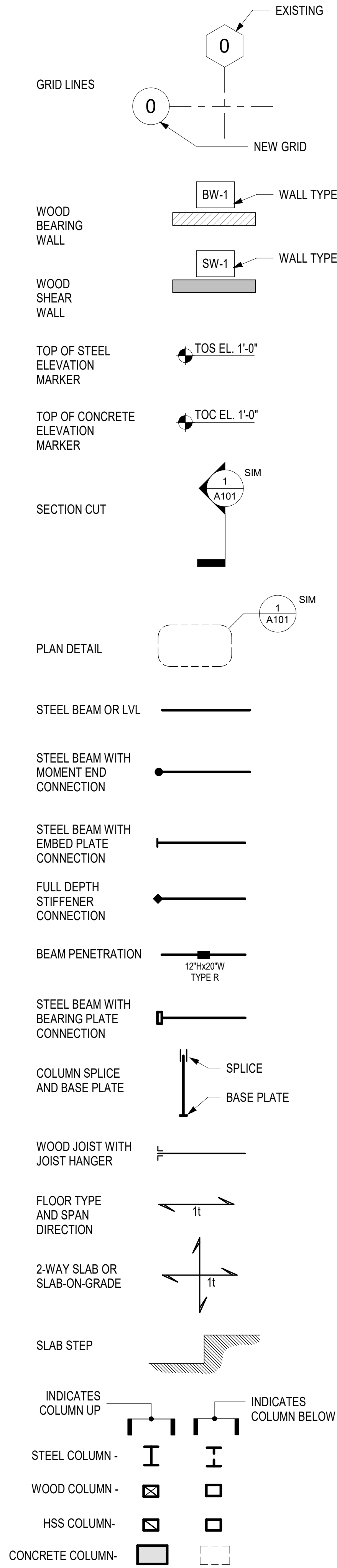
Hu= FACTORED SHEAR REACTION (HORIZONTAL DIRECTION)

Pu= FACTORED AXIAL LOAD

Tu= FACTORED TORSION LOAD

Mux= FACTORED STRONG AXIS MOMENT

Muy= FACTORED WEAK AXIS MOMENT



ABBREVIATIONS:

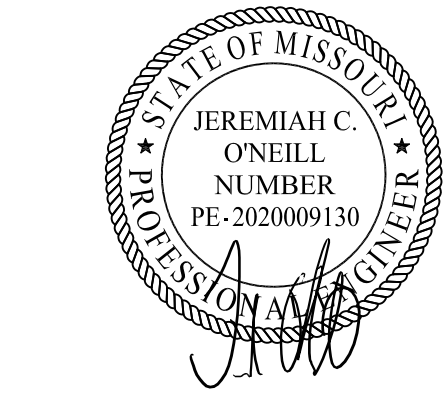
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
AISC	AMERICAN INSTIT. OF STEEL CONSTR.
ALT	ALTERNATE
ARCH	ARCHITECT
ASD	ALLOWABLE STRESS DESIGN
AWS	AMERICAN WELDING SOCIETY
BF	BRACED FRAME
BOF	BOTTOM
BOF	BOTTOM OF FOOTING
BRG	BEARING
BLDG	BUILDING
CB	CONCRETE BEAM
CIP	CAST-IN-PLACE
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CJ	CONSTRUCTION JOINT
CONT	CONTINUOUS
CNTR	CENTERED
D&E	DRILL AND EPOXY
DEPR	DEPRESSION
DET	DETAIL
DIA	DIAMETER
Ø	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DN	DOWN
DO	DITTO
DWG	DRAWING
DWLS	DOWELS
(E)	EXISTING
EA	EACH
EE	EACH END
EF	EACH FACE
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EF	EACH FACE
EW	EACH WAY
EXP ANC	EXPANSION ANCHOR
EXP JT	EXPANSION JOINT
FOUND	FOUNDATION
FIN FLR	FINISHED FLOOR
FLR	FLOOR
FRT	FIRE-RETARDANT TREATED
FT	FEET
FTG	FOOTING
FV	FIELD VERIFY
GIRDER	GIRDER TRUSS
HORIZ	HORIZONTAL
HP	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
INCH	INCH
K	KIP=1000 LBS
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
LP	LOW POINT
LRFD	LOAD RESISTANCE FACTOR DESIGN
LSV	LONG SIDE VERTICAL
LSH	LONG SIDE HORIZONTAL
LWC	LIGHTWEIGHT CONCRETE
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MEZZ	MEZZANINE
MF	MOMENT FRAME
(N)	NEW
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
NWVC	NORMAL WEIGHT CONCRETE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPG	OPENING
OWJ	OPEN-WEB JOIST/TRUSS (PREFABRICATED)
PT	POST-TENSIONED
PC	PILE CAP
PCI	PRECAST CONCRETE INSTITUTE
PL	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REF	REFERENCE
REINF	REINFORCING
RETO	RETAINING
SHT	SHEET
SIM	SIMILAR
SOG	SLAB-ON-GRADE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
T	TOP
T.O.	TOP OF
T&B	TOP AND BOTTOM
TB	TIE-BEAM
THK	THICK
TOT	TOP OF CONCRETE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
W/	WITH
WP	WORKPOINT
WWF	WELDED WIRE FABRIC

Bergmeyer

CONSULTANTS:

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SEAU/ SIGNATURE:



3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM 2
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION



SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

GENERAL NOTES I

DRAWN BY:	ESP
CHECKED BY:	RFH
JOB NO:	20-128

S001

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REINFORCEMENT:

1. REINFORCEMENT DETAILING, FABRICATION, AND INSTALLATION SHALL CONFORM TO ACI 318-14, ACI DETAILING MANUAL LATEST EDITION (SP-66), AND CRSI MANUAL OF STANDARD PRACTICE LATEST EDITION.
2. STEEL REINFORCEMENT FOR REBARS, STIRRUPS, AND TIES SHALL CONFORM TO ASTM A610 GRADE 60. REBARS GREATER THAN #11 IN SIZE SHALL BE GRADE 75.
3. WELDED FABRIC (WVF) SHALL CONFORM TO ASTM A185.
4. PROVIDE THE NECESSARY ACCESSORIES TO SUPPORT ALL REINFORCEMENT IN ITS INTENDED POSITION.
5. REFER TO CONCRETE COVER TABLE FOR MINIMUM PROTECTIVE COVERING FOR REINFORCEMENT.
6. WHERE CONTINUOUS REINFORCEMENT IS CALLED FOR, IT SHALL BE EXTENDED AROUND CORNERS, HOOKED AT DISCONTINUOUS ENDS, AND LAPPED WITH CLASS B TENSION SPICES BETWEEN BAR SEGMENTS.
7. WVF FABRIC LAPS SHALL BE 8" OR 1.5 PANELS, WHICHEVER IS GREATER.
8. ALL HOOKS SHOWN ON DRAWINGS SHALL BE STANDARD HOOKS, UNLESS NOTED OTHERWISE.
9. PRIMARY BEAM FLEXURAL REINFORCEMENT SHALL BE PLACED IN A SINGLE TOP AND BOTTOM LAYER, U.N.O.
10. AT BEAMS DEEPER THAN 18", PROVIDE CONTINUOUS #4 SIDE BARS (EACH FACE) SPACED NO MORE THAN 12" O.C.
11. BEAMS SHALL HAVE A MINIMUM STIRRUP SIZE AND SPACING OF: #3 SPACED AT (BEAM DEPTH*3/2 OR 24" MAX.
12. REINFORCEMENT SHOWN IN SECTIONS AND DETAILS IS INTENDED TO BE TYPICAL WHERE THAT SECTION APPLIES.
13. MINIMUM ADDITIONAL REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS: (2)#5 EACH SIDE OF OPENING (EXTEND 24" BEYOND OPENING EDGE), (2)#4 x 48" LG AT EACH CORNER OF AN OPENING. SEE TYPICAL OPENING DETAILS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.
14. DOWELS SHALL MATCH BAR SIZE AND NUMBER OF THE MAIN REINFORCING.
15. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.

METAL DECKING:

1. FABRICATE STEEL DECKING FROM STEEL TYPE ASTM A653 HAVING A MINIMUM YIELD STRENGTH OF 50 KSI, EXCEPT 16GA DECKING AND ROOF DECKING SHALL BE 33 KSI. ALL DECK SHALL BE DESIGNED, DETAILED, FABRICATED, AND INSTALLED IN ACCORDANCE WITH THE STEEL DECK INSTITUTE.
2. DECK GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A653. DECK COATINGS SHALL BE AS FOLLOWS: ROOF DECK - G60, PARKING DECKS - G90, DECKS EXPOSED TO WEATHER - G90, ALL OTHER LOCATIONS - G30.
3. SUBMIT ENGINEERED SHOP DRAWINGS INDICATING THE SIZE, GAGE, GRADE, AND FINISH OF ALL DECKING. INDICATE SIDELAP FASTENERS AND DECK WELDS. CLEARLY INDICATE ANY LOCATIONS THAT REQUIRE TEMPORARY SHORING.
4. DECK SUPPLIER SHALL DESIGN METAL DECKING TO SAFELY SUPPORT THE WET WEIGHT OF CONCRETE INCLUDING AN ALLOWANCE FOR PONDING AND AN INDUSTRY STANDARD CONSTRUCTION LIVE LOADING OF 20 PSF OR 150-LBS POINT LOAD ON A 1'-0" STRIP OF DECK. ANY SPANS WHICH REQUIRE TEMPORARY SHORING SHALL BE CLEARLY NOTED IN THE SHOP DRAWINGS, AND SHORING INSTALLED BY THE GENERAL CONTRACTOR. THE CONCRETE SUB SHALL PLACE THE SLAB IN A MANNER TO NOT EXCEED THESE CONSTRUCTION LIVE LOADS UNLESS ADDITIONAL MEASURES AND SHORING ARE UTILIZED.
5. COMPOSITE METAL DECK SHALL HAVE ADEQUATE COMPOSITE STRENGTH TO SAFELY SUPPORT THE PERMANENT FLOOR LOADING LISTED IN THE GENERAL NOTES.
6. THE DEFLECTION OF METAL DECK FROM THE WET WEIGHT OF CONCRETE SHALL NOT BE GREATER THAN 3/4" OR L/180, WHICHEVER IS SMALLER.
7. AT METAL ROOF DECK, THE MAXIMUM CEILING LOAD THAT CAN BE HUNG FROM THE DECK IS 50 LBS. PROVIDED THAT NO OTHER LOADS ARE HUNG FROM THE DECK IN A 30" RADIUS. DUCTWORK, PIPE, ETC SHALL BE HUNG DIRECTLY FROM STRUCTURAL STEEL BEAMS. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED TO SPAN THE MEP LOADS DIRECTLY TO STEEL BEAMS.
8. DECK SHALL SPAN THREE OF MORE SUPPORTS WHERE POSSIBLE.
9. COMPOSITE METAL DECK SHALL BE FASTENED TO SUPPORTING BEAMS WITH 3/4" DIA. PUDDLE WELDS OR SHEAR CONNECTORS SPACED NO MORE THAN 12" O.C. SIDELAPS SHALL BE FASTENED AT NO MORE THAN 36" O.C. OR AT THE MIDSPAN, WHICHEVER IS LESS.
10. METAL ROOF DECK SHALL BE FASTENED AT SUPPORTS USING A 244 PATTERN WITH 5/8" DIA. PUDDLE WELDS. SIDELAPS SHALL BE FASTENED WITH #10 SCREWS AT 6" O.C.
11. COORDINATE FLOOR AND ROOF OPENINGS WITH THE ARCH AND MEP DRAWINGS. PROVIDE SUPPLEMENTAL FRAMING/REINFORCING PER THE TYPICAL DETAILS. OPENINGS THROUGH COMPOSITE METAL DECK THAT DO NOT HAVE A SUPPLEMENTAL STEEL SUPPORT FRAME SHALL NOT BE CUT UNTIL AFTER THE SLAB HAS BEEN POURED AND IS FULLY CURED.

POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS SHALL BE USED ONLY WHERE SPECIFIED ON THE DRAWINGS.
2. CONTRACTOR SHALL OBTAIN APPROVAL FROM E.O.R. PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
3. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REINFORCEMENT.
4. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S APPROVED INSTALLATION INSTRUCTIONS.
5. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S APPROVED INSTALLATION INSTRUCTIONS AT NOT LESS THAN THE MINIMUM EDGE DISTANCES AND/OR SPACING INDICATED IN THE MANUFACTURER'S PUBLISHED TECHNICAL LITERATURE.
6. CONTRACTOR SHALL CONTACT MANUFACTURER PRIOR TO ANY ANCHOR INSTALLATION TO DETERMINE IF INSTALLATION TRAINING IS REQUIRED.
7. UNLESS SPECIFIED OTHERWISE, ANCHORS SHALL BE EMBEDDED IN THE APPROPRIATE SUBSTRATE WITH A MINIMUM EMBEDMENT OF (8) TIMES THE NORMAL ANCHOR DIAMETER OR THE EMBEDMENT REQUIRED TO SUPPORT THE SPECIFIED LOAD.
8. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE LISTED BELOW, SHALL BE SUBMITTED TO THE E.O.R. WITH THE APPROVED ESR REPORT, AND WITH CALCULATIONS PREPARED AND SEALED BY A COMMONWEALTH-OF-MASSACHUSETTS LICENSED PROFESSIONAL ENGINEER SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE REQUIRED BY THE APPLICABLE BUILDING CODE(S) SPECIFIED IN THESE PLANS.
9. ACCEPTABLE PRODUCTS ARE:
 - A. "CRACKED CONCRETE" ADHESIVE ANCHORS:
 - a. "HLTI HIT-HY 200" BY HLTI.
 - a. "SET-XP STRUCTURAL EPOXY" BY SIMPSON STRONG-TIE.
 - B. UNREINFORCED BRICK AND CMU MASONRY:
 - a. "HLTI HIT-HY 270" BY HLTI.
 - b. "ET-HP" BY SIMPSON STRONG-TIE.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL DESIGN CONFORMS TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDING, THIRTEENTH EDITION.
2. STRUCTURAL STEEL WORK SHALL CONFORM TO AISC 360-10 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 303-10 "CODE OF STANDARD PRACTICE FOR STRUCTURAL BUILDINGS & BRIDGES", AISC 361-10 AND SUPPLEMENTS "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS".
3. STRUCTURAL STEEL SHALL BE NEW MATERIAL THAT SATISFIES THE PROPERTY REQUIREMENTS INDICATED IN THE "STRUCTURAL STEEL MATERIAL PROPERTIES" SCHEDULE.
4. ALL STEEL SHALL BE COATED WITH SHOP PRIMER UNLESS STEEL IS TO BE FIREPROOFED (SEE ARCH DRAWINGS).
5. ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED. FIELD WELDS OF GALVANIZED MEMBERS SHALL BE TOUCHED UP USING A ZINC RICH PRIMER AFTER COMPLETION AND INSPECTION OF THE WELD.
6. INFILL BEAMS SHALL BE SPACED EQUALLY BETWEEN ESTABLISHED DIMENSIONS, U.N.O.
7. ALL SHOP AND FIELD WELDS TO CONFORM TO AWS D1.1-04 "STRUCTURAL WELDING CODE".
8. WELDED CONNECTIONS SHALL BE MADE BY CERTIFIED WELDERS USING FILLER METAL CONFORMING TO E70XX OR F7X EXXX WITH LOW HYDROGEN.
9. WELDS SHALL DEVELOP THE FULL STRENGTH OF THE MATERIALS BEING WELDED, U.N.O.
10. ALL WELD SIZES SHALL BE THE MINIMUM REQUIRED SIZE BASED ON THE THICKNESS OF THE THICKER PART ACCORDING TO AISC TABLE J2.3 & J2.4.
11. ALL FILLET WELDS SHALL BE 1/4" THICK MINIMUM.
12. ALL AROUND WELDS SHALL BE DISCONTINUOUS AT THE FLANGE TIPS OF OPEN SECTION.
13. MEMBER SPLICES SHALL BE DESIGNED AND DETAILED TO DEVELOP THE FULL STRENGTH OF THE MEMBER OR COMPONENTS BEING CONNECTED.
14. STRUCTURAL STEEL DETAILS NOT SPECIFICALLY SHOWN SHALL BE TAKEN AS BEING SIMILAR TO THAT SHOWN IN CORRESPONDING CONDITIONS.
15. DETAILS AND CONNECTIONS EXPLICITLY DETAILED IN THE CONTRACT DRAWINGS MAY NOT BE ALTERED WITHOUT WRITTEN APPROVAL BY THE ENGINEER. ALTERED CONNECTIONS SHALL BE FOR DECK AND STEEL BEAM DEFLECTION, ALLOW FOR AN AVERAGE OF 1/2" ADDITIONAL CONCRETE FOR EACH FLOOR. IF NO SPECIFICATIONS ARE PROVIDED, FINISH FLOOR TO FF-25 AND TO WITHIN A 1/4" IN 10FT ENVELOPE.
16. SUBMIT CALCULATIONS FOR CONNECTION DESIGNED NOT FULLY DETAILED ON DRAWINGS. DESIGN CONNECTIONS UNDER SUPERVISION OF REGISTERED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE WHERE PROJECT IS BEING CONSTRUCTED, EMPLOYED BY THE STEEL FABRICATOR, DESIGN CALCULATIONS TO BE SEALED BY FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS SUBMITTED WITHOUT COMPLETE DESIGN CALCULATIONS WILL NOT BE REVIEWED.
17. WIDE FLANGE BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS SHALL MEET OR EXCEED THE FACTORED SHEAR DESIGN STRENGTH REQUIREMENTS (LRFD)(KIPS) INDICATED IN THE "WF BEAM FACTORED SHEAR DESIGN STRENGTH" SCHEDULE.
18. BEAM REACTIONS (Ru = "XX" KIPS INDICATED IN THE DRAWINGS SUPERSEDE THE TABLE ABOVE).
19. SEATED BEAM CONNECTIONS ARE NOT ALLOWED UNLESS USED FOR ERECTION PURPOSES ONLY.
20. THE MINIMUM THICKNESS FOR A STRUCTURAL CONNECTION PLATE IS 3/8".
21. BEAM AND GIRDER SHEAR CONNECTIONS TO COLUMNS SHALL BE DESIGNED AND DETAILED TO BE CAPABLE OF END ROTATION PER AISC.
22. CONNECTIONS WITH AXIAL LOAD THROUGH-FORCES AS INDICATED ON PLAN, SHALL BE DESIGNED FOR SHEAR AND AXIAL FORCES SIMULTANEOUSLY.
23. TENSION AND COMPRESSION MEMBER END CONNECTIONS SHALL DEVELOP THE FORCE DUE TO THE POSTED DESIGN LOAD, BUT NOT LESS THAN 100% OF THE TENSION CAPACITY OF THE MEMBER WHERE NO DESIGN LOAD IS POSTED. THE TENSION CAPACITY SHALL BE APPLIED AS A LOAD IN BOTH TENSIONS AND COMPRESSION.
24. ALL BOLTED STRUCTURAL CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER A325 BOLTS, MINIMUM.
25. ALL STRUCTURAL BOLTS SHALL BE TENSION CONTROLLED AS SPECIFIED IN AISC MANUAL, TABLE J3.1 (14TH ED).
26. STRUCTURAL BOLTS CONFINED BY STRUCTURE GEOMETRY THAT CANNOT BE INSTALLED USING CONTROLLED BOLT TENSION, SHALL BE HAND TIGHTENED USING A WRENCH AND CLEARLY MARKED ON THE STRUCTURAL STEEL AS "HT".
27. PROVIDE FULL-DEPTH WELDED STIFFENER PLATES ON BOTH SIDES OF A BEAM WEB UNDER CONCENTRATED LOAD DUE TO A BEAM OVER COLUMN, COLUMN UP, OR STRUCTURAL HANGER CONDITION.
28. ALL CONNECTIONS SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE AISC "LRFD SPECIFICATIONS FOR STEEL HOLLOW STRUCTURAL SECTIONS".
29. RECTANGULAR HSS MEMBERS ARE TO BE ORIENTED LLV U.N.O.
30. ALL HSS SHAPES, EXCEPT DIAGONAL BRACING MEMBERS, ARE TO HAVE 1/4" CAP PLATES, FULLY SEAL WELDED ALL AROUND.
31. ALL STRUCTURAL STEEL, INCLUDING BASEPLATES AND TOP OF ANCHOR BOLTS, TO BE EXPOSED TO SOIL OR TO BE ENCASED IN CONCRETE SHALL BE COATED WITH 16 MILS COAL TAR EPOXY.
32. FIELD MODIFICATIONS OF STRUCTURAL STEEL MEMBERS AND CONNECTIONS, SHALL NOT BE MADE WITHOUT APPROVAL FROM THE ENGINEER.
33. BEAMS ARE NOT DESIGNED TO SUPPORT LATERAL LOADS, OR OUT-OF-PLANE BENDING, AT THE BOTTOM FLANGE THAT MAY RESULT OTHER TRADES. BEAMS SHALL BE BRACED OR SUPPORTED TO RESIST SUCH FORCES.
34. BEAM WEB PENETRATIONS OR CORES REQUIRED FOR COORDINATION WITH OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP WHENEVER POSSIBLE.
35. SPLICING OF STRUCTURAL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ENGINEER UNLESS SPECIFICALLY INDICATED IN THE CONTRACT DRAWINGS.
36. DOUBLE ANGLE OR CHANNEL MEMBERS SHALL HAVE BOLTS PLATE SPACERS AT NO MORE THAN 4'-0" O.C. ALONG THE MEMBER LENGTH.

LIGHT GAGE STEEL FRAMING:

1. LIGHT GAGE STEEL FRAMING SHALL BE ENGINEERED AND DETAILED BY THE LIGHT GAGE SUBCONTRACTOR. SUBMIT SHOP DRAWINGS AND CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THIS PROJECT.
2. INFORMATION SHOWN ON THESE DRAWINGS THAT PERTAINS TO LIGHT GAGE METAL FRAMING IS ONLY SHOWN TO CONCEPTUALLY CONVEY ATTACHMENT POINTS TO THE BUILDING STRUCTURE OR TO INDICATE SPECIAL CONFIGURATIONS THAT ARE IMPORTANT TO THE FINISHED BUILDING.
3. REFER TO ARCHITECTURAL DRAWINGS FOR LIGHT GAGE LOCATIONS, CONFIGURATIONS, AND ASSEMBLIES.
4. ALL NON-LOAD BEARING LIGHT GAGE METAL FRAMING THAT FRAMES BETWEEN TWO SEPARATE FLOOR LEVELS SHALL BE INSTALLED WITH A SLIP CONNECTION TO ALLOW FOR DIFFERENTIAL VERTICAL MOVEMENT BETWEEN THE FLOORS. PROVIDE FOR VERTICAL DEFLECTION OF 3/4" OR L/360, WHICHEVER IS GREATER.

INSPECTIONS - METAL DECK:

1. TESTING AND INSPECTIONS SHALL BE CONDUCTED BY AN APPROVED TESTING AGENCY RETAINED BY AND PAID BY THE OWNER.
2. THE TESTING AGENCY SHALL BE SUPPLIED WITH (1) A FINAL SET OF METAL DECK SHOP DRAWINGS (2) ADEQUATE NOTICE OF COMPLETION TO PERFORM INSPECTION PRIOR TO SLAB PLACEMENT.
3. THE TESTING AGENCY SHALL INSPECT THE METAL DECK AND SHEAR STUD INSTALLATION AS FOLLOWS TO CONFIRM THEY CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND DESIGN STANDARDS.
4. METAL DECKING - TESTING AGENCY SHALL VISUALLY INSPECT ALL METAL DECK TO CONFIRM IT HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS. ADDITIONALLY, THE TESTING AGENCY SHALL INSPECT FOR SIZE AND SPACING TO CONFIRM THEY MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
5. SHEAR STUDS - THE TESTING AGENCY SHALL INSPECT SHEAR STUDS FOR SPACING, QUANTITY, AND CLEARANCES. ADDITIONALLY, ALL STUDS SHALL BE INSPECTED ACOUSTICALLY. STUDS THAT DO NOT RING WHEN STRUCK WITH A HAMMER SHALL STICK UNTIL BENT TO 15 DEGREES. AT A MINIMUM 1 IN 100 STUDS SHALL BE BENT TO 15 DEGREES, AND CONSIDERED ACCEPTABLE IF NO FRACTURE OCCURS. IF AT ANY POINT THE FAILURE RATE EXCEEDS 3%, THE TESTING RATE SHALL BE INCREASED TO 1 IN 25 UNTIL THE FAILURE RATE FALLS BELOW 3%.
6. REPORTS - THE TESTING AGENCY SHALL DISTRIBUTE REPORTS AS EARLY AS POSSIBLE TO NOTIFY ALL PARTIES OF ANY DEFICIENCIES. IF DEFICIENCIES REQUIRE IMMEDIATE ATTENTION THE ENGINEER SHALL BE NOTIFIED AS SOON AS POSSIBLE VIA PHONE.

CONCRETE:

1. ALL CONCRETE WORK SHALL CONFORM TO THE 2014 EDITION OF THE ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318) AND THE COMMONWEALTH OF MASSACHUSETTS STATE BUILDING CODE. IN CASE OF CONFLICT, THE MASSACHUSETTS STATE BUILDING CODE SHALL GOVERN.
2. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE UNLESS OTHERWISE NOTED WITH SAND AND GRAVEL AGGREGATE, TYPE I OR TYPE II PORTLAND CEMENT AND MINIMUM COMPRESSIVE STRENGTH (FC) IN 28 DAYS AS SPECIFIED IN CONCRETE STRENGTH TABLE.
3. ALL CONCRETE EXPOSED TO THE WEATHER OR POSSIBLE FREEZE/THAW ACTION SHALL CONTAIN AN AIR ENTRAINMENT ADMIXTURE, AIR CONTENT = 6% +/-1.5% GROUT UNDER COLUMN BASE PLATES AND UNDER OTHER BEARING PLATES SHALL BE NON-SHRINK, NONMETALLIC GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 3 DAYS.
5. ALL EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMFERED 3/4" UNLESS SHOWN OTHERWISE ON ARCHITECTURAL DRAWINGS.
6. SEE ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, WASHES, REGLETS, CONCRETE FINISHES, MASONRY ANCHORS, AND FOR MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.
7. CONCRETE CLEAR COVER ON REINFORCEMENT SHALL BE AS SPECIFIED IN THE CONCRETE COVER TABLE.
8. SEE TYPICAL DETAIL, FOR SAWCUT CONTROL JOINTS IN SLABS-ON-GRADE. THE SAWCUTTING OPERATION SHALL BEGIN AS SOON AS THE SAW WILL NOT RAVEL EDGES OR DISLODGE THE AGGREGATE, BUT IN NO CASE LONGER THAN 12 HOURS AFTER PLACING THE SLAB.
9. U.N.O. PROVIDE DOWELS TO MATCH MAIN REINFORCEMENT SIZE AND SPACING. PROVIDE A CLASS 3 LAP SPLICE U.N.O.
10. PROVIDE EPOXY COATED REBAR IN ALL EXTERIOR CONCRETE AND PARKING SLABS.
11. REFER TO ACI 305 FOR REQUIREMENTS WHEN PLACING CONCRETE IN HOT WEATHER. REFER TO ACI 306 FOR REQUIREMENTS WHEN PLACING CONCRETE IN COLD WEATHER.
12. ON STEEL FRAMED FLOORS, PROVIDE ADDITIONAL CONCRETE AS NECESSARY TO FINISH THE FLOORS TO WITHIN THE TOLERANCES IN THE SPECIFICATION, WHILE ACCORDING TO THE DECK AND STEEL BEAM DEFLECTION, ALLOW FOR AN AVERAGE OF 1/2" ADDITIONAL CONCRETE FOR EACH FLOOR. IF NO SPECIFICATIONS ARE PROVIDED, FINISH FLOOR TO FF-25 AND TO WITHIN A 1/4" IN 10FT ENVELOPE.
13. SUBMIT ENGINEERED CONCRETE MIXES INCLUDING REQUIRED BACKUP DATA FOR EACH TYPE OF CONCRETE TO BE USED TO THE ARCHITECT/ENGINEER FOR REVIEW. CLEARLY NOTE WHERE EACH MIX WILL BE USED.

SUBMITTALS:

1. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMISSIONS SHALL BE SUBMITTED TO PROVIDE ADEQUATE TIME FOR REVIEW (A MINIMUM OF 2 WEEKS).
2. AS A MINIMUM THE FOLLOWING STRUCTURAL SUBMITTALS SHALL BE PROVIDED:
 - A. EACH CONCRETE MIX DESIGN SHALL BE SUBMITTED FOR REVIEW WITH THE FOLLOWING INFORMATION (AS A MINIMUM):
 - a. INTENDED USE OF MIX (I.E. WHERE ON THE PROJECT WILL MIX BE USED.
 - b. MIX PROPORTIONS, INCLUDING ALL ADMIXTURES USED.
 - c. MANUFACTURER'S DATA AND/OR CERTIFICATIONS VERIFYING CONFORMANCE OF ALL MIX MATERIALS, INCLUDING ADMIXTURES, WITH SPECIFIED REQUIREMENTS.
 - d. UNIT WEIGHT.
 - e. SLUMP.
 - f. REQUIRED AVERAGE STRENGTH QUALIFICATION DATA PERN ACI 301 3.9.1 AND 3.9.2.
 - B. REBAR SHOP DRAWINGS - DRAWINGS SHALL INDICATE BAR SIZE, BAR GRADE, BAR LAYOUT, BAR SPACING, CHAIR SUPPORTS, AND BENDING DETAILS. DETAILING SHALL COMPLY WITH ACI DETAILING MANUAL.
 - C. STRUCTURAL STEEL SHOP DRAWINGS, CLEARLY INDICATE PROFILES, SIZES, SPACING AND LOCATIONS OF STRUCTURAL MEMBERS, CONNECTIONS ATTACHMENTS, ANCHORAGES, FRAMED OPENINGS, SIZE AND TYPE OF FASTENERS, CAMBERS, AND CLEARANCES. INDICATE WELDED CONNECTIONS USING STANDARD AWS WELDING SYMBOLS. CLEARLY INDICATE NET WELD LENGTHS, SIZES, AND WELDING SEQUENCES. CLEARLY IDENTIFY ALL HIGH STRENGTH BOLTS NOT REQUIRED TO BE TENSIONED (INSTALLED "SNUG TIGHT AS IDENTIFIED BY AISC).
 - D. METAL DECK SHOP DRAWINGS. INDICATE DECKING PLAN, DECK PROFILE, DECK GAGE, ATTACHMENT FASTENING AND SPACING, SUPPORT LOCATIONS, DECK OVERHANGS, POUR STOPS, OPENINGS, FINISHES, DETAILS AND SECTIONS AS REQUIRED.
 - E. WOOD TRUSS SHOP DRAWINGS. REFER TO WOOD TRUSS NOTES SECTION FOR SUBMITTAL REQUIREMENTS.
 - F. LIGHT GAUGE STEEL FRAMING SHOP DRAWINGS. CLEARLY INDICATE PROFILES, SIZES, SPACING AND LOCATIONS OF MEMBERS, CONNECTIONS ATTACHMENTS, ANCHORAGES, FRAMED OPENINGS, SIZE AND TYPE OF FASTENERS. INDICATE WELDED CONNECTIONS USING STANDARD AWS WELDING SYMBOLS.

INSPECTIONS - CONCRETE:

1. TESTING AND INSPECTIONS SHALL BE CONDUCTED BY AN APPROVED TESTING AGENCY RETAINED BY AND PAID BY THE OWNER.
2. THE TESTING AGENCY SHALL BE SUPPLIED WITH (1) A FINAL SET OF REBAR SHOP DRAWINGS (2) ADEQUATE NOTICE OF CONCRETE POUR TO PERFORM REBAR INSPECTION AND BE PRESENT AS REQUIRED FOR CONCRETE TESTING.
3. THE TESTING AGENCY SHALL INSPECT REBAR AND TEST CONCRETE AS FOLLOWS TO CONFIRM THEY CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND DESIGN STANDARDS.
4. REINFORCING STEEL - ALL REINFORCING SHALL BE INSPECTED PRIOR TO CLOSING FORMWORK. INSPECTOR SHALL INSPECT FOR REBAR SIZE, SPACING, QUANTITY, AND CONFIGURATION.
5. CONCRETE PLACEMENT - CONCRETE SHALL BE TESTED FOR SLUMP, AIR CONTENT, TEMPERATURE, UNIT WEIGHT, AND CONFIRMATION THAT THE CORRECT MIX IS BEING USED. TESTING AGENCY SHALL ALSO CONFIRM THAT NO WATER IS ADDED TO THE MIX ON-SITE UNLESS IT HAS SPECIFICALLY BEEN NOTED AS HOLD BACK WATER.
6. TIME TO PLACEMENT - TESTING AGENCY SHALL CONFIRM THAT ALL CONCRETE IS PLACED WITHIN 90 MINUTES OF BEING BATCHED AT THE PLANT.
7. CONCRETE CYLINDERS - TESTING AGENCY SHALL TAKE AT LEAST ONE SET OF CONCRETE CYLINDERS FOR EACH 50 CUBIC YARDS OF CONCRETE PLACED FOR EACH CLASS OF CONCRETE POURED EACH DAY. FOR PUMPED CONCRETE CYLINDERS SHALL BE TAKEN AT THE POINT OF PLACEMENT. SAMPLES SHALL BE TAKEN IN ACCORDANCE WITH ASTM C172. MARKING, CURING, AND HANDLING OF CYLINDERS SHALL BE IN ACCORDANCE WITH ASTM C31. TESTING OF CYLINDERS SHALL BE IN ACCORDANCE WITH ASTM C39. 4 CYLINDERS SHALL BE OBTAINED AND TESTED AS FOLLOWS: (1) CYLINDER AT 7 DAYS, (2) CYLINDERS AT 28 DAYS. IF THE CYLINDERS AT 28 DAYS DO NOT REACH THE DESIGN STRENGTH, THE 4TH CYLINDER SHALL BE TESTED AT 50 DAYS.
8. REPORTS - THE TESTING AGENCY SHALL DISTRIBUTE REPORTS AS EARLY AS POSSIBLE TO NOTIFY ALL PARTIES OF ANY DEFICIENCIES. IF DEFICIENCIES REQUIRE IMMEDIATE ATTENTION THE ENGINEER SHALL BE NOTIFIED AS SOON AS POSSIBLE VIA PHONE.

CONCRETE STRENGTH		
MIX USE	f _c (PSI) (28-DAY)	NOTES
SPREAD FOOTINGS	4000	
PIERS	4000	
GRADE BEAMS	4000	
FOUNDATION WALLS	4000	
SLABS-ON-GRADE	4000	
OTHER FOUNDATION CONCRETE	4000	
STRUCTURAL SLABS AND BEAMS	5000	
SLABS ON METAL DECK	4000	
SLABS EXPOSED TO FREEZE THAW	5000	W/ AIR ENTRAINMENT
FILL CONCRETE	3000	
MUD MATS	2000	
STEEL MEMBER ENCASEMENT	3000	

MASONRY STEEL LINTEL SCHEDULE				
OPENING WIDTH	4" WALL	6" WALL	8" WALL	12" WALL
L < 5'-0"	L4x3 1/2x5/16	L6x6x5/16	(2)-L4x3 1/2x5/16	(2)-L6x6x5/16
5'-0" < L < 7'-0"	L5x3 1/2x5/16	L6x6x5/16	(2)-L5x3 1/2x5/16	(2)-L6x6x5/16
7'-0" < L < 9'-0"	L6x3 1/2x3/8	L6x6x3/8	(2)-L6x3 1/2x3/8	(2)-L6x6x3/8
9'-0" < L < 12'-0"	L6x3 1/2x1/2	L6x6x1/2	(2)-L6x3 1/2x1/2	(2)-L6x6x1/2
1. LINTELS THAT ARE PART OF THE EXTERIOR WALL ASSEMBLY OR EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED.				
2. LINTELS SHALL HAVE A MINIMUM 8" BEARING ON EACH SIDE OF OPENING.				
3. LINTELS IN PAIRS SHALL BE STITCH WELDED TOGETHER AT 18" O.C.				
4. PROVIDE LINTELS FOR MASONRY OPENINGS IN ACCORDANCE WITH THIS SCHEDULE UNLESS SHOWN OTHERWISE ON DRAWINGS.				
5. AT WALLS THICKER THAN 12" PROVIDE ONE LINTEL PER EACH 4" OR 6" OF WALL THICKNESS PER THE TABLE ABOVE. FOR EXAMPLE, AN 18" THICK WALL WITH AN 8'-0" OPENING REQUIRES (3)-L6x6x5/16.				
MINIMUM CMU WALL REINFORCING				
WALL DEPTH	HEIGHT<=8FT	8FT<HEIGHT<=12FT	12FT<HEIGHT<=20FT	
6" INTERIOR	#4@48" O.C.	#4@48" O.C.	NOT PERMITTED	
8" INTERIOR	#4@48" O.C.	#4@48" O.C.	#5@48" O.C.	
8" EXTERIOR	#4@48" O.C.	#5@32" O.C.	NOT PERMITTED	
10" EXTERIOR	#4@48" O.C.	#5@32" O.C.	#5@8" O.C.	
8" PARKING (W/ POTENTIAL VEHICLE IMPACT)	#6@24" O.C.	#6@24" O.C.	#6@24" O.C. UP TO 16FT TALL	
NOTES:				
1. REINFORCING APPLIES TO NON-LOAD BEARING CMU WALLS ONLY. FOR STRUCTURAL LOAD BEARING WALLS (SEE PLANS)				

INSPECTIONS - STRUCTURAL STEEL:

1. TESTING AND INSPECTIONS SHALL BE CONDUCTED BY AN APPROVED TESTING AGENCY RETAINED BY AND PAID BY THE OWNER.
2. THE TESTING AGENCY SHALL BE SUPPLIED WITH (1) A FINAL SET OF STEEL SHOP DRAWINGS (2) ADEQUATE NOTICE OF FIREPROOFING OPERATIONS OR OTHER OPERATIONS THAT WILL IMPEDE ADEQUATE STEEL INSPECTIONS (3) ADEQUATE ASSISTANCE WITH SCAFFOLDING, LIFTS, LADDERS, ETC. TO FULLY INSPECT THE STEEL AS REQUIRED.
3. THE TESTING AGENCY SHALL INSPECT THE STRUCTURAL STEEL FOR THE FOLLOWING TO CONFIRM THAT THE INSTALLATION CONFORMS TO THE DRAWINGS, SPECIFICATIONS, AND DESIGN STANDARDS.
4. FITUP AND ALIGNMENT - TESTING AGENCY SHALL REVIEW THE STRUCTURAL STEEL FOR PROPER FITUP AND ALIGNMENT.
5. GENERAL WELDING - TESTING AGENCY SHALL OBSERVE AND CONFIRM THE FOLLOWING (1) THAT THE APPROVED WELDING PROCEDURE AND SEQUENCE IS FOLLOWED (2) THAT ALL WELDING IS PERFORMED BY WELDERS THAT ARE PROPERLY CERTIFIED PER AWS (3) THAT ALL JOINT PREP, WELD SIZE, AND WELD TYPES CONFORM TO THE CONTRACT DOCUMENTS (4) THAT ALL WELDS HAVE BEEN COMPLETED AND NO WELDS HAVE BEEN ADDED WITHOUT PROPER APPROVAL.
6. WELD INSPECTION - FIELD WELDING SHALL BE TESTED PER AWS D1.1 AS FOLLOWS (1) ALL FIELD WELDS SHALL BE 100% VISUALLY INSPECTED (2) FILLET WELDS SHALL HAVE ONE SPOT TEST PER MEMBER USING MAGNETIC PARTICLE TESTING (3) PARTIAL PENETRATION WELDS SHALL HAVE ONE SPOT TEST PER MEMBER USING MAGNETIC PARTICLE TESTING (4) FULL PENETRATION WELDS SHALL BE 100% TESTED USING ULTRASONIC TESTING (5) 10% OF ALL OTHER WELDS SHALL BE TESTED USING MAGNETIC PARTICLE TESTING. (6) IN THE CASE THAT DEFECTIVE WELDS ARE FOUND, THE REMAINING UNTESTED WELDS SHALL BE TESTED USING THE SAME MEANS DESCRIBED ABOVE.
7. BOLTS - THE TESTING AGENCY SHALL INSPECT ALL BOLTED CONNECTIONS TO CONFIRM THAT ALL BOLTS HAVE BEEN INSTALLED AND PROPERLY TORQUED PER THE APPROVED SHOP DRAWINGS.
8. REPORTS - THE TESTING AGENCY SHALL DISTRIBUTE REPORTS AS EARLY AS POSSIBLE TO NOTIFY ALL PARTIES OF ANY DEFICIENCIES. IF DEFICIENCIES REQUIRE IMMEDIATE ATTENTION THE ENGINEER SHALL BE NOTIFIED AS SOON AS POSSIBLE VIA PHONE.

WF BEAM FACTORED SHEAR DESIGN STRENGTH

BEAM DESIGN	BOLT ROWS	SHEAR DESIGN (KIPS)
W8X10, W10X12	2	18.5
W8X13-15, W10X15	2	24.0
W8X18-24, W10X17-26	2	26.9
W8≥28, W10≥30	2	34.8
W12X14-16	3	33.0
W12X19-30, W14X22-30	3	40.2
W12X35-45, W14X34-48	3	52.1
W12≥50, W14≥53	3	63.0
W16X26-31	4	60.0
W16X36-40, W18X35-40	4	71.9
W16≥45, W18X46-55	4	84.2
W18≥60, W21X44-62, W24X55	5	106.7
W21≥68, W24X62-76	5	126.5
W24≥84, W27X84	6	151.8
W27≥94, W30X90-99	7	195.0
W30≥108	8	230.0
W33	9	260.0
W36	10	290.0
W40, W44	11	319.0

STRUCTURAL STEEL MATERIAL PROPERTIES

STRUCTURAL SECTION	MATERIAL PROPERTIES (U.N.O.)
WF, S & M	ASTM 992 or A572, GRADE 50
HSS	ASTM A-500 GRADE B
MC, C	ASTM A-36
ANGLE	ASTM A-36
PLATE	ASTM A-36
BARs	ASTM A-36
PIPE	ASTM A-53 GRADE B
HIGH STRENGTH BOLTS	ASTM A325
ANCHOR BOLTS	ASTM F-1554 GRADE 36

CONCRETE COVER	
BAR TYPE	CONCRETE COVER
SURFACES CAST AGAINST EARTH	3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER	@ #5 BARS AND SMALLER = 1 1/2" @ #6 BARS AND GREATER = 2"
FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER AT SLABS, WALLS, JOISTS	@ #11 BARS AND SMALLER = 3/4" @ #11 BARS AND GREATER = 1 1/2"
FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER AT BEAMS AND COLUMNS	1 1/2"
SLABS-ON-GRADE (FROM TOP OF SLAB)	1 1/2"
SLABS-ON-METAL DECK	3/4" @ TOP 3/4" @ BOTTOM
SLABS-ON-METAL DECK (AT PARKING LEVELS)	1 1/2" @ TOP 3/4" @ BOTTOM

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS AND REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

05/17/2021

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STRUCTURAL ENGINEERING
100 SUMMER ST, SUITE 1600
BOSTON, MA 02210
617-938-3349

SEAL SIGNATURE:


3
2
1
2021-04-26
2021-03-31
2021-01-11
2020-12-21

ISSUED FOR CONSTRUCTION
ADDENDUM 2
PERMIT/BID SET
75% SET

NO. BY DATE DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

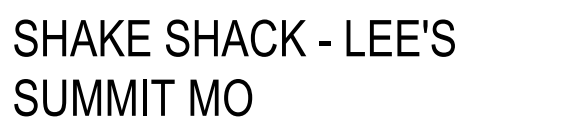
GENERAL NOTES II

DRAWN BY: ESP
CHECKED BY: RPH
JOB NO: 20-128

S002



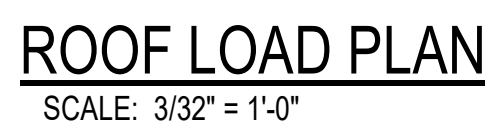
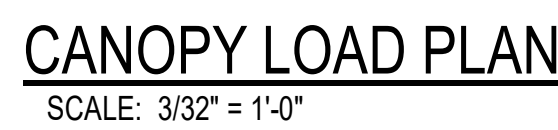
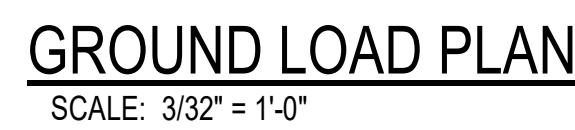
H+O
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CONSTRUCTION

JOB NO: 20-128

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SCALE: 1/8" = 1'-0"

1. CLADDING PRESSURES ARE CALCULATED PER ASCE 7-10 AND ARE ULTIMATE LOADS. PRESSURES CAN BE CONVERTED TO ASD WIND PRESSURES BY MULTIPLYING THE ULTIMATE PRESSURES BY 0.6.

2. POSITIVE PRESSURES ARE TOWARD THE SURFACE. NEGATIVE PRESSURES ARE AWAY FROM THE SURFACE.

2. POSITIVE PRESSURES ARE TOWARD THE SURFACE. NEGATIVE PRESSURES ARE AWAY FROM THE SURFACE.

1. LOADING PLANS ARE SHOWN DIAGRAMMATICALLY, REFER TO ARCHITECTURAL DRAWINGS FOR SPECIFIC LOCATIONS OF SPACES CORRESPONDING TO EACH LOADING SHOWN.
2. SDL - INDICATES SUPERIMPOSED DEAD LOAD. WHEN NO PARTITION LOADING IS INCLUDED IN THE LIVE LOAD, IT IS INCLUDED AS PART OF THE SUPERIMPOSED DEAD LOAD.
3. LL - INDICATES LIVE LOAD OR SNOW LOAD. WHEN NOTED AS "50+15 PSF" THE +15 PSF IS AN ALLOWANCE FOR PARTITION LIVE LOAD.

BUILDING CODE - 2018 INTERNATIONAL BUILDING CODE WITH ORDINANCE 8536

RISK CATEGORY = II

BUILDING DESIGNED FOR ADDITIONAL VERTICAL EXPANSION = NO
BUILDING DESIGNED FOR ADDITIONAL HORIZONTAL EXPANSION = NO

DEAD LOADS
WEIGHT OF BUILDING MATERIALS BEAMS, SLABS, COLUMNS, ETC.

SUPERIMPOSED DEAD LOADS

SEE LOADING PLANS
NOTE - SLAB-ON-DECK FLOORS ARE DESIGNED TO ACCOMMODATE AN ADDITIONAL 1/2"
AVERAGE THICKNESS OF CONCRETE TO ALLOW FOR OVERPOURING TO MITIGATE METAL
DECK DEFLECTION.

SUPERIMPOSED LIVE LOADS

SEE LOADING PLANS

SNOW LOADS
SEE LOADING PLANS, SNOW LOADS SHOWN ARE FLAT ROOF SNOW
LOADS (Pf) AND SNOW DRIFTS CALCULATED PER ASCE 7-16.

WIND LOADS

BASIC WIND SPEED = 109 MPH
WIND EXPOSURE CATEGORY = B
WIND LOADS HAVE BEEN CALCULATED PER ASCE 7-16

SEISMIC LOADS

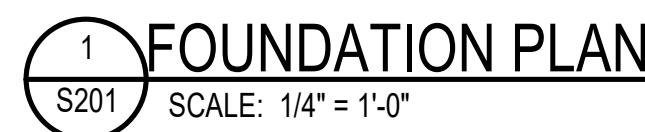
SEISMIC IMPORTANCE FACTOR = 1.0
SITE CLASSIFICATION = D
DESIGN SPECTRAL RESPONSE ACCELERATIONS
SDS = 0.106
SD1 = 0.109

SEISMIC DESIGN CATEGORY= B
N-S SEISMIC LATERAL SYSTEM = ORDINARY CONCENTRIC BRACED FRAMES
RESPONSE MODIFICATION COEFFICIENT, R = 3
SEISMIC BASE SHEAR 21 KIPS

E-W SEISMIC LATERAL SYSTEM = ORDINARY CONCENTRIC BRACED FRAMES
RESPONSE MODIFICATION COEFFICIENT, R = 3
SEISMIC BASE SHEAR = 21 KIPS

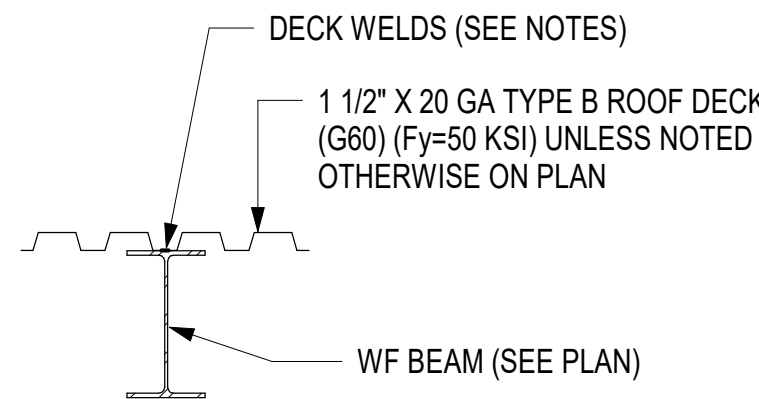
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100 SUMMER ST. SUITE 1600
BOSTON, MA 02210
617-938-3349



1 SEE S000 SERIES FOR GENERAL NOTES
2 SEE S200 SERIES FOR COLUMN SCHEDULE
3 SEE S300 SERIES FOR LATERAL FRAME ELEVATIONS
4 SEE S400 SERIES FOR TYPICAL CONCRETE DETAILS
5 SEE S500 SERIES FOR TYPICAL STEEL DETAILS
6 F3.0-3 (-2'-0") INDICATES SPREAD FOOTING TYPE, SOIL BEARING CAPACITY (KSF), AND BOTTOM OF
7 FOOTING ELEVATION. SEE SCHEDULE FOR SIZE AND REINFORCING. ALL FOOTINGS EXPOSED TO
8 FREEZE THAW SHALL BEAR A MINIMUM OF 4'-0" BELOW GRADE REGARDLESS OF NOTED ELEVATION.
9 W2.0 (-2'-0") INDICATES WALL STRIP FOOTING TYPE AND BOTTOM OF FOOTING ELEVATION. SEE
10 SCHEDULE FOR SIZE AND REINFORCING. ALL FOOTINGS EXPOSED TO FREEZE THAW SHALL BEAR A
11 MINIMUM OF 4'-0" BELOW GRADE REGARDLESS OF NOTED ELEVATION.
12 F20X30 - INDICATES CONCRETE PIER. SEE SCHEDULE FOR SIZE AND REINFORCING REQUIREMENTS.
13 DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION AND
14 CONSTRUCTION.

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1. FASTEN DECK WITH 5/8\"/>

1 1/2\"/>
SCALE: 3/4\"/>

PLAN NOTES:

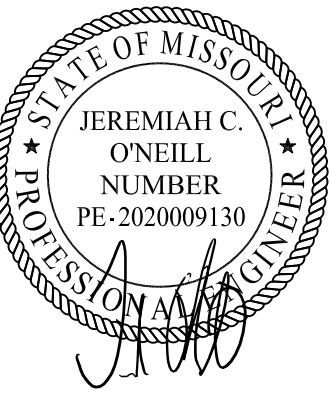
- SEE S000 SERIES FOR GENERAL NOTES
- SEE S200 SERIES FOR COLUMN SCHEDULE
- SEE S300 SERIES FOR LATERAL FRAME ELEVATIONS
- SEE S400 SERIES FOR TYPICAL CONCRETE DETAILS
- SEE S500 SERIES FOR TYPICAL STEEL DETAILS
- ALL DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION AND CONSTRUCTION
- ONLY MAJOR FLOOR OPENINGS ARE SHOWN ON STRUCTURAL PLANS. REFER TO THE ARCHITECTUAL AND MECHANICAL DRAWINGS FOR ALL OTHER FLOOR OPENINGS. SEE THE TYPICAL FLOOR OPENING REINFORCING DETAILS FOR STRUCTURAL REQUIREMENTS. LOCATIONS SHOWN ON STRUCTURAL PLANS SHALL BE VERIFIED WITH ARCHITECTURAL DRAWINGS. SUBMIT COORDINATION DRAWINGS FOR ALL SLAB OPENINGS AND BOXOUTS FOR REVIEW.
- DO NOT USE THE STRUCTURAL PLANS AS ERECTION DRAWINGS
- STEEL JOISTS, JOIST GIRDERS, AND BRIDGING SHALL BE DESIGNED, FABRICATED, AND INSTALLED IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS. ALL JOISTS SUBJECT TO WIND UPLIFT SHALL HAVE UPLIFT BRIDGING IN ACCORDANCE WITH SJI. JOIST SUPPLIER SHALL SUBMIT CALCULATIONS FOR EACH JOIST TYPE AND INDICATE ALL JOIST MEMBER SIZES AND WELD SIZES.
- BCX - INDICATES BOTTOM CHORD EXTENSION, SEE S502 FOR TYPICAL DETAILS.
- AT HATCHED REGION OMIT PARAPET KICKERS FOR MEP CLEARANCE. GC COORDINATE FINAL MEP UNIT LOCATIONS WITH FINAL MEP DRAWINGS. LGMF SUPPLIER TO DESIGN BEAM ALONG TOP OF PARAPET WALL TO SPAN ACROSS THIS REGION.

Bergmeyer

CONSULTANTS:

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617-938-3349

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
1	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

CANOPY FRAMING PLAN

DRAWN BY:	ESP
CHECKED BY:	RFH
JOB NO:	20-128

S101



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617-938-3349

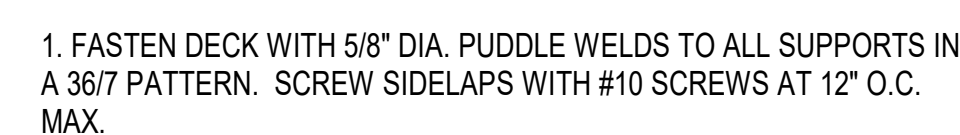
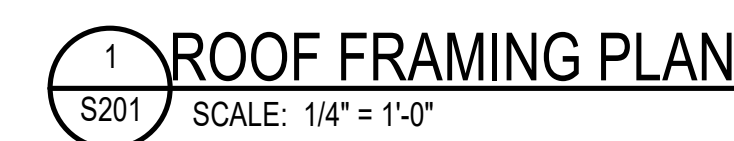
NO.	BY	DATE	DESCRIPTION
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ISSUED FOR
CONSTRUCTION


JOB NO:	20-12
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S102



1 1/2" ROOF DECK (1 1/2")
SCALE: 3/4" = 1'-0"

1. SEE S000 SERIES FOR GENERAL NOTES
2. SEE S200 SERIES FOR COLUMN SCHEDULE
3. SEE S300 SERIES FOR LATERAL FRAME ELEVATIONS
4. SEE S400 SERIES FOR TYPICAL CONCRETE DETAILS
5. SEE S500 SERIES FOR TYPICAL STEEL DETAILS
6. ALL DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION AND CONSTRUCTION
7. ONLY MAJOR FLOOR OPENINGS ARE SHOWN ON STRUCTURAL PLANS. REFER TO THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL OTHER FLOOR OPENINGS. SEE THE TYPICAL FLOOR OPENING REINFORCING DETAILS FOR STRUCTURAL REQUIREMENTS. LOCATIONS SHOWN ON STRUCTURAL PLANS SHALL BE VERIFIED WITH ARCHITECTURAL DRAWINGS. SUBMIT COORDINATION DRAWINGS FOR ALL SLAB OPENINGS AND BOXOUTS FOR REVIEW
8. DO NOT USE THE STRUCTURAL PLANS AS ERECTION DRAWINGS
9. STEEL JOISTS, JOIST GIRDERS, AND BRIDGING SHALL BE DESIGNED, FABRICATED, AND INSTALLED IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS. ALL JOISTS SUBJECT TO WIND UPLIFT SHALL HAVE UPLIFT BRIDGING IN ACCORDANCE WITH SJI. JOIST SUPPLIER SHALL SUBMIT CALCULATIONS FOR EACH JOIST TYPE AND INDICATE ALL JOIST MEMBER SIZES AND WELD SIZES.
10. BXC - INDICATES BOTTOM CHORD EXTENSION, SEE S502 FOR TYPICAL DETAILS
11. LATHED REINFORCED CONCRETE WALL JACKERS FOR MEP CLEARANCE. GO COORDINATE FINAL MEP UNIT LOCATIONS WITH FINAL MEP DRAWINGS. LNMIF SUPPLIER TO DESIGN BEAM ALONG TOP OF PARAPET WALL TO SPAN ACROSS THIS REGION.



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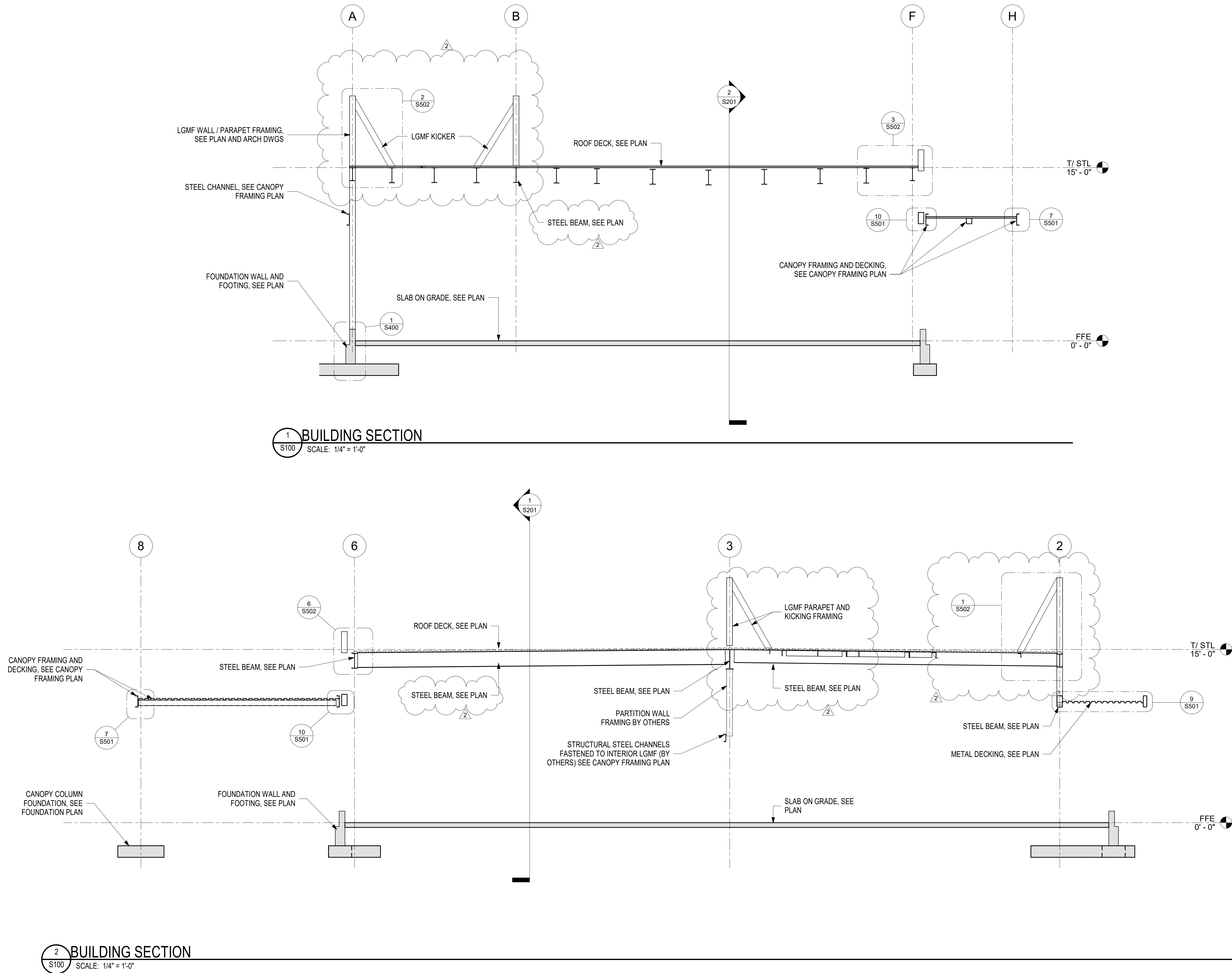
SHAKE SHACK

COLUMN SCHEDULE

JOB NO: 20-12

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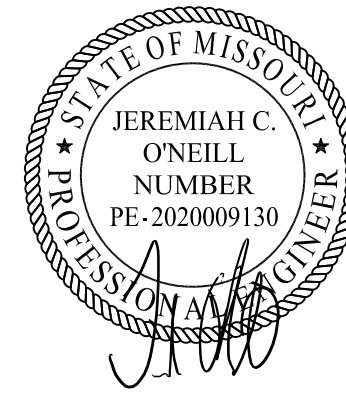
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800 South Figueroa St.
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SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
1	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

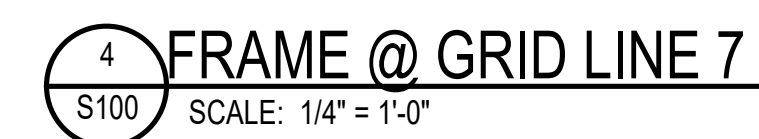
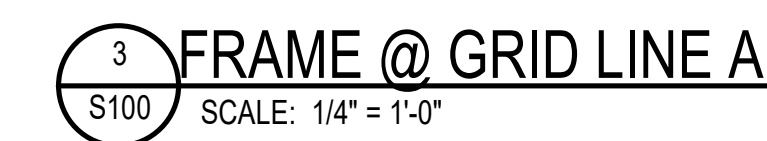
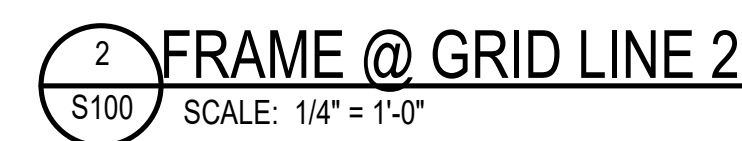
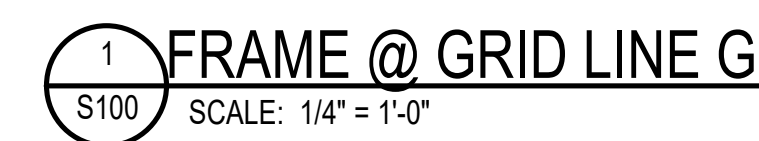
BUILDING SECTIONS

DRAWN BY:	Author
CHECKED BY:	Checker
JOB NO:	20-128

S201



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1. SEE S300 SERIES FOR GENERAL NOTES
2. SEE S200 SERIES FOR COLUMN SCHEDULE
3. SEE S300 SERIES FOR LATERAL FRAME ELEVATIONS
4. SEE S400 SERIES FOR TYPICAL CONCRETE DETAILS
5. SEE S500 SERIES FOR TYPICAL STEEL DETAILS
6. ALL DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION AND CONSTRUCTION.
7. SEE TYPICAL STEEL DETAILS FOR COLUMN SPICE REQUIREMENTS. COLUMNS PART OF THE LATERAL SYSTEM SHALL BE SPICED IN ACCORDANCE WITH THE LATERAL COLUMNS SPICE DETAILS.
8. REFER TO COLUMN SCHEDULE OR PLANS FOR MEMBER SIZES NOT SHOWN.
9. SEE TYPICAL STEEL DETAILS AND COLUMN SCHEDULE FOR BASE PLATE INFORMATION.



2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

LATERAL FRAME ELEVATIONS


JOB NO: 20-128

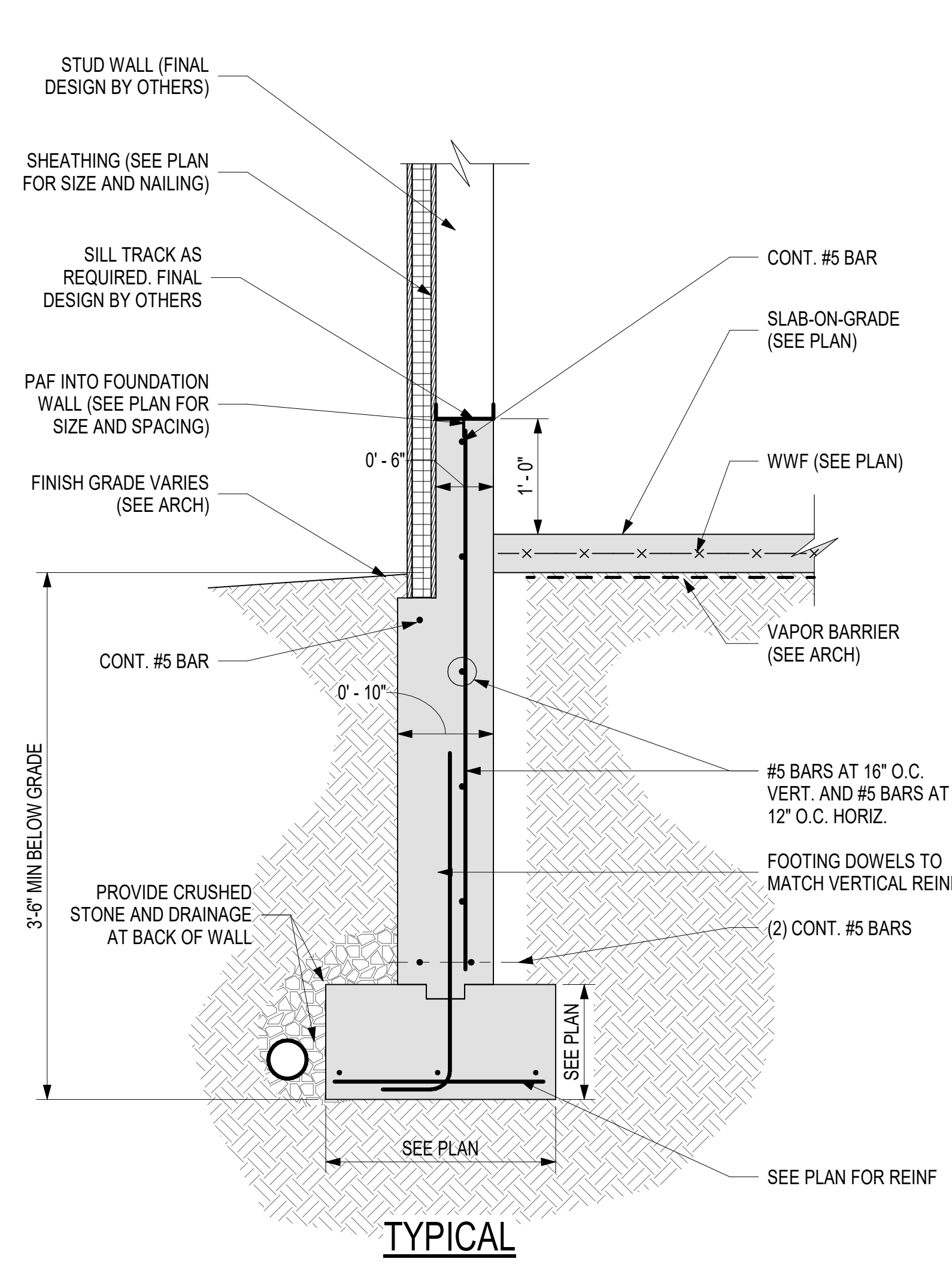
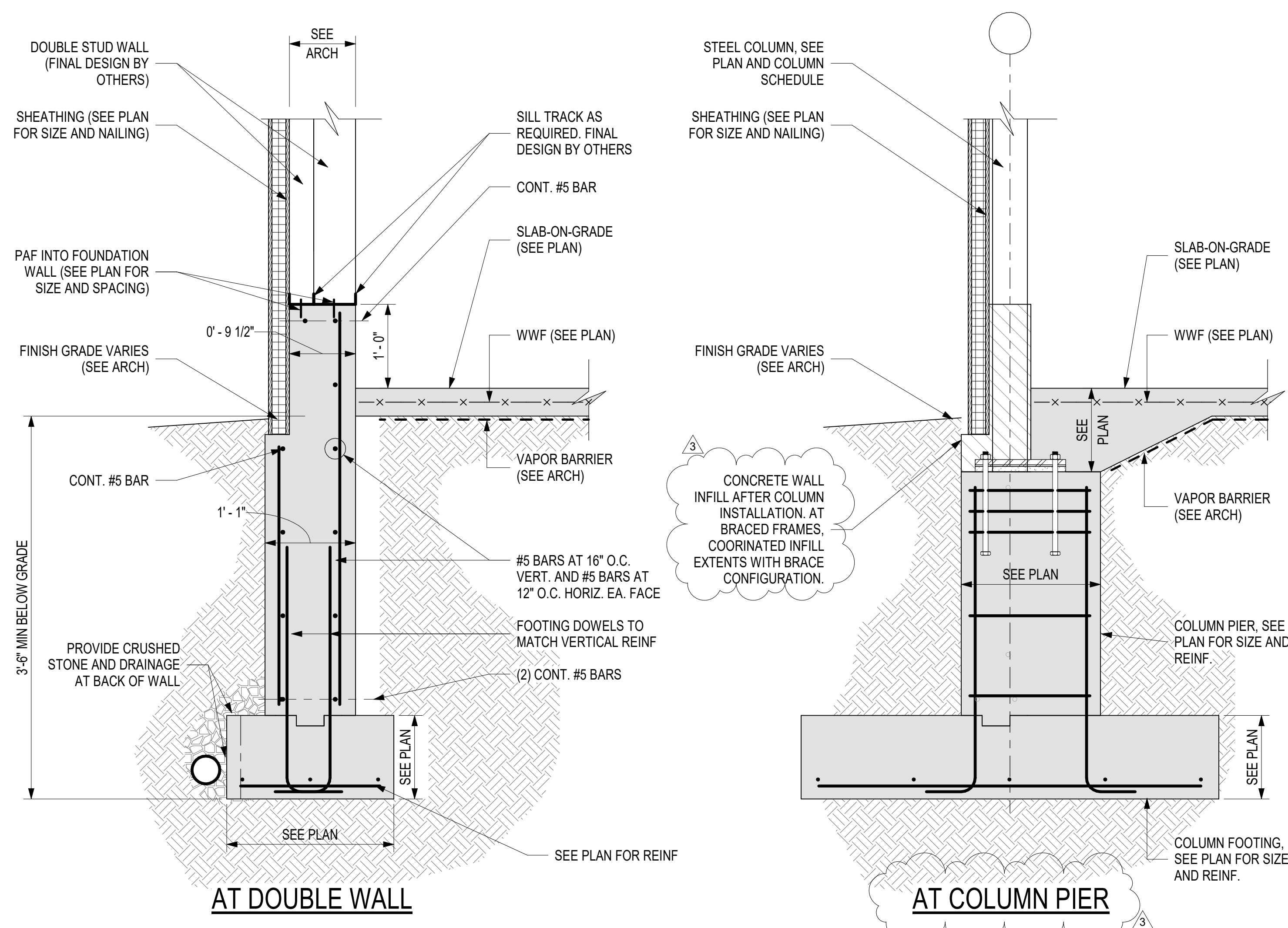
S300

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CONSULTANTS:
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617-938-3349

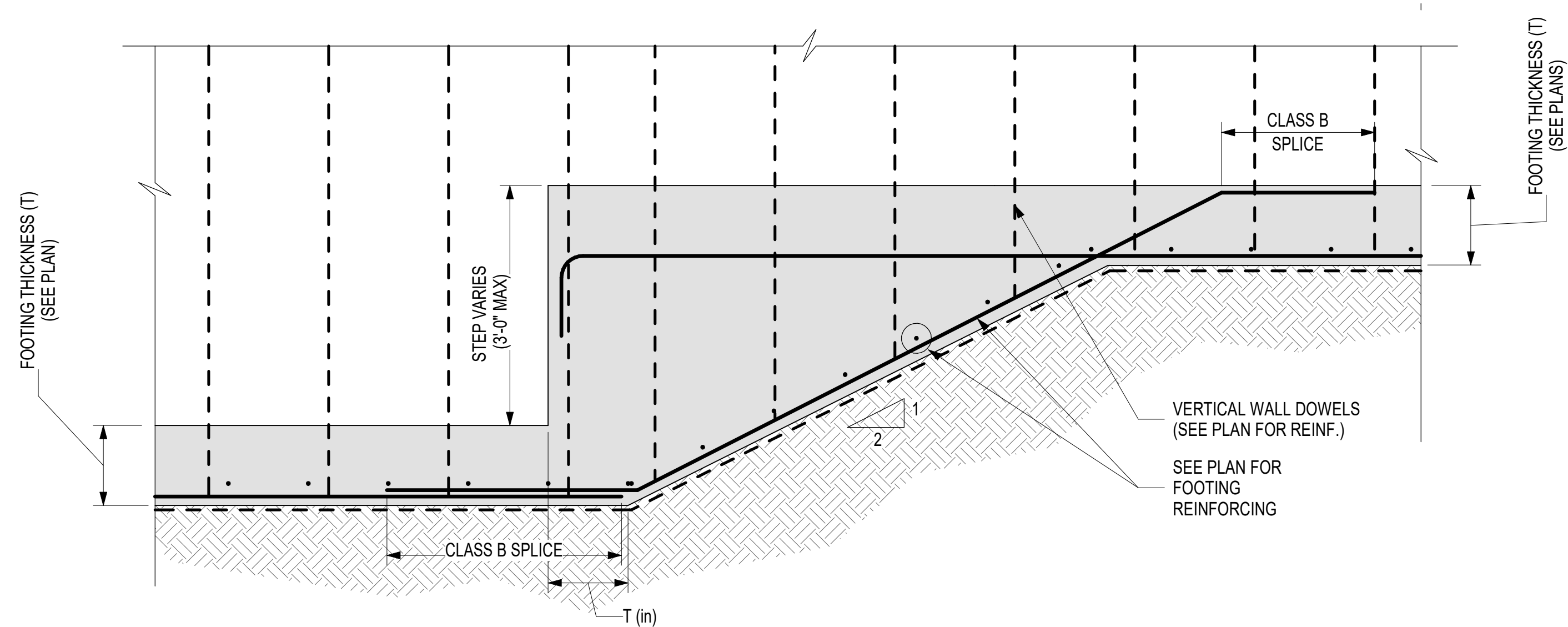
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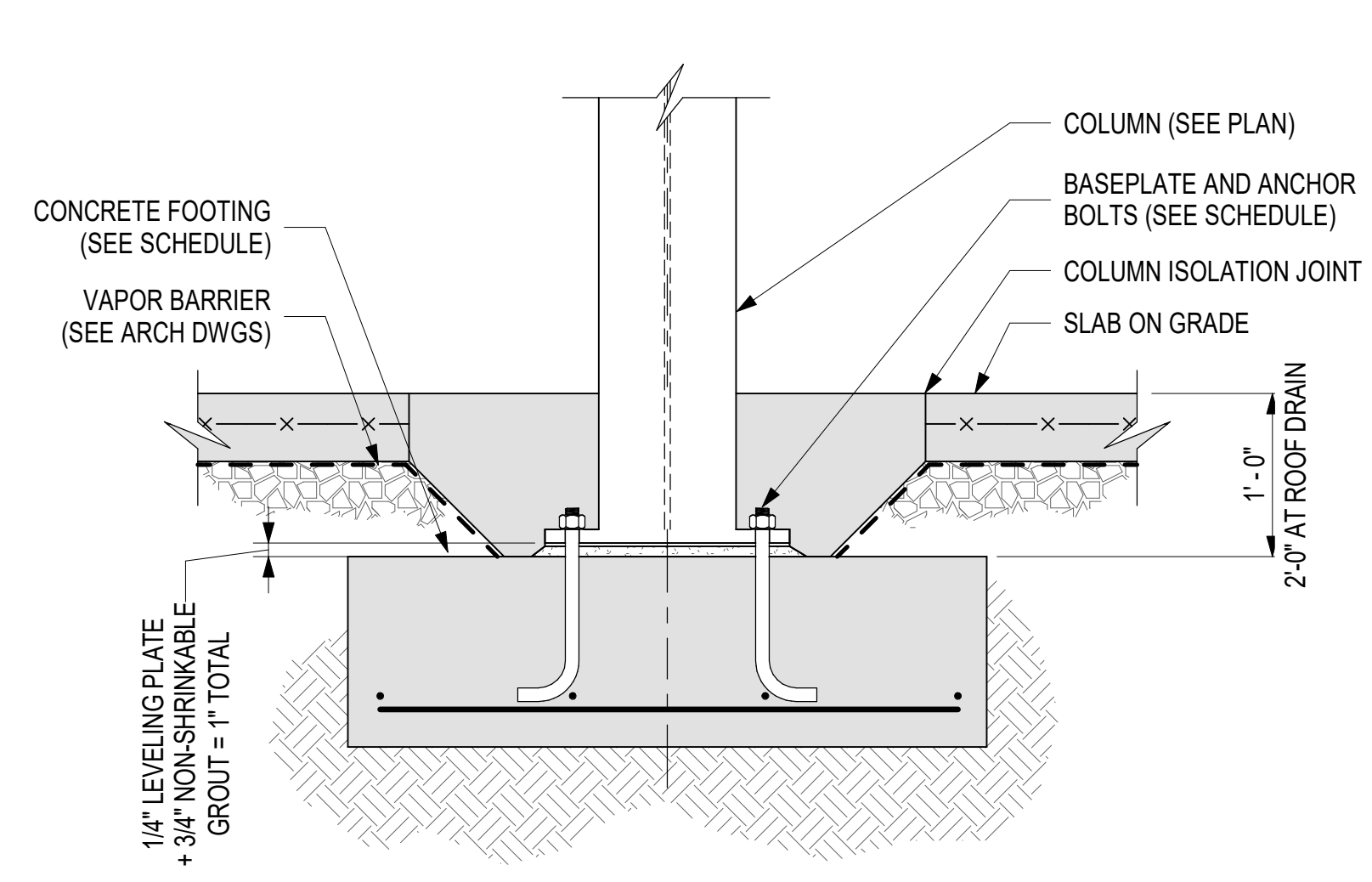
1 FROST WALL SECTIONS
SCALE: 1" = 1'-0"

		REBAR DEVELOPMENT TABLE																NWC-NORMAL WEIGHT CONCRETE				LWC-LIGHTWEIGHT CONCRETE			
		f'c=4000 PSI - NWC																C=BAR CLEAR COVER (in)				S=CLEAR BAR SPACING (in)			
																		E=EPOXY COATED REBAR				U=UNCOATED REBAR			
REBAR SIZE	CLASS A SPLICE = TENSION DEVELOPMENT LENGTH	C ≥ 0.75 in S ≥ 1.50 in				C ≥ 1.0 in S ≥ 2.0 in				C ≥ 1.25 in S ≥ 2.50 in				C ≥ 1.50 in S ≥ 3.0 in				C ≥ 2.00 in S ≥ 4.0 in				C ≥ 3.00 in S ≥ 6.0 in			
		U	E	U	E	U	E	U	E	U	E	U	E	U	E	U	E	U	E	U	E	U	E	U	E
#3	CLASS B SPLICE = LAP SPLICE LENGTH	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
	A	12	12	15	13	12	12	15	13	12	12	14	12	12	12	14	12	12	12	14	12	12	12	14	12
#4	B	15	12	19	17	15	12	19	17	15	12	18	14	15	12	18	14	15	12	18	14	15	12	18	14
	A	19	15	25	22	15	12	20	18	15	12	20	18	15	12	18	14	15	12	18	14	15	12	18	14
#5	B	25	19	32	28	20	15	26	23	20	15	26	23	20	15	24	18	20	15	24	18	20	15	24	18
	A	28	21	36	32	23	17	29	26	19	15	25	22	19	15	23	18	19	15	23	18	19	15	23	18
#6	B	36	28	47	41	29	23	38	34	25	19	32	28	25	19	29	23	25	19	29	23	25	19	29	23
	A	37	29	49	43	31	24	40	35	26	20	34	30	23	18	30	26	23	18	30	26	23	18	27	21
#7	B	49	37	63	56	40	31	52	46	34	26	44	39	29	23	38	34	29	23	38	34	29	23	35	27
	A	60	46	78	69	50	38	65	57	42	33	55	49	37	29	48	43	33	25	43	38	33	25	39	30
#8	B	78	60	102	90	65	50	84	74	55	42	72	63	48	37	63	55	43	33	56	49	43	33	51	39
	A	74	57	97	86	62	48	81	72	53	41	70	61	47	36	61	54	37	29	49	43	37	29	45	35
#9	B	97	74	126	111	81	62	105	93	69	53	90	80	61	47	79	70	49	37	63	56	49	37	58	45
	A	90	69	118	104	76	58	99	87	65	50	85	75	58	44	75	66	46	36	61	53	42	33	55	49
#10	B	117	90	153	135	98	76	128	113	85	65	111	98	75	58	97	86	60	46	79	69	55	42	71	63
	A	108	83	141	125	92	71	120	106	80	61	104	92	70	54	92	81	57	44	75	66	47	37	62	55
#11	B	141	108	184	162	119	92	156	137	103	80	135	119	91	70	119	105	74	57	97	85	62	47	80	71
	A	127	98	166	146	108	83	142	125	95	73	124	109	84	65	110	97	68	53	89	79	53	41	69	61
#11	B	165	127	215	190	141	108	184	162	123	95	160	142	109	84	142	126	89	68	116	102	68	53	89	79

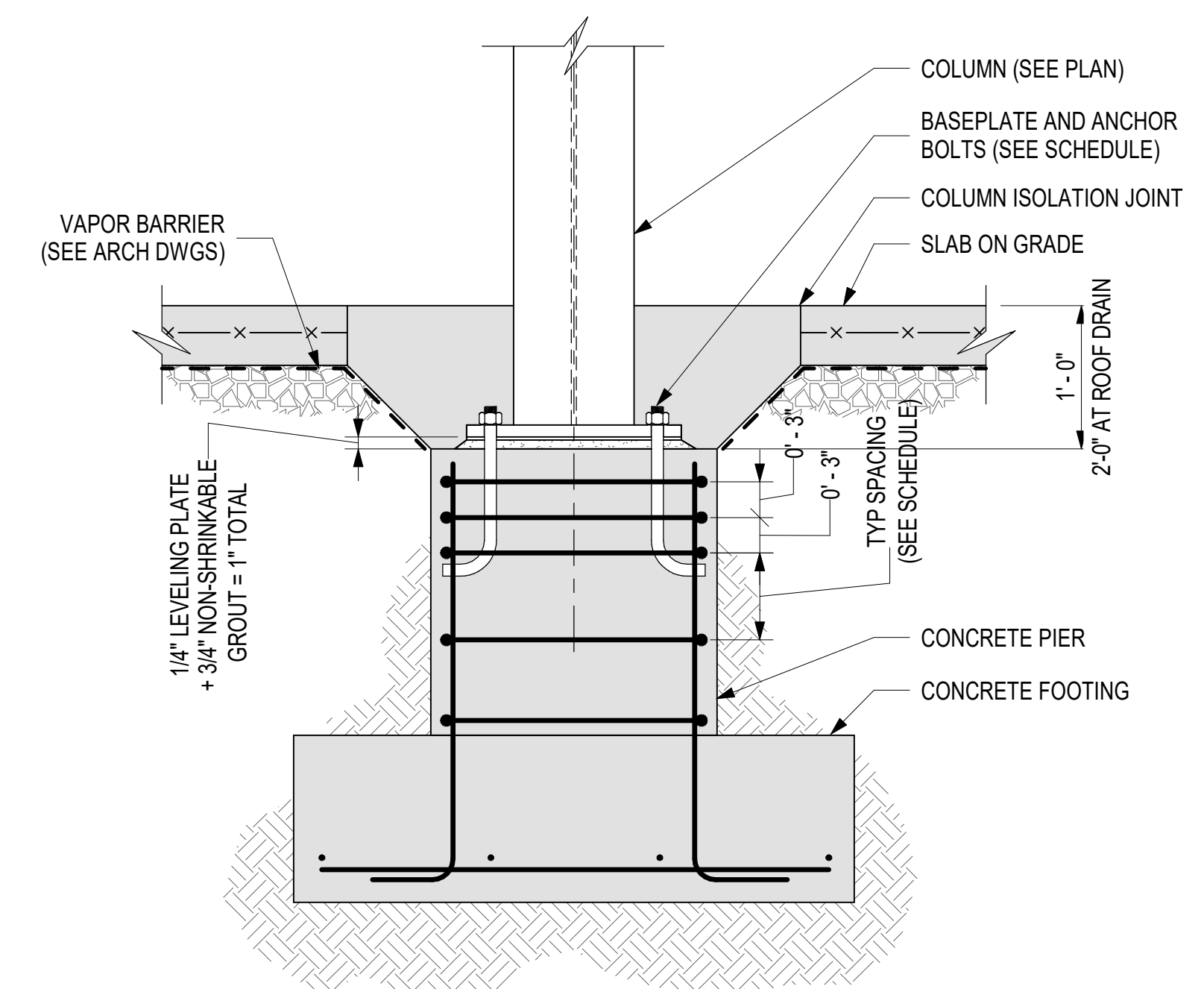
5 SPLICE TABLE 4000PSI NWC1
SCALE: 1/8" = 1'-0"



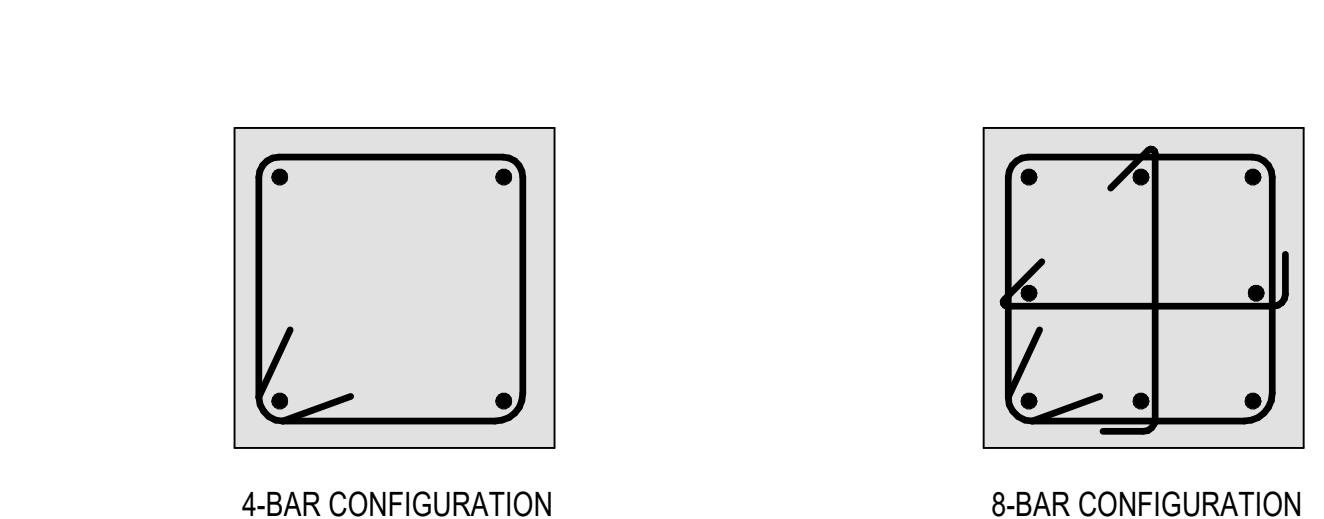
4 TYPICAL STEPPED FOOTING DETAIL
SCALE: 3/4" = 1'-0"



3 TYPICAL INTERIOR COLUMN FOOTING DETAIL
SCALE: 1" = 1'-0"



2 TYPICAL COLUMN PIER AND FOOTING DETAIL
SCALE: 1" = 1'-0"



NOTES:
1. SEE PIER AND FOOTING SCHEDULE FOR GEOMETRY AND REINFORCING SIZE/SPACING.
2. AT EXTERIOR CONDITIONS OR WHERE THE FOOTING IS EXPOSED TO FREEZE THAW, THE BOTTOM OF FOOTING SHALL EXTEND A MINIMUM OF 4'-0" BELOW FINISHED GRADE.
3. REFER TO GEOTECH REPORT FOR SUBGRADE PREPARATION AND OVEREXCAVATE AND REPLACE REQUIREMENTS.

NO.	BY	DATE	DESCRIPTION
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM 2
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION


CONCRETE DETAILS I

DRAWN BY: ESP
CHECKED BY: RFH
JOB NO: 20-128

S400

Bergmeyer

CONSULTANTS:
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617-938-3349

SEA/ SIGNATURE:


3	2021-04-26	ISSUED FOR CONSTRUCTION
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1	2021-01-11	PERMIT/BID SET
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SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

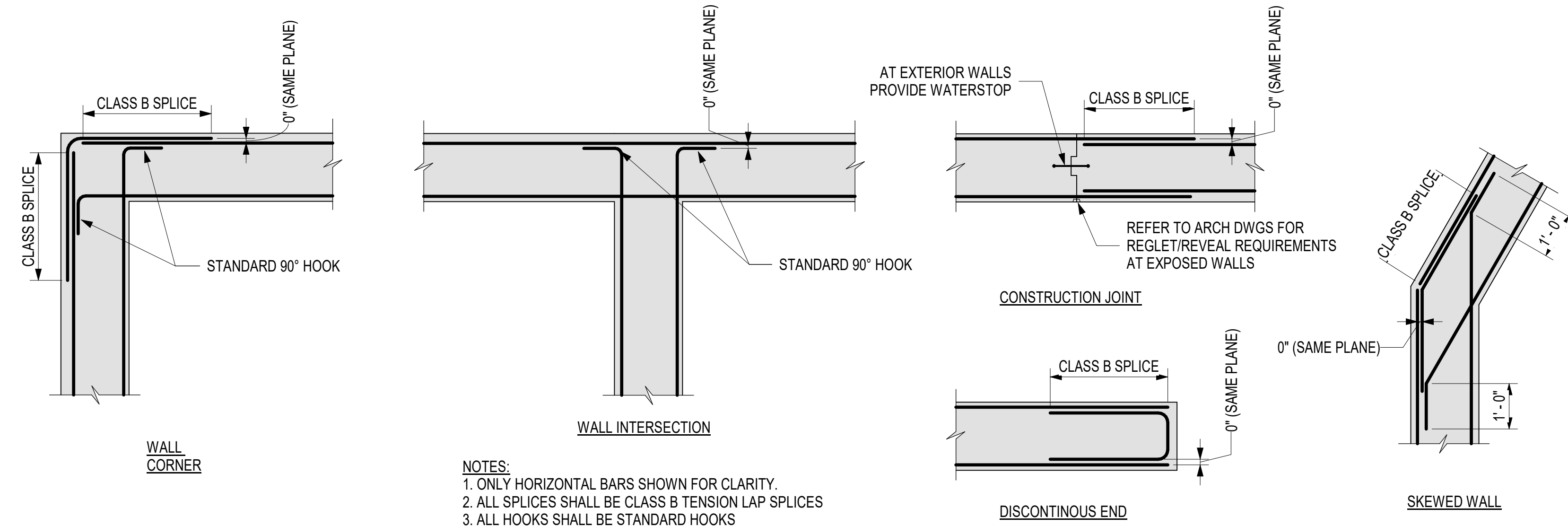
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

CONCRETE DETAILS II

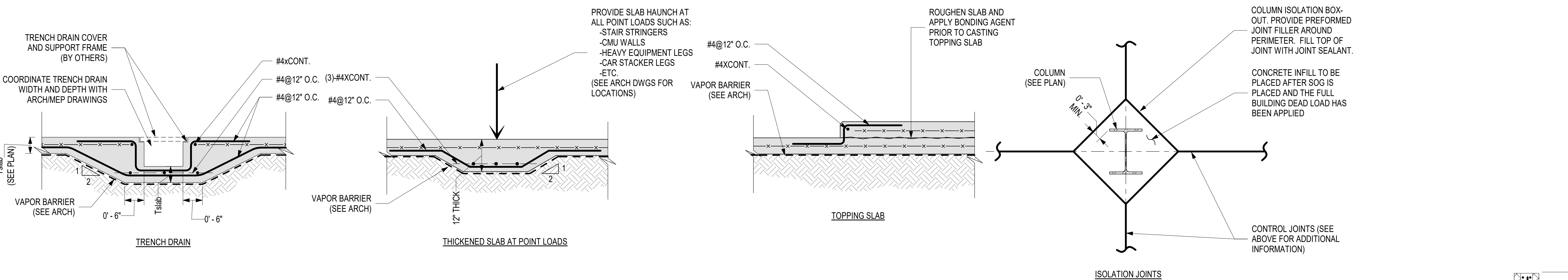
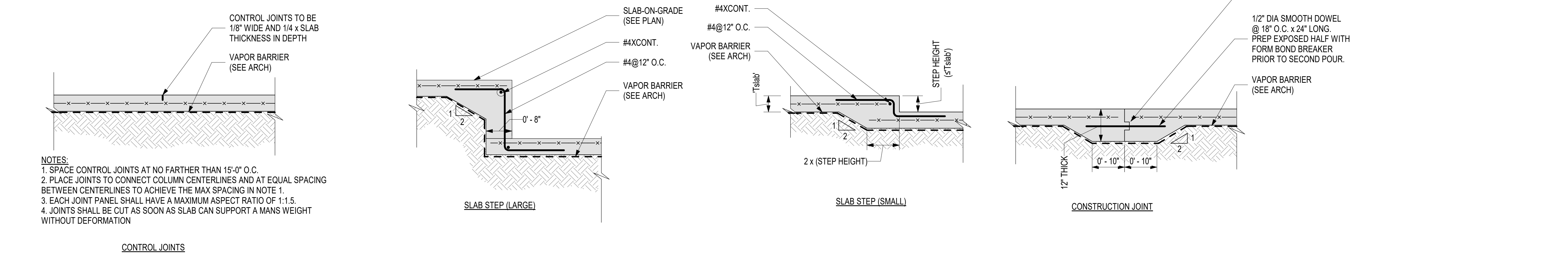
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CHECKED BY: RFH
JOB NO: 20-128

S401

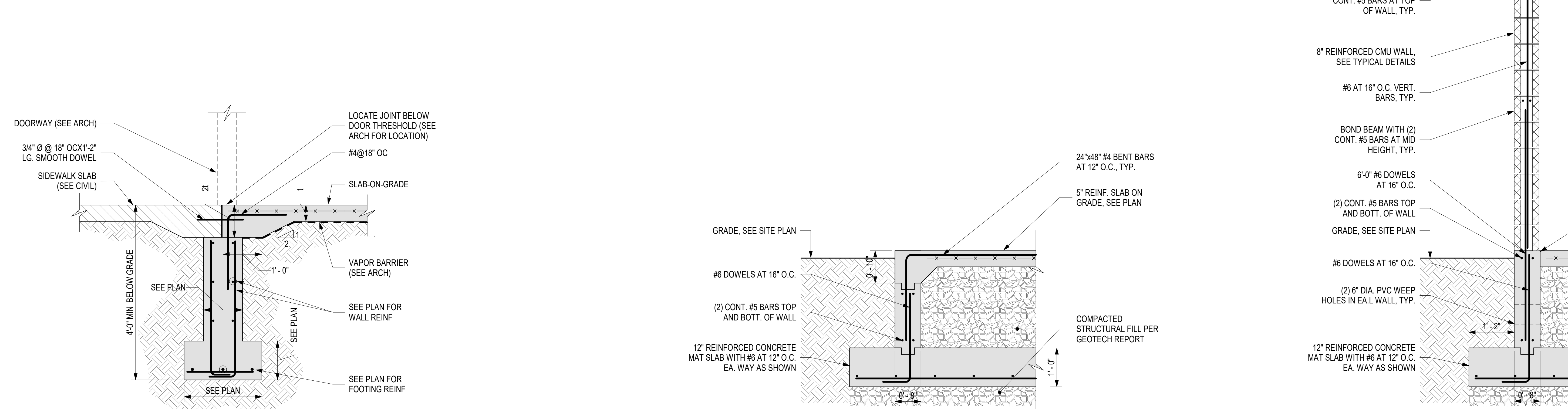


1 TYPICAL HORIZ. REINFORCING DETAILS
SCALE: 1/2" = 1'-0"

2 CONCRETE EQUIP. PADS
SCALE: 3/4" = 1'-0"



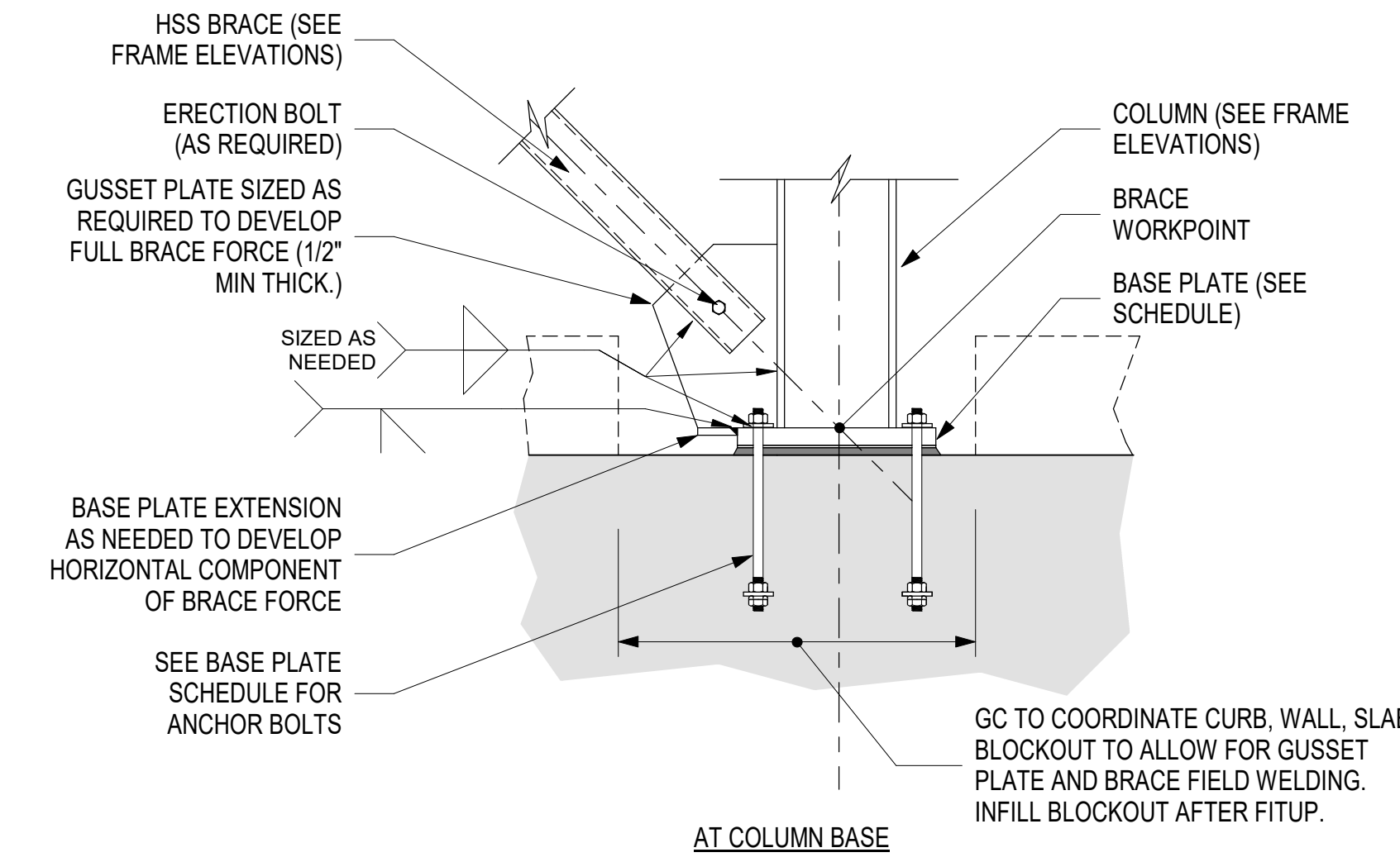
3 TYPICAL SLAB-ON-GRADE DETAILS
SCALE: 3/4" = 1'-0"



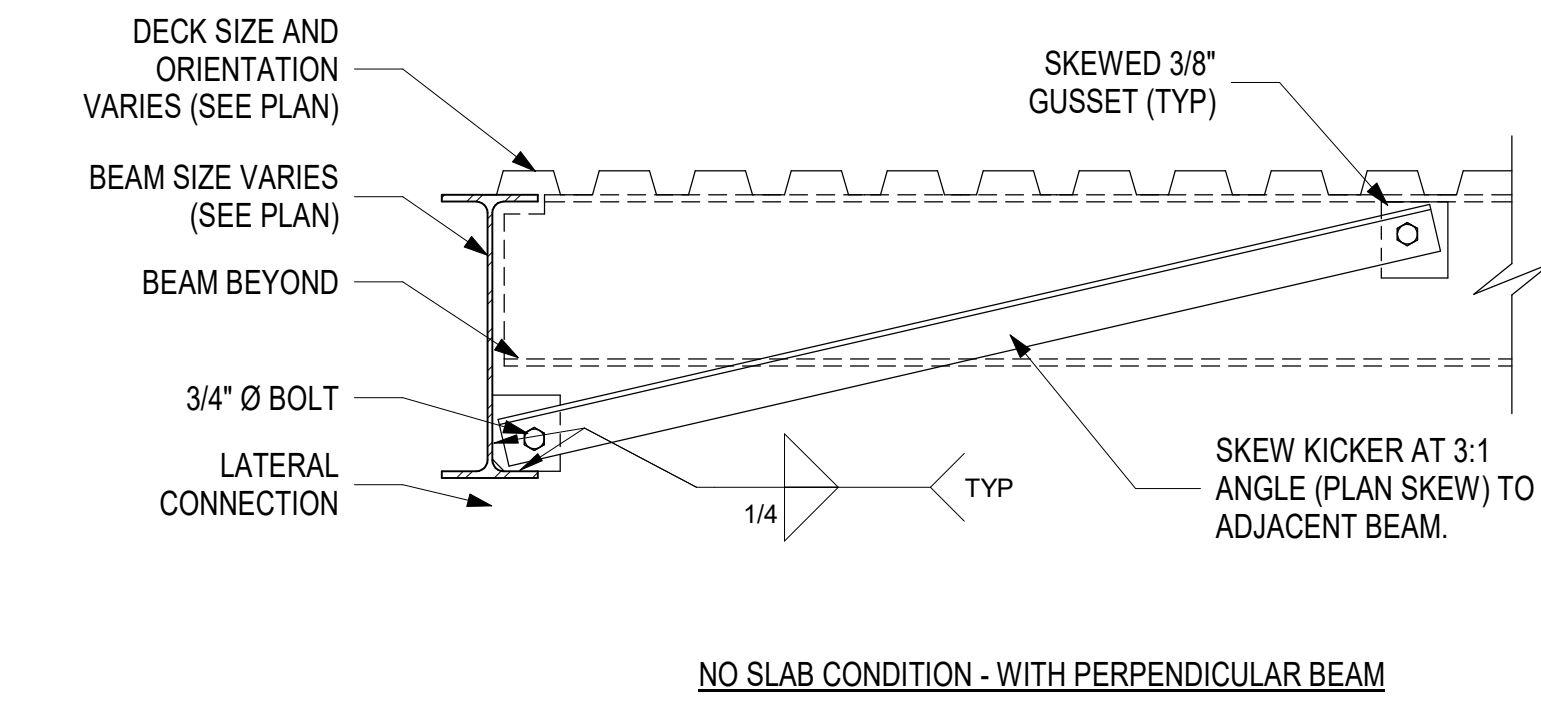
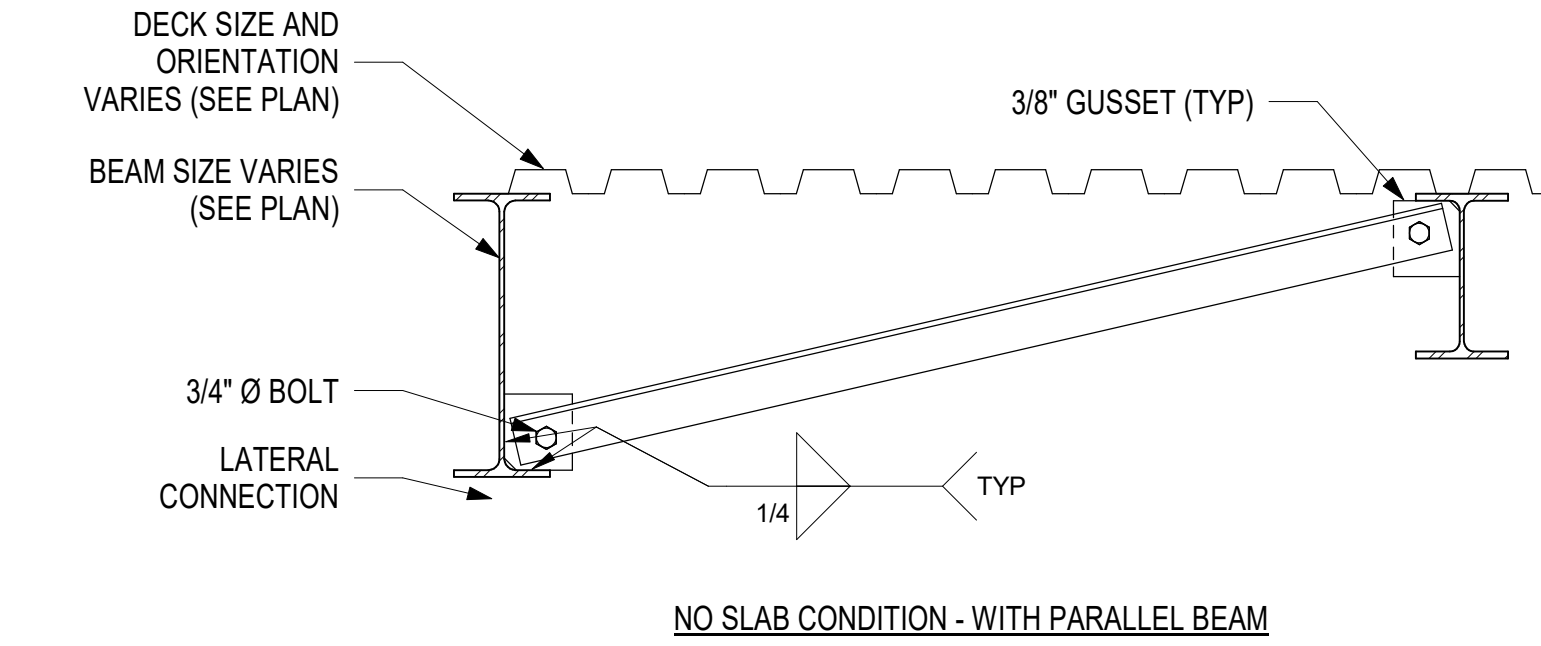
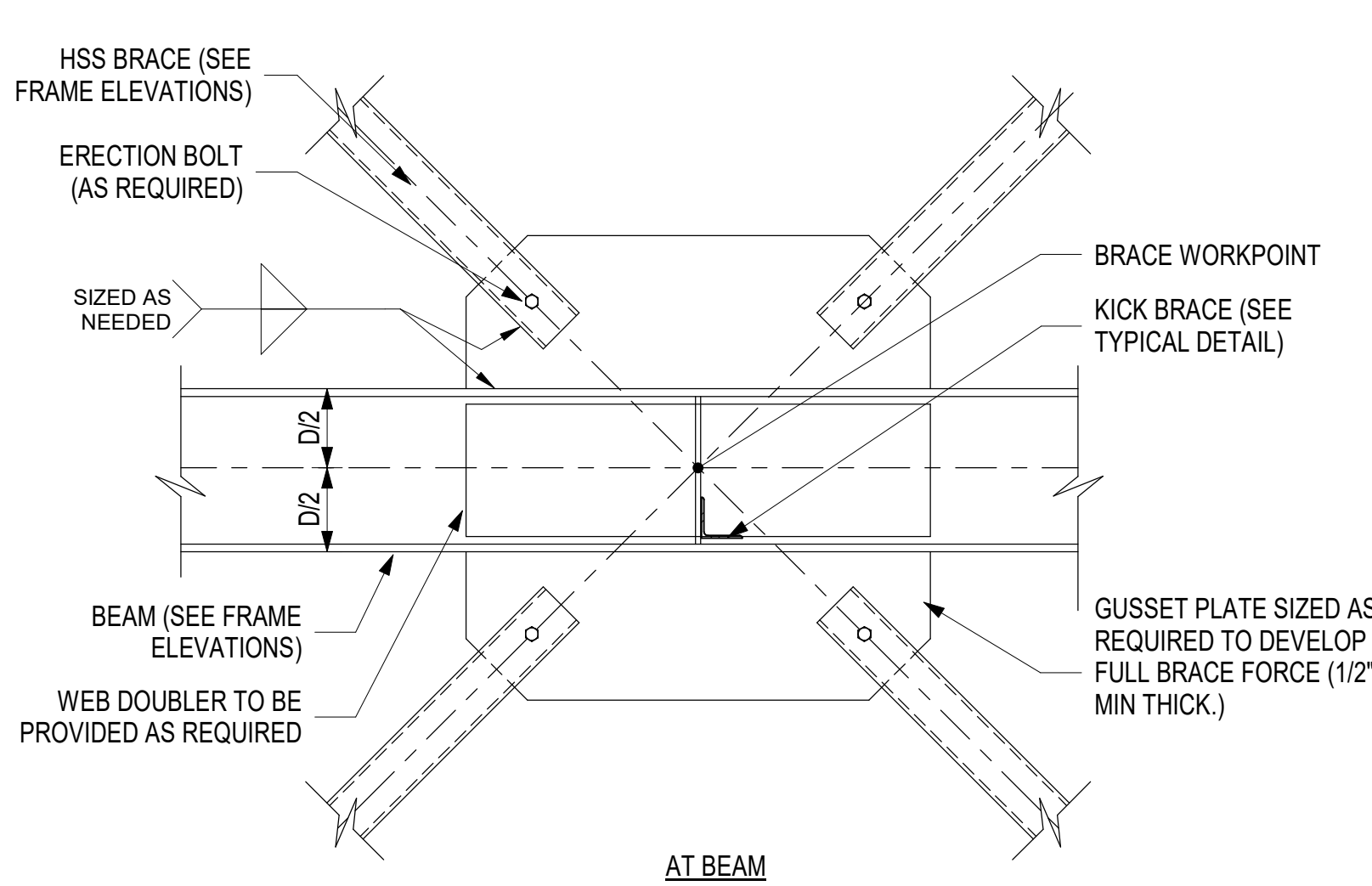
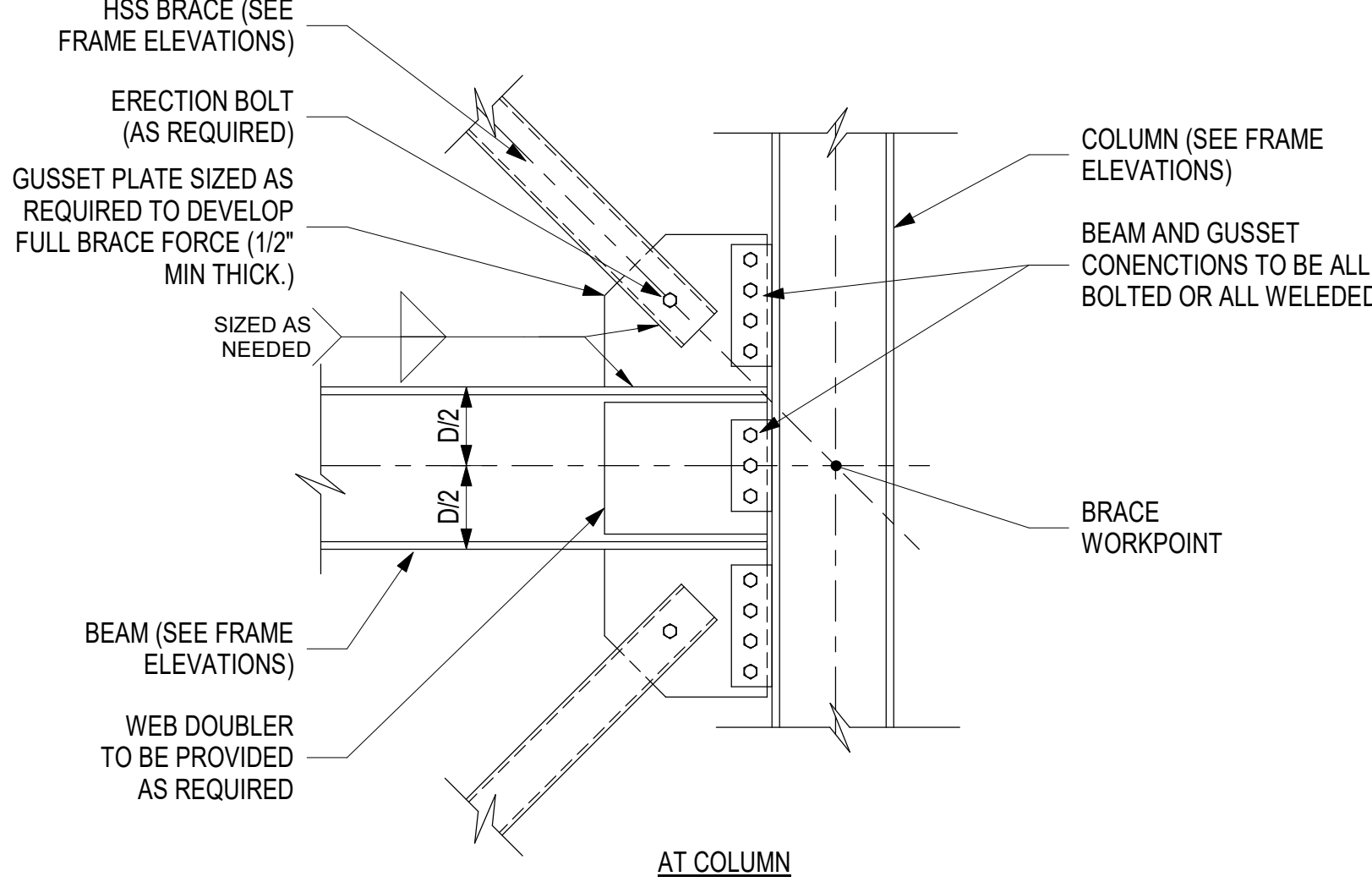
4 TYPICAL FROST WALL DETAIL AT DOORWAY
SCALE: 3/4" = 1'-0"

5 TRASH ENCLOSURE DETAIL
SCALE: 3/4" = 1'-0"

6 TRASH ENCLOSURE DETAIL
SCALE: 3/4" = 1'-0"

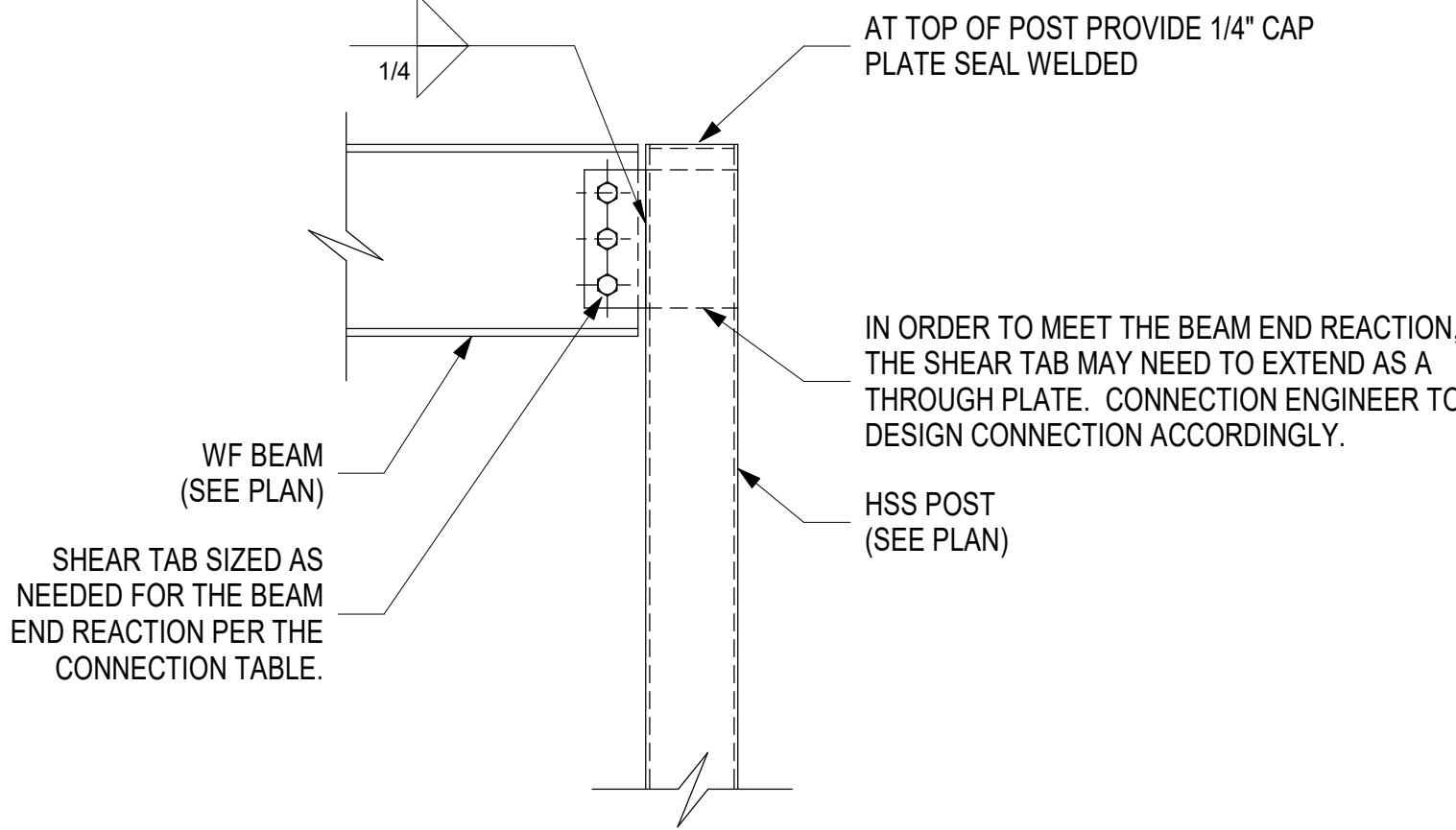


1 TYPICAL HSS BRACE CONNECTIONS
SCALE: 3/4" = 1'-0"

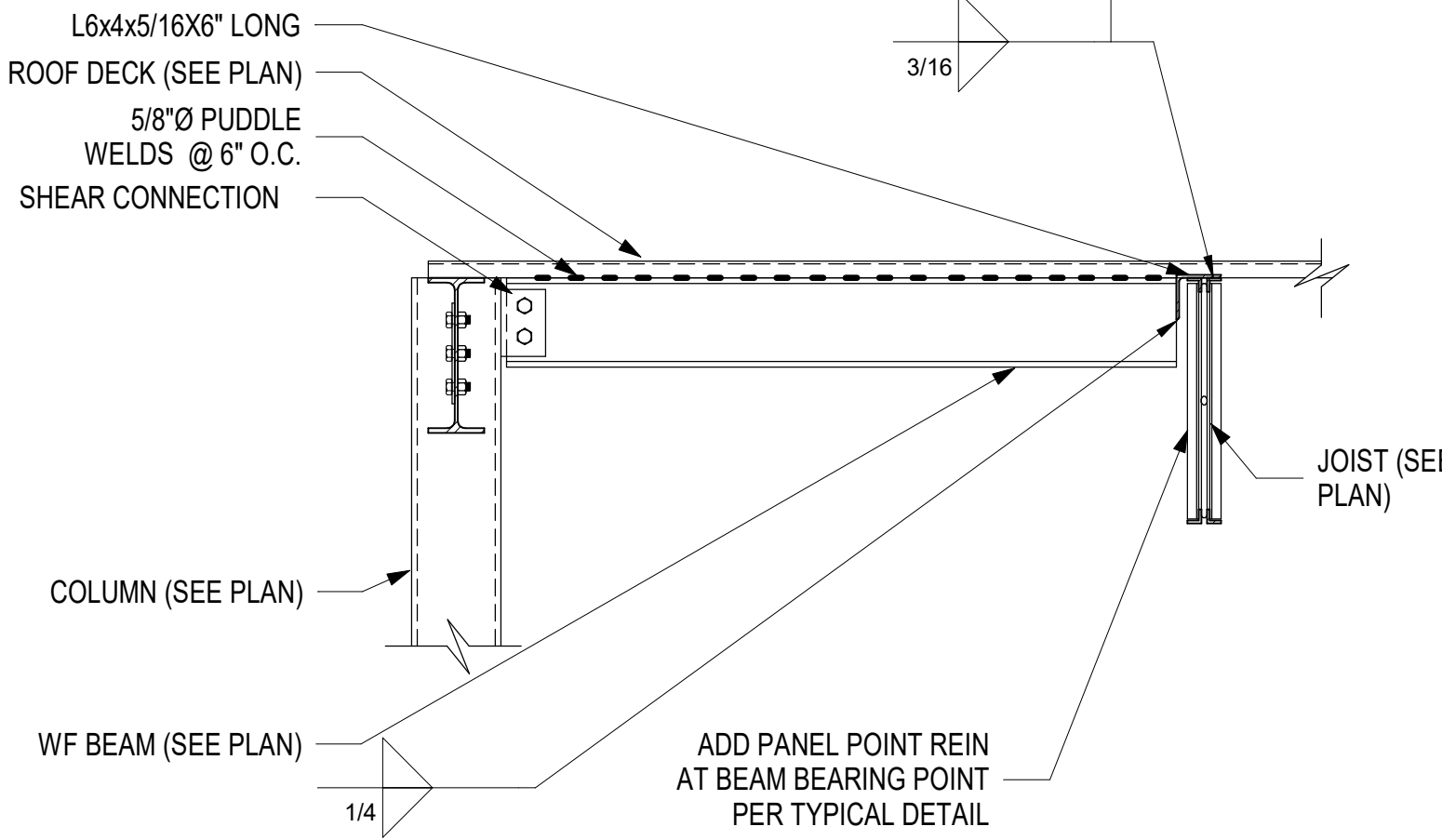


NOTES:
1. KICKER ANGLE SIZING AS FOLLOWS:
-WHERE KICKER LENGTH <= 6 FT USE L3X3X3/8
-WHERE KICKER LENGTH <= 12 FT USE L4X4X3/8
2. KICKERS SHALL BE USED AT ALL LOCATIONS WHERE A LATERAL LOAD IS APPLIED TO THE BOTTOM FLANGE OF A BEAM OR THE BOTTOM 2/3 OF THE BEAM WEB. THE FOLLOWING ARE COMMON CASES WHERE THIS OCCURS, HOWEVER THIS IS NOT AN ALL INCLUSIVE LIST:
a. EXTERIOR WALL LATERAL CLIP
b. CURTAIN WALL LATERAL TIE-BACK
c. PRECAST LATERAL TIE
d. ECCENTRIC STAIR HANGER LOAD
e. OTHER INSTANCES THAT IMPART A LATERAL OR ECCENTRIC LOAD TO THE BEAM
3. AT LOCATIONS WHERE THERE IS AN INFRAMING PERPENDICULAR BEAM WITHIN 12" OF THE LATERAL LOAD, THE KICKER MAY BE OMITTED. THE IN-FRAMING BEAM SHALL UTILIZE A FULL DEPTH STIFFNER CONNECTION TO BRACE THE BOTTOM BEAM FLANGE.

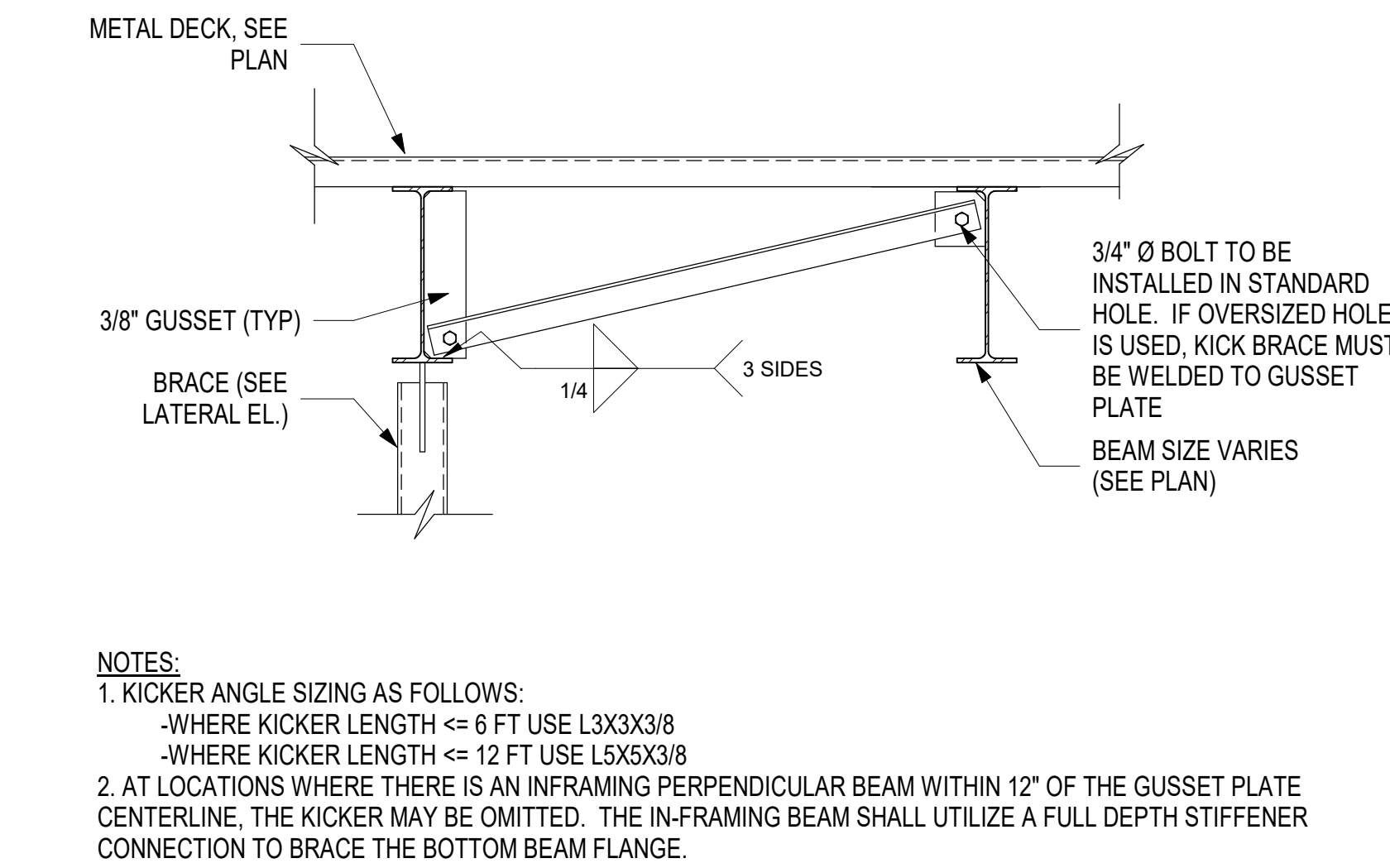
4 TYPICAL KICK-BRACE DETAIL
SCALE: 1" = 1'-0"



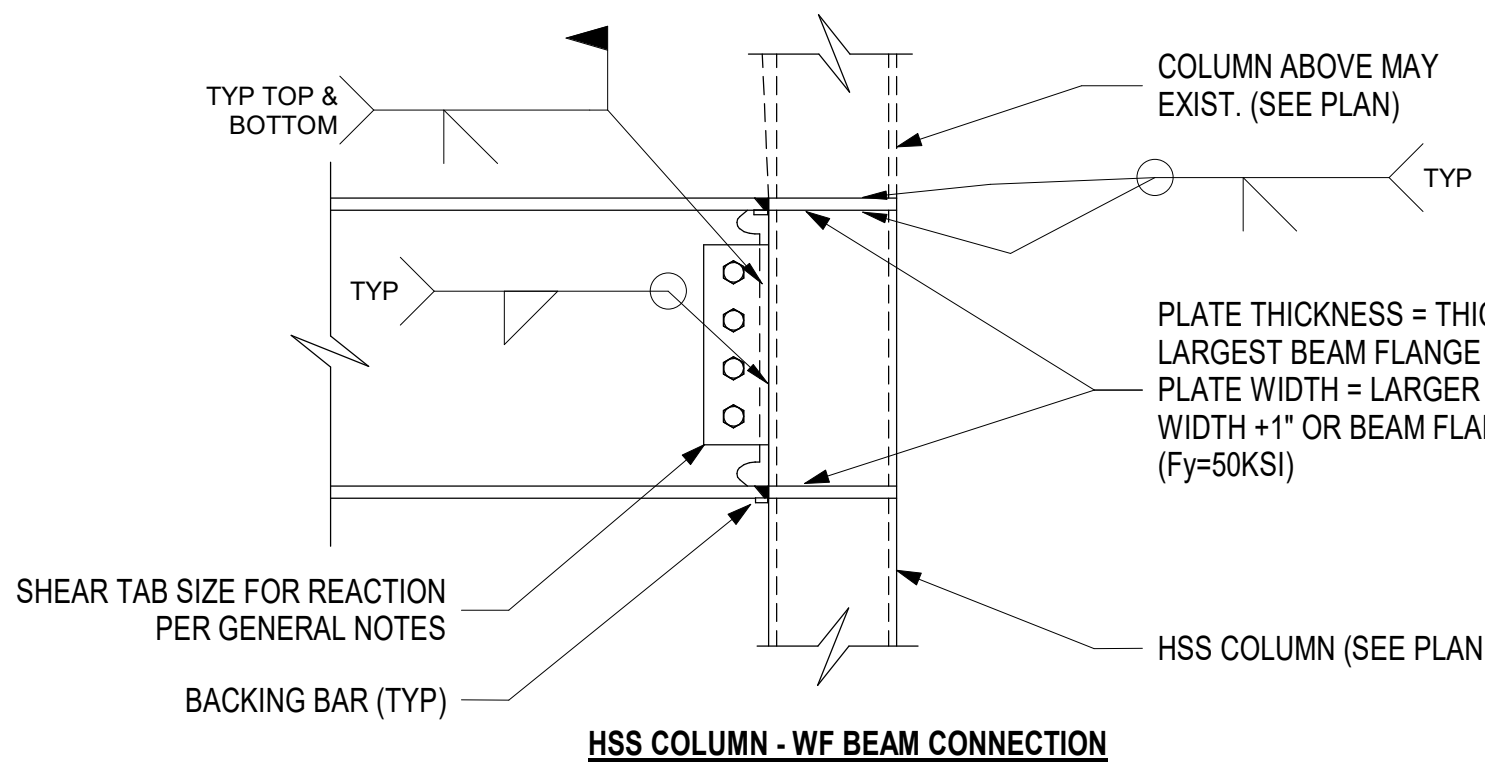
3 TYPICAL CONNECTION TO HSS POST
SCALE: 1" = 1'-0"



6 TYPICAL WF BEAM CONNECTION TO JOIST
SCALE: 3/4" = 1'-0"



2 TYPICAL BRACED FRAME KICK-BRACE DETAIL
SCALE: 3/4" = 1'-0"



NOTES:
1. MOMENT CONNECTIONS SHALL BE DESIGNED BY THE FABRICATORS ENGINEER FOR A MOMENT OF 1.1* R_y * M_y (LRFD) OF THE BEAM.
2. ALL BOLTS USED IN MOMENT CONNECTIONS SHALL BE DESIGNED AS SLIP-CRITICAL.
3. ALL SHEAR CONNECTIONS SHALL BE DESIGNED BY THE FABRICATORS ENGINEER FOR THE POSTED SHEAR REACTION.
4. STIFFENER PLATE WELDS MUST BE SIZED TO DELIVER THE FULL FLANGE FORCE TO THE COLUMN SECTION.
5. IN GENERAL STIFFENER PLATE THICKNESS SHALL MATCH THE INFRAMING BEAM FLANGE THICKNESS. IN BEAM TO COLUMN WEB TYPE CONNECTIONS, THE STIFFENER PLATES SHALL BE INCREASED IN THICKNESS BY 1/4\"/>

5 TYPICAL LATERAL MOMENT CONNECTIONS (R=3)
SCALE: 1" = 1'-0"

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 05/17/2021 www.bergmeyer.com

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LA
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Los Angeles, CA 90017
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BOS
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CONSULTANTS:

H+O

STRUCTURAL ENGINEERING

100 SUMMER ST, SUITE 1600
BOSTON, MA 02210
617-938-3349

SEAU SIGNATURE:

STATE OF MISSOURI
JEREMIAH C. ONEILL
NUMBER PE-2020009130
2020-12-21 75% SET

3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM 2
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

STEEL DETAILS I

DRAWN BY: ESP

CHECKED BY: RFH

JOB NO: 20-128

S500

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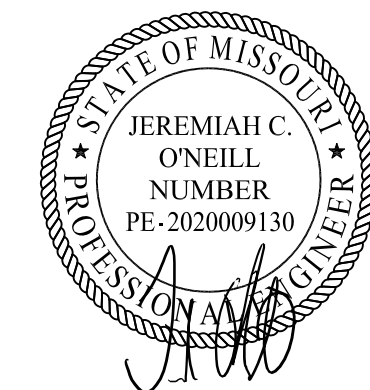
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CONSULTANTS:

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SEAU/ SIGNATURE:



3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM 2
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
-----	----	------	-------------



SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

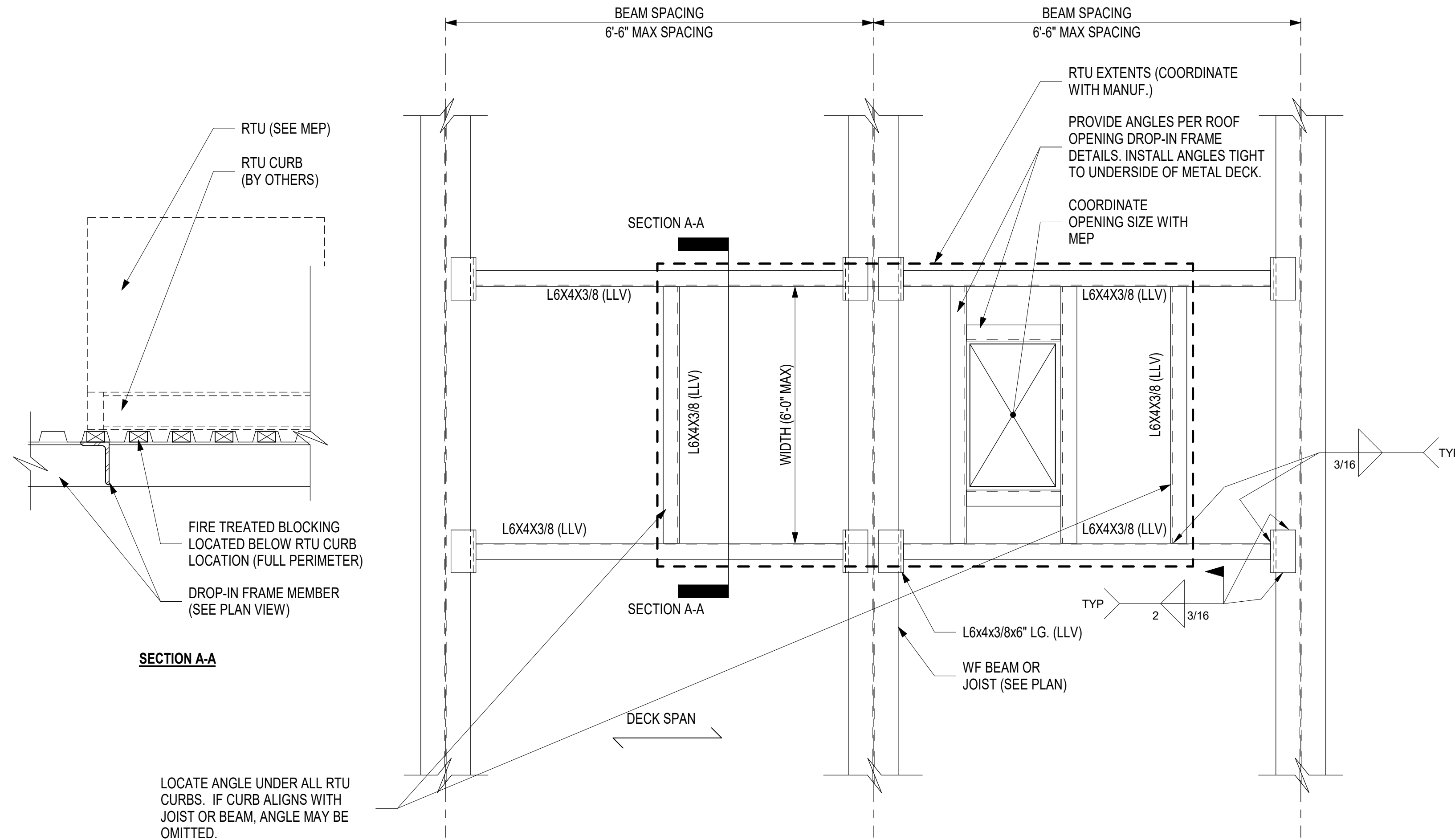
STEEL DETAILS II

DRAWN BY: ESP

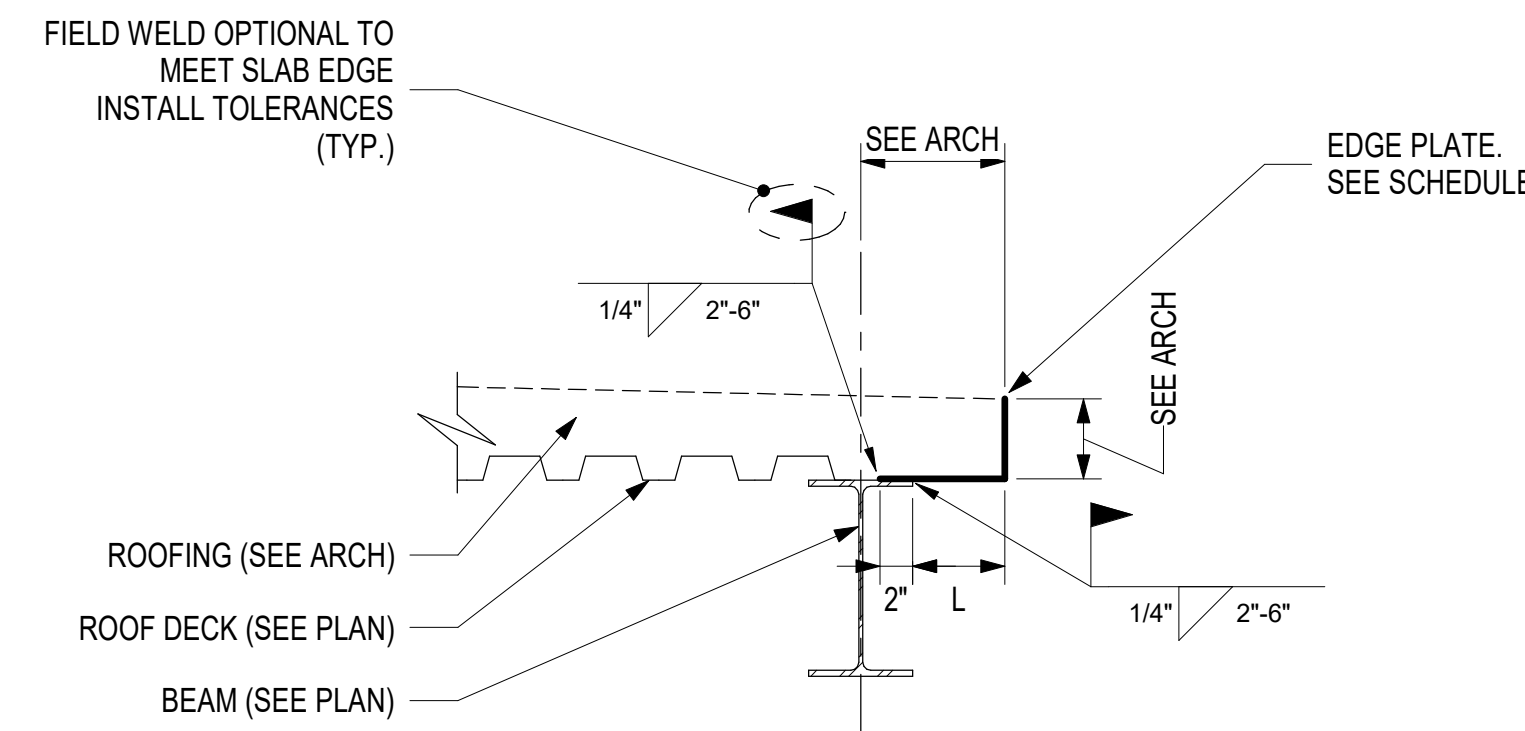
CHECKED BY: RFH

JOB NO: 20-128

S501



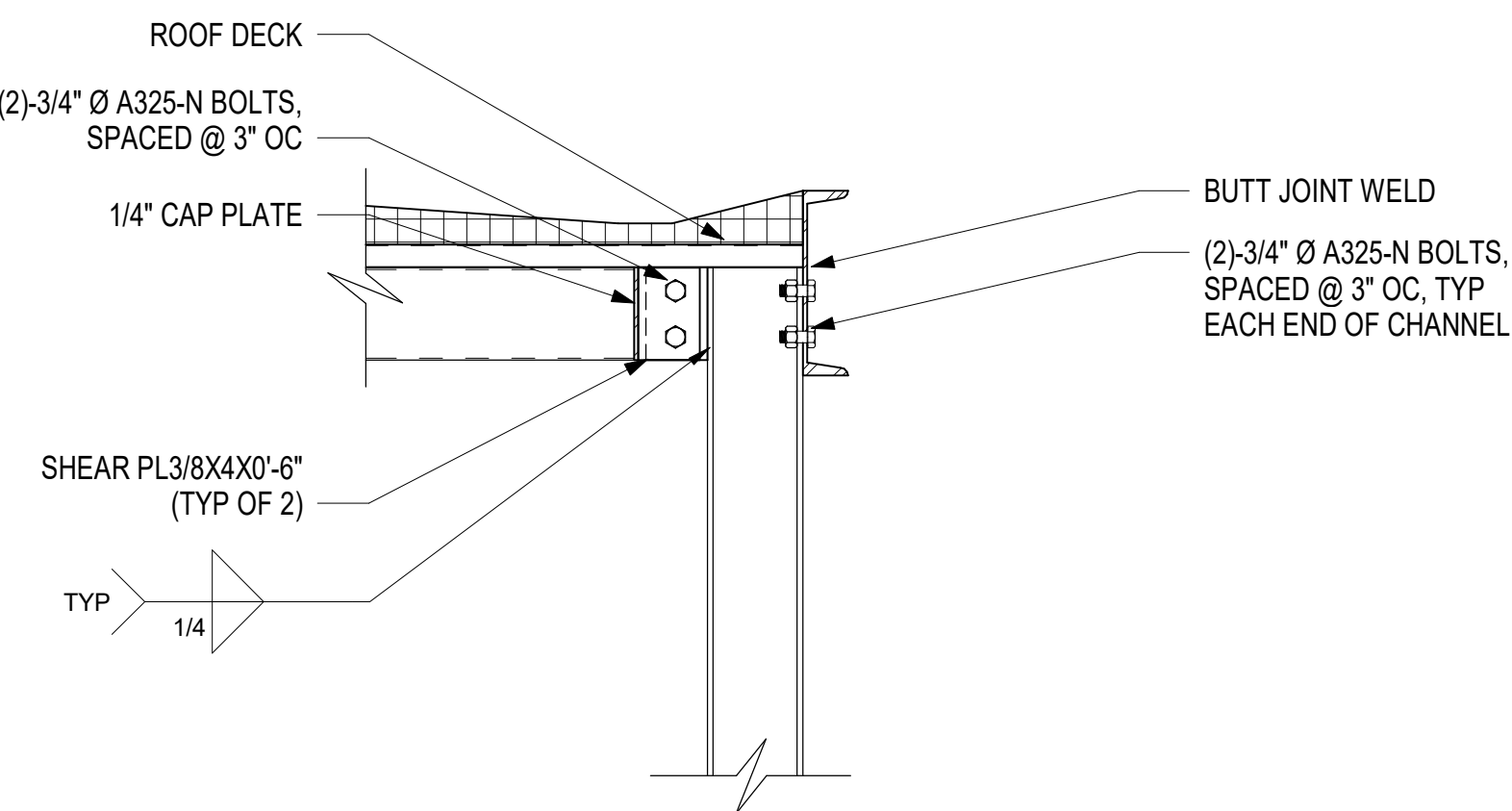
- NOTES:
1. AT JOIST ROOFS, PROVIDE PANEL POINT LOAD REINFORCING AT CHANNEL OR ANGLE FRAME BEARING POINT.
 2. PROVIDE FIRE TREATED SOLID BLOCKING BETWEEN IN ALL DECK FLUTES TO PROVIDE FULL BEARING FOR RTU CURBS.
 3. DETAILS APPLY AT METAL ROOF DECK CONDITIONS ONLY.



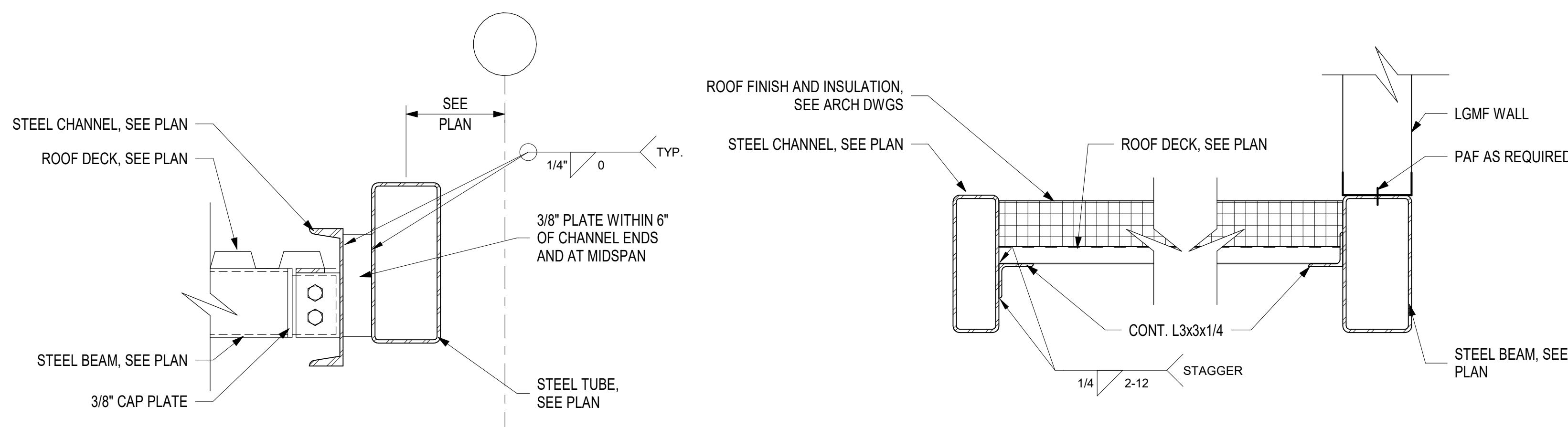
ROOF EDGE CLOSURE	
POUR STOP SIZE	OVERHANG LENGTH "L" (IN.)
18 GA.	4"
16 GA.	6"
14 GA.	7"
12 GA.	9"
10 GA.	11"
1/4" BENT PLATE	18"

2 TYPICAL RTU DROP-IN ROOF FRAME DETAILS
SCALE: 1" = 1'-0"

1 TYPICAL ROOF EDGE PLATE DETAIL
SCALE: 1" = 1'-0"

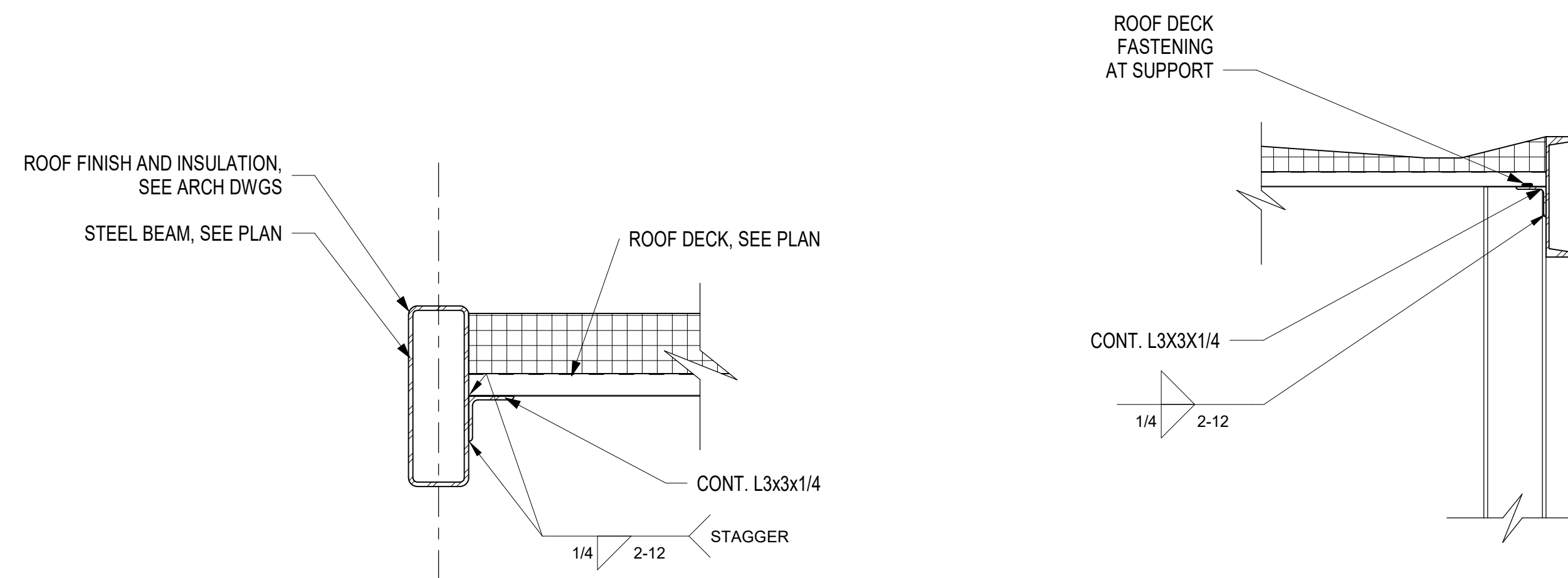


6 CANOPY DETAIL
S101 SCALE: 1" = 1'-0"

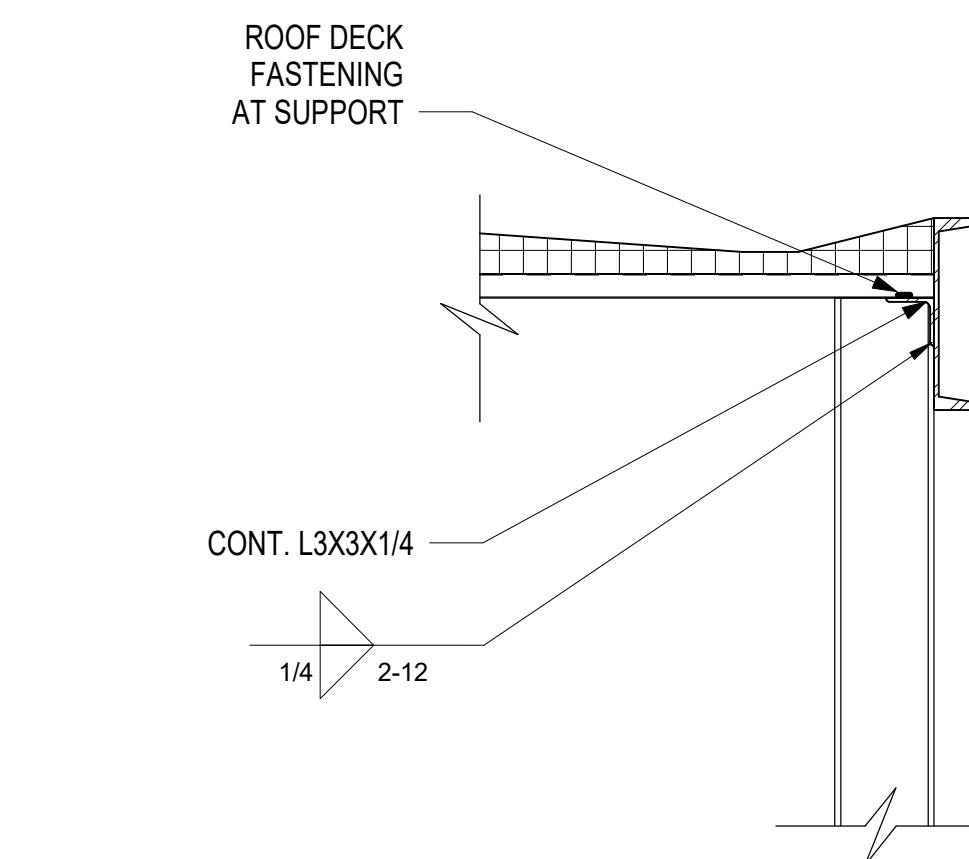


10 CANOPY DETAIL
S101 SCALE: 1 1/2" = 1'-0"

9 CANOPY DETAIL
S101 SCALE: 1 1/2" = 1'-0"




8 CANOPY DETAIL
S101 SCALE: 1 1/2" = 1'-0"



7 CANOPY DETAIL
S101 SCALE: 1" = 1'-0"

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CONSULTANTS:
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SEA/ SIGNATURE:


3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
1	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

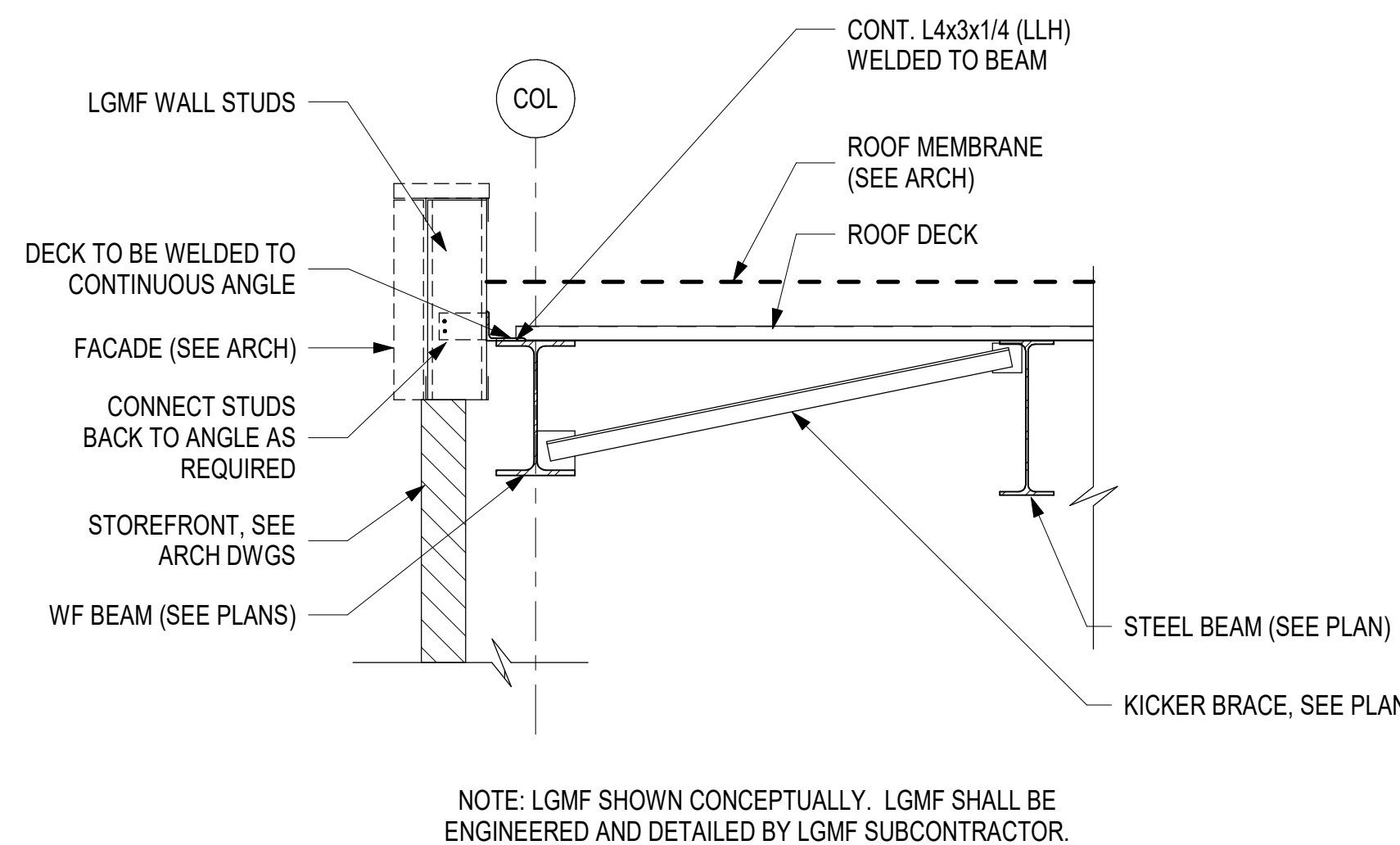
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

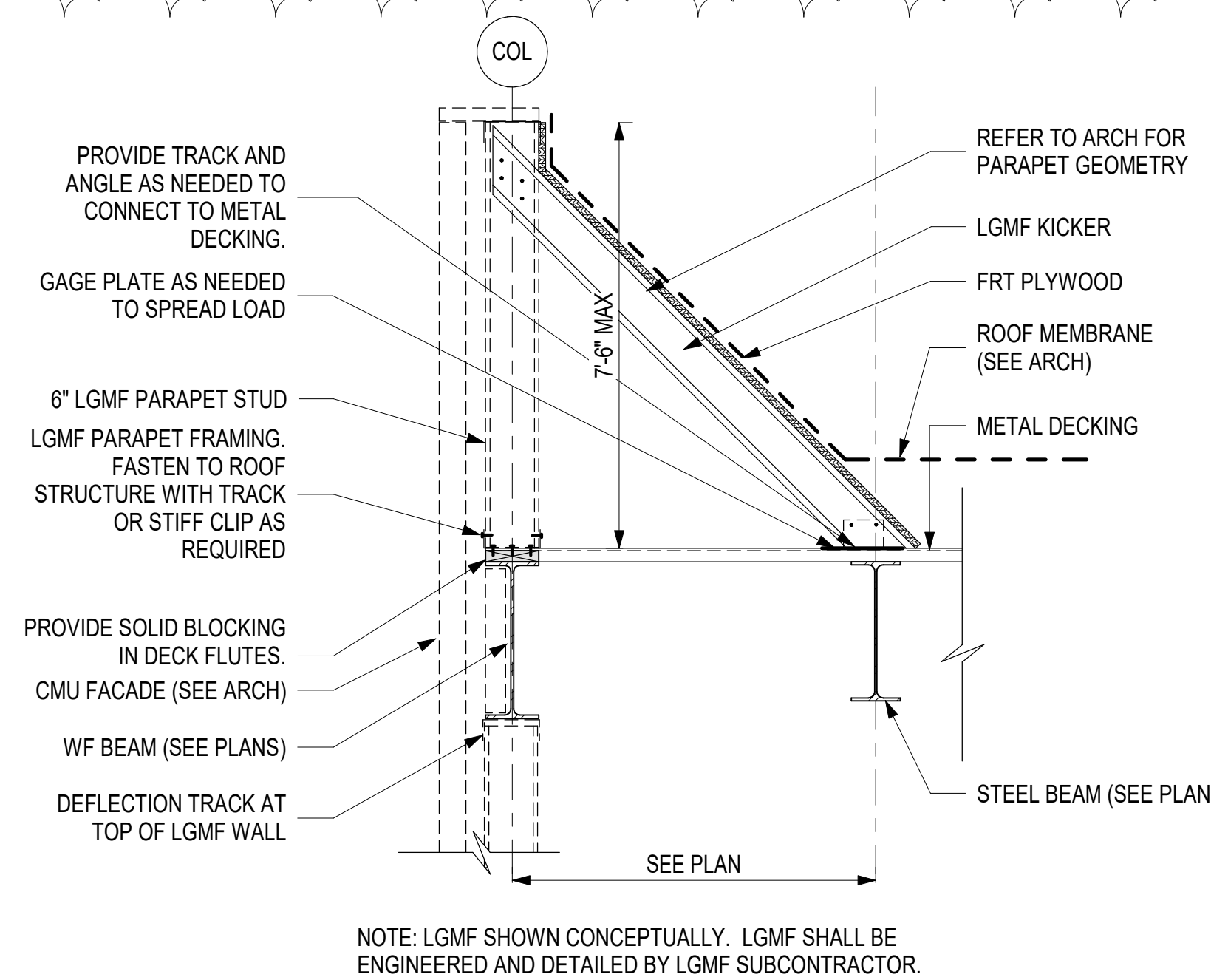
STEEL DETAILS III

DRAWN BY: ESP
CHECKED BY: RFH
JOB NO: 20-128

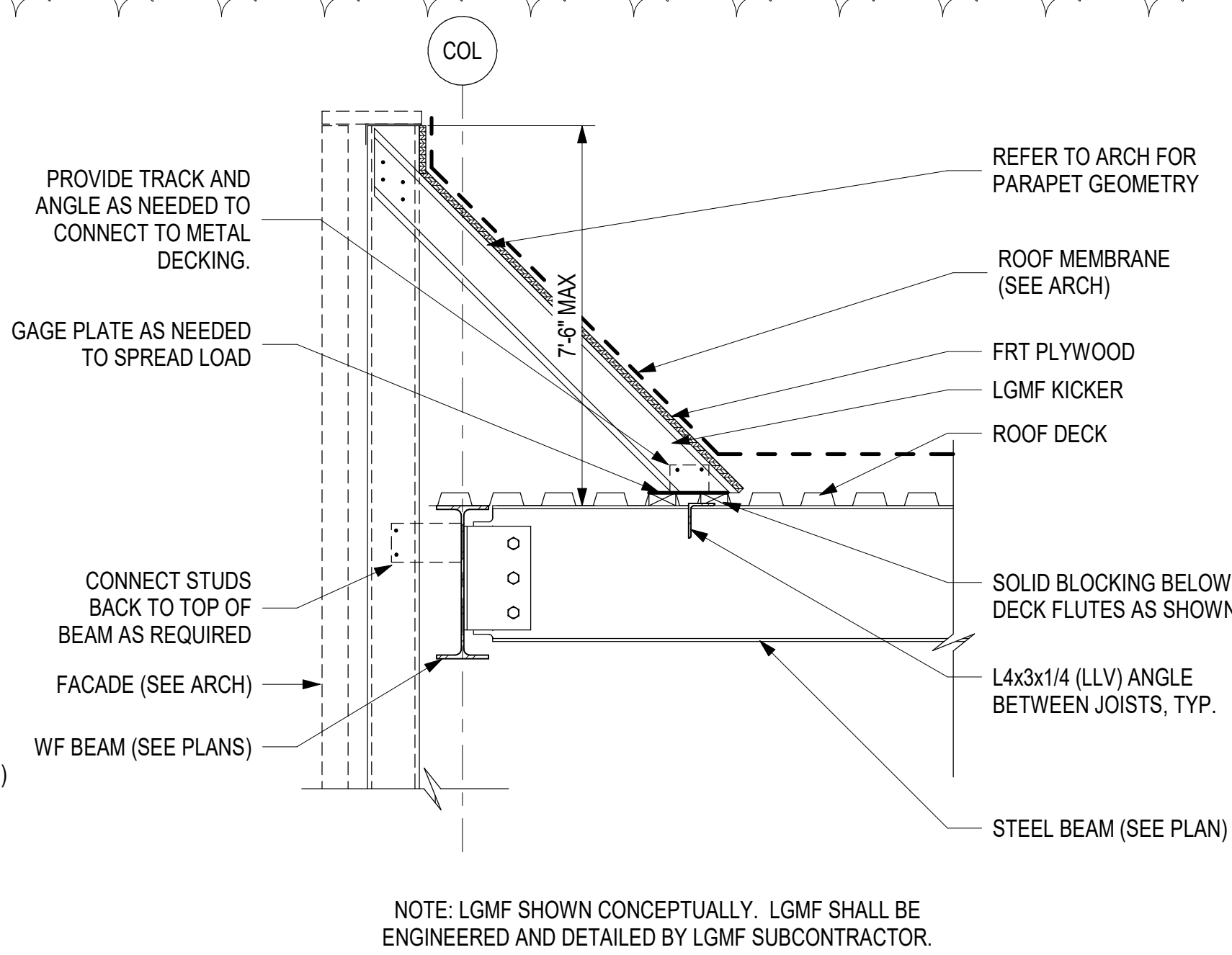
S502



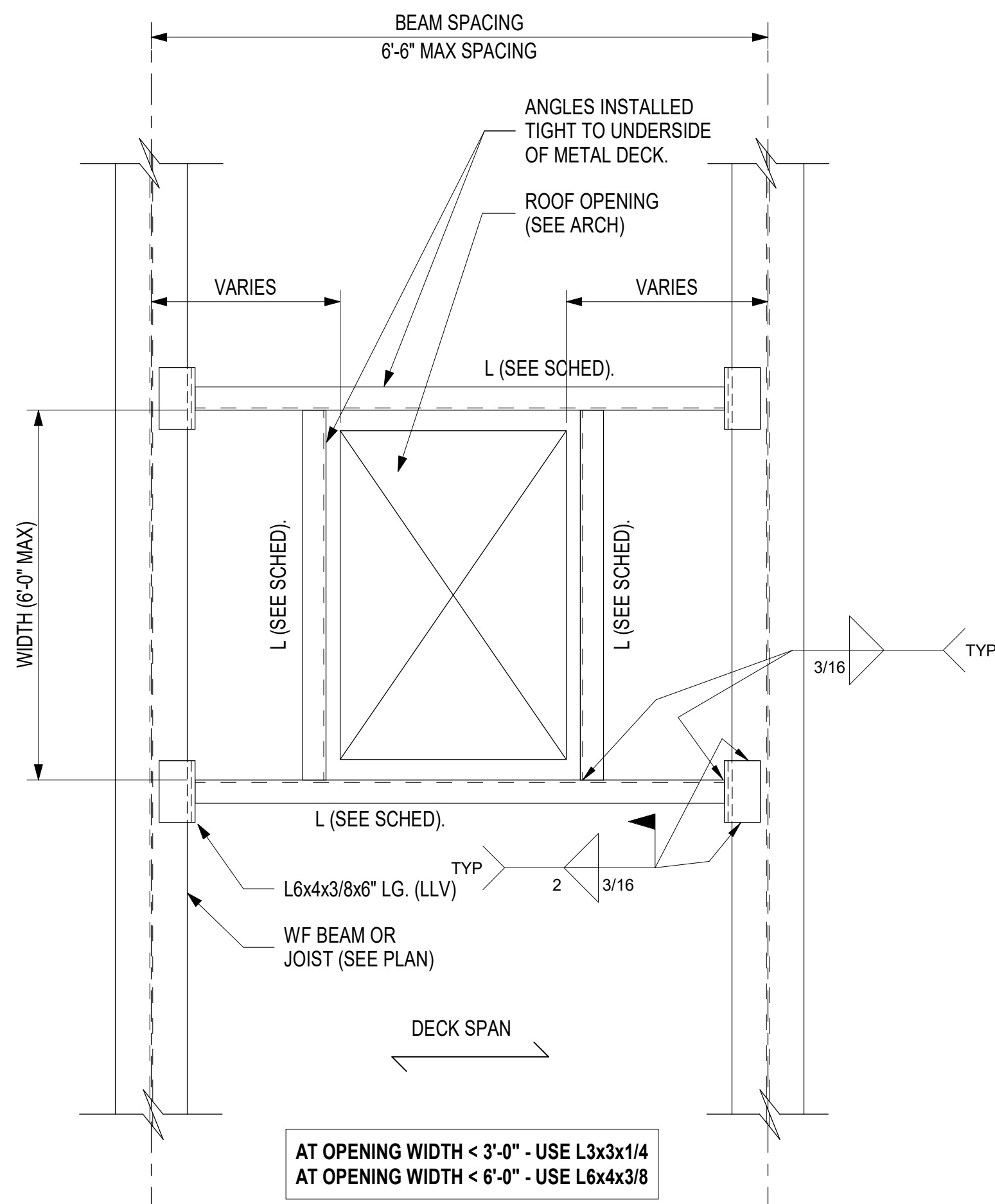
3 DETAIL
S102 SCALE: 3/4" = 1'-0"



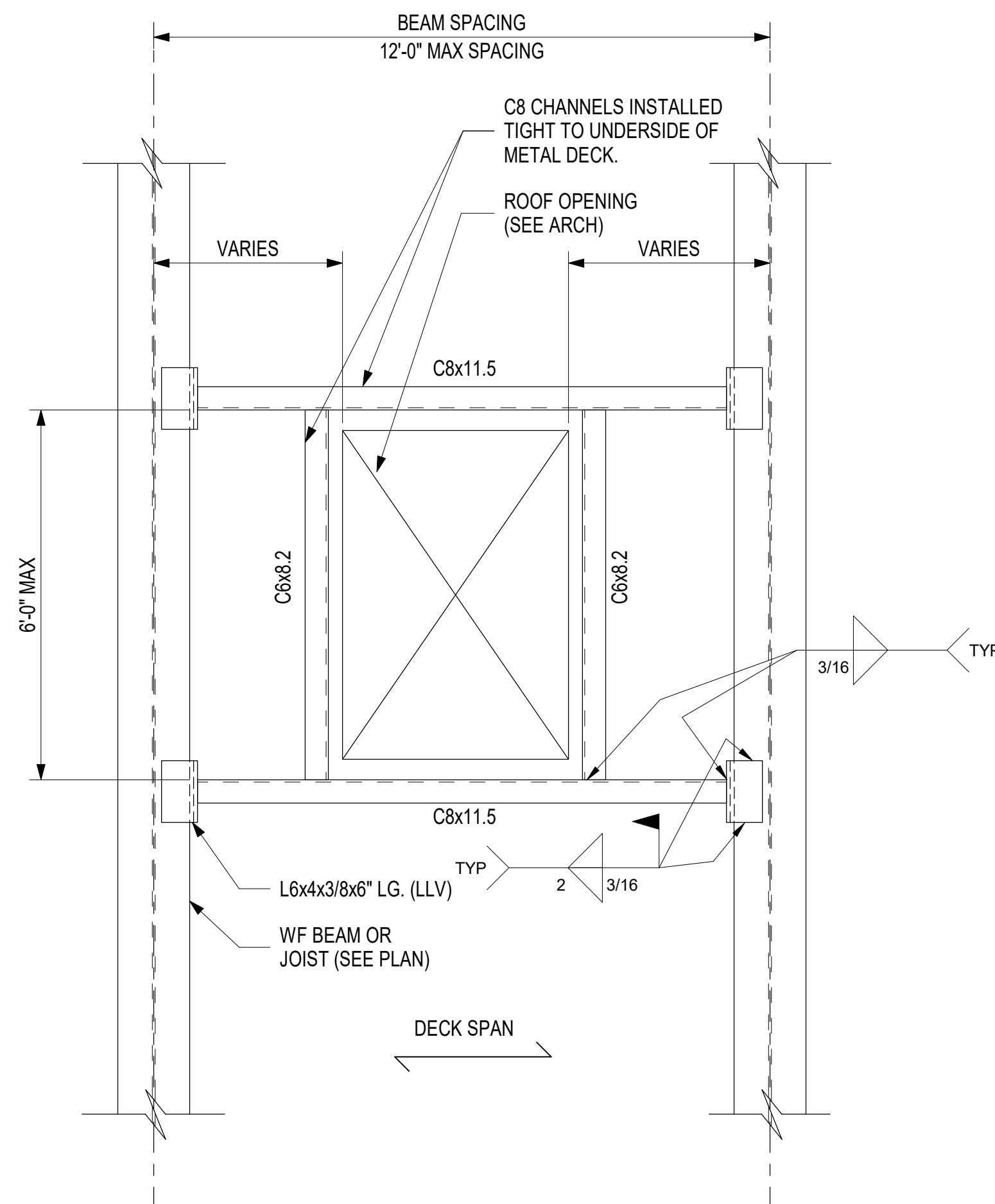
2 TYPICAL PARAPET DETAIL
S102 SCALE: 3/4" = 1'-0"



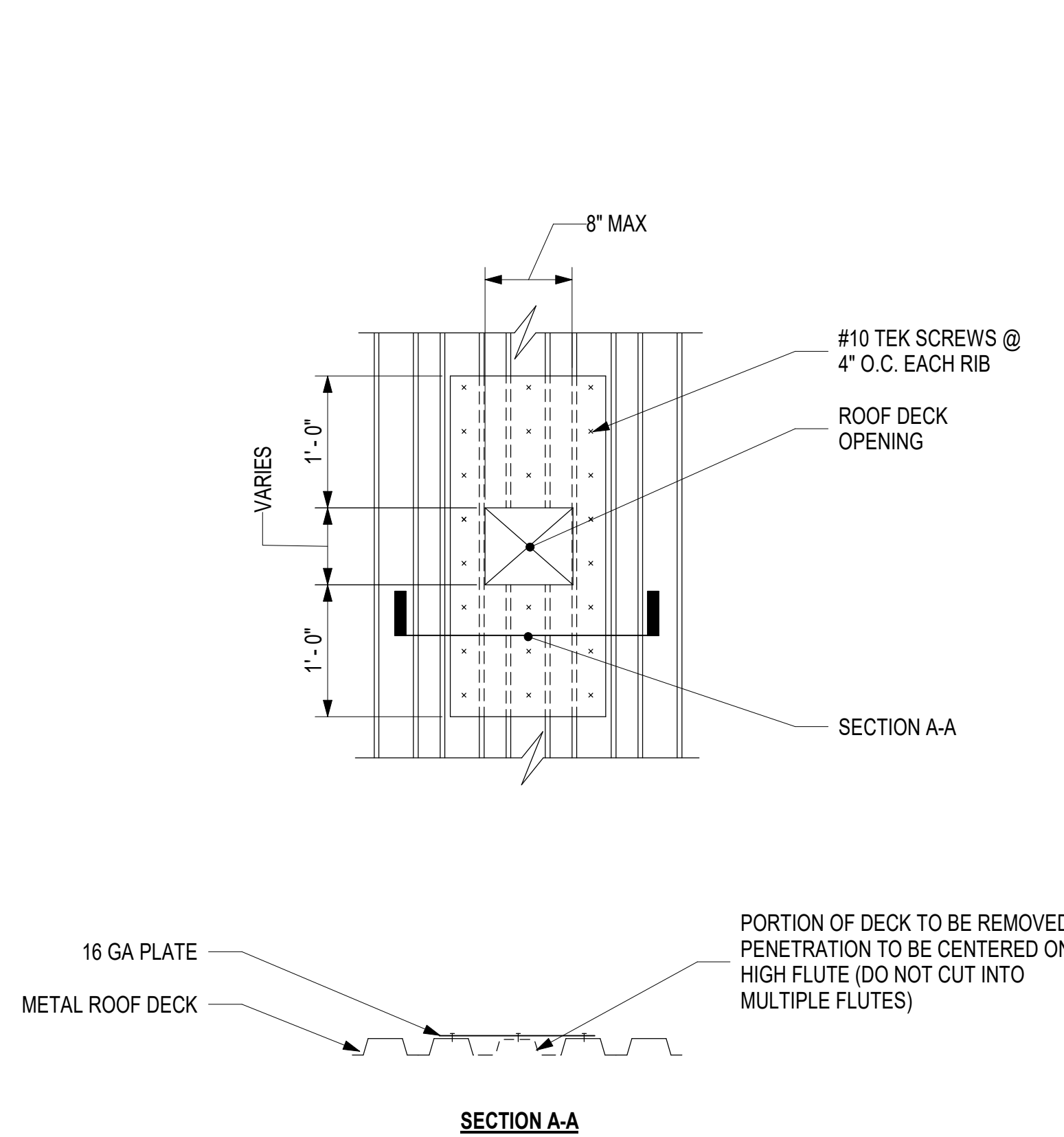
1 TYPICAL PARAPET DETAIL
S102 SCALE: 3/4" = 1'-0"



CONDITION A



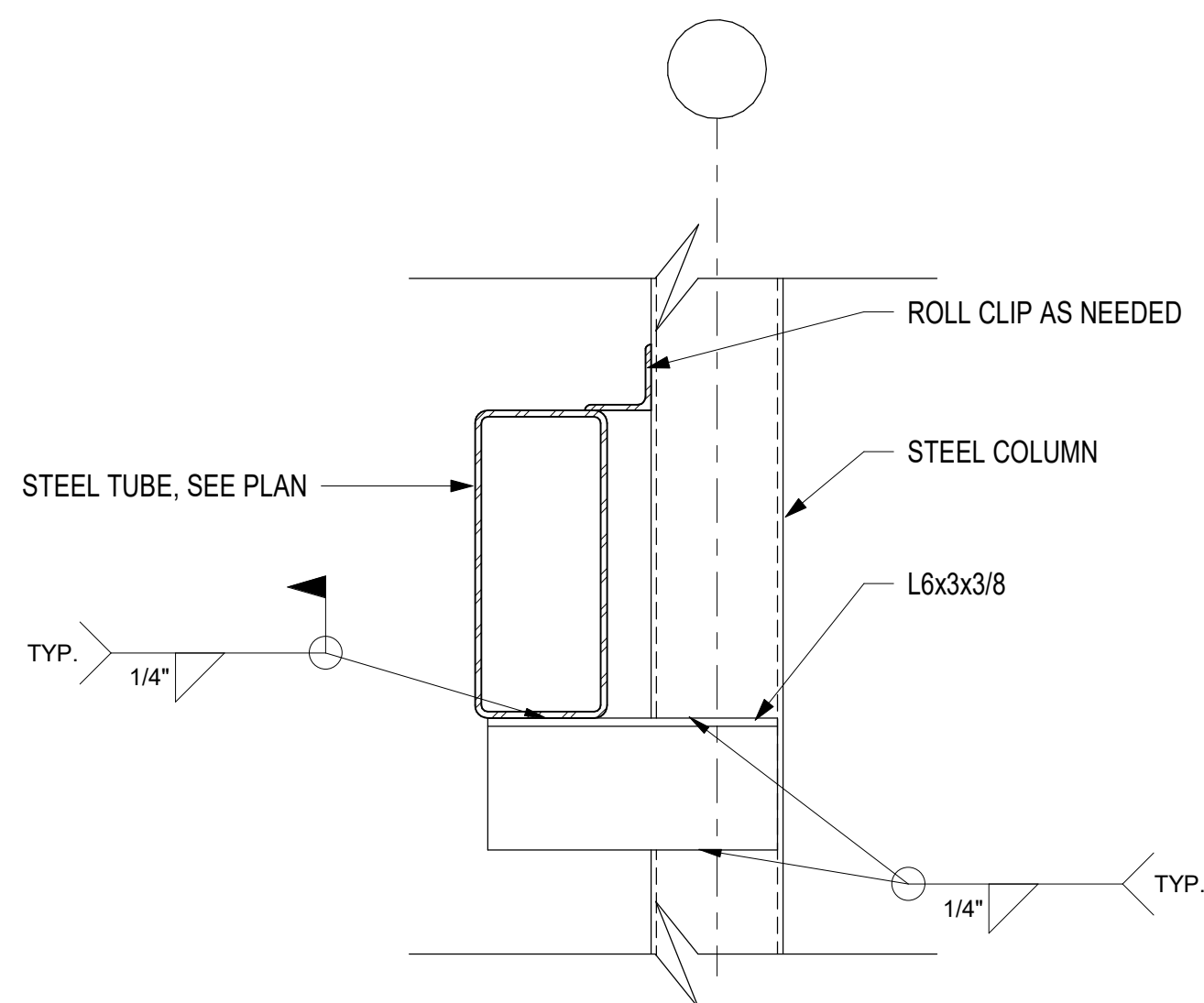
CONDITION B



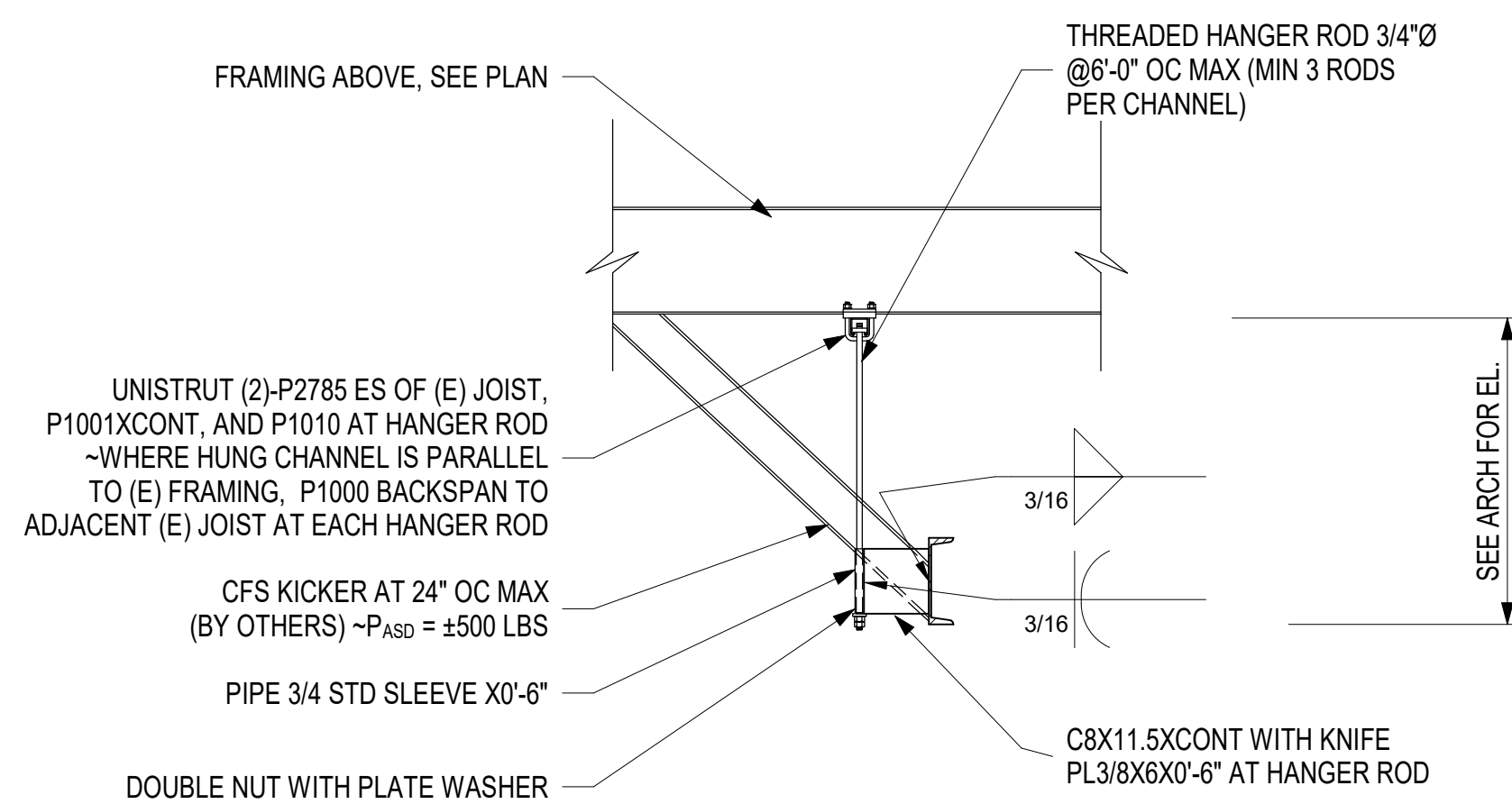
CONDITION C

- NOTES:
- AT JOIST ROOFS, PROVIDE PANEL POINT LOAD REINFORCING AT CHANNEL OR ANGLE FRAME BEARING POINT.
 - ROOF DECK TO BE WELDED TO DROP-IN SUPPORT FRAMING WITH 5/8" Ø PUDDLE WELDS @ 6" O.C. FULL PERIMETER.
 - DETAILS APPLY TO METAL ROOF DECK, DO NOT USE WITH CONCRETE TYPE ROOF DECKS.

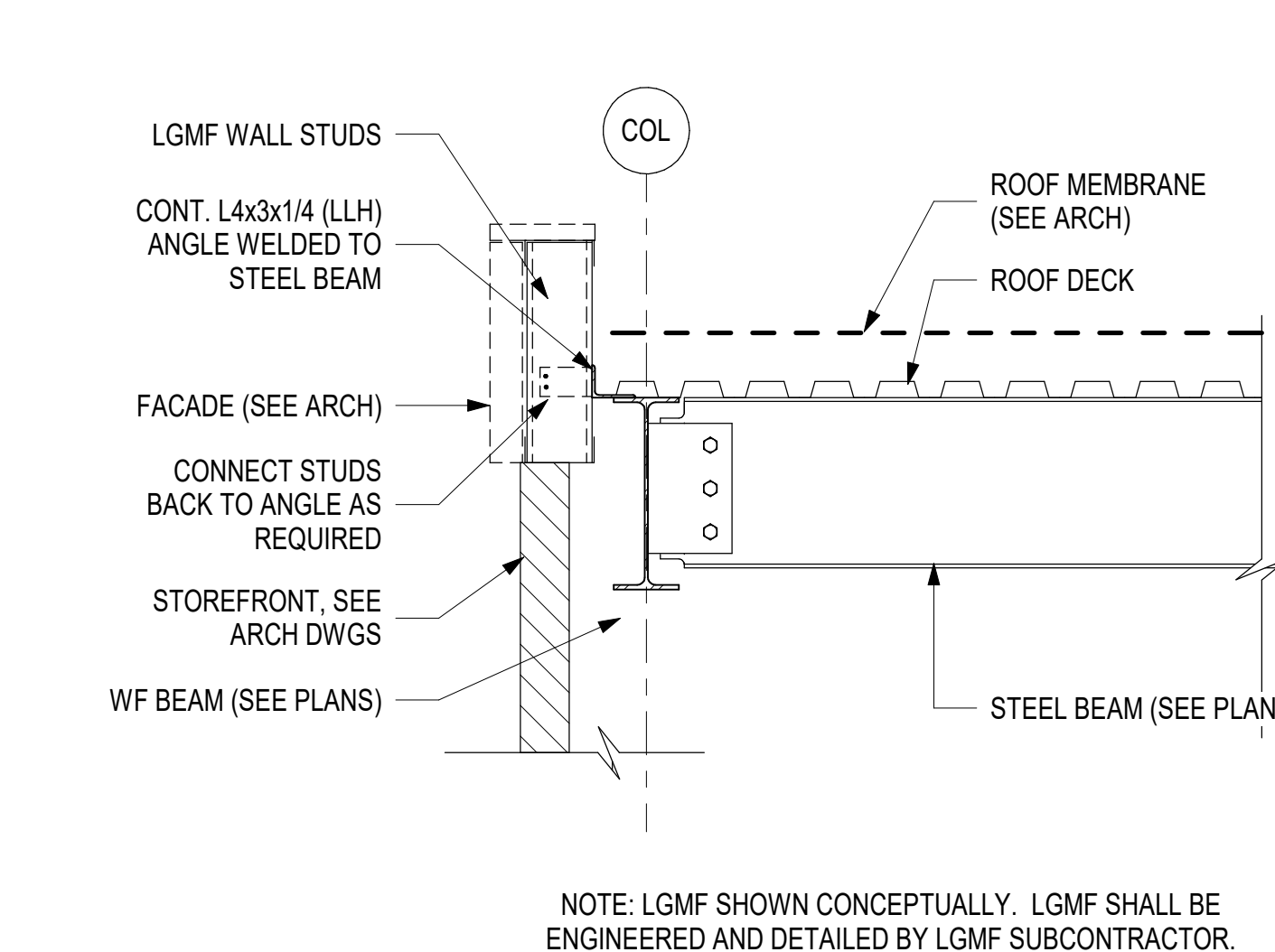
4 CANOPY - TUBE CONNECTION TO COLUMN
SCALE: 1 1/2" = 1'-0"



5 TYPICAL ROOF OPENING FRAMES @ METAL ROOF DECK
SCALE: 1" = 1'-0"



7 TYPICAL HANG INTERIOR SIGN BAND
S101 SCALE: 3/4" = 1'-0"



6 DETAIL
S102 SCALE: 3/4" = 1'-0"

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CONSULTANTS:

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

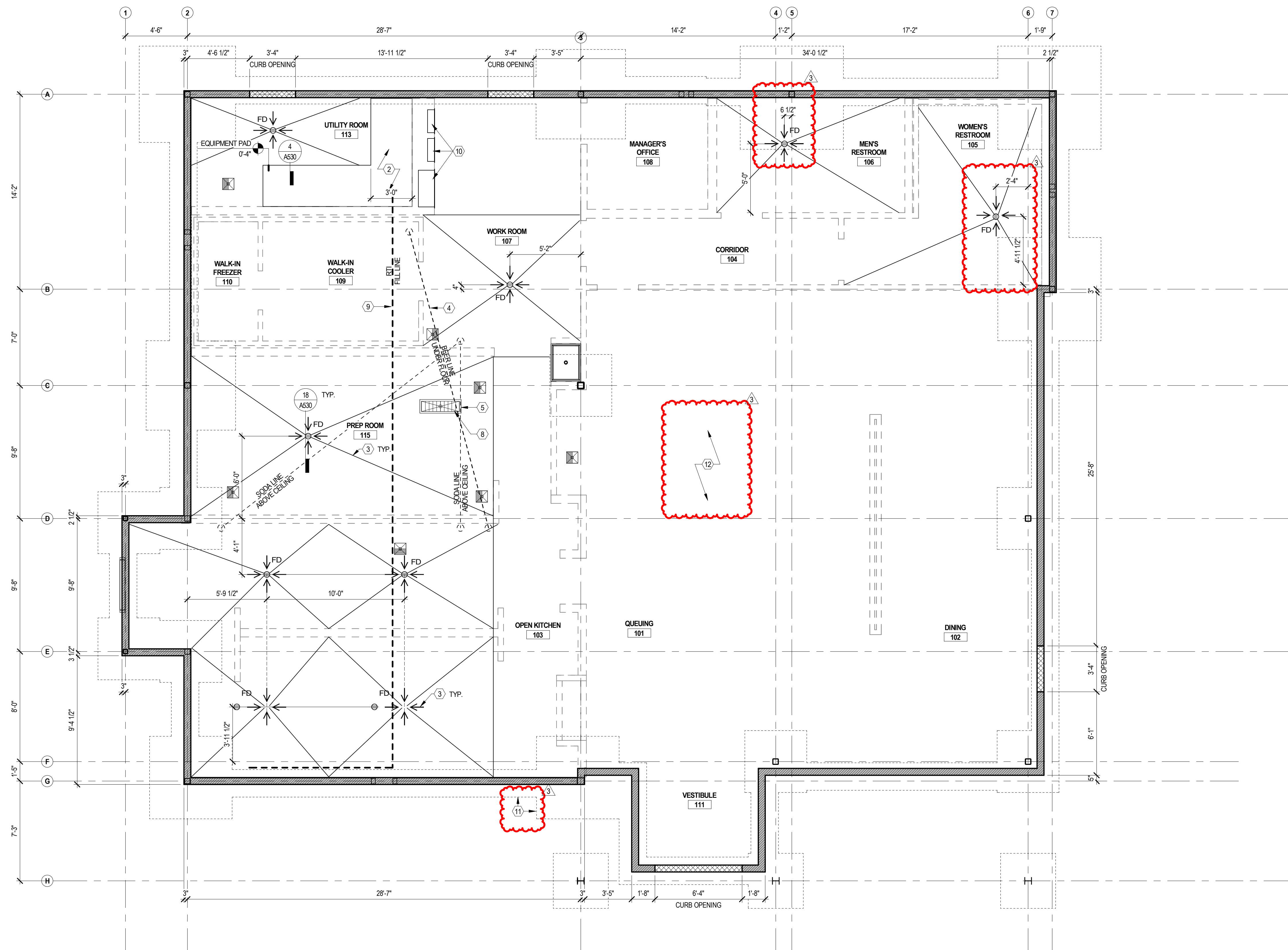
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

CURB & FOUNDATION
PLAN

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 20068.00

A100



CURB & FOUNDATION PLAN

NOT USED

KEY NOTES

- FLOOR DRAINS & FLOOR SINKS, COORDINATE WITH KEC DRAWINGS AND PLUMBING DRAWINGS. REFER TO KEC DRAWINGS FOR DIMENSIONED LOCATIONS OF FLOOR SINKS AND FLOOR TROUGH
- CONCRETE EQUIPMENT PAD, REFER TO DIMENSION PLAN FOR OVERALL DIMENSIONS, COORDINATE WITH STRUCTURAL DRAWINGS
- INDICATES SLOPE TO DRAIN, GC TO COORDINATE MAX 1/8" SLOPE PER 12", TYP.
- BEER LINES TO RUN THROUGH 6" PVC CONDUIT, UNIT RUN TO BE VERIFIED IN FIELD, COORDINATE WITH K-SHEETS AND OWNER'S VENDOR, CONDUIT TO EXTEND APPROX. 4'-6" AFF AND BE WATERPROOFED.
- SODA LINE TO RUN ABOVE CEILING, UNIT RUN TO BE VERIFIED IN FIELD, COORDINATE WITH K-SHEETS AND OWNER'S VENDOR.
- RTI FLUSH MOUNT FILL BOX CONNECTION POINT, GC TO COORDINATE FINAL LOCATION AND RUN WITH OWNER'S VENDOR
- CO2 FILL BOX CONNECTION POINT, GC TO COORDINATE FINAL LOCATION AND RUN WITH OWNER'S VENDOR
- 4" DEEP DEPRESSION FOR FLOOR TROUGH, COORDINATE WITH K-SHEETS
- RTI OIL FILL AND RETURN PIPING TO RUN ABOVE LAY-IN CEILING FROM RTI TANKS AND CONNECT TO FRYERS, GC TO PIPE TO OIL TANKS, COORDINATE WITH K-SHEETS AND OWNER'S VENDOR
- ELECTRICAL PANELS, NO PLUMBING PIPING SHALL BE ROUTED OVER ELECTRICAL PANELS OR TRANSFORMERS AND THEIR WORKING SPACE. REFER TO K-SHEETS
- STRUCTURAL FOUNDATION, REFER TO STRUCTURAL SHEETS
- REFER TO CIVIL FOR FINISH FLOOR ELEVATION

SYMBOL LEGEND

SYMBOL	DESCRIPTION
---	INTERIOR PARTITION
⓪	KEYNOTE
⓪ FD	FLOOR DRAIN, GC TO COORDINATE W/ P-SHEETS
⓪	FLOOR SINK, GC TO COORDINATE W/ P-SHEETS & K-SHEETS
→	SLOPE DIRECTION
---	FLOOR TROUGH, GC TO COORDINATE W/ P-SHEETS & K-SHEETS

GENERAL NOTES

- REFER TO STRUCTURAL DRAWINGS FOR CONCRETE DETAILING, MIX DESIGN & REINFORCING
- ALL DIMENSIONS ARE TO FACE OF SHEATHING, UNLESS NOTED OTHERWISE
- ALL TARGET ELEVATIONS ARE TAKEN FROM T.O. CONCRETE SLAB

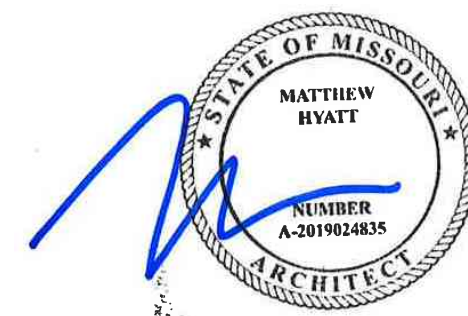
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CONSULTANTS:

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
1	2021-03-09	ADDENDUM 1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

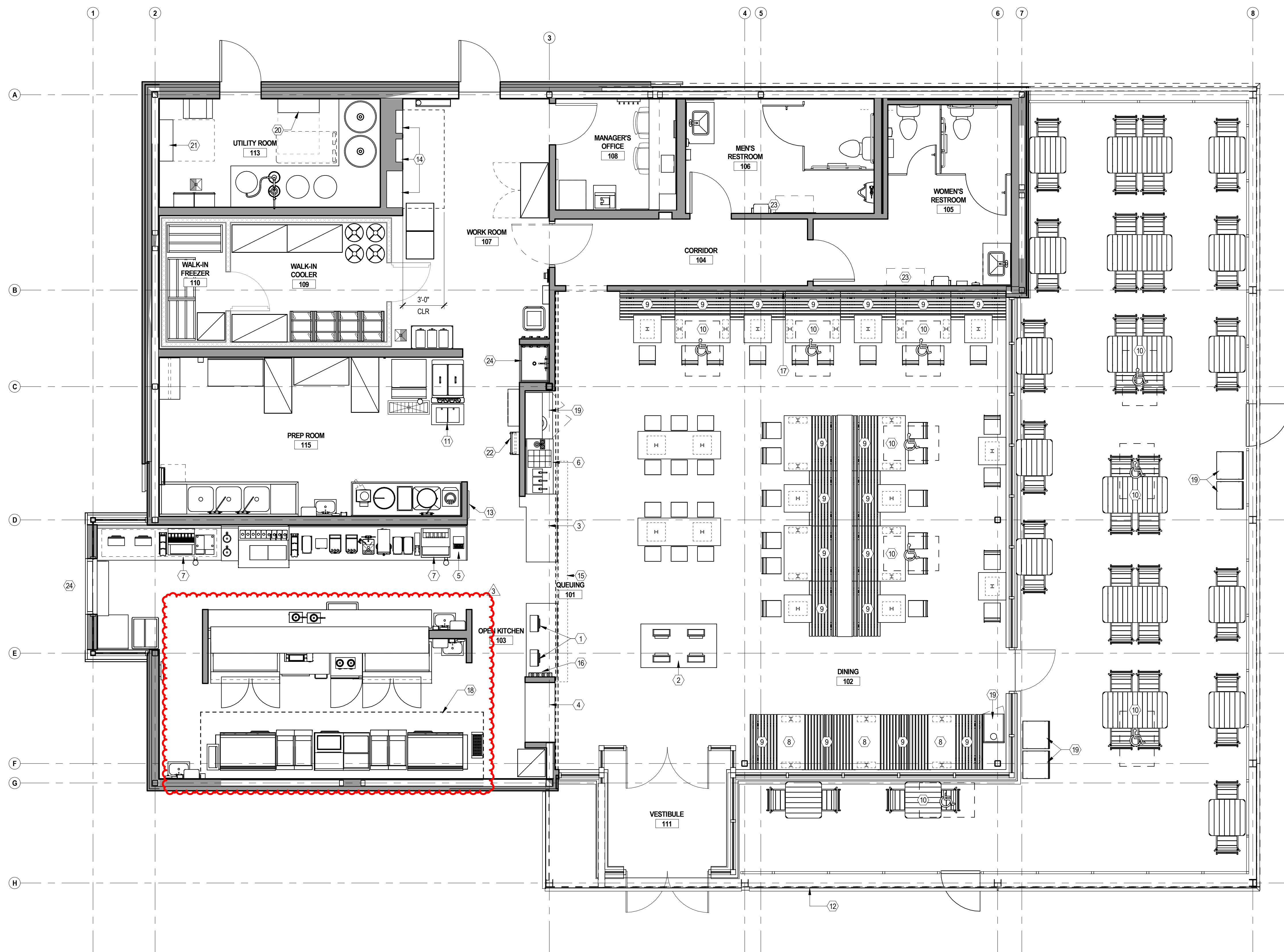
GENERAL
ARRANGEMENT PLAN

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20088.00

A101



PROVIDED FOR REFERENCE ONLY

GENERAL ARRANGEMENT PLAN

NOT USED

KEY NOTES

- | | |
|--|---|
| (1) P.O.S. STATION | (18) WASTE RECEPTACLE: EVEREST WHITE COUNTERTOP |
| (2) SELF-SERVICE KIOSKS | (20) VERTICAL FIRE RISER |
| (3) PICK-UP COUNTER | (21) DOMESTIC WATER |
| (4) SHACK APP PICK-UP | (22) ROOF LADDER |
| (5) BEER DISPENSER | (23) BABY CHANGING STATION |
| (6) CONDIMENT STATION: EVEREST WHITE COUNTERTOP | (24) DRIVE THRU WINDOW |
| (7) SODA MACHINE | (25) MOP SINK |
| (8) FIXED TABLE | |
| (9) FIXED SEATING | |
| (10) ACCESSIBLE TABLE | |
| (11) CUSTARD MACHINE | |
| (12) EXTERIOR SIGN BAND ABOVE | |
| (13) LOCKABLE BULLETIN BOARD | |
| (14) ELECTRICAL PANELS: COORDINATE WITH E-SHEETS | |
| (15) MENU BOARDS | |
| (16) WINE RACK | |
| (17) STAND FOR SOMETHING GOOD NEON | |
| (18) KITCHEN HOOD OVERHEAD | |

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW PARTITION (FULL HEIGHT)
	NEW PARTITION (PARTIAL HEIGHT - SEE ELEV. FOR MORE INFO)
	PREFAB WALLS BY KEC
	NEW DOOR
(01)	KEYNOTE

GENERAL NOTES

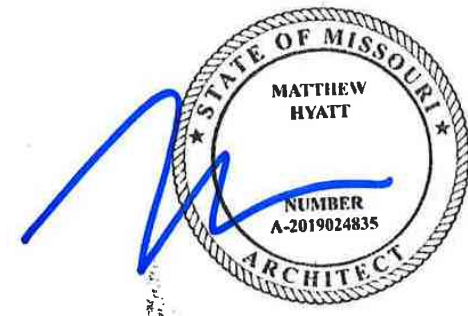
- A. REFER TO A104 FOR FURNITURE PLAN
B. REFER TO K-SHEETS FOR KITCHEN EQUIPMENT LAYOUT

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CONSULTANTS:

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
1	2021-01-11	PERMIT/BID SET
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NO.	BY	DATE	DESCRIPTION
-----	----	------	-------------



SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

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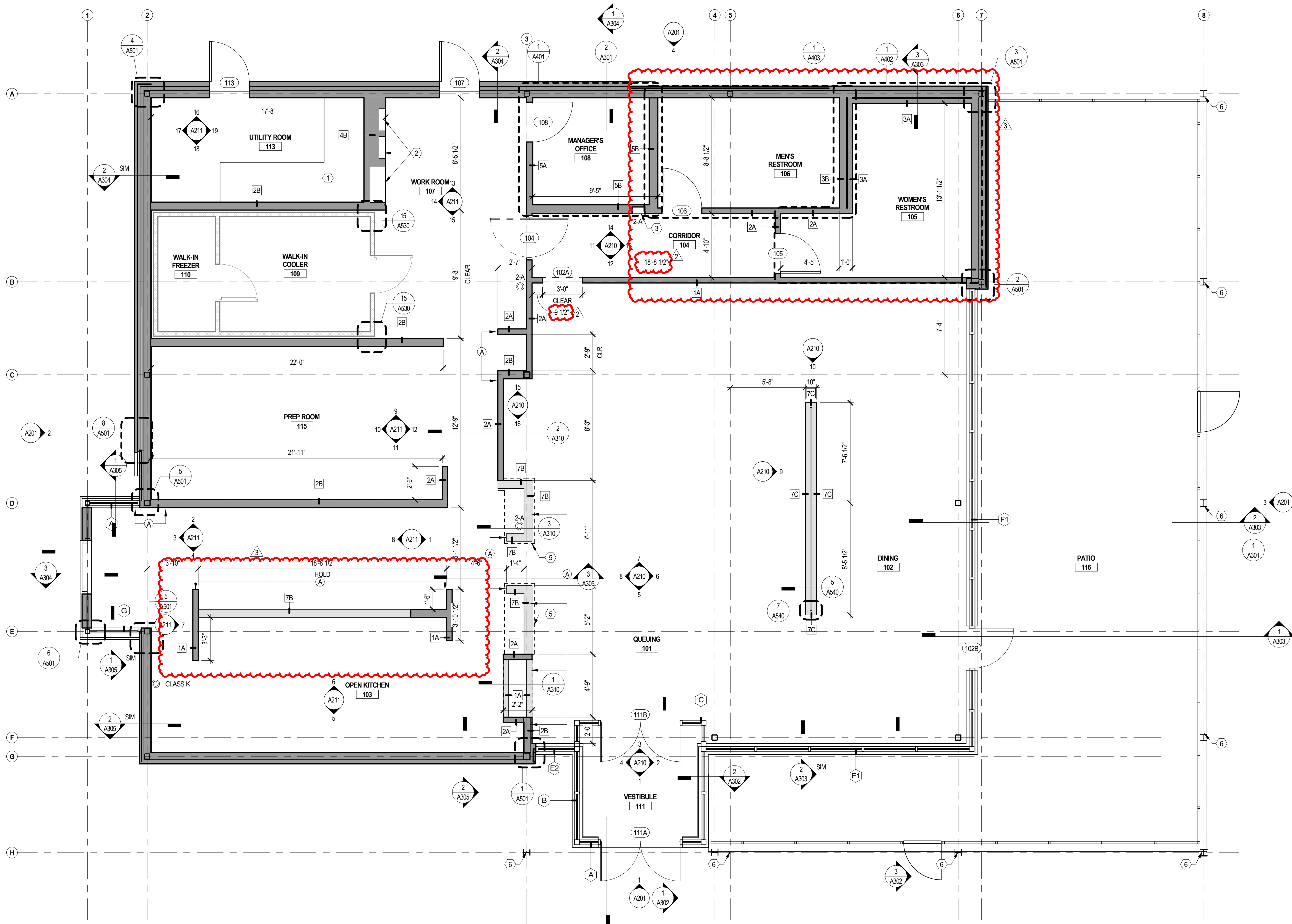
DIMENSIONED PLAN

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20080.00

A102



DIMENSIONED PLAN

NOT USED

KEY NOTES

1. RAISED CONCRETE PLATFORM. REFER TO CURB & FOUNDATION PLAN.
2. LOCATION OF ELECTRICAL PANELS. COORDINATE WITH ELECTRICAL DRAWINGS.
3. RECESSED FIRE EXTINGUISHER CABINET. REFER TO DETAIL 23 / A530
4. PROVIDE: (1) LAYER OF F.R.T. PLYWOOD AND (1) LAYER 5/8" GWB ON METAL STUDS IN MANAGER'S OFFICE ONLY.
5. DASHED LINE REPRESENTS COUNTERTOP. REFER TO A104 FOR DIMENSIONS OF GC BUILT COUNTER TOP.
6. NEW COLUMNS TO SUPPORT CANOPY ABOVE. REFER TO STRUCTURAL
7. PATIO RAILINGS AND GATES. REFER TO A512

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW PARTITION (FULL HEIGHT)
	NEW PARTITION (PARTIAL HEIGHT - SEE ELEV. FOR MORE INFO)
	PREFAB WALLS BY KEC
	NEW DOOR
	DOOR TAG. SEE SHEET A802 FOR DOOR SCHEDULE
	KEYNOTE
	WALL PARTITION TAG. SEE SHEET A510 FOR PARTITION DETAILS.
	STOREFRONT TAG. SEE SHEET A603
	FIRE EXTINGUISHER
	ALIGN

GENERAL NOTES

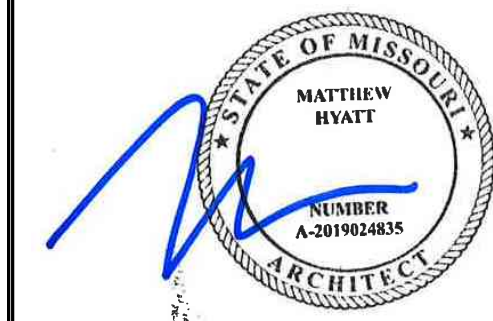
- WORK TO BE NEW U.N.O.
- SEE RESPONSIBILITY SCHEDULE FOR DIVISION OF LABOR.
- WORK SHALL COMPLY WITH FEDERAL, STATE AND LOCAL BUILDING CODES AND REGULATIONS.
- GC IS RESPONSIBLE FOR MAINTAINING THE FIRE RATING INTEGRITY AT DEMISING AND FIRE RATED WALLS, EXISTING COLUMNS, AS WELL AS AT THE FLOOR AND FLOOR/ROOF ASSEMBLY ABOVE. VERIFY APPLICABLE CONDITIONS IN FIELD.
- CONTRACTORS SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS THAT IMPACT WORK PRIOR TO START OF CONSTRUCTION.
- CONFLICTS BETWEEN SITE CONDITIONS AND DRAWINGS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/DESIGNER.
- DIMENSIONS ARE TO BE TO FACE OF SHEATHING. U.N.O. APPLIED MATERIALS ARE TO BE APPLIED AFTER THE FINISH DIMENSIONS HAVE BEEN CONFIRMED.
- SEE ENLARGED PLANS FOR DIMENSIONS WHICH ARE NOT SHOWN ON CONSTRUCTION PLAN.
- DRAWINGS ARE NOT TO BE SCALED. VERIFY ANY MISSING OR CONFLICTING WRITTEN DIMENSIONS WITH THE ARCHITECT/DESIGNER PRIOR TO CONSTRUCTION.
- NOTIFY ARCHITECT OF CONDITIONS WHERE CLEAR OR CRITICAL DIMENSIONS ARE DESIGNATED BUT CANNOT BE MET OR WHERE CORRIDOR/ AISLE WIDTH CANNOT MEET THE MINIMUM REQUIREMENT.
- MAINTAIN FINISH FLOOR BASE ELEVATION THROUGHOUT THE CONTRACT AREA SUCH THAT DIMENSIONS INDICATED AS ABOVE FINISH FLOOR ARE AT THE SAME ELEVATION.
- GC SHALL SUPPLY FIELD CONDITIONS AND DIMENSIONS TO THE ARCHITECT, MILLWORKER, OWNER AND OWNERS CONTRACTORS.
- GC RESPONSIBLE FOR PREPARATION WORK REQUIRED TO INSTALL NEW FLOORING TO MANUFACTURERS SPECIFICATIONS.
- GO TO COORDINATE WITH OWNERS VENDORS TO ALLOW FOR PROPER INSTALLATION OF: OWNER SUPPLIED ITEMS. GO TO SCHEDULE DELIVERY / INSTALLATION DATES AT THE BEGINNING OF THE JOB TO GUARANTEE COMPLIANCE WITH CONSTRUCTION SCHEDULE.
- TEMPERED GLASS TO BE USED IN LOCATIONS AS REQUIRED BY CODE.
- ALIGN CENTERLINES OF FIRE EXTINGUISHERS AND MEP-FP DEVICES ON WALLS IN THE SAME LOCATION.
- DOORS HINGE SIDE TO BE 4" FROM WALL. U.N.O.
- ALL WOOD BLOCKING, FRAMING, PLYWOOD, SUBFLOORS, ETC., TO BE FIRE TREATED (DESIGNATED F.R.T.).
- OWNER AND ARCHITECT TO BE NOTIFIED AFTER FLOOR WALL LAYOUT FOR REVIEW PRIOR TO CONSTRUCTION.
- REFER TO K-SHEETS, F-SHEETS AND THE CURB & FOUNDATION PLAN FOR FLOOR DRAINS, FLOOR SINKS, AND DEPRESSION LOCATIONS.
- FIRE EXTINGUISHERS SUPPLIED BY G.C.; PROVIDE FIRE EXTINGUISHERS IN QUANTITIES AND LOCATIONS AS REQUIRED BY CODE AND AUTHORITY HAVING JURISDICTION. REVIEW ADDITIONAL OR ALTERED LOCATIONS WITH THE ARCHITECT/DESIGNER PRIOR TO INSTALLATION.
- ALL FLOOR, EXTERIOR WALL, FOUNDATION WALL AND ROOF PENETRATIONS TO BE SLEEVED AND WATERPROOFED.
- REFER TO S-SHEETS FOR SCOPE OF CONCRETE AND TRENCHING.
- ALL FLOOR AND WALL PENETRATIONS THROUGH RATED ASSEMBLIES TO BE FIRE SEALED AS REQUIRED TO ACHIEVE A FIRE RESISTANCE RATING EQUAL TO THE RATED ASSEMBLY IN WHICH THE PENETRATION OCCURS.
- TAPE, SAND, AND PAINT ONLY AT WALLS BEHIND WALK IN COOLERS, FREEZERS.
- G.C. TO SUBMIT TO OWNER: (1) HARD COPY AND (1) ELECTRONIC COPY OF THE OPERATION AND MAINTENANCE MANUAL.
- SITE CAMERAS ARE REQUIRED FOR DURATION OF CONSTRUCTION; (2) FOR GRUND-UP (INTERIOR & EXTERIOR). CONTACT EARTHCAM FOR ORDERING. REFER TO VENDOR LIST FOR CONTACT INFO.

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617.542.1025

CONSULTANTS:

SEA/ SIGNATURE:



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	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOMENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

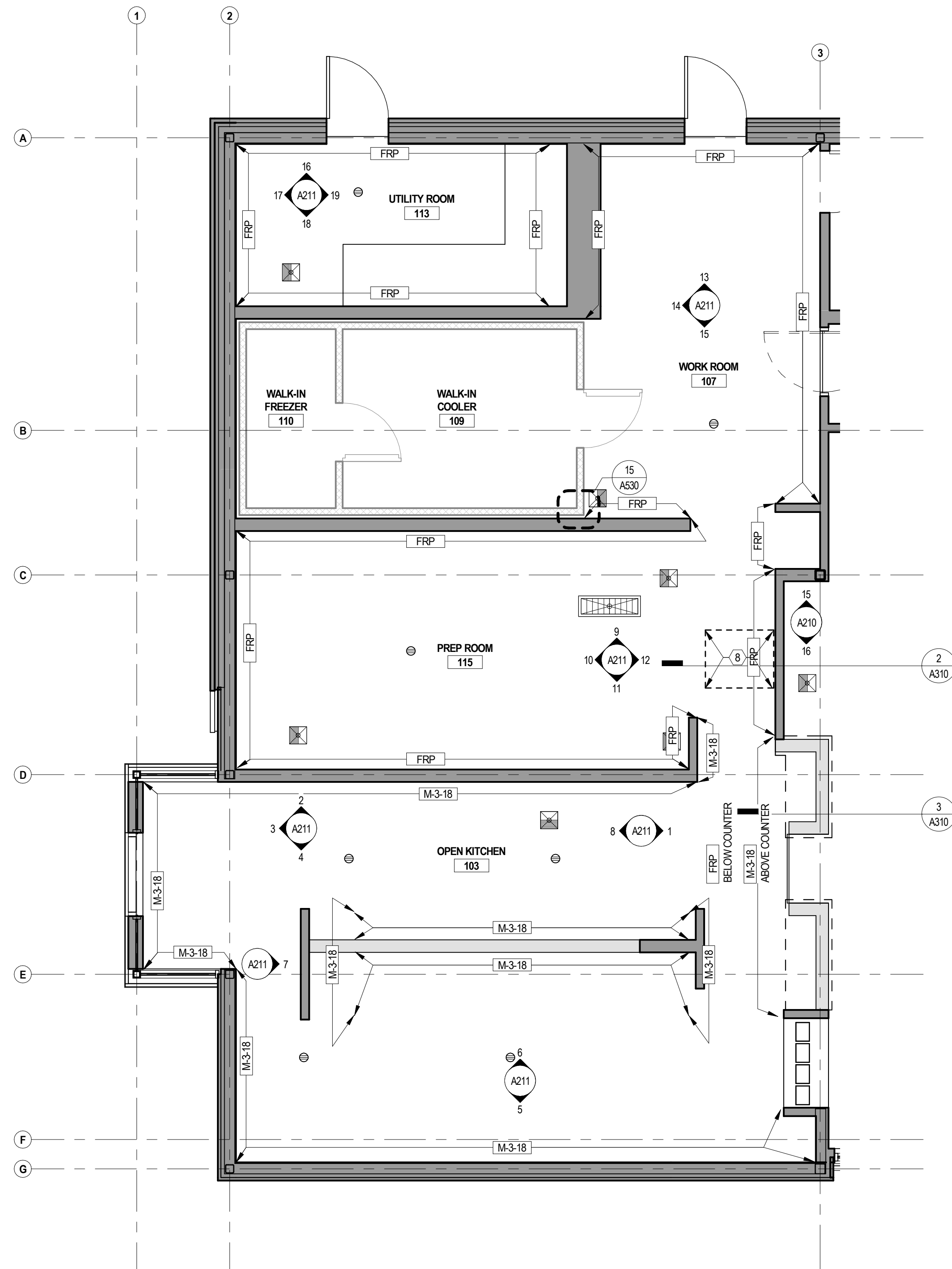
FLOOR FINISH PLAN

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20088.00

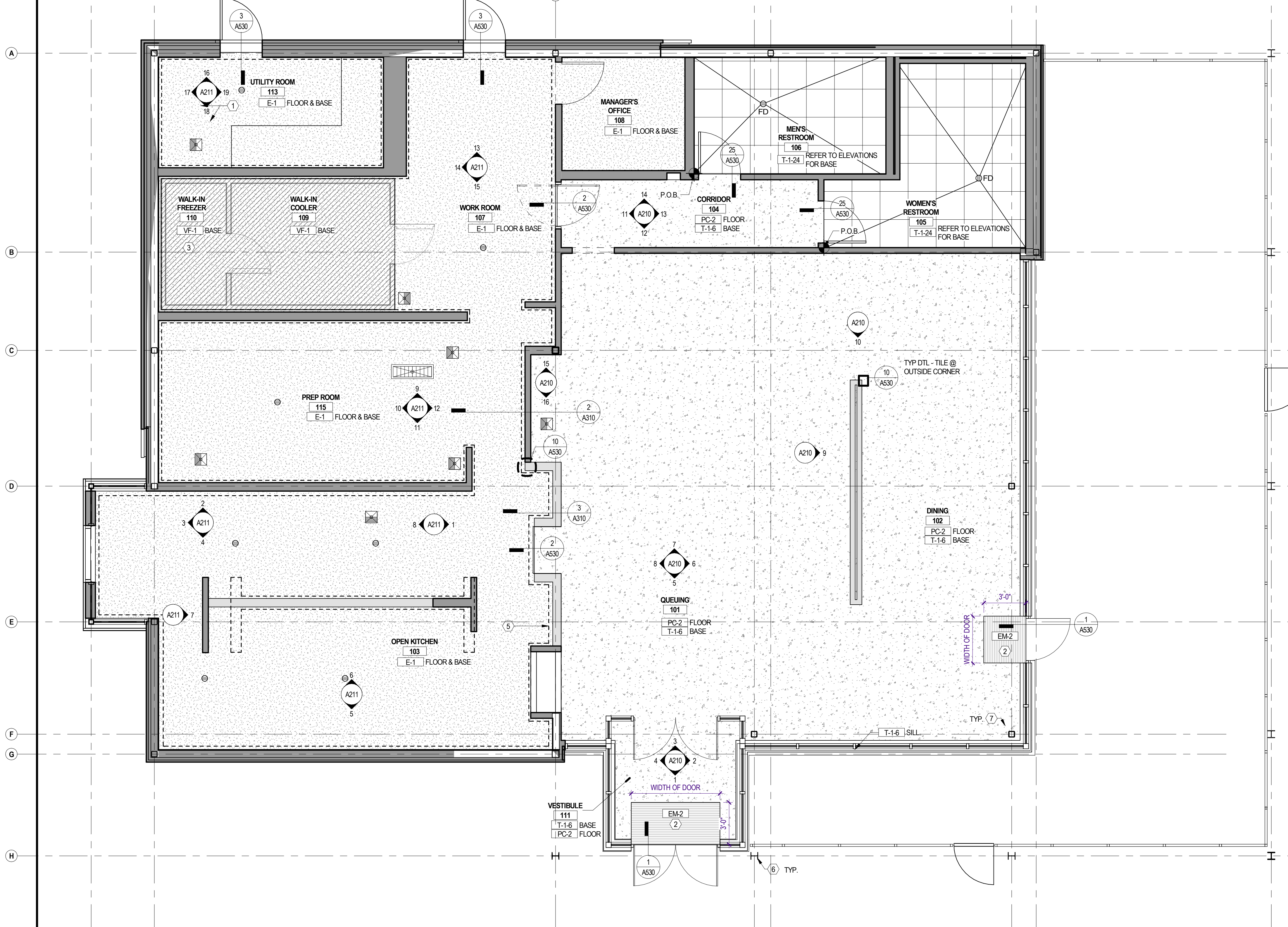
A103



FLOOR FINISH PLAN - BOH WALL FINISHES

1/4" = 1'-0"

2



FLOOR FINISH PLAN

1/4" = 1'-0"

1

NOT USED

KEYNOTES

- 4" ELEVATED UTILITIES CURB
- LOOSE-LAY ROLL OUT MAT [EM-2], FINISH FLOOR BENEATH
- PROVIDE LEVEL 3 FINISH BEHIND WALK-IN COOLER AND FREEZER
- [M-3-18] UP TO 4'-0" AFF AT MOP SINK WALLS
- LOCATION OF WATERPROOF MEMBRANE; REFER TO GENERAL NOTES FOR MORE INFORMATION
- PAINT COLUMNS [P-4] USE ZINC RICH PRIMER
- PAINT INTERIOR COLUMNS [P-4]
- INTERIOR WALLS OF ROOF HATCH ABOVE TO BE FINISHED ON ALL SIDES WITH FRP
- PATIO RAILINGS AND GATE TO BE PAINTED; REFER TO AS102

SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	NEW PARTITION		PC-2 POLISHED CONCRETE
	NEW PARTITION (PARTIAL HEIGHT - SEE ELEV. FOR MORE INFO)		E-1 URETHANE CONCRETE COATING SYSTEM
	PREFAB WALLS BY KEC		VF-1 WELDED SEAM FLOORING
	NEW DOOR		EM-2 LOOSE LAY WALK-OFF MAT
	KEYNOTE		LEASE LINE
	FINISH TAG, REFER TO FINISH SCHEDULE ON SHEET A601		WATERPROOF MEMBRANE (5)
	ALIGN		
	POINT OF BEGINNING (P.O.B.)		
	FLOOR DRAIN		
	FLOOR SINK		
	FLOOR TRENCH		

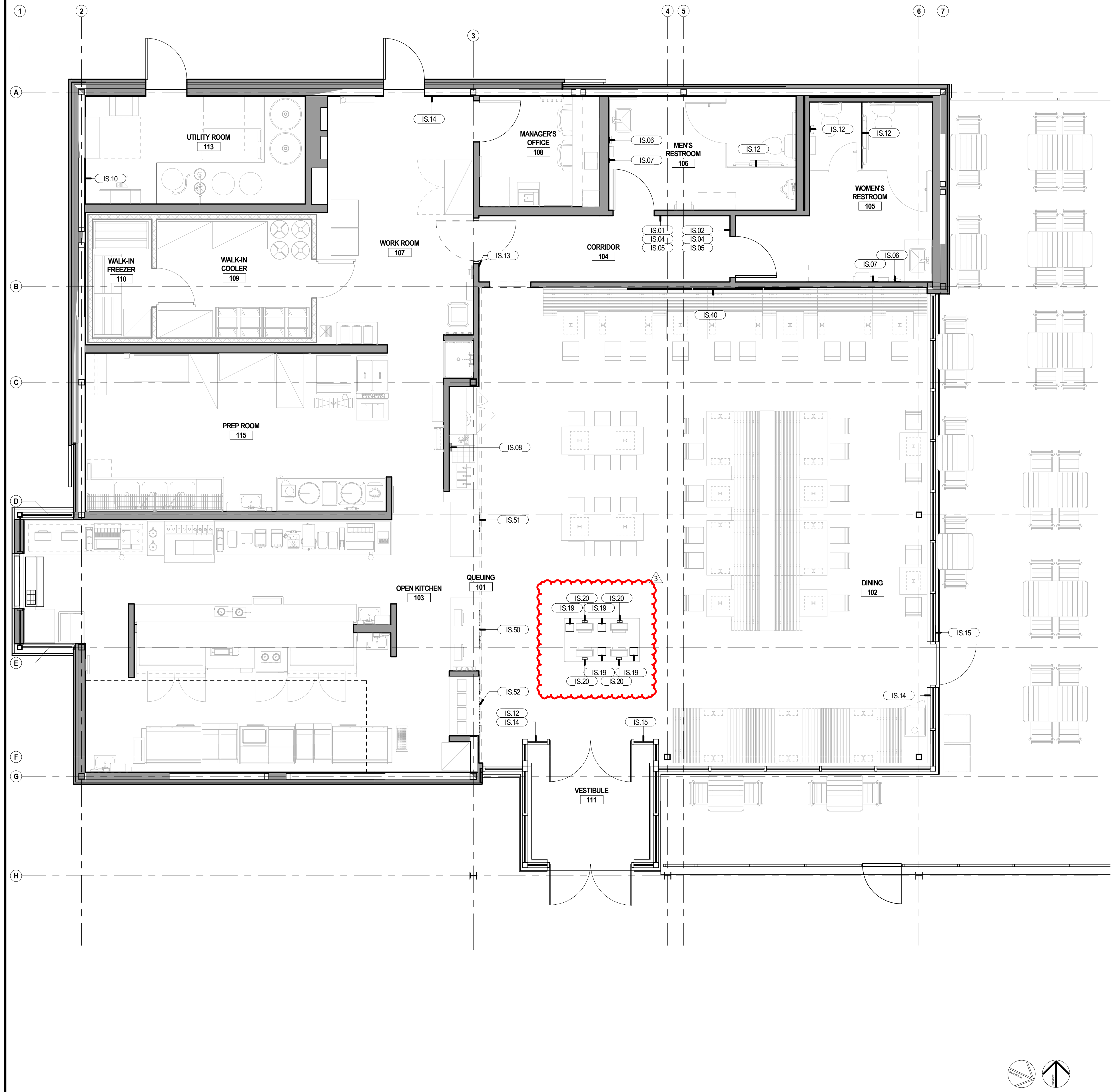
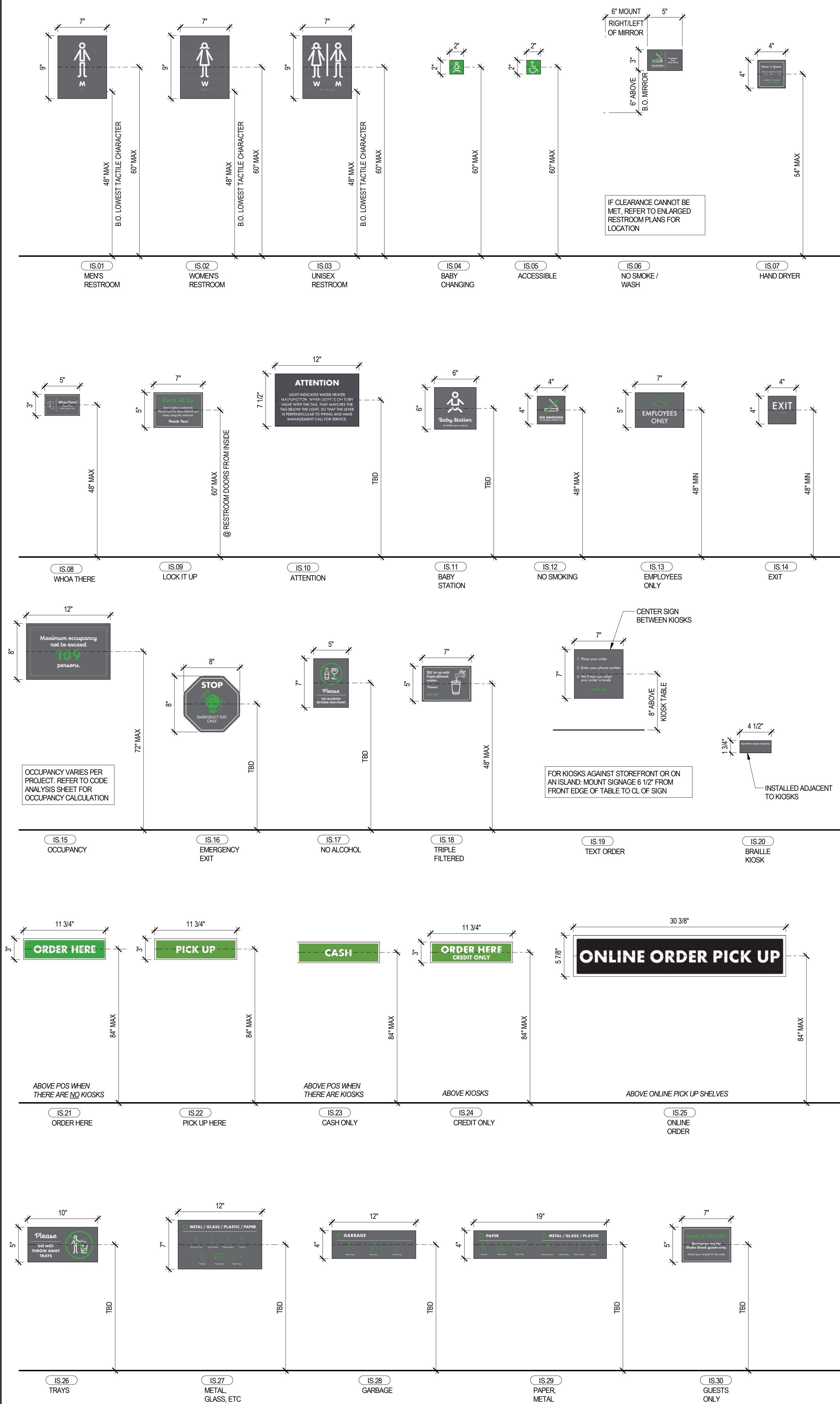
GENERAL NOTES

- FINISHES TO BE NEW, U.N.O.
- ENSURE SURFACES TO RECEIVE FINISHES ARE CLEAN, TRUE AND FREE OF IRREGULARITIES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- FLOOR TO BE LEVEL TO 1/8" VARIANCE WITHIN 10'-0"
- GC TO PROVIDE WATERPROOF MEMBRANE AT ALL WET AREAS. GC TO INSTALL WATERPROOFING AT 12" UP THE WALL AND 24" ON TO THE FLOOR.
- PROVIDE CONTINUOUS SEALANT JOINT AT ALL FRP AND STAINLESS STEEL INTERSECTIONS AND AT TILE BASE, CEILINGS, DOOR FRAMES, PLUMBING / GAS/ ELECTRICAL ROUGHINS, AND MISCELLANEOUS PENETRATIONS.
- CAULK ALL JOINTS BETWEEN WALL TILE AND DOOR FRAMES, COLOR TO MATCH GROUT U.N.O. IN DRAWING SET. INSTALL CLEAR SEALANT JOINTS WHERE WINDOWS ABUT A WOOD/METAL FINISH U.N.O. IN DRAWING SET.
- STOREFRONT U.N.O. IN DRAWING SET.
- TILE CONTRACTOR TO ENSURE THAT FLOOR TILE IS FLUSH WITH COVE BASE TILE PER HEALTH DEPARTMENT.
- WALLS AND CEILINGS OF KITCHEN AND PREP AREAS SHALL HAVE A SMOOTH AND WASHABLE FINISH.
- GC TO ENSURE THAT NEW FLOOR SLAB IS AT AN ACCEPTABLE TOLERANCE LEVEL TO MINIMIZE THE LIPPAGE FOR THE REQUIRED FLOOR FINISH INSTALLATION; REFER TO FINISH SPECIFICATIONS FOR MORE INFORMATION; GC TO INFORM ARCHITECT OF DISCREPANCIES.
- FLOOR SURFACE TO BE NON-SLIP WITH A MIN. SLIP CO-EFFICIENT OF FRICTION OF 0.6 OR BETTER.
- ALL MATERIAL TRANSITIONS TO MEET ADA GUIDELINES.
- ALL FLOOR PENETRATIONS TO BE SEALED, WATERPROOFED, AND FIRE RATED.
- GC TO COORDINATE LOCATION AND QUANTITY OF MOVEMENT JOINTS IN ALL FLOORING.
- MAXIMUM FLOOR SLOPE IN ANY DIRECTION IS 1 IN 20.
- GC TO SLOPE (MAX 2%) TO EXISTING DRAIN, FLUSH TO ABUTTING SIDEWALK AND ABUTTING GRADES.
- ALL KITCHEN FLOORS TO HAVE NO MORE THAN 1/8" PER FOOT SLOPE TO FLOOR DRAINS.
- REFER TO REFLECTED CEILING PLAN, INTERIOR ELEVATIONS AND INTERIOR DETAILS FOR ADDITIONAL INFORMATION.
- GYP/SUM BOARD WALLS TO BE TAPED AND SANDED TO LEVEL 4 FINISH, U.N.O.
- GC TO SUBMIT PROPOSED CONTROL JOINTS.
- PAINT FINISHES TO BE AS FOLLOWS:
 - SEMI-GLOSS - DOORS, FRAMES, WINDOW TRIM
 - EGGSHELL - WALLS
 - FLAT - CEILINGS

C:\Users\anderson\Documents\006_Shake Shack\Lee's Summit_Corral_cshandon\T.rvt 5/17/2021 12:04 PM

TACTILE SIGNAGE MOUNTING LEGEND

LEGEND IS PROVIDED FOR GENERAL GUIDELINES FOR MOUNTING OF TACTILE SIGNAGE. GC TO REFER TO INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF SIGNAGE. CONFIRM LOCATIONS WITH OWNER PRIOR TO INSTALL.
BOTTOM OF LOWEST TACTILE CHARACTER AT SIGNAGE SHALL BE 48" MAX. ALERT ARCHITECT IF HEIGHT SHOWN IN ELEVATION CONFLICTS WITH THIS REQUIREMENT.
NOT ALL SIGNAGE IS APPLICABLE TO EACH PROJECT. REFER TO SIGNAGE SCHEDULE FOR SIGNAGE AT THIS LOCATION.

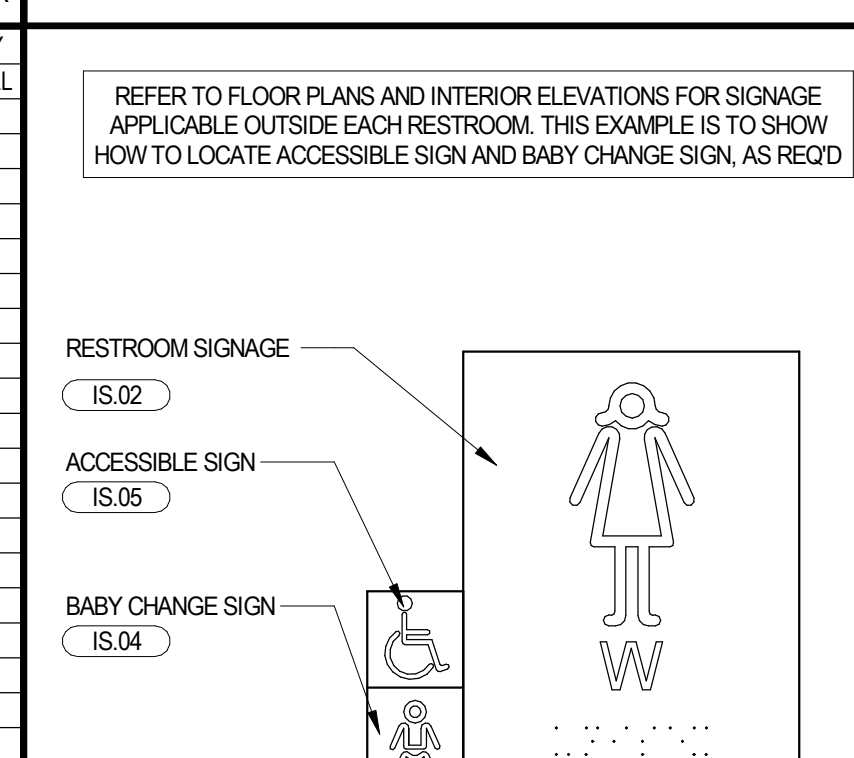


SIGNAGE AND GRAPHICS PLAN

SIGNAGE & GRAPHICS SCHEDULE

TAG NO.	QTY	ITEM	MANUFACTURER	MODEL NO.	RESPONSIBILITY
IS.01	1	RESTROOM SIGNAGE - MEN	JONES SIGNS		GC
IS.02	1	RESTROOM SIGNAGE - WOMEN	JONES SIGNS		GC
IS.04	2	BABY CHANGE SIGN	JONES SIGNS		GC
IS.05	2	ACCESSIBLE SIGN	JONES SIGNS		GC
IS.06	2	NO SMOKE / WASH	JONES SIGNS		GC
IS.07	2	HAND DRYER SIGN	JONES SIGNS		GC
IS.08	1	TRIPLE-FILTERED WATER SIGN	JONES SIGNS		GC
IS.10	1	EMPLOYEES ONLY	JONES SIGNS		GC
IS.12	4	WHOA THERE! SIGN	JONES SIGNS		GC
IS.13	1	EMPLOYEES ONLY	JONES SIGNS		GC
IS.14	3	EXIT SIGN	JONES SIGNS		GC
IS.15	2	OCCUPANCY SIGN	JONES SIGNS		GC
IS.19	2	TEXT ORDER - KIOSK SIGNAGE	JONES SIGNS		GC
IS.20	1	BRILLE	JONES SIGNS		GC
IS.40	1	SSSG NEON	JONES SIGNS	STAND FOR SOMETHING GOOD NEON	GC
IS.50	1	ORDER HERE	JONES SIGNS		GC
IS.51	1	PICK UP HERE	JONES SIGNS		GC
IS.52	1	SHACK TRACK	JONES SIGNS		GC

PLACEMENT OF ACCESSIBLE SIGNAGE



GENERAL NOTES

- SEE RESPONSIBILITY SCHEDULE FOR DIVISION OF LABOR.
- GC TO COORDINATE WITH OWNERS VENDORS TO ALLOW FOR PROPER INSTALLATION OF OWNER SUPPLIED ITEMS.
- REFER TO TACTILE SIGNAGE LEGEND FOR ADDITIONAL NOTES.
- SIGNS MOUNTED TO GLAZING TO HAVE IDENTICAL BLANK PLATE INSTALLED ON OPPOSITE SIDE OF GLAZING TO HIDE MOUNTING HARDWARE. COORDINATE WITH SIGNAGE VENDOR.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW PARTITION
	NEW PARTITION (PARTIAL HEIGHT - REFER TO ELEV. FOR MORE INFO)
	PREFAB WALLS BY KEC
	NEW DOOR
	SIGNAGE TAG

NOTE: REFER TO INTERIOR ELEVATIONS AND RCP FOR DIMENSION LOCATIONS OF SIGNAGE THAT IS NOT DIMENSIONED ON PLAN

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CONSULTANTS:

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
1	2021-03-09	ADDENDUM 1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET



SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

SIGNAGE AND GRAPHICS PLAN

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 2008.00

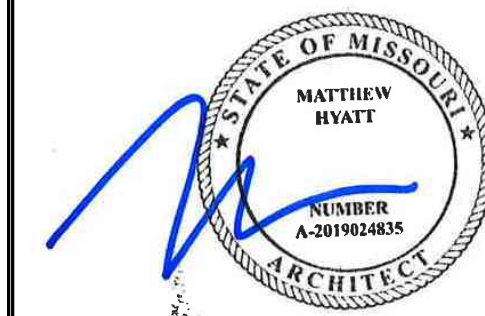
A105

Bergmeyer

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Brea, CA 92610
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617-542-1025

CONSULTANTS:

SEA/ SIGNATURE:



NO.	BY	DATE	DESCRIPTION
5		2021-05-17	FIELD NOTICE #2
3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET

SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOMENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

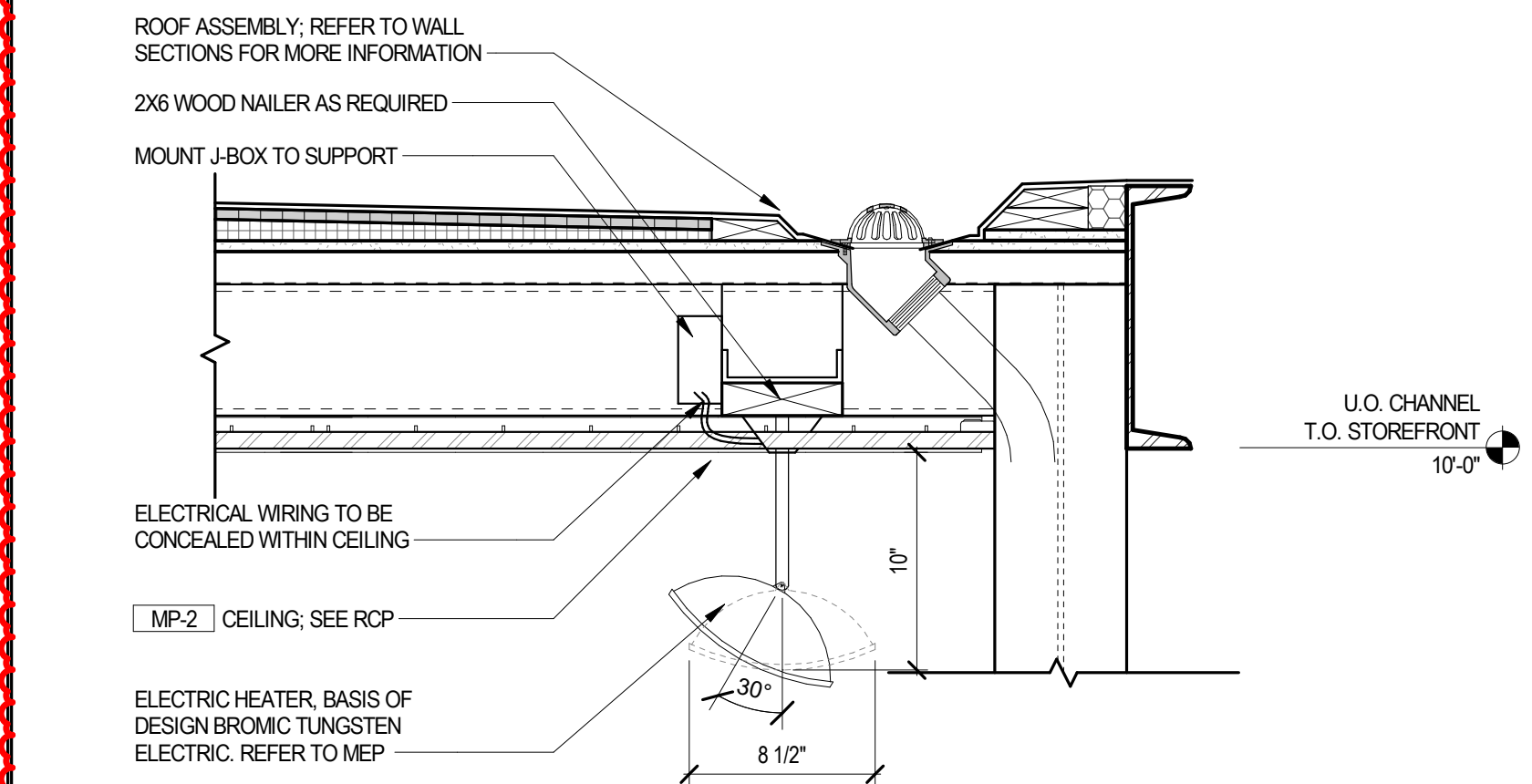
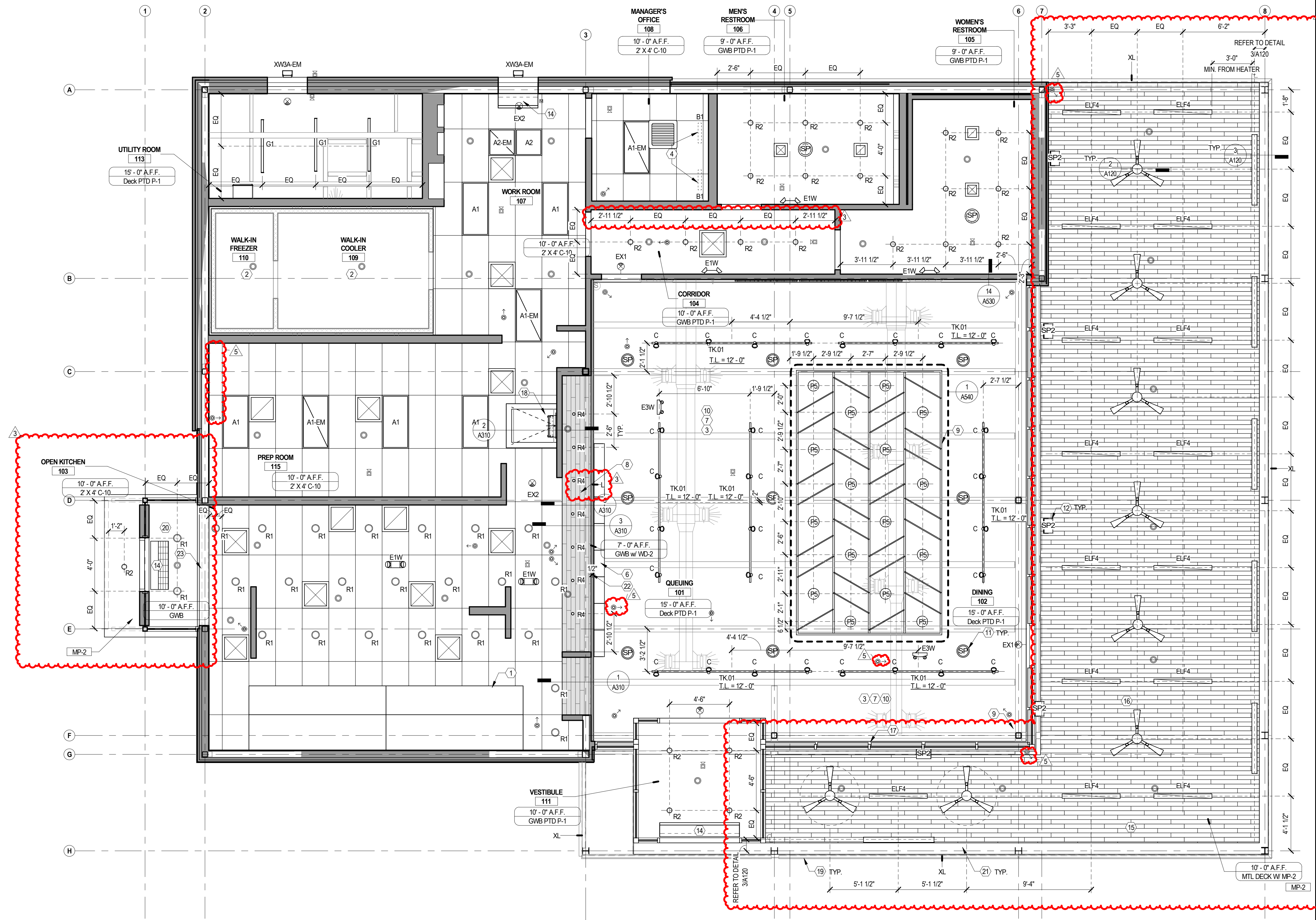
REFLECTED CEILING
PLAN

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 2008.00

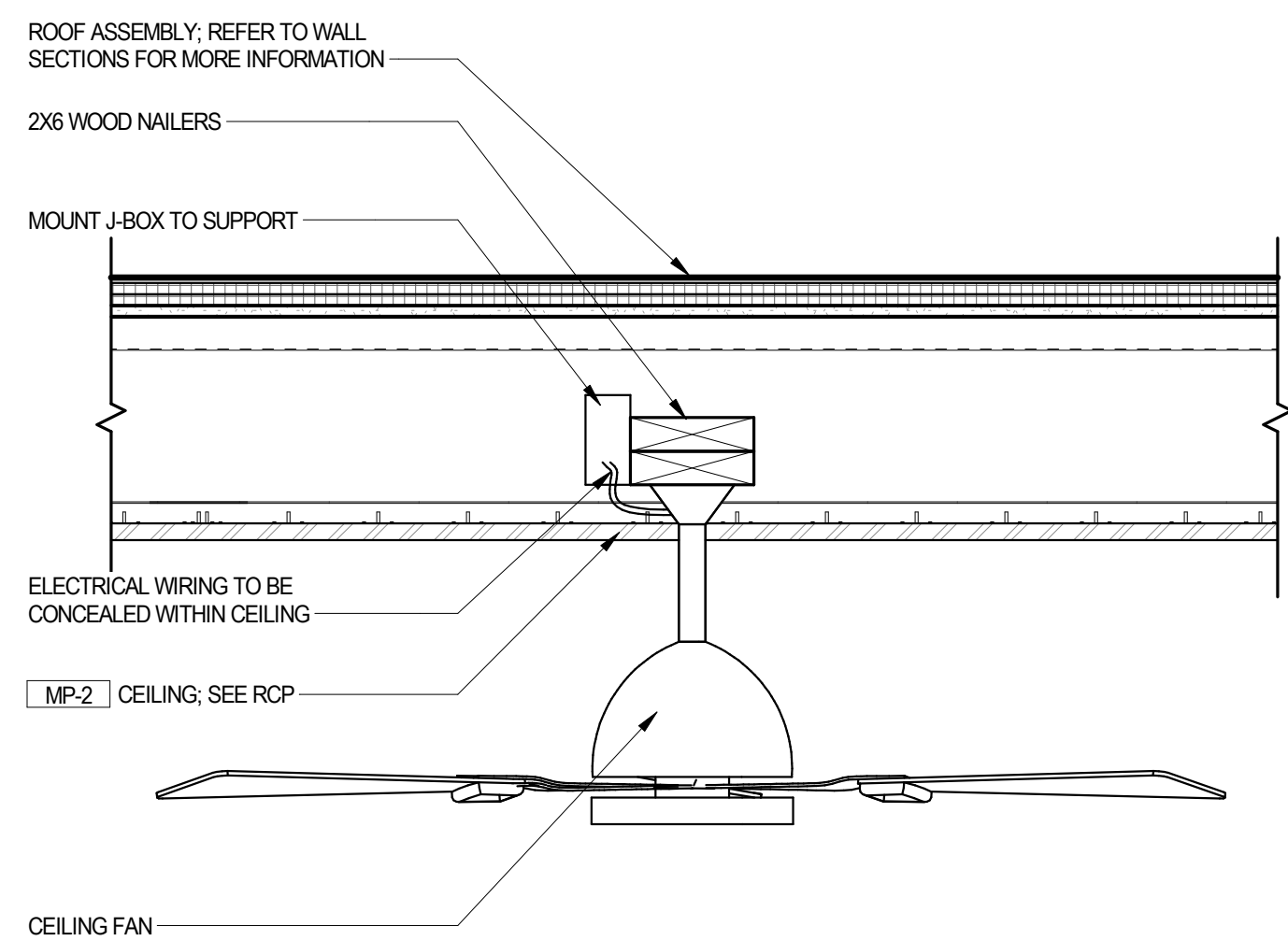
A120



TYP DETAIL - ELECTRIC HEATER

1 1/2" = 1'-0"

3



TYP DETAIL - CEILING FAN

1 1/2" = 1'-0"

2

LIGHT FIXTURE SCHEDULE

TAG NO.	QTY	ITEM	COMMENTS
A1	5	TROFFER - 2 X 4, 4000K	
A1-EM	3	TROFFER - 2 X 4, 4000K	
A2	1	TROFFER - 2 X 2, 4000K	
A2-EM	1	TROFFER - 2 X 2, 4000K	
B1	2	UNDERCABINET LED	
C	28	TRACK HEAD - UNIVERSAL, PAR30, WHITE FINISH	
E1W	5	EMERGENCY BUG EYE - WHITE	
E1W	2	EMERGENCY BUG EYE - WHITE	
ELF4	15	RECESSED UNDERLIGHT - 4"Ø, WET LOCATION	
EX1	3	EXIT SIGN (FH)	
EX2	3	EXIT SIGN - BOH	
G1	3	LED STRIPLIGHT - 48"	
L	1	LED TAPE LIGHT	
P5	16	LED PENDANT W/ GLOBE SHADE	
R1	24	DOWNLIGHT - 6 IN LED, WHITE	
R2	22	DOWNLIGHT - ADJUSTABLE - 4 IN LED, SATIN CHROME	
TK01	7	DOWNLIGHT - MINI LED GIMBAL	
TK04	7	SINGLE CIRCUIT TRACK, WHITE FINISH	
XL	4	LED TAPE LIGHT - WET LOCATIONS	
XW3A-EM	2	WALL PACK WITH EMERGENCY BATTERY BACK UP	

KEYNOTES

- LOCATION OF KITCHEN HOOD, REFER TO MECHANICAL; PROVIDE STRUCTURAL SUPPORT AS NECESSARY
- WALK-IN COOLER CEILING & LIGHTING BY KITCHEN CONTRACTOR; REFER TO KEC
- EXPOSED DUCTWORK: PAINT [P-1]
- PLUG IN OFFICE LIGHT FIXTURE UNDER SHELVES BY GC; REFER TO ENLARGED MANAGERS OFFICE PLAN FOR MORE INFORMATION
- DIFFUSERS, RETURNS, AND ANY CEILING OR SOFFIT ELECTRICAL / MECHANICAL EQUIPMENT TRIMS / PLATES TO BE PAINTED TO MATCH ADJACENT SURFACE
- MENU BOARDS, BY OWNERS VENDOR; GC TO PROVIDE IN-WALL BLOCKING, COORDINATE WITH OWNERS VENDOR
- PAINT ALL EXPOSED STRUCTURE [P-1]
- SEAL WOOD @ SOFFIT TO PROVIDE A SMOOTH, CLEANABLE SURFACE.
- WOOD SLATS & FRAME, SUSPENDED CEILING CLOUD
- ACOUSTIC CEILING BOARD APPLIED TO UNDERSIDE OF DECK, IN FRONT OF HOUSE WHERE DECK IS EXPOSED [C-2]
- INTERIOR SPEAKERS FURNISHED BY OWNERS VENDOR, INSTALLED BY GC. COORDINATE FINAL LOCATIONS W/ OWNERS VENDOR PRIOR TO INSTALLATION. TYP. INSTALL U.O. INTERIOR SPEAKER @ 2'-0" ABOVE U.O. TRACK LIGHTS OR P7 PENDANT LIGHT. (SPEAKER TO BE WHITE FINISH)
- EXTERIOR SPEAKERS FURNISHED BY OWNERS VENDOR, INSTALLED BY GC. COORDINATE FINAL LOCATIONS W/ OWNERS VENDOR PRIOR TO INSTALLATION. TYP. REFER TO EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT. (SPEAKER TO BE BLACK FINISH)
- SECURITY CCTV CAMERAS FURNISHED BY OWNERS VENDOR, INSTALLED BY GC. U.O. CAMERAS 6" BELOW TRACK / PENDANT FIXTURES.
- AIR CURTAIN, BY ACCESS WINDOW MANUF. REFER TO SPECIFICATIONS

- EXTERIOR CANOPY WITH WOOD LOOK HARD CEILING
- EXTERIOR CEILING FAN, MOUNT BOTTOM OF FAN @ 9'-0" AFF. REFER TO ELECTRICAL DRAWINGS.
- WINDOW SHADES, REFER TO FURNITURE AND EQUIPMENT PLAN FOR MORE INFORMATION
- ROOF LADDER / ROOF HATCH
- EXTERIOR CANOPY; PAINT EXPOSED STEEL [P-4]
- CEILING MOUNTED NOTIFICATION LIGHT FOR DRIVE-UP WINDOW
- 16 GA. BREAK METAL BAND TO OUTLINE PERIMETER OF CANOPY CEILING, REFER TO CANOPY DETAILS. PAINT BREAK METAL [P-4]
- INTERIOR SIGN BAND [P-4]
- WGB CEILING; REFER TO 4 / A502

SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	24" X 24" SUPPLY DIFFUSER		24" X 48" ACT SUSPENDED CEILING SYSTEM
	24" X 24" RETURN DIFFUSER		
	RESTROOM EXHAUST FAN		INDOOR SPEAKER, WHITE
	12" X 12" SUPPLY DIFFUSER		OUTDOOR SPEAKER, BLACK
	POINT OF BEGINNING		SECURITY CAMERA
	ALIGN		SPRINKLER, REFER TO MEPPF
	TRACK LENGTH		FIRE ALARM DEVICE, REFER TO MEPPF
	FINISH TAG, REFER TO FINISH SCHEDULE ON SHEET A601		
	EXIT SIGN, WALL MOUNTED, CENTER ABOVE DOOR		
	EXIT SIGN, CEILING MOUNTED		
	LEAVE LINE		

GENERAL NOTES

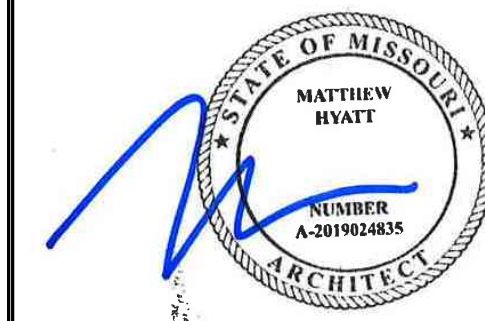
- SEE MEP-PP DRAWINGS FOR LIGHT FIXTURE SCHEDULE. MUST COORDINATE WITH ARCHITECT'S CEILING PLAN. NOTIFY ARCHITECT AND ENGINEER OF DISCREPANCIES.
- SEE MEP-PP DRAWINGS FOR QUANTITY AND SPECIFICATION OF SPRINKLER, HVAC AND LIFE SAFETY SYSTEMS. GC TO PROVIDE COORDINATED SHOP DRAWINGS FOR ABOVE CEILING SYSTEMS TO ARCHITECT FOR REVIEW AND APPROVAL.
- CONFIRM LOCATION OF EXIT SIGNS, HORNSTROBES AND SMOKE DETECTORS PRIOR TO LAYOUT.
- REFER TO MEP-PP DRAWINGS FOR EMERGENCY LIGHTING AND NIGHT LIGHTS.
- CONSULT ARCHITECT FOR DIRECTION WITH CONFLICT BETWEEN STRUCTURE, MECHANICAL EQUIPMENT, SPRINKLERS, LIGHTING, ETC.
- DIMENSIONS TO CENTERLINE OF FIXTURE, UNO.
- AV SYSTEM LAYOUT IS DIAGRAMMATIC. VERIFY SYSTEM EXTENT AND EQUIPMENT QUANTITIES WITH OWNERS VENDOR.
- GC TO SUPPLY HANGERS AND SUPPORTS REQUIRED FOR INSTALLATION OF LIGHT FIXTURES INCLUDING THREADED ROD FOR TRACK.
- LIGHTING TRACK DIMENSIONS, SIZES, SHOWN ON PLAN ARE ROUNDED TO NEAREST INCH. VERIFY EXACT DIMENSION IN FIELD.
- PROVIDE EMERGENCY LIGHTING ALONG PATH OF EGRESS INCLUDING EXIT ACCESS CORRIDORS, PASSAGEWAYS AND AISLES IN ROOMS AND SPACES WHICH REQUIRE TWO MEANS OF EGRESS. THE MEANS OF EGRESS ILLUMINATION LEVEL SHOULD NOT BE LESS THAN ONE FOOTCANDLE AT THE FLOOR LEVEL.
- WHERE LOCATED IN ACT, REGISTERS AND LIGHTING FIXTURES TO BE WITHIN GRID LINES. CENTER SPRINKLER HEADS, SPEAKERS, RECESSED FIXTURES AND SIMILAR CEILING ELEMENTS WITHIN CEILING MODULE, UNO.
- COORDINATE GRID START POINTS WITH ARCHITECT. CENTER GRID IN CLOSED ROOMS, UNO. AVOID LESS THAN 12" TILES WHERE POSSIBLE.
- GC TO COORDINATE WITH ALL TRADES INVOLVED TO ENSURE CLEARANCES FOR ALL CEILING RELATED APPLIANCE/NECESSARY TO MAINTAIN THE SPECIFIED FINISH CEILING HEIGHT AS NOTED ON THE DRAWINGS.
- GC TO PROVIDE ACCESS PANEL AT HARD CEILINGS FOR ALL ELECTRICAL JUNCTION BOXES, VALVES, ETC.
- ALL LIGHT TRIM RING FINISHES ARE TO BE PAINTED TO MATCH ADJACENT CEILING / SOFFIT COLOR.

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SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

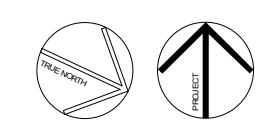
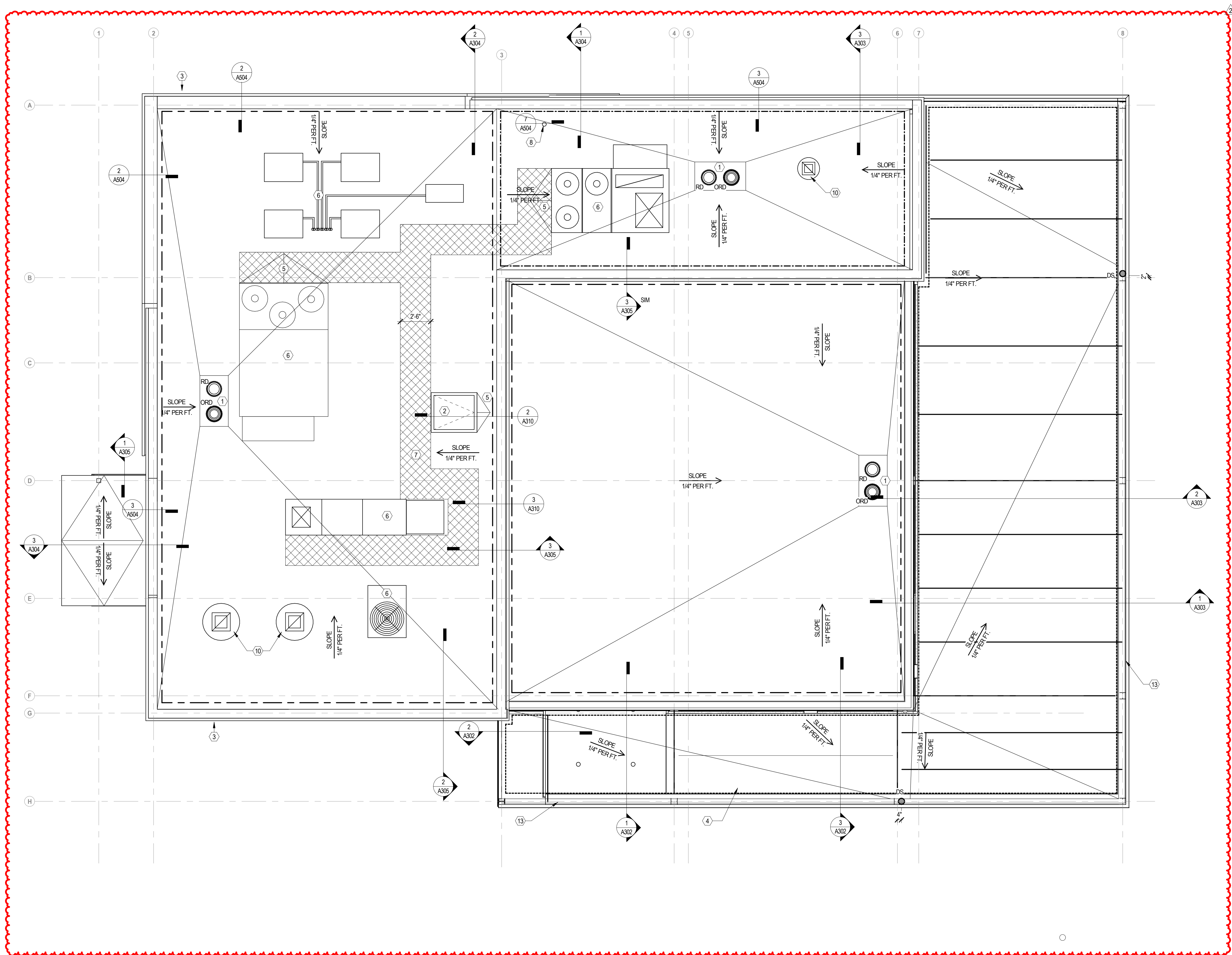
ROOF PLAN

DRAWN BY: CS & WQL

CHECKED BY: JS

JOB NO: 20080.00

A150



1/4" = 1'-0"

1

ROOF PLAN

NOT USED

KEY NOTES

- ROOF DRAIN AND OVERFLOW DRAIN; REFER TO PLUMBING DRAWINGS
- LOCKABLE ROOF HATCH; BASIS OF DESIGN: BILCO, TYPE S ROOF HATCH, THERMALLY BROKEN, 36" X30"
- EXTERIOR SIGNAGE BY OWNER'S SIGNAGE CONTRACTOR; FILE SIGNAGE UNDER SEPARATE PERMIT. GC TO PROVIDE POWER AS REQUIRED; COORDINATE WITH OWNER'S VENDOR AND ELECTRICAL DRAWINGS
- STEEL CANOPY WITH ROOF; REFER TO STRUCTURAL DRAWINGS FOR STEEL SIZES; PAINT ALL EXPOSED STEEL P-4
- ROOF CRICKET, TAPER INSULATION TO CREATE 1/4" PER 12" SLOPE; PROVIDE CRICKET AT ALL ROOF EQUIPMENT AS REQUIRED;
- ROOF EQUIPMENT; REFER TO MECHANICAL DRAWINGS
- ROOF WALKWAY PAD, SHOWN SCHEMATICALLY FOR BID PURPOSE. INSTALL AS REQUIRED TO PROVIDE CONTINUOUS PATH TO SERVICE SIDE OF ALL EQUIPMENT
- VENT THROUGH ROOF; REFER TO PLUMBING DRAWINGS
- AIR INTAKE FOR MANAGER'S OFFICE; REFER TO MECHANICAL DRAWINGS
- EXHAUST FAN; REFER TO MECHANICAL DRAWINGS
- TAPERED INSULATION, PITCH TOWARDS ROOF DRAINS, TYP
- WRAP ROOFING AT THE ENDS OF PARAPET WALLS
- PVC ROOF TROUGH AROUND ROOF PERIMETER
- PROVIDE TAPERED RIGID INSULATION 1/4" PER FOOT TO DOWNSPOUT LOCATION, TYP
- ROOF MOUNTED ATTIC VENTILATOR; MOUNT EVERY 4'-8" ALONG HIGH PARAPET WALL

SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(01)	KEYNOTE		ROOF STRUCTURE SLOPED FOR DRAINAGE; REFER TO STRUCTURAL DRAWINGS
	INDICATES SURFACE WALKING PADS		BUILT UP TAPERED INSULATION SLOPED FOR DRAINAGE TO ROOF DRAINS
	LEASE LINE		BUILT UP TAPERED INSULATION SLOPED FOR DRAINAGE TO GUTTERS
ORD	OVERFLOW ROOF DRAIN		
RD	ROOF DRAIN		
CR	CRICKET (5)		
XX X-X	ELEVATION HEIGHT		
SLOPE 1/4" PER FT.	INDICATES DIRECTION OF SLOPE		

GENERAL NOTES

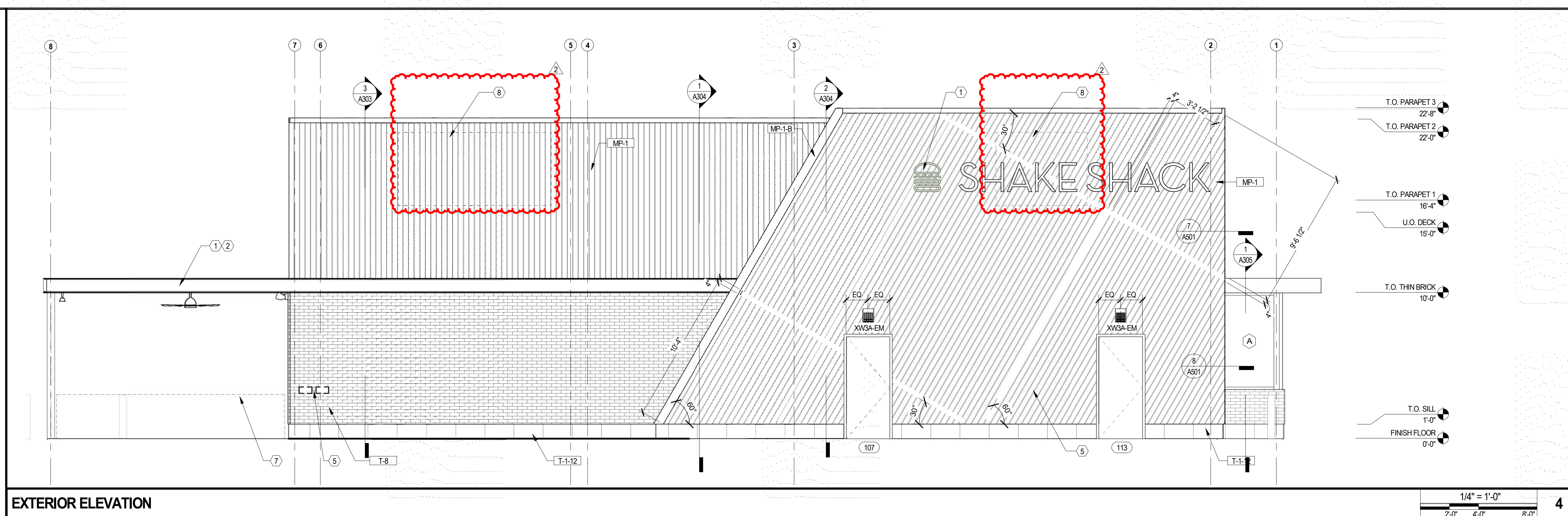
- WORK SHALL COMPLY WITH FEDERAL, STATE AND LOCAL BUILDING CODES AND REGULATIONS.
- CONFLICTS BETWEEN SITE CONDITIONS AND DRAWINGS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/DESIGNER.
- CONTRACTORS SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS THAT IMPACT WORK PRIOR TO THE START OF CONSTRUCTION.
- COORDINATE BLOCKING REQUIREMENTS AND LOCATIONS WITH ELEVATIONS AND DETAILS. BLOCKING TO BE FIRE TREATED.
- DIMENSIONS ARE TO BE TO FINISHED FACE OF WALL, UNO. APPLIED MATERIALS ARE TO BE APPLIED AFTER THE FINISH DIMENSIONS HAVE BEEN CONFIRMED.
- DRAWINGS ARE NOT TO BE SCALED. VERIFY ANY MISSING OR CONFLICTING WRITTEN DIMENSIONS WITH THE ARCHITECT/DESIGNER PRIOR TO CONSTRUCTION.
- NOTIFY ARCHITECT OF CONDITIONS WHERE CLEAR OR CRITICAL DIMENSIONS ARE DESIGNATED BUT CANNOT BE MET OR WHERE CORRIDOR ASILE WIDTH CANNOT MEET THE MINIMUM REQUIREMENT.
- PROVIDE POWER AND DATA WHERE NEEDED TO ACCOMMODATE RELOCATION OF EQUIPMENT.
- CONTRACTOR SHALL MAINTAIN BUILDING MECHANICAL CODE REQUIREMENTS FOR VENTILATION THROUGHOUT CONSTRUCTION WHILE MAINTAINING AIR DIFFUSERS, REGISTERS, GRILLES, DUCTWORK AND EQUIPMENT FREE OF DEBRIS, DUST, CONTAMINATION, AND DAMAGE. CONTRACTOR IS RESPONSIBLE FOR ALL PREVENTATIVE MAINTENANCE OF HVAC SYSTEM AND SHALL BE TURNED OVER TO OWNER IN NEW CONDITION AT THE END OF WORK. DOCUMENT ALL REQUIRED WORK AND INCLUDE MATERIAL AND LABOR COSTS IN BID.
- CONTRACTOR TO VERIFY THE LOCATIONS OF ALL ROOF DRAINS, ROOF PENETRATIONS AND OTHER ROOF ELEMENTS NOT SHOWN IN THIS PLAN, INCLUDING BUT NOT LIMITED TO ROOF VENTS, ROOFTOP UNITS, PITCH BOXES, ETC. REFER TO MECHANICAL DRAWINGS.
- CONTRACTOR TO COORDINATE FINAL LOCATIONS OF PENETRATIONS AND DRAINS W/ ROOF INSTALLER SO THAT THE LOCATION OF THE PENETRATIONS DO NOT JEOPARDIZE THE ROOF WARRANTY.
- NO PENETRATIONS WITHIN 12" OF PARAPET, UNO.
- ALL SEALANTS AND WATERPROOF MASTICS TO BE COMPATIBLE WITH THE MATERIAL WHICH THEY WILL COME IN CONTACT WITH CAUSING NO DELETERIOUS EFFECTS.
- REFER TO ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING.
- NEW CURBS FOR MECHANICAL UNITS ARE TO BE INSTALLED PER ROOFING MANUFACTURER'S REQUIREMENTS TO COMPLY WITH AND MAINTAIN ROOF WARRANTY.
- ALL TARGET ELEVATIONS ARE TAKEN FROM PROJECT FINISH FLOOR HEIGHT, 0' 0"

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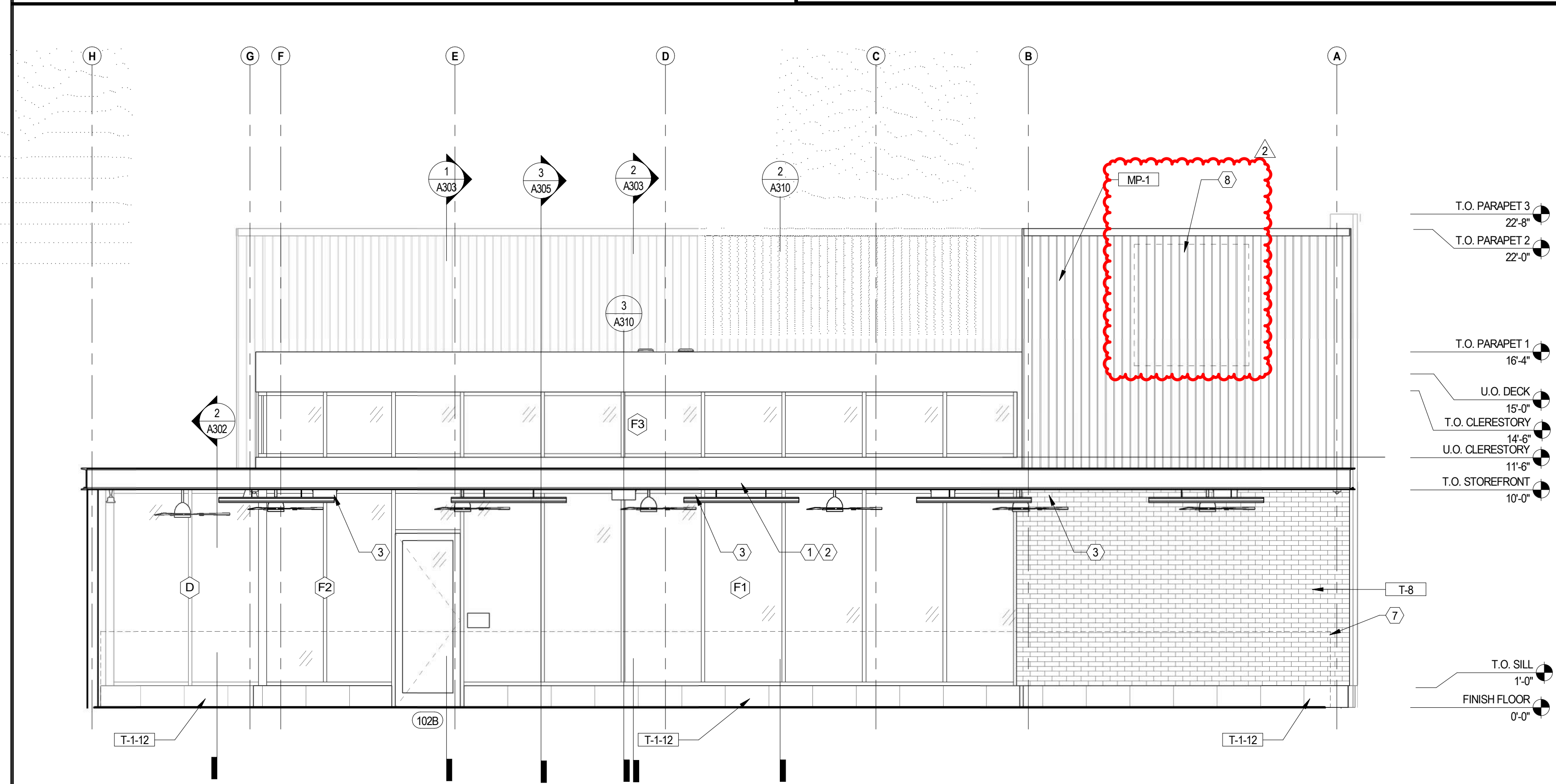
CONSULTANTS:

SEAU SIGNATURE:



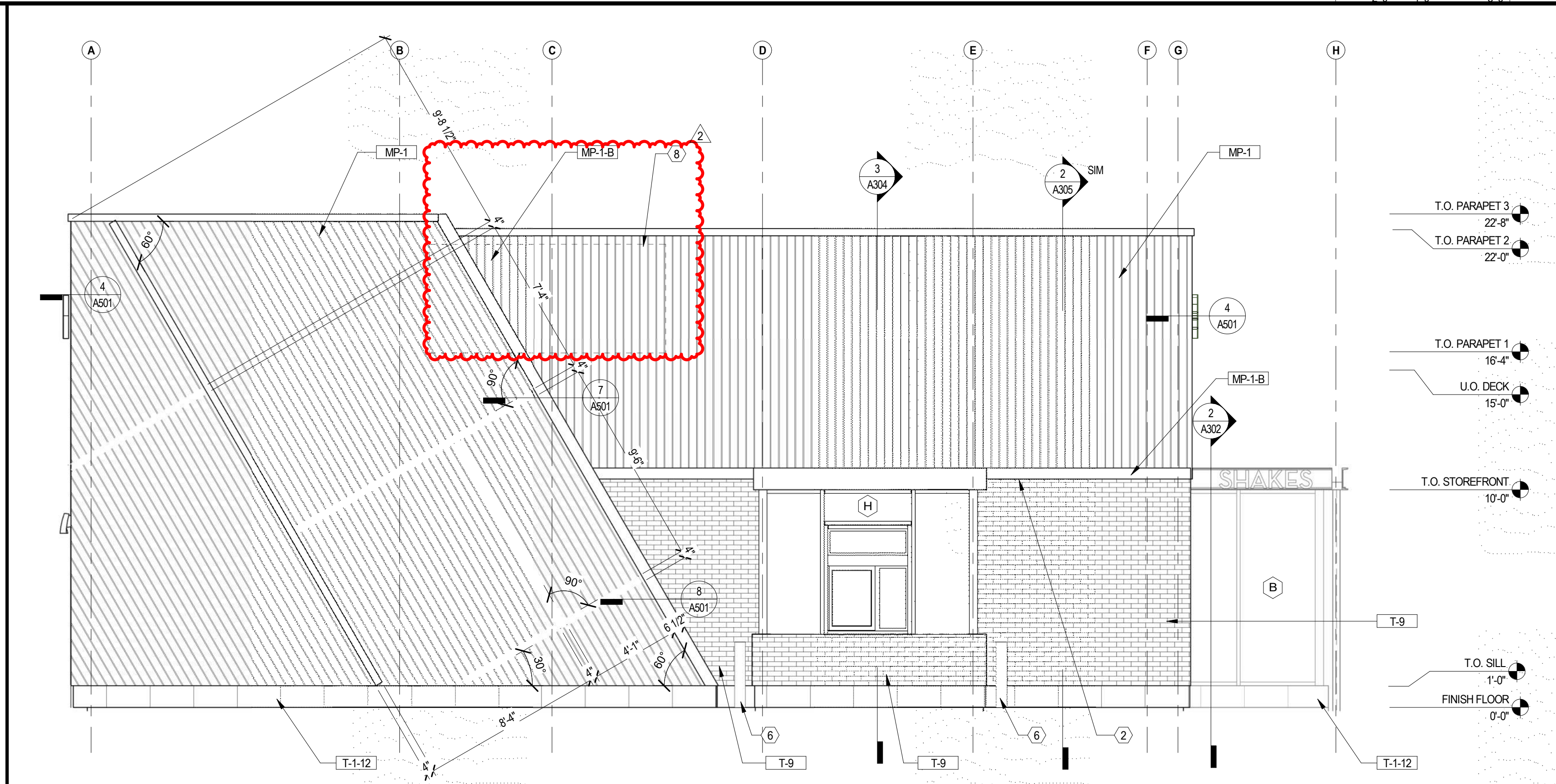
EXTERIOR ELEVATION

1/4" = 1'-0"
2'-0" 4'-0" 8'-0" 4



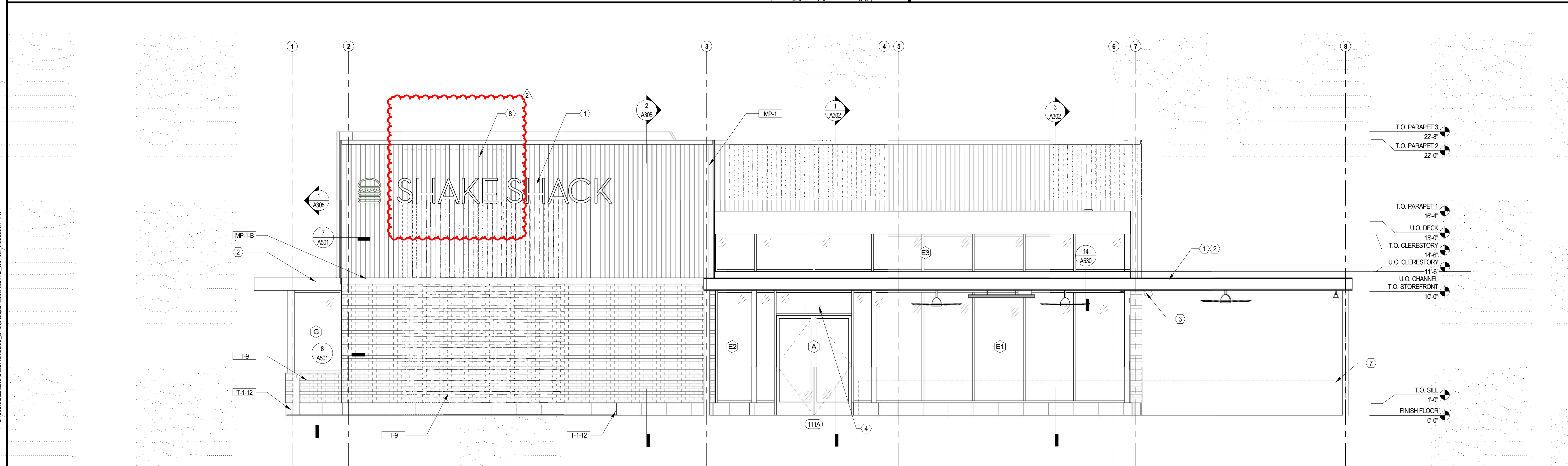
EXTERIOR ELEVATION

1/4" = 1'-0"
2'-0" 4'-0" 8'-0" 3



EXTERIOR ELEVATION

1/4" = 1'-0"
2'-0" 4'-0" 8'-0" 2



EXTERIOR ELEVATION

1/4" = 1'-0"
2'-0" 4'-0" 8'-0" 1

KEYNOTES

- SIGNAGE BY OWNERS SIGNAGE CONTRACTOR. GC TO PROVIDE POWER & BLOCKING AS REQUIRED. SIGNAGE WILL BE SUBMITTED UNDER SEPARATE PERMIT.
- EXTERIOR OPEN CANOPY PAINTED [P-4]
- SURFACE MOUNTED SPEAKERS. REFER TO REFLECTED CEILING PLAN AND MEPP FOR MORE INFORMATION. SPEAKER COLOR TO BE BLACK.
- WHITE VINYL ADDRESS SIGN APPLIED TO THE INTERIOR FACE OF TRANSOM WINDOW. SIGNAGE BY OWNERS SIGNAGE CONTRACTOR AND WILL BE SUBMITTED UNDER SEPARATE PERMIT. 4" MIN HEIGHT W/ .5" MIN STROKE.
- APPROXIMATE LOCATION OF RTI AND CO2 FILL BOXES. REFER TO A100 AND K-SHEETS FOR MORE INFORMATION. COORDINATE FINAL LOCATION WITH OWNERS VENDOR AND SHAKE SHACK.
- BOLLARDS. REFER TO CIVIL.
- PATIO RAILING. REFER TO A5102
- ROOFTOP EQUIPMENT BEYOND. REFER TO MECHANICAL

GENERAL NOTES

- ALL TARGET ELEVATIONS ARE TAKEN IN RELATION TO PROJECT -1'-0"
- GC TO COORDINATE ALL EXTERIOR SECURITY CAMERA LOCATIONS WITH OWNER.
- GC TO COORDINATE ALL UTILITY CONNECTIONS AND METER LOCATIONS WITH MEP & CIVIL DRAWINGS. UTILITIES SHOWN ON ARCHITECTS EXTERIOR ELEVATIONS ARE FOR REFERENCE ONLY.

NO.	BY	DATE	DESCRIPTION
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM 2
1		2021-03-09	ADDENDUM 1
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET



SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

EXTERIOR ELEVATIONS

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 20088.00

A201

Bergmeyer

LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090
BOS
51 Sleeper St.
Bedford, MA 02210
617.542.1025

CONSULTANTS:

SEA/ SIGNATURE:



NO.	BY	DATE	DESCRIPTION
3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET



SHAKE SHACK - LEE'S
SUMMIT MO

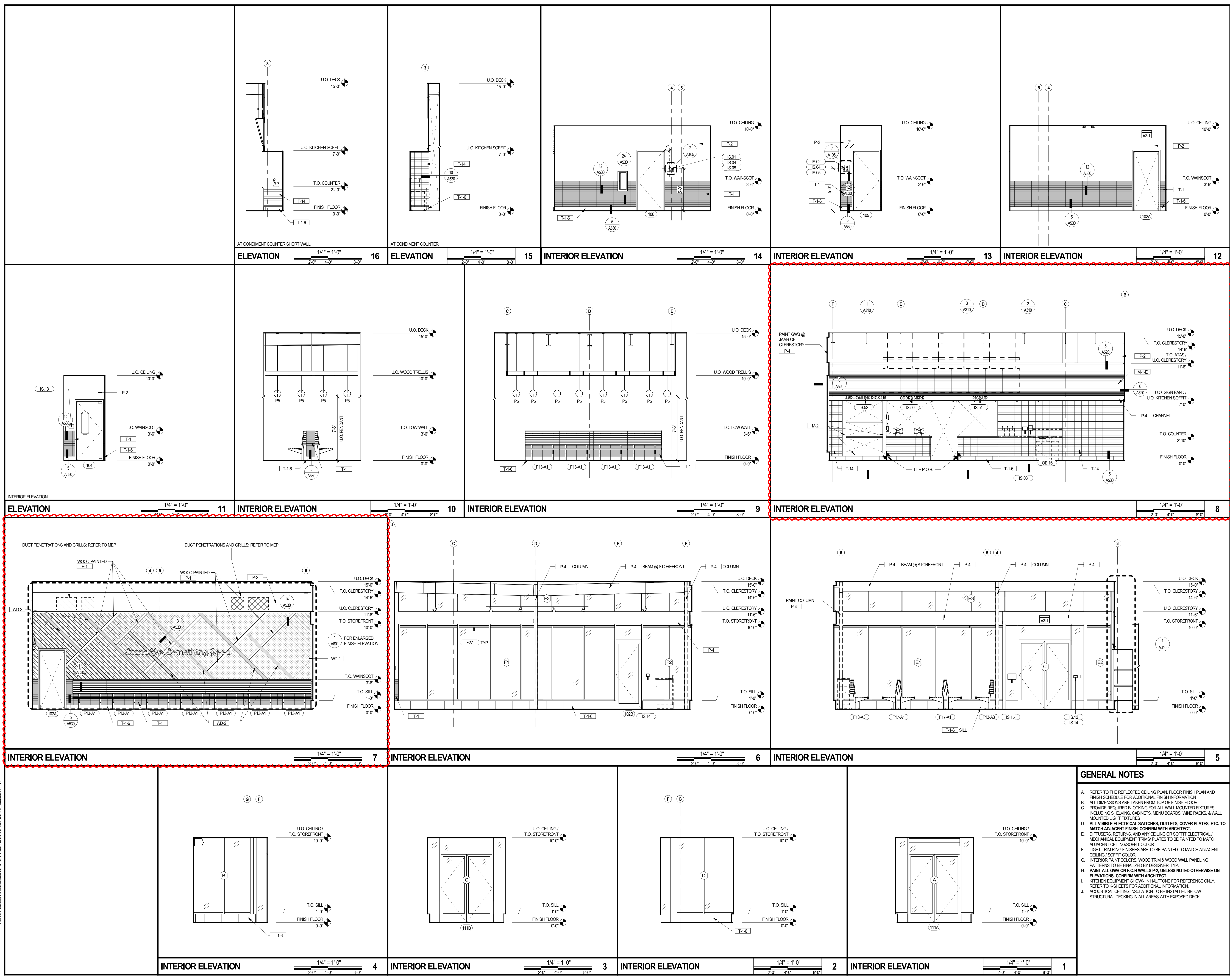
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

INTERIOR ELEVATIONS

DRAWN BY: CS & WQL
CHECKED BY: JS
JOB NO: 20080.00

A210

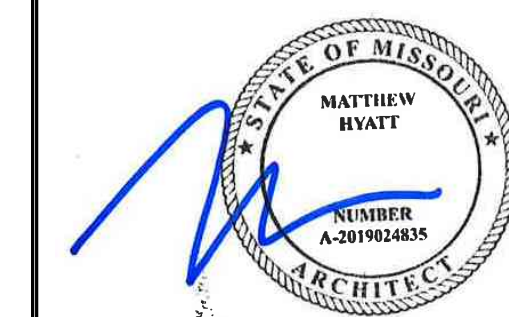


- GENERAL NOTES**
- A. REFER TO THE REFLECTED CEILING PLAN, FLOOR FINISH PLAN AND FINISH SCHEDULE FOR ADDITIONAL FINISH INFORMATION
 - B. ALL DIMENSIONS ARE TAKEN FROM TOP OF FINISH FLOOR
 - C. PROVIDE REQUIRED BLOCKING FOR ALL WALL MOUNTED FIXTURES, INCLUDING SHELVING, CABINETS, MENU SIGNS, WINE RACKS, & WALL MOUNTED LIGHT FIXTURES
 - D. ALL VISIBLE ELECTRICAL SWITCHES, OUTLETS, COVER PLATES, ETC. TO MATCH ADJACENT FINISH. CONFIRM WITH ARCHITECT
 - E. DIFFUSERS, RETURNS, AND ANY CEILING OR SOFFIT ELECTRICAL / MECHANICAL EQUIPMENT TRIMS PLATES TO BE PAINTED TO MATCH ADJACENT CEILING/SOFFIT COLOR
 - F. LIGHT TRIM RING FINISHES ARE TO BE PAINTED TO MATCH ADJACENT CEILING / SOFFIT COLOR
 - G. INTERIOR PAINT COLORS, WOOD TRIM & WOOD WALL PANELING PATTERNS TO BE FINALIZED BY DESIGNER, TYP.
 - H. PAINT ALL GWS ON F.O.H WALLS P-2, UNLESS NOTED OTHERWISE ON ELEVATIONS. CONFIRM WITH ARCHITECT
 - I. KITCHEN EQUIPMENT SHOWN IN HALFTONE FOR REFERENCE ONLY. REFER TO K-SHEETS FOR ADDITIONAL INFORMATION
 - J. ACOUSTICAL CEILING INSULATION TO BE INSTALLED BELOW STRUCTURAL DECKING IN ALL AREAS WITH EXPOSED DECK.

5/17/2021 12:45 PM C:\Users\anderson\Documents\068_Shake Shack\Lee's Summit_Corral_Cladroom\T.rvt

CONSULTANTS

SEAL/ SIGNATURE



3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET
NO.	BY	DATE	DESCRIPTION

SHAKE SHACK®

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

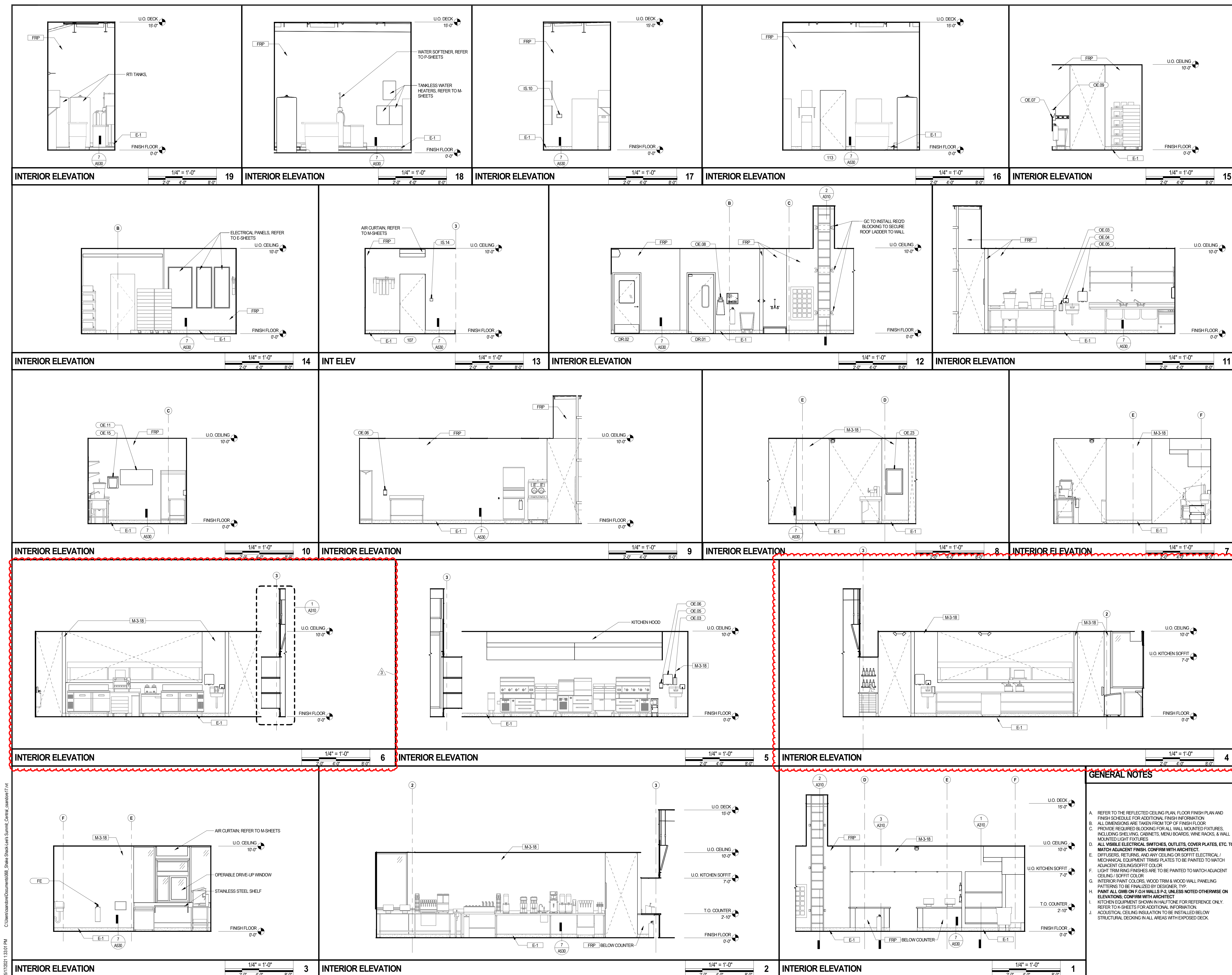
INTERIOR ELEVATIONS

DRAWN BY: CS & WQL

CHECKED BY: JS

JOB NO:	20068.00
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A211



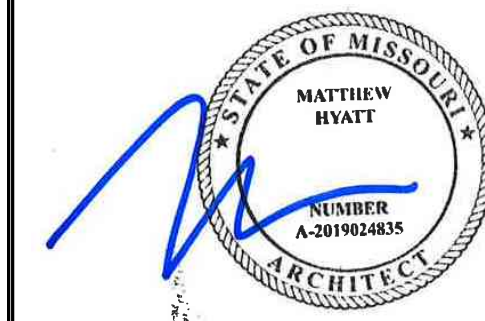
Bergmeyer

LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

BOS
51 Sleeper St.
Boston, MA 02210
617.542.1025

CONSULTANTS:

SEAL/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

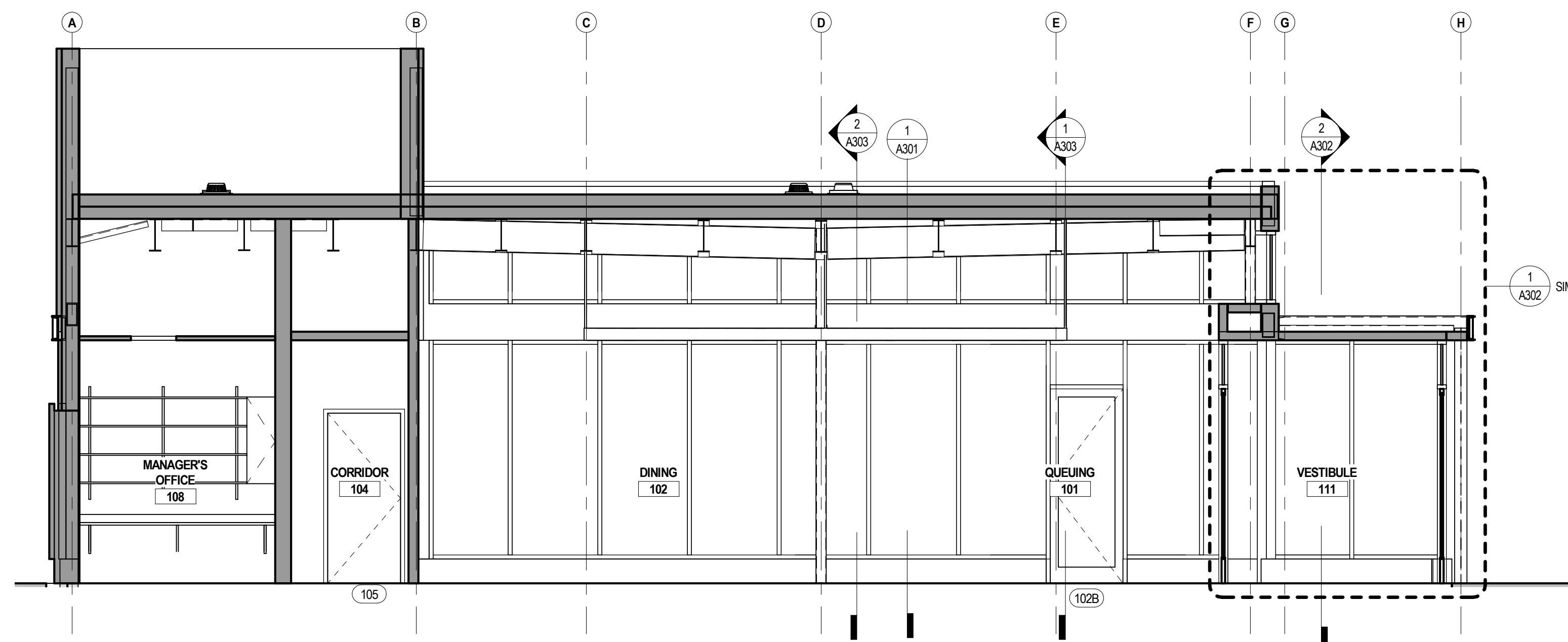
BUILDING SECTIONS

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20088.00

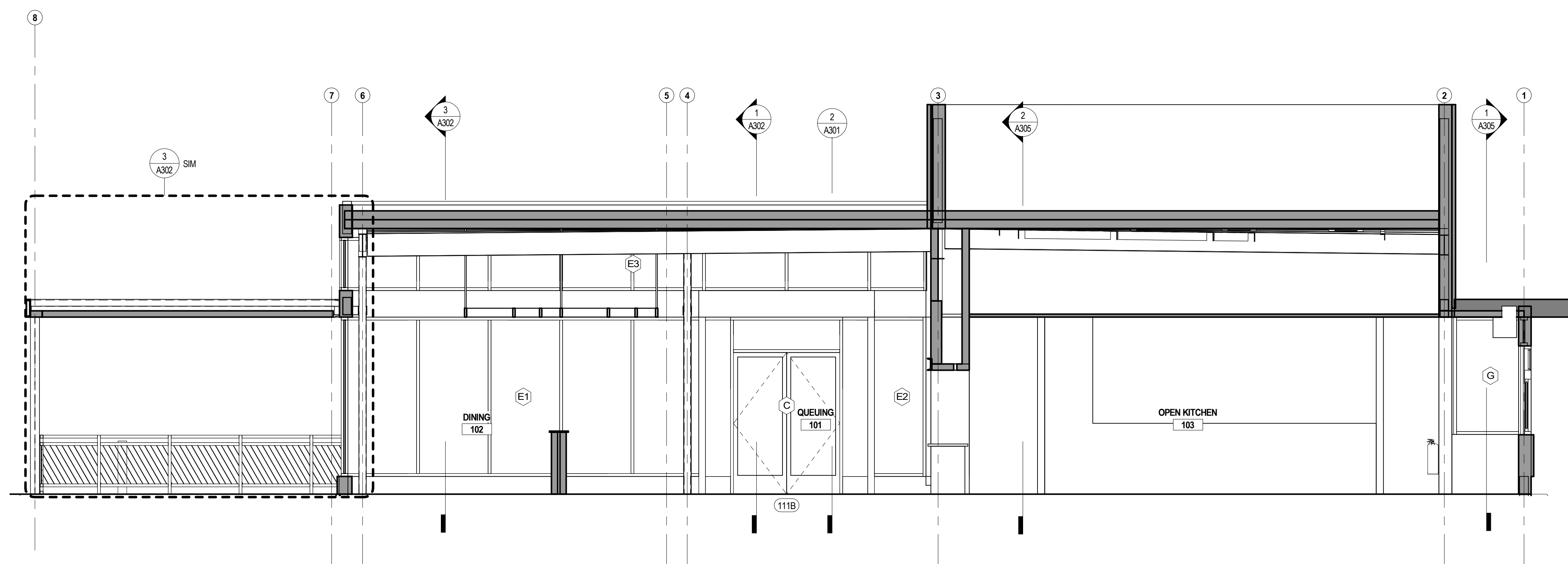
A301



BUILDING SECTION - NORTH SOUTH

1/4" = 1'-0"
2'-0" 4'-0" 8'-0"

2

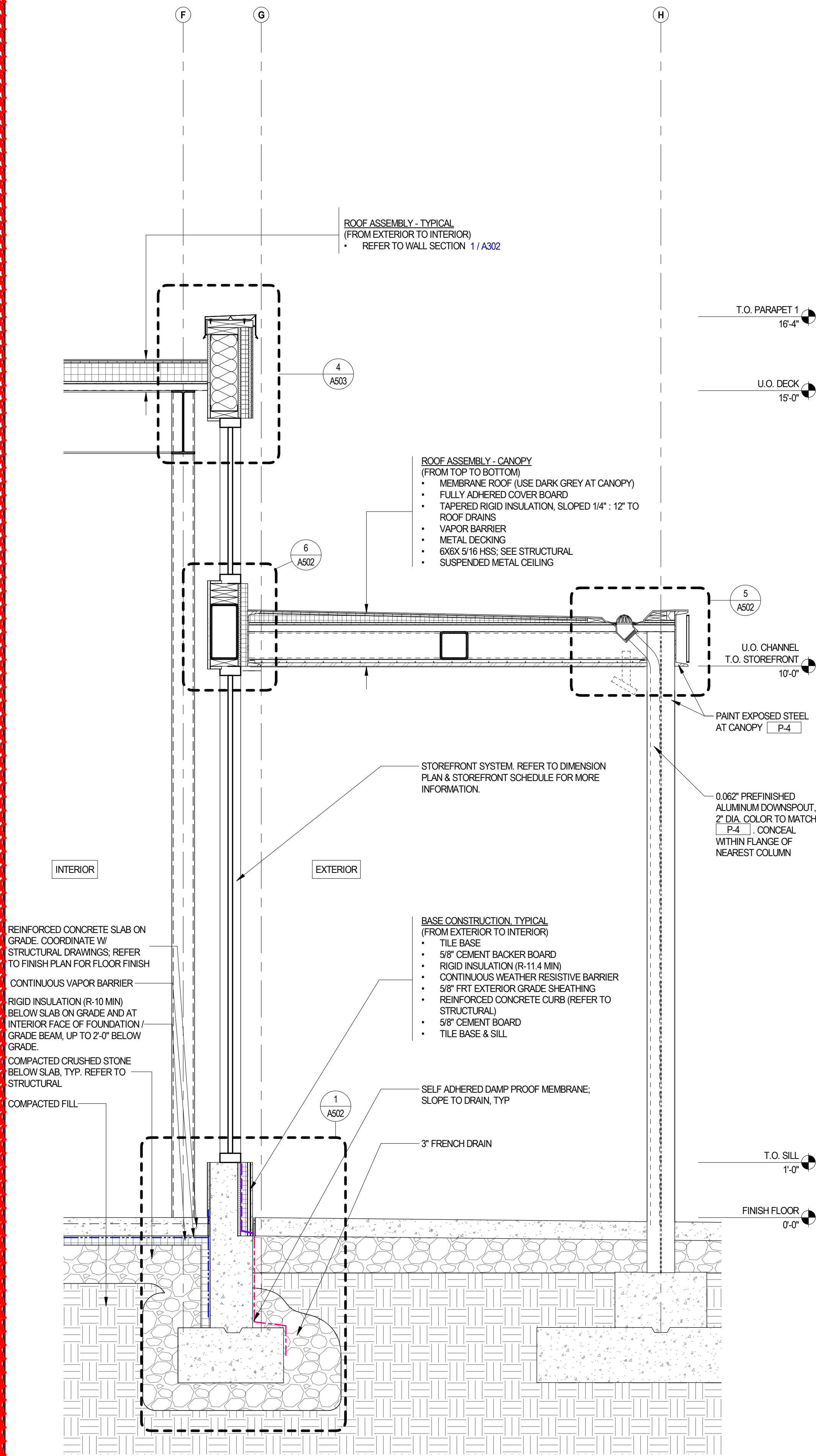


BUILDING SECTION - EAST WEST

1/4" = 1'-0"
2'-0" 4'-0" 8'-0"

1

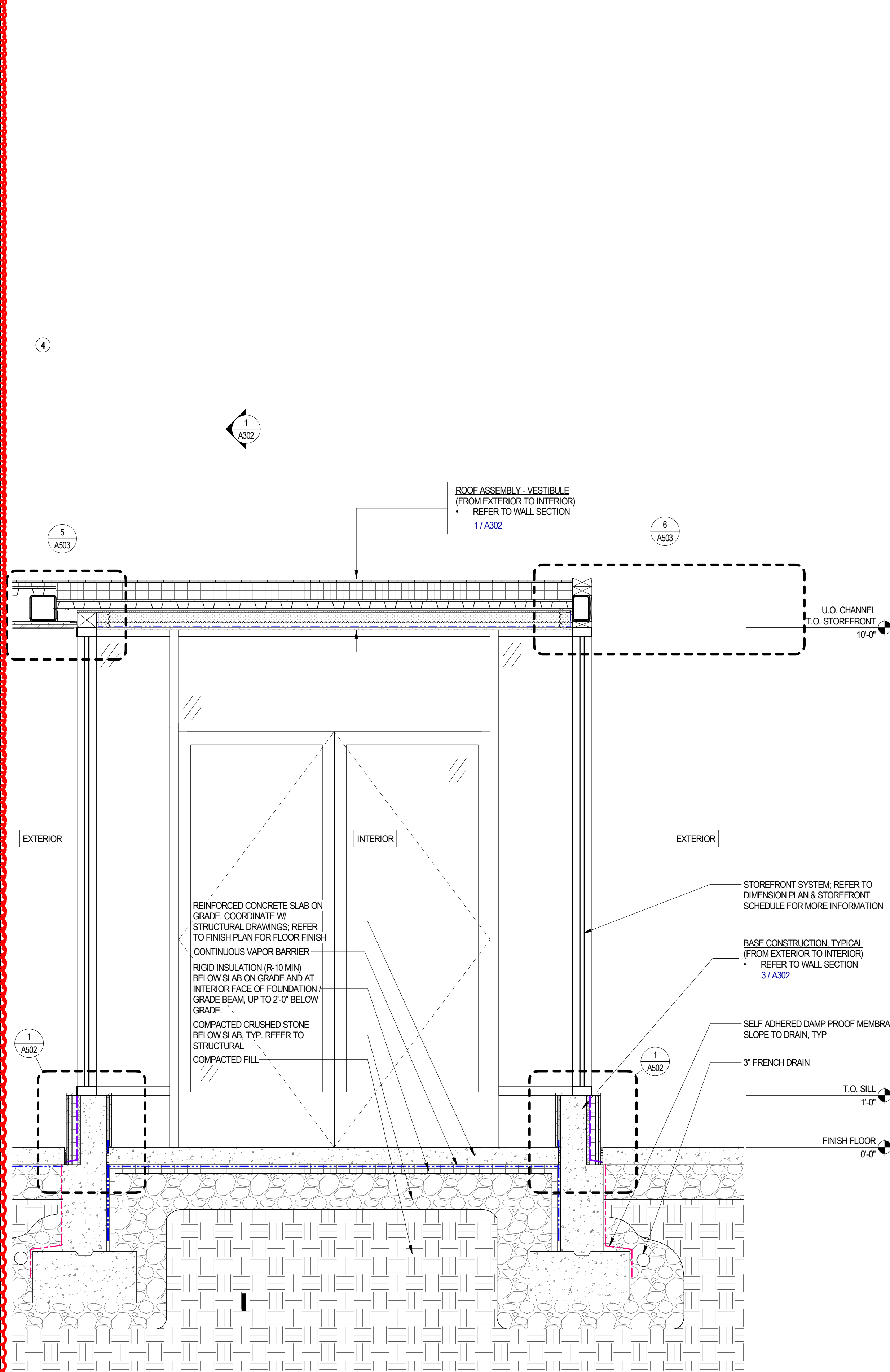
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EXTERIOR WALL SECTION 3 - STOREFRONT AND CANOPY

3/4" = 1'-0"

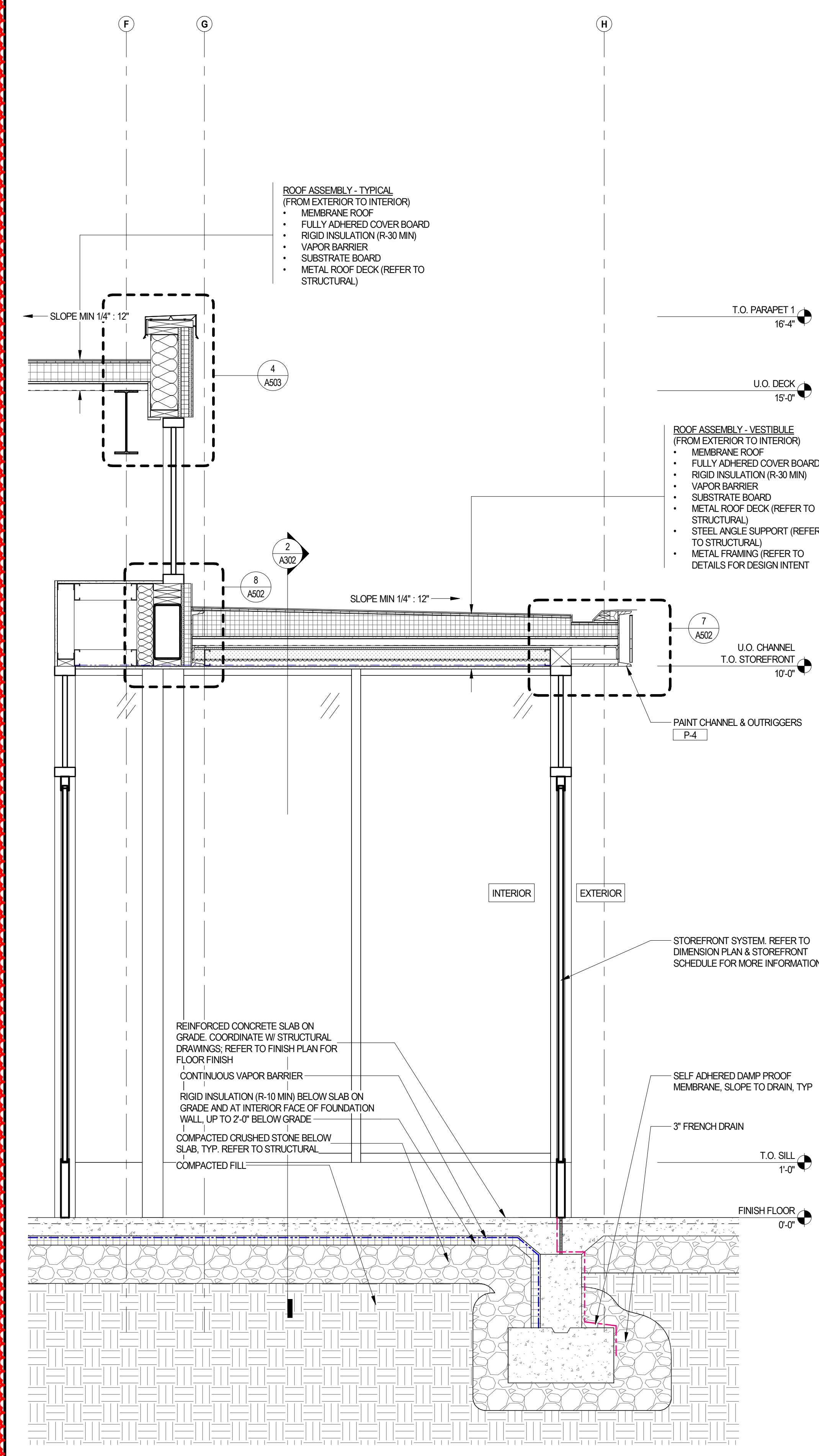
3



EXTERIOR WALL SECTION 2 - VESTIBULE WALL

3/4" = 1'-0"

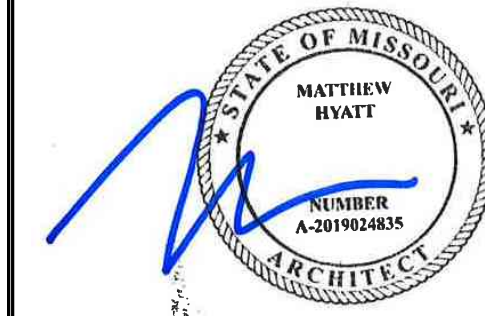
2



EXTERIOR WALL SECTION 1 - VESTIBULE

3/4" = 1'-0"

1



SEA/ SIGNATURE:

CONSULTANTS:

Bergmeyer

LA
800 South Figueroa St.
Brea, CA 90017
617.542.1025
212.337.1080
www.bergmeyer.com

NO.	BY	DATE	DESCRIPTION
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM 2
1		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET



SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

EXTERIOR WALL SECTIONS

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 20088.00

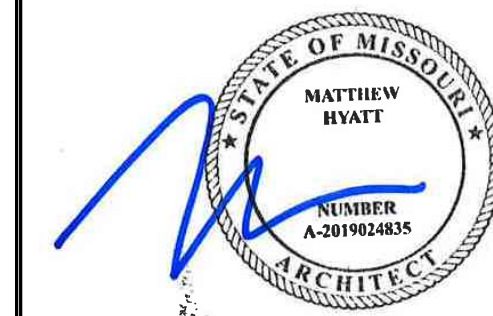
A302

Bergmeyer

LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090
BOS
51 Sleeper St.
Bedford, MA 02210
617.542.1025

CONSULTANTS:

SEAL/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

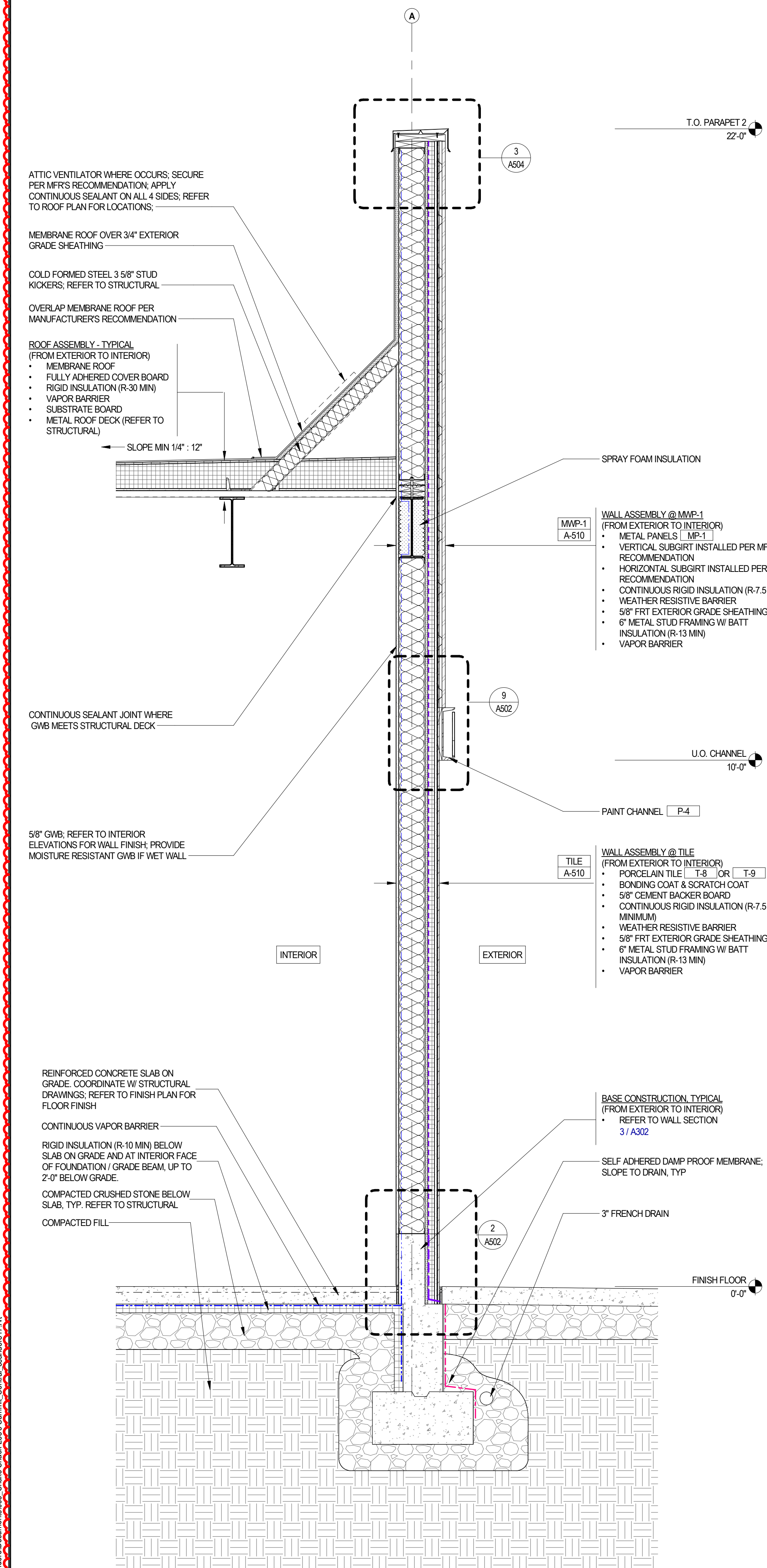
EXTERIOR WALL
SECTIONS

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CHECKED BY: JS

JOB NO: 20088.00

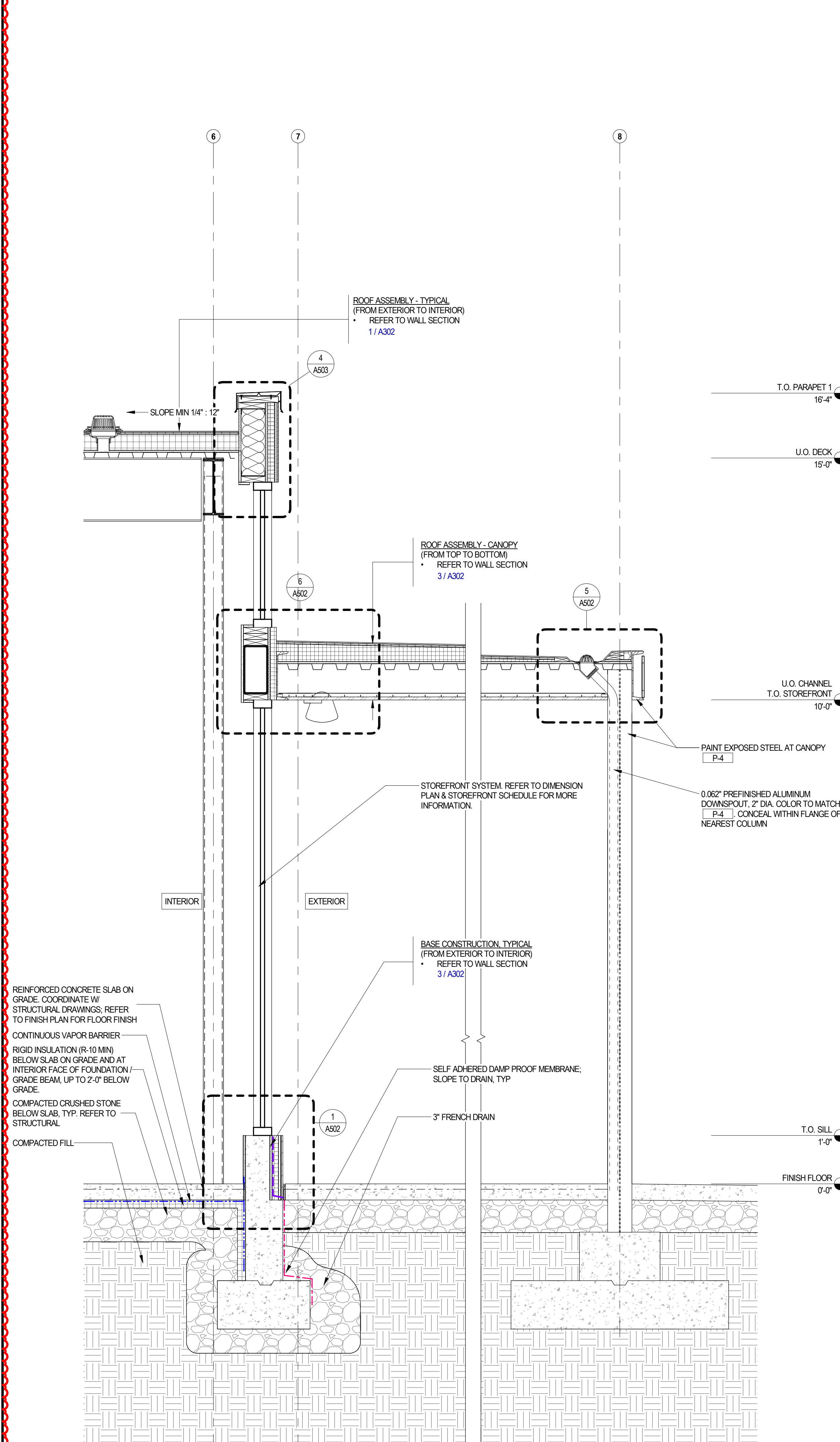
A303



EXTERIOR WALL SECTION 6 - THIN BRICK

3/4" = 1'-0"

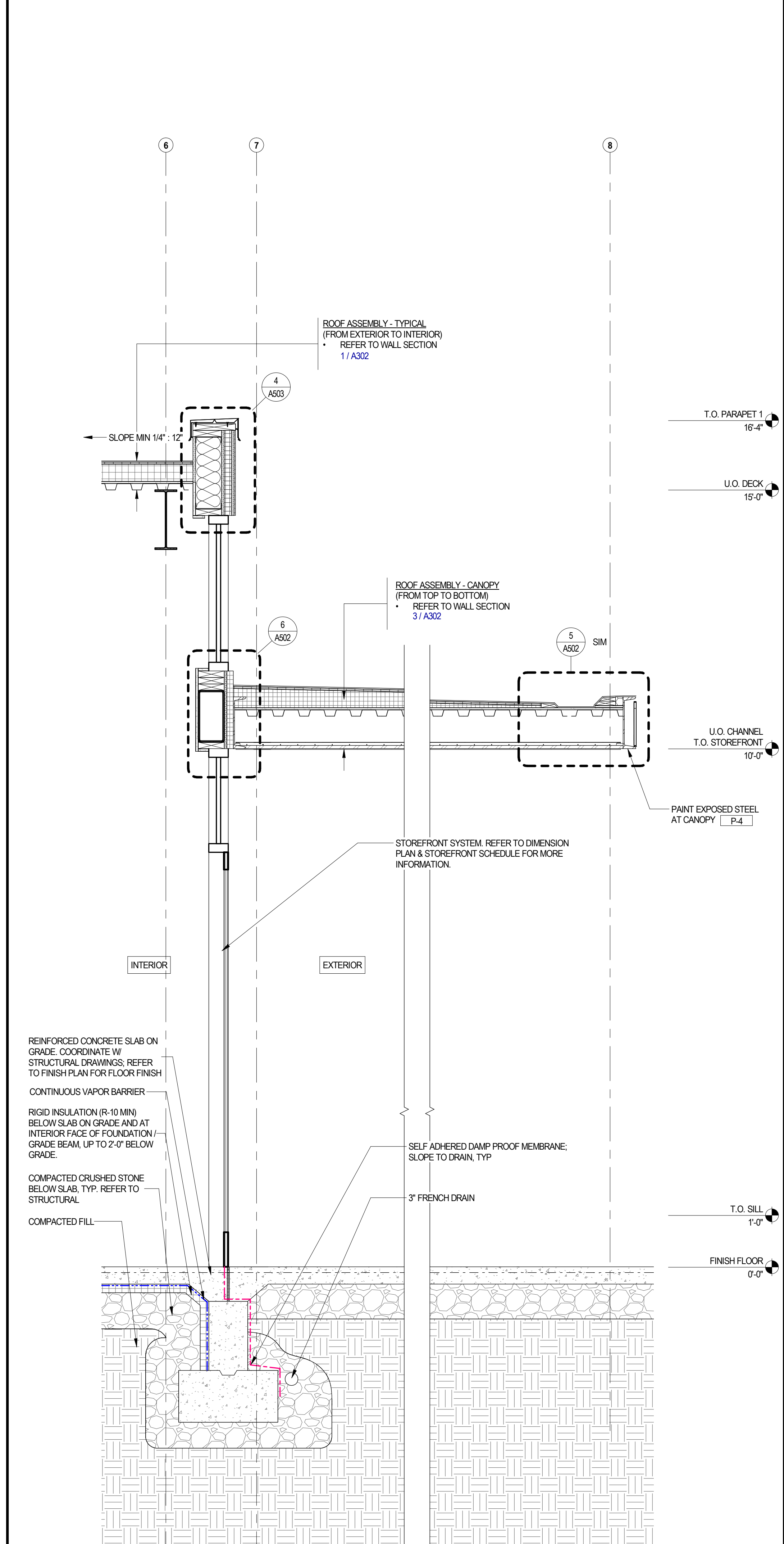
3



EXTERIOR WALL SECTION 5 - STOREFRONT WALL AT PATIO

3/4" = 1'-0"

2



EXTERIOR WALL SECTION 4 - STOREFRONT WALL AT DOOR

3/4" = 1'-0"

1

Bergmeyer

CONSULTANTS:

SEAU SIGNATURE:



3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM 2
		2021-01-11	PERMIT/BID SET
NO.	BY	DATE	DESCRIPTION



SHAKE SHACK - LEE'S SUMMIT MO

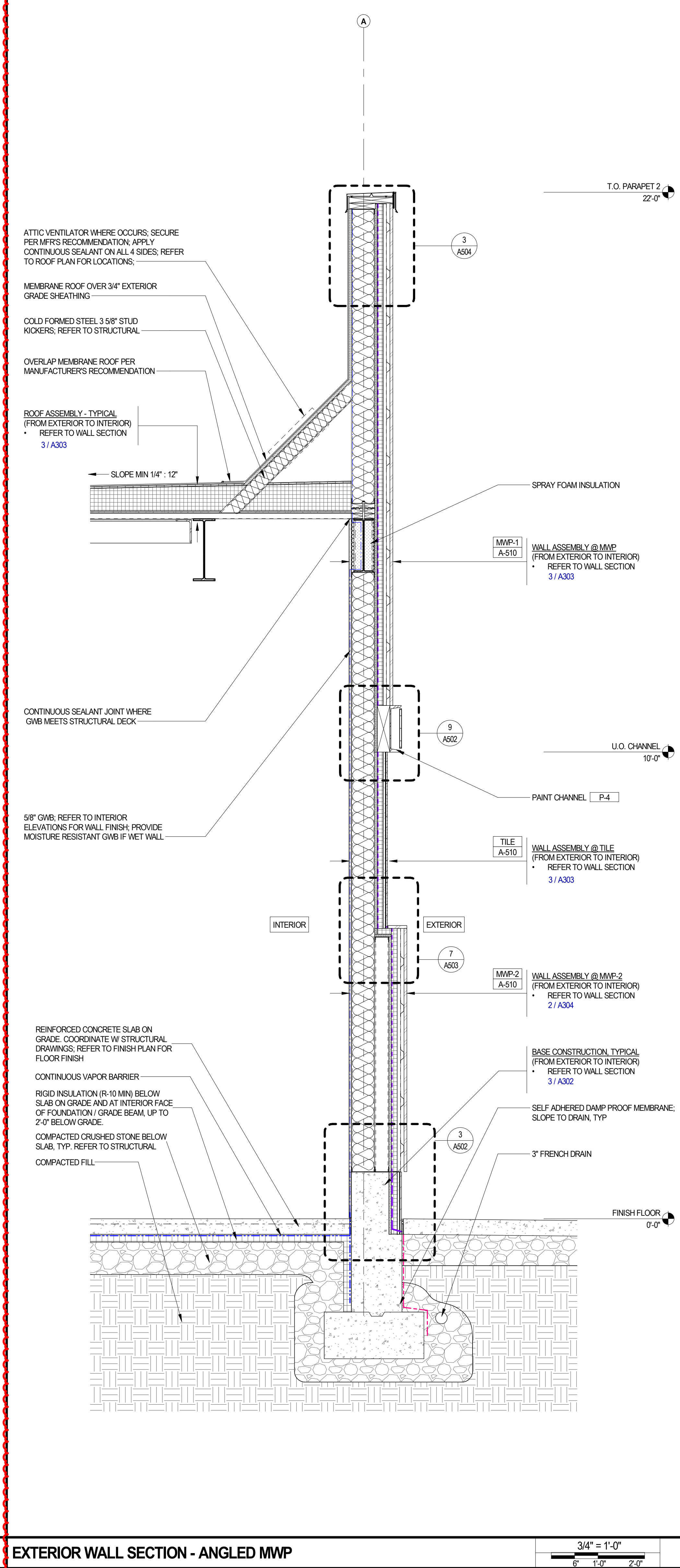
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

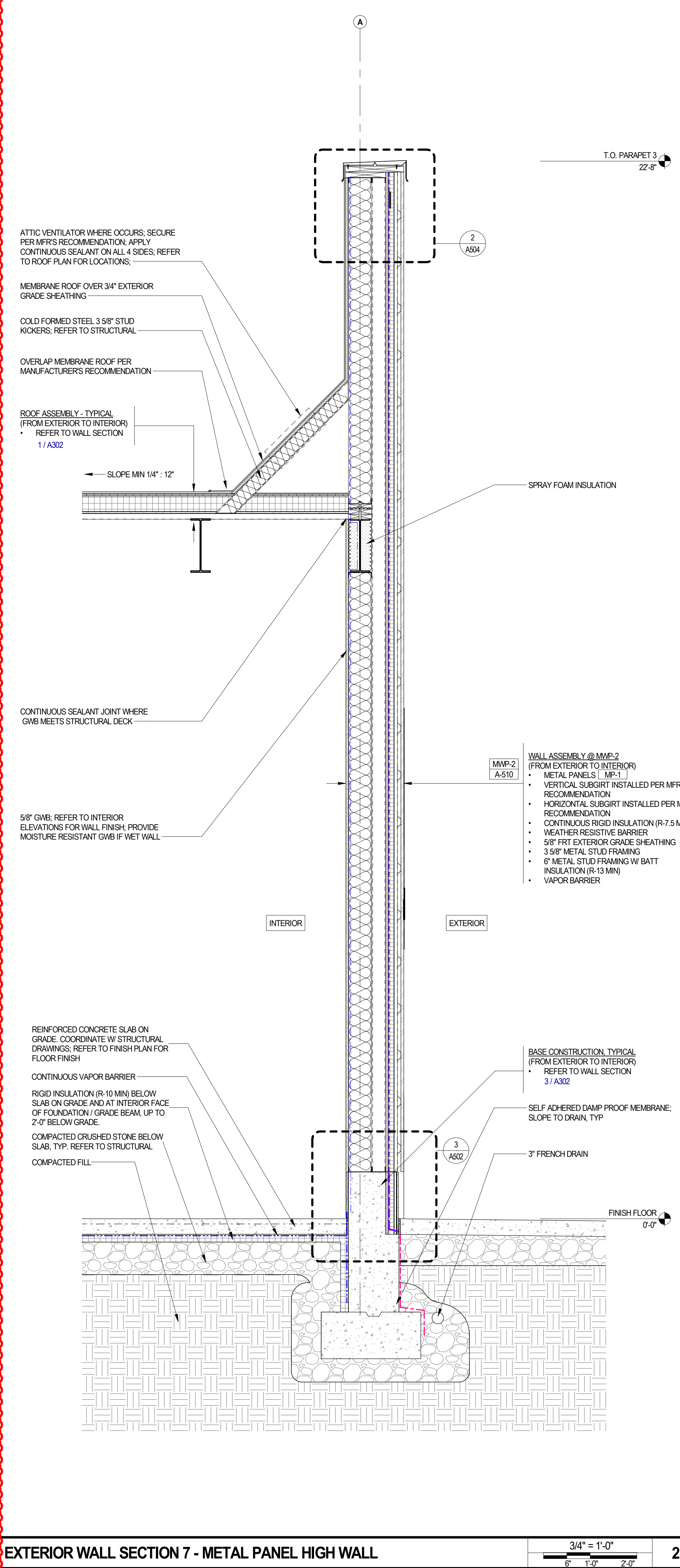
EXTERIOR WALL SECTIONS

DRAWN BY: CS & WOL
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JOB NO: 2008.00

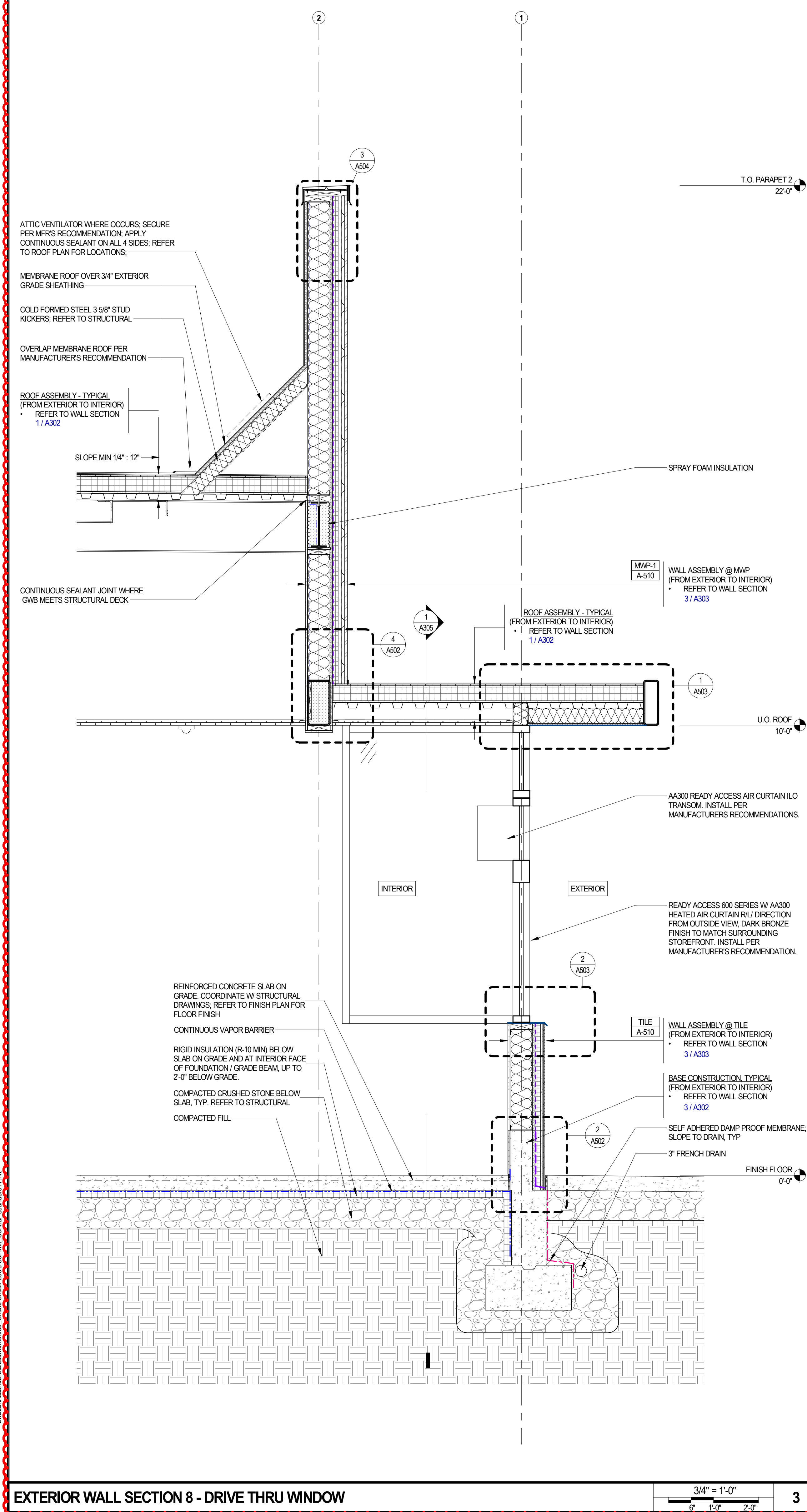
A304



EXTERIOR WALL SECTION - ANGLED MMP



EXTERIOR WALL SECTION 7 - METAL PANEL HIGH WALL



EXTERIOR WALL SECTION 8 - DRIVE THRU WINDOW

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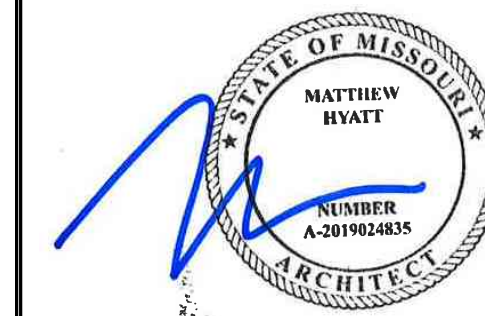
Bergmeyer

LA
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Los Angeles, CA 90017
212.337.1090

BOS
51 Sleeper St.
Boston, MA 02210
617.542.1025

CONSULTANTS:

SEAL SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
2021-01-11	PERMIT/ID SET	

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

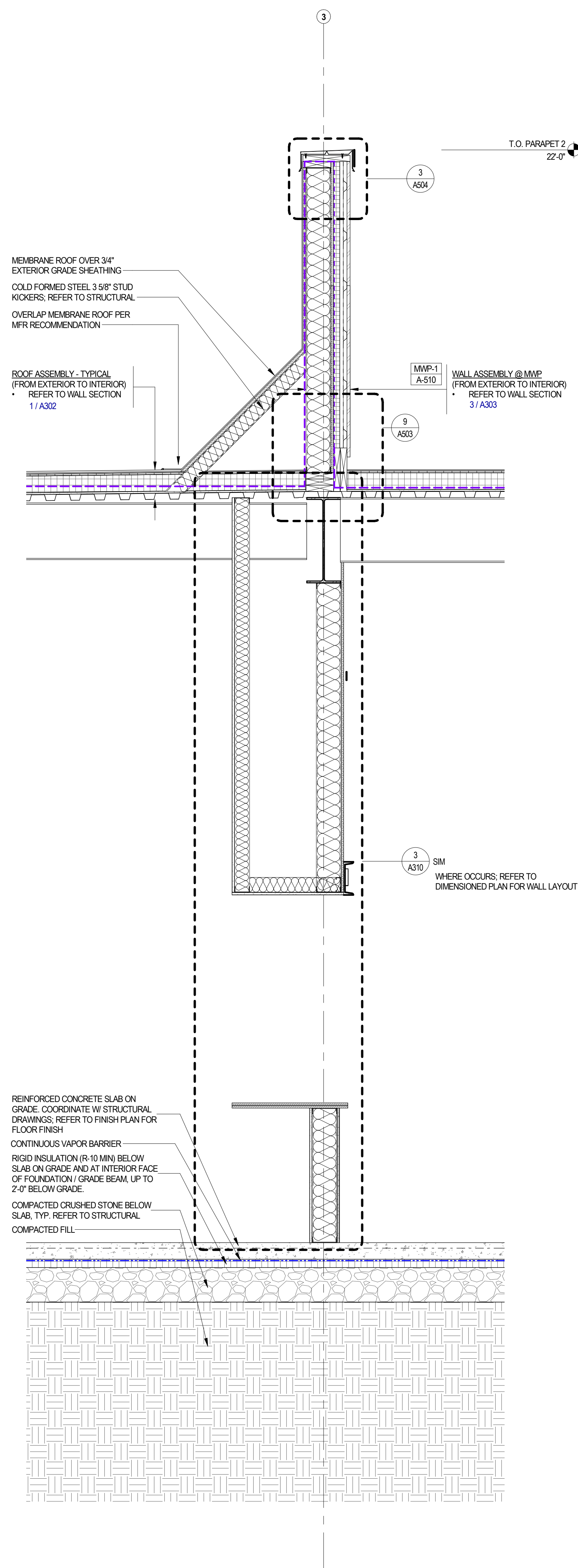
EXTERIOR WALL
SECTIONS

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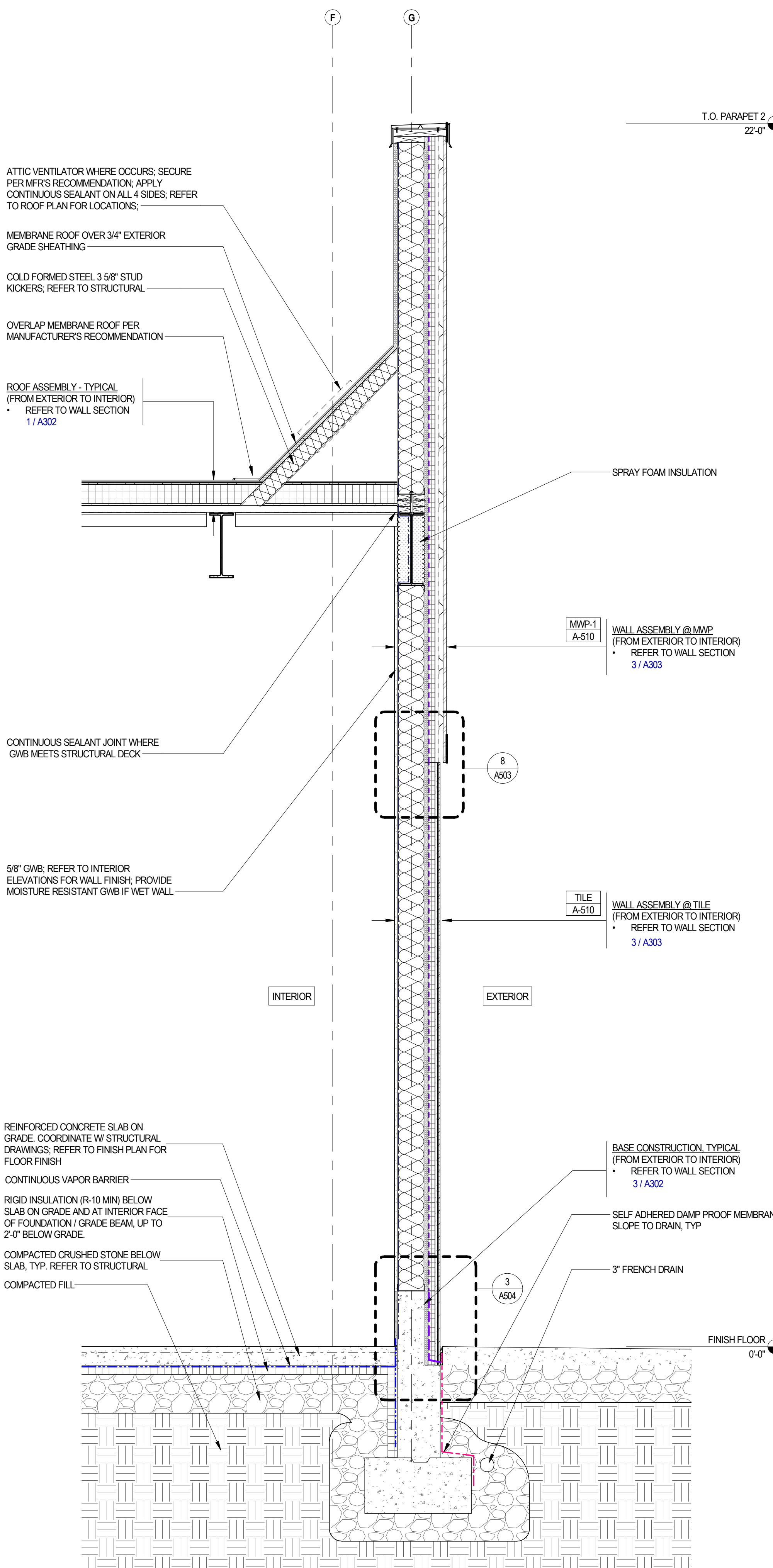
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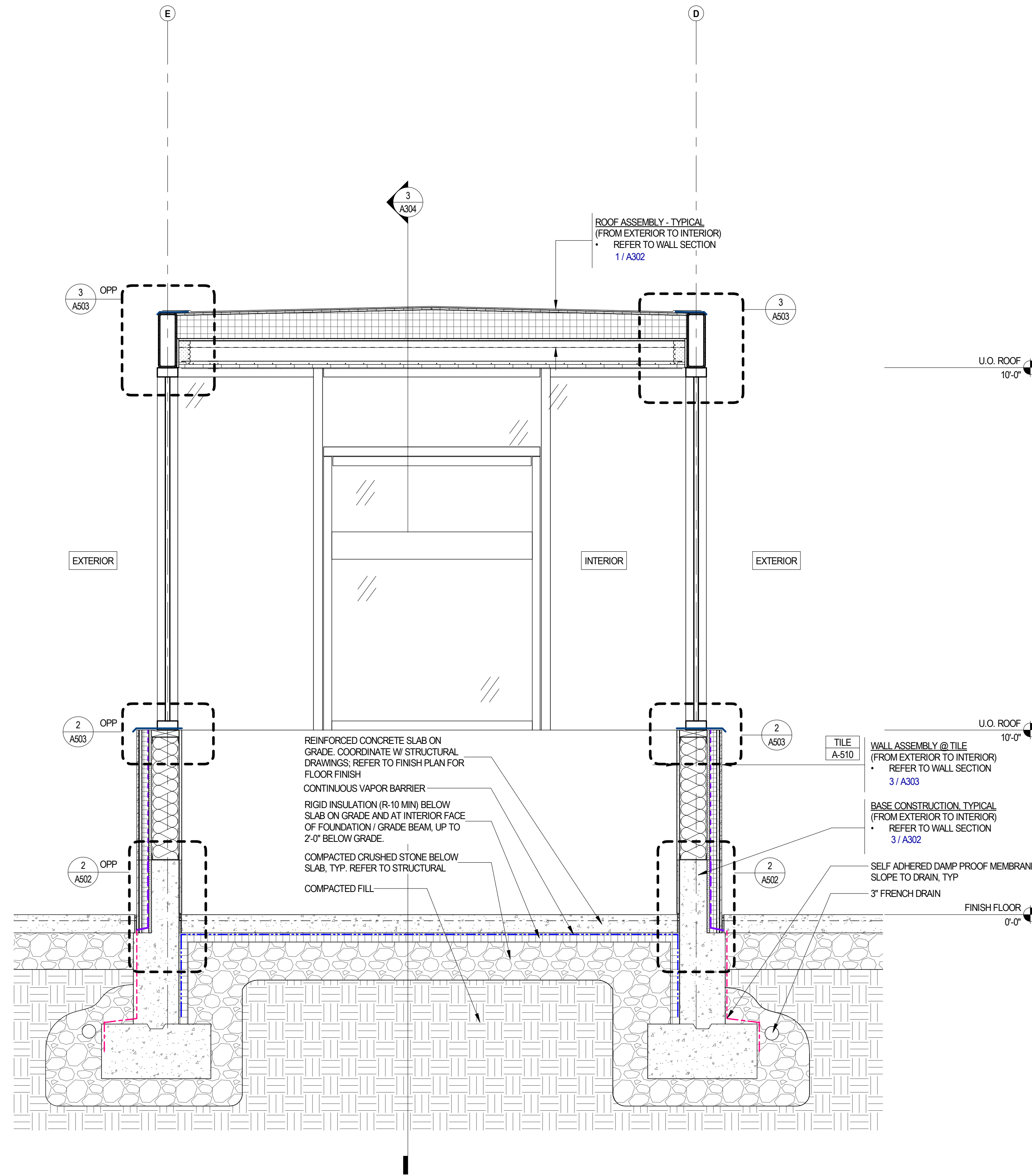
A305



EXTERIOR WALL SECTION - INNER PARAPET



EXTERIOR WALL SECTION - METAL PANEL/BRICK W BREAK



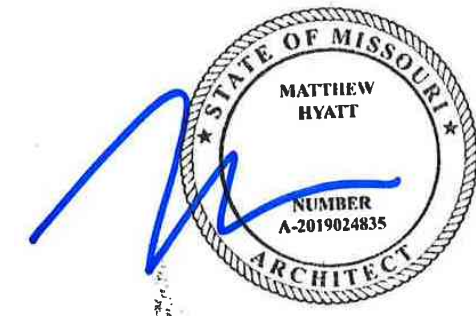
EXTERIOR WALL SECTION 9 - DRIVE THRU STOREFRONT

Bergmeyer

LA
800 South Figueroa St.
Brea, CA 90017
212.337.1080

CONSULTANTS:

SEAU SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOMENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

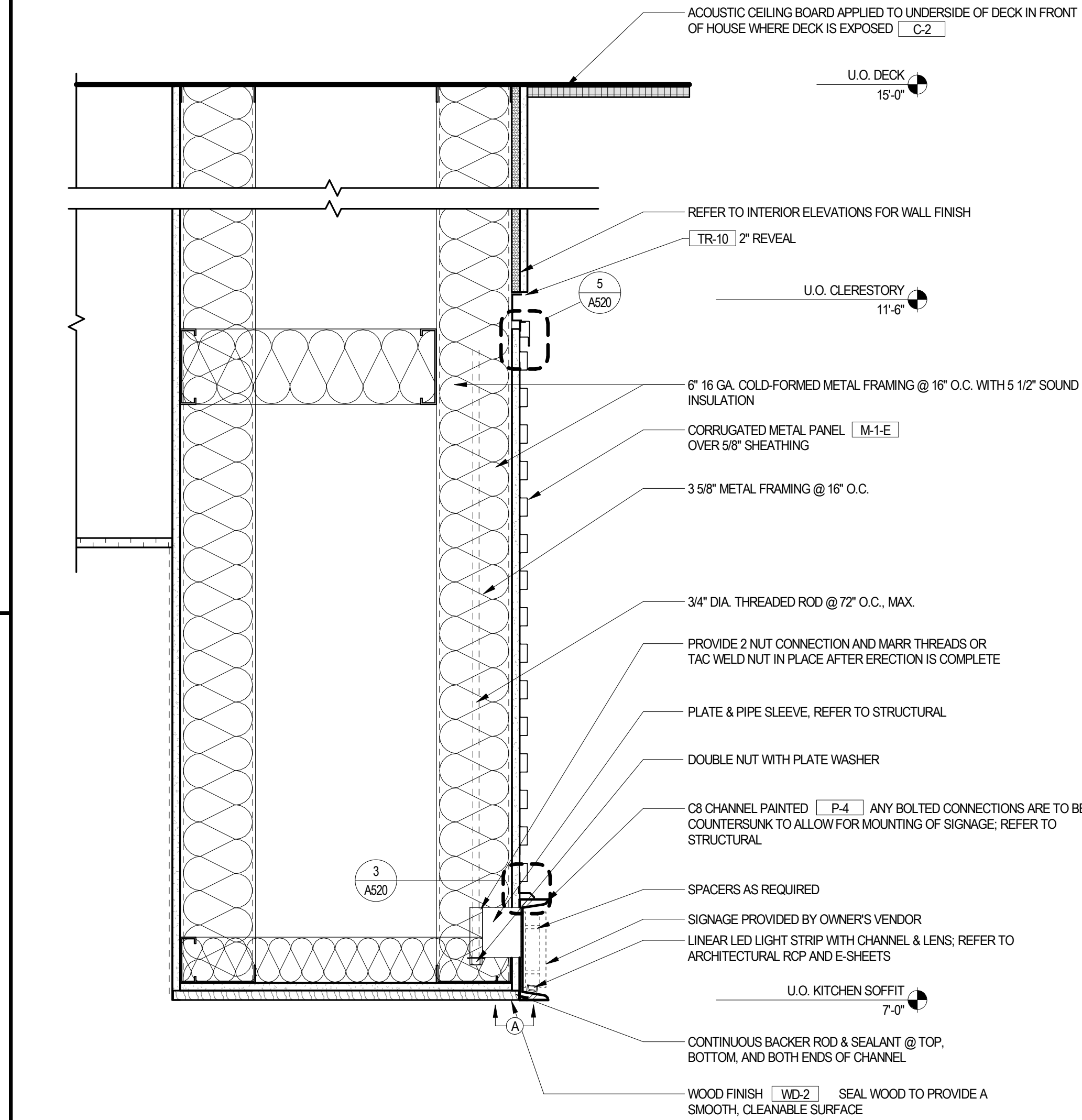
INTERIOR SECTIONS

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20088.00

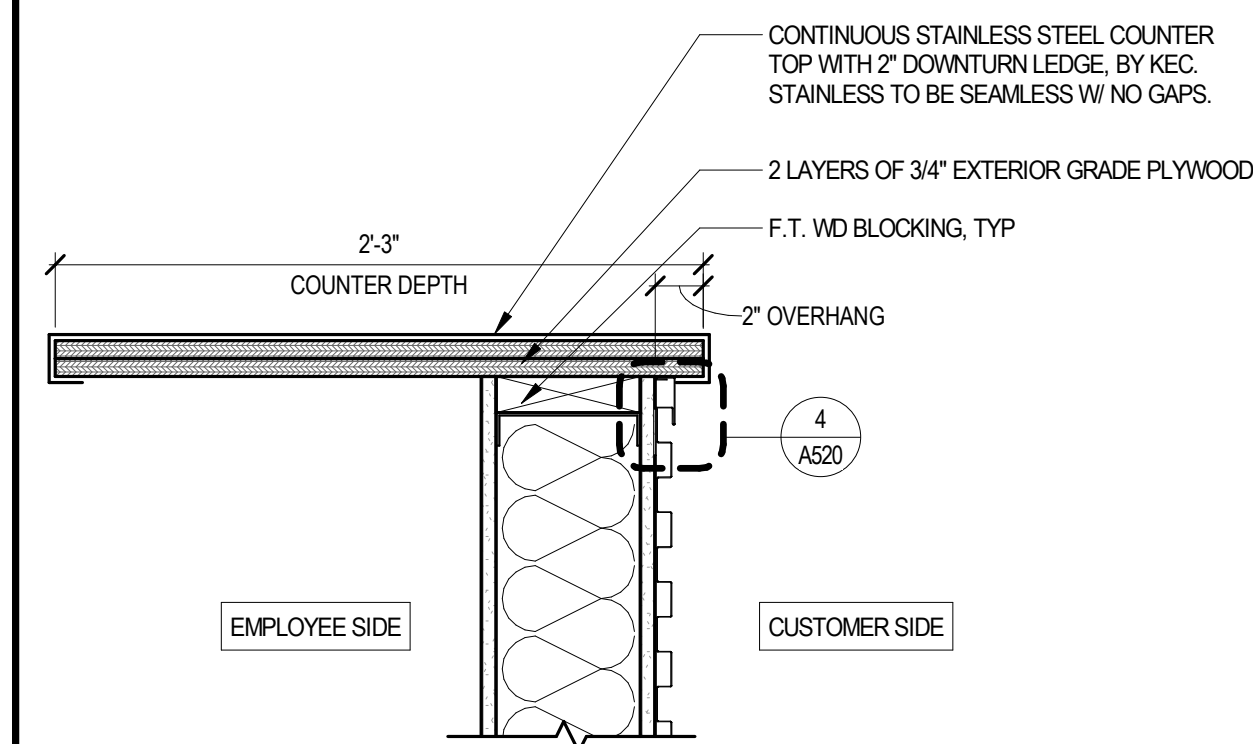
A310



DETAIL - KITCHEN ENGINE SOFFIT

1 1/2" = 1'-0"

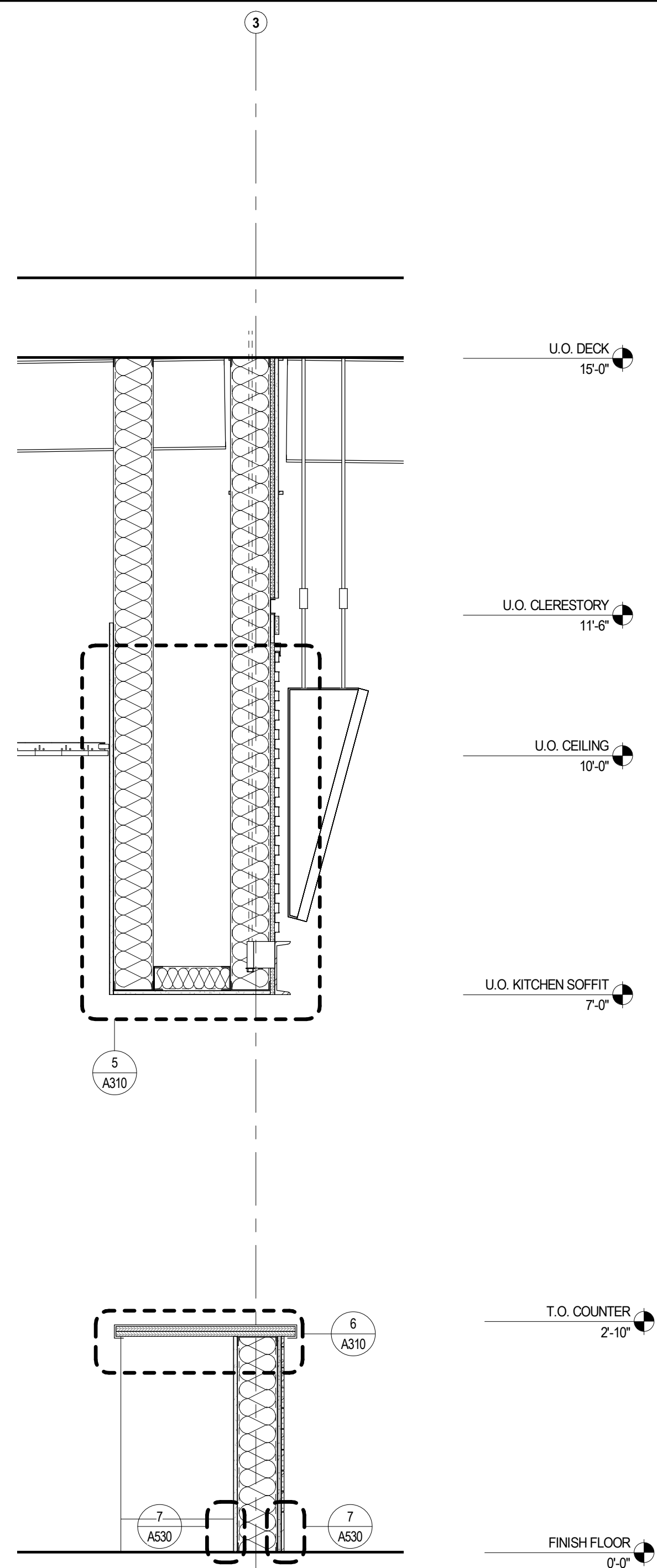
5



DETAIL - ORDER/ PICK-UP COUNTER

1 1/2" = 1'-0"

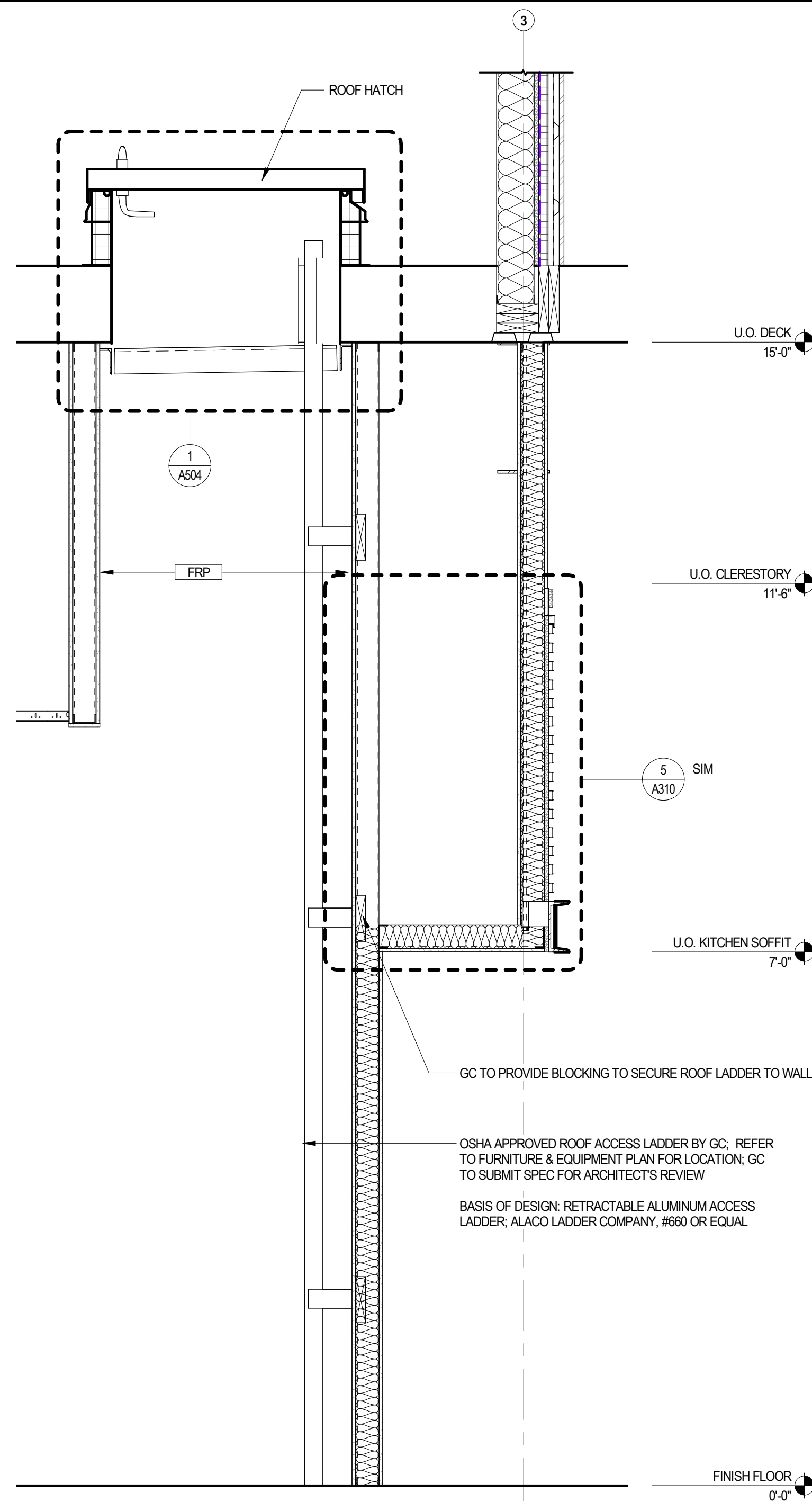
6



INTERIOR WALL SECTION - KITCHEN ENGINE

3/4" = 1'-0"

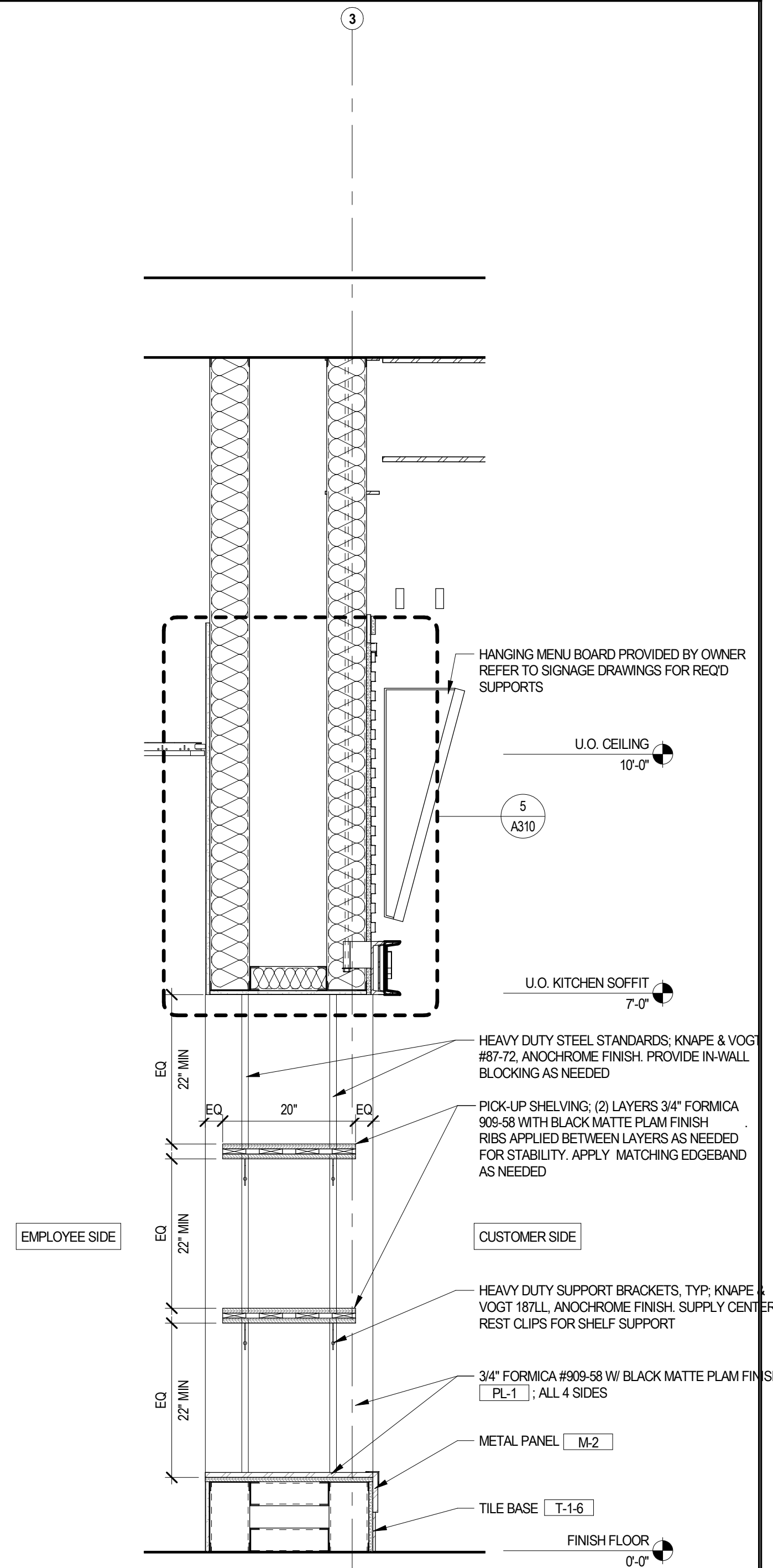
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INTERIOR WALL SECTION - ROOF LADDER

3/4" = 1'-0"

2



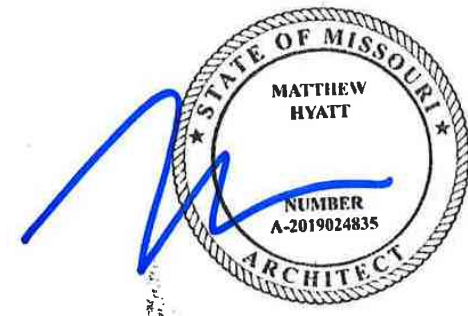
WALL SECTION - INTERIOR - APP PICKUP

3/4" = 1'-0"

1

CONSULTANTS:

SEAU/ SIGNATURE:



5	2021-05-17	FIELD NOTICE #2
3	2021-04-26	ISSUED FOR CONSTRUCTION
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

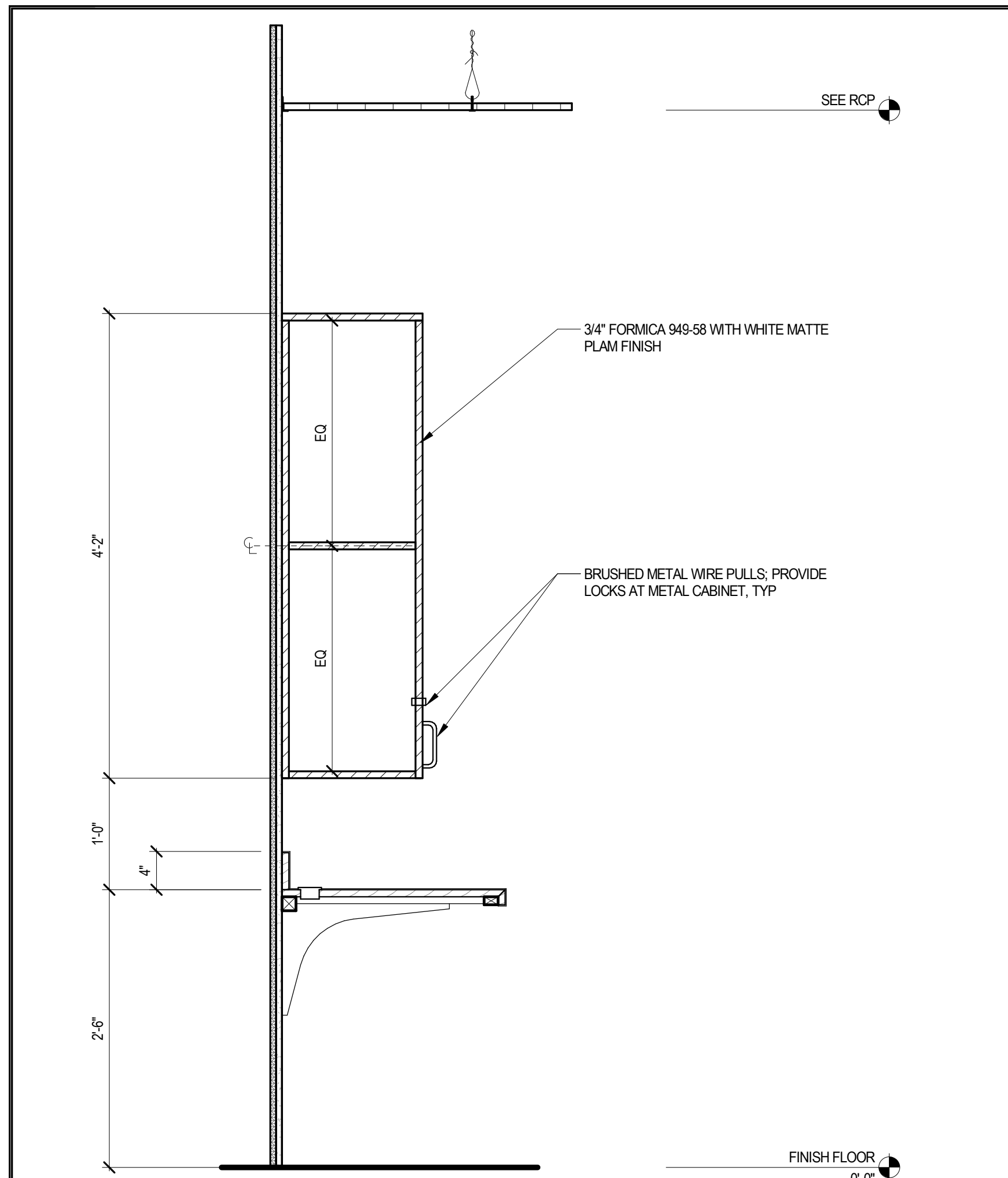
ENLARGED MANAGER'S
OFFICE PLAN

DRAWN BY: CS & WQL

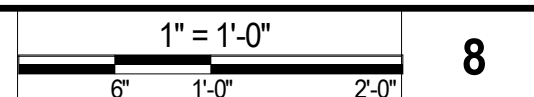
CHECKED BY: JS

JOB NO: 2008.00

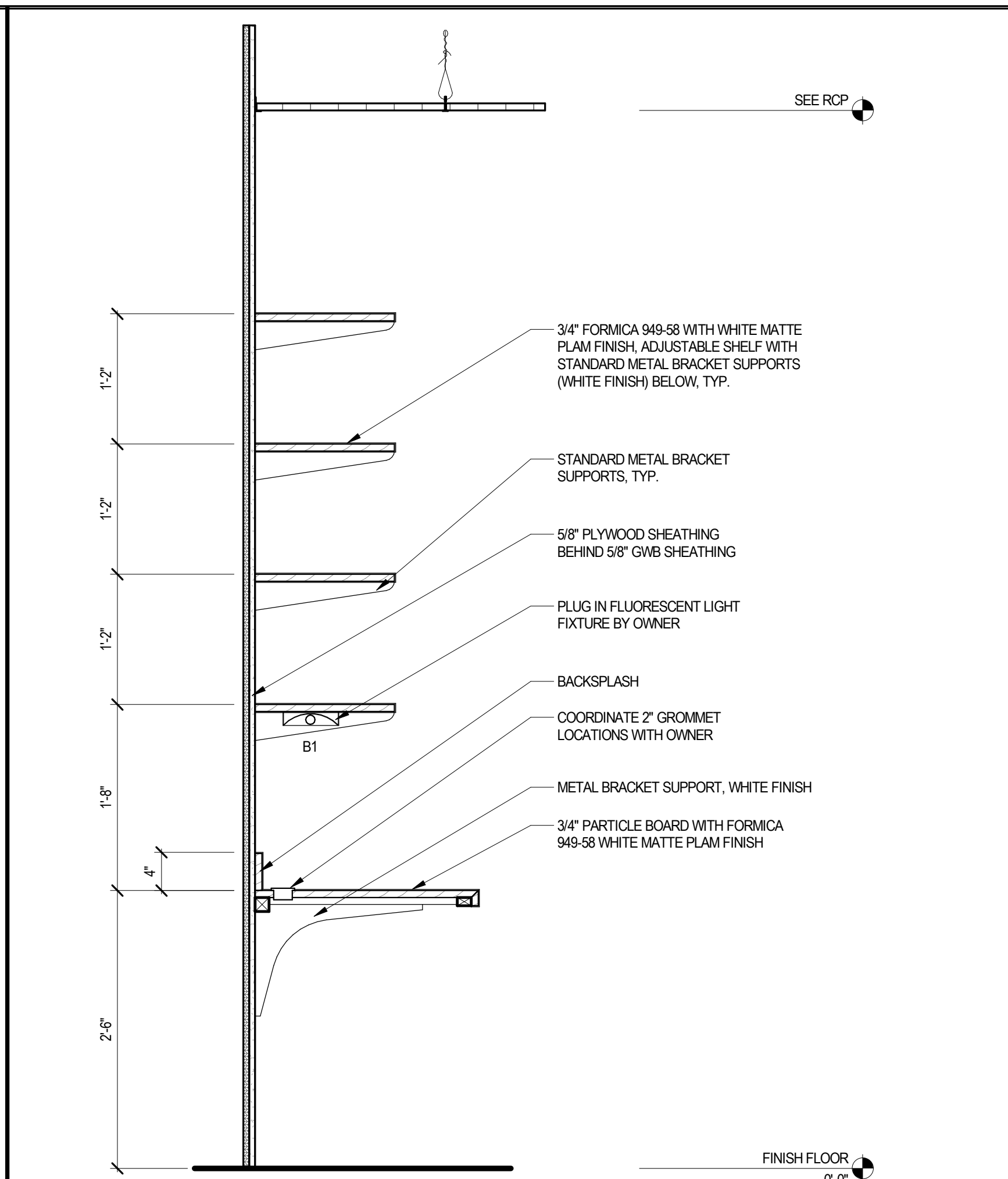
A401



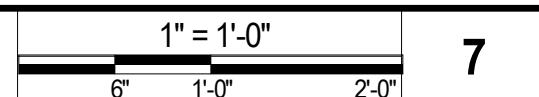
SECTION DETAIL - MW-1 MILLWORK CABINET



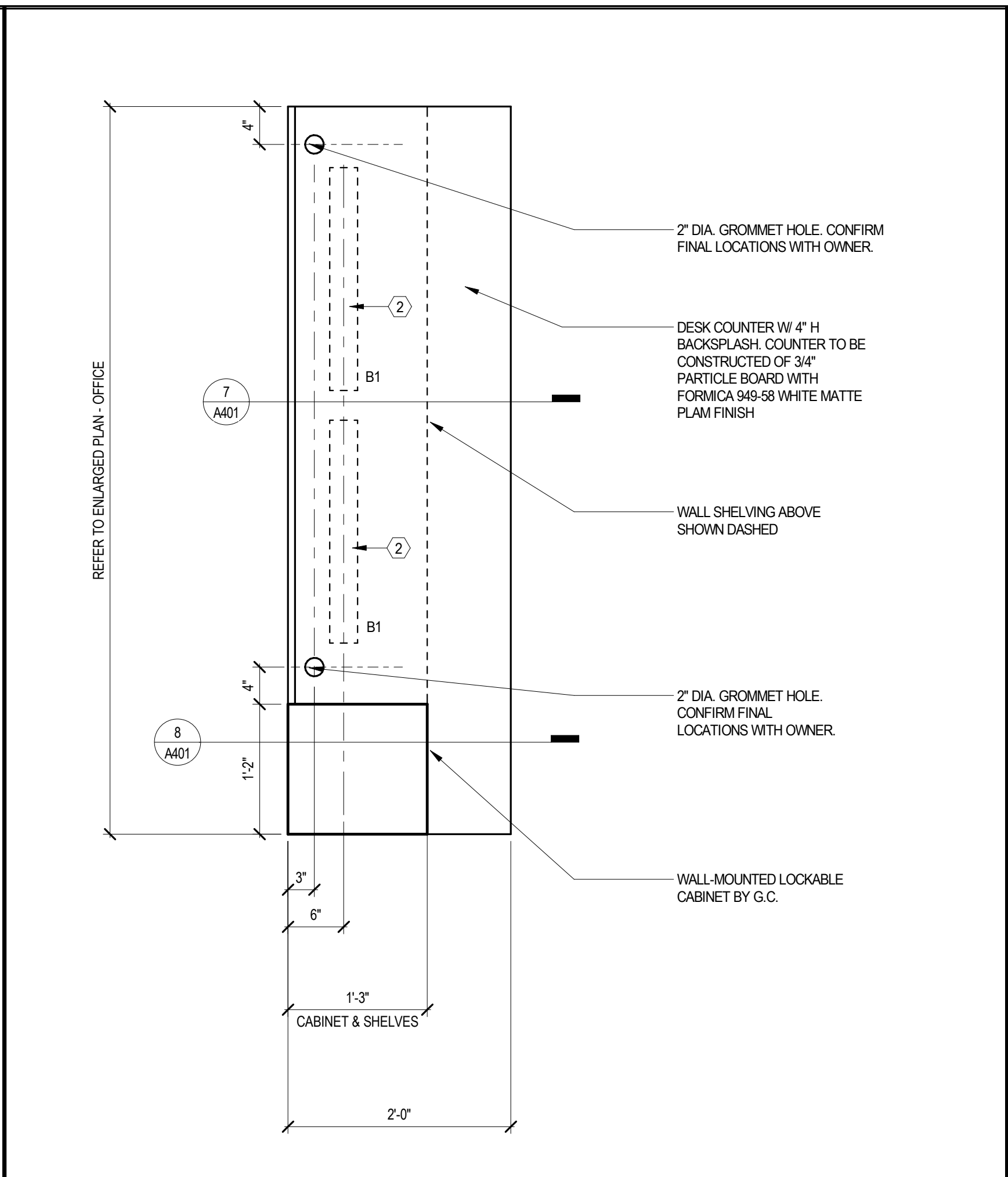
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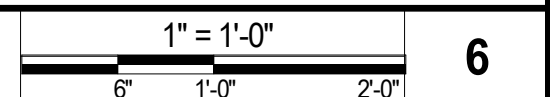
SECTION DETAIL - MANAGER'S DESK MW-1



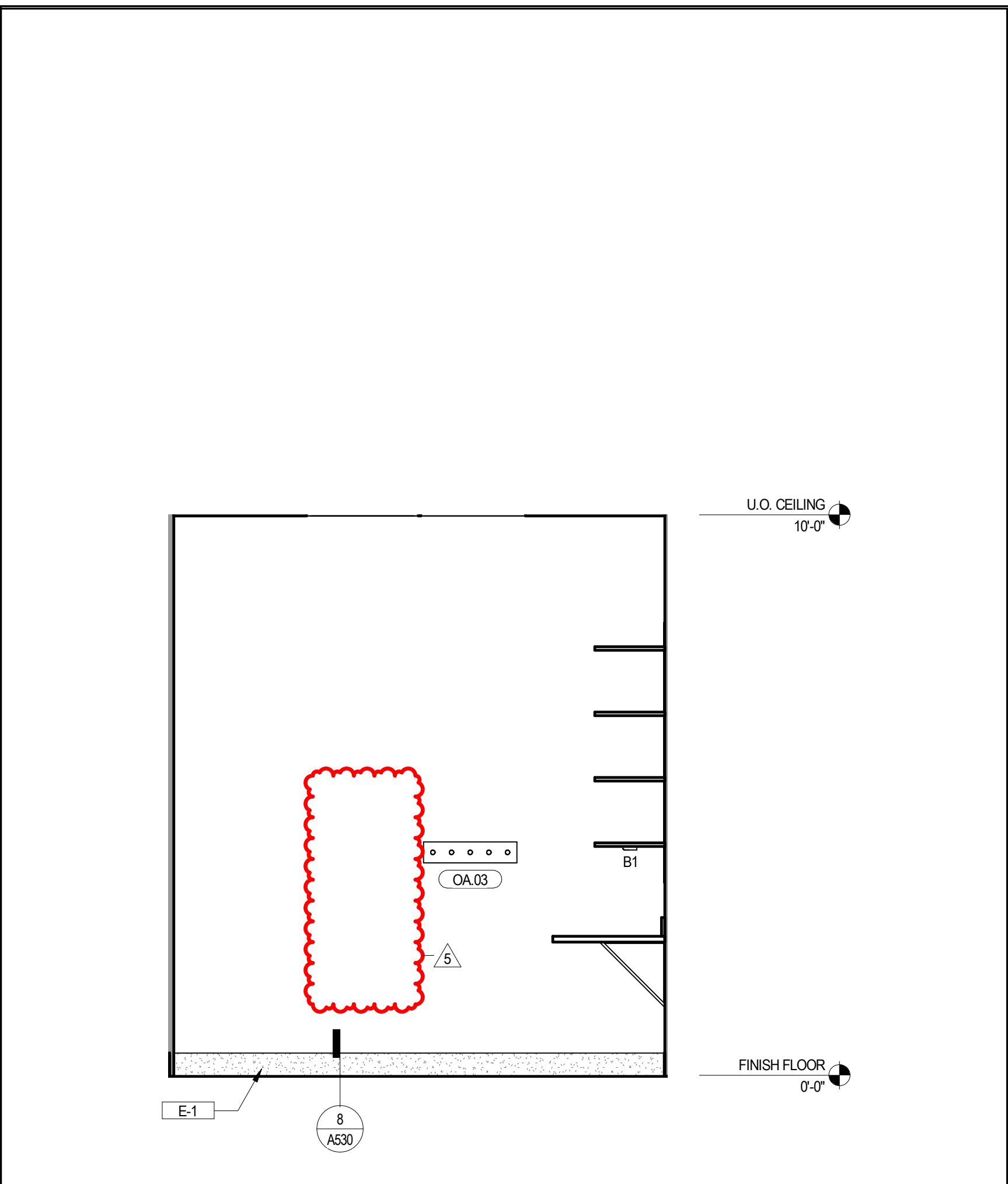
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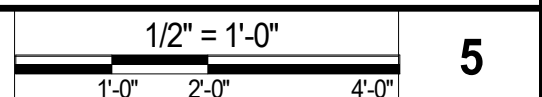
PLAN DETAIL - MANAGER'S DESK MW-1



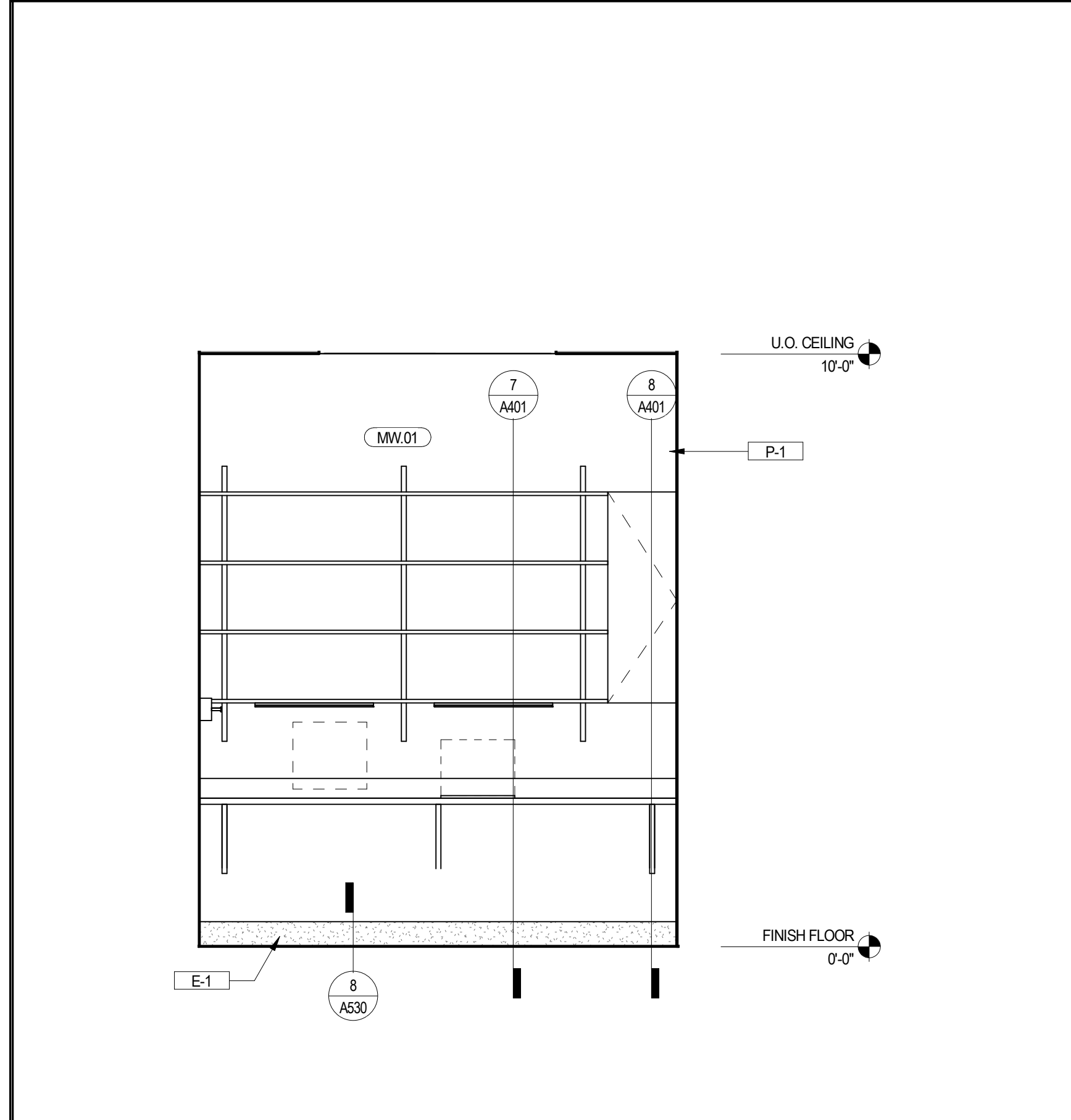
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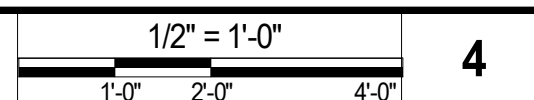
INTERIOR ELEVATION - MANAGERS OFFICE NORTH



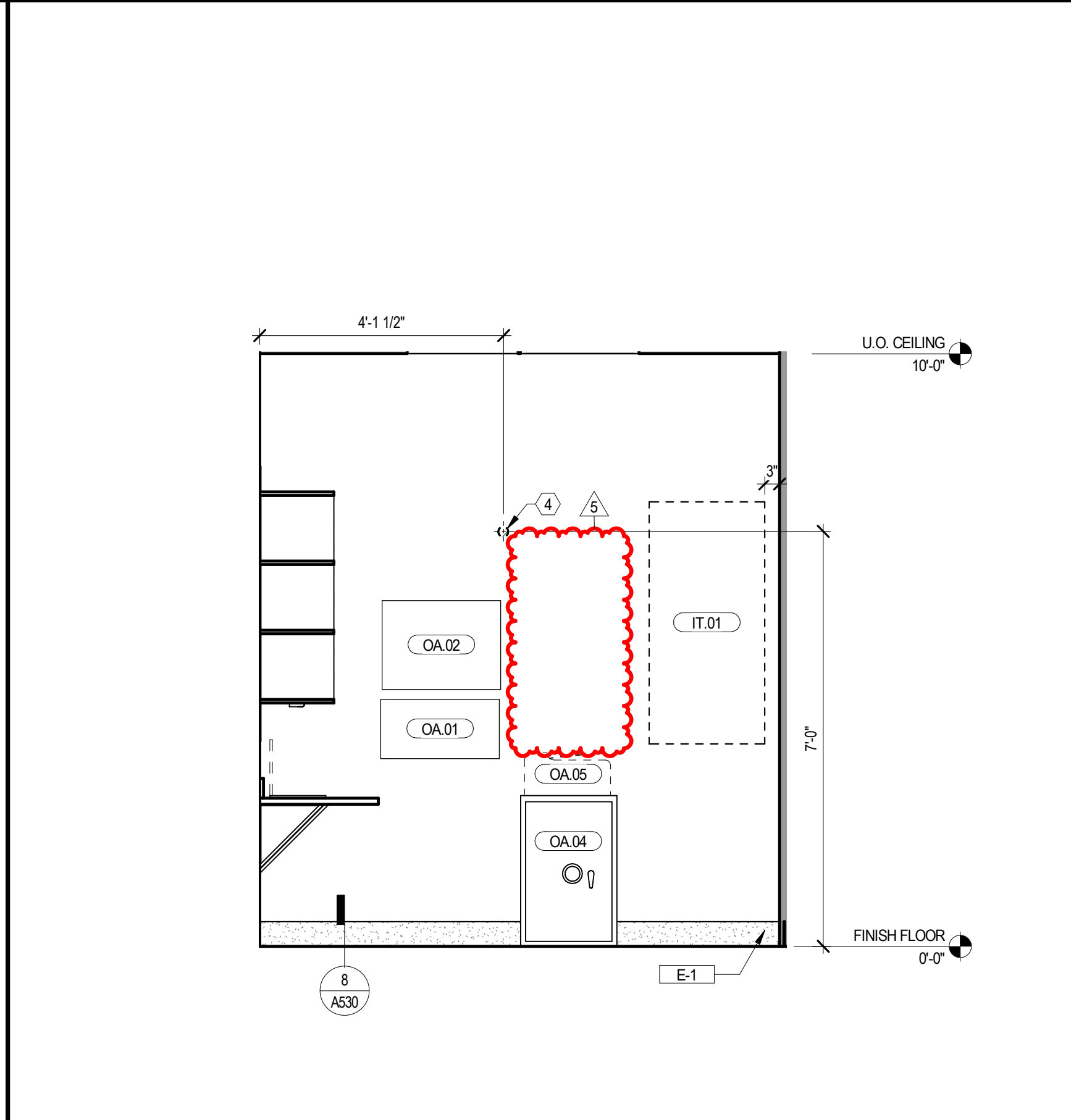
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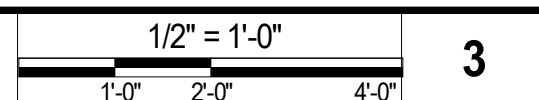
INTERIOR ELEVATION - MANAGERS OFFICE EAST



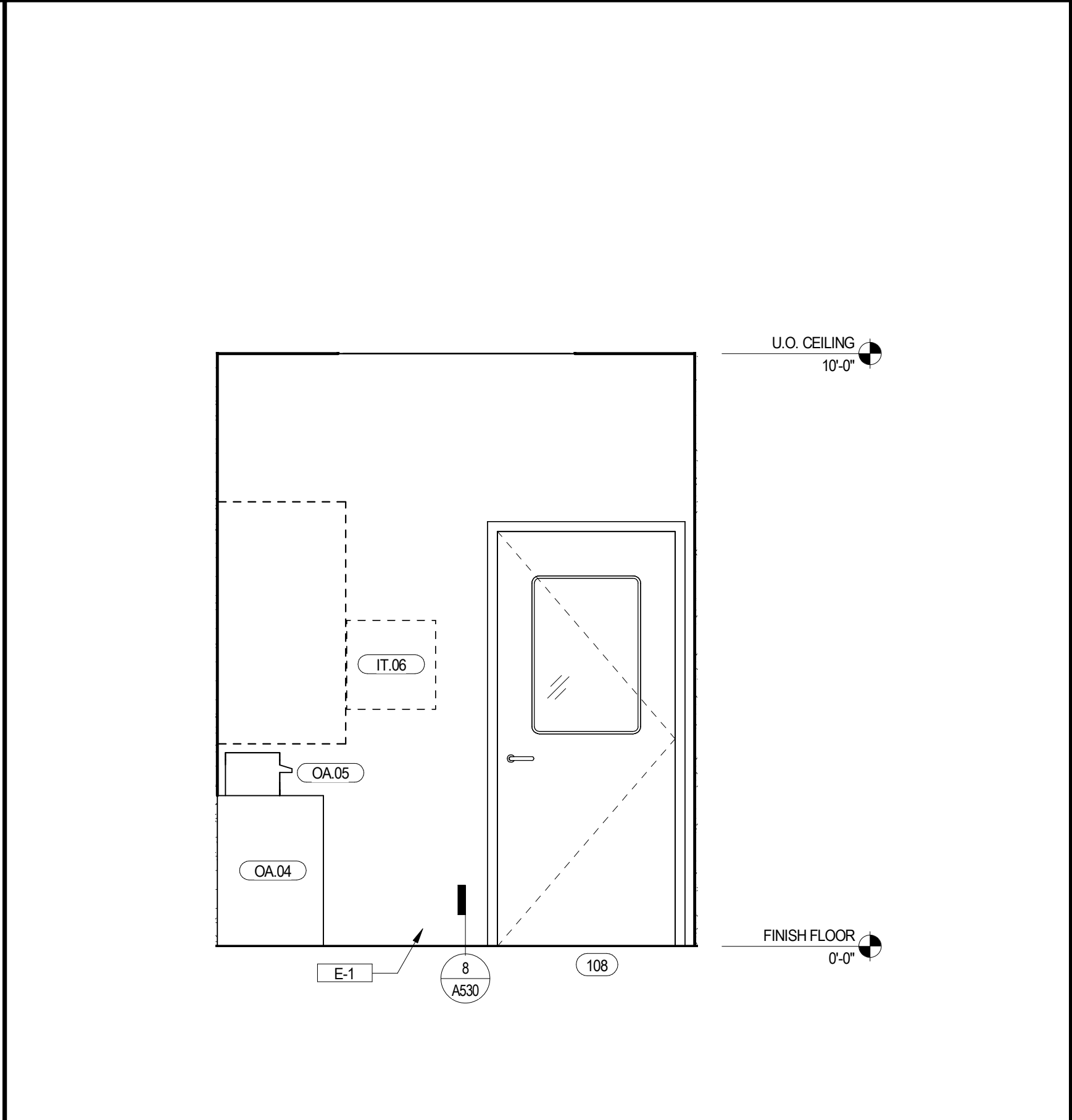
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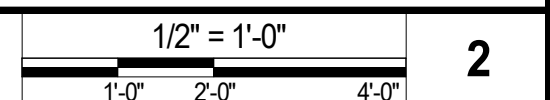
INTERIOR ELEVATION - MANAGERS OFFICE SOUTH



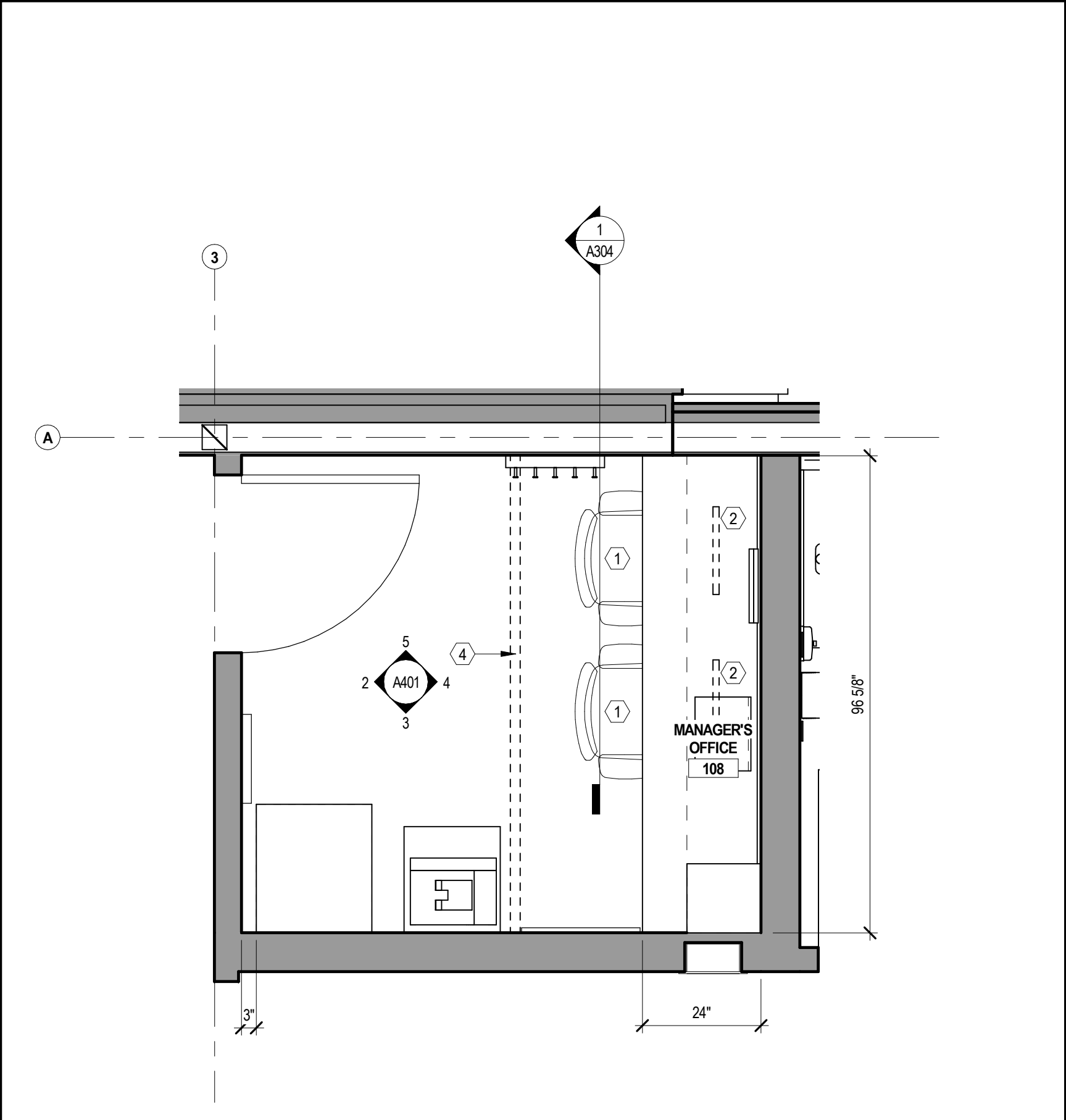
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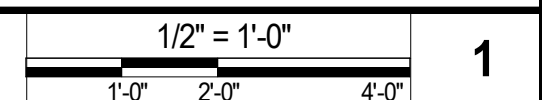
INTERIOR ELEVATION - MANAGERS OFFICE WEST



2



ENLARGED PLAN - MANAGERS OFFICE



1

OFFICE ACCESSORIES SCHEDULE

TAG NO.	QTY	ITEM	MANUFACTURER	MODEL NO.	FURNISH	INSTALL	COMMENTS
OA.01	1	MONTHLY CALENDER	THE CONTAINER STORE	MAGNETIC DRY ERASE BOARD, ITEM# 10063520	GC	GC	
OA.02	1	CORK BOARD	THE CONTAINER STORE	CORK BOARD NATURAL, 18" H X 24" WIDE	GC	GC	
OA.03	1	H HOOK RACK	THE CONTAINER STORE	SCALA 6-HOOK RACK, ITEM# 10016305	GC	GC	
OA.04	1	SAFE	ACME SAFE CO	FL3920	GC	GC	
OA.05	1	PRINTER			O	O	

IT EQUIPMENT SCHEDULE

TAG NO.	QTY	ITEM	MANUFACTURER	MODEL NO.	FURNISH	INSTALL	COMMENTS
IT.01	1	IT RACK	MIDDLE ATLANTIC PRODUCTS	DWR-35-26	O	O	
IT.06	1	HVAC CONTROL AREA			O	O	

MILLWORK SCHEDULE

TAG NO.	QTY	ITEM	MANUFACTURER	MODEL NO.	FURNISH	INSTALL	COMMENTS
MW.01	1	MANAGER'S DESK			GC	GC	

KEYNOTES

- OFFICE CHAIR BY TENANT
- PLUG-IN FLUORESCENT LIGHT STRIPS, PROVIDE ELECTRICAL OUTLET @ 44" AFF. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PANEL BY OWNER'S CONTRACTOR, GC TO PROVIDE POWER AND DATA. VERIFY FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION.
- PRIVACY CURTAIN, GC TO PROVIDE AND INSTALL. WALL BRACKETS ONLY. VERIFY FINAL LOCATION W/ OWNER PRIOR TO INSTALLATION. BRACKETS TO BE GATCO 832 WALL FLANGE 230R; CL. OF BRACKET @ 7'-0" AFF.

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW PARTITION (FULL HEIGHT)
	NEW DOOR
	KEYNOTE
	MILLWORK / IT / EQUIPMENT TAG, REFER TO SCHEDULES ON SHEET
	FINISH TAG, REFER TO FINISH SCHEDULE

GENERAL NOTES

- A. G.C. TO USE FORMICA 949-S8 WHITE MATTE FINISH FOR PLAM COUNTER AND CABINETS
- B. G.C. TO COORDINATE MILLWORK HARDWARE INCLUDING, BUT NOT LIMITED TO, LOCKS, HINGES, AND PULLS PRIOR TO INSTALLATION
- C. ALL MILLWORK TO BE MANUFACTURED AND INSTALLED BEFORE THE CUSTOM GRADE CLASSIFICATION OF THE AIA (ARCHITECTURAL WOODWORK INSTITUTE)
- D. PROVIDE SHOP DRAWINGS OF ALL MILLWORK FOR REVIEW PRIOR TO FABRICATION.
- E. REFER TO E-SHEETS FOR SCHEMATIC POWER AND DATA LAYOUT, G.C. TO COORDINATE FINAL LAYOUT W/ TENANTS AV, SECURITY, AND LT. CONSULTANTS.
- F. G.C. TO COORDINATE ALL EQUIPMENT AND LOCATIONS WITH OWNERS AV, SECURITY, AND LT. CONSULTANTS PRIOR TO INSTALLATION OF BLOCKING AND UTILITIES.

REFER TO VENDOR LIST FOR CONTACT INFO

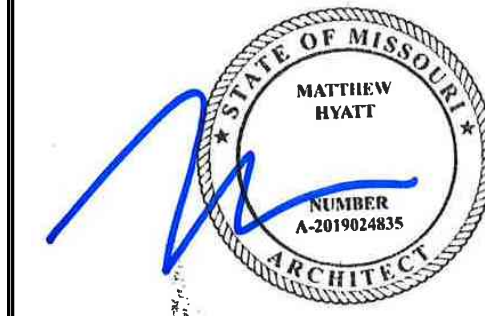
IT EQUIPMENT SHOWN DASHED FOR REFERENCE. COORDINATE FINAL LOCATIONS WITH OWNER PRIOR TO INSTALLATION. REFER TO ELECTRICAL DRAWINGS FOR POWER & DATA OUTLET HEIGHTS

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LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1080

CONSULTANTS:

SEA/ SIGNATURE:



INTERIOR ELEVATION

1/2" = 1'-0"
1'-0" 2'-0" 4'-0"

5

INTERIOR ELEVATION

1/2" = 1'-0"
1'-0" 2'-0" 4'-0"

4

INTERIOR ELEVATION - WOMENS RESTROOM SOUTH

1/2" = 1'-0"
1'-0" 2'-0" 4'-0"

3

INTERIOR ELEVATION

1/2" = 1'-0"
1'-0" 2'-0" 4'-0"

2

ENLARGED PLAN - WOMENS RESTROOM

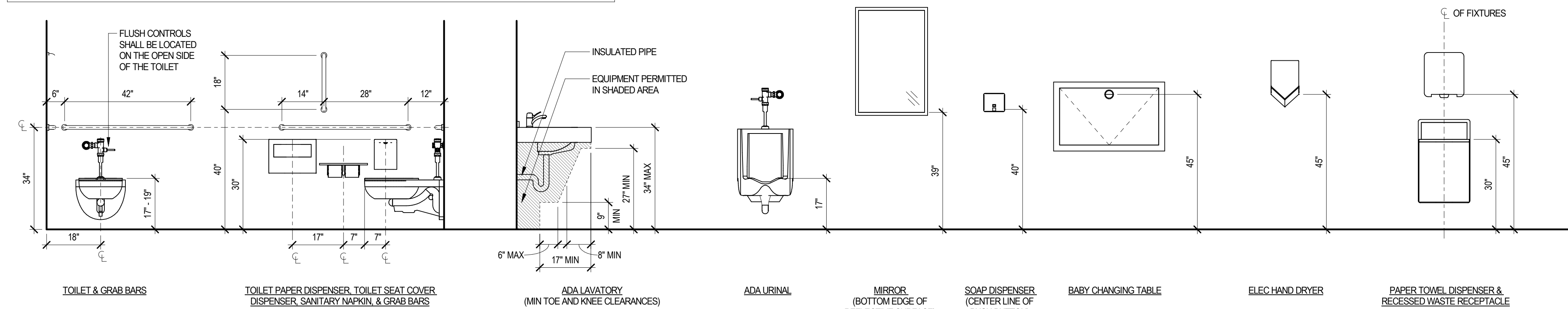
1/2" = 1'-0"
1'-0" 2'-0" 4'-0"

1

RESTROOM TYPICAL MOUNTING HEIGHTS

NOTE: GC TO FOLLOW APPLICABLE ACCESSIBILITY CODES PER LOCAL JURISDICTION; CONTACT ARCHITECT WITH ANY DISCREPANCIES

FIXTURES ARE SHOWN TO ILLUSTRATE TYPICAL HEIGHTS FROM FINISH FLOOR. ITEMS DEPICTED MAY VARY IN ELEVATION, BUT HEIGHTS ARE TYPICAL



WOMEN'S RESTROOM ACCESSORIES SCHEDULE

GC = GENERAL CONTRACTOR
O = OWNER / OWNERS VENDOR

TAG NO.	QTY	ITEM	MANUFACTURER	MODEL NO.	RESPONSIBILITY FURNISH INSTALL
TA.01	2	TOILET TISSUE DISPENSER WITH UTILITY SHELF	BOBRICK	B-2840	O GC
TA.02	2	SEAT COVER DISPENSER	BOBRICK	B-4221	O GC
TA.03	2	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270	O GC
TA.04	1	RECESSED WASTE RECEPTACLE	BOBRICK	B-43644	O GC
TA.06	1	HAND DRYER	DYSON	HU02, SPRAYED NICKEL, AB12	O GC
TA.07	1	BABY CHANGING STATION - HORIZONTAL RECESSED MTD	KOALA KARE PRODUCTS	KB110-SSRE, STAINLESS STEEL FINISH	O GC
TA.08-01	2	GRAB BAR - HORIZONTAL	BOBRICK	B-5806 x 42	O GC
TA.08-02	1	GRAB BAR - VERTICAL	BOBRICK	B-5806 x 18	O GC
TA.09	1	SOAP DISPENSER	BOBRICK	B-4112	O GC
TA.10	1	MIRROR	BOBRICK	B-2906 24" X 36"	O GC
TA.11	1	TOILET PARTITIONS	NIETPAR	FP BOTTOM & FP TOP SERIES, FINISH: STAINLESS STEEL	O GC
TA.13	2	COAT HOOK	BOBRICK	B-6827	O GC

REFER TO RESTROOM TYPICAL MOUNTING HEIGHTS LEGEND FOR ANY DIMENSIONS NOT SHOWN ON PLAN OR ELEVATIONS

GC TO PROVIDE NECESSARY FRIT BLOCKING BEHIND TOILET ACCESSORIES

REFER TO FURNITURE & EQUIPMENT PLAN FOR INTERIOR SIGNAGE SCHEDULE (IS.XXX)

GENERAL NOTES

A GC TO PROVIDE FRIT BLOCKING AS REQUIRED FOR ALL WALL MOUNTED FIXTURES

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	NEW PARTITION
	NEW DOOR
	FINISH TAG. SEE SHEET A601 FOR FINISH SCHEDULE
	TOILET ACCESSORIES AND SIGNAGE TAG. REFER TO TOILET ACCESSORIES SCHEDULE ON A402 & SIGNAGE GRAPHICS & MISC. SCHEDULE ON A105

3	2021-04-26	ISSUED FOR CONSTRUCTION
1	2021-03-09	ADDENDUM 1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO. BY DATE DESCRIPTION



SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOMENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

ENLARGED WOMENS RESTROOM PLAN

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20080.00

A402

Bergmeyer

LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

CONSULTANTS:

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
1	2021-03-09	ADDENDUM 1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
-----	----	------	-------------



SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

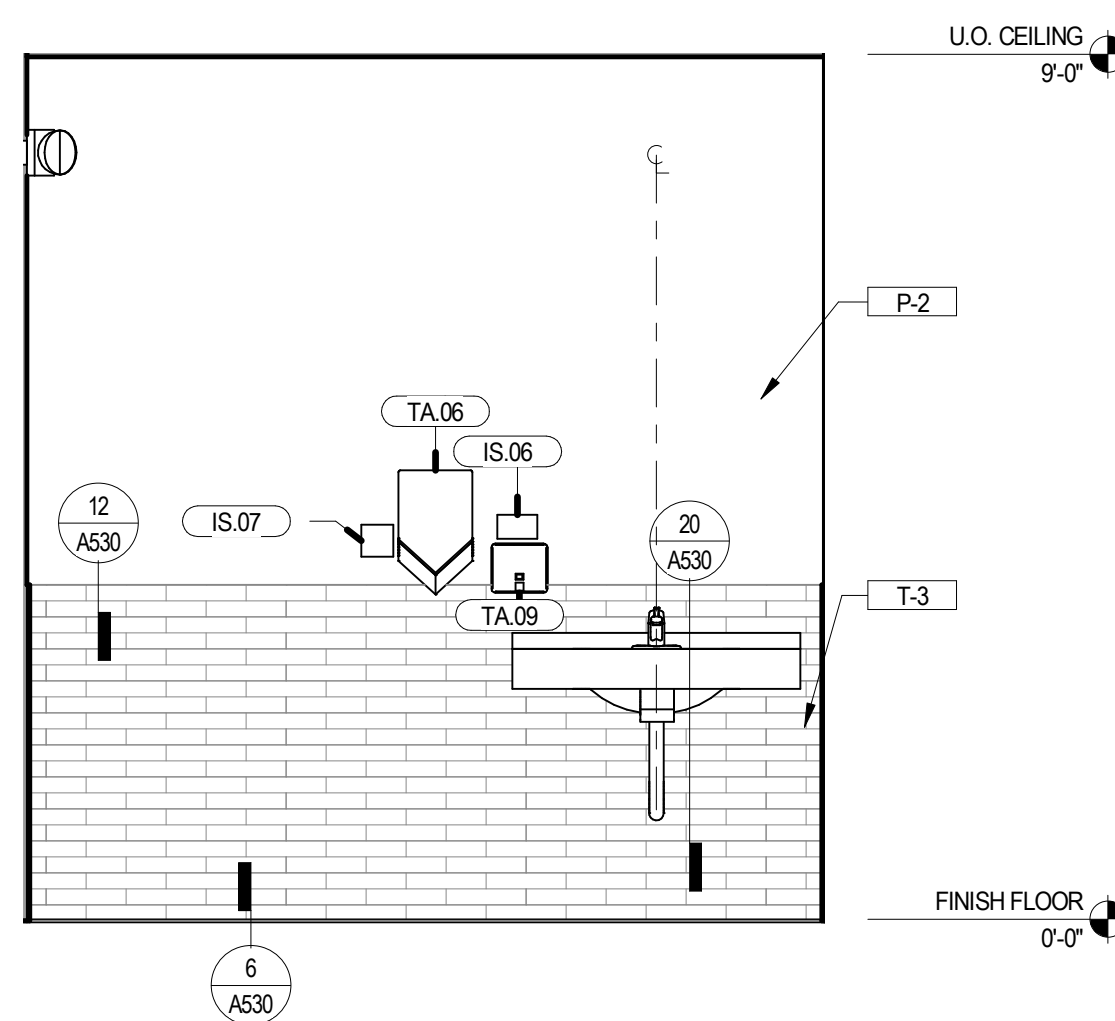
ENLARGED MENS
RESTROOM PLAN

DRAWN BY: CS & WOL

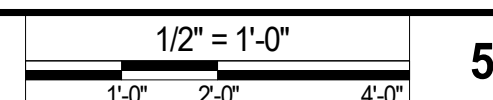
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JOB NO: 20080.00

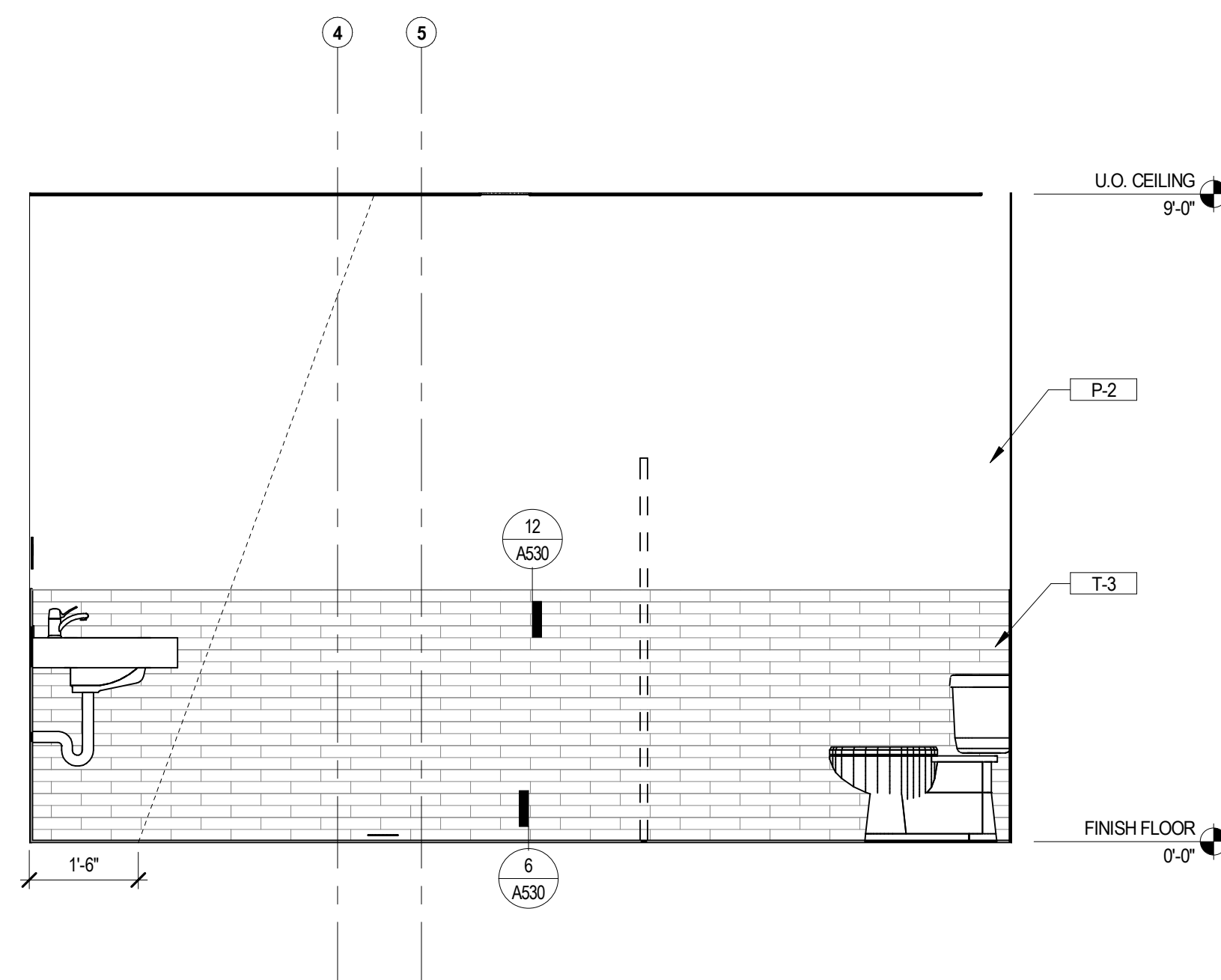
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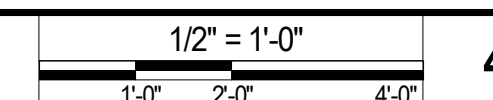
INTERIOR ELEVATION - MENS RESTROOM WEST



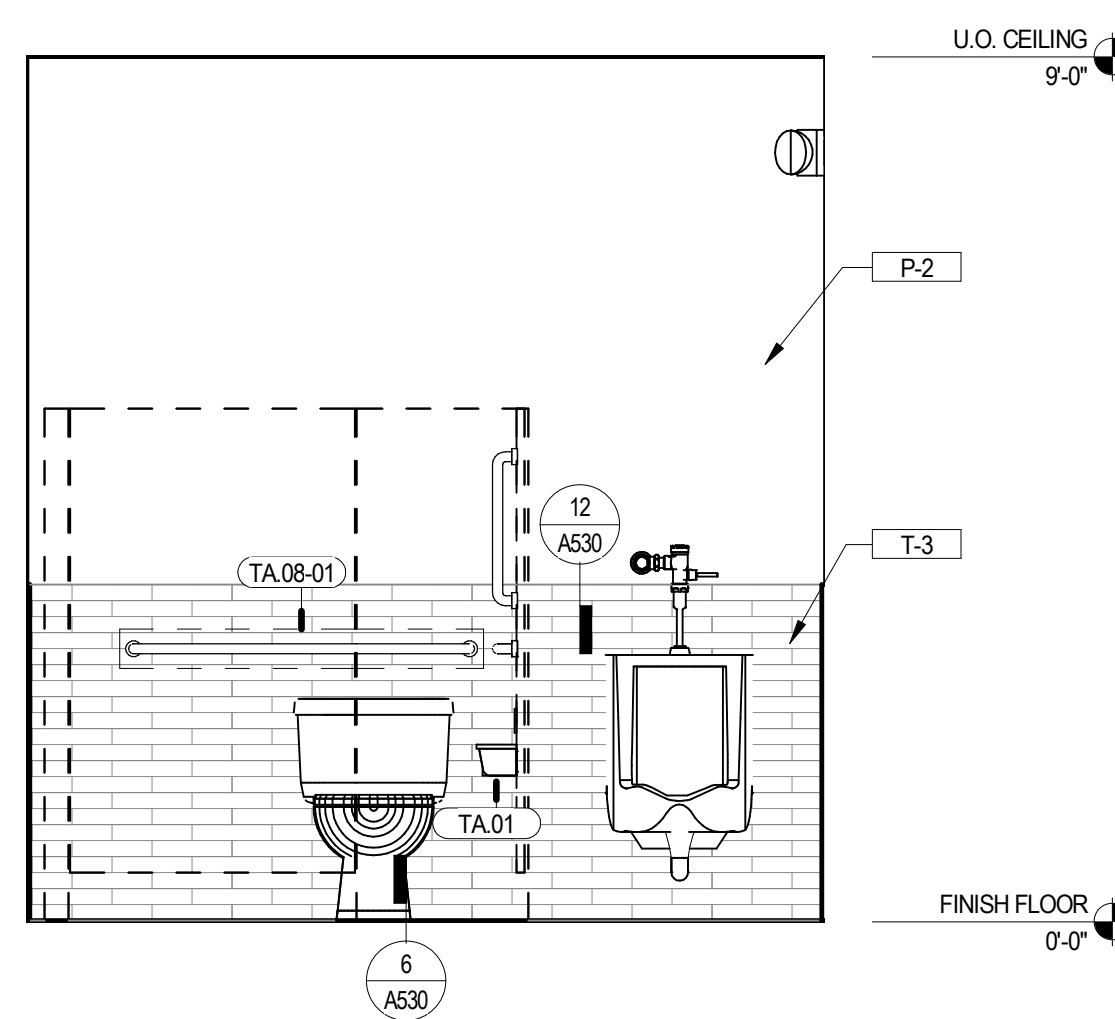
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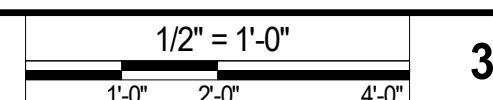
INTERIOR ELEVATION - MENS RESTROOM NORTH



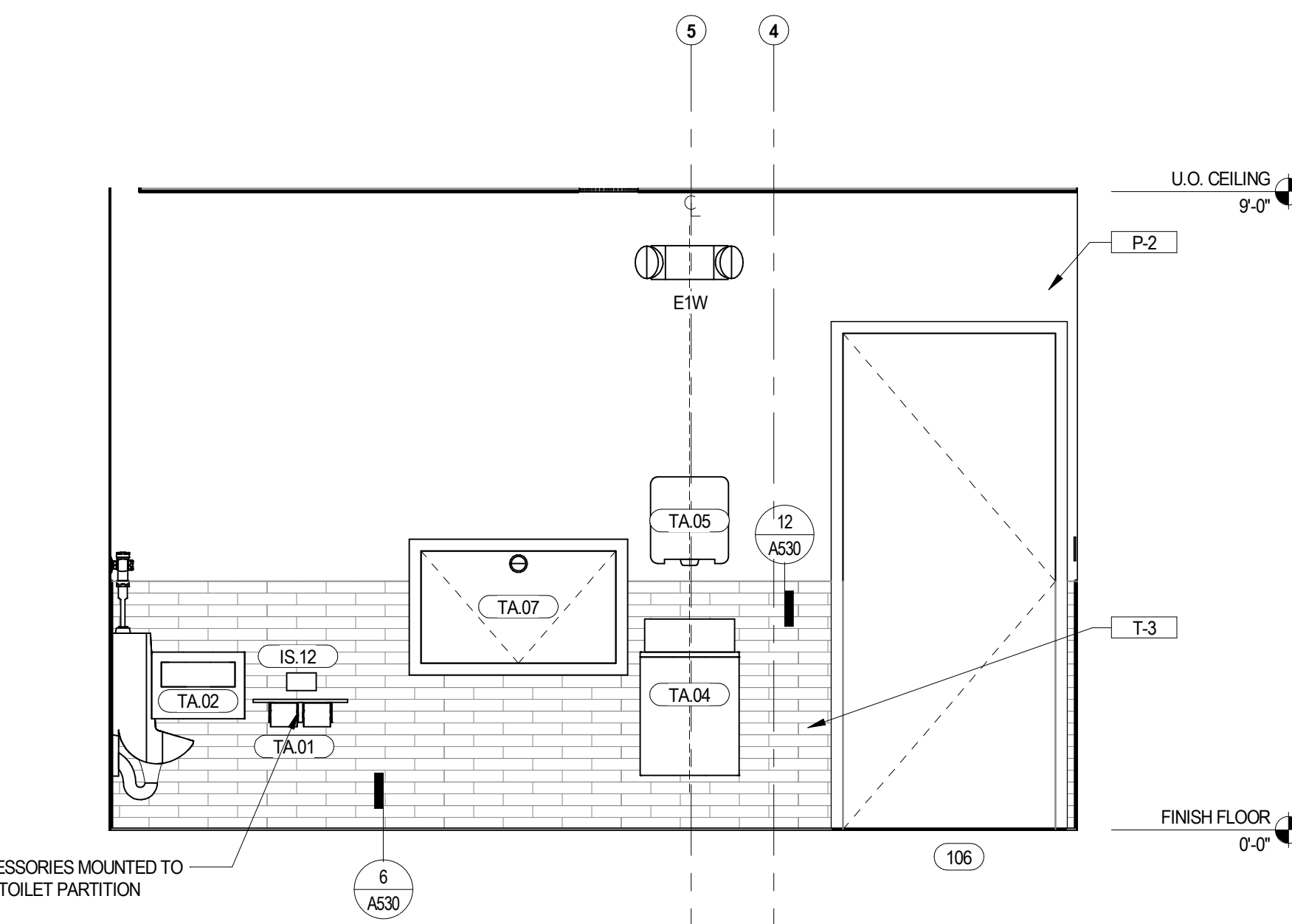
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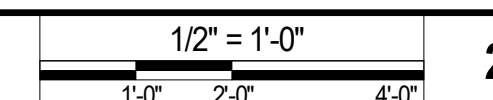
INTERIOR ELEVATION - MENS RESTROOM EAST



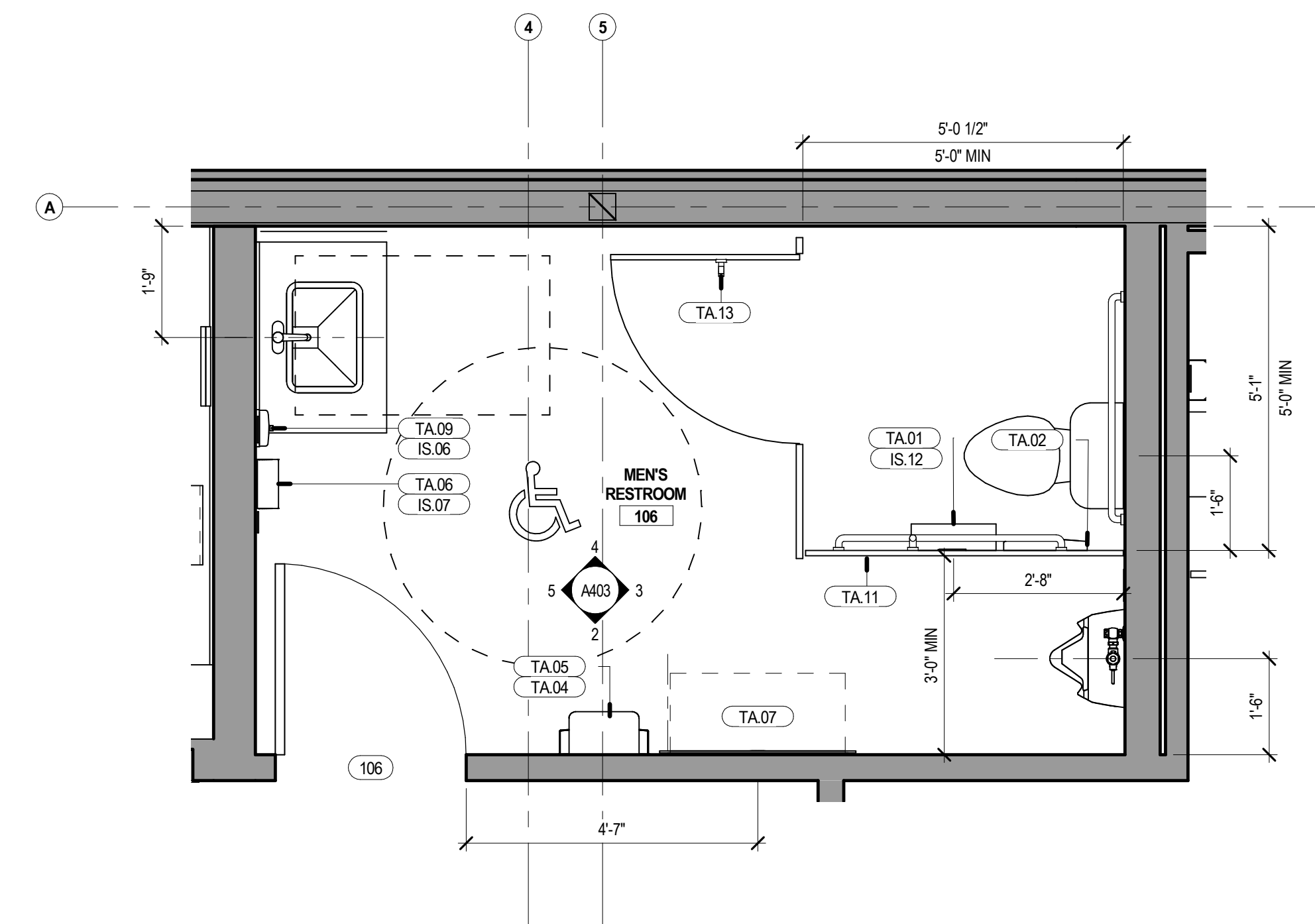
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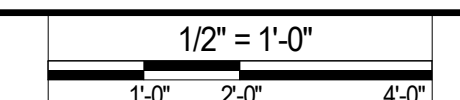
INTERIOR ELEVATION - MENS RESTROOM SOUTH



2



ENLARGED PLAN - MENS RESTROOM

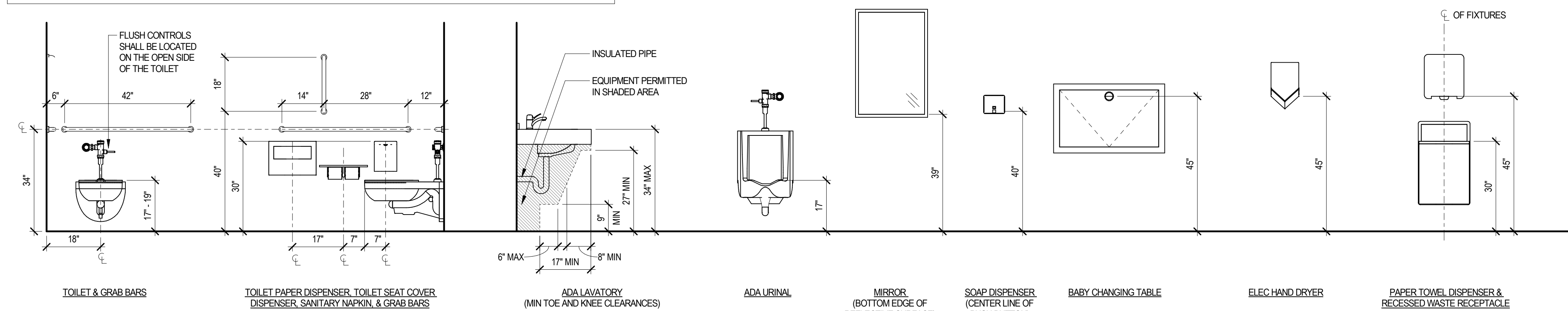


1

RESTROOM TYPICAL MOUNTING HEIGHTS

NOTE: GC TO FOLLOW APPLICABLE ACCESSIBILITY CODES PER LOCAL JURISDICTION; CONTACT ARCHITECT WITH ANY DISCREPANCIES

FIXTURES ARE SHOWN TO ILLUSTRATE TYPICAL HEIGHTS FROM FINISH FLOOR. ITEMS DEPICTED MAY VARY IN ELEVATION, BUT HEIGHTS ARE TYPICAL



MEN'S RESTROOM ACCESSORIES SCHEDULE

GC = GENERAL CONTRACTOR
O = OWNER / OWNERS VENDOR

TAG NO.	QTY	ITEM	MANUFACTURER	MODEL NO.	RESPONSIBILITY FURNISH INSTALL
TA.01	1	TOILET TISSUE DISPENSER WITH UTILITY SHELF	BOBRICK	B-2840	O GC
TA.02	1	SEAT COVER DISPENSER	BOBRICK	B-4221	O GC
TA.04	1	RECESSED WASTE RECEPTACLE	BOBRICK	B-43644	O GC
TA.06	1	HAND DRYER	DYSON	HU02, SPRAYED NICKEL, AB12	O GC
TA.07	1	BABY CHANGING STATION - HORIZONTAL RECESSED MTD	KOALA KARE PRODUCTS	KB110-SSRE, STAINLESS STEEL FINISH	O GC
TA.08-01	2	GRAB BAR - HORIZONTAL	BOBRICK	B-5806 x 42	O GC
TA.08-02	1	GRAB BAR - VERTICAL	BOBRICK	B-5806 x 18	O GC
TA.09	1	SOAP DISPENSER	BOBRICK	B-4112	O GC
TA.11	1	TOILET PARTITIONS	BOBRICK	COMPACT LAMINATE, FLOOR TO CEILING MOUNTED, CHARCOAL	GC GC
TA.13	1	COAT HOOK	BOBRICK	B-6827	O GC

REFER TO RESTROOM TYPICAL MOUNTING HEIGHTS LEGEND FOR ANY DIMENSIONS NOT SHOWN ON PLAN OR ELEVATIONS

GC TO PROVIDE NECESSARY FRT BLOCKING BEHIND TOILET ACCESSORIES

REFER TO SIGNAGE & GRAPHICS PLAN FOR INTERIOR SIGNAGE SCHEDULE (IS.XXX)

GENERAL NOTES

A GC TO PROVIDE FRT BLOCKING AS REQUIRED FOR ALL WALL MOUNTED FIXTURES

SYMBOL LEGEND

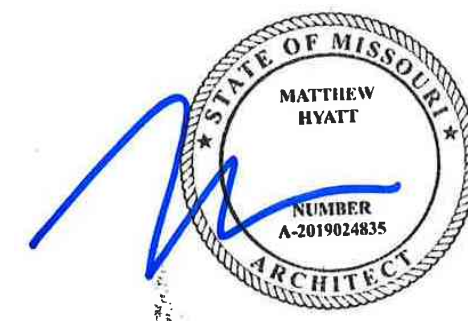
SYMBOL	DESCRIPTION
	NEW PARTITION
	NEW DOOR
	FINISH TAG. SEE SHEET A601 FOR FINISH SCHEDULE
	TOILET ACCESSORIES AND SIGNAGE TAG. REFER TO TOILET ACCESSORIES SCHEDULE ON A402 & SIGNAGE, GRAPHICS & MISC. SCHEDULE ON A105

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LA
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Los Angeles, CA 90017
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BOS
51 Sleeper St.
Bedford, MA 02210
617.542.1025

CONSULTANTS:

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
-----	----	------	-------------



SHAKE SHACK - LEE'S
SUMMIT MO

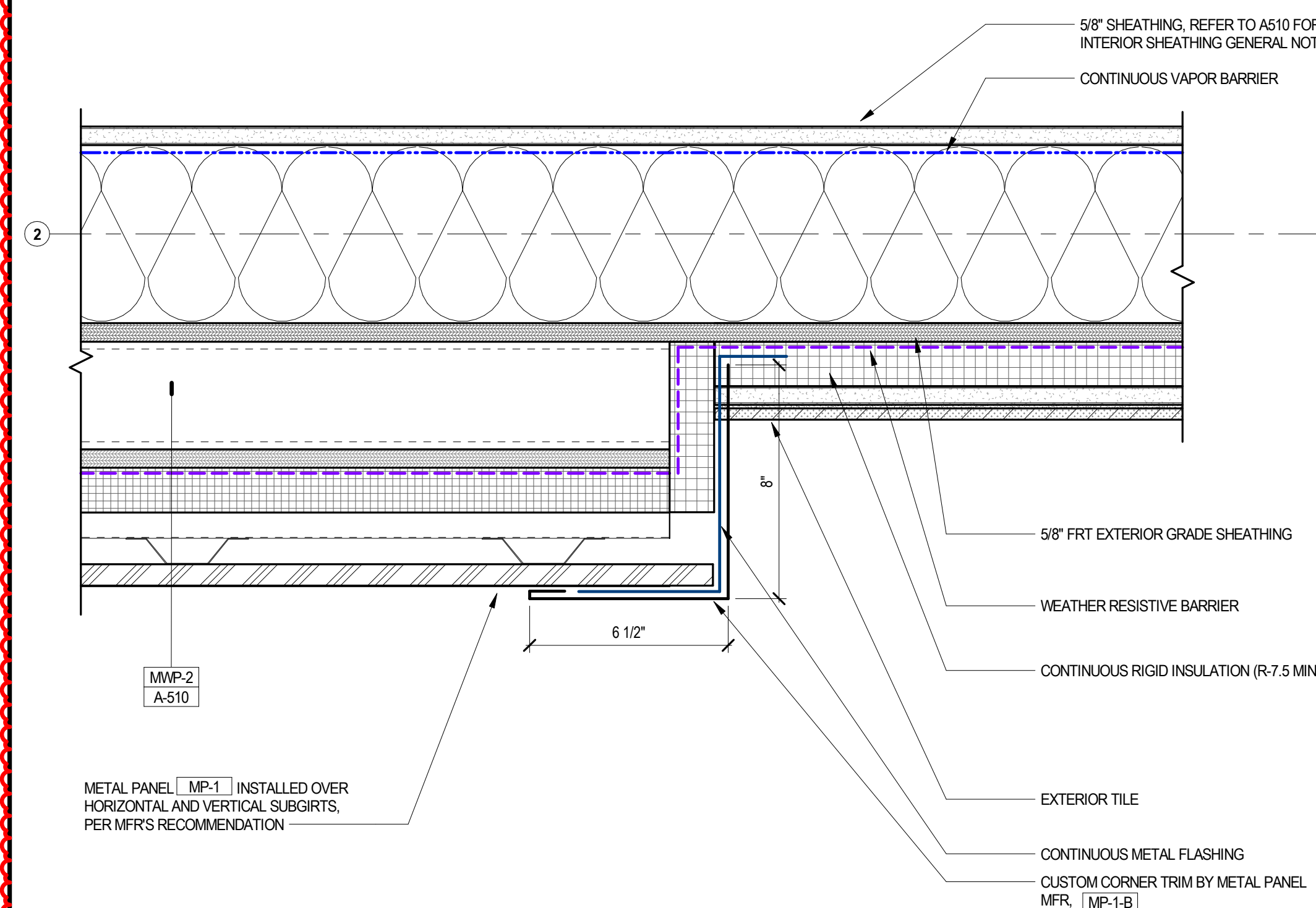
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

EXTERIOR DETAILS -
PLAN

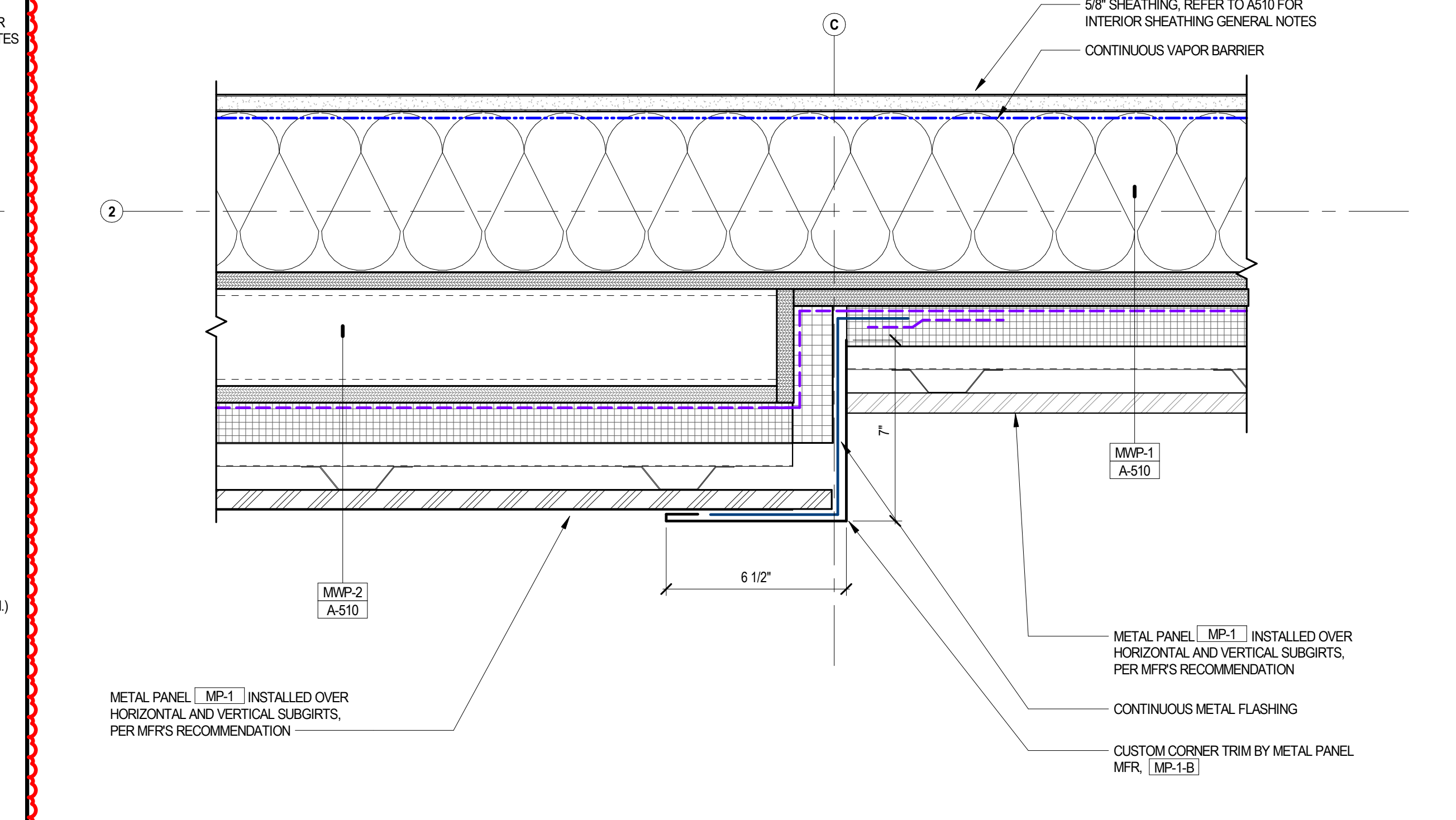
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CHECKED BY: JS
JOB NO: 20068.00

A501



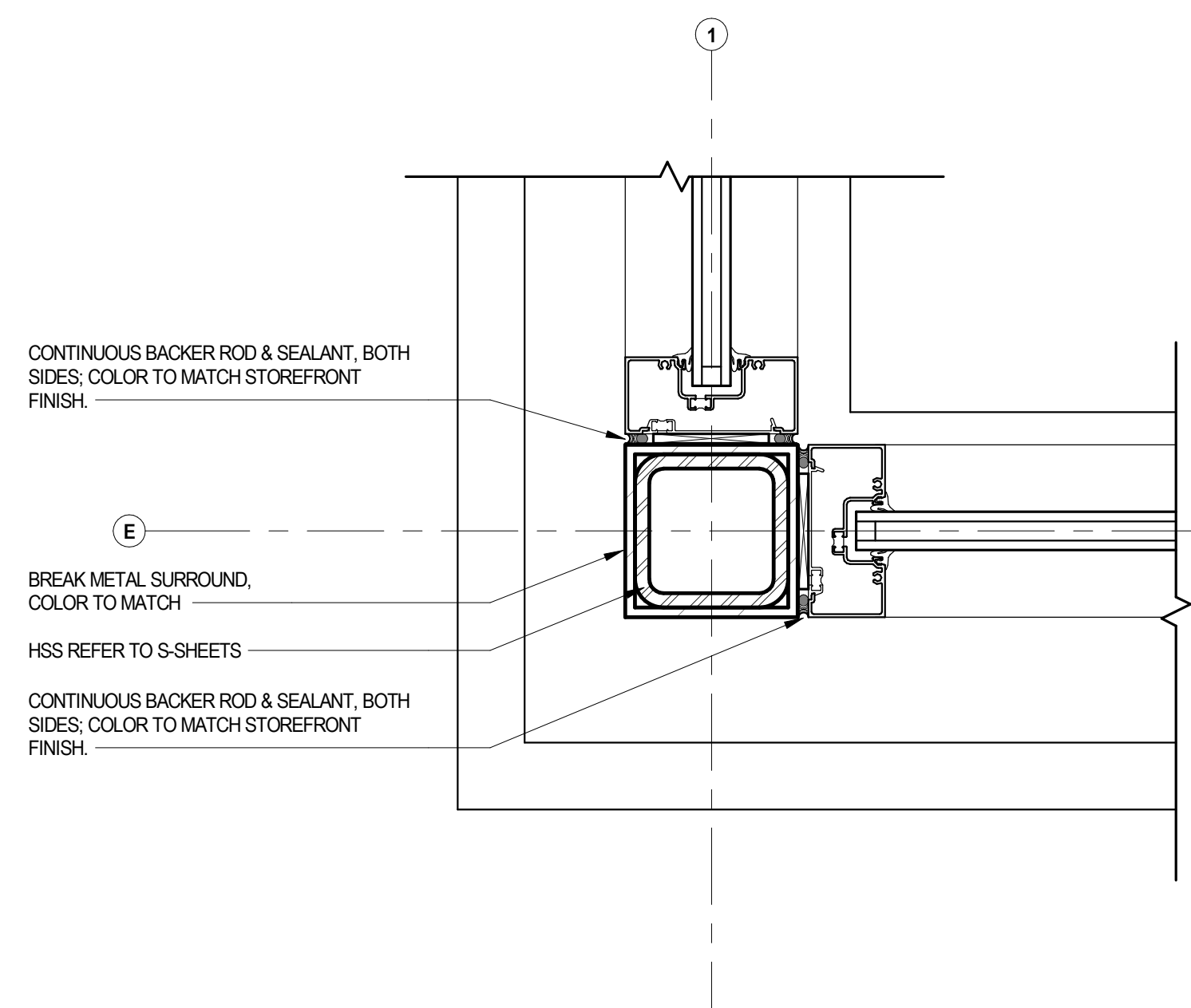
PLAN DETAIL - THIN BRICK TO METAL PANEL

3" = 1'-0"



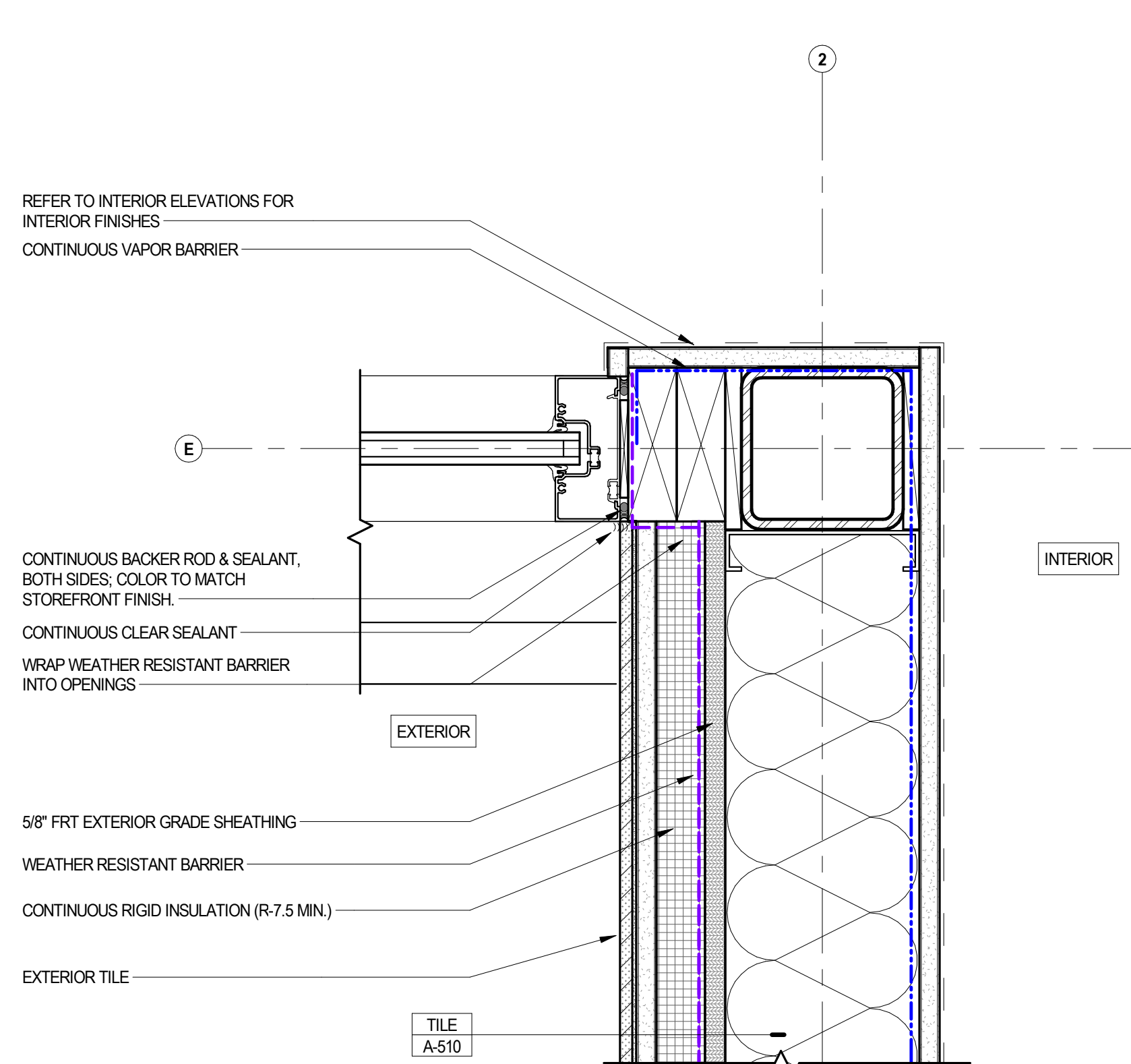
PLAN DETAIL - METAL PANEL TO METAL PANEL

3" = 1'-0"



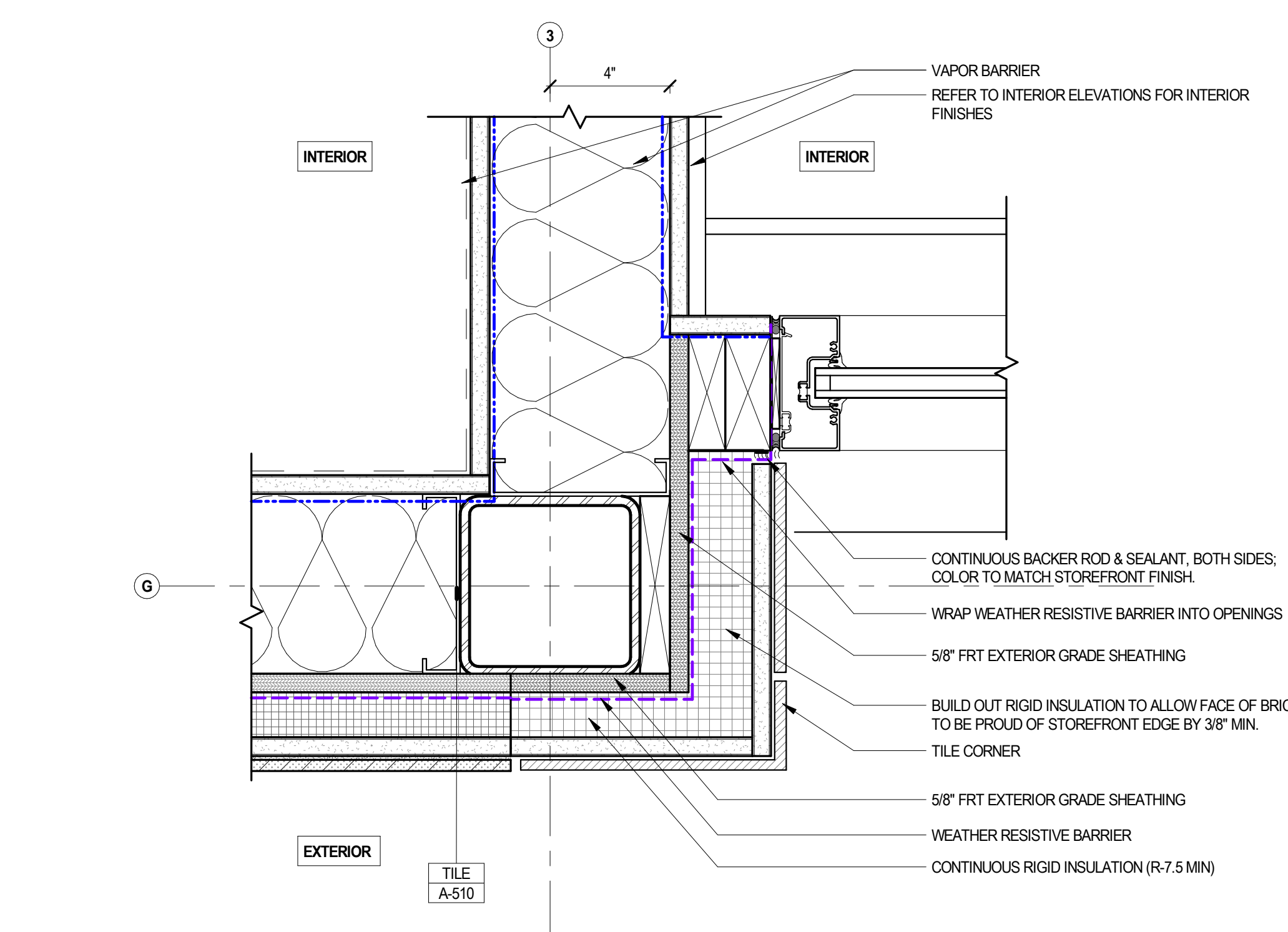
PLAN DETAIL - DRIVE THRU CORNER

3" = 1'-0"



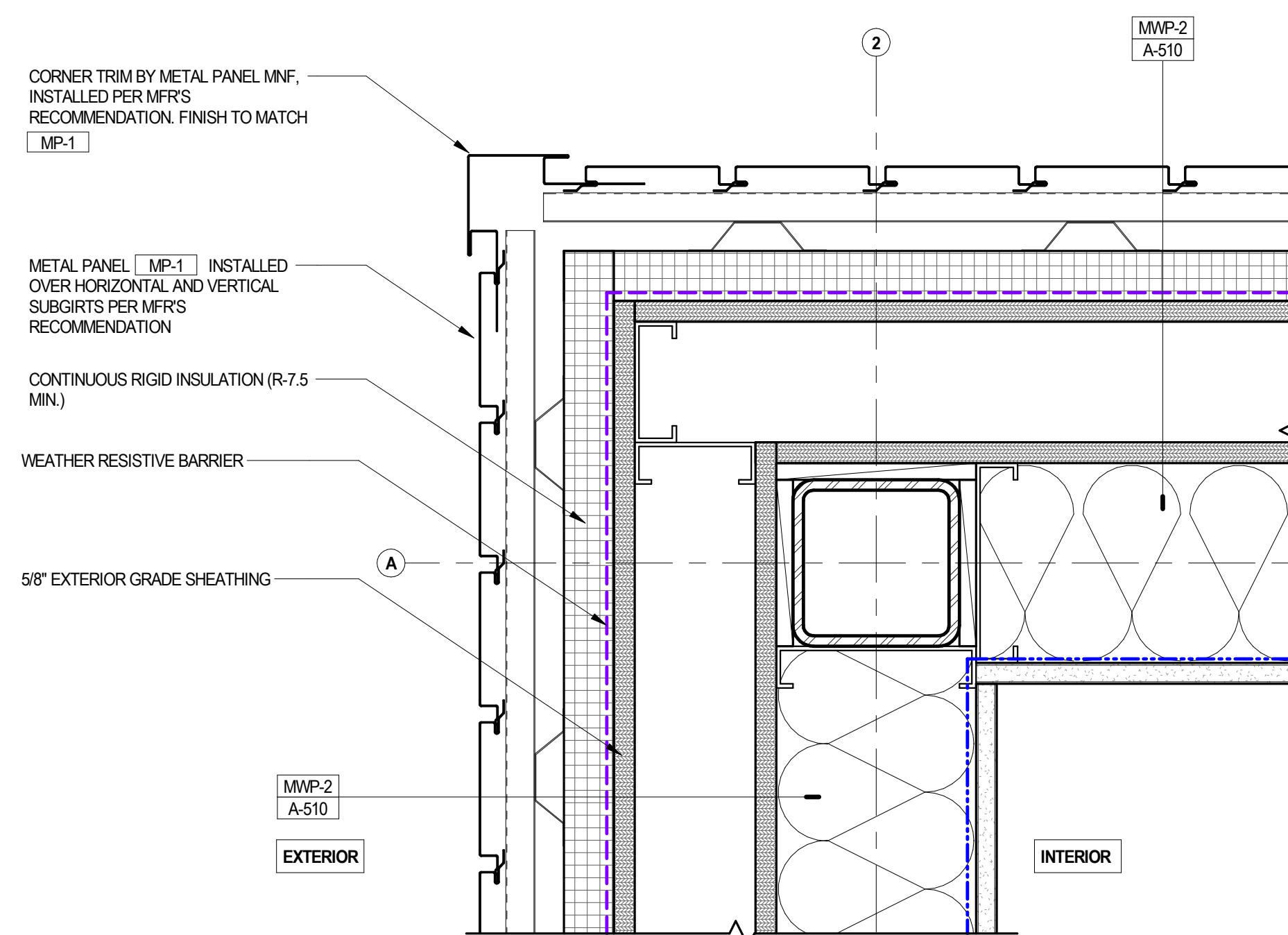
PLAN DETAIL - DRIVE THRU TERMINATION

3" = 1'-0"



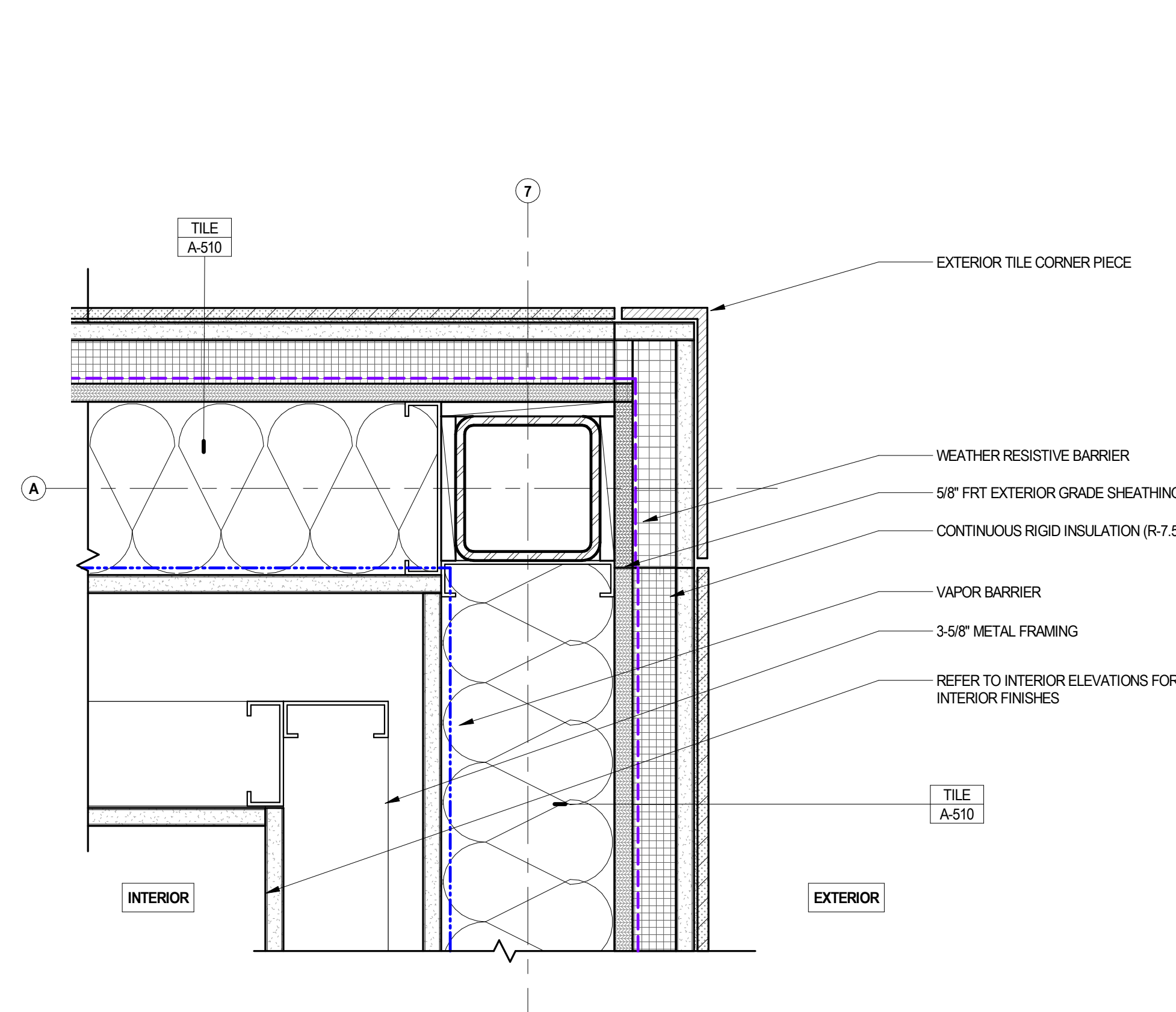
PLAN DETAIL - STOREFRONT TERMINATION

3" = 1'-0"



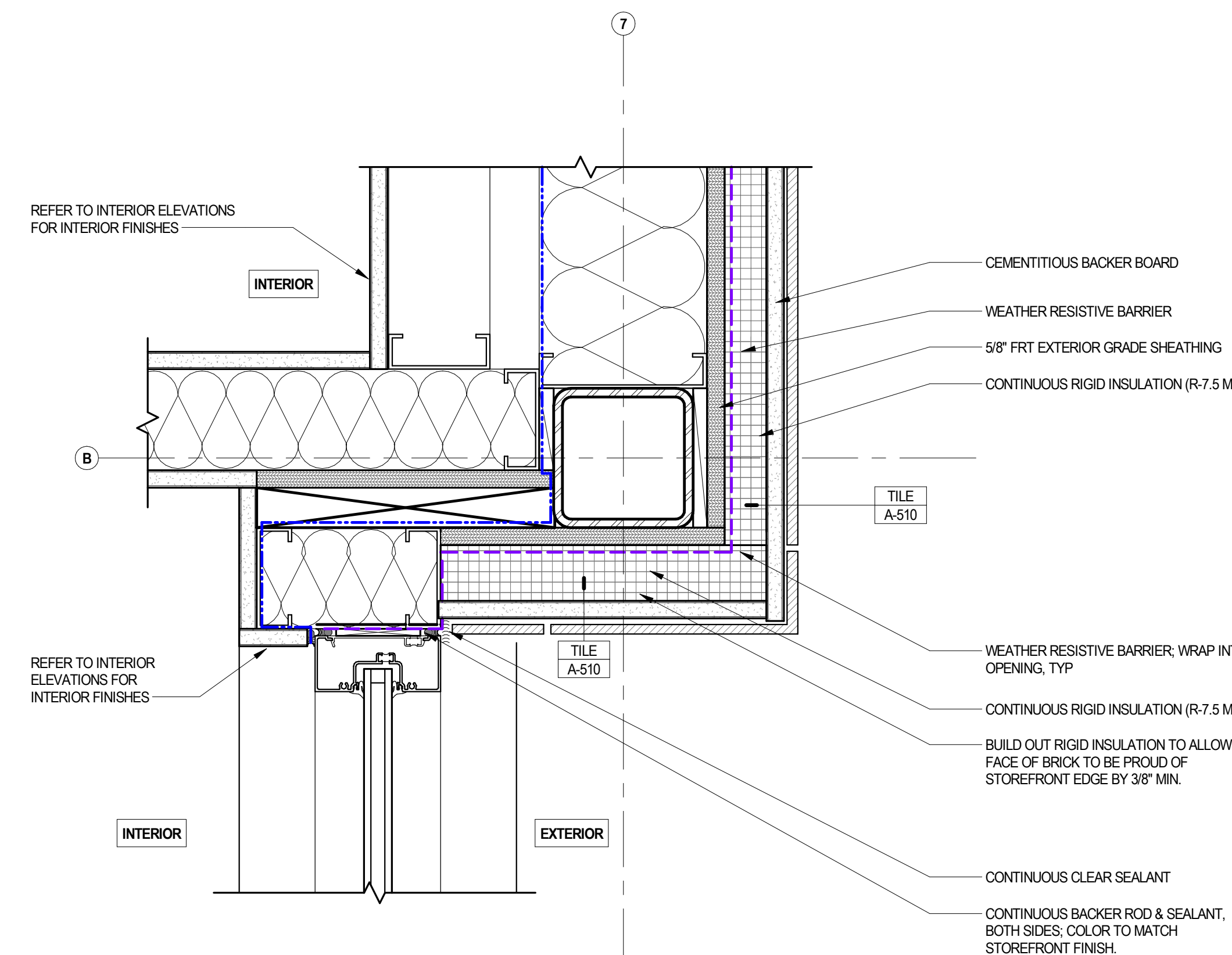
PLAN DETAIL - ATAS CORNER

3" = 1'-0"



EXTERIOR PLAN DETAIL - EXT. CORNER AT THIN BRICK

3" = 1'-0"



PLAN DETAIL - STOREFRONT TERMINATION AT DINING

3" = 1'-0"

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617.542.1025

CONSULTANTS:

SEA/ SIGNATURE:



3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
NO.	BY	DATE	DESCRIPTION



SHAKE SHACK - LEE'S SUMMIT MO

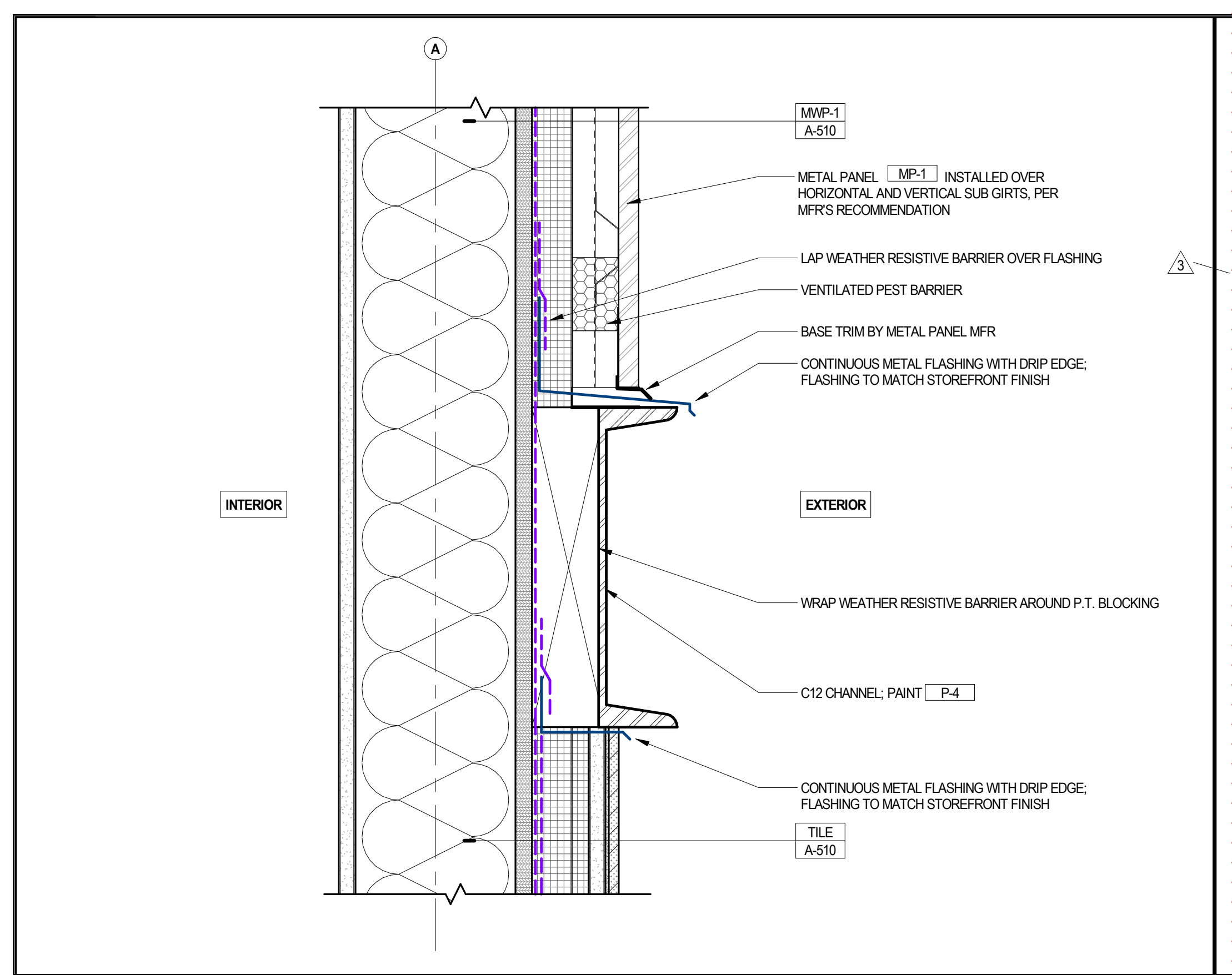
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

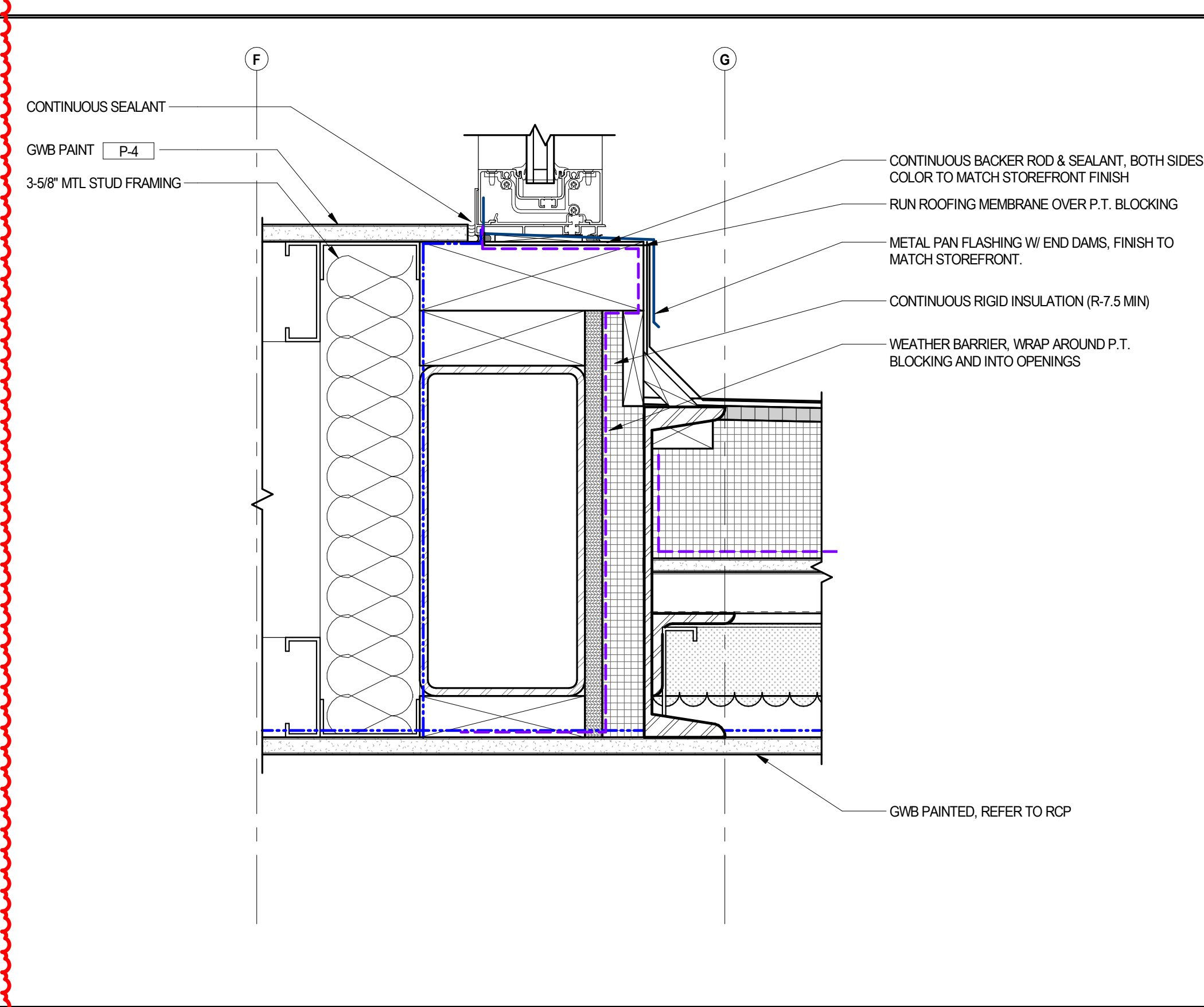
EXTERIOR DETAILS -
SECTION

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 2008.00

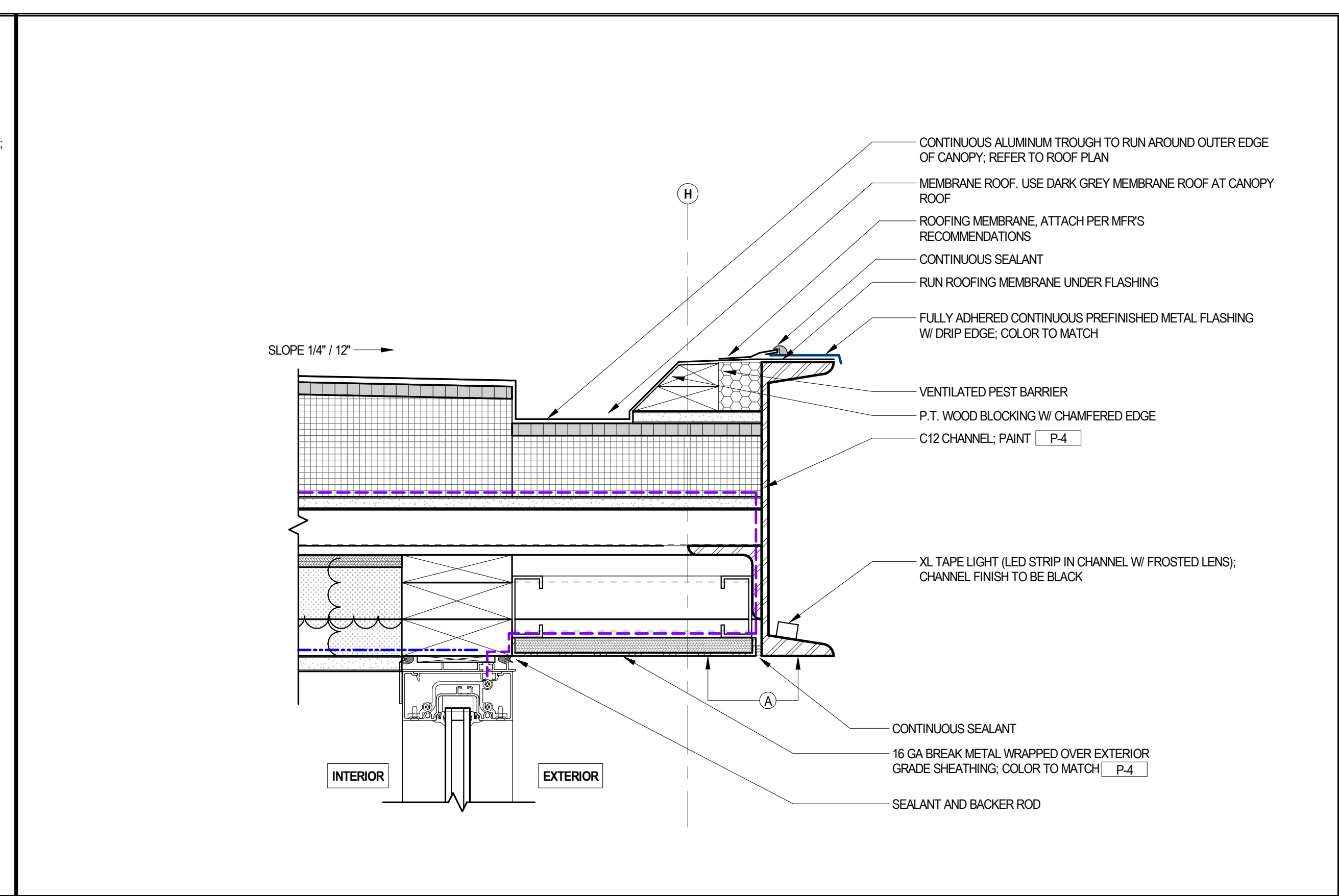
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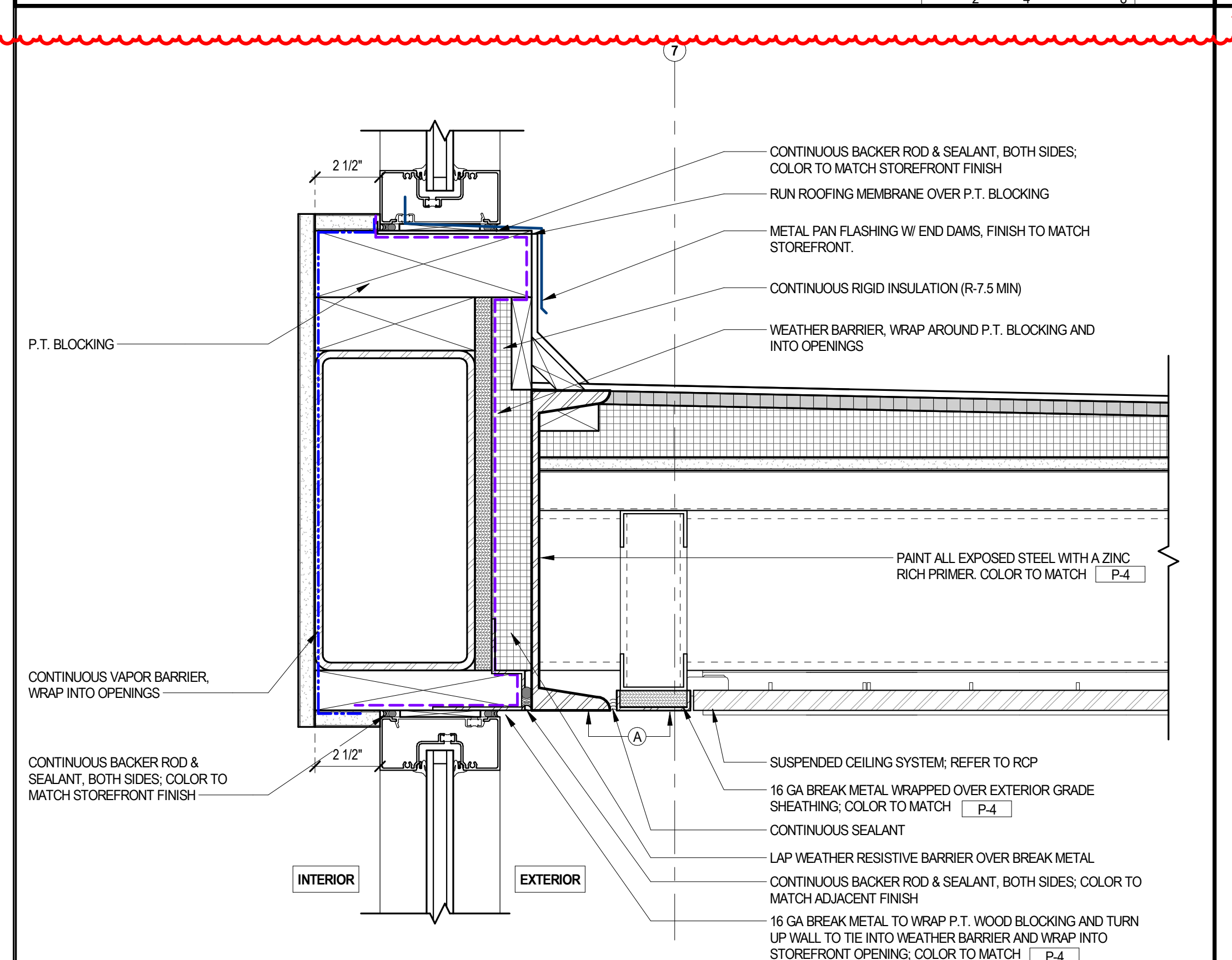
SECTION DETAIL - CHANNEL AT WALL 9



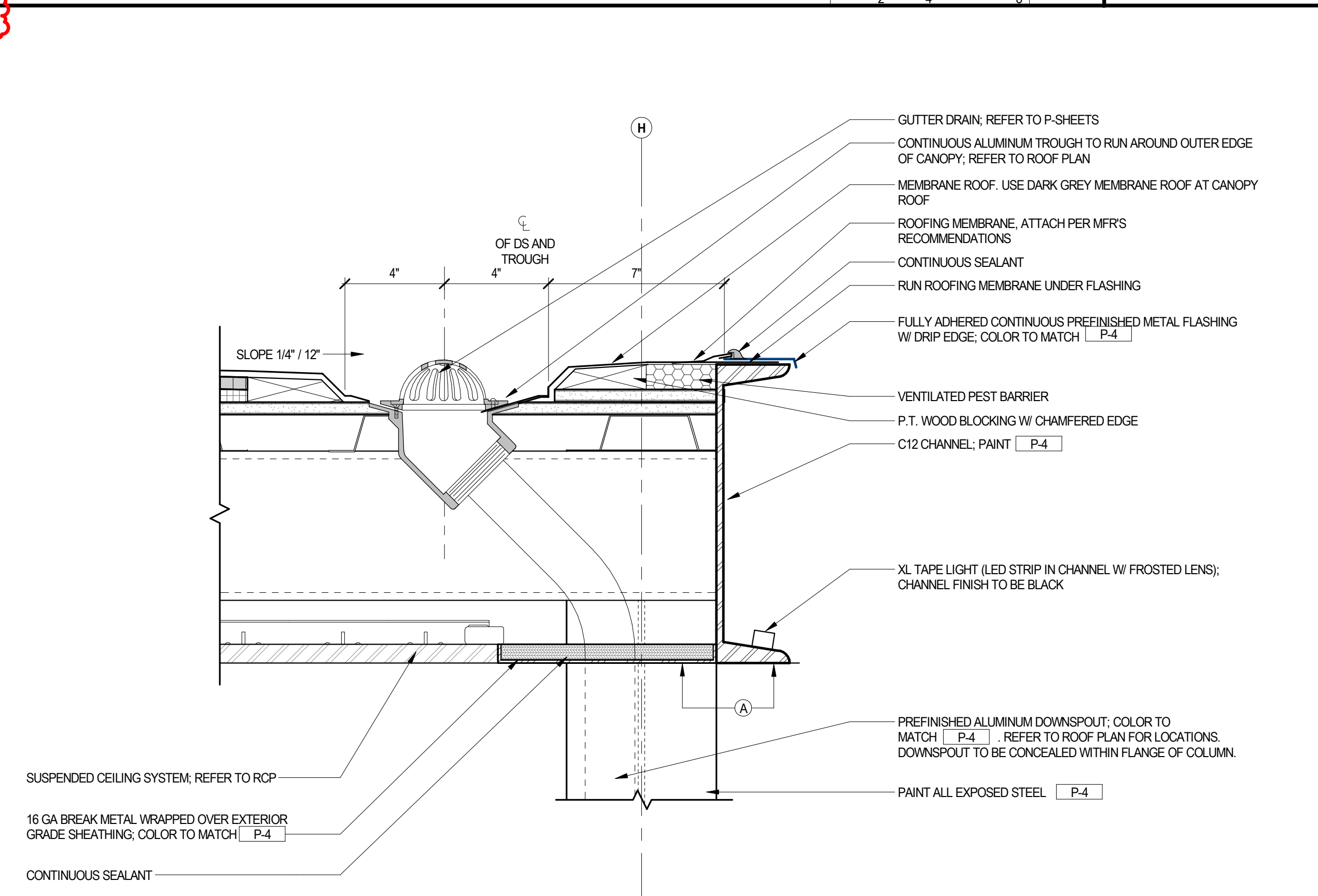
SECTION DETAIL - HEADER @ VESTIBULE 8



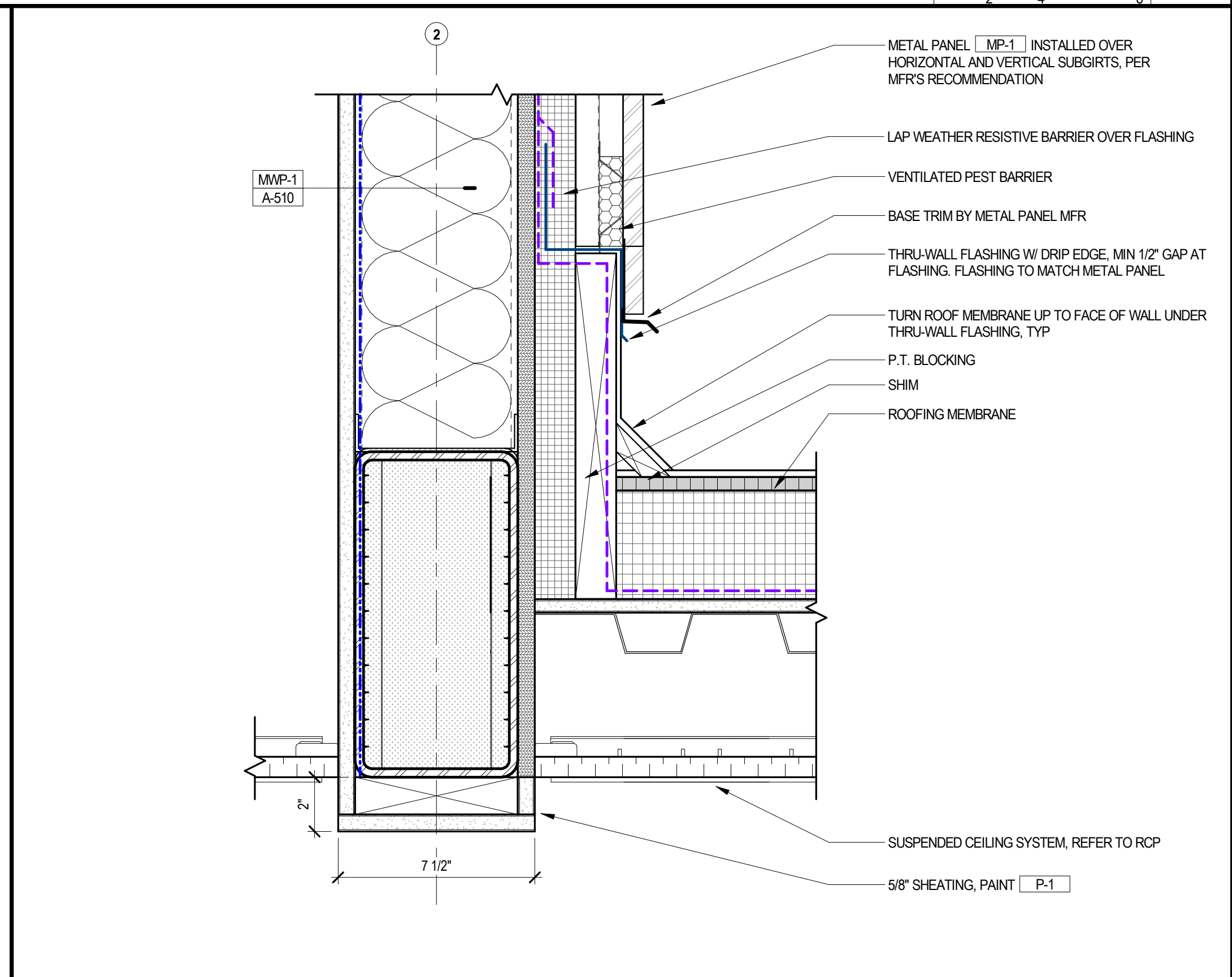
SECTION DETAIL - CHANNEL @ VESTIBULE 7



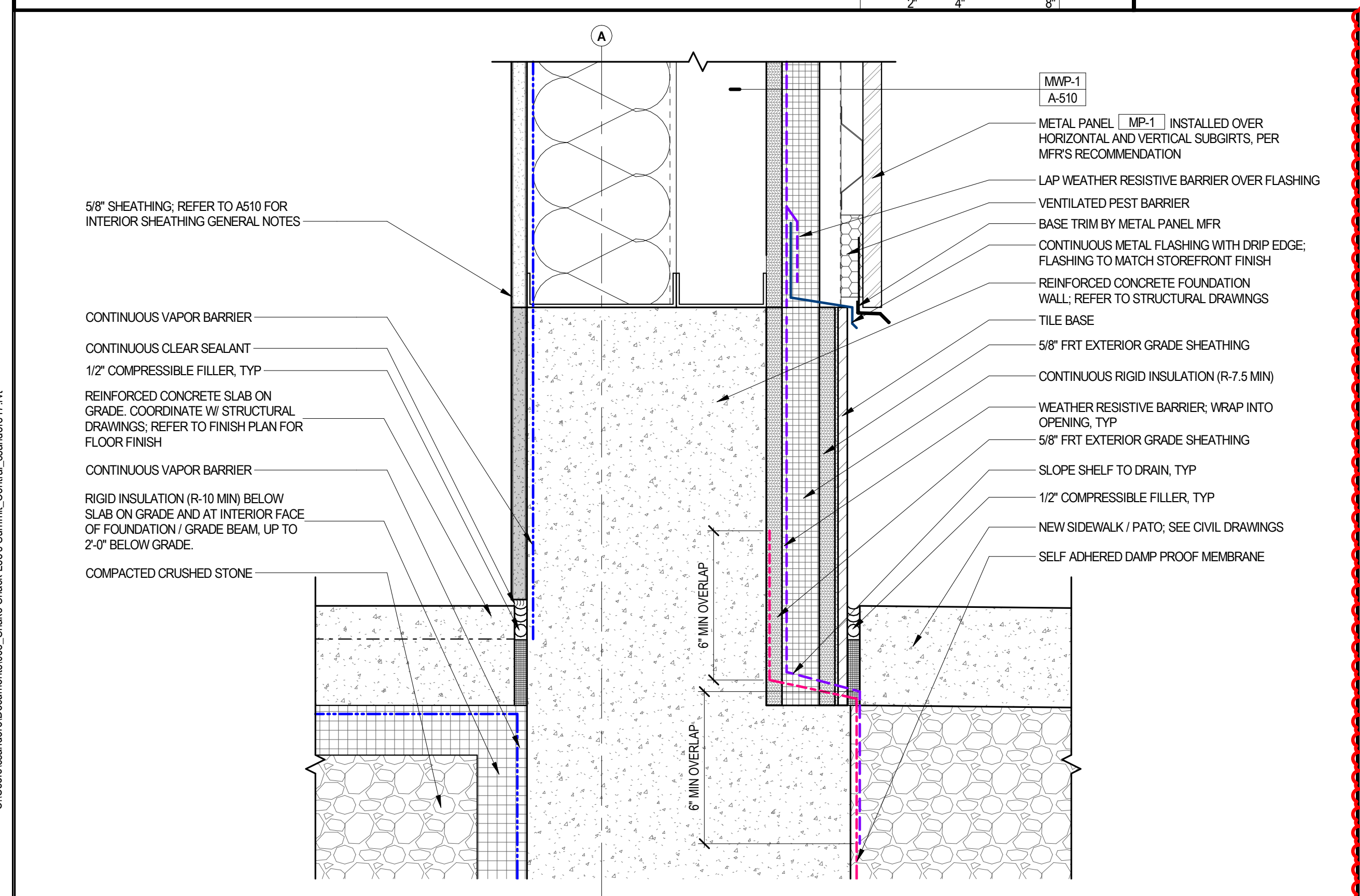
EXTERIOR SECTION DETAIL - STOREFRONT HEADER 6



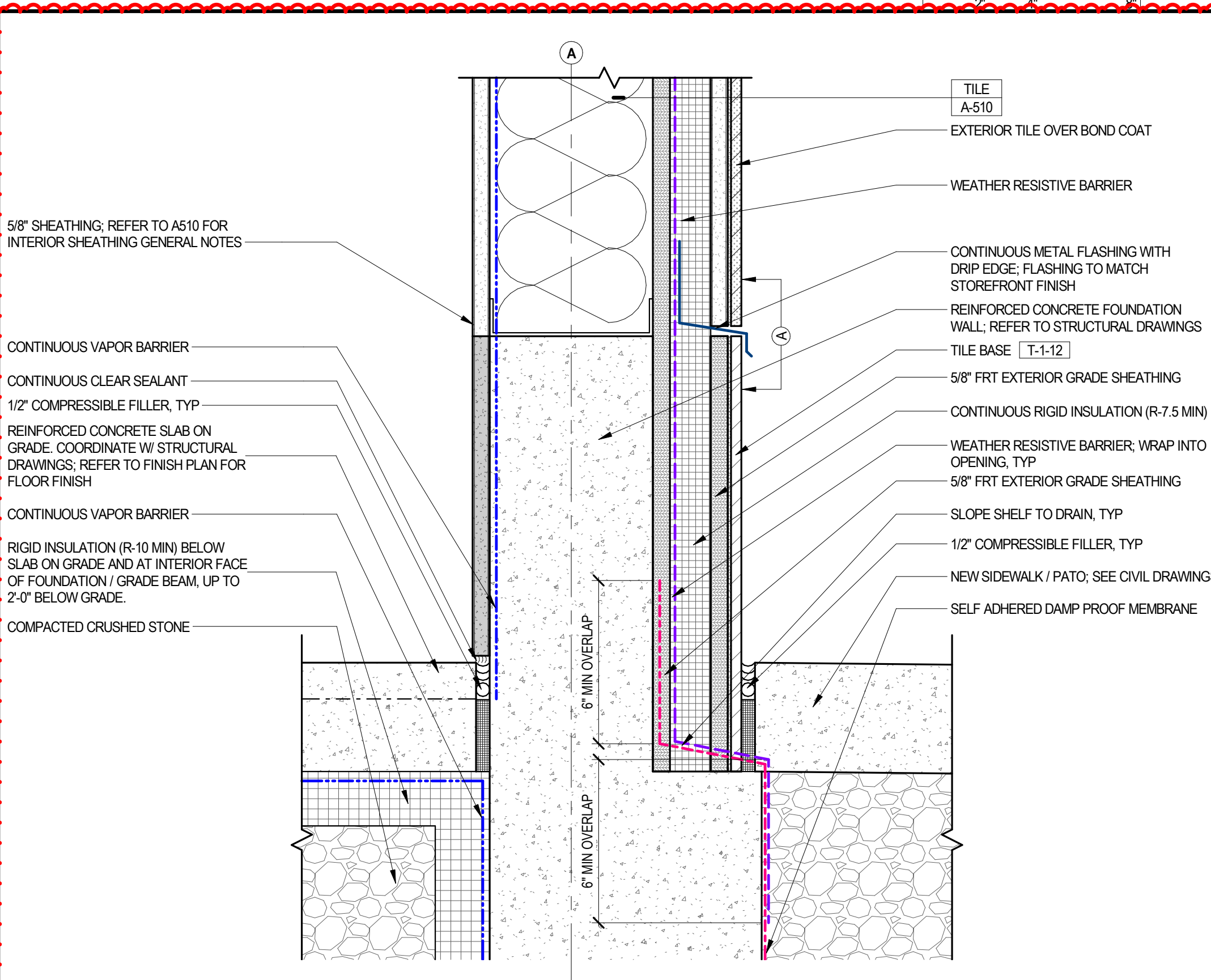
SECTION DETAIL - CANOPY DRAIN 5



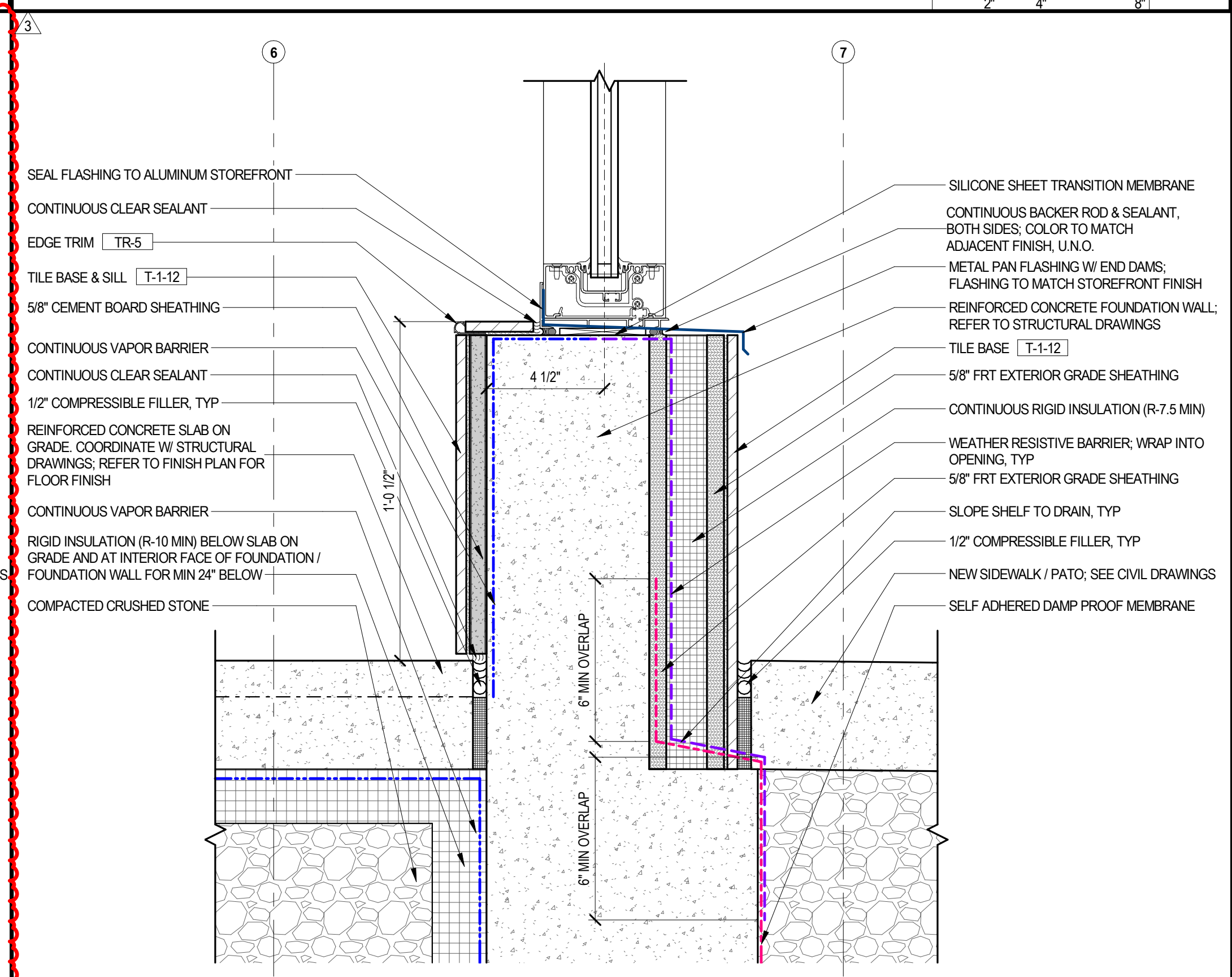
EXTERIOR DETAIL - BASE FLASHING 4



BASE DETAIL - METAL PANEL 3



BASE DETAIL - BRICK 2



BASE DETAIL - STOREFRONT SILL 1

Bergmeyer

CONSULTANTS:

SEA/ SIGNATURE:



SEA/ SIGNATURE:



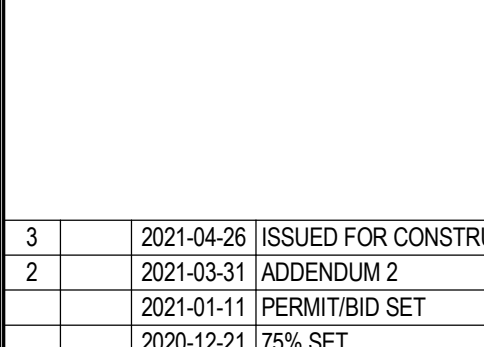
SEA/ SIGNATURE:



SEA/ SIGNATURE:



SEA/ SIGNATURE:



3 2021-04-26 ISSUED FOR CONSTRUCTION

2 2021-03-31 ADDENDUM 2

2021-01-11 PERMIT/BID SET

2020-12-21 75% SET

NO. BY DATE DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

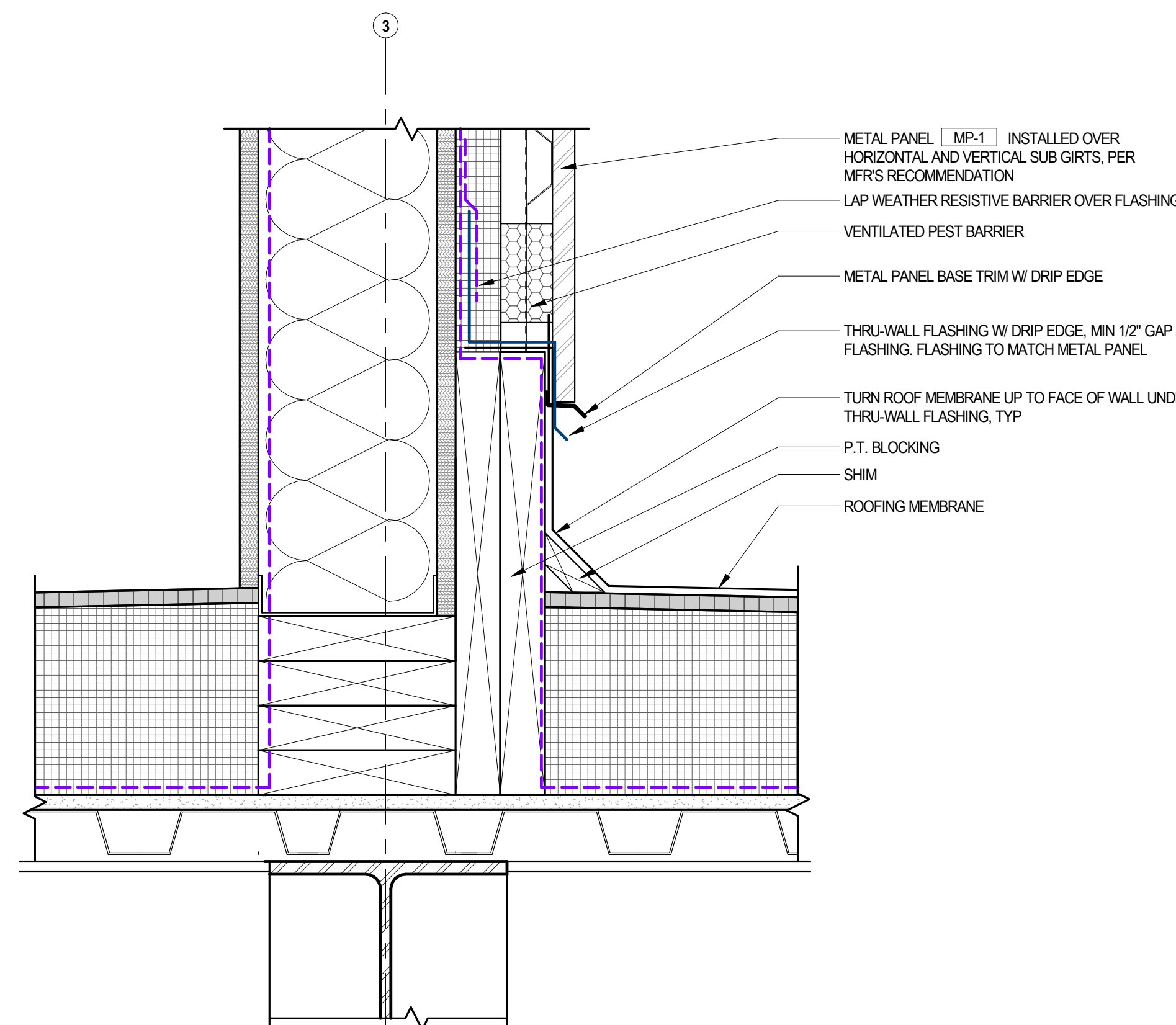
EXTERIOR DETAILS -
SECTION

DRAWN BY: CS & WQL

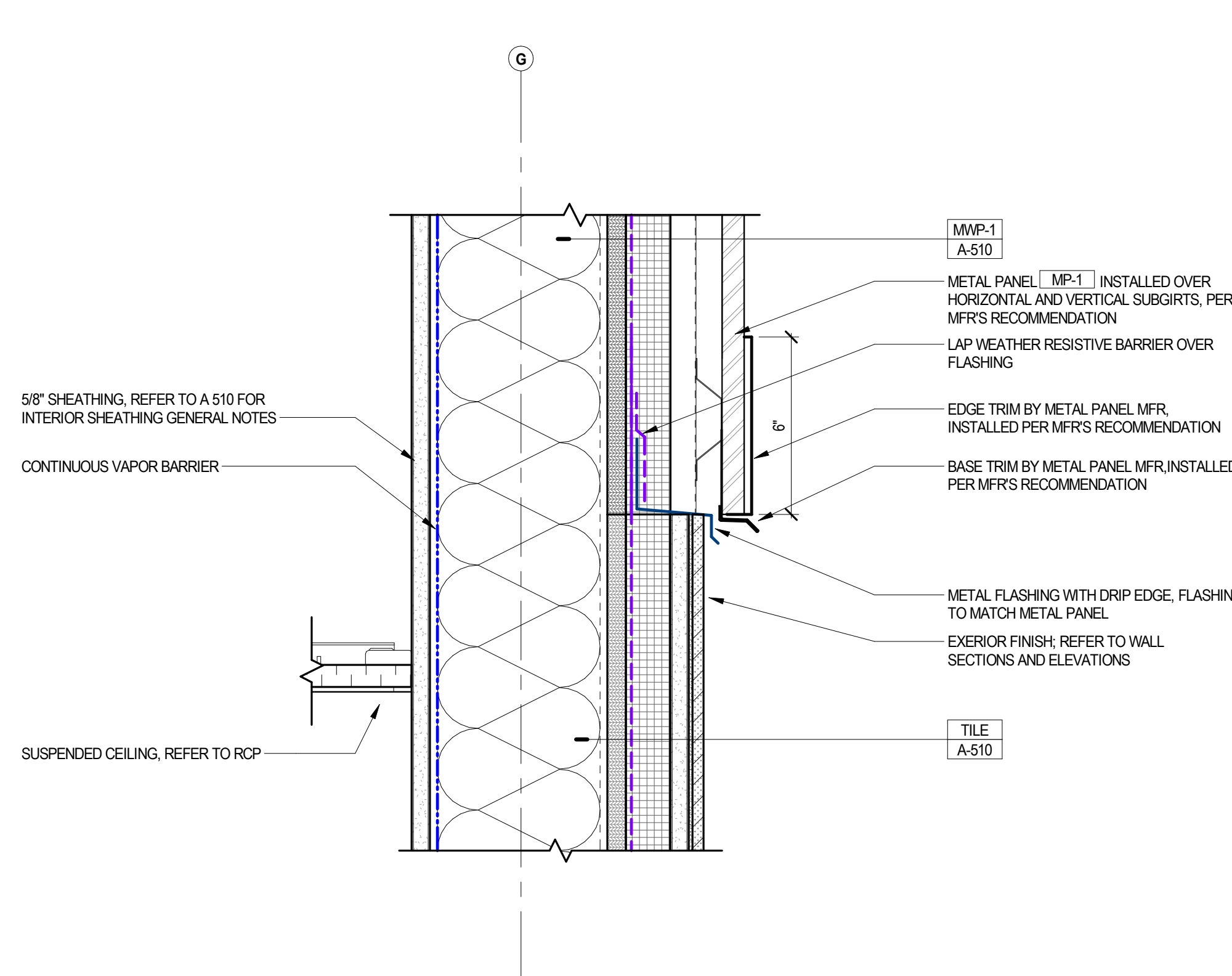
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JOB NO: 20088.00

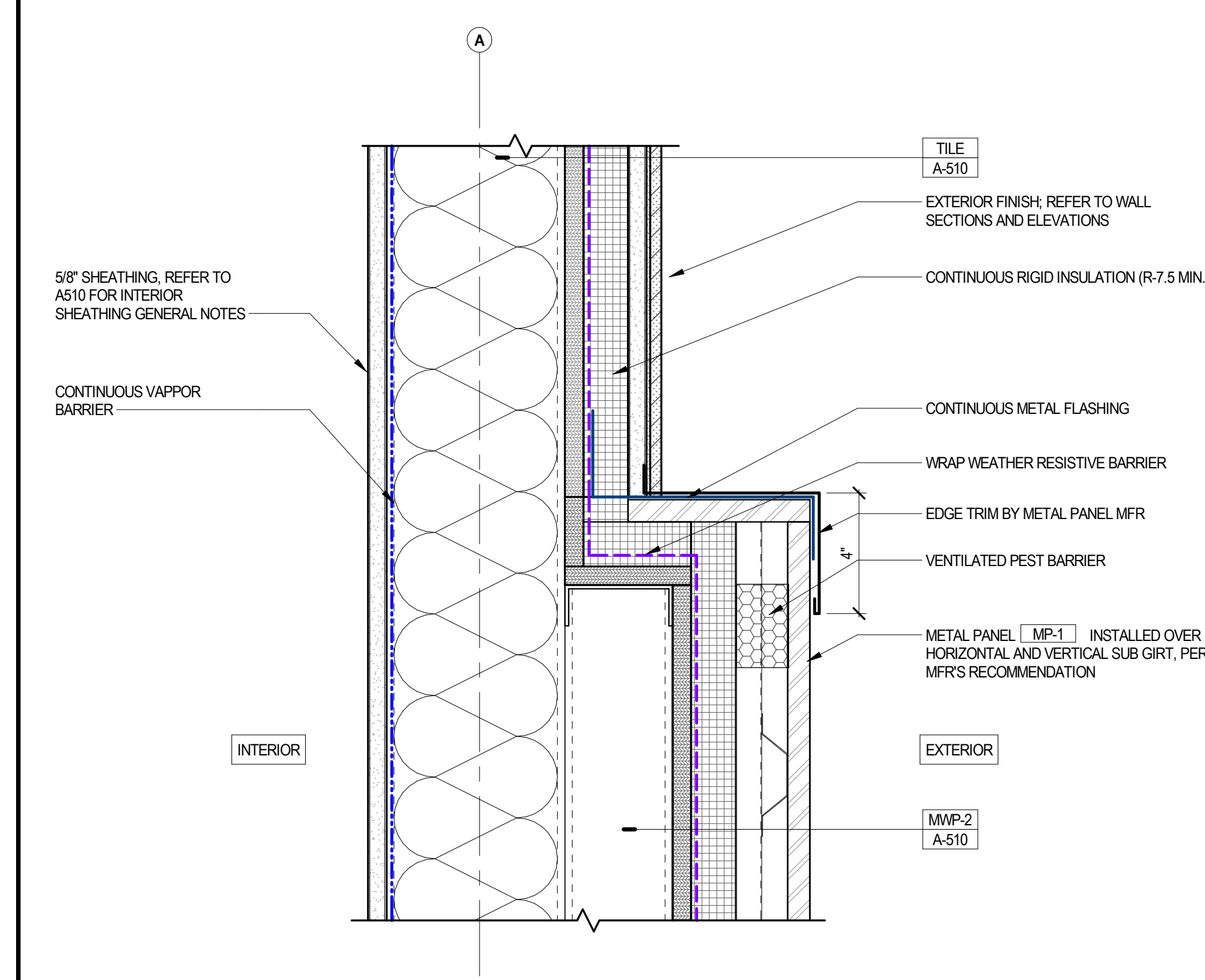
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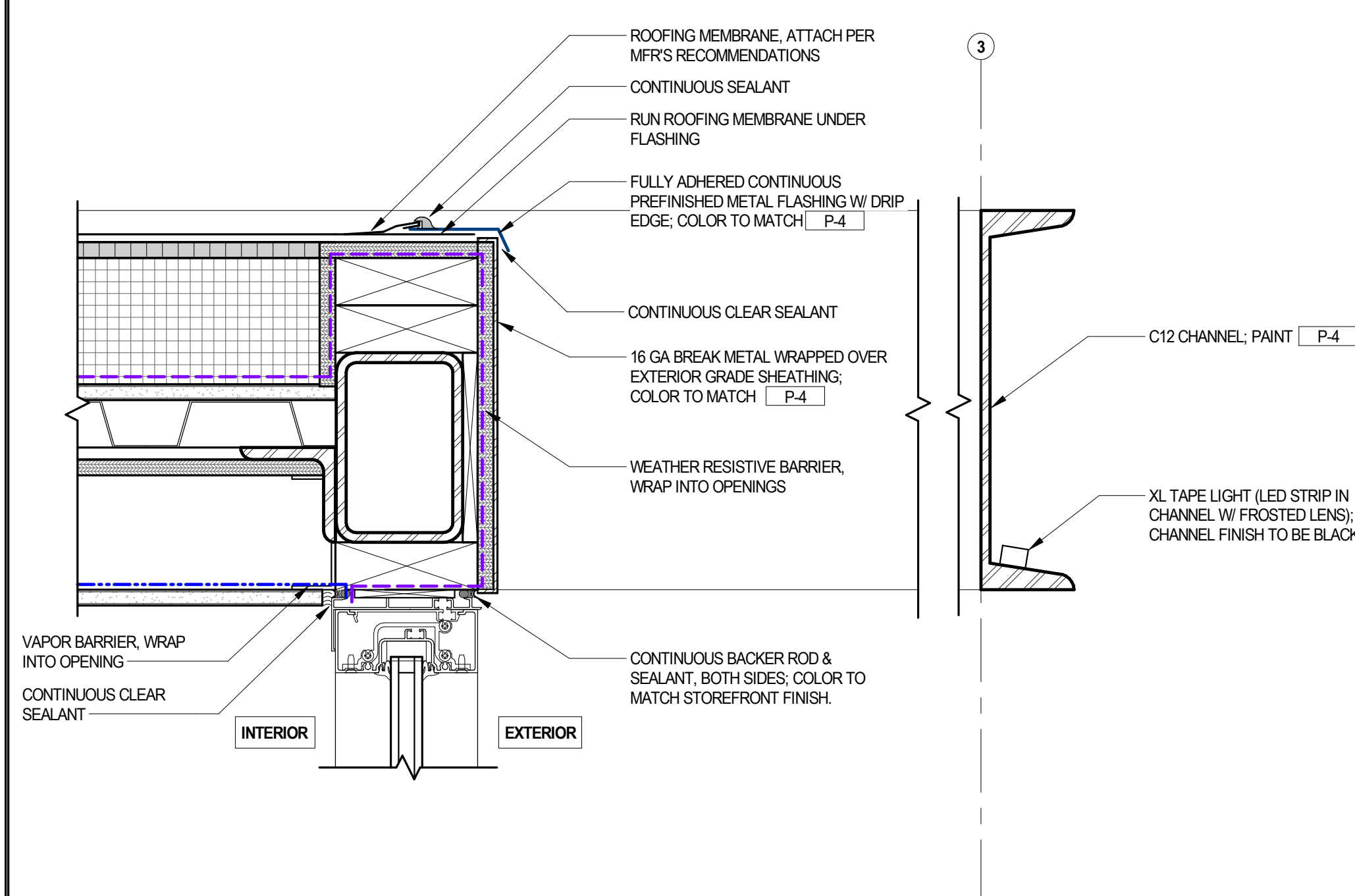
SECTION DETAIL - BASE FLASHING AT INNER PARAPET



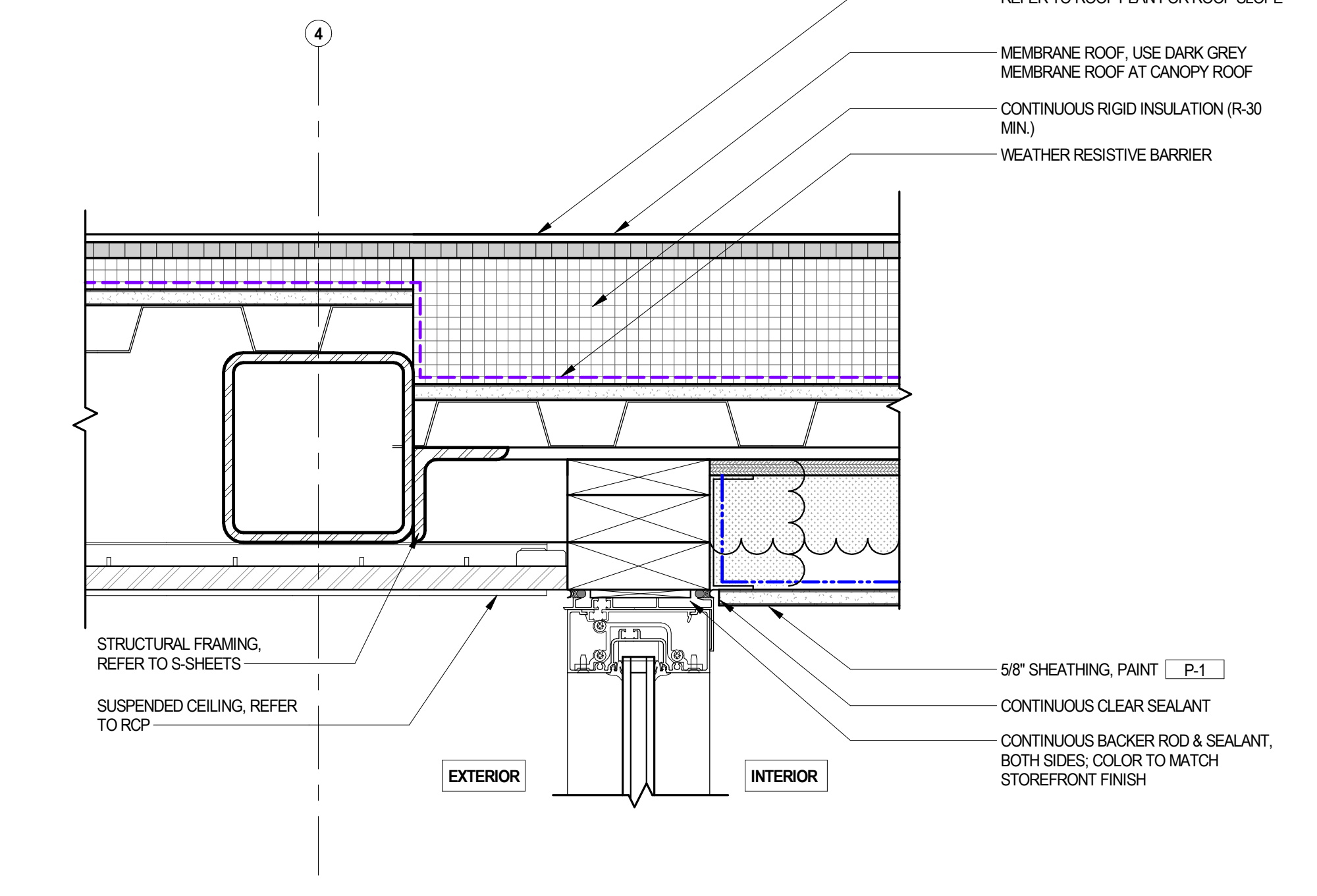
EXTERIOR SECTION DETAIL - BRICK/MWP TRANSITION



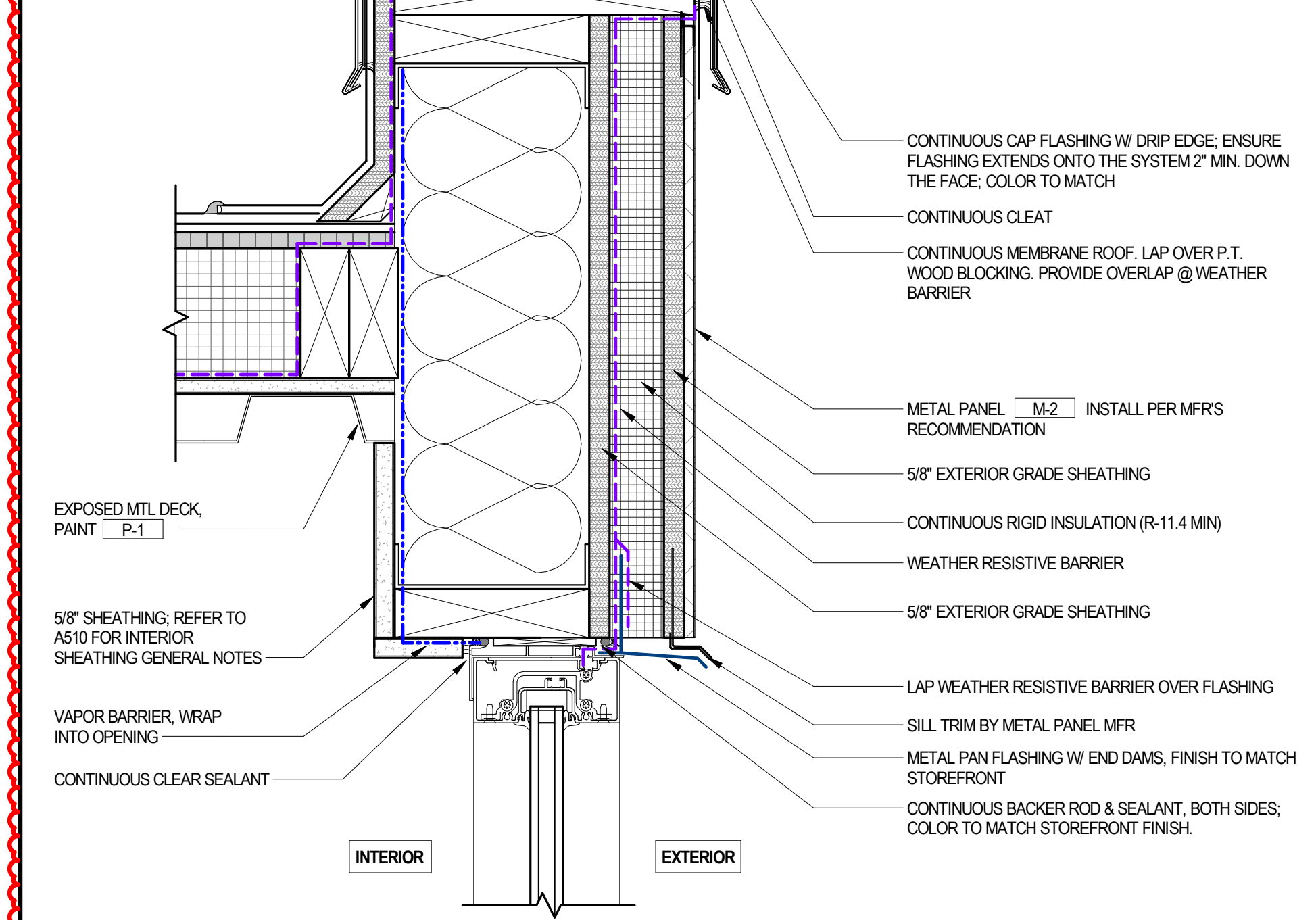
EXTERIOR SECTION DETAIL - DOUBLE STUD TO BRICK



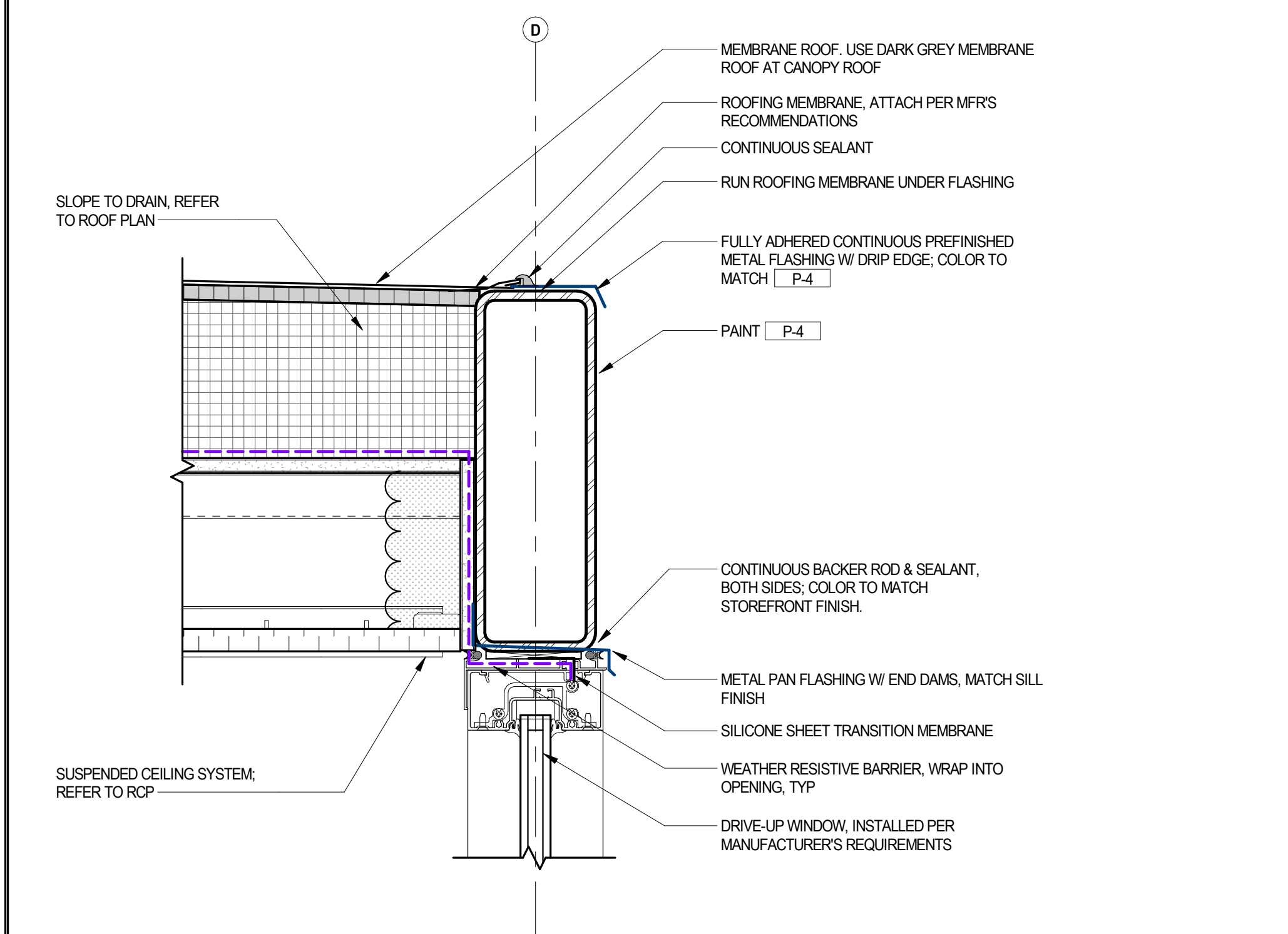
EXTERIOR SECTION DETAIL - CANOPY ROOF EDGE



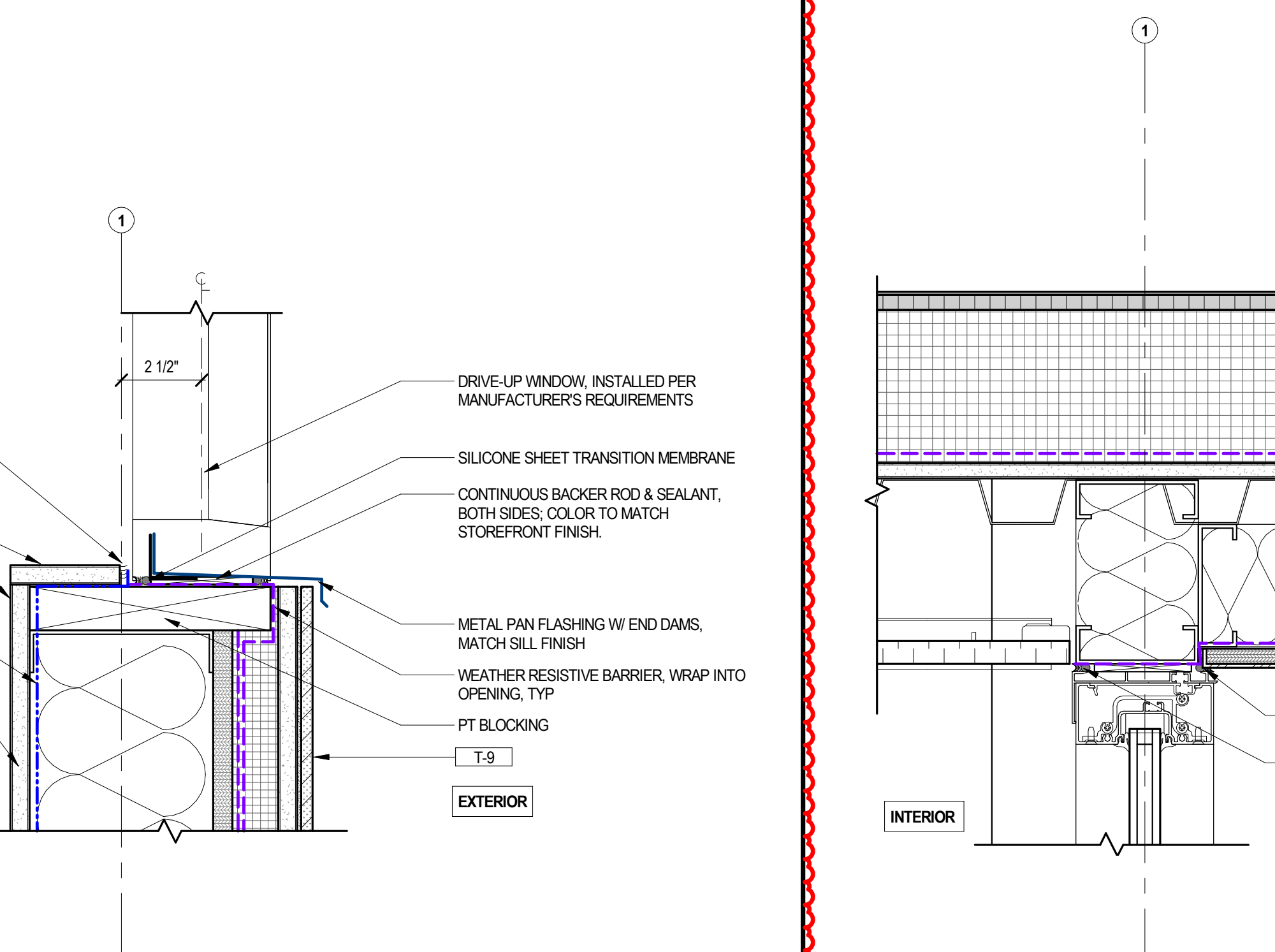
EXTERIOR SECTION DETAIL - CANOPY EDGE @ VESTIBULE



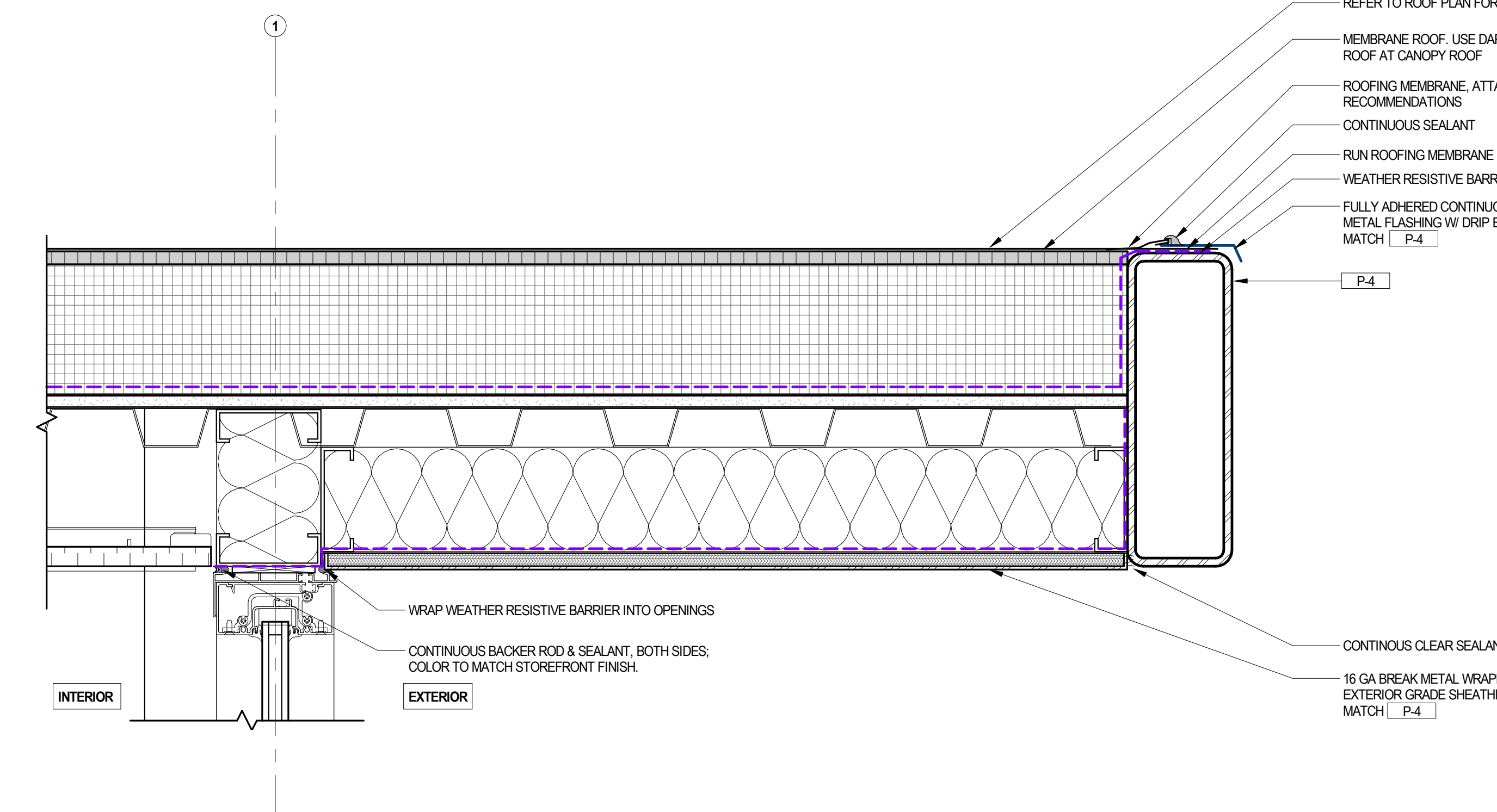
EXTERIOR SECTION DETAIL - LOW PARAPET



EXTERIOR DETAIL - DRIVE UP HEADER

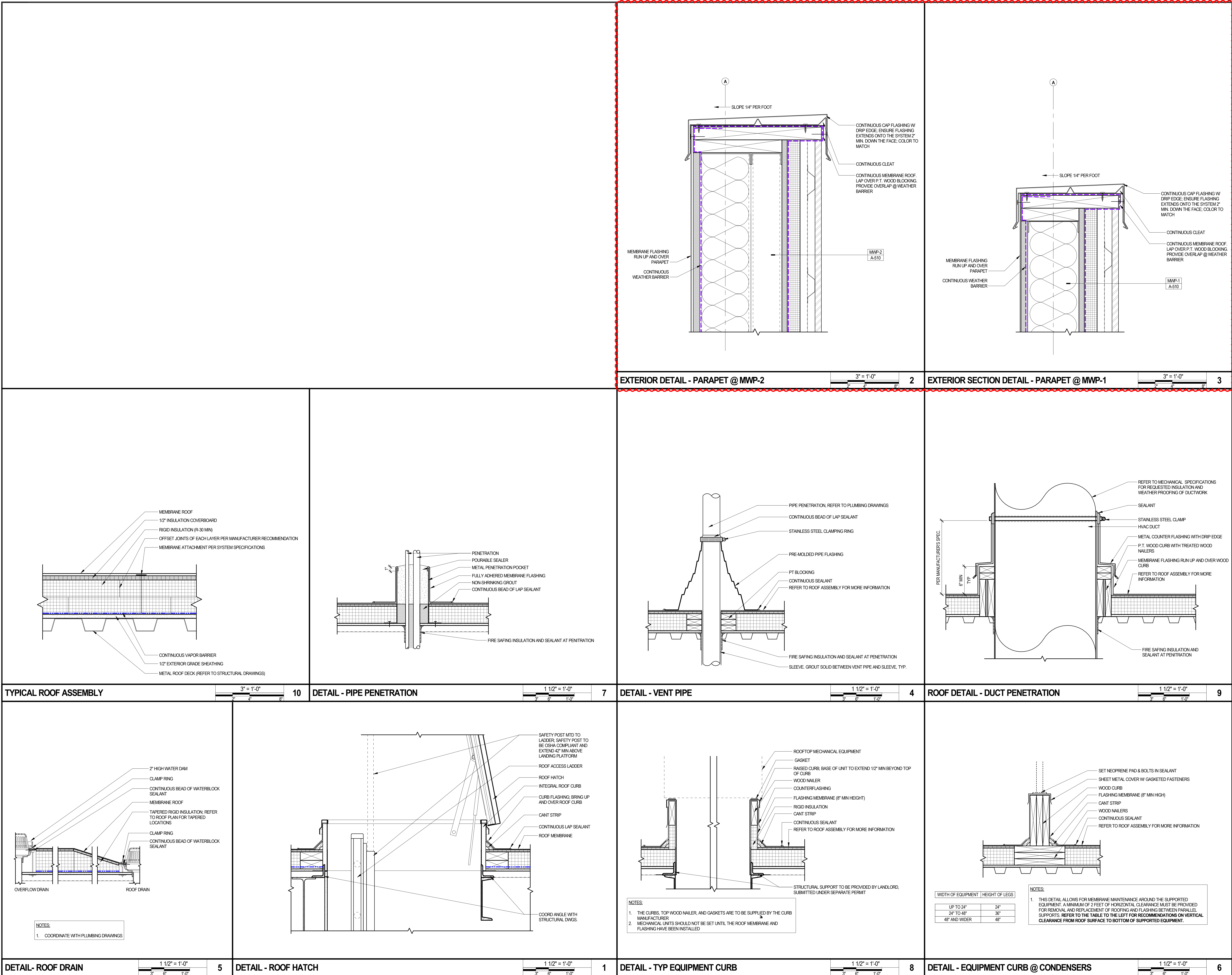


EXTERIOR DETAIL - DRIVE-UP WINDOW SILL



EXTERIOR SECTION DETAIL - VESTIBULE ROOF

5/17/2021 1:33:48 PM C:\Users\carandrell\Documents\006_Shake Shack\Lee's Summit_Central_cshadon\17.rvt



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

05/17/2021

www.bergmeyer.com

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LA
800 South Figueroa St.
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212.337.1090

BOS
51 Sleeper St.
Bedford, MA 02210
617.542.1025

CONSULTANTS:

SEA/ SIGNATURE:

3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM 2
1	2021-01-11	PERMIT/BID SET

NO.	BY	DATE	DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

EXTERIOR DETAILS - ROOF

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20080.00

A504

C:\Users\andere\Documents\0606_Shake Shack\Lee's Summit_Corral_cshack0617.rvt 5/17/2021 1:33:51 PM

SECTION EXTERIOR TILE @ SINGLE STUD 3" = 1'-0"		SECTION METAL WALL PANEL @ DOUBLE STUD 3" = 1'-0"		SECTION METAL WALL PANEL @ SINGLE STUD 3" = 1'-0"	
				9 FURRING WALL 9A 3 5/8" METAL STUD	
				8 DOUBLE STUD PARTITION 8A 6" METAL STUDS	
7 PARTIAL HEIGHT PARTITION 7A 3 5/8" METAL STUD (SHEATHING BOTH SIDES) 7B 6" METAL STUD (SHEATHING BOTH SIDES) 7C 3 5/8" METAL STUD (SHEATHING ONE SIDE)		5 SINGLE STUD PARTITION - MANAGER'S OFFICE 5A 3 5/8" METAL STUD 5B 6" METAL STUD		4 DOUBLE STUD PARTITION W/ AIR GAP 4A 3 5/8" METAL STUDS W/ 8 1/2" (MIN) AIR GAP 4B 3 5/8" METAL STUDS W/ 6" (MIN) AIR GAP	
				GENERAL NOTES 01. ALL GWB TO BE CUT TO FIT TIGHT AROUND PENETRATIONS SUCH AS PIPES, DUCTS, CONDUIT, CABLES, ETC. ALL PENETRATIONS OF FIRE RATED PARTITIONS SHALL BE SEALED WITH FIRESTOP SEALANT; ALL OTHER PENETRATIONS TO BE SEALED WITH ACOUSTICAL SEALANT. 02. ALL PARTITIONS CONTAINING SOUND ATTENUATION BLANKETS, THERMAL INSULATION OR FIRESTOPPING INSULATION SHALL BE SEALED ON ALL SIDES, TOP AND BOTTOM AS DESIGNATED BY PARTITION TYPE. 03. ALL PARTITIONS WITH SINKS AND/OR "WET EQUIPMENT": ALL WALLS IN TOILET ROOMS, AND ALL WALLS IN KITCHEN AREAS TO HAVE 5/8" MOISTURE RESISTENT GWB WITH A 5/8" CEMENT BOARD BASE (SMOOTH SIDE OUT) TO 12" AFF, U.N.O. IN NOTES OR DETAILS. 04. NON-LOAD BEARING WALLS DO NOT NEED TO GO TO THE UNDERSIDE OF DECK / STRUCTURE ABOVE. ALL PARTITIONS THAT TERMINATE ABOVE THE CEILING AND DO NOT EXTEND TO THE STRUCTURE ABOVE SHALL HAVE DIAGONAL BRACING. 05. REVIEW DRAWINGS, PROVIDE BRACING AND BLOCKING IN PARTITIONS AS REQUIRED. ALL BLOCKING SHALL BE FIRE RETARDANT TREATED (FRT). 06. ALL FIRE RATED ASSEMBLIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE UL DESIGN NUMBER INDICATED FOR THAT PARTITION TYPE. 07. COLUMNS AND BEAMS SUPPORTING RATED CONSTRUCTION SHALL BE RATED TO MATCH THE CONSTRUCTION BEING SUPPORTED. 08. STEEL BRACING WITHIN PARTITIONS SHALL HAVE SPRAY FIREPROOFING. 09. VENEER PLASTER FINISH ON ALL CURVED GWB SURFACES UNLESS NOTED OTHERWISE. 10. ALL PARTITIONS AT CERAMIC TILE OR ACRYLIC PANELS SHALL BE CEMENTITIOUS BACKER BOARD. 11. ALL PARTITIONS IN MANAGERS OFFICE TO HAVE 5/8" F.R.T. PLYWOOD SHEATHING, EXTENDED TO UNDERSIDE OF STRUCTURE. 12. PAINT ALL PLYWOOD P-4 IN FRONT OF HOUSE AREAS. 13. ALL PLYWOOD SHEATHING TO BE FIRE-RETARDANT-TREATED WOOD	
3 SINGLE STUD PARTITION 3A 3 5/8" METAL STUD 3B 6" METAL STUD 3C 2 1/2" METAL STUD		2 SINGLE STUD PARTITION - SOUND RESISTANT 2A 3 5/8" METAL STUD 2B 6" METAL STUD		1 SINGLE STUD PARTITION 1A 3 5/8" METAL STUD 1B 6" METAL STUD	

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

05/17/2021

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CONSULTANTS:

SEA/ SIGNATURE:

3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

WALL TYPES

DRAWN BY: CS & WQL
CHECKED BY: JS
JOB NO: 2008.00

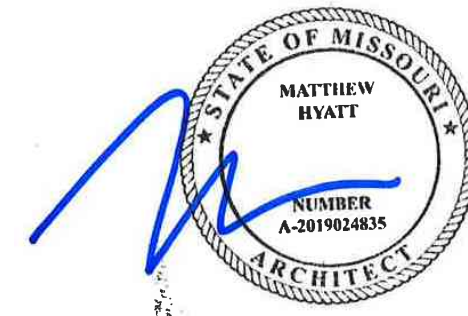
A510

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SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
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	2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION



SHAKE SHACK - LEE'S
SUMMIT MO

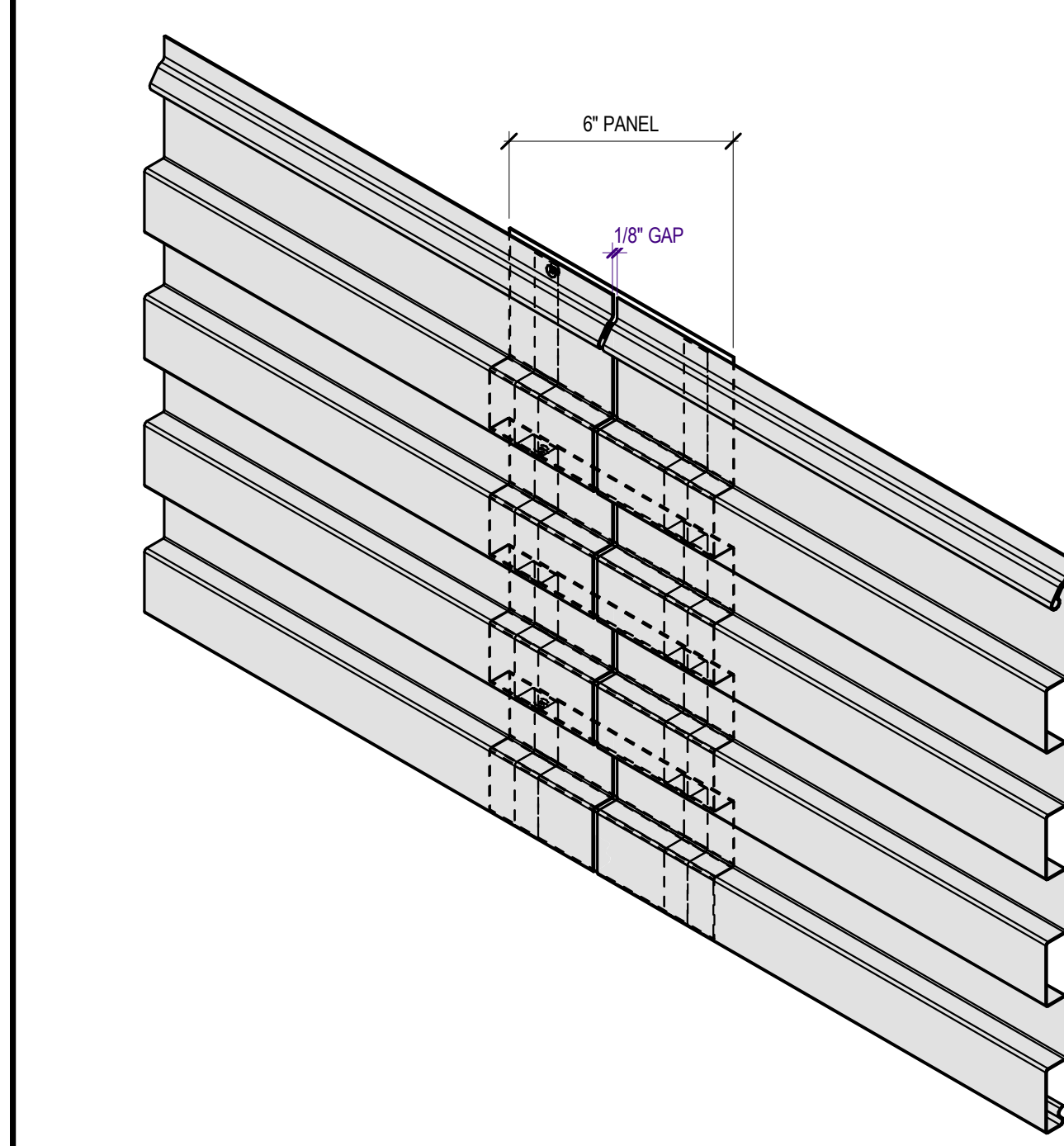
2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

ATAS METAL PANEL TRIM
DETAILS

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 20080.00

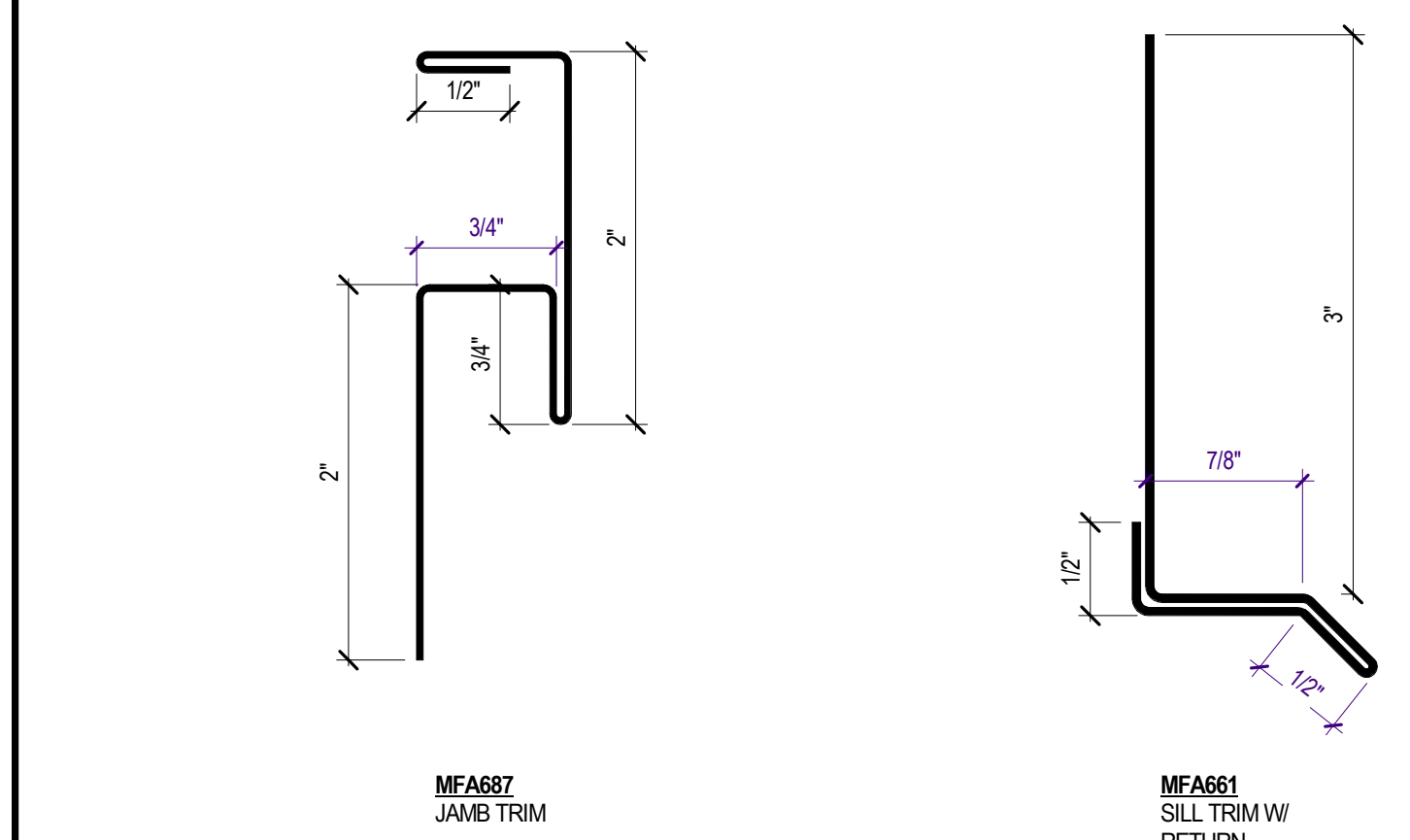
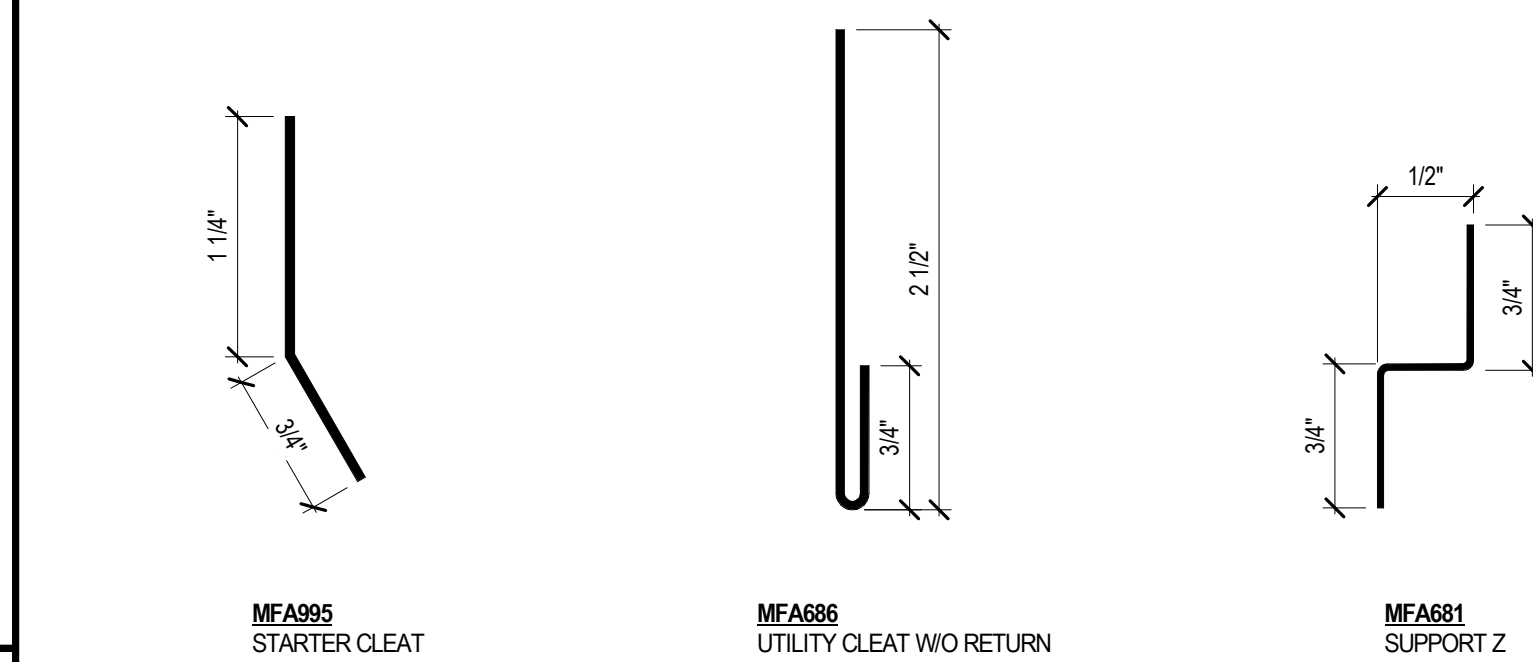
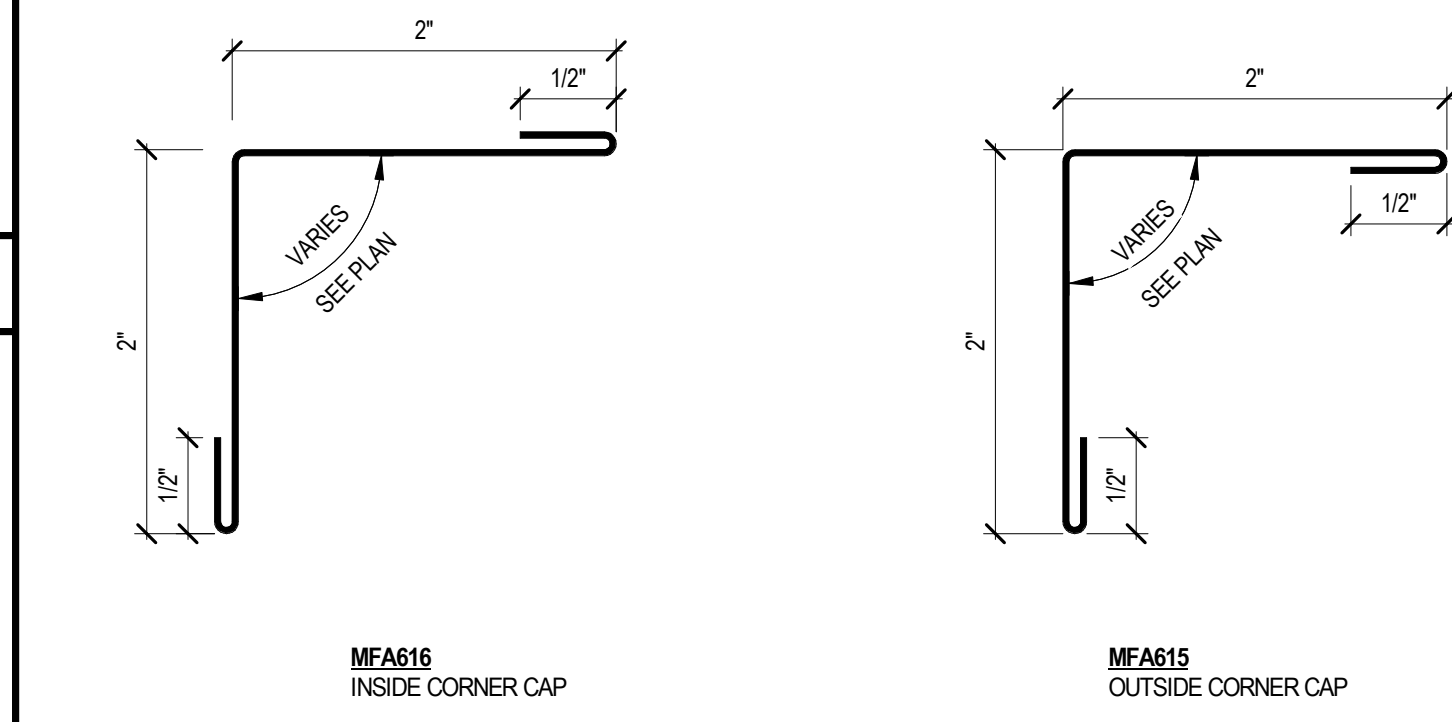
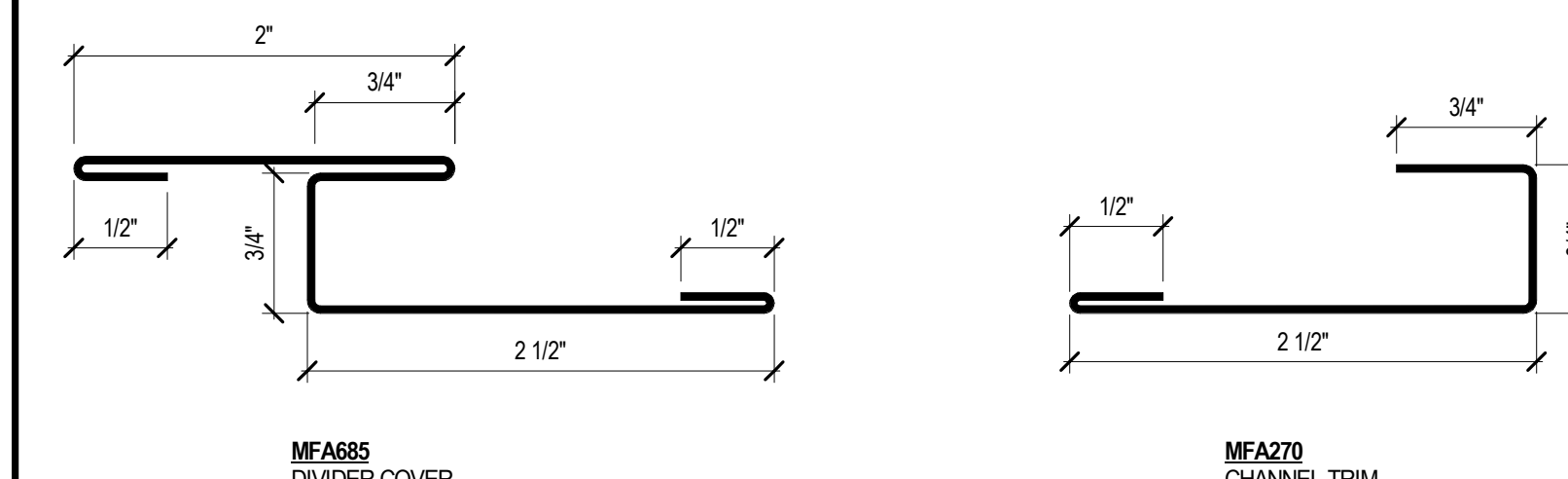
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TYPICAL SPLICE DETAIL

NOT TO SCALE

11

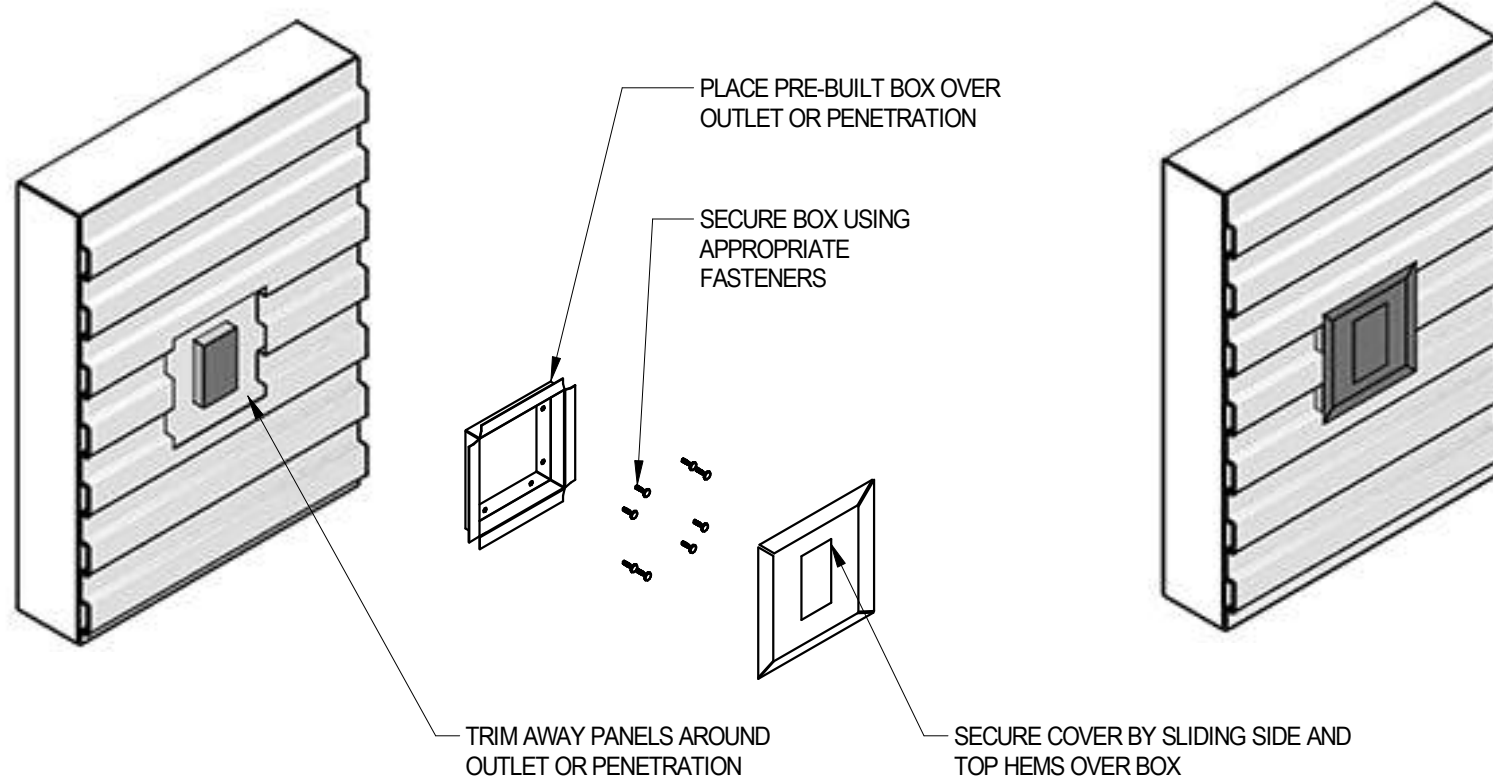


DETAIL - METAFOR PROFILES

12" = 1'-0"

1

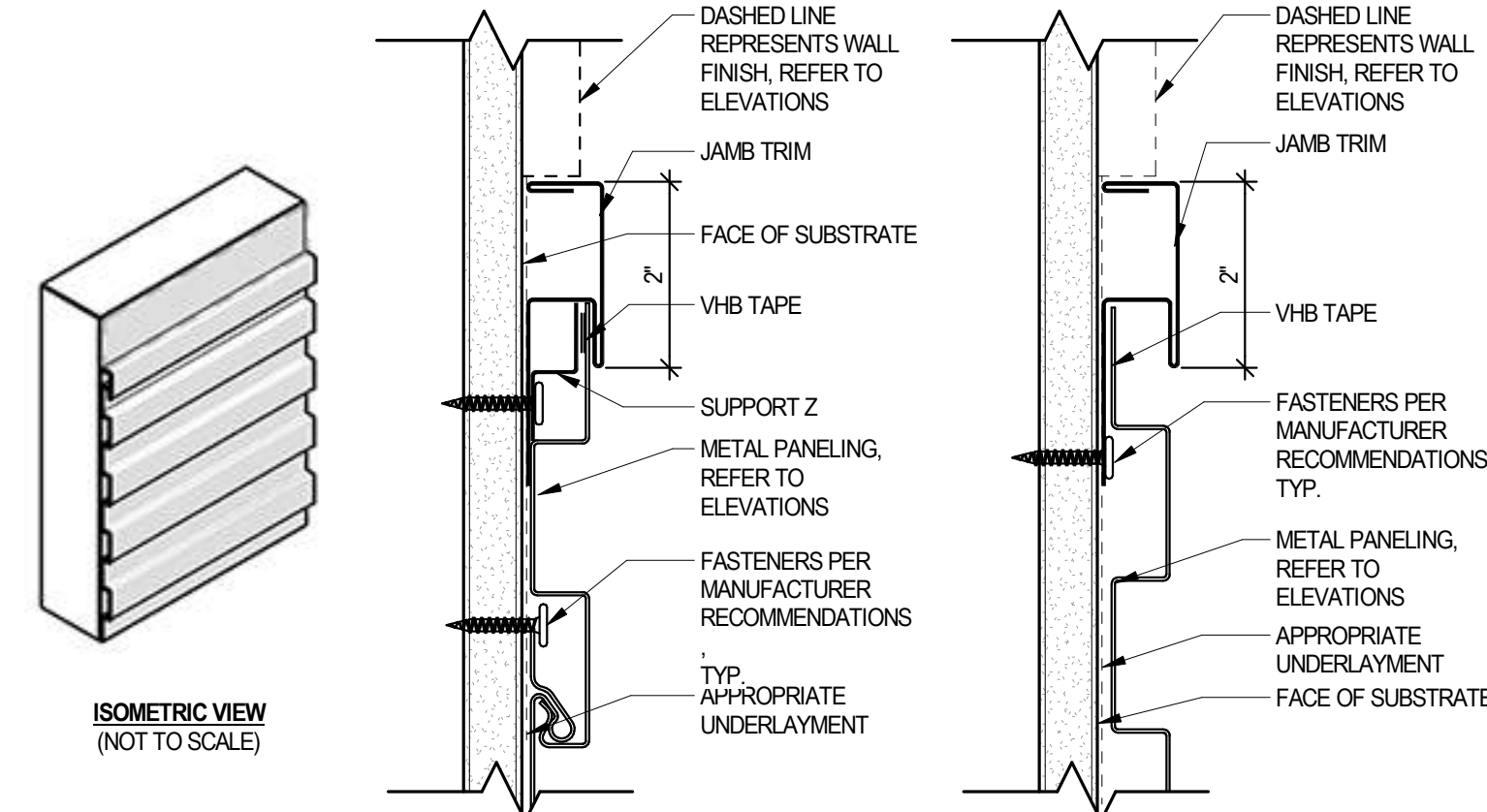
# OF OUTLET	COVER SIZE	COVER HEIGHT	COVER SKU	BASE SKU
SINGLE	7.750 INCH	8.000 INCH	MFA694	MFA691
DOUBLE	9.875 INCH	8.000 INCH	MFA695	MFA692
TRIPLE	12.000 INCH	8.000 INCH	MFA696	MFA693



TRIM DETAIL

NOT TO SCALE

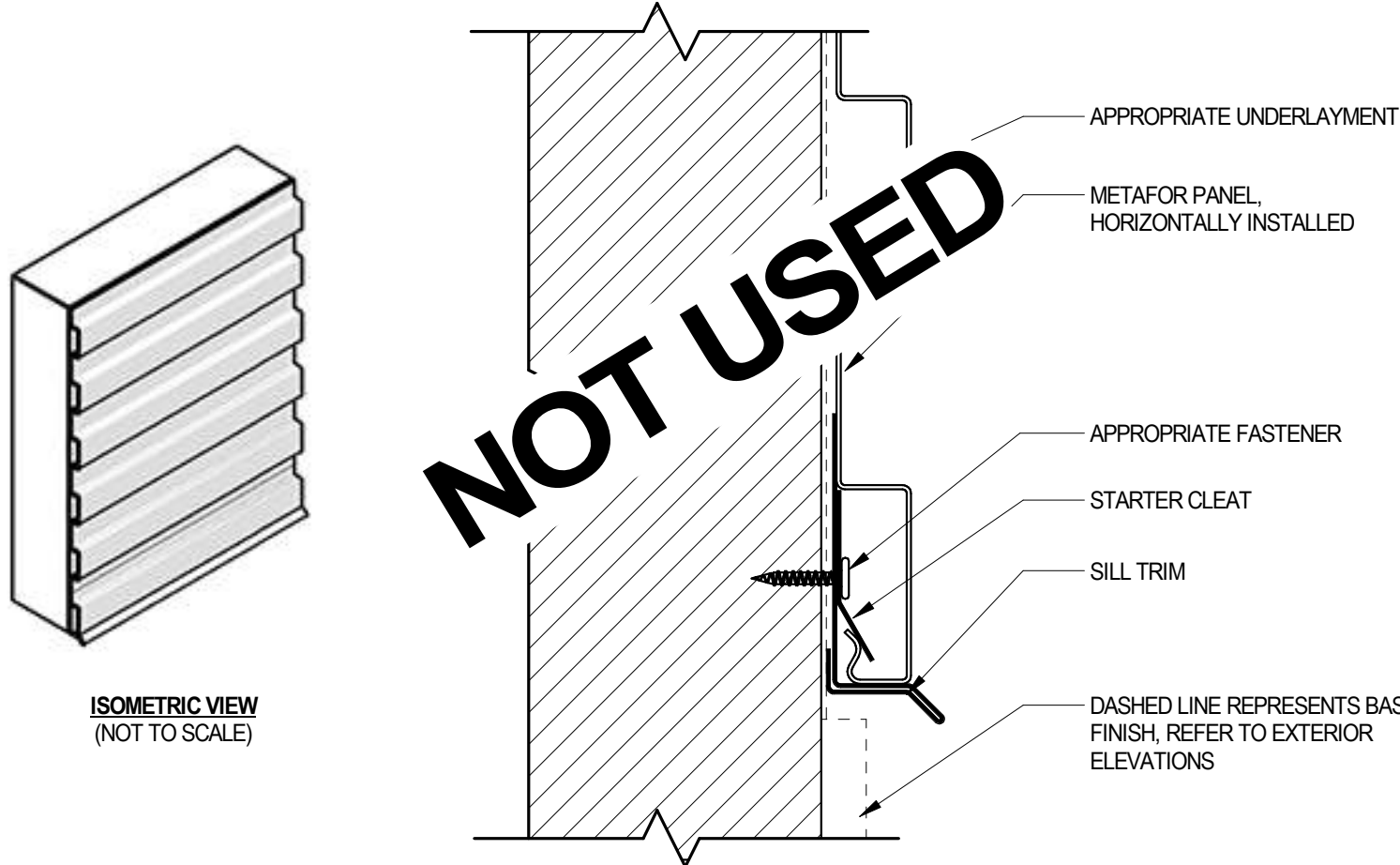
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DETAIL - HEADER DETAIL @ SOFFIT

6" = 1'-0"

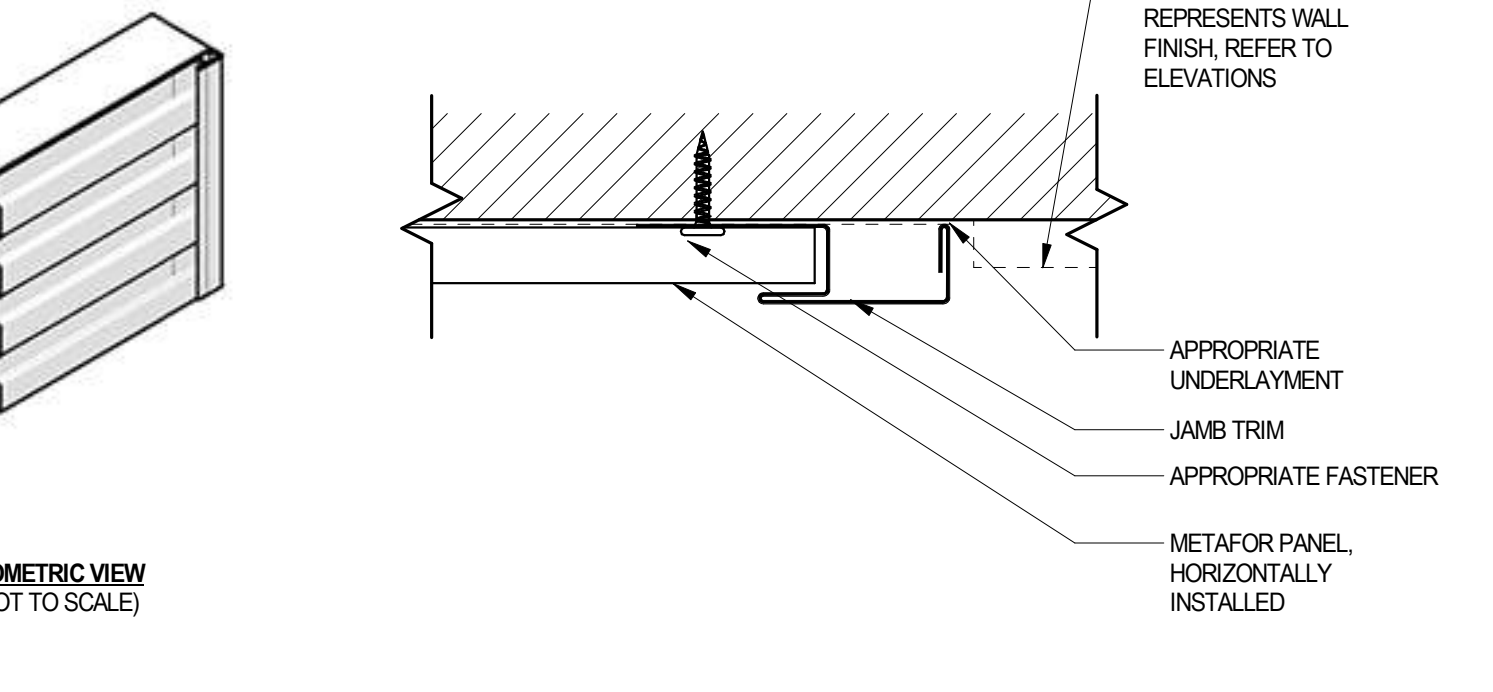
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DETAIL - EXTERIOR BASE & SILL

6" = 1'-0"

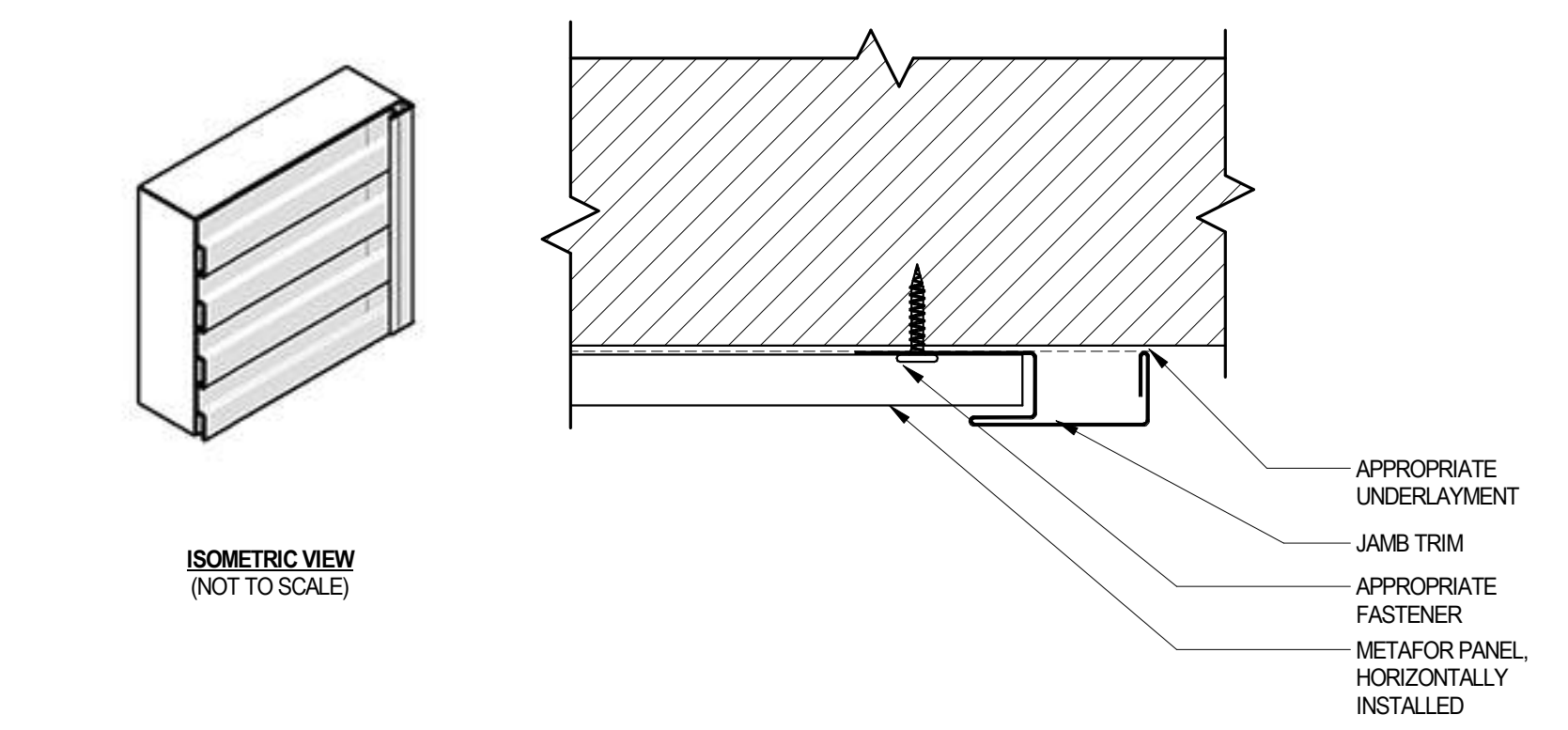
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PLAN DETAIL - TRIM @ END OF METAL PANEL

6" = 1'-0"

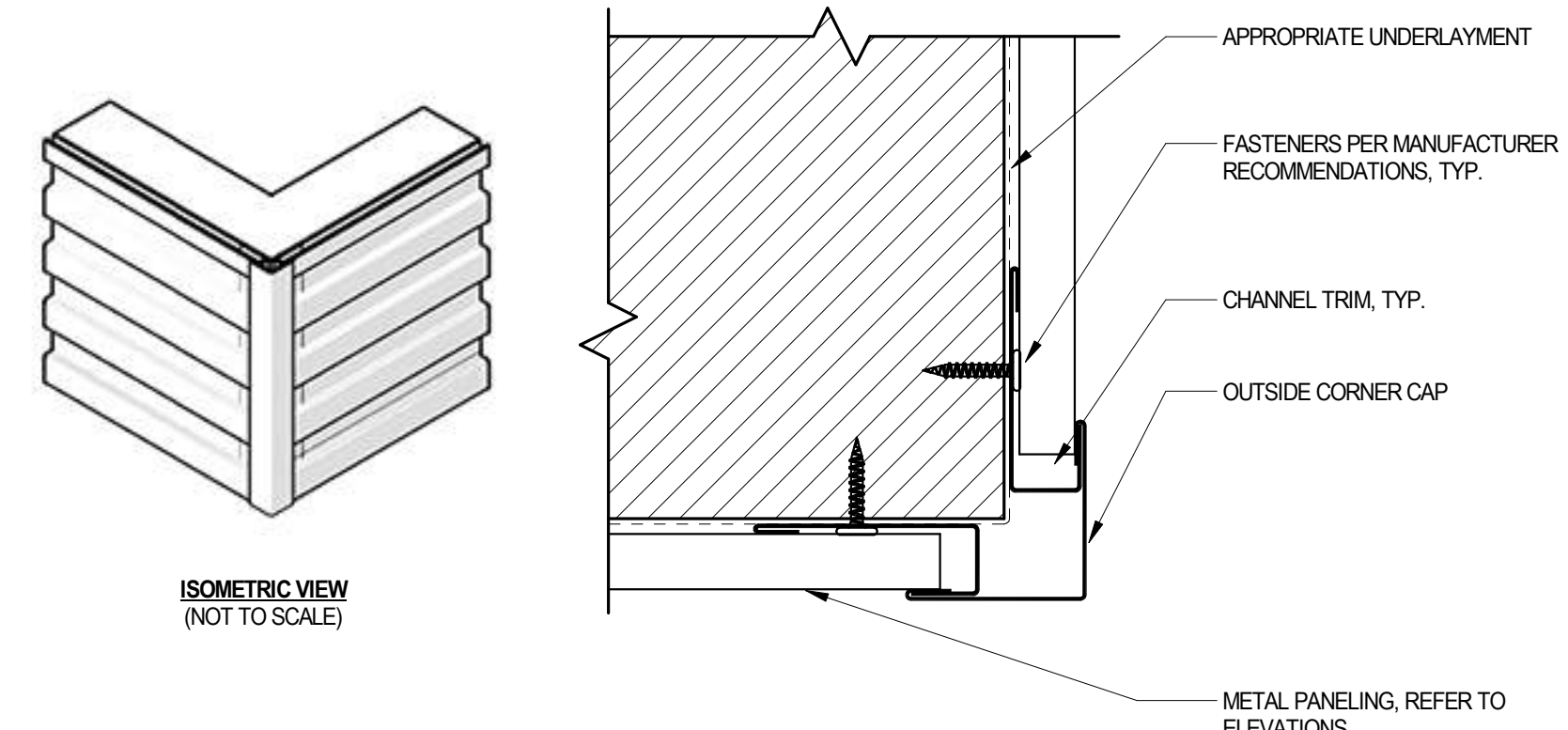
6



PLAN DETAIL - TRIM @ END OF EXTERIOR METAL PANEL

6" = 1'-0"

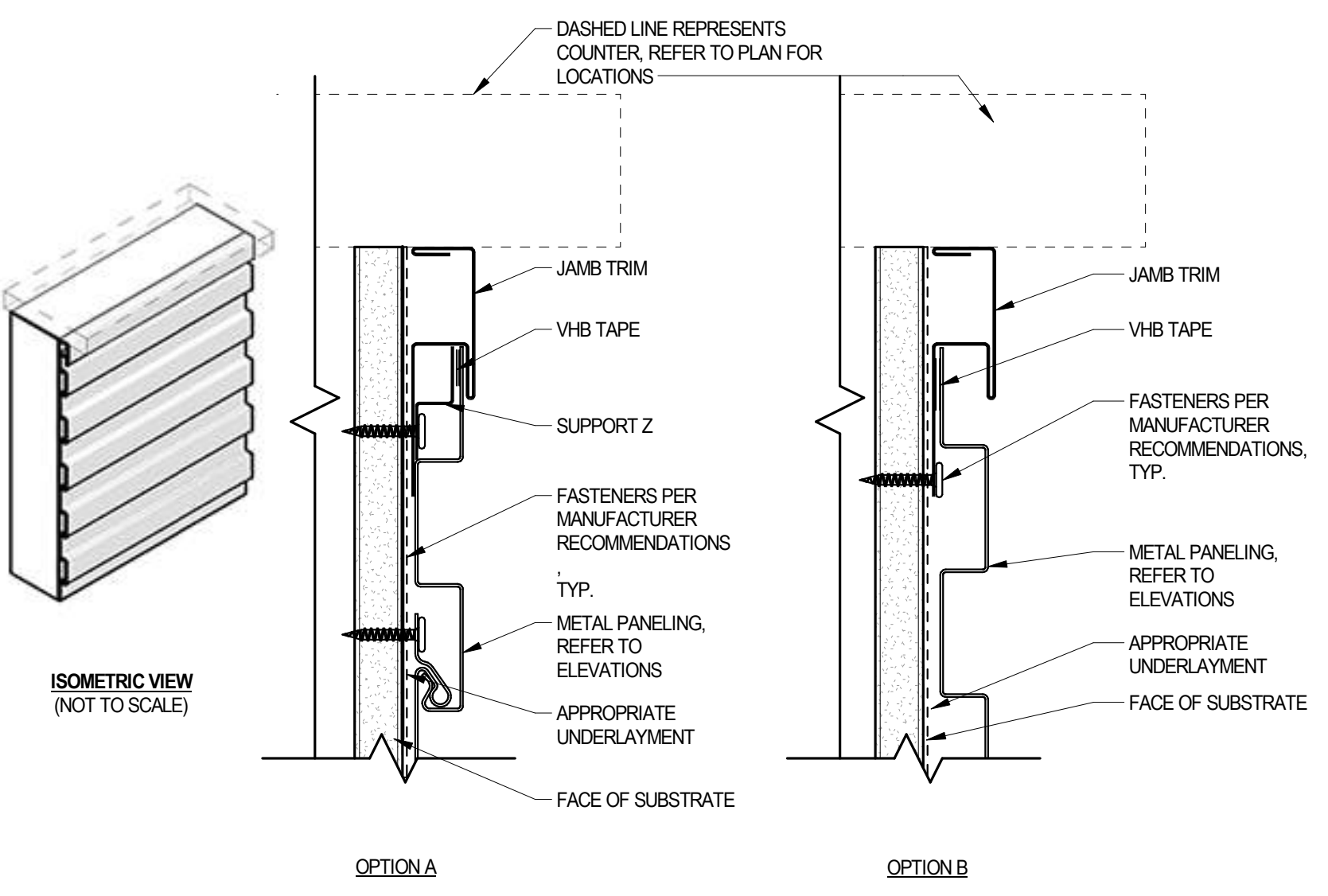
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PLAN DETAIL - CORNER @ METAL PANELS

6" = 1'-0"

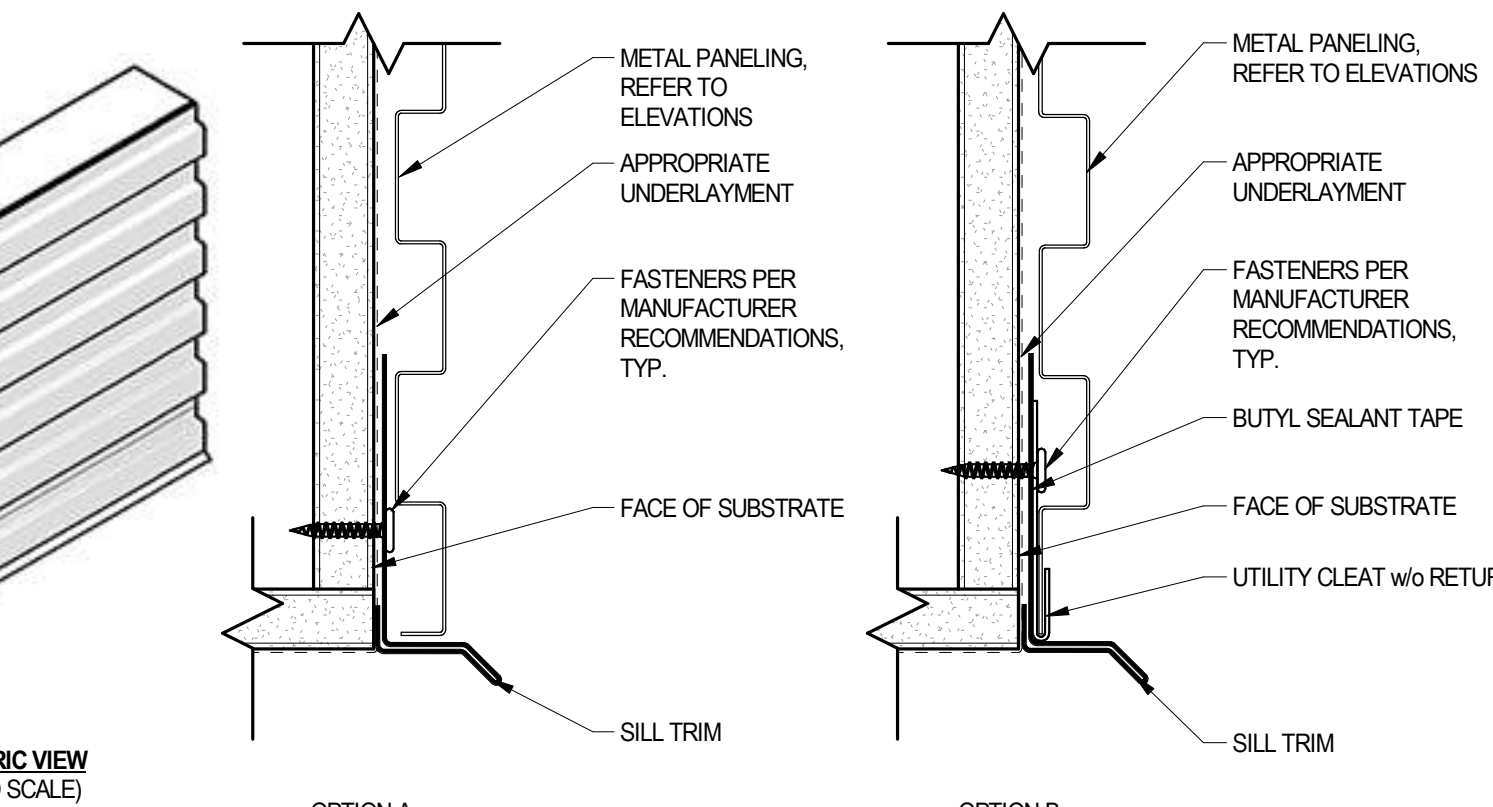
7



DETAIL - HEADER DETAIL @ COUNTER

6" = 1'-0"

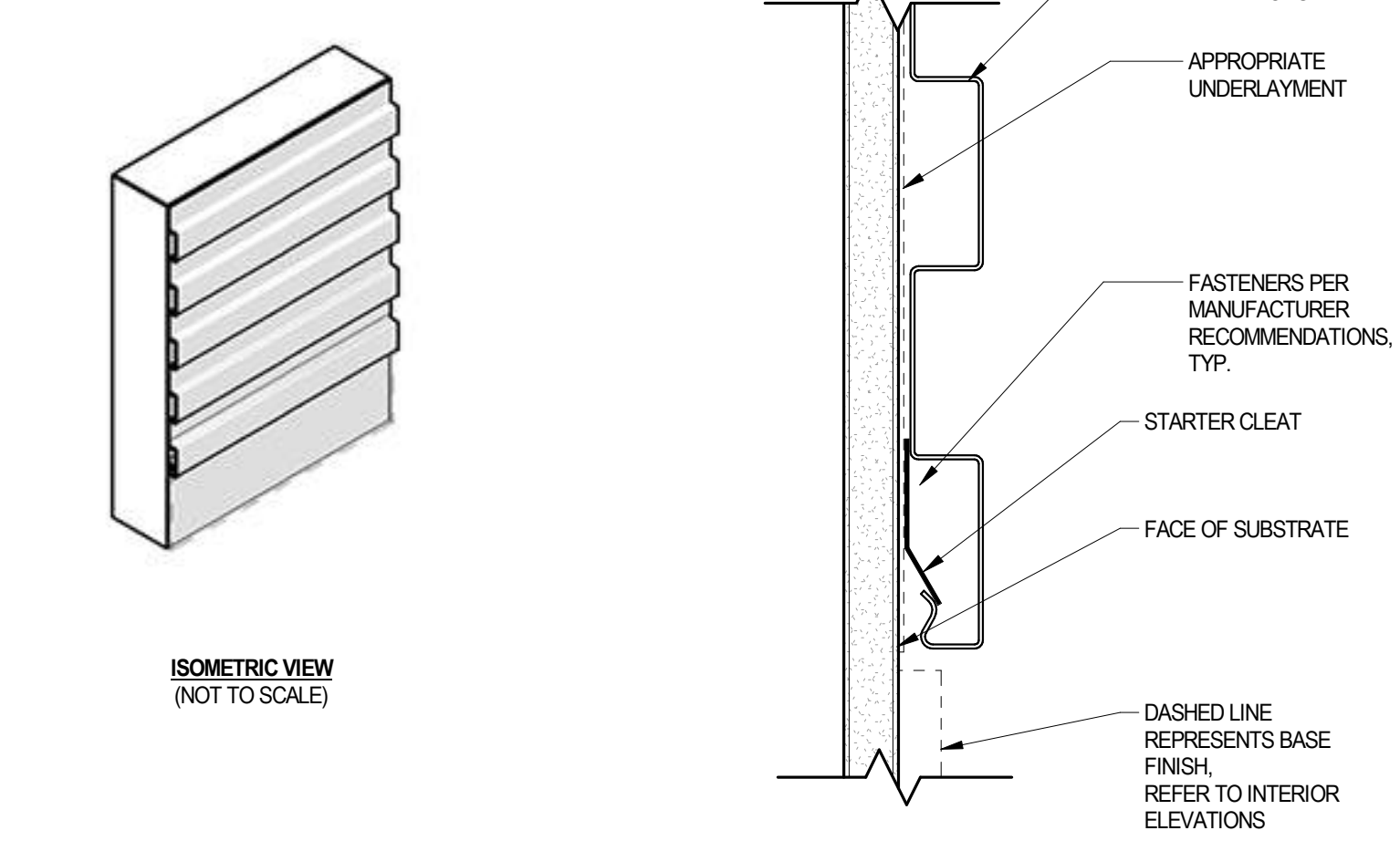
4



DETAIL - SOFFIT DETAIL @ CORRUGATED METAL PANEL

6" = 1'-0"

3



DETAIL - CORRUGATED METAL PANEL BASE

6" = 1'-0"

2

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CONSULTANTS:

SEA/ SIGNATURE:



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		2020-12-21	75% SET
NO.	BY	DATE	DESCRIPTION



SHAKE SHACK - LEE'S SUMMIT MO

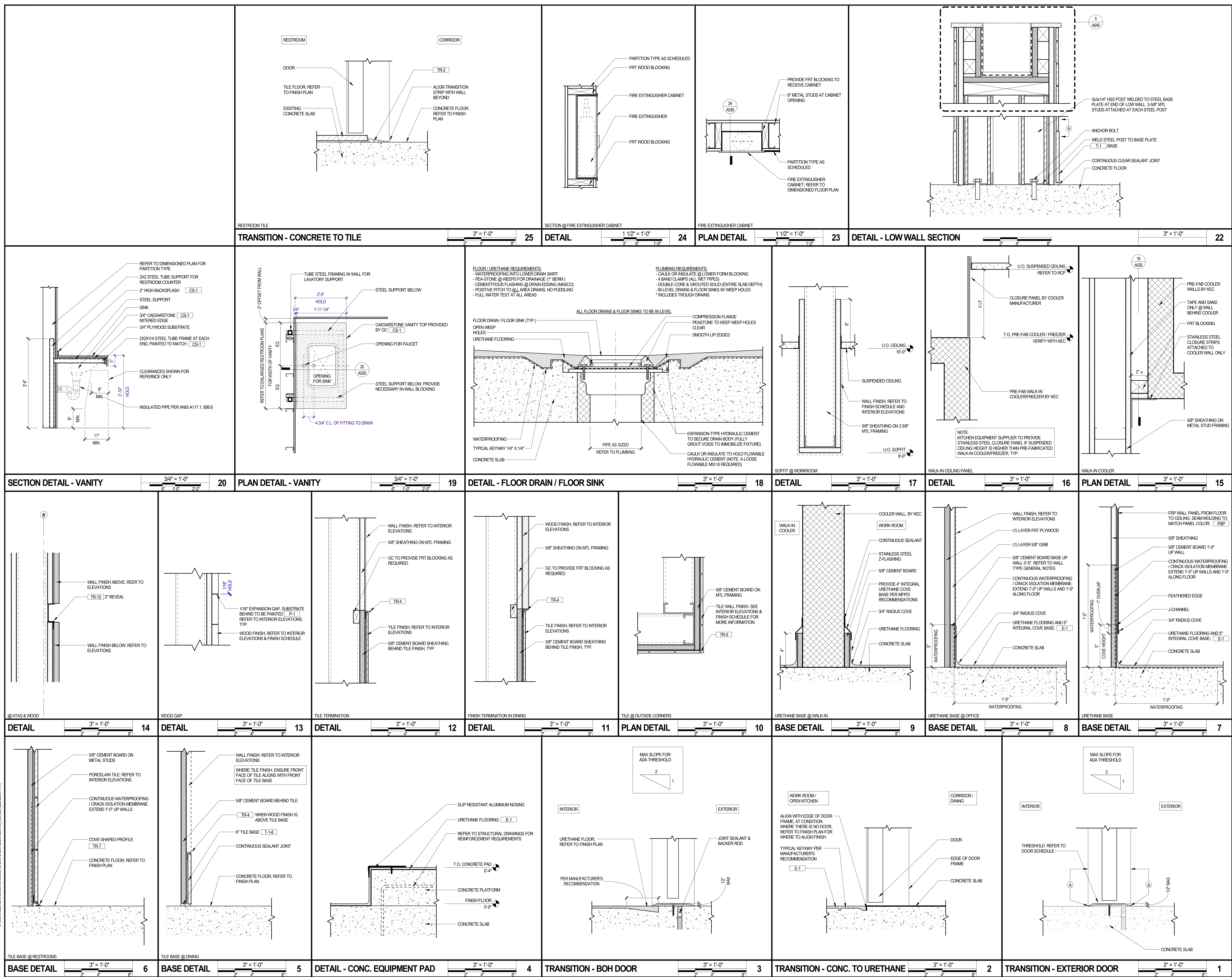
2051 NW LOMENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

INTERIOR DETAILS

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 20088.00

A530



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CONSULTANTS

SEAL/ SIGNATURE



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		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
NO.	BY	DATE	DESCRIPTION

SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

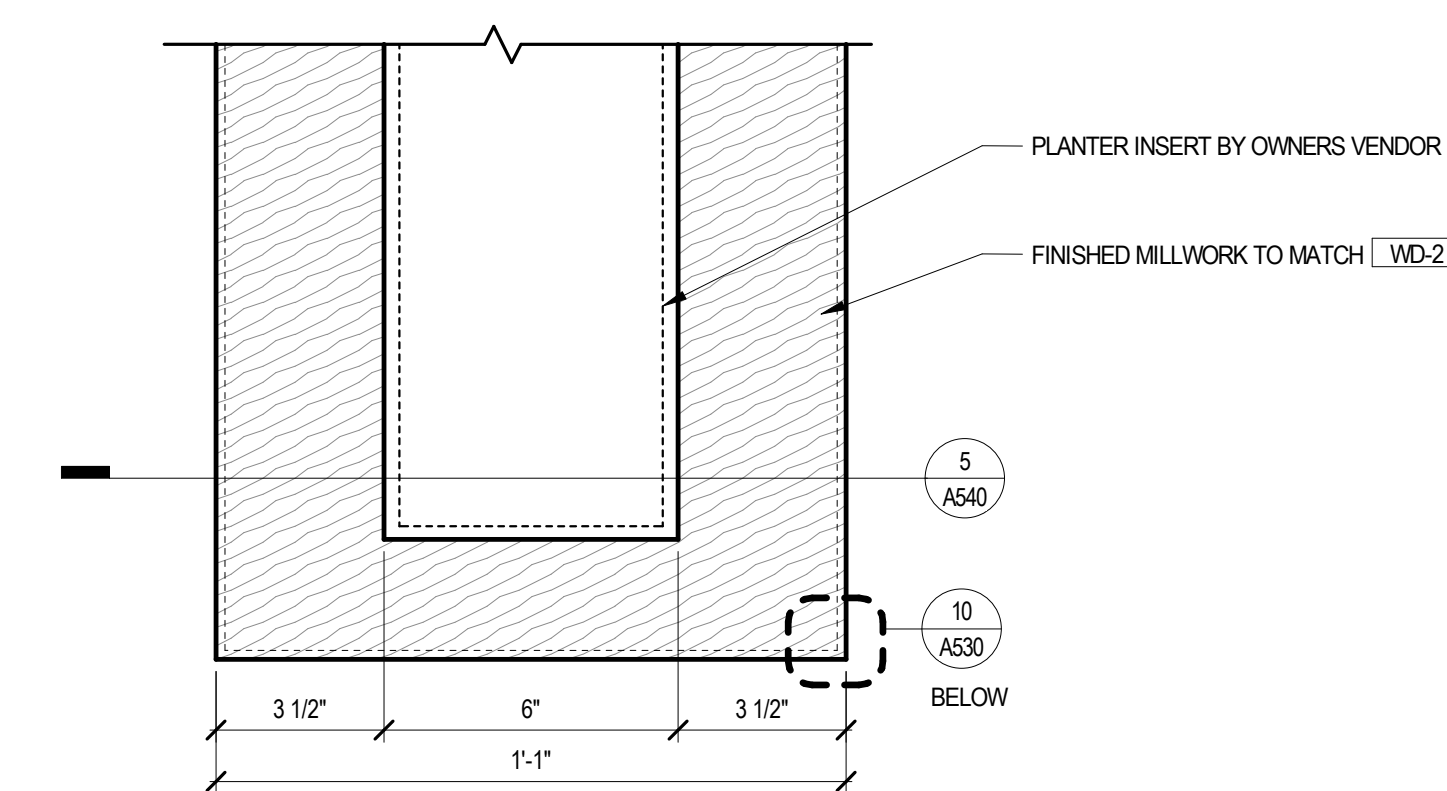
MILLWORK DETAILS

DRAWN BY: CS & V

CHECKED BY:

JOB NO:	2006
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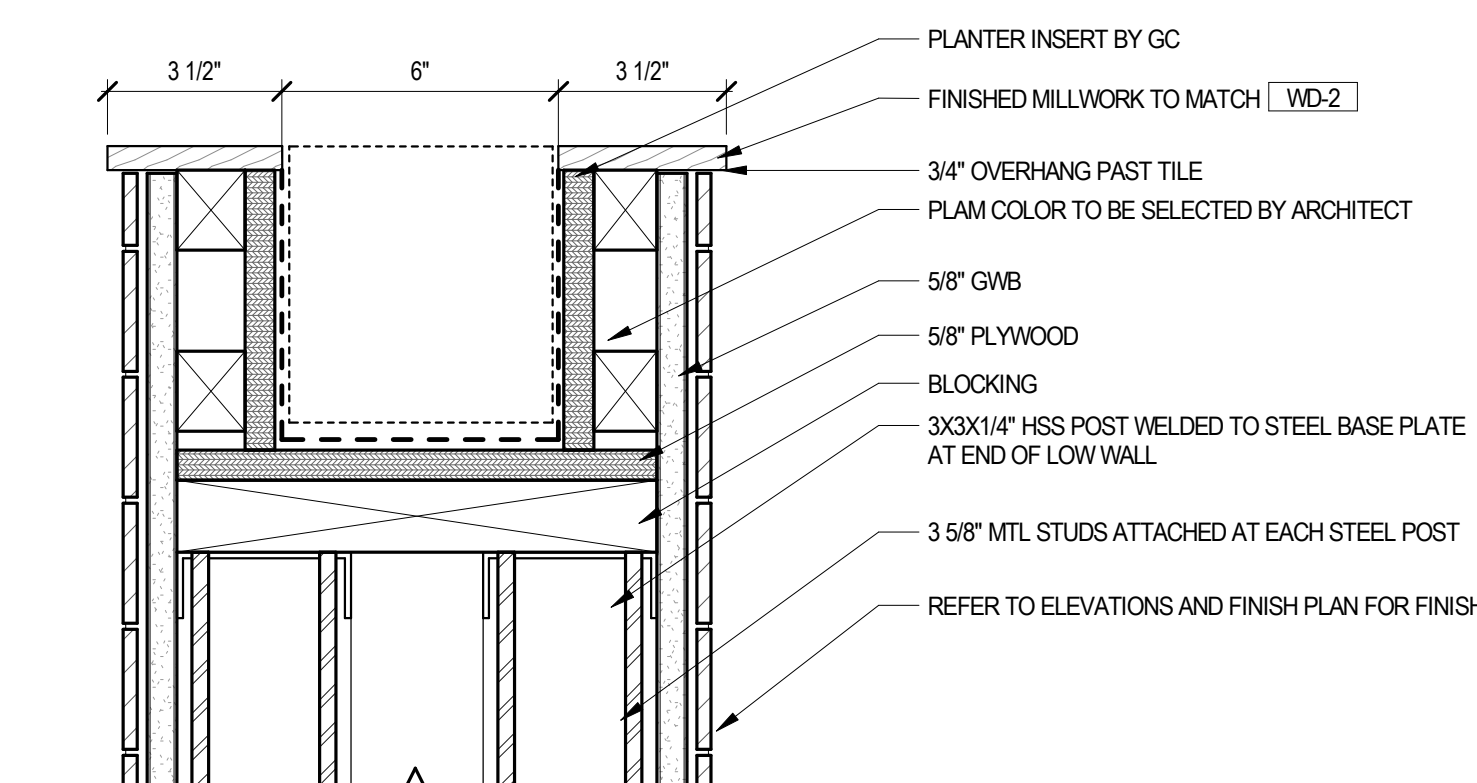
A540



PLAN DETAIL - PLANTER

$$3^m = 1' - 0$$

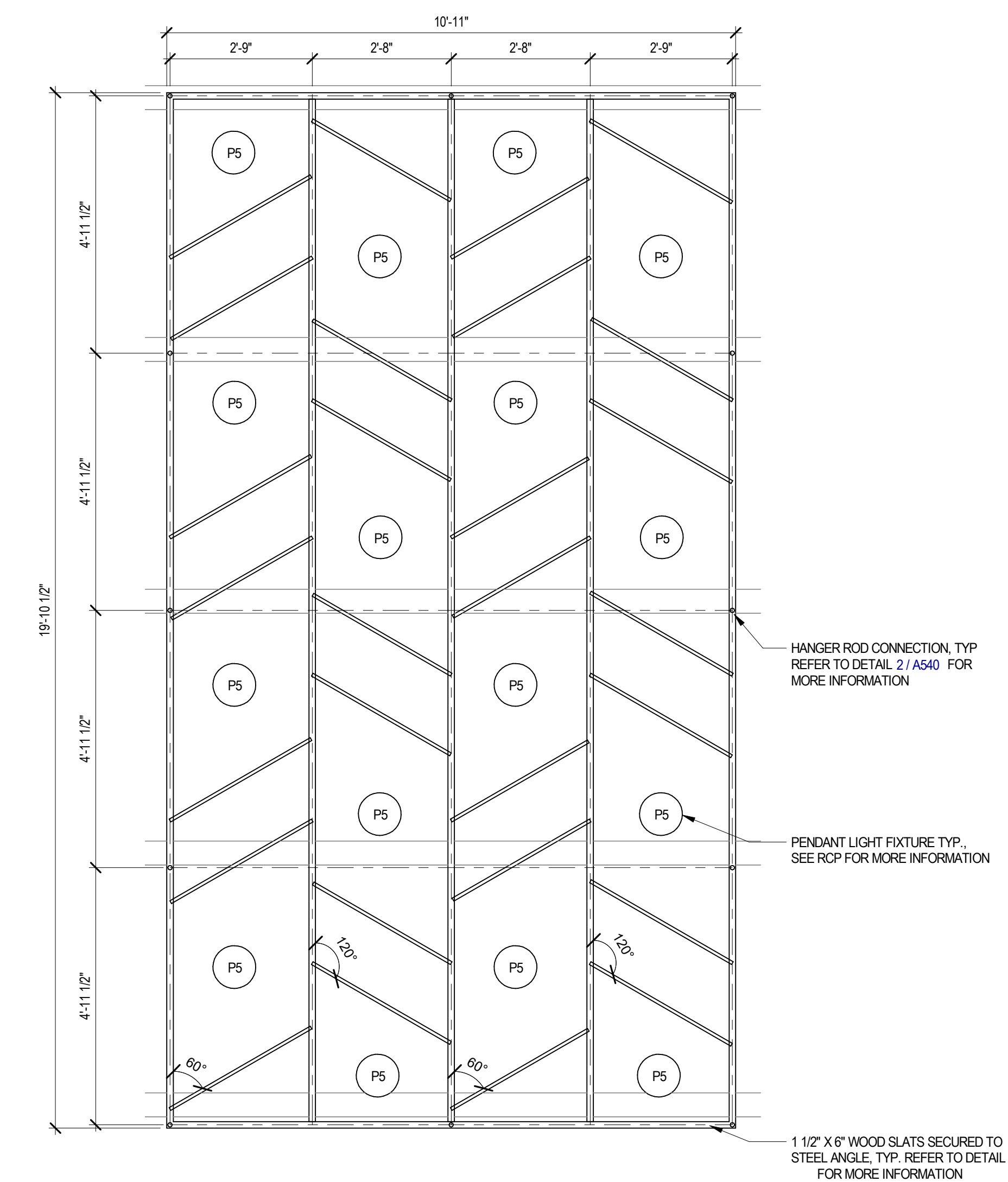
7



SECTION THROUGH PLANTER

$$3^{\circ} = 1^{\circ} - 0$$

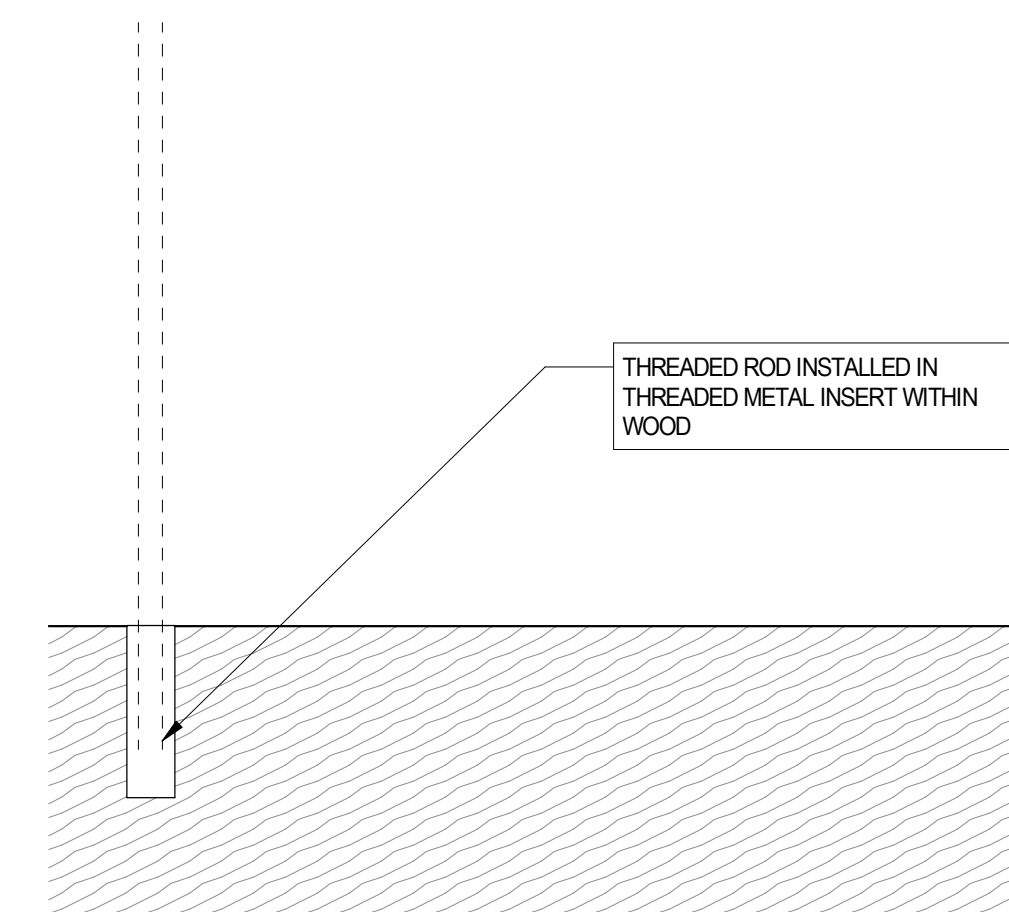
5



ENLARGED REFLECTED CEILING PLAN - MILLWORK CLOUD

1/2" = 1'-

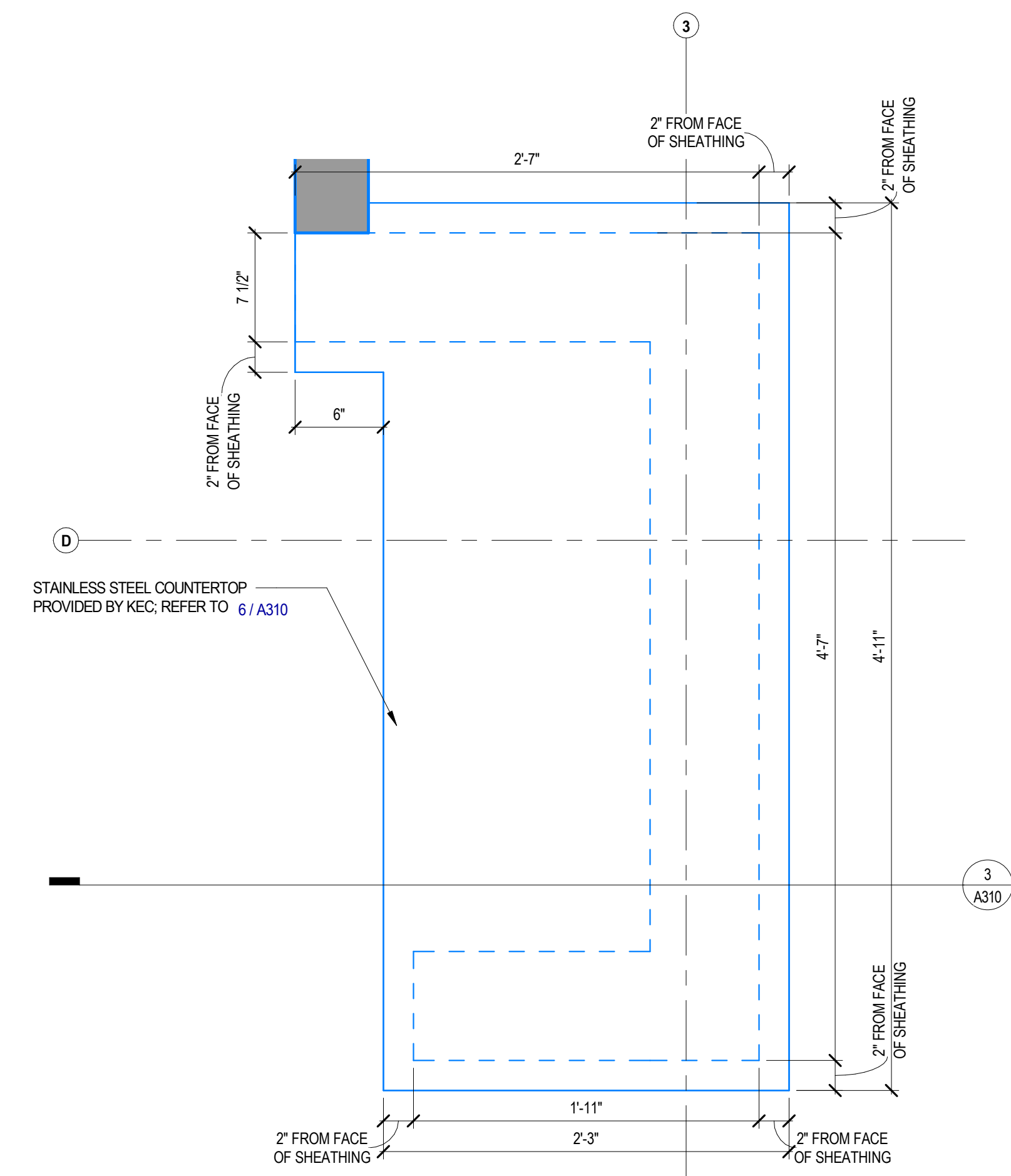
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SECTION DETAIL - MILLWORK HANGER ROD $3" = 1'-0"$

 $3'' = 1'-0''$

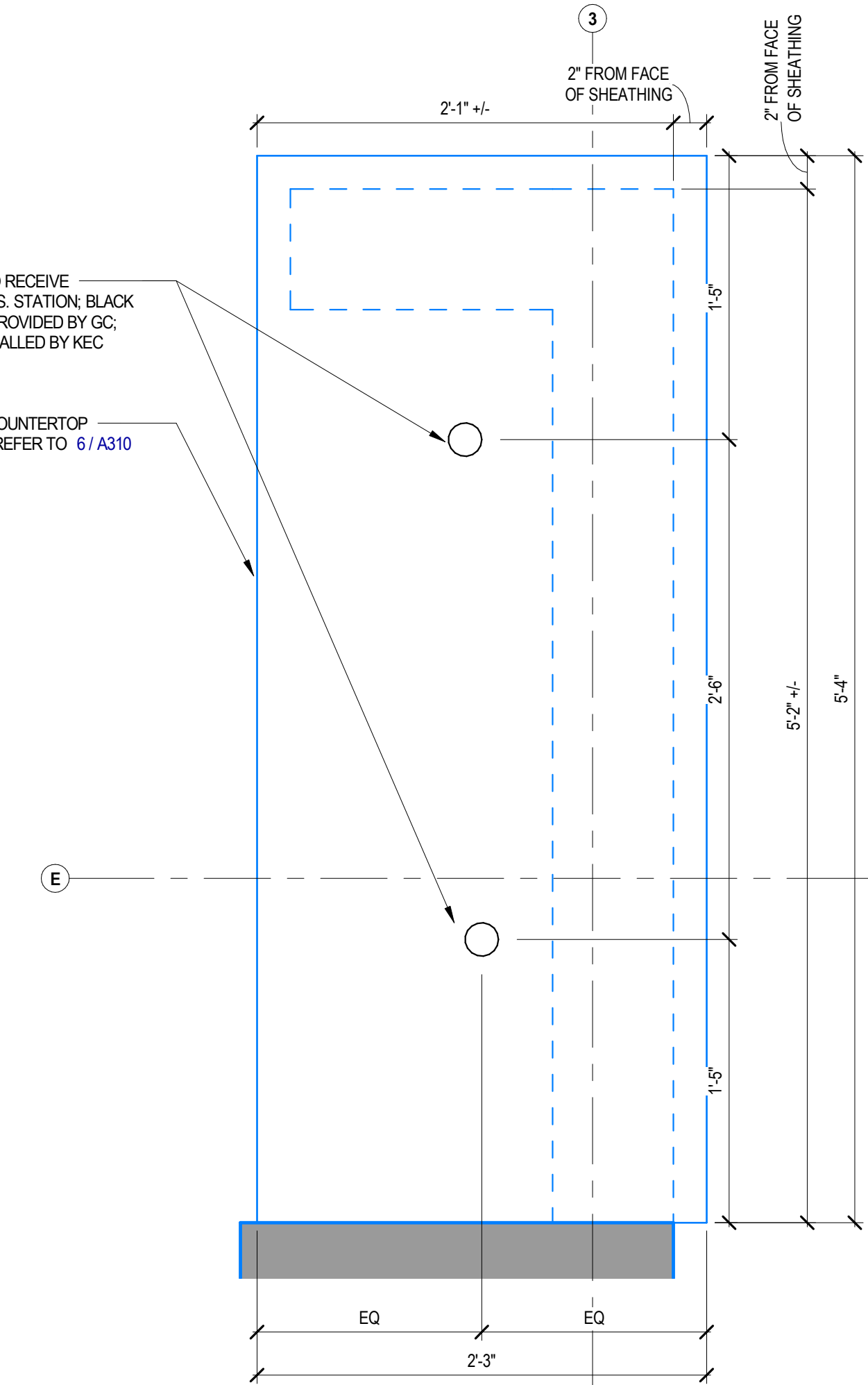
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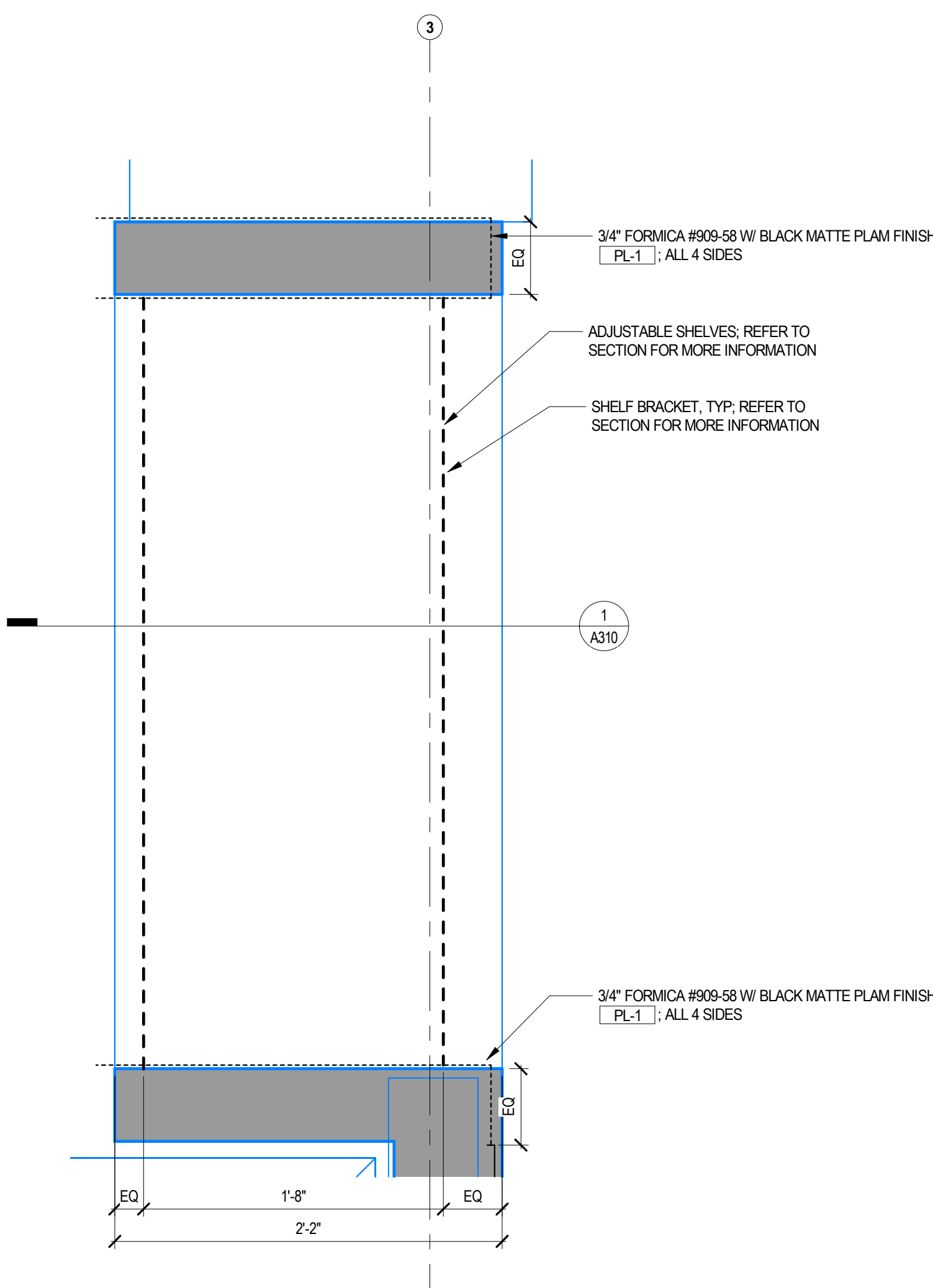
PLAN DETAIL - PICKUP COUNTER

 $1\frac{1}{2}'' =$

6

**PLAN DETAIL- ORDER COUNTER** $1\frac{1}{2}'' = 1\frac{1}{2}''$

3



PLAN DETAIL- PICKUP SHELVING

 $1\frac{1}{2}'' = 1'-4$

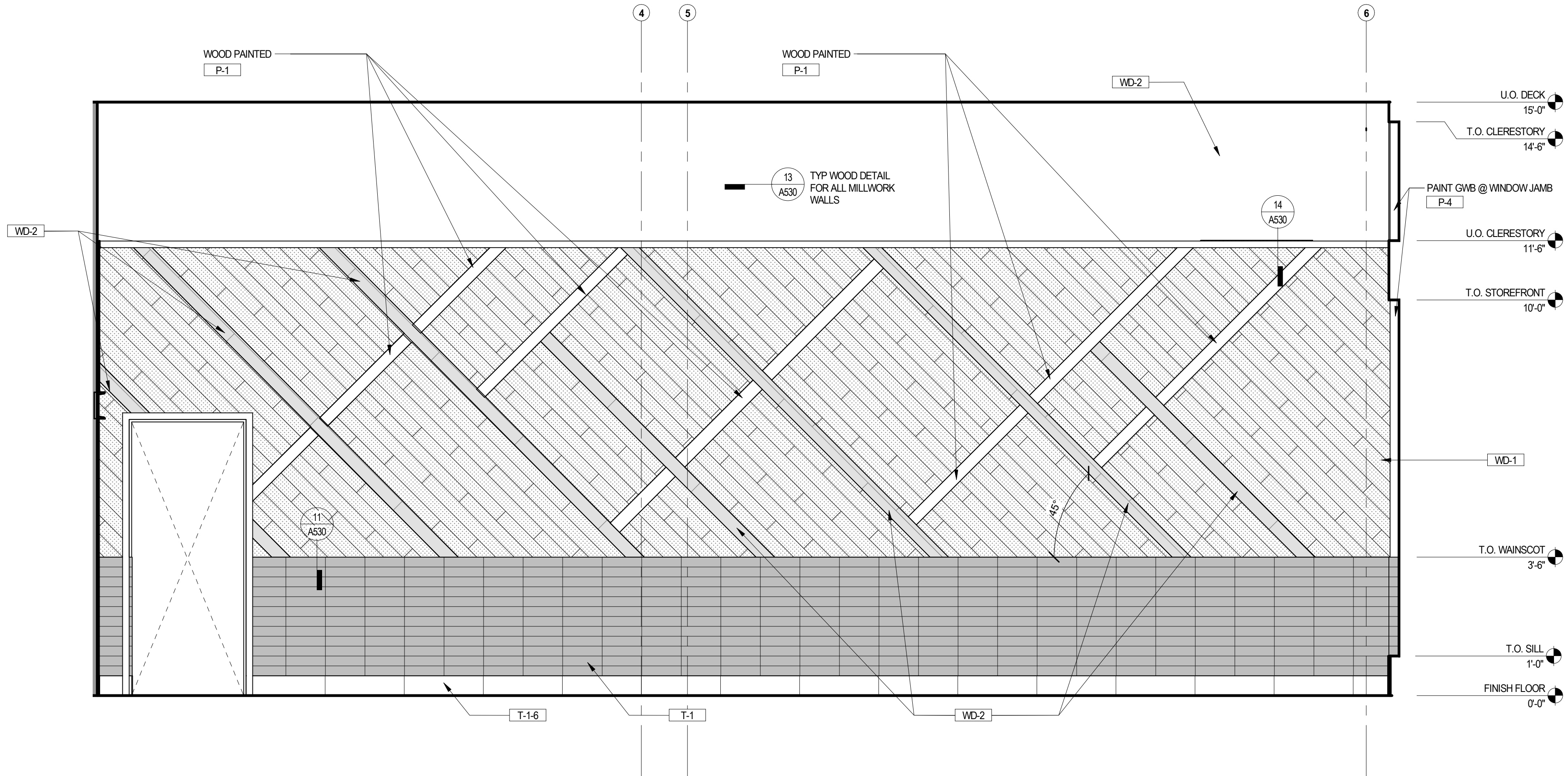
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FINISH SCHEDULE

TAG NO.	TYPE	MANUFACTURER	STYLE/MODEL	COLOR	LEAD TIME	COMMENTS
CEILING						
C-2	ACOUSTIC CEILING BOARD	ARMSTRONG	TECTUM CEILING PANELS	WHITE		APPLIED TO EXPOSED CEILING DECK IN FOH AREAS FOR SOUND ABSORPTION
C-10	VINYL-FACED CEILING TILE	USG	24" X 48" SHEETROCK BRAND LAY-IN CEILING PANEL VINYL ITEM#3270	WHITE		GRID: USG DXLA 15/16" WHITE T-GRID FOR WASHABLE TILE
EXTERIOR FINISHES						
MP-1	METAL PANEL	ATAS	OPW 4 1/2", CONCEALED FASTENER	ASCOT WHITE		
MP-1-B	WALL PANEL	ATAS	FLAT METAL PANEL	TO MATCH PMS 369 C		
MP-2	METAL PANEL	ARMSTRONG	METALWORKS LINEAR PLANKS, EXTERIOR, 4" WIDE PLANKS	EFFECTS OAK		
T-8	BRICK VENEER	CREATIVE MATERIALS CORP.	URBAN BRICK	BLACK		FLUSHED BRUSHED MORTAR JOINT, STANDARD GRAY; CEMENTITIOUS BOND COAT OVER BONDED WATERPROOF MEMBRANE
T-9	BRICK VENEER	CREATIVE MATERIALS CORP.	URBAN BRICK	WHITE		FLUSHED BRUSHED MORTAR JOINT, STANDARD WHITE; CEMENTITIOUS BOND COAT OVER BONDED WATERPROOF MEMBRANE
FLOORING						
E-1	URETHANE FLOORING SYSTEM	DUR-A-FLEX	POLY-CRETE MDB	GREY		WI TF PLUS TOP COAT
EM-2	ENTRY MAT	MATS INC	LEGEND; LOOSE LAY MAT	-		MAT TO BE WIDTH OF ENTRY DOORS
PC-2	CONCRETE SCREED	L.M. SCOFIELD CO.	POLISHED CONCRETE	1266 COOL GREY		SEE NOTE 1
T-1-24	PORCELAIN TILE	CREATIVE MATERIALS CORP.	CEMENTING, SIZE: 24" X 24"	BLACK, NATURAL FINISH		GROUT: LATICRETE 60, DUSTY GREY;
VF-1	VINYL FLOORING	OSCODA PLASTICS	PROTECT-ALL FLOORING	DARK GRAY		UNDER THE WALK-IN COOLER ONLY; SEE VENDOR LIST FOR CONTACT
METAL PANELS						
M-1-E	ALUMINUM CORRUGATED PANEL	ATAS	METAPHOR PROFILE	BONE WHITE (26)		
M-2	METAL PANEL	ATAS	STERRACORE	PVD# BLACK		
M-3-18	STAINLESS STEEL WALL PANEL	-	18 GAUGE BRUSHED FINISH	TYPE 304 SATIN STAINLESS STEEL		FURNISHED & INSTALLED BY GC
MISC.						
CS-1	QUARTZ	CAESARSTONE	#2203; THICKNESS: 3/4"	CONCRETE		REFER TO RESTROOM VANITY DETAIL
MISCELLANEOUS						
GL-1	GLASS	-	1/4" THICK TEMPERED CLEAR MONOLITHIC GLASS	CLEAR		INSTALL WF-1 ON CUSTOMER SIDE OF GLASS

ENLARGED FINISH ELEVATION



TAG NO.	TYPE	MANUFACTURER	STYLE/MODEL	COLOR	LEAD TIME	COMMENTS
PL-1	LAMINATE	-	FORMICA R909-58	MATTE BLACK		APPLY MATCHING EDGE/BAND WHERE APPLICABLE
WF-1	WINDOW FILM	SOLAR GARD	PANORAMA SLATE 40 FILM	-		INSTALLED ON CUSTOMER SIDE OF GLASS @ KITCHEN ENGINE
WALL BASE AND TRIM						
T-1-6	PORCELAIN TILE	CREATIVE MATERIALS CORP.	CEMENTING, SIZE: 6" X 24"	BLACK, NATURAL FINISH		GROUT: LATICRETE 60, DUSTY GREY;
T-1-12	PORCELAIN TILE	CREATIVE MATERIALS CORP.	CEMENTING, SIZE: 12" X 24"	BLACK, NATURAL FINISH		GROUT: LATICRETE 60, DUSTY GREY;
TR-2	TRANSITION	SCHLUTER	RENO-RAMP 2 1/2"	SATIN ANODIZED ALUMINUM		
TR-4	EDGE PROTECTION PROFILE	SCHLUTER	JOLLY	ALUMINUM FINISH W/ BLACK JOINT		
TR-5	EDGE PROTECTION PROFILE	SCHLUTER	RONDEC	MATERIAL: ALUMINUM, FINISH: BRIGHT BLACK ANODIZED		
TR-7	COVE-SHAPED PROFILE	SCHLUTER	DILEX-AHKA	MATERIAL: ALUMINUM, FINISH: BRUSHED GRAPHITE ANODIZED ALUMINUM (AGPS)		
TR-10	DRYWALL F REVEAL	FRY REGLET	DRMF-625-200	POWDERCOAT BLACK		
WALL FINISHES						
FRP	FIBERGLASS REINFORCED PANEL	WARLITE	STANDARD P100, SMOOTH FINISH	WHITE		
P-1	PAINT	SHERWIN WILLIAMS	SW7005	PURE WHITE		
P-2	PAINT	SHERWIN WILLIAMS	SW7064	PASSIVE		
P-4	PAINT	SHERWIN WILLIAMS	SW7069	IRON ORE		
T-1	PORCELAIN TILE	CREATIVE MATERIALS CORP.	PIECES, DEPTH: SIZE: 3" X 12"	CHARCOAL	6-8 WEEKS	GROUT: LATICRETE 60, DUSTY GREY; 1/8" JOINTS
T-3	PORCELAIN TILE	CREATIVE MATERIALS CORP.	CHROMA, SIZE: 2" X 10"	WHITE, GLOSSY		GROUT: LATICRETE 60, BRIGHT WHITE; 1/8" JOINTS
T-14	PORCELAIN TILE	CREATIVE MATERIALS CORP.	TUNE	WHITE, GLOSSY		GROUT: LATICRETE 60, BRIGHT WHITE; 1/8" JOINTS
WD-1	WOOD FINISH	PIONEER MILLWORKS	WOOD PLANK - WIDE PLANK	ASH - SILVER FOX		
WD-2	WOOD FINISH	PIONEER MILLWORKS	WOOD PLANK - WIDE PLANK	MIXED OAK, BLACK & TAN - TAN		
NOTES:						
1. POLISHED CONCRETE PC-3						
• 1 PASS 80 GRIT METAL BOND PAD (TO ACHIEVE SALT & PEPPER)						
• 1 PASS 150 GRIT METAL BOND PAD						
• 1 PASS 100 GRIT RESIN BOND PAD						
• 1 PASS 200 GRIT RESIN BOND PAD						
• 1 PASS 400 GRIT RESIN BOND PAD						
• 1 PASS 800 GRIT RESIN BOND PAD						
• CONSOLIDEX POLISHED GUARD PROTECTIVE COATING						
• CLEAR CONCRETE SEALER: CURECRETE-CHEMICAL AASHFORD FORMULA, ONE COAT; ZERO VOCs						

GENERAL NOTES

- A. CHECK LEAD TIMES ON ALL TILES. SOME MAY HAVE A 6-8 WEEK LEAD TIME.
B. TILE INSTALLER TO VERIFY ALIGNMENT OF GROUT LINES OF WALL AND FLOOR TILE PRIOR TO INSTALLATION.
C. THE G.C. IS TO OBTAIN CONTROL SAMPLE FOR WOOD PANELING FROM TENANT'S DESIGNER.
D. USE EXTERIOR GRADE FINISHES AT ALL FLOORING, WALL, AND CEILING APPLICATIONS.
E. AT ALL TILE TRANSITIONS (EDGES, CORNERS, ETC.) WHERE APPLICABLE, PROVIDE STAINLESS STEEL SCHLUTER TRIM PIECES AND ACCESSORIES.
F. ALL INTERIOR FINISHES TO HAVE A FLAME SPREAD RATING AS INDICATED ON SHEET T-1001

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

FINISH SCHEDULE

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 20068.00

A601

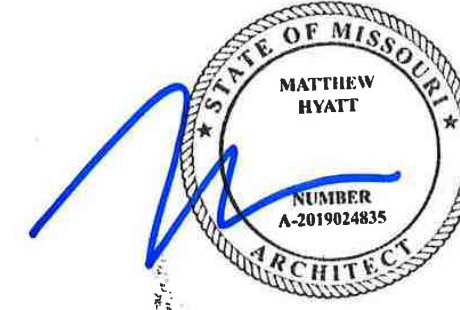
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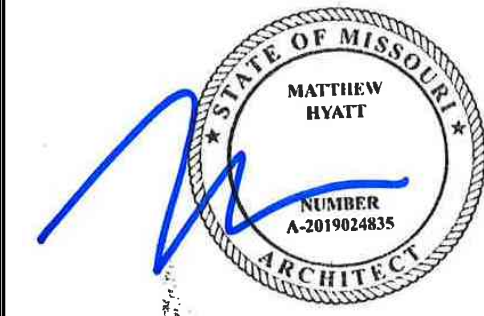
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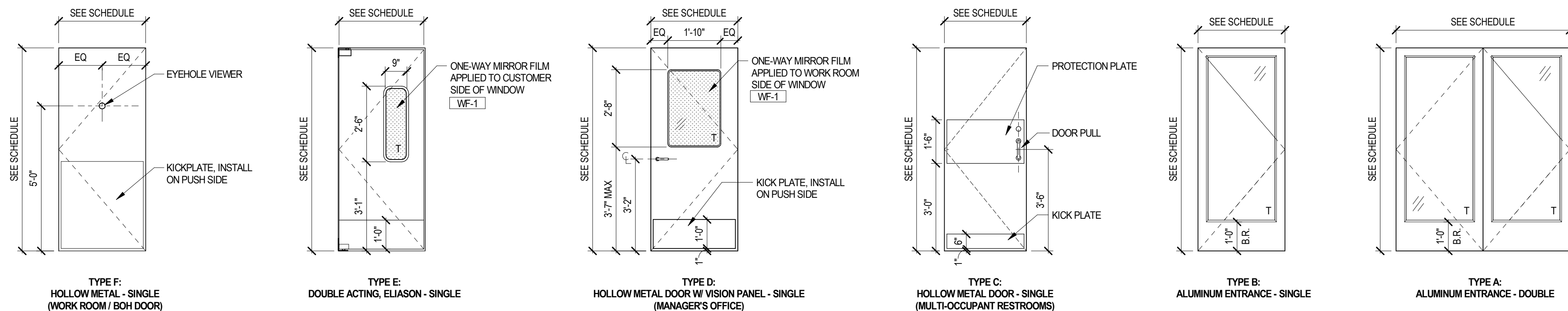
SEA/ SIGNATURE:



HARDWARE SCHEDULE

SET # 01 - EXTERIOR PAIR WITH SURFACE VERTICAL ROD PANIC HARDWARE				
1 EA	THRESHOLD	ZERO	655A	A
2 EA	CONT. HINGE	IVES	700	630
2 EA	OH STOP & HOLDER	GLY	100H ADJ	630
2 EA	PANIC HARDWARE	VON	CD347A-L-06	313
2 EA	FLUSH CEILING MTO PLT	LON	4040XP-18G	695
2 EA	SURFACE CLOSER	LON	4040XP	695
4 EA	CYLINDER	INSTA-KEY	INSTA-KEY	313
1 EA	REMAINING GASKETING			
2 EA	DOOR SWEEP	ZER	8192AA	AA
SET # 02 - EXTERIOR SINGLE WITH SURFACE VERTICAL ROD PANIC HARDWARE				
1 EA	THRESHOLD	ZERO	655A	A
1 EA	CONT. HINGE	IVES	700	630
1 EA	OH STOP & HOLDER	GLY	100H ADJ	630
1 EA	PANIC HARDWARE	VON	CD347A-L-06	313
1 EA	FLUSH CEILING MTO PLT	LON	4040XP-18G	695
1 EA	SURFACE CLOSER	LON	4040XP	695
2 EA	CYLINDER	INSTA-KEY	INSTA-KEY	313
1 EA	REMAINING GASKETING			
1 EA	DOOR SWEEP	ZER	8192AA	AA
SET # 03 - VESTIBULE				
1 EA	CONT. HINGE	IVES	700	630
1 EA	OH STOP & HOLDER	GLY	100H ADJ	630
1 EA	SURFACE CLOSER	LON	4040XP	695
SET #04 - RESTROOM MULTI-OCCUPANT				
3 EA	HW HINGE	IVE	3CB1HW 4.5 X 4.5	630
1 EA	DOOR PULL, 1" ROUND	IVE	8103RD 8"	630
1 EA	SURFACE CLOSER	LON	4040XP	630
2 EA	PUSH PLATE	IVE	8400 18" X 2" LESS DOOR WIDTH	630
2 EA	KICK PLATE	IVE	8400 6" X 2" LESS DOOR WIDTH	630
1 EA	WALL STOP	IVE	WS406/407CCV	630
1 EA	SEALS	ZER	488S	S-BK
NOTE: KICK PLATE 6" HEIGHT. PUSH PLATE 18" HEIGHT, MOUNTED AS SHOWN ON DOOR ELEVATIONS. CLOSER TO BE PULL SIDE MOUNTED				
SET #05 - MANAGERS OFFICE				
3 EA	HW HINGE	IVE	3CB1HW 4.5 X 4.5	630
1 EA	STOREROOM LOCK	SCH	L5080L DGL	630
1 EA	CYLINDER AS REQ.	INSTA-KEY	INSTA-KEY	US26D
1 EA	SURFACE CLOSER	LON	4040XP	695
1 EA	KICK PLATE	IVE	8400 12" X 2" LESS DOOR WIDTH	630
1 EA	WALL STOP	IVE	WS406/407CCV	630
1 EA	SEALS	ZER	488S	S-BK
NOTE: CLOSER PUSH SIDE MOUNTED				
SET #06 - BACK OF HOUSE DOOR				
1 EA	CONT. HINGE	IVE	700	630
1 EA	PANIC HARDWARE	VON	CD-89-L-AL-06-1439	626
2 EA	CYLINDER AS REQ.	INSTA-KEY	INSTA-KEY	US26D
1 EA	SURFACE CLOSER	LON	4040XP SHUSH	699
1 EA	VIEWPORT	DOO	DS2000 AL S	
1 EA	WINDOR PLATE	IVE	8300 36" X 2" LESS DOOR WIDTH	630
1 EA	SEALS	ZER	429	A
1 EA	DOOR SWEEP	ZER	8192AA	AA
1 EA	THRESHOLD	ZER	655A	A
NOTE: CLOSER PUSH SIDE MOUNTED. DOOR VIEWER BY DOOR-SCOPE MOUNTING PER DOOR ELEVATIONS				

DOOR TYPES



DOOR SCHEDULE

NO.	ROOM NAME	DOOR				FRAME				HDWR	NOTES		
		DOOR SIZE		TYPE	MAT.	FINISH	DETAILS		TYPE			MAT.	FIN.
		WIDTH	HEIGHT				HEAD	JAMB					
102A	CORRIDOR	3'-0"	7'-0"	-	-	-	4/A602	4/A602	3	-	P-4	-	
102B	PATIO	3'-0"	8'-0"	B	AL/GL	-	-	-	-	AL	AL	2	
104	WORK ROOM	3'-0"	7'-0"	E	SS	SS	3/A602	2/A602	2	SS	SS	-	
105	WOMEN'S RESTROOM	3'-0"	7'-0"	C	HM	P-4	1/A602	1/A602	1	HM	P-4	4	
106	MEN'S RESTROOM	3'-0"	7'-0"	C	HM	P-4	1/A602	1/A602	1	HM	P-4	4	
107	EXTERIOR / WORK ROOM	3'-0"	7'-0"	F	HM	P-1	1/A602	1/A602	1	HM	P-1	6	
108	MANAGERS OFFICE	3'-0"	7'-0"	D	HM	P-1	1/A602	1/A602	1	HM	P-1	5	
111A	ENTRY / VESTIBULE	6'-0"	8'-0"	A	AL/GL	-	-	-	-	AL	AL	3	
111B	VESTIBULE	6'-0"	8'-0"	A	AL/GL	-	-	-	-	AL	AL	1	
113	EXTERIOR / UTILITY ROOM	3'-0"	7'-0"	F	HM	P-1	1/A602	1/A602	1	HM	P-1	6	

KEY PROGRAM NOTES

- A. GC TO PROVIDE AND INSTALL NEW INSTAKEY KEY CONTROL KEYS & CYLINDERS TO SHAKE SHACK AT TURNOVER FROM NATIONAL ACCOUNT VENDOR FOR INSTAKEY KEY CONTROL BLOCKS (16). REFER TO T002 FOR VENDOR CONTACT INFORMATION.
- B. ALL KEYED DOORS IN THE RESTAURANT TO BE PART OF THE SAME INSTAKEY KEY CONTROL SYSTEM- WHETHER PROVIDED BY LANDLORD, GC OR VENDOR. GC TO CONFIRM WITH ARCHITECT AND OWNER PRIOR TO ORDERING AND INSTALLING
- C. MASTERKEY
- OPENS ALL DOORS IN RESTAURANT:
- EXTERIOR DOORS (LANDLORD OR SHAKE SHACK PROVIDED)
- MANAGERS OFFICE
- RESTROOMS
- OTHER INTERIOR DOORS (MECHANICAL ROOM, DRY STORAGE, ETC.)
- D. VENDOR KEY
- OPENS ALL DOORS IN RESTAURANT EXCEPT MANAGERS OFFICE
- GC TO PROVIDE (6) VENDOR KEYS AND (2) NEW RE-KEY INSTAKEY SET DELIVERED TO SHAKE SHACK OPERATIONS TEAM ON PREMISES

GENERAL NOTES

- A. G.C. TO INSTALL TEMPERED GLASS IN ALL DOORS AS REQUIRED.
- B. TEMPERED GLASS REQUIRED IF GLAZING IS LESS THAN 18" AFF. OR ADJACENT TO DOORS

3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

DOOR, HARDWARE &
SCHEDULES

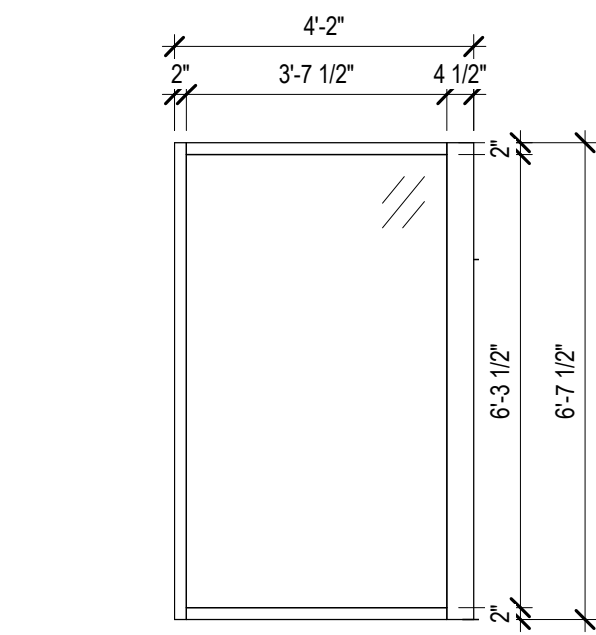
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CHECKED BY: JS

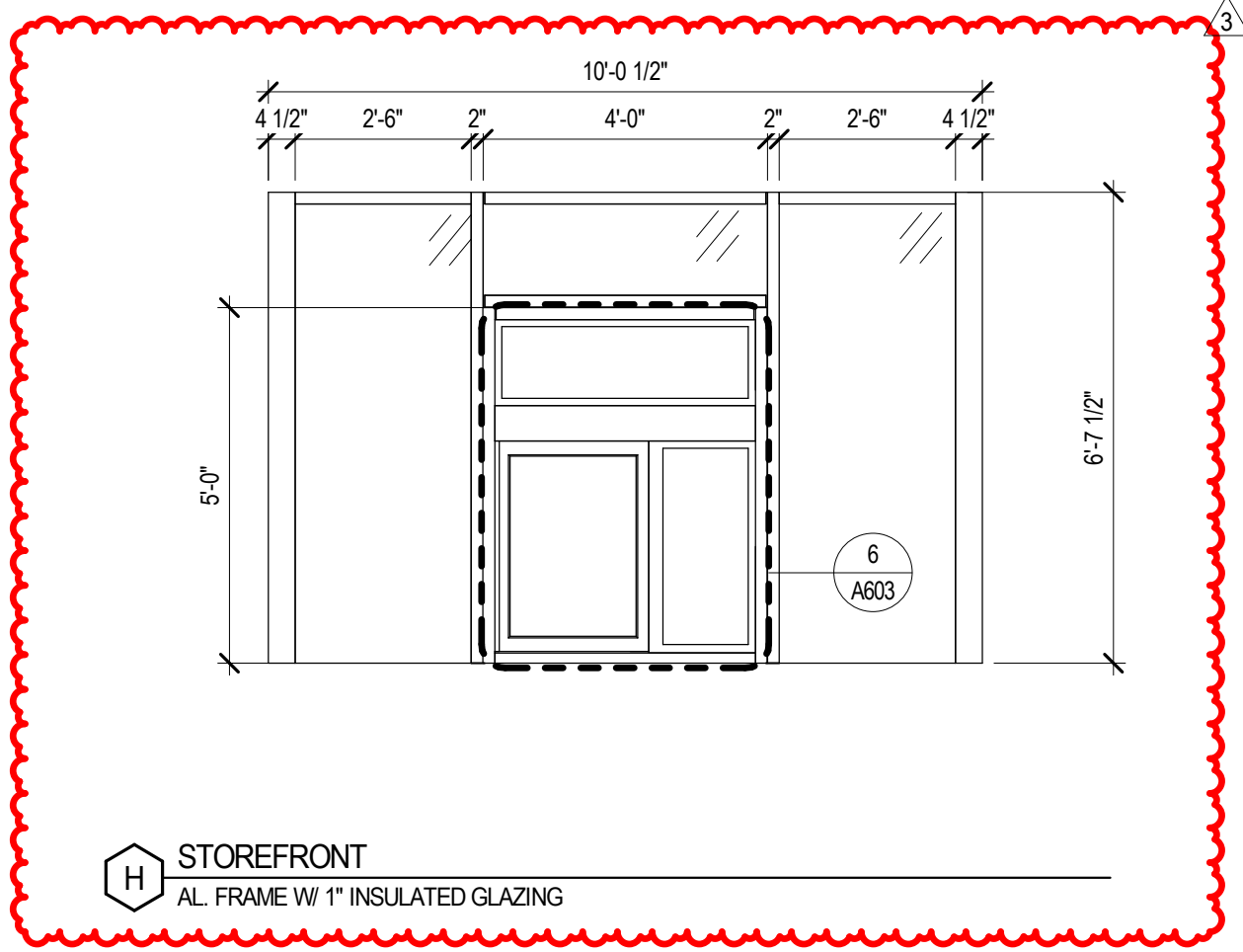
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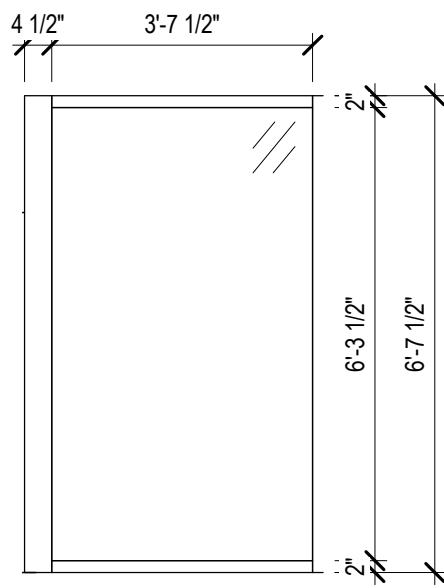
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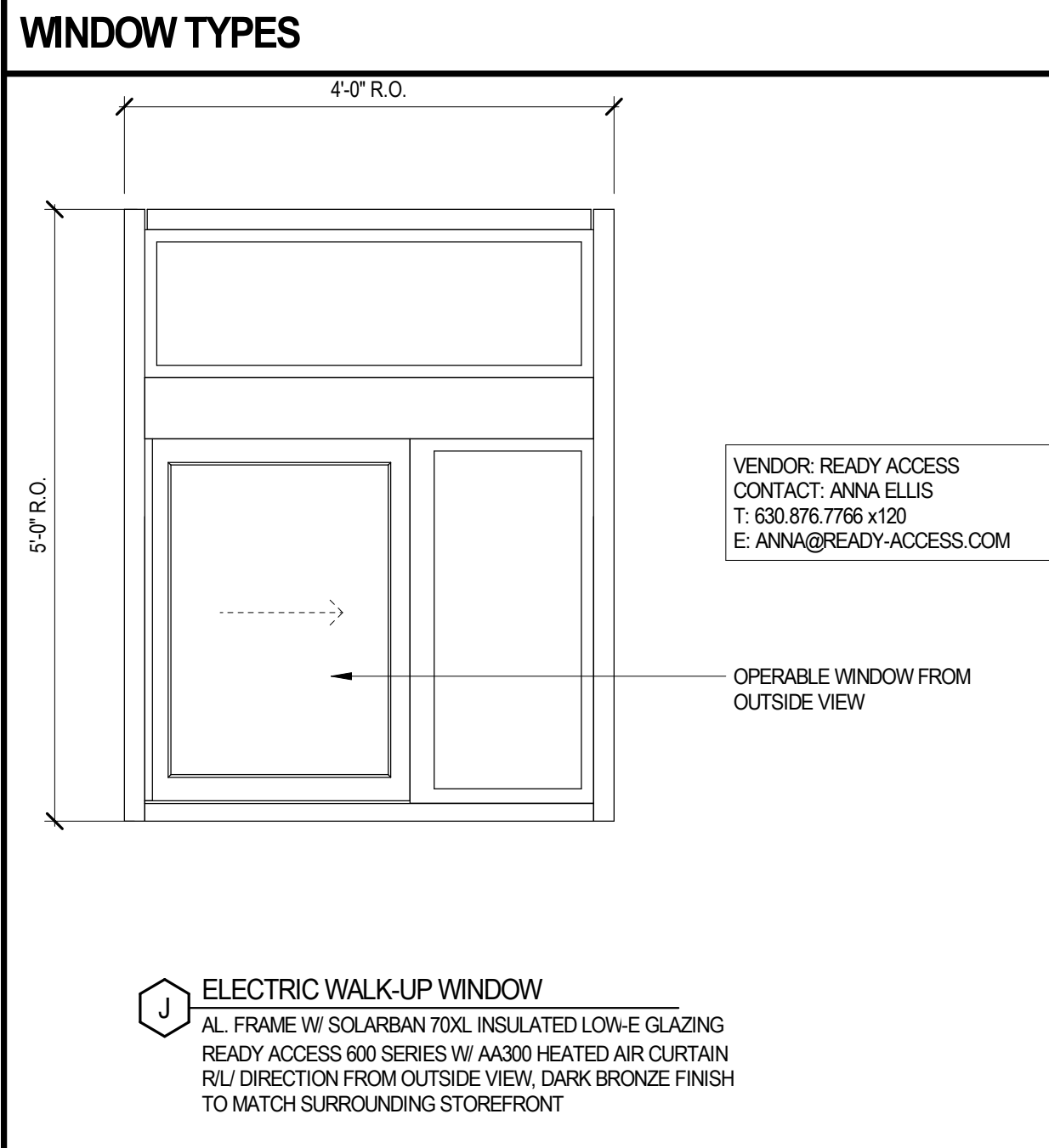
I STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



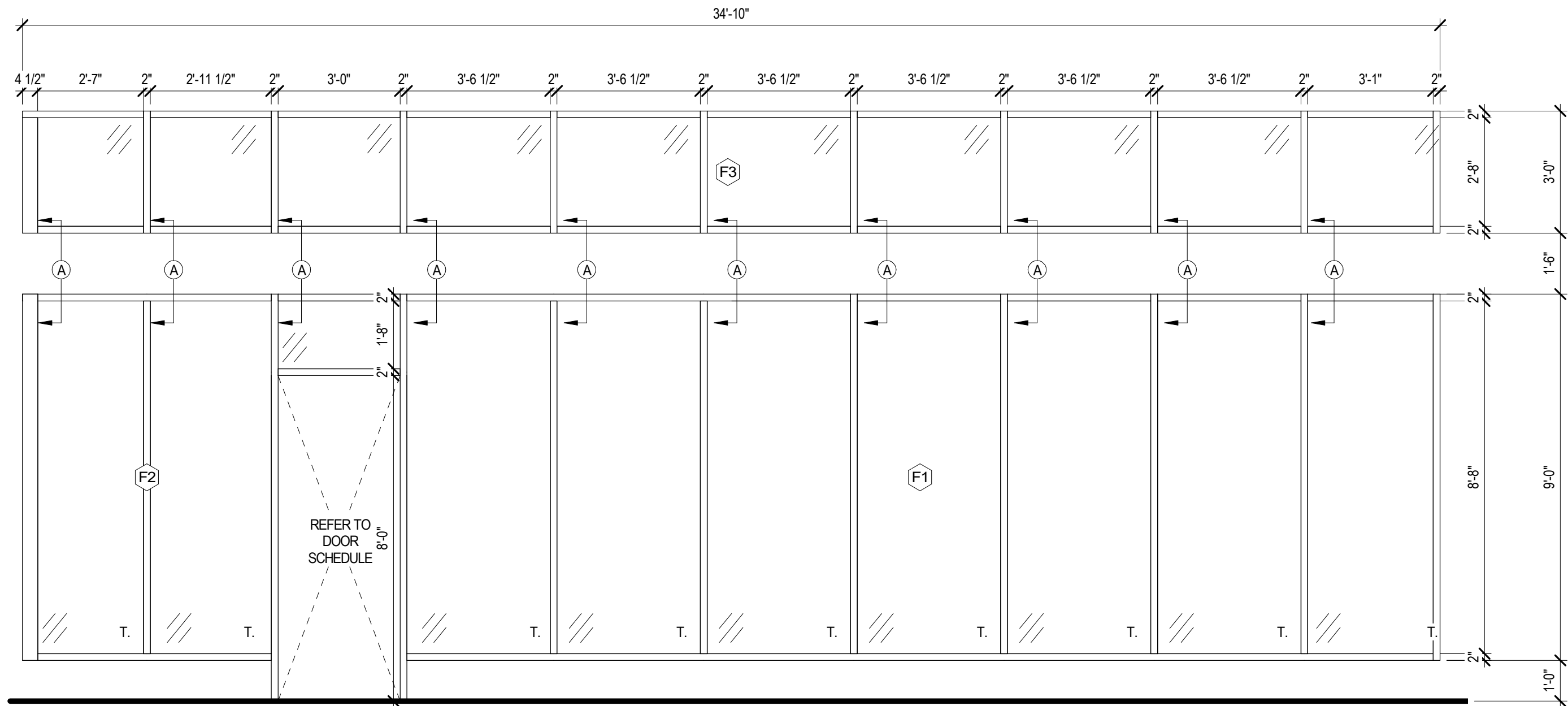
H STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



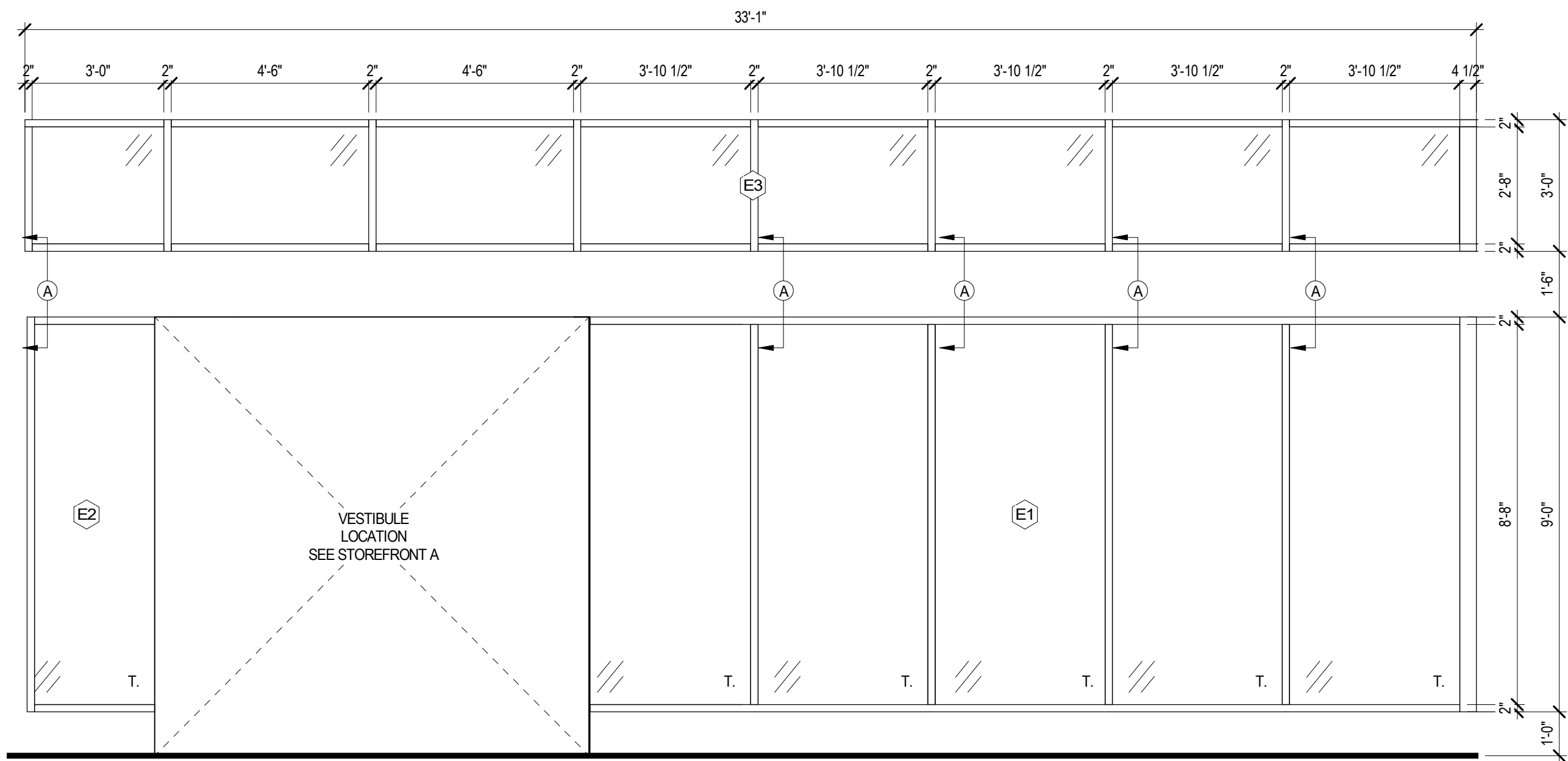
G STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



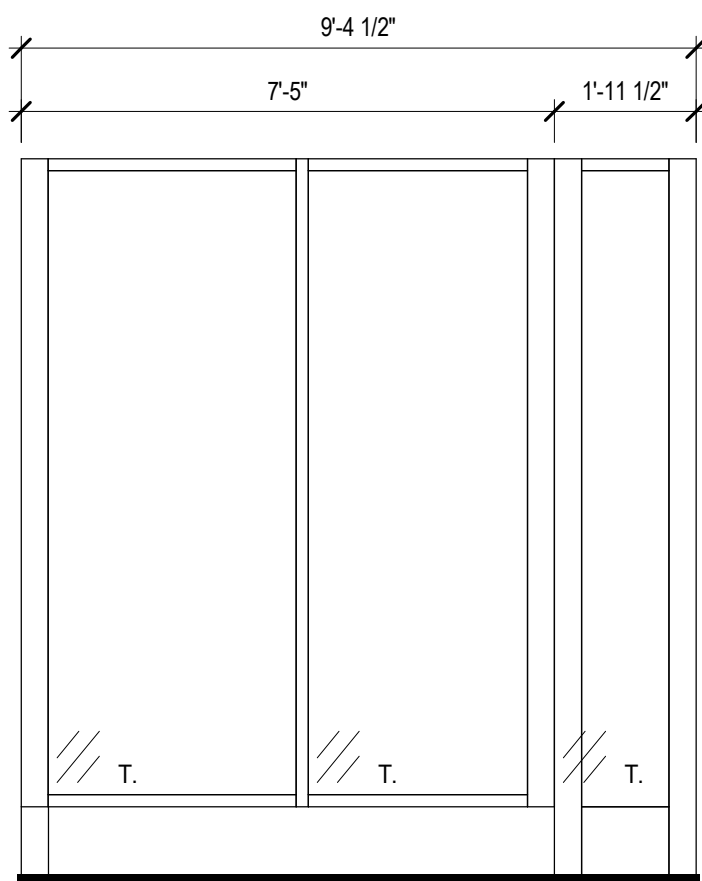
J ELECTRIC WALK-UP WINDOW
AL FRAME W/ SOLARBAN 70XL INSULATED LOW-E GLAZING
READY ACCESS 800 SERIES W/ A4300 HEATED AIR CURTAIN
RLU DIRECTION FROM OUTSIDE VIEW, DARK BRONZE FINISH
TO MATCH SURROUNDING STOREFRONT



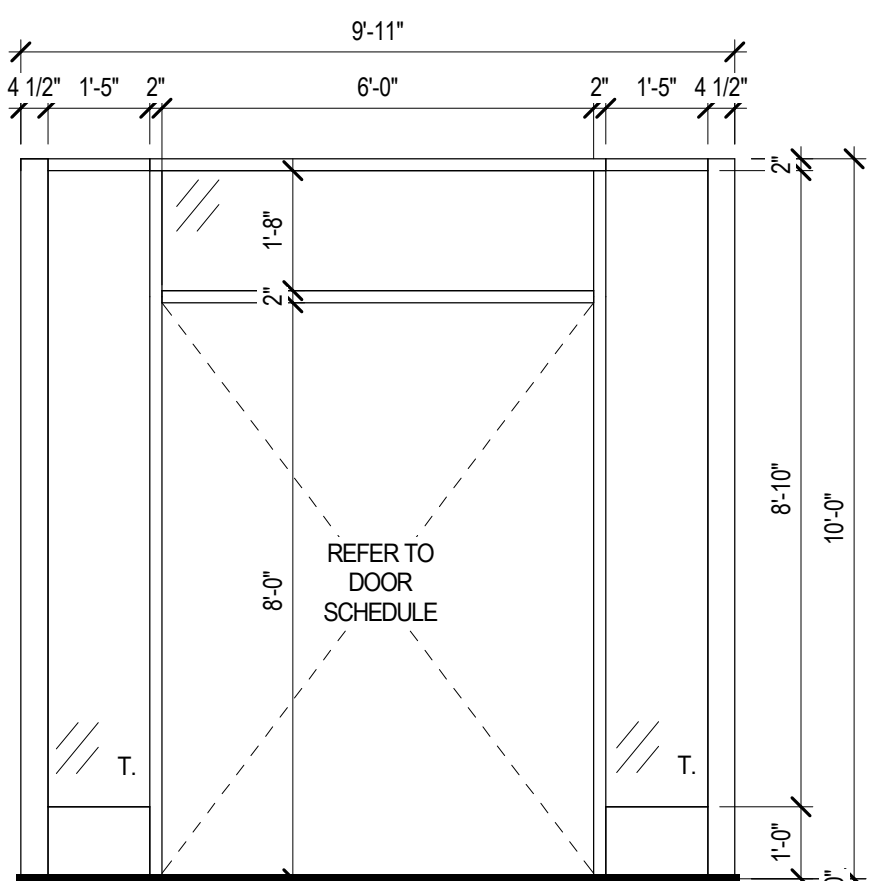
F STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



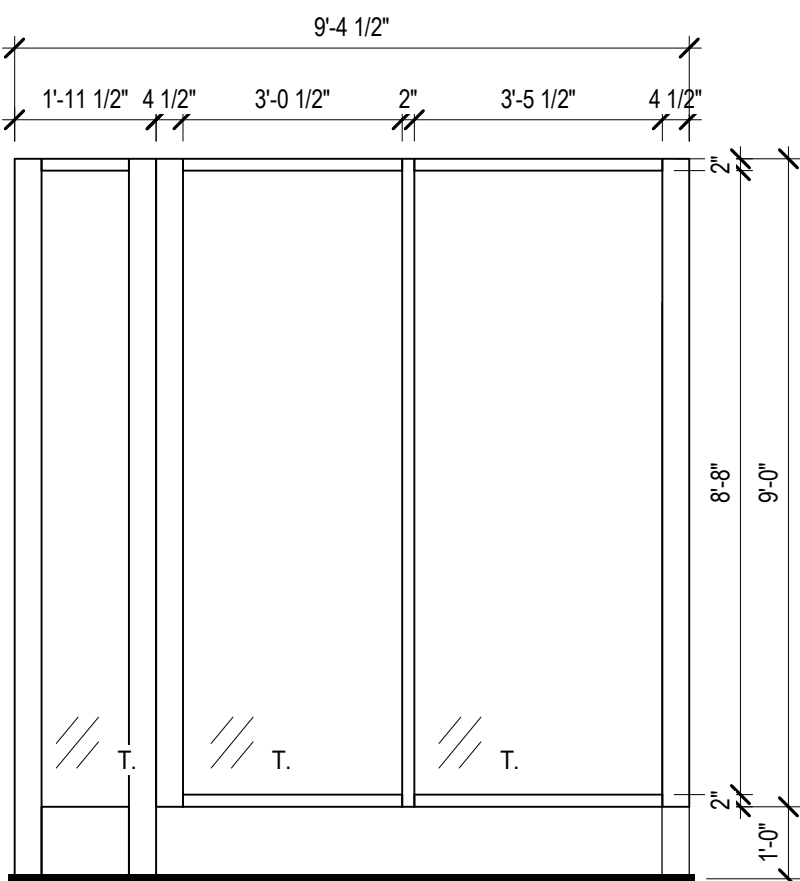
E STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



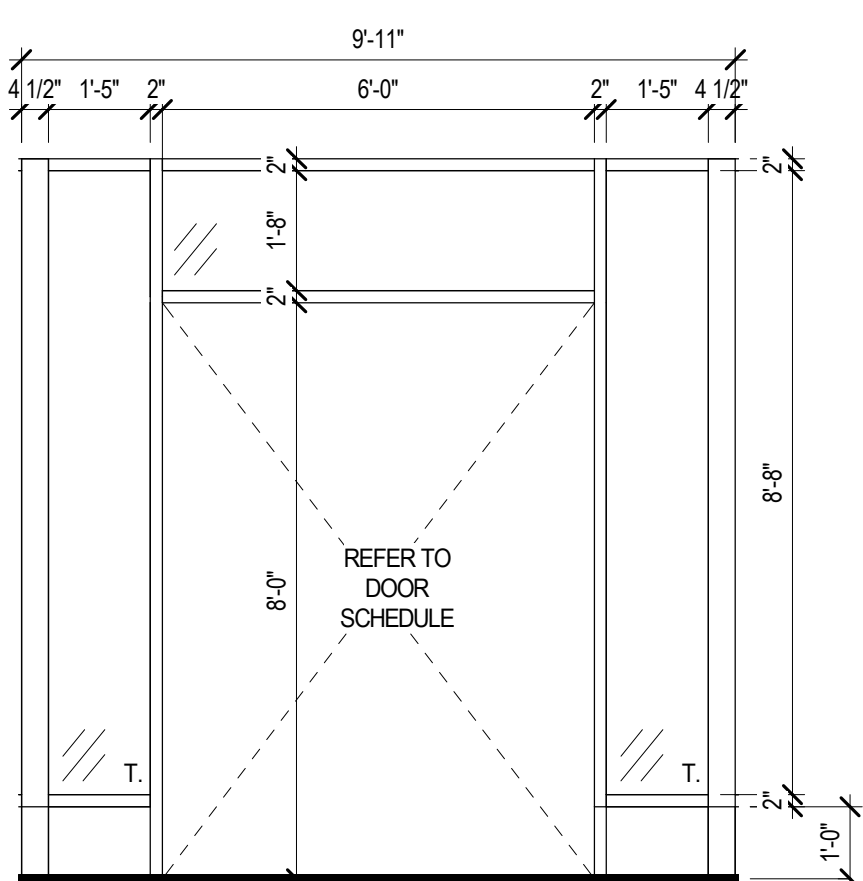
D STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



C STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



B STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING



A STOREFRONT
AL FRAME W/ 1" INSULATED GLAZING

STOREFRONT GENERAL NOTES

- GLASS TYPES DESIGNATIONS:
A. "T" = TEMPERED INSULATED GLASS UNIT
- VERIFY ALL ROUGH OPENINGS IN FIELD PRIOR TO FABRICATION
- ALL STOREFRONTS & WINDOWS TO BE DESIGNED IN ACCORDANCE W/ ALL LOCAL CODES
- STOREFRONT BASIS OF DESIGN:
A. KAWNEER 481T SYSTEM, 2" SIGHTLINE W/ 4 1/2" DEPTH, CENTER PLANE GLAZING
- STOREFRONT DOOR BASIS OF DESIGN:
A. KAWNEER 360 MEDIUM STYLE DOOR W/ 12" BOTTOM RAIL
- STOREFRONT GLAZING BASIS OF DESIGN:
A. SOLARBAN 70XL #2
a. SHGC: 0.247
b. VT: 0.932
c. U-VALUE: 0.400

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

05/17/2021

www.bergmeyer.com

Bergmeyer

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BOS
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Los Angeles, CA 90017
51 Sloop St.
Boston, MA 02210
617.542.1025

CONSULTANTS:

SEA/ SIGNATURE:

STATE OF MISSOURI
MATTHEW WYATT
REGISTERED ARCHITECT
NUMBER A-201924835

3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOMENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

STOREFRONT SCHEDULES & ELEVATIONS

DRAWN BY:	CS & WOL
CHECKED BY:	JS
JOB NO:	20080.00

A603

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PART 1 GENERAL
1.1 SUMMARY
A. PROJECT IDENTIFICATION: SHAKE SHACK, LEE'S SUMMIT, 2051 NW LOWENSTEIN DRIVE, LEE'S SUMMIT, MISSOURI 64081
B. PROJECT SUMMARY: NEW CONSTRUCTION, FREESTANDING QUICK SERVICE RESTAURANT WITH AN OUTDOOR PATIO, THE INTENDED USE GROUP IS A-2 ASSEMBLY, NEW CONSTRUCTION, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION COMPONENTS ARE PROPOSED.
C. PARTICULAR PROJECT REQUIREMENTS:
1. REQUIREMENTS FOR SEQUENCING, SCHEDULING AND COMPLETION DATE:
a. TO BE DETERMINED.
2. WORK BY OWNER AND OWNER'S SEPARATE VENDORS:
a. REFER TO RESPONSIBILITY SCHEDULE ON DRAWINGS.
b. OWNER UNFINISHED AND CONTRACTOR-INSTALLED (OFCI) ITEMS:
i. POINT OF SALE CROSS SYSTEM.
ii. REFER TO RESPONSIBILITY SCHEDULE ON DRAWINGS.
3. SUSTAINABLE DESIGN INTENT:
a. DEMOLITION AND CONSTRUCTION WASTE MANAGEMENT: REFER TO SECTION 01 74 00 - CONSTRUCTION WASTE MANAGEMENT.
b. ENERGY EFFICIENT WINDOW AND DOOR SYSTEMS.
c. AIR SEALED AND INSULATED EXTERIOR ENVELOPE.
d. WOOD PRODUCTS WERE AVAILABLE AND WHERE PRICE DIFFERENCE IS NOT SIGNIFICANT, OWNER WOULD PREFER TO PURCHASE RECYCLED CONTENT WOOD FIBER PRODUCTS AND FSC CERTIFIED LUMBER.
e. INDOOR AIR QUALITY:
i. LOW-EMITTING MATERIALS, ADHESIVES, SEALANTS AND PRIMERS.
ii. LOW-EMITTING MATERIALS, FLOORING MATERIALS.
iii. LOW-EMITTING MATERIALS, FLOOR-APPLIED PAINTS AND COATINGS.
iv. LOW-EMITTING MATERIALS, NO ADDED FORMALALDEHYDE.
v. GREEN HOUSEKEEPING: USE LOW-EMITTING CLEANING MATERIALS AND METHODS AT FINAL CLEANING.
f. REFER TO INDIVIDUAL SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
5. LANDLORD REQUIREMENTS:
a. REFER TO RESPONSIBILITY SCHEDULE ON DRAWINGS.
D. PERMITS AND FEES: APPLY FOR, OBTAIN, AND PAY FOR PERMITS, FEES, AND UTILITY COMPANY BACKCHARGES REQUIRED TO PERFORM THE WORK.
SECTION 07 13 00 SELF-ADHERING SHEET WATERPROOFING
1. OWNER SHALL PAY FOR BUILDING AND HEALTH PERMITS.
E. CODES: COMPLY WITH APPLICABLE CODES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION. SUBMIT COPIES OF INSPECTION REPORTS, NOTICES AND SIMILAR COMMUNICATIONS TO ARCHITECT.
F. DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.
G. EXISTING CONDITIONS: NOTIFY ARCHITECT OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL.
H. COORDINATION:
1. COORDINATE THE WORK OF ALL TRADES.
2. PREPARE COORDINATION DRAWINGS FOR AREAS ABOVE CEILINGS WHERE CLOSE TOLERANCES ARE REQUIRED BETWEEN BUILDING ELEMENTS AND MECHANICAL AND ELECTRICAL WORK.
3. VERIFY LOCATION OF UTILITIES AND EXISTING CONDITIONS.
I. INSTALLATION REQUIREMENTS, GENERAL:
1. INSPECT SUBSTRATES AND REPORT UNSATISFACTORY CONDITIONS IN WRITING.
2. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
3. TAKE FIELD MEASUREMENTS PRIOR TO FABRICATION WHERE PRACTICAL, FORM TO REQUIRED SHAPES AND SIZES WITH TRUE EDGES, LINES AND ANGLES. PROVIDE INSERTS AND TEMPLATES AS NEEDED FOR WORK OF OTHER TRADES.
4. INSTALL MATERIALS IN EXACT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS.
5. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH PROPER APPEARANCE.
6. RESTORE UNITS DAMAGED DURING INSTALLATION. REPLACE UNITS WHICH CANNOT BE RESTORED AT NO ADDITIONAL EXPENSE TO THE OWNER.
7. REFER TO ADDITIONAL INSTALLATION REQUIREMENTS AND TOLERANCES SPECIFIED UNDER INDIVIDUAL SPECIFICATION SECTIONS.
J. LIMIT OF USE: LIMIT USE OF WORK AS INDICATED. KEEP DRIVEWAYS AND ENTRANCES CLEAR.
K. EXISTING CONSTRUCTION: MAINTAIN EXISTING BUILDING IN A WEATHERTIGHT CONDITION. REPAIR DAMAGE CAUSED BY CONSTRUCTION OPERATIONS. PROTECT BUILDING AND ITS OCCUPANTS.
L. DEFINITIONS:
1. PROVIDE, FURNISH AND INSTALL, COMPLETE WITH ALL NECESSARY ACCESSORIES, READY FOR INTENDED USE. PAY FOR ALL RELATED COSTS.
a. FURNISH SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS.
b. INSTALL, OPERATIONS AT PROJECT SITE INCLUDING UNLOADING, TEMPORARILY STORING, UNPACKING, ASSEMBLING, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS.
2. APPROVED: ACCEPTANCE OF ITEM SUBMITTED FOR APPROVAL. NOT A LIMITATION OR RELEASE FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS OR REGULATORY REQUIREMENTS. REFER TO LIMITATIONS OF "APPROVED" IN GENERAL AND SUPPLEMENTARY CONDITIONS.
3. MATCH EXISTING: MATCH EXISTING AS ACCEPTABLE TO THE OWNER.
M. INTENT: DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PROVIDE THE BASIS FOR PROPER COMPLETION OF THE WORK SUITABLE FOR THE INTENDED USE OF THE OWNER. ANYTHING NOT EXPRESSLY SET FORTH BUT WHICH IS REASONABLY IMPLIED OR NECESSARY FOR PROPER PERFORMANCE OF THE PROJECT SHALL BE INCLUDED.
N. EXISTING STYLE: EXISTING STYLE OR FINISH SHALL BE MAINTAINED OR REPRODUCED. EXCEPT WHERE SPECIFICALLY INTENDED OTHERWISE, THE SUBJECT OF ALL IMPERATIVE STATEMENTS IS THE CONTRACTOR. FOR EXAMPLE, "PROVIDE TILE" MEANS CONTRACTOR SHALL PROVIDE TILE.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION

END OF SECTION

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. PRICE AND PAYMENT PROCEDURES:
a. ALTERNATES.

1.2 ALTERNATES

- A. TOTAL PRICE: PROVIDE TOTAL PRICE FOR EACH ALTERNATE IN BID FORM. INCLUDE COST OF MODIFICATIONS TO OTHER WORK TO ACCOMMODATE ALTERNATE. INCLUDE RELATED COSTS SUCH AS OVER-HEAD AND PROFIT.
B. ACCEPTANCE OF ALTERNATES: OWNER WILL DETERMINE WHICH ALTERNATES ARE SELECTED FOR INCLUSION IN THE CONTRACT.
C. COORDINATION OF ALTERNATES: NOTIFY ARCHITECT OF ANY ADJUST AFFECTED ADJACENT WORK AS NECESSARY TO INTEGRATE WORK OF THE ALTERNATE INTO PROJECT. COORDINATE ALTERNATES WITH RELATED WORK TO ENSURE THAT WORK AFFECTED BY EACH SELECTED ALTERNATE IS PROPERLY ACCOMPLISHED.
D. LIST OF ALTERNATES: TO BE DETERMINED.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION

END OF SECTION

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. ADMINISTRATION OF CONTRACT: PROVIDE ADMINISTRATIVE REQUIREMENTS FOR THE PROPER COORDINATION AND COMPLETION OF WORK INCLUDING THE FOLLOWING:
1. SUPERVISORY PERSONNEL.
2. PRECONSTRUCTION CONFERENCE.
3. PROJECT MEETINGS, MINIMUM OF TWO PER MONTH; PREPARE AND DISTRIBUTE MINUTES.
B. REPORTS: SUBMIT WEEKLY AND SPECIAL REPORTS.
C. WORK SCHEDULE: SUBMIT PROGRESS SCHEDULE, UPDATED MONTHLY.
D. SUBMITTAL SCHEDULE: PREPARE SUBMITTAL SCHEDULE; COORDINATE WITH PROGRESS SCHEDULE.
E. SCHEDULE OF VALUES: SUBMIT SCHEDULE OF VALUES.
F. SCHEDULE OF TESTS: SUBMIT SCHEDULE OF REQUIRED TESTS INCLUDING PAYMENT AND RESPONSIBILITY.
G. PERFORMANCE SURVEYS: LAY OUT THE WORK AND VERIFYING LOCATIONS DURING CONSTRUCTION, PERFORM FINAL SITE SURVEY.
H. EMERGENCY CONTACTS: SUBMIT AND POST A LIST OF EMERGENCY TELEPHONE NUMBERS AND ADDRESS FOR INDIVIDUALS TO BE CONTACTED IN CASE OF EMERGENCY.
I. RECORD DOCUMENTS: SUBMIT RECORD DRAWINGS AND SPECIFICATIONS; TO BE MAINTAINED AND ANNOTATED BY CONTRACTOR AS WORK PROGRESSES.

1.2 SUBMITTALS

- A. TYPES OF SUBMITTALS: PROVIDE TYPES OF SUBMITTALS LISTED IN INDIVIDUAL SECTIONS; AND PROVIDE EITHER ELECTRONIC FILE (.PDF) OR NUMBER OF COPIES REQUIRED BELOW.
1. SHOP DRAWINGS: REVIEWED AND ANNOTATED BY THE CONTRACTOR - 4 COPIES.
2. PRODUCT DATA - 4 COPIES.
3. SAMPLES - 2, PLUS EXTRA SAMPLES AS REQUIRED TO INDICATE RANGE OF COLOR, FINISH, AND TEXTURE TO BE EXPECTED.
4. INSPECTION AND TEST REPORTS - 4 COPIES.
5. WARRANTIES - 4 COPIES.
6. SURVEY DATA - 4 COPIES.
7. CLOSEOUT SUBMITTALS - 4 COPIES.
8. PROJECT PHOTOGRAPHS: 6 DIGITAL IMAGES EACH WEEK SUBMITTED BY EMAIL, LABEL EACH IMAGE WITH DATE.
B. SUBMITTAL PROCEDURES: COMPLY WITH PROJECT FORMAT FOR SUBMITTALS. COMPLY WITH SUBMITTAL PROCEDURES ESTABLISHED BY ARCHITECT INCLUDING ARCHITECT'S SUBMITTAL AND SHOP DRAWING STAMP. PROVIDE REQUIRED RESUBMITTALS IF ORIGINAL SUBMITTALS ARE NOT APPROVED. PROVIDE DISTRIBUTION OF APPROVED COPIES INCLUDING MODIFICATIONS AFTER SUBMITTALS HAVE BEEN APPROVED.
C. SAMPLES AND SHOP DRAWINGS: SAMPLES AND SHOP DRAWINGS SHALL BE PREPARED SPECIFICALLY FOR THIS PROJECT. SHOP DRAWINGS SHALL INCLUDE DIMENSIONS AND DETAILS, INCLUDING ADJACENT CONSTRUCTION AND RELATED WORK. NOTE SPECIAL COORDINATION REQUIRED. NOTE ANY DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS.
D. WARRANTIES: PROVIDE WARRANTIES AS SPECIFIED. WARRANTIES SHALL NOT LIMIT LENGTH OF TIME FOR REMEDY OF DAMAGES OWNER MAY HAVE BY LEGAL STATUTE. CONTRACTOR, SUPPLIER OR INSTALLER RESPONSIBLE FOR PERFORMANCE OF WARRANTY SHALL SIGN WARRANTIES.

1.3 SCHEDULE OF SUBMITTALS

- A. PROJECT INFORMATION:
1. SUBMITTAL LOG (SCHEDULE OF SUBMITTALS)
a. PROVIDE A COMPLETE LIST OF ALL REQUIRED SUBMITTALS FOR THE PROJECT
b. OWNER/ARCHITECT TO USE AS A TOOL TO MONITOR PROGRESS AND COMPLETENESS OF THE REQUIRED SUBMITTALS
2. SUBMITTAL LOG SHALL SERVE AS THE BASIS OF THE SUBMITTAL SCHEDULE. SUBMITTAL LOG SHALL BE SUBMITTED PRIOR TO OR WITH THE INITIAL APPLICATION FOR PAYMENT. AN UPDATED SUBMITTAL LOG SHALL BE SUBMITTED WITH EACH SUBSEQUENT PAYMENT APPLICATION.
3. SCHEDULE OF SUBMITTALS: PROVIDE SUFFICIENTLY IN ADVANCE OF TRANSMITTAL OR FIRST SUBMITTAL AND PRIOR TO FIRST APPLICATION FOR PAYMENT.

1.8 START-UP REPORTS

- A. SUBMIT ELECTRONIC COPY THAT CLEARLY DEPICTS POINT OF CONTACT OF SIGN OFF. EACH SUBMITTAL MUST BE ATTACHED AS A SEPARATE FILE AND NAMED ACCORDINGLY.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION

END OF SECTION

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. QUALITY MONITORING: MONITOR QUALITY CONTROL OVER SUPPLIERS, MANUFACTURERS, PRODUCTS, SERVICES, SITE CONDITIONS, AND WORKMANSHIP. TO PRODUCE WORK OF SPECIFIED QUALITY. PERFORM QUALITY CONTROL PROCEDURES AND INSPECTIONS DURING CONSTRUCTION.
B. STANDARDS: COMPLY WITH SPECIFIED STANDARDS AS MINIMUM QUALITY FOR THE WORK EXCEPT WHERE MORE STRINGENT TOLERANCES, CODES, OR SPECIFIED REQUIREMENTS INDICATE HIGHER STANDARDS OR MORE PRECISE WORKMANSHIP.
C. TOLERANCES: MONITOR FABRICATION AND INSTALLATION TOLERANCE CONTROL OF PRODUCTS TO PRODUCE ACCEPTABLE WORK. DO NOT PERMIT TOLERANCES TO ACCUMULATE. COMPLY WITH MANUFACTURERS' TOLERANCES.
D. REFERENCE STANDARDS: FOR PRODUCTS OR WORKMANSHIP SPECIFIED BY ASSOCIATION, TRADE, OR OTHER CONSENSUS STANDARDS, COMPLY WITH REQUIREMENTS OF THE STANDARD, EXCEPT WHEN MORE RIGID REQUIREMENTS ARE SPECIFIED OR ARE REQUIRED BY APPLICABLE CODES.
E. MANUFACTURER'S FIELD SERVICES: WHEN SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS, REQUIRE MATERIAL OR PRODUCT SUPPLIERS OR MANUFACTURERS TO PROVIDE QUALIFIED STAFF PERSONNEL, TO PERFORM THE FOLLOWING AS APPLICABLE, AND TO INITIATE INSTRUCTIONS WHEN NECESSARY.
1. OBSERVE SITE CONDITIONS.
2. CONDITIONS OF SURFACES AND INSTALLATION.
3. QUALITY OF WORKMANSHIP.
4. START-UP OF EQUIPMENT.
5. TEST, ADJUST AND BALANCE OF EQUIPMENT.
F. MOCKUPS: ASSEMBLE AND ERECT SPECIFIED ITEMS WITH SPECIFIED ATTACHMENT AND ANCHORAGE DEVICES, FLASHINGS, SEALS, AND FINISHES. ACCEPTED MOCKUPS SHALL BE A COMPARISON STANDARD FOR THE REMAINING WORK.
1. REFER TO DRAWINGS FOR TYPES, CONFIGURATIONS, AND LOCATIONS OF MOCKUPS.
2. CONDUCT IN-PLACE MOCKUPS MAY REMAIN AS PART OF THE FINISHED WORK.
G. REMOVAL OF MOCKUPS: WHERE MOCK-UP HAS BEEN ACCEPTED BY ARCHITECT AND NO LONGER NEEDED, REMOVE MOCK-UP AND CLEAR AREA WHEN DIRECTED TO DO SO.
1. REMOVE REJECTED MOCKUPS FROM PROJECT AREA.
H. QUALITY CONTROL AND TESTING SERVICES: PROVIDE INSPECTIONS, TESTS, AND OTHER QUALITY-CONTROL SERVICES SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS AND REQUIRED BY AUTHORITIES HAVING JURISDICTION.
1. SUBMIT, RETEST, AND RETEST WHERE RESULTS OF INSPECTIONS, TESTS, OR OTHER QUALITY-CONTROL SERVICES PROVE UNSATISFACTORY AND INDICATE NONCOMPLIANCE WITH CONTRACT DOCUMENT REQUIREMENTS.
2. ASSOCIATED SERVICES: COOPERATE WITH AGENCIES PERFORMING REQUIRED INSPECTIONS, TESTS, AND SIMILAR SERVICES, AND PROVIDE REASONABLE AUXILIARY SERVICES AS REQUESTED. NOTIFY THE AGENCY SUFFICIENTLY IN ADVANCE OF OPERATIONS TO PERMIT ASSIGNMENT OF PERSONNEL.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. TEMPORARY SERVICES: PROVIDE TEMPORARY SERVICES AND UTILITIES, INCLUDING PAYMENT OF UTILITY COSTS INCLUDING THE FOLLOWING:
1. WATER (POTABLE AND NON-POTABLE).
2. LIGHTING AND POWER.
3. METERING.
4. TELEPHONE AND WI-FI CONNECTION.
5. TOILET FACILITIES.
6. MATERIALS STORAGE.
B. CONSTRUCTION FACILITIES: PROVIDE CONSTRUCTION FACILITIES, INCLUDING PAYMENT OF UTILITY COSTS INCLUDING THE FOLLOWING:
1. CONSTRUCTION EQUIPMENT.
2. DEWATERING AND PUMPING.
3. ENCLOSURES.
4. HEATING.
5. LIGHTING.
6. ACCESS.
C. SECURITY AND PROTECTION: PROVIDE SECURITY AND PROTECTION REQUIREMENTS INCLUDING THE FOLLOWING:
1. FIRE EXTINGUISHERS.
2. SITE ENCLOSURE FENCE, BARRICADES, WARNING SIGNS, AND LIGHTS.
3. BUILDING ENCLOSURE AND LOCK-UP.
4. ENVIRONMENTAL PROTECTION.
5. PEST CONTROL DURING AND AT THE END OF CONSTRUCTION.
6. SNOW AND ICE REMOVAL IF APPLICABLE.
D. PERSONNEL SUPPORT: PROVIDE PERSONNEL SUPPORT FACILITIES INCLUDING THE FOLLOWING:
1. CONTRACTOR'S FIELD OFFICE.
2. SANITARY FACILITIES.
3. DRINKING WATER.
4. PROJECT IDENTIFICATION SIGN.
5. CLEANING.

PART 2 PRODUCTS

2.1 TEMPORARY BRACING

- A. TEMPORARY BRACING OF MASONRY PARTITIONS: AS REQUIRED TO STABILIZE CONSTRUCTION DURING INSTALLATION OF MASONRY WORK.

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. MANUFACTURERS: PROVIDE PRODUCTS FROM ONE MANUFACTURER FOR EACH TYPE OR KIND AS APPLICABLE. PROVIDE SECONDARY MATERIALS AS ACCEPTABLE TO MANUFACTURERS OF PRIMARY MATERIALS.
B. PRODUCT SELECTION: PROVIDE PRODUCTS SELECTED OR EQUAL APPROVED BY ARCHITECT. PRODUCTS SUBMITTED FOR SUBSTITUTION SHALL BE SUBMITTED WITH COMPLETE DOCUMENTATION, AND INCLUDE CONSTRUCTION COSTS OF SUBSTITUTION INCLUDING RELATED WORK.
C. SUBSTITUTIONS: REQUEST FOR SUBSTITUTION MUST BE IN WRITING. CONDITIONS FOR SUBSTITUTION INCLUDE:
1. AN "OR EQUAL" PHRASE IN THE SPECIFICATIONS.
2. SPECIFIED MATERIAL CANNOT BE COORDINATED WITH OTHER WORK.
3. SPECIFIED MATERIAL IS NOT ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
4. SUBSTANTIAL ADVANTAGE IS OFFERED TO THE OWNER IN TERMS OF COST, TIME, OR OTHER VALUABLE CONSIDERATION.
D. SUBSTITUTION REQUESTS: SUBSTITUTIONS SHALL BE SUBMITTED PRIOR TO AWARD OF CONTRACT, UNLESS OTHERWISE ACCEPTABLE. APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, OR SAMPLES CONTAINING SUBSTITUTIONS IS NOT AN APPROVAL OF A SUBSTITUTION UNLESS AN ITEM IS CLEARLY PRESENTED AS A SUBSTITUTION AT THE TIME OF SUBMITTAL.
1. SUBSTITUTION REQUEST SHALL NOT AFFECT SUSTAINABLE DESIGN GOALS.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION

PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION

END OF SECTION

SECTION 01 62 00

SUBSTITUTION REQUEST FORM

NO SUBSTITUTIONS WILL BE CONSIDERED WITHOUT THIS COMPLETED SUBSTITUTION REQUEST FORM AND SUPPORTING DOCUMENTATION. SUBSTITUTIONS MADE WITHOUT COMPLETION OF THIS FORM WILL BE CONSIDERED DEFECTIVE WORK AS STATED IN THE CONTRACT.

DATE: _____ NUMBER: _____

RE: REQUEST FOR SUBSTITUTION

THE CONTRACTOR PROPOSES THE FOLLOWING SUBSTITUTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS:

SCOPE OF SUBSTITUTION _____

SPECIFICATION REFERENCE _____

DRAWING REFERENCE _____

REASON FOR PROPOSED SUBSTITUTION _____

BENEFIT TO OWNER _____

IMPACT ON SUSTAINABLE DESIGN INTENT _____

IMPACT ON PROJECT COST _____

IMPACT ON PROJECT SCHEDULE _____

IMPACT ON GUARANTEES AND WARRANTIES _____

COORDINATION AND COMPATIBILITY REQUIRED WITH ADJACENT MATERIALS AND SYSTEM _____

LIST DEVIATIONS FROM SPECIFIED REQUIREMENTS _____

ATTACHMENTS: ATTACH SUPPORTING DOCUMENTATION SUFFICIENT FOR ARCHITECT TO EVALUATE SUBSTITUTION. SUBSTITUTION REQUEST FORMS SUBMITTED WITHOUT ADEQUATE DOCUMENTATION WILL BE RETURNED WITHOUT REVIEW.

ATTACHMENTS _____

RESPONSE DATE: LIST DATE BY WHICH RESPONSE BY ARCHITECT IS REQUESTED TO MAINTAIN PROJECT SCHEDULE AND ALLOW SUFFICIENT TIME FOR INCLUSION OF PROPOSED SUBSTITUTION.

RESPONSE DATE _____

SUBMITTED BY _____

FIRM AND ADDRESS _____

SIGNATURE BELOW SIGNIFIES ACCEPTANCE OF RESPONSIBILITY FOR ACCURACY AND COMPLETENESS OF INFORMATION INCLUDED IN THIS SUBSTITUTION REQUEST FORM.

AUTHORIZED SIGNATURE _____

ARCHITECT'S RESPONSE _____

NOTATIONS LISTED BELOW SHALL HAVE SAME MEANING AS ON ARCHITECT'S APPROVAL STAMP. CLARIFICATIONS TO OR CHANGES IN PROJECT SCHEDULE OR TIME SHALL BE PROCESSED USING STANDARD PROJECT FORMS.

ARCHITECT'S RESPONSE _____

NO EXCEPTIONS TAKEN _____

MAKE CORRECTIONS NOTED _____

REVISE AND RESUBMIT _____

REJECTED _____

RETURNED WITHOUT REVIEW _____

REMARKS _____

DATE _____

SIGNED _____

END OF FORM

SECTION 01 70 00

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. SUBSTANTIAL COMPLETION: THE FOLLOWING ARE PREREQUISITES TO SUBSTANTIAL COMPLETION. PROVIDE THE FOLLOWING:
1. PUNCH LIST PREPARED BY CONTRACTOR AND SUBCONTRACTORS AS APPLICABLE.
2. SUPPORTING DOCUMENTATION.
3. WARRANTIES.
4. CERTIFICATIONS.
5. OCCUPANCY PERMIT.
6. START-UP AND TESTING OF BUILDING SYSTEMS.
7. CHANGE OVER OF LOOKS.
8. METER READINGS.
9. COMMISSIONING DOCUMENTATION.
B. FINAL ACCEPTANCE: PROVIDE THE FOLLOWING PREREQUISITES TO FINAL ACCEPTANCE:
1. FINAL PAYMENT REQUEST WITH SUPPORTING AFFIDAVITS.
2. COMPLETED PUNCH LIST.
3. AS-BUILT DRAWINGS: PROVIDE A MARKER-UP SET OF DRAWINGS INCLUDING CHANGES, WHICH OCCURRED DURING CONSTRUCTION.
D. PROJECT CLOSEOUT: PROVIDE THE FOLLOWING DURING PROJECT CLOSEOUT:
1. SUBMISSION OF RECORD DOCUMENTS.
2. SUBMISSION OF MAINTENANCE MANUALS.
3. TRAINING AND TURNOVER TO OWNER'S PERSONNEL.
4. FINAL CLEANING AND TOUCH-UP.
5. REMOVAL OF TEMPORARY FACILITIES.

PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. CUTTING AND PATCHING: PROVIDE CUTTING AND PATCHING WORK TO PROPERLY COMPLETE THE WORK OF THE PROJECT, COMPLYING WITH PROJECT REQUIREMENTS FOR:
1. STRUCTURAL WORK.
2. MECHANICAL/ELECTRICAL SYSTEMS.
3. VISUAL REQUIREMENTS, INCLUDING DETAILING AND TOLERANCES.
4. OPERATIONAL AND SAFETY LIMITATIONS.
5. FIRE RESISTANCE RATINGS.
6. INSPECTION, PREPARATION, AND PERFORMANCE.
7. CLEANING.
B. MEANS AND METHODS: DO NOT CUT AND PATCH IN A MANNER THAT WOULD RESULT IN A FAILURE OF THE WORK TO PERFORM AS INTENDED, DECREASE ENERGY PERFORMANCE, INCREASE MAINTENANCE, DECREASE OPERATIONAL LIFE, OR DECREASE SAFETY PERFORMANCE.
C. INSPECTION: INSPECT CONDITIONS PRIOR TO WORK TO IDENTIFY SCOPE AND TYPE OF WORK REQUIRED. PROTECT ADJACENT WORK. NOTIFY OWNER OF WORK REQUIRING INTERFERENCE WITH BUILDING SERVICES OR OWNER'S OPERATIONS.
D. PERFORMANCE OF OPERATIONS: PERFORM WORK WITH WORKMEN SKILLED IN THE TRADES INVOLVED. PREPARE SAMPLE AREA OF EACH TYPE OF WORK FOR APPROVAL.
E. CUTTING: MAKE CUTTING TOOLS, NOT CHOPPING TOOLS. MAKE NEAT HOLES. MINIMIZE DAMAGE TO ADJACENT WORK. INSPECT FOR CONCEALED UTILITIES AND STRUCTURE BEFORE CUTTING.
F. PATCHING: MAKE PATCHES, SEAMS, AND JOINTS DURABLE AND INCONSPICUOUS. COMPLY WITH TOLERANCES FOR NEW WORK.
G. CLEANING: CLEAN WORK AREA AND HAVE SUFFICIENT CAPACITY TO RECEIVE WASTE FROM THIS PROJECT.
1. USE ONLY NONTOXIC, GREEN CLEANING MATERIALS AND METHODS.
2. COMPLY WITH SECTION 01 74 00 - CONSTRUCTION WASTE MANAGEMENT.

END OF SECTION

SECTION 01 74 00

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

- A. THIS SECTION INCLUDES REQUIREMENTS FOR THE CONTRACTOR'S IMPLEMENTATION OF WASTE MANAGEMENT CONTROLS AND SYSTEMS FOR THE DURATION OF THE WORK.

1.2 INTENT

- A. THE OWNER AND ARCHITECT HAVE ESTABLISHED THAT THIS PROJECT SHALL GENERATE THE LEAST AMOUNT OF WASTE PRACTICAL AND THAT PROCESSES THAT ENSURE THE GENERATION OF AS LITTLE WASTE AS POSSIBLE DUE TO ERROR, POOR PLANNING, BREAKAGE, MISHANDLING, CONTAMINATION, OR OTHER FACTORS SHALL BE EMPLOYED.
B. WITH REGARD TO THESE GOALS THE CONTRACTOR SHALL DEVELOP, FOR THE ARCHITECT'S REVIEW, A DEMOLITION AND CONSTRUCTION WASTE MANAGEMENT PLAN (WMP) FOR THIS PROJECT.
1. EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR SEGREGATING HIS OWN WASTE INTO DIFFERENT DUMPSTERS AS DIRECTED BY THE CONTRACTOR.
C. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT DEBRIS WILL BE DISPOSED OF AT APPROPRIATELY DESIGNATED LICENSED SOLID WASTE DISPOSAL FACILITIES, AS DEFINED BY LOCAL AUTHORITIES HAVING JURISDICTION.

1.3 SUBMITTALS

- A. WASTE MANAGEMENT PLAN (WMP): SUBMIT WITHIN 10 CALENDAR DAYS AFTER RECEIPT OF NOTICE TO PROCEED, IN A FORMAT ACCEPTABLE TO THE OWNER.
1. ANALYSIS OF THE PROPOSED JOBSITE WASTE TO BE GENERATED, INCLUDING TYPES AND ROUGH QUANTITIES.
2. LANDFILL OPTIONS: THE NAME OF THE LANDFILLS WHERE TRASH AND BUILDING DEBRIS WILL BE DISPOSED OF, THE APPLICABLE LANDFILL TIPPING FEES, AND THE PROJECTED COST OF DISPOSING OF ALL PROJECT WASTE IN THE LANDFILLS.
3. LANDFILL CERTIFICATION: CONTRACTOR'S STATEMENT OF VERIFICATION THAT LANDFILLS PROPOSED FOR USE ARE LICENSED FOR TYPES OF WASTE TO BE DEPOSITED AND HAVE SUFFICIENT CAPACITY TO RECEIVE WASTE FROM THIS PROJECT.
4. ALTERNATIVES TO LANDFILLING: A LIST OF EACH MATERIAL PROPOSED TO BE SALVAGED OR RECYCLED DURING THE COURSE OF THE PROJECT. INCLUDE THE FOLLOWING AND ANY ADDITIONAL ITEMS PROPOSED:
a. CARDBOARD AND PAPER PRODUCTS.
b. CLEAN DIMENSIONAL WOOD.
c. BEVERAGE CONTAINERS.
d. CONCRETE.
e. BRICKS AND MASONRY.
f. ASPHALT.
g. METALS FROM FRAMING, BANDING, STUD TRIM, DUCTWORK, PIPING, REBAR, ROOFING, OTHER TRIM, STEEL, IRON, GALVANIZED SHEET.
h. STEEL, STAINLESS STEEL, ALUMINUM, COPPER, ZINC, LEAD, BRASS, AND BRONZE.
i. MECHANICAL AND ELECTRICAL EQUIPMENT.
j. BUILDING COMPONENTS WHICH CAN BE REMOVED RELATIVELY INTACT FROM EXISTING CONSTRUCTION.
k. PACKAGING MATERIALS, INCLUDING CARDBOARD, BOXES, PLASTIC SHEET AND FILM, POLYSTYRENE PACKAGING, WOOD CRATES, PLASTIC PAILS, GLASS.
l. SCRAPS FROM NEW GYPSUM WALL BOARD.
m. CARPET AND PAD.
n. ACoustICAL CEILING PANELS.
o. PLASTICS.
p. LAND CLEARING DEBRIS AND VEGETATION.
5. MEETINGS: A DESCRIPTION OF THE REGULAR MEETINGS TO BE HELD TO ADDRESS WASTE MANAGEMENT.
6. MATERIALS HANDLING PROCEDURES: A DESCRIPTION OF THE MEANS BY WHICH ANY WASTE MATERIALS IDENTIFIED ABOVE WILL BE PROTECTED FROM CONTAMINATION AND A DESCRIPTION OF THE MEANS TO BE EMPLOYED IN RECYCLING THE ABOVE MATERIALS CONSISTENT WITH REQUIREMENTS FOR ACCEPTANCE BY DESIGNATED FACILITIES.
7. TRANSPORTATION: A DESCRIPTION OF THE MEANS OF TRANSPORTATION OF THE RECYCLABLE MATERIALS (WHETHER MATERIALS WILL BE SITE-SEPARATED AND SELF-HAULED TO DESIGNATED CENTERS, OR WHETHER MIXED MATERIALS WILL BE COLLECTED BY A WASTE HAULER AND REMOVED FROM THE SITE) AND DESTINATION OF MATERIALS.
B. WASTE MANAGEMENT PROCESS REPORTS: CONCURRENT WITH EACH APPLICATION FOR PAYMENT, SUBMIT A WRITTEN WASTE MANAGEMENT PROCESS REPORT IN THE SAME FORMAT AS REQUIRED FOR FINAL REPORT.
C. OTHER SUBMITTALS:
1. RECORDS OF DONATIONS: INDICATE RECEIPT AND ACCEPTANCE OF SALVAGEABLE WASTE DONATED TO INDIVIDUALS AND ORGANIZATIONS. INDICATE WHETHER ORGANIZATION IS TAX EXEMPT.
2. RECORDS OF SALES: INDICATE RECEIPT AND ACCEPTANCE OF SALVAGEABLE WASTE SOLD TO INDIVIDUALS AND ORGANIZATIONS. INDICATE WHETHER ORGANIZATION IS TAX EXEMPT.
3. RECYCLING AND PROCESSING FACILITY RECORDS: INDICATE RECEIPT AND ACCEPTANCE OF RECYCLABLE WASTE BY RECYCLING AND PROCESSING FACILITIES LICENSED TO ACCEPT THEM, INCLUDE MANIFESTS, WEIGHT TICKETS, AND/OR RECEIPTS.
4. LANDFILL AND INCINERATOR DISPOSAL RECORDS: INDICATE RECEIPT AND ACCEPTANCE OF WASTE BY LANDFILLS AND INCINERATOR FACILITIES LICENSED TO ACCEPT THEM, INCLUDE MANIFESTS, WEIGHT TICKETS, AND/OR RECEIPTS.

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<div><div>PART 2 - PRODUCTS (NOT USED)</div><div>PART 3 - EXECUTION</div><div>3.1 PLAN IMPLEMENTATION</div><div>A. GENERAL: IMPLEMENT WASTE MANAGEMENT PLAN AS APPROVED BY THE ARCHITECT. PROVIDE CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION, AND OTHER ITEMS AS REQUIRED TO THE OWNER AND THE CONTRACTOR.</div><div>B. COMMINGLING WASTE: COMMINGLING WASTE AT THE JOB SITE MAY BE ALLOWED, PROVIDED THAT THE FOLLOWING CONDITIONS ARE MET:</div><div>1. COMMINGLERS SHALL BE INCLUDED IN THE WASTE MANAGEMENT PLAN (WMP).</div><div>2. ADDITIONAL COMMINGLERS MUST BE PRE-APPROVED BY THE ARCHITECT VIA WMP ADDENDUM, PRIOR TO TIPPING ON THE JOB SITE.</div><div>3.2 WASTE MANAGEMENT PLAN IMPLEMENTATION</div><div>A. MANAGER: THE CONTRACTOR SHALL DESIGNATE AN ON-SITE PERSON RESPONSIBLE FOR INSTRUCTING WORKERS AND OVERSEEING AND DOCUMENTING RESULTS OF THE WASTE MANAGEMENT PLAN FOR THE PROJECT.</div><div>B. DISTRIBUTION: THE CONTRACTOR SHALL DISTRIBUTE COPIES OF THE WASTE MANAGEMENT PLAN TO THE JOB SITE FOREMAN, EACH SUBCONTRACTOR, THE OWNER AND THE ARCHITECT.</div><div>C. INSTRUCTION: THE CONTRACTOR SHALL PROVIDE ON-SITE INSTRUCTION OF APPROPRIATE SEPARATION, HANDLING, AND RECYCLING, SALVAGE, REUSE, AND RETURN METHODS TO BE USED BY ALL PARTIES AT THE APPROPRIATE STAGES OF THE PROJECT.</div><div>D. SEPARATION: THE CONTRACTOR SHALL LAY OUT AND LABEL A SPECIFIC AREA TO FACILITATE SEPARATION OF MATERIALS FOR RECYCLING, SALVAGE, REUSE, AND RETURN. RECYCLING AND WASTE BIN AREAS ARE TO BE KEPT NEAT AND CLEAN AND CLEARLY MARKED IN ORDER TO AVOID CONTAMINATION OF MATERIALS. LOCATION SHALL BE ACCEPTABLE TO THE ARCHITECT.</div><div>E. WASTE COMMINGLING SHALL BE APPROVED PRIOR TO JOBSITE TIPPING. PER REQUIREMENTS OF THIS SECTION.</div><div>F. HAZARDOUS WASTES: ANY UNFORESEEN HAZARDOUS WASTES SHALL BE SEPARATED, STORED, AND DISPOSED OF ACCORDING TO LOCAL REGULATIONS AND AS DIRECTED BY THE OWNER.</div><div>END OF SECTION</div><div>SECTION 01 81 20</div><div>CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. THIS SECTION INCLUDES REQUIREMENTS FOR MINIMUM INDOOR AIR QUALITY (IAQ) PERFORMANCE STANDARDS DURING THE CONSTRUCTION PERIOD AND BEFORE OCCUPANCY.</div><div>B. WITH REGARD TO THESE GOALS THE CONTRACTOR SHALL DEVELOP, FOR OWNER AND ARCHITECT REVIEW, A CONSTRUCTION INDOOR AIR QUALITY MANAGEMENT PLAN FOR THIS PROJECT.</div><div>1.2 PERFORMANCE REQUIREMENTS</div><div>A. PREVENT EXPOSURE OF BUILDING SYSTEMS TO ENVIRONMENTAL TOBACCO SMOKE DURING CONSTRUCTION. AT A MINIMUM, TAKE THE FOLLOWING MEASURES:</div><div>1. DO NOT ALLOW SMOKING IN ENCLOSED PORTIONS OF THE PROJECT SITE.</div><div>2. LOCATE EXTERIOR DESIGNATED SMOKING AREAS AT LEAST 25 FEET AWAY FROM ENTRIES, OUTDOOR AIR INTAKES AND OPERABLE WINDOWS. PROVIDE SIGNAGE FOR DESIGNATED SMOKING AREAS AT EACH ENTRY.</div><div>B. DURING CONSTRUCTION MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE RECOMMENDED CONTROL MEASURES OF THE SHEET METAL AND AIR CONDITIONING NATIONAL CONTRACTORS ASSOCIATION (SMANQ) IAQ GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION, SECOND EDITION, NOVEMBER 2007, CHAPTER 3.</div><div>C. PROTECT ABSORPTIVE MATERIALS FROM MOISTURE DAMAGE WHEN STORED ON-SITE AND AFTER INSTALLATION.</div><div>D. DURING CONSTRUCTION, COMPLY WITH THE FOLLOWING REQUIREMENTS:</div><div>1. IF PERMANENTLY INSTALLED AIR HANDLERS ARE USED DURING CONSTRUCTION, FILTRATION MEDIA WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 13 SHALL BE USED AT EACH RETURN AIR GRILLE, AS DETERMINED BY ASHRAE 52.2-1999. REPLACE FILTRATION MEDIA IMMEDIATELY PRIOR TO OCCUPANCY.</div><div>E. AFTER CONSTRUCTION ENDS BUT BEFORE OCCUPANCY, COMPLY WITH ONE OF THE FOLLOWING REQUIREMENTS:</div><div>1. PERFORM A BUILDING FLUSH-OUT WITH OUTSIDE AIR.</div><div>2. CONDUCT IAQ TESTING FOR AIR CONTAMINANT LEVELS IN THE BUILDING.</div><div>1.3 SUBMITTALS</div><div>A. CONSTRUCTION INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN: WITH THE COMPLETED FORM OF BIDDER'S PROPOSAL, THE CONTRACTOR SHALL SUBMIT A PRELIMINARY CONSTRUCTION IAQ MANAGEMENT PLAN.</div><div>1. WITHIN 10 CALENDAR DAYS AFTER RECEIPT OF NOTICE TO PROCEED, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A FINALIZED CONSTRUCTION IAQ MANAGEMENT PLAN.</div><div>2. THE PROPOSED PLAN SHALL COMPLY WITH DIVISION 23--MECHANICAL REQUIREMENTS.</div><div>3. THE PROPOSED PLAN SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:</div><div>a. PROTECTION OF VENTILATION SYSTEM COMPONENTS DURING CONSTRUCTION.</div><div>b. CLEANING AND REPLACING CONTAMINATED VENTILATION SYSTEM COMPONENTS AFTER CONSTRUCTION, INCLUDING FILTRATION MEDIA.</div><div>c. TEMPORARY VENTILATION.</div><div>d. PROTECTION OF ABSORPTIVE MATERIALS FROM MOISTURE DAMAGE WHEN STORED ON-SITE AND AFTER INSTALLATION, INCLUDING EXTERIOR WALL, RAIN PROTECTION.</div><div>e. SEQUENCE OF FINISH INSTALLATION PLAN.</div><div>f. SELECTION OF CLEANING PRODUCTS AND PROCEDURES TO BE USED DURING CONSTRUCTION AND FINAL CLEANING.</div><div>4. OTHER ITEMS AS REQUIRED BY SMANQ IAQ GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION, CHAPTER 3.</div><div>4. COORDINATE CONSTRUCTION IAQ MANAGEMENT PLAN WITH LANDLORDS AND OWNERS CURRENT IAQ MANAGEMENT PLANS AND PROCEDURES.</div><div>B. INDOOR AIR QUALITY (IAQ) TEST DATA: SUBMIT EMISSION TEST DATA AS REQUIRED, WITH TESTING LABORATORY AND DATE CLEARLY IDENTIFIED.</div><div>C. MATERIAL SAFETY DATA SHEETS (MSDS): SUBMIT FOR MATERIALS AS REQUIRED, WITH DATE CLEARLY IDENTIFIED. MSDS MUST CONTAIN SPECIFIC CHEMICAL CONTENT DATA IDENTIFYING THE PERCENT OF THE TOTAL PRODUCT MASS REPRESENTED BY EACH LISTED CHEMICAL.</div><div>D. PRODUCT DATA: SUBMIT FOR EACH TYPE OF FILTRATION MEDIA USED DURING CONSTRUCTION AND INSTALLED IMMEDIATELY PRIOR TO OCCUPANCY, WITH MERV VALUES CLEARLY IDENTIFIED.</div><div>1.4 DELIVERY, STORAGE, AND HANDLING</div><div>A. TAKE SPECIAL CARE TO PREVENT ACCUMULATION OF MOISTURE ON MATERIALS AND WITHIN PACKAGING DURING DELIVERY, STORAGE, AND HANDLING TO PREVENT DEVELOPMENT OF MOLD AND MILDEW INSIDE PACKAGING AND ON PRODUCTS.</div><div>B. IMMEDIATELY REMOVE FROM SITE AND PROPERLY DISPOSE OF MATERIALS SHOWING SIGNS OF MOLD AND MILDEW, INCLUDING MATERIALS WITH MOISTURE STAINS.</div><div>PART 2 PRODUCTS</div><div>2.1 FILTRATION MEDIA</div><div>A. FILTRATION MEDIA: COMPLY WITH ASHRAE 52.2-1999 AND PROVIDE MERV AS REQUIRED.</div><div>PART 3 EXECUTION</div><div>3.1 CONSTRUCTION IAQ MANAGEMENT PLAN IMPLEMENTATION</div><div>A. IAQ MANAGER: THE CONTRACTOR SHALL DESIGNATE AN ON-SITE PERSON RESPONSIBLE FOR INSTRUCTING WORKERS AND OVERSEEING AND DOCUMENTING RESULTS OF THE CONSTRUCTION IAQ MANAGEMENT PLAN FOR THE PROJECT.</div><div>B. DISTRIBUTION: THE CONTRACTOR SHALL DISTRIBUTE COPIES OF THE CONSTRUCTION IAQ MANAGEMENT PLAN TO THE JOB SITE FOREMAN, EACH SUBCONTRACTOR, THE OWNER, AND THE ARCHITECT.</div><div>C. INSTRUCTION: THE CONTRACTOR SHALL PROVIDE ON-SITE INSTRUCTION OF APPROPRIATE PROCEDURES AND METHODS TO BE USED BY ALL PARTIES AT THE APPROPRIATE STAGES OF THE PROJECT.</div><div>D. PRECONDITIONING: ALLOW PRODUCTS, WHICH HAVE ODORS AND SIGNIFICANT VOC EMISSIONS, TO OFF-GAS IN A DRY, WELL-VENTILATED SPACE FOR SUFFICIENT PERIOD TO DISSIPATE ODORS AND EMISSIONS PRIOR TO DELIVERY TO PROJECT.</div><div>1. REMOVE CONTAINERS AND PACKAGING FROM MATERIALS PRIOR TO CONDITIONING TO MAXIMIZE OFF-GASSING OF VOCS.</div><div>2. CONDITION PRODUCTS IN VENTILATED WAREHOUSE OR OTHER BUILDING.</div><div>END OF SECTION</div><div>SECTION 01 91 00</div><div>LIFE CYCLE ACTIVITIES</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. COMMISSIONING: PROVIDE COMMISSIONING OF BUILDING SYSTEMS, SUBSYSTEMS AND EQUIPMENT INCLUDING:</div><div>1. HVAC COMPONENTS AND EQUIPMENT.</div><div>2. BUILDING AUTOMATION SYSTEMS, INCLUDING SECURITY SYSTEMS.</div><div>3. LIGHTING CONTROL SYSTEMS.</div><div>B. COMMISSIONING AGENT: THE OWNER WILL ENGAGE A COMMISSIONING AGENT TO PREPARE A COMMISSIONING PLAN AND REPORT, AND TO PERFORM FUNCTIONAL TESTS AND INSPECTIONS OF BUILDING SYSTEMS.</div><div>C. COOPERATION: COOPERATE WITH THE OWNERS COMMISSIONING AGENT, INCLUDING ATTENDANCE AT COMMISSIONING MEETINGS AND ACTIVITIES, COORDINATING SCHEDULING, ACCESS TO THE WORK AND UTILITY SERVICES FOR COMMISSIONING ACTIVITIES.</div><div>D. ACCESS: PROVIDE ACCESS TO PROJECT DOCUMENTATION, SHOP DRAWINGS, WIRING DIAGRAMS, OPERATIONS AND MAINTENANCE MANUALS AND SIMILAR ITEMS WHEN REQUESTED BY THE OWNERS COMMISSIONING AGENT.</div><div>E. REMEDIAL WORK: MOODY, ADJUST, BALANCE, REPAIR OR REPLACE SYSTEMS, SUBSYSTEMS AND EQUIPMENT WHICH DO NOT PERFORM TO CODE REQUIREMENTS OR TO REQUIREMENTS SPECIFIED IN THE CONTRACT DOCUMENTS AT NO ADDITIONAL EXPENSE TO THE OWNER, PAY FOR RETESTING AND ADDITIONAL MODIFICATIONS UNTIL SATISFACTORY RESULTS ARE OBTAINED.</div><div>PART 2 PRODUCTS - NOT APPLICABLE TO THIS SECTION</div><div>PART 3 EXECUTION - NOT APPLICABLE TO THIS SECTION</div><div>END OF SECTION</div><div>SECTION 01 91 00</div><div>COMMISSIONING REQUIREMENTS</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE COMMISSIONING AS DESCRIBED IN THE FOLLOWING SECTION</div><div>1.2 DESCRIPTION OF WORK</div><div>A. WORK INCLUDED: PROVIDE LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE WORK OF THIS SECTION, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:</div><div>1. EXTERIOR COMMISSIONING REQUIREMENTS FOR THIS PROJECT.</div><div>1.3 QUALITY CONTROL</div><div>A. GENERAL CONTRACTOR IS TO PROVIDE A PRIMARY PERSON, COMMISSIONING SPECIALIST, TO OVERSEE AND MANAGE THE COMMISSIONING ACTIVITIES PERFORMED BY THE INSTALLING CONTRACTORS.</div><div>B. COMMISSIONING SPECIALIST SHALL HAVE EXPERIENCE WITH THE TYPES OF INSPECTIONS AND TESTS TO BE PERFORMED.</div><div>C. COMMISSIONING SPECIALIST SHALL COORDINATE AND MANAGE JOB-SITE COMMISSIONING PROGRESS MEETINGS, AS NECESSARY, TO MONITOR CONSTRUCTION AND COMMISSIONING PROGRESS. COOPERATE WITH THE COMMISSIONING AUTHORITY TO ADDRESS COORDINATION, DEFICIENCY RESOLUTION, AND PLANNING ISSUES.</div><div>D. COMMISSIONING AUTHORITY SHALL PLAN AND COORDINATE ADDITIONAL MEETINGS AS REQUIRED TO EXPEDITE THE COMMISSIONING WORK.</div><div>E. COMMISSIONING SPECIALIST SHALL PERFORM SITE VISITS TO OBSERVE COMMISSIONING AND SYSTEM INSTALLATIONS.</div><div>F. COMMISSIONING SPECIALIST SHALL COORDINATE WITH THE COMMISSIONING AUTHORITY TO SCHEDULE THE FUNCTIONAL PERFORMANCE TEST AND ENSURE SYSTEM READINESS. EQUIPMENT SHALL NOT BE "TEMPORARILY" STARTED FOR COMMISSIONING. FUNCTIONAL PERFORMANCE TESTING SHALL NOT BEGIN UNTIL PRE-FUNCTIONAL, START-UP AND TAB IS COMPLETED FOR A GIVEN SYSTEM. THE CONTROL SYSTEMS AND EQUIPMENT IT CONTROLS SHALL NOT BE FUNCTIONALLY TESTED UNTIL ALL POINTS HAVE BEEN CALIBRATED AND PRE-FUNCTIONAL CHECKLISTS ARE COMPLETED.</div><div>2.1 TEST EQUIPMENT - INSTRUMENTATION</div><div>A. INSTRUMENTATION SHALL MEET THE FOLLOWING STANDARDS:</div><div>1. BE OF SUFFICIENT QUALITY AND ACCURACY TO TEST AND MEASURE SYSTEM PERFORMANCE WITHIN THE TOLERANCES REQUIRED TO DETERMINE ADEQUATE PERFORMANCE.</div><div>2. BE CALIBRATED ON THE MANUFACTURER'S RECOMMENDED INTERVALS WITH CALIBRATION TAGS PERMANENTLY AFFIXED TO THE INSTRUMENT BEING USED.</div><div>3. BE MAINTAINED IN GOOD REPAIR AND OPERATION CONTINUALLY THROUGHOUT THE DURATION OF USE ON THIS PROJECT.</div><div>4. STANDARD TESTING EQUIPMENT REQUIRED TO PERFORM START-UP AND INITIAL CHECKOUT AND REQUIRED FUNCTIONAL PERFORMANCE TESTING SHALL BE PROVIDED BY THE SUBCONTRACTORS FOR THE TESTS TO BE TESTED.</div><div>C. DATA LOGGING EQUIPMENT OR SOFTWARE REQUIRED TO TEST EQUIPMENT IF NECESSARY WILL BE PROVIDED BY THE SUBCONTRACTORS, BUT SHALL NOT BECOME THE PROPERTY OF THE OWNER.</div><div>PART 3 EXECUTION</div><div>3.1 COMMISSIONING PROCESS OVERVIEW</div><div>A. THE FOLLOWING OUTLINES THE COMMISSIONING TASKS AND THE GENERAL ORDER IN WHICH THEY OCCUR IN THE COMMISSIONING PROCESS. THE COMMISSIONING AUTHORITY SHALL COORDINATE ACTIVITIES WITH THE COMMISSIONING TEAM AND THE COMMISSIONING SPECIALIST SHALL MANAGE THE ON-SITE ACTIVITIES.</div><div>1. COMMISSIONING PLAN SHALL BE DEVELOPED BY THE COMMISSIONING AUTHORITY AND IMPLEMENTED BY THE COMMISSIONING TEAM. THE GC AND ALL APPLICABLE SUB-CONTRACTORS ARE REQUIRED TO EXECUTE THE PROCEDURES AND ACTIVITIES LISTED IN THE COMMISSIONING PLAN.</div><div>2. CONTRACTOR SHOP DRAWING REVIEW WILL BE PERFORMED BY THE COMMISSIONING AUTHORITY CONCURRENTLY WITH THE ENGINEERING REVIEW. THE COMMISSIONING SPECIALIST SHALL BE RESPONSIBLE FOR SUBMITTING THE DOCUMENTATION AND A COPY OF THE FINAL APPROVED SUBMITTALS.</div><div>3. PRE-FUNCTIONAL CHECKLISTS WILL BE PREPARED BY THE COMMISSIONING AUTHORITY, COMPLETED BY THE INSTALLING CONTRACTOR, VERIFIED AND SUBMITTED TO THE COMMISSIONING AUTHORITY BY THE COMMISSIONING SPECIALIST.</div><div>4. COMMISSIONING AUTHORITY WILL PREPARE THE FUNCTIONAL PERFORMANCE TEST WHICH SHALL BE PERFORMED BY THE COMMISSIONING AUTHORITY WITH THE ASSISTANCE OF THE INSTALLING CONTRACTOR.</div><div>5. SHORT-TERM DIAGNOSTIC TESTING WILL BE PERFORMED BY THE INSTALLING CONTRACTOR WHEN NECESSARY TO TROUBLE-SHOOT AND DIAGNOSE PERFORMANCE DEFICIENCIES.</div><div>6. OPERATIONS AND MAINTENANCE TRAINING PLAN AND DOCUMENTATION WILL BE REVIEWED BY THE OWNER AND COMMISSIONING AUTHORITY AND APPROVED BY THE INSTALLING CONTRACTOR AND THE COMMISSIONING SPECIALIST.</div><div>7. FINAL COMMISSIONING REPORT WILL BE PREPARED BY THE COMMISSIONING AUTHORITY AFTER THE COMMISSIONING SPECIALIST HAS SUBMITTED THE REQUIRED COMMISSIONING DOCUMENTATION AND OTHER SUPPORTING DOCUMENTATION.</div><div>8. DEFERRED INDOOR AIR QUALITY TESTING WILL BE PERFORMED BY THE INSTALLING CONTRACTOR AND VERIFIED BY THE COMMISSIONING AUTHORITY IF REQUESTED BY THE OWNER.</div><div>3.2 COORDINATION</div><div>A. THE COMMISSIONING AUTHORITY REPORTS DIRECTLY TO THE OWNER.</div><div>B. PREPARATION OF THE COMMISSIONING PLAN, PRE-FUNCTIONAL CHECKLISTS, AND FUNCTIONAL PERFORMANCE TEST PROCEDURE SHALL BE BY THE COMMISSIONING AUTHORITY.</div><div>C. COORDINATION AND VERIFICATION OF THE COMMISSIONING TASKS SHALL BE BY THE COMMISSIONING SPECIALIST.</div><div>D. INSTALLING CONTRACTOR SHALL COMPLETE PRE-FUNCTIONAL CHECKLISTS, START-UP EQUIPMENT TESTS, AND SUPPORT FUNCTIONAL PERFORMANCE TESTS.</div><div>3.3 COMMISSIONED SYSTEMS</div><div>1. PROVIDE COMMISSIONING FOR ALL FIRE PROTECTION, HVAC, MECHANICAL, PIPING, AND ELECTRICAL SYSTEMS.</div><div>3.4 SUBMITTALS & DELIVERABLES</div><div>A. INSTALLING CONTRACTOR:</div><div>1. PERFORM COMMISSIONING ACTIVITIES AS DESCRIBED IN THE COMMISSIONING PLAN AND AS DIRECTED BY THE COMMISSIONING SPECIALIST OR THE COMMISSIONING AUTHORITY.</div><div>2. SUBMIT EQUIPMENT AND COMPONENT SHOP DRAWINGS TO THE COMMISSIONING AUTHORITY CONCURRENTLY WITH ENGINEER SUBMISSION.</div><div>3. INSTALLATION, OPERATIONS, AND MAINTENANCE (IOM) MANUALS ARE TO BE SUBMITTED TO THE COMMISSIONING AUTHORITY TWO WEEKS AFTER RECEIVING APPROVED SHOP DRAWINGS OR TWO WEEKS AFTER ORDERING THE EQUIPMENT, WHICHEVER OCCURS FIRST.</div><div>4. RESPOND TO THE COMMISSIONING AUTHORITY AND CORRECT DEFICIENCIES IDENTIFIED IN THE ISSUES REPORT WITHIN ONE WEEK OF ISSUANCE.</div><div>5. COMPLETE THE PRE-FUNCTIONAL CHECKLISTS AND SUBMIT TO THE COMMISSIONING AUTHORITY WITHIN ONE WEEK OF COMPLETION.</div><div>6. SUBMIT APPROVED SEQUENCE OF OPERATION TO THE COMMISSIONING AUTHORITY TWO WEEKS AFTER RECEIVING APPROVED SHOP DRAWINGS.</div><div>7. SUBMIT OPERATIONS AND MAINTENANCE (O&M) AND OPERATIONS AND MAINTENANCE TRAINING PLAN TO THE COMMISSIONING AUTHORITY ONE WEEK PRIOR TO SUBSTANTIAL COMPLETION. THE OPERATIONS AND MAINTENANCE TRAINING PLAN SHALL ONLY BE REQUIRED IF REQUESTED BY THE OWNER.</div><div>8. SUBMIT ALL COMMISSIONING DOCUMENTATION AND REPORTS TO THE COMMISSIONING AUTHORITY WITHIN ONE WEEK OF COMPLETION.</div><div>9. SUPPORT DEMONSTRATION OF SYSTEM INTEGRATION AND PERFORMANCE BY THE COMMISSIONING AUTHORITY.</div><div>10. PROVIDE ALL REQUIRED PERSONNEL, LADDERS, INSTRUMENTATION, 2-WAY RADIOS, AND ANY OTHER ITEMS REQUIRED TO CONDUCT THE FUNCTIONAL PERFORMANCE TEST.</div><div>11. SUBMIT WARRANTY DOCUMENTATION TO THE OWNER AND COMMISSIONING AUTHORITY PRIOR TO CONTRACT CLOSURE.</div><div>12. SUBMIT O&M DOCUMENTATION TO THE OWNER AND COMMISSIONING AUTHORITY ONE WEEK PRIOR TO SUBSTANTIAL COMPLETION.</div><div>B. COMMISSIONING SPECIALIST:</div><div>1. INCORPORATE COMMISSIONING ACTIVITIES INTO THE CONSTRUCTION SCHEDULE AND PROVIDE THE COMMISSIONING AUTHORITY WITH THE CONSTRUCTION SCHEDULES AND CONSTRUCTION MEETING MINUTES.</div><div>2. EQUIPMENT AND COMPONENT SHOP DRAWINGS ARE TO BE SUBMITTED TO THE COMMISSIONING AUTHORITY CONCURRENTLY WITH ENGINEER SUBMISSION.</div><div>3. INSTALLATION, OPERATIONS, AND MAINTENANCE (IOM) MANUALS ARE TO BE SUBMITTED TO THE COMMISSIONING AUTHORITY TWO WEEKS AFTER RECEIVING APPROVED SHOP DRAWINGS OR TWO WEEKS AFTER ORDERING THE EQUIPMENT, WHICHEVER OCCURS FIRST.</div><div>4. PROPOSE CORRECTIVE ACTIONS AND PROVIDE STATUS UPDATES OF DEFICIENCIES IDENTIFIED IN THE ISSUES REPORT.</div><div>5. COMPLETE FUNCTIONAL CHECKLISTS COMPLETED BY THE INSTALLING CONTRACTOR TO THE COMMISSIONING AUTHORITY WITHIN ONE WEEK OF COMPLETION.</div><div>6. APPROVED SEQUENCE OF OPERATION IS TO BE SUBMITTED TO THE COMMISSIONING AUTHORITY TWO WEEKS AFTER RECEIVING APPROVED SHOP DRAWINGS.</div><div>7. OPERATIONS AND MAINTENANCE TRAINING PLAN IS TO BE SUBMITTED TO THE COMMISSIONING AUTHORITY ONE WEEK PRIOR TO SUBSTANTIAL COMPLETION IF REQUESTED BY THE OWNER.</div><div>8. SUBMIT THE TEST, ADJUST AND BALANCE (TAB) REPORT TO THE COMMISSIONING AUTHORITY WITHIN ONE WEEK OF COMPLETION.</div><div>9. CONFIRM READINESS OF LIGHTING CONTROL SYSTEM BY WITNESSING 10% OF CONTROL SYSTEM INTEGRATION AS PERFORMED BY A LUTRON REPRESENTATIVE.</div><div>10. NOTIFY THE COMMISSIONING AUTHORITY IN WRITING WHEN AN ENTIRE SYSTEM IS READY TO DEMONSTRATE THE FUNCTIONAL PERFORMANCE TEST.</div><div>11. SUBMIT WARRANTY DOCUMENTATION TO THE OWNER AND COMMISSIONING AUTHORITY PRIOR TO PROJECT CLOSURE.</div><div>12. SUBMIT O&M DOCUMENTATION TO THE OWNER AND COMMISSIONING AUTHORITY ONE WEEK PRIOR TO SUBSTANTIAL COMPLETION.</div><div>C. COMMISSIONING AGENT (CXA):</div><div>1. COMMISSIONING AUTHORITY TO REVIEW THE 75% AND/OR 90% BASIS OF DESIGN AND PROVIDE PEER REVIEW COMMENTS ON FUTURE DESIGN SUBMISSIONS.</div><div>2. ORGANIZE AND LEAD THE COMMISSIONING TEAM.</div><div>3. PROVIDE COMMISSIONING PLAN.</div><div>4. CONCISE COMMISSIONING TEAM MEETINGS.</div><div>5. PROVIDE PROJECT-SPECIFIC COMMISSIONING CHECKLISTS.</div><div>6. THE EXECUTION OF COMMISSIONING PROCESS ACTIVITIES. VERIFICATION WILL INCLUDE, BUT NOT BE LIMITED TO: EQUIPMENT SUBMITTALS, COMMISSIONING CHECKLISTS, OPERATING AND MAINTENANCE DATA, TESTS, AND TEST REPORTS TO VERIFY COMPLIANCE WITH CONSTRUCTION DOCUMENTS, WHEN A RANDOM SAMPLE DOES NOT MEET THE REQUIREMENT, THE CXA WILL REPORT THE FAILURE IN THE ISSUES LOG.</div><div>7. PREPARE AND MAINTAIN THE ISSUES LOG.</div><div>8. DEFICIENCIES: THE CXA WILL DETERMINE AND ADVISE THE OWNER AND GC OF THE DATE OF THE DEFICIENCIES FOR EACH COMPONENT AND SYSTEM.</div><div>9. ACCEPTANCE: THE CXA WILL DETERMINE AND ADVISE THE OWNER AND GC OF THE DATE OF THE ACCEPTANCE FOR EACH COMPONENT AND SYSTEM.</div><div>10. VERIFY PROTECTIVE COATINGS AND FINISH SEALERS.</div><div>11. PERFORM FUNCTIONAL TESTS: THE CXA WILL PERFORM AND COORDINATE TESTING AS REQUIRED TO ENSURE SYSTEM PERFORMANCE MEETS THE DESIGN INTENT.</div><div>12. VERIFICATION OF TESTS: THE CXA WILL DOCUMENT THE RESULTS OF THE FUNCTIONAL PERFORMANCE TEST DIRECTLY AND/OR ENSURE THAT THE APPROPRIATE TECHNICIANS DOCUMENT ALL TESTING. THE CXA WILL PROVIDE STANDARD FORMS TO USE BY ALL PARTIES FOR CONSISTENCY OF APPROACH AND TYPE OF INFORMATION TO BE RECORDED.</div><div>13. COMPLETE TEST DATA, INSPECTION REPORTS, AND CERTIFICATES: INCLUDE THEM IN THE SYSTEMS MANUAL AND COMMISSIONING PROCESS REPORT.</div><div>3.5 MEETINGS</div><div>A. COMMISSIONING KICK-OFF MEETING:</div><div>1. COMMISSIONING AUTHORITY SHALL ISSUE THE COMMISSIONING PLAN AT LEAST ONE WEEK PRIOR TO THE KICK-OFF MEETING.</div><div>2. CONSTRUCTION MANAGERS AND INSTALLING CONTRACTORS SHALL ATTEND AND PARTICIPATE IN THE KICK-OFF MEETING.</div><div>3. COMMISSIONING AUTHORITY SHALL CONDUCT THE KICK-OFF MEETING WHERE THE COMMISSIONING TEAM WILL BE INTRODUCED TO THE COMMISSIONING PROCESS AND THEIR RESPONSIBILITIES.</div><div>B. COMMISSIONING MEETINGS:</div><div>1. COMMISSIONING AUTHORITY SHALL CONDUCT REGULARLY SCHEDULED COMMISSIONING MEETINGS TO DISCUSS COMMISSIONING ACTIVITIES. THE FOLLOWING MEETINGS MAY BE CONDUCTED:</div><div>a. CONTRACTOR KICK-OFF.</div><div>b. UPDATES.</div><div>c. PRE-START-UP.</div><div>d. OPERATIONS AND MAINTENANCE TRAINING PLAN IF REQUESTED BY THE OWNER.</div><div>e. PRE-FUNCTIONAL PERFORMANCE TEST.</div><div>f. POST-FUNCTIONAL PERFORMANCE TEST.</div><div>2. INSTALLING CONTRACTORS SHALL ATTEND THE COMMISSIONING MEETINGS AS DIRECTED BY THE COMMISSIONING AUTHORITY.</div><div>3.6 PRE-FUNCTIONAL CHECKLISTS</div><div>A. DOCUMENTATION:</div><div>1. COMMISSIONING AUTHORITY SHALL PREPARE PRE-FUNCTIONAL CHECKLISTS TO BE COMPLETED BY THE INSTALLING CONTRACTOR AND VERIFIED BY THE COMMISSIONING AUTHORITY.</div><div>2. PRE-FUNCTIONAL CHECKLISTS WILL IDENTIFY THE MINIMUM COMMISSIONING INSPECTIONS AND WILL BE DEVELOPED ACCORDING TO THE PROJECT REQUIREMENTS AND THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS.</div><div>3. CHECKLISTS WILL BE ISSUED IN PDF OR EXCEL FORMAT.</div><div>B. CONSTRUCTION PHASES:</div><div>1. CHECKLISTS WILL BE PREPARED IN SECTIONS ACCORDING TO CONSTRUCTION PROGRESS.</div><div>2. INSTALLING CONTRACTOR WILL COMPLETE THE APPROPRIATE SECTIONS OF THE CHECKLISTS AS CONSTRUCTION PROGRESSES. CHECKLISTS SHALL BE COMPLETED AND SUBMITTED TO THE COMMISSIONING AUTHORITY WITHIN ONE WEEK OF COMPLETION.</div><div>C. PRE-INSTALLATION:</div><div>1. VERIFY THAT EQUIPMENT HAS BEEN RECEIVED WITHOUT DAMAGE.</div><div>2. RECEIVED EQUIPMENT IS THE EQUIPMENT THAT WAS APPROVED.</div><div>3. EQUIPMENT IS BEING PROPERLY STORED AND PROTECTED FROM DIRT, DUST, AND MOISTURE.</div><div>D. INSTALLATION:</div><div>1. VERIFY THAT EQUIPMENT, COMPONENTS, AND INTEGRATED SYSTEMS HAVE BEEN SUPPORTED, INSTALLED, AND ACCESSIBLE FOR SERVICE AND MAINTENANCE.</div><div>2. COMPLETED CHECKLIST SECTIONS SHALL BE SUBMITTED ONE WEEK AFTER EQUIPMENT IS AND COMPONENTS HAVE BEEN INSTALLED.</div><div>E. START-UP:</div><div>1. VERIFY THAT DISTRIBUTION AND INTEGRATED SYSTEMS HAVE BEEN CHECKED, TESTED, AND BALANCED.</div><div>2. EQUIPMENT AND COMPONENTS HAVE BEEN CHECKED, TESTED, AND READY FOR START-UP.</div><div>3. MANUFACTURER OR SUBCONTRACTOR CREATED START-UP REPORTS SHOULD BE UTILIZED DURING EQUIPMENT START-UP.</div><div>4. START-UP REPORTS SHALL BE SUBMITTED WITHIN ONE WEEK OF COMPLETION TO THE COMMISSIONING AUTHORITY.</div><div>F. COMPLETION:</div><div>1. VERIFY THAT EQUIPMENT HAS BEEN SUCCESSFULLY STARTED-UP.</div><div>2. INTEGRATED SYSTEMS HAVE BEEN BALANCED AND/OR COMPLETED.</div><div>3. DEFICIENCIES HAVE BEEN RECTIFIED, AND THE ENTIRE SYSTEM IS READY FOR FUNCTIONAL PERFORMANCE TESTING.</div><div>4. COMPLETED CHECKLIST SECTIONS SHALL BE SUBMITTED NO LATER THAN ONE WEEK BEFORE FUNCTIONAL PERFORMANCE TESTING OR IMMEDIATELY AFTER SCHEDULING THE TESTING DATE WHICHEVER IS SOONER.</div><div>G. VERIFICATION: COMMISSIONING SPECIALIST SHALL VERIFY THE ACCURACY OF THE COMPLETED CHECKLISTS BY INSPECTING ALL OF THE CHECKLISTS AND THEN SIGNING OFF ON EACH FORM.</div><div>3.7 ISSUES REPORT</div><div>A. COMMISSIONING AUTHORITY SHALL DOCUMENT THE DEFICIENCIES FOUND ON THE PROJECT IN A REGULARLY UPDATED ISSUES REPORT. ISSUES REPORT WILL BE DISTRIBUTED TO THE CX TEAM ON A REGULAR BASIS.</div><div>B. IDENTIFY THE PROJECT DEFICIENCIES, PROPOSED RESOLUTION, RESPONSIBLE PARTY, AND DATE DEFICIENCY WAS RESOLVED.</div><div>C. INSTALLING CONTRACTORS SHALL RESPOND TO THE COMMISSIONING AUTHORITY AND RESOLVE DEFICIENCIES WITHIN ONE WEEK OF ISSUANCE.</div><div>3.8 FUNCTIONAL PERFORMANCE TEST</div><div>A. THE FUNCTIONAL PERFORMANCE TESTS DEMONSTRATE THAT THE COMMISSIONED SYSTEMS OPERATE AS THE OWNER AND DESIGN TEAM EXPECTED.</div><div>1. MAJOR EQUIPMENT AND RANDOMLY SELECTED COMPONENTS ARE TESTED TO ENSURE COMPLIANCE.</div><div>2. INTERCONNECTED SYSTEMS ARE TESTED TO ENSURE COMPLIANCE.</div><div>B. EQUIPMENT IS OPERATED IN THE VARIOUS MODES (OCCUPIED, UNOCCUPIED, HEATING, COOLING, ETC.) OF OPERATION.</div><div>C. DEFICIENCIES IDENTIFIED DURING THE FUNCTIONAL PERFORMANCE TEST SHALL BE DOCUMENTED BY THE COMMISSIONING AUTHORITY.</div><div>1. INSTALLING CONTRACTORS SHALL NOTIFY THE COMMISSIONING AUTHORITY, IN WRITING, WHEN THE ENTIRE SYSTEM HAS BEEN CHECKED AND IS READY FOR TESTING.</div><div>2. INSTALLING CONTRACTORS SHALL PROVIDE EXPERIENCED TECHNICIANS TO SUPPORT THE FUNCTIONAL PERFORMANCE TEST.</div><div>3. INSTALLING CONTRACTORS SHALL PROVIDE TOOLS, TEST EQUIPMENT, LADDERS, 2-WAY RADIOS, AND ANY OTHER MATERIALS REQUIRED TO PERFORM THE FUNCTIONAL PERFORMANCE TESTS.</div><div>C. COMMISSIONING SPECIALIST SHALL SCHEDULE THE FUNCTIONAL PERFORMANCE TEST:</div><div>1. COMMISSIONING SPECIALIST SHALL COORDINATE ALL MANPOWER, TOOLS, AND EQUIPMENT REQUIRED FOR THE FUNCTIONAL PERFORMANCE TEST.</div><div>2. COMMISSIONING SPECIALIST SHALL NOTIFY THE COMMISSIONING AUTHORITY, IN WRITING, TO CONFIRM THE FUNCTIONAL PERFORMANCE TEST SCHEDULE.</div><div>D. COMMISSIONING AUTHORITY SHALL PREPARE THE FUNCTIONAL PERFORMANCE TEST PROCEDURE ACCORDING TO THE APPROVED SEQUENCE OF OPERATION. COMMISSIONING AUTHORITY WILL CONDUCT THE PERFORMANCE TESTS AND DOCUMENT THE TEST DATA.</div><div>E. DEFICIENCIES IDENTIFIED DURING THE FUNCTIONAL PERFORMANCE TEST SHALL BE CORRECTED BEFORE CONTINUING THE TEST. TESTING WILL BE STOPPED IF DEFICIENCIES CANNOT BE IMMEDIATELY RESOLVED AND THE COMMISSIONING SPECIALIST WILL SCHEDULE THE RE-TEST.</div><div>1. DEFICIENCIES THAT DO NOT IMPACT THE CONTINUATION OF THE FUNCTIONAL PERFORMANCE TEST SHALL BE CORRECTED BEFORE SCHEDULING THE RE-TEST. COMMISSIONING AUTHORITY SHALL IDENTIFY THE DEFICIENCY AND THE RECOMMENDED RESOLUTION AND CONTINUE THE TEST.</div><div>2. SYSTEMS WILL BE RE-TESTED UNTIL ALL IDENTIFIED DEFICIENCIES HAVE BEEN RESOLVED.</div><div>4. SYSTEMS WILL BE ACCEPTED WHEN PROPER OPERATION IS DEMONSTRATED.</div><div>F. EACH COMMISSIONED SYSTEM WILL BE TESTED ONE TIME. IF DEFICIENCIES ARE IDENTIFIED DURING THE INITIAL TEST, THE SYSTEM WILL BE RE-TESTED ONE TIME.</div><div>1. IF DEFICIENCIES ARE IDENTIFIED DURING THE RE-TEST, THE SYSTEM WILL BE RE-TESTED UNTIL IT IS FOUND ACCEPTABLE.</div><div>2. GENERAL CONTRACTOR WILL BE CHARGED FOR ALL SYSTEMS THAT REQUIRE A SECOND OR MORE RE-TEST. COMMISSIONING AUTHORITY WILL INVOICE THE OWNER AT THE CURRENT HOURLY RATES, FOR ALL TIME INVOLVED WITH THE ADDITIONAL RE-TESTS.</div><div>3. ADDITIONAL RE-TEST INVOICES ARE DUE 30 DAYS FROM DATE OF RE-TEST.</div><div>3.9 OPERATIONS AND MAINTENANCE TRAINING</div><div>A. COMMISSIONING SPECIALIST SHALL PREPARE AND COMPLETE ALL OPERATIONS AND MAINTENANCE DOCUMENTATION.</div><div>1. SUBMIT ONE COPY OF THE OPERATIONS AND MAINTENANCE DOCUMENTATION TO THE OWNER, COMMISSIONING AUTHORITY AND ARCHITECT OF RECORD FOR REVIEW ONE WEEK PRIOR TO SUBSTANTIAL COMPLETION.</div><div>2. COMMISSIONING AUTHORITY OR ARCHITECT OF RECORD WILL REVIEW THE OPERATIONS AND MAINTENANCE DOCUMENTATION FOR COMPLETENESS AND COMPLIANCE.</div><div>B. COMMISSIONING SPECIALIST SHALL PREPARE THE OPERATIONS AND MAINTENANCE TRAINING AGENDA IF REQUESTED BY OWNER.</div><div>1. SUBMIT OPERATIONS AND MAINTENANCE TRAINING AGENDA TO THE COMMISSIONING AUTHORITY AND OWNER'S PROJECT MANAGER FOR REVIEW SIX WEEKS BEFORE OPERATIONS AND MAINTENANCE TRAINING.</div><div>2. COMMISSIONING AUTHORITY AND OWNER'S PROJECT MANAGER WILL REVIEW THE OPERATIONS AND MAINTENANCE TRAINING AGENDA FOR COMPLETENESS AND COMPLIANCE.</div><div>C. COMMISSIONING SPECIALIST AND OWNER'S PROJECT MANAGER WILL SCHEDULE AND COORDINATE THE OPERATIONS AND MAINTENANCE TRAINING SESSIONS. PROVIDE COMMISSIONING AUTHORITY WITH TWO WEEKS NOTICE FOR OPERATIONS AND MAINTENANCE TRAINING SESSIONS.</div><div>D. COMMISSIONING AUTHORITY MAY ATTEND SELECT OPERATIONS AND MAINTENANCE TRAINING SESSIONS.</div><div>END OF SECTION</div><div>SECTION 03 31 10</div><div>CONCRETE FINISHING</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE STAINED AND POLISHED CONCRETE FLOOR FINISHES.</div><div>1.2 SUBMITTALS</div><div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div><div>B. SAMPLES: IN LIEU OF PHYSICAL PHOTOGRAPHS INDICATING VISUAL CHARACTERISTICS AND FINISH, INCLUDE MULTIPLE PHOTOS IF VARIATION OF FINISH IS ANTICIPATED.</div><div>1.3 QUALITY ASSURANCE</div><div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div><div>B. REGULATIONS: COMPLIANCE WITH VOC AND ENVIRONMENTAL REGULATIONS.</div><div>PART 2 PRODUCTS</div><div>2.1 MATERIALS</div><div>A. POLISHED CONCRETE FLOOR FINISHES (PC-2):</div><div>1. MANUFACTURERS: ADVANCED FLOOR FINISHES, L.M. SCOFIELD CO., PROSSOCO, OR APPROVED EQUAL.</div><div>a. BASIS OF DESIGN: L.M. SCOFIELD CO.</div><div>2. MATERIALS:</div><div>a. WATER-BASED COLOR STAINS OR DYES.</div><div>b. CONCRETE STABILIZER.</div><div>c. PROTECTIVE COATINGS AND FINISH SEALERS.</div><div>3. FINISH-REFER TO DRAWINGS.</div><div>PART 3 EXECUTION</div><div>3.1 INSTALLATION</div><div>A. INSPECT SURFACES. REPORT UNSATISFACTORY CONDITIONS IN WRITING. BEGINNING WORK MEANS ACCEPTANCE OF SUBSTRATE.</div><div>B. INSTALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. COORDINATE WITH WORK OF OTHER SECTIONS.</div><div>1. GRIND CONCRETE SUBSTRATE.</div><div>2. APPLY STAIN, NEUTRALIZE, AND FLUSH WITH CLEAN POTABLE WATER.</div><div>3. APPLY CONCRETE STABILIZER.</div><div>4. POLISH CURED SURFACES.</div><div>5. WATER PROTECTIVE COATINGS AND FINISH SEALERS.</div><div>C. RESTORE DAMAGED FINISHES. CLEAN AND PROTECT WORK FROM DAMAGE.</div><div>END OF SECTION</div><div>SECTION 04 21 30</div><div>THIN BRICK</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE THIN BRICK CONSTRUCTION.</div><div>1.2 SUBMITTALS</div><div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div><div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div><div>1. SHOP DRAWINGS SHALL BE PREPARED AND STAMPED BY A QUALIFIED ENGINEER LICENSED IN THE JURISDICTION OF THE PROJECT.</div><div>1.3 QUALITY ASSURANCE</div><div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div><div>PART 2 PRODUCTS</div><div>2.1 MATERIALS</div><div>A. THIN BRICK VENEER (BV-1, BV-2)</div><div>1. APPLICATION: THIN BRICK VENEER AT EXTERIOR WALLS, NON-BEARING.</div><div>2. PROFILE: FACING BRICK, ASTM C276. INCLUDE MATCHING CORNER PIECES.</div><div>a. GRADE: SW.</div><div>b. TYPE: FBX.</div><div>3. PRODUCT: ELUDARDO STONE, LUNDBRAICK.</div><div>4. SIZE (STANDARD) SIZE (ACTUAL DIMENSIONS): 7/8 INCHES WIDE BY 2-1/2 INCHES HIGH BY 7-5/8 INCHES LONG.</div><div>5. RUNNING BOND.</div><div>6. COLOR: REFER TO FINISH SCHEDULE (4601)</div><div>B. THIN SET MORTAR</div><div>1. CEMENT: PORTLAND CEMENT COMPLYING WITH ASTM C 1259.</div><div>2. LIME: ASTM C 207.</div><div>3. SAND: ASTM C 144, NATURAL OR MANUFACTURED SAND.</div><div>4. COLOR PIGMENTS: ASTM C 979, MINERAL OXIDE PIGMENTS. TO BE REVIEWED AND APPROVED BY ARCHITECT.</div><div>5. WATER: POTABLE.</div><div>6. PRE-PACKAGED LATEX-PORTLAND CEMENT MORTAR, ANSI A118.4.</div><div>C. REINFORCING</div><div>1. METAL LATH</div><div>a. ASTM C 947, GALVANIZED EXPANDED METAL LATH.</div><div>2. WEATHER BARRIER</div><div>1. ASTM D 226, TYPE 1, NO. 15, NON-PERFORATED ASPHALT-SATURATED FELT PAPER OR UBC STANDARD 14-1, KRAFT WATERPROOF BUILDING PAPER.</div><div>PART 3 EXECUTION</div><div>3.1 INSTALLATION</div><div>A. INSTALLATION OF MASONRY ASSEMBLIES:</div><div>1. COMPLY WITH PCA RECOMMENDED PRACTICES FOR LAYING CONCRETE BLOCK AND NON-TEXT BULLETTINS.</div><div>2. SAW-CUT UNITS WHEN REQUIRED. MAINTAIN UNIFORM JOINT WIDTH. PROVIDE FULL BED, HEAD AND COLLAR JOINTS EXCEPT AT VERTICAL JOINTS.</div><div>3. INSTALL ACCESSORIES IN MASONRY CONSTRUCTION.</div><div>4. COORDINATE INSTALLATION OF FLASHINGS.</div><div>5. FOLLOW RECOMMENDATIONS OF SMANQ SHEET METAL MANUAL. ALLOW FOR EXPANSION. ISOLATE DISSIMILAR MATERIALS.</div><div>6. COMPLY WITH APPLICABLE CODES AND REGULATIONS FOR BRICK SUPPORT AND REINFORCEMENT.</div><div>7. PROVIDE EXPANSION AND CONTROL JOINTS IN ACCORDANCE WITH NMA RECOMMENDATIONS.</div><div>8. REMOVE AND REPLACE DAMAGED UNITS.</div><div>9. CLEAN CONCRETE MASONRY BY DRY BRUSHING, NMA TEK NO. 28.</div><div>END OF SECTION</div><div>SECTION 06 40 00</div><div>COLD-FORMED METAL FRAMING</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE COLD-FORMED METAL FRAMING.</div><div>1.2 SUBMITTALS</div><div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div><div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div><div>C. ENGINEERING CERTIFICATION: SUBMIT FOR APPROVAL ENGINEERING CERTIFICATION OF DEFLECTION CRITERIA.</div><div>1.3 QUALITY ASSURANCE</div><div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div><div>B. STANDARDS: ANSI, SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.</div><div>C. FABRICATION TOLERANCES: 1/8 INCH IN 10 FEET.</div><div>PART 2 PRODUCTS</div><div>2.1 MATERIALS</div><div>A. COLD-FORMED METAL FRAMING:</div><div>1. MANUFACTURERS: AEGIS METAL FRAMING LLC, TRUSSTEEL, AN ITW COMPANY; CEMCO/CALIFORNIA EXPANDED METAL PRODUCTS CO.; CLARKE/TECH BUILDING SYSTEMS; HANNOVER; HILCO/STEEL; A HILCOR COMPANY; OR APPROVED EQUAL.</div><div>2. APPLICATION: EXTERIOR NON-LOADBEARING STEEL STUD WALLS.</div><div>3. WALL FRAMING: C-SHAPED LOADBEARING STEEL STUDS.</div><div>4. UNITS: 18 GAUGE (.0358 INCH) AND HEAVIER; ASTM A 653, YIELD POINT 50,000.</div><div>5. UNITS: 18 GAUGE (.0358 INCH); ASTM A 653, YIELD POINT 37,000 PSI.</div><div>6. FINISH: GALVANIZED; ASTM A 653, G60.</div><div>7. FRAMING ACCESSORIES:</div><div>a. BRACING, BRIDGING, AND SOLID BLOCKING.</div><div>b. DEFLECTION TRACK AND VERTICAL SIDE CLIPS.</div><div>c. STUD WORKERS AND ANCHORS.</div><div>d. ANCHORS, CLIPS, AND FASTENERS.</div><div>PART 3 EXECUTION</div><div>3.1 INSTALLATION</div><div>A. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. COORDINATE WITH WORK OF OTHER SECTIONS.</div><div>B. COMPLY WITH REQUIREMENTS OF ASTM C 1007 FOR INSTALLATION OF STEEL STUDS AND ACCESSORIES AND METAL LATH/STEEL FRAMING ASSOCIATION LIGHTWEIGHT STEEL FRAMING SYSTEMS MANUAL.</div><div>1. ERECTION TOLERANCES: 1/16 INCH FROM TRUE POSITION.</div><div>2. RESTORE DAMAGED COMPONENTS. PROTECT WORK FROM DAMAGE.</div><div>END OF SECTION</div><div>SECTION 06 50 00</div><div>METAL FABRICATIONS</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE METAL FABRICATIONS.</div><div>1.2 SUBMITTALS</div><div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div><div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div><div>1. SHOP DRAWINGS SHALL BE PREPARED AND STAMPED BY A QUALIFIED ENGINEER LICENSED IN THE JURISDICTION OF THE PROJECT.</div><div>1.3 QUALITY ASSURANCE</div><div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div><div>PART 2 PRODUCTS</div><div>2.1 MATERIALS</div><div>A. METAL FABRICATIONS:</div><div>1. APPLICATION: ROUGH HARDWARE.</div><div>2. APPLICATION: STEEL LADDERS AND SUPPORTS, FOR ROOF ACCESS.</div><div>3. APPLICATION: MISCELLANEOUS FRAMING AND SUPPORTS.</div><div>4. APPLICATION: ZINC-RICH PRIMER AND PAINT FOR STEEL FRAMING AND SUPPORTS, FOR EXTERIOR CANOPY.</div><div>5. APPLICATION: ZINC-RICH PRIMER AND PAINTED STEEL FOR PLANTERS, EXTERIOR RAILINGS AND PIPE BOLLARDS.</div><div>6. APPLICATION: METAL FRAMING AND SUPPORTS FOR COUNTERTOPS AND LOW WALLS.</div><div>7. FERROUS MATERIALS:</div><div>a. STEEL PLATES, SHAPES AND BARS: ASTM A 36.</div><div>b. ROLLED STEEL FLOOR PLATES: ASTM A 786.</div><div>c. STEEL TUBING: ASTM A 501 OR A 501.</div><div>d. UNCOATED STRUCTURAL STEEL SHEET: ASTM A 611 OR A 570.</div><div>e. UNCOATED STEEL SHEET: ASTM A 48, CLASS 30.</div><div>f. GALVANIZED STEEL SHEET: ASTM A 47, GRADE 3510.</div><div>g. STEEL PIPE, BLACK FINISH: ASTM A 53.</div><div>h. GRAY IRON CASTINGS: ASTM A 48, CLASS 30.</div><div>i. MALLEABLE IRON CASTINGS: ASTM A 47, GRADE 3510.</div><div>j. REINFORCING BARS: ASTM A 615, GRADE 60.</div><div>k. BRACKETEES, FLANGES, AND ANCHORS: CAST OR FORMED METAL.</div><div>l. CONCRETE REBARS: THREADED OR WEDGE TYPE.</div><div>m. WELDING RODS AND BARE ELECTRODES: AWS SPECIFICATIONS.</div><div>n. ZINC COATING: HOT-DIP GALVANIZED COATING FOR MATERIALS IN EXTERIOR ASSEMBLIES OR EXTERIOR WALLS.</div><div>8. NON-FERROUS:</div><div>a. BOLTS AND NUTS: HEXAGON HEAD TYPE, ASTM A 307, GRADE A.</div><div>b. LAG BOLTS: SQUARE HEAD, FS FF-B-91.</div><div>c. MACHINE SCREWS: CADMIUM PLATED STEEL, FS FF-S-92.</div><div>d. WOOD SCREWS: FLAT HEAD CARBON STEEL, FS FF-S-111.</div><div>e. PLAIN WASHERS: ROUND CARBON STEEL, FS FF-W-92.</div><div>f. DRILLED-EXPANSION ANCHORS: FS FF-S-92.</div><div>g. TOGGLE BOLTS: TUMBLE-WING TYPE, FS FF-B-888.</div><div>h. LOCK WASHERS: SPRING TYPE CARBON STEEL, FS FF-W-84.</div><div>i. ZINC COATING: FASTENERS IN EXTERIOR ASSEMBLIES OR EXTERIOR WALLS.</div><div>9. AUXILIARY MATERIALS:</div><div>a. NON-SHRINK METALLIC GROUT: ASTM C 1107.</div><div>b. NON-SHRINK NON-METALLIC GROUT: ASTM C 1107.</div><div>c. INTERIOR ANCHORING CEMENT: HYDRAULIC EXPANSION CEMENT.</div><div>d. SHOP PRIMER: FAST CURING, LEAD- AND CHROMATE-FREE, UNIVERSAL MODIFIED-ALKYD PRIMER COMPLYING WITH MHPF9, COMPATIBLE WITH TOPCOATS.</div><div>e. ZINC-RICH PRIMER: COMPLYING WITH SSPC-PAINT 20 OR SSPC-PAINT 29 AND COMPATIBLE WITH TOPOCOAT.</div><div>f. GALVANIZED REPAIR PAINT: SSPC - PAINT 20.</div><div>g. BITUMINOUS PAINT: ASPHALT MASTIC, ASTM D 1187.</div><div>10. FACTORY FINISH POWDER-COATED PAINT SYSTEM.</div><div>PART 3 EXECUTION</div><div>3.1 INSTALLATION</div><div>A. TAKE FIELD MEASUREMENTS PRIOR TO PREPARATION OF SHOP DRAWINGS AND FABRICATION. DO NOT DELAY JOB. ALLOW FOR CUTTING AND FITTING IF FIELD MEASUREMENT NOT PRACTICAL.</div><div>B. FORM WORK TRUE TO LINE WITH SHARP ANGLES AND EDGES. WELD CONTINUOUSLY. GRIND FLUSH AND MAKE SMOOTH ON EXPOSED SURFACES.</div><div>C. INSTALL WORK PLUMB AND LEVEL, WITH HANGLINE JOINTS AND GROUND FLUSH WELDS.</div><div>D. TOUCH-UP DAMAGED COATINGS WITH SHOP PRIMER.</div><div>E. PAINT ITEMS SCHEDULED IN ACCORDANCE WITH PAINTING SECTION.</div><div>END OF SECTION</div><div>SECTION 06 10 00</div><div>ROUGH CARPENTRY</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE ROUGH CARPENTRY.</div><div>1.2 QUALITY ASSURANCE</div><div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div><div>B. LUMBER STANDARDS AND GRADE STAMPS: DOC PS 20, AMERICAN SOFTWOOD LUMBER STANDARD AND INSPECTION AGENCY GRADE STAMPS.</div><div>C. CONSTRUCTION PANEL STANDARDS: DOC PS 1, U.S. PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD. APA PRF-108.</div><div>D. PRESERVATIVE TREATMENT: AMPA C2 FOR LUMBER AND AMPA C9 FOR PLYWOOD. WATERBORNE PRESSURE TREATMENT. PROVIDE FOR WOOD IN CONTACT WITH SOIL, CONCRETE, MASONRY, ROOFING, FLASHINGS, DAMPROOFING AND WATERPROOFING.</div><div>E. FIRE-RETARDANT TREATMENT: AMPA C20 FOR LUMBER AND AMPA C27 FOR PLYWOOD. NON-CORROSIVE TYPE. PROVIDE AT BUILDING INTERIOR WHERE REQUIRED BY CODE.</div><div>2.1 MATERIALS</div><div>A. TAKE FIELD MEASUREMENTS PRIOR TO PREPARATION OF SHOP DRAWINGS AND FABRICATION. DO NOT DELAY JOB. ALLOW FOR CUTTING AND FITTING IF FIELD MEASUREMENT NOT PRACTICAL.</div><div>B. FORM WORK TRUE TO LINE WITH SHARP ANGLES AND EDGES. WELD CONTINUOUSLY. GRIND FLUSH AND MAKE SMOOTH ON EXPOSED SURFACES.</div><div>C. INSTALL WORK PLUMB AND LEVEL, WITH HANGLINE JOINTS AND GROUND FLUSH WELDS.</div><div>D. TOUCH-UP DAMAGED COATINGS WITH SHOP PRIMER.</div><div>E. PAINT ITEMS SCHEDULED IN ACCORDANCE WITH PAINTING SECTION.</div><div>END OF SECTION</div><div>SECTION 06 10 00</div><div>ROUGH CARPENTRY</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE ROUGH CARPENTRY.</div><div>1.2 QUALITY ASSURANCE</div><div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div><div>B. LUMBER STANDARDS AND GRADE STAM</div></div>
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PART 2 PRODUCTS

2.1 MATERIALS

A. ROUGH CARPENTRY APPLICATIONS:

1. APPLICATION: WOOD GROUNDS, NAILERS, AND BLOCKING.

2. APPLICATION: WOOD FLOORING.

3. APPLICATION: BACKING PANELS.

4. SUSTAINABLE DESIGN: LOW-EMITTING MATERIALS, NO ADDED UREA-FORMALDEHYDE.

5. SUSTAINABLE DESIGN: FSC CERTIFIED.

6. DIMENSION LUMBER

a. LIGHT FRAMING: STUD, NO. 2 OR STANDARD GRADE.

b. SPECIES: ANY SPECIES OF GRADE INDICATED.

c. MOISTURE CONTENT: 19 PERCENT.

7. CONSTRUCTION PANELS:

a. TELEPHONE AND ELECTRICAL EQUIPMENT BACKING PANELS: DOC PS 1, EXPOSURE 1, C-D PLUGGED, FIRE-RETARDANT TREATED.

8. FASTENERS: NON-CORROSIVE, SUITABLE FOR LOAD AND EXPOSURE. DRYWALL SCREWS ARE NOT ACCEPTABLE.

PART 3 EXECUTION

3.1 INSTALLATION

A. SECURELY ATTACH ROUGH CARPENTRY WORK TO SUBSTRATE BY ANCHORING AND FASTENING AS INDICATED.

B. PLYWOOD: COMPLY WITH APPLICABLE RECOMMENDATIONS CONTAINED IN APA FORM NO. E30K, "APA DESIGN/CONSTRUCTION GUIDE: RESIDENTIAL & COMMERCIAL."

C. PROVIDE NAILERS, BLOCKING AND GROUNDS WHERE REQUIRED. SET WORK PLUMB, LEVEL AND ACCURATELY CUT.

D. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. COORDINATE WITH OTHER WORK.

E. COMPLY WITH MANUFACTURER'S REQUIREMENTS FOR CUTTING, HANDLING, FASTENING AND WORKING TREATED MATERIALS.

F. RESTORE DAMAGED COMPONENTS. PROTECT WORK FROM DAMAGE.

END OF SECTION

SECTION 06.10.00

SHEATHING

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE SHEATHING.

1.2 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. CONSTRUCTION PANEL STANDARDS: DOC PS 1, U.S. PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD, APA PRP-108.

C. PRESERVATIVE TREATMENT: AWPA C9 FOR PLYWOOD, WATERBORNE PRESSURE TREATMENT, PROVIDE FOR WOOD IN CONTACT WITH SOIL, CONCRETE, MASONRY, ROOFING, FLASHING, DAMPROOFING AND WATERPROOFING.

D. FIRE-RETARDANT TREATMENT: AWPA C27 FOR PLYWOOD, NONCORROSIVE TYPE. PROVIDE AT BUILDING INTERIOR WHERE REQUIRED BY CODE.

PART 2 PRODUCTS

2.1 MATERIALS

A. GLASS-MAT GYPSUM SHEATHING BOARD, ASTM C 1177.

1. AVAILABLE PRODUCTS:

a. CERTAINTED CORP., GLASROC.

b. GEORGIA-PACIFIC GYPSUM LLC, DENS-GLASS GOLD.

c. NATIONAL GYPSUM COMPANY, GOLD BOND, EZD.

d. USG CORPORATION, SECURLOCK.

2. TYPE AND THICKNESS: 5/8 INCH, TYPE X.

B. PLYWOOD SHEATHING: DOC PS 1, APA RATED, EXTERIOR GRADE, C-D PLUGGED, FIRE-RETARDANT TREATED.

1. THICKNESS: 5/8 IN MIN.

2. SPAN RATING: REFER TO STRUCTURAL.

3. SUSTAINABLE DESIGN: LOW-EMITTING MATERIALS, NO ADDED UREA-FORMALDEHYDE.

4. SUSTAINABLE DESIGN: FSC CERTIFIED.

C. AUXILIARY MATERIALS

1. FASTENERS: NON-CORROSIVE, SUITABLE FOR LOAD AND EXPOSURE.

PART 3 EXECUTION

3.1 INSTALLATION

A. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. COORDINATE WITH OTHER WORK.

1. PLYWOOD: COMPLY WITH APPLICABLE RECOMMENDATIONS CONTAINED IN APA FORM NO. E30K, "APA DESIGN/CONSTRUCTION GUIDE: RESIDENTIAL & COMMERCIAL."

2. GYPSUM: COMPLY WITH APPLICABLE RECOMMENDATIONS CONTAINED IN GA-253.

3. FASTENER PATTERNS, PER STRUCTURAL DRAWINGS.

4. SEAL OR TAPE JOINTS, AS RECOMMENDED BY MANUFACTURER.

B. ERECTION TOLERANCES: LEVEL, PLUMB, AND TRUE TO LINE TO A MAXIMUM ALLOWABLE TOLERANCE VARIATION OF 1/8 INCH IN 10 FEET.

C. RESTORE DAMAGED COMPONENTS. PROTECT WORK FROM DAMAGE.

END OF SECTION

SECTION 06.40.20

INTERIOR ARCHITECTURAL WOODWORK

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE INTERIOR FINISH CARPENTRY, INCLUDING REMODELING EXISTING WOODWORK.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.

C. SAMPLES: SUBMIT TWO REPRESENTATIVE SAMPLES OF EACH MATERIAL SPECIFIED INDICATING VISUAL CHARACTERISTICS AND FINISH. INCLUDE RANGE SAMPLES IF VARIATION OF FINISH IS ANTICIPATED.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. QUALITY STANDARDS: ARCHITECTURAL WOODWORK STANDARDS (FORMERLY AW), EDITION 1, 2009.

C. PRESERVATIVE TREATMENT: NONPRESSURE METHOD, EXTERIOR TYPE, AWPA N1.

D. FIRE-RETARDANT TREATMENT:

1. LUMBER: AWPA C20, NON-CORROSIVE TYPE.

2. PLYWOOD: AWPA C27, NON-CORROSIVE TYPE.

E. WOOD PRODUCTS: COMPLY WITH THE FOLLOWING:

1. MEDIUM DENSITY OVERLAY (MDO) PLYWOOD: DOC PS 1.

2. HARDWOOD PLYWOOD AND FACE VENEERS: HPVA HP-1.

F. SUSTAINABLE DESIGN:

1. SALVAGED AND RECLAIMED WOOD.

2. RECYCLED CONTENT WOOD FIBER.

3. FSC CERTIFIED LUMBER.

4. LOW-EMITTING MATERIALS, ADHESIVES.

5. LOW-EMITTING MATERIALS, FIELD-APPLIED PAINTS AND COATINGS.

6. LOW-EMITTING MATERIALS, NO ADDED UREA-FORMALDEHYDE.

PART 2 PRODUCTS

2.1 MATERIALS

A. INTERIOR STANDING AND RUNNING TRIM AND RAILS, INCLUDING FRAMES, JAMBES, AND CAPS:

1. SPECIES FOR TRANSPARENT FINISH: SALVAGED AND RECLAIMED WOOD, REFER TO DRAWINGS.

2. SPECIES FOR OPAQUE FINISH: ANY CLOSED-GRAIN HARDWOOD.

3. GRADE: PREMIUM.

4. SITE FINISH: TRANSPARENT FINISH WITH STAIN.

5. SITE FINISH: SHOP PRIMED, FOR PAINTED FINISH.

B. INTERIOR PLASTIC LAMINATE CLAD CASEWORK:

1. MANUFACTURERS: MANUFACTURERS: WILSONART INTERNATIONAL DIV. OF FREMARK INTERNATIONAL, INC.; NEVAMAR COMPANY, LLC; DECORATIVE PRODUCTS DIV.; FORMICA CORPORATION, OR APPROVED EQUAL.

2. LAMINATE: HIGH-PRESSURE DECORATIVE LAMINATE, NEMA LD-3.

3. GRADE: CUSTOM.

4. FACE STYLE: REFER TO DRAWINGS.

5. FRAME FABRICATION: REFER TO DRAWINGS.

C. INTERIOR CASEWORK: HARDWARE AND AUXILIARY MATERIALS

1. MANUFACTURERS: ACCURIDE INTERNATIONAL, INC.; BLUM, INC.; GRASS AMERICA, INC.; HAFELE AMERICA CO.; KNAIF & VOGT MFG. CO.; OR APPROVED EQUAL.

2. HARDWARE STANDARD: ANSIBHMA A15.69.

3. HARDWARE FINISH AND BASE METAL: SATIN STAINLESS STEEL.

D. INTERIOR WOOD COUNTERTOPS

1. COUNTERTOP: SALVAGED AND RECLAIMED WOOD, MATCH ARCHITECT'S SAMPLE.

2. GRADE: PREMIUM.

3. VENEER MATCHING OF LEAVES: RANDOM.

4. VENEER MATCHING IN PANEL: FACE, RUNNING.

5. SITE FINISH: TRANSPARENT FINISH.

E. INTERIOR PLASTIC LAMINATE CLAD COUNTERTOPS:

1. MANUFACTURERS: MANUFACTURERS: WILSONART INTERNATIONAL DIV. OF FREMARK INTERNATIONAL, INC.; NEVAMAR COMPANY, LLC; DECORATIVE PRODUCTS DIV.; FORMICA CORPORATION, OR APPROVED EQUAL.

2. LAMINATE: HIGH-PRESSURE DECORATIVE LAMINATE, NEMA LD-3.

3. GRADE: CUSTOM.

4. CORE: PLYWOOD.

5. EDGE: LAMINATE.

F. INTERIOR WOOD PANELING AND WAINSCOTS (WD-2):

1. SPECIES FOR TRANSPARENT FINISH: RECLAIMED WOOD, PER FINISH SCHEDULE.

2. GRADE: PREMIUM.

3. FACTORY FINISH: TRANSPARENT FINISH.

G. INTERIOR SHELVING AND CLOSET SPECIALTIES:

1. SHELVING: PLYWOOD WITH HARDWOOD EDGE BAND.

2. CLOSET RODS: CHROME PLATED STEEL.

H. INTERIOR AUXILIARY MATERIALS

1. SCREWS: PS FF-S-111.

2. NAILS: PS FF-N-105.

3. ANCHORS: TYPE REQUIRED FOR SECURE ANCHORAGE.

4. ADHESIVES: LOW VOC TYPES.

PART 3 EXECUTION

3.1 INSTALLATION

A. PROVIDE WORK TO SIZES, SHAPES, AND PROFILES INDICATED. INSTALL WORK TO COMPLY WITH QUALITY STANDARDS REFERENCED. BACK PRIME WORK AND INSTALL PLUMB, LEVEL AND STRAIGHT WITH TIGHT JOINTS. SCRIBE WORK TO FIT.

B. QUALITY STANDARD: INSTALL WOODWORK TO COMPLY WITH ARCHITECTURAL WOODWORK STANDARDS (AWS), FORMERLY AWI SECTION 1700, FOR THE SAME GRADE SPECIFIED FOR TYPE OF WOODWORK INVOLVED.

C. THICKNESS MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. USE NON-CORROSIVE FASTENERS FOR EXTERIOR WORK. COORDINATE WITH WORK OF OTHER SECTIONS.

D. RECTIFY WITH MANUFACTURER'S REQUIREMENTS FOR CUTTING, HANDLING, FASTENING AND WORKING TREATED MATERIALS.

E. REPAIR MINOR DAMAGE, CLEAN AND PROTECT.

END OF SECTION

SECTION 06.50.00

PLASTIC PANELING

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE PLASTIC WALL PANELING.

1.2 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

PART 2 PRODUCTS

2.1 MATERIALS

A. GLASS-FIBER REINFORCED PLASTIC (FRP) PANELING:

1. BASIS OF DESIGN: REFER TO FINISH SCHEDULE.

2. THICKNESS: 0.075 INCH.

3. COLOR AND TEXTURE: REFER TO FINISH SCHEDULE.

4. FIRE RATING: ASTM E 84, CLASS C.

5. ACCESSORIES: LOW VOC ADHESIVES AND SEALANTS.

PART 3 EXECUTION

3.1 INSTALLATION

A. ANINSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION.

1. SEAL JOINTS.

B. REPAIR MINOR DAMAGE, CLEAN AND PROTECT.

END OF SECTION

SECTION 07.13.00

SELF-ADHERING SHEET WATERPROOFING

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE SHEET MEMBRANE WATERPROOFING.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. WARRANTY: SUBMIT MANUFACTURER'S STANDARD WARRANTY. INCLUDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE MATERIALS.

1. WARRANTY PERIOD: 5 YEARS.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. TESTING: FLOOD TESTING OF HORIZONTAL APPLICATIONS.

PART 2 PRODUCTS

2.1 MATERIALS

A. FOUNDATION WALL WATERPROOFING

1. MANUFACTURERS: CARLISLE CO., GCP APPLIED TECHNOLOGIES (FORMERLY W.R. GRACE), HENRY CO., OR APPROVED EQUAL.

2. TYPE: SELF-ADHERING RUBBERIZED ASPHALT AND POLYETHYLENE SHEET MEMBRANE, 60 MILS THICK, AND TENSILE STRENGTH 250 PSI.

3. TYPE: BUTYL SHEET, ASTM D 6154, TYPE II, 60 MIL THICK FLEXIBLE SHEET, UNREINFORCED.

4. TYPE: EPDM RUBBER SHEET, ASTM D 6154, TYPE II, 60 MIL THICK FLEXIBLE SHEET, UNREINFORCED.

5. ACCESSORIES: PRIMERS, SURFACE CONDITIONERS, TERMINATION BARS, AND PROTECTION BOARD.

B. GEOTEXTILE-FACED DRAINAGE PANELS

1. MANUFACTURERS: AMERICAN WOOD DRAIN CORPORATION, COSILAD-DORKEN, ELEN CORP., GREENSTREAK, INC., IOR ENTERPRISES, INC.; LINO INDUSTRIAL FABRICS, INC.; MIDWEST DIVERSIFIED TECHNOLOGIES INCORPORATED, TCM RAPI, OR APPROVED EQUAL.

2. TYPE: GEOTEXTILE FACED 3-DIMENSIONAL, NONBIODEGRADABLE, MOLDED-PLASTIC-SHEET DRAINAGE CORES.

C. INSULATING DRAINAGE PANELS

1. MANUFACTURERS: DOW CHEMICAL COMPANY (THE); OWENS CORNING, T. CLEAR CORPORATION, OR APPROVED EQUAL.

2. TYPE: EXTRUDED-POLYSTYRENE BOARD ASTM C 578; TYPE IV, 1.6-LB/CU. FT. 25-PSI COMPRESSIVE STRENGTH; SHIP LAP OR TONGUE-AND-GROOVE EDGES AND WITH DRAINAGE CHANNELS ONE SIDE, FACED WITH GEOTEXTILE FABRIC.

PART 3 EXECUTION

3.1 INSTALLATION

A. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. COORDINATE WITH OTHER WORK.

B. RESTORE DAMAGED COMPONENTS AND TEST WATERPROOFING FOR LEAKS. CLEAN AND PROTECT WORK FROM DAMAGE.

END OF SECTION

SECTION 07.21.00

THERMAL INSULATION

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE THERMAL INSULATION AND VAPOR RETARDERS.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. QUALIFICATION DATA: FOR INSTALLER OF C-OR Z SHAPED SECTIONS, 16 GAUGE (1/32 INCH) STEEL, SHOP-PAINTED.

C. TEST DATA: SUBMIT DIGITAL REPORT OF INFRARED CAMERA SURVEY WITH IMAGES OF TEST RESULTS WITH RECOMMENDATIONS FOR REPAIRS.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

1. INSTALLER QUALIFICATIONS: A QUALIFIED INSTALLER WHO HAS BEEN TRAINED BY AND IS ACCEPTABLE TO SPRAY POLYURETHANE FOAM INSULATION MANUFACTURERS TO INSTALL MANUFACTURER'S PRODUCTS.

2. TESTING: AGENCY QUALIFICATIONS: AN INDEPENDENT AGENCY QUALIFIED AS A "CERTIFIED INFRARED THERMOGRAPHY" PER ASNT SNT-TO-1A GUIDELINES, LEVEL 1 CERTIFICATION MINIMUM.

PART 2 PRODUCTS

2.1 MATERIALS

A. BOARD INSULATION:

1. APPLICATION: FOUNDATION WALLS.

2. APPLICATION: UNDER SLAB ON GRADE.

3. APPLICATION: EXTERIOR CAVITY WALLS, OUTBOARD OF SHEATHING.

4. TYPE: EXTRUDED POLYSTYRENE, RIGID.

a. MANUFACTURERS: DOW CHEMICAL; OWENS CORNING, OR APPROVED EQUAL.

b. STANDARD: ASTM C 578.

1. DENSITY: 26 PSI.

2. R-VALUE (THERMAL RESISTIVITY): 4.0 DEG F X H X SQ. FT./BTU X IN. AT 75 DEG F, MIN.

5. TYPE: UNFACED, SLAG-WOOL-/ROCK-WOOL-FIBER.

a. MANUFACTURERS: OWENS CORNING THERMAFIBER, ROCKUL, OR APPROVED EQUAL.

b. STANDARD: ASTM C 612, SEMI-RIGID OR RIGID, ASTM C 612, FORMALDEHYDE-FREE TYPE.

1. DENSITY: 4.0 LB/CU. FT. MIN.

2. R-VALUE (THERMAL RESISTIVITY): 4.0 DEG F X H X SQ. FT./BTU X IN. AT 75 DEG F, MIN.

c. ACCESSORIES: MECHANICAL ANCHORS.

B. BLANKET/BATT INSULATION:

1. MANUFACTURERS: JOHNS MANVILLE BUILDING INSULATIONS, KNAUF INSULATION, OWENS CORNING THERMAFIBER, INC.; ROCKUL, OR APPROVED EQUAL.

2. APPLICATION: THERMAL INSULATION IN STUDS IN EXTERIOR WALLS.

3. APPLICATION: THERMAL INSULATION AT UNDERSIDES OF ROOFS, OVER HEATED SPACES AND SOFFITS.

4. APPLICATION: THERMAL INSULATION OVER UNHEATED AREAS.

5. TYPE: UNFACED MINERAL FIBER.

a. STANDARD: ASTM C 666, TYPE 1 (UNFACED), FORMALDEHYDE-FREE TYPE.

b. R-VALUE (THERMAL RESISTIVITY): 4.0 DEG F X H X SQ. FT./BTU X IN. AT 75 DEG F, MIN.

C. SPRAY-APPLIED CELLULOSE INSULATION:

1. BASIS OF DESIGN: APPLEGATE INSULATION, GREENFIBER, NATIONAL FIBER, NU-WOOL, OR APPROVED EQUAL.

2. APPLICATION: EXTERIOR ENVELOPE, WALL ASSEMBLIES.

3. STANDARD: ASTM C 738, FOR DRY DENSE PACK INSTALLATION, FORMALDEHYDE-FREE TYPE.

a. DENSITY: 3.5 LB/CU. FT. MIN.

b. R-VALUE (THERMAL RESISTIVITY): 3.6 DEG F X H X SQ. FT./BTU X IN. AT 75 DEG F, MIN.

4. ACCESSORIES: NON-WOVEN, VAPOR-PERMEABLE NETTING, METAL STAPLES, AND TAPE, AS RECOMMENDED BY MANUFACTURER FOR A COMPLETE ASSEMBLY.

D. SPRAY-APPLIED POLYURETHANE INSULATION:

1. BASIS OF DESIGN: TOP ADHESIVES AND SEALANTS (FORMERLY FOMO PRODUCTS); HANDI-FOAM PRODUCTS.

2. APPLICATION: EXTERIOR ENVELOPE, GAPS AND VOIDS.

3. STANDARD: ASTM C 1029.

4. VOC EMISSIONS: GREENGUARD GOLD CERTIFICATION.

E. VAPOR RETARDER

1. APPLICATION: EXTERIOR WALLS.

2. TYPE: REINFORCED 2-PLY POLYETHYLENE, 6 TO 10 MILS.

a. ACCESSORIES: SEAM TAPES.

PART 3 EXECUTION

3.1 INSTALLATION

A. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. COORDINATE WITH WORK OF OTHER SECTIONS. PROVIDE FULL THICKNESS IN ONE LAYER OVER ENTIRE AREA, TIGHTLY FITTING AROUND PENETRATIONS.

1. BELOW-GRADE RIGID INSULATION: IF NOT OTHERWISE INDICATED, EXTEND INSULATION A MINIMUM OF 48 INCHES BELOW EXTERIOR GRADE LINE.

2. SPRAY-APPLIED CELLULOSE INSULATION: INSTALL VAPOR-PERMEABLE NETTING, STAPLED TO FACE OF WOOD STUDS, PRIOR TO SPRAY APPLICATION.

B. INSTALL VAPOR RETARDER OVER ENTIRE AREA OF INSIDE FACE OF EXTERIOR WALLS AND ELSEWHERE AS INDICATED. SEAL ALL SEAMS AND AROUND PERIMETER AND PENETRATIONS WITH DUCT TAPE TO FORM A CONTINUOUS VAPOR RETARDER FREE OF HOLES.

C. PROTECT INSTALLED INSULATION AND VAPOR RETARDER.

3.2 FIELD QUALITY CONTROL

A. TESTING AGENCY: ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS INDICATED BELOW AND PREPARE TEST REPORTS. RETESTING OF MATERIALS FAILING TO COMPLY WITH SPECIFIED REQUIREMENTS SHALL BE DONE AT CONTRACTOR'S EXPENSE.

1. BLOWER DOOR TEST: OWNER SHALL PERFORM A WHOLE BUILDING BLOWER DOOR TEST, PER ASTM E 779, AFTER BUILDING ENVELOPE IS INSTALLED AND PROPERLY SEALED.

B. INFRARED CAMERA SURVEY: PERFORM AN INFRARED CAMERA SCAN OF WALLS, FLOORS, AND CEILING/SOFTS TO DETERMINE WHERE INSULATION AND AIR BARRIER ARE NOT CONTINUOUS, AFTER INSULATION HAS BEEN INSTALLED, BUT PRIOR TO GYPSUM BOARD INSTALLATION.

END OF SECTION

SECTION 07.25.00

WEATHER BARRIERS

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE AIR AND MOISTURE BARRIERS.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION AT FOUNDATION, WALLS, ROOF, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

PART 2 PRODUCTS

2.1 MATERIALS

A. AIR AND MOISTURE BARRIERS

1. MANUFACTURERS: CARLISLE CO., GCP APPLIED TECHNOLOGIES (FORMERLY W.R. GRACE), HENRY CO., OR APPROVED EQUAL.

2. TYPE: FLUID-APPLIED, VAPOR PERMEABLE TYPE, 60 MILS DRY FILM THICKNESS.

3. TRANSITION MATERIALS: SILICONE SHEET.

PART 3 EXECUTION

3.1 INSTALLATION

A. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. COORDINATE WITH WORK OF OTHER SECTIONS. INSTALL OVER ENTIRE AREA, TIGHTLY FITTING AROUND PENETRATIONS AND AT PERIMETERS.

B. PROTECT INSTALLED AIR AND MOISTURE BARRIERS.

END OF SECTION

SECTION 07.42.00

METAL WALL PANELS

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE MANUFACTURED WALL PANELS AND ASSOCIATED ACCESSORIES.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.

C. WARRANTY: SUBMIT MANUFACTURER'S STANDARD WARRANTY. INCLUDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE MATERIALS.

1. WARRANTY PERIOD: TWO YEARS FOR PANEL, 10 YEARS FOR FINISH.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR FIVE YEARS.

B. INSTALLER QUALIFICATIONS: INSTALLER SHALL BE AUTHORIZED BY THE MANUFACTURER AND THE WORK SHALL BE SUPERVISED BY A PERSON HAVING SUCCESSFULLY COMPLETED A MANUFACTURER TRAINING SEMINAR REGARDING PROPER INSTALLATION OF THE SPECIFIED PRODUCT.

C. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

1.4 TESTING

A. PERFORM SITE SPECIFIC ENGINEERING TO INDICATE COMPLIANCE WITH LOCAL BUILDING CODES.

PART 2 PRODUCTS

2.1 MATERIALS

A. METAL WALL PANELS (M-W-P):

1. BASIS OF DESIGN: ATAS INTERNATIONAL, METAFO (SEE FINISH SCHEDULE).

2. TYPE: FIELD ASSEMBLED WALL PANELS WITH CONCEALED FASTENERS.

3. SHEET MATERIALS: ALUMINUM SHEET

a. STANDARD: ASTM B 209, ALCLAD ALLOY 3003, 0.040 INCH.

4. PANEL FINISH: FLUOROPOLYMER, 3-COAT.

a. COLOR: REFER TO FINISH SCHEDULE.

5. PANEL SUPPORTS AND ANCHORAGE:

a. WALL GIRTS: C OR Z SHAPED SECTIONS, 16 GAUGE (1/32 INCH) STEEL, SHOP-PAINTED.

b. FLANGE AND SAG BRACING: 16 GAUGE (1/32 INCH) STEEL, SHOP-PAINTED.

c. BASE AND SILL ANGLED: 14 GAUGE (1/16 INCH) GALVANIZED STEEL.

B. METAL WALL PANELS (M-W-P):

1. BASIS OF DESIGN: ATAS INTERNATIONAL, OPALINE (SEE FINISH SCHEDULE).

2. TYPE: FIELD ASSEMBLED WALL PANELS WITH CONCEALED FASTENERS.

3. SHEET MATERIALS: ALUMINUM SHEET

a. STANDARD: ASTM B 209, ALCLAD ALLOY 3003, 0.040 INCH.

4. PANEL FINISH: FLUOROPOLYMER, 3-COAT.

a. COLOR: REFER TO FINISH SCHEDULE.

5. PANEL SUPPORTS AND ANCHORAGE:

a. WALL GIRTS: C OR Z SHAPED SECTIONS, 16 GAUGE (1/32 INCH) STEEL, SHOP-PAINTED.

b. FLANGE AND SAG BRACING: 16 GAUGE (1/32 INCH) STEEL, SHOP-PAINTED.

c. BASE AND SILL ANGLED: 14 GAUGE (1/16 INCH) GALVANIZED STEEL.

PART 3 EXECUTION

3.1 INSTALLATION

A. PROVIDE FIELD MEASUREMENTS TO MANUFACTURER AS REQUIRED TO ACHIEVE PROPER FIT OF THE METAL WALL PANELS TO BUILDING ENVELOPE. MEASUREMENTS SHALL BE PROVIDED IN A TIMELY MANNER SO THAT THERE IS NO IMPACT TO CONSTRUCTION OR MANUFACTURING SCHEDULE.

B. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. COORDINATE WITH WORK OF OTHER SECTIONS.

C. EXAMINE INDIVIDUAL PANELS UPON REMOVING FROM THE BUNDLE. NOTIFY MANUFACTURER OF PANEL DEFECTS - DO NOT INSTALL DEFECTIVE PANELS.

D. RESTORE DAMAGED COMPONENTS AND FINISHES. CLEAN AND PROTECT WORK FROM DAMAGE.

E. INSTALL PANELS PLUMB LEVEL AND TRUE-TO-LINE DIMENSIONS AND LAYOUT INDICATED ON APPROVED SHOP DRAWINGS.

F. CUTTING AND FITTING OF PANELS SHALL BE NEAT, SQUARE AND TRUE. TORCH CUTTING IS PROHIBITED.

G. APPLY SEALANT TAPE AT TRIM PER MANUFACTURER'S DETAILS AND APPROVED SHOP DRAWINGS FOR WEATHERTIGHT INSTALLATION.

H. SEALANT INSTALLATION FOR EXPOSED JOINTS (IN EXTERIOR APPLICATION)

1. CLEAN AND PRIME SURFACES TO REVIEW EXTERIOR EXPOSED SEALANTS IN ACCORDANCE WITH SEALANT MANUFACTURERS RECOMMENDATIONS.

2. FOLLOW SEALANT MANUFACTURER'S RECOMMENDATIONS FOR JOINT WIDTH-TO-DEPTH RATIO, APPLICATION TEMPERATURE RANGE, SIZE AND TYPE OF BACKER ROD, AND COMPATIBILITY OF MATERIALS FOR ADHESION.

END OF SECTION

SECTION 07.54.19

POLYVINYL-CHLORIDE ROOFING

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE POLYVINYL-CHLORIDE ROOFING.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. SAMPLES: SUBMIT TWO REPRESENTATIVE SAMPLES OF EACH MATERIAL SPECIFIED INDICATING VISUAL CHARACTERISTICS AND FINISH. INCLUDE RANGE SAMPLES IF VARIATION OF FINISH IS ANTICIPATED.

C. WARRANTY: SUBMIT MANUFACTURER'S STANDARD WARRANTY. INCLUDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE MATERIALS.

1. WARRANTY PERIOD: 20 YEARS.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

PART 2 PRODUCTS

2.1 MATERIALS

A. POLYVINYL-CHLORIDE MEMBRANE ROOFING:

1. MANUFACTURER: DURO-LAST PVC THERMOPLASTIC MEMBRANE, CONFORMING TO ASTM D 4534, TYPE III, FABRIC-REINFORCED, PVC, NSF/ANSI 347 GOLD OR PLATINUM CERTIFICATION, AND A PRODUCT-SPECIFIC THIRD-PARTY VERIFIED ENVIRONMENTAL PRODUCT DECLARATION. MEMBRANE PROPERTIES AS FOLLOWS:

a. THICKNESS: 50 MIL.

b. EXPOSED FACE COLOR: WHITE.

c. MINIMUM RECYCLE CONTENT: 7% POST-INDUSTRIAL AND 0% POST-CONSUMER.

d. RECYCLED AT END OF LIFE INTO RESILIENT FLOORING OR CONCRETE EXPANSION JOINTS.

B. ACCESSORY MATERIALS:

1. SHEET FLASHING: MANUFACTURERS STANDARD REINFORCED PVC SHEET FLASHING.

2. DURO-LAST FACTORY PREFABRICATED FLASHINGS: MANUFACTURED USING MANUFACTURER'S STANDARD REINFORCED PVC MEMBRANE INCLUDING STACK FLASHINGS, CURB FLASHINGS, INSIDE AND OUTSIDE CORNERS, MEMBRANE SCUPPER LINERS.

3. SEALANTS AND ADHESIVES: COMPATIBLE WITH ROOFING SYSTEM AND SUPPLIED BY DURO-LAST ROOFING, INC.

4. SLIP SHEET: COMPATIBLE WITH BUTTING JOINTS AND NEATLY FITTED AROUND PENETRATIONS.

5. FASTENERS AND PLATES: FACTORY COATED STEEL FASTENERS AND METAL OR PLASTIC PLATES MEETING CORROSION-RESISTANCE PROVISIONS IN FMG 5570, DESIGNED FOR FASTENING MEMBRANE AND INSULATION TO SUBSTRATE. SUPPLIED BY DURO-LAST ROOFING, INC.

6. PV ANCHORS.

7. TERMINATION AND EDGE DETAILS: SUPPLIED BY DURO-LAST ROOFING, INC.

8. VINYL COATED METAL: SUPPLIED BY DURO-LAST ROOFING, INC. INSTALL A MINIMUM OF 1 VENT FOR EACH 1,000 SF OF ROOF AREA.

C. WALKWAYS

1. PROVIDE NON-SKID, MAINTENANCE-FREE WALKWAY PADS IN AREAS OF HEAVY FOOT TRAFFIC AND AROUND MECHANICAL EQUIPMENT.

d. DURO-LAST ROOF TRAK I WALKWAY PAD.

2.3 ROOF INSULATION

A. GENERAL

1. PROVIDE PREFERRED ROOF INSULATION BOARDS THAT COMPLY WITH REQUIREMENTS AND REFERENCED STANDARDS, AS SELECTED FROM MANUFACTURER'S STANDARD SIZES.

2. PROVIDE PREFORMED SADDLES, CRICKETS, AND OTHER INSULATION SHAPES WHERE INDICATED FOR SLOPING TO DRAIN. FABRICATE TO SLOPES INDICATED.

B. POLYISOCYANURATE BOARD INSULATION: COMPLYING WITH ASTM C 1289, TYPE II, FELT OR GLASS-FIBER MAT FASER ON BOTH MAJOR SURFACES. MATERIAL, AS SUPPLIED BY DURO-LAST.

1. DURO-GUARD ISO II FLAT, MECHANICALLY FASTENED)

2. DURO-GUARD ISO II (FLAT, LOOSE LAY)

PART 3 EXECUTION

3.1 INSTALLATION

A. INSPECT SUBSTRATE AND REPORT UNSATISFACTORY CONDITIONS IN WRITING. BEGINNING WORK MEANS ACCEPTANCE OF SUBSTRATE.

B. COMPLY WITH ROOF SYSTEM MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS: CLEAN, PRIME, AND PREPARE SUBSTRATE.

C. INSTALL INSULATION WITH TIGHTLY BUTTED JOINTS AND NEATLY FITTED AROUND PENETRATIONS.

D. BOTTOM LAYER OF INSULATION TO BE LOOSE-LAID, TOP LAYER OF INSULATION TO BE MECHANICALLY FASTENED.

E. BEGIN ROOF INSTALLATION ONLY IN PRESENCE OF MANUFACTURERS REPRESENTATIVE. MINIMIZE SEAMS AND SHINGLE OVERLAPS TO PROVIDE WATER.

F. INSTALL WALKWAY PROTECTION OVER AN ADDITIONAL LAYER OF MEMBRANE AT LOCATIONS INDICATED AND WHERE REQUIRED TO SHED ACCESS TO ROOF MOUNTED EQUIPMENT.

G. RESTORE OR REPLACE DAMAGED COMPONENTS. PROTECT WORK FROM DAMAGE.

END OF SECTION

SECTION 07.62.00

SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE FLASHING AND SHEET METAL.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.

C. SAMPLES: SUBMIT TWO REPRESENTATIVE SAMPLES OF EACH MATERIAL SPECIFIED INDICATING VISUAL CHARACTERISTICS AND FINISH. INCLUDE RANGE SAMPLES IF VARIATION OF FINISH IS ANTICIPATED.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

PART 2 PRODUCTS

2.1 MATERIALS

A. FLASHING AND SHEET METAL:

1. APPLICATION: METAL COUNTERFLASHING AND BASE FLASHING.

2. APPLICATION: EXTERIOR WALL FLASHING AND EXPANSION JOINTS.

3. APPLICATION: EXPOSED METAL TRIM AND FASQA UNITS.

4. APPLICATION: EXPOSED METAL CORNINGS.

5. METAL: STAINLESS STEEL

a. STANDARD: AISI TYPE 302304, ASTM A 666, 28 GAUGE (0.156 INCH).

b. FINISH: 2D ANNEALED.

6. METAL: ALUMINUM

a. SHEET, ASTM B 209, ALLOY 3003, 20 GAUGE (0.0359 INCH).

b. EXTRUSIONS: ASTM B 221, ALLOY 6063-T52, 0.080 INCHES FOR PRIMARY LEGS OF EXTRUSION.

c. FINISH: CLEAR ANODIZED.

d. FINISH: FLUOROPOLYMER, 3-COAT.

B. AUXILIARY MATERIALS:

1. SOLDER: COMPATIBLE WITH METAL.

2. BITUMINOUS ISOLATION COATING.

3. MASTIC AND ELASTOMERIC SEALANTS.

4. EPOXY SEAM SEALER.

5. ROBIN-SIZED BUILDING PAPER SLIP SHEET.

6. POLYETHYLENE UNDERLAYMENT.

7. REGLETS AND METAL ACCESSORIES.

PART 3 EXECUTION

3.1 INSTALLATION

A. FOLLOW RECOMMENDATIONS OF SMACNA SHEET METAL MANUAL. ALLOW FOR EXPANSION. ISOLATE DISSIMILAR MATERIALS.

B. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. COORDINATE WITH WORK OF OTHER SECTIONS.

C. RESTORE DAMAGED COMPONENTS AND FINISHES. CLEAN AND PROTECT WORK FROM DAMAGE.

END OF SECTION

SECTION 07.71.00

ROOF SPECIALTIES

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE MANUFACTURED ROOF SPECIALTIES.

1.2 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.

1.3 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. INSURANCE REQUIREMENTS: FM APPROVAL OR ACCEPTANCE.

PART 2 PRODUCTS

2.1 MATERIALS

A. ATTIC ROOF STATIC EXHAUST VENTS, WHERE INDICATED ON ROOF PLAN.

1. BASIS OF DESIGN: VENTAMATIC, LTD.; STV-S1 SERIES: SQUARE TOP VENT.

2. MATERIALS: ALUMINUM CONSTRUCTION.

3. NET FLOW AREA: GREATER THAN 50%.

4. FACTORY FINISH TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD LINE.

PART 3 EXECUTION

3.1 INSTALLATION

A. COMPLY WITH ACCESSORY MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. COORDINATE INSTALLATION WITH ROOFING SYSTEM TO ENSURE WEATHERTIGHT PERFORMANCE. ANCHOR SECURELY TO STRUCTURE TO WITHSTAND INWARD AND OUTWARD LOADS.

B. ISOLATE DISSIMILAR METALS TO PREVENT GALVANIC CORROSION.

END OF SECTION

3.1 INSTALLATION

A. COMPLY WITH ACCESSORY MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. COORDINATE INSTALLATION WITH ROOFING SYSTEM TO ENSURE WEATHERTIGHT PERFORMANCE. ANCHOR SECURELY TO STRUCTURE TO WITHSTAND INWARD AND OUTWARD LOADS.

B. ISOLATE DISSIMILAR METALS TO PREVENT GALVANIC CORROSION.

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

05/17/2021

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CONSULTANTS:

SEAU / SIGNATURE:

STATE OF MISSOURI

MATTHEW BRATT

NOVEMBER 4 2020-2025

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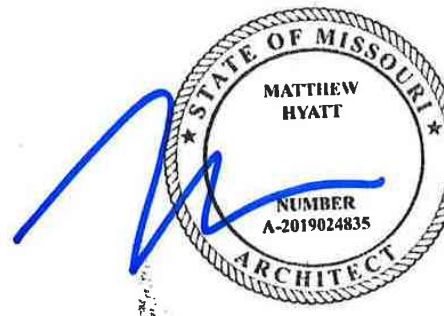
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<div>SECTION 07.72 00</div> <div>ROOF ACCESSORIES</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE ROOF ACCESSORIES.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. ROOF HATCHES, THERMALLY-BROKEN, INSULATED TYPE WITH METAL LID</div> <div>1. MANUFACTURERS: BARROCK-DAVIS, THERMAXX; BILCO, THERMALLY BROKEN ROOF HATCH; OR APPROVED EQUAL</div> <div>a. BASIS OF DESIGN: BILCO, TYPE S ROOF HATCH, THERMALLY BROKEN, 36" X 30"</div> <div>2. MATERIAL: ZINC COATED (GALVANIZED) STEEL</div> <div>3. INSULATION: R-18 MIN.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. COMPLY WITH ACCESSORY MANUFACTURERS' INSTRUCTIONS. COORDINATE INSTALLATION WITH ROOFING SYSTEM TO ENSURE WEATHERTIGHT PERFORMANCE. ANCHOR SECURELY TO STRUCTURE TO WITHSTAND INWARD AND OUTWARD LOADS.</div> <div>B. ISOLATE DISSIMILAR METALS TO PREVENT GALVANIC CORROSION.</div> <div>C. TEST AND OPERATE UNITS, CLEAN, LUBRICATE AND ADJUST MOVING PARTS. LEAVE UNITS READY FOR FIELD PAINTING.</div> <div>END OF SECTION</div> <div>SECTION 07.92 00</div> <div>JOINT SEALANTS</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE JOINT SEALERS AND FILLERS.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SAMPLES: SUBMIT TWO REPRESENTATIVE SAMPLES OF EACH MATERIAL SPECIFIED INDICATING VISUAL CHARACTERISTICS AND FINISH. INCLUDE RANGE SAMPLES IF VARIATION OF FINISH IS ANTICIPATED.</div> <div>1. INCLUDE MANUFACTURERS' FULL RANGE OF COLOR AND FINISH OPTIONS IF ADDITIONAL SELECTION IS REQUIRED.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>B. FIELD-CONSTRUCTED MOCK-UPS: EACH JOINT TYPE.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. EXTERIOR JOINTS IN VERTICAL SURFACES, SILICONE:</div> <div>1. MANUFACTURERS: DOW CORNING; GE SILICONE; TREMCO; OR APPROVED EQUAL.</div> <div>2. MATERIALS: TWO COMPONENT SILICONE SEALANT, ASTM C 920.</div> <div>B. EXTERIOR JOINTS IN HORIZONTAL SURFACES, URETHANE:</div> <div>1. MANUFACTURERS: BASF; PECORA; Sika; TREMCO; OR APPROVED EQUAL.</div> <div>2. MATERIALS: SELF-LEVELING URETHANE SEALANT, ASTM C 930.</div> <div>C. INTERIOR JOINTS, LIMITED MOVEMENT, ACRYLIC:</div> <div>1. MANUFACTURERS: BOSTIK; PECORA CORPORATION; POLYMERIC SYSTEMS, INC.; SONNEBORN BUILDING PRODUCTS; TREMCO; OR APPROVED EQUAL.</div> <div>2. MATERIALS: ACRYLIC-EMULSION, ASTM C 834.</div> <div>3. VOC CONTENT: LESS THAN 50 G/L.</div> <div>D. INTERIOR JOINTS, SANITARY SILICONE:</div> <div>1. MANUFACTURERS: DOW CORNING; GE ADVANCED; SILICONE; TREMCO; OR APPROVED EQUAL.</div> <div>2. MATERIALS: ONE-PART MILDEW-RESISTANT SILICONE SEALANT, ASTM C 620.</div> <div>3. VOC CONTENT: LESS THAN 50 G/L.</div> <div>E. ACCESSORIES:</div> <div>1. PRIMER AND CLEANERS: AS RECOMMENDED BY MANUFACTURER.</div> <div>2. BACKINGS: ASTM C 1330, TYPE C, CLOSED CELL, CYLINDRICAL SHAPED, ELASTOMERIC TUBING TYPES.</div> <div>3. TAPES: BOND BREAKER AND MASKING TYPES.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. EXAMINE SUBSTRATE; REPORT UNSATISFACTORY CONDITIONS IN WRITING. BEGINNING WORK MEANS ACCEPTANCE OF SUBSTRATES.</div> <div>B. PROVIDE SEALANTS IN COLORS AS SELECTED FROM MANUFACTURER'S STANDARDS.</div> <div>C. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. COORDINATE WITH WORK OF OTHER SECTIONS, CLEAN AND PRIME JOINTS, AND INSTALL BOND BREAKERS, BACKER RODS AND SEALANT AS RECOMMENDED BY MANUFACTURERS.</div> <div>D. DEPTH SHALL EQUAL, WITH UP TO 1/2 INCH WIDE; DEPTH SHALL EQUAL 1/2 WIDTH FOR JOINTS MORE THAN 1/2 INCH WIDE.</div> <div>E. CURE AND PROTECT SEALANTS AS DIRECTED BY MANUFACTURERS. REPLACE OR RESTORE DAMAGED SEALANTS. CLEAN ADJACENT SURFACES TO REMOVE SPILLAGE.</div> <div>END OF SECTION</div> <div>SECTION 08.11 13</div> <div>HOLLOW METAL DOORS AND FRAMES</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE STEEL DOORS AND FRAMES.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div> <div>C. SCHEDULE: SUBMIT SCHEDULE FOR WORK OF THIS SECTION, USING SAME REFERENCE NUMBERS FOR DETAILS AND OPENINGS AS THOSE ON DRAWINGS. COORDINATE WITH OTHER DOORS AND DOOR HARDWARE SCHEDULE.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>B. STANDARDS: ANSI/SKD-100, RECOMMENDED SPECIFICATIONS FOR STANDARD STEEL DOORS AND FRAMES.</div> <div>C. PERFORMANCE STANDARDS:</div> <div>1. FIRE-RATED ASSEMBLIES: NFPA 80, AND ACCEPTABLE TESTING AGENCY LISTING.</div> <div>2. THERMALLY-RATED ASSEMBLIES AT EXTERIOR: ASTM C 228 OR ASTM C 976.</div> <div>3. SOUND-RATED ASSEMBLIES AT MECHANICAL ROOMS: ASTM E 1408, AND ASTM E 413.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. MANUFACTURERS: AMWELD BUILDING PRODUCTS; CECO DOOR PRODUCTS; CURRIES CO.; STEELCRAFT MANUFACTURING; OR APPROVED EQUAL.</div> <div>B. INTERIOR STEEL DOORS</div> <div>1. MATERIAL: MINIMUM 16-GAUGE STEEL SHEET.</div> <div>2. THICKNESS: 1-3/4 INCHES.</div> <div>3. FINISH: FACTORY PRIMED AND FIELD PAINTED.</div> <div>C. ACCESSORIES:</div> <div>a. SIGHTPROOF STATIONARY LOUVERS.</div> <div>b. GLAZING STOPS.</div> <div>c. SILENCERS.</div> <div>C. INTERIOR STEEL FRAMES:</div> <div>1. MATERIAL: MINIMUM 16-GAUGE STEEL SHEET.</div> <div>2. CORNERS: MITERED OR COPED.</div> <div>3. TYPE: KNOCKDOWN.</div> <div>4. FINISH: FACTORY PRIMED AND FIELD PAINTED.</div> <div>D. EXTERIOR STEEL DOORS</div> <div>1. MATERIAL: MINIMUM 16-GAUGE GALVANIZED STEEL SHEET.</div> <div>2. DOOR THICKNESS: 1-3/4 INCHES, THERMALLY INSULATED.</div> <div>a. CORE: POLYSTYRENE OR POLYURETHANE.</div> <div>b. U-FACTOR: 0.61 MIN.</div> <div>3. FINISH: FACTORY PRIMED AND FIELD PAINTED.</div> <div>E. EXTERIOR STEEL FRAMES:</div> <div>1. MATERIAL: MINIMUM 14-GAUGE GALVANIZED STEEL SHEET.</div> <div>2. CORNERS: MITERED OR COPED.</div> <div>3. TYPE: WELDED.</div> <div>4. FINISH: FACTORY PRIMED AND FIELD PAINTED.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. FABRICATE WORK TO BE RIGID, NEAT AND FREE FROM SEAMS, DEFECTS, DENTS, WARP, BUCKLE, AND EXPOSED FASTENERS. INSTALL DOORS AND FRAMES IN COMPLIANCE WITH SDI-100, NFPA 80, AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.</div> <div>B. PROVIDE THERMALLY IMPROVED DOORS WITH MAXIMUM U-VALUE OF 0.24 BTU-HR./SQUARE FOOT DEGREE F (ASTM C 236) FOR ALL EXTERIOR DOORS AND ELSEWHERE AS NOTED.</div> <div>C. PROVIDE ACOUSTICALLY IMPROVED DOORS WITH MINIMUM STC OF 33 (ASTM E 90 AND ASTM E 413) WHERE INDICATED.</div> <div>D. HARDWARE: PREPARE DOORS AND FRAMES TO RECEIVE HARDWARE ON FINAL SCHEDULE. PROVIDE FOR 3 SILENCERS ON SINGLE DOORFRAMES, 2 ON DOUBLE DOOR FRAMES.</div> <div>E. SHOP FINISH: CLEAN, TREAT AND PRIME PAINT ALL WORK WITH RUST-INHIBITING PRIMER COMPAREABLE WITH FINISH PAINT SPECIFIED IN DIVISION 9 SECTION. PROVIDE ASPHALT EMULSION SOUND DEADENING COATINGS ON CONCEALED FRAME INTERIORS.</div> <div>F. TOUCH-UP DAMAGED COATINGS READY TO RECEIVE FINISH PAINTING.</div> <div>END OF SECTION</div>	<div>SECTION 08.11 19</div> <div>STAINLESS STEEL DOOR FRAMES</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE STAINLESS STEEL DOOR FRAMES, FOR TRAFFIC DOORS.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div> <div>C. SCHEDULE: SUBMIT SCHEDULE FOR WORK OF THIS SECTION, USING SAME REFERENCE NUMBERS FOR DETAILS AND OPENINGS AS THOSE ON DRAWINGS. COORDINATE WITH OTHER DOORS AND DOOR HARDWARE SCHEDULE.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>B. STANDARDS: ANSI/SKD-100, RECOMMENDED SPECIFICATIONS FOR STANDARD STEEL DOORS AND FRAMES.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. INTERIOR STAINLESS STEEL FRAMES:</div> <div>1. MATERIAL: MINIMUM 16-GAUGE STAINLESS STEEL SHEET.</div> <div>2. CORNERS: MITERED.</div> <div>3. TYPE: WELDED.</div> <div>4. FINISH: NO. 4 DIRECTIONAL SATIN FINISH.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. FABRICATE WORK TO BE RIGID, NEAT AND FREE FROM SEAMS, DEFECTS, DENTS, WARP, BUCKLE, AND EXPOSED FASTENERS. INSTALL DOORS AND FRAMES IN COMPLIANCE WITH SDI-100 AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.</div> <div>B. HARDWARE: PREPARE DOORS AND FRAMES TO RECEIVE HARDWARE ON FINAL SCHEDULE.</div> <div>END OF SECTION</div> <div>SECTION 08.31 00</div> <div>ACCESS DOORS AND PANELS</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE ACCESS DOORS AND PANELS FOR WALLS AND CEILINGS.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. ACCESS DOORS:</div> <div>1. MANUFACTURERS: J. L. INDUSTRIES; KARP ASSOCIATES; MILCOR; NYSTROM OR APPROVED EQUAL.</div> <div>2. FRAMES: 16-GAUGE (0.598 INCH) SHEET STEEL WITH FLANGE.</div> <div>3. FRAMES: 16-GAUGE (0.598 INCH) STAINLESS STEEL, AISI NO. 4 SATIN FINISH WITH FLANGE.</div> <div>4. DOORS: 14-GAUGE (0.025 INCH) SHEET STEEL.</div> <div>5. DOORS: 14-GAUGE (0.025 INCH) STAINLESS STEEL, AISI NO. 4 SATIN FINISH.</div> <div>6. DOOR TYPE: FLUSH PANEL.</div> <div>7. DOOR TYPE: RECESSED PANEL.</div> <div>8. LOCKING DEVICES: CYLINDER LOCKS.</div> <div>9. FIRE RATING: NFPA 80.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. COORDINATE WITH WORK OF OTHER SECTIONS. INSTALL ASSEMBLIES COMPLETE WITH ALL HARDWARE, ANCHORS, INSERTS, SUPPORTS AND ACCESSORIES. TEST AND ADJUST. RESTORE DAMAGED FINISHES AND TEST FOR PROPER OPERATION. CLEAN AND PROTECT WORK FROM DAMAGE.</div> <div>END OF SECTION</div> <div>SECTION 08.39 00</div> <div>TRAFFIC DOORS</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE TRAFFIC DOORS.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div> <div>C. SCHEDULE: SUBMIT SCHEDULE FOR WORK OF THIS SECTION, USING SAME REFERENCE NUMBERS FOR DETAILS AND OPENINGS AS THOSE ON DRAWINGS. COORDINATE WITH DOOR FRAMES AND DOOR HARDWARE SCHEDULE.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. TRAFFIC DOORS:</div> <div>1. MANUFACTURERS: CHASE DOORS; ELIASON CORP.; RUBBARF DOOR DIV.; OR APPROVED EQUAL.</div> <div>a. BASIS OF DESIGN: ELIASON, SCF-3.</div> <div>2. TYPE: DOUBLE ACTING.</div> <div>3. PANELS: HONEYCOMB CORE WITH STAINLESS STEEL FACINGS.</div> <div>a. STAINLESS STEEL FINISH: NO. 4, DIRECTIONAL SATIN FINISH.</div> <div>4. ACCESSORIES:</div> <div>a. PIVOT HINGES.</div> <div>b. VISION PANEL.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. TAKE FIELD MEASUREMENTS PRIOR TO FABRICATION, WHERE POSSIBLE. FORM TO REQUIRED SHAPES AND SIZES WITH TRUE, STRAIGHT EDGES, LINES AND ANGLES.</div> <div>B. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION. COORDINATE WITH WORK OF OTHER SECTIONS.</div> <div>C. TEST FOR PROPER OPERATION. RESTORE DAMAGED FINISHES AND PROTECT WORK.</div> <div>END OF SECTION</div> <div>SECTION 08.41 13</div> <div>ALUMINUM ENTRANCES AND STOREFRONTS</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE ENTRANCES AND STOREFRONT</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div> <div>C. SCHEDULE: SUBMIT SCHEDULE FOR WORK OF THIS SECTION, USING SAME REFERENCE NUMBERS FOR DETAILS AND OPENINGS AS THOSE ON DRAWINGS. COORDINATE WITH OTHER DOORS AND HARDWARE SCHEDULE.</div> <div>D. WARRANTY: SUBMIT MANUFACTURER'S STANDARD WARRANTY. INCLUDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE MATERIALS.</div> <div>1. WARRANTY PERIOD: 5 YEARS.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. ALUMINUM ENTRANCES AND STOREFRONT:</div> <div>1. MANUFACTURERS: EFCO CORP.; KAWNEER COMPANY; YKK AP AMERICA, INC.; OR APPROVED EQUAL.</div> <div>a. BASIS OF DESIGN: KAWNEER, 451T.</div> <div>2. ALUMINUM MEMBERS: ASTM B 209, ASTM B 221, ASTM B 429.</div> <div>3. STEEL REINFORCEMENT: ASTM A 36, ASTM A 1008, ASTM A 1011.</div> <div>4. DOOR STYLE: MEDIUM STYLE AND RAIL DOORS.</div> <div>5. STOREFRONT STYLE: ALUMINUM FRAMED.</div> <div>6. GLASS AND GLAZING, INTERIOR: SINGLE GLAZING, TEMPERED.</div> <div>7. GLASS AND GLAZING, EXTERIOR: INSULATING GLAZING, TEMPERED.</div> <div>8. GLAZING COLOR: CLEAR GLASS.</div> <div>9. GLAZING COLOR: CLEAR WITH LOW-E COATING ON NO. 3 SURFACE.</div> <div>10. ALUMINUM FINISH: INTERIOR: COLOR ANODIZED, BLACK.</div> <div>11. ALUMINUM FINISH: EXTERIOR: FLUOROPOLYMER, 5-COAT: BLACK.</div> <div>12. AUXILIARY MATERIALS:</div> <div>a. WEATHERSTRIPPING AND THRESHOLDS.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. TAKE FIELD MEASUREMENTS BEFORE FABRICATION WHERE POSSIBLE. DO NOT DELAY JOB PROGRESS.</div> <div>B. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. COORDINATE WITH WORK OF OTHER SECTIONS.</div> <div>C. ANCHOR SECURELY IN PLACE. INSTALL PLUMB, LEVEL, AND IN TRUE ALIGNMENT. ISOLATE DISSIMILAR MATERIALS TO PREVENT CORROSION.</div> <div>D. COORDINATE WITH GLASS AND GLAZING WORK. INSTALL HARDWARE AND INSTALL FOR SMOOTH, PROPER OPERATION.</div> <div>E. CLEAN AND PROTECT COMPLETED SYSTEM. REPAIR DAMAGE.</div> <div>END OF SECTION</div> <div>SECTION 08.80 00</div> <div>GLAZING</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE GLASS AND GLAZING.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.</div> <div>C. WARRANTY: SUBMIT MANUFACTURER'S STANDARD WARRANTY. INCLUDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE MATERIALS.</div> <div>1. LAMINATED GLASS: MANUFACTURERS' 5-YEAR WARRANTY.</div> <div>2. COATED GLASS: MANUFACTURERS' 10-YEAR WARRANTY.</div> <div>3. INSULATING GLASS: MANUFACTURERS' 10-YEAR WARRANTY.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>B. GLAZING FOR FIRE-RATED ASSEMBLIES: GLAZING FOR ASSEMBLIES THAT COMPLY WITH NFPA 80.</div> <div>C. SAFETY GLAZING PRODUCTS: COMPLY WITH TESTING REQUIREMENTS IN 16 CFR 1201.</div> <div>D. GLAZING PUBLICATIONS:</div> <div>1. GANA PUBLICATIONS: GANA'S "GLAZING MANUAL" AND "LAMINATED GLASS DESIGN GUIDE."</div> <div>2. IGVA PUBLICATION FOR INSULATING GLASS: SIGMA TM-3000, "GLAZING GUIDELINES FOR SEALED INSULATING GLASS UNITS."</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. GLASS AND GLAZING:</div> <div>1. MANUFACTURERS: GUARDIAN; PPG; VIRAQON; OR APPROVED EQUAL.</div> <div>2. INTERIOR TYPE: SINGLE GLASS UNITS, TEMPERED AT LOCATIONS AS REQUIRED BY CODE.</div> <div>3. EXTERIOR TYPE: HIGH-PERFORMANCE INSULATING GLASS UNITS WITH LOW-E COATING ON NO. 3 SURFACE, TEMPERED AT LOCATIONS AS REQUIRED BY CODE.</div> <div>4. AUXILIARY MATERIALS:</div> <div>a. COMPRESSION GASKETS.</div> <div>b. ELASTOMERIC GLAZING SEALANTS.</div> <div>c. PREFORMED GLAZING TAPES.</div> <div>d. GLAZING GASKETS.</div> <div>e. SETTING BLOCKS, SPACERS, AND COMPRESSIBLE FILLER RODS.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. INSPECT FRAMING AND REPORT UNSATISFACTORY CONDITIONS IN WRITING.</div> <div>B. COMPLY WITH GANA "GLAZING MANUAL" AND MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. USE MANUFACTURER'S RECOMMENDED SPACERS, BLOCKS, PRIMERS, SEALERS, GASKETS AND ACCESSORIES.</div> <div>C. INSTALL GLASS WITH UNIFORMITY OF PATTERN, DRAIN BOW AND ROLLER MARKS.</div> <div>D. INSTALL SEALANTS TO PROVIDE COMPLETE WETTING AND BOND AND TO CREATE A SUBSTANTIAL WASH AWAY FROM GLASS.</div> <div>E. REMOVE AND REPLACE DAMAGED GLASS AND GLAZING, WASH, POLISH AND PROTECT ALL GLASS SUPPLIED UNDER THIS SECTION.</div> <div>END OF SECTION</div> <div>SECTION 08.96 00</div> <div>DRIVE-THRU WINDOWS</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. SECTION INCLUDES PASS-THRU WINDOWS.</div> <div>1.2 SUBMITTALS</div> <div>A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.</div> <div>B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION. INCLUDE ELECTRICAL WIRING DIAGRAMS WHEN SPECIFYING FULLY AUTOMATIC ELECTRIC SERVICE PANEL OPERATION.</div> <div>C. WARRANTY: SUBMIT MANUFACTURER'S STANDARD WARRANTY. INCLUDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE MATERIALS.</div> <div>D. MAINTENANCE INSTRUCTIONS: SUBMIT COPIES OF AN ASSEMBLED AND BOUND MAINTENANCE MANUAL, DESCRIBING THE DEVICES AND PROCEDURES TO BE FOLLOWED IN CLEANING, ADJUSTING, AND MAINTAINING THE DRIVE-THRU WINDOW WORK. INCLUDE INFORMATION FOR MAINTAINING OPERABLE DOORS, OPERATING HARDWARE, AND REPLACING WEATHER STRIPPING. INCLUDE ELECTRICAL WIRING DIAGRAMS IN THE OPERATION AND MAINTENANCE MANUAL WHEN SPECIFYING FULLY AUTOMATIC ELECTRIC SERVICE PANEL OPERATION.</div> <div>1.3 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>1.4 DELIVERY, STORAGE, AND HANDLING</div> <div>A. DELIVERY: DELIVER MATERIALS TO SITE IN MANUFACTURER'S ORIGINAL, UNOPENED CONTAINERS AND PACKAGING, WITH LABELS CLEARLY IDENTIFYING PRODUCT NAME AND MANUFACTURER.</div> <div>B. STORAGE: STORE MATERIALS IN CLEAN, DRY AREA INDOORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div> <div>C. HANDLING: PROTECT MATERIALS AND FINISH FROM DAMAGE DURING HANDLING AND INSTALLATION.</div> <div>1.5 FIELD CONDITIONS</div> <div>A. FIELD MEASUREMENTS: VERIFY DIMENSIONS OF SUPPORTING STRUCTURE BY FIELD MEASUREMENTS BEFORE FABRICATION SO THAT THE DRIVE-THRU WINDOW WORK WILL BE ACCURATELY DESIGNED, FABRICATED AND FITTED TO THE STRUCTURE. INDICATE MEASUREMENTS ON SHOP DRAWINGS. COORDINATE FABRICATION SCHEDULE WITH CONSTRUCTION PROGRESS TO AVOID DELAYING THE WORK. USE CONTRACTOR'S LINES AND BENCHMARKS AS A BASIS FOR MEASUREMENTS.</div> <div>1. ESTABLISHED DIMENSIONS: WHERE FIELD MEASUREMENTS CANNOT BE MADE WITHOUT DELAYING THE WORK, ESTABLISH DIMENSIONS AND PROCEED WITH FABRICATING DRIVE-THRU WINDOW WORK WITHOUT FIELD MEASUREMENTS. COORDINATE SUPPORTING STRUCTURE CONSTRUCTION DIMENSIONS TO ESTABLISHED DIMENSIONS.</div> <div>B. ELECTRICAL SYSTEM ROUGH-IN: COORDINATE LAYOUT AND INSTALLATION OF ELECTRIFIED WINDOW HARDWARE WITH CONNECTIONS TO, POWER SUPPLIES, FIRE ALARM SYSTEM AND DETECTION DEVICES, ACCESS CONTROL SYSTEM, SECURITY SYSTEM, AND BUILDING CONTROL SYSTEM.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. MODULAR SECURITY DRIVE-THRU WINDOWS: 800 SERIES FLUSH-MOUNT WINDOW.</div> <div>1. ALUMINUM FINISH: BLACK ANODIZED.</div> <div>2. WINDOW DIMENSIONS: SEE DRAWINGS.</div> <div>3. SERVICE PANEL OPERATION: FULLY AUTOMATIC ELECTRIC.</div> <div>4. SERVICE PANEL TYPE: SLIDING, 1 PANEL.</div> <div>5. OPENING DIRECTION: SEE DRAWINGS.</div> <div>6. FRAME: EXTRUDED ALUMINUM, ASTM B 221, ALLOY 6063-T6.</div> <div>7. ALUMINUM SHEET: ASTM B 209, ALLOY 5052-AC-H34.</div> <div>8. GALVANIZED STEEL SHEET: ASTM A 653, C80.</div> <div>9. FASTENERS: STAINLESS STEEL RIVETS AND HEX-HEAD ZINC-PLATED SELF-THREADING MACHINE SCREWS.</div> <div>10. HANDLE: STAINLESS STEEL.</div> <div>11. LOCK: SELF-LATCHING ADAMS RITE MS1847 SERIES WITH ADAMS RITE 1000 SERIES TURN. ADAMS RITE MS1850 SERIES WITH ADAMS RITE 4096 SERIES MORTISE THUMBTURN.</div> <div>12. GLAZING:</div> <div>A. 3/4" SOLARBAN 70XL LOW-E GLASS.</div> <div>13. SILICONE GLAZING SEALANT: DOW CORNING 999A, ALUMINUM.</div> <div>14. ELECTRICAL: 115 V, 60 HZ, WITH 15 A BRANCH CIRCUIT.</div> <div>B. AA300 HEATED AIR CURTAIN I/O TRANSOM.</div> <div>1. DTU INSIDE MOUNT HEATED AIR CURTAIN AND SWITCH KIT.</div> <div>2. AIR CURTAIN SERIES #DTU03.</div> <div>PART 3 EXECUTION</div> <div>3.1 EXAMINATION</div> <div>A. EXAMINE AREAS TO RECEIVE SECURITY WINDOWS. NOTIFY ARCHITECT OF CONDITIONS THAT WOULD ADVERSELY AFFECT INSTALLATION OR SUBSEQUENT USE. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED.</div> <div>3.2 PREPARATION</div> <div>A. ENSURE OPENINGS TO RECEIVE SECURITY WINDOWS ARE PLUMB, LEVEL, SQUARE, ACCURATELY ALIGNED, CORRECTLY LOCATED, AND IN TOLERANCE.</div> <div>3.3 INSTALLATION</div> <div>A. INSTALL SECURITY WINDOWS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div> <div>B. INSTALL SECURITY WINDOWS PLUMB, LEVEL, SQUARE, TRUE TO LINE, AND WITHOUT WARP OR RACK.</div> <div>C. INSTALL SECURITY WINDOW COMPONENTS WEATHERTIGHT.</div> <div>D. ANCHOR SECURITY WINDOWS SECURELY IN PLACE TO SUPPORTS. USE ATTACHMENT METHODS PERMITTING ADJUSTMENT FOR CONSTRUCTION TOLERANCES. PRETIGHTEN ALL FASTENERS.</div> <div>E. SEPARATE ALUMINUM FROM OTHER METAL SURFACES WITH BITUMINOUS COATINGS OR OTHER MEANS APPROVED BY ARCHITECT.</div> <div>F. SHEET METAL FLASHING: INSTALL SHEET METAL FLASHING AS SPECIFIED IN SECTION 07.02 00.</div> <div>G. JOINT SEALANTS: INSTALL JOINT SEALANTS AS SPECIFIED IN SECTION 07.92 00.</div> <div>H. ELECTRICAL: INSTALL ELECTRICAL POWER AS SPECIFIED IN THE ELECTRICAL DRAWINGS.</div> <div>I. REPAIR MINOR DAMAGES TO FINISH IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND AS APPROVED BY ARCHITECT.</div> <div>J. REMOVE AND REPLACE DAMAGED COMPONENTS THAT CANNOT BE SUCCESSFULLY REPAIRED AS DETERMINED BY ARCHITECT.</div> <div>34 ADJUSTING</div> <div>A. ADJUST MOVABLE SERVICE PANELS TO BE WEATHERTIGHT IN CLOSED POSITION.</div> <div>B. ADJUST MOVABLE SERVICE PANELS TO FUNCTION PROPERLY AND FOR SMOOTH OPERATION WITHOUT BINDING.</div> <div>C. ADJUST SPEAKER SYSTEM TO FUNCTION PROPERLY.</div> <div>3.5 CLEANING</div> <div>A. CLEAN SECURITY WINDOWS PROMPTLY AFTER INSTALLATION IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.</div> <div>B. REMOVE EXCESS JOINT SEALANT IN ACCORDANCE WITH SEALANT MANUFACTURER'S INSTRUCTIONS.</div> <div>C. DO NOT USE HARSH CLEANING MATERIALS OR METHODS THAT WOULD DAMAGE GLAZING OR FINISH.</div> <div>3.6 PROTECTION</div> <div>A. PROTECT INSTALLED SECURITY WINDOWS TO ENSURE THAT, EXCEPT FOR NORMAL WEATHERING, SECURITY WINDOWS WILL BE WITHOUT DAMAGE OR DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION.</div> <div>END OF SECTION</div> <div>SECTION 09.21 16</div> <div>GYPSUM BOARD ASSEMBLIES</div> <div>PART 1 GENERAL</div> <div>1.1 SUMMARY</div> <div>A. PROVIDE GYPSUM BOARD ASSEMBLIES.</div> <div>1.2 QUALITY ASSURANCE</div> <div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div> <div>B. TOLERANCES: NOT MORE THAN 1/16-INCH DIFFERENCE IN TRUE PLANE AT JOINTS BETWEEN ADJACENT BOARDS BEFORE FINISHING. AFTER FINISHING, JOINTS SHALL BE NOT BE VISIBLE, NOT MORE THAN 1/8 INCH IN 10 FEET DEVIATION FROM TRUE PLANE, PLUMB, LEVEL AND PROPER RELATION TO ADJACENT SURFACES IN FINISHED WORK.</div> <div>C. FIRE RESISTANCE FOR FIRE-RATED ASSEMBLIES: ASTM E 119.</div> <div>D. PERFORMANCE: FIRE, STRUCTURAL, AND SEISMIC PERFORMANCE MEETING REQUIREMENTS OF BUILDING CODE AND LOCAL AUTHORITIES.</div> <div>PART 2 PRODUCTS</div> <div>2.1 MATERIALS</div> <div>A. GYPSUM BOARD:</div> <div>1. MANUFACTURERS: CONTINENTAL BUILDING PRODUCTS (FORMERLY LAFARGE); GEORGIA PACIFIC; NATIONAL GYPSUM CO.; USG; OR APPROVED EQUAL.</div> <div>2. APPLICATION: INTERIOR WALLS, PARTITIONS, AND CEILINGS WITH TAPE AND JOINT COMPOUND FINISH.</div> <div>3. APPLICATION: CEMENTITIOUS BACKER UNITS FOR APPLICATION OF TILE.</div> <div>4. APPLICATION: STEEL FRAMING SYSTEMS TO RECEIVE GYPSUM BOARD.</div> <div>5. APPLICATION: REMODELING AT EXISTING GYPSUM BOARD CONSTRUCTION.</div> <div>6. APPLICATION: ACOUSTIC INSULATION AND SEALANTS IN GYPSUM BOARD ASSEMBLIES.</div> <div>7. APPLICATION: INSTALLATION OF ACCESS PANELS IN GYPSUM BOARD ASSEMBLIES.</div> <div>8. MATERIAL STANDARD: ASTM C1396.</div> <div>9. TYPE: BOARD FOR TAPE AND JOINT COMPOUND FINISH.</div> <div>a. TYPE: FIRE-RATED.</div> <div>b. TYPICAL THICKNESS: 5/8 INCH.</div> <div>10. JOINT TREATMENT: ASTM C474 AND ASTM C840, 3-COAT SYSTEM, PAPER OR FIBERGLASS TAPE.</div> <div>11. AUXILIARY MATERIALS:</div> <div>a. CORNER BEAD, EDGE TRIM AND CONTROL JOINTS.</div> <div>b. EXTRUDED ALUMINUM REVEALS AND CHANNELS.</div> <div>c. GYPSUM BOARD SCREWS: ASTM C 1002.</div> <div>d. FASTENING ADHESIVE: LOW VOC TYPE.</div> <div>e. GLASS FIBER OR MINERAL FIBER ACOUSTICAL INSULATION, WITH NO ADDED FORMALDEHYDE.</div> <div>f. CONCEALED ACOUSTICAL SEALANT, LOW VOC TYPE.</div> <div>B. CEMENTITIOUS BACKER UNITS:</div> <div>1. MATERIAL STANDARD: ANSI A118.3.</div> <div>2. TYPE: CEMENT-COATED PORTLAND CEMENT PANELS.</div> <div>a. THICKNESS: 5/8 INCH NOMINAL.</div> <div>C. STEEL FRAMING FOR WALLS AND PARTITIONS:</div> <div>1. MATERIAL STANDARD: ASTM C945.</div> <div>2. STUD THICKNESS: 20 GAUGE (0.039 INCH).</div> <div>3. STUD DEPTH: REFER TO DRAWINGS.</div> <div>4. FURRING CHANNEL THICKNESS: 20 GAUGE (0.039 INCH).</div> <div>5. AUXILIARY FRAMING COMPONENTS: FURRING BRACKETS, RESILIENT FURRING CHANNELS, Z-FURRING MEMBERS, AND NON-CORROSIVE FASTENERS.</div> <div>D. STEEL FRAMING FOR SUSPENDED AND FURRED CEILINGS:</div> <div>1. MATERIAL STANDARD: ASTM C955.</div> <div>2. ATTACHMENT: RESILIENT.</div> <div>3. STUD THICKNESS: 20 GAUGE (0.039 INCH).</div> <div>4. ACCESSORIES: FURRING CHANNELS, HANGERS AND INSERTS.</div> <div>PART 3 EXECUTION</div> <div>3.1 INSTALLATION</div> <div>A. STEEL FRAMING: INSTALL STEEL FRAMING IN COMPLIANCE WITH ASTM C 754. INSTALL WITH TOLERANCES NECESSARY TO PRODUCE SUBSTRATE FOR GYPSUM BOARD ASSEMBLIES WITH TOLERANCES SPECIFIED. INCLUDE BLOCKING FOR ITEMS SUCH AS RAILINGS, GRAB BARS, CASEWORK, TOILET ACCESSORIES, WINDOW TREATMENT AND SIMILAR ITEMS.</div> <div>B. TAPE AND JOINT COMPOUND: INSTALL GYPSUM BOARD ON TAPE AND 3-COAT JOINT COMPOUND FINISH IN COMPLIANCE WITH ASTM C 840 AND GA 216, LEVEL 4 FINISH. INSTALL GYPSUM BOARD ASSEMBLIES TRUE, PLUMB, LEVEL, AND IN PROPER RELATION TO ADJACENT SURFACES.</div> <div>C. PROVIDE FIRE-RATED SYSTEMS WHERE INDICATED AND WHERE REQUIRED BY AUTHORITIES HAVING JURISDICTION.</div> <div>D. INSTALL BOARDS VERTICALLY. DO NOT ALLOW BUTT-JOINTS AND JOINTS THAT DO NOT FALL OVER FRAMING MEMBERS.</div> <div>E. WHERE NEW PARTITIONS MEET EXISTING CONSTRUCTION, REMOVE EXISTING CORNER BEADS TO PROVIDE A SMOOTH TRANSITION.</div> <div>F. PROVIDE ACOUSTICAL INSULATION FULL HEIGHT AND THICKNESS IN WALLS AND CEILINGS AT TOILET ROOMS, AT CONFERENCE ROOMS, AT PLUMBING WALLS, AND WHERE REQUIRED.</div> <div>G. PROVIDE ACOUSTICAL SEALANT AT BOTH FACES AT TOP AND BOTTOM RUNNER TRACKS, WALL PERIMETERS, OPENINGS, EXPANSION AND CONTROL JOINTS.</div> <div>H. INSTALL TRIM IN STRICT COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.</div> <div>I. REPAIR SURFACE DEFECTS. LEAVE READY FOR FINISH PAINTING OR WALL TREATMENT.</div> <div>END OF SECTION</div>
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CONSULTANTS:

SEAU SIGNATURE:



3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOMENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

ARCHITECTURAL
SPECIFICATIONS

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20080.00

A704

<div><div>SECTION 09 30 00</div><div>TILING</div><div>PART 1 GENERAL</div><div>1.1 SUMMARY</div><div>A. PROVIDE TILE.</div><div>1.2 QUALITY ASSURANCE</div><div>A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.</div><div>B. TILE: ANSI A 137.1.</div><div>C. TILE SETTING MATERIALS: ANSI A 118 SERIES STANDARD SPECIFICATIONS.</div><div>D. TILE INSTALLATION: ANSI 108 SERIES STANDARD SPECIFICATIONS AND TILE COUNCIL OF AMERICA, HANDBOOK FOR CERAMIC TILE INSTALLATION.</div><div>E. EXTERIOR TILE SETTING MATERIALS:<div>a. CEMENTITIOUS GROUT: ISO CG31 OR ANSI A118.6 OR BETTER</div><div>b. EPOXY GROUT: ISO RS3 OR ANSI A118.1 OR BETTER</div><div>c. LATEX-PORTLAND CEMENT: ISO C251 OR ANSI A118.4 OR BETTER</div></div><div>PART 2 PRODUCTS</div><div>2.1 MATERIALS</div><div>A. TILE:<div>1. APPLICATION: EXTERIOR WALL BASE TILE OVER TILE BACKER BOARD.</div><div>2. APPLICATION: EXTERIOR WALL, TILE OVER CEMENT BACKER BOARD.</div><div>3. APPLICATION: INTERIOR WALL AND BASE TILE OVER TILE BACKER BOARD.</div><div>4. APPLICATION: INTERIOR FLOOR TILE OVER CONCRETE SLAB.</div><div>5. TYPE: REFER TO DRAWINGS.</div></div><div>B. SETTING MATERIALS:<div>1. INTERIOR APPLICATIONS<div>a. MANUFACTURERS: CUSTOM BUILDING PRODUCTS, LATICRETE INTERNATIONAL, INC.; MAPEI CORP.; SCHLUTER SYSTEM LP; OR APPROVED EQUAL.</div><div>b. MORTAR SETTING BED, THICKSET,<div>a. LATEX ADDITIVE.</div></div><div>c. THIN-SET MORTAR</div><div>d. LATEX-PORTLAND CEMENT MORTAR.</div><div>e. GROUT:<div>a. EPOXY-MODIFIED, PORTLAND CEMENT GROUT, ANSI A118.8</div><div>1). BASIS OF DESIGN: BOSTIK SANDED CERAMIC TILE GROUT, MIXED WITH 1900 EPOXY MODIFIED GROUT.</div></div><div>f. CRACK SUPPRESSION AND WATERPROOFING MEMBRANE UNDER TILE, ANSI A 118.10.</div><div>6. ELASTOMERIC SEALANTS, LOW VOC TYPE.<div>a. BASIS OF DESIGN: SCHLUTER SYSTEMS.</div></div></div></div><div>2. EXTERIOR APPLICATIONS<div>1. MANUFACTURERS: MAPEI CORP.; OR APPROVED EQUAL.</div><div>2. THIN-SET MORTAR</div><div>3. GROUT:<div>a. EPOXY-MODIFIED, PORTLAND CEMENT GROUT, ANSI A118.7.</div><div>1). BASIS OF DESIGN: MAPEI KERACOLOR S</div></div><div>5. CRACK SUPPRESSION AND WATERPROOFING MEMBRANE UNDER TILE, ANSI A 118.10.</div><div>b. BONDED WATERPROOF MEMBRANE</div><div>1) BASIS OF DESIGN: MAPELASTIC AQUA DEFENSE</div><div>6. ELASTOMERIC SEALANTS, LOW VOC TYPE, RATED FOR EXTERIOR APPLICATION.</div></div></div>

PART 3 EXECUTION

3.1 INSTALLATION

A. COMPLY WITH TILE COUNCIL OF AMERICA AND ANSI STANDARD SPECIFICATIONS FOR INSTALLATION FOR SUBSTRATE AND INSTALLATION REQUIRED. COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

B. INSTALL WATERPROOF MEMBRANE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

C. LAY TILE IN PATTERN PER DRAWINGS, WITH ALIGNMENT GRIDS. LAYOUT TILE TO PROVIDE UNIFORM JOINT WIDTHS AND TO MINIMIZE CUTTING. DO NOT USE LESS THAN 1/2 TILE UNITS.

1. JOINT WIDTH: 1/8 INCH MAX.

D. PROVIDE SEALANT JOINTS WHERE RECOMMENDED BY TCA AND APPROVED BY ARCHITECT.

E. GROUT AND CURE, CLEAN AND PROTECT.

3.2 SCHEDULE

A. TILE SCHEDULE:

1. EXTERIOR TILE WALL BASE: TILE OVER TILE BACKER BOARD WITH EXTERIOR GRADE THIN-SET LATEX-MODIFIED CEMENT MORTAR AND EPOXY GROUT.

2. EXTERIOR TILE: TILE OVER CEMENT BOARD WITH EXTERIOR GRADE THIN-SET LATEX/ POLYMER-MODIFIED CEMENT MORTAR, EPOXY-MODIFIED GROUT AND BONDED WATERPROOFING MEMBRANE.

2. INTERIOR TILE WALLS AND BASE: TILE OVER TILE BACKER BOARD WITH THIN-SET LATEX-MODIFIED CEMENT MORTAR AND EPOXY GROUT

3. INTERIOR TILE FLOORS, LARGE FORMAT TILES: TILE OVER CONCRETE SLAB WITH CRACK SUPPRESSION MEMBRANE, THICK-SET LATEX-PORTLAND CEMENT MORTAR AND EPOXY GROUT, SLOPE TO FLOOR DRAINS.

4. INTERIOR TILE FLOORS, TYPICAL: TILE OVER CONCRETE SLAB WITH WATERPROOFING MEMBRANE, THICK-SET LATEX-PORTLAND CEMENT MORTAR AND EPOXY GROUT, SLOPE TO FLOOR DRAINS.

END OF SECTION

SECTION 09 51 00

ACOUSTICAL CEILINGS

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE ACOUSTICAL CEILINGS AND SUSPENSION SYSTEMS.

1.2 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.

B. PERFORMANCE: FIRE, STRUCTURAL, AND SEISMIC PERFORMANCE MEETING REQUIREMENTS OF BUILDING CODE AND LOCAL AUTHORITIES. ACOUSTICAL PERFORMANCE BASED ON PROJECT REQUIREMENTS.

PART 2 PRODUCTS

2.1 MATERIALS

A. MINERAL FIBER ACOUSTICAL CEILINGS (C-10):

1. MANUFACTURERS: ARMSTRONG WORLD INDUSTRIES; CERTAINTED CELOTEX, USG, OR APPROVED EQUAL.

a. BASIS OF DESIGN: USG SHEETROCK BRAND ITEM NO. 3270, VINYL-FACED.

2. PANEL SIZE AND TYPE: REFER TO DRAWINGS.

3. GRID: BASIS OF DESIGN: USG ZXL4 5/8" WHITE T-GRID FOR WASHABLE TILE.

4. SUSPENSION SYSTEM: INTERMEDIATE DUTY.

5. AUXILIARY MATERIALS:

a. EDGE MOLDING AND TRIM.

b. HOLD-DOWN CLIPS.

c. CONCEALED ACOUSTICAL SEALANT, LOW VOC TYPE (LESS THAN 50 GL).

PART 3 EXECUTION

3.1 INSTALLATION

A. INSTALL MATERIALS AND SUSPENSION SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, AND ASTM C 636.

B. COORDINATE INSTALLATION WITH LOCATION OF MECHANICAL AND ELECTRICAL WORK TO ENSURE PROPER LOCATIONS AND ANCHORAGE.

C. LEVEL CEILING TO WITHIN 1/8 INCH IN 10 FEET IN BOTH DIRECTIONS. SCRIBE AND CUT PANELS TO FIT ACCURATELY. MEASURE AND LAY OUT TO AVOID LESS THAN HALF PANEL UNITS.

D. REMOVAL AND REINSTALLATION AT EXISTING CEILINGS: REMOVE AND STORE MATERIALS FOR REUSE WHEN ALLOWED. HANDLE WITH WHITE GLOVES AND AVOID DAMAGING CORNERS AND EDGES. CLEAN TILES AND GRID SYSTEM, WHICH HAVE BEEN REMOVED. PROVIDE ADDITIONAL MATERIALS TO COMPLETE THE WORK AND TO REPLACE DAMAGED EXISTING MATERIALS. NEW MATERIALS SHALL MATCH EXISTING MATERIALS AS APPROVED.

E. ADJUST, CLEAN, AND TOUCH UP ALL SYSTEM COMPONENTS.

END OF SECTION

SECTION 09 67 00

FLUID-APPLIED FLOORING

PART 1 GENERAL

1.1 SUMMARY

A. PROVIDE FLUID-APPLIED FLOORING AND FLOOR PREPARATION.

1.2 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.

PART 2 PRODUCTS

2.1 MATERIALS

A. FLUID APPLIED FLOORING (E-1):

1. BASIS OF DESIGN: DURAFLEX POLY-URETE URETHANE SLURRY SYSTEM.

2. LOW EMISSION MATERIAL: CA 01350 COMPLIANT.

3. TYPE: CHEMICAL- AND HEAT-RESISTANT POLYURETHANE FLOORING.

a. COLORS AND PATTERNS: GRAY.

4. THICKNESS: NOT LESS THAN 3/16 INCH, AS INDICATED ON DRAWINGS.

5. SURFACE: SLIP-RESISTANT SURFACE.

a. NATIONAL FLOOR SAFETY INSTITUTE, CERTIFIED AS HIGH TRACTION.

6. AUXILIARY MATERIALS:

a. INTEGRAL BASE.

PART 3 EXECUTION

3.1 INSTALLATION

A. PREPARE SURFACES AND INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. INSTALL MATERIALS AND SYSTEMS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE. COORDINATE WITH WORK OF OTHER SECTIONS.

1. APPLY IN ONE SINGLE BATCH FOR ENTIRE FLOOR AREA.

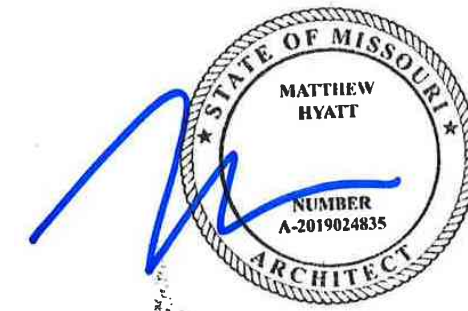
2. INSTALL INTEGRAL COVE BASE.

C. RESTORE DAMAGED FINISHES. CLEAN AND PROTECT WORK FROM DAMAGE.

END OF SECTION

CONSULTANTS:

SEAU/ SIGNATURE:



3		2021-04-26	ISSUED FOR CONSTRUCTION
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

ARCHITECTURAL
SPECIFICATIONS

DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 2008.00

A705

FOR REFERENCE ONLY



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RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/17/2021
www.bergmeyer.com

Bergmeyer

BOS
51 Sleeper St.
Burlington, MA 02210
617.542.1025

LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

CONSULTANTS:

SEA/ SIGNATURE:

3	2021-04-26	ISSUED FOR CONSTRUCTION	
	2021-01-11	PERMIT/BID SET	
	2020-10-12	DD SET	
NO.	BY	DATE	DESCRIPTION

SHAKE SHACK - LEE'S SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR CONSTRUCTION

EXTERIOR RENDERINGS

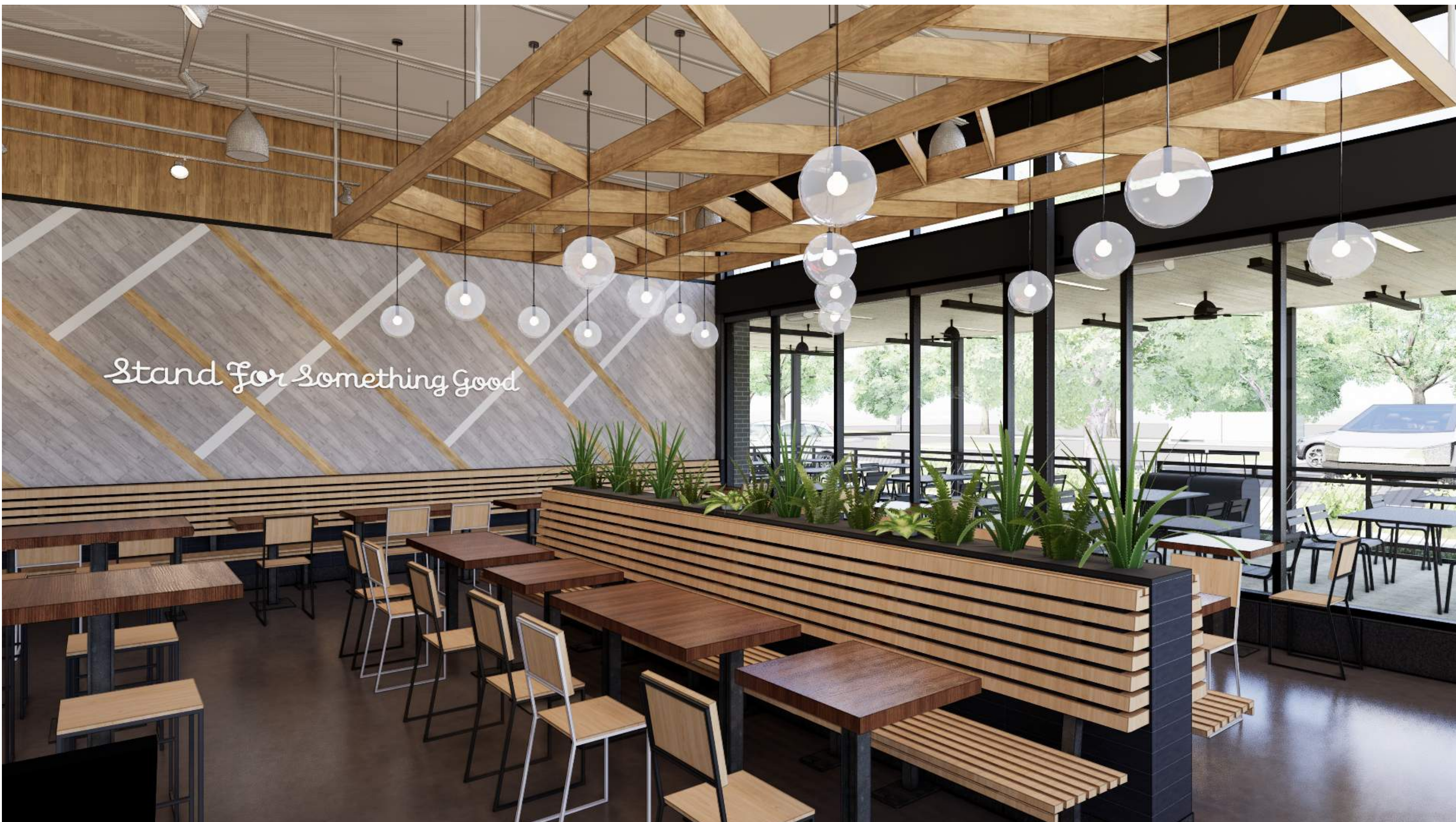
DRAWN BY: CS & WOL

CHECKED BY: JS

JOB NO: 20068.00

A801

FOR REFERENCE ONLY



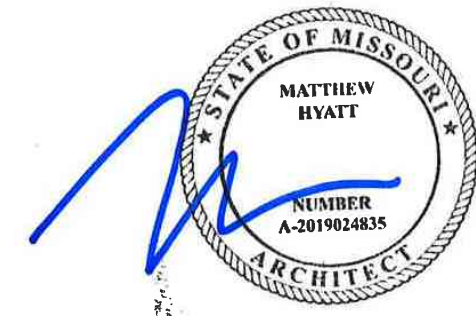
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51 Sleeper St.
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800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

CONSULTANTS:

SEA/ SIGNATURE:



3	2021-04-26	ISSUED FOR CONSTRUCTION
	2021-01-11	PERMIT/D SET
NO.	BY	DATE
		DESCRIPTION



SHAKE SHACK - LEE'S
SUMMIT MO

2051 NW LOWENSTEIN DRIVE
LEE'S SUMMIT, MISSOURI 64081
SHACK #1348

ISSUED FOR
CONSTRUCTION

INTERIOR RENDERINGS

DRAWN BY: CS & WOL
CHECKED BY: JS
JOB NO: 20068.00

A802

FOODSERVICE SHEET LIST		FOODSERVICE ABBREVIATIONS (SECTION 114000)		GENERAL FOOD SERVICE AND HEALTH CODE REQUIREMENTS		REFRIGERATION GENERAL REQUIREMENTS		PLUMBING GENERAL REQUIREMENTS (DIVISION 22)		ELECTRICAL GENERAL REQUIREMENTS (DIVISION 26)	
NO.	SHEET NAME										
QF102A	QF102A - FOODSERVICE UTILITY SCHEDULES	AFF	ABOVE FINISHED FLOOR	INST	INSTALL(ATION)	1	GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE FLOOR REQUIREMENTS AND/OR SLAB RECESS(ES) AAT WALK-IN COOLERS AND FREEZER AS SPECIFIED.	1	FOODSERVICE DRAWINGS INDICATE PLUMBING ROUGH-IN/CONNECTION POINTS ONLY FOR EQUIPMENT SPECIFIED UNDER THE KITCHEN EQUIPMENT (SECTION 114000) CONTRACT. ANY ADDITIONAL PLUMBING REQUIREMENTS ARE NOT INDICATED ON FOODSERVICE DRAWINGS.	1	FOODSERVICE DRAWINGS INDICATE ELECTRICAL ROUGH-IN/CONNECTION POINTS ONLY FOR EQUIPMENT SPECIFIED UNDER THE KITCHEN EQUIPMENT (SECTION 114000) CONTRACT. ANY ADDITIONAL ELECTRICAL REQUIREMENTS ARE NOT INDICATED ON FOODSERVICE DRAWINGS.
QF102B	FOOD SERVICE UTILITY SCHEDULES	ALT	ALTERNATE	INSUL	INSULATE(ION)	2	EVAPORATOR CONDENSATE DRAIN LINE (S) SHALL BE REFRIGERATION GRADE HARD COPPER USING 1" STANDOFFS. 1/2" TRAP DRAIN OUTSIDE WALK-IN COMPARTMENT(S). PROVIDE AND INSTALL SLEEVES THRU WALK-IN AND BUILDING WALLS FOR DRAIN LINE (S). FOAM & CAULK AROUND SLEEVES AND DRAIN LINES. WRAP WITH DRAIN LINE HEATER AND INSULATION WHERE SUBJECT TO FREEZING TEMPERATURES.	2	DIMENSIONS ARE SHOWN FROM FINISHED FLOORS, FINISHED WALLS, AND/OR COLUMN CENTERLINES TO CENTER OF ROUGH-IN.	2	ROUGH-INS, INTERWIRING, AND FINAL CONNECTIONS TO ALL FOODSERVICE EQUIPMENT SHALL BE COMPLETED BY ELECTRICAL CONTRACTOR (DIVISION 26).
GENERAL	EQUIPMENT PLANS	ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	JB	JUNCTION BOX	3	CEILING AND WALL SURFACES ADJACENT TO OR ABOVE ANY FOOD PREPARATION AREA, INCLUDING KITCHEN, DISHWASHING, AND SERVING AREAS, ETC., SHALL BE SMOOTH, NON-ABSORBANT, EASILY CLEANABLE, AND LIGHT IN COLOR. ANY MATERIALS NOT CLEARLY CONSISTENT WITH THIS REQUIREMENT SHOULD BE SUBMITTED TO THE LOCAL HEALTH JURISDICTION FOR PRIOR APPROVAL OF USE. LAY-IN CEILING TILE MUST BE NON-POROUS AND NON-FISSURED PANELS ONLY. A CORROSION RESISTANT SUSPENSION SYSTEM IS RECOMMENDED.	3	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	3	FURNISH AND INSTALL ALL NECESSARY COMPONENTS TO MAKE FINAL CONNECTIONS, INCLUDING THE INSTALLATION OF COMPONENTS NOT SHOWN OR SHIPPED LOOSE.
QF001	FOODSERVICE GENERAL NOTES, LEGENDS, SHEET INDEX	BLDG	BUILDING	JBH	JUNCTION BOX - CEILING/HORIZONTAL MOUNTED	4	BUILDING SURFACES AT AND AROUND FOODSERVICE COUNTERS IN PUBLIC SERVING AREAS SHALL MEET THE FINISH REQUIREMENTS OF THE GOVERNING HEALTH DEPARTMENT.	4	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	4	VERIFY AVAILABLE BUILDING SERVICES WITH ELECTRICAL REQUIREMENTS OF ALL FOODSERVICE EQUIPMENT.
QF101	FOODSERVICE EQUIPMENT PLAN	BTC	BRANCH TO CONNECTION	KEC	KITCHEN EQUIPMENT CONTRACTOR	5	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	5	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	5	COVER PLATES IN FOODSERVICE AREAS SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.
QF102	FOODSERVICE SCHEDULES	BTU	BRITISH THERMAL UNIT	KBW	JUNCTION BOX - WALL MOUNTED	6	CEILING AND WALL SURFACES ADJACENT TO OR ABOVE ANY FOOD PREPARATION AREA, INCLUDING KITCHEN, DISHWASHING, AND SERVING AREAS, ETC., SHALL BE SMOOTH, NON-ABSORBANT, EASILY CLEANABLE, AND LIGHT IN COLOR. ANY MATERIALS NOT CLEARLY CONSISTENT WITH THIS REQUIREMENT SHOULD BE SUBMITTED TO THE LOCAL HEALTH JURISDICTION FOR PRIOR APPROVAL OF USE. LAY-IN CEILING TILE MUST BE NON-POROUS AND NON-FISSURED PANELS ONLY. A CORROSION RESISTANT SUSPENSION SYSTEM IS RECOMMENDED.	6	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	6	COUNTERTOP HEIGHT RECEPTACLES IN FOODSERVICE AREAS SHALL BE INSTALLED HORIZONTALLY.
PLUMBING ROUGH-IN	EQUIPMENT PLANS	C&P	CORD AND PLUG	KEC	KITCHEN EQUIPMENT CONTRACTOR	7	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	7	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	7	PROVIDE DEDICATED CIRCUITS FOR FOODSERVICE EQUIPMENT.
QF201	FOODSERVICE PLUMBING IN-SLAB ROUGH-IN PLAN	CL	CENTER LINE	KW	KILOWATT HOUR	8	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	8	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	8	VERIFY ELECTRICAL SERVICE WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.
QF202	FOODSERVICE PLUMBING ABOVE SLAB ROUGH-IN PLAN	CLG	CEILING	LAM	LAMINATE	9	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	9	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	9	DIMENSIONS ARE SHOWN FROM FINISHED FLOORS, FINISHED WALLS, AND/OR COLUMN CENTERLINES TO CENTER OF ROUGH-IN.
ELECTRICAL ROUGH-IN	EQUIPMENT PLANS	CLR	COOLER	LBS	POUNDS	10	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	10	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	10	ALL ELECTRICAL CONDUIT TO BE CONCEALED WITHIN WALLS, CEILINGS, AND FLOORS WHERE POSSIBLE.
QF301	FOODSERVICE ELECTRICAL ROUGH-IN PLAN	CMU	CONCRETE MASONRY UNIT	LT	LIGHT	11	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	11	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	11	PROVIDE GFCI PROTECTION AS DIRECTED BY CODE.
SPECIAL CONDITIONS	EQUIPMENT PLANS	CO	CONVENIENCE OUTLET	MECH	MECHANICAL	12	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	12	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	12	ELECTRICAL CONTRACTOR (DIVISION 26) SHALL FURNISH AND INSTALL ACCEPTABLE MEANS OF DISCONNECT FOR ALL ITEMS AS DIRECTED BY CODE.
QF401	FOODSERVICE SPECIAL CONDITIONS PLAN	COL	COLUMN	MTD	MOUNTED	13	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	13	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	13	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
QF402	NOT USED	CW	COLD WATER	MTP	MALE PIPE THREAD	14	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	14	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	14	PROVIDE MINIMUM 6'-0" FLEXIBLE CONDUIT WHIP ON ALL MOBILE OR UNFASTENED FOODSERVICE EQUIPMENT WITH DIRECT CONNECTION(S).
QF403	NOT USED	DC	DROP CORD	N/A	NOT APPLICABLE	15	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	15	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	15	CONDUIT PENETRATING WALK-IN REFRIGERATION UNITS SHALL BE INSULATED OR OF MATERIAL TO PREVENT THERMAL TRANSFER. FOAM & SEAL INSIDE AND OUTSIDE OF PENETRATION(S) THRU WALK-IN TO PREVENT CONDENSATION.
QF404	NOT USED	DFA	DOWN FROM ABOVE	NIC	NOT IN CONTRACT	16	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	16	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	16	INSTALL KEC (SECTION 114000) FURNISHED AIR CURTAIN(S) AND MICRO SWITCH(S) WHERE SPECIFIED.
QF405	NOT USED	DIA	DIAMETER	NTS	NOT TO SCALE	17	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	17	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	17	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
DETAILS AND ELEVATIONS	EQUIPMENT PLANS	DIM	DIMENSION	OC	ON CENTER	18	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	18	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	18	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
QF501	FOODSERVICE ELEVATIONS	DIV	DIVISION	OD	OUTSIDE DIAMETER	19	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	19	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	19	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
QF502	NOT USED	DW	DUPLEX RECEPTACLE	PC	PLUMBING CONTRACTOR	20	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	20	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	20	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
QF601	NOT USED	DWG	DIRECT WASTE	PERF	PERFORATE(D)	21	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	21	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	21	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
QF602	NOT USED	EA	EACH	PH	PHASE	22	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	22	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	22	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
VENDOR/CUSTOM	EQUIPMENT PLANS	EC	ELECTRICAL CONTRACTOR	PLYWD	PLYWOOD	23	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	23	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	23	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
QF700	NOT USED	EQ	EQUAL	PSI	POUNDS PER SQUARE INCH	24	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	24	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	24	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
BIM SYSTEMS COORDINATION	EQUIPMENT PLANS	EQIP	EQUIPMENT	QR	QUAD RECEPTACLE	25	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	25	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	25	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
QF800	NOT USED	EXT	EXTERIOR	QT	QUARRY TILE	26	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	26	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	26	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
GENERAL CONTRACTOR REQUIREMENTS (DIVISION 3, 6, 7, & 9)		FD	FLOOR DRAIN	QTY	QUANTITY	27	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	27	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	27	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
1. GENERAL CONTRACTOR, ARCHITECT, ENGINEER(S), AND/OR OWNER SHALL NOTIFY THE KEC (SECTION 114000) OF ALL ADDENDUMS, BULLETINS, AND CHANGES TO THE BUILDING SPACE WITHIN AND AROUND ANY FOODSERVICE AREAS) PRIOR TO CONSTRUCTION.		FF	FINISHED FLOOR	RAD	RADIUS	28	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	28	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	28	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
2. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL NOTIFY THE KEC (SECTION 114000) OF ANY DISCREPANCY BETWEEN DRAWINGS, CONSTRUCTION, AND CODE REQUIREMENTS WITH POTENTIAL IMPACT.		FIN	FINISH(ED)	RCP	REFLECTED CEILING PLAN	29	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	29	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	29	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
3. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE ACCESS AND PATH OF DELIVERY FOR FOODSERVICE EQUIPMENT TO FINAL LOCATION. COORDINATE REQUIREMENTS WITH KEC (SECTION 114000).		FLR	FLOOR	REQD	REQUIRED	30	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	30	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	30	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
4. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE OPENINGS THRU FLOORS, CEILINGS, WALLS, AND ROOFS FOR UTILITY ACCESS, CONDUIT, RISERS, AND DUCTWORK UNLESS SPECIFIED OTHERWISE. OPENINGS SHALL BE DRILLED, CORE-BORED, OR CUT BY AN APPROVED METHOD.		FLUOR	FLOUORESCENT	RFG	REFRIGERATOR	31	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	31	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	31	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
5. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE FIRESTOP AT ALL FIRE-RATED BUILDING PENETRATIONS, SHAFTS, AND ASSEMBLIES AS DIRECTED BY CODE UNLESS SPECIFIED OTHERWISE.		FPT	FEMALE PIPE THREAD	RI	ROUGH-IN	32	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	32	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING SERVICE(S) MADE OBSOLETE BY NEW CONSTRUCTION AS DIRECTED BY CODE.	32	PROVIDE LIQUID TIGHT D=CONDUIT WHERE EXPOSED IN FOODSERVICE AREAS UNLESS DIRECTED OTHERWISE BY CODE.
6. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE ACCESS PANELS IN HARD LID CEILINGS FOR ACCESS TO EXHAUST CLEANOUTS, FIRE SUPPRESSION GAS VALVES, PULL BOXES, ETC.		FRZ	FREEZER	RM	ROOM	33	BUILDING FLOORS IN ANY FOODSERVICE AREA, RESTROOM, AND ANTE-ROOM SHALL BE SMOOTH, NON-ABSORBENT, AND EASILY CLEANABLE WITH MINIMUM 3/8" COVE BASE EXTENDING UPWARD MINIMUM 6" AT WALLS OR AS DIRECTED BY THE GOVERNING HEALTH DEPARTMENT.	33	REUSE PLUMBING SERVICES WHERE APPLICABLE IN EXISTING/REMODELED FOODSERVICE AREAS. CAP OR REMOVE EXISTING OR		



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Owner and all Contractors to check and verify existing dimensions and conditions in the field before starting construction and to notify TriMark of any material or detail changes.

REVISIONS

DATE	NO.	DESCRIPTION
Date 1	1	Revision 1
2021-04-26	1	ISSUED FOR CONSTRUCTION

SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

PROJECT	20-275
DATE	11/25/2020
SCALE	1/4" = 1'-0"
DRAWN	APPROVED
SMC	SD

SHEET
FOODSERVICE EQUIPMENT PLAN

SHEET NUMBER:
QF101

161

161

18

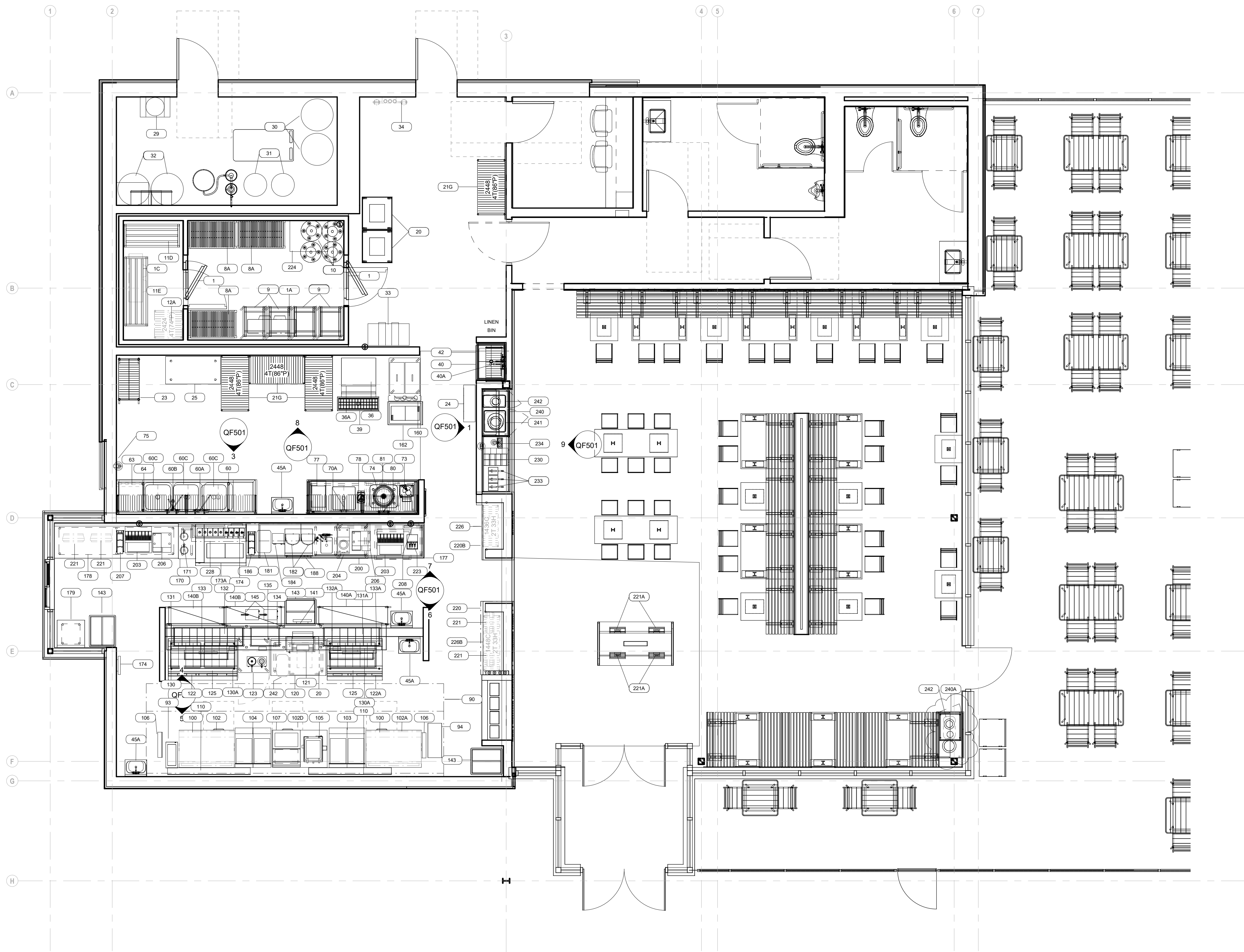
10

NOTE:
TO BE LOCATED ON ROOF CLOSE
TO SHAFT. VERIFY WITH THE
MECHANICAL
AND/OR ARCHITECTURAL ROOF PLAN

92

91

NOTE:
LOCATION OF FANS PLEASE
VERIFY WITH THE MECHANICAL
AND/OR ARCHITECTURAL ROOF PLAN



1 OVERALL FLOOR PLAN
1/4" = 1'-0"



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SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

PROJECT	20-275
DATE	11/25/2020
SCALE	
DRAWN	APPROVED
SMC	SD

SHEET	FOODSERVICE SCHEDULES
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SHEET NUMBER:	QF102
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FOODSERVICE EQUIPMENT & UTILITY SCHEDULE PT1

ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL	REMARKS	SUPPLY			WASTE		GAS		ELECTRICAL					CONNECTION	
						HOT WATER	COLD WATER	FILTERED WATER	DIRECT	INDIRECT	SIZE	INPUT	VOLTS	PHASE	WATTS	HP	AMPS	TYPE	NEMA
						SIZE	SIZE	SIZE	SIZE	SIZ E									
1	1	WALKIN COOLER/FREEZER COMBO	BALLY		REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS								120						
1A	1	COOLER EVAPORATOR	BALLY	COOLER EVAPORATOR	REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS	0"	0"	0"	0"	3/4"	0"	0.0 Btu/h	120/208	1	1920 W		16.00 A	JBOX	
1B	1	AIR-COOLED COOLER CONDENSING UNIT	BALLY	COOLER CONDENSING UNIT	AIR - COOLED, REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS	0"	0"	0"	0"	0"	0"	0.0 Btu/h	120/208	3	1716 W	2	8.25 A		-
1C	1	FREEZER EVAPORATOR	BALLY	FREEZER EVAPORATOR	REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS	0"	0"	0"	0"	3/4"	0"	0.0 Btu/h	120/208	1	208 W		1.00 A		
1D	1	AIR-COOLED COOLER CONDENSING UNIT	BALLY	FREEZER CONDENSING UNIT	AIR - COOLED, REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS	0"	0"	0"	0"	0"	0"	0.0 Btu/h	120/208	1	1716 W	2	8.25 A		-
2-7	1	SPARE NUMBER	CUSTOM																
8A	3	SHELVING UNIT, PLASTIC WITH POLY EXTERIOR STEEL POSTS	CAMBRO	CPU244272V4480															
9	4	UNIVERSAL PAN RACK	EAGLE	Z6690															
10	4	KEG DOLLY	NIC	BY OTHERS															
11D	1	DUNNAGE RACK	LOCKWOOD MFG	DR-2048-12															
11E	1	DUNNAGE	LOCKWOOD MFG	DR-2060-12															
12A	1	WIRE SHELVING EPOXY	EAGLE	S5-74-2424VG															
13-18	1	SPARE NUMBER	CUSTOM																
19	1	LINEN BIN	NIC	BY OTHERS		0"	0"	0"	0"	0"	0"	0.0 Btu/h		0	0 W		0.00 A		
20	3	BREAD RACK DOLLY	BY OTHERS	BY OTHERS															
21G	4	WIRE SHELVING EPOXY	EAGLE	S4-74-2448VG															
22	1	SPARE NUMBER	CUSTOM																
23	1	MOBILE GARMENT RACK	EAGLE	113163															
24	1	LOCKERS	GLOBAL INDUSTRIAL EQUIPMENT	WB493332BK															
25	1	EMPLOYEE WORK TABLE	NIC	BY OTHERS										1	0 W		16.00 A		
26-28	1	SPARE NUMBER	CUSTOM																
29	1	NITROGEN TANK	NIC	BY OTHERS		0"	0"	0"	0"	0"	0"	0.0 Btu/h	0	0 W			0.00 A		
30	2	RTI OIL TANK	NIC	BY OTHERS		0"	0"	0"	0"	0"	0"	0.0 Btu/h	0	0 W			0.00 A		
31	2	CO2 TANK	NIC	BY OTHERS		0"	0"	0"	0"	0"	0"	0.0 Btu/h	0	0 W			0.00 A		
32	2	WATER HEATER	NIC	BY OTHERS		0"	0"	0"	0"	0"	0"	0.0 Btu/h	0	0 W			0.00 A		
33	1	BAG-N-BOX	NIC	BY OTHERS			1/2"						120	1	0 W		15.00 A	C&P	5-20P
34	1	WATER FILTER ASSEMBLY	EVERPURE	EV932806	G.C. TO PROVIDE WALL BLOCKING. P.C. TO INTERPIPE TO ICE MAKER/COFFEE MAKER.	0"	3/4"	0"	0"	0"									
35	1	SPARE NUMBER	CUSTOM																
36	1	ICE CUBER	MANITOWOC	IYT1200A			1/2"			3/4"			120/208	1	2954 W		14.20 A		
36A	1	ICE BIN FOR ICE MACHINES	MANITOWOC	D570						3/4"									
37-38	1	SPARE NUMBER	CUSTOM																
39	1	FLOOR TROUGH	NIC	BY OTHERS	ALL TRADES TO VERIFY UTILITY REQUIREMENTS.	0"	0"	0"	3"	0"									
40	1	MOP SINK	NIC	F2820-12	TO BE PROVIDED BY THE PLUMBER.				2"										
40A	1	SERVICE FAUCET	T&S BRASS	B-0658	G.C. TO PROVIDE WALL BLOCKING.	1/2"	1/2"												
41	1	SPARE NUMBER	CUSTOM																
42	1	WALL SHELVING UNIT	EAGLE	WALL SHELVING UNIT 30_14															
43-44	1	SPARE NUMBER	CUSTOM																
45A	4	HAND SINK	EAGLE	HSA-10-F-LRS	G.C. TO PROVIDE WALL BLOCKING.	1/2"	1/2"	0"	1 1/2"	0"									
46-59	1	SPARE NUMBER	CUSTOM																
60	1	THREE (3) COMP SINK	EAGLE	314-22-3-24															
60A	1	WALL / SPLASH MOUNT FAUCET	T&S BRASS	B-0231-CC		1/2"	1/2"												
60B	1	MINI PRE-RINSE FAUCET	T&S BRASS	MPZ-8WLN-08	WITH ADD ON FAUCET AND WALL BRACKET, G.C. TO PROVIDE WALL BLOCKING.	1/2"	1/2"												
60C	3	DRAIN, LEVER / TWIST WASTE	FISHER	22209	NOT SHOWN ON PLAN.					2"									
60D	1	FAUCET, PARTS	T&S BRASS	B-TEE-EZK		0"	0"	0"	0"	0"	0"	0.0 Btu/h	0	0 W			0.00 A		
61-62	1	SPARE NUMBER	CUSTOM																
63	1	DISHWASHER - UNDERCOUNTER	MOYER DIEBEL	201HT	WITH BUILT-IN HOT WATER BOOSTER.	3/4"	0"		0"	5/8"			208	1	9000 W	1	45.00 A	DIRECT	
64	1	WALL GRID SYSTEM	EAGLE	YSHAKE-GRID-0002-00															
65-69	1	SPARE NUMBER	CUSTOM																
70	1	PREP TABLE WITH SINK	EAGLE	T3096STEM-BS															
70A	1	DECK MOUNT FAUCET	T&S BRASS	B-0227		1/2"	1/2"												
70B	1	FAUCET, PARTS	T&S BRASS	B-TEE-EZK		0"	0"	0"	0"	0"	0"	0.0 Btu/h	0	0 W			0.00 A		
70C	1	DRAIN, LEVER / TWIST WASTE	FISHER	22209	NOT SHOWN ON PLAN.					2"									
71-72	1	SPARE NUMBER	CUSTOM																
74	1	VEGTABLE DRYER	DYNAMIC USA	SD92SC										1	200 W		1.30 A		5-20P
75	1	MIXER, HAND	ROBOT COUPE	MP 350TURBOCOMBI	WITH STORAGE BRACKET. G.C. TO PROVIDE WALL BLOCKING.								120	1	660 W	1	0.00 A		5-15P
76	1	SPARE NUMBER	CUSTOM																
77	1	RE THERMALIZER, WATER TANK, ELECTRIC	PITCO	113164						3/8"			208	1	600 W		29.80 A	L6□30P	
78	1	FOOD PROCESSOR	WARING COMMERCIAL	WFP11SW									120	1	720 W	3/4	6.00 A		5-15P
79	1	SPARE NUMBER	CUSTOM																
80	1	WALL GRID SYSTEM	EAGLE FOR SHAKE SHACK	YSHAKE-GRID-0001-00															
81	1	SHELVING UNIT	EAGLE GROUP	2130VG															
82-89	1	SPARE NUMBER	CUSTOM																
90	1	EXHAUST HOOD	NIC	BY OTHERS	ALL TRADES MUST VERIFY UTILITY REQUIREMENTS WITH THE OWNER. REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS.								120	0	0 W		0.00 A	JBOX	
91	1	EXHAUST FAN	NIC	BY OTHERS	ALL TRADES MUST VERIFY UTILITY REQUIREMENTS WITH THE OWNER. REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS.	0"	0"	0"	0"	0"	0"	0.0 Btu/h	120	1	864 W	1	7.20 A	JBOX	DCO
92	1	SUPPLY FAN	NIC	BY OTHERS	ALL TRADES MUST VERIFY UTILITY REQUIREMENTS WITH THE OWNER. REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS.	0"	0"	0"	0"	0"	0"	0.0 Btu/h	120	1	864 W	1	7.20 A	JBOX	DCO
93	1	GREASE COLLECTOR	NIC	BY OTHERS	ALL TRADES MUST VERIFY UTILITY REQUIREMENTS WITH THE OWNER. REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS.								120	1	2400 W		20.00 A		5-20P
94	1	ANSUL	NIC	BY OTHERS	E.C. TO INTERWIRE TO BUILDING ALARM SYSTEM AND FOR EQUIPMENT SHUT-DOWN. ALL TRADES MUST VERIFY UTILITY REUIQREMENTS WITH THE OWNER.								120	1	960 W		8.00 A		
95-99	1	SPARE NUMBER	CUSTOM																
100	2	GAS, COUNTER MODEL GRIDDLES	LANG MANUFACTURING	9K7248SC7NATSH							3/4"	108000.0 Btu/h	115	1	50 W		2.00 A		
100A	1	SAFETY SYSTEM MOVEABLE GAS CONNECTOR	DORMONT	1675KIT2S48	NOT SHOWN ON PLAN.	0"	0"	0"	0"	0"	0"	0.0 Btu/h		0	0 W		0.00 A		
101A	1	SAFETY SYSTEM MOVEABLE GAS CONNECTOR	DORMONT	1675KIT2S48	NOT SHOWN ON PLAN.	0"	0"	0"	0"	0"	0"	0.0 Btu/h		0	0 W		0.00 A		
102	1	48" REFRIGERATED BASE	RANDELL	20048□513□SS□R	ON CASTERS, RIGHT SIDE COMPRESSOR.	0"	0"	0"	0"	1/2"	0"	0.0 Btu/h	1	1001 W	1/4	8.70 A		5-15P	
102A	1	EQUIPMENT STAND, REFRIGERATED BASE	RANDELL	20048□513□SS□L	ON CASTERS, LEFT SIDE COMPRESSOR.	0"	0"	0"	0"	1/2"	0"	0.0 Btu/h	1	1001 W	1/4	8.70 A		5-15P	
102D	1	48" REFRIGERATED BASE	RANDELL	20048□513□SS□R	ON CASTERS, LEFT SIDE COMPRESSOR.	0"	0"	0"	0"	1/2"	0"	0.0 Btu/h	1	1001 W	1/4	8.70 A		5-15P	
103	1	FRYER BATTERY, GAS	PITCO	2-SSH55C-S/FD	WITH FILTER DRAWER (103B), DIGITAL CONTROLS, CASTERS, DOUBLE BASKET HANGERS.														



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REVISIONS

DATE	NO.	DESCRIPTION
2021-04-26	1	ISSUED FOR CONSTRUCTION

SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

PROJECT	20-275
DATE	11/25/2020
SCALE	
DRAWN	APPROVED
SMC	SD

SHEET	QF102A - FOODSERVICE UTILITY SCHEDULES
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SHEET NUMBER:	QF102A
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FOODSERVICE EQUIPMENT & UTILITY SCHEDULE PT2

ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER	MODEL	REMARKS	SUPPLY			WASTE			GAS		ELECTRICAL					CONNECTION	
						HOT WATER	COLD WATER	FILTERED WATER	DIRECT	INDIRECT										
						SIZE	SIZE	SIZE	SIZE	SIZE	IW#	SIZE	INPUT	VOLTS	PHASE	WATTS	HP	AMPS	TYPE	NEMA
112-119	1	SPARE NUMBER	CUSTOM																	
120	1	BUN TOASTER TABLE	EAGLE	T3048STBBS																
121	1	TOASTER, CONVEYOR	APW WYOTT	M953										208	1	2780 W		13.40 A	C&P	6-20P
122	1	PREP REFRIGERATOR	RANDELL	9040K-513											1	0 W	1/3	9.00 A		5-15P
122A	1	PREP REFRIGERATOR	RANDELL	9030K-513											1	0 W	1/3	9.00 A		5-15P
123	1	WORKTOP FREEZER	RANDELL	9402F-290										115	1	240 W	1/4	2.20 A	C&P	5-15P
124	1	FOOD TOPPING WARMER	SERVER PRODUCTS	81220	WITH (2) 94009 S/S JARS.									120	1	1000 W		8.30 A	C&P	5-15P
124A	2	STORAGE JAR / INGREDIENT CANISTER	SERVER PRODUCTS	94009																
125	2	KDS SCREEN	BY OTHERS	BY OTHERS	ALL TRADES TO BERIFY UTILITY REQUIREMENTS. E.C. TO PROVIDE ISOLATED GROUND.									120	1	1800 W		15.00 A	JBOX	5-15P
126	2	BRACKET	CDW	1711461/SHACK		0"	0"	0"	0"	0"		0"	0.0 Btu/h		0	0 W		0.00 A		
127-129	1	SPARE NUMBER	CUSTOM																	
130	1	OVERSHELF	EAGLE	OVERSHELF	ALL S/S, SIZE AS PER PLANS.										1	0 W		20.00 A	JBOX	
130A	2	PAN HOLDER	EAGLE	YJ361800																
131	1	HEATED SHELF FOOD WARMER	HATCO	GRSB-60-F										120	1	950 W		8.00 A		
131A	1	HEATED SHEKF FOOD WARMER	HATCO	GRSB-48-F										120	1	770 W		6.00 A		
132	1	SANDWICH DIVIDER	EAGLE	YJ368400																
132A	1	SANDWICH DIVIDER	EAGLE	YJ368400																
133	1	HEAT LAMP	HATCO	GRAHL60D3	WITH REMOTE BOX ENCLOSURE.									120/208	1	3100 W	-	16.00 A	JBOX	-
133A	1	HEAT LAMP	HATCO	GRAHL48D3										120/208	1	2440 W	-	12.60 A	JBOX	
134	1	HEAT LAMP	HATCO	UGAHL24D3										120/208	1	1620 W	-	8.20 A	JBOX	-
135	1	BUILT IN HEATED SHELF	HATCO	GRSB-24-F										120	1	420 W		4.00 A		
136-139	1	SPARE NUMBER	CUSTOM																	
140A	1	WORK CENTER	EAGLE	YT1660000200																
140B	2	WORK CENTER	EAGLE	YT1648000200																
141	1	KDS SCREEN	BY OTHERS	BY OTHERS	ALL TRADES TO BERIFY UTILITY REQUIREMENTS. E.C. TO PROVIDE ISOLATED GROUND.									120	1	1800 W		15.00 A	C&P	5-15P
142	1	BRACKET	NIC	BY OTHERS		0"	0"	0"	0"	0"		0"	0.0 Btu/h		0	0 W		0.00 A		
143	3	CURVED LID DISPLAY FREEZER	EXCELLENCE INDUSTRIES	MB2HCD										115	1	1600 W	1/3	1.00 A		5-15P
144	1	SPARE NUMBER	CUSTOM																	
145	2	FOOD TOPPING WARMER	SERVER PRODUCTS	81195	WITH (2) 94009 S/S JARS.									120	1	517 W		4.30 A	C&P	5-15P
145A	2	STORAGE JAR / INCREDIENT CANISTER, METAL	SERVER PRODUCTS	94009		0"	0"	0"	0"	0"		0"	0.0 Btu/h		0	0 W		0.00 A		
146-159	1	SPARE NUMBER	CUSTOM																	
160	1	FROZEN CUSTARD MACHINE	STOELTING	M202-209B00SIR	REFRIGERATION INSTALLER TO PROVIDE QUICK DISCONNECT LINES.		1/2"			1 1/2"				208/230	3	3120 W	3	15.00 A		L6-30P
161	2	REMOTE CONDENSING UNIT	STOELTING	285091	AIR-COOLED REFER TO MANUFACTURER'S SHOP DRAWINGS FOR DETAILS.	0"	0"	0"	0"	0"		0"	0.0 Btu/h	120/208	3	1716 W	2	8.25 A		-
162	1	FROZEN CUSTARD DIPPING CABINET	C. NELSON MFG.	BS2SERB										115	1	1800 W		15.00 A	C&P	5-15
163-169	1	SPARE NUMBER	CUSTOM																	
170	1	SHAKE SLEEVE TABLE	EAGLE	YUT3018-0009-00																
171	2	DIPPERWILL	T&S BRASS	B-2282-01	WITH FAUCET.	0"	0"	0"	0"	0"										
172	1	DIPPING CABINET	RANDELL	69345A0SS44										115	1	786 W	1/3	6.50 A		
173A	1	CONDIMENT SHELF	EAGLE	YRAIL002600																
174	2	KDS SCREEN	BY OTHERS	BY OTHERS	ALL TRADES TO BERIFY UTILITY REQUIREMENTS. E.C. TO PROVIDE ISOLATED GROUND.									120	1	1800 W		15.00 A	JBOX	5-15P
175	1	BRACKET	1711461/SHACK	CDW		0"	0"	0"	0"	0"		0"	0.0 Btu/h		0	0 W		0.00 A		
176	1	BRACKET, POWER CONDITION	YJ-2990-00	CDW		0"	0"	0"	0"	0"		0"	0.0 Btu/h		0	0 W		0.00 A		
177	1	SHAKE TABLE W/SINK	EAGLE	CUSTOM	ALL S/S CONSTRUCTION WITH 10" X 14" X 9.5" DEEP INTEGRAL SINK W/ FAUCET W/ BASKET DRAIN, MARINE EDGES, BACK & RIGHT SIDE SPLASH. P.C. TO INTERPIPE THIS CONNECTION FROM WATER FILTER, MOUNTED TO ITEM #177.	1/2"	1/2"	0"	0"	2"										
177A	1	FAUCET	ELKAY FOODSERVICE PRODUCTS	LK1110		0"	1/2"	0"	0"	0"										
177B	1	UNDERCOUNTER WINE CABINET	EAGLE	FABRICATE																
178	1	WORK TABLE	NIC	BY OTHERS											1	0 W		16.00 A		
178-180	1	SPARE NUMBER	CUSTOM																	
179	1	WORK TABLE	NIC	BY OTHERS											1	0 W		16.00 A		
181	1	COLD BEVERAGE DISPENSERS	GRINDMASTER-CECILWARE	C-1S-16	WITH CUP ACTIVATED HANDLE OPTION AND 11161M MILK IMPELLER.									120	1	450 W		4.00 A	C&P	5-15P
182	2	MIXER, DRINK / BAR	HAMILTON BEACH	HMD400	ONE (1) BACKUP MIXER NOT SHOWN ON PLAN.									120	0	900 W	1/3	7.50 A	C&P	5-15P
183	1	SPARE NUMBER	CUSTOM																	
184	1	MIXER, DRINK/BAR	HAMILTON BEACH	HMD900										120	1	624 W	3/4	5.20 A	C&P	5-15P
186	1	CUP DISPENSER & LID ORGANIZER	SAN JAMAR	C8504WF																
188	1	DISHWASHER - UNDERCOUNTER	MOYER DIEBEL	201HT	WITH BUILT-IN HOT WATER BOOSTER.	3/4"	0"		0"	5/8"				208	1	9000 W	1	45.00 A		DIRECT
189-199	1	SPARE NUMBER	CUSTOM																	
200	1	UNDERCOUNTER REFRIGERATOR	RANDELL	9402F-290										115	1	0 W	1/4	2.20 A	C&P	5-15P
201-202	1	SPARE NUMBER	CUSTOM																	
203	2	ICE CHEST AND SODA TOWER	BY OTHERS	NIC	ALL TRADES TO VERIFY UTILITY REQUIREMENTS.		0"			3/4"				115	1	0 W		0.00 A		
204	1	TEA BREWER	NIC	BY OTHERS	ALL TRADES TO VERIFY UTILITY REQUIREMENTS.	0"	1/2"	0"	0"	0"		0"	0.0 Btu/h	120	0	1730 W	-	14.40 A		5-15P
205	1	SPARE NUMBER	CUSTOM																	
206	2	BEVERAGE DISPENSER	GRINDMASTER	D25-3	WITH 3709 LOW FOAM IMPELLER AND 2266 CUP ACTIVATED HANDLE.	0"	0"	0"	0"	0"		0"	0.0 Btu/h	120	1	645 W		5.60 A		5-15P
207	1	CUP DISPENSER & LID ORGANIZER	SAN JAMAR	C8504WF																
208	1	KDS SCREEN	BY OTHERS	BY OTHERS	ALL TRADES TO BERIFY UTILITY REQUIREMENTS. E.C. TO PROVIDE ISOLATED GROUND.									120	1	1800 W		15.00 A	C&P	5-15P
209	1	BRACKET	1711461/SHACK	CDW		0"	0"	0"	0"	0"		0"	0.0 Btu/h		0	0 W		0.00 A		
210	1	BRACKET, POWER CONDITION	YJ-2990-00	CDW		0"	0"	0"	0"	0"		0"	0.0 Btu/h		0	0 W		0.00 A		
211-219	1	SPARE NUMBER	CUSTOM																	
220	1	FRONT COUNTER	EAGLE	FFRABICATE																
220B	1	PICK UP COUNTER	EAGLE	FFRABICATE																
221	4	POS TERMINALS	NIC	BY OTHERS	ALL TRADES TO BERIFY UTILITY REQUIREMENTS. E.C. TO PROVIDE ISOLATED GROUND.															
222																				



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REVISIONS

DATE	NO.	DESCRIPTION
2021-04-26	1	ISSUED FOR CONSTRUCTION

SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

PROJECT	20-275
DATE	11/25/2020
SCALE	
DRAWN	APPROVED
SMC	SD

SHEET
FOOD SERVICE UTILITY SCHEDULES

SHEET NUMBER:
QF102B

FOODSERVICE PLUMBING SCHEDULE

ITEM NO.	QTY	DESCRIPTION	SUPPLY				WASTE				GAS			PLUMBING REMARKS		
			HOT WATER		COLD WATER		FILTERED WATER		DIRECT		INDIRECT		SIZE		MBTU	HGT AFF
			SIZE	HGT AFF	SIZE	HGT AFF	SIZE	HGT AFF	SIZE	HGT AFF	SIZE	IW#				
1A	1	COOLER EVAPORATOR									3/4"				P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
1C	1	FREEZER EVAPORATOR									3/4"				P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
2-7	1	SPARE NUMBER														
13-18	1	SPARE NUMBER														
22	1	SPARE NUMBER														
26-28	1	SPARE NUMBER														
34	1	WATER FILTER ASSEMBLY			3/4"	90"									P.C. TO INTERPIPE COLD WATER OUTLET TO ICE MAKER, COFFEE AND WATER EQUIPMENT.	
35	1	SPARE NUMBER														
36	1	ICE CUBER			1/2"						3/4"				P.C. TO ITERPIPE COLD WATER CONNECTION FROM ITEM 34 WATER FILTER; P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED.	
36A	1	ICE BIN FOR ICE MACHINES									3/4"				P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
37-38	1	SPARE NUMBER														
39	1	FLOOR TROUGH							3"							
40	1	MOP SINK							2"							
40A	1	SERVICE FAUCET	1/2"		1/2"											
41	1	SPARE NUMBER														
43-44	1	SPARE NUMBER														
45A	4	HAND SINK	1/2"	5"	1/2"	5"			1 1/2"	18"						
60	1	THREE (3) COMP SINK														
60A	1	WALL / SPLASH MOUNT FAUCET	1/2"		1/2"											
60B	1	MINI PRE-RINSE FAUCET	1/2"		1/2"										ADD ON FAUCET: 8.91 GPM @ 60 PSI, PRESSURE: 20 - 125 PSI, TEMPERATURE: 40 F - 140 F, SPRAY VALVE: 1.42 GPM @ 60 PSI	
60C	3	DRAIN, LEVER / TWIST WASTE									2"					
61-62	1	SPARE NUMBER														
63	1	DISHWASHER - UNDERCOUNTER	3/4"	18"							3/4"				P.C. TO INTERPIPE TO FLOOR SINK; 140 DEGREE HOT WATER REQUIRED FROM BUILDING WATER SUPPLY.	
70A	1	DECK MOUNT FAUCET	1/2"		1/2"										PRESSURE: 20 - 125 PSI, TEMPERATURE: 40 °F - 140 °F, FLOW RATE: 24.60 GPM @ 60 PSI	
70C	1	DRAIN, LEVER / TWIST WASTE									2"					
71-72	1	SPARE NUMBER														
76	1	SPARE NUMBER														
77	1	RE THERMALIZER, WATER TANK, ELECTRIC									1/2"				P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
79	1	SPARE NUMBER														
82-89	1	SPARE NUMBER														
95-99	1	SPARE NUMBER														
100	2	GAS, COUNTER MODEL GRIDDLES										3/4"	108.0 Btu/h			
100A	1	SAFETY SYSTEM MOVEABLE GAS CONNECTOR														
101A	1	SAFETY SYSTEM MOVEABLE GAS CONNECTOR														
102	1	48" REFRIGERATED BASE									1/2"					
102A	1	EQUIPMENT STAND, REFRIGERATED BASE									1/2"					
102D	1	48" REFRIGERATED BASE									1/2"					
103	1	FRYER BATTERY, GAS										3/4"	160.0 Btu/h		P.C. TO CONNECT THRU QUICK DISCONNECT HOSE.	
103A	1	SAFETY SYSTEM MOVEABLE GAS CONNECTOR														
104	1	FRYER BATTERY OF 2										3/4"	160.0 Btu/h		P.C. TO CONNECT THRU QUICK DISCONNECT HOSE.	
104A	1	SAFETY SYSTEM MOVEABLE GAS CONNECTOR														
108-109	1	SPARE NUMBER														
112-119	1	SPARE NUMBER														
136-139	1	SPARE NUMBER														
144	1	SPARE NUMBER														
146-159	1	SPARE NUMBER														
160	1	FROZEN CUSTARD MACHINE			1/2"	12"					1 1/2"				P.C. TO SUPPLY REDUCER , SHUT OFF VALVE AND INTERPIPE TO EQUIPMENT FITTINGS; P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
162	1	FROZEN CUSTARD DIPPING CABINET									1"				P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
171	2	DIPPERWILL														
177	1	SHAKE TABLE W/SINK	1/2"	18"	1/2"	18"					2"				P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
177A	1	FAUCET			1/2"	18"									PC TO INTERPIPE THIS COLD WATER CONNECTION FROM ITEM 34 WATER FILTER	
178-180	1	SPARE NUMBER														
183	1	SPARE NUMBER														
188	1	DISHWASHER - UNDERCOUNTER	3/4"	18"							3/4"				P.C. TO INTERPIPE TO FLOOR SINK; 140 DEGREE HOT WATER REQUIRED FROM BUILDING WATER SUPPLY.	
189-199	1	SPARE NUMBER														
203	2	ICE CHEST AND SODA TOWER									3/4"					
204	1	TEA BREWER			1/2"	48"										
206	2	BEVERAGE DISPENSER														
223	1	3-Faucet Dispensing Head and Top Mounted Drip Pan									3/4"					
224	1	DRAFT BEER SYSTEM POWER PACK			1"										P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED	
230	1	CONDIMENT COUNTER									3/4"				P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRED; P.C. TO RUN I.W. TO FLOOR SINK AS REQUIRE	



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REVISIONS

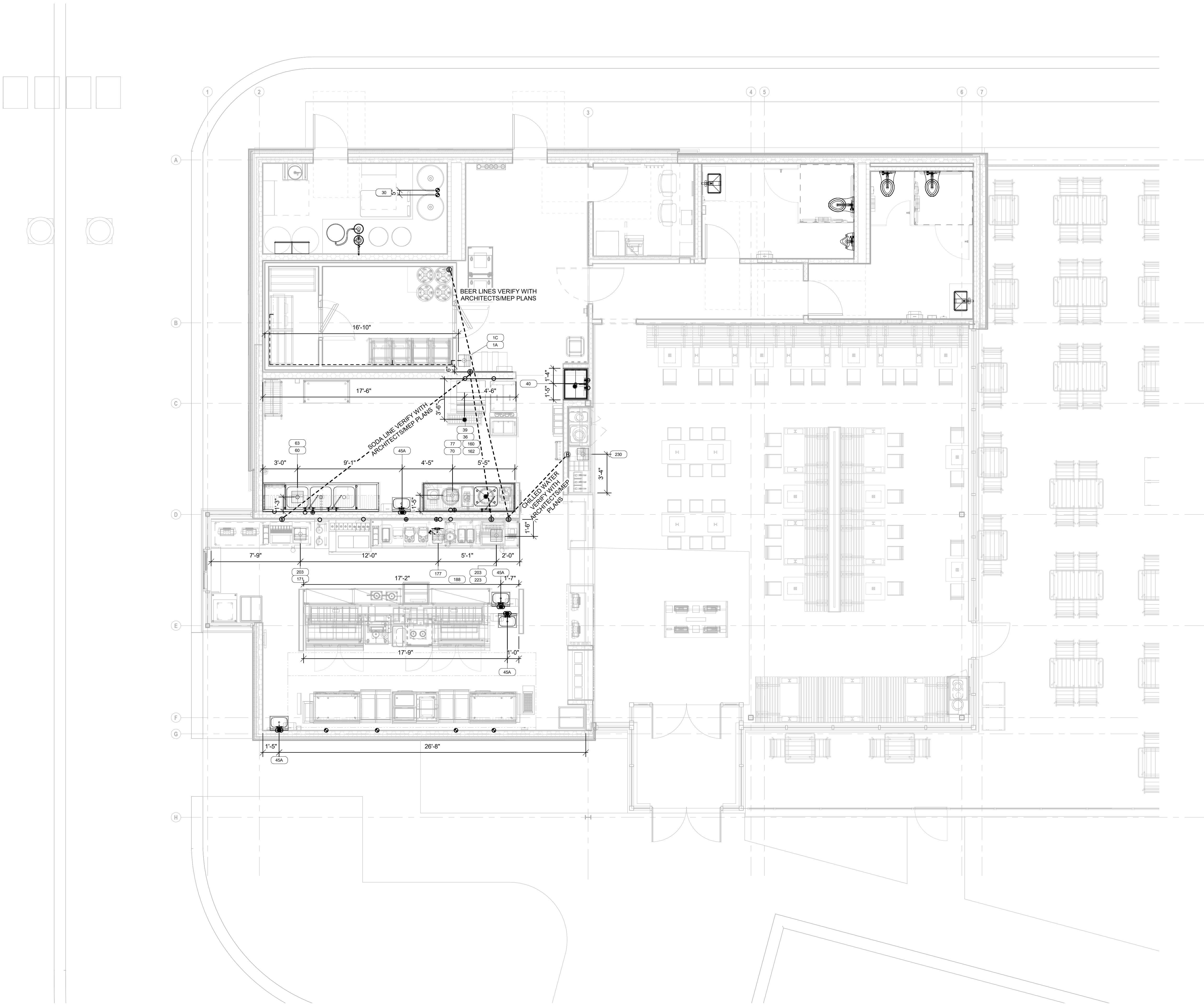
DATE	NO.	DESCRIPTION
2021-04-26	1	ISSUED FOR CONSTRUCTION

PLUMBING LEGEND

- +H HOT WATER
- SH SOFTENED HOT WATER
- +O COLD WATER
- SO SOFTENED COLD WATER
- +D DIRECT WASTE
- INDIRECT WASTE
- FD FLOOR DRAIN
- FS FLOOR SINK - THREE-QUARTER GRATE
- FP FLOOR SINK - PARTIAL GRATE
- FN FLOOR SINK - NO GRATE
- FD FUNNEL FLOOR DRAIN
- HD HUB FLOOR DRAIN
- SD AREA FLOOR DRAIN - SLOPED PER CODE
- +G GAS DROP FROM MANIFOLD
- FS FIRE SUPPRESSION GAS SHUT-OFF VALVE
- CS CHILLED WATER
- +CR CHILLED WATER RETURN
- SS STEAM SUPPLY
- CR CONDENSATE RETURN

PLUMBING NOTES (DIVISION 22)

- INSTALL KEC (SECTION 114000) FURNISHED FLOOR TROUGH(S).
- INSTALL KEC (SECTION 114000) FURNISHED MOP SINK(S).
- INSTALL KEC (SECTION 114000) FURNISHED FIRE SUPPRESSION SYSTEM GAS SHUT OFF VALVE. MUST BE ACCESSIBLE AND NOT CONCEALED IN WALL OR CEILING.
- INSTALL KEC (SECTION 114000) FURNISHED QUICK DISCONNECT(S) & RESTRAINING DEVICE(S) PER MANUFACTURER'S RECOMMENDATIONS.
- MANIFOLD DRAINS TO SINGLE CONNECTION.
- FURNISH AND INSTALL BALL VALVE IN DRAIN LINE. VALVE TO BE IN EASILY ACCESSIBLE LOCATION.
- PIPING FROM WATER FILTER OUTLET TO POINTS OF USE SHALL BE CONCEALED WITHIN WALLS AND CEILINGS. EXTEND DRAIN(S) TO FLOOR SINK/FLOOR DRAIN, IF REQUIRED.
- CONNECT MIN. 110°F HOT WATER SUPPLY TO BUILT-IN OR EXTERNAL (70" RISE) BOOSTER HEATER. WHEN EXTERNAL, INSTALL TEMPERATURE/PRESSURE GAUGE(S) AS REQD AND EXTEND TO DISHWASHER INLET.
- CONNECT DRAIN(S) WITH REFRIGERATION GRADE HARD COPPER USING 1" STANDOFFS. 1" TRAP DRAIN OUTSIDE WALK-IN COMPARTMENT(S). PROVIDE AND INSTALL SLEEVES THRU WALK-IN AND BUILDING WALLS FOR DRAIN LINE(S). FOAM & CAULK AROUND SLEEVES AND DRAIN LINES. WRAP WITH DRAIN LINE HEATER AND INSULATION WHERE SUBJECT TO FREEZING TEMPERATURES.
- PROVIDE GRAY WATER AND SLURRY PIPING TO AND FROM (SECTION 114000) FURNISHED PULPER, TROUGH, AND WATER EXTRACTOR. INSTALL KEC (SECTION 114000) FURNISHED TROUGH INLET NOZZLES AND PROVIDE SHUT OFF VALVE AT EACH NOZZLE.
- PROVIDE "TEE" IN HOT WATER LINE AND CAP FOR FUTURE INSTALLATION OF CHEMICAL DISPENSING SYSTEM BY OTHERS.
- PROVIDE CHROME PLATED PIPE AND FITTINGS WHERE EXPOSED.
- PROVIDE AND INSTALL 3" MIN. DRAIN LINE TO 12X12X10" DEEP FLOOR SINK.
- VERIFY EXACT LOCATION AND QUANTITY OF AREA FLOOR DRAIN(S) WITH THE PLUMBING ENGINEER.



1 PLUMBING IN-SLAB ROUGH-IN PLAN
1/4" = 1'-0"

SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

PROJECT	20-275
DATE	11/25/2020
SCALE	1/4" = 1'-0"
DRAWN	APPROVED
SMC	SD

SHEET
FOODSERVICE PLUMBING IN-SLAB ROUGH-IN PLAN

SHEET NUMBER:
QF201



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PROJECT	20-275
DATE	11/25/2020
SCALE	1/4" = 1'-0"
DRAWN	APPROVED
SMC	SD

SHEET
FOODSERVICE PLUMBING ABOVE SLAB ROUGH-IN PLAN

SHEET NUMBER:
QF202

THIS DOCUMENT WAS ORIGINALLY PRINTED ON A 30" x 42" SIZE SHEET

PLUMBING LEGEND

- +H HOT WATER
- S_H SOFTENED HOT WATER
- +O COLD WATER
- S_O SOFTENED COLD WATER
- +D FILTERED WATER
- +• DIRECT WASTE
- INDIRECT WASTE
- ⊕ FLOOR DRAIN
- ⊕ FLOOR SINK - THREE-QUARTER GRATE
- ⊕ FLOOR SINK - PARTIAL GRATE
- ⊕ FLOOR SINK - NO GRATE
- ⊕ FUNNEL FLOOR DRAIN
- HUB FLOOR DRAIN
- ⊕ AREA FLOOR DRAIN - SLOPED PER CODE
- +• GAS DROP FROM MANIFOLD
- ⊕ FIRE SUPPRESSION GAS SHUT-OFF VALVE
- CS CHILLED WATER
- +CR CHILLED WATER RETURN
- ⊕SS STEAM SUPPLY
- ⊕CR CONDENSATE RETURN

PLUMBING NOTES (DIVISION 22)

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- INSTALL KEC (SECTION 114000) FURNISHED MOP SINK(S).
- INSTALL KEC (SECTION 114000) FURNISHED FIRE SUPPRESSION SYSTEM GAS SHUT OFF VALVE. MUST BE ACCESSIBLE AND NOT CONCEALED IN WALL OR CEILING.
- INSTALL KEC (SECTION 114000) FURNISHED QUICK DISCONNECT(S) & RESTRAINING DEVICE(S) PER MANUFACTURER'S RECOMMENDATIONS.
- MANIFOLD DRAINS TO SINGLE CONNECTION.
- FURNISH AND INSTALL BALL VALVE IN DRAIN LINE. VALVE TO BE IN EASILY ACCESSIBLE LOCATION.
- PIPING FROM WATER FILTER OUTLET TO POINTS OF USE SHALL BE CONCEALED WITHIN WALLS AND CEILINGS. EXTEND DRAIN(S) TO FLOOR SINK/FLOOR DRAIN, IF REQUIRED.
- CONNECT MIN. 110°F HOT WATER SUPPLY TO BUILT-IN OR EXTERNAL (70" RISE) BOOSTER HEATER. WHEN EXTERNAL, INSTALL TEMPERATURE/PRESSURE GAUGE(S) AS REQD AND EXTEND TO DISHWASHER INLET.
- CONNECT DRAIN(S) WITH REFRIGERATION GRADE HARD COPPER USING 1" STANDOFFS. "P" TRAP DRAIN OUTSIDE WALK-IN COMPARTMENT(S). PROVIDE AND INSTALL SLEEVES THRU WALK-IN AND BUILDING WALLS FOR DRAIN LINE(S). FOAM & CAULK AROUND SLEEVES AND DRAIN LINES. WRAP WITH DRAIN LINE HEATER AND INSULATION WHERE SUBJECT TO FREEZING TEMPERATURES.
- PROVIDE GRAY WATER AND SLURRY PIPING TO AND FROM (SECTION 114000) FURNISHED PULPER, TROUGH, AND WATER EXTRACTOR. INSTALL KEC (SECTION 114000) FURNISHED TROUGH INLET NOZZLES AND PROVIDE SHUT OFF VALVE AT EACH NOZZLE.
- PROVIDE "TEE" IN HOT WATER LINE AND CAP FOR FUTURE INSTALLATION OF CHEMICAL DISPENSING SYSTEM BY OTHERS.
- PROVIDE CHROME PLATED PIPE AND FITTINGS WHERE EXPOSED.
- PROVIDE AND INSTALL 3" MIN. DRAIN LINE TO 12X12X10" DEEP FLOOR SINK.
- VERIFY EXACT LOCATION AND QUANTITY OF AREA FLOOR DRAIN(S) WITH THE PLUMBING ENGINEER.

1 PLUMBING ABOVE-SLAB ROUGH-IN PLAN
1/4" = 1'-0"

FOODSERVICE DRAWINGS INDICATE PLUMBING ROUGH-IN/CONNECTION POINTS ONLY FOR EQUIPMENT SPECIFIED UNDER THE KITCHEN EQUIPMENT (SECTION 114000) CONTRACT. ANY ADDITIONAL PLUMBING REQUIREMENTS ARE NOT INDICATED ON FOODSERVICE DRAWINGS. THE PLUMBING CONTRACTOR (DIVISION 22) SHALL FURNISH AND INSTALL PRESSURE REDUCING VALVES, FLOW CONTROLS, BACK FLOW PREVENTION, RPZ (REDUCED PRESSURE ZONE) VALVES, WATER HAMMER ARRESTOR, GATE VALVES, FOR WATER CONNECTIONS AS REQUIRED PER LOCAL CODES.



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SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

ELECTRICAL LEGEND

- DUPLEX RECEPTACLE
- WEATHERPROOF RECEPTACLE
- SINGLE RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE
- QUAD RECEPTACLE
- FLUSH FLOOR MOUNT RECEPTACLE
- JUNCTION BOX - FLOOR/CLG MOUNTED
- JUNCTION BOX - WALL MOUNTED
- SWITCH
- DATA CONNECTION
- MANUAL FIRE PULL STATION
- DROP CORD MOUNTED FROM CEILING
- CONDUIT STUB LOCATION
- DEFROST TIME CLOCK
- DISCONNECT
- LIGHT - RECTANGULAR
- LIGHT - ROUND
- MOTOR
- EXHAUST HOOD SENSOR
- TEMPERATURE SENSOR
- PLUG MOLD

ELECTRICAL NOTES (DIVISION 26)

- A. FURNISH AND INSTALL CORD AND PLUG SET(S).
- B. FURNISH AND INSTALL DEVICE & COVER IN KEC (SECTION 114000)
- C. FURNISHED JUNCTION BOX.
- D. FURNISH AND INSTALL JUNCTION BOX(S), DEVICE(S), AND COVER(S) IN KEC (SECTION 114000) FURNISHED EQUIPMENT AS LOCATED BY MANUFACTURER. INTERWIRE SECTIONS & DEVICES AS REQ'D.
- E. CONNECT THRU DISPOSER CONTROL TO SOLENOID VALVE AND MOTOR.
- F. CONNECT FROM KEC (SECTION 114000) FURNISHED ICE MACHINE TO REMOTE CONDENSER AS REQ'D.
- G. CONNECT THRU KEC (SECTION 114000) FURNISHED AIR CURTAIN TO DOOR ACTIVATED MICROWAVE.
- H. CONNECT THRU KEC (SECTION 114000) FURNISHED REMOTE CONTROL SWITCH(ES).
- I. FURNISH AND INSTALL SWITCH. CONNECT TO LIGHTS FURNISHED AND INSTALLED BY KEC (SECTION 114000).
- J. CONNECT POWER SUPPLY TO KEC (SECTION 114000) FURNISHED LOAD CENTER. COUNTER SHALL BE PREWIRED AND SHIPPED IN SECTIONS. CONNECT BETWEEN SECTIONS.
- K. CONNECT TO KEC (SECTION 114000) FURNISHED JUNCTION BOX AT WALK-IN DOOR ASSEMBLY. LIGHT FIXTURE AT DOOR IS PREWIRED TO FACTORY MOUNTED LIGHT SWITCH. MOUNT ADDITIONAL KEC (SECTION 114000) FURNISHED LIGHTS WHERE INDICATED AND CONNECT TO SWITCH. CONDUIT SHALL BE INSTALLED ABOVE WALK-IN AND NOT EXPOSED ON INTERIOR UNLESS REQ'D. CONDUIT PENETRATING WALK-IN SHALL BE NON-METALLIC OR PVC.
- L. CONNECT KEC (SECTION 114000) FURNISHED TEMPERATURE ALARM SYSTEM. COORDINATE WITH BUILDING SYSTEMS.
- M. INSTALL KEC (SECTION 114000) FURNISHED DEFROST TIMER. CONNECT THRU TIMER TO EVAPORATOR COIL.
- N. CONNECT FROM KEC (SECTION 114000) FURNISHED CONDENSING UNIT, THRU DEFROST TIMER, TO EVAPORATOR COIL.
- O. FURNISH AND INSTALL NEMA RECEPTACLE WITH WEATHER COVER BEHIND FREEZER EVAPORATOR COIL FOR DRAIN LINE HEATER.
- P. CONNECT EXHAUST FAN THRU FAN CONTROL CONTACTS IN DISHWASHER.
- Q. CONNECT TABLE LIMIT SWITCH TO DRY CONTACT ON KEC (SECTION 11400) FURNISHED DISH MACHINE.
- R. CONNECT DRAIN WATER TEMPERING DEVICE PER MANUFACTURER'S RECOMMENDATIONS.
- S. CONNECT TO EXHAUST HOOD LIGHT(S), CONTROL(S), AND EXHAUST FAN(S)/MAKE-UP AIR UNIT(S) AS REQ'D. INTERWIRE HOOD SECTIONS, MOTOR STARTER(S)/DRIVES, AND OVERLOAD PROTECTION AS REQ'D. INSTALL COMPONENTS AND SENSORS SHIPPED LOOSE. REFER TO SYSTEM SHOP DRAWING(S) FOR ADDITIONAL SCHEMATICS.
- T. CONNECT 120 VOLT FROM KEC (SECTION 114000) FURNISHED MICRO SWITCH IN FIRE SUPPRESSION SYSTEM CONTROL PANEL TO SHUNT TRIP BREAKER(S) FOR SHUT DOWN OF POWER TO ALL ELECTRICAL DEVICES UNDER HOOD(S) AND 18" OUTSIDE PERIMETER OF HOOD(S). CONNECT FROM MICRO SWITCH TO DIVISION 26 FURNISHED RELAY(S) OR SWITCHES FOR SHUT DOWN/CONTROL OF HOOD LIGHTS, MAKE-UP AIR FAN, AND FIRE ALARM SYSTEM.
- U. CONNECT 120 VOLT FROM KEC (SECTION 114000) FURNISHED MICRO SWITCH IN FIRE SUPPRESSION SYSTEM CONTROL PANEL THRU MANUAL RESET RELAY TO ELECTRIC GAS VALVE. PROVIDE CONTROL INTERWIRING BETWEEN THE FIRE SUPPRESSION SYSTEM AND ASSOCIATED ELECTRICAL GAS SOLENOID VALVES, RESET RELAYS, AND PULL STATIONS AS REQ'D.
- V. FURNISH AND INSTALL CONCEALED CONDUIT AND RECESSED OCTAGONAL JUNCTION BOX IN WALL AT 42"-48" AFF FOR REMOTE MANUAL PULL STATION(S). COORDINATE LOCATION(S) WITH FIRE SUPPRESSION SYSTEM CONTRACTOR AND AUTHORITIES HAVING JURISDICTION PRIOR TO ROUGH-IN.
- W. PROVIDE 3/4" EMPTY CONDUIT AND JUNCTION BOX FOR DATA CONNECTION. VERIFY EXACT REQUIREMENTS AND TERMINATION POINTS PRIOR TO ROUGH-IN.

1 ELECTRICAL ROUGH-IN PLAN
1/4" = 1'-0"



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P.O. Box 3505
South Attleboro, MA 02703
p. 508-399-6000

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Owner and all Contractors to check and verify existing dimensions and conditions in the field before starting construction and to notify TriMark of any material or detail changes.

REVISIONS

DATE	NO.	DESCRIPTION
2021-04-26	1	ISSUED FOR CONSTRUCTION

SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

PROJECT	20-275
DATE	11/25/2020
SCALE	1/4" = 1'-0"
DRAWN	SMC
APPROVED	SD

SHEET	FOODSERVICE SPECIAL CONDITIONS PLAN
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SHEET NUMBER:	QF401
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SPECIAL CONDITIONS LEGEND

- Ⓑ BEVERAGE CONDUIT STUB UP
- R — REFRIGERATION LINE SET
- WALL BLOCKING
- . - . - . ENGINEERED STRUCTURAL SUPPORT
- ▤ NON COMBUSTIBLE WALL

SPECIAL CONDITIONS NOTES

- A. BUILDING FLOOR BENEATH WALK-IN MUST BE LEVEL WITHIN PLUS OR MINUS 1/8". REFER TO DETAIL #X/QFXXX
- B. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE X" DEEP FLOOR DEPRESSION FROM TOP OF FINISHED FLOOR FOR WALK-IN. REFER TO DETAIL #X/QFXXX.
- C. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE PRESSURE TREATED WOOD THERMAL BARRIER CENTERED BENEATH WALK-IN WALLS. REFER TO DETAIL #X/QFXXX.
- D. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE INSULATED FLOOR SLAB BENEATH WALK-IN. REFER TO DETAIL #X/QFXXX.
- E. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE X" DEEP FLOOR DEPRESSION FROM FINISHED FLOOR FOR INSTALLATION OF FLOOR TROUGH BY PLUMBING CONTRACTOR (DIVISION 26). GENERAL CONTRACTOR TO BACK-FILL WITH GROUT. REFER TO DETAIL #X/QFXXX.
- F. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL FURNISH AND INSTALL ROOF PAD FOR KEC (SECTION 114000) FURNISHED REFRIGERATION RACK.
- G. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL FURNISH AND INSTALL CONCRETE PAD FOR KEC (SECTION 114000) FURNISHED REFRIGERATION RACK/CONDENSING UNITS.
- H. REFRIGERATION CONTRACTOR SHALL FURNISH AND COORDINATE LOCATION OF EQUIPMENT RAILS AND PIPE CURBS FOR ROFTOP CONDENSING UNIT(S).
- I. HVAC/MECHANICAL CONTRACTOR (DIVISION 23) SHALL INSTALL KEC (SECTION 114000) FURNISHED RAILS & ROOF CURBS FOR EXHAUST FAN(S) AND MAKE-UP AIR UNIT(S).
- J. KEC (SECTION 114000) SHALL FURNISH AND INSTALL RAILS AND ROOF CURBS FOR EXHAUST FAN(S) AND MAKE-UP AIR UNIT(S). GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL FLASH-IN RAILS AND ROOF CURBS.
- K. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE STRUCTURAL REINFORCEMENT ABOVE CEILING AS REQ'D FOR KEC (SECTION 114000) FURNISHED EQUIPMENT.
- L. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE MINIMUM VERTICAL CLEARANCE OF X'-X" AT WALK-IN.
- M. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE MINIMUM VERTICAL CLEARANCE OF X'-X" AT EXHAUST HOOD.
- N. GENERAL CONTRACTOR AND/OR SUBDIVISIONS SHALL PROVIDE MINIMUM VERTICAL CLEARANCE OF X'-X" AT ICE MAKER.

WALL BLOCKING NOTES (DIVISION 6)

- WB-1 12" AFF TO 24" AFF FOR RESTRAINING DEVICE
- WB-2 18" AFF TO 30" AFF FOR WATER FILTER
- WB-3 30" AFF TO 54" AFF FOR HAND SINK
- WB-4 48" AFF TO 78" AFF FOR WALL SHELF/MOP RACK/POT FILLER
- WB-5 48" AFF TO 78" AFF FOR 2-TIER WALL SHELVES
- WB-6 48" AFF TO 84" AFF FOR POT RACK
- WB-7 54" AFF TO 90" AFF FOR WALL CABINET/SALAMANDER
- WB-8 60" AFF TO 78" AFF FOR WATER FILTER
- WB-9 66" AFF TO 84" AFF FOR POT RACK
- WB-10 72" AFF TO CEILING FOR FIRE SUPPRESSION/HOOD CONTROL
- WB-11 78" AFF TO 114" AFF FOR EXHAUST HOOD
- WB-12 84" AFF TO 102" AFF FOR WATER FILTER/AIR CURTAIN
- WB-13 102" AFF TO 114" AFF FOR CLG MOUNT AIR CURTAIN
- WB-14 VERIFY WITH ARCHITECT FOR BACK BAR SUPERSTRUCTURE
- NOTE: ALL WALL BLOCKING TO BE 5/8" FIRE RATED/TREATED PLYWOOD MINIMUM OR 18 GAUGE METAL WHERE REQUIRED

1 SPECIAL CONDITIONS PLAN
1/4" = 1'-0"



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REVISIONS

DATE	NO.	DESCRIPTION
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2021-04-26	1	ISSUED FOR CONSTRUCTION
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SHAKE SHACK LEE SUMMIT

LEE SUMMIT, MO

FOOD SERVICE DRAWINGS

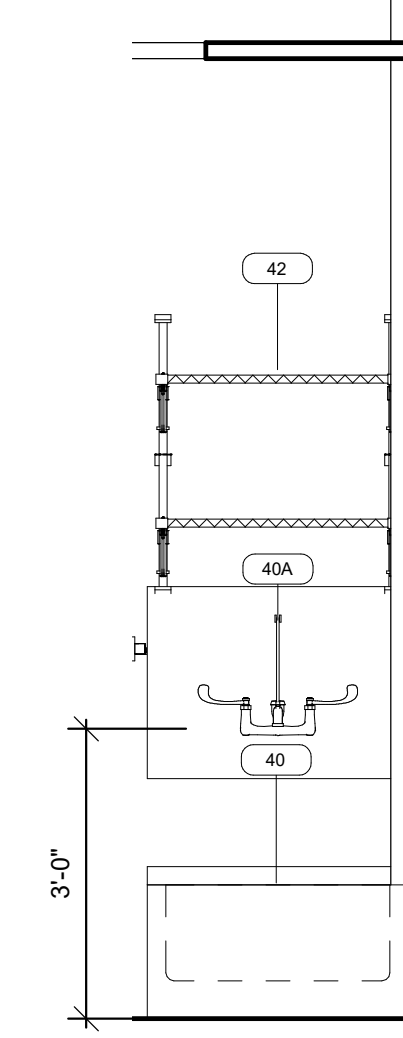
PROJECT	20-275
DATE	11/25/2020
SCALE	1/2" = 1'-0"
DRAWN	SMC
APPROVED	SD

SHEET
FOODSERVICE ELEVATIONS

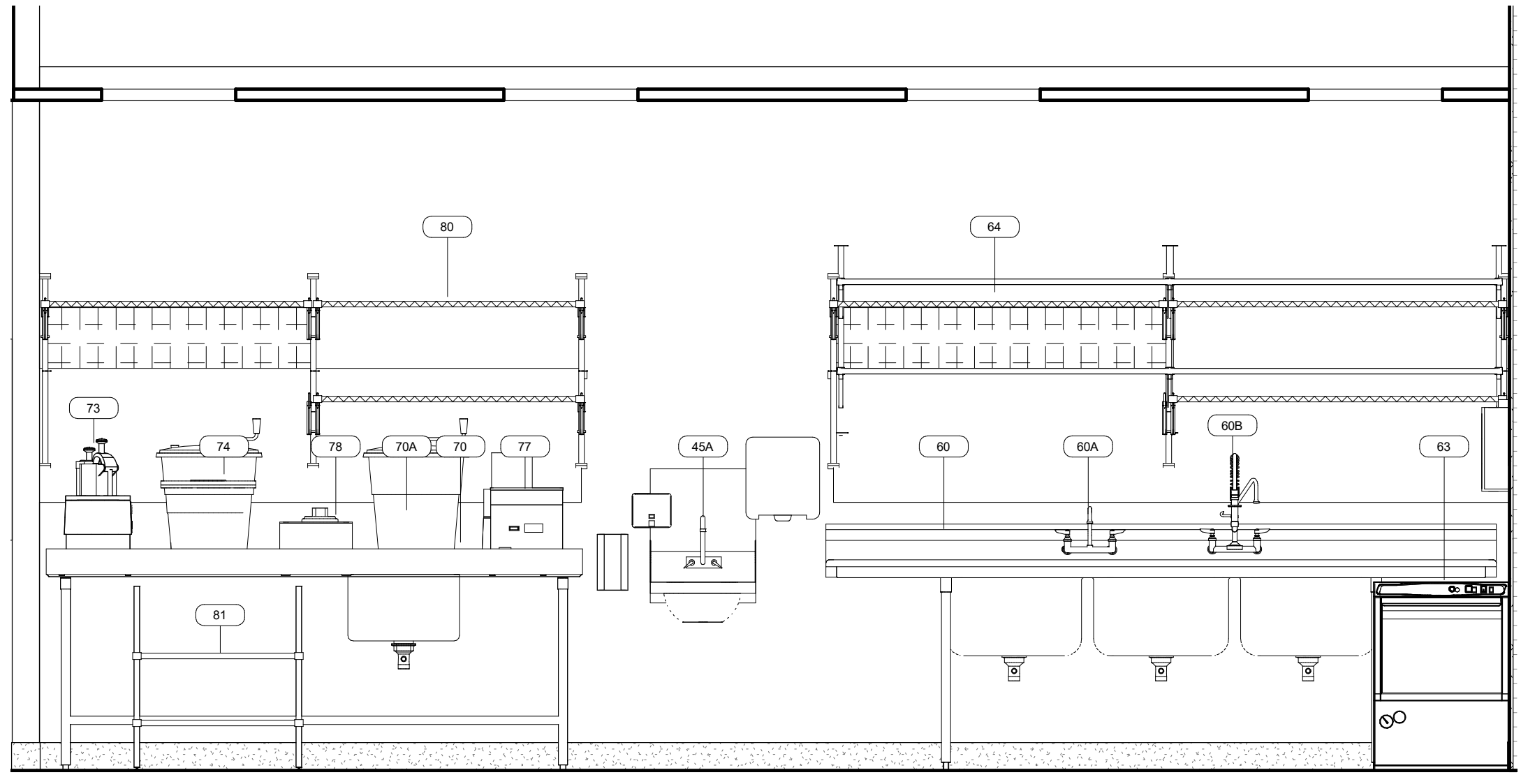
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QF501

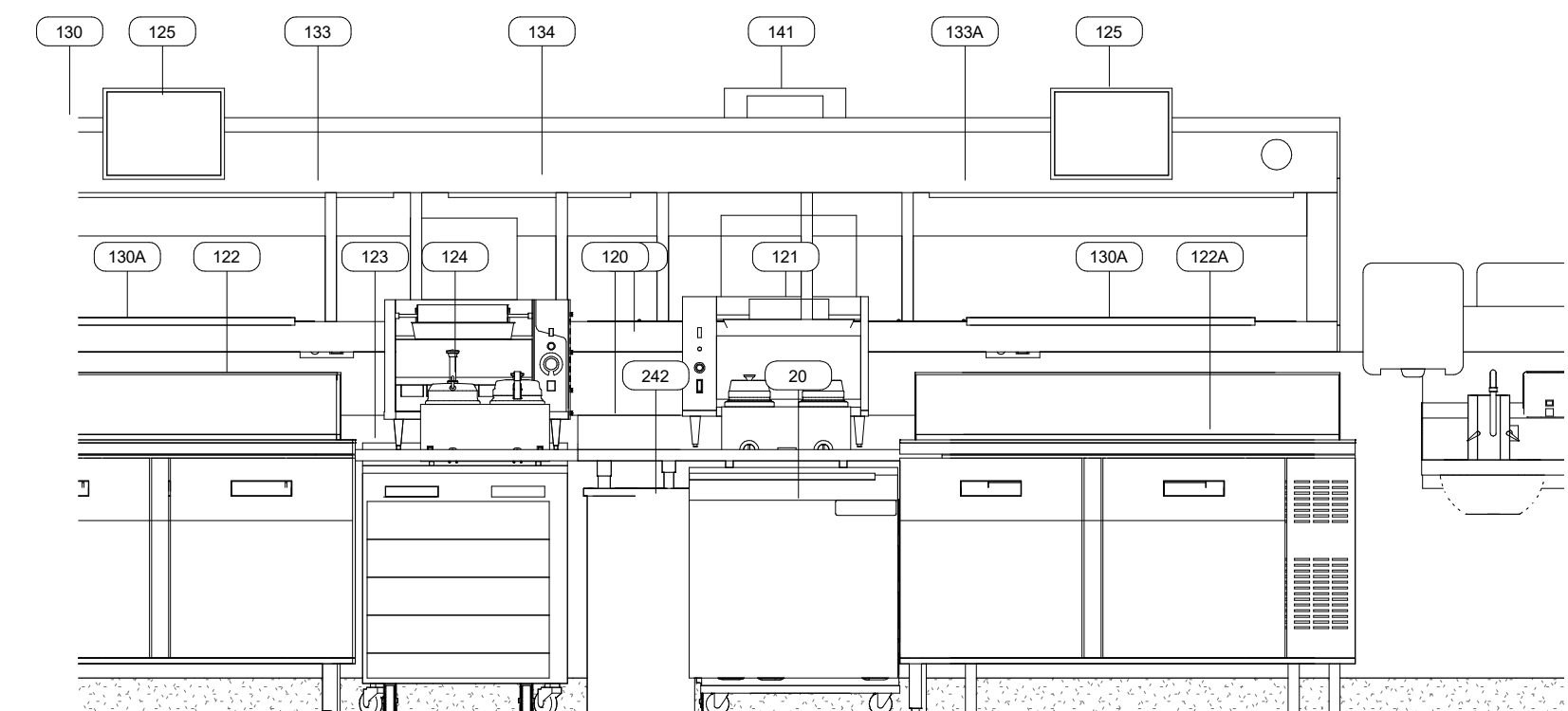
THIS DOCUMENT WAS ORIGINALLY PRINTED ON A 30" x 42" SIZE SHEET



① MOP SINK / LOCKERS / BIB
1/2" = 1'-0"

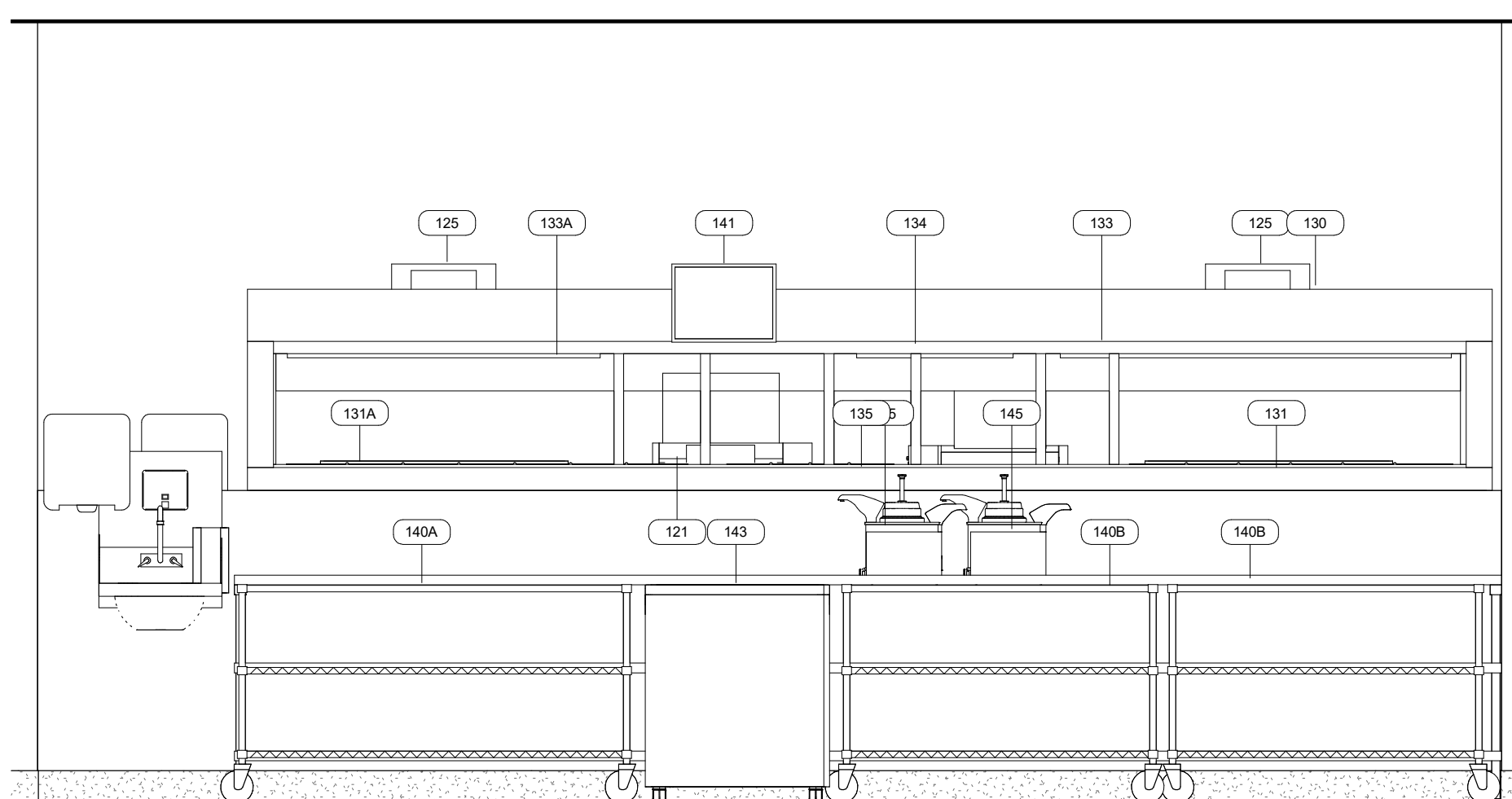


③ PREP TABLE / 3 COMP SINK
1/2" = 1'-0"

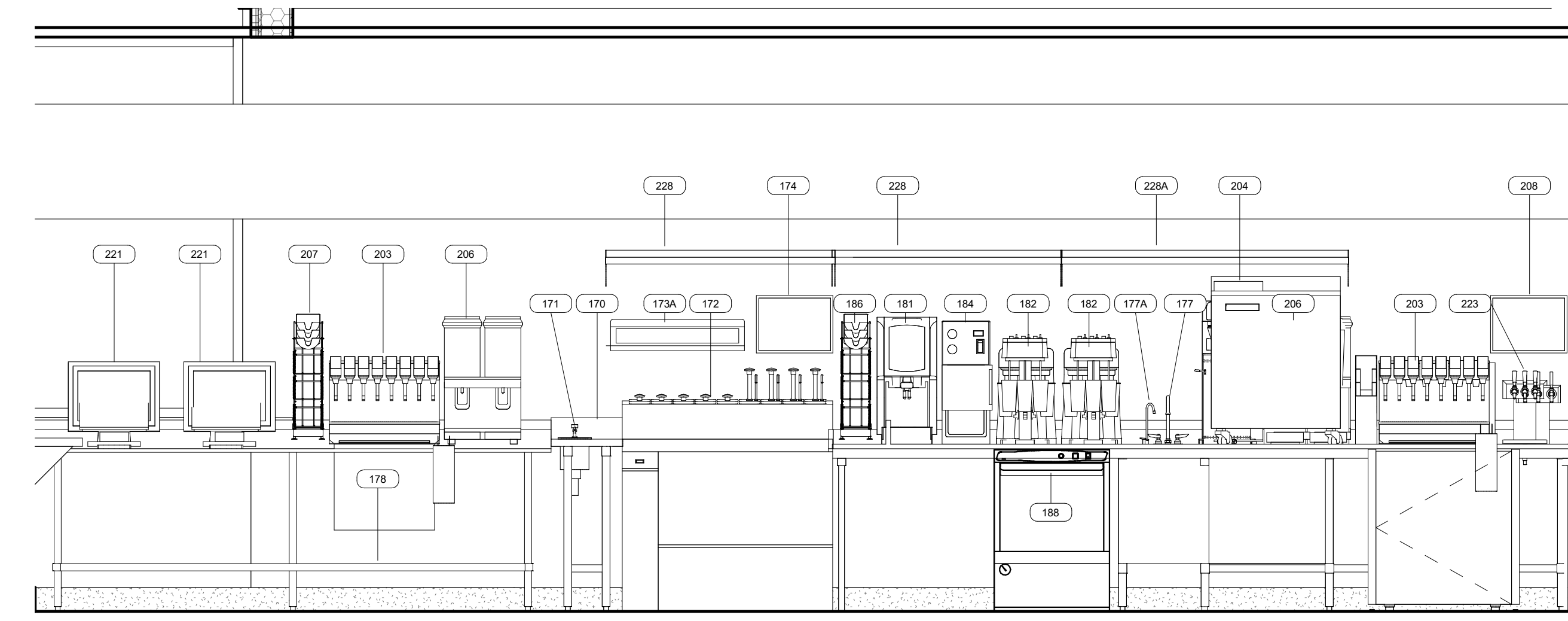


④ COOK LINE
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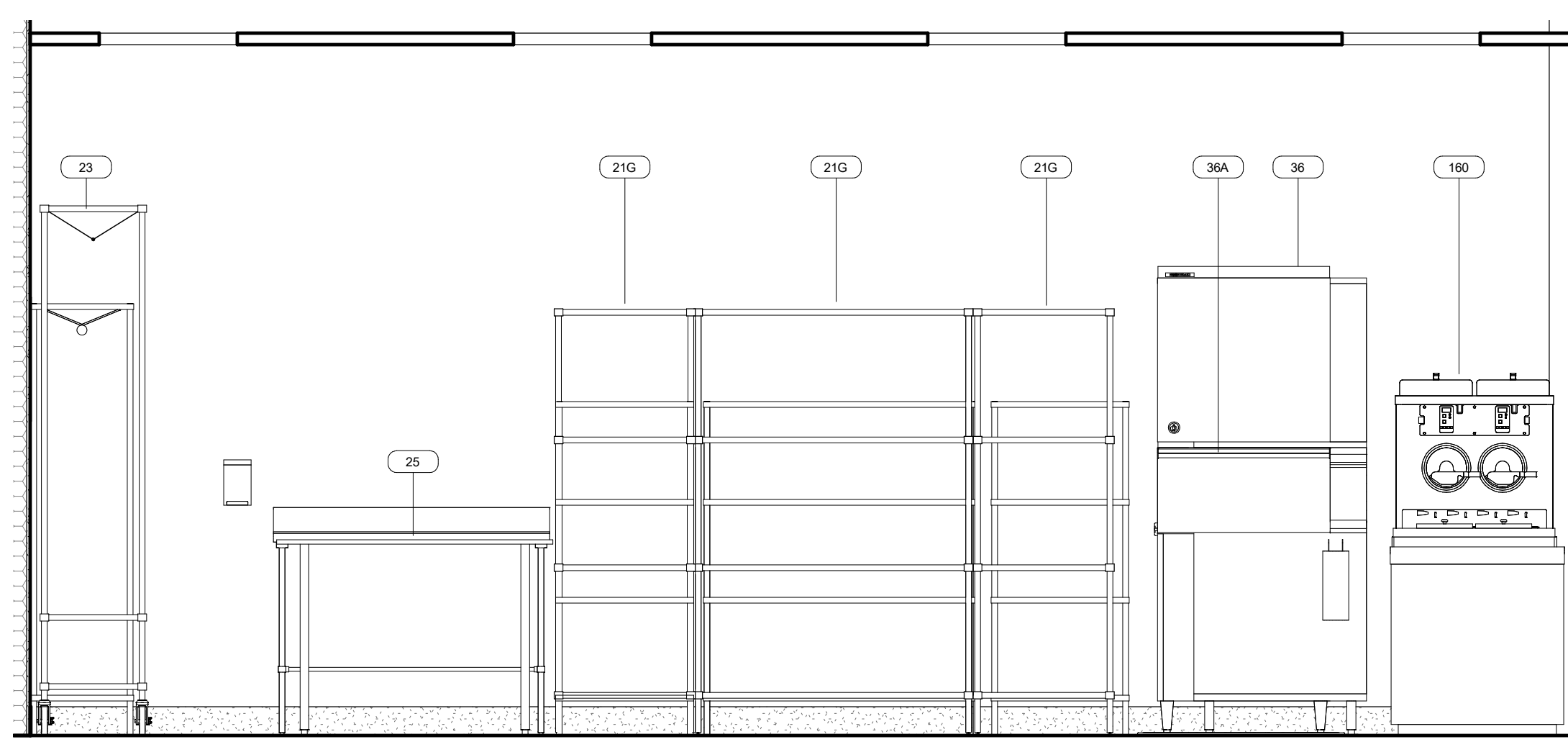
⑤ PREP LINE
1/2" = 1'-0"



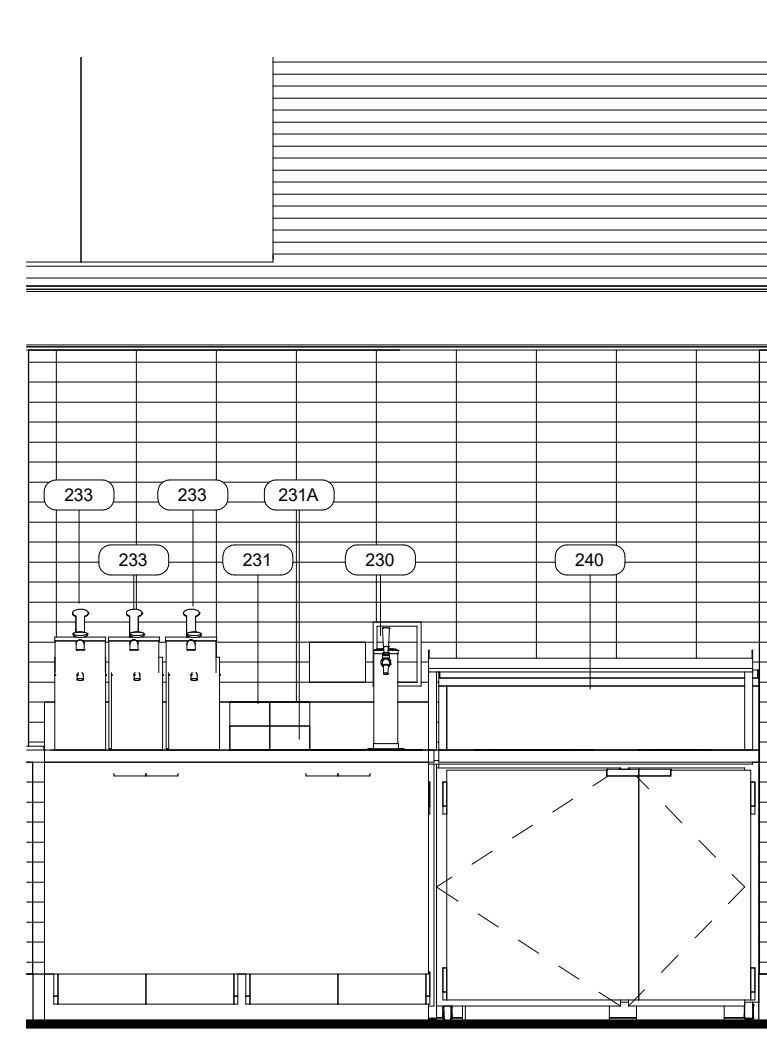
⑥ EXPO
1/2" = 1'-0"



⑦ FRONT COUNTER
1/2" = 1'-0"



⑧ BEVERAGE STATION
1/2" = 1'-0"



⑨ CONDIMENT STATION
1/2" = 1'-0"

SHEET NUMBER	SHEET NAME
F001	FIRE PROTECTION ABBREVIATIONS AND SYMBOLS
F101	FIRE PROTECTION PLAN
F501	FIRE PROTECTION DETAILS
F590	FIRE PROTECTION SPECIFICATIONS
F591	FIRE PROTECTION SPECIFICATIONS

DESCRIPTION	FURNISHED			INSTALLED			REMARKS
	GENERAL CONTRACTOR	OWNER	LANDLORD	GENERAL CONTRACTOR	OWNER	LANDLORD	
DIVISION 21: FIRE SUPPRESSION							
21.1 FIRE SUPPRESSION IDENTIFICATION							
21.1.1 PIPING SYSTEM IDENTIFICATION	X			X			
21.1.2 VALVE TAGS	X			X			
21.2 SPRINKLER STANDPIPE	X			X			
21.2.1 BACKFLOW PREVENTER	X			X			
21.2.2 ISOLATION VALVE	X			X			
21.2.3 ADDITIONAL APPURTENANCES (E.G. TAMPER SWITCH)	X			X			
21.3 AUTOMATIC SPRINKLER SYSTEM							
21.3.1 SYSTEM ENGINEERING (E.G. STAMPED PLANS AND CALUCATIONS)	X			X			
21.3.2 SPRINKLER COVERAGE	X			X			
21.3.3 SPRINKLER GRID APPURTENANCES (E.G. AIR VALVES AND DRAINS)	X			X			
21.4 ANSUL FIRE PROTECTION SYSTEM		X			X		GENERAL CONTRACTOR TO SCOPE OF WORK REFERENCED IN DIVISION 23
DIVISION 28: ELECTRONIC SAFETY AND SECURITY							
28.4 FIRE ALARM SYSTEM							
28.4.1 SYSTEM ENGINEER	X			X			
28.4.2 CONNECTION TO BASE BUILDING SYSTEM	X			X			
28.4.3 DEVICES			X			X	

CX SUBMITTAL MATRIX									
GENERAL CONTRACTORS TO ALSO REVIEW ARCHITECTURAL SPECIFICATIONS AS NOTED IN PLANS IN PLAN SECTION 700 OF THE ARCHITECTURAL PACKAGE FOR REQUIRED SUBMITTALS THAT MIGHT NOT BE LISTED BELOW.									
SUBMITTAL DESCRIPTION	Reviewed Submittal (Business Days)	Architect of Record	Shake Shack Commissioning Agent	Physical Sample Required	Submitted for Review	Submitted for Record Only			
Anchor Bolts Shops	5	X				X			
ATAS-Detailed Shop DWGS(Submitted by Owner Vendor to Owner/AOR prior to const.)	5	X					X		
Concrete Mix Design	5	X					X		
Construction Prefunctional Checklists	5	X		X				X	
Decorative Metal Shop Drawings	5	X							
Diffusers, Grills & Registers	5	X					X		
Doors, Frames & Hardware	7	X					X		
Ductwork Layout (if there are significant changes in field)	5	X		X				X	
Electrical Distribution Equipment	5	X		X					
Elevator & Vertical Transportation Shop Drawings	5	X						X	
Epoxy Floor	5	X						X	
Fire Alarm Shop Drawings & Device Cut Sheets	5	X		X			X		
Fire Sprinkler Shop Drawings, Hydraulic Calculations & Device Cut Sheets	5	X		X				X	
HVAC Equipment(if Carrier – Submitted by Owner Vendor to Owner/AOR prior to const.)	5	X		X				X	
Light Fixtures(Submitted by Owner Vendor to Owner/AOR prior to construction)	5	X		X				X	
MEP Tests, Start-Up, and Programming Reports	5	X		X				X	
Millwork – Material Submittals (if differs from spec)	5	X		X					
Millwork – Shop Drawings (custom items & design features only)	5	X							
Restroom Partitions	5	X						X	
Plumbing Fixtures	5	X		X				X	
Railing Shop Drawings	5	X							X
Rebar	5	X						X	
Stair Shop Drawings	5	X							X
Structural Steel Shop Drawings	7	X						X	
Storefront – product data Submittal (if different from specified)	5	X							
Storefront – Shop Drawings	5	X							
Tile (if differs from spec)	5	X						X	
Window Film	5	X							

CX MATRIX									
Division	System / Equipment	Flush & Clean / Sanitize	Pneumatic Pressure Test	Hydrostatic Pressure Test	Duck Leak Test	Insulation Resistance (Megohm) Test	Current Testing	Startup	Contractor Prefunctional Checklist (Validation)
21	Fire Suppression Clean Agent System	X	X						X X
21	Fire Suppression Wet Sprinkler System	X		X					X X
28	Fire Alarm and Clean Agent System Devices								X X

SYMBOLS					
FIRE PROTECTION					
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ELEVATION CHANGE		BALL VALVE		FIRE DEPARTMENT CONNECTION
	PIPE CAP		CHECK VALVE		FIRE HYDRANT
	PIPE COUPLING		PRESSURE REGULATING VALVE (PRV)		FIRE HOSE VALVE
	HYDRAULIC NDE POINT		POST INDICATOR VALVE		CAST IRON
	FINISHED CEILING ELEVATION		RISER NIPPLE (RN)		INVERT ELEVATION
			VALVE IN RISE		EXISTING
					FIRE DEPARTMENT CONNECTION

SPRINKLER HEAD TYPES							
MANUF.	MODEL	TYPE	ORIFICE	"K" FACTOR	TEMP. (DEG. F.)	SYMBOL	FINISH
VIKING	VK462	QRSS PEND	1/2	5.6	175°		WHITE
VIKING	VK300	QRSS UPR	1/2	5.6	175°		BRASS
VIKING	VK176	DRY PEND	1/2	5.6	175°		WHITE
VIKING	VK300	QRSS UPR	1/2	5.6	275°		BRASS

FIRE ALARM SYMBOL LEGEND (SOME MAY NOT BE USED)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	FIRE ALARM CONTROL PANEL		FIRE ALARM BELL
	FIRE ALARM VOICE EVACUATION PANEL		FIRE ALARM HORN, WALL MOUNTED
	FIRE ALARM REMOTE ANNUNCIATOR		FIRE ALARM SPEAKER, WALL MOUNTED
	FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY		FIRE ALARM STROBE, WALL MOUNTED
	FIRE ALARM TERMINAL CABINET		FIRE ALARM COMBINATION HORN AND STROBE, WALL MOUNTED
	FIRE ALARM TRANSPONDER		FIRE ALARM COMBINATION SPEAKER AND STROBE, WALL MOUNTED
	FIRE ALARM CODED TRANSMITTER		FIRE ALARM HORN, CEILING MOUNTED
	FIRE ALARM DRILL KEY SWITCH		FIRE ALARM SPEAKER, CEILING MOUNTED
	FIRE ALARM MANUAL PULLSTATION		FIRE ALARM STROBE, CEILING MOUNTED
	AUTOMATIC SMOKE DETECTOR, WALL MOUNTED		FIRE ALARM COMBINATION HORN AND STROBE, CEILING MOUNTED
	AUTOMATIC SMOKE DETECTOR, CEILING MOUNTED		FIRE ALARM COMBINATION SPEAKER AND STROBE, CEILING MOUNTED
	AUTOMATIC SMOKE DETECTOR, DUCT MOUNTED, AND FIRE ALARM RELAY (INTEGRAL OR FIELD-INSTALLED)		FIRE ALARM MINIATURE HORN AND STROBE, WALL MOUNTED
	DUCT SMOKE DETECTOR REMOTE TEST SWITCH		FIRE ALARM MINIATURE HORN AND STROBE, CEILING MOUNTED
	AUTOMATIC HEAT DETECTOR, WALL MOUNTED		FIRE ALARM CONTROL ZONE ADDRESSABLE MODULE
	AUTOMATIC HEAT DETECTOR, CEILING MOUNTED		FIRE ALARM MONITOR ZONE ADDRESSABLE MODULE
	AUTOMATIC SMOKE DETECTOR, BEAM TRANSMITTER, WALL MOUNTED		FIRE ALARM INDIVIDUAL ADDRESSABLE MODULE
	AUTOMATIC SMOKE DETECTOR, BEAM TRANSMITTER, CEILING MOUNTED		FIRE ALARM ZONE ADDRESSABLE MODULE
	AUTOMATIC SMOKE DETECTOR, BEAM RECEIVER, WALL MOUNTED		FIRE ALARM MONITOR MODULE
	AUTOMATIC SMOKE DETECTOR, BEAM RECEIVER, CEILING MOUNTED		FIRE ALARM CONTROL MODULE
	AUTOMATIC SMOKE ALARM, WALL MOUNTED		END OF LINE RESISTOR
	AUTOMATIC SMOKE ALARM, CEILING MOUNTED		FIRE SPRINKLER FLOW SWITCH
	FLAME DETECTOR, ULTRAVIOLET TYPE		FIRE SPRINKLER TAMPER SWITCH AND CORROSION MONITORING SYSTEM SUPERVISORY CONNECTION
	FLAME DETECTOR, INFRARED TYPE		FIRE SPRINKLER ELECTRONICALLY SUPERVISED POST INDICATOR VALVE
	FLAME DETECTOR, VISIBLE RADIATION TYPE		FIRE ALARM MAGNETIC DOOR HOLDER
	HOOD FIRE SUPPRESSION SYSTEM		FIRE FIGHTER'S PHONE
	HOOD FIRE SUPPRESSION SYSTEM MANUAL PULLSTATION		FIRE ALARM KEY REPOSITORY (KNOX BOX)
EX	EXISTING FIRE ALARM SYSTEM COMPONENT		FIRE ALARM RELAY
RR	RELOCATED AND REUSED FIRE ALARM SYSTEM COMPONENT		FIRE ALARM SYSTEM JUNCTION BOX
	FUSE DISCONNECT SWITCH		HVAC UNIT MOTOR SHUTDOWN

CxA SCOPE OF WORK	
Division 21 – Fire Protection Commissioning Requirements	
Scope of Work	
- Verify the fire suppression system, equipment, instrumentation, and control systems have been completed and calibrated according to the Contract Documents and approved submittals.	
- Validate the system is operable by setting the fire suppression system into operating mode to be tested according to approved test procedures (for example; normal shutdown, normal auto position, normal manual position, alarm conditions, etc.).	
Prefunctional Construction Checklists	
- Fire suppression system piping and appurtenances.	
- Clean agent system piping and appurtenances.	
- Fire alarm system and devices.	

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

05/17/2021

www.bergmeyer.com

Bergmeyer

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Los Angeles, CA 90017
Boston, MA 02210
617.542.1025

CONSULTANTS:

800-581-0963
www.schnackel.com
EST. 1986 - 2019

SEAL/ SIGNATURE:

Date: 05/14/21
COA # E-203006642

5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM #2
1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION

SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

FIRE PROTECTION ABBREVIATIONS & SYMBOLS

DRAWN BY: DAK

CHECKED BY: QRS

JOB NO: 20066.00

F001

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Schnackel
engineers
800-581-0963
www.schnackel.com
10-000-00000

SEALED
STATE OF MISSOURI
JESSICA ROY
REGISTERED PROFESSIONAL ENGINEER
NUMBER
E-008571
Date: 05/14/21
Exp: 05/14/26

5	2021-05-17	FIELD NOTICE #2
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SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

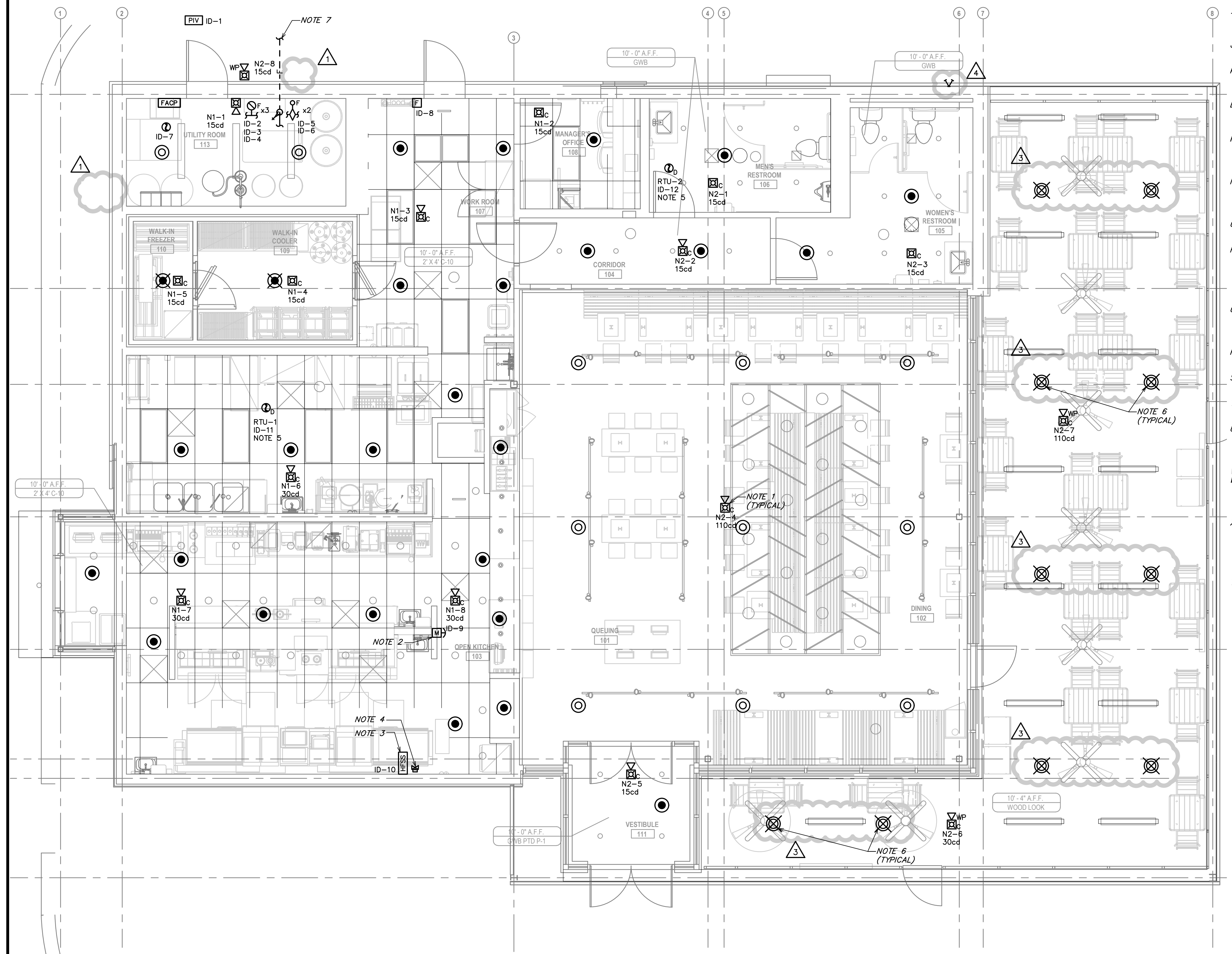
LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

FIRE PROTECTION PLAN

DRAWN BY:	DAK
CHECKED BY:	GRS
JOB NO:	20060.00

F1001



1 FIRE PROTECTION PLAN
SCALE: 1/4" = 1'-0"

- GENERAL FIRE ALARM NOTES:**
- THE CONTRACTOR SHALL PROVIDE A FULLY ENGINEERED DESIGN OF THE FIRE DETECTION AND ALARM SYSTEM FROM A QUALIFIED FIRE DETECTION AND ALARM SYSTEM DESIGNER. ANY FIRE DETECTION AND ALARM INFORMATION INDICATED ON THE DRAWINGS IS STRICTLY FOR THE PURPOSE OF FILING FOR PERMIT AND ESTABLISHING A MINIMUM CRITERIA TO AID THE FIRE DETECTION AND ALARM SYSTEM DESIGNER IN THE DESIGN OF THE FULLY ENGINEERED FIRE DETECTION AND ALARM DRAWINGS. DESIGNER SHALL BE NICET LEVEL III OR IV (3 OR 4) CERTIFIED FIRE ALARM TECHNICIAN OR REGISTERED FIRE PROTECTION ENGINEER, EMPLOYED BY FIRE ALARM CONTROL UNIT MANUFACTURER, CONTRACTOR, OR INSTALLER, WITH EXPERIENCE DESIGNING FIRE ALARM SYSTEMS IN THE JURISDICTIONAL AREA OF THE AUTHORITIES HAVING JURISDICTION.
 - THE DESIGNER SHALL PRODUCE ALL REQUIRED DRAWINGS, CALCULATIONS, AND EQUIPMENT SPECIFICATIONS REQUIRED FOR JURISDICTIONAL APPROVAL AND SUBMIT ALL REQUIRED DOCUMENTS TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL.
 - THE DESIGNER AND CONTRACTOR ARE RESPONSIBLE TO CLOSELY COORDINATE WITH THE FIRE SPRINKLER CONTRACTOR TO PROVIDE APPROPRIATE MONITORING OF ALL FLOW SWITCHES, TAMPERS, SWITCHES, PRESSURE SWITCHES, CORROSION MONITORING SYSTEMS, ETC.
 - THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL MATERIALS, COMPONENTS, AND LABOR REQUIRED FOR A COMPLETE, OPERATIONAL, CODE-COMPLIANT FIRE ALARM SYSTEM BASED ON THE FULLY ENGINEERED FIRE ALARM DRAWINGS THAT THE CONTRACTOR IS RESPONSIBLE TO PROVIDE.
 - ALL NEW FIRE ALARM CONTROL PANELS THAT ARE INSTALLED WITHIN MULTI-OCCUPANCY BUILDINGS THAT ARE EQUIPPED WITH A MAIN BUILDING FIRE ALARM CONTROL PANEL SHALL BE INTERLOCKED WITH THE MAIN BUILDING FIRE ALARM CONTROL PANEL SUCH THAT ALL ALARM, SUPERVISORY, AND TROUBLE SIGNALS REPORTED AT THE TENANT'S FIRE ALARM CONTROL PANEL SHALL ALSO BE TRANSMITTED TO THE MAIN BUILDING FIRE ALARM CONTROL PANEL.
 - ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT WHEN REQUIRED BY THE ADOPTED ELECTRICAL CODE, BUILDING CODE, AND/OR FIRE CODE, INCLUDING ALL LOCAL AMENDMENTS.
 - WHERE THE MECHANICAL DESIGN UTILIZES A PLENUM RETURN AIR CEILING, DETECTION AND ALARM SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MECHANICAL DESIGN. COORDINATE ALL DEVICE LOCATIONS AND CIRCUIT ROUTING WITHIN ANY MILLWORK WITH MILLWORK VENDOR PRIOR TO ROUGH-IN.
 - COORDINATE THE CONNECTIONS OF ALL EQUIPMENT PROVIDED BY OTHERS WITH THE CONTRACTOR PROVIDING THE EQUIPMENT PRIOR TO ROUGH-IN. THIS INCLUDES, BUT IS NOT LIMITED TO, MECHANICAL EQUIPMENT, KITCHEN EQUIPMENT, AUDIO/VISUAL SUPPRESSION SYSTEM EQUIPMENT, ETC.
 - ALL FIRE ALARM SYSTEM DEVICES AND COMPONENTS SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED. DEVICES MOUNTED IN DAMP OR WET LOCATIONS SHALL BE PROTECTED BY THE CONTRACTOR.
 - ALTHOUGH NOT SPECIFICALLY SHOWN, THE FIRE ALARM CONTRACTOR SHALL PROVIDE ALL REQUIRED FIRE ALARM SYSTEM WIRING AND CABLING, PER THE MANUFACTURER'S RECOMMENDATIONS, FOR A COMPLETE, FUNCTIONAL FIRE ALARM SYSTEM.
 - ANY EXISTING CONDITIONS INDICATED IN THIS SET OF DRAWINGS ARE BASED ON INFORMATION PROVIDED BY OTHERS AND POSSIBLE LIMITED FIELD VERIFICATION. THE CONTRACTOR SHALL ADJUST FOR ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
 - THE CONTRACTOR SHALL VISIT THE PROJECT SITE, REVIEW EXISTING CONDITIONS AGAINST THE CONTRACT DOCUMENTS, AND FAMILIARIZE HIMSELF WITH THE WORK PRIOR TO BIDDING AND START OF THE PROJECT. BY SIGNING THE CONTRACT, THE CONTRACTOR ACKNOWLEDGES THE SITE VISIT HAS BEEN COMPLETED AND THE EXISTING CONDITIONS ARE ACCEPTED.
 - THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING FIRE ALARM EQUIPMENT AND DEVICES AS INDICATED AND/OR AS REQUIRED TO ALLOW FOR INSTALLATION AND/OR AS REQUIRED TO ALLOW FOR DEMOLITION OF EXISTING DEVICES, CONDUITS, SUPPORTS, HANGERS, ETC. THAT ARE NOT SHOWN AND ARE REQUIRED TO BE REMOVED IN ORDER TO COMPLETE THE NEW WORK.
 - WHERE LOCATIONS ARE SHOWN HATCHED, ITEMS ARE TO BE DEMOLISHED ALONG WITH THEIR ASSOCIATED BOXES, CONDUITS, CONDUCTORS, SUPPORTS, AND HANGERS UNLESS INDICATED OTHERWISE.
 - FIRE ALARM DEVICES THAT ARE TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY. CONDUITS SHALL BE REMOVED FROM THE ITEM TO BE DEMOLISHED TO THE SOURCE OVERCURRENT DEVICE. RACEWAYS WHICH ARE INSTALLED IN OR BELOW FLOORS OR WITHIN WALLS MAY BE ABANDONED, BUT ALL OVERHEAD OR EXPOSED RACEWAYS SHALL BE REMOVED. EXPOSED RACEWAYS TO BE ABANDONED SHALL BE REMOVED AND SHALL BE CUT OR CHISELED AT LEAST 2" INTO THE WALL OR FLOOR AND THE OPENING GROUDED SMOOTH.
 - THE OWNER SHALL HAVE SALVAGE RIGHTS TO ANY ITEMS THAT ARE TO BE DEMOLISHED. THOSE ITEMS THAT THE OWNER WISHES TO SALVAGE SHALL BE CAREFULLY REMOVED AND STORED IN A LOCATION AS DIRECTED BY THE OWNER. ALL OTHER ITEMS OF DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
 - PROVIDE TEMPORARY CIRCUITS AND CONNECTIONS TO FIRE ALARM SYSTEM DEVICES IN AREAS OF THE FACILITY THAT ARE TO REMAIN IN OPERATION AS REQUIRED TO MAINTAIN THOSE AREAS IN COMPLETE OPERATION.
 - MAINTAIN CONTINUITY OF EXISTING CIRCUITS AS REQUIRED TO PROVIDE POWER TO REMAINING FIRE ALARM SYSTEM EQUIPMENT AND DEVICES THAT ARE NOT BEING REMOVED.
 - PROVIDE BLANK COVERPLATES FOR EXISTING EMPTY DEVICE BOXES OR JUNCTION BOXES THAT MUST REMAIN, SUCH AS FOR CIRCUITS THAT MUST BE MAINTAINED TO OTHER AREAS.
 - WHERE FIRE ALARM DISTRIBUTION EQUIPMENT SUCH AS PANELBOARDS ARE TO BE REMOVED OR RELOCATED, ALL EXISTING CIRCUITS THAT ARE TO REMAIN SHALL BE RECONNECTED TO NEW OR RELOCATED FIRE ALARM DISTRIBUTION EQUIPMENT TO MAINTAIN THE CONTINUITY OF THOSE EXISTING CIRCUITS. INTERCEPT AND EXTEND ALL EXISTING CIRCUITS AS REQUIRED.
 - REMOVE ALL ABANDONED FIRE ALARM CABLING.
 - FIRE ALARM DEVICES MARKED "EX" ARE EXISTING DEVICES THAT ARE TO REMAIN IN PLACE. ALL EXISTING FIRE ALARM DEVICES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED TO A LIKE-NEW CONDITION, THOROUGHLY CLEANED, AND RELAMPED. ANY EXISTING ALARM DEVICES THAT ARE DAMAGED BEYOND REPAIR SHALL BE REPLACED WITH AN IDENTICAL DEVICE.
 - FIRE ALARM DEVICES MARKED "R" ARE EXISTING DEVICES THAT ARE TO BE OR HAVE BEEN RELOCATED. ALL DEVICES DESIGNATED FOR RELOCATION SHALL BE DISCONNECTED FROM EXISTING BRANCH CIRCUIT, REMOVED FROM EXISTING AREA, STORED, REPAIRED TO A LIKE-NEW CONDITION, INSTALLED IN REMODELED AREA, RECONNECTED, THOROUGHLY CLEANED, AND RELAMPED. ANY RELOCATED DEVICES THAT ARE DAMAGED BEYOND REPAIR SHALL BE REPLACED WITH AN IDENTICAL DEVICE.
 - IN THE EVENT AN AUDIO SYSTEM IS PRESENT IN THE PROPOSED SPACE, AN ADDRESSABLE CONTROL MODULE SHALL BE PROVIDED TO AUTOMATICALLY SHUTDOWN THE SOUND SYSTEM UPON ACTIVATION OF THE TENANT NOTIFICATION APPLIANCE.

- GENERAL FIRE SPRINKLER NOTES:**
- FIRE SPRINKLER CONTRACT DOCUMENTS FOUND HERewith ARE TO ESTABLISH THE SCOPE, WORK AND PERFORMANCE SPECIFICATIONS OF THE SYSTEM ONLY. DETAILED FIRE SPRINKLER SHOP DRAWINGS AND HYDRAULIC CALCULATIONS SHALL BE PROVIDED BY THE INSTALLING CONTRACTOR UNDER A DEFERRED SUBMITTAL. PERFORM WORK IN ACCORDANCE WITH LANDLORD CONSTRUCTION REQUIREMENTS, INCLUDING ANY TENANT CRITERIA MANUALS AND LEASE EXHIBITS, WHERE APPLICABLE. FIRE SPRINKLER CONTRACTOR SHALL OBTAIN ALL APPLICABLE MANUALS PRIOR TO BIDDING.
 - FIRE SPRINKLER SYSTEM SHALL BE INSTALLED IN STRICT CONFORMITY WITH ALL LATEST REQUIREMENTS OF THE STATE BUILDING CODE, THE LOCAL FIRE DEPARTMENT, ALL LOCAL RULES AND REGULATIONS AS DEFINED BY THE AUTHORITY HAVING JURISDICTION AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
 - TESTING OF SYSTEM SHALL BE IN ACCORDANCE WITH NFPA REQUIREMENTS. CONTRACTOR SHALL RUN AND PAY FOR ALL TESTS REQUIRED TO ENSURE THE SYSTEM HAS ADEQUATE FLOW AND PRESSURE.
 - PROVIDE ALL CODE REQUIRED SIGNAGE FOR FIRE SPRINKLER SYSTEM. SPARE HEAD CABINETS SHALL BE PROVIDED WITH THE APPROPRIATE NUMBER OF SPRINKLERS AND WRENCHES IN ACCORDANCE WITH NFPA REQUIREMENTS.
 - PROVIDE ALL CODE REQUIRED CLEARANCE ABOVE AND AROUND ELECTRICAL EQUIPMENT.
 - COORDINATE SPRINKLER HEAD LOCATIONS WITH ALL TRADES PRIOR TO FABRICATION OR INSTALLATION. LOCATIONS OF FIRE SPRINKLER HEADS AND PIPES ARE SHOWN FOR GRAPHICAL REPRESENTATION ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE FIRE SPRINKLER COVERAGE BASED ON ACTUAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER. SPRINKLER PIPING SHALL ROUTE AROUND, PROVIDE PROPER CLEARANCES FOR, AND AVOID CONFLICT WITH BUILDING EQUIPMENT AND SYSTEMS.
 - ENTIRE FIRE SPRINKLER SYSTEM SHALL BE INSTALLED LEVEL OR SLOPED TOWARD THE SERVICE ENTRANCE TO FACILITATE DRAIN DOWN UNLESS NOTED OTHERWISE. DRAINS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH LOCAL AND NFPA CODES. ALL FLOATING MAINS SHALL BE PROVIDED WITH AN AUXILIARY DRAIN ROUTED TO THE EXTERIOR.
 - ALL SPRINKLER LINES 2" AND SMALLER SHALL BE SCHEDULE 40 WITH THREADED FITTINGS OR ROLL GROVED CONNECTIONS. ALL SPRINKLER LINES AND MAINS 2-1/2" AND LARGER SHALL BE SCHEDULE 10 WITH ROLL GROVED CONNECTIONS UNLESS NOTED OTHERWISE. THE USE OF WELD-ON-LETS IS ACCEPTABLE. UNDERGROUND PIPING SHALL BE DUCTILE IRON WITH PVC WRAP TO PROVIDE PROTECTION FROM CORROSIVE SOILS.
 - SEE ELECTRICAL/FIRE ALARM PLANS FOR FIRE ALARM BELL LOCATION AND INFORMATION.
 - SPRINKLER HEAD DEFLECTORS SHALL BE INSTALLED SO THAT THE DISTANCE MEASURED FROM THE DEFLECTOR TO TOP OF STRUCTURE IS IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION AND NFPA REQUIREMENTS.
 - AUTOMATIC SPRINKLERS SHALL BE OF THE OPERATING TEMPERATURE AS REQUIRED BY THE SPRINKLER LOCATION. FINAL HEAD TEMPERATURES SHALL BE IN ACCORDANCE WITH NFPA 13 TO COMPENSATE FOR FIELD CONDITIONS.
 - SPRINKLER DESIGN IS BASED ON LIMITED FIELD INFORMATION. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ACTUAL FIELD CONDITIONS AND PROVIDING A FULLY COMPLIANT SPRINKLER SYSTEM AT NO ADDITIONAL EXPENSE TO THE OWNER.
 - THE CUMULATIVE HORIZONTAL LENGTH OF AN UNSUPPORTED ARMORER TO A SPRINKLER, SPRINKLER DROP, OR SPRING-OPENING SHALL NOT EXCEED THE SUPPORTED LENGTH BETWEEN THE END SPRINKLER AND THE LAST HANGER ON THE LINE. SHALL NOT EXCEED THE LIMITS AS ALLOWED FOR BY NFPA 13.
 - THE DISTANCE BETWEEN A HANGER AND THE CENTERLINE OF AN UPRIGHT SPRINKLER SHALL NOT BE LESS THAN 3" INCHES.
 - ANY EXISTING SPRINKLER HEAD OUTLETS THAT ARE NO LONGER REQUIRED SHALL BE PLUGGED.
 - NO MORE THAN TWO SPRINKLER HEADS SHALL BE FED FROM ANY ONE EXISTING SPRINKLER OUTLET.
 - THE ENTIRE AREA UNDER CONSTRUCTION SHALL BE PROVIDED WITH A COMPLETE FIRE SPRINKLER SYSTEM IN ALL AREAS. ADD NEW SPRINKLER HEADS TO EXISTING SYSTEMS WHERE REQUIRED TO PROVIDE COMPLETE COVERAGE THROUGHOUT THE AREA OF CONSTRUCTION. COORDINATE FIRE SPRINKLER PIPING AND HEAD LOCATIONS WITH ALL TRADES PRIOR TO FABRICATION OR INSTALLATION. IF CONFLICTS OCCUR BETWEEN FIRE SPRINKLER PIPING/HEADS AND LIGHTS, DIFFUSERS, DUCTWORK, ETC., THE FIRE SPRINKLER PIPING/HEADS SHALL BE RELOCATED OR REROUTED AT NO ADDITIONAL EXPENSE TO THE PROJECT. AN ADEQUATE SUPPLY OF EXTRA PIPING AND FITTINGS SHALL BE MAINTAINED ON SITE TO ALLOW FOR FIELD MODIFICATIONS. APPROVED SHOP DRAWINGS DO NOT PRECLUDE REROUTING IF SO REQUIRED BY THE ARCHITECT/ENGINEER.

- FIRE PROTECTION NOTES:**
- PROVIDE COMPLETE INSTALLATION OF NOTIFICATION APPLIANCE IN THE BASE BID AS SHOWN AND PROVIDE A UNIT PRICE ON THE BID FORM FOR THE COST TO PROVIDE AN ADDITIONAL NOTIFICATION APPLIANCE BEYOND THAT REQUIRED TO REMAIN IN OPERATION AS REQUIRED TO MAINTAIN THOSE AREAS IN COMPLETE OPERATION.
 - PROVIDE 4" OCTAGONAL JUNCTION BOX WITH SCREW THREADS SET AT THE 2 AND 8 O'CLOCK POSITIONS FOR THE GREASE HOOD FIRE SUPPRESSION SYSTEM PULL STATION. PROVIDE 1/2" CONDUIT FROM THE JUNCTION BOX TO 6" ABOVE THE ACCESSIBLE CEILING AND TERMINATE WITH A CONDUIT BUSHING. COORDINATE EXACT LOCATION WITH THE GREASE HOOD FIRE SUPPRESSION SYSTEM INSTALLER AND THE FIRE MARSHAL PRIOR TO ROUGH-IN.
 - GREASE HOOD FIRE SUPPRESSION SYSTEM SHALL BE INTERLOCKED WITH FIRE ALARM SYSTEM SUCH THAT FIRE SUPPRESSION SYSTEM ACTIVATION ACTIVATES THE FIRE ALARM SYSTEM. COORDINATE EXACT LOCATION OF THE GREASE HOOD FIRE SUPPRESSION SYSTEM CONTROL, MANUFACTURE AND FIRE MARSHAL PRIOR TO ROUGH-IN.
 - INTERLOCK GAS SOLENOID VALVE WITH GREASE HOOD FIRE SUPPRESSION SYSTEM SUCH THAT GAS SOLENOID VALVE CLOSURE UPON GREASE HOOD FIRE SUPPRESSION SYSTEM DISCHARGE. COORDINATE ALL REQUIREMENTS WITH PLUMBING CONTRACTOR AND GREASE HOOD FIRE SUPPRESSION SYSTEM MANUFACTURER PRIOR TO ROUGH-IN.
 - DUCT SMOKE DETECTOR AND RELAY FOR HVAC UNIT SUPPLY FAN SHUTDOWN SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE A REMOTE KEYED TEST STATION WITH VISUAL STATUS ANNUNCIATOR WHEN DUCT SMOKE DETECTOR IS INSTALLED IN A CONCEALED LOCATION GREATER THAN 10'-0" ABOVE FINISHED FLOOR OR WHEN DUCT SMOKE DETECTOR'S STATUS INDICATORS ARE NOT READILY VISIBLE. COORDINATE LOCATION WITH REMOTE KEYED TEST STATION WITH AUTHORITY HAVING JURISDICTION AND OWNER PRIOR TO ROUGH-IN.
 - ALL FINAL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR. SPRINKLER COVERAGE SHOWN FOR EXTERIOR DINING AREA TO BE FED FROM AN AUXILIARY DRY SYSTEM COORDINATED BY THE INSTALLING SPRINKLER CONTRACTOR. CONFIRM REQUIREMENT FOR COVERAGE BELOW EXTERIOR OVERHANG WITH THE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. HIGH RATES, 150°F TEMPERATURE HEADS TO BE USED IN CLOSE PROXIMITY OF ELECTRIC UNIT HEATERS AS REQUIRED PER NFPA 13.
 - 6" DEDICATED FIRE SERVICE LINE- SEE CIVIL FOR CONTINUATION AND DETAILS.

1 FIRE ALARM RISER DIAGRAM
SCALE: NOT TO SCALE

FOR REFERENCE ONLY:
FIRE ALARM PLANS, DETAILS, AND SPECIFICATIONS PROVIDED BY SCHNACKEL ENGINEERS, INC. ARE CONTRACT DOCUMENTS ONLY. SAID DOCUMENTS ARE NOT INTENDED TO BE SUBMITTED FOR FIRE ALARM WORK PERMITTING. THE LICENSED INSTALLING FIRE ALARM CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS TO THE AUTHORITY HAVING JURISDICTION, INCLUDING CALCULATIONS AND MANUFACTURER CUT SHEETS, AS REQUIRED FOR APPROVAL UNDER A DEFERRED SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR FINAL ALARM DEVICE QUANTITIES AND LOCATIONS.

FOR REFERENCE ONLY:
FIRE SPRINKLER PLANS, DETAILS, AND SPECIFICATIONS PROVIDED BY SCHNACKEL ENGINEERS, INC. ARE CONTRACT DOCUMENTS ONLY. SAID DOCUMENTS ARE NOT INTENDED TO BE SUBMITTED FOR FIRE SPRINKLER WORK PERMITTING. THE LICENSED INSTALLING FIRE SPRINKLER CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS TO THE AUTHORITY HAVING JURISDICTION, INCLUDING HYDRAULIC CALCULATIONS, AS REQUIRED FOR APPROVAL UNDER A DEFERRED SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR FINAL SPRINKLER HEAD QUANTITIES, LOCATIONS, AND TEMPERATURES.

LEGEND

—	EXISTING
—	NEW WORK
⊕	NEW TO EXISTING CONNECTION

SPARE SPRINKLER CABINET CONTENTS					
SIZE OF FACILITY	MIN HEAD QTY	MIN HEADS PER TYPE	WRENCH TYPE	LIST OF SPRINKLERS INSTALLED	SPRINKLER ESCUTCHEONS PER TYPE
0-300 SPRINKLERS	6	2	1	1	2
300-1000 SPRINKLERS	12	2	1	1	2
+1000 SPRINKLERS	24	2	1	1	2

NOTE: SPRINKLERS SHALL BE KEPT WHERE TEMPERATURE DOES NOTE EXCEED 100°F.

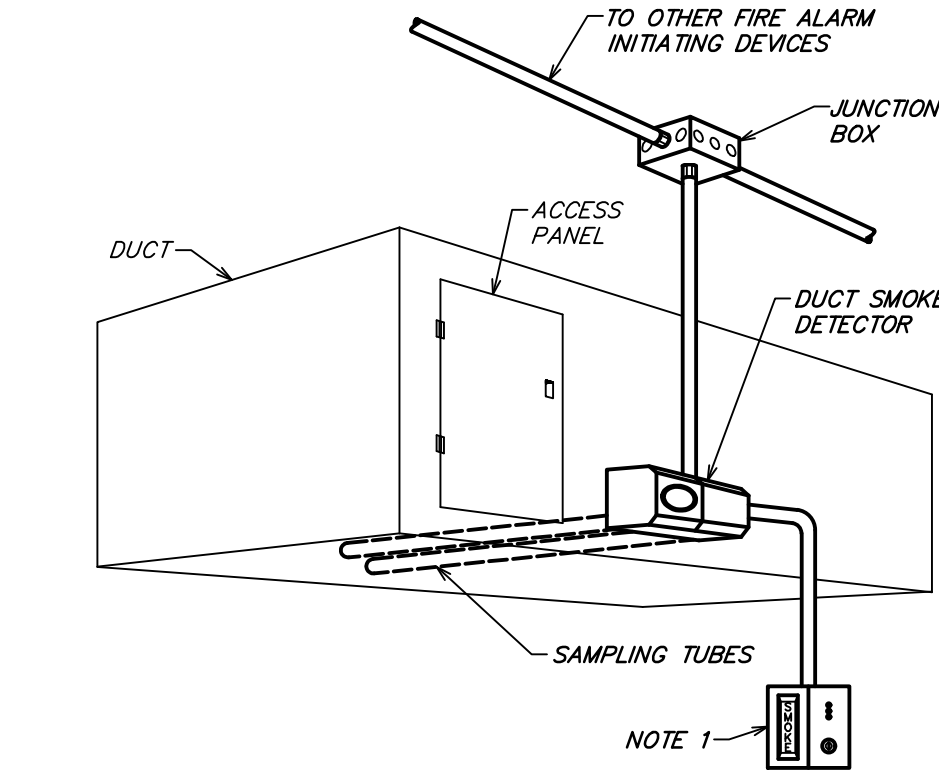
MAXIMUM PROTECTION AREAS AND MAXIMUM SPACING FOR STANDARD SPRAY UPRIGHT & PENDENT HEADS				
CONSTRUCTION TYPE	SYSTEM TYPE	PROTECTION AREA MAX (SQ.FT.)	MAX SPACING	MAX DISTANCE TO WALL (FT)
LIGHT HAZARD:				
NONCOMBUSTIBLE UNOBSTRUCTED + UNOBSTRUCTED WITH MEMBERS 3FT OR MORE O.C.	PIPE SCHEDULE	200	15'-0"	7'-6"
COMBUSTIBLE UNOBSTRUCTED WITH MEMBERS 3FT OR MORE O.C.	HYD. CALC.	225	15'-0"	7'-6"
COMBUSTIBLE UNOBSTRUCTED WITH MEMBERS LESS THAN 3FT O.C.	ALL	168	15'-0"	7'-6"
COMBUSTIBLE CONCEALED SPACE UNDER A PITCHED ROOF HAVING COMBUSTIBLE WOOD JOIST OR WOOD TRUSS CONSTRUCTION WITH MEMBERS LESS THAN 3FT O.C. WITH SLOPES HAVING A PITCH OF 4:12 OR GREATER	ALL	130	15'-0"	7'-6"
ORDINARY HAZARD:				
ALL	ALL	130	15'-0"	7'-6"
EXTRA HAZARD:				
ALL	PIPE SCHEDULE	90	12'-0"	6'-0"
	HYD. CALC. DENSITY= .25+	100	12'-0"	6'-0"
	HYD. CALC. DENSITY< .25	130	15'-0"	7'-6"

HANGER LOCATIONS (MAX PRESSURE < 100 PSI)		HANGER ROD SIZES		HANGER LOCATIONS (MAX PRESSURE > 100 PSI)	
PIPE SIZE A (MAX) A (MIN)	B (MAX)	PIPE SIZE	DIAMETER	PIPE SIZE A (MAX) A (MIN)	B (MAX)
1" 36" 3"	24"	UP TO 4"	3/8"	1" 12" 3"	12"
1 1/4" 48" 3"	24"	5" TO 8"	1/2"	1 1/4" 12" 3"	12"
≥1 1/2" 60" 3"	24"	10" & 12"	5/8"	≥1 1/2" 12" 3"	12"

MAXIMUM DISTANCE BETWEEN HANGERS (FT. - IN.)											
NOMINAL PIPE SIZE (N)											
PIPE TYPE	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
STEEL PIPE EXCEPT THREADED LIGHT-WALL	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHT WALL	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A
STEEL PIPE	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A

FIRE SPRINKLER TEMPERATURE RATINGS			
TEMPERATURE OF SPRINKLERS BASED ON DISTANCE FROM HEAT SOURCES			
TYPE OF HEAT CONDITION	ORDINARY TEMPERATURE	INTERMEDIATE TEMPERATURE	HIGH TEMPERATURE
(1) HEATING DUCTS (A) ABOVE (B) SIDE & BELOW (C) DIFFUSER	MORE THAN 2'-6" MORE THAN 1'-0" ANY DISTANCE NOT SHOWN UNDER INTERMEDIATE COLUMN	2'-6" OR LESS 1'-0" OR LESS DOWNWARD DISCHARGE: CYLINDER WITH 1'-0" RADIUS FROM EDGE EXTENDING 1'-0" BELOW & 2'-6" ABOVE HORIZONTAL DISCHARGE: SEMICYCLINDER WITH 2'-6" RADIUS IN DIRECTION OF FLOW EXTENDING 1'-0" BELOW & 2'-6" ABOVE	
(2) UNIT HEATER (A) HORIZONTAL DISCHARGE (B) VERTICAL DOWNWARD DISCHARGE		DISCHARGE SIDE: 7'-0" TO 20'-0" RADIUS PIE-SHAPED CYLINDER EXTENDING 7'-0" ABOVE & 2'-0" BELOW HEATER; ALSO 7'-0" RADIUS CYLINDER MORE THAN 7'-0" ABOVE UNIT HEATER	7'-0" RADIUS CYLINDER EXTENDING 7'-0" ABOVE & 2'-0" BELOW UNIT HEATER 7'-0" RADIUS CYLINDER EXTENDING FROM THE TOP OF THE UNIT HEATER TO AN ELEVATION OF 7'-0" ABOVE UNIT HEATER
(3) STEAM MAINS (UNCOVERED) (A) ABOVE (B) SIDE & BELOW (C) BLOWOFF VALVE	MORE THAN 2'-6" MORE THAN 1'-0" MORE THAN 7'-0"	MORE THAN 2'-6" MORE THAN 1'-0"	MORE THAN 7'-0"
RATINGS OF SPRINKLERS IN SPECIFIED LOCATIONS			
SKYLIGHTS ATTICS PEAKED ROOF: METAL OR THIN BOARDS, CONCEALED OR NOT CONCEALED, INSULATED OR UNINSULATED FLAT ROOF: METAL, NOT CONCEALED	VENTILATED UNVENTILATED	GLASS OR PLASTIC UNVENTILATED	
FLAT ROOF: METAL, CONCEALED, INSULATED OR UNINSULATED SHOW WINDOWS	VENTILATED VENTILATED	NOTE: FOR UNINSULATED ROOF, CLIMATE AND INSULATED OR UNINSULATED OCCUPANCY CAN REQUIRE INTERMEDIATE SPRINKLERS. CHECK ON JOB. UNVENTILATED	

FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX	SYSTEM OUTPUTS																										
	CONTROL UNIT ANNUNCIATION													REMOTE ANNUNCIATOR													
SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1 OPEN CIRCUIT																											
2 GROUND FAULT																											
3 WIRE-TO-WIRE SHORT CIRCUIT																											
4 SYSTEM AC POWER FAILURE																											
5 SYSTEM LOW BATTERY																											
6 SMOKE DETECTOR: OPEN AREA																											
7 SMOKE DETECTOR: SMOKE/FIRE DOORS																											
8 SMOKE DETECTOR: DUCT-MOUNTED																											
9 HEAT DETECTOR																											
10 MANUAL PULL STATION																											
11 HOOD FIRE SUPPRESSION SYSTEM ACTIVATION																											
12 FIRE SPRINKLER FLOW SWITCH																											
13 FIRE SPRINKLER TAMPER SWITCH																											

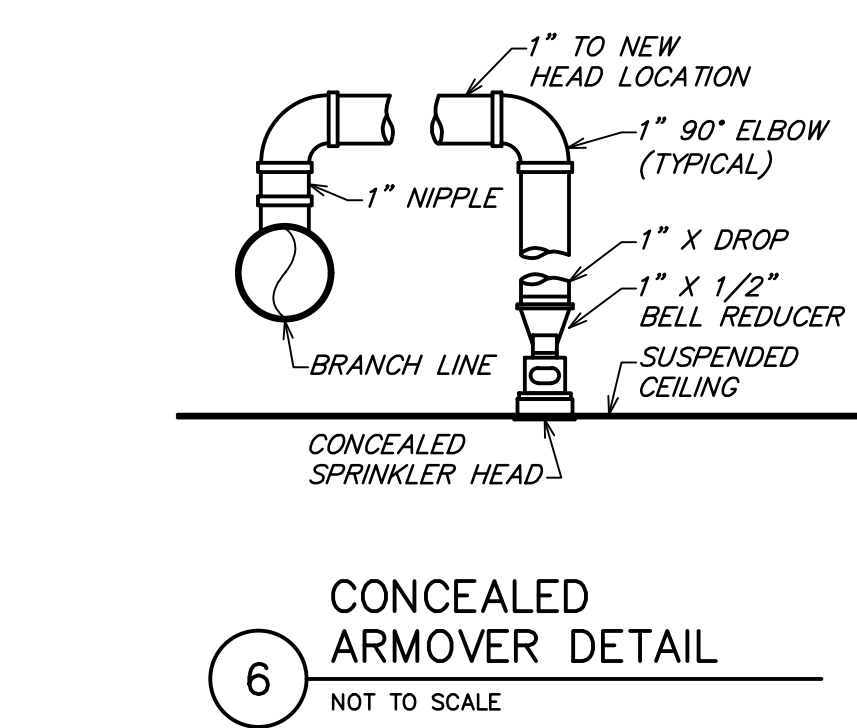
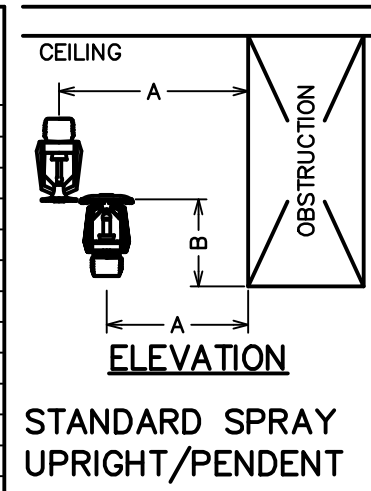


GENERAL NOTES APPLICABLE TO THIS DETAIL:
A. CONNECT DUCT SMOKE DETECTOR TO FIRE ALARM CONTROL PANEL SUCH THAT DUCT SMOKE DETECTOR INITIATES A SUPERVISORY SIGNAL AT THE FIRE ALARM CONTROL PANEL UPON DUCT SMOKE DETECTOR SMOKE ACTIVATION. IF FIRE ALARM CONTROL PANEL DOES NOT EXIST, ACTIVATION OF THE DUCT SMOKE DETECTOR SHALL ACTIVATE AN AUDIBLE AND VISUAL SIGNAL AT A CONTINUOUSLY ATTENDED LOCATION.
B. INTERLOCK HVAC UNIT WITH DUCT SMOKE DETECTOR SUCH THAT HVAC UNIT SUPPLY FAN SHUTS DOWN IN ALARM CONDITION. PROVIDE ALL RELAYS REQUIRED TO ACCOMPLISH THE INTERLOCK.

NOTES APPLICABLE TO THIS DETAIL:
1. PROVIDE A REMOTE TEST STATION WITH VISUAL STATUS ANNUNCIATOR WHEN THE DUCT SMOKE DETECTOR IS INSTALLED IN A CONCEALED LOCATION GREATER THAN 10'-0" ABOVE FINISHED FLOOR OR WHEN DUCT SMOKE DETECTOR'S STATUS INDICATORS ARE NOT READILY VISIBLE. COORDINATE LOCATION WITH THE AUTHORITY HAVING JURISDICTION AND THE OWNER PRIOR TO ROUGH-IN.

11 DUCT SMOKE DETECTOR DETAIL
NOT TO SCALE

DISTANCE FROM SPRINKLER TO SIDE OF OBSTRUCTION (A)	MAXIMUM DISTANCE OF DEFLECTOR ABOVE OBSTRUCTION (IN.) (B)
< 1'-0"	0
1'-0" < 1'-6"	2.5
1'-6" < 2'-0"	3.5
2'-0" < 2'-6"	5.5
2'-6" < 3'-0"	7.5
3'-0" < 3'-6"	9.5
3'-6" < 4'-0"	12
4'-0" < 4'-6"	14
4'-6" < 5'-0"	16.5
5'-0" < 5'-6"	18
5'-6" < 6'-0"	20
6'-0" < 6'-6"	24
6'-6" < 7'-0"	30
7'-0" < 7'-6"	35

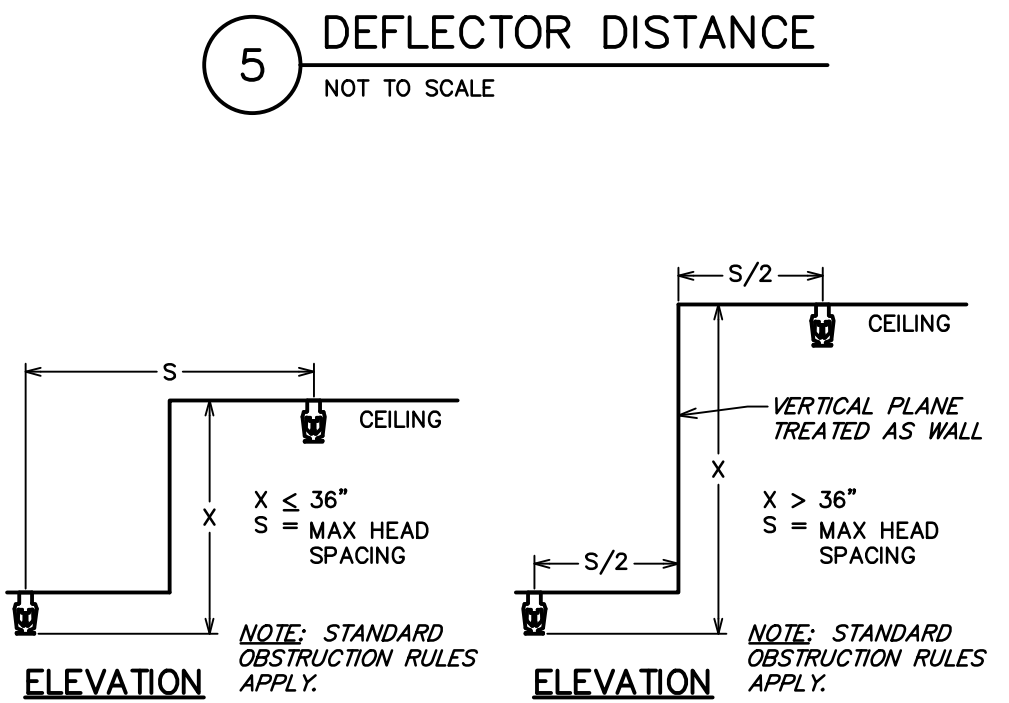


TYPE OF CONSTRUCTION	DISTANCE BELOW CEILING (A)	DISTANCE BELOW STRUCTURAL MEMBER (B)
UNOBSTRUCTED	1' - 12"	N/A
OBSTRUCTED	22" MAX.	1' - 6"

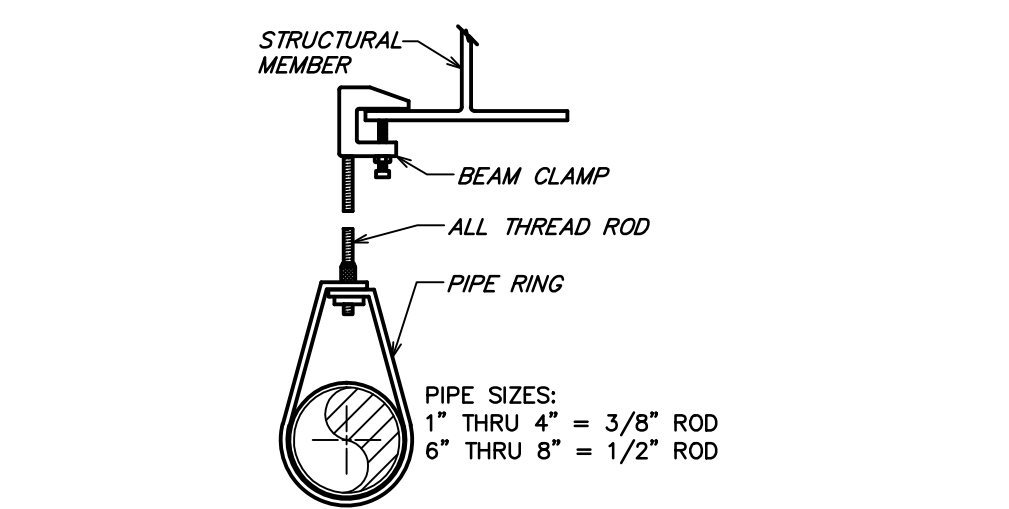
NOTE: OR IN ACCORDANCE WITH SPECIFIC SPRINKLER HEAD MANUFACTURER LISTING

UPRIGHT/PENDENT

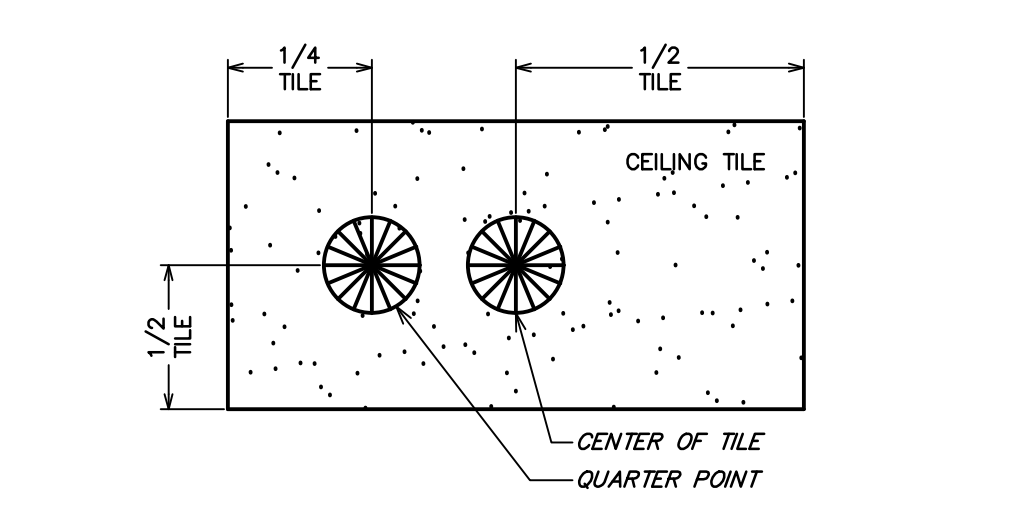
ELEVATION



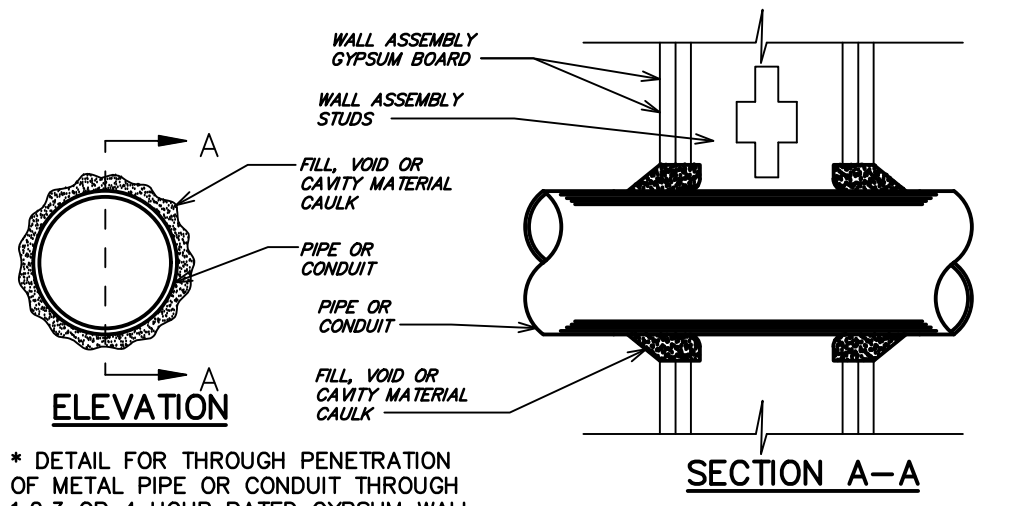
5 DEFLECTOR DISTANCE
NOT TO SCALE



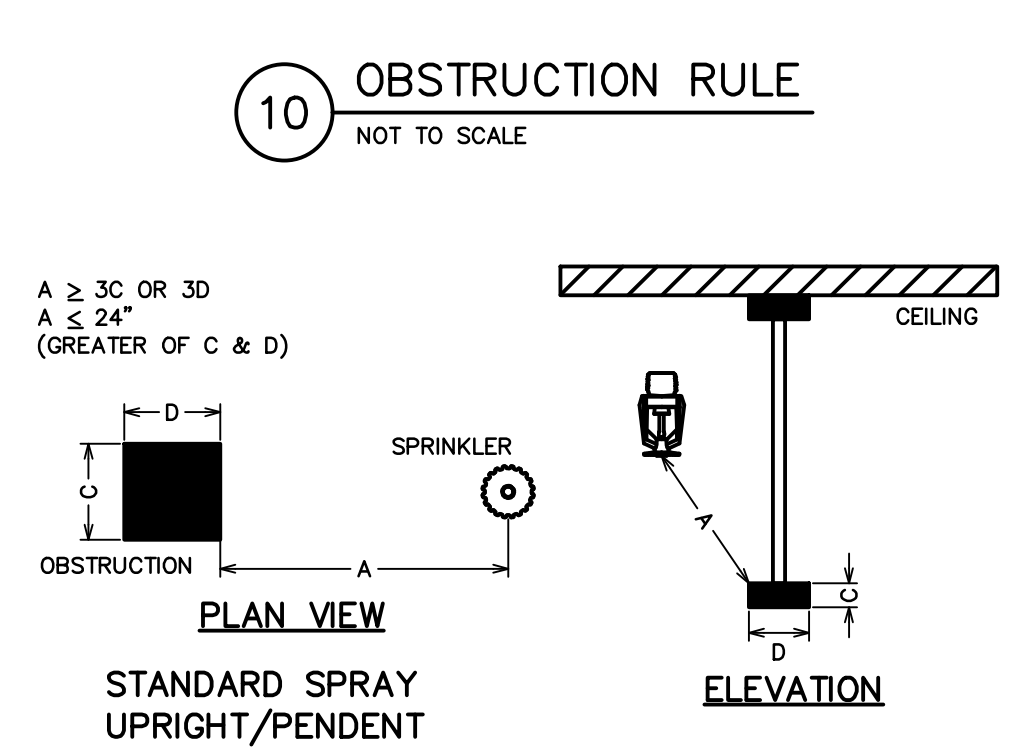
4 VERTICAL CEILING CHANGE RULE
NOT TO SCALE



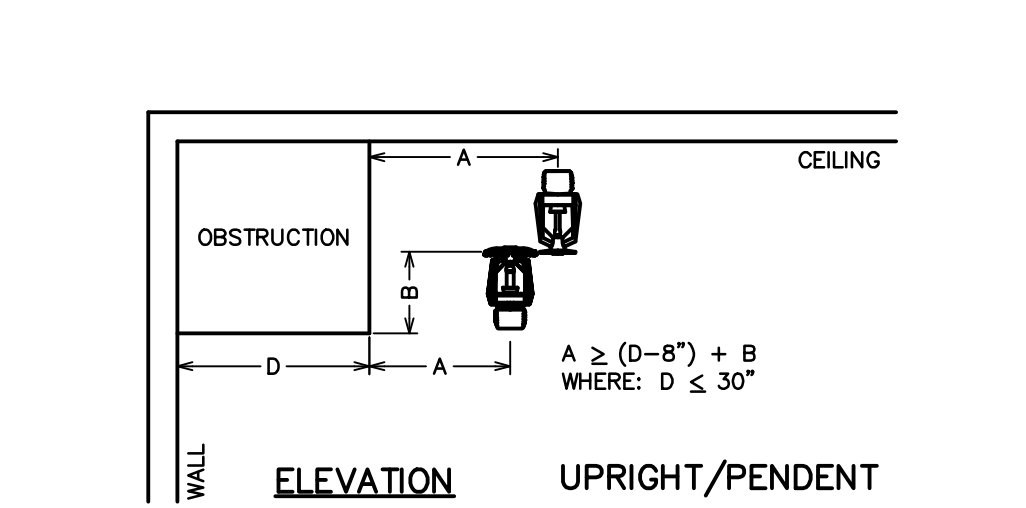
3 PIPE HANGER BEAM CLAMP
NOT TO SCALE



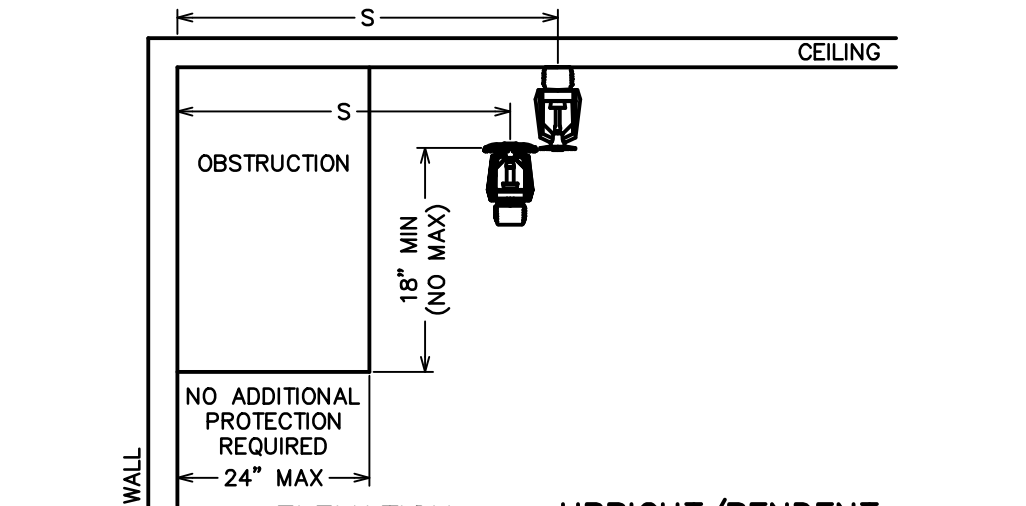
2 RATED PENETRATION DETAIL
NOT TO SCALE



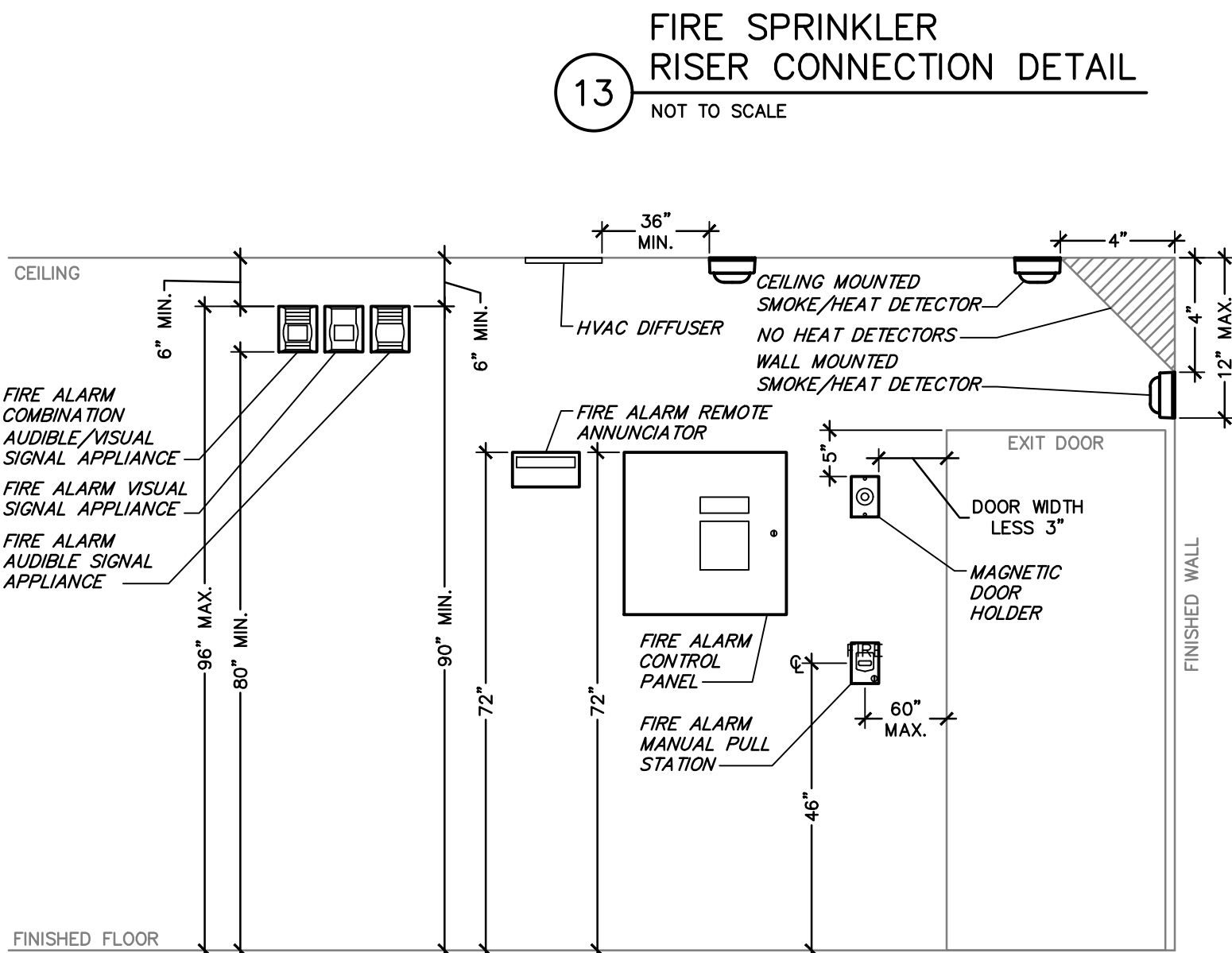
10 OBSTRUCTION RULE
NOT TO SCALE



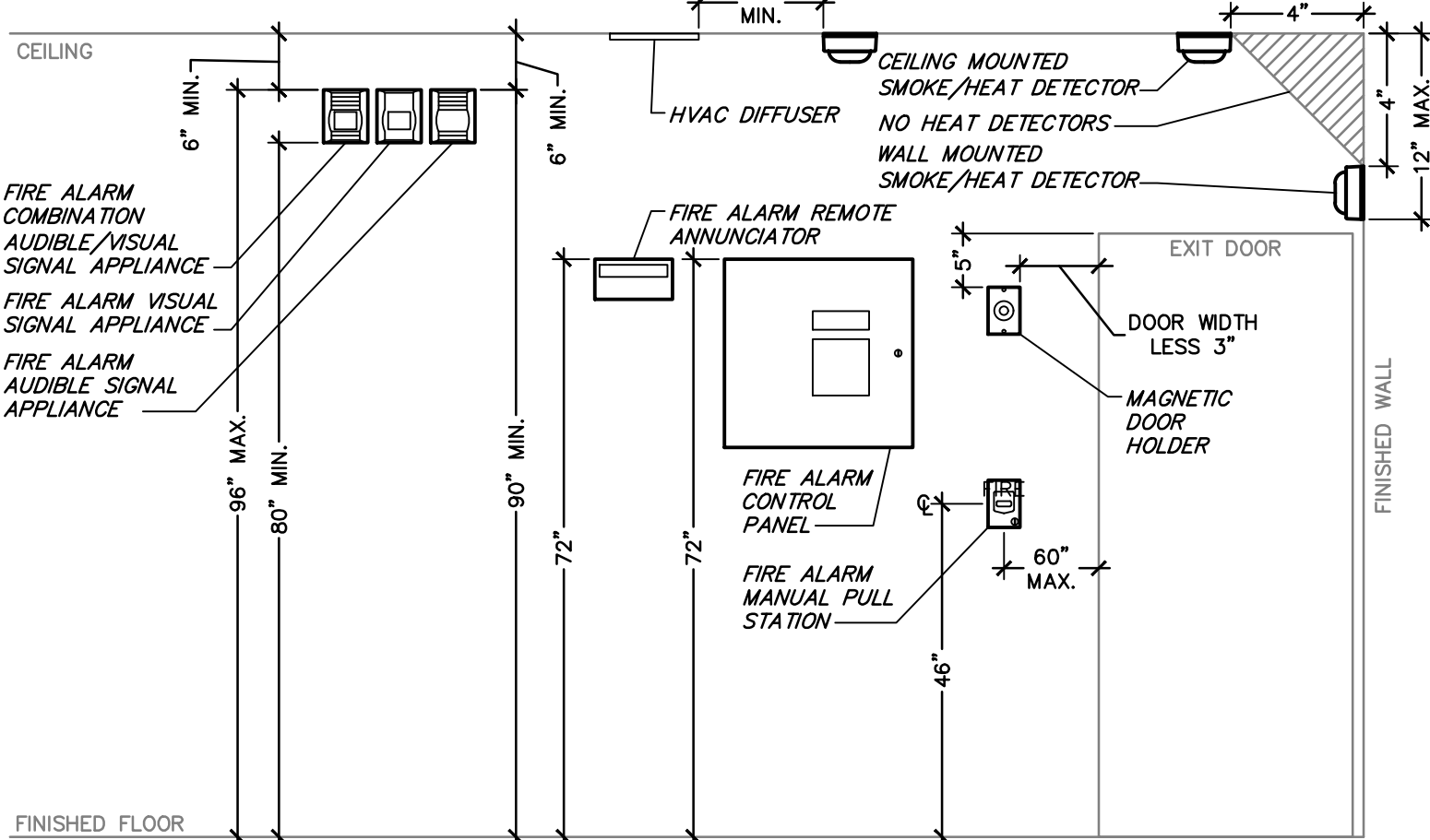
9 OBSTRUCTION DISTANCE
NOT TO SCALE



8 SOFFIT OBSTRUCTION RULE
NOT TO SCALE



13 FIRE SPRINKLER RISER CONNECTION DETAIL
NOT TO SCALE



12 TYPICAL DEVICE ELEVATION DETAIL
NOT TO SCALE

Bergmeyer

CONSULTANTS:
Schnackel engineers
800-581-0963
www.schnackel.com

SEAL/ SIGNATURE:



Date: 05/14/21
COA #: E-202006642

NO.	BY	DATE	DESCRIPTION
5		2021-05-17	FIELD NOTICE #2
4		2021-05-03	FIELD NOTICE #1
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM #2
1		2021-03-09	ADDENDUM #1
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

FIRE PROTECTION DETAILS

DRAWN BY: DAK
CHECKED BY: ORS
JOB NO: 20068.00

F501

TABLE OF CONTENTS
SECTION 285100 – FIRE DETECTION AND ALARM

4. Auxiliary Battery Cabinet: As required for the batteries installed within.
5. Relay Modules: As required for a complete operational system.
6. Remote Annunciator:
- a. Compatible with the control unit; coordinate finish color with the Architect.
- b. Provide when control unit is installed at a location other than the First Responder's primary point of entry.
- B. Voice Alarm System:
1. Control Unit: UL 864 control unit with the following minimum features:
- a. Central microprocessor which is capable of distributing and controlling emergency voice messages to all associated speakers.
- b. Capability to interface with Local Operator Console (LOC), distributed audio amplifiers, remote paging units, remote microphones, and fire fighters' telephone units.
- c. Expandable integral audio amplifier.
- d. Integral digital message generator capable of producing fourteen unique messages, up to 60 seconds per message.
- e. Quiet message recording capability using the local microphone, USB port, or external audio input.
- f. Integral tone generator with field-selectable leading and trailing tones.
- g. Field-selectable repeat cycles.
- h. Integral supervised microphone.
- i. Push Button Controls for the following:
1. All call.
2. System control.
3. Speaker zone select.
4. Message select.
5. Diagnostic select.
6. Lamp test.
- j. Color-coded system status LEDs to indicate:
1. Fire System Active.
2. System Control.
3. System In Use.
4. Speaker Zone Active.
5. Speaker Zone Fault.
6. OK to Page.
7. Microphone Trouble.
8. Message Active.
9. Remote Amplifier Fault.
10. Main Console Fault.
11. AC Power.
12. Ground Fault.
13. Charger Fault.
14. Battery Fault.
15. Data Bus Fault.
16. NAC Fault.
17. NAC Active.
18. System Trouble.
19. Audio Riser Fault.
- k. One notification appliance circuit (NAC).
2. Secondary Power: Storage battery and battery charger capable of operating entire system for period of time specified by NFPA 72 plus 25 percent spare capacity.
3. Auxiliary Battery Cabinet: As required for the batteries installed within.
4. Audio Amplifier Modules: As required for speakers served.
- 2.04 INITIATING DEVICES
- A. Smoke Detectors: Addressable, low-profile photoelectric smoke detector, unless indicated otherwise, with appropriate mounting base.
1. Provide relay use when smoke detector is used for door releasing service.
- B. Duct Smoke Detectors:
1. General:
- a. Provide for each HVAC unit rated equal to or greater than 2,000 cubic feet per minute.
- b. Provide for all HVAC units serving the same room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute.
- c. Provide for all HVAC units that share a common return air plenum where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute.
- d. Provide as required for control of each smoke damper.
2. Detector: Addressable photoelectric smoke detector suitable for duct air velocities from 0 to 4000 feet per minute (fpm) and with capabilities for remote testing unless indicated otherwise.
3. Housing: As required for the duct smoke detector.
4. Sampling Tube: As required for the duct.
5. Remote Test Stations: Keyed remote test station with green POWER and red ALARM status indicators unless indicated otherwise; provide when duct smoke detector is installed in a concealed location greater than 10 feet above finished floor or when duct smoke detector's status indicators are not readily visible.
6. Remote Alarm Annunciators: Remote alarm annunciator with piezo audible alarm signal, green POWER status indicator, and red ALARM status indicator unless indicated otherwise; provide for each duct smoke detector that is not connected to a fire alarm control unit.
- C. Heat Detectors: Addressable, 135 degrees F (57 degrees C) fixed temperature heat detector, unless indicated otherwise, with appropriate mounting base.
1. Provide relay use when heat detector is used to activate a shunt trip.
- D. Manual Pull Stations: Addressable, dual-action manual pull station unless indicated otherwise; semi-flush mounted in all finished areas and surface mounted with appropriate backbox in unfinished areas.
- 2.05 NOTIFICATION APPLIANCES
- A. General:
1. All notification appliances shall be from the same manufacturer.
2. All notification appliances shall be semi-flush mounted in all finished areas; notification appliances are permitted to be surface mounted in unfinished areas.
3. All notification appliances installed within damp or wet locations shall be weatherproof.
4. All notification appliance housings shall be white unless indicated otherwise or unless the Authority Having Jurisdiction requires red housings.
- a. Exterior notification appliances shall have red housings.
5. Provide strobe synchronization modules when more than one strobe is located within a viewing area.
- B. Horns: Rated at 98 dBA at 16 volts, suitable for ceiling or wall-mounting, field-selectable horn tones, and field-selectable volume settings.
- C. Strobes: Flush robe with clear lens and reflector, suitable for ceiling or wall-mounting, and field-selectable candle settings.
- D. Combination Horn/Strobes: An integrated appliance consisting of a horn unit and strobe unit meeting the specified individual requirements of both horns and strobes.
- E. Speakers: Frequency range from 400 Hz to 4.0 kHz, high-fidelity, high-volume, field-selectable speaker voltage, and field-selectable power settings.
- F. Combination Speaker/Strobes: An integrated appliance consisting of a speaker unit and strobe unit meeting the specified individual requirements of both speakers and strobes.
- 2.06 AUXILIARY DEVICES
- A. Addressable Monitor Modules: As required for a complete operational system.
- B. Addressable Control Modules: As required for a complete operational system.
- C. Addressable Relay Modules: As required for a complete operational system.
- D. Door Holders: 24 volt coil and 40 pounds of holding force unless indicated otherwise; coordinate selection of door holders with architectural hardware requirements and verify required clearances, sizes and locations to operate properly with the doors and hardware specified.
- E. Notification Appliance Circuit Power Supplies: As required for a complete operational system.
- F. End-of-Line Resistors: As recommended by the manufacturer.
- G. Wire supports: Provide for any wall-mounted notification appliances located in gymnasiums or where otherwise exposed to physical damage.
- 2.07 COMBINATION SMOKE/CARBON MONOXIDE ALARMS
- A. Combination photoelectric smoke and carbon monoxide alarm, interconnectable, 120 VAC hardwired with battery backup unless indicated otherwise; for use within individual dwelling units only.
- 2.08 CONDUIT: See section 280534; painted red.
- 2.09 BOXES: See section 280537; painted red.
- 2.10 WIRE AND CABLE
- A. All Wire and Cable:
1. Riser Cabling: Unshielded Type FPLP when installed in conduit and Type FPLP when not installed in conduit unless indicated otherwise or otherwise required, red jacket.
2. Horizontal Cabling: Unshielded Type FPL when installed in conduit and Type FPLP when not installed in conduit unless indicated otherwise or otherwise required, red jacket.
- B. Initiating Device Circuits (IDC):
1. Number of Conductors: As recommended by the manufacturer.
2. Conductor Size: As recommended by the manufacturer but not smaller than 18 AWG.
- C. Signaling Line Circuits (SLC):
1. Number of Conductors: As recommended by the manufacturer.
2. Conductor Size: As recommended by the manufacturer but not smaller than 18 AWG.
- D. Notification Appliance Circuits (NAC):
1. Number of Conductors: As recommended by the manufacturer.
2. Conductor Size: As recommended by the manufacturer but not smaller than 14 AWG.

PART 3 EXECUTION

3.01 COORDINATION WITH OTHER TRADES

- A. Coordinate all fire alarm work with all other trades including, but not limited to:
1. Connection of all fire sprinkler monitoring components including all flow switches, tamper switches, post indicator valves, corrosion monitoring probes, dry-type system compressors, and fire pumps with the Fire Sprinkler Contractor.
2. Connection of all individual HVAC units rated equal to or greater than 2,000 cubic feet per minute (CFM), locations of HVAC units serving the same room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute (CFM), locations of HVAC units sharing a common return air plenum where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute (CFM), smoke dampers, smoke exhaust equipment, and Type I grease hood fire suppression systems with the Mechanical Contractor.
3. Connection of all elevator controllers and elevator recall systems with the Vertical Transportation Contractor.
4. Locations where boxes and/or conduit are to be roughed-in for initiating devices and/or notification appliances and locations where 120 volt power is required with the Electrical Contractor.
- B. Change orders arising from a lack of coordination with the other trades will not be considered.

3.02 INSTALLATION

- A. Install all components in accordance with all applicable codes including, NFPA 70, NFPA 72, and the applicable Fire and Building Codes.
- B. Install all products in strict accordance with manufacturer's instructions.
- C. Obtain Owner's approval of locations of all components prior to rough-in.
- D. Install components at the following mounting heights:
1. Remote Annunciators: Top at 60 inches above finished floor.
2. Manual Pull Stations: Centerline at 48 inches above finished floor.
3. Audible Notification Appliances: Top at 90 inches above finished floor or 6 inches below finished ceiling, whichever is lower.
4. Visible Notification Appliances: Top at 96 inches above finished floor or 6 inches below finished ceiling, whichever is lower.
5. Combination Audible/Visual Notification Appliances: Top at 96 inches above finished floor or 6 inches below finished ceiling, whichever is lower.
- E. Make conduit and wiring connections to all initiating devices, notification appliances, control units, fire sprinkler system components, HVAC system components, smoke control system components, vertical transportation components, grease hood fire suppression system components, monitor modules, control modules, relay modules, etc., for a complete fully functional system.
- F. Install outlet boxes for door holders to withstand 80 pounds of pulling force.
- G. Install control relays within 3 feet of the controlled equipment.
- H. Install duct smoke detector remote test stations and/or remote alarm LED annunciators; coordinate locations with the Owner and the Authority Having Jurisdiction prior to rough-in.
- I. Install end-of-line resistor in box with last device or separate box adjacent to last device in circuit.
- J. Conceal all wiring, conduit, boxes, and supports where located within finished areas.
- K. Install all concealed, inaccessible wiring, including wiring installed in walls, and all exposed wiring in conduit in accordance with NFPA 70.
1. Wiring may be installed without conduit where accessible and not subject to damage only when specifically permitted by the Authority Having Jurisdiction.
- L. Plenum rated cable may be used only where concealed above accessible tile ceilings

- or accessible shafts.
- M. Separate cables from any open conductors of Class 1 circuits and do not place in any conduit, junction box, or raceway containing Class 1 cables.
- N. Provide the following circuit classes:
1. Initiating Device Circuits (IDC): Class B.
2. Signaling Line Circuits (SLC) Within Building: Class B.
3. Signaling Line Circuits (SLC) Between Buildings: Class A.
4. Notification Appliance Circuits (NAC): Class B.
5. Door Holders: Class D.
- O. Provide a minimum of 25 percent spare capacity on all circuits.
- P. Connect control unit to a separate dedicated branch circuit with a separate, red, dedicated circuit breaker with lock-on accessory and label circuit as FIRE ALARM.
- Q. Connect any 120 volt exterior fire sprinkler alarm bells to the same circuit serving the control unit.
- R. Install instruction cards and labels; provide legible, permanent labels for each control device, using identification used in operation and maintenance data.

3.03 FIRE SAFETY SYSTEMS INTERFACES

- A. Provide the following fire safety system interfaces upon activation. Coordinate all components requiring interface, including exact locations, with the associated Contractor. Change orders arising from a lack of coordination with the other trades will not be considered.
1. General:
- a. Manual Pull Stations: Transmit alarm signal to control unit.
- b. Smoke Detectors: Transmit alarm signal to control unit.
- c. Heat Detectors: Transmit alarm signal to control unit.
2. Fire Sprinkler Systems:
- a. Flow Switches: Transmit alarm signal to control unit.
- b. Tamper Switches: Transmit supervisory signal to control unit.
- c. Post Indicator Valves: Transmit supervisory signal to control unit.
- d. Corrosion Monitoring Probes: Transmit supervisory signal to control unit.
- e. Pressure Monitoring Systems: Transmit supervisory signal to control unit.
- f. Fire Pumps: Transmit supervisory signal to control unit per NFPA 20 and NFPA 72.
3. HVAC Systems:
- a. Shut down supply fan on each individual unit rated equal to or greater than 2,000 cubic feet per minute.
- b. Shut down all supply fans on all units that share a common return air plenum where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute.
- c. Shut down all supply fans on all units that serve a common room or area where the total aggregate capacity of the units is equal to or greater than 2,000 cubic feet per minute.
- d. Shut down high volume low speed (HVS) fans.
- e. Close smoke dampers.
- f. Transmit alarm or supervisory signal to control unit; coordinate required signal type with the Authority Having Jurisdiction.
4. Grease Hood Fire Suppression System:
- a. Disconnect power to all appliances located under hood.
- b. Close gas valve(s) serving appliances located under hood.
- c. Shut down all supply air fan(s).
- d. Start hood exhaust fan(s) if not already running.
- e. Transmit alarm signal to control unit.
5. Smoke Exhaust:
- a. Shut down all supply air fan(s).
- b. Start smoke exhaust fan(s).
- c. Transmit alarm signal to control unit.
6. Smoke Barrier Door Holders:
- a. Release upon activation of smoke detectors on either side of door.
- b. Release upon activation of manual pull station on the same floor.
- c. Release upon activation of fire sprinkler flow switch.
7. Electromagnetic Locks on Egress Doors: Release upon any alarm signal.
8. Fire Alarm Wiring:
- a. Open Circuit: Transmit trouble signal to control unit.
- b. Single Ground: Transmit trouble signal to control unit.
- c. Short Circuit: Transmit trouble signal to control unit.
9. Interlocking with Existing Fire Alarm Control Panels:
- a. In buildings with an existing fire alarm control panel, interlock all new fire alarm panels with the existing main fire alarm control panel such that all alarm, supervisory, and trouble signals reported at any new fire alarm panels are transmitted to and annunciated at the main building fire alarm control panel.

3.04 SEQUENCE OF OPERATION

- A. Visual and audible alarm at control unit.
1. Visual and audible alarm at remote annunciator.
2. Transmit alarm signal to central station.
3. Activate visual notification appliances.
4. Activate audible notification appliances.
5. Transmit signal to building mechanical systems to initiate supply air fan shut down.
6. Transmit signal to high volume low speed (HVS) fans to initiate shut down.
7. Transmit signal to building mechanical system to close smoke damper(s).
8. Transmit signal to building mechanical system to grease hood exhaust fan(s).
9. Transmit signal to building mechanical system to start smoke exhaust fan(s).
10. Transmit signal to elevator controllers to initiate elevator recall.
- B. Supervisory:
1. Visual and audible alarm at control unit.
2. Visual and audible alarm at remote annunciator.
3. Transmit supervisory signal to central station.
- C. Trouble:
1. Visual and audible alarm at control unit.
2. Visual and audible alarm at remote annunciator.
3. Transmit trouble signal to central station.
4. Manual acknowledge silences audible trouble alarm at control unit and remote annunciator but visual alarm remains displayed until trouble condition is cleared.

3.05 INSPECTION, TESTING, AND ADJUSTMENT

- A. Complete NFPA 72 "RECORD OF COMPLETION" form.
- B. Notify the Authority Having Jurisdiction and comply with their requirements for scheduling inspections and tests and for observation by their personnel.
- C. Perform inspection and testing in accordance with NFPA 72 and requirements of the Authority Having Jurisdiction.
- D. Document each inspection and test, correct any defective work, and retest until entire system complies with the requirements of NFPA 72, the Authority Having Jurisdiction, and the Contract Documents.
- 3.06 PERSONNEL INSTRUCTION
- A. Provide hands-on instruction for the Owner's designated representative.
- B. Provide the services of instructors, teaching aids, and copies of operation and maintenance data during instruction.
- 3.07 CLOSEOUT
- A. Substantial Completion: Substantial Completion cannot be achieved until inspection and testing is successful; all aspects of operation have been demonstrated to Owner. Final acceptance of the fire alarm system has been given by the Authority Having Jurisdiction, the occupancy permit has been issued, and the personnel instruction is complete.
- B. Demonstration: Demonstrate proper operation of all functions to Owner. Demonstration may be combined with inspection and testing required by the Authority Having Jurisdiction.
- C. Closeout Documentation and Materials:
1. Provide the following closeout documentation and materials to the Owner:
- a. Manufacturer's cut sheets, owner's manual, manufacturer's published instructions, and troubleshooting guides covering all system equipment.
- b. Detailed but easy to read explanation of procedures to be used by non-technical personnel in the event of system trouble, when routine testing is being conducted, and for fire drills.
- c. Record drawings complying with NFPA 72-2013 section 7.5.5.
- d. NFPA 72-2013 "RECORD OF COMPLETION" form.
- e. NFPA 72-2013 "SYSTEM RECORD OF INSPECTION AND TESTING" form.
- f. Preventive maintenance schedule.
- g. Testing and inspection procedures and schedule.
2. All closeout documentation shall be neatly organized in a three-ring binder with labeled dividers separating sections.

3.08 MAINTENANCE CONTRACT

- A. Provide, as an alternate to the base bid for later acceptance by the Owner, a proposal for a two-year maintenance contract that includes:
1. Services to perform routine inspection, testing, and preventive maintenance required by NFPA 72, including maintenance of fire safety interface and supervisory devices connected to fire alarm system, and repairs required.
2. Record keeping required by NFPA 72 and the Authority Having Jurisdiction.
3. Trouble call-back service upon notification by the Owner within two hours of notification.
- a. Include allowance for call-back service during normal working hours at no extra cost to Owner.
- b. Owner will pay for call-back service outside of normal working hours on an hourly basis, based on actual time spent at site and not including travel time.
- c. Include hourly rate and definition of normal working hours in maintenance contract.
4. A complete description of proposed preventive maintenance, systematic examination, adjustment, cleaning, inspection, and testing, with a detailed schedule.
5. Maintenance of a log at each control unit, listing the date and time of each inspection and call-back visit, the condition of the system, nature of the trouble, correction performed, and parts replaced.
6. Providing an updated NFPA 72-2013 "SYSTEM RECORD OF INSPECTION AND TESTING" form to Owner's representative upon completion of site visit.
7. Include the total cost of contract.
- B. Proposal shall be valid for a minimum of 30 days after date of Substantial Completion.

END OF SECTION

Bergmeyer

LA
800 South Figueroa St.
Los Angeles, CA 90077
212.337.1090

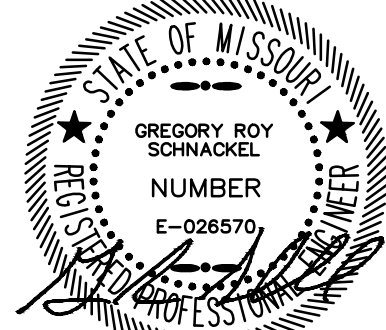
BOS
51 Steeper St.
Boston, MA 02210
617.542.1025

CONSULTANTS:

Schnackel
engineers

800-581-0963
www.schnackel.com
REG. NO. 20000

SEAL SIGNATURE:



NO.	BY	DATE	DESCRIPTION
5		2021-05-17	FIELD NOTICE #2
4		2021-05-03	FIELD NOTICE #1
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM #2
1		2021-03-09	ADDENDUM #1
		2020-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	100 SET

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

FIRE PROTECTION
SPECIFICATIONS

DRAWN BY: DAK
CHECKED BY: GRS
JOB NO: 20068.00

F591

SHEET NUMBER	SHEET NAME
M001	MECHANICAL ABBREVIATIONS AND SYMBOLS
M101	MECHANICAL FLOOR PLAN
M102	MECHANICAL REFRIGERANT PIPING LAYOUT PLAN
M150	MECHANICAL ROOF PLAN
M501	MECHANICAL DETAILS
M502	MECHANICAL DETAILS
M590	MECHANICAL SPECIFICATIONS
M591	MECHANICAL SPECIFICATIONS
M601	MECHANICAL SCHEDULE
M701	HALTON DRAWINGS
M702	HALTON DRAWINGS
M703	HALTON DRAWINGS
M704	HALTON DRAWINGS
M705	HALTON DRAWINGS

CX SUBMITTAL MATRIX									
GENERAL CONTRACTORS TO ALSO REVIEW ARCHITECTURAL SPECIFICATIONS AS NOTED IN PLANS IN PLAN SECTION 700 OF THE ARCHITECTURAL PACKAGE FOR REQUIRED SUBMITTALS THAT MIGHT NOT BE LISTED BELOW.									
SUBMITTAL DESCRIPTION	Required Review Time (in Days)	Required Review of Record	Smoke Shock	Commissioning	Physical Sample Required	Submitted for Record	Submitted for Record Only		
Anchor Bolts Shops	5	X					X		
ATAS-Detailed Shop DWGS(Submitted by Owner Vendor to Owner/AOR prior to const.)	5	X					X		
Concrete Mix Design	5	X					X		
Construction Prefunctional Checklists	5	X		X					X
Decorative Metal Shop Drawings	5	X							
Diffusers, Grills & Registers	5	X					X		
Doors, Frames & Hardware	7	X					X		
Ductwork Layout (if there are significant changes in field)	5	X		X			X		
Electrical Distribution Equipment	5	X		X					
Elevator & Vertical Transportation Shop Drawings	5	X						X	
Epoxy Floor	5	X						X	
Fire Alarm Shop Drawings & Device Cut Sheets	5	X		X			X		
Fire Sprinkler Shop Drawings, Hydraulic Calculations & Device Cut Sheets	5	X		X				X	
HVAC Equipment(if Carrier - Submitted by Owner Vendor to Owner/AOR prior to const.)	5	X		X			X		
Light Fixtures(Submitted by Owner Vendor to Owner/AOR prior to construction)	5	X		X			X		
MEP Tests, Start-Up, and Programming Reports	5	X		X			X		
Millwork - Material Submittals (if differs from spec)	5	X	X	X			X		
Millwork - Shop Drawings (custom items & design features only)	5	X							
Restroom Partitions	5	X					X		
Plumbing Fixtures	5	X		X			X		
Railing Shop Drawings	5	X							X
Rebar	5	X					X		
Stair Shop Drawings	5	X						X	
Structural Steel Shop Drawings	7	X					X		
Storefront - product data Submittal (if different from specified)	5	X							
Storefront - Shop Drawings	5	X							
Tile (if differs from spec)	5	X					X		
Window Film	5	X							

SYMBOLS	
HEATING-VENTILATING-AIR CONDITIONING	
SYMBOL	DESCRIPTION
	THERMOSTAT
	REMOTE SENSOR
	SUPPLY DIFFUSER
	RETURN OR EXHAUST GRILLE
	SUPPLY OR FRESH AIR DUCT (SA OR FA)
	RETURN OR EXHAUST AIR DUCT (RA OR EA)
	RECTANGULAR DUCT FIRST FIGURE IS SIDE SHOWN
	ROUND DUCT
	VOLUME DAMPER (ELEV AND PLAN)
	TURNING VANES
	SUPPLY REGISTER OR GRILLE (R OR G)
	RETURN REGISTER OR GRILLE (R OR G)
	FRESH AIR INTAKE (FA)
	SQUARE CEILING DIFFUSER (SUPPLY)
	CONDENSATE OR VACUUM PUMP DISCHARGE
	GAS LINE
	REFRIGERANT LIQUID LINE
	REFRIGERANT SUCTION LINE
	MOTORIZED DAMPER

RESPONSIBILITY MATRIX									
THIS SCHEDULE IS PROVIDED FOR QUICK REFERENCE ONLY. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS. CONFLICTS BETWEEN THIS SCHEDULE AND THE REST OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PRIOR TO BEGINNING WORK.									
DESCRIPTION	FURNISHED			INSTALLED			REMARKS		
	GENERAL CONTRACTOR	OWNER	LANDLORD	GENERAL CONTRACTOR	OWNER	LANDLORD			
DIVISION 23: HEATING, VENTILATING, AND AIR CONDITIONING									
23.1 HVAC DUCTWORK AND PIPING IDENTIFICATION									
23.1.1 HVAC DUCTWORK SYSTEM IDENTIFICATION	X			X					
23.1.2 PIPING SYSTEM IDENTIFICATION	X			X					
23.1.3 UTILITY SHUT OFF IDENTIFICATION IN KITCHEN	X			X					
23.1.4 VALVE TAGS AND CHART	X			X					
23.1.5 HVAC DAMPER IDENTIFICATION	X			X					
23.2 ROOF CURBS									
23.2.1 EXHAUST FAN CURBS	X			X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RIGGING, CURBS, AND ACCESSORIES		
23.2.2 ROOFTOP UNIT CURBS	X			X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RIGGING, CURBS, AND ACCESSORIES		
23.2.3 CONDENSING UNIT CURBS	X			X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RIGGING, CURBS, AND ACCESSORIES		
23.2.4 MAKE UP AIR UNIT CURBS		X		X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RIGGING, CURBS, AND ACCESSORIES		
23.2.5 KITCHEN EXHAUST FAN CURBS		X		X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE RIGGING, CURBS, AND ACCESSORIES		
23.3 HVAC DUCTWORK SYSTEM COMPONENTS									
23.3.1 HVAC DUCTWORK	X			X					
23.3.2 INSULATION AND FIRE WRAP	X			X			GENERAL CONTACTOR SCOPE OF WORK TO INCLUDE TENANT FIT OUT FROM LANDLORD POINT OF CONNECTION		
23.3.3 DAMPERS	X			X					
23.3.4 SMOKE DETECTORS	X			X					
23.3.5 SUPPLY, RETURN, AND EXHAUST GRILLS AND REGISTERS	X			X					
23.4 MECHANICAL PIPING SYSTEM COMPONENTS									
23.4.1 WALK-IN COOLER AND FREEZER REFRIGERATION		X			X		WALK-IN COOLER AND FREEZER SUPPLIED BY VENDOR NO. 27 GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE PIPING INSTALLATION AND FINAL CONNECTION		
23.4.2 REFRIGERATION FOR OTHER HVAC EQUIPMENT	X			X					
23.4.3 CHILLED WATER	X			X					
23.4.4 CONDENSER WATER	X			X					
23.4.5 HEATING HOT WATER	X			X					
23.4.6 VALVES AND ACCESSORIES (E.G. AIR VENTS)	X			X					
23.5 HVAC EQUIPMENT									
23.5.1 SUPPLY FAN	X			X					
23.5.2 TOILET EXHAUST FAN	X			X					
23.5.3 KITCHEN EXHAUST FAN		X		X			SUPPLIED BY VENDOR NO. 26		
23.5.4 DUCTED AND NON-DUCTED HEATING AND COOLING UNITS	X			X					
23.5.5 MAKE UP AIR UNITS		X		X			SUPPLIED BY VENDOR NO. 26		
23.5.6 ELECTRIC PATIO HEATERS	X			X					
23.5.7 CONDENSING UNITS	X			X					
23.5.8 RGF PHI SYSTEM	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 12 VENDOR SUBSTITUTION IS NOT PERMITTED		
23.6 KITCHEN EXHAUST WITH FIRE SUPPRESSION SYSTEM									
23.6.1 HOOD CONTROL PANEL		X		X			SUPPLIED BY VENDOR NO. 26		
23.6.2 KITCHEN EXHAUST HOOD		X		X			SUPPLIED BY VENDOR NO. 26		
23.6.3 STRUCTURAL SUPPORT	X			X					
23.6.4 ELECTRICAL AND CONTROL WIRING	X			X					
23.6.5 ANSUL SYSTEM		X		X			SUPPLIED BY VENDOR NO. 26 GENERAL CONTRACTOR TO COORDINATE AND FACILITATE SYSTEM SIGN-OFF		
23.6.6 ANSUAL WIRING AND UTILITIES CONNECTION	X			X					
23.6.7 ANSUAL GAS VALVE		X		X			SUPPLIED BY VENDOR NO. 26		
23.7 COMMISSIONING ACTIVITIES									
23.7.1 GREASE EXHAUST WATER LEAKAGE TEST	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 10 VENDOR SUBSTITUTION IS NOT PERMITTED		
23.7.2 TESTING AIR BALANCE (TAB) REPORT	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 12 VENDOR SUBSTITUTION IS NOT PERMITTED		

CX MATRIX									
Division	System / Equipment	Flush & Clean / Sanitize	Pneumatic Pressure Test	Hydrostatic Pressure Test	Duck Leak Test	Insulation Resistance (Megger) Test	Current Testing	Startup	Contractor Performance Checklist
23	Heating Hot and Chilled Water Piping	X		X					
23	HVAC Duct				X				X
23	Exhaust Fans							X	X
23	Indoor and Outdoor Air Units							X	X
23	Dampers							X	X

Cxα SCOPE OF WORK	
Division 23 - Mechanical Commissioning Requirements	
Scope of Work	
- Verify mechanical systems, subsystems, equipment, instrumentation, and control systems have been completed and calibrated according to the Contract Documents and approved submittals.	
- Validate the system is operable by setting the mechanical systems into operating mode to be tested according to approved test procedures (for example; normal shutdown, normal auto position, normal manual position, alarm conditions, etc.).	
Prefunctional Construction Checklists	
- Heating hot water and chilled water piping and fittings.	
- Refrigerant piping and fittings.	
- Condensate piping and fittings.	
- Supply, return, and exhaust duct and fittings.	
- Fans and motors.	
- Indoor air units with and without coils, dampers, and filters.	
- Outdoor air units with and without coils, dampers, and filters.	
- HVAC control system equipment.	
- Temperature sensors.	
- Pumps, motors, accessories, and controls.	
- Backflow preventers.	
- Meters and gages.	
- Valves.	

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800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

51 Sleeper St.
Boston, MA 02210
617.542.1025

www.bergmeyer.com

CONSULTANTS:

S

Schnackel

engineers,

800-581-0963
www.schnackel.com
02-0000-202000

SEAU SIGNATURE:

STATE OF MISSOURI

OSGOREY ROY SCHNACKEL
NUMBER
E-028570
Gregory Roy Schnackel
Date: 05/14/21
COA # E-2009006642

5	2021-05-17	FIELD NOTICE #2
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SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

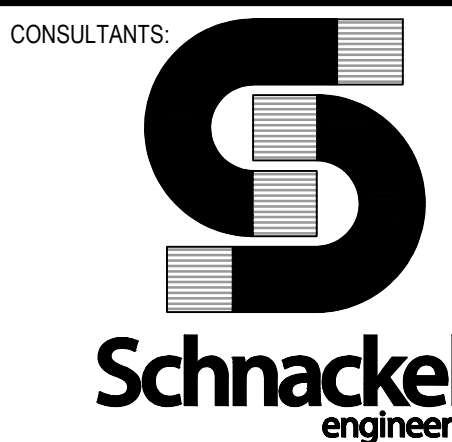
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MECHANICAL
ABBREVIATIONS &
SYMBOLS

DRAWN BY:	RAS
CHECKED BY:	GRS
JOB NO:	20068.00

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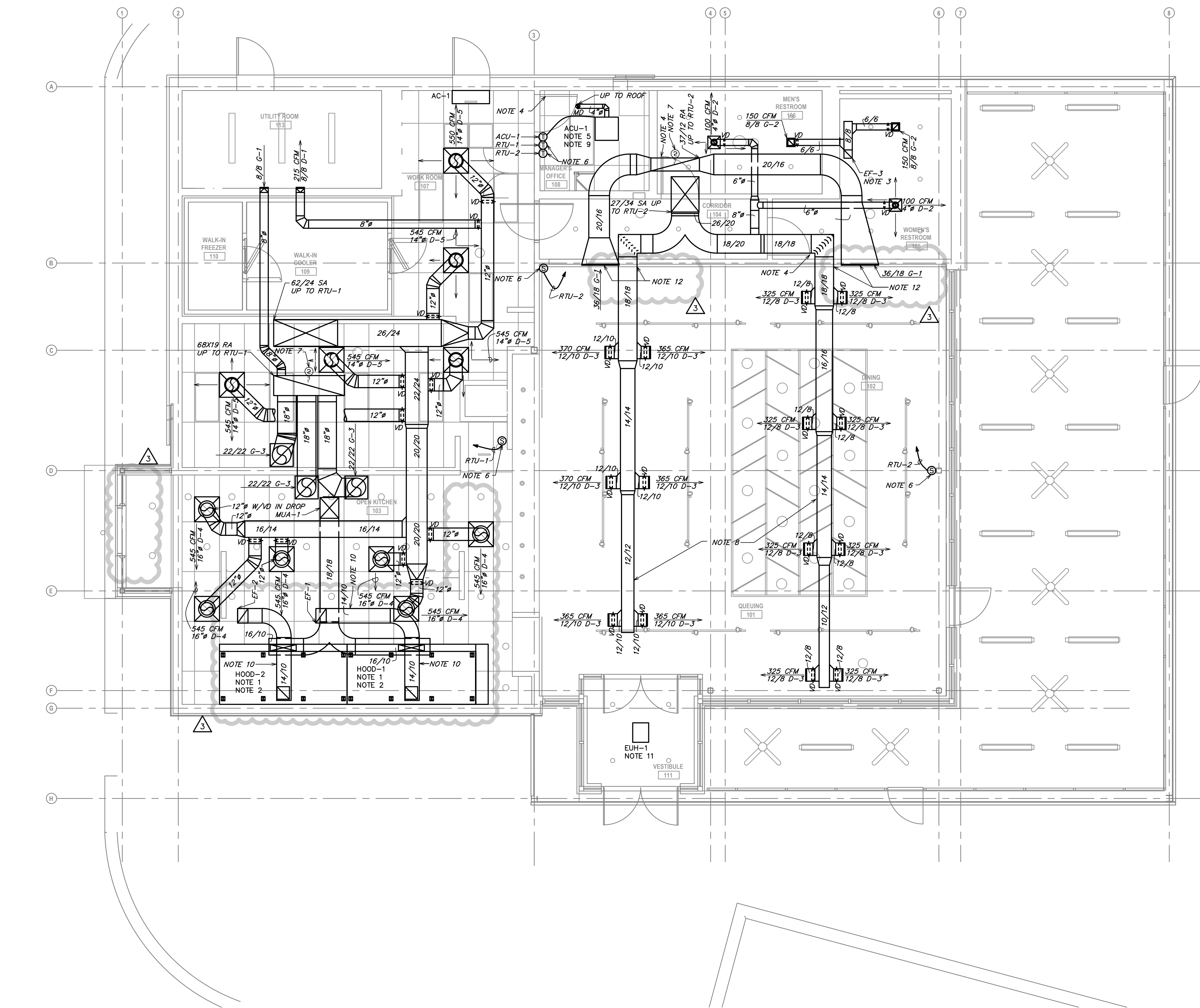
MECHANICAL FLOOR
PLAN

DRAWN BY: RAS
CHECKED BY: GRS
JOB NO: 20060.00

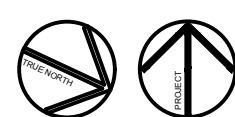
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- HVAC NOTES:
- NEW HALTON GREASE EXHAUST HOOD TO BE FURNISHED BY OWNER FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. SEE HALTON SHEETS M701 THROUGH M705 FOR ADDITIONAL INFORMATION. BALANCE HOOD MAKE-UP AIR AND EXHAUST COLLARS AS NOTED ON THE HOOD SCHEDULE. PROVIDE FULL SIZE TRANSITION MAKE-UP AIR DUCT FROM COLLAR TO MAKE-UP AIR MAIN DUCT AS INDICATED ON PLANS.
 - TRANSITION FROM HOOD EXHAUST COLLAR AS INDICATED ON PLANS AND EXTEND 12/12 KITCHEN HOOD GREASE EXHAUST DUCTWORK UP TO GREASE EXHAUST FAN ON ROOF. SEE SHEET M500 FOR CONTINUATION. GREASE DUCT SHALL BE WRAPPED WITH TWO (2) LAYERS OF THERMAL CERAMICS FAST WRAP XL, 1 1/2" THICK WITH 3" PERIMETER AND LONGITUDINAL OVERLAPS OR EQUIVALENT U.L. LISTED GREASE DUCT WRAP FOR ZERO CLEARANCE TO COMBUSTIBLES. REFER TO DETAIL ON SHEET M501 FOR ADDITIONAL INFORMATION.
 - PROVIDE 8/8 EXHAUST AIR DUCT UP TO EF-3 ON ROOF.
 - CONTRACTOR SHALL UNDERCUT DOOR 3/4".
 - PROVIDE REFRIGERANT LINES FROM ASHP-1 ON ROOF TO ACU-1 IN ROOM 108. LINES SHALL BE SIZED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. PROVIDE ALL ACCESSORIES AS REQUIRED BY MANUFACTURER FOR COMPLETE WORKING SYSTEM, INCLUDING ANY ACCESSORIES ASSOCIATED WITH LONG LENGTH APPLICATIONS WHERE APPLICABLE.
 - PROVIDE NEW FULLY DIGITAL 7 DAY PROGRAMMABLE TYPE THERMOSTAT WITH REMOTE SENSING CAPABILITIES, AUTO CHANGE OVER AND AUTO SET BACK. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. THERMOSTATS SERVING THE SAME TEMPERATURE ZONE SHALL BE INTERLOCKED TO PREVENT SIMULTANEOUS HEATING AND COOLING. PROVIDE REMOTE TEMPERATURE SENSORS AS INDICATED ON PLAN. COORDINATE LOCATION WITH WALL GRAPHICS LAYOUT.
 - DUCT SMOKE DETECTOR ON RETURN SIDE DUCT AND SHUTDOWN RELAY SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. ALL WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.
 - ROUTE EXPOSED SUPPLY DUCT CENTER AT 12'-6" ABOVE FINISHED FLOOR. COORDINATE ROUTING AND MOUNTING HEIGHT WITH LIGHTING FIXTURES/FEATURES. TYPICAL OF EXPOSED DUCTWORK. NOTIFY ARCHITECT REGARDING ANY CONFLICT.
 - PROVIDE NEW ACHS AS NOTED ON PLANS AND AS SCHEDULED ON SHEET M601.
 - PROVIDE CLEANSOUTS ON GREASE EXHAUST DUCTWORK AS REQUIRED BY CODE. REFERENCE SHEET M501, DETAIL 5, FOR ADDITIONAL INFORMATION.
 - ELECTRIC UNIT HEATERS ARE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. REFERENCE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE ANY DUCTWORK PENETRATIONS OR EQUIPMENT MOUNTING WITH ARCHITECT TO AVOID FUTURE FEATURE ITEM. NOTIFY ARCHITECT OF ANY CONFLICT OR COORDINATION ISSUES.



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



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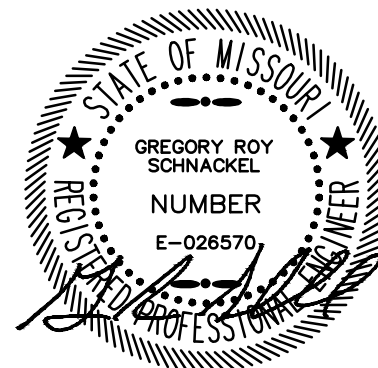
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CONSULTANTS:



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REG. NO. 201801

SEAL SIGNATURE:



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COA # E-202006642

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SHAKE SHACK - LEE'S
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MISSOURI
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PERMIT/BID SET

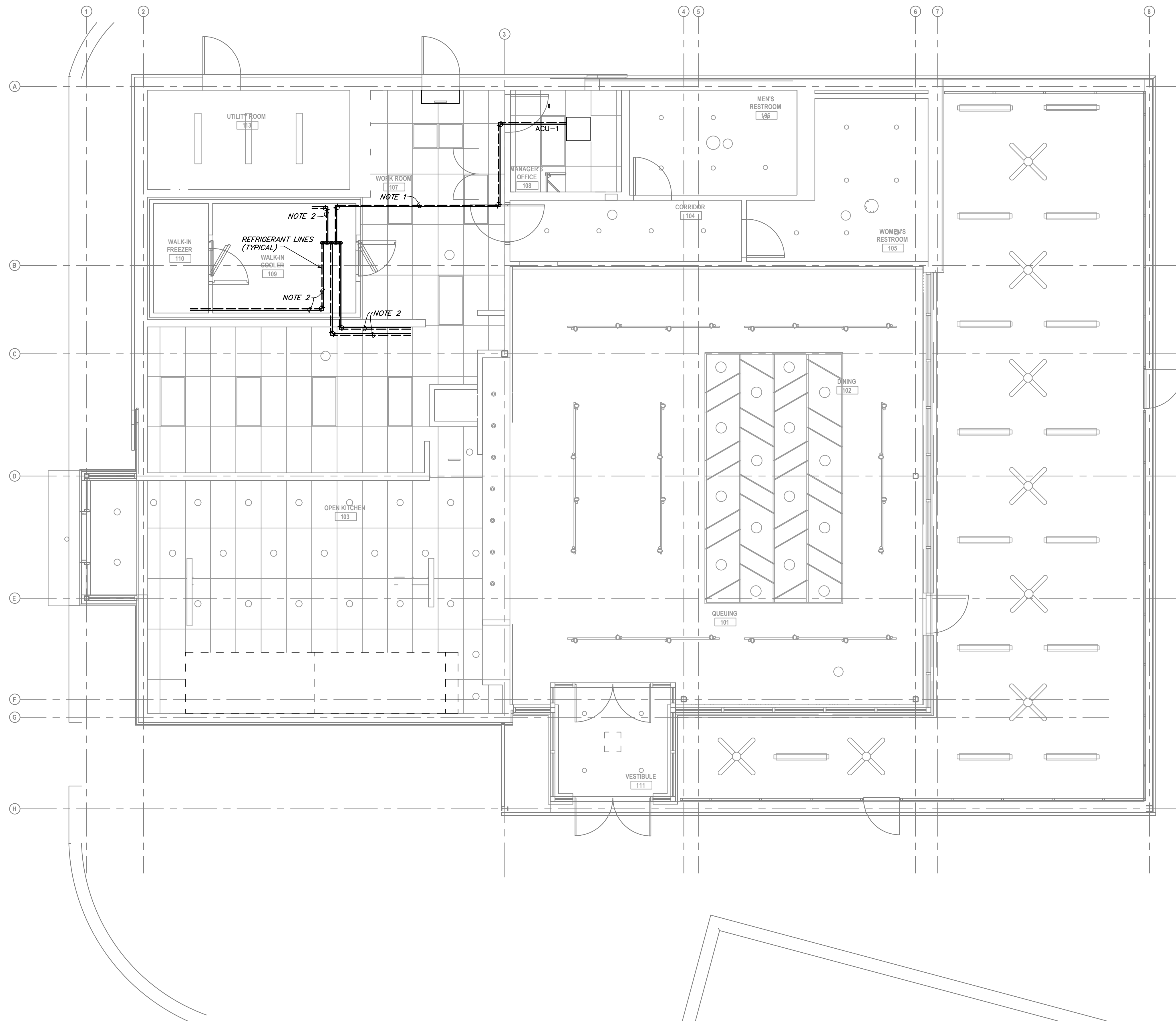
MECHANICAL
REFRIGERANT PIPING
LAYOUT PLAN

DRAWN BY:	RAS
CHECKED BY:	GRS
JOB NO:	20066.00

M102

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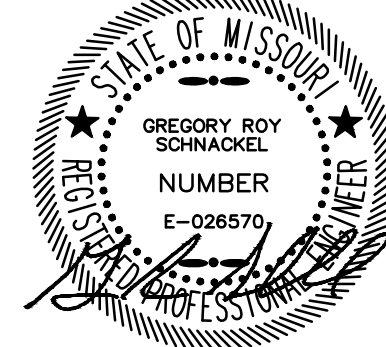
1 MECHANICAL REFRIGERANT PIPING LAYOUT PLAN
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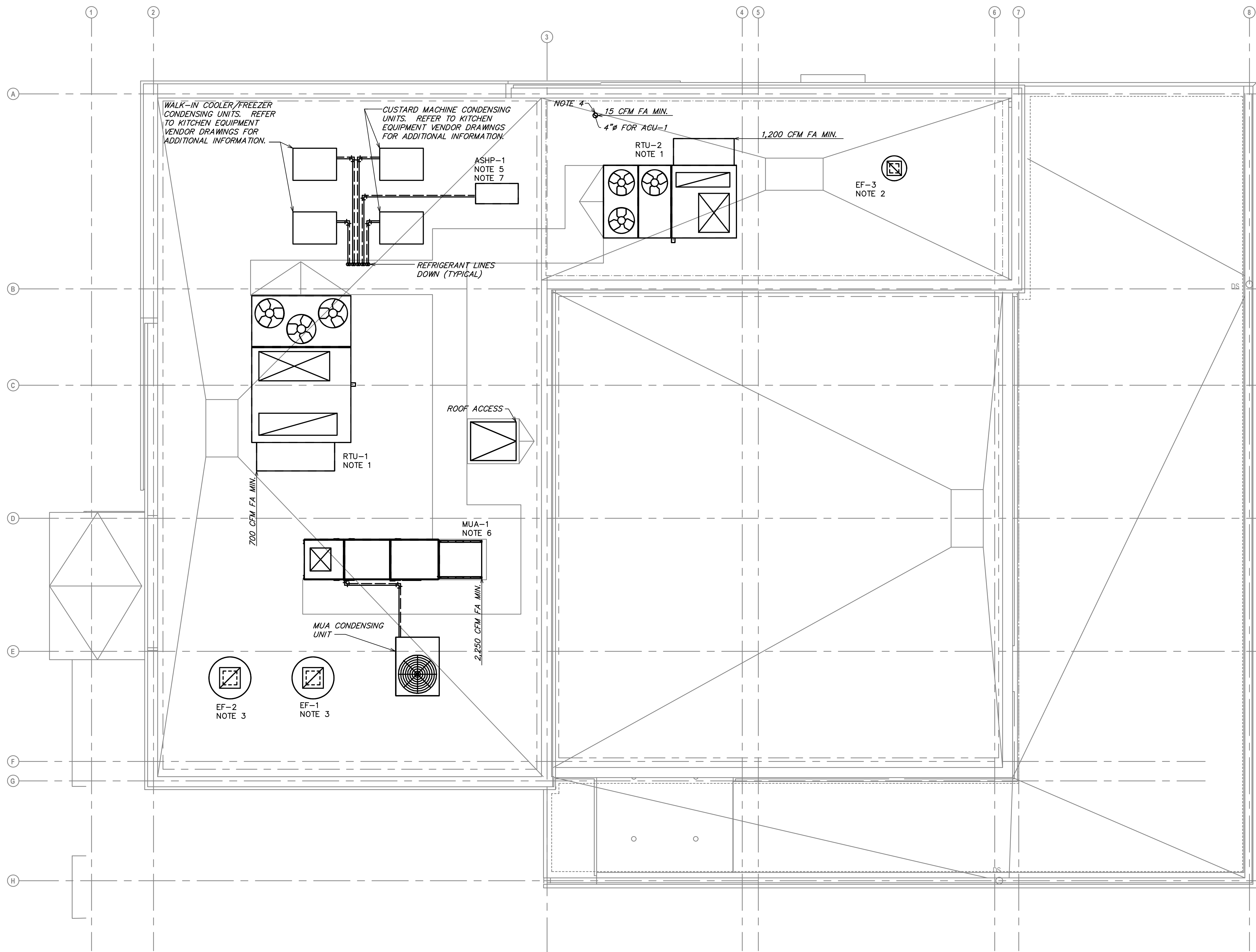
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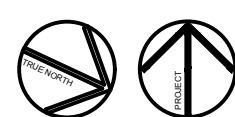
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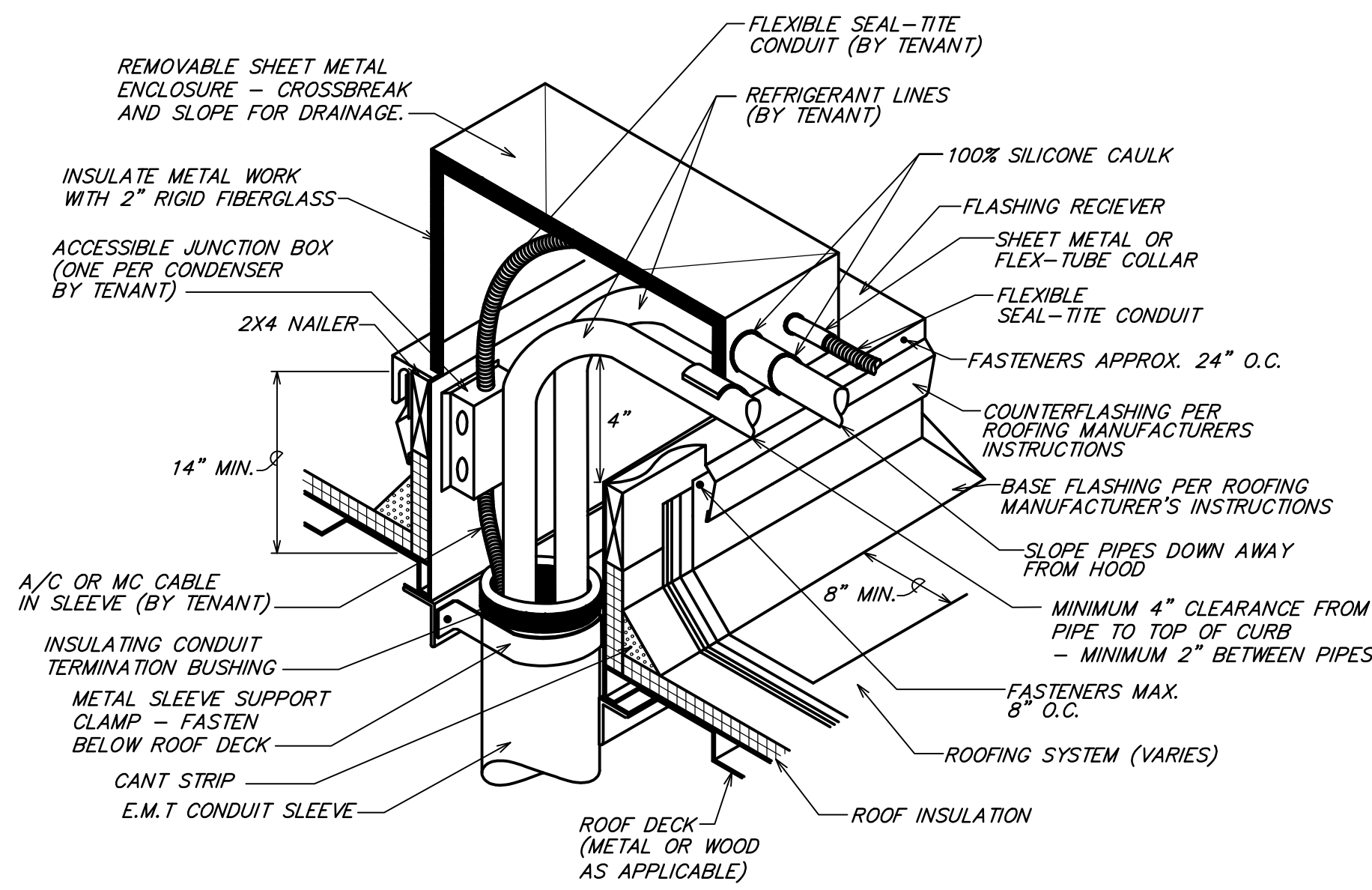
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 - ALL DUCT DIMENSIONS INDICATED ARE CLEAR INSIDE DIMENSIONS. ALL SUPPLY AND UNTEMPERED OUTDOOR AIR DUCTWORK SHALL BE LINED WITH 1" ACOUSTICAL DUCT LINER OR WRAPPED WITH 1-1/2" THICK FIRE RETARDANT FIBERGLASS WITH A REINFORCED ALUMINUM FOIL JACKET AND SHALL BE APPROVED FOR USE BY SHAGNA AND NAHA. RETURN AIR TRANSFER DUCTS AND RETURN DUCTWORK WITHIN 10 FEET OF THE UNIT FAN SHALL BE LINED WITH 1" ACOUSTICAL DUCT LINER.
 - ALL SUPPLY AND UNTEMPERED OUTDOOR AIR DUCTWORK VISIBLE TO THE PUBLIC SHALL BE INTERNALLY LINED AND PAINTED TO MATCH THE SURROUNDING AREA. DUCT WRAP INSULATION IS NOT PERMITTED IN THESE AREAS.
 - EXPOSED SPIRAL DUCT TO BE GALVANIZED FINISH, FREE FROM SCRATCHES, DENTS OR BLEMISHES AND PAINTED TO MATCH THE SURROUNDING AREA. DUCT SHALL BE INTERNALLY LINED AND SEALED WITH DUCT SEALER COMPLETELY CONCEALED WITHIN THE DUCT JOINT. NO EXPOSED SEALER OR TAPE WILL BE ACCEPTED.
 - ALL EXPOSED DUCTWORK SHALL BE INSTALLED TIGHT TO THE BOTTOM OF THE STRUCTURE.
 - PROVIDE REMOTE VOLUME DAMPER CONTROL MANUFACTURED BY YOUNG REGULATOR OR UNITED ENERTECH FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS. LOCATE CONTROLS ABOVE ACCESSIBLE CEILING LOCATIONS.
 - REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL ACCESSORIES AS REQUIRED BY MANUFACTURER FOR COMPLETE WORKING SYSTEM, INCLUDING ANY ACCESSORIES ASSOCIATED WITH LONG LENGTH APPLICATIONS WHERE APPLICABLE.
 - TENANT'S CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL UTILITY RUNS AND/OR OTHER IMPROVEMENTS LOCATED ON THE PREMISES PRIOR TO BIDDING. TENANT'S CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL COSTS RELATING TO THE RELOCATION OF, DAMAGE TO, REPAIR OF ANY EXISTING UTILITY RUNS AND/OR IMPROVEMENTS WHICH ARE DAMAGED AS A RESULT OF TENANT'S WORK IN OR AROUND THE PREMISES.
 - ALL ROOFING WORK SHALL BE PERFORMED BY LANDLORD'S APPROVED ROOFING CONTRACTOR AT TENANT'S EXPENSE, IF REQUIRED IN LEASE OR TENANT CRITERIA MANUAL.
 - ALL GREASE EXHAUST DUCTWORK SHALL BE PROVIDED WITH 3" FOIL FACED THERMAL-CERAMIC INSULATION FOR GREASE DUCTS. INSULATION SHALL MEET NFPA 96 AND ASTM E-2535 REQUIREMENTS.
 - GREASE DUCT LEAKAGE TESTING MUST BE PERFORMED PRIOR TO CONCEALMENT OF THE DUCTWORK.
 - MECHANICAL CONTRACTOR SHALL PROVIDE TENANT WITH A WRITTEN ONE (1) YEAR MANUFACTURER'S WARRANTY ON ALL HVAC EQUIPMENT PROVIDED AND / OR INSTALLED. THE WARRANTY SHALL INCLUDE ALL LABOR, MATERIALS AND THREE (3) ROUTINE SERVICES INCLUDING FILTER CHANGES DURING A ONE (1) YEAR PERIOD.
 - AT THE COMPLETION OF CONSTRUCTION AN NEBB, AABC OR TABB CERTIFIED AIR BALANCE REPORT SHALL BE SUBMITTED TO THE ENGINEER AND LANDLORD. THE BALANCING SHALL BE COMPLETED BY NATIONAL TAB. CONTACT WILL TURNBOURH AT WILL@NATIONALTAB.COM OR 314-954-6244.

- HVAC NOTES:**
- PROVIDE NEW RTU AS NOTED ON PLANS AND AS SCHEDULED ON SHEET M-601. FIELD VERIFY EXACT LOCATION.
 - PROVIDE NEW EXHAUST FAN AS NOTED ON PLANS AND SCHEDULED ON SHEET M-601. THE CONTRACTOR SHALL FIELD VERIFY THAT THE LOCATION SHOWN IS A MINIMUM OF 10'-0" FROM ANY OUTDOOR AIR INTAKE.
 - NEW HALTON GREASE EXHAUST FAN TO BE PROVIDED BY OWNER FOR INSTALLATION BY MECHANICAL CONTRACTOR. SEE HALTON SHEETS M701 THROUGH M705 FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL FIELD VERIFY THAT THE LOCATION SHOWN IS A MINIMUM OF 10'-0" FROM ANY OUTDOOR AIR INTAKE.
 - PROVIDE GOOSENECK TERMINATION FOR OUTDOOR AIR INTAKE FOR ACU-1. CONTRACTOR SHALL FIELD VERIFY THAT THE LOCATION IS A MINIMUM OF 10'-0" FROM ANY EXHAUST FAN TERMINATION.
 - PROVIDE REFRIGERANT LINES FROM ASHP-1 ON ROOF TO ACU-1 IN ROOM 108. LINES SHALL BE SIZED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. PROVIDE ALL ACCESSORIES AS REQUIRED BY MANUFACTURER FOR COMPLETE WORKING SYSTEM, INCLUDING ANY ACCESSORIES ASSOCIATED WITH LONG LENGTH APPLICATIONS WHERE APPLICABLE.
 - NEW HALTON MAKE-UP AIR UNIT TO BE PROVIDED BY OWNER FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. SEE HALTON SHEET M-701 THROUGH M-705 FOR ADDITIONAL INFORMATION.
 - PROVIDE ASHP AS NOTED ON PLANS AND SCHEDULED ON SHEET M601.

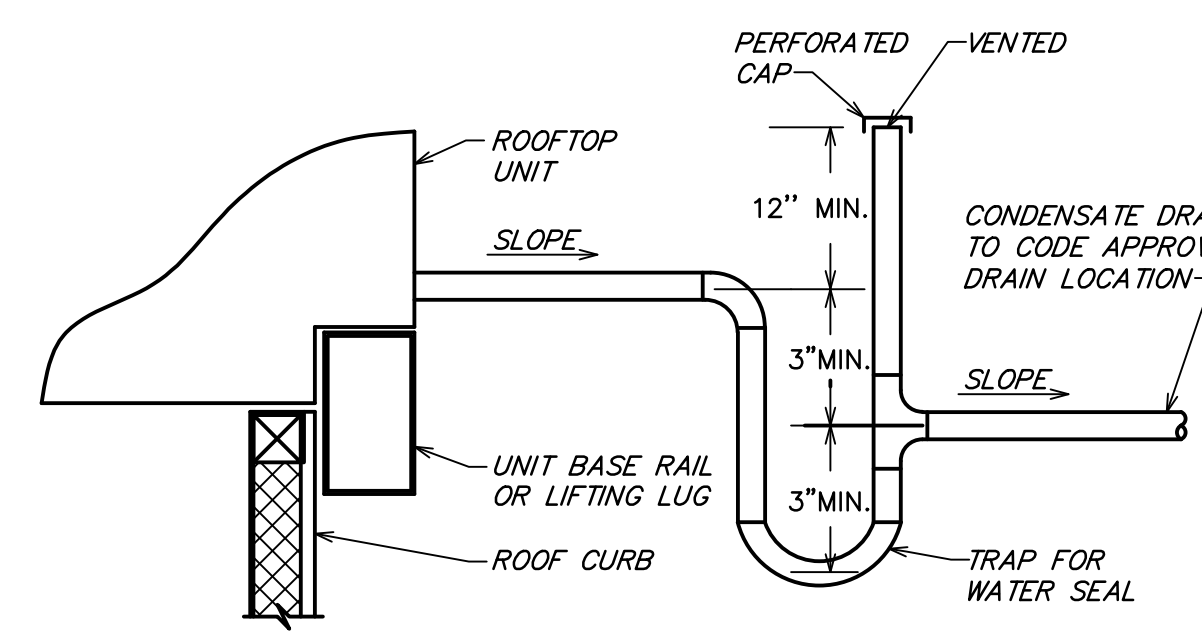


1 MECHANICAL ROOF PLAN
SCALE: 1/4" = 1'-0"

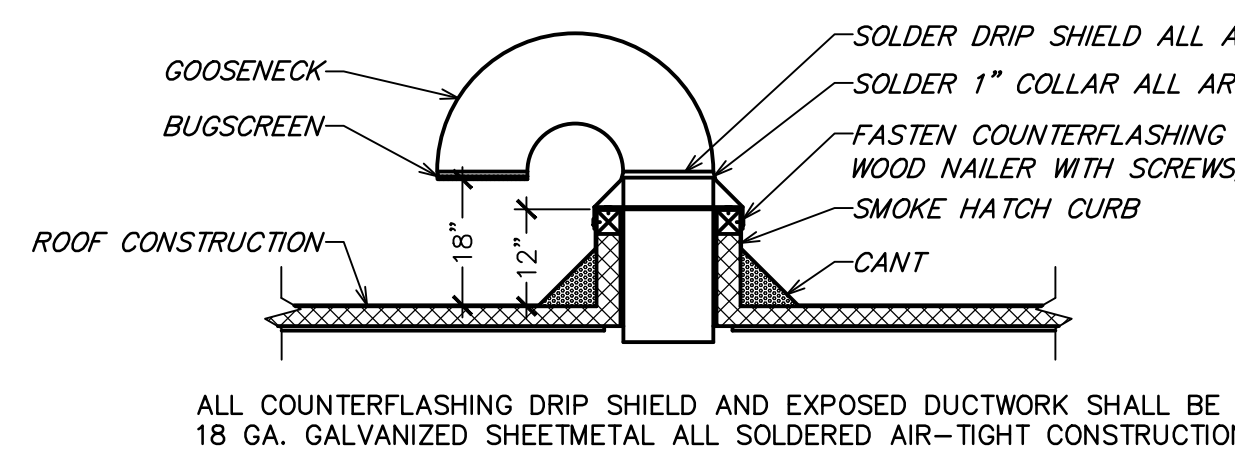




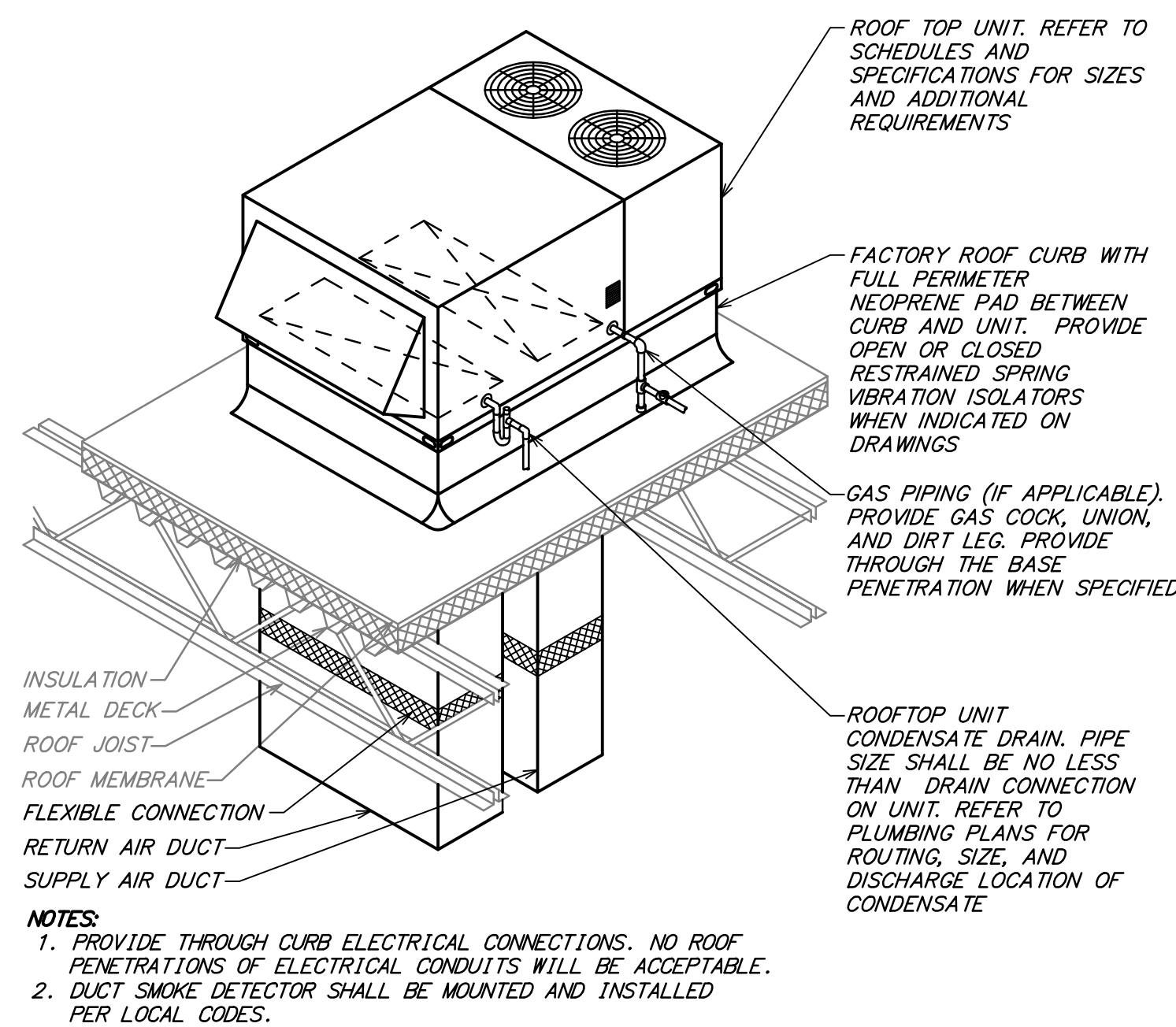
7 CONDENSER REFRIGERANT LINE PIPING AND POWER THROUGH ROOF DECK
NOT TO SCALE



8 ROOF TOP UNIT CONDENSATE DETAIL
NOT TO SCALE



9 GOOSENECK WEATHERHOOD DETAIL
NOT TO SCALE



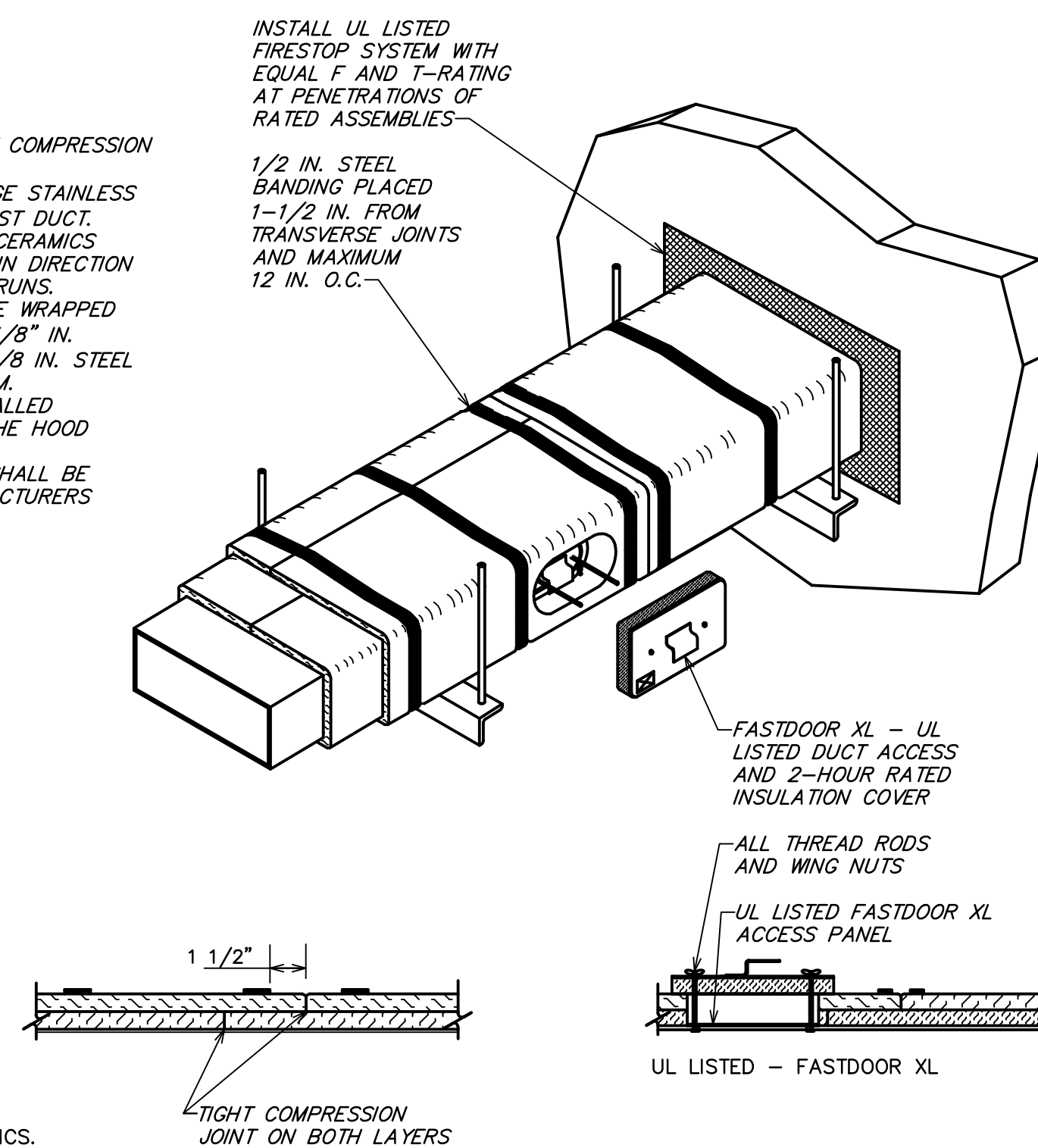
10 TYPICAL ROOF TOP UNIT DETAIL
NOT TO SCALE

MAXIMUM HALF OF DUCT PERIMETER	PAIR AT 10 FT. SPACING		PAIR AT 8 FT. SPACING		PAIR AT 5 FT. SPACING		PAIR AT 4 FT. SPACING	
	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD
P/2 = 30"	1" x 22 GA.	10 GA. (.135")	1" x 22 GA.	10 GA. (.135")	1" x 22 GA.	12 GA. (.106")	1" x 22 GA.	12 GA. (.106")
P/2 = 72"	1" x 18 GA.	3/8"	1" x 20 GA.	1/4"	1" x 22 GA.	1/4"	1" x 22 GA.	1/4"
P/2 = 96"	1" x 16 GA.	3/8"	1" x 18 GA.	3/8"	1" x 20 GA.	3/8"	1" x 22 GA.	1/4"
P/2 = 120"	1 1/2" x 16 GA.	1/2"	1" x 16 GA.	3/8"	1" x 18 GA.	3/8"	1" x 20 GA.	1/4"
P/2 = 168"	1 1/2" x 16 GA.	1/2"	1 1/2" x 16 GA.	1/2"	1" x 16 GA.	3/8"	1" x 18 GA.	3/8"
P/2 = 192"	---	1/2"	1 1/2" x 16 GA.	1/2"	1" x 16 GA.	3/8"	1" x 16 GA.	3/8"
P/2 = 193" UP	SPECIAL ANALYSIS REQUIRED							
WHEN STRAPS ARE LAP JOINED USE THESE MINIMUM FASTENERS:				SINGLE HANGER MAXIMUM ALLOWABLE LOAD				
				STRAP		WIRE OR ROD (DIA.)		
1" x 18, 20, 22 GA. - TWO #10 OR ONE 1/4" BOLT				1" x 22 GA. - 260 LBS.		0.106" - 80 LBS.		
1" x 16 GA. - TWO 1/4" DIA.				1" x 20 GA. - 320 LBS.		0.135" - 120 LBS.		
1" x 16 GA. - TWO 3/8" DIA.				1" x 18 GA. - 420 LBS.		0.162" - 160 LBS.		
1" x 16 GA. - TWO 7/8" DIA.				1" x 16 GA. - 700 LBS.		1/4" - 270 LBS.		
1 1/2" x 16 GA. - 1100 LBS.						3/8" - 680 LBS.		
						1/2" - 1250 LBS.		
						5/8" - 2000 LBS.		
						3/4" - 3000 LBS.		

NOTES:
1. DIMENSIONS OTHER THAN GAUGE ARE IN INCHES.
2. TABLES ALLOW FOR DUCT WEIGHT, 1 LB./SF INSULATION WEIGHT AND NORMAL REINFORCEMENT AND TRAPEZE WEIGHT, BUT NO EXTERNAL LOADS.
3. STRAPS ARE GALVANIZED STEEL; OTHER MATERIALS ARE UNCOATED STEEL.
4. ALLOWABLE LOADS FOR P/2 ASSUME THAT DUCTS ARE 16 GA. MAXIMUM, EXCEPT THAT WHEN MAXIMUM DUCT DIMENSION (W) IS OVER 60" THEN P/2 MAXIMUM IS 1.25 W.
5. 12, 10 OR 8 GA. WIRE IS STEEL OF BLACK ANNEALED, BRIGHT BASIC OR GALVANIZED TYPE.
6. DUCTS SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING 10 FEET.

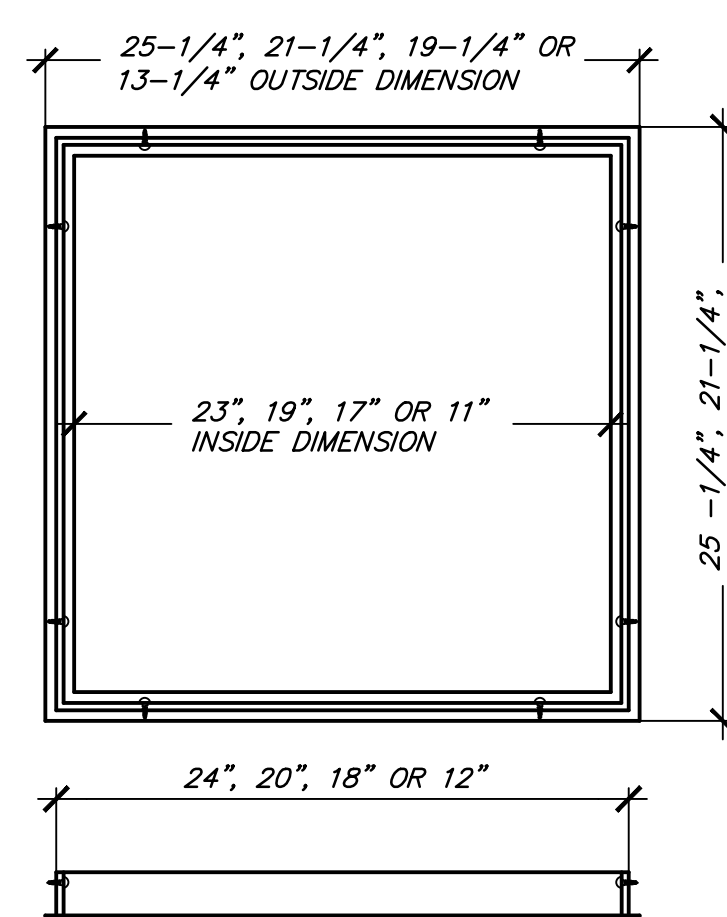
4 RECTANGULAR DUCT HANGER TABLE
NOT TO SCALE

- NOTES:
1. THERMAL CERAMICS FIREMASTER FASTWRAP XL IS TESTED TO ASTM E2336 AND UL LISTED PER HMKTG18 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND TO PROVIDE A 1 OR 2 HOUR EXPOSURE THROUGH PENETRATIONS. FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH ASTM E 814 (UL 1479), ICC-ES APPROVAL PER REPORT ESR 2213 OR ESR 2832.
 2. COMPLIANT TO THE FOLLOWING CODES:
NFPA 96
INTERNATIONAL MECHANICAL CODES
CALIFORNIA MECHANICAL CODE
 3. INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON BOTH LAYERS AT ALL JOINTS.
 4. MINIMUM 16 GAUGE CARBON STEEL (OR 18 GAUGE STAINLESS STEEL) RECTANGULAR OR ROUND GREASE EXHAUST DUCT.
 5. INSTALL UL LISTED AND LIQUID TIGHT THERMAL CERAMICS FASTDOOR XL ACCESS DOORS AT ALL CHANGES IN DIRECTION AND AT MINIMUM EVERY 20 FT. ON HORIZONTAL RUNS.
 6. SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE MINIMUM OF 3/8" IN. DIAMETER AND SUPPORTS ARE MINIMUM 2" x 1/8" IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.
 7. THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED DIRECTLY ONTO THE DUCT AND APPLIED FROM THE HOOD CONNECTION TO THE CONNECTION OF THE FAN.
 8. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND UL LISTINGS.

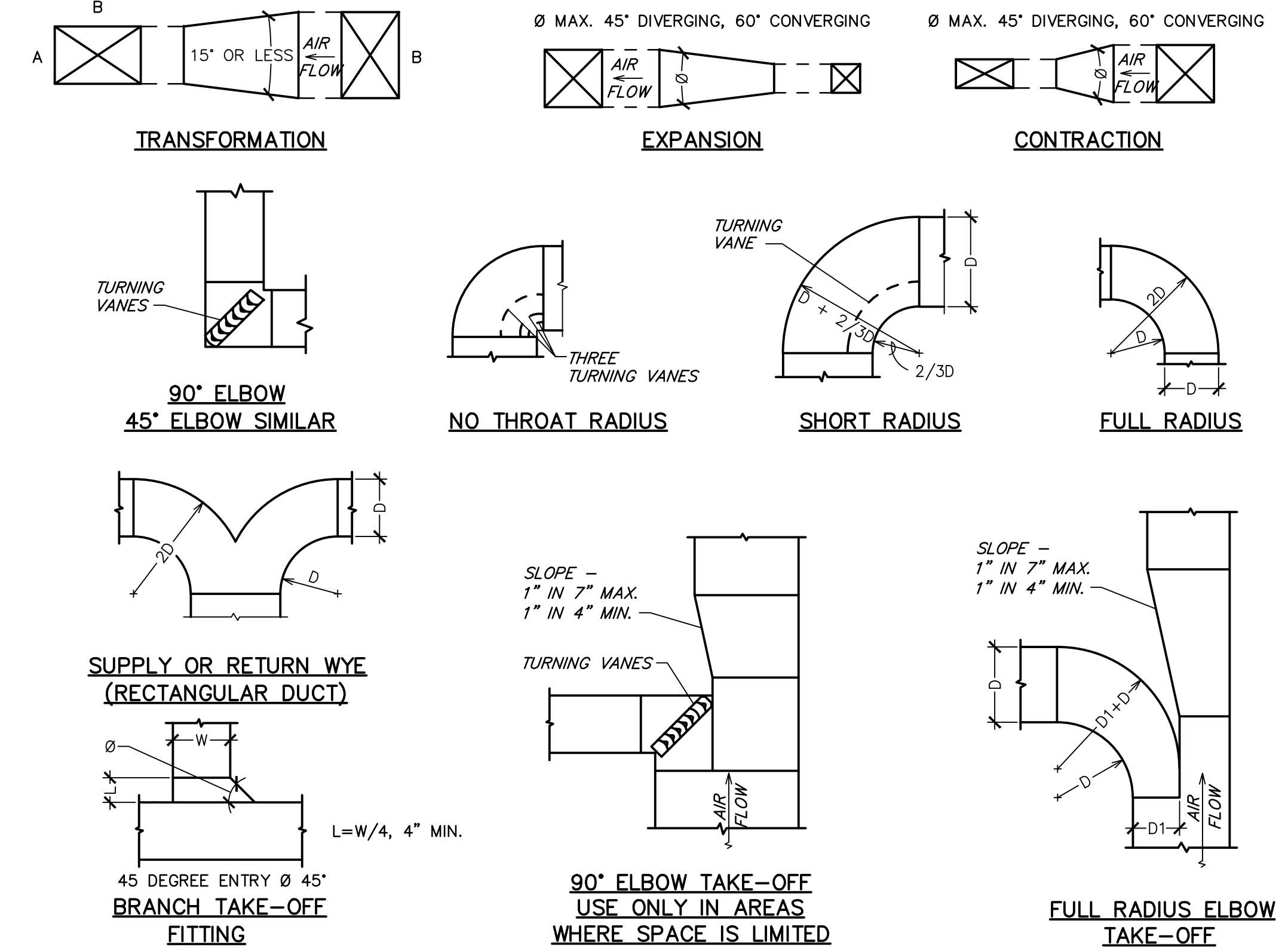


** DETAIL COURTESY OF MORGAN THERMAL CERAMICS.

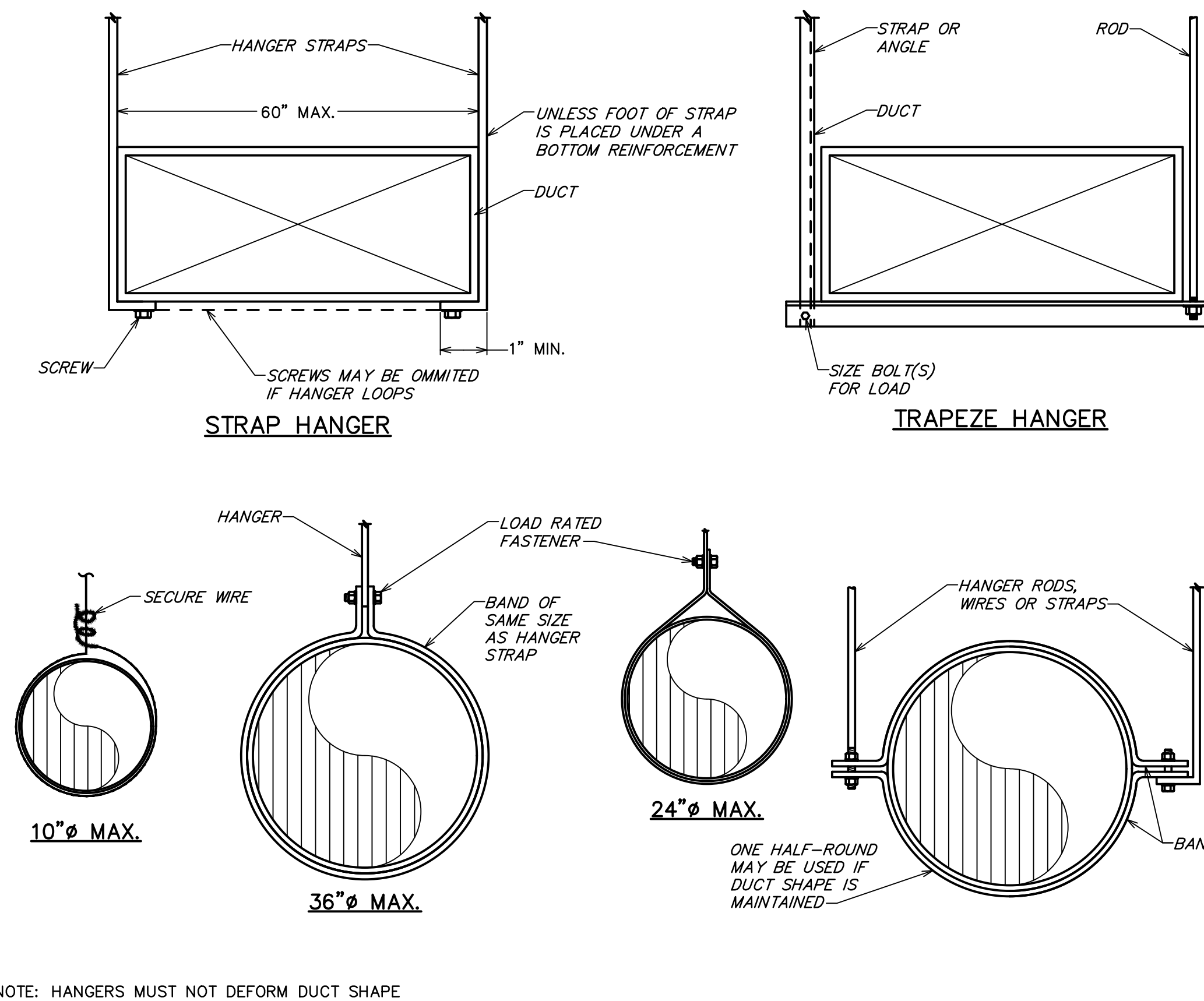
5 FIREMASTER FASTWRAP XL DETAIL
NOT TO SCALE



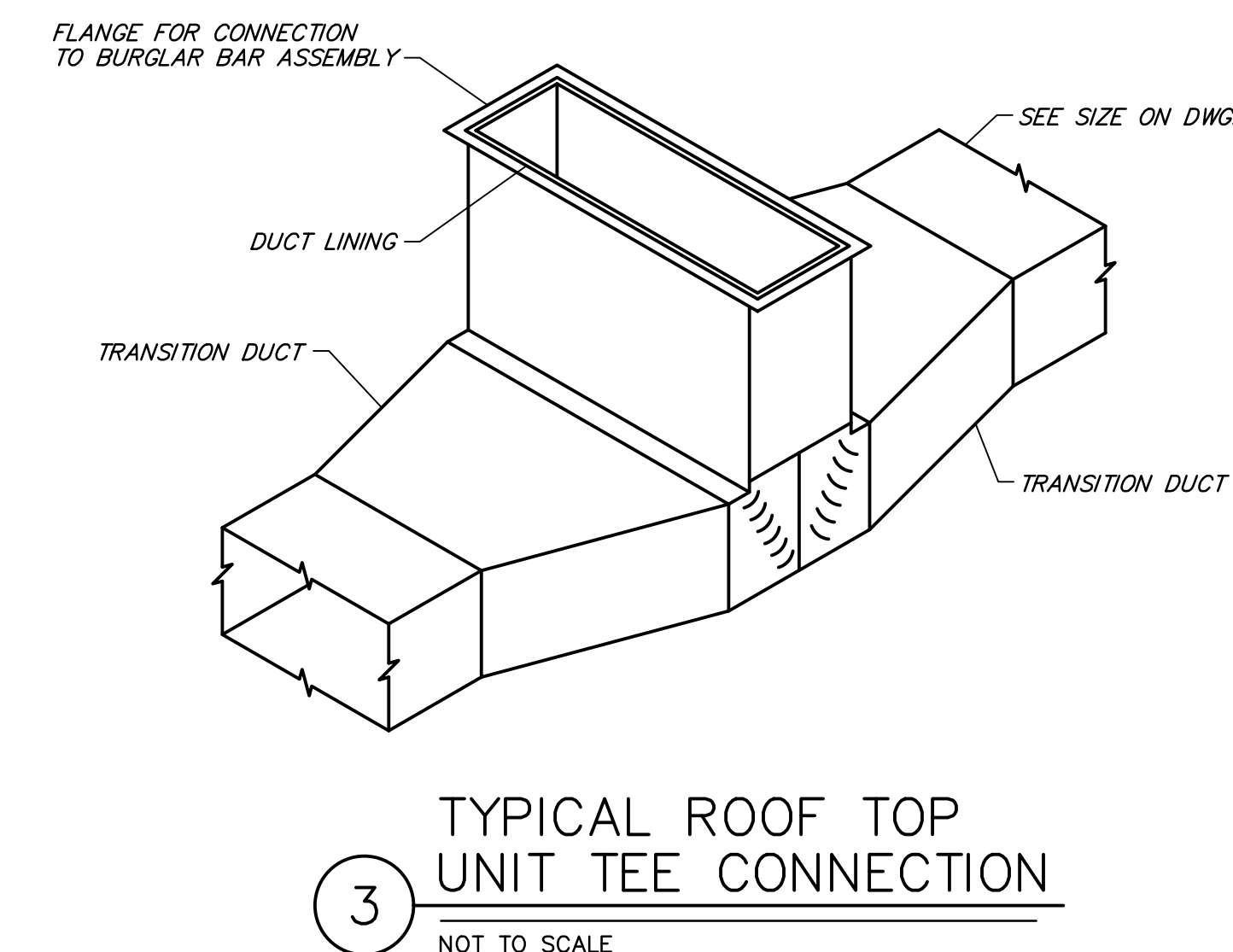
6 TYPICAL DRYWALL MOUNTING FRAME DETAIL
NOT TO SCALE



1 DUCTWORK DETAILS
NOT TO SCALE



2 DUCT HANGER DETAIL
NOT TO SCALE



3 TYPICAL ROOF TOP UNIT TEE CONNECTION
NOT TO SCALE

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/17/2021

www.bergmeyer.com

800 South Figueroa St.
Los Angeles, CA 90017
617.542.1020

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Sleeper St.
Boston, MA 02210
617.542.1025

Bergmeyer

CONSULTANTS:

Schnackel engineers

800-581-0963
www.schnackel.com
REG. NO. 20020

SEAL SIGNATURE:

STATE OF MISSOURI
GREGORY ROY SCHNACKEL
NUMBER E-028570
Date: 05/14/21
COA # E-2020006642

5	2021-05-17	FIELD NOTICE #2	
4	2021-05-03	FIELD NOTICE #1	
3	2021-04-26	ISSUED FOR CONSTRUCTION	
2	2021-03-31	ADDENDUM #2	
1	2021-03-09	ADDENDUM #1	
	2021-01-11	PERMIT/BID SET	
	2020-12-21	75% SET	
	2020-10-12	DD SET	
NO.	BY	DATE	DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

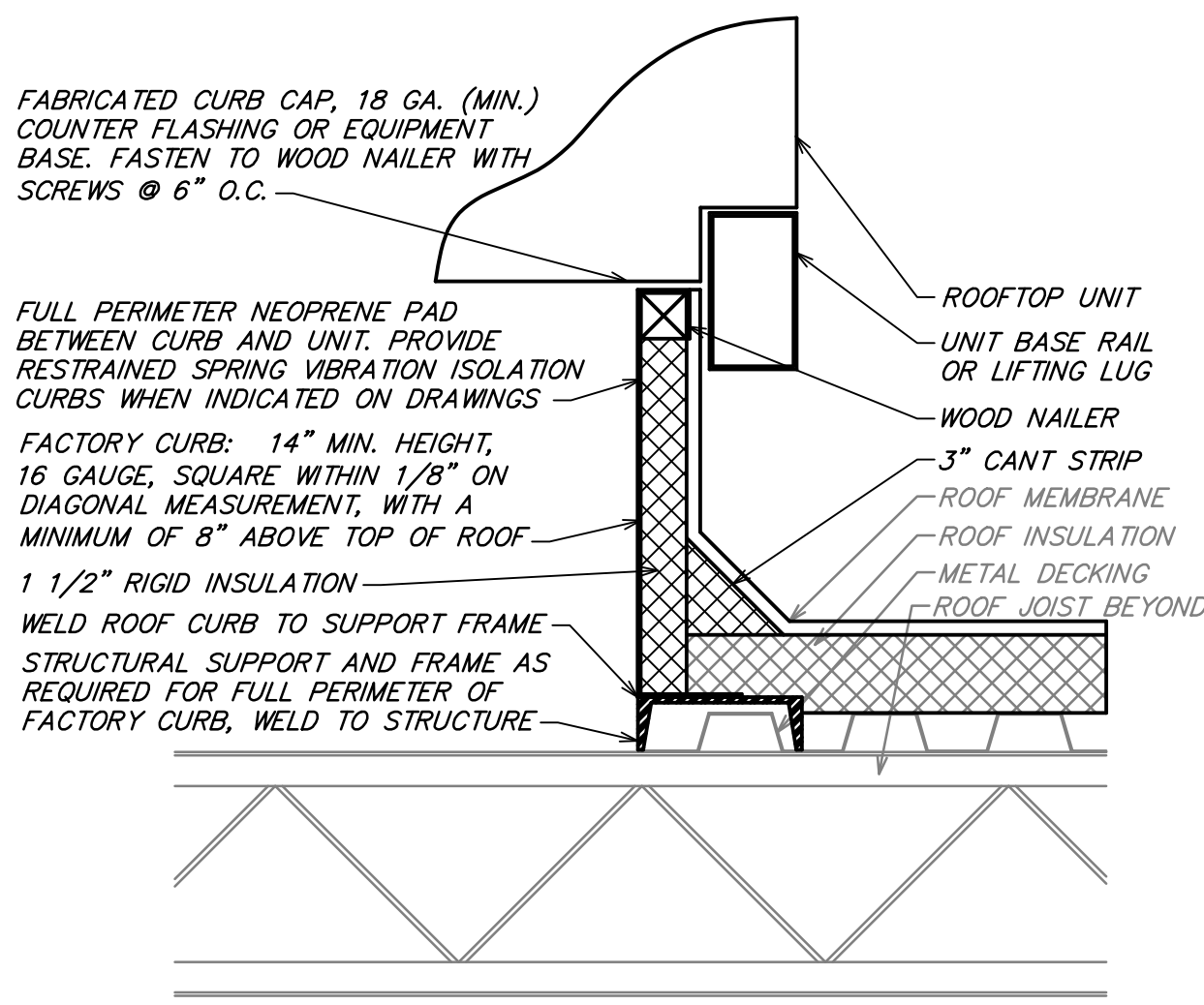
MECHANICAL DETAILS

DRAWN BY: RAS

CHECKED BY: ORS

JOB NO: 20068.00

M501

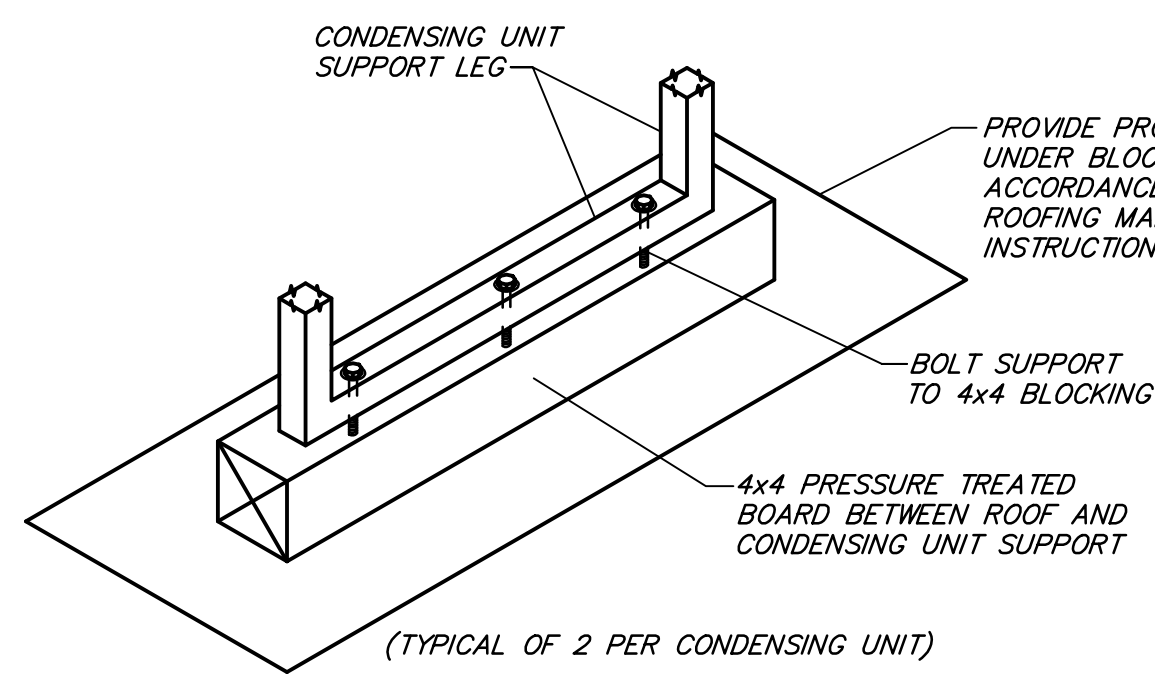


NOTES:

1. CUT AND PATCH EXISTING ROOFING AS REQUIRED FOR NEW CURB INSTALLATION.
2. CURB SHALL BE SHIMMED LEVEL. PROVIDE TAPERED ROOF CURB IF REQUIRED.
3. SECURELY INSTALL CURB TO ROOF STRUCTURE; USE FASTENERS AS REQUIRED BY ROOF CONSTRUCTION.

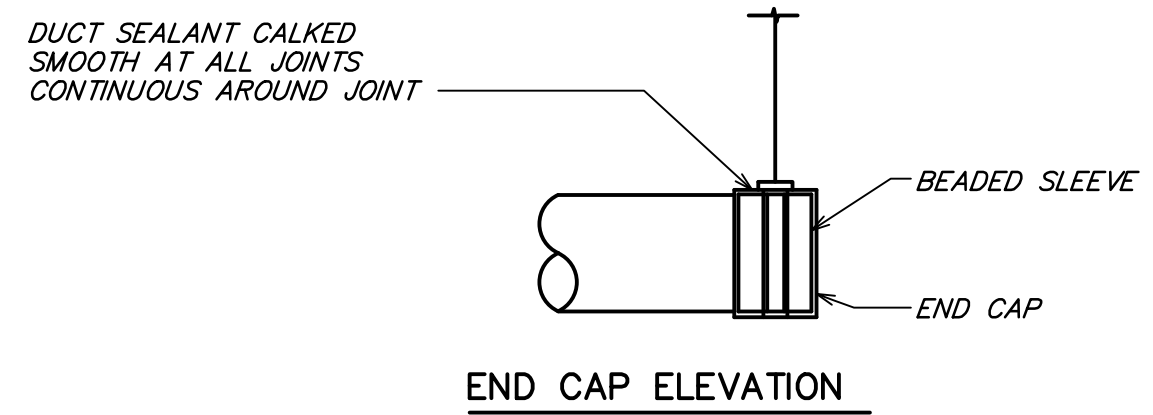
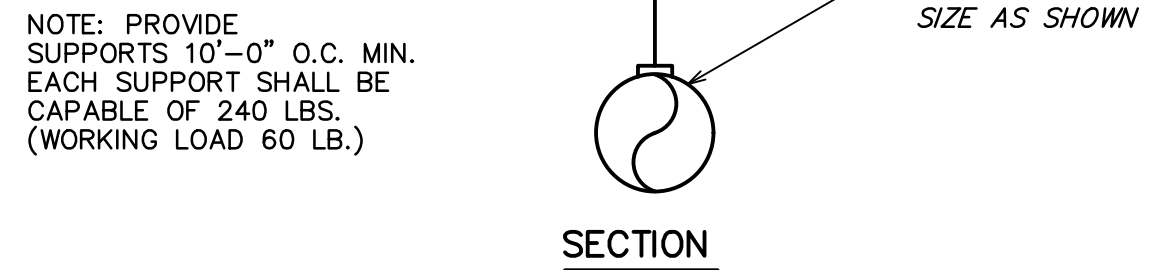
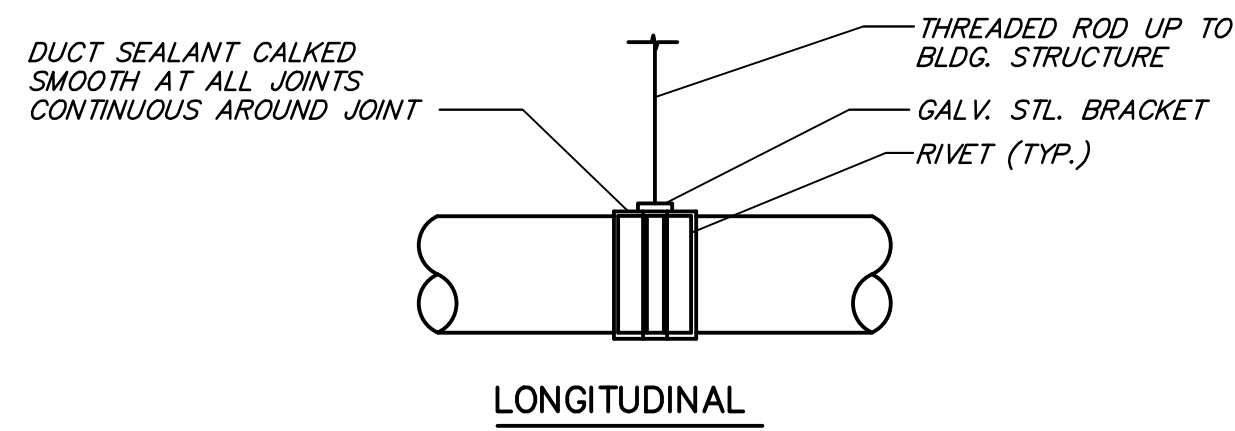
13 ROOF CURB DETAIL

NOT TO SCALE



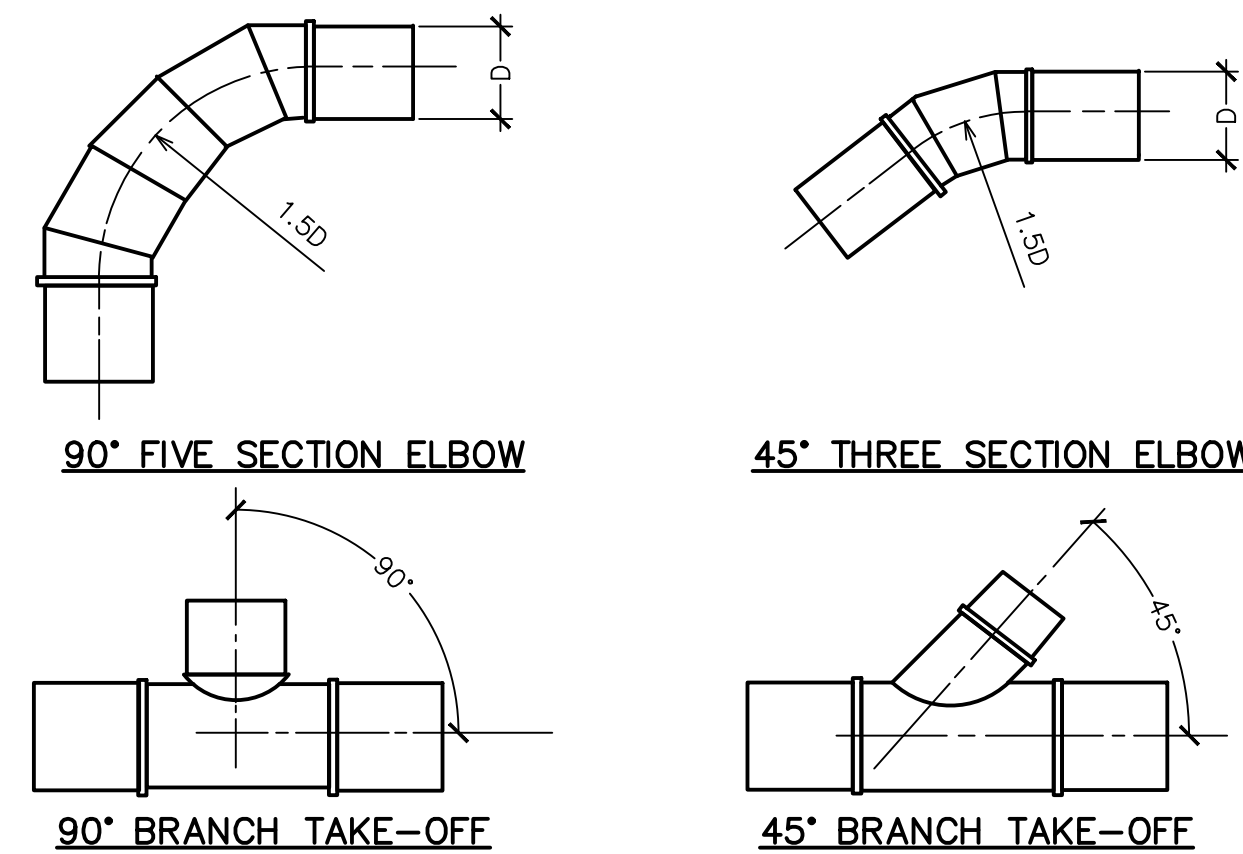
10 CONDENSING UNIT SUPPORT DETAIL

NOT TO SCALE



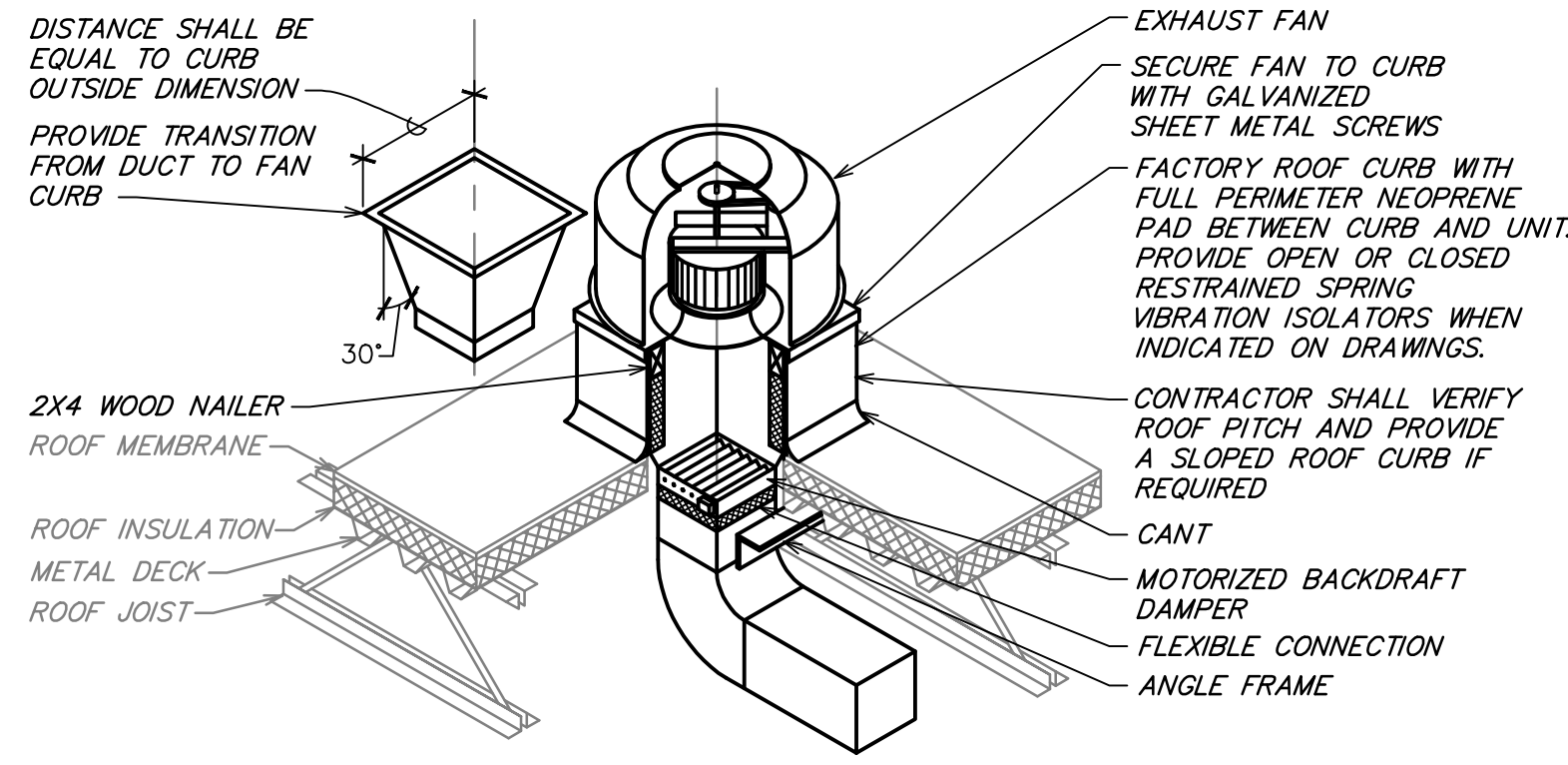
11 EXPOSED ROUND DUCT SUPPORT DETAIL

NOT TO SCALE



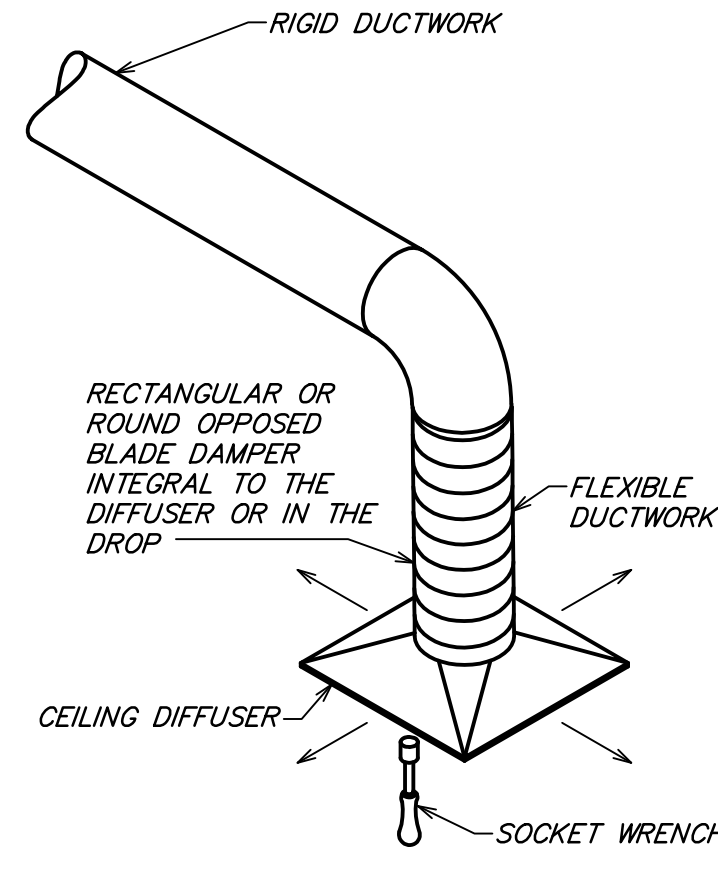
12 TYPICAL ROUND DUCT FITTINGS

NOT TO SCALE



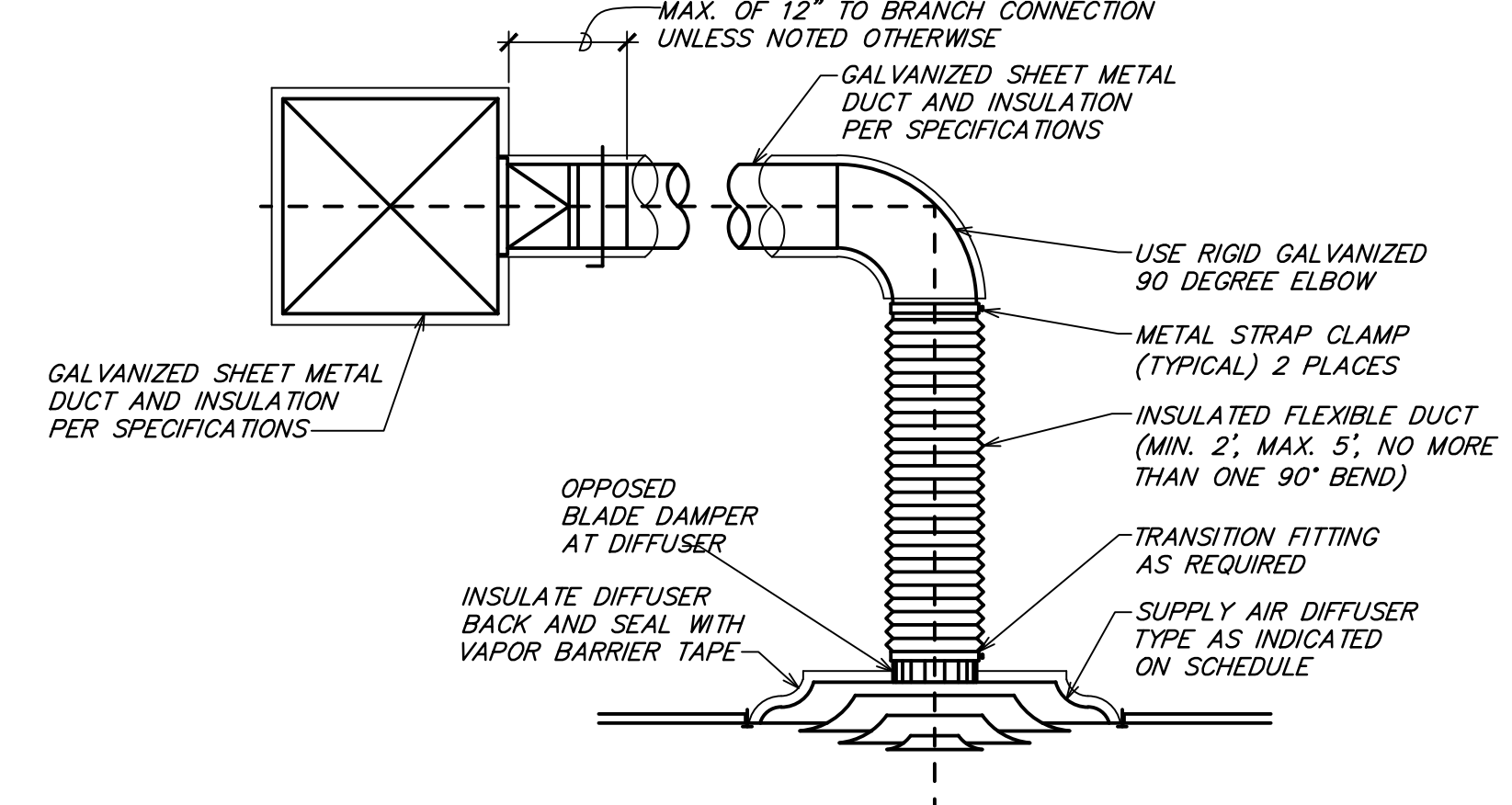
9 ROOF EXHAUST FAN DETAIL

NOT TO SCALE



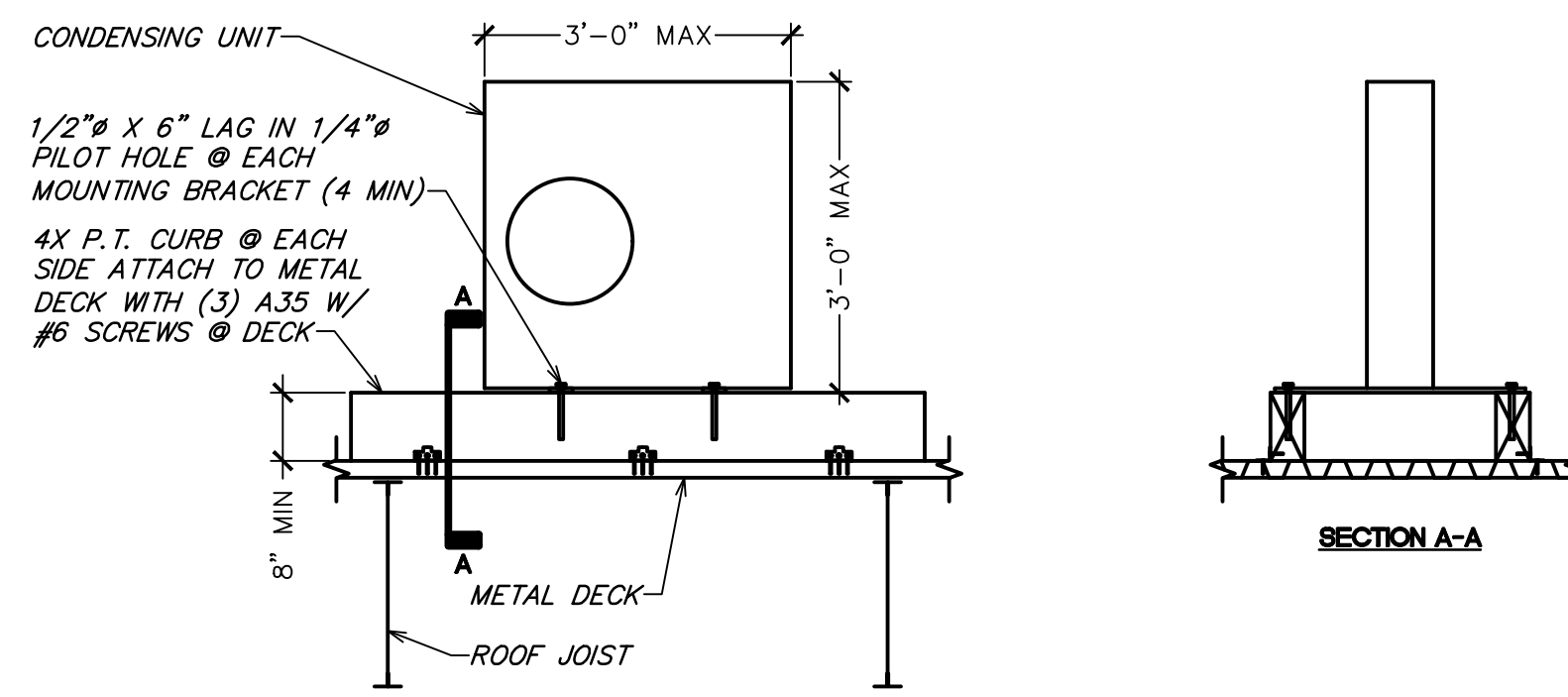
5 REMOTE VOLUME DAMPER CONTROLLER

NOT TO SCALE



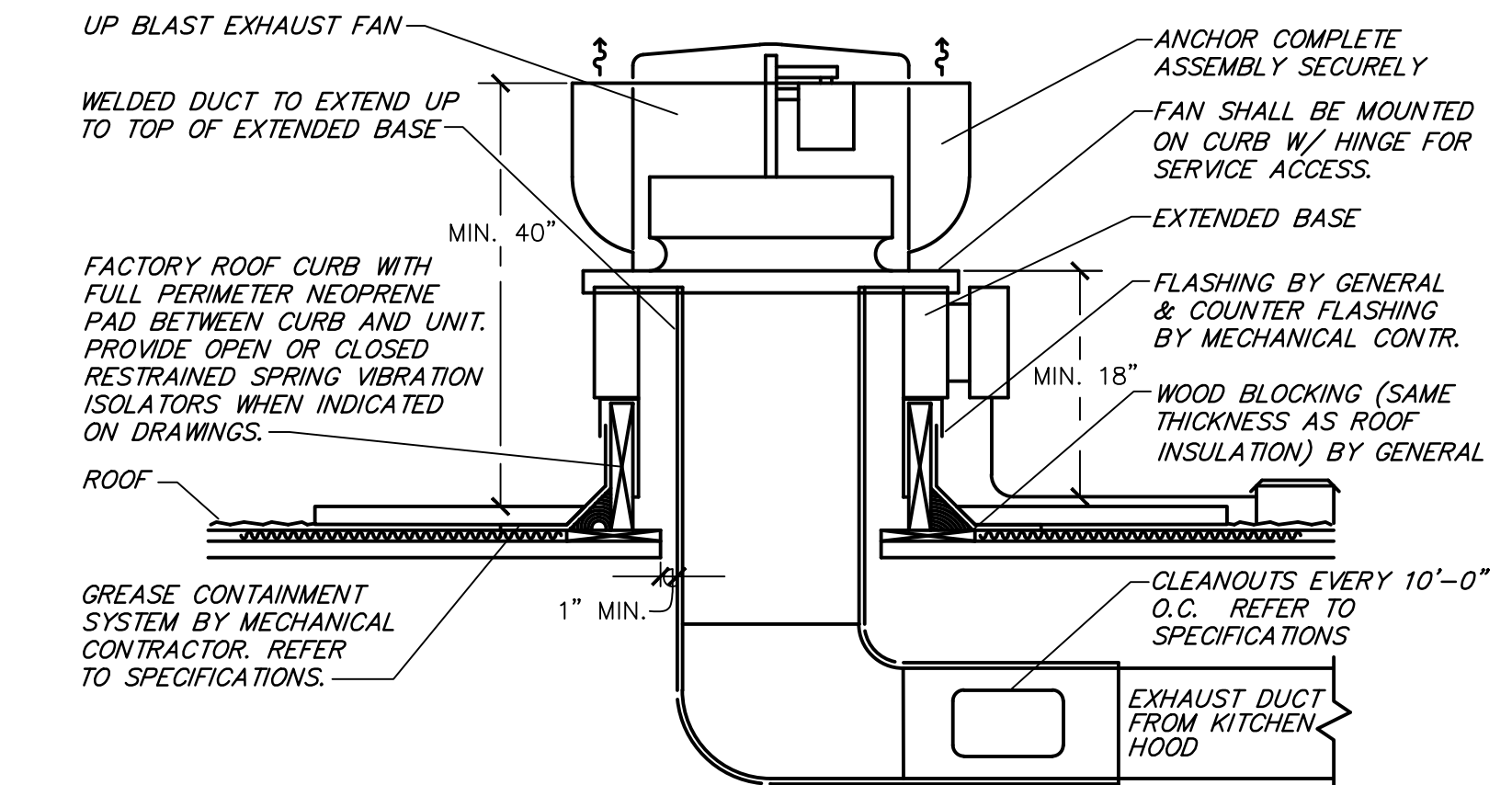
1 TYPICAL DIFFUSER CONNECTION

NOT TO SCALE



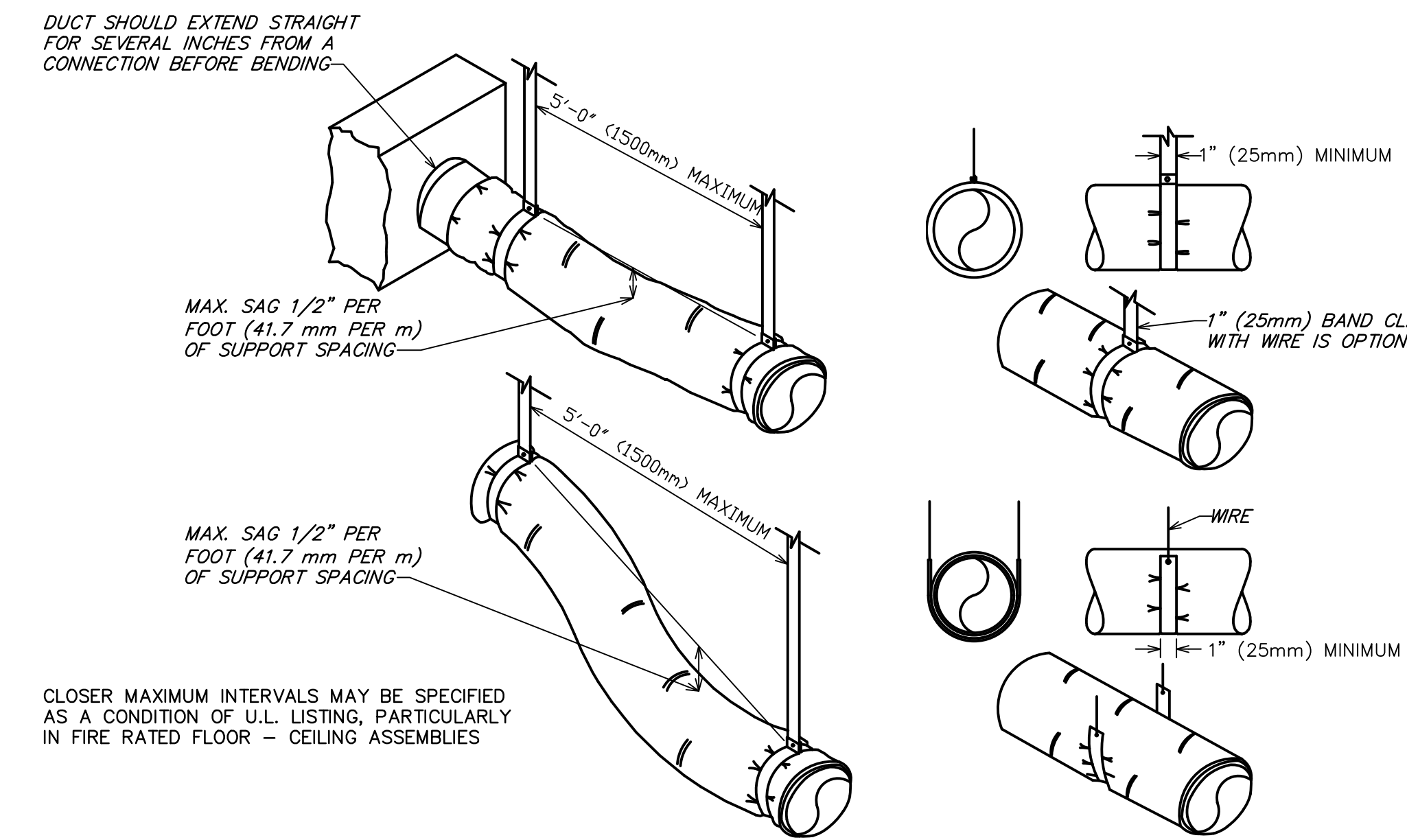
6 CONDENSING UNIT ANCHOR DETAIL (METAL)

NOT TO SCALE



2 KITCHEN HOOD EXHAUST FAN

NOT TO SCALE



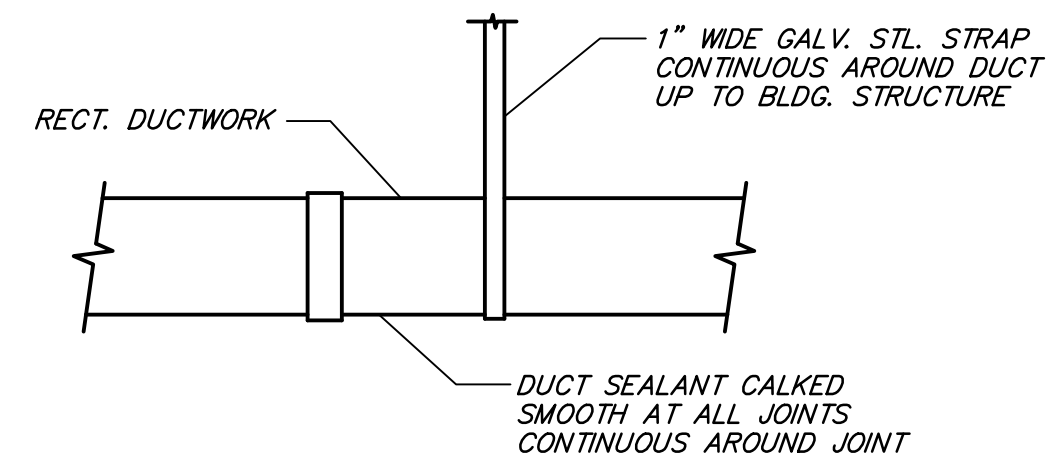
7 FLEXIBLE DUCT SUPPORTS

NOT TO SCALE

DIA.	WIRE DIA.	ROD	STRAP
10" DN	ONE 12 GA.	1/4"	1" x 22 GA.
11-18"	TWO 12 GA. OR ONE 8 GA.	1/4"	1" x 22 GA.
19-24"	TWO 10 GA.	1/4"	1" x 22 GA.
25-36"	TWO 8 GA.	3/8"	1" x 20 GA.
37-50"	-	TWO 3/8"	TWO 1" x 20 GA.
51-60"	-	TWO 3/8"	TWO 1" x 18 GA.
61-84"	-	TWO 3/8"	TWO 1" x 16 GA.
85-96"	-	TWO 1/2"	TWO 1 1/2" x 16 GA.

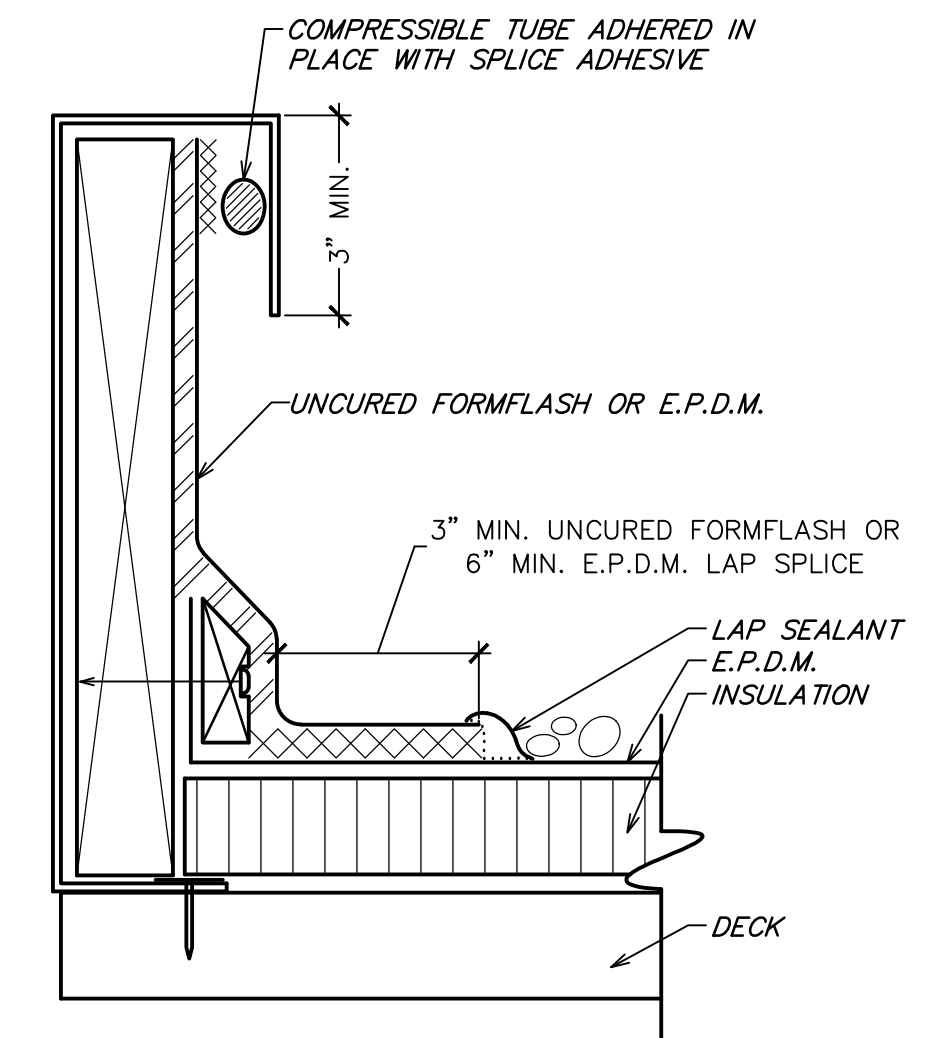
NOTES:

1. STRAPS ARE GALVANIZED STEEL; RODS ARE UNCOATED OR GALVANIZED STEEL; WIRE IS BLACK ANNEALED, BRIGHT BASIC OR GALVANIZED STEEL. ALL ARE ALTERNATIVES.
2. TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS, AND JOINT SYSTEMS PLUS ONE LB/SF OF INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE INSTALLED, ADJUST HANGER SIZES TO BE WITHIN THEIR LOAD LIMITS.



3 EXPOSED RECTANGULAR DUCT SUPPORT DETAIL

NOT TO SCALE



4 CURB FLASHING DETAIL

NOT TO SCALE

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 05/17/2021

Bergmeyer

CONSULTANTS:

Schnackel engineers

800-581-0963
www.schnackel.com

SEALED SIGNATURE:

STATE OF MISSOURI
GREGORY ROY SCHNACKEL
NUMBER E-028570
Date: 05/14/21
COA # E-2020006642

5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
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1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION
-----	----	------	-------------



SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT MISSOURI SHACK #1348

PERMIT/BID SET

MECHANICAL DETAILS

DRAWN BY:	RAS
CHECKED BY:	GRS
JOB NO:	20068.00

M502

1000000

15 JULY 2005

15 JULY 2005

15 JULY 2005

15 JULY 2005

15 JULY 2005

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PART 1. GENERAL

1.01. SUMMARY

A. Section 23 0933 - Sequence of Operations for HVAC Controls.

B. Section 23 0933 - Testing, Adjusting, and Balancing for HVAC.

C. ASHRAE Guideline 1.1 - The HVAC Commissioning Process; 2012.

1.02. RELATED REQUIREMENTS

A. Section 23 0933 - Sequence of Operations for HVAC Controls.

B. Section 23 0933 - Testing, Adjusting, and Balancing for HVAC.

1.03. REFERENCES

A. ASHRAE Guideline 1.1 - The HVAC Commissioning Process; 2012.

1.04. SUBMITTALS

A. Update Submittals: Keep the Commissioning Authority informed of all changes to control system documentation made during programming and setup; revise and resubmit when substantial changes are made.

B. DRAFT Prefunctional Checklists and Functional Test Procedures for Control System: Detailed written plans indicating the sequence of testing, check-out, and adjustment of the control system prior to full system functional testing; include at least the following for each system or equipment controlled:

1. System name.
2. Step-by-step procedures for testing each controller after installation, including:

 - a. Process of verifying proper hardware and wiring installation.
 - b. Process of downloading programs to local controllers and verifying that they are addressed and that the control system is properly installed.
 - c. Process of performing operational checks of each controlled component.
 - d. Plan and procedure for field checking and testing of each component.
 - e. Description of the expected field adjustments for transmitters, controllers and control actuators should control responses fall outside of expected values.
 - f. Copy of proposed log and field check-out sheets to be used to document the process; include space for initial and final read values during calibration of each point and space for monitoring and logging of system and control trend logging and is operating within the contract parameters.

5. The scope of this log is to be specified; trend log up to 50 percent more points than specified at no extra cost to Owner.

6. Indicate what tests on what systems should be completed prior to TAB using the control system for TAB work. Coordinate with the Commissioning Authority and TAB contractor for this determination.

C. Startup Reports, Prefunctional Checklists, and Trend Logs: Submit for approval of Commissioning Authority.

D. HVAC Control System O&M Manual Requirements: In addition to documentation specified elsewhere, control system documentation shall include the following:

1. Specific step-by-step instructions on how to perform and apply all functions, features, modes, etc. mentioned in the controls training sessions of this specification and other features and functions of the system and clear table of components. Include the detailed technical manual for programming and customizing control logic and algorithms required for the system.
2. Full as-built set of control drawings.
3. As-built set of control drawings for each place of equipment.
4. Full points list; in addition to the information on the original points list submittal, include a listing of all rooms with the following information for each room:

 - a. Floor.
 - b. Room number.
 - c. Room name.
 - d. Air handler unit ID.
 - e. Reference drawing number.
 - f. Air terminal unit tag ID.
 - g. Heating and cooling valve tag ID.
 - h. Minimum air flow rate.
 - i. Maximum air flow rate.

5. Full print out of all schedules and set points after testing and acceptance of the system.

6. Full as-built print out of software program.

7. Electronic copy on disk of the entire program for this facility.

8. Marking of all system sensors and thermostats on the as-built floor plan and HVAC drawings with their control system designations.

9. Maintenance interlocks including interlock and interlock requirements and methods by sensor type, etc.

10. Control equipment component submittals, parts lists, etc.

11. Warranty requirements.

12. Copies of all check-out tests and calibrations performed by the Contractor (not commissioning tests).

13. Organize and subdivide the manual with permanently labeled tabs for each of the following data in the given order:

- a. Sequences of operation.
- b. Control drawings.
- c. Points lists.
- d. Controller and/or module data.
- e. Thermostat and/or sensor data.
- f. Sensors and DP switches.
- g. Valves and valve actuators.
- h. Dampers and damper actuators.

14. Program setpoint software program printouts.

E. Project Record Documents:

1. Submit updated version of control system documentation, for inclusion with operation and maintenance data.
2. Show actual locations of all static and differential pressure sensors (air, water and building pressure) and air flow stations on project record drawings.

F. Draft Training Plan:

1. Follow the recommendations of ASHRAE Guideline 1.1.
2. Control system manufacturer's recommended training.
3. Demonstration and instruction on function and overrides of any local packaged controls not controlled by the Commissioning Authority.

G. Training Manuals:

1. Provide three extra copies of the controls training manuals in a separate manual from the O&M manuals.
2. Submittals are required for general compliance with the Contract Documents. Dimensions, quantities and details are not checked during submittal review. Review of the submittals does not relieve the Contractor of the responsibility for providing all materials, equipment and accessories for the complete and operating system.
3. Meeting the requirements of the project and the intent of the Contract Documents. This includes the responsibility for providing all materials and equipment as well as the substituting Contractor.

PART 2. PRODUCTS

2.01. TEST EQUIPMENT

A. Provide all standard testing equipment required to perform start-up and initial check-out and required functional performance testing, unless otherwise noted such testing equipment will NOT become the property of Owner.

B. Equipment-Standard: All equipment used for testing, adjusting, and balancing shall be specific to a piece of equipment, are only available from the vendor, and are required in order to accomplish the testing, adjusting, and balancing of the equipment and instruments as part of the work at no extra cost to Owner; such equipment, tools and instruments are to become the property of Owner.

PART 3. EXECUTION

3.01. PREPARATION

A. Coordinate with the Commissioning Authority in development of the Prefunctional Checklists and Functional Test Procedures.

B. Furnish detailed information to the Commissioning Authority.

C. Prepare a preliminary schedule for HVAC pipe and duct system testing, flushing and cleaning, equipment start-up and testing, adjusting, and balancing start and completion for use by the Commissioning Authority, update the schedule as appropriate.

D. Notify the Commissioning Authority when pipe and duct system testing, flushing, cleaning, start-up and testing, adjusting, and balancing is complete.

E. When commissioning activities are not yet performed or not yet scheduled will delay construction in some way, the Contractor shall notify the Commissioning Authority has the scheduling information needed to efficiently execute the commissioning process.

F. Set up all HVAC equipment and systems into operation and continue operation during working day of testing, adjusting, and balancing and commissioning, as required.

G. Provide test plans in ducts and plenums where directed to allow air measurements and air balancing; close with an approved plug.

H. Provide temperature and pressure taps in accordance with the Contract Documents.

3.02. INSPECTION AND TESTING

A. Submit start-up plans, startup reports, and Prefunctional Checklists for each item of equipment or other assembly to be commissioned.

B. Perform the functional tests directed by the Commissioning Authority for each item of equipment or other assembly to be commissioned.

C. Provide two-way radios for use during the testing.

D. Valve/Damper Start-Up and Check:

1. For all valve/damper operations checked, verify the actual position of the valve/damper against the control system readout.
2. Command valve/damper closed; visually verify that valve/damper is closed and adjust output signal as required.
3. Command valve/damper open; verify position is full open and adjust output signal as required.
4. Command valve/damper on a few intermediate positions.
5. Verify proper operational of Normally Open or Normally Closed positions of all valve/dampers by manual operation; observe the system and adjust output signal to confirm proper closure or opening upon failure of power or control signal.
6. Perform valve/damper testing on all valve/dampers by cycling the valve/damper operating pressure with the valve/damper in the closed position and measure either the delta across coils or airflow through dampers to confirm compliance with specification.
7. Observe valve/damper operation.
8. Set heating setpoint 20 degrees F (11 degrees C) above room temperature.
9. Remove control air or power from the valve and verify that the valve stem and actuator position do not change.
10. Restore to normal.
11. Set heating setpoint to 20 degrees F (11 degrees C) below room temperature.
12. Observe the valve close.
13. For prenativity, by override in the control system, increase pressure to valve by 3 psi (20 kPa) (do not exceed actuator pressure rating) and verify valve stem and actuator position does not change.

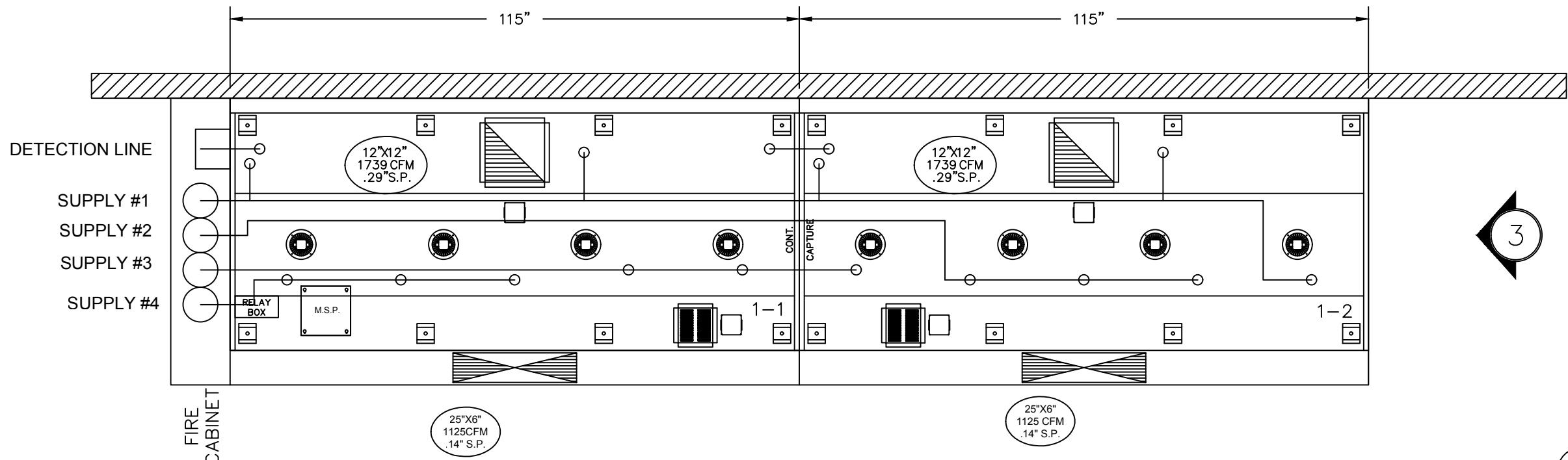
E. Coil Valve Leak Check:

1. Method:

 - a. Calibrate water temperature sensors on each side of coil to within 0.2 degree F (0.1 degree C) of each other.
 - b. Turn off air handler fans, close outside air dampers. Keep pump running. Make sure appropriate coil dampers are open.
 - c. Normally closed valves will close.
 - d. Override normally open valves to the closed position.
 - e. Measure delta T across water delta T across coil. If it is greater than 2 degrees F (1 degree C), leakage is probably occurring.
 - f. Repeat test until compliance is achieved.
 - g. Repeat test until compliance is achieved.
 - h. Repeat test until compliance is achieved.
 - i. Repeat test until compliance is achieved.
 - j. Repeat test until compliance is achieved.
 - k. Repeat test until compliance is achieved.
 - l. Repeat test until compliance is achieved.
 - m. Repeat test until compliance is achieved.
 - n. Repeat test until compliance is achieved.
 - o. Repeat test until compliance is achieved.
 - p. Repeat test until compliance is achieved.
 - q. Repeat test until compliance is achieved.
 - r. Repeat test until compliance is achieved.
 - s. Repeat test until compliance is achieved.
 - t. Repeat test until compliance is achieved.
 - u. Repeat test until compliance is achieved.
 - v. Repeat test until compliance is achieved.
 - w. Repeat test until compliance is achieved.
 - x. Repeat test until compliance is achieved.
 - y. Repeat test until compliance is achieved.
 - z. Repeat test until compliance is achieved.

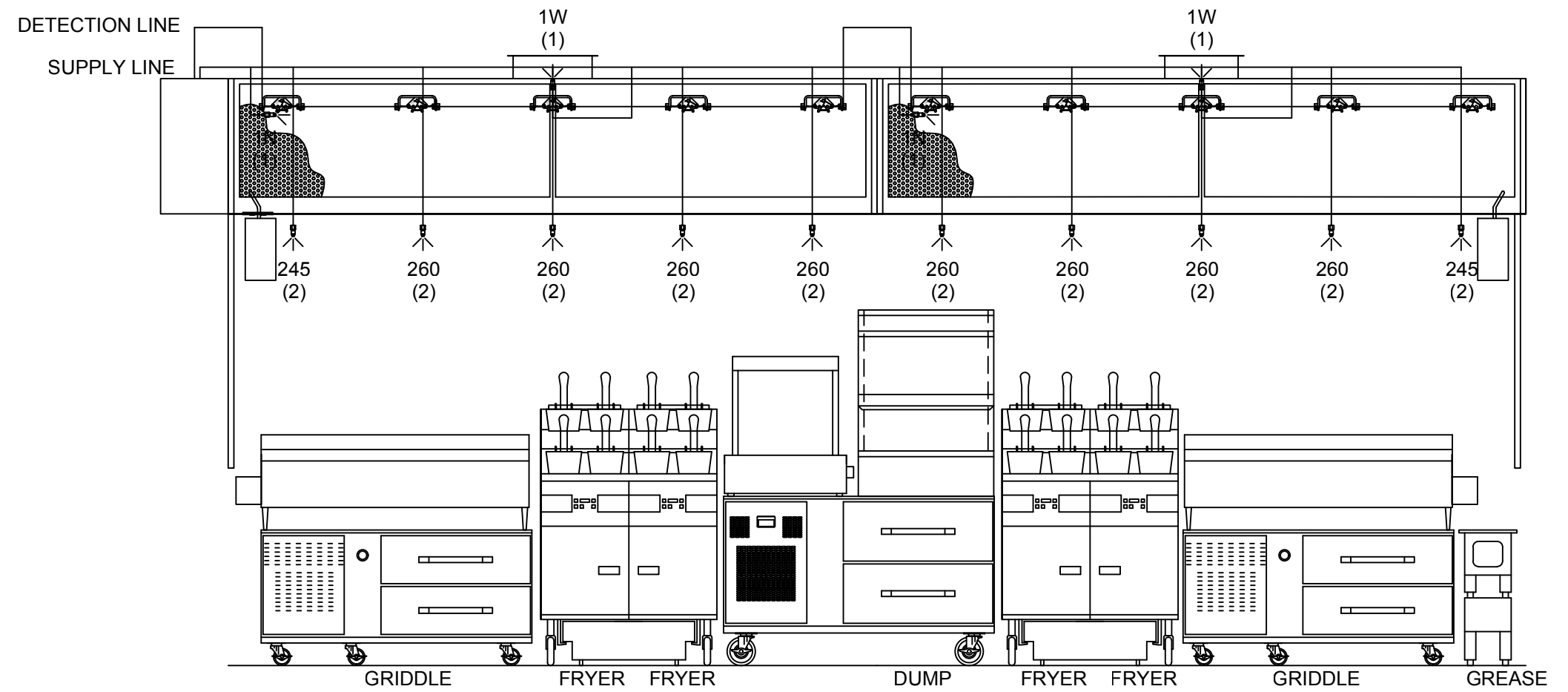
ANSUL R-102 OVERLAPPING FIRE SUPPRESSION SYSTEM

MOUNTED IN FIRE CABINET:
1 - OEM REGULATED RELEASE
1 - REGULATED ACTUATOR
4 - 5 GALLON TANKS



1 ITEM #1-1/1-2
PLAN VIEW

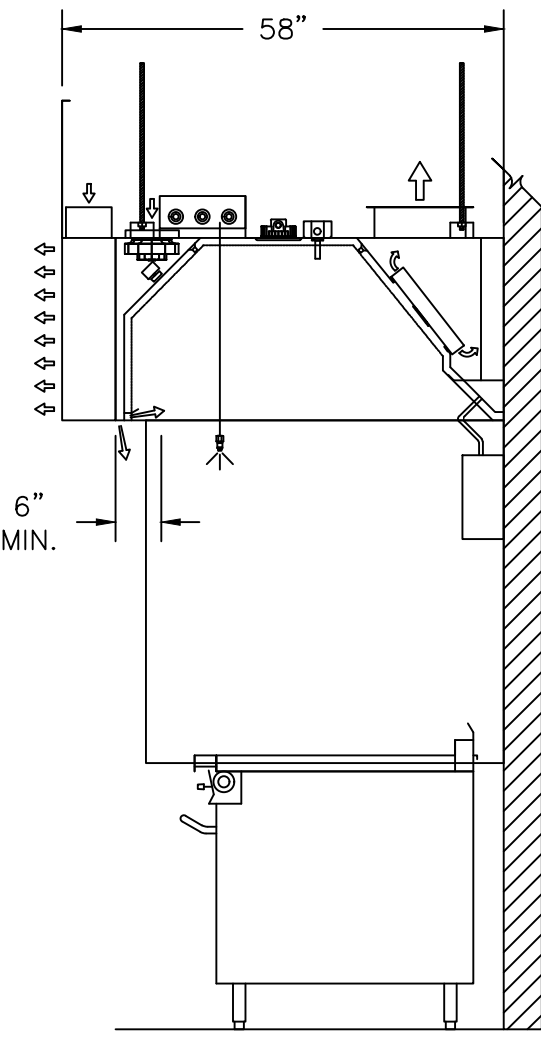
ALL ANSUL DROPS TO HAVE SWIVELS



2 ITEM #1-1/1-2
ELEVATION VIEW

- 1) ANSUL R-102 FIRE SYSTEM
- 2) FOUR TANK SYSTEM (12 GALLON)
- 3) 3/8" BLACK IRON PIPING (CONCEALED)
- 3/8" S.S. APPLIANCE DROPS (EXPOSED)
- 4) MECHANICAL GAS VALVE = (ADVISE SIZE)

NOTE
T-STAT IS FACTORY PRE-SET FOR 95 DEGREES. IF SPACE CONDITIONS EXCEED 95 DEGREES WITHOUT COOKING TAKING PLACE, THEN A FIELD ADJUSTMENT OF THE T-STAT WILL BE REQUIRED BY PERSONNEL OTHER THAN HALTON. T-STAT IS A SAFETY INTERLOCK ONLY. IT IS NOT INTENDED AS A PRIMARY MEANS OF ENGAGING THE EXHAUST FAN.



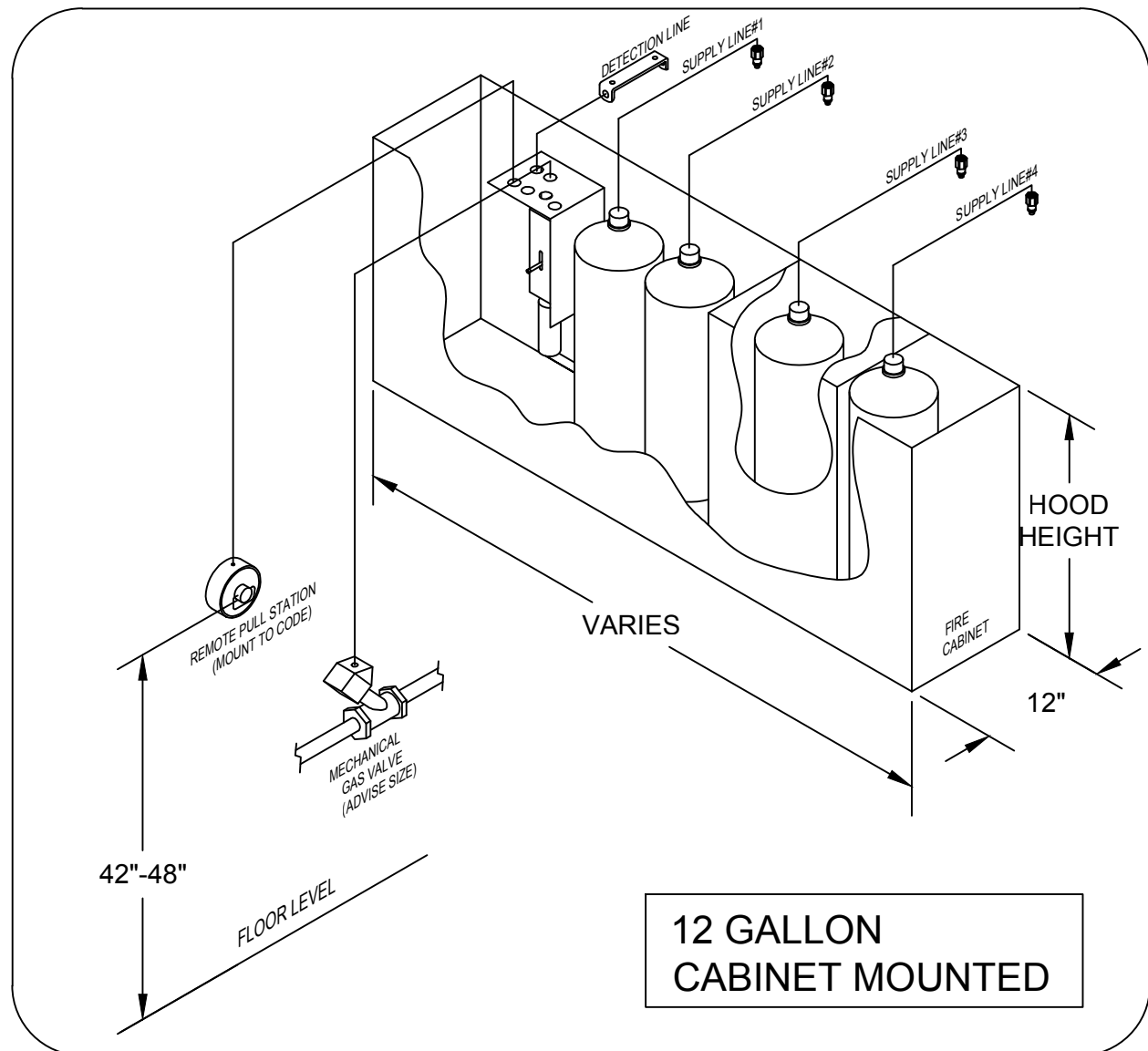
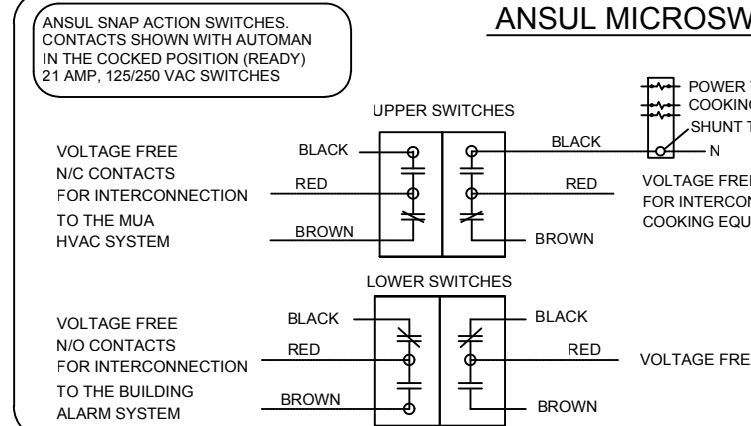
3 ITEM #1
SECTION VIEW

ANSUL R-102 FLOW POINT CALCULATION				
NOZZLE TYPE	NOZZLE FLOW PT.	NOZZLE QUANTITY	TOTAL FLOW PT.	
3N	3	0	0	
290	2	0	0	
290	2	8	16	
245	2	2	4	
230	2	0	0	
2W	2	0	0	
2120	2	0	0	
1W	1	2	2	
1N	1	2	2	
1F	1	0	0	
1/2N	1/2	0	0	
TOTAL FLOW POINTS USED			24	
MAX. SYSTEM FLOW POINTS			24 (12 GALLON)	

NOTE:
HALTON COMPANY WILL SUPPLY ANSUL COMPONENTS AND PRE-PIPED HOODS PER PUBLISHED ANSUL GUIDELINES AND RECOMMENDATIONS. IT IS THE RESPONSIBILITY OF THE F.S.E.C. TO INFORM HALTON OF ANY SPECIAL REQUIREMENTS OF THE LOCAL JURISDICTION PRIOR TO RELEASE OF EQUIPMENT.

NOTE:
ALL PIPING FOR LOW PROXIMITY APPLIANCE PROTECTION SHALL BE PROVIDED & INSTALLED BY THE INSTALLING ANSUL DISTRIBUTOR & NOT BY HALTON.

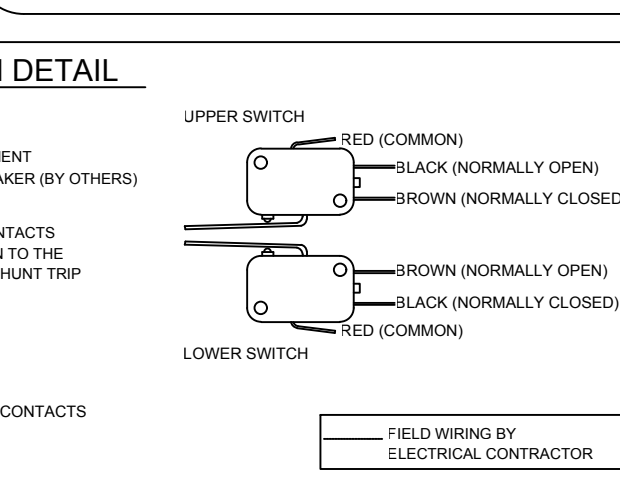
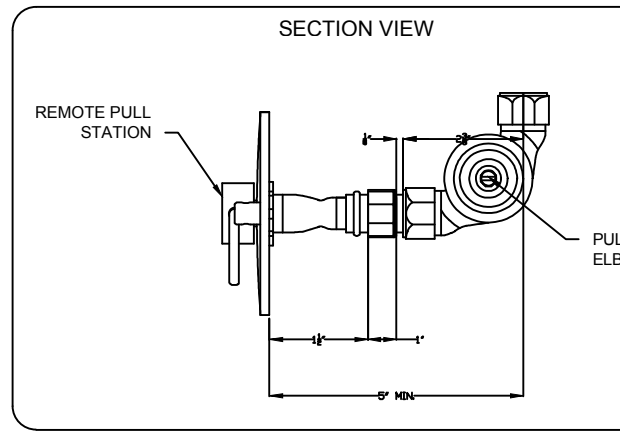
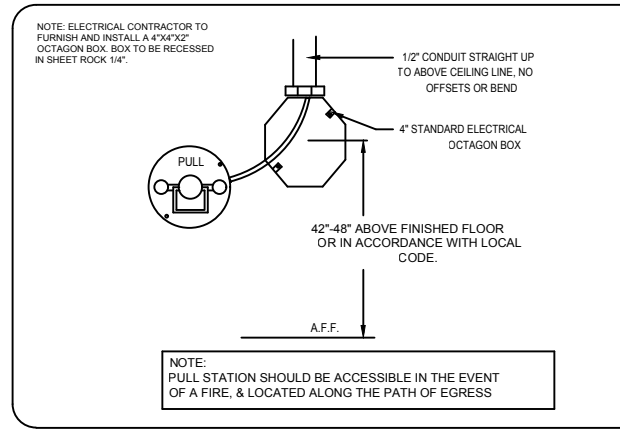
NOTE:
HAND HELD EXTINGUISHERS, IF REQUIRED, ARE TO BE PROVIDED BY OTHERS.



ANSUL NOTES

- GENERAL NOTES:
1. THIS INSTALLATION IS TO BE MADE IN ACCORDANCE WITH THE R-102 INSTALLATION MANUAL AND IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
 - 2. THE WIRE ROPE FOR THE DETECTOR AND REMOTE PULL STATION IS TO BE INSTALLED BY AN AUTHORIZED AND FACTORY TRAINED DISTRIBUTOR OR SERVICE REPRESENTATIVE.
 - 3. THIS INSTALLATION IS TO BE INSPECTED, PUT INTO OPERATION AND CERTIFIED BY AN AUTHORIZED AND FACTORY TRAINED DISTRIBUTOR OR SERVICE REPRESENTATIVE.
 - 4. ELECTRICAL CONTACTS AND WIRING FOR APPLIANCE SHUT OFF TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
 - 5. ANSUL R-102 RESTAURANT FIRE SUPPRESSION SYSTEMS HAVE BEEN TESTED AND ARE LISTED BY UNDERWRITERS' LABORATORIES INC. AS PRE-ENGINEERED SYSTEMS, AND WHEN INSTALLED AS SHOWN ON THIS DRAWING SHALL COMPLY WITH ALL RELEVANT ANSUL INSTALLATION RECHARGE INSPECTION AND MAINTENANCE MANUALS AND SHALL COMPLY WITH NFPA 96 WHEN INSTALLED AND CERTIFIED BY AUTHORIZED TRAINED ANSUL DISTRIBUTORS IN ACCORDANCE WITH THE MANUAL.
 - 6. ALL AGENT DISTRIBUTION PIPING AND DETECTION CONDUIT HOOD PENETRATIONS MUST BE PROPERLY SEALED IN ACCORDANCE WITH NFPA 96.
- DISTRIBUTION PIPING REQUIREMENT NOTES:
1. PIPE SHALL BE 3/8" SCHEDULE 40 BLACK IRON, CHROME PLATED OR STAINLESS STEEL UNLESS OTHERWISE NOTED.
2. FINAL NOZZLE LOCATION MAY NOT VARY FROM LOCATION SHOWN.

MANUAL PULL DETAIL



THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:
1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS, AND THE LOCATION AND TYPE OF COOKING EQUIPMENT.
2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.
NOTE TO APPROVER:
THIS DRAWING IS A PRELIMINARY DRAWING. ANY CHANGES OR REVISIONS TO THE DRAWING MUST BE NOTED IN THE REVISIONS SECTION. ANY CHANGES OCCURRING AFTER THE DRAWING IS APPROVED BY THE FACTORY MUST BE NOTED IN THE REVISIONS SECTION. ANY CHANGES OCCURRING AFTER THE DRAWING IS APPROVED BY THE FACTORY MUST BE NOTED IN THE REVISIONS SECTION.

APPROVED FOR FABRICATION
☐ WITH NO CHANGES
☐ WITH CHANGES AS NOTED

APPROVED BY: _____ DATE: _____



REVISION DESCRIPTION		BY	DATE
1	NO CHARGE	CG	12.22.20
2	NO CHARGE	SKM	02.11.21
3	NO CHARGE	SKM	03.03.21
4	DECREASED HOOD LENGTHS	SKM	04.26.21

PROJECT: **SHAKE SHACK**
LOCATION: **LEES SUMMIT, MO**
DRAWN BY: **NTS**
SCALE: **1" = 12' 14.20"**
CONSULTANT: **Halton**

DRAWING TITLE: **FIRE SYSTEM DETAILS**
DRAWING NO.: **U20-924**
REV. NO.: **4** SHEET NO.: **2 of 5**

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/17/2021
www.bergmeyer.com

Bergmeyer
LA
800 South Figueroa St.
Los Angeles, CA 90017
212.337.1090

CONSULTANTS:
Schnackel engineers
800-581-0963
www.schnackel.com
REG. NO. 200280

SEALED SIGNATURE:

Date: 05/14/21
COA # E-200908642

5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM #2
1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT MISSOURI SHACK #1348

PERMIT/BID SET

HALTON DRAWINGS

DRAWN BY: RAS
CHECKED BY: ORS
JOB NO: 20068.00

M702

Bergmeyer

CONSULTANTS:
Schnackel
engineers
800-581-0963
www.schnackel.com
102-0000-200000

SEA/ SIGNATURE:



5	2021-05-17	FIELD NOTICE #2
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SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

HALTON DRAWINGS

DRAWN BY: RAS
CHECKED BY: GRS
JOB NO: 20066.00

M703

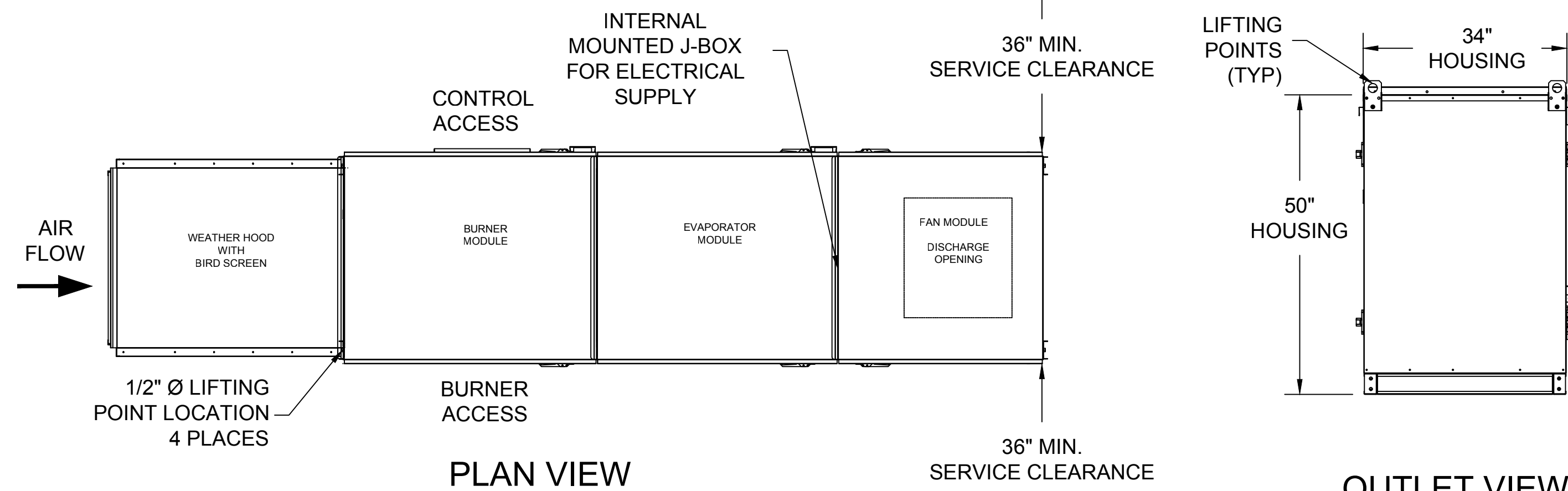
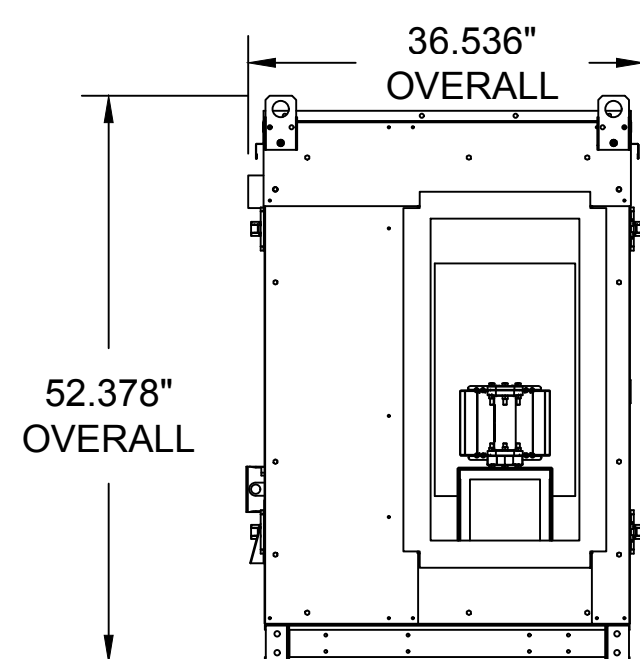
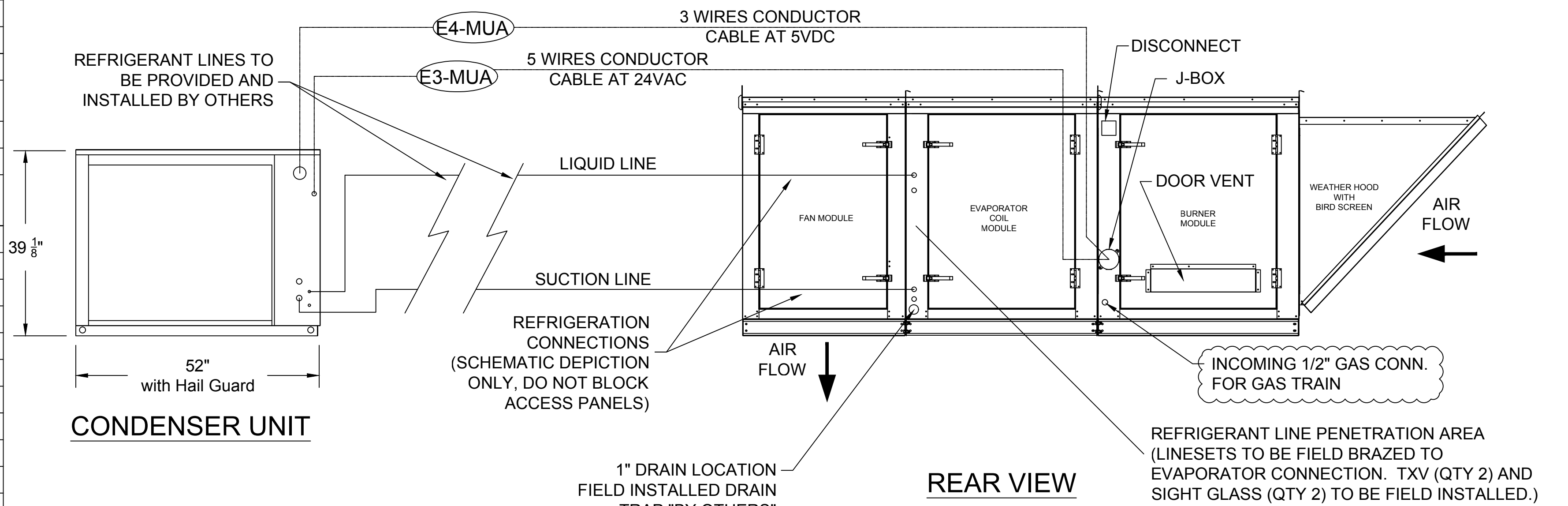
MUA CHART		
DATA	IMPERIAL	METRIC
Model	MUA-DGX-2800	
Max. Supply Air	2800 CFM	- l/s
Design Supply Air	2250 CFM	- l/s
Internal S.P.	2.03" W.G.	- PA
External S.P.	0.65" W.G.	- PA
Total S.P.	2.68" W.G.	
Motor	3 hp	
Power	1.36 bhp	
Full Load AMPS	10.6	
MCA	13.25	
MOCP	23.85	
Motor RPM	1800	
Voltage/Phase/Hz	208/3/60	
Fan RPM	2032 @ 60 HZ	
Mounting	Exterior	
Blower Model	ANPA 14	
Material Type	G90 Galv. 20GA.	
Paint Color	Unpainted	
Weight	1877 lbs	- kg

HEATING INFORMATION		
Gas Type	Natural	
Min. Gas Pressure	8" W.C.	
Max. Gas Pressure	14" W.C.	
Gas Line Size	1/2"	
Discharge Temperature	70.0°F	
Temperature Rise	68.1°F	
Heat Input MBH	219.4	
Heat Output MBH	201.8	

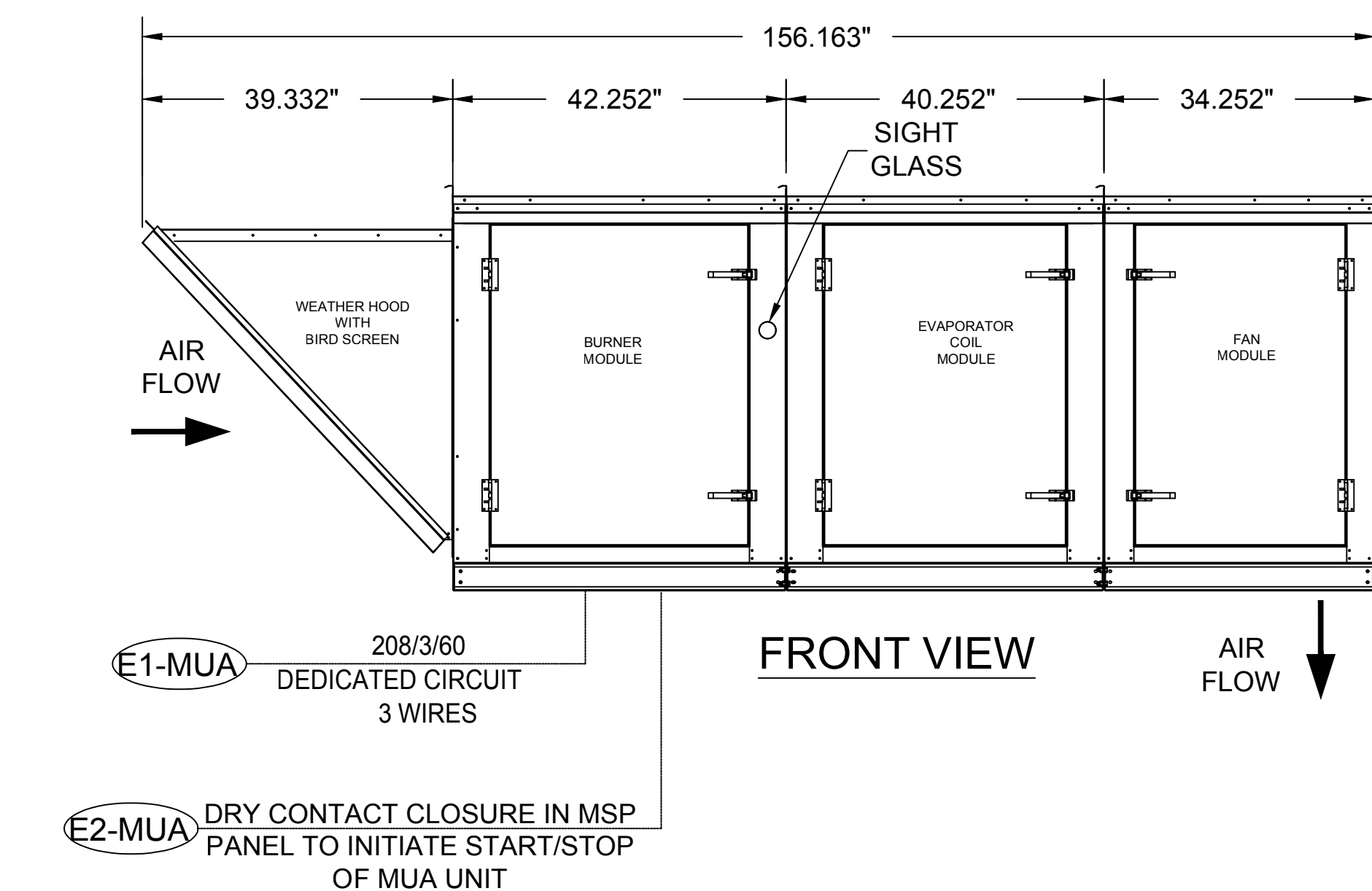
COOLING INFORMATION		
Cooling Coil Inlet DB Temp.	95.9°F	
Cooling Coil Inlet WB Temp.	76.8°F	
Cooling Coil Exit DB Temp.	67.1°F	
Cooling Coil Exit WB Temp.	64.2°F	
Cooling Coil Total Capacity	109.5 MBH	
Cooling Coil Sensible Capacity	70 MBH	
Cooling Coil Latent Capacity	39.6 MBH	

STANDARD FEATURES	
	1" Duct Board Insulation Double Wall
	Unit Mounted Controls
	Neoprene Fan Isolators
	Direct Spark Gas Train
	R-410A DX Cooling Coil • Copper Tubes/Aluminum Fins
	Belt Drive Fan (Comefri ATLI)
	Stainless Drain Pan and Drain

OPTIONS	
	TXV & Sight Glass (Shipped Loose)
	Cooling Coil Shipped Charged w/ Nitrogen
	Galvanized Cooling Coil Frame
	Unit Mounted Heat Controls
	Unit Mounted Call for Cooling
	Intake Hood w/ 2" Alum. Mesh Filters & Birdscreen
	MERV 8 Filtered Intake
	Insulated Roof Curb w/ Wood Nailer
	Motorized Intake Damper
	DOWN Discharge
	Variable Speed (Powerflex 523 VFD)
	Cooling Coil Moisture Elimiator



NOTE:
LIFTING POINTS ARE NOT TO BE
USED AS ANCHORS FOR
SUSPENDED MOUNTING. THEY
ARE FOR LIFTING ONLY



ELECTRICAL CONNECTION WILL COME UP
THROUGH CURB INTO BOTTOM OF UNIT

SPECIFICATIONS

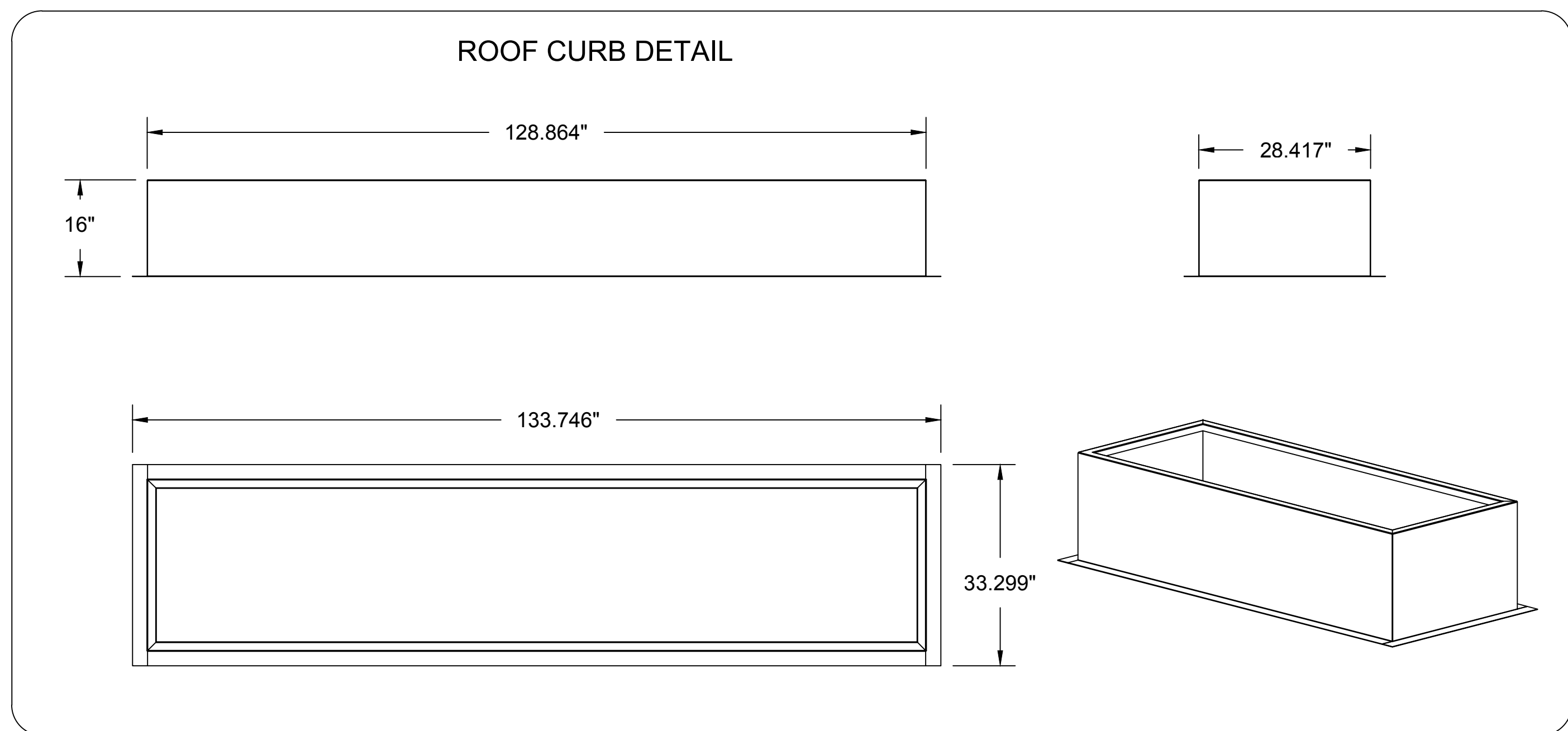
GAS INFORMATION
MIDCO 6" SS BURNER
PRESSURE REGULATOR SUPPLIED
RTC GAS CONTROLS
DISCHARGE TEMPERATURE DIAL MOUNTED IN UNIT
HIGH TEMP LIMIT SWITCH SET TO 140°F

ELECTRICAL INFORMATION
208V / 3PH / 60Hz SUPPLY
INTEGRAL NON-FUSED DISCONNECT SWITCH
PREMIUM EFFICIENCY MOTOR
INTEGRAL MOTOR STARTER WITH THERMAL
OVERLOADS
FIRE PROTECTION INTERLOCK
REMOTE START/STOP
50% MUA TURN DOWN

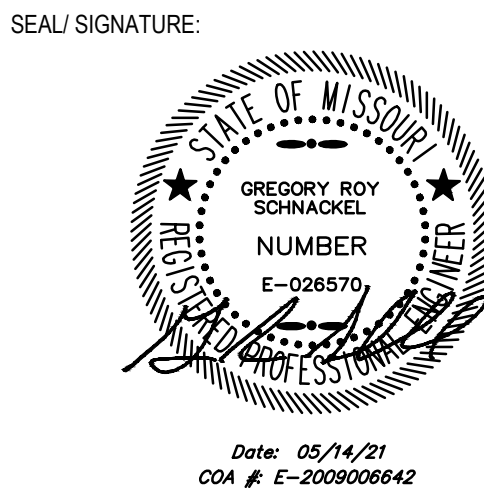
EQUIPMENT SPECIFICATIONS
ENTERING AIR THERMOSTAT/LOW TEMPERATURE
CUTOUT
EXTERNAL PROFILE ADJUSTMENT WITH PRESSURE
GAUGE
GALVANIZED FINISH
0" CLEARANCE ON TOP & BOTTOM OF UNIT
UNIT SHIPS ASSEMBLED IN ONE PIECE
1" CLEARANCE TO COMBUSTIBLE ON ENDS
LISTED 18" FROM COMBUSTIBLE ON SIDES

ITEM #MUA-1

ELECTRICAL SCHEDULE			
CONNECTION #	CONNECTION DESCRIPTION	FROM	TO
E1-MUA	208/3/60 - FAN MOTOR POWER - 3 WIRES	BUILDING SOURCE	MUA UNIT
E2-MUA	DRY CONTACT CLOSURE PROVIDED BY OTHERS	HOOD 1-1	MUA UNIT
E3-MUA	5 WIRES CONDUCTOR CABLE - 24VAC	MUA UNIT	CONDENSER UNIT
E4-MUA	3 WIRES CONDUCTOR CABLE - 5VDC	MUA UNIT	CONDENSER UNIT



Bergmeyer



5	2021-05-17	FIELD NOTICE #2
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3	2021-04-26	ISSUED FOR CONSTRUCTION
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	2020-10-12	DD SET



SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

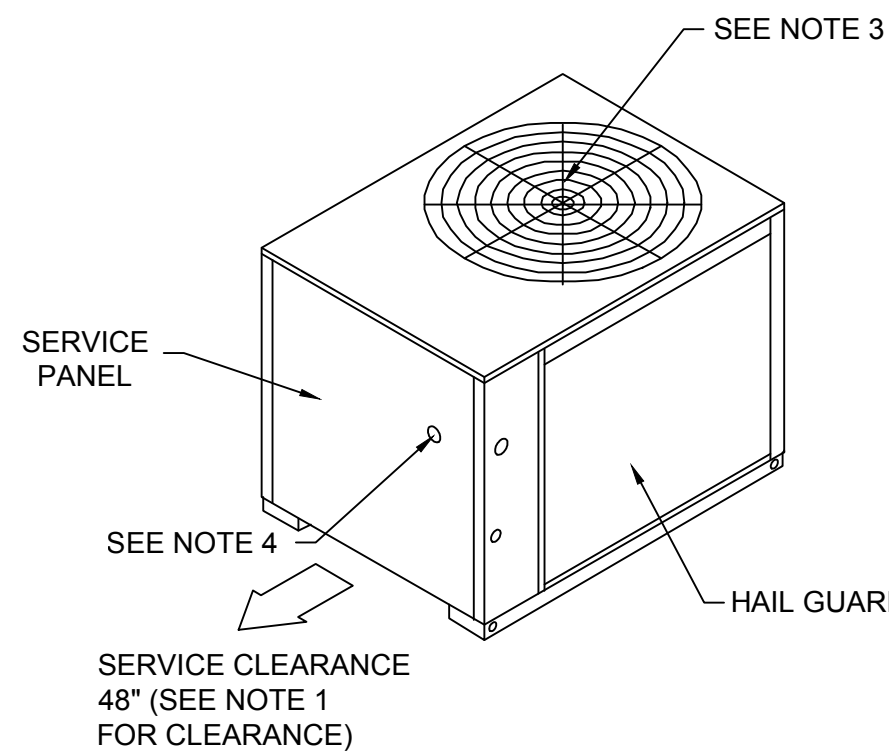
PERMIT/BID SET

HALTON DRAWINGS

DRAWN BY: RAS
CHECKED BY: GRS
JOB NO: 20066.00

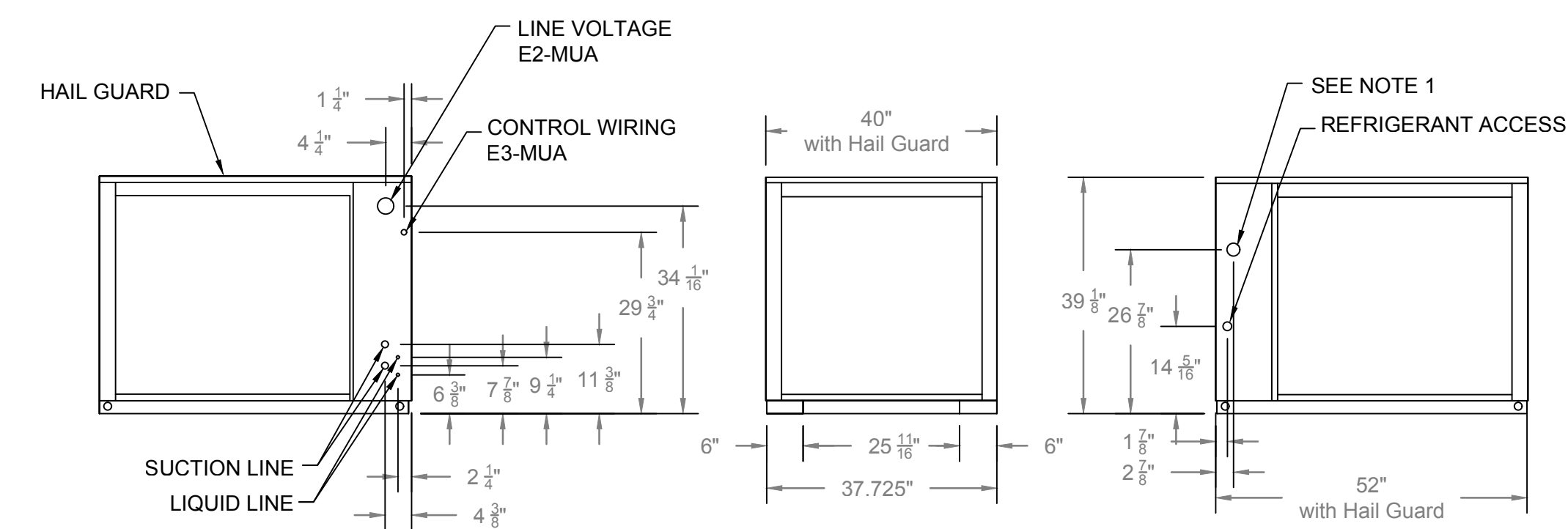
M704

ITEM #CU-1



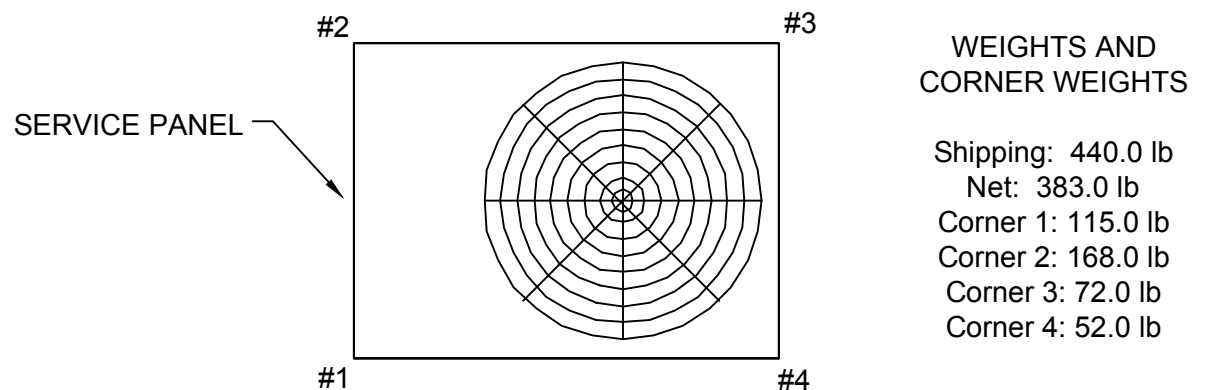
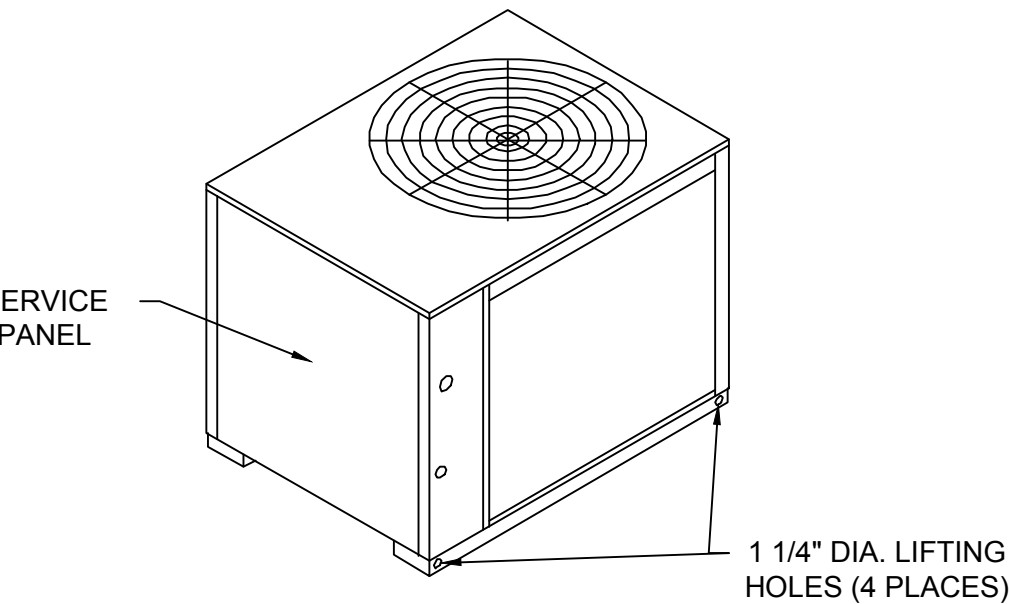
Notes:

- Access opening is for field installed Bayloam accessory.
- Minimum clearance for proper operation is 36" from walls, shrubbery, privacy fences, etc. Minimum clearance between adjacent units is 72". Recommended service clearance is 48".
- Top discharge area should be unrestricted for 100" minimum. Unit should be placed so roof run-off water does not pour directly on unit.
- Outdoor Air Temperature Sensor opening (Do Not Block Opening)



10 TON COOLING CONDENSER (DUAL COMPRESSOR)
DIMENSIONAL DRAWING

Hailguards - TTA
Condenser Coil Protection from Hail, Vandals, Etc. Perforated, Painted Galvanized Steel Factory Installed.
TTA Microchannel - General
Weatherproofed steel mounting/lifting rails Hermetic scroll compressors Microchannel condenser coils on select models Plate fin condenser coils Fans and motors Standard operating range 50-125°F (min. 0°F with low ambient accessory) Nitrogen holding charge Certified and rated in accordance with AHRI and DOE standards Certified to UL 1995
TTA Microchannel - Casing
Zinc coated, heavy gauge, galvanized steel Weather resistant baked enamel finish Meets ASTM B117, 672 hour spray test Removable single side maintenance access panels Lifting handles in maintenance access panels Unit base provisions for forklift and/or crane lifting
Refrigerations System - Dual Compressor
Two (2) separate and independent refrigerant circuits Each refrigeration circuit equiped with integral subcooling circuit Front or rear refrigerant line connections
Two (2) direct drive hermetic scroll compressors Suction gas-cooled motors w/ ± 10% voltage utilization range of unit nameplate voltage Crankcase Heaters Internal temperature and current sensitive motor overloads No compressor suction and/or discharge valves (reduced vibration/sound) Factory installed liquid line filter drier Phase loss/reverse rotation monitor Liquid line service ports Suction line service ports
External high pressure cutout devices
TTA Microchannel - Condenser Coil (Microchannel)
Microchannel coils burst tested by the manufacturer Coils shall be leak tested to ensure the pressure integrity Factory pressure and leak tested to 660 psig Perforated steel hail guards factory installed
TTA Microchannel - Condenser Fan
26" or 28" propeller fan(s) Direct drive Statically and dynamically balanced
TTA Microchannel - Condenser Motor(s)
Permanently lubricated totally enclosed or open construction Built-in current and thermal overloads Ball or sleeve bearing type
TTA Microchannel - Controls
Choice of electromechanical or microprocessor Completely internally wired Numbered and colored wires Contactor pressure lugs or terminal block Unit external mounting location for disconnect device Single point power entry
TTA Controls: Electro-Mechanical
24V control circuit Control transformer Thermostat compatible Anti-Short Cycle Timer



WEIGHTS AND LOAD POINT LOCATION FOR CONDENSER
WEIGHT AND RIGGING

CONDENSER COIL SPECIFICATIONS

10 Ton Trane TTA 208V

Unit Function Cooling
Voltage 208/60/3
Refrigeration Circuit/Stage Dual Compressors/Dual Circuit
Unit Tonnage 10 Tons
Refrigerant R-410A Refrigerant
Controls Electromechanical

Factory Installed Accessories
Condenser Coil Hail/Vandal Guard Kit

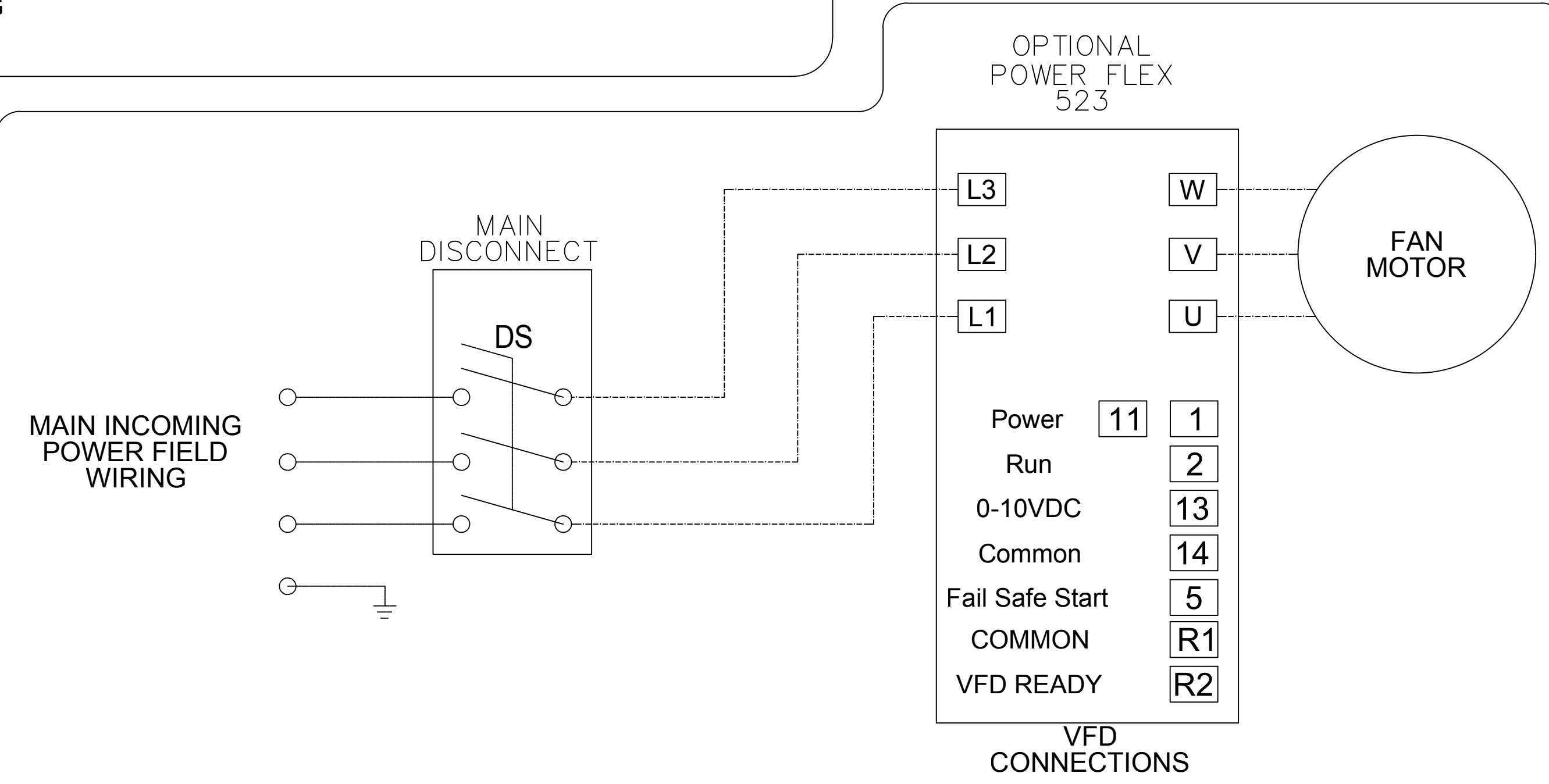
Electrical Data Condenser

Electrical Data
Model: TTA12043D
Unit Operating Voltage: 187-253
Minimum Circuit Ampacity: 41.0
Maximum Fuse Size: 50.0
Maximum Circuit Breaker: 50.0
Compressor Motor
No.: 2
Volts: 208
Phase: 3
Amp-RLA: 16.2/16.2
Amp-LRA: 110/110
Condenser Fan Motor
No.: 1
Volts: 208
Phase: 1
Amp-FLA: 5.0
Amp-LRA: 14.4

Compressor
Number: Scroll
No. Compressor/Tons: 2/4.3

System Data (7)
No. Refrigerant Circuits: 2
Suction Line (in.) OD 1 1/8" Horizontal & Vertical
Liquid Line (in.) OD 1/2"

ELECTRICAL SCHEDULE			
CONNECTION #	CONNECTION DESCRIPTION	FROM	TO
E3-MUA	5 WIRES CONDUCTOR CABLE - 24VAC	MUA UNIT	CONDENSER UNIT
E4-MUA	3 WIRES CONDUCTOR CABLE - 5VDC	MUA UNIT	CONDENSER UNIT
E5-MUA	208/3/60 - FAN MOTOR POWER - 3 WIRES	BUILDING SOURCE	CU-1



THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY.
PLEASE VERIFY THE FOLLOWING:
1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS
2. THE LOCATION AND TYPE OF COOLING EQUIPMENT.
NOTE TO APPROVER
ANY CHANGES IN COOLING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT
CHANGES OCCUR A RECALCULATION EXHAUST MAY BE REQUIRED.
☐ REVISE AND RESUBMIT
☐ APPROVED FOR FABRICATION
☐ WITH CHANGES AS NOTED
☐ NO CHANGES
APPROVED BY: _____ DATE: _____



MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:		WEBSITE: www.halton.com	
REV.	DATE	BY	REVISION DESCRIPTION
1	12.22.20	CG	NO CHANGE
2	02.11.21	SKM	NO CHANGE
3	03.03.21	SKM	ELECTRICAL SCHEDULE
4	04.26.21	SKM	NO CHANGE
5			
6			
7			
8			
9			
10			

PROJECT: SHAKE SHACK
LOCATION: LEE'S SUMMIT, MO
DRAWN BY: NC DATE: 12.14.20
SCALE: NTS
CONSULTANT:
DRAWING TITLE: MUA-DGX-2800
DRAWING No.: U20-924
REV. NO.: 4 SHEET NO.: 4 of 5

SHEET NUPBER	SHEET NAME
P001	PLUMBING ABBREVIATIONS AND SYMBOLS
P101	PLUMBING WASTE & VENT PLAN
P120	PLUMBING WATER & GAS PLAN
P150	PLUMBING ROOF PLAN
P501	PLUMBING DETAILS
P502	PLUMBING DETAILS
P590	PLUMBING SPECIFICATIONS
P591	PLUMBING SPECIFICATIONS
P592	PLUMBING SPECIFICATIONS
P601	PLUMBING SCHEDULE
P901	PLUMBING RISER DIAGRAMS

DESCRIPTION	FURNISHED			INSTALLED			REMARKS
	GENERAL CONTRACTOR	OWNER	LANDLORD	GENERAL CONTRACTOR	OWNER	LANDLORD	
DIVISION 22: PLUMBING							
22.1 PLUMBING IDENTIFICATION							
22.1.1 PIPING SYSTEM IDENTIFICATION	X			X			MATERIAL TO CONSIST OF 2" VINYL LETTERING, UNLESS OTHERWISE NOTED IN SPECIFICATIONS
22.1.2 UTILITY SHUT OFF IDENTIFICATION IN KITCHEN	X			X			MATERIAL TO CONSIST OF 2" VINYL RED LETTERING, UNLESS OTHERWISE NOTED IN SPECIFICATIONS
22.1.3 VALVE TAGS AND CHART	X			X			
22.2 DRAINS AND CLEANOUTS							
22.2.1 DRAINS AND FLOOR SINKS	X			X			
22.2.2 THROUGH DRAIN FOR ICE MACHINE	X			X			REFER TO KITCHEN AND PLUMBING SHEET FOR SPECIFICATION
22.3 PIPING SYSTEMS AND SPECIALITIES							
22.3.1 STORM DRAINAGE			X			X	
22.3.2 SANITARY WASTE	X			X			
22.3.3 DOMESTIC WATER	X			X			
22.3.4 GREASE WASTE	X			X			
22.3.5 CONDENSATE	X			X			
22.3.6 VENT	X			X			
22.3.7 NATURAL GAS	X			X			
22.3.8 PIPING FITTINGS	X			X			
22.3.9 VALVES AND SHUT OFF VALVES	X			X			
22.3.10 WATER BOOSTER PUMP	X			X			
22.3.11 GAS BOOSTER PUMP			X			X	
22.3.12 GREASE INTERCEPTOR			X			X	
22.4 INCOMING WATER FILTER SYSTEM		X		X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE FINAL UTILITY CONNECTIONS. SUPPLIED BY VENDOR NO. 43
22.5 WATER HEATER	X			X			SUPPLIED BY VENDOR NO. 20 IF TANKLESS UNIT
22.6 MOP SINK							
22.6.1 FLOOR MOUNTED MOP SINK	X			X			REFER TO KITCHEN AND PLUMBING SHEET FOR SPECIFICATION
22.6.2 SERVICE FAUCET FOR MOP SINK		X		X			SUPPLIED BY VENDOR NO. 27
22.7 PLUMBING FIXTURES							
22.7.1 TOILETS, URINAL, AND LAVORATORIES	X			X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE ALL NECESSARY FITTINGS (E.G. FLUSH VALVES, FAUCETS, AND FITTINGS)
22.7.2 KITCHEN FAUCETS		X		X			GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE FINAL UTILITY CONNECTIONS

PLUMBING SYMBOL LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SANITARY DRAIN ABOVEGROUND		CLEAN OUT
	SANITARY DRAIN BELOWGROUND		GRADE CLEAN OUT
	GREASE WASTE ABOVEGROUND		WALL CLEAN OUT
	GREASE WASTE BELOWGROUND	N.I.C.	NOT IN CONTRACT
	ACID WASTE ABOVEGROUND	VTR	VENT THROUGH ROOF
	ACID WASTE BELOWGROUND		BALL VALVE
	VENT LINE		CHECK VALVE
	ACID VENT		PRESSURE REGULATING VALVE (PRV)
	WASTE ANESTHESIA GAS DISPOSAL		GAS COCK
	STORM DRAIN ABOVEGROUND		PRESSURE REGULATING VALVE (PRV) AND GAS COCK
	STORM DRAIN BELOWGROUND		MIXING VALVE
	OVERFLOW STORM DRAIN		SOLENOID VALVE
	COLD WATER (CW)		VALVE IN RISE
	HOT WATER (HW)		AUTOMATIC BALANCING VALVE
	HOT WATER CIRCULATING (HWC)		RUNNING TRAP
-140"	HOT WATER 140"		HOSE BIBB
-140"	HOT WATER CIRCULATING 140"		WALL HYDRANT
-T	TEMPERED WATER		FIRE HYDRANT
-Y	TEMPERED WATER CIRCULATING	V.C.P.	VITRIFIED CLAY PIPE
-CS	COLD SOFT WATER	CL	CAST IRON
-HS	HOT SOFT WATER	I.E.	INVERT ELEVATION
-HS	HOT SOFT WATER CIRCULATING	B.F.F.	BELOW FINISHED FLOOR
-F	FIRE LINE		PLUMBING RISER NUMBER
-G	GAS LINE		DOWNSPOUT NOZZLE
-A	COMPRESSED AIR LINE		ROOF DRAIN/OVERFLOW ROOF DRAIN
-V	VACUUM LINE		
-OX	OXYGEN LINE		
-D	CONDENSATE DRAIN		

CX SUBMITTAL MATRIX									
GENERAL CONTRACTORS TO ALSO REVIEW ARCHITECTURAL SPECIFICATIONS AS NOTED IN PLANS IN PLAN SECTION 700 OF THE ARCHITECTURAL PACKAGE FOR REQUIRED SUBMITTALS THAT MIGHT NOT BE LISTED BELOW.									
SUBMITTAL DESCRIPTION	Required Review Time (Based on Date of Record)	Shade Shock	Commissioning	Physical Sample Required	Submitted for Record	Submitted for Record Only			
Anchor Bolts Shops	5 X	X			X				
ATAS-Detailed Shop DWGS(Submitted by Owner Vendor to Owner/AOR prior to const.)	5 X					X			
Concrete Mix Design	5 X	X			X				
Construction Prefunctional Checklists	5 X		X			X			
Decorative Metal Shop Drawings	5 X								
Diffusers, Grills & Registers	5 X				X				
Doors, Frames & Hardware	7 X	X			X				
Ductwork Layout (If there are significant changes in field)	5 X		X		X				
Electrical Distribution Equipment	5 X	X							
Elevator & Vertical Transportation Shop Drawings	5 X					X			
Epoxy Floor	5 X					X			
Fire Alarm Shop Drawings & Device Cut Sheets	5 X	X	X		X				
Fire Sprinkler Shop Drawings, Hydraulic Calculations & Device Cut Sheets	5 X	X	X		X				
HVAC Equipment(if Carrier - Submitted by Owner Vendor to Owner/AOR prior to const.)	5 X	X	X		X				
Light Fixtures(Submitted by Owner Vendor to Owner/AOR prior to construction)	5 X	X	X		X				
MEP Tests, Start-Up, and Programming Reports	5 X	X	X		X				
Millwork - Material Submittals (If differs from spec)	5 X	X		X					
Millwork - Shop Drawings (custom items & design features only)	5 X								
Restroom Partitions	5 X				X				
Plumbing Fixtures	5 X		X		X				
Railing Shop Drawings	5 X					X			
Rebar	5 X				X				
Stair Shop Drawings	5 X					X			
Structural Steel Shop Drawings	7 X				X				
Storefront - product data Submittal (if different from specified)	5 X								
Storefront - Shop Drawings	5 X								
Tile (if differs from spec)	5 X				X				
Window Film	5 X								

CX MATRIX										
Division	System / Equipment	Flush & Clean / Sanitize	Pneumatic Pressure Test	Hydrostatic Pressure Test	Duck Leak Test	Insulation Resistance (Megger) Test	Current Testing	Startup	Contractor Prefunctional Qualifies	Functional Performance Test (Validation)
22	Domestic Cold and Hot Water Piping	X		X					X	
22	Backflow Preventers								X	
22	Mixing Valves								X	
22	Water Heaters and Expansion Tanks							X	X	X
22	Domestic Hot Water Recirculating Pump							X	X	X
22	Sanitary Waste / Vent Piping	X		X					X	
22	Storm Water Piping	X		X					X	

CxA SCOPE OF WORK	
Division 22 - Plumbing Commissioning Requirements	
Scope of Work	
- Verify plumbing systems, subsystems, equipment, instrumentation, and control systems have been completed and calibrated according to the Contract Documents and approved submittals.	
- Validate the system is operable by setting the plumbing system into operating mode to be tested according to approved test procedures (for example; normal shutdown, normal auto position, normal manual position, alarm conditions, etc.).	
Prefunctional Construction Checklists	
- Domestic cold and hot water piping and fittings.	
- Filtered cold water piping and fittings.	
- Sanitary waste and vent piping and fittings.	
- Storm water piping and fittings.	
- Pumps, motors, accessories, and controls.	
- Hot water generators and controls.	
- Backflow preventers.	
- Meters and gages.	
- Condensate return.	
- Valves.	
- Drains	
- Plumbing fixtures.	

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

05/17/2021

www.bergmeyer.com

800 South Figueroa St. Los Angeles, CA 90017 212.337.1090

51 Sycamore St. Boston, MA 02210 617.542.1025

CONSULTANTS:

800-581-0963 www.schnackel.com

SEA/ SIGNATURE:

Date: 05/14/21
COA # E-203006642

5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM #2
1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION
SHAKE SHACK - LEE'S SUMMIT MO			
LEE'S SUMMIT MISSOURI SHACK #1348			
PERMIT/BID SET			
PLUMBING ABBREVIATIONS & SYMBOLS			
DRAWN BY: MUS			
CHECKED BY: ORS			
JOB NO: 20066.00			
P001			

Bergmeyer

CONSULTANTS:
Schnackel
engineers
800-581-0963
www.schnackel.com
10-0000-200000

SEAL SIGNATURE:

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SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

PLUMBING WASTE &
VENT PLAN

DRAWN BY: MUS
CHECKED BY: GRS
JOB NO: 20066.00

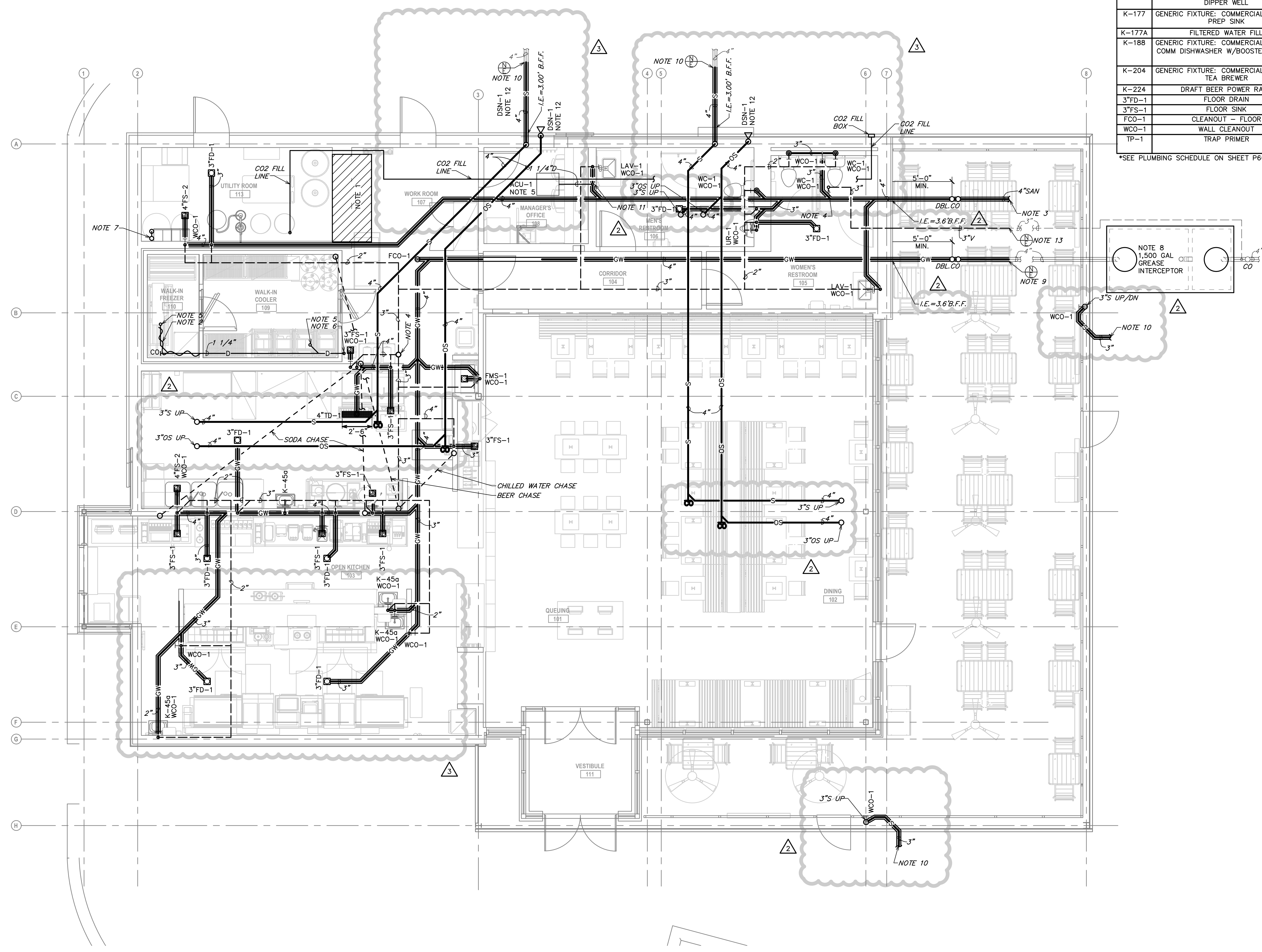
P101

PLUMBING FIXTURE SCHEDULE	
WC-1	WATER CLOSETS
LAV-1	LAVATORIES
UR-1	URINAL
WH-1	WALL HYDRANT
RH-1	ROOF HYDRANT
K-36	GENERIC FIXTURE: COMMERCIAL KITCHEN, COMMERCIAL ICE MACHINE
K-40	FLOOR MOP SINK
K-45A	GENERIC FIXTURE: COMMERCIAL KITCHEN, KITCHEN HAND SINK
K-46A	GENERIC FIXTURE: COMMERCIAL KITCHEN, KITCHEN HAND SINK
K-60A	GENERIC FIXTURE: COMMERCIAL KITCHEN, 3-COMP SINK
K-60B	GENERIC FIXTURE: COMMERCIAL KITCHEN, 3-COMP SINK
K-63	GENERIC FIXTURE: COMMERCIAL KITCHEN, COMM DISHWASHER W/CHEMICAL SANITATION
K-70A	GENERIC FIXTURE: COMMERCIAL KITCHEN, PREP SINK
K-160	CUSTARD MACHINE
K-171	GENERIC FIXTURE: COMMERCIAL KITCHEN, DIPPER WELL
K-177	GENERIC FIXTURE: COMMERCIAL KITCHEN, PREP SINK
K-177A	FILTERED WATER FILL
K-188	GENERIC FIXTURE: COMMERCIAL KITCHEN, COMM DISHWASHER W/BOOSTER HEATER
K-204	GENERIC FIXTURE: COMMERCIAL KITCHEN, TEA BREWER
K-224	DRAFT BEER POWER RACK
3"FD-1	FLOOR DRAIN
FCO-1	FLOOR CLEANOUT
WCO-1	WALL CLEANOUT
TP-1	TRAP PRIMER

*SEE PLUMBING SCHEDULE ON SHEET P601

- GENERAL NOTES:**
- THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
 - THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE INCIDENTAL DEMOLITION WORK PRIOR TO BIDDING AND COMMENCEMENT OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ALL EXISTING EQUIPMENT AS REQUIRED FOR THE INSTALLATION/CONSTRUCTION OF NEW WORK.
 - ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL AND LOCAL CODE REQUIREMENTS.
 - PROVIDE ACCESS PANELS AS REQUIRED TO ALLOW ACCESS TO VALVES, EQUIPMENT, ETC. LOCATED ABOVE INACCESSIBLE CEILINGS AND WALL CHASIES.
 - ALL SANITARY LINES AND PLUMBING FIXTURES ON THE PROJECT SHALL HAVE AN APPROVED MEANS OF SEWAGE BACKFLOW PREVENTION. FIXTURE SPECIFIC BACKFLOW PREVENTION INCLUDING AIR GAPS AND VACUUM BREAKERS ARE AN ACCEPTABLE MEANS OF BACKFLOW PREVENTION.
 - PIPE SIZES INDICATED ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL PROVIDE PIPE SIZES EQUAL TO OR GREATER THAN THE SPECIFIED SIZES. THE CONTRACTOR MAY INCREASE PIPE SIZES AS REQUIRED AT NO ADDITIONAL EXPENSE TO THE PROJECT.
 - REFER TO THE PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL PLUMBING FIXTURE CONNECTION SIZE REQUIREMENTS.
 - COORDINATE ALL SLAB PENETRATIONS WITH GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. MAINTAIN A MINIMUM OF 2" CLEARANCE FROM THE EDGE OF THE SLAB OPENING TO ANY STRUCTURAL MEMBERS AND TIES.
 - SLEEVE OR CORE-DRILL FLOOR SLABS, WALLS, ETC. AS REQUIRED FOR PIPING AND FIRE-STOP OPENING AROUND PIPE. VERIFY LOCATION OF STRUCTURAL BEAMS, JOISTS, ETC. BEFORE DRILLING.
 - THE CONTRACTOR SHALL OBTAIN A COPY OF THE LANDLORD'S TENANT CRITERIA MANUAL PRIOR TO BIDDING. THE TENANT CRITERIA MANUAL REQUIREMENTS SHALL BE INCLUDED IN THE CONTRACTOR CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE LANDLORD REQUIREMENTS AT NO ADDITIONAL EXPENSE TO THE PROJECT.
 - PROVIDE TEMPORARY COVERS, CAPS, OR PLUGS ON SANITARY SEWER SYSTEM THROUGHOUT THE DURATION OF CONSTRUCTION. RAG WADS, DUCT TAPE, OR OTHER SIMILAR METHODS OF TEMPORARY COVERS SHALL NOT BE UTILIZED. UPON COMPLETION OF CONSTRUCTION, COMPLETELY REMOVE ANY AND ALL OBSTRUCTIONS INSIDE THE ENTIRE SYSTEM BY SNAKING, RODDING, OR JETTING THE SYSTEM IMMEDIATELY PRIOR TO PROJECT TURNOVER TO THE OWNER.
 - ALL BELOW GRADE SANITARY LINES SHALL BE A MINIMUM OF 2" OR IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.
 - SANITARY TEE FITTINGS SHALL NOT BE INSTALLED IN DRAIN, WASTE, AND VENT (DWV) SYSTEMS.
 - INSTALL SANITARY PIPING 2 1/2" OR SMALLER AT A SLOPE OF 1/4" PER FOOT AND SANITARY PIPING 3" AND LARGER AT A SLOPE OF 1/8" PER FOOT.
 - INSTALL GREASE WASTE PIPING AT A SLOPE OF 1/4" PER FOOT.
 - THE PLUMBING CONTRACTOR SHALL PROVIDE HEAT TRACING TAPE, AND INSULATION AS REQUIRED FOR ALL PIPING INSTALLED WITHIN WALK-IN FREEZERS TO PREVENT PIPING FROM FREEZING. COORDINATE THE INSTALLATION OF THE HEAT TRACING WITH THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.
 - PROVIDE INDIRECT DRAINAGE ON ALL KITCHEN EQUIPMENT PER LOCAL JURISDICTION REQUIREMENTS. REFER TO FOOD SERVICE PLANS FOR ADDITIONAL DRAINAGE REQUIREMENTS.

- PLUMBING NOTES:**
- THIS SPACE IS RESERVED FOR ELECTRICAL EQUIPMENT. NO PIPING SHALL PASS BELOW, ABOVE, OR AROUND ELECTRICAL EQUIPMENT. PROVIDE CODE REQUIRED MINIMUM CLEARANCE ABOVE ELECTRICAL EQUIPMENT ACCESS SPACE.
 - FURNISH AND INSTALL HEAT TRACE BEFORE PIPE INSULATION IS INSTALLED. HEAT TRACE SHALL BE CHROMALOX SRL AND SHALL BE INSTALLED WHERE SHOWN ON THE PLANS. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.
 - CONNECT THE NEW SANITARY SEWER TO THE EXISTING SANITARY SEWER OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION, SIZE, AND INVERT ELEVATION OF THE EXISTING SANITARY SEWER PRIOR TO CONSTRUCTION. ADJUST THE NEW SANITARY SEWER AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING SANITARY SEWER SYSTEM. MAINTAIN CODE MINIMUM PIPE SLOPES.
 - UP TO 4" VTR
 - PIPE GRAVITY PRIMARY CONDENSATE FROM EQUIPMENT TO CODE COMPLIANT DISPOSAL POINT. THE CONDENSATE SHALL BE CONNECTED TO THE EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DISCHARGE SHALL BE THROUGH A CODE APPROVED AIR GAP. THE PIPE ROUTING INDICATED ON THE PLANS IS FOR REFERENCE ONLY. INSTALL THE PIPING AS HIGH AS POSSIBLE AND COORDINATE ROUTING WITH STRUCTURAL, MECHANICAL, ELECTRICAL, ETC. CONDENSATE SHALL NOT BE RUN OVER ELECTRICAL EQUIPMENT.
 - ROUTE CONDENSATE DRAIN TO DISCHARGE INTO SANITARY WASTE MAINTAINING A CODE APPROVED AIR GAP.
 - FURNISH AND INSTALL 4" DIAMETER PVC COMBUSTION AIR AND EXHAUST FROM THE WATER HEATER TO THE EXTERIOR. FURNISH AND INSTALL CONCENTRIC VENT KIT. THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ALL APPLICABLE LOCAL AND STATE CODES. COORDINATE THE MAXIMUM ALLOWABLE EXHAUST AND VENT LENGTHS WITH THE MANUFACTURER'S REQUIREMENTS. INSTALL CONCENTRIC VENT THROUGH ROOF A MINIMUM DISTANCE OF 15'-0" FROM ALL FRESH AIR INLETS AND BUILDING OPENINGS.
 - GREASE INTERCEPTOR. LANDLORD TO PROVIDE 1,500 GALLON GREASE INTERCEPTOR, JENSEN JP1500. PROVIDE SAMPLING BOX PER JURISDICTION REQUIREMENTS. INSTALL PER MANUFACTURER'S REQUIREMENTS. PROVIDE EXTENSIONS AS NEEDED TO MEET REQUIRED GRADE ELEVATION. PROVIDE H-20 HEAVY TRAFFIC RATED COVERS. PROVIDE VENT BELOW GRADE BACK TO BUILDING WITH WALL CLEANOUT AND ROUTE UP THROUGH ROOF.
 - CONNECT THE NEW GREASE WASTE TO THE EXISTING GREASE WASTE LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION, SIZE, AND INVERT ELEVATION OF THE EXISTING GREASE WASTE LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW GREASE WASTE AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING GREASE WASTE SYSTEM. MAINTAIN CODE MINIMUM PIPE SLOPES.
 - CONNECT THE NEW STORM SEWER TO THE EXISTING STORM SEWER OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION, SIZE, AND INVERT ELEVATION OF THE EXISTING STORM SEWER PRIOR TO CONSTRUCTION. ADJUST THE NEW STORM SEWER AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING STORM SEWER SYSTEM. MAINTAIN CODE MINIMUM PIPE SLOPES.
 - DISCHARGE CONDENSATE INTO LAVATORY TAIL PIECE.
 - MOUNT THE DOWNSPOUT NOZZLE AT A MINIMUM OF 1'-6" ABOVE FINISHED GRADE.
 - CONNECT THE NEW VENT TO THE EXISTING VENT SYSTEM TERMINATING THROUGH THE ROOF. FIELD VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING VENT THROUGH ROOF PRIOR TO SUBMITTING BID AND COMMENCING CONSTRUCTION.



1 PLUMBING WASTE & VENT PLAN
SCALE: 1/4" = 1'-0"

CONTRACTOR SHALL COORDINATE ALL KITCHEN EQUIPMENT UTILITY CONNECTIONS WITH MANUFACTURER INSTALLATION INSTRUCTIONS, OWNER, AND ARCHITECT PRIOR TO INSTALLATION.

Bergmeyer

CONSULTANTS:
Schnackel
engineers
800-581-0963
www.schnackel.com
102-0000-200000

SEAL SIGNATURE:
STATE OF MISSOURI
GREGORY ROY SCHNACKEL
NUMBER
C-028870
Date: 05/14/21
COA # E-2020006642

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NO. BY DATE DESCRIPTION

SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

PLUMBING WATER &
GAS PLAN

DRAWN BY: MUS
CHECKED BY: GRS
JOB NO: 20066.00

P120

PLUMBING FIXTURE SCHEDULE	
WC-1	WATER CLOSETS
LAV-1	LAVATORIES
UR-1	URINAL
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K-40	FLOOR MOP SINK
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K-224	DRAFT BEER POWER RACK
3*FD-1	FLOOR DRAIN
3*FS-1	FLOOR SINK
FCO-1	CLEANOUT - FLOOR
WCO-1	WALL CLEANOUT
TP-1	TRAP PRIMER

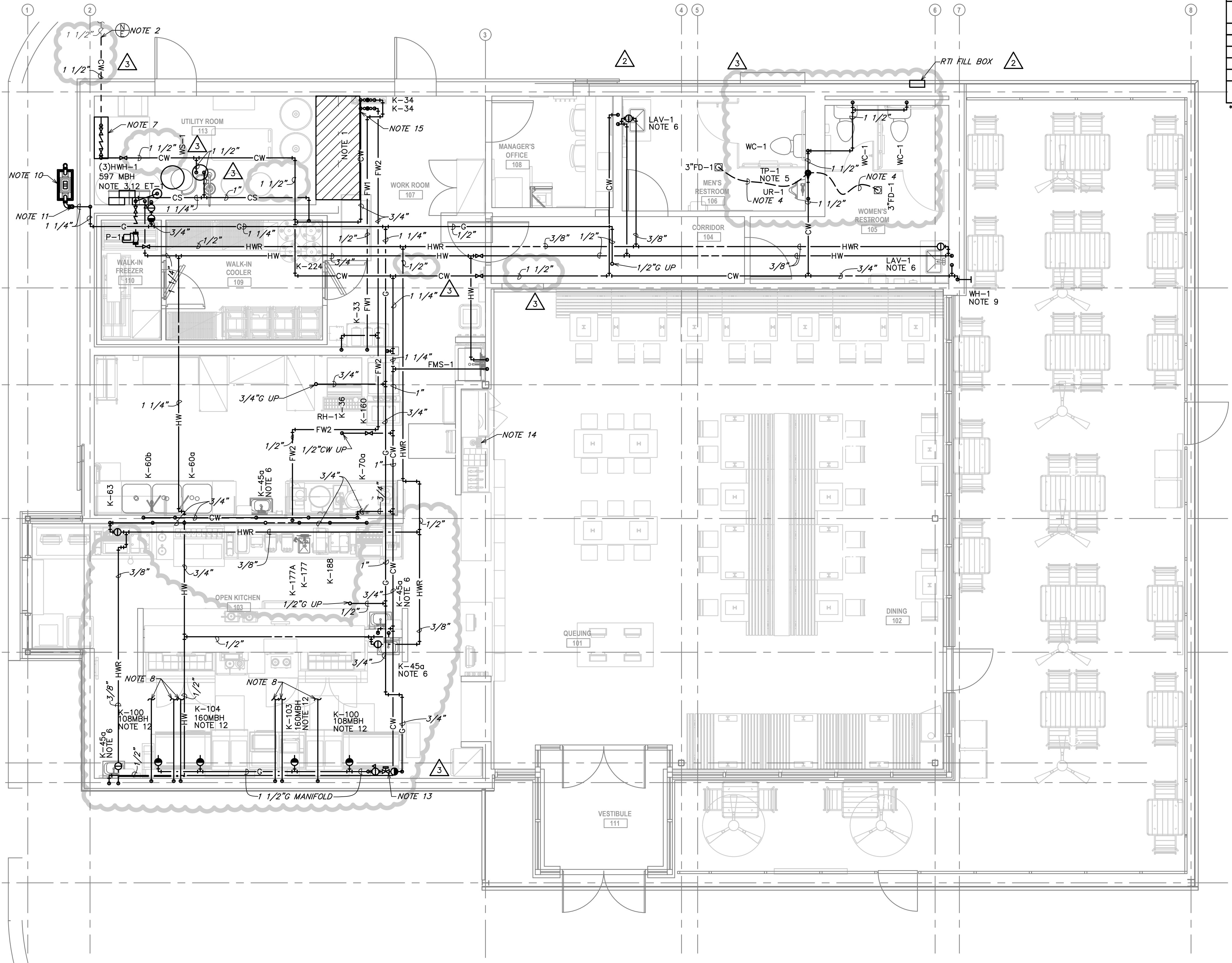
*SEE PLUMBING SCHEDULE ON SHEET P601

GENERAL NOTES:

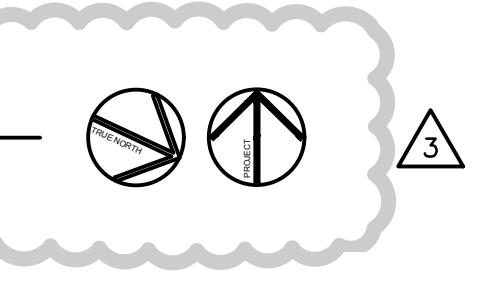
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- PROVIDE ACCESS PANELS AS REQUIRED TO ALLOW ACCESS TO VALVES, EQUIPMENT, ETC. LOCATED ABOVE INACCESSIBLE CEILINGS AND WALL CAVITIES.
- ALL SANITARY LINES AND PLUMBING FIXTURES ON THE PROJECT SHALL HAVE AN APPROVED MEANS OF SEWAGE BACKFLOW PREVENTION. FIXTURE SPECIFIC BACKFLOW PREVENTION INCLUDING AIR GAPS AND VACUUM BREAKERS ARE AN ACCEPTABLE MEANS OF BACKFLOW PREVENTION.
- PIPE SIZES INDICATED ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL PROVIDE PIPE SIZES EQUAL TO OR GREATER THAN THE SPECIFIED SIZES. THE CONTRACTOR MAY INCREASE PIPE SIZES AS REQUIRED AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- REFER TO THE PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL PLUMBING FIXTURE CONNECTION SIZE REQUIREMENTS.
- COORDINATE ALL SLAB PENETRATIONS WITH GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. MAINTAIN A MINIMUM OF 2" CLEARANCE FROM THE EDGE OF THE SLAB OPENING TO ANY STRUCTURAL MEMBERS AND TIES.
- SLEEVE OR CORE-DRILL FLOOR SLABS, WALLS, ETC. AS REQUIRED FOR PIPING AND FIRE-STOP OPENING AROUND PIPE. VERIFY LOCATION OF STRUCTURAL BEAMS, JOISTS, ETC. BEFORE DRILLING.
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- ALL HANDICAPPED ACCESSIBLE WATER CLOSETS SHALL HAVE THE FLUSHING HANDLE ON THE WIDE SIDE OF THE HANDICAPPED ACCESSIBLE STALL AS REQUIRED BY ADA REQUIREMENTS.
- ALL PUBLIC USE LAVATORY FAUCETS SHALL HAVE AN AUTOMATIC SAFETY WATER MIXING DEVICE IN ACCORDANCE WITH ANSI/ASSE 1017 OR 1070 AS APPLICABLE.

PLUMBING NOTES:

- THIS SPACE IS RESERVED FOR ELECTRICAL EQUIPMENT. NO PIPING SHALL PASS BELOW, ABOVE, OR AROUND ELECTRICAL EQUIPMENT. PROVIDE CODE REQUIRED MINIMUM CLEARANCE ABOVE ELECTRICAL EQUIPMENT ACCESS SPACE.
- CONNECT THE NEW DOMESTIC COLD WATER LINE TO AN EXISTING COLD WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
- FURNISH AND INSTALL WATER HEATER AND EXPANSION TANK ON HOUSEKEEPING PAD AS INDICATED ON THE PLANS. REFER TO ARCHITECTURAL PLANS FOR EXACT WATER HEATER LOCATION. PIPE WATER HEATER PRESSURE/TEMPERATURE RELIEF DISCHARGE TO THE NEAREST FLOOR DRAIN BELOW THE WATER HEATER IN ACCORDANCE WITH LOCAL REQUIREMENTS. PROVIDE A CODE APPROVED AIR GAP ON THE DISCHARGE OF THE WATER HEATER PRESSURE/TEMPERATURE RELIEF. REFER TO DETAILS SHEET FOR ADDITIONAL INFORMATION.
- 1/2" FLEXIBLE CONTINUOUS TYPE "K" COPPER TUBING BELOW GRADE FROM TRAP PRIMER TO FLOOR DRAIN. NO FITTINGS OR SPLICES ARE ALLOWED BELOW GRADE.
- INSTALL TRAP PRIMER PER MANUFACTURER'S REQUIREMENTS. COORDINATE EXACT LOCATION IN THE FIELD. FURNISH AND INSTALL A LOCKABLE METAL ACCESS PANEL AS NECESSARY TO MAINTAIN EQUIPMENT.
- PROVIDE THERMOSTATIC MIXING VALVE, POWERFLEX80 OR EQUAL, BELOW FIXTURE. SET TEMPERATURE AS REQUIRED BY LOCAL JURISDICTION. THERMOSTATIC MIXING VALVE SHALL BE IN ACCORDANCE WITH ANSI/ASSE 1070.
- THIS SPACE IS RESERVED FOR THE DOMESTIC WATER SERVICE ENTRANCE. REFER TO THE DETAIL SHEETS FOR ADDITIONAL INFORMATION. THE DOMESTIC WATER SERVICE ENTRANCE SHALL COMPLY WITH ALL STATE AND LOCAL REQUIREMENTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 3/4" NPT STEEL PIPE INSIDE WALL. STUB 18" FROM WALL FOR CONNECT BY VENDOR. INSTALL PER VENDOR RECOMMENDATIONS.
- MOUNT THE WALL HYDRANT AT A MINIMUM OF 2'-0" ABOVE FINISHED GRADE.
- NEW NATURAL GAS METER SERVING 1,993 MBH. THE SYSTEM DESIGN IS BASED ON 2 PSI DELIVERY PRESSURE WITH A PRESSURE DROP OF 1 PSI AND A TOTAL DEVELOPED LENGTH OF 115 FEET. THE CONTRACTOR SHALL COORDINATE THE METER PLACEMENT, AVAILABLE PRESSURE, AND ANY NEW SERVICE REQUIREMENTS WITH THE LOCAL UTILITY PRIOR TO CONSTRUCTION. IF THE DELIVERY PRESSURE INDICATED IS NOT AVAILABLE FROM THE UTILITY COMPANY, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
- PROVIDE GAS TEST PORT TO TEST GAS PRESSURE PRIOR TO EQUIPMENT START UP. SEE DETAIL FOR MORE INFORMATION.
- CONNECT NATURAL GAS SERVICE TO UNIT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION. VERIFY EXACT LOCATION OF NATURAL GAS CONNECTION ON ROOF TOP UNIT WITH EQUIPMENT PRIOR TO PIPE INSTALLATION.
- FURNISH AND INSTALL A UL LISTED EMERGENCY NATURAL GAS SHUTOFF VALVE MOUNTED BELOW THE FINISHED CEILING IN AN ACCESSIBLE LOCATION. THE SHUTOFF VALVE SHALL BE INTERLOCKED WITH THE EXHAUST HOOD AND SHALL HAVE A MANUAL RESET. COORDINATE EXACT VALVE TYPE WITH HOOD MANUFACTURER. THE VALVE SHALL BE PROVIDED AND INSTALLED BY THE PLUMBING CONTRACTOR AND SHALL BE INTERCONNECTED BY THE FIRE ALARM CONTRACTOR. COORDINATE THE VALVE LOCATION WITH THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
- STUB UP BEVERAGE CONDUIT WITH CHILLED FW ABOVE SLAB AND ROUTE LINES TO WATER FILLER. REFERENCE ARCHITECTURAL AND KITCHEN DRAWINGS FOR INSTALLATION.
- ALL PIPING DOWN STREAM OF BACKFLOW PREVENTER SHALL BE STAINLESS STEEL.



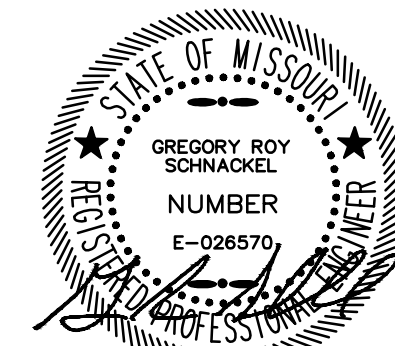
1 PLUMBING WATER & GAS PLAN
SCALE: 1/4" = 1'-0"



Bergmeyer

CONSULTANTS:
Schnackel
engineers,
800-581-0963
www.schnackel.com
REG. NO. 200260

SEAL SIGNATURE:



5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM #2
1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET



SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

PLUMBING ROOF PLAN

DRAWN BY:	MUS
CHECKED BY:	GRS
JOB NO:	20066.00

P150

PLUMBING FIXTURE SCHEDULE	
WC-1	WATER CLOSETS
LAV-1	LAVATORIES
UR-1	URINAL
WH-1	WALL HYDRANT
RH-1	ROOF HYDRANT
K-36	GENERIC FIXTURE: COMMERCIAL KITCHEN, COMMERCIAL ICE MACHINE
K-40	FLOOR MOP SINK
K-45A	GENERIC FIXTURE: COMMERCIAL KITCHEN, KITCHEN HAND SINK
K-46A	GENERIC FIXTURE: COMMERCIAL KITCHEN, KITCHEN HAND SINK
K-60A	GENERIC FIXTURE: COMMERCIAL KITCHEN, 3-COMP SINK
K-60B	GENERIC FIXTURE: COMMERCIAL KITCHEN, 3-COMP SINK
K-63	GENERIC FIXTURE: COMMERCIAL KITCHEN, COMM DISHWASHER W/CHEMICAL SANITATION
K-70A	GENERIC FIXTURE: COMMERCIAL KITCHEN, PREP SINK
K-160	CUSTARD MACHINE
K-171	GENERIC FIXTURE: COMMERCIAL KITCHEN, DIPPER WELL
K-177	GENERIC FIXTURE: COMMERCIAL KITCHEN, PREP SINK
K-177A	FILTERED WATER FILL
K-188	GENERIC FIXTURE: COMMERCIAL KITCHEN, COMM DISHWASHER W/BOOSTER HEATER
K-204	GENERIC FIXTURE: COMMERCIAL KITCHEN, TEA BREWER
K-224	DRAFT BEER POWER RACK
3*FD-1	FLOOR DRAIN
3*FS-1	FLOOR SINK
FCO-1	CLEANOUT - FLOOR
WCO-1	WALL CLEANOUT
TP-1	TRAP PRIMER

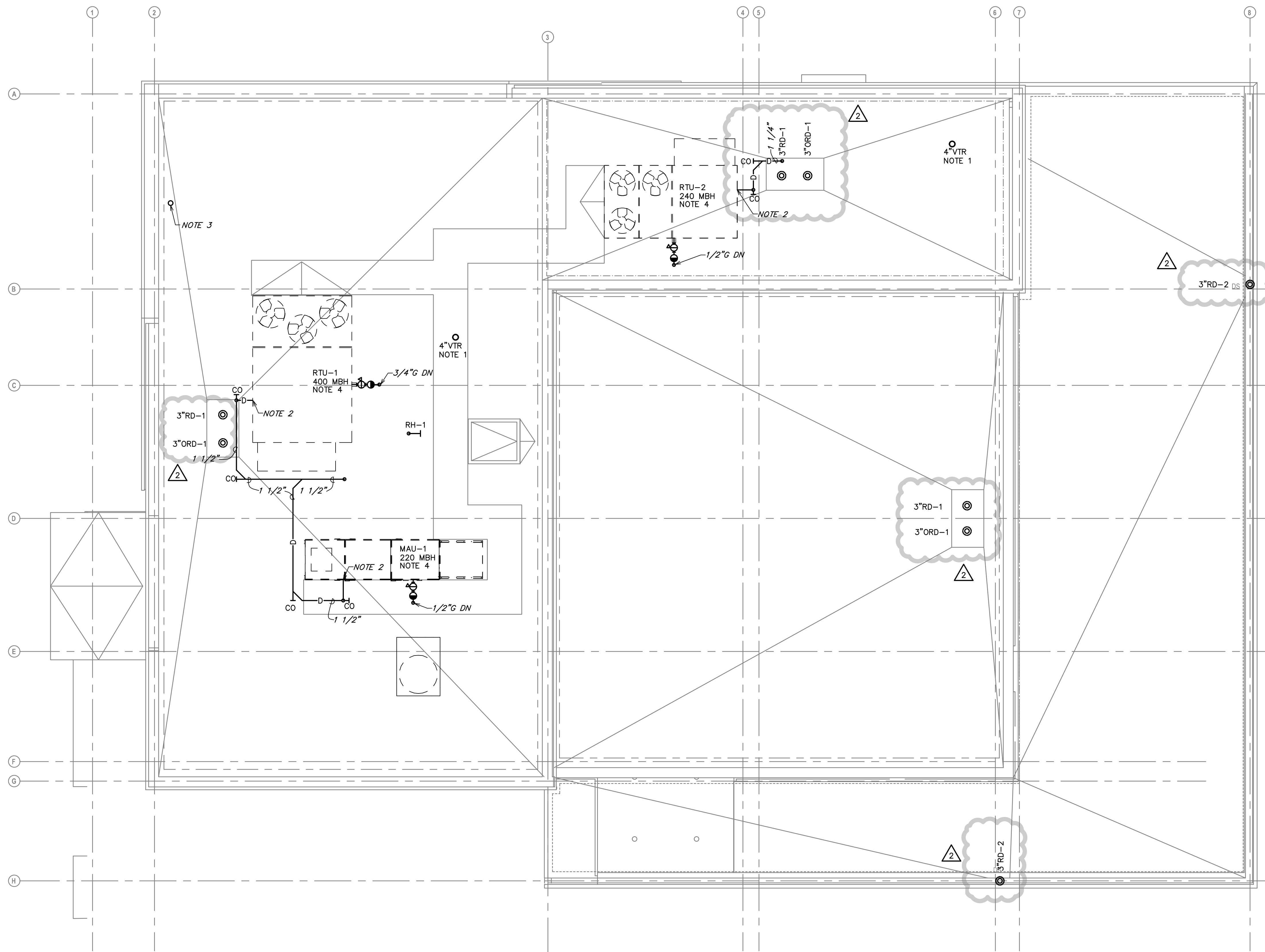
*SEE PLUMBING SCHEDULE ON SHEET P601

GENERAL NOTES:

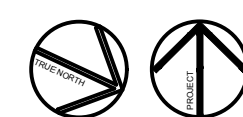
- THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE INCIDENTAL DEMOLITION WORK PRIOR TO BIDDING AND COMMENCEMENT OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ALL EXISTING EQUIPMENT AS REQUIRED FOR THE INSTALLATION/CONSTRUCTION OF NEW WORK.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL AND LOCAL CODE REQUIREMENTS.
- PROVIDE ACCESS PANELS AS REQUIRED TO ALLOW ACCESS TO VALVES, EQUIPMENT, ETC. LOCATED ABOVE INACCESSIBLE CEILINGS AND WALL CAVITIES.
- ALL SANITARY LINES AND PLUMBING FIXTURES ON THE PROJECT SHALL HAVE AN APPROVED MEANS OF SEWAGE BACKFLOW PREVENTION. FIXTURE SPECIFIC BACKFLOW PREVENTION INCLUDING AIR GAPS AND VACUUM BREAKERS ARE AN ACCEPTABLE MEANS OF BACKFLOW PREVENTION.
- PIPE SIZES INDICATED ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL PROVIDE PIPE SIZES EQUAL TO OR GREATER THAN THE SPECIFIED SIZES. THE CONTRACTOR MAY INCREASE PIPE SIZES AS REQUIRED AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- REFER TO THE PLUMBING FIXTURE SCHEDULE FOR INDIVIDUAL PLUMBING FIXTURE CONNECTION SIZE REQUIREMENTS.
- COORDINATE ALL SLAB PENETRATIONS WITH GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. MAINTAIN A MINIMUM OF 2" CLEARANCE FROM THE EDGE OF THE SLAB OPENING TO ANY STRUCTURAL MEMBERS AND TIES.
- SLEEVE OR CORE-DRILL FLOOR SLABS, WALLS, ETC. AS REQUIRED FOR PIPING AND FIRE-STOP OPENING AROUND PIPE. VERIFY LOCATION OF STRUCTURAL BEAMS, JOISTS, ETC. BEFORE DRILLING.
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE LANDLORD'S TENANT CRITERIA MANUAL PRIOR TO BIDDING. THE TENANT CRITERIA MANUAL REQUIREMENTS SHALL BE INCLUDED IN THE CONTRACTOR CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE LANDLORD REQUIREMENTS AT NO ADDITIONAL EXPENSE TO THE PROJECT.
- ALL HANDICAPPED ACCESSIBLE WATER CLOSETS SHALL HAVE THE FLUSHING HANDLE ON THE WIDE SIDE OF THE HANDICAPPED ACCESSIBLE STALL AS REQUIRED BY ADA REQUIREMENTS.
- ALL PUBLIC USE LAVATORY FAUCETS SHALL HAVE AN AUTOMATIC SAFETY WATER MIXING DEVICE IN ACCORDANCE WITH ANSI/ASSE 1017 OR 1070 AS APPLICABLE.

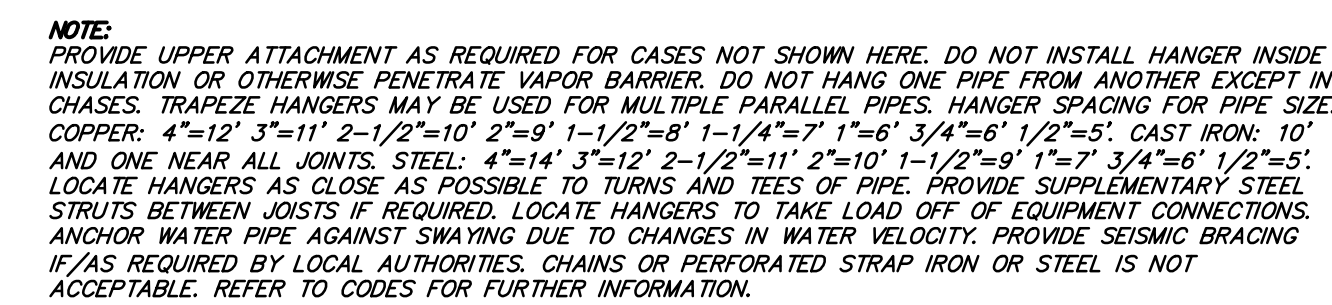
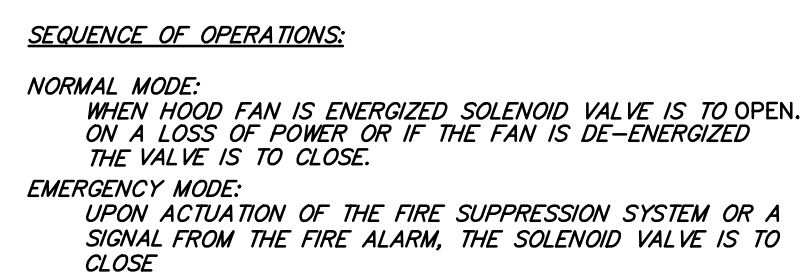
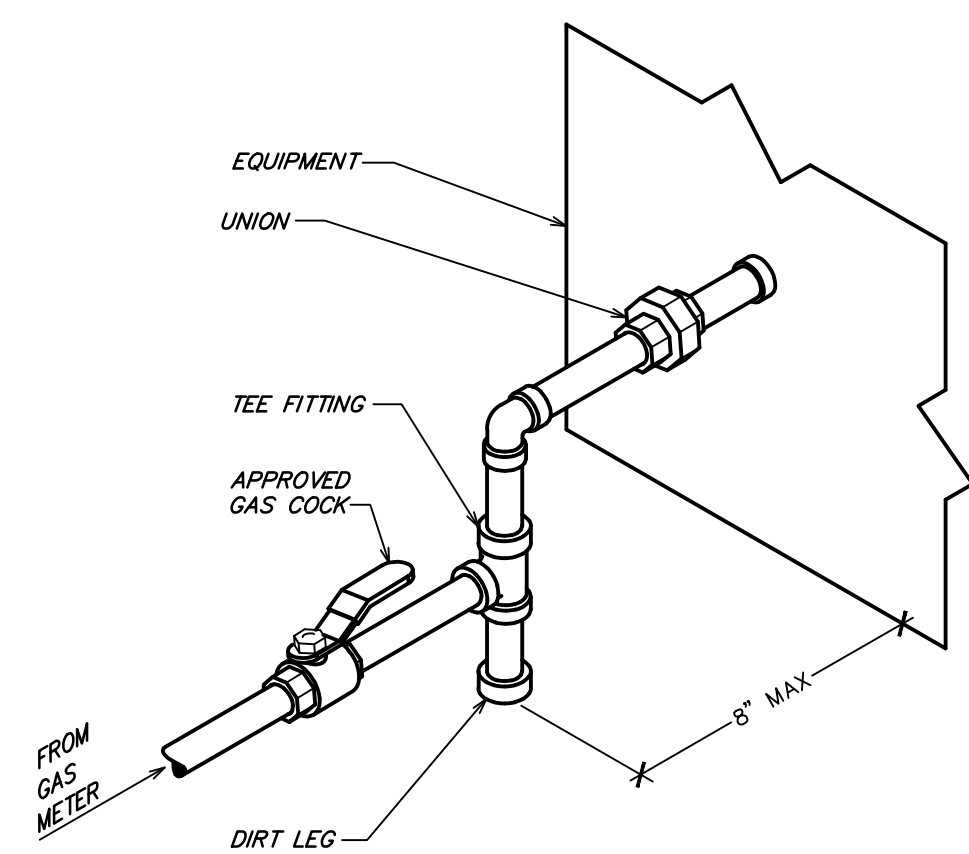
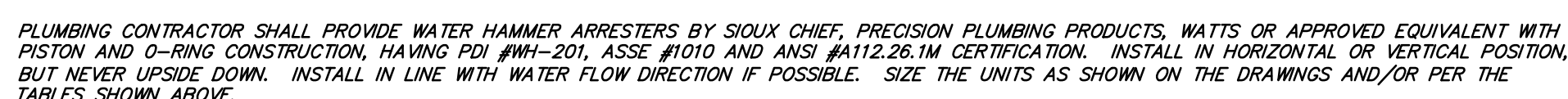
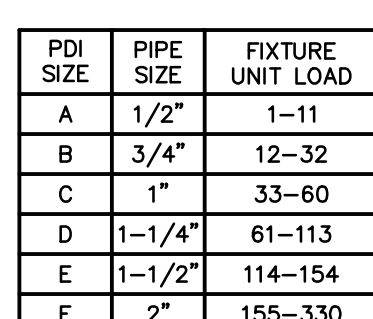
PLUMBING NOTES:

- 4" VENT THROUGH ROOF. INSTALL VENT THROUGH ROOF A MINIMUM DISTANCE OF 15'-0" FROM ALL FRESH AIR INLETS AND BUILDING OPENINGS.
- ROUTE THE CONDENSATE PIPING FROM THE ROOFTOP UNIT TO A CODE COMPLIANT DISCHARGE POINT INSIDE THE TENANT SPACE. THE CONDENSATE SHALL BE CONNECTED TO THE ROOFTOP UNIT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. VERIFY CONDENSATE REMOVAL REQUIREMENTS WITH LOCAL JURISDICTION PRIOR TO INSTALLATION. IF CONFLICTS OCCUR, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
- FURNISH AND INSTALL 4" DIAMETER PVC COMBUSTION AIR AND EXHAUST FROM THE WATER HEATER TO THE EXTERIOR. FURNISH AND INSTALL CONCENTRIC VENT KIT. THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ALL APPLICABLE LOCAL AND STATE CODES. COORDINATE THE MAXIMUM ALLOWABLE EXHAUST AND VENT LENGTHS WITH THE MANUFACTURER'S REQUIREMENTS. INSTALL CONCENTRIC VENT THROUGH ROOF A MINIMUM DISTANCE OF 15'-0" FROM ALL FRESH AIR INLETS AND BUILDING OPENINGS.
- CONNECT NATURAL GAS SERVICE TO ROOFTOP UNIT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION. VERIFY EXACT LOCATION OF NATURAL GAS CONNECTION ON ROOFTOP UNIT WITH EQUIPMENT PRIOR TO PIPE INSTALLATION.



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





SHAKE SHACK®

PERMIT/BID SET

PLUMBING DETAILS

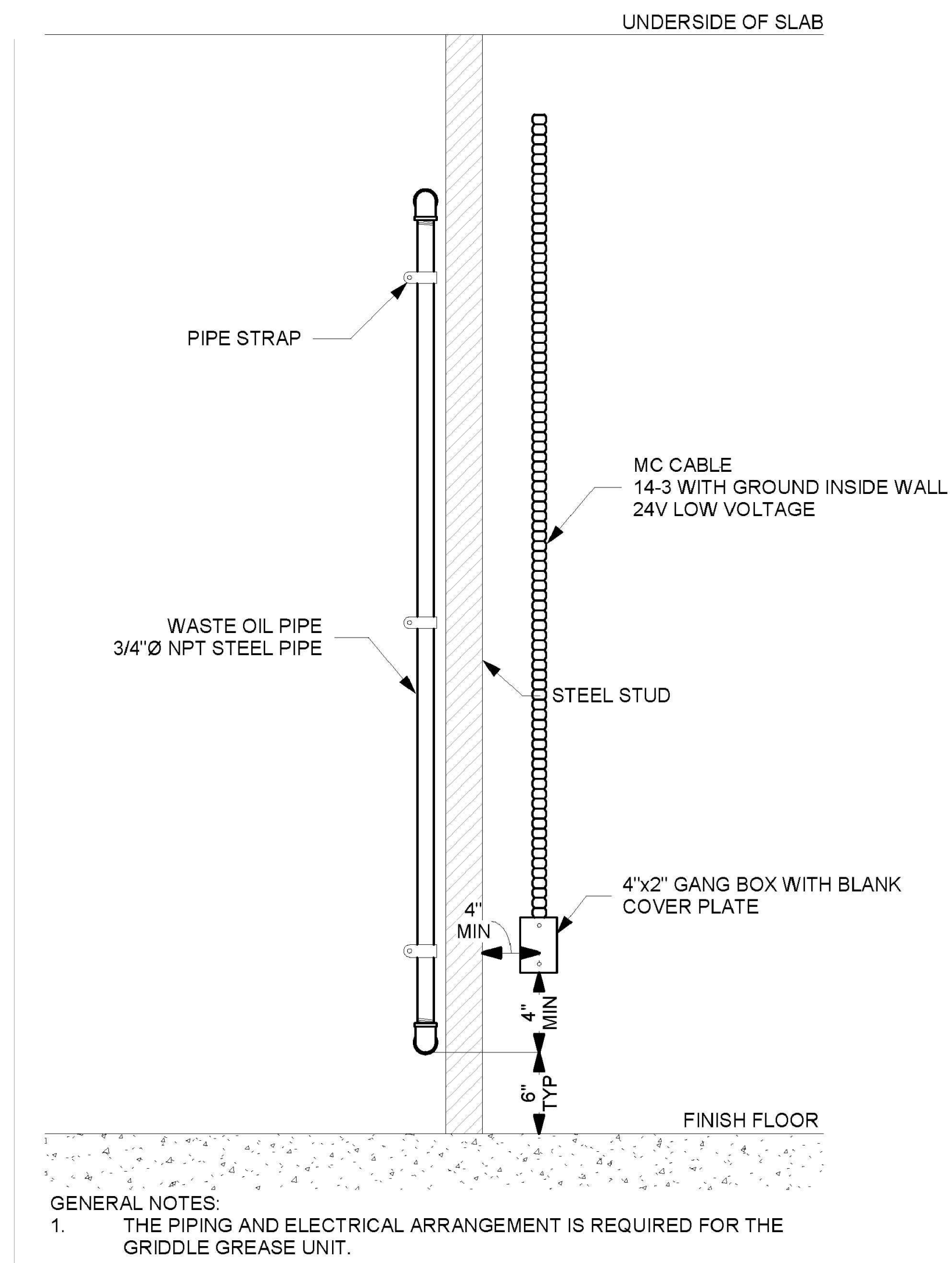
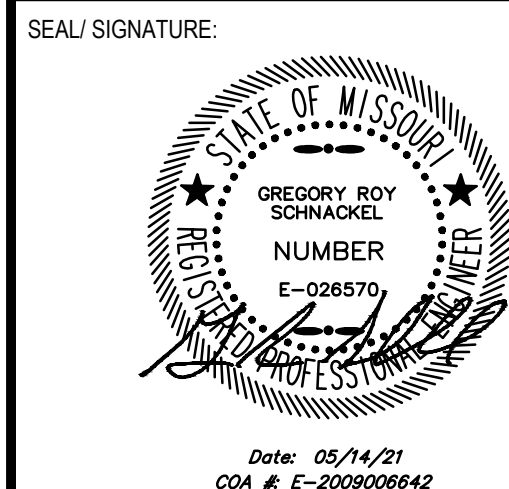
DRAWN BY: MJS

CHECKED BY: _____ GRS

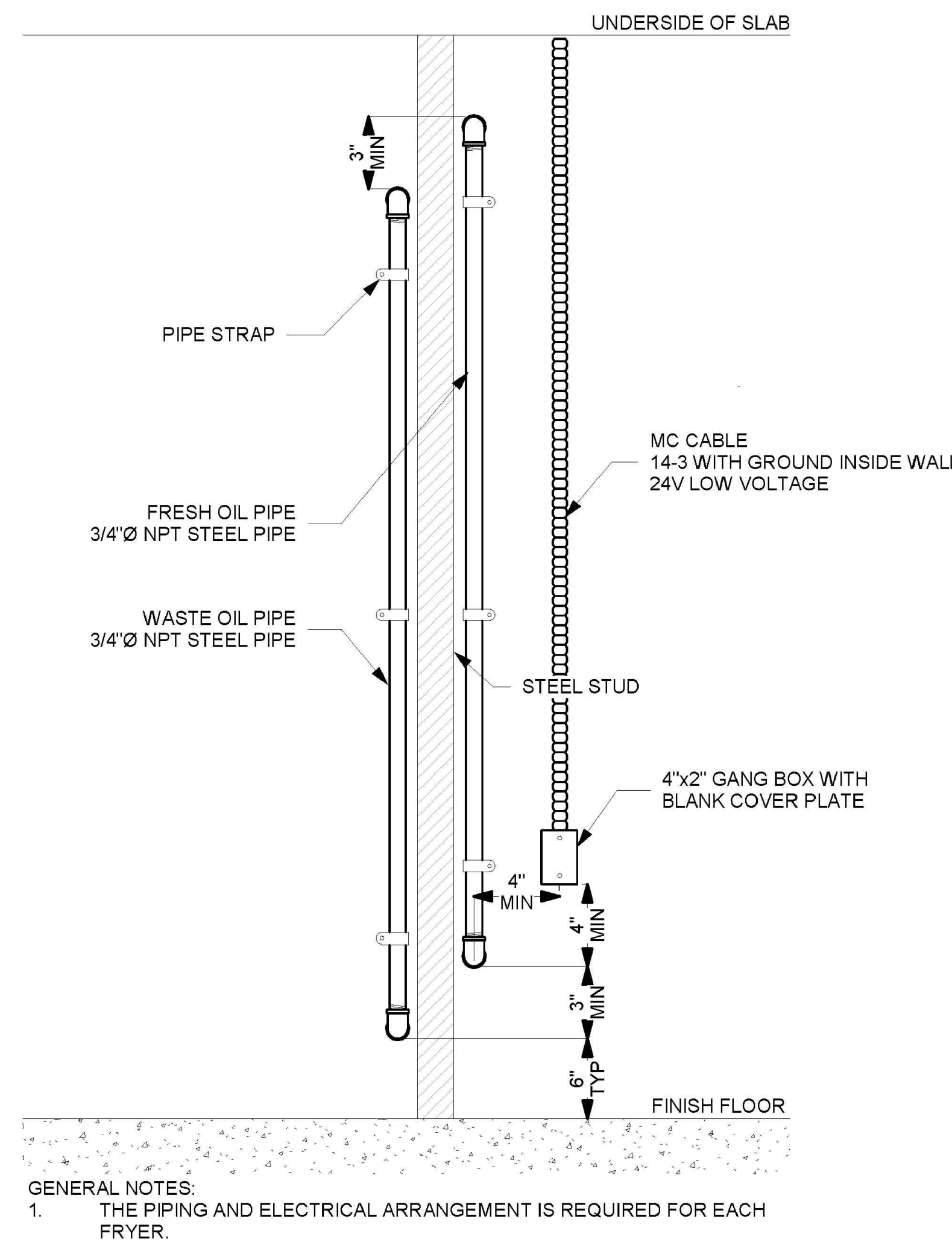
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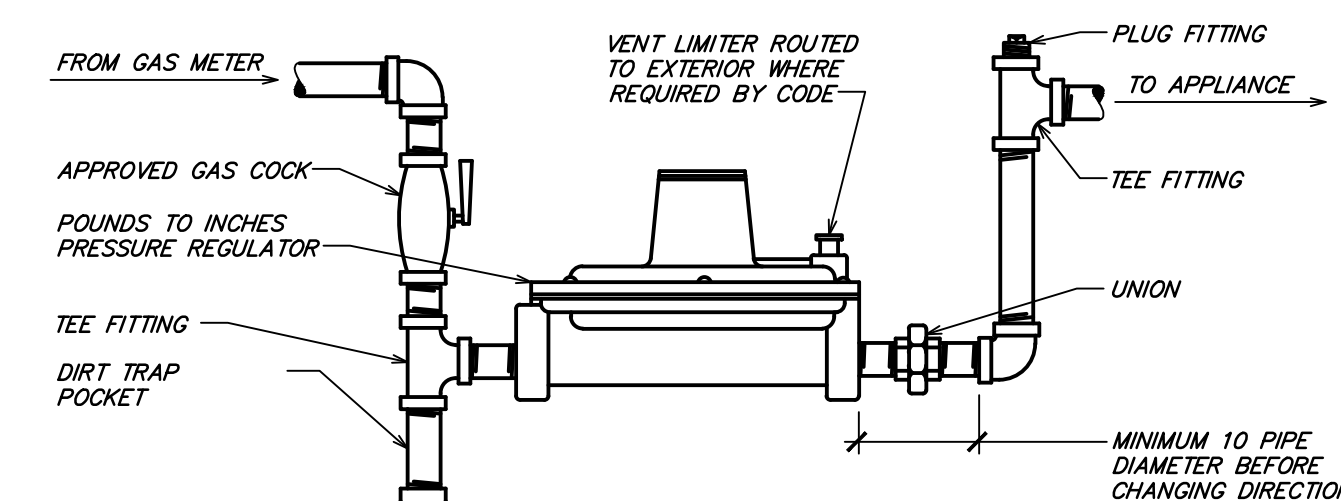
Bergmeyer



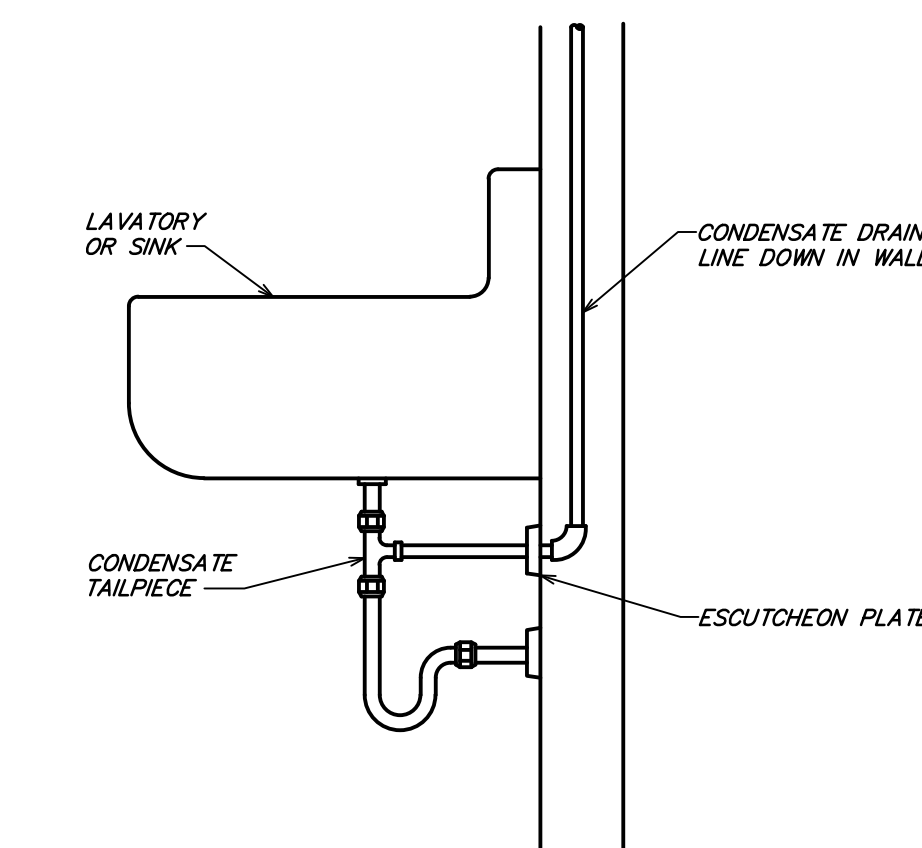
9 GRIDDLE RTI DETAIL
NOT TO SCALE



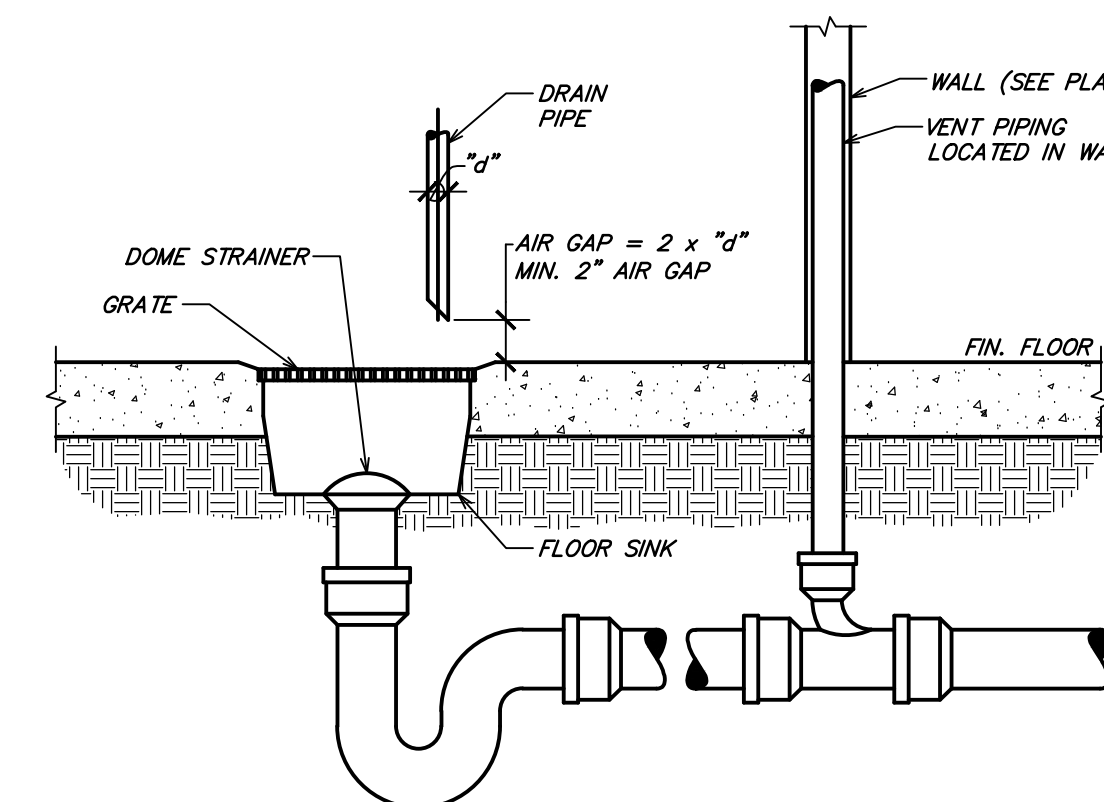
7 FRYER RTI DETAIL
NOT TO SCALE



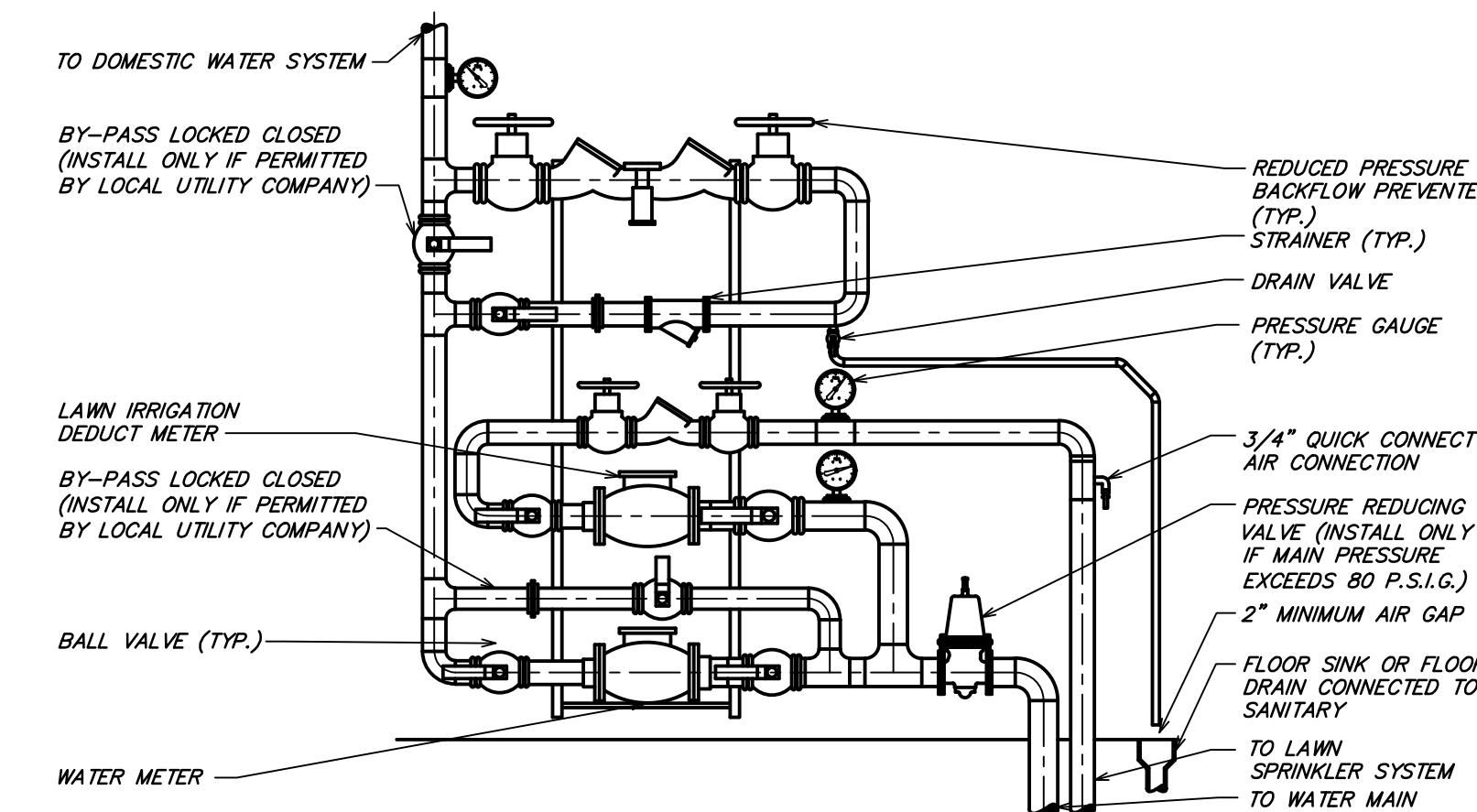
4 NATURAL GAS PRESSURE REGULATOR
NOT TO SCALE



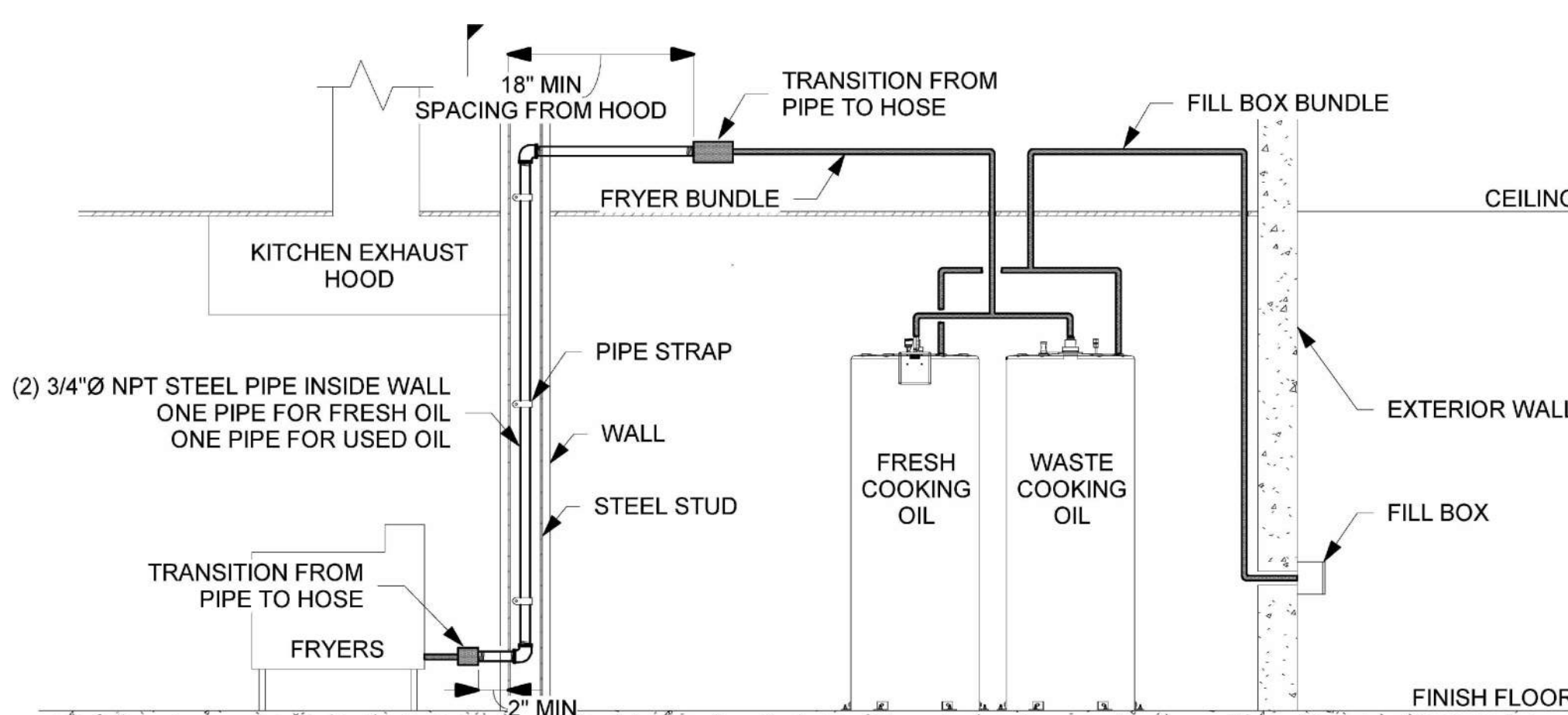
3 CONDENSATE TAILPIECE
CONNECTION
NOT TO SCALE



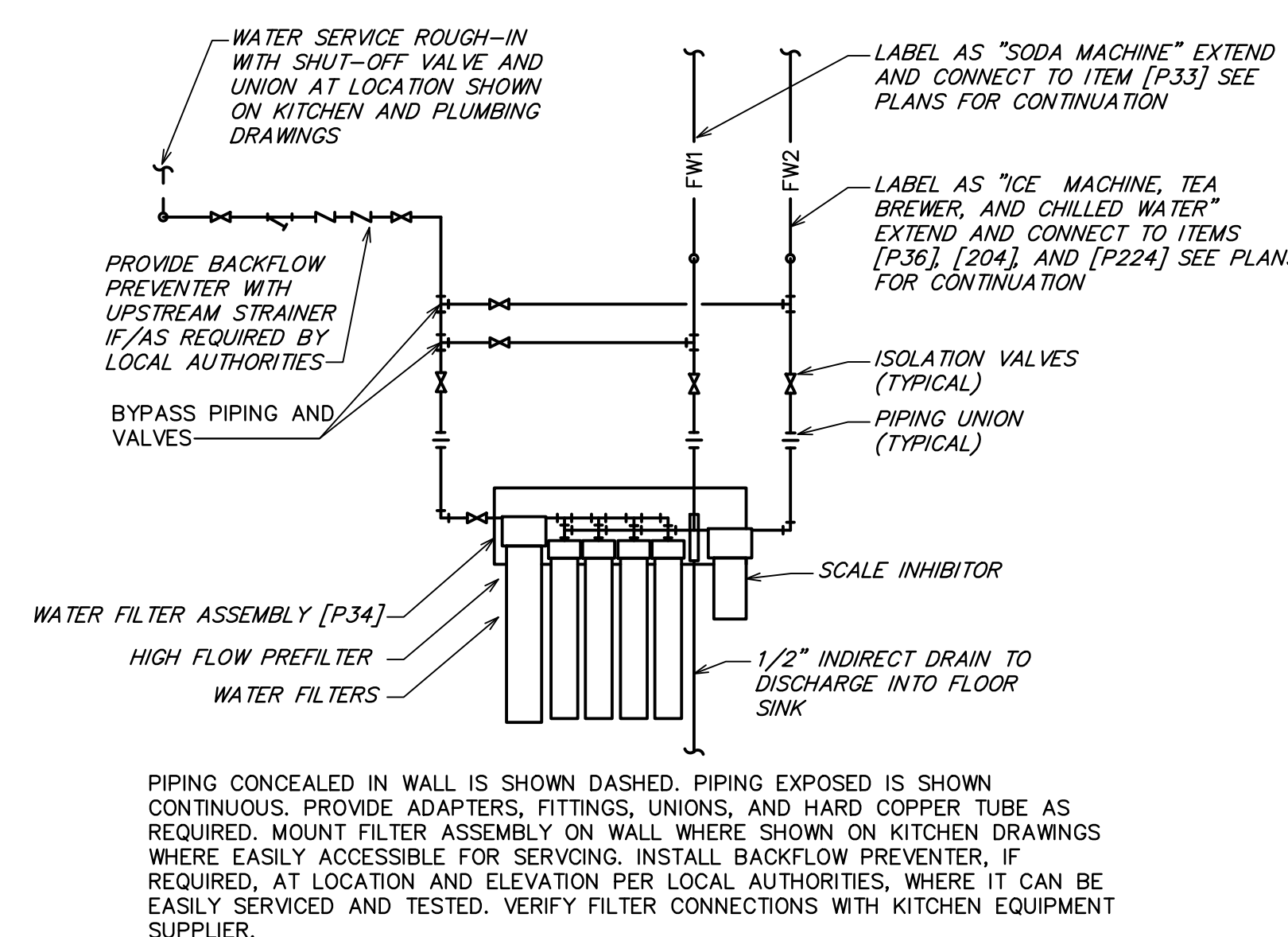
2 FLOOR SINK DETAIL
NOT TO SCALE



1 DOMESTIC WATER SERVICE DETAIL
NOT TO SCALE



6 RTI SYSTEM DETAIL
NOT TO SCALE

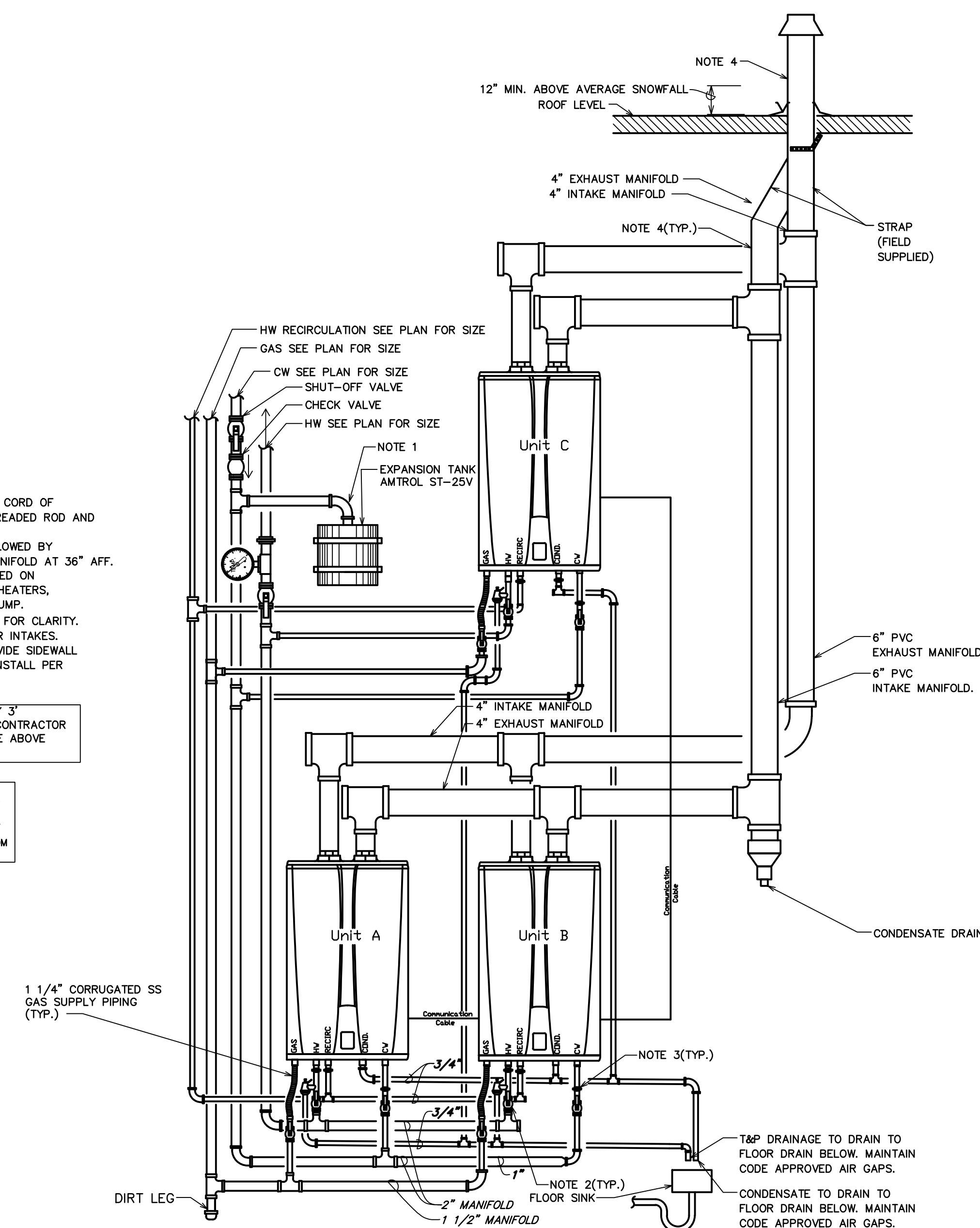


5 WATER FILTER DETAIL
NOT TO SCALE

NOTES:
1. SUPPORT EXPANSION TANK FROM TOP CORD OF STRUCTURAL MEMBERS WITH 1/2" THREADED ROD AND 3"x3"x1/4" ANGLE IRON.
2. PROVIDE SHUT-OFF VALVES WHEN ALLOWED BY JURISDICTION. MOUNT COLD WATER MANIFOLD AT 36" AFF.
3. DIELECTRIC UNIONS SHALL BE INSTALLED ON ALL INLETS AND OUTLETS OF WATER HEATERS, SOFTENERS, EXPANSION TANK, AND PUMP.
4. EXHAUST AND INTAKE SHOWN OFFSET FOR CLARITY. MAINTAIN 10'-0" MIN FROM FRESH AIR INTAKES. AT THE OPTION OF THE OWNER, PROVIDE SIDEWALL CONCENTRIC VENT TERMINATIONS & INSTALL PER MANUFACTURER AND CODE.

VENTING MUST BE SUPPORTED EVERY 3' VERTICALLY AND 5' HORIZONTALLY. CONTRACTOR SHALL MAINTAIN MIN. 12" CLEARANCE ABOVE EXHAUST & INTAKE PIPING

NOTE: INSTALLATION OF WATER HEATERS AS PER MANUFACTURERS REQUIREMENTS. WATER HEATERS SHALL BE CONNECTED WITH EQUAL LENGTH PIPING AND SHALL BE LOCATED AN EQUAL DISTANCE FROM EACH OTHER.



8 MULTIPLE TANKLESS
WATER HEATER DETAIL
NOT TO SCALE

SECTION 220595 - FIRESTOPPING FOR PLUMBING SYSTEMS
SECTION 220719 - PLUMBING PIPING INSULATION
SECTION 220720 - PIPING SAFETY COVERS
SECTION 221005 - PLUMBING PIPING

- 2.02 BASES
- A. Concrete Housekeeping Pad:
1. Construction: Concrete as specified for flooring.
 2. Design: 4" high above the surrounding finished flooring and 4" greater in dimension that the equipment supported, or greater if detailed on the Drawings or when indicated.

PART 3 EXECUTION

- 0.01 **INSULATION**
 - a. Install anchors and fasteners in accordance with IICC Evaluation Systems, LLC (IIC-SC) evaluation report conditions of use where applicable.
 - b. Provide fasteners according to manufacturer's instructions and/or design settings.
 - c. Install flexible piping connections to provide sufficient slack for vibration isolation and absorb any relative displacements as indicated or as required.
 - 0.02 **Vibration Isolation Systems:**
 - 1. Vibration-isolated Equipment Support Base:
 - a. Provide specification indicated clearance beneath base.
 - 2. Spring Isolators:
 - a. Positioning equipment at operating height; provide temporary blocking as required.
 - b. Lift equipment free of isolators prior to lateral repositioning to avoid damage to isolators.
 - c. Level equipment by adjusting isolators gradually in sequence to raise equipment uniformly until such that excessive weight or stress is not placed on any single isolator.
 - 3. Isolator Hangers:
 - a. Use precompressed isolator hangers where required to facilitate installation and prevent damage to equipment utility connection provisions.
 - b. Locate isolator hangers at top of hanger rods in accordance with manufacturer's instructions.
 - c. Clean debris from beneath vibration-isolated equipment that could cause short-circuits of electrical systems.
 - 4. Use elastomeric grommets for attachments where required to prevent short-circuiting of electrical systems.
 - 5. Adjust isolators to be free of isolation short circuits during normal operation.
 - 6. Do not overtighten fasteners such that resilient material pads are compressed beyond manufacturer's maximum recommended deflection.
 - 3.02 **FIELD QUALITY CONTROL**
 - A. Inspect vibration isolation and/or seismic control components for damage and defects.
 - B. Provide manufacturer representative or authorized technician services to assist with inspection and testing of vibration isolation systems and seismic controls:
 - 1. Obtain a detailed copy of manufacturer recommended inspection, testing, and field report procedures.
 - 2. Verify isolator static deflections.
 - 3. Verify required clearance beneath vibration-isolated equipment support bases.
 - 4. Verify equipment clearance and deflection.
 - 5. Verify vibration isolation performance during normal operation; investigate sources of vibration and correct short circuits.
 - C. Seismic Controls:
 - 1. Verify snubbing element air gaps.
 - D. Correct deficiencies and replace deficient or defective vibration isolation and/or seismic control components.
 - F. Submit detailed reports indicating inspection and testing results and corrective actions taken.
- END OF SECTION

SECTION 220595 - FIRESTOPPING FOR PLUMBING SYSTEMS

1. PART 1 GENERAL
- 1.01 SUBSTITUTIONS
Substitutions for Architect/Engineer review are not required.
- 1.02 QUALITY ASSURANCE
- A. Testing
1. Provide firestopping assemblies of designs which comply with the scheduled or specified fire ratings when tested in accordance with ASTM E 814 and ASTM E 119.
- B. Listing
1. Listing in the current classification or certification books of UL or FM will be considered as constituting an acceptable test report.
- C. Approval
1. Approval by UL, ETL, ICC, or BOC will be considered as constituting an acceptable test report.
- D. Submission of actual test reports is required for assemblies for which none of the above substantiation exists.
- B. Installer
1. Qualification for installing in performing the work of this section and:
a. Approved by Factory Mutual Research under FM Standard 4901, Approval of Firestop Contractors, or meeting any two of the following requirements:
i. With minimum two years of experience in firestop application of this type.
ii. b. Where required, licensed by authority having jurisdiction.
c. Approved by firestopping manufacturer.
2. The Contractor shall examine the Drawings for architectural work to identify all fire rated, partitioned openings, and assemblies and apply the appropriate fire stopping materials and systems to maintain the fire rating of the partition, floor assembly, penetration, and other openings.

PART 2 PRODUCTS

- 4.01 FIRESTOPPING ASSEMBLIES
- Firestopping key material meeting requirements.
1. Fire Rating: When a system listed by UL or FM or tested in accordance with ASTM E 814 or ASTM E 119 that has a P Rating equal to fire rating of penetrated assembly and minimum T Rating Equal to F Rating and that meets all other specified requirements.
- 4.02 MATERIALS
- A. Elastomeric Silicone Firestopping: Single or multiple component silicone elastomeric compound and compatible silicone sealant; conforming to the following:
1. Durability and Longevity: Permanent.
 2. Color: Manufacturer's standard color.
- B. Foam Firestopping: Single or multiple component foam compound; conforming to the following:
1. Durability and Longevity: Permanent.
 2. Color: Manufacturer's standard color.
- C. Fibered Compound Firestopping: Fibered mineral compound mixed with incombustible non-astobes fibers; conforming to the following:
1. Durability and Longevity: Permanent.
 2. Color: Manufacturer's standard color.
- D. Fiber Packing: Mineral mineral fiber packing insulation; conforming to the following:
1. Durability and Longevity: Permanent.
- E. Firestop Devices: Mechanical device with incombustible or silicone elastomer filler and sheet stainless steel jacket, collar, and flanged stops; conforming to the following:
1. Durability and Longevity: Permanent; suitable for pedestrian traffic or vehicular traffic.
- F. Intumescent Putty: Compound which expands on exposure to surface heat gain; conforming to the following:
1. Potential Expansion: Minimum 500 percent free expansion.
 2. Durability and Longevity: Permanent.
 3. Color: Manufacturer's standard color.
- G. Firestop Pillows: Formed mineral fiber pillows; conforming to the following:
1. Durability and Longevity: Permanent.
- H. Primers, Sleeves, Foms, and Accessories: Type required for tested assembly details.
- 4.03 EXECUTION
- 4.01 EXAMINATION
- A. Verify openings are ready to receive the work of this section.
- 4.02 PREPARATION
- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other materials which may affect bond of firestopping material.
- B. Remove incompatible materials which may affect bond.
- C. Install backing material to prevent moisture or air leakage.
- 4.03 INSTALLATION
- A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.
- B. Do not cover installed firestopping until inspected by authority having jurisdiction.
- C. Install labeling required by code.
- 4.04 CLEANING AND PROTECTION
- A. Clean adjacent surfaces of firestopping materials.
- B. Protect adjacent surfaces from damage during installation.

SECTION 220719 - PLUMBING PIPING INSULATION

- 1.01 GENERAL
- 1.01.1 SUBMITTALS
- A. Provide the following for Architect/Engineer review:
 - 1. Product Data: Provide product description, thermal characteristics, list of materials and thickness for each service, and locations.
 - B. Provide the following to the Owner upon completion:
 - 1. Manufacturer's instructions: Indicate installation procedures that ensure acceptable workmanship and performance on a station-by-station basis.
- 1.02 FIELD CONDITIONS
- A. Maintain ambient conditions required by manufacturers of each product.
 - B. Maintain temperature before, during, and after installation for minimum of 24 hours.
- 2.01 PRODUCTS
- 2.01.1 REGULATORY REQUIREMENTS
- A. Surface Finishing Characteristics: Flame spread index/smoke developed index of no more than when tested in accordance with ASTM E84 or E136.
 - B. The Contractor may use any of the following insulating/jacking materials, at his option, provided the selected material meets with the approval of all State, local authorities and utility company representatives. Verification of compliance of com-

- selected insulating/jacketing material is the sole responsibility of the installing Contractor.
- 2.0 CLASS 1 FIBER
- A. Insulation: ASTM C547 and ASTM C795; rigid molded, noncombustible.
 - a. Maximum Service Temperature: 510 degrees F (24 degrees C).
 - b. Maximum Service Temperature: 850 degrees F (454 degrees C).
 - c. Maximum Moisture Absorption: 0.2 percent by volume.
 - B. Insulation: ASTM C547 and ASTM C795; semi-rigid, noncombustible, and grain adhered to jacket.
 - a. (K (k)) Value: ASTM C177, 0.24 at 75 degrees F (0.035 at 24 degrees C).
 - b. Maximum Service Temperature: 850 degrees F (343 degrees C).
 - c. Maximum Moisture Absorption: 0.2 percent by volume.
 - C. Vapor Barrier Jacket: White Kraft paper with glass fiber yarn, bonded to a laminized F (0.02 perm-inches (0.029 ng/pa s m)).
 - D. Vapor Barrier Lay Up: Vapor barrier transmission when tested in accordance with ASTM E96/E96M of 0.02 perm-inches (0.029 ng/pa s m).
 - E. Insulating Cement/Mastic: ASTM C915; hydraulic setting on mineral wool.
 - F. Fibrous Glass Fabric:
 - a. Cloth: Unthreaded; 9 oz/sq yd (305.9/sq yd) weight.
 - b. Blanket: 1.0 lb/cu ft (16 kg/cu m) density.
 - c. Netwe: 5 by 5.
 - G. Indoor Vapor Barrier Finish: Compatible with insulation, white color.
 - H. Outdoor Vapor Barrier Mastic: Vinyl emulsion type acrylic or mastic, compatible with insulation, black color.
 - I. Outdoor Breather Mastic: Vinyl emulsion type acrylic or mastic, compatible with insulation, black color.
 - J. Insulating Cement: ASTM C449.
- 3.0 FLEXIBLE ELASTOMERIC CELLULAR INSULATION
- A. Insulation: Elastomeric foam cellular elastomeric cellular rubber insulation complying with ASTM C 534 Grade 1; use molded tubular barrier wherever possible.
 - B. Minimum Service Temperature: 150 degrees F (66 degrees C).
 - C. Moisture Vapor Permeability: 0.012 perm inch (0.016 ng/pa s m).
 - D. Maximum Service Temperature: 220 degrees F (104 degrees C).
 - E. Connection: Waterproof.
 - F. Elastomeric Foam Adhesive: Air dried, contact adhesive, compatible with insulation.
- 4.0 JACKET 1
- A. PVC Plastic:
 - a. Jacket: One piece molded type fitting covers and sheet material, off-white color.
 - b. Minimum Service Temperature: 0 degrees F (Minus 18 degrees C).
 - c. Maximum Service Temperature: 150 degrees F (66 degrees C).
 - d. Moisture Vapor Permeability: 0.012 perm inch (0.016 ng/pa s m), when tested in accordance with ASTM E96/E96M.
 - e. Thickness: 10 mil (0.25 mm).
 - f. Connections: Brush on welding adhesive.
 - g. Covering Adhesive Mastic: Compatible with insulation.
 - B. ABS Plastic:
 - a. Jacket: One piece molded type fitting covers and sheet material, off-white color.
 - b. Minimum Service Temperature: Minus 40 degrees F (Minus 40 degrees C).
 - c. Maximum Service Temperature: 150 degrees F (66 degrees C).
 - d. Moisture Vapor Permeability: 0.012 perm inch (0.016 ng/pa s m), when tested in accordance with ASTM E96/E96M.
 - e. Thickness: 10 mil (0.25 mm).
 - f. Connections: Brush on welding adhesive.
 - C. Aluminum Jacket: ASTM B206 (4202) or 6061-T6 aluminum sheet.
 - a. Thickness: 0.016 inch (0.40 mm) sheet.
 - b. Finish: Embossed.
 - c. Joining: Longitudinal slip joints and 2 inch (50 mm) laps.
 - d. Fittings: 0.016 inch (0.4 mm) thick die shaped fitting covers with factory attached protective coating.
 - e. Metal Jacket Bands: 3/8 inch (10 mm) wide; 0.015 inch (0.38 mm) thick aluminum.
 - f. Metal Jacket Bands: 3/8 inch (10 mm) wide; 0.010 inch (0.25 mm) thick stainless steel.
 - g. Stainless Steel Jacket: ASTM A666, Type 304 stainless steel.
 - h. Thickness: 0.016 inch (0.25 mm).
 - i. Finish: Smooth.
 - j. Metal Jacket Bands: 3/8 inch (10 mm) wide; 0.010 inch (0.25 mm) thick stainless steel.

PART 3 EXECUTION

- 3.01 EXAMINATION
1. Verify that piping has been tested before applying insulation materials.
 2. Verify that surfaces are clean and dry, with foreign material removed.
 3. Verify that the installation of all trace systems have been completed and verified before applying insulation material.
- 3.02 INSTALLATION
1. In accordance with North American Insulation Manufacturers Association (NAIMA) National Insulation Standards:
 - A. Loose Pipe: Insulate pipe above ambient temperature: Insulate entire pipe.
 - B. Located Pipe: Insulate pipe above ambient temperature: Insulate entire pipe.
 - C. Insulated pipes conveying fluids below ambient temperature: Insulate entire system including fittings, valves, unions, flanges, strainers, flexible connections, pump bases, and expansion joints.
 - D. Glass fiber insulated pipes conveying fluids below ambient temperature:
 1. Provide vapor barrier before applying insulation.
 2. Secure with self-sealing longitudinal laps and butt strips with pressure sensitive adhesive. Secure with outward curling expanding staples and vapor barrier mastic.
 3. Insulate fittings, joints, and valves with molded insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or PVC fitting covers.
 4. Vapor barriers shall be continuous at all joints, elbows, fittings, valves, equipment and end caps. Seal all edges of insulation with adhesive. Seal all locations including hangers and supports with insulating cement to prevent water vapor from entering insulation.
 - E. For hot piping conveying fluids 140 degrees F (60 degrees C) or less, do not use mastic flanges and welded equipment flanges.
 - F. For hot piping conveying fluids 140 degrees F (60 degrees C), insulate flanges and unions at equipment.
 2. Glass fiber insulated pipes conveying fluids above ambient temperature:
 1. Provide standard jackets, with or without vapor barrier, factory-applied or field-applied.
 2. Insulate with self-sealing adhesive. Secure with outward curling expanding staples.
 3. Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or PVC fitting covers.
- H. Inserts and Shields:
1. Application: Piping 2 inches (50 mm) diameter or larger.
 - A. Shields: Galvanized steel between pipe hangers or pipe hanger rolls and inserts.
 - B. Insert Location: Between supporting shield and piping and under the finish jacket.
 - C. Insert Configuration: Minimum 6 inches (150 mm) long, of same thickness and contour as adjoining insulation; may be factory fabricated.
 - D. Insert Material: Hydraulic calcium silicate insulation or other heavy density insulating material.
 2. Continue insulation through walls, sleeves, pipe hangers, and other pipe penetrations. Finish on both sides of penetrations.
 3. For fire separations, fire stop penetrations to meet local code requirements.
- J. Pipe Exposed in Finished Spaces (less than 10 feet (3 meters) above finished floor): Finish with 1/2 inch (12 mm) thick rigid insulation or equivalent fitting covers.
- K. Buried Piping: Provide factory fabricated assembly with inner oil-impure service jacket with self-sealing lap, and asphalt impregnated open mesh glass fabric, with one 1/32 inch (0.025 mm) thick aluminum foil sandwiched between three layers of bituminous compound.
- L. Heat Traced Piping: Insulate fittings, joints, and valves with insulation of like material and thickness as adjoining pipe. Finish with glass cloth and adhesive or pipe and heat tracer. Cover with aluminum or stainless steel jacket with seams located on bottom side of horizontal piping. Do not use aluminum jackets on vessels within 50 feet (15 m) of piping.

3.03 SCHEDULES

A. Plumbir

1. Domestic Hot and Tempered Water Supply and Recirculation:
 - a. Glass Fiber Insulation:
 1. Pipe Size Range: Within the first 8 feet of pipe from the fixture, up to 3/4 inch (19 mm) in size.
 2. All Other Pipe:
 - a. Thickness: 1/2 inch (12 mm).
 - b. Flexible Elastomeric Cellular Foam Insulation:
 1. Pipe Size Range: Within the first 8 feet of pipe from fixture, up to 3/4 inch (19 mm) in size.
 2. All Other Pipe:
 - a. Thickness: 1 inch (25 mm).
 2. Domestic Cold Water:
 - a. Glass Fiber Insulation:
 1. Pipe Size Range: All Sizes.
 2. Thickness: 1/2 inch (13 mm).
 - b. Flexible Elastomeric Cellular Foam Insulation:
 1. Pipe Size Range: All Sizes.
 2. Thickness: 1/2 inch (13 mm).
- B. Roof Drain Piping
1. Roof Drainage Above Grade: (Includes Roof Drain Bodies).
 - a. Glass Fiber Insulation:
 1. Pipe Size Range: All Sizes.
 2. Thickness: 1 inch (25 mm).
 - b. Flexible Elastomeric Cellular Foam Insulation:
 1. Pipe Size Range: All Sizes.
 2. Thickness: 1 inch (25 mm).
- C. Cooling Systems:
1. Cold Condensate Drains:
 - a. Glass Fiber Insulation:
 1. Pipe Size Range: All Sizes.
 2. Thickness: 1/2 inch (13 mm).
 - b. Flexible Elastomeric Cellular Foam Insulation:
 1. Pipe Size Range: All Sizes.
 2. Thickness: 1/2 inch (13 mm).
- D. Other Systems:
1. Piping Exposed to Freezing with Heat Tracing:
 - a. Glass Fiber Insulation:
 1. Pipe Size Range: Up to 2 inch (50 mm).
 2. Thickness: 2 1/2 inch (63 mm).
 - b. Flexible Elastomeric Cellular Foam Insulation:
 1. Pipe Size Range: 2 1/2 inch (63 mm) to 4 inch (100 mm).
 2. Thickness: 3 inch (76 mm).
 2. Piping Not Exposed to Freezing:
 1. Pipe Size Range: 5 inch and larger.

SECTION 220720 - PIPING SAFETY COVERS

- SECTION 220000 - ROOFING AND SHEET METAL
- 1.01 GENERAL
- 1.01 SUBMITTALS
- A. Provide the following for Architect/Engineer review:
1. Product Data: Manufacturer's descriptive literature for products specified in this section.
- 2.01 PRODUCTS
- 2.01 PIPING INSULATION ACCESSORIES
- A. Provide products that comply with the following:
1. Americans With Disabilities Act (ADA), Article 4.19.4.
2. ANSI/ISO A117.1, American National Standard for Accessible Buildings and Facilities.
- B. Requirements of applicable building code.
1. Piping Safety Covers: Trueblue Low-Guard.
2. Characteristics: Three-piece molded assembly, minimum 1/8 inch (3 mm) wall thickness, with interlocking to provide a secure fit over piping and piping insulation jacket, intended to receive manufacturer's snap-on slip fasteners.
3. Vinyl Material: Impact-resistant and stain-resistant molded closed-cell antimicrobial vinyl compound with a flange, non-slip bottom, non-leaking, having the following performance characteristics:
- a. Burning Characteristics: 0.000 Average Time of Burning (ATB), 0 mm Area of Burning (ABF), when tested in accordance with ASTM D 635.

4. Thermal Conductivity: K-value 1.17 (2.02), when tested in accordance with ASTM C 177.
5. Indentation Hardness: 60, minimum, when tested in accordance with ASTM D 2240, using Type A durometer.
6. Top Assembly Cover: Three-piece assembly, with removable clean-out end enclosure.
7. Angle Stop Covers: Formed with hinged cap for access to valve without requiring cover removal.
8. Configurations: In accordance with manufacturer's product data for project piping configurations indicated on Drawings.
9. Color: Orange, for gas; light grey, for water.
10. Fasteners: Manufacturer's standard reusable snap-clip fasteners; wire-tie fasteners not permitted.
- PART 3. EXECUTION**
- 3.01 EXAMINATION
- A. Verify that piping configurations are correct type for piping component and configurations specified.
- 3.02 PROTECTION OF INSTALLED PRODUCTS
- A. Protect piping from damage to installed products by subsequent construction activities; protect products prior to Substantial Completion. Replace any damaged products prior to occupancy.
- END OF SECTION**
- SECTION 221005 - PLUMBING PIPING**
- PART 1. GENERAL**
- 1.01 QUALITY ASSURANCE
- A. Verify: Manufacturer's name and pressure rating marked on valve body.
- B. Welding Materials and Procedures: Comply with ASME BPVC-IX and applicable state and local regulations.
- C. Material Certifications: Certified in accordance with ASME BPVC-IX.
- D. Identify pipe with marking including size, ASTM material specification, ASTM specification, potable water certification, and pressure rating.
- 1.02 FIELD CONDITIONS
- A. Do not install underground piping when bedding is wet or frozen.

PART 2 PRODUCTS

- 2.01 GENERAL REQUIREMENTS
- A. Flexible Non-Metallic Systems: Provide piping, pipe fittings, and solder and flux (if used), that comply with NSF 61 and NSF 372 for maximum lead content; label pipe and fittings.
- 2.02 THE CONTRACTOR SHALL USE ANY OF THE FOLLOWING PIPING MATERIALS. AT HIS OPTION, PROVIDED THE SELECTED MATERIAL MEETS WITH THE APPROVAL OF ALL STATE AND LOCAL AUTHORITIES AND UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SELECTION OF THE PIPING MATERIALS. LOCAL REQUIREMENTS IS THE SOLE RESPONSIBILITY OF THE INSTALLING CONTRACTOR. VERIFY THE LOCAL PRESSURE RATING OF THE PIPING MATERIALS. THE PIPING MATERIALS SHALL BE APPROVED FOR USE IN ANY RETURN AIR PLENUM CEILING SPACES. FIRE-RATED OR NON-COMBUSTIBLE LOCALITIES ARE EXCEPTED.
- 2.03 SANITARY SEWER PIPING, BURIED WITHIN 5 FEET (1500 MM) OF BUILDING
- A. Cost Iron Pipe: ASTM A74 service weight.
1. Fittings: Cast iron.
2. Joints: Hub-and-spigot, CISP1 HSN compression type with ASTM C564 neoprene gaskets or lead and oakum.
3. Encasement: Provide 8 mil minimum polyethylene encasement pipe wrap on all cast iron pipe installed in corrosive soils.
- B. Cast Iron Pipe: ASTM A888 (ASTM B88B), Type L (59), Ductm (H).
1. Fittings: Cast iron.
2. Joints: ASTM A74 or CISP1 310, neoprene gasket and stainless steel clamp and shield assemblies.
3. Encasement: Provide 8 mil minimum polyethylene encasement pipe wrap on all cast iron pipe installed in corrosive soils.
- C. ABS Pipe: ASTM D2665 or ASTM F 679.
1. Fittings: ABS.
2. Joints: Solvent welded with ASTM D2235 cement.
- D. PVC Pipe: ASTM D 2665 or ASTM F 679.
1. Fittings: PVC.
2. Joints: Solvent welded, with ASTM D2564 solvent cement or Push-on, using ASTM F477 elastomeric gaskets.
- 2.04 SANITARY SEWER PIPING, ABOVE GROUND
- A. Cost Iron Pipe: ASTM A74, service weight.
1. Fittings: Cast iron.
2. Joints: Cast: ASTM C564 neoprene gaskets, or lead and oakum.
- B. Cast Iron Pipe: ASTM A888 (ASTM B88B), Type L (59), Ductm (H), hubless, service weight.
1. Fittings: Cast iron.
2. Joints: ASTM A74 or CISP1 310, neoprene gaskets and stainless steel clamp-and-shield or cast iron and CISP1 301, hubless, service weight.
3. Markings: All pipe and fittings shall be marked with CISP1 and NSF's trademark.
- C. Cast Iron Pipe: ASTM D2665 or ASTM F 679.
1. Fittings: PVC.
2. Joints: Solvent welded, with ASTM D2564 solvent cement or Push-on, using ASTM F477 elastomeric gaskets.
- 2.05 DOMESTIC WATER PIPING, BURIED WITHIN 5 FEET (1500 MM) OF BUILDING
- A. Copper Pipe: ASTM B32, hard draw.
1. Fittings: ASME B16.22, cast copper alloy or ASME B16.22 wrought copper and bronze.
2. Joints: ASTM B42, alloy 50/50 solder.
3. Joints: ANS A58/A5.8, B, Sn/Pb copper/silver braze.
4. Encasement: Provide 8 mil minimum polyethylene encasement pipe wrap on all copper pipe installed in corrosive soils.
- B. Ductile Iron Pipe: ASTM A53/A21.51.
1. Fittings: Ductile iron, standard thickness.
2. Joints: ASTM C111/A21.1, 11, styrene butadiene rubber (SBR) or vulcanized SBR gasket with 3/16 inch.
3. Encasement: Provide 8 mil minimum polyethylene encasement pipe wrap on all cast iron pipe installed in corrosive soils.
- 2.06 DOMESTIC WATER PIPING, ABOVE GROUND
- A. Copper Tube: ASTM B88 (ASTM B88B), Type L (59), Draw (H).
1. Fittings: ASTM B16.22, cast copper alloy or ASME B16.22, wrought copper and bronze.
2. Joints: ASTM B32, alloy 50/50 solder.
3. Joints: Grooved mechanical couplings.
4. Mechanical Couplings: Provide 1/2 inch double-pressed type, NSF 61 and NSF 372 approved or certified, utilizing EPDM, nontoxic, synthetic rubber sealing

- 2.07 STORM WATER PIPING, BURIED WITHIN 5 FEET (1500 MM) OF BUILDING
A. Cast iron pipe: ASTM A74 service weight.
Fittings: Cast iron.
1. Joint Seals: ASTM C654 neoprene gaskets, or lead and oakum.
2. Encasement: Provide 12" minimum polyethylene encasement pipe wrap on all cast iron pipe installed in corrosive soils.
B. PVC Pipe: ASTM D2685, ASTM D3034, or ASTM F679.
Fittings: PVC.
1. Joints: Solvent welded, with ASTM D2564 solvent cement or Push-on, with PTFE F477 elastomeric gaskets.
2.08 STORM WATER PIPING, ABOVE GRADE
A. Cast iron pipe: ASTM A74 service weight.
1. Fittings: Cast iron.
2. Joint Seals: ASTM C654 neoprene gaskets, or lead and oakum.
B. Cast iron pipe: ASTM A74 and CIPSI 310, hubless, service weight.
1. Fittings: Cast iron.
2. Joints: ASTM A74 or CIPSI 310, Neoprene gaskets and stainless steel clamp-and-shield assemblies.
3. Markings: All pipe and fittings shall be marked with CIPSI and NSF trademark.
C. PVC Pipe: ASTM D2685 or ASTM D3034.
1. Fittings: PVC.
2. Joints: Solvent welded, with ASTM D2564 solvent cement.
2.09 NATURAL GAS PIPING, ABOVE GRADE
A. Steel Pipe: ASTM A53/A53M Schedule 40 black.
1. Fittings: 3" and larger shall be ASME B16.3, malleable iron, or ASTM A 232/A 234M, wrought steel. 2" and smaller shall be malleable fittings or 1/2" and smaller, except where noted on the drawings or required by code to be welded.
2. Joints: Threaded or welded to ASME B31.1.
B. Copper Tube: ASTM B88 (ASTM B88M), type (K) or (L) or (B) annealed.
Fittings: ASME B16.21 wrought copper or brass.
2. Joints: Flared.
2.10 CONDENSATE DRAIN PIPING AND EQUIPMENT DRAINS, ABOVE GRADE
A. Copper Tube: ASTM B306, DWV.
1. Fittings: ASME B16.21, wrought copper or ASME B16.23, solvent.
2. Joints: ASTM B32, or type 5052 solder.
B. PVC Pipe: ASTM D2685.
Fittings: PVC.

- 2.1.2. Joints: Solvent welded, with ASTM D2554 solvent cement.
- 2.1.1. FLANGES:
 1. UNIONS AND COUPLINGS: Cast iron 150 lb. bronze unions and couplings for Pipe Sizes 3 inches (80 mm) and Under;
 2. Ferruss Pipe: Class 150 malleable iron threaded unions and couplings;
 3. Copper Tube and Pipe: Class 150 bronze unions with soldered joints.
 4. Flange Size Order: Class 150 lb. bronze flanges;
 5. Copper Tube: Class 150 malleable iron threaded or forged steel slip-on flanges; preformed neoprene gaskets.
 6. Copper Tube and Pipe: Class 150 lb. bronze flanges; preformed neoprene gaskets.
- 2.1.3. MECHANICAL COUPLINGS for Grooved and Shouldered Joints: Two or more curved housing segments with continuous key to engage pipe groove, circular C-profile gasket, and nut to secure and clamp. Dimensions and Testing: In accordance with AWWA C906.
 - 1. Housing Material: Cast iron, ductile iron, malleable iron or ductile iron galvanized.
 - 2. Gasket Material: EPDM suitable for operating temperature range from minus 30 degrees F (minus 34 degrees C) to 230 degrees F (110 degrees C).
 - 3. Bolt and Nut: Hot dipped galvanized zinc-electroplated steel.
 - 4. When pipe is field installed, use of a coupling manufacturer's grooving tool.
- 2.1.4. DIELECTRIC CONNECTIONS: Union with galvanized or plated steel threaded end, copper pipe end, and neoprene gasket.
- 2.1.2. PIPE HANGERS AND SUPPORTS:
 - 1. Provide hangers and supports that comply with MSS SP-58.
 - 2. Plumbing Piping - Drain, Waste, and Vent:
 - a. Conform to MSS 590.
 - b. Hangers for Pipe Sizes 1/2 Inch (50 mm) to 1-1/2 inches (40 mm): Malleable iron, adjustable end.
 - c. Hangers for Pipe Sizes 2 inches (50 mm) and Over: Carbon steel, adjustable, clevis.
 - d. Multiple or Trapez Hangers: Steel channels with welded supports and hanger rods.
 - e. Ball Support for Pipe Sizes to 3 inches (80 mm): Cast iron hook.
 - f. Ball Support for Pipe Sizes 4 inches (100 mm) and Over: Welded steel bracket and wrought steel.
 - 3. Vertical Support: Steel riser clamp.
 - 4. Floor Support: Cast iron pipe saddle, lock nut, nipple, floor flange, and concrete pipe or steel support.
 - 5. Copper Pipe Support: Carbon steel ring, adjustable, copper plated.
 - 3. Plumbing Piping - Water and Gas:
 - a. Conform to MSS-590.

- pipe, saddle for lock, nipple, flare flange, and concrete pier or steel support.
14. Floor Support for Hot Pipe Sizes 6 Inches (150 mm) and Over: Adjustable cast iron pipe roll and stand, steel braces, and concrete pier and steel support.
15. Copper Pipe Solder: 60/40 tin/lead solder.
16. Hanger Fasteners: Attach hangers to structure using appropriate fasteners.
17. Galvanized Steel: Galvanized steel hangers and supports in oil wet, damp and corrosive environments, including all other locations.
- 2.3 MANUFACTURED SLEEVE-SEAL SYSTEMS
- A. Synthetic rubber interlocking links continuously fill annular space between pipe and wall.
1. Provide watertight seal between pipe and wall/casing opening.
2. Elastomer element, size and material in accordance with manufacturer's recommendations.
3. Glass reinforced plastic pressure and plates.
- 2.14 GATE VALVES
- A. UP TO AND INCLUDING 3 INCHES (80 mm)
1. MSS SP-67, Class 150 bronze body, bronze trim, rising stem, handwheel, inside screw, solid wedge disc, solder or threaded ends. Provide extension to grade and provide valve box with cover and manhole.
2. Post-indicator type were used for fire protection service or when indicated on the Drawings.
- B. 2 INCHES (50 mm) AND LARGER:
1. MSS SP-67, Class 150 bronze body, bronze trim, outside screw and yoke, handwheel, inside screw, solid wedge disc, flanged ends.
2. Provide extension to grade and valve box per local jurisdiction and utility company standards.
3. Post-indicator type were used for fire protection service or when indicated on the Drawings.
- 2.15 BALL VALVES
- A. Construction, 4 Inches (100 mm) and Smaller: MSS SP-110, Class 150, 400 psi (2760 kPa) OWP, bronze or ductile iron body, 304 stainless steel or chrome plated brass ball, regular port, 1/2 inch (12.5 mm) and smaller, stuffing box ring, blowout proof stem, lever handle with balancing stops, threaded or grooved ends with union.
- 2.16 BUTTERFLY VALVES
- A. Construction 1-1/2 inches (40 mm) and Larger: MSS SP-67, 200 psi (1380 kPa) OWP, ductile iron body, ductile iron ball, 304 stainless steel or chrome plated brass seat, EPDM seat, wafer ends, extended neck, 10 position lever handle.
- B. Provide gear operators for valves 8 inches (150 mm) and larger, and chain-wheel operators for valves smaller than 8 inches (150 mm) above floor.
- 2.17 FLOW CONTROLS
- A. Construction: Class 125, Brass or bronze body with union on inlet and outlet, temperature and pressure test plug on inlet and outlet, blowdown/backflow flush drain, automatic, differential pressure, differential pressure and temperature, over operating pressure range of 10 times minimum pressure required for control, minimum maximum pressure 3.5 psi (24 kPa).
- 2.18 WATER VALVES
- A. UP TO 3 INCHES (80 mm)
1. MSS SP-67, Class 150 bronze body, stainless steel, and thermoplastic internal parts, fabric reinforced diaphragm, strainer, threaded single union ends.
- B. Over 2 inches (50 mm)
1. ANSI 1003, cast iron body with interior lining complying with AWWA C550, bronze fitted, elastomeric diaphragm and seat disc, flanged.
- 2.19 RELIEF VALVES
- A. Pressure:
1. ANSI 221.22, AGA certified, bronze body, teflon seat, steel stem and springs, automatic, direct pressure actuated.
- B. Temperature and Pressure:
1. ANSI 221.22, AGA certified, bronze body, teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, temperature relief maximum 110 degrees F (38.9 degrees C), 150 psi capacity ASME BPVC VI certified and labelled.
- 2.20 SEISMIC GAS VALVES
- A. Size 4 inches (100 mm) and Under:
1. ASSE 29, ANSI 221.22 minimum design, manual reset.
- 2.21 STRAINERS
- A. Size 2 inches (50 mm) and Under:
1. Threaded brass body for 175 psi (1200 kPa) OWP, Y pattern with 1/32 inch (0.8 mm) stainless steel perforated screen.
2. Class 150, threaded brass body for 200 psi (2070 kPa) OWP, Y pattern with 1/32 inch (0.8 mm) stainless steel perforated screen.
- B. Size 1-1/2 inches (40 mm) and Larger:
1. Class 125, flanged iron body, Y pattern with 1/16 inch (1.6 mm) stainless steel perforated screen.
- C. Size 5 inches (125 mm) and Larger:
1. Class 125, flanged iron body, basket pattern with 1/8 inch (3.2 mm) stainless steel perforated screen.
- 2.22 ACCESS DOORS
- A. Access panel units as manufactured by Wind-lock, or equal, shall be pre-fabricated with high-density gypsum, reinforced with continuous round filament fiberglass fiber net and structural reinforcing as required. Access panel shall be designed to be flush, with no exposed hinges, catches, etc. and ready for any finishes, paint or texturing to match the surrounding drywall surfaces. Access panels shall be latched and locked with a mechanical system to achieve a uniform integral appearance with a minimum of visibility. Door panels shall be lift out and replaced in less than 12 seconds without the need of a lifting application.
1. Glass Content: 5 to 6 percent by weight.
2. Density: 103 to 112 lb/cu ft (1620 to 1792 kg/cu m).
3. Shell Thickness: 1/8 to 3/16 inch (3 to 5 mm) nominal
4. Flammability: Flame Spread Index of 0
5. Smoke Development Index of 0
6. Flexural Strength: 300-400 PSI
7. Compressive Strength: 1500 PSI
8. Hardness (Barcol) 50
9. Impact Resistance: 10 ft.-lb./in.2
- B. Fire rated access doors as manufactured by Axador Products Inc. or equal, shall be door fire tested, listed and labeled for fire resistance. Fire resistance ratings indicated on the Architectural drawings or as required to meet the fire resistance ratings in the field. Provide stainless steel access doors in oil wet, damp or corrosive environments.
1. Door / Door Frame: Steel or Stainless Steel, 16 gauge door, 16 gauge frame, minimum
2. Mounting Frame: Steel or Stainless Steel, flush to frame with reinforced edges, flange to be 1" wide.
3. Hinge: Concealed
4. Standard Latch: Universal self-latching bolt, operated by either a knurled knob or flush key.
5. Finish: Steel: 5 stage iron phosphate preparation with prime coat of white glycid based epoxy primer and 2 coats of epoxy paint.

PART 3. EXECUTION

- [illegible]

Bergmeyer
CONSULTANTS:
 Schneider
SEAL/SIGNATURE:


SHAKE SHACK®

SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

DRAWN BY: MJS

CHECKED BY: _____ GRS

SECTION 221006 - PLUMBING PIPING SPECIALTIES
SECTION 224000 - PLUMBING FIXTURES
SECTION 223000 - PLUMBING EQUIPMENT

2. Provide sealing elements of the size, quantity, and type required for the piping and sleeve inner diameter or penetration diameter.
3. Locate piping in center of sleeve or penetration.
4. Install field assembled sleeve-seal system components in annular space between sleeve and piping.
5. Tighten bolting for a watertight seal.
6. Install in accordance with manufacturer's recommendations.
- Y. When installing more than one piping system material, ensure system components are compatible and joined to ensure the integrity of the system. Provide necessary joining fittings. Ensure flanges, union, and couplings for servicing are consistently provided.
- 3.04 APPLICATION
- A. Use grooved mechanical couplings and fasteners only, in accessible locations.
- B. Install unions downstream of valves and at equipment or apparatus connections.
- C. Install brass male adapters each side of valves in copper piped system. Solder adapters to pipe.
- D. Install ball or butterfly valves for shut-off and to isolate equipment, part of systems, or vertical risers.
- E. Install globe, ball, or butterfly valves for throttling, bypass, or manual flow control services.
- F. Provide lug end butterfly valves adjacent to equipment when provided to isolate equipment.
- G. Provide spring-loaded check valves on discharge of water pumps.
- H. Provide plug or gas service rated ball valves in natural gas systems for shut-off service.
- I. Provide automatic flow controls valves in water recirculating systems where indicated. Utilize 0.5 gpm flow unless otherwise indicated on the drawings.
- 3.05 TOLERANCES
- A. Interior Drainage Piping: Establish invert elevations within 1/2 inch (10 mm) vertically of location indicated and slope to drain at minimum of 1/4 inch per foot (1:20) slope, unless noted otherwise on the Drawings.
- B. Water Piping: Slope at minimum of 1/32 inch per foot (1:400) and arrange to drain at low points.
- 3.06 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM
- A. Prior to starting work, verify system is complete, flushed, and clean.
- B. Ensure acidity (pH) of water to be treated is between 7.4 and 7.6 by adding alkali (caustic soda or soda ash) or acid (hydrochloric).
- C. Inject disinfectant, free chlorine in liquid, powder, tablet, or gas form throughout system to obtain 50 to 80 mg/L residual.
- D. Bleed water from outlets to ensure distribution and test for disinfectant residual at minimum 10 percent of outlets.
- E. Maintain disinfectant in system for 24 hours.
- F. If final disinfectant residual tests less than 25 mg/L, repeat treatment.
- G. Flush disinfectant from system until residual equal to that of incoming water or 1.0 mg/L.
- H. Take samples no sooner than 24 hours after flushing, from 10 percent of outlets and from water entry, and analyze in accordance with AWWA C651.
- 3.07 SERVICE CONNECTIONS
- A. Provide new water service complete with approved reduced pressure backflow preventer and water meter with bypass valves (where permitted by local authorities), pressure reducing valve (where pressure exceeds 80 psi).
1. Provide sleeve in wall for service main and support at wall with reinforced concrete bridge. Cast in enlarged sleeve and make watertight with pliable material. Anchor service main inside to concrete wall.
2. Provide 18 gage (1,200 mm) galvanized sheet metal sleeve around service main to 2 inches (50 mm) above floor and 3 feet (900 mm) minimum below grade. Size for minimum of 2 inches (50 mm) of loose batt insulation stuffing.
- B. Provide new gas services complete with gas meter and regulators. Gas service distribution piping shall have initial minimum pressure as indicated on the drawings. Provide appropriately sized regulators on each line serving gas appliances, sized in accordance with the manufacturers recommendations based on the sizing parameters indicated on the Drawings. The entire gas service and piping installation shall comply with the local jurisdiction and the regulations of the serving utility.
- 3.08 SCHEDULES
- A. Pipe Hanger Spacing:
1. Metal Piping:
- a. Pipe Size: 1/2 inches (15 mm) to 1-1/4 inches (32 mm):
1. Maximum Hanger Spacing: 6.5 ft (2 m).
2. Hanger Rod Diameter: 3/8 inches (9 mm).
- b. Pipe Size: 1-1/2 inches (40 mm) to 2 inches (50 mm):
1. Maximum Hanger Spacing: 10 ft (3 m).
2. Hanger Rod Diameter: 3/8 inch (9 mm).
- c. Pipe Size: 2-1/2 inches (65 mm) to 3 inches (75 mm):
1. Maximum Hanger Spacing: 10 ft (3 m).
2. Hanger Rod Diameter: 1/2 inch (13 mm).
- d. Pipe Size: 4 inches (100 mm) to 6 inches (150 mm):
1. Maximum Hanger Spacing: 10 ft (3 m).
2. Hanger Rod Diameter: 3/8 inch (9 mm).
2. Plastic Piping:
- a. Pipe size: 1/2 inches (15 mm) to 6 inches (150 mm):
1. Maximum Hanger Spacing: 6 ft (1.8 m).
2. Hanger Rod Diameter: 3/8 inch (9 mm).
- END OF SECTION
- SECTION 221006 - PLUMBING PIPING SPECIALTIES
- PART 1 GENERAL
- 1.01 SUBMITTALS
- A. Provide the following for Architect/Engineer review:
1. Product Data: Provide component sizes, rough-in requirements, service sizes, and finishes.
- B. Provide the following to the Owner upon project closeout:
1. Manufacturer's Instructions: Indicate Manufacturer's installation instructions. Indicate assembly and support requirements.
2. Operation Data: Indicate frequency of treatment required for interceptors.
3. Maintenance Data: Include installation instructions, spare parts lists, exploded assembly view.
4. Project Record Documents: Record actual locations of equipment, cleanouts, backflow preventers, water hammer arrestors.
- PART 2 PRODUCTS
- 2.01 GENERAL REQUIREMENTS
- A. Specialties in Potable Water Supply Systems: Provide products that comply with NSF 61 and NSF 372 for maximum lead content.
- B. Fixtures and accessories shall be as scheduled on the Drawings.
- 2.02 WATER HAMMER ARRESTORS
- A. Stainless steel or copper construction, bellows type sized in accordance with PDH-W 201, precharged suitable for operation in temperature range 34 to 250 degrees F (1 to 120 degrees C) and maximum 150 psi (1000 kPa) working pressure.
- 2.03 Sumps
- A. Glass fiber reinforced or precast concrete with required openings and drainage fittings.
- B. Cover: 3/8 inch (9 mm) thick checkered steel plate with gasket seal frame and anchor bolts.
- 2.04 MIXING VALVES
- A. Thermostatic Mixing Valves:
1. Valve: Chrome plated cast brass body, stainless steel or copper alloy bellows, integral temperature adjustment.
2. Accessories:
- a. Check valve on inlets.
- b. Strainer stop checks on inlets.
- B. Pressure Balanced Mixing Valves:
1. Valve: Chrome plated cast brass body, stainless steel cylinder, integral temperature adjustment.
2. Accessories:
- a. Strainer stop checks on inlets.
- 2.05 RELIEF VALVES
- A. Bronze body, teflon seat, stainless steel stem and springs, automatic, direct pressure actuated, capacities ASME certified and labeled.
- PART 3 EXECUTION
- 3.01 INSTALLATION
- A. Provide cleanouts as shown on construction documents and per local code requirements.
- B. Extend cleanouts to finished floor or wall surface. Lubricate threaded cleanout plugs with mixture of graphite and linseed oil. Ensure clearance at cleanout for ridding of drainage system.
- C. Encase exterior cleanouts at elevation to accommodate finished floor for a completely flush installation.
- D. Install floor cleanouts at elevation to accommodate finished floor for a completely flush installation.
- E. Install approved potable water protection devices on plumbing lines where contamination of domestic water may occur; on boiler feed water lines, janitor rooms, fire sprinkler systems, premise isolation, irrigation systems, flush valves, drink mixing stations, interior and exterior hose bibbs and all other locations required by codes.
- F. Pipe relief from backflow preventer to nearest drain.
- G. Install water hammer arrestors complete with accessible isolation valve on hot and cold water supply piping to lavatory sinks, washing machine outlets, or quick-closing valves.
- END OF SECTION
- SECTION 223000 - PLUMBING EQUIPMENT
- PART 1 GENERAL
- 1.01 ADMINISTRATIVE REQUIREMENTS
- A. Sequencing: Ensure that utility connections are achieved in an orderly and expeditious manner.
- 1.02 SUBMITTALS
- A. Provide the following for Architect/Engineer review:
1. Product Data:
- a. Provide dimension drawings of water heaters indicating components and connections to other equipment and piping.
- b. Indicate pump type, capacity, power requirements.
- c. Provide certified pump curves showing pump performance characteristics with pump and system operating point plotted. Include NSFH curve when applicable.
- d. Provide electrical characteristics and connection requirements.
- B. Provide the following to the Owner upon project closeout:
1. Project Record Documents: Record actual locations of components.
2. Operation and Maintenance Data: Include operation, maintenance, and inspection data, replacement part numbers and availability, and service depot location and telephone number.
- 1.03 QUALITY ASSURANCE
- A. Certifications:
1. Water Heaters: NSF approved.
2. Gas Water Heaters: Certified by CSA International to ANSI Z21.10.1, as applicable, in addition to requirements specified elsewhere.
3. Electric Water Heaters: UL Listed and labeled to UL 174.
4. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc., as suitable for the purpose specified and indicated.
- B. Identification: Provide equipment with manufacturer's name, model number, and rating/capacity identified by permanently attached label.
- C. Performance: Ensure pumps operate at specified system fluid temperatures without vapor binding and cavitation, are non-overloading in parallel or individual operation, operate within 25 percent of midpoint of published maximum efficiency curve.
- 1.04 WARRANTY
- A. Provide five year manufacturer warranty for domestic water heaters, water storage tanks, and packaged water heating systems.
- B. Provide one year manufacturer warranty for pumps.
- PART 2 PRODUCTS
- 2.01 COMMERCIAL GAS FIRED INSTANTANEOUS WATER HEATERS
- A. Type: Automatic, natural gas-fired, fully modulating, tankless.
- B. Performance:
1. Maximum working pressure: 150 psig (1000 kPa).
- C. Accessories: Brass or bronze water connections and waterways, integral flow regulator, and ASME rated temperature and pressure relief valve and heat trap fittings for hot and cold water connections.
1. Water Connections: Brass.
2. Coil: Copper.
3. Burners: Stainless steel.
- D. Certification: As automatic fully modulating tankless water heater and for operation at 180 degrees F (82 degrees C) for operation on combustible floors. All water heaters over 199 MBH input shall be ASME rated and bear an ASME label. All water heaters over 399 MBH shall be located in separate rooms and shall include CS-1 controls.
- E. Controls: Automatic water thermostat with temperature range adjustable from 110 to 180 degrees F (43 to 82 degrees C), automatic reset high temperature limiting thermostat factory at 190 degrees F (90 degrees C), gas pressure regulator, 100 percent safety shut-off pilot and thermocouple, flame baffle and draft hood.

- 2.02 WATER SOFTENERS
- A. Performance:
1. Electrical Characteristics:
- a. As indicated on the Drawings.
- B. Softener Tank:
1. Classifier reinforced plastic tank.
- C. Brine Tank:
1. Classifier reinforced plastic tank.
- D. Microprocessor Based Control: Brass control valve cycled to regenerate after adjustable metered quantity of water flow.
- 2.03 IN-LINE CIRCULATOR PUMPS
- A. Casing: Bronze, rated for 125 psig (860 kPa) working pressure, with stainless steel rotor assembly.
- B. Impeller: Bronze.
- C. Shaft: Alloy steel with integral thrust collar and two oil lubricated bronze sleeve bearings.
- D. Seal: Carbon rotating against a stationary ceramic seat.
- E. Drive: Flexible coupling.
- F. Performance:
1. Electrical Characteristics:
- a. As indicated on the Drawings.
- b. Verify that proper power supply is available prior to ordering equipment. Verify proper voltage, phase and current rating of power supply and inform Engineer of any deviations prior to order, connection of equipment or start-up. Responsibility for verification of proper power supply voltage and any product returns or damage resulting from incorrect connections shall rest with this Contractor.
- 2.04 ELECTRICAL WORK
- A. Provide electrical motor driven equipment specified complete with motors, motor starters, controls, and wiring.
- B. Electrical characteristics to be as specified or indicated.
- C. Furnish motor starters complete with thermal overload protection and other appurtenances necessary for the motor control specified.
- D. Supply manual or automatic control and protective or signal devices required for the operation specified, and any control wiring required for controls and devices not shown.
- PART 3 EXECUTION
- 3.01 INSTALLATION
- A. Provide concrete equipment bases for all floor mounted plumbing equipment. Coordinate with plumbing piping and related fuel piping, gas venting, and electrical work as applicable to achieve operating system.
- B. Pumps:
1. Ensure shaft length allows sump pumps to be located minimum 24 inches (600 mm) below lowest invert into sump pit and minimum 6 inches (150 mm) clearance from bottom of sump pit.
2. Provide air cock and drain connection on horizontal pump casings.
3. Provide line sized isolating valve and strainer on suction and line sized soft seated check valve and balancing valve on discharge.
4. Support piping adjacent to pump such that no weight is carried on pump casings. Provide supports under elbows on pump suction and discharge line sizes 4 inches (100 mm) and over.
5. Ensure pumps operate at specified system fluid temperatures without vapor binding and cavitation, are non-overloading in parallel or individual operation, and operate within 25 percent of midpoint of published maximum efficiency curve.
6. Provide electrical interlocking from cooling condensate pump safety switch to associated HVAC unit(s) furnished under other Sections.
7. Verify that proper power supply is available prior to ordering equipment. Verify proper voltage, phase and current rating of power supply and inform Engineer of any deviations prior to order, connection of equipment or start-up. Responsibility for verification of proper power supply voltage and any product returns or damage resulting from incorrect connections shall rest with this Contractor.
8. Refer to vibration isolation requirements specified in Vibration Isolation section of this Specification.
- END OF SECTION
- SECTION 224000 - PLUMBING FIXTURES
- PART 1 GENERAL
- 1.01 SUBMITTALS
- A. Provide the following for Architect/Engineer review:
1. Product Data: Provide catalog illustrations of fixtures, sizes, rough-in dimensions, utility sizes, trim, and finishes.
- B. Provide the following to the Owner upon project closeout:
1. Manufacturer's Instructions: Indicate installation methods and procedures.
2. Maintenance Data: Include fixture trim exploded view and replacement parts lists.
- PART 2 PRODUCTS
- 2.01 GENERAL REQUIREMENTS
- A. Potable Water Systems: Provide plumbing fittings and faucets that comply with NSF 61 and NSF 372 for maximum lead content; label pipe and fittings.
- 2.02 FIXTURES AND ACCESSORIES SHALL BE AS SCHEDULED ON THE DRAWINGS.
- PART 3 EXECUTION
- 3.01 EXAMINATION
- A. Verify that walls and floor finishes are prepared and ready for installation of fixtures.
- B. Verify that electric power is available and of the correct characteristics.
- C. Confirm that millwork is constructed with adequate provision for the installation of counter top lavatories or sinks.
- 3.02 PREPARATION
- A. Rough-in fixture piping connections in accordance with minimum sizes indicated in fixture rough-in schedule for particular fixtures.
- 3.03 INSTALLATION
- A. Install each fixture with trap, easily removable for servicing and cleaning.
- B. Install each fixture using brass angle ball stop valves for hot and cold water connections as applicable. Non-metallic valves or non-ball valve type stops will not be accepted.
- C. Provide chrome plated rigid or flexible supplies to fixtures with specified stops, reducers, and escutcheons.
- D. Install components level and plumb.
- E. Install and secure fixtures in place with wall carriers, wall supports and bolts. Solidly attach floor mounted water closets to floor with top screws. Lead flashing is not intended hold fixture in place.
- F. Install each fixture with trap, easily removable for servicing and cleaning.
- H. Install fixtures and fittings in accordance with the manufacturer's instructions and in accordance with the ICC (IPC).
- I. When fixtures require both hot water and cold water supplies, provide the hot water supply to the left of the cold water supply.
- J. Install off-the-floor supports to conform to ASME A112.6.1M.
- K. For floor drain/sink installations above slab on grade, provide adjustable collar with seepage slots, invertible non-puncturing membrane clamp, and 24" x 24" waterproof membrane.
- 3.04 INTERFACE WITH WORK OF OTHER SECTIONS
- A. Review millwork shop drawings. Confirm location and size of fixtures and openings before rough-in and installation.
- 3.05 ADJUSTING
- A. Adjust stops or valves for intended water flow rate to fixtures without splashing, noise, or overflow.
- 3.06 CLEANING
- A. Clean plumbing fixtures and equipment.
- 3.07 PROTECTION
- A. Protect installed products from damage due to subsequent construction operations.
- B. Do not permit use of fixtures by construction personnel.
- C. Repair or replace damaged products before date of Substantial Completion.
- 3.08 FIELD INSPECTION
- A. Continue inspection during installation and testing.
- B. A final inspection of the equipment shall be performed prior to installation to determine conformity to the type, class, grade, size, capacity, and other characteristics specified or indicated on the drawings.
- C. Correct or replace all rejected equipment prior to installation.
- D. Engineer or Architect reserves the right to inspect any and all equipment and fixtures prior to final occupancy and reject any fixtures which have been damaged, marred or otherwise defaced.
- END OF SECTION

Bergmeyer
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BOS
51 Steeper St.
Boston, MA 02210
617.542.1025

CONSULTANTS:



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EST. 1986 - 2020

SEAL/ SIGNATURE:



Date: 05/14/21
C/O # E-202006642

5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM #2
1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-31	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

PLUMBING
SPECIFICATION

DRAWN BY: MUS

CHECKED BY: GRS

JOB NO: 2006.00

P592

SHEET NUMBER	SHEET NAME
E001	ELECTRICAL ABBREVIATIONS AND SYMBOLS
E100	SITE ELECTRICAL PLAN
E101	ELECTRICAL POWER PLAN
E102	LOW VOLTAGE SYSTEMS PLAN
E120	ELECTRICAL LIGHTING PLAN
E150	ELECTRICAL ROOF PLAN
E501	ELECTRICAL DETAILS
E590	ELECTRICAL SPECIFICATIONS
E591	ELECTRICAL SPECIFICATIONS
E601	ELECTRICAL SCHEDULES AND ONE-LINE
E620	LIGHTING SCHEDULES
E621	LUTRON VIVE ONE-LINE
E622	LUTRON VIVE ONE-LINE
E623	LUTRON VIVE ONE-LINE

DESCRIPTION	FURNISHED			INSTALLED			REMARKS
	GENERAL CONTRACTOR	OWNER	LANDLORD	GENERAL CONTRACTOR	OWNER	LANDLORD	
DIVISION 26: ELECTRICAL							
26.1 ELECTRICAL IDENTIFICATION	X			X			
26.2 POWER DISTRIBUTION SYSTEM							
26.2.1 MAIN SERVICE GEAR AND TRANSFORMERS	X			X			
26.2.2 MAIN SERVICE CONDUIT			X			X	LANDLORD TO TERMINATE CONDUIT WITHIN WITHIN 5 FEET OF BUILDING
26.2.3 MAIN SERVICE WIRING	X			X			
26.2.4 MAIN SERVICE FUSES	X			X			
26.2.5 TRANSFORMER	X			X			
26.2.6 TENANT DISTRIBUTION PANELS AND BREAKERS	X			X			
26.2.7 CONDUIT, WIRE, OUTLETS, AND SWITCHES	X			X			
26.2.8 KITCHEN EQUIPMENT FINAL CONNECTION	X			X			
26.2.9 SIGNAGE CONDUIT AND WIRING	X			X			
26.3 LIGHTING DEVICES							
26.3.1 PARKING LOT LIGHTING			X		X		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE POWER TO LIGHTING FIXTURES
26.3.2 EXTERIOR LIGHTING	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 1 VENDOR SUBSTITUTION IS NOT PERMITTED
26.3.3 EMERGENCY LIGHTING	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 1 VENDOR SUBSTITUTION IS NOT PERMITTED
26.3.4 INCANDESCENT, DECORATIVE, AND FLUOR LIGHTING	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 1 VENDOR SUBSTITUTION IS NOT PERMITTED
26.3.5 CUSTOM FIXTURES	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 1 VENDOR SUBSTITUTION IS NOT PERMITTED
26.3.6 DIMMING SYSTEM	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 1 VENDOR SUBSTITUTION IS NOT PERMITTED
26.3.7 DIMMING SYSTEM	X			X			GENERAL CONTRACTOR TO PURCHASE FROM VENDOR NO. 1 VENDOR SUBSTITUTION IS NOT PERMITTED
26.4 LOW VOLTAGE							
26.4.1 CONDUIT AND WIRING							
26.4.2 DEVICES AND OVERPLATES	X			X			GENERAL CONTRACTOR TO COORDINATION WITH VENDOR NO. 31
		X			X		SUPPLIED AND INSTALLED BY VENDOR NO. 31
DIVISION 27: COMMUNICATIONS							
27.1 TELECOMMUNICATIONS IDENTIFICATION		X			X		
27.2 TELECOMMUNICATIONS							
27.2.1 IT EQUIPMENT RACK AND CABLE BOX RACK		X			X		SUPPLIED AND INSTALLED BY VENDOR NO. 31
27.2.4 (2) 2" CONDUIT FOR DATA SERVICE			X			X	VOICE OVER IP
27.3 TELEVISIONS							
27.3.1 CONDUIT AND WIRING	X			X			
27.3.2 MOUNTS		X			X		SUPPLIED AND INSTALLED BY VENDOR NO. 31
27.3.3 DEVICES		X			X		GENERAL CONTRACTOR SCOPE OF WORK TO INCLUDE PROVIDING BLOCKING
							SUPPLIED AND INSTALLED BY VENDOR NO. 31
27.4 POINT OF SALE (P.O.S.) EQUIPMENT							
27.4.1 POWER	X			X			
27.4.2 EQUIPMENT		X			X		
DIVISION 28: ELECTRONIC SAFETY AND SECURITY							
28.1 SECURITY ALARM SYSTEM							
28.1.1 CONDUIT AND WIRING	X			X			
28.1.2 DEVICES		X			X		GENERAL CONTRACTOR TO COORDINAT WITH VENDOR NO. 33 ON ADDITIONAL SCOPE OF WORK WHICH INCLUDES THE INSTALLATION OF CONDUIT FROM KEYPAD TO MANAGER'S OFFICE, BACK BOX, CONDUIT AND WIRING TO EMERGENCY CIRCUIT
28.2 SECURITY CAMERAS							
28.2.1 CONDUIT AND WIRING	X			X			
28.2.2 DEVICES			X		X		SUPPLIED AND INSTALLED BY VENDOR NO. 33
							CONSTRUCTION CAMERAS ARE PURCHASED BY THE G.C. FROM VENDOR NO. 44 AND INSTALLED BY THE G.C.
28.3 SPEAKERS							
28.3.1 CONDUIT AND WIRING	X			X			
28.3.2 DEVICES		X			X		SUPPLIED AND INSTALLED BY VENDOR NO. 33
28.4 FIRE ALARM SYSTEM							
28.4.1 SYSTEM ENGINEER	X			X			
28.4.2 CONNECTION TO BASE BUILDING SYSTEM	X			X			
28.4.3 DEVICES			X			X	

ELECTRICAL SYMBOL LEGEND (SOME MAY NOT BE USED)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WALL MOUNTED SINGLE RECEPTACLE, NEMA 5-20R		PANELBOARD, LIGHTING AND APPLIANCE
	WALL MOUNTED DUPLEX RECEPTACLE		POWER DISTRIBUTION PANEL OR SWITCHBOARD
	WALL MOUNTED DEDICATED DUPLEX RECEPTACLE		METER AND SOCKET
	WALL MOUNTED DUPLEX RECEPTACLE, ONE RECEPTACLE SWITCHED OR SPLIT-WIRED		WALL MOUNTED JUNCTION/OUTLET BOX
	WALL MOUNTED QUADRUPLX RECEPTACLE		FLUSH FLOOR MOUNTED JUNCTION/OUTLET BOX
	WALL MOUNTED DEDICATED QUADRUPLX RECEPTACLE		CEILING MOUNTED JUNCTION/OUTLET BOX
	WALL MOUNTED QUADRUPLX RECEPTACLE, SPLIT-WIRED		JUNCTION BOX MOUNTED ABOVE CEILING
	WALL MOUNTED SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED		MULTI-OUTLET ASSEMBLY
	WALL MOUNTED RANGE RECEPTACLE, NEMA 14-50R UNLESS INDICATED OTHERWISE		CORD AND PLUG
	FLUSH FLOOR MOUNTED SINGLE RECEPTACLE, NEMA 5-20R		MOTOR
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	FLUSH FLOOR MOUNTED DEDICATED DUPLEX RECEPTACLE		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	FLUSH FLOOR MOUNTED QUADRUPLX RECEPTACLE		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	FLUSH FLOOR MOUNTED DEDICATED QUADRUPLX RECEPTACLE		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	FLUSH FLOOR MOUNTED QUADRUPLX RECEPTACLE, SPLIT-WIRED		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	FLUSH FLOOR MOUNTED SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	ABOVE FLOOR SERVICE FITTING, HUBBELL #SC3098A OR EQUAL, NEMA CONFIGURATION AS NOTED		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CEILING MOUNTED SINGLE RECEPTACLE, NEMA 5-20R (C=FLUSH CEILING, DC=DROP-CEILING)		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CEILING MOUNTED DUPLEX RECEPTACLE (C=FLUSH CEILING, DC=DROP-CEILING)		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CEILING MOUNTED DEDICATED DUPLEX RECEPTACLE (C=FLUSH CEILING, DC=DROP-CEILING)		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CEILING MOUNTED QUADRUPLX RECEPTACLE (C=FLUSH CEILING, DC=DROP-CEILING)		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CEILING MOUNTED DEDICATED QUADRUPLX RECEPTACLE (C=FLUSH CEILING, DC=DROP-CEILING)		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CEILING MOUNTED QUADRUPLX RECEPTACLE, SPLIT-WIRED (C=FLUSH CEILING, DC=DROP-CEILING)		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CEILING MOUNTED SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED (C=FLUSH CEILING, DC=DROP-CEILING)		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	BRANCH CIRCUITING, CONCEALED IN WALL OR CEILING		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	BRANCH CIRCUITING, CONCEALED IN OR UNDER FLOOR		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	BRANCH CIRCUITING, EXPOSED		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	HOME RUN TO PANEL, THE NUMBER OF ARROWS INDICATES THE NUMBER OF CIRCUITS, TWO WIRES UNLESS NOTED OTHERWISE. SLASHES INDICATE NUMBER OF WIRES, GROUND WIRE IS REQUIRED IF NOT INDICATED. A 7 INDICATES ISOLATED GROUND CONDUCTOR.		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CONDUIT SUB		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	VERTICAL CONDUIT/CIRCUIT		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	BELL		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	BUZZER		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	CHIME		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	SPEAKER, CEILING		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	SPEAKER, WALL		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	SPEAKER, GROUND-MOUNTED		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	VOLUME CONTROL		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	SOUND SYSTEM AMPLIFIER		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	LOW VOLTAGE CONTROL TRANSFORMER		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	RELAY		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	PUSHBUTTON STATION, ONE BUTTON		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	PUSHBUTTON STATION, TWO BUTTON		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
	PUSHBUTTON STATION, THREE BUTTON		SAFETY SWITCH, SIZE AS INDICATED ON PLAN
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			SAFETY SWITCH, SIZE AS INDICATED ON PLAN

5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM #2
1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

SITE ELECTRICAL PLAN

DRAWN BY:	AEH
CHECKED BY:	GRS
JOB NO:	20066.00

E100

- GENERAL ELECTRICAL NOTES:**
- A. WHERE THE MECHANICAL DESIGN UTILIZES A PLENUM RETURN AIR CEILING DESIGN, ALL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE PLENUM RETURN CEILING MUST MEET THE FLAME SPREAD AND SMOKE DEVELOPED RATINGS OF 25/50 AND BE APPROVED FOR USE IN PLENUM RETURN CEILINGS. COORDINATE PLENUM CEILING LOCATIONS WITH THE MECHANICAL CONTRACTOR.
- B. COORDINATE ALL DEVICE LOCATIONS AND CIRCUIT ROUTING WITHIN ANY MILLWORK WITH MILLWORK VENDOR PRIOR TO ROUGH-IN.
- C. COORDINATE THE CONNECTIONS OF ALL EQUIPMENT PROVIDED BY OTHERS WITH THE CONTRACTOR PROVIDING THE EQUIPMENT PRIOR TO ROUGH-IN. THIS INCLUDES, BUT IS NOT LIMITED TO, MECHANICAL EQUIPMENT, KITCHEN EQUIPMENT, AUDIO/VISUAL EQUIPMENT, FIRE SUPPRESSION SYSTEM EQUIPMENT, FIRE ALARM EQUIPMENT, ETC. PROVIDE THE APPROPRIATE DISCONNECTING MEANS FOR, AND TO MAKE THE FINAL CONNECTION TO, ANY HARDWIRED EQUIPMENT.
- D. SEE PANEL SCHEDULES FOR INFORMATION ON CIRCUITS THAT ARE TO BE ROUTED THROUGH CONTACTORS OR RELAYS FOR CONTROL.
- E. ALL EQUIPMENT, DEVICES, AND LUMINAIRES SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED. EQUIPMENT MOUNTED OUTDOORS SHALL BE NEW OR, DEVICES MOUNTED IN DAMP OR WET LOCATIONS SHALL BE WEATHERPROOF. RECEPTACLES RATED 15- OR 20-AMPS AND 120 VOLTS WHICH ARE LOCATED IN DAMP OR WET LOCATIONS SHALL BE GFCI PROTECTED AND EQUIPPED WITH A SUITABLE WEATHERPROOF COVERPLATE (WHILE-IN-USE IN WET LOCATIONS).
- F. ALL LUGS, TERMINALS, ETC. IN ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE LISTED FOR A MINIMUM OF 75 DEGREE C CONDUCTORS. TERMINATIONS LISTED FOR ONLY 60 DEGREE C CONDUCTORS ARE NOT PERMITTED.
- KEYED NOTES:**
1. INTERCEPT AND EXTEND LANDLORD PROVIDED SECONDARIES AT CONSTRUCTION LIMIT LINE. FIELD VERIFY EXACT LOCATION OF LANDLORD PROVIDED SECONDARIES PRIOR TO ROUGH-IN.
2. PROVIDE UNDERGROUND SECONDARY CONDUITS AND CONDUCTORS. SEE ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
3. PROVIDE ONE 2" UNDERGROUND PVC CONDUIT WITH PULL STRING PER TELEPHONE UTILITY COMPANY'S SPECIFICATIONS AND REQUIREMENTS FOR TELEPHONE SERVICE. COORDINATE EXACT ROUTING AND STUB-UP LOCATION WITH THE TELEPHONE UTILITY COMPANY AND CLEARLY MARK STUB-UP LOCATION. SUBMIT A LINEAL FOOT UNIT PRICE WITH THE BID FOR CONDUIT, OF EACH SIZE AND TYPE INDICATED.
4. PROVIDE ONE 2" UNDERGROUND PVC CONDUIT WITH PULL STRING PER CABLE TELEVISION UTILITY COMPANY'S SPECIFICATIONS AND REQUIREMENTS FOR CABLE TELEVISION SERVICE. COORDINATE EXACT ROUTING AND STUB-UP LOCATION WITH CABLE TELEVISION UTILITY COMPANY AND CLEARLY MARK STUB-UP LOCATION. SUBMIT A LINEAL FOOT UNIT PRICE WITH THE BID FOR CONDUIT, OF EACH SIZE AND TYPE INDICATED.
5. PROVIDE FINAL CONNECTION TO METERBOARD. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.
6. PROVIDE BANNER ENGINEERING CORP. T30R SERIES RADAR SENSOR, MODEL T30R-R-1015-H00 FOR DRIVE-THRU VEHICLE SENSING. VERIFY EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
7. ROUTE (1) 2" CONDUIT WITH PULLSTRING FOR DATA BACK TO DRIVE-THRU WINDOW AT BUILDING. SEE SHEET E102 FOR ADDITIONAL INFORMATION. CONDUIT OUTSIDE CONSTRUCTION LIMIT LINE TO BE BY LANDLORD. INTERCEPT AND EXTEND CONDUIT AS NECESSARY. EXACT LOCATION AND REQUIREMENTS TO BE COORDINATED PRIOR TO UNDERGROUND WORK.
8. PROVIDE (1) 1" CONDUIT FOR POWER TO METERBOARD. CONDUIT OUTSIDE CONSTRUCTION LIMIT LINE TO BE BY LANDLORD. INTERCEPT AND EXTEND CONDUIT AS NECESSARY. EXACT LOCATION AND REQUIREMENTS TO BE COORDINATED PRIOR TO UNDERGROUND WORK.
9. PROVIDE (1) 1" CONDUIT WITH PULL STRING FOR DATA TO METERBOARD. CONDUIT OUTSIDE CONSTRUCTION LIMIT LINE TO BE BY LANDLORD. INTERCEPT AND EXTEND CONDUIT AS NECESSARY. EXACT LOCATION AND REQUIREMENTS TO BE COORDINATED PRIOR TO UNDERGROUND WORK.
10. PROVIDE FINAL CONNECTION TO SIGNAGE. COORDINATE LOCATION AND ALL REQUIREMENTS WITH SIGN CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE AN APPROPRIATE LOCAL DISCONNECTING MEANS MOUNTED IN AN ACCESSIBLE, INCONSPICUOUS LOCATION THAT IS WITHIN SIGHT OF THE SIGN. EACH SIGN CIRCUIT SHALL HAVE A SEPARATE NEUTRAL AND SEPARATE EQUIPMENT GROUNDING CONDUCTOR.
11. PROVIDE (1) 3/4" CONDUIT WITH PULL STRING TO SIGNAGE. CONDUIT OUTSIDE CONSTRUCTION LIMIT LINE TO BE BY LANDLORD. INTERCEPT AND EXTEND CONDUIT AS NECESSARY. EXACT LOCATION AND REQUIREMENTS TO BE COORDINATED PRIOR TO UNDERGROUND WORK.
12. CONNECT CIRCUIT VIA LOAD CONTROLLER(S) LOCATED IN MANAGER'S OFFICE. LOWERCASE LETTERS ADJACENT TO PLUMBERS INDICATE CORRESPONDING LOAD CONTROLLER. SEE 2/E120 FOR ADDITIONAL INFORMATION. SEE LUTRON ONE-LINE DIAGRAMS SHEETS E921, E922, E923 FOR CONTROL CONFIGURATION.
13. PROVIDE RECEPTACLE FOR LANDLORD PROVIDED LANDSCAPE IRRIGATION CONTROLLER. VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN.
14. LANDLORD PROVIDED CONDUIT AND CONDUCTORS FOR TENANT CONTROLLED SITE LIGHTING. INTERCEPT AND EXTEND CONDUIT AND CONDUCTORS AS NECESSARY.
15. PROVIDE (1) 1" CONDUIT WITH PULL STRING FOR DATA TO METERBOARD CAMERA. CONDUIT OUTSIDE OF CONSTRUCTION LIMIT LINE TO BE BY LANDLORD. INTERCEPT AND EXTEND CONDUIT AS NECESSARY. EXACT LOCATION AND REQUIREMENTS TO BE COORDINATED PRIOR TO UNDERGROUND WORK.
16. PROVIDE (1) 1" CONDUIT WITH PULL STRING FOR DATA TO CLEARANCE BAR CAMERA. CONDUIT OUTSIDE OF CONSTRUCTION LIMIT LINE TO BE BY LANDLORD. INTERCEPT AND EXTEND CONDUIT AS NECESSARY. EXACT LOCATION AND REQUIREMENTS TO BE COORDINATED PRIOR TO UNDERGROUND WORK.

1 SITE ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"



NO.	BY	DATE	DESCRIPTION
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SUMMIT MO

SHACK #1348

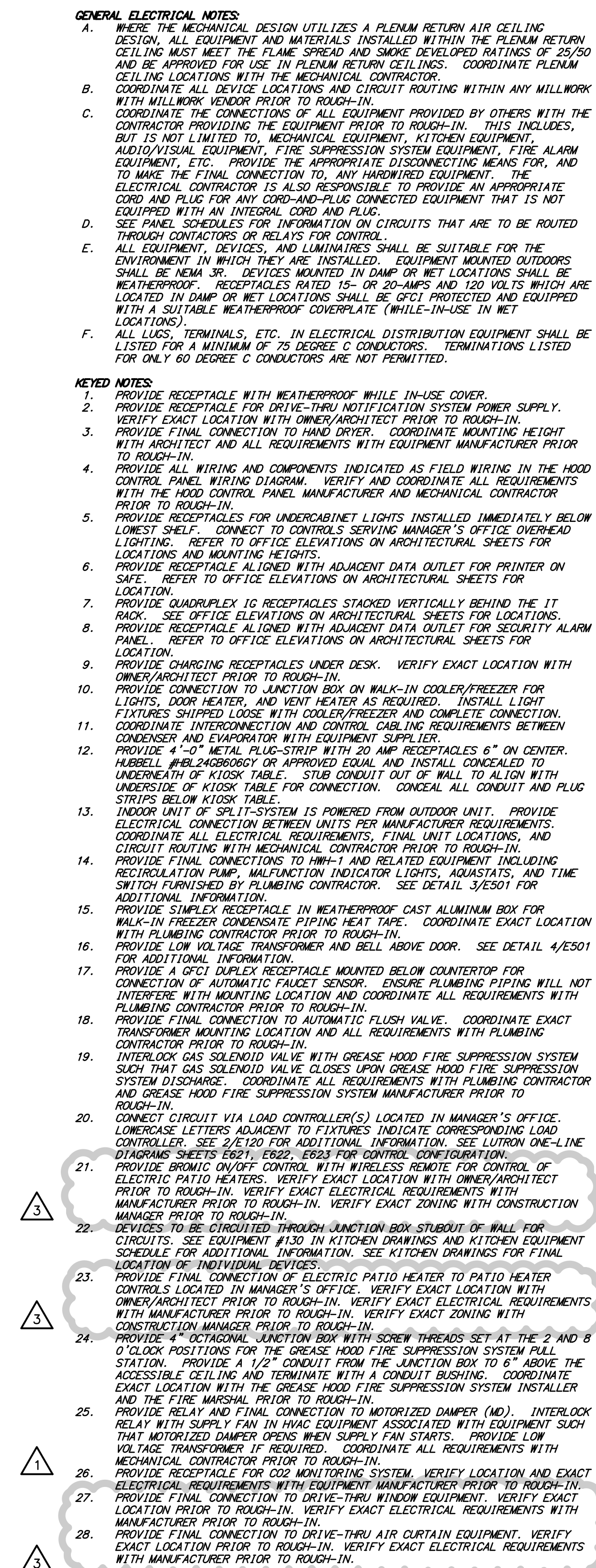
PERMIT/BID SET

PLAN

DRAWN BY: AEH

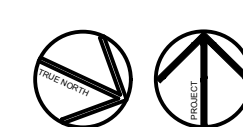
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JOB NO: 20068.0



E## SHEET KE101, FOR DIMENSIONED ROUGH-IN LOCATIONS, MOUNTING HEIGHTS, AND ADDITIONAL REQUIREMENTS FOR ALL DEVICE TAGS SHOWN ON THIS SHEET, INCLUDING EQUIPMENT POWER AND LOW VOLTAGE OUTLET LOCATIONS.

1 ELECTRICAL POWER PLAN



Bergmeyer

LA
800 South Figueroa St.
Beverly Hills, CA 90210
212.337.1090

BOS
51 Seaport St.
Boston, MA 02210
617.542.1025

CONSULTANTS:

S

Schnackel
engineers

800-581-0963
www.schnackel.com
REG. NO. 20020

SEAL SIGNATURE:

STATE OF MISSOURI

OSBORNE ROY
SCHNACKEL
NUMBER
E-028570
Date: 05/14/21
COA #: E-202009662

NO.	BY	DATE	DESCRIPTION
5		2021-05-17	FIELD NOTICE #2
4		2021-05-03	FIELD NOTICE #1
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM #2
1		2021-03-09	ADDENDUM #1
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET

SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

LOW VOLTAGE
SYSTEMS PLAN

DRAWN BY: AEH
CHECKED BY: QRS
JOB NO: 20068.00

E102

LOW VOLTAGE DEVICE COLOR SCHEDULE		
AREA	CAMERAS	SPEAKERS
BACK OF HOUSE/KITCHEN (WHITE CEILING)	WHITE	WHITE
FRONT OF HOUSE/DINING (LIGHT CEILING)	WHITE	WHITE
EXTERIOR/PATIO	BLACK	BLACK

GENERAL NOTE:
A. EXPOSED LOW VOLTAGE CABLING SHALL MATCH THE DEVICE COLORS SPECIFIED ABOVE.

- GENERAL ELECTRICAL NOTES:
- WHERE THE MECHANICAL DESIGN UTILIZES A PLENUM RETURN AIR CEILING DESIGN, ALL EQUIPMENT AND MATERIALS INSTALLED WITHIN THE PLENUM RETURN CEILING MUST MEET THE FLAME SPREAD AND SMOKE DEVELOPED RATINGS OF 25/50 AND BE APPROVED FOR USE IN PLENUM RETURN CEILINGS. COORDINATE PLENUM CEILING LOCATIONS WITH THE MECHANICAL CONTRACTOR.
 - COORDINATE ALL DEVICE LOCATIONS AND CIRCUIT ROUTING WITHIN ANY MILLWORK WITH MILLWORK VENDOR PRIOR TO ROUGH-IN.
 - COORDINATE THE CONNECTIONS OF ALL EQUIPMENT PROVIDED BY OTHERS WITH THE CONTRACTOR PROVIDING THE EQUIPMENT PRIOR TO ROUGH-IN. THIS INCLUDES, BUT IS NOT LIMITED TO, MECHANICAL EQUIPMENT, KITCHEN EQUIPMENT, AUDIO/VISUAL EQUIPMENT, FIRE SUPPRESSION SYSTEM EQUIPMENT, FIRE ALARM EQUIPMENT, ETC. PROVIDE THE APPROPRIATE DISCONNECTING MEANS FOR, AND TO MAKE THE FINAL CONNECTION TO, ANY INWired EQUIPMENT. THE ELECTRICAL CONTRACTOR IS ALSO RESPONSIBLE TO PROVIDE AN APPROPRIATE CORD AND PLUG FOR ANY CORD-AND-PLUG CONNECTED EQUIPMENT THAT IS NOT EQUIPPED WITH AN INTEGRAL CORD AND PLUG.
 - ALL EQUIPMENT, DEVICES, AND LUMINAIRES SHALL BE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE INSTALLED. EQUIPMENT MOUNTED OUTDOORS SHALL BE NEW 3R. DEVICES MOUNTED IN DAMP OR WET LOCATIONS SHALL BE WEATHERPROOF. RECEPTACLES RATED 15- OR 20-AMPS AND 120 VOLTS WHICH ARE LOCATED IN DAMP OR WET LOCATIONS SHALL BE GFCI PROTECTED AND EQUIPPED WITH A SUITABLE WEATHERPROOF COVERPLATE (WHILE-IN-USE IN WET LOCATIONS).
 - REFER TO ARCHITECTURAL PLAN FOR RESPONSIBILITY SCHEDULE.
 - ALL SPEAKER WIRE TO BE 16-GAUGE AWG. CABLE SHOULD NOT BE IN CONDUIT UNLESS REQUIRED BY CODE.
 - ALL DATA CABLES TO BE HOME RUNS FROM THE DEVICE TO THE MANAGER'S OFFICE WITH THE EXCEPTION OF SPEAKERS THAT SHOULD BE JUMP-CHAIRSED TOGETHER AS SHOWN ON THE PLAN.
 - PROVIDE SERVICE LOOPS SPOOLED AND HUNG NEATLY AT BOTH ENDS OF EACH CABLE 3'-0" AT THE FINAL DEVICE HEIGHT AND 5'-0" AT THE IT RACK, UNLESS NOTED OTHERWISE.
 - ALL LOW VOLTAGE CABLES TO BE TAGGED AND CLEARLY LABELED ON BOTH ENDS WITH A P-TOUCH OR OTHER PRINTED LABEL.
 - PROVIDE (1) 1/4" SLEEVES FOR EACH EXTERIOR DEVICE TO INSIDE OF SPACE.
 - PROVIDE ALL EMPTY CONDUITS WITH PULL STRINGS.
 - PROVIDE ALL THREAD AT EACH CAMERA LOCATION SHOWN ON PLAN FROM CEILING DECK TO 1'-0" BELOW LIGHT TRACK HEIGHT. (REFER TO ARCHITECTURAL PLANS FOR LIGHT TRACK HEIGHT). AT CAMERA LOCATIONS, PROVIDE (1) 4" ROUND/OCTAGON JUNCTION BOX ATTACHED TO BOTTOM OF ALL THREAD.
- KEYED NOTES:
- EXTEND 2" CONDUIT WITH PULL STRING, TO MANAGER'S OFFICE FOR TELECOMMUNICATIONS SERVICE. EXTEND 2" CONDUIT WITH PULL STRING, TO MANAGER'S OFFICE FOR CABLE TELEVISION SERVICE. REFERENCE: EXOD FOR EXTENSION.
 - PROVIDE TELEPHONE 66 BLOCK FOR NEW TENANT SERVICE MOUNTED IN THE MANAGER'S OFFICE NEAR THE IT RACK. LEVITON #4006 SERIES, WHITE WITH ORANGE COVER OR EQUIVALENT. SEE 2/2501 FOR GRADING DETAIL.
 - PROVIDE, INSTALL, AND TERMINATE 25-PAIR CABLE AT BOTH ENDS, INCLUDING AT THE 66 BLOCK IN THE MANAGER'S OFFICE. TESTED AND VERIFY.
 - PROVIDE (2) 1" EMPTY CONDUIT ABOVE THE IT RACK FOR SATELLITE DISH, IF REQUIRED. VERIFY WITH SHACK SHACK IF REQUIRED.
 - PROVIDE BANNER ENGINEERING CORP. T30R SERIES RADAR SENSOR, MODEL T30-R-1515-400 FOR DRIVE-THRU VEHICLE SENSING. VERIFY EXACT LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
 - PROVIDE BANNER ENGINEERING CORP. TL70 SERIES MODULAR LIGHT TOWER BASE, COLOR AND ALARM SEGMENTS FOR DRIVE-THRU SENSING NOTIFICATION. BASE MODEL B-TL70-05. COLOR AND ALARM SEGMENTS MODEL SE-TL70. VERIFY COLOR AND ALARM SEGMENT OPTIONS WITH OWNER/ARCHITECT. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
 - PROVIDE INTERCONNECTION BETWEEN SENSOR AND NOTIFICATION LIGHT TOWER PER MANUFACTURER RECOMMENDATIONS. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
 - PROVIDE (1) 2" CONDUIT WITH PULL STRING FOR LOW VOLTAGE DATA CABLING TO EXTERIOR ORDERING MEMORANDUMS.
 - PROVIDE CONDUIT, AS NECESSARY, AT ANY CONCEALED LOCATIONS FOR RTI SIGNAL CABLE FROM RTI FILL BOX LOCATION TO RTI SYSTEM LOCATION. SEE DETAIL 6/2501 FOR ADDITIONAL INFORMATION. VERIFY EXACT REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.
 - PROVIDE DATA PORT FOR WALK-IN EVAPORATOR. VERIFY EXACT REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN. PROVIDE ALL FINAL WIRING FOR A COMPLETE AND FUNCTIONAL SYSTEM.
 - PROVIDE ALSO CCTV MONITORING SYSTEM. VERIFY EXACT REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH-IN.

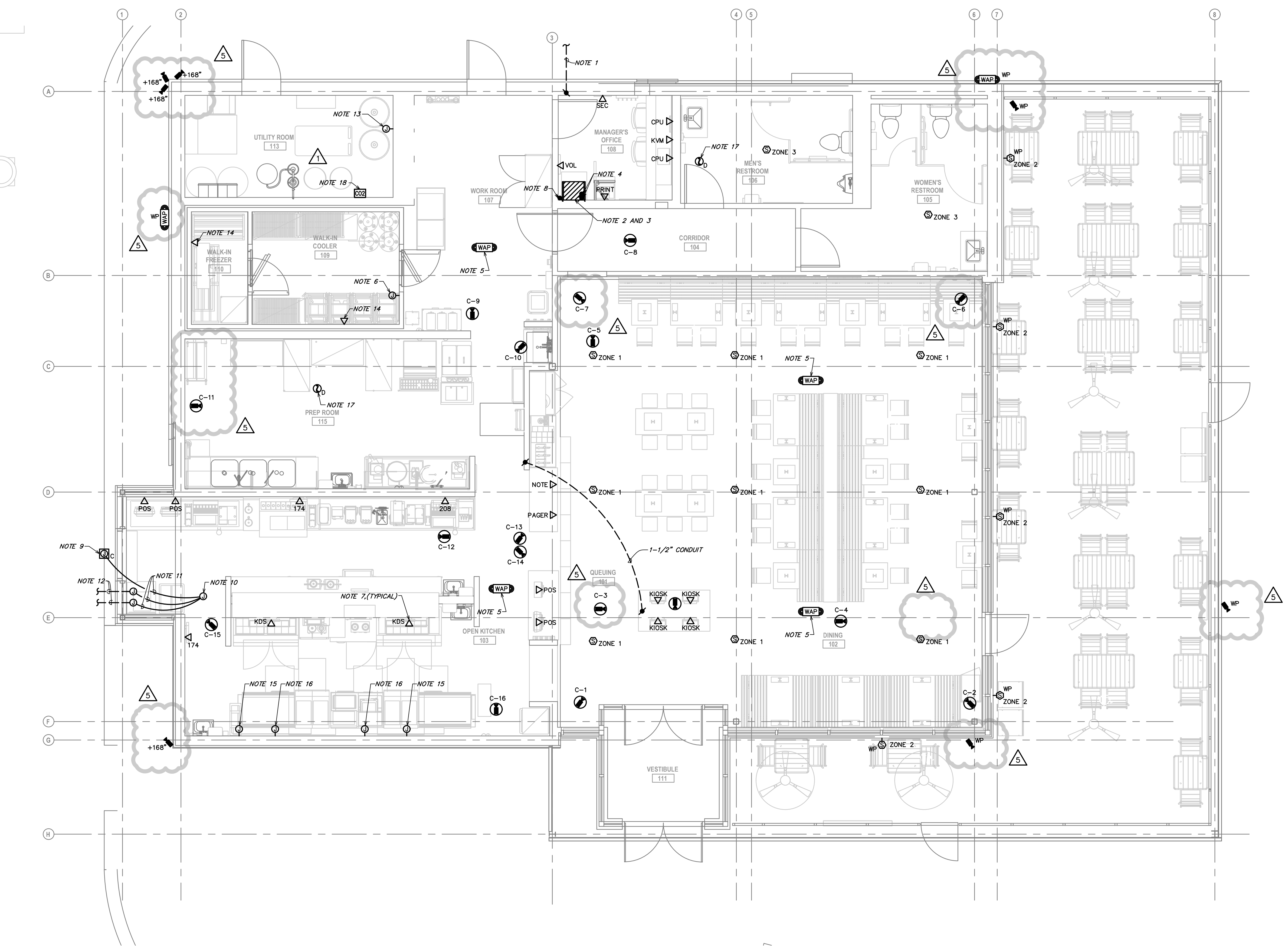
LOW VOLTAGE OUTLET LEGEND					
SYMBOL	CABLE REQUIREMENTS		ADDITIONAL INFORMATION		NOTES
	QTY	TYPE	ORIGIN		
174	2	CAT 5E	IT RACK	60" A.F.F. FOR ITEM #174 KDS	1
208	2	CAT 5E	IT RACK	60" A.F.F. FOR ITEM #208 KDS	1
KDS	2	CAT 5E	IT RACK	IN OVERSHELF FOR KDS SYSTEM	2
KVM	2	CAT 5E	IT RACK	42" A.F.F. FOR KVM SWITCH	3
KIOSK	2	CAT 5E	IT RACK	26" A.F.F. FOR KIOSK	3
PAGER	2	CAT 5E	IT RACK	26" A.F.F. FOR PAGER SYSTEM	2
POS	4	CAT 5E	IT RACK	26" A.F.F. FOR POS TERMINAL	2
PRINTER	2	CAT 5E	IT RACK	48" A.F.F. FOR PRINTER ON SAFE	3
VOL	1	CAT 5E	IT RACK	48" A.F.F. FOR VOLUME CONTROL	3
CPU	4	CAT 5E	IT RACK	18" A.F.F. FOR WORKSTATION	3
SEC	1	CAT 5E	IT RACK	72" A.F.F. FOR SECURITY ALARM PANEL	3
WAP	2	CAT 5E	IT RACK	AT CEILING FOR WIRELESS	5
NOTE	2	CAT 5E	IT RACK	NOTIFICATION BOARD	3

GENERAL NOTES:
A. PROVIDE 4" SQUARE BOX WITH SINGLE GANG PLASTER RING AND 3/4" EMT TO ACCESSIBLE CEILING AREA FOR ALL LOW VOLTAGE WALL OUTLETS UNO.
B. PROVIDE 4" OCTAGON BOX FOR ALL LOW VOLTAGE CEILING OUTLETS UNO.

- SCHEDULE NOTES:
- REFER TO KITCHEN EQUIPMENT ROUGH-IN PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF LOW VOLTAGE OUTLETS FOR KITCHEN DATA SYSTEM.
 - LOW VOLTAGE OUTLET TO BE INSTALLED IN KITCHEN OVERSHELF ABOVE CHEF'S COUNTER. REFER TO KITCHEN DRAWINGS FOR OUTLET LOCATIONS. PROVIDE 15' OF EXCESS CABLE AT FOR ALL DATA OUTLETS IN OVERSHELF.
 - REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF LOW VOLTAGE OUTLETS FOR OFFICE EQUIPMENT AND TELEVISIONS.
 - PROVIDE DATA OUTLET FOR WIRELESS ACCESS POINT AT SAME ELEVATION AS LIGHTING FIXTURES.

CAMERA WIRING LEGEND			
SYMBOL	CABLE REQUIREMENTS	ADDITIONAL INFORMATION	
TYPE	QTY	TYPE	ORIGIN
1	1	CAT 5E	IT RACK

- GENERAL NOTES:
- VERIFY FINAL LOCATIONS AND AIMING OF ALL CAMERAS WITH TENANT.
 - PROVIDE SERVICE LOOPS SPOOLED AND HUNG NEATLY AT BOTH ENDS OF EACH CABLE. 15'-0" AT CAMERA LOCATIONS AND 5'-0" AT THE IT RACK.
 - SUSPENDED INTERIOR CAMERAS TO 10'-0" A.F.F. IN AREAS OPEN TO STRUCTURE.
 - INSTALL EXTERIOR CAMERAS AT 11'-0" A.F.F. UNLESS NOTED OTHERWISE.
 - PROVIDE WP JUNCTION BOX WITH 3/4" CONDUIT STUBBED INTO TENANT SPACE FOR ALL EXTERIOR CAMERAS.



1 LOW VOLTAGE SYSTEMS PLAN
SCALE: 1/4" = 1'-0"

[illegible]

5		2021-05-17	FIELD NOTICE #2
4		2021-05-03	FIELD NOTICE #1
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM #2
1		2021-03-09	ADDENDUM #1
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET
NO.	BY	DATE	DESCRIPTION



SHAKE SHACK®

SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

ELECTRICAL LIGHTING
PLAN

DRAWN BY:	AEH
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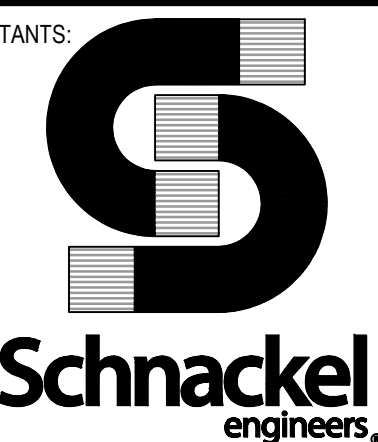
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JOB NO:	20068.00
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E120

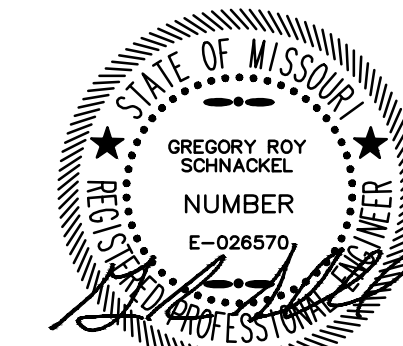
Bergmeyer

CONSULTANTS



800-581-0963
www.schnackel.com

SEAL/ SIGNATURE:



Date: 05/14/21
COA #: E-2009006642

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SHAKE SHACK - LEE'S
SUMMIT MO

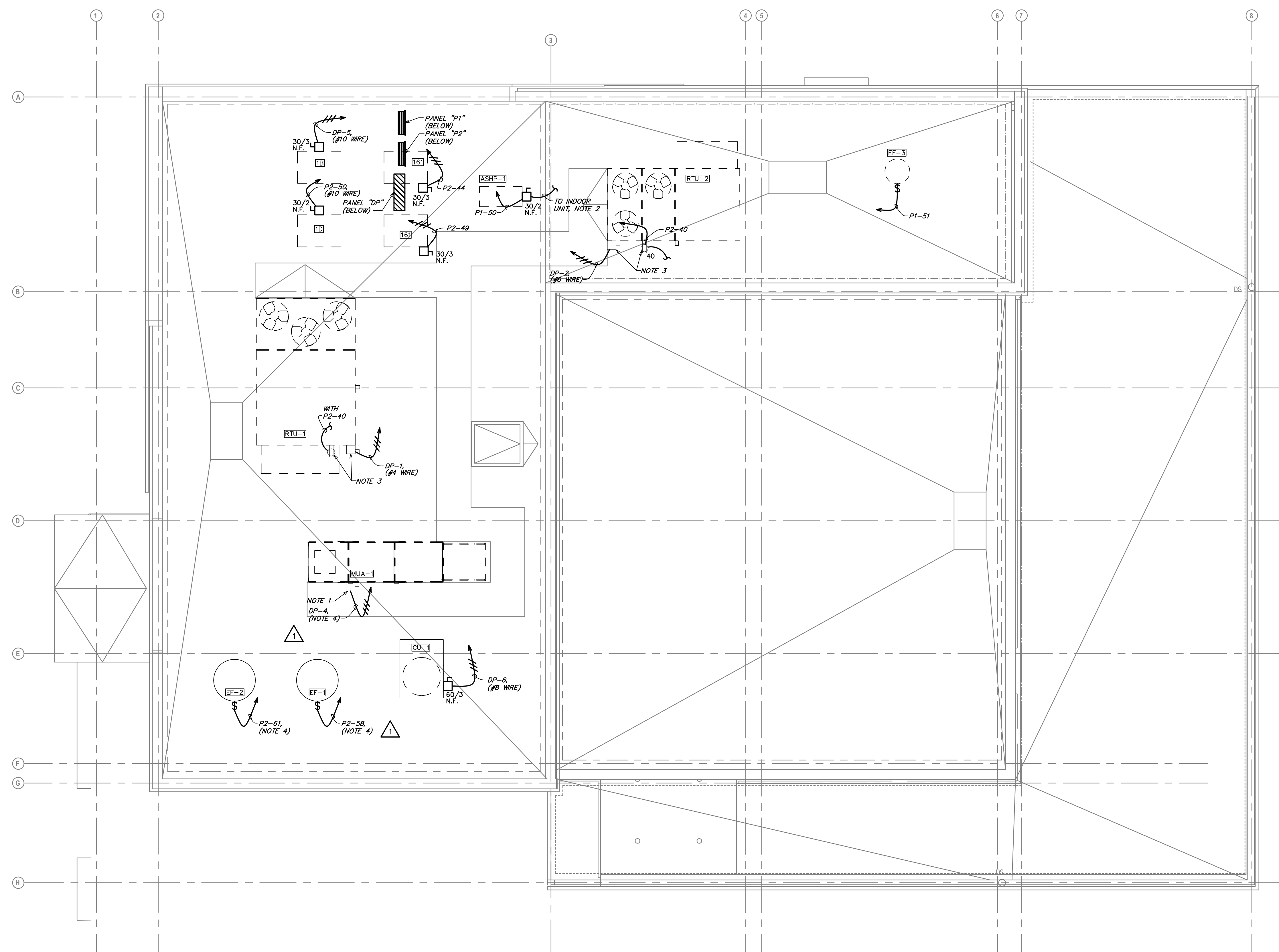
LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

ELECTRICAL ROOF PLAN

DRAWN BY:	AEH
CHECKED BY:	GRS
JOB NO:	20068.00

E150



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



Bergmeyer

CONSULTANTS:
Schnackel
engineers
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REG. NO. 20180

SEAL SIGNATURE:

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SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

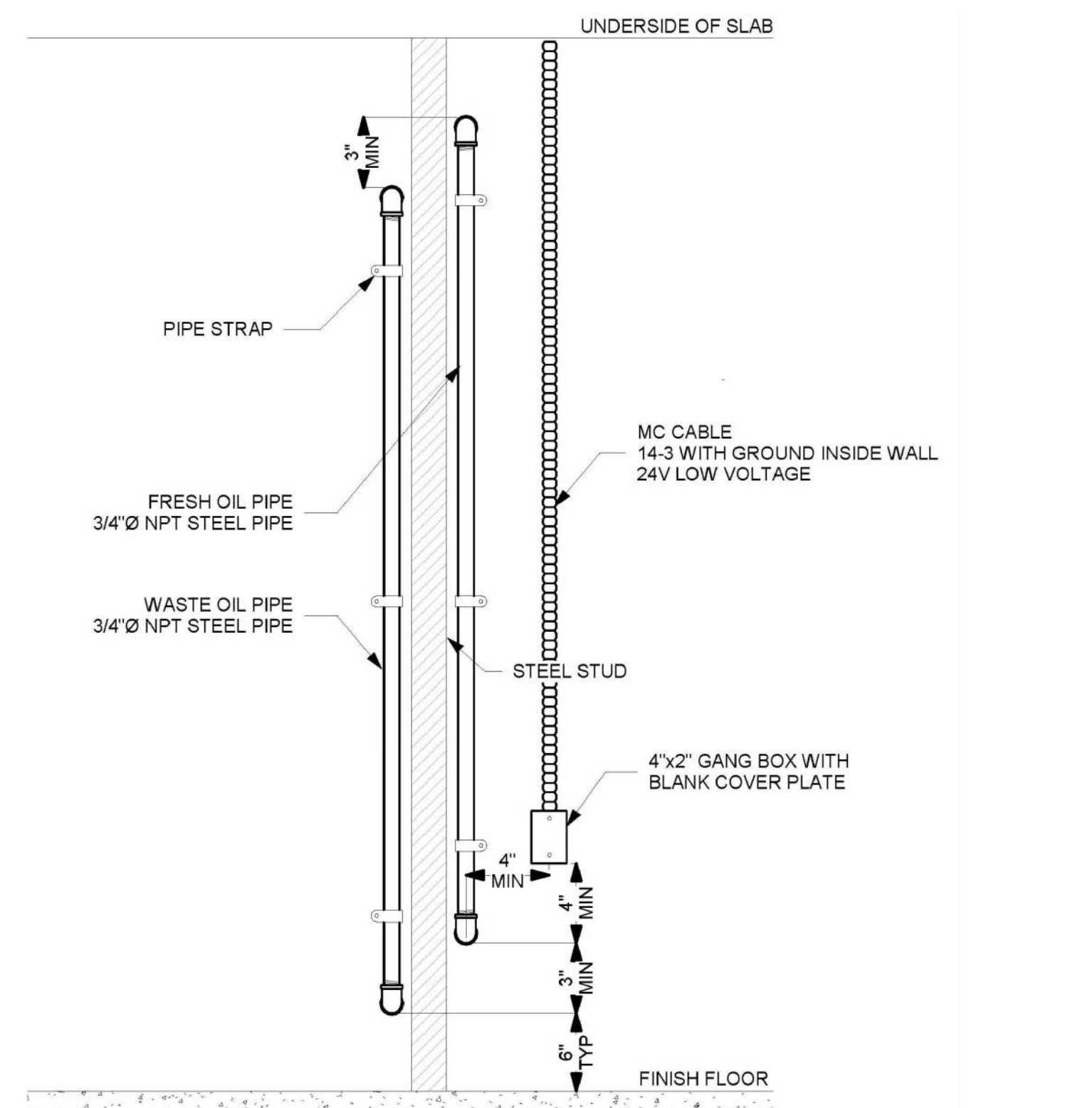
LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

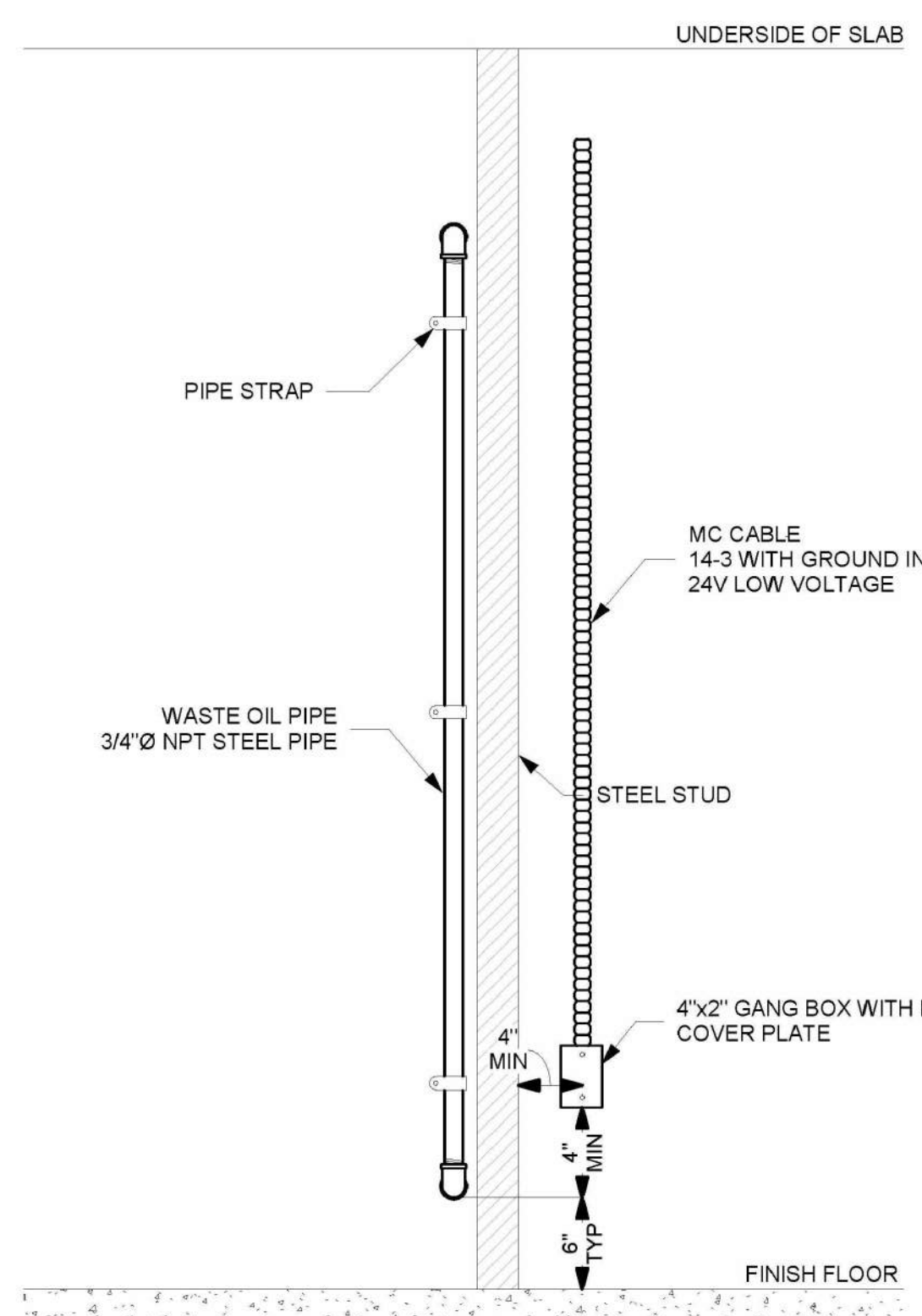
ELECTRICAL DETAILS

DRAWN BY: AEH
CHECKED BY: GRS
JOB NO: 20068.00

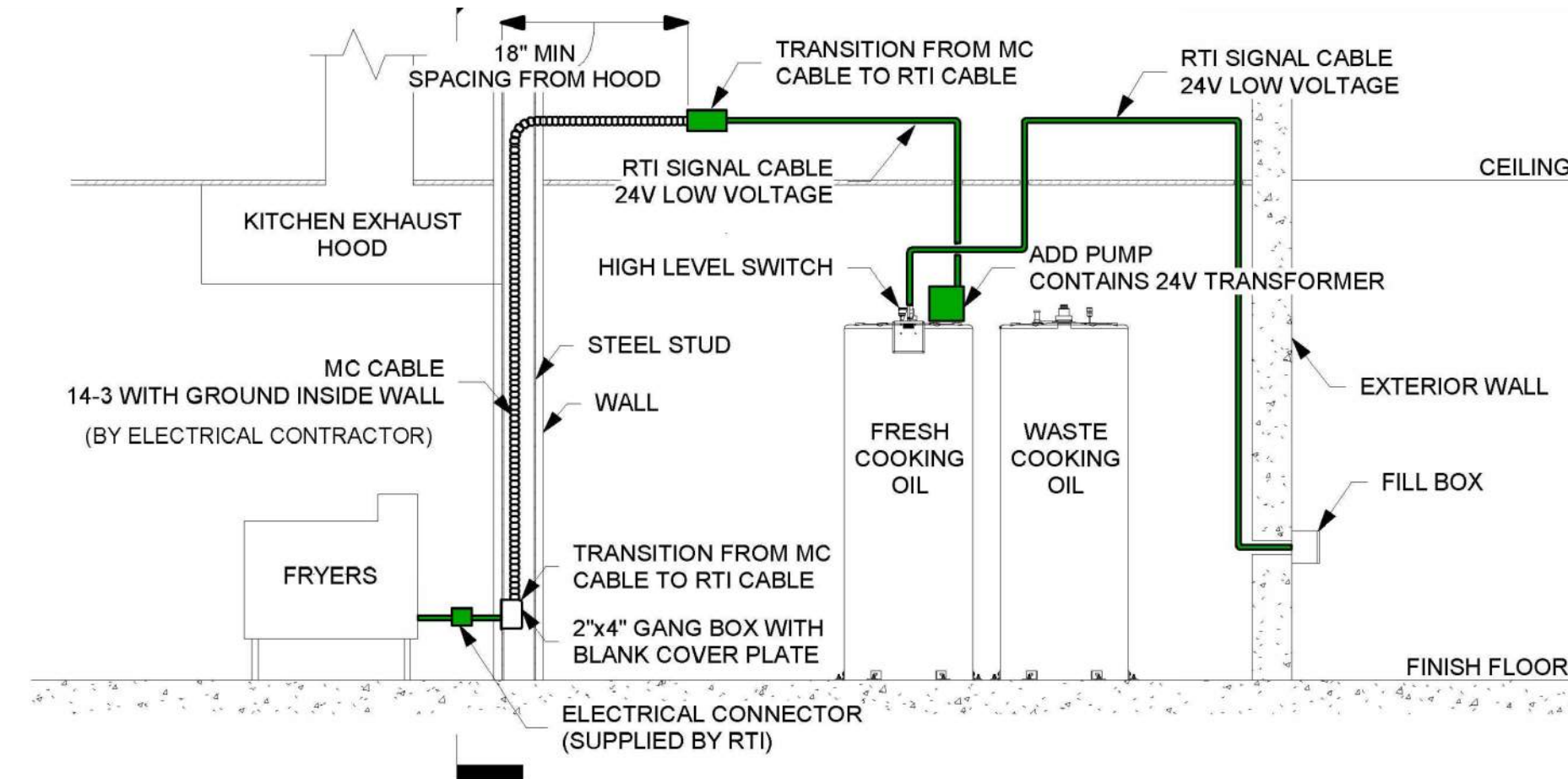
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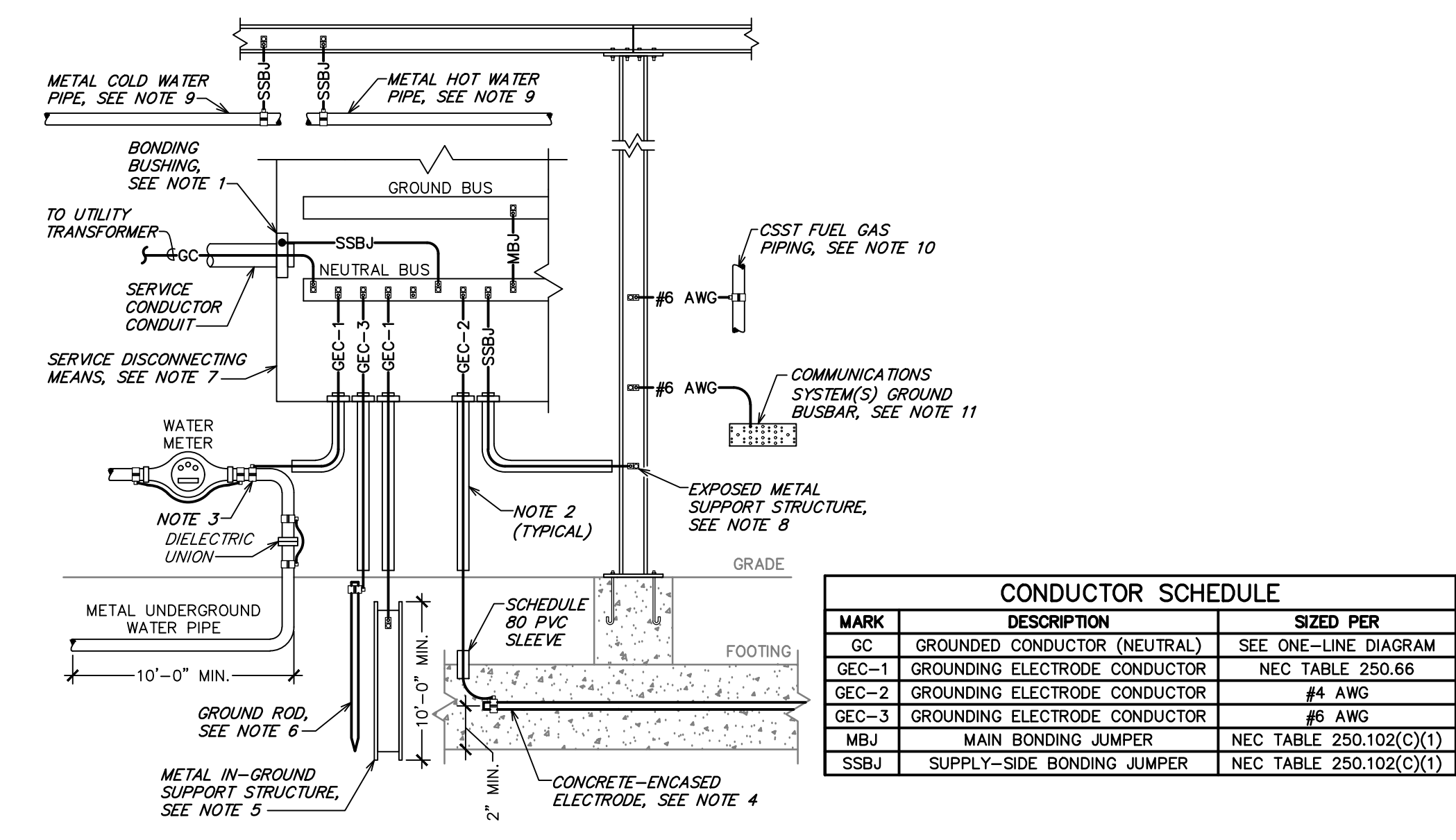
8 FRYER RTI DETAIL
NOT TO SCALE



7 GRIDDLE RTI DETAIL
NOT TO SCALE



6 RTI SYSTEM DETAIL
NOT TO SCALE

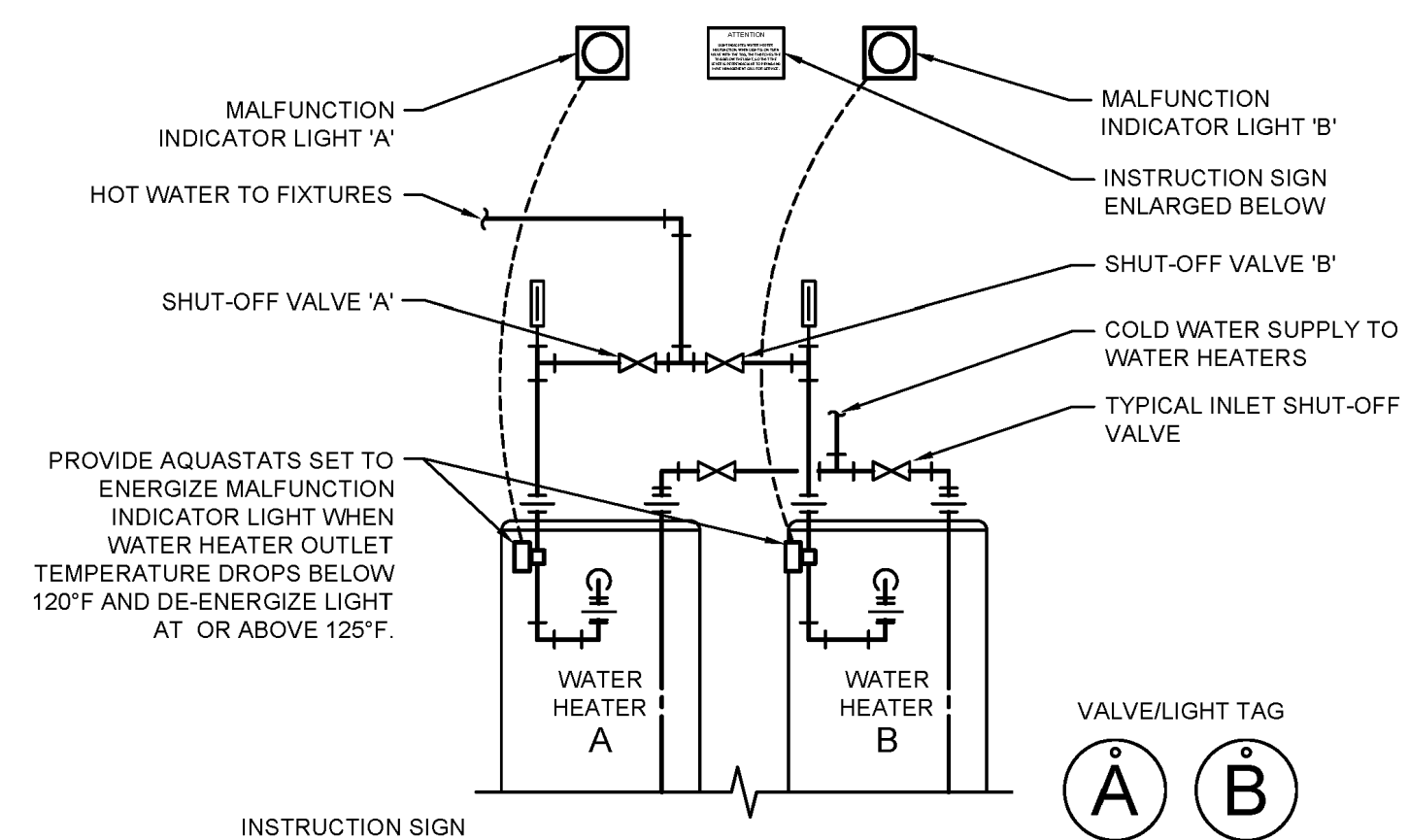


CONDUCTOR SCHEDULE		
MARK	DESCRIPTION	SIZE PER
GC	GROUNDING CONDUCTOR (NEUTRAL)	SEE ONE-LINE DIAGRAM
GEC-1	GROUNDING ELECTRODE CONDUCTOR	NEC TABLE 250.66
GEC-2	GROUNDING ELECTRODE CONDUCTOR	#4 AWG
GEC-3	GROUNDING ELECTRODE CONDUCTOR	#6 AWG
MBJ	MAIN BONDING JUMPER	NEC TABLE 250.102(C)(1)
SSBJ	SUPPLY-SIDE BONDING JUMPER	NEC TABLE 250.102(C)(1)

GENERAL NOTES APPLICABLE TO THIS DETAIL:
A. ALL REFERENCES TO THE NATIONAL ELECTRICAL CODE (NEC) ON THIS DETAIL REFER TO THE 2017 EDITION OF THE NEC (NFPA 70-2017).
B. PHASE CONDUCTORS ARE NOT SHOWN.
C. CONDUCTORS ARE COPPER UNLESS NOTED OTHERWISE.

NOTES APPLICABLE TO THIS DETAIL:
1. PROVIDE A BONDING JUMPER SIZED PER NEC TABLE 250.102(C)(1).
2. WHERE EXPOSED TO PHYSICAL DAMAGE, ENCLOSE GROUNDING ELECTRODE CONDUCTORS IN SCHEDULE 80 PVC CONDUIT PER NEC SECTION 250.64(B) REQUIREMENTS.
A. WHERE SCHEDULE 80 PVC CONDUIT CANNOT BE USED, SUCH AS IN PLENUM CEILINGS, ENCLOSE CONDUCTORS IN RIGID METAL CONDUIT. PROVIDE A BONDING JUMPER AT EACH END PER NEC SECTION 250.64(C)(1) AND PROVIDE SUPPLY-SIDE BONDING JUMPER IN-DOOR 1/2" IN THE SAME SIZE AS THE ENCLOSED GROUNDING ELECTRODE CONDUCTOR PER NEC SECTION 250.64(E)(3) REQUIREMENTS.
3. PER NEC SECTION 250.52(A)(1), CONNECT TO THE BUILDING'S METAL UNDERGROUND WATER PIPE THAT IS IN DIRECT CONTACT WITH THE EARTH FOR A MINIMUM OF 10 FEET. IF PRESENT, PER NEC SECTION 250.68(C)(1) REQUIREMENTS, THE CONNECTION SHALL BE MADE WITHIN 5 FEET OF THE WATER PIPE'S ENTRANCE INTO THE BUILDING AND A JUMPER SHALL BE PROVIDED AROUND ANY WATER METER AND DIELECTRIC UNIONS. JUMPER SHALL BE THE SAME SIZE AS THE GROUNDING ELECTRODE CONDUCTOR CONNECTING TO THE WATER PIPE.
4. PER NEC SECTION 250.52(A)(3) REQUIREMENTS, PROVIDE A GROUNDING ELECTRODE ENCASED IN AT LEAST 2" OF CONCRETE AND LOCATED NEAR THE BOTTOM OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH EARTH. GROUNDING ELECTRODE SHALL CONSIST OF AT LEAST 20 FEET OF ONE OR MORE BARE OR ZINC GALVANIZED OR OTHER ELECTRICALLY CONDUCTIVE COATED STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2" IN DIAMETER OR A MINIMUM OF 20 FEET OF #4 AWG BARE COPPER CONDUCTOR. THIS CONCRETE-ENCASED ELECTRODE IS ALSO KNOWN AS A 'TUP' GROUND.
5. PER NEC SECTION 250.52(A)(2), THIS STRUCTURAL FRAME IS PERMITTED TO BE USED AS A GROUNDING ELECTRODE CONDUCTOR THAT IS IN DIRECT CONTACT WITH THE EARTH VERTICALLY FOR 10 FEET OR MORE. IF PRESENT, AND BOND IT USING A UL LISTED IRREVERSIBLE CLAMP OR WELDED LUG.
6. PROVIDE AT LEAST ONE SUPPLEMENTAL GROUNDING ELECTRODE IN THE FORM OF A 10'-FOOT LONG BY 3/4" DIAMETER COPPER GROUND ROD INSTALLED PER NEC ARTICLE 250 REQUIREMENTS.
7. WHEN THE SERVICE CONSISTS OF MULTIPLE DISCONNECTING MEANS IN SEPARATE ENCLOSURES, CONNECT A TAP CONDUCTOR FROM THE MAIN GROUNDING ELECTRODE CONDUCTOR TO EACH DISCONNECTING MEANS. SIZE THIS TAP BASED ON THE LARGEST SERVICE CONDUCTOR IN THAT SERVICE DISCONNECT ENCLOSURE.
8. PER NEC SECTION 250.104(C)(2), BOND EXPOSED STRUCTURAL METAL BUILDING FRAME, IF PRESENT, TO THE GROUNDING CONDUCTOR AT THE SERVICE. PER NEC SECTION 250.68(C)(2), THIS STRUCTURAL FRAME IS PERMITTED TO BE USED AS A GROUNDING ELECTRODE CONDUCTOR.
9. PER NEC SECTION 250.104(A), BOND THE METAL WATER PIPING SYSTEM TO THE METAL BUILDING FRAME.
10. PER NFPA 54-2018 SECTION 7.12.2, BOND CORRUGATED STAINLESS STEEL TUBING (CSST) FUEL GAS PIPING, IF PRESENT, TO THE GROUNDING ELECTRODE SYSTEM. THE BONDING CONDUCTOR SHALL NOT EXCEED 75 FEET IN LENGTH PER NFPA 54-2018 SECTION 7.12.2.3.
11. PER NEC SECTION 250.94(B), PROVIDE BURNIT #8201441251, OR EQUAL, 1/4" THICK BY 4" WIDE BY 12" LONG COPPER GROUND BUSBAR, INCLUDING ALL BRONZETS, INSULATORS, AND FLEXIGLASS COVER, AT THE MAIN COMMUNICATIONS SYSTEM ENTRANCE FOR BONDING THE COMMUNICATIONS SYSTEMS TO THE BUILDING'S GROUNDING ELECTRODE SYSTEM.

5 SERVICE ENTRANCE GROUNDING AND BONDING DETAIL
NOT TO SCALE

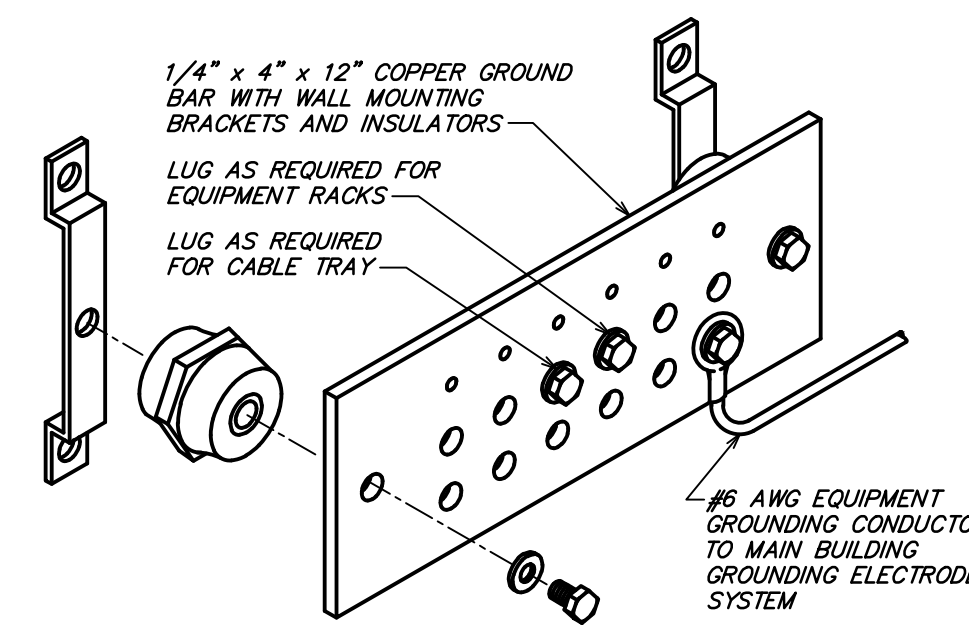


ATTENTION
LIGHT INDICATES WATER HEATER MALFUNCTION. WHEN LIGHT IS ON TURN VALVE WITH THE TAG, THAT MATCHES THE TAG BELOW THE LIGHT, SO THAT THE LEVER IS PERPENDICULAR TO PIPING AND HAVE MANAGEMENT CALL FOR SERVICE.

PROVIDE TAGS MOUNTED BELOW EACH MALFUNCTION INDICATOR LIGHT AND HANGING FROM HOT WATER SHUT-OFF VALVES. LABEL TAGS AS INDICATED ABOVE.

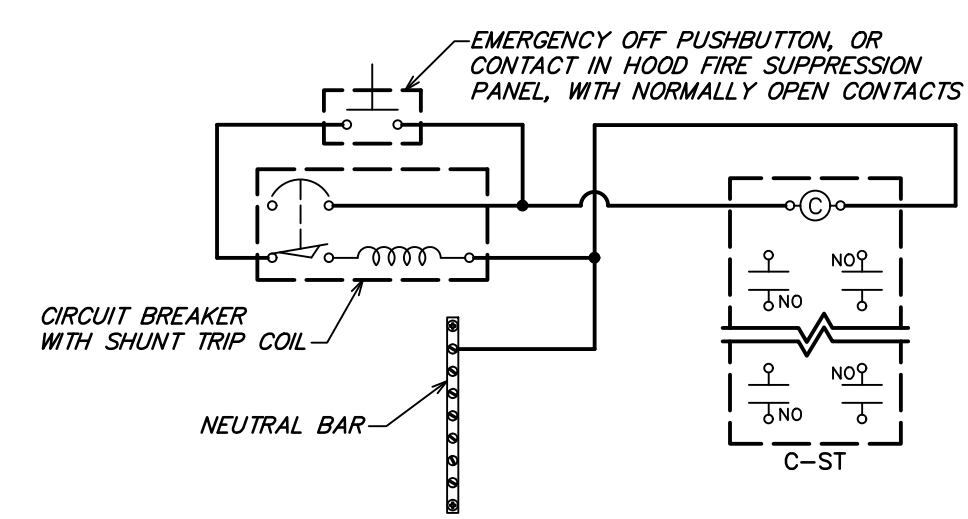
MALFUNCTION INDICATOR LIGHT
DESCRIPTION: 120V, STEADY-ON RED SIGNALING LIGHT WITH THREADED BASE AND SHATTER RESISTANT POLY-CARBONATE LENS. UL LISTED
• EDWARDS #125 SERIES
• FEDERAL SIGNAL #LP22 SERIES

3 WATER HEATER MALFUNCTION INDICATOR DETAIL
NOT TO SCALE



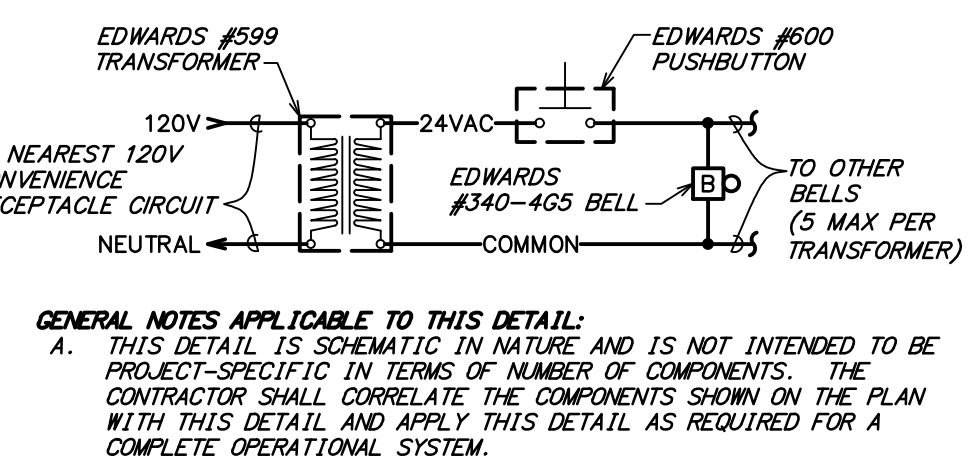
GENERAL NOTES APPLICABLE TO THIS DETAIL:
A. NOT ALL PARTS AND PART NUMBERS ARE SHOWN IN THE DETAIL. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR A COMPLETE WORKING INSTALLATION, INCLUDING MISCELLANEOUS APPURTENANCES REQUIRED BUT NOT SHOWN.

2 GROUND BAR DETAIL
NOT TO SCALE



GENERAL NOTES APPLICABLE TO THIS DETAIL:
A. SEE PANEL SCHEDULES FOR CIRCUITS THAT ARE TO BE CONTROLLED BY EACH CONTACTOR.
B. EACH CONTACTOR CONSTITUTES A CONTROL ZONE. ALTHOUGH NOT SPECIFICALLY SHOWN ON THIS DETAIL, PROVIDE MULTIPLE CONTACTORS WIRED IN PARALLEL WHEN THE NUMBER OF CIRCUITS IN A CONTROL ZONE EXCEEDS THE MAXIMUM NUMBER OF POLES AVAILABLE ON A SINGLE CONTACTOR. PROVIDE A MINIMUM OF 2 SPARE CONTACTOR POLES PER CONTROL ZONE.
C. ALL CONTACTORS SHALL BE ELECTRICALLY HELD AND PROVIDED WITH NORMALLY OPEN CONTACTS. SQUARE D CLASS 0003 OR EQUAL, TYPE L, FOR LOADS UP TO 30 AMPS OR TYPE S FOR LOADS GREATER THAN 30 AMPS.
D. CONTACTS SHALL CARRY A CURRENT RATING EQUAL TO OR GREATER THAN THE RATING OF THE OVERCURRENT PROTECTIVE DEVICES OF THE CIRCUITS CONTROLLED BY THE CONTACTOR.
E. NEARBY CONTACTORS ADJACENT TO THE ASSOCIATED PANELBOARD(S). ALL CONTACTORS SHALL BE PROVIDED WITH INDIVIDUAL ENCLOSURES. AT THE CONTRACTOR'S OPTION, OPEN CONTACTORS ARE PERMITTED WHEN MOUNTED WITHIN A COMMON ENCLOSURE.
F. COORDINATE MOUNTING LOCATION OF EMERGENCY OFF PUSHBUTTON WITH THE OWNER AND AUTHORITY HAVING JURISDICTION.

1 SHUNT TRIP CONTACTOR WIRING DIAGRAM
NOT TO SCALE

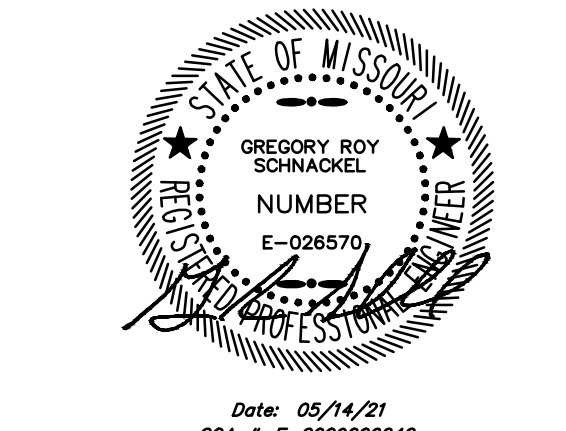


4 BELL SYSTEM SCHEMATIC
NOT TO SCALE

Bergmeyer

CONSULTANTS:
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10-0000-200000

SEAL SIGNATURE:



NO.	BY	DATE	DESCRIPTION
5		2021-05-17	FIELD NOTICE #2
4		2021-05-03	FIELD NOTICE #1
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM #2
1		2021-03-09	ADDENDUM #1
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET

SHAKE SHACK

SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

ELECTRICAL
SCHEDULES AND
ONE-LINE

DRAWN BY: AEH

CHECKED BY: GRS

JOB NO: 20060.00

E601

PANEL "P1"														
FED FROM: VOLTAGE: 120/208V, 3 PHASE, 4 WIRE BUS MATERIAL: ALUMINUM OR COPPER BUS RATING: 191 AMPS MAIN: MAIN LUG ONLY				MOUNTING: ENCLOSURE: NEMA 1 FAULT CURRENT: 40127 AMPS AC/SCSR RATING: 65 KAIC OPTIONS*: BONDED AND ISOLATED GROUND BARS				FLUSH MOUNTED NEMA 1 40127 AMPS 65 KAIC BONDED EQUIPMENT GROUND BAR						
NOTES	CKT	LOAD DESCRIPTION	A			B			C			LOAD DESCRIPTION	CKT	NOTES
	1	EMPLOYEE TABLE RECEPT.	360			20/1	20/1	720				TOASTER CONVEYOR	2	GFCI
	3	UTILITY ROOM RECEPT.	180			20/1	20/1	1728				TEA BREWER	4	GFCI
	5	DINING/CORRIDOR GEN REC.	540			20/1	45/2		4680			DISHWASHER	6	HPL
	7	WORK ROOM RECEPT.	180			20/1	-----	4680				-----	8	-----
GFCI	9	BEER SYSTEM	1560			20/1	20/1	1620				FOOD PROCESSOR	10	GFCI
	11	ICE CUBER	1477			15/2	20/1		600			WC-1	12	HPL
	13		1477			20/1	20/1	1440				TANKLESS HW-H-1	14	HPL
GFCI	15	BAG-IN-BOX	1800			20/1	20/1	1800				NITROGEN TANK	16	GFCI
GFCI	17	DIPPING CABINET	1800			20/1	20/1		1800			ICE CHEST/SODA TOWER	18	GFCI
GFCI	19	MIXER	1800			20/1	20/1	720				BEVERAGE DISPENSER	20	GFCI
GFCI	21	MIXER	624			20/1	20/1		780			DIPPING CABINET	22	GFCI
GFCI	23	HAND MIXER	680			20/1	20/1		500			DATA BACK-2	24	GFCI
GFCI	25	BEVERAGE DISPENSER	1200			20/1	20/1	500				DATA RACK 1	26	GFCI
GFCI	27	ICE CHEST/SODA TOWER	1800			20/1	20/1	300				OFFICE PRINTER	28	GFCI
GFCI	29	KDS MONITOR	600			20/1	20/1		1500			HAND DRIVER	30	HPL
GFCI	31	NOTIFICATION BOARD	500			20/1	20/1	180				DISPLAY FREQUENCY	32	GFCI
GFCI	33	PAGER SYSTEM	500			20/1	20/1	300				SECURITY ALARM	34	HLO
	35	ORDER KIOSK PLUG/MOLD	1440			20/1	20/1		900			ORDER COUNTER GEN REC.	36	HPL
	37	MANAGERS DESK	720			20/1	20/1	1200				P.O.S. TERMINALS	38	GFCI
	39	FLUSH/VALVE	400			20/1	20/1		300			KDS MONITOR	40	GFCI
	41	FAUCET	360			20/1	20/1		1500			HAND DRIVER	42	HPL
HPL	43	OIL TANK	1800			20/1	20/1	1260				SHOW WINDOW REC.	44	HPL
HPL	45	OIL TANK	1800			20/1	20/1		900			RECEPT.	46	HPL
GFCI	47	KDS MONITOR	1500			20/1	15/1		612			48P	48	HPL
TC	49	P-1	400			15/1	20/2	611				EXP-1	50	HPL
TC	51	EF-3	448			15/1	-----	611				-----	52	-----
HLO	53	LIGHTING/EM	1335			20/1	20/1		1418			PATIO/EXTERIOR LIGHTING	54	HPL
	55	LIGHTING	1169			20/1	20/1	1200				SFSG NEON SIGNAGE	56	HPL
	57	EXTERIOR SIGNAGE	1200			20/1	20/1		1080			CONTROLLED RECEPT	58	HPL
	59	FANS	413			20/1	20/1		500			LITRONIX HUB	60	GFCI
	61	MOTORIZED DAMPER	20			20/1	20/1	100				REAR DOOR BUZZER	62	GFCI
	63	EXTERIOR SIGNAGE	1200			20/1	20/1		180			DRIVE THRU NOTIFICATION	64	GFCI
	65	EXT. DIRECTIONAL SIGN	500			20/1	20/1		500			PREVIEW MENUBOARD	66	GFCI
	67	SITE LIGHTING	148			20/1	20/1	500				ORDER MENUBOARD	68	GFCI
	69	EXTERIOR RECEPT.	180			20/1	20/1		500			ORDER MENUBOARD	70	GFCI
GFCI	71	CO2 MONITORING SYSTEM	180			20/1	20/1		200			IRRIGATION CONTROL REC.	72	GFCI
	73	SPARE				20/1	20/1					SPARE	74	GFCI
	75	SPARE				20/1	20/1					SPARE	76	GFCI
	77	SPARE				20/1	20/1					SPARE	78	GFCI
	79	SPACE ONLY										SPACE ONLY	80	GFCI
	81	SPACE ONLY										SPACE ONLY	82	GFCI
	83	SPACE ONLY										SPACE ONLY	84	GFCI

NOTES:

GFCI CROCKET BREAKER SHALL BE EQUIPPED WITH HAND LOCK-OR DEVICE (SQUARE D #10LOI OR EQUAL)

GFCI CROCKET BREAKER SHALL HAVE PERMANENTLY-INSTALLED HANDLE PADLOCK ATTACHMENT TO LOCK BREAKER IN OPEN POSITION (SQUARE D #10KMP OR EQUAL)

GFCI CROCKET SHALL BE ROUTED THROUGH TIMELOCK FOR AUTOMATIC CONTROL. SEE LIGHTING CONTROL DETAILS.

NOTES:

SEE SPECIFICATIONS FOR OTHER OPTIONS REQUIRED BUT NOT NECESSARILY NOTED HERE
GFCI CIRCUIT BREAKER SHALL BE GROUND-FAULT CIRCUIT INTERRUPTING (GFCI) TYPE
HLO CIRCUIT BREAKER SHALL BE GROUND-FAULT PROTECTION OF EQUIPMENT (GFPE) TYPE
HPL CIRCUIT BREAKER SHALL BE PERMANENTLY-INSTALLED HANDLE PADLOCK ATTACHMENT TO LOCK BREAKER IN OPEN POSITION (SQUARE D #00PAP OR EQUAL)
TC CIRCUIT SHALL BE ROUTED THROUGH TIMELOCK FOR AUTOMATIC CONTROL. SEE LIGHTING CONTROL DETAILS.

LOAD ANALYSIS FOR PANEL "P1" (INCLUDING SUBFEEDS)									
LOAD DESCRIPTION	DEMAND FACTOR	PHASE A (VA)		PHASE B (VA)		PHASE C (VA)		TOTAL (VA)	
		CONNECT.	DEMAND	CONNECT.	DEMAND	CONNECT.	DEMAND	CONNECT.	DEMAND
LIGHTING	125%	1317	1646	0	0	2953	3692	4270	5337
RECEPTACLE	100%	2300	2300	3320	3320	1620	1620	7240	7240
OTHER CONTINUOUS	125%	3500	4375	4700	5875	2713	3392	10913	13642
OTHER NONCONTINUOUS	100%	2520	2520	700	700	5300	5300	8620	8620
WATER HEATING	100%	1440	1440	0	0	0	0	1440	1440
KITCHEN	65%	10777	7006	12012	7808	12517	8137	35308	22949
MOTOR	100%	1031	1031	1059	1059	612	612	2702	2702
ADD 25% OF LARGEST MOTOR	100%	102	102	102	102	102	102	306	306
TOTAL		22987	20419	21893	18864	25817	25835	70697	62135
EQUIVALENT AMPS		102	171	151	158	216	218	197	173
PHASE BALANCE		-1.41%		-8.82%		10.34%			

ELECTRIC HEATER SCHEDULE

MARK	BTU PER HOUR	WATTS	VOLTAGE	PHASE	AMPS	MANUFACTURER	HEATER	FRAME	THERMOSTAT	DISCONNECT	REMARKS
ECH-1	13,652 BTU/HR	6,000 W	208V	1 PHASE	28.8A	BROMIC	6000 SERIES	N/A	N/A	N/A	1
ECH-1	12,287 BTU/HR	5,600 W	208V	1 PHASE	27.3A	QMARK	EFF4804	N/A	INTEGRAL	INTEGRAL	1

REMARKS:
1. COORDINATE FINAL FINISH AND COLOR WITH ARCHITECT.

PANEL "P2"													
FED FROM: VOLTAGE: 120/208V, 3 PHASE, 4 WIRE BUS MATERIAL: ALUMINUM OR COPPER BUS LOAD: 297 AMPS BUS RATING: 400 AMPS MAIN: MAIN LUG ONLY						MOUNTING: ENCLOSURE: NEMA 1 FAULT CURRENT: 46384 AMPS AC/SCSR RATING: 65 KAIC OPTIONS*: BONDED EQUIPMENT GROUND BAR							
LOAD (VA)						LOAD (VA)							
NOTES	CKT.	LOAD DESCRIPTION	A	B	C	BREAKER	BREAKER	A	B	C	LOAD DESCRIPTION	CKT.	NOTES
HPL	1	HEAT LAMP	1310			15/2	20/1	180			DISPLAY FREEZER	2	GFCI
	3	-----	1310			-----	15/2	1393			TOASTER CONVEYOR	4	GFCI
HPL	5	HEAT LAMP		853		15/2	-----	1393			-----	6	GFCI
	7	-----	853			20/1	2160				SANDWICH/SALAD REF.	8	GFCI
HPL	9	HEAT LAMP		1664		20/2	20/1	1800			WALK-IN CONNECTION	10	GFCI
	11	-----		1664		-----	20/3	1801			FROZEN CUSTARD	12	GFCI
NOTE 1	13	GAS GRIDDLE TOP	480			20/1	-----	1801			-----	14	
NOTE 1	15	REFRIGERATED BASE	2088			20/1	-----	1801			-----	16	
NOTE 1	17	GREASE COLLECTOR		840	20/1	20/3	-----	1801			FROZEN CUSTARD	18	GFCI
NOTE 1	19	FRENCH FRY WARMER	1092			20/1	-----	1801			-----	20	
NOTE 1	21	FRYER BATTERY		816	20/1	-----	-----	1801			-----	22	
NOTE 1	23	REFRIGERATED BASE		1044	20/1	20/1	-----	2028			FOOD TOPPING WARMER	24	GFCI
	25	IC	1560			20/2	20/1	264			WORKTOP FREEZER	26	GFCI
	27	-----	1560			-----	40/2	3001			EQH-1	28	HPL
HPL	29	EQH-1		3001		40/2	40/2	3001			EQH-1	30	HPL
	31	-----	3001			40/2	40/2	3001			EQH-1	32	HPL
HPL	33	EQH-1		3001		40/2	40/2	3001			EQH-1	34	HPL
	35	-----	3001			40/2	40/2	3001			EQH-1	36	HPL
HPL	37	EQH-1		3001		40/2	-----	3001			EQH-1	38	HPL
	39	-----	3001			-----	20/1	360			RTU RECEPT.	40	GFCI
GFCI	41	REHEATMAISER		3089		30/2	20/1	1800			161	42	GFCI
	43	-----	3089			-----	20/3	828			161	44	GFCI
HPL	45	DISHWASHER	4680			45/2	-----	828			-----	46	GFCI
	47	-----	4680			-----	-----	828			-----	48	GFCI
	49	161	828			20/3	25/2	2080			ID	50	GFCI
	51	-----	828			-----	-----	2080			-----	52	GFCI
	53	-----		828		-----	15/1	-----			DRIVE-THRU WINDOW	54	HPL
GFCI	55	FOOD SHELF WARMER	1140			20/1	20/1	1500			HOOD CONTROLS	56	GFCI
GFCI	57	FOOD SHELF WARMER	948			20/1	35/1	1656			EF-1	58	GFCI
GFPE	59	FREEZER HEAT TAPE		1000	20/1	40/2	-----	3328			DRIVE-THRU AIR CURTAIN	60	GFCI
	61	EF-2	1656			35/1	-----	3328			-----	62	
	63	SPARE				20/1	20/1	-----			SPARE	64	
	65	SPARE				20/1	20/1	-----			SPARE	66	
	67	SPARE				20/1	20/1	-----			SPARE	68	
	69	SPARE				20/1	20/1	-----			SPARE	70	
	71	SPARE				20/1	20/1	-----			SPARE	72	
	73	SPARE				20/1	20/1	-----			SPARE	74	
	75	SPARE				20/1	20/2	1800			EQUIP.	76	
	77	SPARE				20/1	-----	1800			-----	78	
	79	WALK-IN CONNECTION	1800			20/1	20/1	-----			SPARE	80	
ST	81	SHUNT TRIP COIL				20/1	20/1	-----			SPARE	82	
	83	SHUNT TRIP COIL				-----	20/1	-----			SPARE	84	
NOTES:													
* GFCI	SEE SPECIFICATIONS FOR OTHER OPTIONS REQUIRED BUT NOT NECESSARILY NOTED HERE												
07FE	CIRCUIT BREAKER SHALL BE GROUND-FAULT CIRCUIT INTERRUPTING (GFCI) TYPE												
07FE	CIRCUIT BREAKER SHALL BE GROUND-FAULT PROTECTION EQUIPMENT (GFPE) TYPE												
07FE	CIRCUIT BREAKER SHALL BE EQUIPPED WITH SHUNT TRIP COIL												
07FE	CIRCUIT BREAKER SHALL HAVE PERMANENTLY-INSTALLED HANDLE PADLOCK ATTACHMENT TO LOCK BREAKER IN OPEN POSITION (SQUARE D #400PAP OR EQUAL)												
NOTE 1	CIRCUIT SHALL BE ROUTED THROUGH CONTACTOR C-3T. CIRCUIT BREAKER SHALL BE GROUND FAULT CIRCUIT INTERRUPTING (GFCI) TYPE												

Bergmeyer

CONSULTANTS:
Schnackel
engineers,
800-581-0963
www.schnackel.com
EST. 1986 - 2020

SEAL SIGNATURE:



5		2021-05-17	FIELD NOTICE #2
4		2021-05-03	FIELD NOTICE #1
3		2021-04-26	ISSUED FOR CONSTRUCTION
2		2021-03-31	ADDENDUM #2
1		2021-03-09	ADDENDUM #1
		2021-01-11	PERMIT/BID SET
		2020-12-21	75% SET
		2020-10-12	DD SET



SHAKE SHACK - LEE'S
SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

LIGHTING SCHEDULES

DRAWN BY: AEH
CHECKED BY: ORS
JOB NO: 20068.00

E620

LIGHTING CONTROL DEVICE SCHEDULE		
MARK	CATALOG NUMBER	QUANTITY
HUB	HJ5-0-FM	1
P2	PJ2-2B-GWH-L01	1
P2RL	PJ2-2BRL-GWH-L01	7
P4	PJ2-4B-GWH-EL2	1
DL	LRF2-DCRB-WH	1
OS	LRF2-OCRB-P-WH	5
GENERAL NOTES: A. SEE LUTRON ONE-LINE DIAGRAMS SHEETS E621, E622, E623 FOR ADDITIONAL INFORMATION.		

LOAD CONTROLLER SCHEDULE		
MARK	CATALOG NUMBER	QUANTITY
6D	MRF2S-6ND-120-GR	7
6D ELV	MRF2S-6ELV-120-GR	2
16S	RMJS-16R-DV-B	11
20S	RMJS-20R-DV-B	2
8TN	RMJS-8TN-DV-B	3
GENERAL NOTES: A. SEE LUTRON ONE-LINE DIAGRAMS SHEETS E621, E622, E623 FOR ADDITIONAL INFORMATION.		

3

LUMINAIRE SCHEDULE										
MARK	MANUFACTURER	CATALOG NUMBER	VOLTAGE	WATTS	MOUNTING	LAMP QUANTITY	LAMP DESCRIPTION	LAMP TYPE	SELECTED BY OTHERS?	REMARKS
A1	TOPAZ	F-L24-50-835-D-HE2	120	50	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	
A1-EM	TOPAZ	F-L24-50-835-D-HE2	120	50	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	PROVIDE WITH NICOR EMB80 EM DRIVER
A2	TOPAZ	F-L22-30-835-D-HE2	120	30	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	
A2-EM	TOPAZ	F-L22-30-835-D-HE2	120	30	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	PROVIDE WITH NICOR EMB80 EM DRIVER
B1	BEST LIGHTING	LEDUC-E24-3K CORDPLUG-WHT-6C3P	120	10	UNDERCABINET	-	INTEGRAL LED	LED	YES	
C	CONTECH LIGHTING	HEAD: CTL603-P TRACK: LT-LENGTH-P	120	12	TRACK	1	TCP #LED12P30D27KNFL	LED	YES	PROVIDE LA-23-RN-P CURRENT LIMITING DEVICE PER PLANS. 1A=REG1, 2A=REG21, 3A=REG4, 4A=REG5 LENGTH = SEE PLAN FOR REQUIRED LENGTHS
ELF	AXIS LIGHTING	WBRLD-900-80-27-S-4-W-UNV-DP-1-D	120	40	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	
P5	TUDO AND CO	GLASS BUBBLE LAMP SHADE PENDANT	120	9	CEILING, SUSPENDED	1	LED E27 BASE LEDLIGHT #65844 OR SIMILAR	LED	YES	
R1	JUNO	IC22LED-G4-14LM-27K-90CRI-120-FRPC 24 WWH	120	20	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	
R2	JUNO	IC4AL-07LM-27K-90CRI-FL-120-FRPC 42 PTSC	120	11	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	
R4	JUNO	MG1LG2-27K-NFL-SN	12	5	CEILING, RECESSED	-	INTEGRAL LED	LED	YES	
XL	DIODE LED	DI-12V-0160 BLAZE	12	3W/FT	CEILING, SURFACE	-	INTEGRAL LED	LED	YES	
L	DIODE LED	DI-12V-FV30-80SP	12	1.5W/FT	CEILING, SURFACE	-	INTEGRAL LED	LED	YES	
G1	LITHONIA	ZLD-L48-3000LM-FST-MVOLT-4000K-80CRI-WH	120	30	CEILING, SURFACE	-	INTEGRAL LED	LED	YES	
ETW	BEST LIGHTING	R-16-LED	120	5	CEILING, SURFACE	2	3W LED LAMPS	LED	YES	
E3W	BEST LIGHTING	R-16HO-LED	120	15	CEILING, SURFACE	2	3W LED LAMPS	LED	YES	
E4	BEST LIGHTING	RHLED-2-WP-MV-B	6	2	CEILING, SURFACE	2	3W LED LAMPS	LED	YES	
EX1	BEST LIGHTING	ELXTEU-1-R-C-A-EM	120	4	CEILING, SUSPENDED	-	INTEGRAL LED	LED	YES	
EX2	BEST LIGHTING	EZXTEU-2-R-W-W-EM-SDT	120	4	WALL, SURFACE	-	INTEGRAL LED	LED	YES	
XC4	MINKA AIRE	F753-KA	120	47	CEILING, SURFACE	-	NO LAMPING	-	YES	
X3WA-EM	LUMARK	XTOR9A-N-CBP	120	79	WALL, RECESSED	-	INTEGRAL LED	LED	YES	

LAMP TYPE CODES: FL=LINEAR FLUORESCENT, CFL=COMPACT FLUORESCENT, IND=INCANDESCENT, MH=METAL HALIDE, HPS=HIGH PRESSURE SODIUM, LED=LIGHT EMITTING DIODE

LUMINAIRE SCHEDULE GENERAL NOTES:

- A. LUMINAIRE SYMBOLS THAT ARE SHOWN HALF-SHADED, OR LABELED "EM", ON THE PLAN(S) INDICATE LUMINAIRES THAT SERVE AS EMERGENCY LIGHTING. UNLESS SERVED BY A CIRCUIT ORIGINATING AT AN EMERGENCY PANELBOARD OR CENTRAL LIGHTING INVERTER, EMERGENCY LIGHTING LUMINAIRES SHALL BE PROVIDED WITH AN EMERGENCY BATTERY TO PROVIDE EMERGENCY ILLUMINATION FOR A MINIMUM OF 90 MINUTES.
- B. INTEGRAL EMERGENCY BATTERIES SHALL MEET THE FOLLOWING MINIMUM PERFORMANCE REQUIREMENTS UNLESS OTHERWISE INDICATED:
- LINEAR FLUORESCENT LUMINAIRES: 1400 LUMENS, MINIMUM, PER LUMINAIRE.
 - COMPACT FLUORESCENT LUMINAIRES: 1100 LUMENS, MINIMUM, PER LUMINAIRE.
 - INTEGRATED LED LUMINAIRES RATED 1000 LUMENS OR LESS: 10 WATT, MINIMUM, OUTPUT.
 - INTEGRATED LED LUMINAIRES RATED GREATER THAN 1000 LUMENS: 20 WATT, MINIMUM, OUTPUT.
- C. ANY PROPOSED SUBSTITUTIONS FOR LUMINAIRES THAT ARE SELECTED BY OTHERS REQUIRE THE APPROVAL OF THE SPECIFYING ENTITY.
- D. PROVIDE LIGHT EMITTING DIODES (LEDs) BINNED WITHIN A MAXIMUM THREE-STEP MACADAM ELLIPSE TO ENSURE COLOR CONSISTENCY AMONGST LUMINAIRES OF THE SAME TYPE AND LEDS THAT MEET UL STANDARD 8750 "LIGHT EMITTING DIODE EQUIPMENT FOR USE IN LIGHTING PRODUCTS," IES STANDARD LM-79 "ELECTRICAL AND PHOTOMETRIC MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS," IES STANDARD LM-80 "MEASURING LUMEN MAINTENANCE OF LED LIGHT SOURCES," IES STANDARD TM-21 "PROJECTING LONG TERM LUMEN MAINTENANCE OF LED LIGHT SOURCES," AND ANSI C78.377 "SPECIFICATIONS FOR THE CHROMATICITY OF SOLID STATE LIGHTING PRODUCTS." LED LUMINAIRES SHALL BE MODULAR AND ALLOW FOR SEPARATE REPLACEMENT OF LED LAMPS AND DRIVERS. USER SERVICEABLE LED LAMPS AND DRIVERS SHALL BE REPLACEABLE FROM THE ROOM SIDE. LED DRIVERS SHALL BE ELECTRONIC-TYPE, LABELED AS COMPLIANT WITH RADIO FREQUENCY INTERFERENCE (RFI) REQUIREMENTS OF FCC TITLE 47 PART 15, AND COMPLY WITH NEMA SS-1 "ELECTRONIC DRIVERS FOR LED DEVICES, ARRAYS, OR SYSTEMS." LED DRIVERS SHALL HAVE A SOUND RATING OF "A," HAVE A MINIMUM EFFICIENCY OF 85 PERCENT, AND SHALL HAVE A TOTAL HARMONIC DISTORTION (THD) OF LESS THAN 20 PERCENT AT ALL INPUT VOLTAGES.

		Store Name: Shake Shack Store #: Lutron Project #:				Control Intent & Schedules1										Include on "Front of House" Keypad	Include on "Signage" Keypad	Include on "Back of House" Keypad	Local Manual Control Keypad	System Webpage Control		Occupancy / Vacancy		Daylight Harvesting2		Sunrise	6:00am	10:05 AM	Sunset	10:00 PM	12:00 AM		Spare Event	Spare Event	Spare Event																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Customer Circuit #	Feed Circuit #	Lutron Circuit # (Lutron Use)	Zone Location	Fixture Type	Specified Zone Name	Zone Type	Dim/Non-Dim2	Load Type	Load Controller (Lutron Use)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Project Notes:

- 1) Where schedule deviates from Shake Shack standard, state why in notes.
2) Where required/allowed by local energy code.
3) Disable Occupancy ("DO") Sensor at 6:00am and turn ON lights. Enable Occupancy ("EO") Sensor at close + 60minutes.
4) "-" means Unaffected or Not Applicable.

Form Notes:

- 1) "Hidden" unused rows.
2) "?" implies Zone Type cell for given zone does not match a valid Zone Type from approved list or is waiting to be filled in.

Store Hours	CONTROLS	LOCKS
Open	11:00 AM	0:15
Close	10:00 PM	1:00

3

NO.	BY	DATE	DESCRIPTION
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1. *Journal of the American Medical Association*, 2000; 283: 2689-2693.

1. *Journal of the American Medical Association*, 2000; 283: 2689-2693.

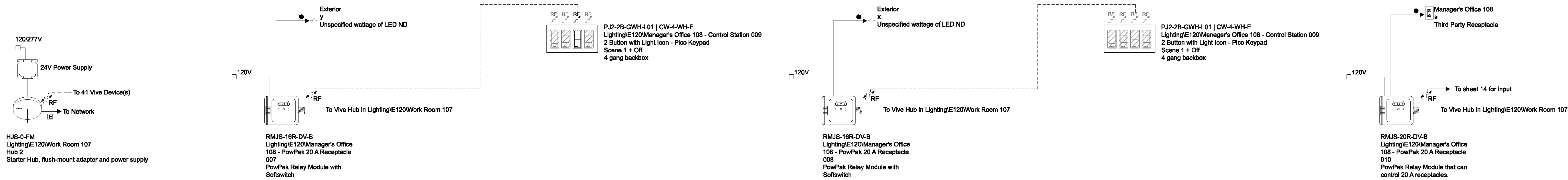
1. *Journal of the American Medical Association*, 2000; 283: 2689-2693.

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LUTRON SERVICES		
QTY	SERVICE TITLE (MODEL NUMBER)	SERVICE DESCRIPTION
THE QUANTITY OF SERVICES BELOW ARE TO BE INCLUDED AS PART OF THIS PROJECT'S SCOPE OF WORK AND SPECIFIED INTO THE WRITTEN SPEC DOCUMENTS		
PRE-STARTUP SERVICES		
	ONSITE PRE-WIRE VISIT (LSC-PREWIRE)	AN ONSITE VISIT WITH THE ELECTRICAL CONTRACTOR TO DISCUSS LOGISTICAL CONSTRUCTION CONSIDERATIONS INCLUDING THE WIRING AND MOUNTING OF SYSTEM DEVICES, THE CONSTRUCTION SCHEDULE, AND LUTRON DOCUMENTATION. QUANTITY DICTATES THE NUMBER OF VISITS PURCHASED.
	SYSTEM & NETWORK INTEGRATION CONSULTATION (LSC-INT-VISIT)	A CONSULTATIVE VISIT WITH THIRD PARTY INTEGRATORS TO CONFIRM THE SPECIFIED SEQUENCE OF OPERATION AND DISCUSS INTEGRATION PROCEDURES NEEDED IN ORDER TO INTEGRATE WITH THE LUTRON EQUIPMENT. THIS MAY INCLUDE ANY OF THE FOLLOWING THIRD PARTY SYSTEMS: BMS, BAS, IT, NON-LUTRON SHADES, BACNET, AV, OR ENERGY DASHBOARDS.
STARTUP SUPPORT SERVICES		
(THESE SERVICES ARE ADDITIONAL TO YOUR SPECIFIED STARTUP BASED ON YOUR REQUIREMENTS)		
	ONSITE SYSTEM PROGRAMMING (8-HOUR) (LSC-OS-PROG8-SP)	UP TO 8 CONTIGUOUS HOURS OF SYSTEM PROGRAMMING DELIVERED BY A LUTRON SERVICES REPRESENTATIVE. THE SYSTEM WILL BE PROGRAMMED PER AN APPROVED SEQUENCE OF OPERATION. QUANTITY DICTATES THE NUMBER OF 8-HOUR BLOCKS PURCHASED.
	ONSITE SYSTEM PROGRAMMING (4-HOUR) (LSC-OS-PROG4-SP)	UP TO 4 CONTIGUOUS HOURS OF SYSTEM PROGRAMMING DELIVERED BY A LUTRON SERVICES REPRESENTATIVE. THE SYSTEM WILL BE PROGRAMMED PER AN APPROVED SEQUENCE OF OPERATION. QUANTITY DICTATES THE NUMBER OF 4-HOUR BLOCKS PURCHASED.
	REMOTE SYSTEM PROGRAMMING (4-HOUR) (LSC-RMT-PROG4-SP)	UP TO 4 CONTIGUOUS HOURS OF SYSTEM PROGRAMMING DELIVERED BY A DEDICATED FACTORY CERTIFIED REMOTE TECHNICIAN EITHER VIA A REMOTE NETWORK CONNECTION OR WITH THE ASSISTANCE OF AN ELECTRICAL CONTRACTOR OVER THE PHONE. THE SYSTEM WILL BE PROGRAMMED PER AN APPROVED SEQUENCE OF OPERATION. QUANTITY DICTATES THE NUMBER OF 4-HOUR BLOCKS PURCHASED.
	ONSITE SCENE & LEVEL TUNING (LSC-AF-VISIT)	AN ONSITE VISIT WITH THE SPECIFIER OR CUSTOMER REPRESENTATIVE TO REVIEW THE DESIGN INTENT, FINE-TUNE THE SCENE LEVEL PROGRAMMING, AND MAKE ADJUSTMENTS TO TIMELOCKS.
	ONSITE PERFORMANCE-VERIFICATION WALKTHROUGH (LSC-WALK)	AN ONSITE WALKTHROUGH WITH FACILITY REPRESENTATIVES OR PROJECT COMMISSIONING AGENTS TO DEMONSTRATE THAT THE SYSTEM FUNCTIONALITY MEETS THE DESIGN INTENT. THIS MAY INCLUDE ANY OF THE FOLLOWING ONSITE ACTIVITIES -- CONSULTATION/TRAINING DEMOS, FUNCTIONAL TESTING ASSISTANCE, OR INVENTORY OF LUTRON EQUIPMENT.
POST-STARTUP SERVICES		
	CUSTOMER-SITE SOLUTION TRAINING (LSC-TRAINING-SP)	A VISIT TO TEACH SYSTEM USERS HOW TO OPERATE AND MAINTAIN THE LIGHTING CONTROL SYSTEM.
	SYSTEM OPTIMIZATION (LSC-SYSOPT-SP)	AN ONSITE CONSULTATIVE VISIT TO IDENTIFY AND IMPLEMENT LIGHTING CONTROL ADJUSTMENTS TO SAVE ADDITIONAL ENERGY AND CREATE A MORE PRODUCTIVE WORK ENVIRONMENT.
MAINTENANCE & SUPPORT SERVICES		
	SOFTWARE MAINTENANCE AGREEMENT (LSC-SMA-SP)	PROVIDES COMPATIBILITY TESTING RESULTS OF QUANTUM WITH OPERATING SYSTEM PATCHES AND WEB BROWSER UPDATES. INCLUDES AN ELECTIVE FREE SOFTWARE UPGRADE LICENSE.
	COMMERCIAL SYSTEMS 2-YEAR LIMITED WARRANTY (LSC-B2)	A 2-YEAR SYSTEM WARRANTY PROVIDING 100% REPLACEMENT PARTS AND 100% LUTRON DIAGNOSTIC LABOR COVERAGE WITH A FIRST-AVAILABLE RESPONSE TIME.
	ENHANCED SILVER (LSC-EBS)	YEARS 1-2 - 100% REPLACEMENT PARTS AND 100% LUTRON DIAGNOSTIC LABOR COVERAGE WITH A FIRST-AVAILABLE RESPONSE TIME; YEARS 3-5 - 50% PARTS ONLY COVERAGE; YEARS 6-8 - 25% PARTS ONLY COVERAGE.
	ENHANCED GOLD (LSC-EBG)	YEARS 1-2 - 100% REPLACEMENT PARTS AND 100% LUTRON DIAGNOSTIC LABOR COVERAGE WITH A 72-HOUR RESPONSE TIME AND AN ANNUAL (1-DAY) SCHEDULED PREVENTIVE MAINTENANCE VISIT; YEARS 3-5 - 50% PARTS ONLY COVERAGE; YEARS 6-8 - 25% PARTS ONLY COVERAGE.
	ENHANCED PLATINUM (LSC-EBP)	YEARS 1-2 - 100% REPLACEMENT PARTS AND 100% LUTRON DIAGNOSTIC LABOR COVERAGE WITH A 24-HOUR RESPONSE TIME AND AN ANNUAL (1-DAY) SCHEDULED PREVENTIVE MAINTENANCE VISIT; YEARS 3-5 - 50% PARTS ONLY COVERAGE; YEARS 6-8 - 25% PARTS ONLY COVERAGE.
	SILVER TECHNOLOGY SUPPORT PLAN (LSC-SILV-W)	AN ANNUAL SERVICE PLAN THAT COVERS 100% REPLACEMENT PARTS AND 100% LUTRON DIAGNOSTIC LABOR WITH A FIRST-AVAILABLE ONSITE OR REMOTE RESPONSE TIME.
	GOLD TECHNOLOGY SUPPORT PLAN (LSC-GOLD-W)	AN ANNUAL SERVICE PLAN THAT COVERS 100% REPLACEMENT PARTS AND 100% LUTRON LABOR WITH A 72-HOUR ONSITE OR REMOTE RESPONSE TIME. ALSO INCLUDES AN ANNUAL (1-DAY) SCHEDULED PREVENTIVE MAINTENANCE VISIT EACH YEAR.
	PLATINUM TECHNOLOGY SUPPORT PLAN (LSC-PLAT-W)	AN ANNUAL SERVICE PLAN THAT COVERS 100% REPLACEMENT PARTS AND 100% LUTRON DIAGNOSTIC LABOR WITH A 24-HOUR ONSITE OR REMOTE RESPONSE TIME. ALSO INCLUDES AN ANNUAL (1-DAY) SCHEDULED PREVENTIVE MAINTENANCE VISIT EACH YEAR.
	PREVENTIVE MAINTENANCE VISIT(S) (LSC-SCH-MAINT)	SCHEDULED MAINTENANCE VISIT TO PERFORM PREVENTIVE MAINTENANCE, MINOR PROGRAMMING, AND CONDUCT SYSTEM TRAININGS. QUANTITY IS IN ADDITION TO ANY YEARLY VISITS SPECIFIED WITH AN ENHANCED WARRANTY OR TECHNOLOGY SUPPORT PLAN.
PLEASE GO TO WWW.LUTRON.COM/SERVICES FOR FURTHER INFORMATION.		



GENERATED BY: LUTRON DESIGNER VERSION 13.2.

- ② **QS CONTROL LINK (CONNECT WIRES 1, 2, 3 AND 4. DO NOT CONNECT WIRE #2)**
- ③ **QS CONTROL LINK (CONNECT WIRES 1, 3, 4 AND 4. DO NOT CONNECT WIRE #2)**
- ④ **PANEL CONTROL LINK (CONNECT WIRES 1, 2, 3 AND 4. DO NOT CONNECT WIRE #5)**
- ⑤ **PANEL CONTROL LINK (CONNECT WIRES 1, 3, 4 AND 5. DO NOT CONNECT WIRE #2)**
- ⑥ **QS SVOIGA SHADE CONTROL LINK**
 - ▲ BELDEN CABLE 1387(AJOR EQUIVALENT)
 - ☐ NORMAL INPUT POWER 2 #12 AWG (4 SQ MM) + GROUND
 - ☒ NORMAL-EMERGENCY INPUT POWER 2 #12 AWG (4 SQ MM) + GROUND
- ⑦ **3 PHASE 4 WIRE INPUT POWER, 4 #12 AWG (4 SQ MM) + GROUND**
 - #12 AWG (4 SQ MM) + GROUND
 - #12 AWG (4 SQ MM) + GROUND
 - 0-10 V SIGNAL: 2#18AWG (1.0 SQ MM)
 - ▲ 2#18 AWG (1.0 SQ MM)
 - 3#18 AWG (1.0 SQ MM)
 - ECOSYSTEM BUSLOOP*
- ⑧ **DAI LINK**
 - T-SERIES TUNABLE-WHITE LINK
- ⑨ **LUTRON SENSOR CABLE C-BL-5225 OR USE 4#22 AWG (1.0 SQ MM)**
- ⑩ **LUTRON SENSOR CABLE C-BL-5225 OR USE 3#22 AWG (1.0 SQ MM)**
- ⑪ **DMX CABLE. USE LUTRON GRX-DIM-250/GRX-CBL-DMX-600 OR BELDEN 89728 (NON-PLENUM) OR BELDEN 89978 (PLENUM) OR CAT5E BULK 22/24 W GA CABLE**
- ⑫ **ETHERNET CABLE. DUTR OR BETTER CABLE FOR LUTRON NETWORK TERMINATED WITH RJ45 CONNECTORS (NOT PROVIDED BY LUTRON). 328 FT (100 M) MAXIMUM RUN.**
- ⑬ **ETHERNET CABLE FOR LUTRON NETWORK TERMINATED WITH APPROPRIATE FIBER OPTIC CONNECTORS (NOT PROVIDED BY LUTRON). REQUIRES DEDICATED FIBER OPTIC LINK (SINGLE-MODE OR MULTI-MODE)**
 - RF CONNECTION
 - WIRE CONNECTION

*PLEASE REFER TO NOTES ON WIRING FOR
MORE WIRING GUIDELINES.
**REFER TO LOAD SCHEDULE FOR FEED
AND LOAD INFORMATION

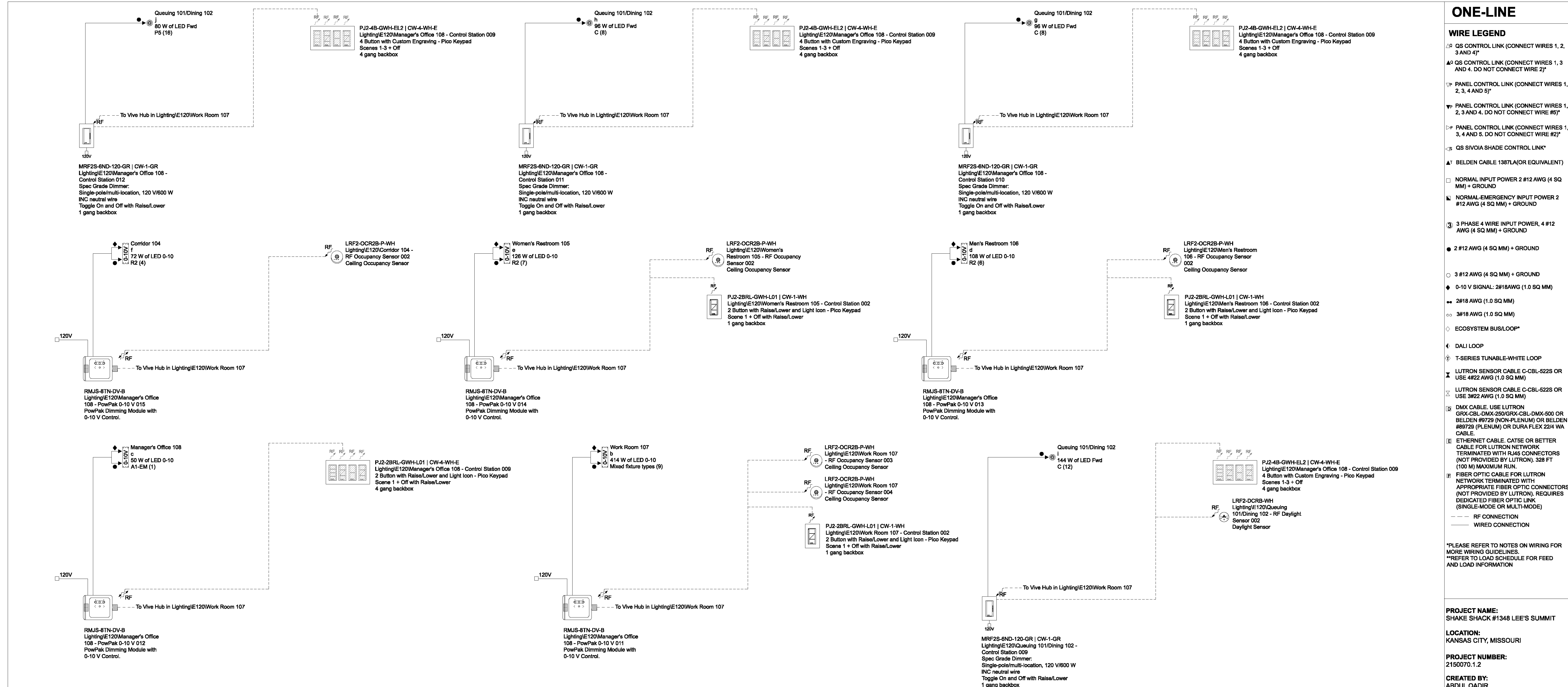
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CREATED BY:



NO.	BY	DATE	DESCRIPTION
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ONE-LINE

WIRE LEGEND

- QS CONTROL LINK (CONNECT WIRES 1, 2, 3 AND 4)*
- PANEL CONTROL LINK (CONNECT WIRES 1, 2, 3, 4 AND 5)*
- PANEL CONTROL LINK (CONNECT WIRES 1, 2, 3 AND 4. DO NOT CONNECT WIRE #5)*
- PANEL CONTROL LINK (CONNECT WIRES 1, 3, 4 AND 5. DO NOT CONNECT WIRE #2)*
- QS SIVOA SHADE CONTROL LINK*
- BELDEN CABLE 1387LA (OR EQUIVALENT)
- NORMAL INPUT POWER 2 #12 AWG (4 SQ MM) + GROUND
- NORMAL-EMERGENCY INPUT POWER 2 #12 AWG (4 SQ MM) + GROUND
- 3 PHASE 4 WIRE INPUT POWER, 4 #12 AWG (4 SQ MM) + GROUND
- 2 #12 AWG (4 SQ MM) + GROUND
- 3 #12 AWG (4 SQ MM) + GROUND
- 0-10 V SIGNAL: 2#18AWG (1.0 SQ MM)
- 2#18 AWG (1.0 SQ MM)
- 3#18 AWG (1.0 SQ MM)
- ECOSYSTEM BUS LOOP*
- DALI LOOP
- T-SERIES TUNABLE-WHITE LOOP
- LUTRON SENSOR CABLE C-CBL-6228 OR USE 4#22 AWG (1.0 SQ MM)
- LUTRON SENSOR CABLE C-CBL-6228 OR USE 3#22 AWG (1.0 SQ MM)
- DMX CABLE: USE LUTRON GRX-CBL-DMX-250/GRX-CBL-DMX-500 OR BELDEN #1728 (NON-PLENUM) OR BELDEN 488728 (PLENUM) OR DURA FLEX 2204 WA CABLE
- ETHERNET CABLE: CAT5E OR BETTER CABLE FOR LUTRON NETWORK TERMINATED WITH RJ45 CONNECTORS (NOT PROVIDED BY LUTRON). 328 FT (100 M) MAXIMUM RUN.
- FIBER OPTIC CABLE FOR LUTRON NETWORK TERMINATED WITH APPROPRIATE FIBER OPTIC CONNECTORS (NOT PROVIDED BY LUTRON). REQUIRES DEDICATED FIBER OPTIC LINK (SINGLE-MODE OR MULTI-MODE)
- RF CONNECTION
- WIRED CONNECTION

*PLEASE REFER TO NOTES ON WIRING FOR MORE WIRING GUIDELINES.
*REFER TO LOAD SCHEDULE FOR FEED AND LOAD INFORMATION

PROJECT NAME:
SHAKE SHACK #1348 LEE'S SUMMIT

LOCATION:
KANSAAS CITY, MISSOURI

PROJECT NUMBER:
2150070.1.2

CREATED BY:
ABDUL QADIR

FILE NAME:
SHAKE SHACK 1348 LEE'S SUMMIT, MO_2

DOCUMENT REVISION:
1

MARCH 17, 2021 | Sheet 15

FOR DETAILED DEFINITION OF PRODUCT CAPABILITIES REFER TO PRODUCT SPECIFICATION SUBMITTAL SHEETS.

LUTRON.
7200 SUTER ROAD
COOPERSBURG, PA 18036, USA
+1.610.282.3800 | FAX: +1.610.282.1148

5	2021-05-17	FIELD NOTICE #2
4	2021-05-03	FIELD NOTICE #1
3	2021-04-26	ISSUED FOR CONSTRUCTION
2	2021-03-31	ADDENDUM #2
1	2021-03-09	ADDENDUM #1
	2021-01-11	PERMIT/BID SET
	2020-12-21	75% SET
	2020-10-12	DD SET

NO.	BY	DATE	DESCRIPTION
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SHAKE SHACK

SHAKE SHACK - LEE'S SUMMIT MO

LEE'S SUMMIT
MISSOURI
SHACK #1348

PERMIT/BID SET

LUTRON VIVE ONE-LINE

DRAWN BY: JMS

CHECKED BY: QRS

JOB NO: 20068.00