PROJECT COORD. NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INSPECTIONS AND APPROVALS REQUIRED DURING THE COURSE OF THE WORK.
2. ALL CONTRACTORS FOR THIS WORK ARE REQUIRED TO HAVE INSURANCE OF THE TYPES AND LIMITS SPECIFIED BY THE LANDLORD AND BRAND PARTNER.
3. IF REQUIRED BY LEASE AGREEMENT: THE GENERAL CONTRACTOR SHALL PROVIDE SCHEDULING AND/OR COORDINATION WITH THE LANDLORD'S FIELD REPRESENTATIVE FOR THE FOLLOWING INSTALLATIONS OR PROCEDURES:
   A. INSTALLATIONS OF CONDUIT AND PIPING IN OR BELOW THE FLOOR SLAB.
   B. CONNECTIONS TO DOMESTIC WATER, SANITARY AND GREASE WASTE, SANITARY VENT, AND SMOKE/FIRE ALARMS.
   C. INSTALLATION OF PRIMARY DUCTWORK, VAV BOX AND CONTROLS.
   D. PROGRAMMING OF THE VAV BOX CONTROL AND SENSORS.
   E. ANY WORK REQUIRED AT THE LANDLORD'S SWITCHGEAR.
   F. HARDWARE AND SOFTWARE MODIFICATIONS TO COMPLETE THE INTERFACE WITH LANDLORD'S BASE BUILDING LIFE SAFETY SYSTEM.
   G. UPON SUBSTANTIAL COMPLETION OF BRAND PARTNER'S WORK IN THE PREMISES, BRAND PARTNER AND HIS CONTRACTOR MUST SCHEDULE WITH THE LANDLORD'S FIELD REPRESENTATIVE TO CONDUCT A FINAL INSPECTION AND PREPARE A PUNCHLIST WHICH ENUMERATES ANY AREAS OF CONSTRUCTIONS, FIXTURING, LIGHTING OR LAMPING, MERCHANDISING, ETC., THAT ARE NOT IN ACCORDANCE WITH THE LANDLORD-APPROVED PLANS OR LEASE. THE STOREFRONT BARRICADE MAY NOT BE REMOVED UNTIL THIS INSPECTION AND ANY CORRECTIONS HAVE BEEN COMPLETED.
   H. LANDLORD'S CONDITIONS IN THE SHOPPING CENTER TENANT DESIGN GUIDE HANDBOOK SHALL BE PART OF ANY CONTRACT AND/OR AGREEMENT ENTERED INTO BY THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE ABOVE NOTED LANDLORD CONTACT PRIOR TO ANY CONSTRUCTION.
   I. PROVIDE PROPERTY MANAGER REQUIRED PROOF OF BUILDER RISK INSURANCE AND DAMAGE DEPOSIT PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION PROCEDURES.
4. CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES, OR OMISSIONS HE MAY DISCOVER PRIOR TO COMMENCING WORK.
5. DIMENSIONS TAKE PRECEDENCE OVER DRAWINGS - DO NOT SCALE.
6. ALL DIMENSIONS ARE FROM FACE OF SHEATHING UNLESS NOTED OTHERWISE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPERVISING AND DIRECTING THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE BRAND PARTNER RESERVES THE RIGHT TO ALLOW ASSIGNED VENDORS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATING THE WORK OF ALL SUBCONTRACTORS, INCLUDING THE VENDORS ASSIGNED BY THE BRAND PARTNER, WITH THE BRAND PARTNER. UPON REQUEST THE CONTRACTOR SHALL PROVIDE NECESSARY FIELD DIMENSIONS AND INFORMATION TO ALL THE BRAND PARTNER ASSIGNED VENDORS AND/OR FABRICATORS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION, SCHEDULING, AND SUPERVISION OF ALL BRAND PARTNER SUPPLIED AND INSTALLED ITEMS.
8. GENERAL CONTRACTOR TO COORDINATE LOCATION OF TRASH DUMPSTER WITH PROPERTY MANAGER.
9. SAW CUTS: WHENEVER POSSIBLE ALL SAW CUTS SHALL BE LOCATED INSIDE THE PROPOSED COOKING AND SERVICE AREAS SCHEDULED FOR FLOOR TILE AND SHALL NOT OCCUR IN PROPOSED SEATING AREAS OR PASSAGEWAYS.
10. PARTIAL PLANS: THE CONSTRUCTION DOCUMENTS AS DEFINED BY THE DRAWING INDEX ARE ALL NECESSARY TO DEFINE THE TOTAL PROJECT. PARTIAL PLANS SHOULD NOT BE ISSUED BY THE BRAND PARTNER OR THE GENERAL CONTRACTOR FOR BIDDING OR CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE WOOD BLOCKING AS REQUIRED FOR MOUNTING TABLES, SHELVING, CABINETS, AND ANY OTHER EQUIPMENT NOT SPECIFICALLY MENTIONED. ALL WOOD SHALL BE NON-COMBUSABLE AS PER LOCAL AUTHORITY HAVING JURISDICTION.
12. EXISTING UTILITY SERVICES SHOWN TO REMAIN, REROUTE AS REQUIRED TO CONCEAL THE SERVICE IN WALLS AND ABOVE CEILING.
13. TEMPORARY ENCLOSURES SHALL BE PROVIDED BY THE CONTRACTOR OVER AND/OR AROUND ANY EXTERIOR OPENINGS AS NECESSARY FOR THE PROPER INSTALLATION OF ANY PORTION OF WORK IN CONJUNCTION WITH THE LANDLORD'S STANDARD GUIDELINES.
14. GENERAL CONTRACTOR SHALL FURNISH AND INSTALL REQUIRED ROOF OPENING FRAMING FOR SCHEDULED HVAC AND EXHAUST UNITS. FOR STRUCTURAL SUPPORT OF EQUIPMENT AND SUPPORT OF ROOF OPENINGS, REFER TO STRUCTURAL DRAWINGS.
15. GENERAL CONTRACTOR SHALL FURNISH AND INSTALL REQUIRED ROOF DOCUMENTATION FOR THE MODIFICATION OF EXISTING ROOF AS APPLICABLE PER THE BRAND PARTNER'S LEASE. THE LANDLORD SHALL BE CONTACTED TO OBTAIN ALL REQUIREMENTS FOR LISTED SUBCONTRACTORS WITH WARRANTY WORK FOR THE SPECIFIED ROOFING SYSTEM.
16. ALL lx WOOD TRIM AS NOTED SHALL BE OF A CLEAR, MODIFY STAIN GRADE PINE.
17. CONTRACTOR SHALL CONTACT THE LANDLORD DURING THE BIDDING PHASE OF THE PROJECT FOR ANY REQUIREMENTS FOR THE FIRE ALARM SYSTEMS. THESE SYSTEMS, IF REQUIRED, SHALL BE INCLUDED IN THE BID & CONSTRUCTION FOR THIS PROJECT.
18. CONTRACT FORM:
   A. THE CONTRACT FORM SHALL BE A "STANDARD" FORM OF AGREEMENT BETWEEN CONTRACTOR AND BRAND PARTNER OF THE CONSTRUCTION BUILDING'S A.I.A. DOCUMENT FORM A-101 CURRENT EDITION.
   B. GENERAL CONDITIONS OF THE CONTRACT: A.I.A. DOCUMENT A-201, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, 1997 EDITION, IS HEREBY MADE A REQUIREMENT OF THE CONTRACT DOCUMENTS. A COPY IS ON FILE WITH THE ARCHITECT FOR THE CONTRACTOR TO REVIEW.
20. SUBSTITUTIONS:
   A. NO MATERIAL SUBSTITUTIONS SHALL BE PERMITTED AFTER THE CONTRACTOR HAS BEEN AWARDED JOB, SUBSTITUTIONS SHALL BE EQUAL OR BETTER IN THE OPINION OF THE BRAND PARTNER PRIOR TO AWARD.
   B. SPECIFIED PRODUCTS HAVE BEEN USED IN PREPARING THESE DOCUMENTS TO ESTABLISH MINIMUM QUALITIES WHICH SUBSTITUTIONS MUST MEET TO BE CONSIDERED ACCEPTABLE. THE BURDEN OF PROOF OF EQUALITY RESTS WITH THE CONTRACTOR. ADEQUATE SUPPORTING INFORMATION MUST ACCOMPANY ALL SUBSTITUTION SUBMITTALS, WHICH MUST BE SUBMITTED TO THE PROJECT COORDINATOR FOR APPROVAL.
21. MECHANICAL, ELECTRICAL AND PLUMBING:THE GENERAL CONTRACTOR SHALL FIELD VERIFY THE EXISTING UTILITIES FOR COORDINATION WITH THE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID TO REUSE EXISTING AIR HANDLERS AND COMPRESSORS OR ROOF-TOP PACKAGE UNITS. THE TOTAL HAVC LOAD SHALL MATCH THE SPECIFIED TOTAL LOAD ON THE MECHANICAL DRAWINGS. THE CONTRACTOR SHALL CONTACT THE MECHANICAL ENGINEER WITH THE EXISTING LOAD INFORMATION FOR APPROVAL.
22. WINGSTOP STANDARDS: THE WINGSTOP STANDARD DESIGN, INCLUDING BUT NOT LIMITED TO: LIGHTING, SEATING, PAINT SELECTION, KITCHEN EQUIPMENT, FLOORING, WALL FINISHES, COUNTER HEIGHTS, SIGNAGE, AND ALL OTHER ELEMENTS AS NOTED AND INCLUDED IN THESE CONTRACT DOCUMENTS ARE AS PER THE WINGSTOP RESTAURANT;S, INC. FRANCHISE AGREEMENT. ANY REVISIONS TO THESE DOCUMENTS OR FIELD CHANGES TO THIS DESIGN SHALL ONLY OCCUR UPON WRITTEN APPROVALS OF WINGSTOP RESTAURANTS, INC.
23. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE EXTERIOR GREASE INTERCEPTOR IN A MANNER THAT DOES NOT INTERFERE WITH ANY EXISTING SETBACKS, EASEMENTS, UNDERGROUND UTILITIES, OR OTHER SITE FEATURES.
24. THE HOOD AND WALK-IN COOLER/FREEZER SUPPLIER SHALL SUBMIT SHOP DRAWINGS TO WINGSTOP RESTAURANTS, INC. FOR REVIEW PRIOR TO FABRICATION.
25. THE GENERAL CONTRACTOR SHALL VERFIY FIELD CONDITIONS FOR THE HOOD EXHAUST DUCT AND WALK-IN COOLER/FREEZER AND COORDINATE WITH THE KITCHEN EQUIPMENT SUPPLIER PRIOR TO FABRICATION NO INSTALLATION.

FIRE DEPARTMENT

1. ALL LIFE-SAFETY SYSTEMS SHALL BE DESIGNED PER APPLICABLE FIRE PREVENTION CODE.
2. FIRE EXTINGUISHER REQUIREMENTS SHALL BE AS DETERMINED BY FIELD INSPECTION AND NFPA 10. THE CONTRACTOR SHALL SUPPLY ALL FIRE EXTINGUISHERS.
3. BUILDING ADDRESS NUMBERS SHALL BE PROVIDED ON THE FRONT OF THE BUILDING AND SHALL BE VISIBLE AND LEGIBLE FROM THE PUBLIC RIGHT-OF-WAY, SAID NUMBERS SHALL CONTRAST VISUALLY WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE PROVIDED BY THE CONTRACTOR.
4. POST "NO PARKING - FIRE LANE" SIGNS ALONG VEHICULAR ACCESS ROADS.

NOTES TO BIDDERS

1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE EXTERIOR GREASE INTERCEPTOR AND MUST FIELD VERIFY ALL SITE CONDITIONS DURING THE BIDDING PHASE OF THE PROJECT AND ASSIGN ALL APPLICABLE COSTS. THE LOCATION SHALL NOT INTERFERE WITH ANY EXISTING SETBACKS, EASEMENTS, UNDERGROUND UTILITIES, OR OTHER SITE FEATURES.

NOTES

GENERAL

1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL CODE ORDINANCES AND LAWS.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE, VERIFY EXISTING CONDITIONS, AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO SUBMITTING A BID AND/OR BEGINNING ANY CONSTRUCTION WORK.
3. ALL WORK, WHEN COMPLETED, SHALL CONFORM TO THE GOVERNING JURISDICTIONAL ACCESSIBILITY STANDARDS.
4. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES FOUND BETWEEN THE CONTRACT DOCUMENTS FOR RESOLUTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A COMPLETE AS-BUILT SET OF CONSTRUCTION DRAWINGS AT THE JOB SITE AND TURNING THE AS-BUILT DRAWINGS OVER TO THE OWNER UPON COMPLETION OF THE PROJECT.
6. REFER TO INDIVIDUAL DRAWINGS WITHIN THIS SET OF CONSTRUCTION DOCUMENTS FOR ADDITIONAL GENERAL NOTES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THOROUGHLY CLEANING THE COMPLETED JOB SITE PRIOR TO TURNING THE PROPERTY OVER TO THE OWNER FOR OCCUPANCY.
8. IN THE EVENT THAT THE CONTRACTOR, OR SUBCONTRACTOR AT ANY TIER, DETERMINES THAT SOME PORTION OF THE DRAWINGS, SPECIFICATIONS, OR OTHER CONTRACT DOCUMENTS REQUIRES CLARIFICATION OR INTERPRETATION BY THE ARCHITECT, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR INFORMATION IN WRITING TO THE ARCHITECT.
9. REQUESTS FOR INFORMATION MAY ONLY BE MADE BY THE GENERAL CONTRACTOR. THE CONTRACTOR SHALL CLEARLY AND CONCISELY SET FORTH THE ISSUE FOR WHICH CLARIFICATION IS SOUGHT AND WHY A RESPONSE IS NEEDED FROM THE ARCHITECT AND/OR CONSULTANTS. IN THE REQUEST FOR INFORMATION, THE CONTRACTOR SHALL SET FORTH AN UNDERSTANDING OF THE REQUIREMENT, ALONG WITH A REASON WHY SUCH AN UNDERSTANDING WAS REACHED. THE ARCHITECT WILL REVIEW THE REQUEST FOR INFORMATION TO DETERMINE IF IT IS A REQUEST FOR INFORMATION WITHIN THE MEANING OF THIS TERM. IF THE ARCHITECT DETERMINES THAT IT IS NOT A REQUEST FOR INFORMATION, IT WILL BE RETURNED TO THE CONTRACTOR, UNREVIEWED AS TO CONTENT, FOR RESUBMITTAL IN THE PROPER FORM AND THE PROPER MANNER.
10. RESPONSES TO REQUESTS FOR INFORMATION SHALL BE ISSUED UPON RECEIPT, BUT NO LATER THAN FIVE WORKING DAYS OF RECEIPT OF THE REQUEST, UNLESS THE ARCHITECT DETERMINES THAT A LONGER PERIOD OF TIME IS NEEDED IN ORDER TO PROVIDE AN ADEQUATE RESPONSE. IF A LONGER PERIOD OF TIME IS DETERMINED NECESSARY BY THE ARCHITECT, THE ARCHITECT WILL, WITHIN FIVE WORKING DAYS OF THE RECEIPT OF THE REQUEST FOR INFORMATION, NOTIFY THE CONTRACTOR OF THE ANTICIPATED RESPONSE TIME.
11. IF THE CONTRACTOR SUBMITS A REQUEST FOR INFORMATION WITH FIVE WORKING DAYS OR LESS FLOAT ON THE CURRENT PROJECT SCHEDULE, THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY TIME EXTENSION DUE TO THE TIME IT TAKES THE ARCHITECT TO RESPOND TO THE REQUEST FOR INFORMATION, PROVIDED A RESPONSE IS GIVEN WITHIN FIVE WORKING DAYS AS SET FORTH ABOVE.
12. RESPONSES FROM THE ARCHITECT WILL NOT CHANGE ANY REQUIREMENTS OF THE CONTRACTOR DOCUMENTS. IN THE EVENT THAT THE CONTRACTOR BELIEVES A RESPONSE TO A REQUEST FOR INFORMATION WILL CAUSE A CHANGE TO REQUIREMENTS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL IMMEDIATELY GIVE WRITTEN NOTICE TO THE ARCHITECT AND THE OWNER STATING THAT THE CONTRACTOR CONSIDERS THE RESPONSE TO BE A CHANGE ORDER. FAILURE TO GIVE SUCH WRITTEN NOTICE IMMEDIATELY SHALL WAIVE THE CONTRACTOR'S RIGHT TO SEEK ADDITIONAL TIME OR COST.
13. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.
14. PROVIDE ULTRA FLUSH WATER CLOSETS OR ALL NEW CONSTRUCTION. EXISTING POWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.
15. A COPY OF THE VALID EVALUATION REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
16. OBTAIN SEPARATE PERMIT FOR RETAINING WALLS OR BLOCK FENCE WALLS, GRADING WORK, ELECTRICAL, PLUMBING, AND SIGNAGE.

SYMBOLS LEGEND

STRUCTURAL GRID BUBBLE	KEYED NOTE MARKER
ENLARGED DRAWING BUBBLE (00 / A0.0)	ROOM NAME/ NUMBER (ROOM NAME 000)
ELEVATION MARKER (00 / A0.0)	DOOR / WINDOW NUMBER (000A)
SECTION MARKER (00 / A0.0)	REVISION MARKER (1)
WALL TYPE MARKER (00)	EQUIPMENT MARKER (00)
ACCESSIBLE PATH OF TRAVEL	MATERIAL MARKER (00)
	DECOR MARKER

FIRE NOTES

2018 IFC 505.1- Address numbers. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. In Multi-tenant commercial building where tenants have multiple entrances located on different sides of the building , each door shall be addressed. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm).
(Verified At Inspection)

2018 IFC 901.5- Installation acceptance testing. Fire detection and alarm systems, fire-extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service mains and all other fire protection systems and appurtenances thereto shall be subject to acceptance tests as contained in the installation standards and as approved by the fire code official. The fire code official shall be notified before any required acceptance testing. The fire code official shall be notified 48 hours before any required acceptance test.

2018 IFC 904.11.5- Portable fire extinguishers for commercial cooking equipment. Portable fire extinguishers shall be provided within a 30-foot (9144 mm) travel distance of commercial-type cooking equipment. Cooking equipment involving vegetable or animal oils and fats shall be protected by a Class K rated portable extinguisher.

1 A0.0 LOCATION MAP

NOT TO SCALE

2 A0.0 KEY PLAN

NOT TO SCALE

CODE INFORMATION

APPLICABLE CODES:

Building Code:	2018 International Building Code with City Amendments
Plumbing Code:	2018 International Plumbing Code with City Amendments
Mechanical Code:	2018 International Mechanical Code with City Amendments
Electrical Code:	2017 National Electrical Code with City Amendments
Fuel Gas Code:	2018 International Fuel Gas Code with City Amendments
Fire Prevention Code:	2018 International Fire Code with City Amendments
Accessibility Code:	2009 ICC/ANSI A117.1

A.) CHAPTER 3: USE & OCCUPANCY CLASSIFICATION:

- Group: B (Business)
  - Area: 1,369 square feet

B.) CHAPTER 5: GENERAL BUILDING HEIGHTS & AREAS:

- Existing Building Area: 11,200 square feet
- Existing Use(s): B (Business), M (Mercantile)
- Proposed Use(s): B (Business), M (Mercantile)
- Most Restrictive Use: M (Mercantile)
- Allowable Height (40 ft): 1 Story
- Allowable Area (M): 9,000 square feet
- Area Modification:
  - Frontage Increase:
    $I_f = (F/P - 0.25) \times W/30$
    $I_f = (474/454 - 0.25) \times 30/30$
    $I_f = 0.75$
  - Area Increase:
    $A_a = [(A_t + (A_t \times I_f)) + (A_t \times I_s)]$
    $A_a = [(9,000 + (9,000 \times 0.75)) + (9,000 \times 0)]$
    $A_a = 15,750$
- Full Building Automatic Fire Sprinkler System: No
- Nonseparated Occupancies

C.) CHAPTER 6: TYPES OF CONSTRUCTION:

- Type: VB
- Required Fire-Resistive Ratings:

Building Element	Rating
Structural Frame	0
Bearing Walls – Exterior	0
Bearing Walls – Interior	0
Nonbearing Walls – Exterior	0
Nonbearing Walls – Interior	0
Floor Construction	0
Roof Construction	0

D.) CHAPTER 8: INTERIOR FINISHES:

- Required Interior Wall & Ceiling Finish Classifications:

Type Of Space	Finish Classification
Exit Enclosures & Exit Passageways	A
Corridors	B
Rooms & Enclosed Spaces	C

E.) CHAPTER 10: MEANS OF EGRESS:

- Minimum Number Of Exits Required = 1 Required, 1 Provided
- Minimum Exit Width Required:
  - Minimum Exit Width For Other Egress Components = 5.8", **36" Minimum Provided**
- Maximum Common Path of Egress Travel Allowed = 100'-0" Maximum
- Maximum Exit Travel Distance Allowed = 200'-0" Maximum
- Occupant Load Calculations:

Function Of Space	Area Of Space	Floor Area In Sq. Ft. Per Occupant	Occupant Load
Unconcentrated(Assembly w/out fixed seats)	387 square feet	15	26
Kitchens, Commercial	665 square feet	200 (Gross)	3
Men's & Women's Restroom / Hallway	177 square feet	Accessory Use	0
Walk-in Cooler/Freezer	140 square feet	Accessory Use	0
TOTAL OCCUPANT LOAD			**29**

F.) CHAPTER 29: PLUMBING FIXTURE REQUIREMENTS:

- Male Occupant Load (29 / 2): 15
- Female Occupant Load (29 / 2): 15
- Plumbing Fixture Count Calculations:

Fixture Type	Males	Females
Water Closet	1 Required, 1 Provided	1 Required, 1 Provided
Lavatory	1 Required, 1 Provided	1 Required, 1 Provided
Urinal (Optional)	Substitute For Up To 66% Of WC's	N/A

** 1 Service Sink Required*

PROJECT TEAM

BRAND PARTNER / OWNER

SAN ANTONIO WINGS, INC
510 PORTLAND
SAN ANTONIO, TX 78216
PHONE NO.: (210) 602-8412
ATTN: CHARLES LOFLIN

PROJECT COORDINATOR

WINGSTOP RESTAURANTS, INC
15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
PHONE NO.: (972) 686-6500
FAX NO.: (972) 686-6502
ATTN: TODD BRIN

ARCHITECT

MATTHEW M. WILKUS ARCHITECT
15 NINTH AVENUE NORTH
HOPKINS, MINNESOTA 55343
PHONE NO.: (952) 941-8660
FAX NO.: (952) 941-2755
ATTN: JIM SULTANY

M.E.P. ENGINEER

CASE ENGINEERING, INC.
796 MERUS COURT
FENTON, MO 63026
PHONE NO.: (636) 349-1600
FAX NO.: (636) 349-1730
ATTN: JOHN VIRTUDAZO

STRUCTURAL ENGINEER

CASE ENGINEERING, INC.
796 MERUS COURT
FENTON, MO 63026
PHONE NO.: (636) 349-1600
FAX NO.: (636) 349-1730
ATTN: DINO CHIRCO

THE WING WINGSTOP EXPERTS

LEE'S SUMMIT, MO (GL#Y175)

SHEET INDEX

Joe Frogge

RELEASE FOR CONSTRUCTION
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

WILKUS ARCHITECTS
15 Ninth Avenue North, Hopkins, MN 55343
Phone: 952.941.8660/ www.wilkusarch.com

CLIENT:

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

07-08-21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: NAV
CHECKED BY: JSS

ISSUE:	DATE:
PERMIT & BID SET	06-16-21

REVISION:		DATE:
1	BLDG. COMMENTS	07-08-21

PROJECT LOCATION:
LEE'S SUMMIT, MO

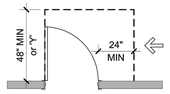
SHEET NUMBER / TITLE:
A0.0
COVER SHEET

ICC A117.1-2009 : ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

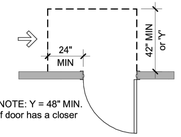
ALL INTERIOR CONSTRUCTION WITHIN THE SCOPE OF THIS PROJECT IS REQUIRED TO BE ACCESSIBLE AS SET FORTH IN THE *ICC A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES.* SECTIONS INDICATED ON THIS SHEET REFERENCE THE *2010 ADA STANDARDS FOR ACCESSIBLE DESIGN*, UNLESS NOTED OTHERWISE.

DOORS

1. Doors, doorways, and gates that are part of an accessible route shall comply with 404.
2. Door openings shall provide a clear width of 32 inches, unless the opening is more than 24 inches deep, in which case the clear width of the opening shall be 36 inches. For swinging doors, the clear width shall be measured between the face of the door and the stop, with the door open 90 degrees.
3. There shall be no projections into the clear opening lower than 34 inches. Projections into the clear opening between 34 inches and 80 inches shall not exceed 4 inches.
4. In accordance with 404.2.3 exception 2, door closers and stops shall be permitted to be a minimum of 78 inches above the floor or ground.
5. Minimum maneuvering clearances at swinging doors shall comply with ICC A117.1-2009 Section 404.2.3, Table 404.2.3.2 and Figure 404.2.3.2.
6. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority.
7. Hinged doors other than fire doors shall have an opening force of 5 pounds maximum.
8. Sliding doors shall have an opening force of 5 pounds maximum.
9. Door and gate surfaces shall comply with 404.2.10.
10. Doors shall be permitted to swing into turning spaces, per 304.4.
11. Two doors in a series shall comply with ICC A117.1-2009 Section 404.2.5 and Figure 404.2.5.

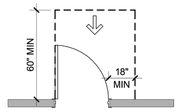


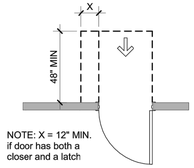
NOTE: Y = 54" MIN. if door has a closer



NOTE: Y = 48" MIN. if door has a closer

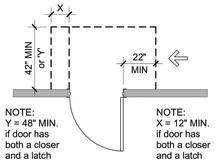
Latch-Side Approaches - Swinging Doors





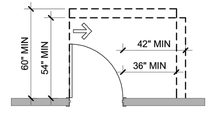
NOTE: X = 12" MIN. if door has both a closer and a latch

Front Approaches - Swinging Doors

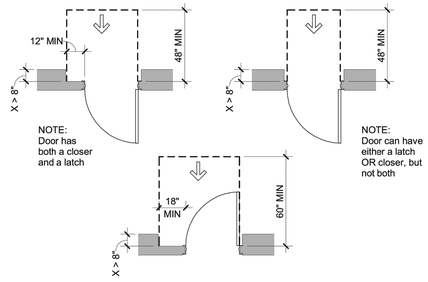


NOTE: Y = 48" MIN. if door has both a closer and a latch

NOTE: X = 12" MIN. if door has both a closer and a latch



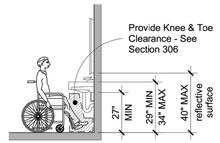
Hinge-Side Approaches - Swinging Doors



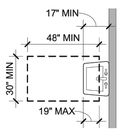
Recessed Doors and Gates

RESTROOMS & DRINKING FOUNTAINS

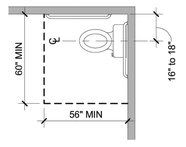
1. Where toilet rooms are provided, each toilet room shall comply with 603.
2. Where toilet compartments are provided, at least one toilet compartment shall comply with 604.8.1. In addition to the compartment required to comply with 604.8.1, at least one compartment shall comply with 604.8.2 where six or more toilet compartments are provided, or where the combination of urinals and water closets totals six or more fixtures.
3. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches maximum above finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches maximum above the finish floor or ground.
4. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches minimum and 48 inches maximum above the finish floor.
5. Water closets shall comply with 604.2 through 604.8.
6. Toilet paper dispensers shall comply with ICC A117.1-2009, Chapter 6, Section 604.7 and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.
7. Grab bars shall be provided at water closets and shall comply with ICC A117.1-2009, Chapter 6, Figure 604.5
8. Urinals shall comply with 605 and shall be either wall-hung or stall type urinals.
9. Lavatories shall comply with 606. Faucets for lavatories shall comply with 606.4. Exposed pipes under lavatories shall be insulated or otherwise protected to prevent against contact.
10. Drinking Fountains shall comply with ICC A117.1-2009, Chapter 6, Section 602.2.
11. Toilet paper dispensers shall comply with ICC A117.1-2009, Chapter 6, Figure 604.9.2.
12. Fixed side wall grab bars shall comply with ICC A117.1-2009, Chapter 6, Section 604.5.1.



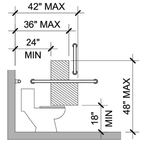
Clearances & Heights at Lavatory



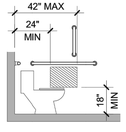
Lavatory Clearance



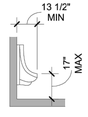
Clear Floor Space and Water Closet Location



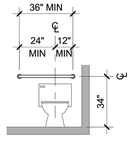
Recessed Toilet Paper Dispenser Location

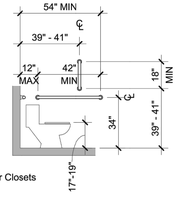


Protruding Toilet Paper Dispenser Location



Height and Depth of Urinal

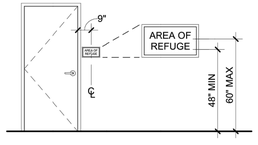


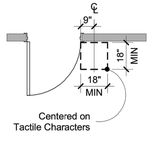


Grab Bars at Water Closets

SIGNAGE

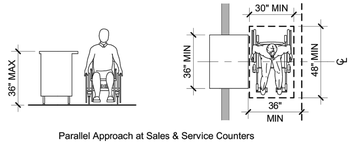
1. Signs shall comply with 703.
2. Signs identifying permanent rooms and spaces shall comply with 703.1, 703.2, and 703.5. Where pictograms are provided as designations of permanent rooms and spaces, the pictograms shall comply with 703.6 and shall have text descriptors complying with 703.2 and 703.5.
3. Signs that provide direction to or information about spaces and facilities shall comply with 703.5.
4. Where more than one check-out aisle is provided, check-out aisles complying with 904.3 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1. Where check-out aisles are identified by numbers, letters, or functions, signs identifying check-out aisles complying with 904.3 shall be located in the same location as the check-out aisle identification.





FOODSERVICE LINES, TABLEWARE AREAS & CHECKOUT AISLES

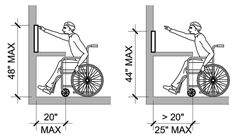
1. Where check-out aisles are provided, check-out aisles shall comply with 904.3 and be dispersed.
2. Where provided, at least one of each type of sales counter and service counter shall comply with 904.4. Where counters are dispersed throughout the building or facility, counters complying with 904.4 also shall be dispersed.
3. Food service lines shall comply with 904.5. Where self-service shelves are provided, at least 50 percent, but no fewer than one, of each type provided shall comply with 308.
4. Queues and waiting lines servicing counters or check-out aisles required to comply with 904.3 or 904.4 shall comply with 403.
5. Check-out aisles and sales and service counters shall comply with the applicable requirements of 904.
6. All points of counters required to comply with 904 shall be located adjacent to a walking surface complying with 403.



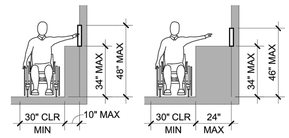
Parallel Approach at Sales & Service Counters

REACH RANGES, CONTROLS & OPERATING MECHANISMS

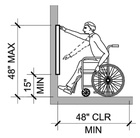
1. Reach ranges shall comply with 308.
2. Operable parts shall comply with 309 and shall be placed within one or more of the reach ranges specified in 308.
3. In accordance with 309.4, operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds maximum.



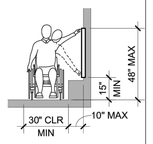
Obstructed Forward Reach



Obstructed Side Reach



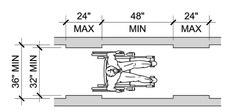
Unobstructed Forward Reach



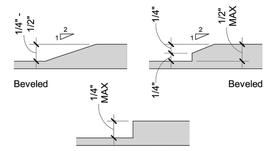
Unobstructed Side Reach

PATH OF TRAVEL

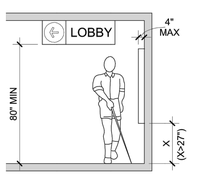
1. The running slopes of walking surfaces that are part of an accessible route shall not be steeper than 1:20 with a cross slope that is not steeper than 1:48.
2. Changes in level shall comply with ICC A117.1-2009 Section 303.
3. The clear width of walking surfaces on an accessible route shall comply with 403.5.1.
4. The clear width at turns along an accessible route shall comply with 403.5.2.
5. In accordance with 403.5.3, an accessible route with a clear width of less than 60 inches shall provide passing spaces at intervals of 200 feet.



Clear Width of an Accessible Route



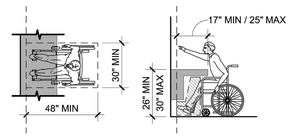
Changes in Level



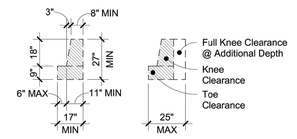
Walking Parallel To A Wall

SEATING AT TABLES & COUNTERS

1. Where dining surfaces are provided for the consumption of food and drink, at least 5 percent of the seating spaces and standing spaces at the dining surfaces shall comply with 902. In addition, where work surfaces are provided for use by other than employees, at least 5 percent shall comply with 902. Confirm actual seat counts with Table 221.2.1
2. Dining surfaces and work surfaces required to comply with 902 shall be dispersed throughout the space or facility containing dining surfaces and work surfaces.
3. Dining surfaces and work surfaces shall comply with 902.2 and 903.3.



Toe and Knee Clearances



RELEASE FOR CONSTRUCTION
AS APPROVED BY CITY REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

CONSULTANT:

WILKUS ARCHITECTS

15 Ninth Avenue North, Hopkins, MN 55343
Phone: 952.941.8680/ www.wilkusarch.com

CLIENT:

WING·STOP

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

PROJECT INFORMATION:

WING·STOP

STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: NAV
CHECKED BY: JSS

ISSUE:	DATE:
PERMIT & BID SET	06-16-21

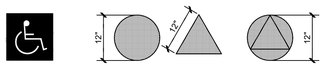
REVISION:	DATE:

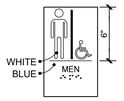
PROJECT LOCATION:
LEE'S SUMMIT, MO

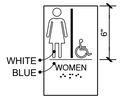
SHEET NUMBER / TITLE:

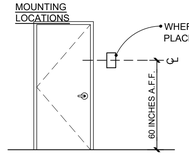
B1.0

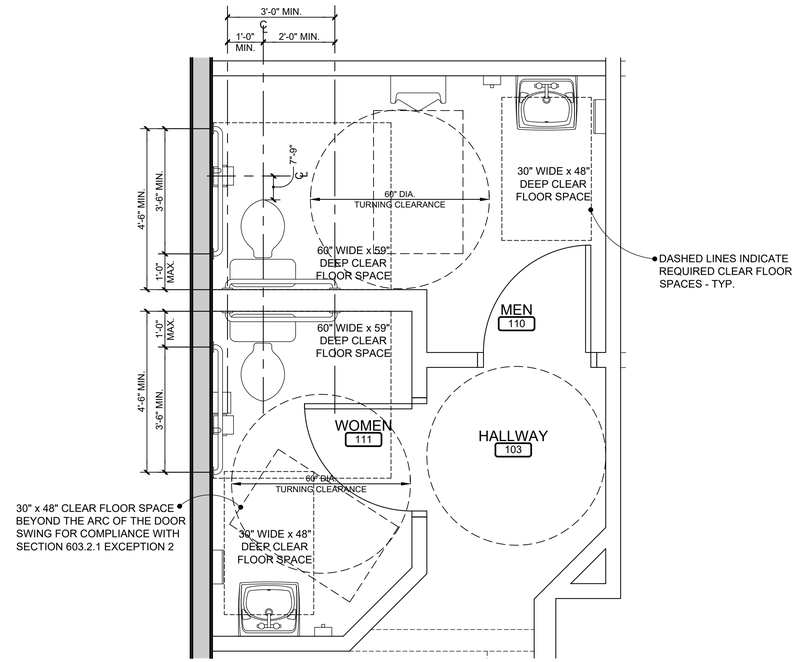
INTERIOR ACCESSIBILITY

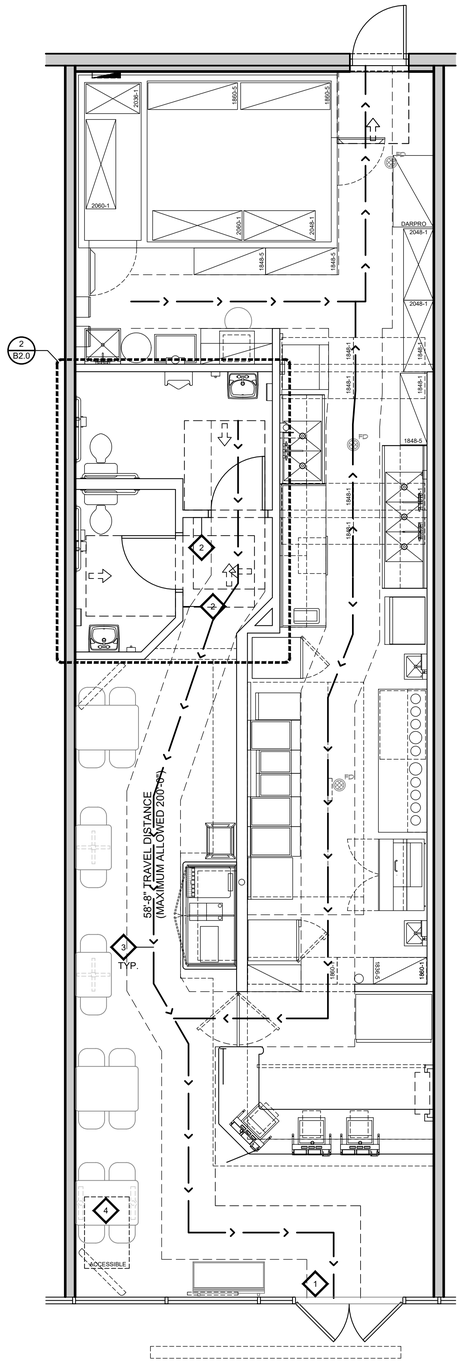












NOTE:
REFER TO B1.0 FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS

PLAIN GEOMETRIC IDENTIFICATION SIGNS

ISA SYMBOL - TYPICAL @ THESE LOCATIONS, BUT NOT LIMITED TO: RESTROOMS, TABLES/BOOTHES, SERVICE COUNTERS, ACCESSIBLE RESTROOM STALLS, AND FRONT ENTRY

REFER TO ADAAG 703.7.2.1 FOR SIGNAGE REQUIREMENTS

MODEL NUMBERS:

MEN'S: #840-A
(PROVIDE @ SPACES W/ (2)
TOILET ROOMS)

WOMEN'S: #840
(PROVIDE @ SPACES W/ (2)
TOILET ROOMS)

MOUNTING LOCATIONS

WHERE NO WALL SPACE ON LATCH SIDE, PLACE NEAREST ADJACENT

ACCESSIBILITY SIGNAGE:
ANSI APPROVED E.S.
PLASTIC, NEMA RATED
SELF-EXTINGUISHING
ADHESIVE MOUNTED

BLUE COLOR NO. EQUAL TO 15090 IN FEDERAL STANDARD 595B

4 / B2.0

RESTROOM SIGNAGE DETAILS

N.T.S.

DASHED LINES INDICATE REQUIRED CLEAR FLOOR SPACES - TYP.

30" x 48" CLEAR FLOOR SPACE BEYOND THE ARC OF THE DOOR SWING FOR COMPLIANCE WITH SECTION 603.2.1 EXCEPTION 2

NOTE:
REFER TO B1.0 FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS

PLAN NORTH

2 / B2.0

ENLARGED RESTROOM PLAN

1/2" = 1'-0"

3 / B2.0

NOT USED

ACCESS. PLAN LEGEND

- ① PROVIDE INTERNATIONAL SYMBOL OF ACCESSIBILITY - MOUNT 60" A.F.F. TO CENTERLINE OF SIGN
- ② PROVIDE TACTILE GRADE-2 CONTRACTED BRAILLE WALL SIGN - REFER TO RESTROOM SIGNAGE DETAIL 4/B2.0 FOR ADDITIONAL INFORMATION
- ③ LINE INDICATES 36" PATH OF TRAVEL
- ④ ACCESSIBLE TABLE - PROVIDE KNEE / TOE CLEARANCE PER B1.0 "TABLE SEATING & COUNTERS"

NOTE:
- REFER TO B1.0 FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS
- 5% OF EACH SEATING TYPE MUST BE ACCESSIBLE PER B1.0

TRUE NORTH

PLAN NORTH

1 / B2.0

ACCESSIBILITY PLAN

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:

WILKUS ARCHITECTS

15 Ninth Aveune North, Hopkins, MN 55343
Phone: 952.941.8660/ www.wilkusarch.com

CLIENT:

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
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PROJECT INFORMATION:

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HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

MATTHEW MICHAEL WILKUS
A-2019000244

Matt M Wilk

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

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LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
B2.0
ACCESSIBILITY PLAN

WALL LEGEND:

EXISTING WALLS, OR PARTITIONS

EXISTING WALLS AND FIXTURES TO BE REMOVED

DEMOLITION PLAN LEGEND

1. REMOVE PARTIAL AS REQUIRED FOR NEW DOOR INSTALLATION.
2. PREPARE EXISTING FLOORS/WALLS TO ACCEPT NEW FINISHES - REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION
3. EXISTING ELECTRICAL PANEL TO BE REMOVED/RELOCATED - REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
4. RELOCATE AS NECESSARY IRRIGATION AND WATER SERVICE TO MAINTAIN ACCESS

DEMOLITION PLAN NOTES

1. DEMOLITION CONTRACTOR RESPONSIBLE FOR VERIFICATION OF ALL MATERIALS AND CONSTRUCTION OF ALL FLOOR, WALL, CEILING AND ROOF ASSEMBLIES.

2. DEMOLITION CONTRACTOR TO SURVEY THE CONDITION OF THE BUILDING TO DETERMINE WHETHER REMOVING ANY ELEMENT MIGHT RESULT IN A STRUCTURAL DEFICIENCY OR UNPLANNED COLLAPSE OF ANY PORTION OF THE STRUCTURE OR ADJACENT STRUCTURES DURING SELECTIVE DEMOLITION.

3. EXISTING CONSTRUCTION THAT IS TO REMAIN SHALL BE PROTECTED FROM DAMAGE AS REQUIRED DURING DEMOLITION OPERATIONS. ANY DAMAGE CAUSED BY THE DEMOLITION SHALL BE REPAIRED AT THE EXPENSE OF THE DEMOLITION CONTRACTOR.

4. DEMOLITION CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE CONSTRUCTION FIRE ASSEMBLY RATING FOR ALL EXISTING RATED WALL ASSEMBLIES, ROOF ASSEMBLIES AND/OR SHAFTS.

5. EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM DURING SELECTIVE DEMOLITION.

6. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMAL INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED AND USED FACILITIES. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS. PROMPTLY DISPOSE OF ALL DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON SITE. LEGALLY TRANSPORT AND DISPOSE OF ALL DEMOLISHED MATERIALS.

7. PROVIDE TEMPORARY WEATHER PROTECTION, AS REQUIRED, DURING SELECTIVE DEMOLITION AND CONSTRUCTION PROCESS TO ENSURE THAT NO WATER DAMAGE OCCURS TO STRUCTURE, EQUIPMENT, EXTERIOR OR INTERIOR AREAS.

8. ANY EXISTING FINISHED SURFACES TO REMAIN THAT ARE AFFECTED BY SELECTIVE DEMOLITION SHALL BE PATCHED TO MATCH EXISTING ADJACENT SURFACES UNLESS CONCEALED BY NEW CONSTRUCTION.

9. ALL EXISTING CABINETRY, COUNTERTOPS, SHELVES, ETC. IN AREAS OF DEMOLITION SHALL BE REMOVED, INCLUDING THAT NOT SPECIFICALLY SHOWN ON DRAWINGS.

10. ALL DOORS AND HARDWARE TO REMAIN UNLESS NOTED OTHERWISE IN THE DOOR AND FRAME SCHEDULE.

11. REFER TO MECHANICAL DRAWINGS FOR ALL MECHANICAL BEING REMOVED, RELOCATED OR ABANDONED. CUT AND PATCH FLOOR AS REQUIRED FOR ALL NEW MECHANICAL. CAP ABANDONED MECHANICAL BELOW PATCH OF FLOOR SLAB.

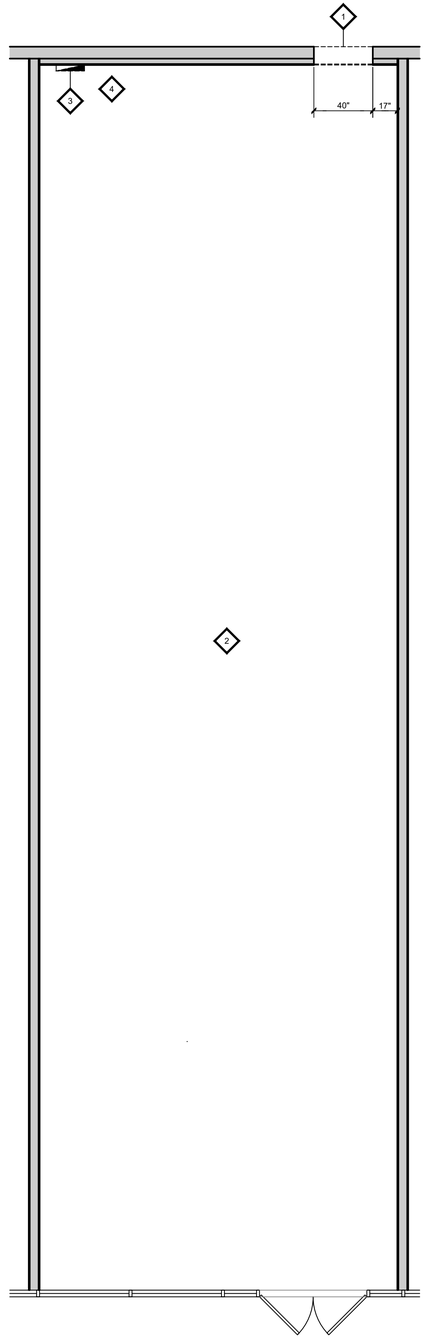
12. VERIFY ALL MODIFICATIONS OF HVAC AND PLUMBING WITH MECHANICAL DRAWINGS.

13. REFER TO PLUMBING DRAWINGS FOR ALL PLUMBING BEING REMOVED, RELOCATED OR ABANDONED. CUT AND PATCH FLOOR AS REQUIRED FOR NEW PLUMBING. CAP ABANDONED PLUMBING BELOW PATCH OF FLOOR SLAB.

14. REFER TO ELECTRICAL DRAWINGS FOR ALL ELECTRICAL BEING REMOVED, RELOCATED OR ABANDONED CUT AND PATCH FLOOR AS REQUIRED FOR NEW ELECTRICAL.

15. THOROUGHLY CLEAN BUILDING UPON COMPLETION OF SELECTIVE DEMOLITION.

16. TOTAL SCOPE OF DEMOLITION MAY NOT BE COVERED ON THIS SHEET, REVIEW ALL SHEETS IN THE CONSTRUCTION DOCUMENTS TO DETERMINE TOTAL SCOPE OF DEMOLITION.



TRUE NORTH

PLAN NORTH

1 A0.1

DEMOLITION PLAN

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
NOT RELEASED FOR PERMIT
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

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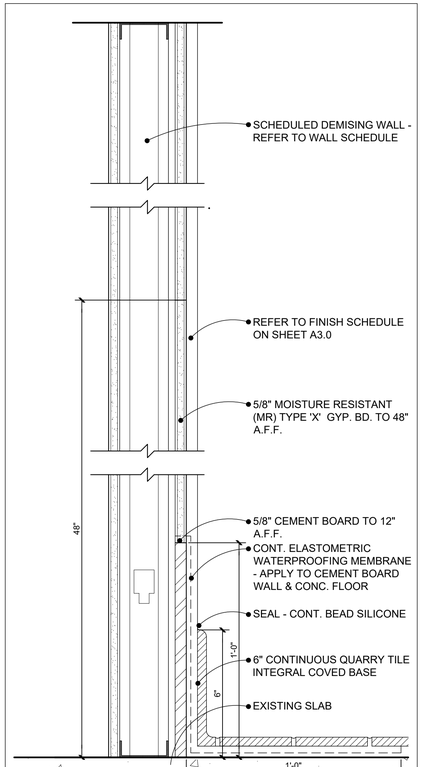
A0.1
DEMOLITION PLAN



2 / A1.0 TYPICAL SHEATHING MODIFICATION

3" = 1'-0"

WALL LEGEND

EXIST. WALLS, OR PARTITIONS | NEW PARTITIONS | NEW KNEE WALLS

WALL TYPES

WALL #1 — V.I.F.

1. EXISTING WALL TO REMAIN (WALL CONSTRUCTION VARIES)
FIELD VERIFY EXIST. CONDITIONS & REPAIR AS REQUIRED

* REFER TO 2/A1.0 FOR SHEATHING MODIFICATION WITH WATERPROOFING @ ALL WET AREAS

WALL #2 — 4 7/8"

2. 5/8" TYPE 'X' GYP. BD.
3 5/8" 25 GA. MTL. STUDS (DIETRICH, ICC/ESR 2457) @ 24" O.C.
5/8" TYPE 'X' GYP. BD.

* BRACE TO STRUCTURE PER DETAIL 1/A6.0
* REFER TO 2/A1.0 FOR SHEATHING MODIFICATION WITH WATERPROOFING @ ALL WET AREAS

WALL #3 — 7 1/4"

3. 5/8" TYPE 'X' GYP. BD.
6" 20 GA. MTL. STUDS (DIETRICH, ICC/ESR 2457) @ 16" O.C.
5/8" TYPE 'X' GYP. BD.

* EXTEND STUD AND GYP. BD. 6" ABOVE CEILING
* BRACE TO STRUCTURE PER DETAIL 1/A6.0
* REFER TO 2/A1.0 FOR SHEATHING MODIFICATION WITH WATERPROOFING

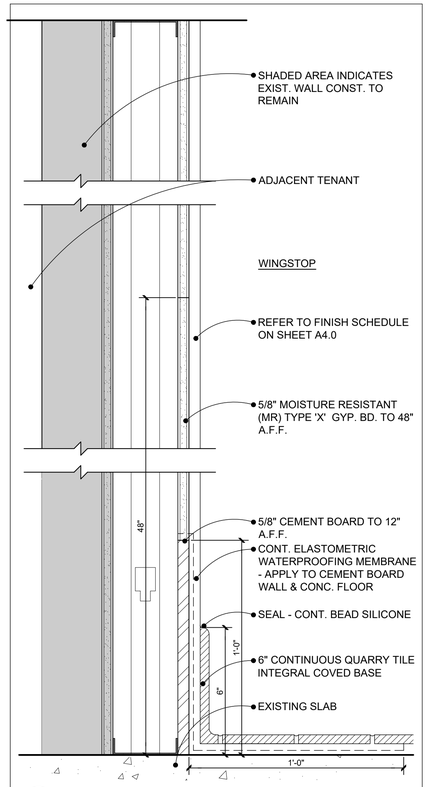
WALL #4 — V.I.F. — 4 1/4"

4. EXISTING DEMISING WALL TO REMAIN (WALL CONSTRUCTION VARIES)
FIELD VERIFY EXIST. CONDITIONS & REPAIR AS REQUIRED

ADD 3 5/8" 25 GA. MTL. STUDS (DIETRICH, ICC/ESR 2457) @ 24" O.C.
ADD 5/8" TYPE 'X' GYP. BD.

* EXTEND STUD AND GYP. BD. 6" ABOVE CEILING
* REFER TO 3/A1.0 FOR SHEATHING MODIFICATION WITH WATERPROOFING @ ALL WET AREAS

- PROVIDE MOISTURE RESISTANT GYP. BD. AT WET AREAS
- INSTALL GYP. BD. CONTROL JOINTS AS NEEDED TO PREVENT CRACKING
- PROVIDE FINISHES PER ROOM FINISH SCHEDULE ON SHEET A4.0



3 / A1.0 DEMISING WALL SECTION

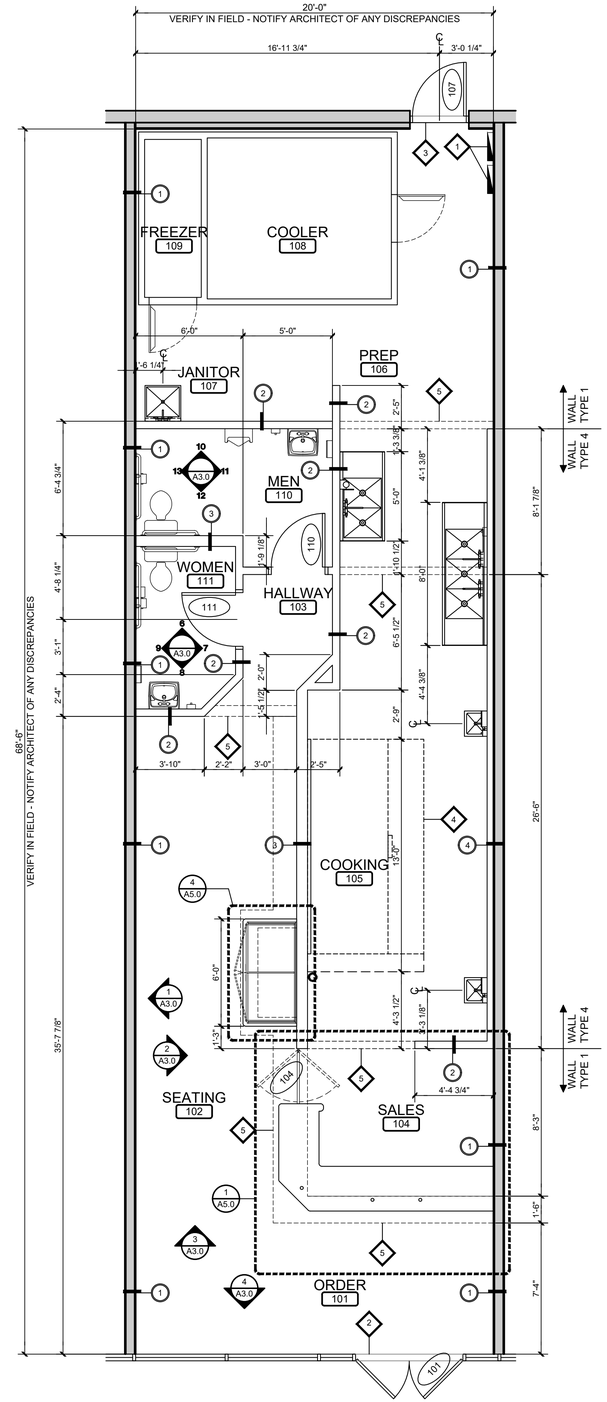
3" = 1'-0"

FLOOR PLAN LEGEND

1. ELECTRICAL PANEL LOCATION - PROVIDE A 30" X 36" CLEAR FLOOR SPACE IN FRONT OF PANEL(S) - REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. EXIST. THRESHOLD TO REMAIN - VERIFY 1/2" LIP MAXIMUM AND BEVELED SIDES THAT SLOPE 1:2 MAXIMUM - REPLACE AS NEEDED.
3. PROVIDE NEW THRESHOLD - VERIFY 1/2" LIP MAXIMUM AND BEVELED SIDES THAT SLOPE 1:2 MAXIMUM.
4. DASHED LINE INDICATES EXHAUST HOOD - REFER TO REFLECTED CEILING PLAN ON SHEET A2.0 FOR ADDITIONAL INFORMATION.
5. DASHED LINE INDICATES SOFFIT / HEADER ABOVE - REFER TO REFLECTED CEILING PLAN ON SHEET A2.0.

FLOOR PLAN NOTES

1. REFER TO SHEET EQ1 FOR SEATING, AND EQUIPMENT LAYOUT AND SHEET EQ2 FOR EQUIPMENT ELEVATIONS.
2. DIMENSIONS ARE TO THE FINISH FACE OF SHEATHING.
3. VERIFY DEMISING WALLS ARE FULL HEIGHT TO DECK - NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.



NOTE:
REFER TO A0.0 FOR GENERAL NOTES AND NOTES TO BIDDERS

TRUE NORTH | PLAN NORTH

1 / A1.0 ARCHITECTURAL FLOOR PLAN

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
AS APPROVED BY CITY OF LEE'S SUMMIT
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

CONSULTANT:
WILKUS ARCHITECTS
15 Ninth Avenue North, Hopkins, MN 55343
Phone: 952.941.8680/ www.wilkusarch.com

CLIENT:
WINGSTOP
15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:
STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

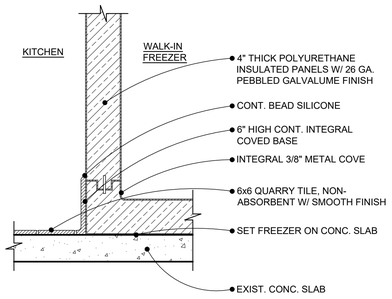
PROJECT NO.: 2021-0158
DRAWN BY: NAV
CHECKED BY: JSS

ISSUE:	DATE:
PERMIT & BID SET	06-16-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

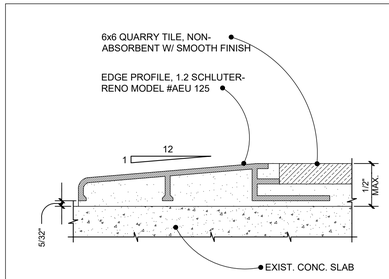
SHEET NUMBER / TITLE:
A1.0
ARCHITECTURAL FLOOR PLAN



4 A1.1 FREEZER BASE DETAIL

FINISH FLOOR PLAN NOTES

1. REFER TO FINISH SCHEDULE ON SHEET A4.0 FOR CONCRETE FLOOR.
2. EDGE PROFILE AT QUARRY TILE - REFER TO DETAIL 5/A1.1. SCHLUTER SYSTEMS: 1-800-472-4588
3. REFER TO PLUMBING DRAWINGS FOR ALL FLOOR SINK AND FLOOR DRAIN LOCATIONS - PREPARE AND INSTALL ALL FLOOR PENETRATIONS PER MANUFACTURER'S DETAILS - FIXTURES MUST BE CLAMPING-TYPE - USE APPROPRIATE WATERPROOF SEALANT AND FOAM BACKER TO SEAL SPACE AROUND PENETRATIONS.
4. PREPARE AND INSTALL ALL FLOOR PENETRATIONS PER MANUFACTURER'S DETAILS - FIXTURES MUST BE CLAMPING-TYPE - USE APPROPRIATE WATERPROOF SEALANT AND FOAM BACKER TO SEAL SPACE AROUND PENETRATIONS.

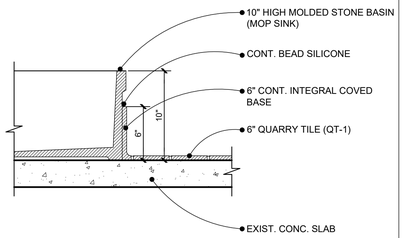


5 A1.1 TYP. EDGE PROFILE DETAIL

6" = 1'-0"

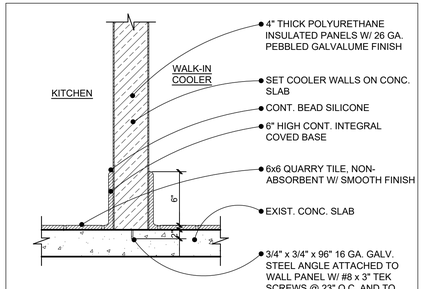
FINISH FLOOR PLAN LEGEND

1. ALUMINUM EDGE PROFILE (TYP.) - REFER TO DETAIL 5/A1.1
2. NO QUARRY TILE BELOW FREEZER - COORDINATE EXACT LOCATION WITH MANUFACTURERS SHOP DRAWINGS
3. EXISTING CONCRETE - PROVIDE FLOOR DYE AND SEAL - REFER TO ADDITIONAL FLOOR FINISH NOTES ON THE FINISH SCHEDULE ON SHEET A4.0 FOR SUGGESTED FLOOR PREPARATION OF SEATING AREA
4. 10" HIGH MOLDED STONE BASIN AROUND MOP SINK - REFER TO DETAIL 2/A1.1
5. SET ALL MILLWORK PRIOR TO COMPLETING Q.T. FLOORING



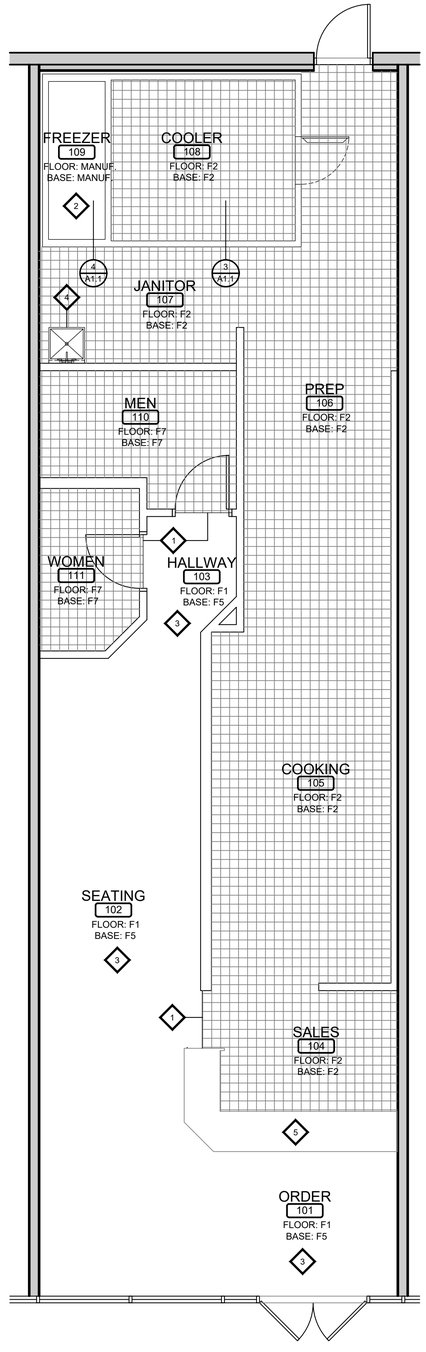
2 A1.1 MOP SINK BASE DETAIL

1 1/2" = 1'-0"



3 A1.1 COOLER BASE DETAIL

1 1/2" = 1'-0"



NOTE:
REFER TO A0.0 FOR GENERAL NOTES AND NOTES TO BIDDERS

TRUE NORTH

PLAN NORTH

1 A1.1 FINISH FLOOR PLAN

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
NOT RELEASED FOR PERMIT
CONSULTANT: DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
07/08/2021

WILKUS ARCHITECTS
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Phone: 952.941.8680/ www.wilkusarch.com

CLIENT:

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

DISCLAIMER:

PROJECT INFORMATION:

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HALLBUSTER SHOPS
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LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
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MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
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REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
A1.1
FINISH FLOOR PLAN

LIGHTING, DIFFUSERS, & GRILLE SCHEDULE

MK.	SYMBOL	SPECIFICATIONS	MOUNTING HEIGHT	NOTES
A		FIXTURE: 2'-0" TRACK W/ (2) FIXTURES (HEAD) SUPPLIER: MELETIO ELECTRICAL SUPPLY	MOUNT TO BOTTOM OF SCHEDULED CLG., BOTTOM OF TRACK MOUNTED TO BOTTOM OF FRAMING AND 3'-0" FROM ADJACENT WALLS UNLESS NOTED OTHERWISE	SCHEDULE SHEET A4.0 SUSPEND FROM CLG. W/ 3/8" ALL-THREAD
B		FIXTURE: 16" ROUND PENDANT W/ 15'-0" CORD (BLACK) SUPPLIER MELETIO ELECTRICAL SUPPLY	MOUNT TO SCHEDULED CLG. AS FOLLOWS: ALL AREAS SUSPEND TO 8'-6" A.F.F. TO BOTTOM OF FIXTURE	N/A
BA		FIXTURE: 121 DC SERIES TYPE: I-1, 6" D ROUND PENDANT 8 1/2" H (BLACK) REMCRAFT LIGHTING	MOUNT TO SCHEDULED CLG. AS FOLLOWS: ALL AREAS SUSPEND TO 8'-6" A.F.F. TO BOTTOM OF FIXTURE	N/A
C		FIXTURE: 2'x4' TROFFER W/ ACRYLIC LENS SUPPLIER: MELETIO ELECTRICAL SUPPLY	MOUNT TO SCHEDULED ACOUSTICAL CLG.	N/A
CA		FIXTURE: 2'x4' TROFFER W/ ACRYLIC LENS SUPPLIER: MELETIO ELECTRICAL SUPPLY	MOUNT TO SCHEDULED ACOUSTICAL CLG.	N/A
D		FIXTURE: 4" ROUND RECESSED CAN LIGHT SUPPLIER MELETIO ELECTRICAL SUPPLY	MOUNT TO SCHEDULED ACOUSTICAL CLG. NOTE: CLG. INSULATION MUST BE 3" AWAY ON ALL SIDES	N/A
DA		FIXTURE: 6" ROUND RECESSED CAN LIGHT SUPPLIER MELETIO ELECTRICAL SUPPLY	MOUNT TO SCHEDULED ACOUSTICAL CLG. NOTE: CLG. INSULATION MUST BE 3" AWAY ON ALL SIDES	N/A
DB		FIXTURE: 6" ROUND RECESSED CAN LIGHT SUPPLIER MELETIO ELECTRICAL SUPPLY	MOUNT TO SCHEDULED ACOUSTICAL CLG. NOTE: CLG. INSULATION MUST BE 3" AWAY ON ALL SIDES	N/A
F		FIXTURE: 6'-0" TRACK WITH AMP CURRENT LIMITER (4) WALL WASH TRACK HEADS (WHITE) SUPPLIER: MELETIO ELECTRICAL SUPPLY	MOUNT TO SCHEDULED CLG.	CLG. INSULATION MUST BE 3" AWAY ON ALL SIDES
LCD		FIXTURE: WALL MOUNTED FLAT PANEL DISPLAY TV WALL MOUNTING BRACKET FOR FLAT SCREEN TV'S 32" TO 42" MODELS CONTRACTOR TO COORDINATE BRACKET WITH MANUFACTURER'S RECOMMENDATION AND OWNER SELECTION SUPPLIED BY OWNER	MOUNT TO SCHEDULED PARTITION WITH BOTTOM OF LCD PANEL AS INDICATED ON THE REFLECTED CLG. PLAN	N/A
S		8" CEILING RECESSED SPEAKER PROVIDED BY OWNER, SUPPLIED BY APPROVED VENDOR, COORDINATED BY GC - PROVIDE MIN. 6" ADDITIONAL WIRE PER SPEAKER AT J-BOX	MOUNT IN TILE	PROVIDE IN FACTORY FINISHED FLAT BLACK

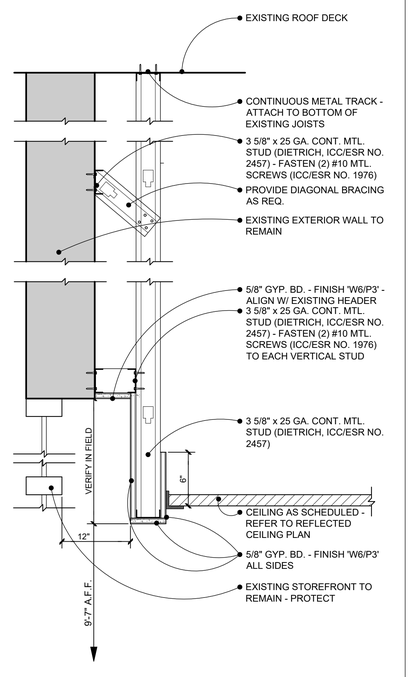
SUPPLIER NOTE:
MELETIO ELECTRICAL SUPPLY: 10930 HARRY HINES, DALLAS, TEXAS 75220
CONTACT: JIM ELLIS (SALES MANAGER), PHONE 1-800-777-4993 EXT. 1143 OFFICE, 972-559-6943 DIRECT, 214-353-3425 FAX, JELLIS@MELETIO.COM

CEILING PLAN NOTES

1. LIGHT FIXTURES SHALL BE PLACED AS DIMENSIONED AND SCHEDULED - ALL LIGHT FIXTURES SUPPLIED AS SCHEDULED WITH NO EXCEPTIONS
3. REFER TO MECHANICAL DRAWINGS FOR RETURN AND DIFFUSER LOCATIONS - ALL RETURNS AND DIFFUSERS IN SALES, ORDER, AND SEATING AREAS TO BE FACTORY FINISHED IN FLAT BLACK
4. VERIFY LOCATION AND QUANTITIES FOR EMERGENCY LIGHTING WITH ELECTRICAL DRAWINGS, LOCAL INSPECTION AGENCY, AND LOCAL FIRE MARSHALL - EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY ELECTRICAL SYSTEM PROVIDED FROM STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR - THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE ELECTRICAL CODE
5. REFER TO DETAIL 5/A2.0 FOR SUSPENDED CEILING DETAIL
6. REFER TO THE FINISH SCHEDULE ON SHEET A4.0 FOR CEILING FINISH INFORMATION

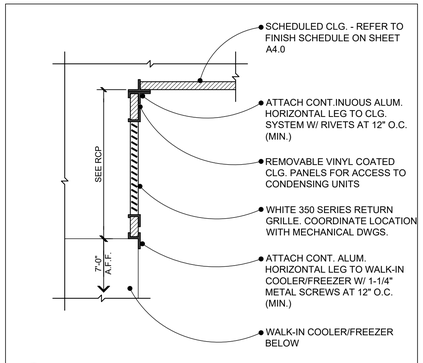
CEILING LEGEND

1. INSTALL ALL WALL MOUNTED LCD/TV OUTLETS 7'-0" A.F.F. - REFER TO 2/A2.0 - TYP.
2. TRACK LIGHTING (BLACK) MOUNTED TO BOTTOM OF THE CEILING TILE - TYP.
3. PENDANT LIGHTING - REFER TO THE LIGHTING SCHEDULE FOR MOUNTING LOCATIONS - TYP.
4. SPEAKER LOCATIONS - PROVIDED BY OWNER, SUPPLIED BY APPROVED VENDOR, AND COORDINATED BY GC
5. MENU BOARD - MOUNT BOTTOM OF MENU BOARD AT 7'-0" A.F.F. - REFER TO A3.0 FOR ADD. INFO.
6. CEILING GRID STARTING POINT
7. DINE IN SIGN REFER TO A3.1 FOR ADD. INFO.
8. ORDER AHEAD SIGN, ORIENTATE TO FRONT DOOR - REFER TO A3.1 FOR ADD. INFO.



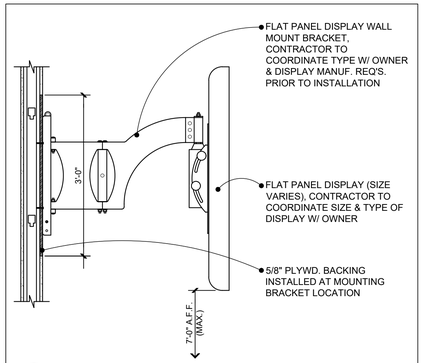
4 / A2.0 FURR DOWN @ STOREFRONT

1 1/2" = 1'-0"



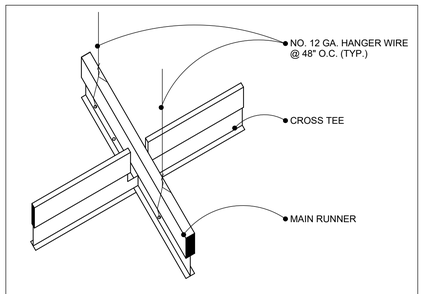
3 / A2.0 VENT DETAIL @ COOLER

1" = 1'-0"



2 / A2.0 WALL-MOUNT BRACKET DETAIL

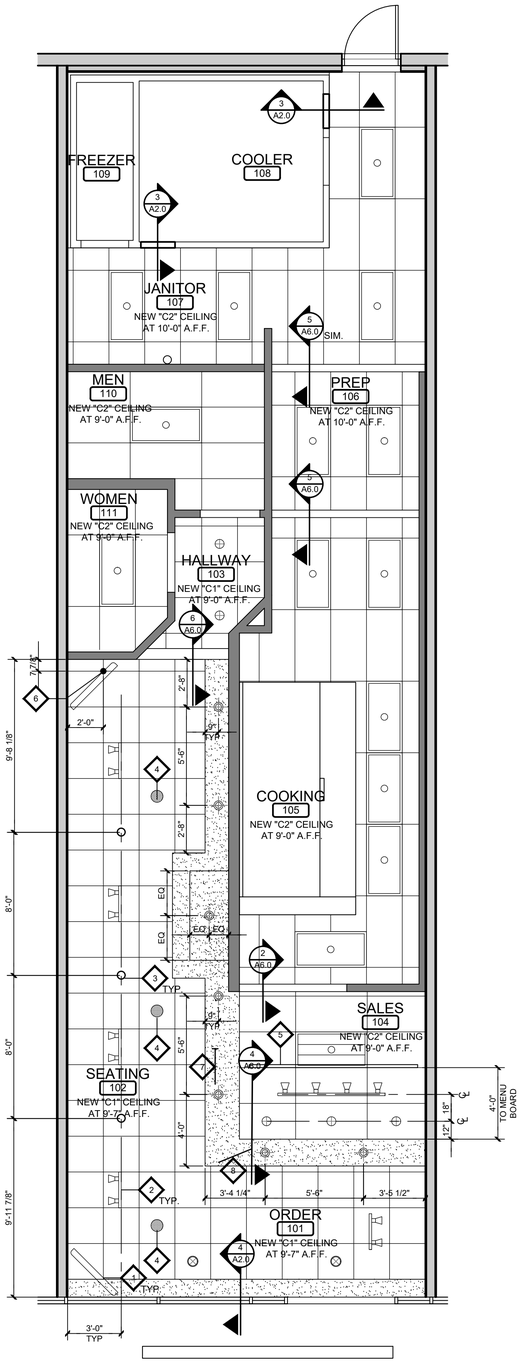
3/4" = 1'-0"



NOTE:
EACH WIRE SHALL BE ATTACHED TO THE CLG. MEMBER & THE SUPPORT ABOVE W/ A MINIMUM OF THREE TURNS

5 / A2.0 SUSPENDED CEILING DETAIL

N.T.S.



NOTE:
REFER TO A0.0 FOR GENERAL NOTES AND NOTES TO BIDDERS

TRUE NORTH

PLAN NORTH

1 / A2.0 REFLECTED CEILING PLAN

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
NOT RELEASED FOR PERMIT
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LEE'S SUMMIT, MISSOURI
07/08/2021

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PROJECT INFORMATION:

WING·STOP

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MATTHEW M. WILKUS, ARCHITECT
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ISSUE:	DATE:
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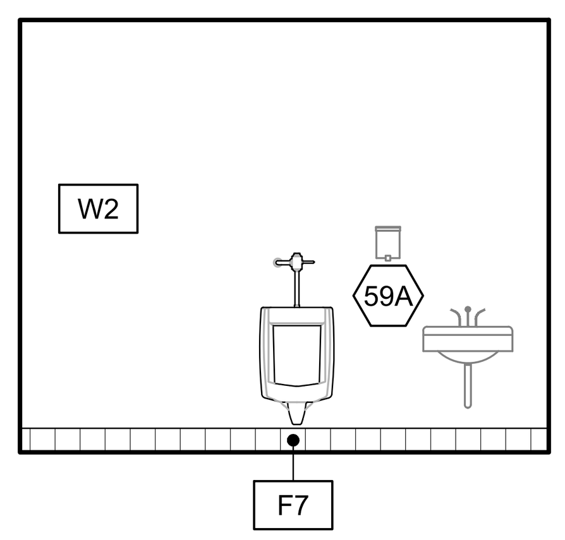
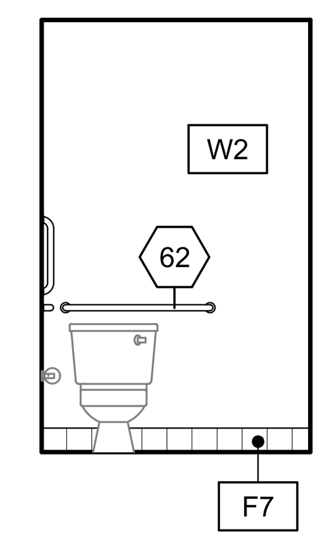
PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
A2.0
REFLECTED CEILING PLAN



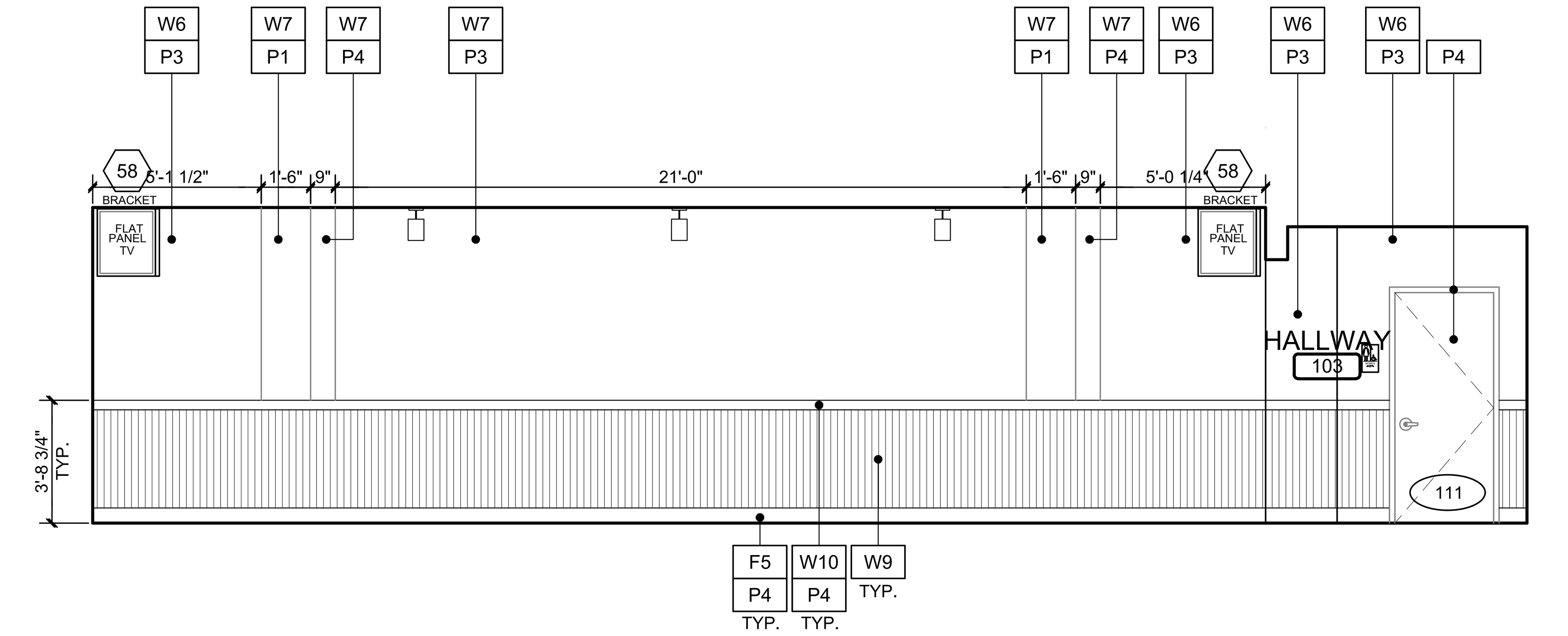
NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

10 A3.0 MEN'S ROOM ELEVATION
1/4" = 1'-0"

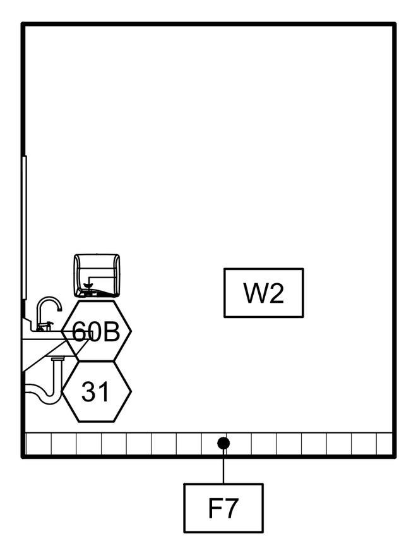


NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

6 A3.0 WOMEN'S ROOM ELEVATION
1/4" = 1'-0"

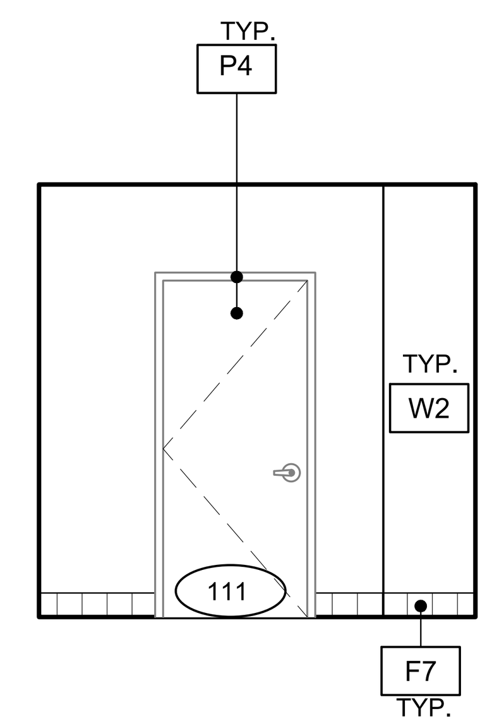


1 A3.0 INTERIOR ELEVATION
1/4" = 1'-0"



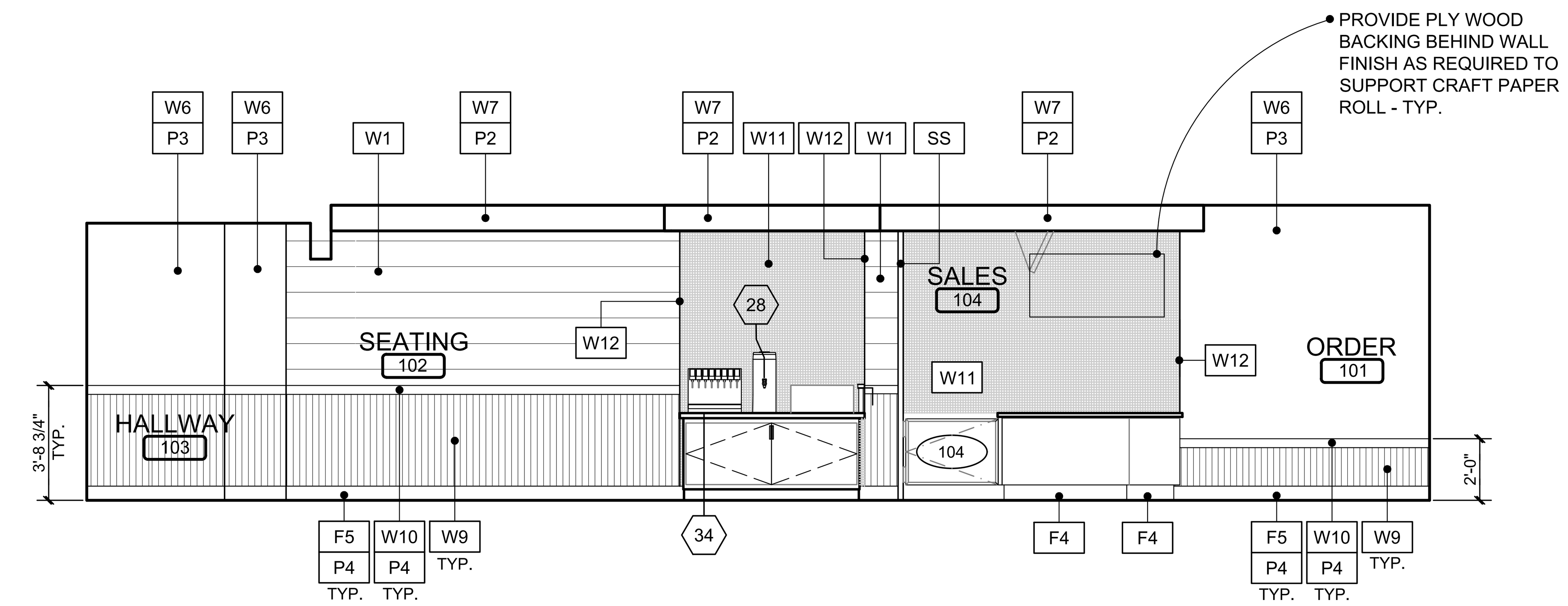
NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

11 A3.0 MEN'S ROOM ELEVATION
1/4" = 1'-0"

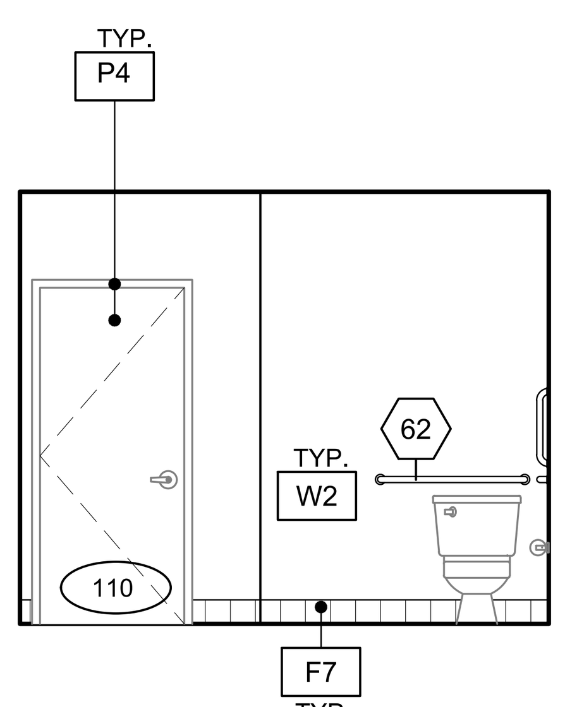


NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

7 A3.0 WOMEN'S ROOM ELEVATION
1/4" = 1'-0"

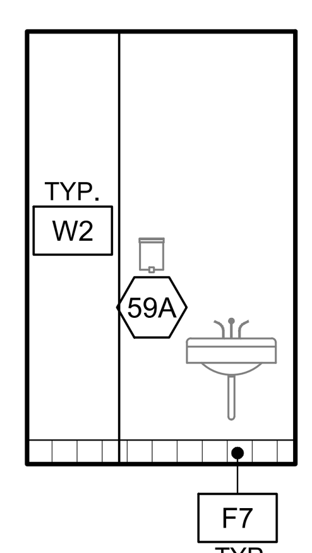


2 A3.0 INTERIOR ELEVATION
1/4" = 1'-0"



NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

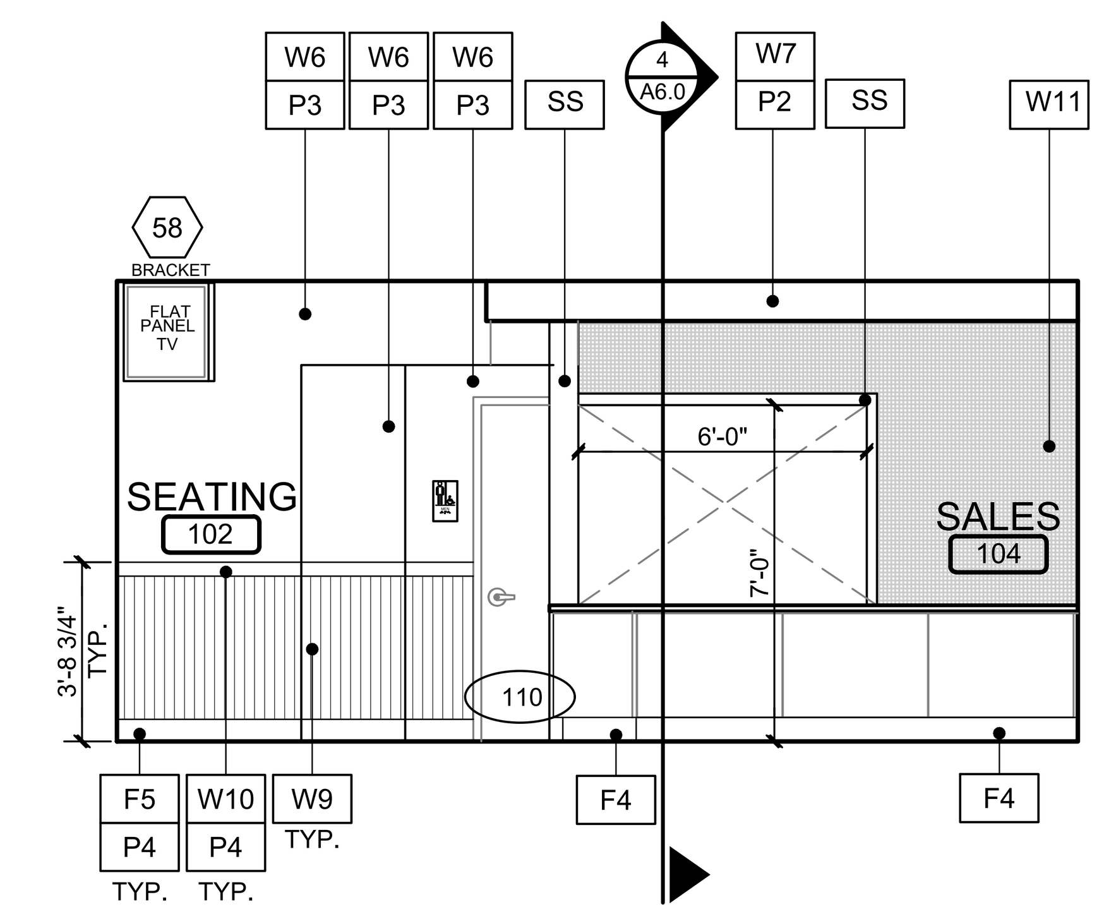
12 A3.0 MEN'S ROOM ELEVATION
1/4" = 1'-0"



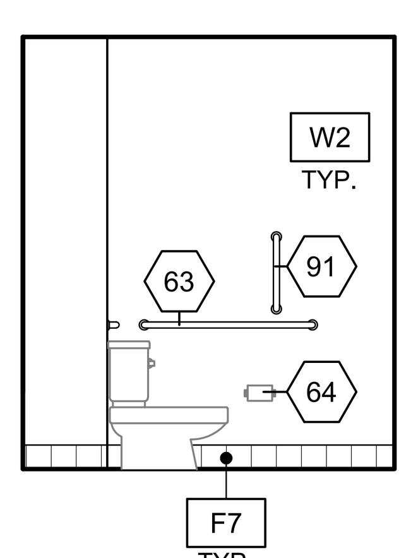
NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

8 A3.0 WOMEN'S ROOM ELEVATION
1/4" = 1'-0"

5 A3.0 NOT USED

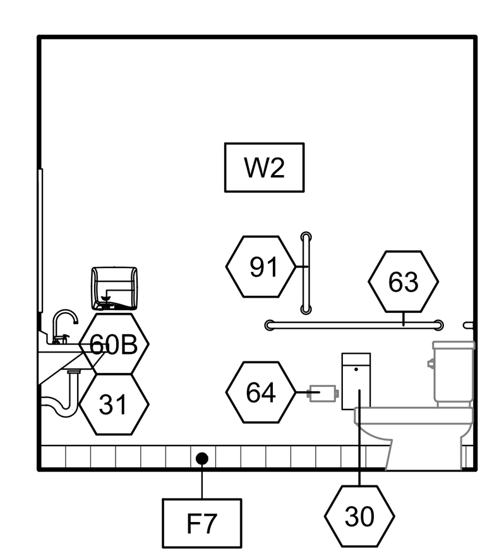


3 A3.0 INTERIOR ELEVATION
1/4" = 1'-0"



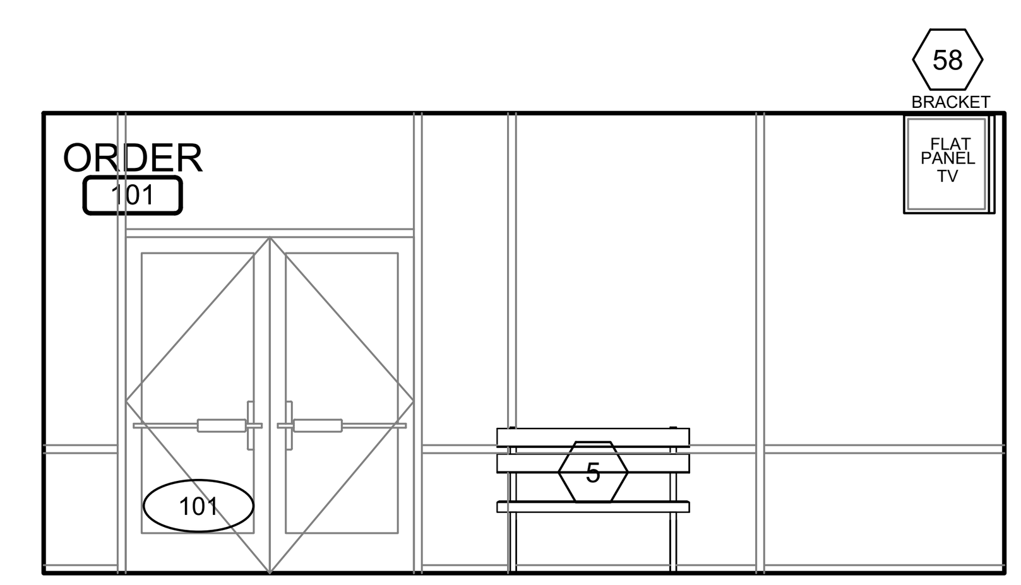
NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

13 A3.0 MEN'S ROOM ELEVATION
1/4" = 1'-0"



NOTE:
REFER TO B1.0 FOR ACCESSORY & PLUMBING FIXTURE INSTALLATION REQUIREMENTS - TYP. REFER TO EQ1 FOR EQUIPMENT SCHEDULE

9 A3.0 WOMEN'S ROOM ELEVATION
1/4" = 1'-0"



NOTE:
GENERAL CONTRACTOR TO VERIFY WITH OWNER WINDOW SHADE LOCATIONS - REFER TO A4.0 FOR SPECIFICATIONS

4 A3.0 INTERIOR ELEVATION
1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

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A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: NAV
CHECKED BY: JSS

ISSUE:	DATE:
PERMIT & BID SET	06-16-21

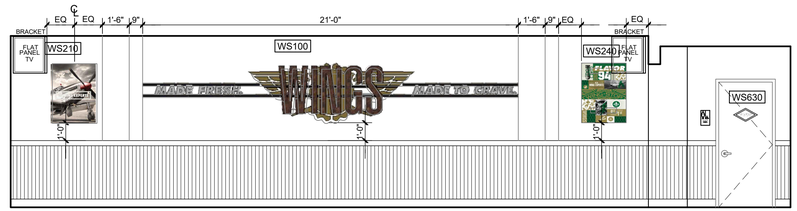
REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
A3.0
INTERIOR ELEVATIONS

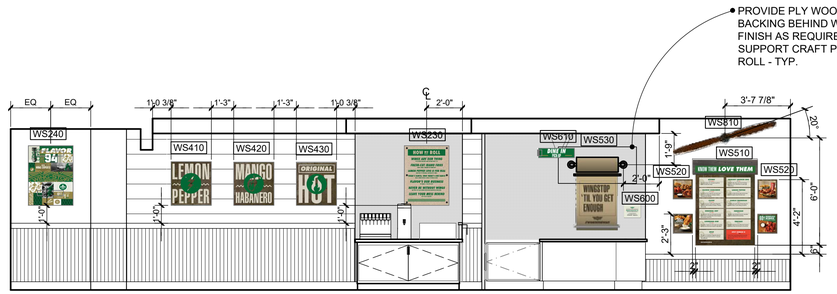
DECOR LEGEND & AREA OF RESPONSIBILITY

ITEM	DESCRIPTION	MODEL	NSF	SUPPLIER		INSTALLATION		REMARKS
				OWNER	CONT.	OWNER	CONT.	
WS100	WINGS BRAND SIGN	CUSTOM	N/A	X	-	-	X	1/2" WHITE PVC ROUTED LETTERS AND DIRECT PRINT BORDER STANDOFF. 1/4" AND 1/8" PVC FAUX WINGS CAN. 252" W X 36.5" T, WING SPAN 106.5".
WS150	WINGS BRAND SIGN / STACKED	CUSTOM	N/A	X	-	-	X	1/2" WHITE PVC ROUTED LETTERS AND DIRECT PRINT BORDER STANDOFF. 1/4" AND 1/8" PVC FAUX WINGS CAN. 252" W X 36.5" T, WING SPAN 106.5".
WS210	WING EXPERTS	CUSTOM	N/A	X	-	-	X	1/2" PVC WITH DIRECT TO PRINT GRAPHIC. RECESSED FRENCH CLEATS AND PAINTED RETURNS. 30" X 40"
WS220	SINCE 1994	CUSTOM	N/A	X	-	-	X	1/2" PVC WITH DIRECT TO PRINT GRAPHIC. RECESSED FRENCH CLEATS AND PAINTED RETURNS. 30" X 40"
WS230	HOW WE ROLL	CUSTOM	N/A	X	-	-	X	INTERIOR WAITING AREA SIGN. 1/2" PVC WITH DIRECT TO PRINT GRAPHIC. WITH 6 RESIN HEX-HEAD BOLTS MOUNTED TO ART. 30" X 40"
WS240	FLAVOR 94	CUSTOM	N/A	X	-	-	X	1/2" PVC WITH DIRECT PRINT GRAPHIC RECESSED FRENCH CLEATS AND PAINTED RETURNS. 31" X 48"
WS250	ENDLESS FLAVOR	CUSTOM	N/A	X	-	-	X	1/2" PVC WITH DIRECT PRINT GRAPHIC RECESSED FRENCH CLEATS AND PAINTED RETURNS. 30" X 40"
WS260	CAN'T STOP	CUSTOM	N/A	X	-	-	X	1/2" PVC WITH DIRECT PRINT GRAPHIC RECESSED FRENCH CLEATS AND PAINTED RETURNS. 40" X 30"
WS270	SAUCED & TOSSED	CUSTOM	N/A	X	-	-	X	1/2" PVC WITH DIRECT PRINT GRAPHIC RECESSED FRENCH CLEATS AND PAINTED RETURNS. 48" X 61.75"
WS310	AVIATION	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED FRENCH CLEATS AND PAINTED RETURNS , WOOD CLEATS TO HANG OVER STANOFFS. 76.25" X 46"
WS310A	AVIATION ALTERNATE	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED FRENCH CLEATS AND PAINTED RETURNS , WOOD CLEATS TO HANG OVER STANOFFS. 91.5" X 55.25"
WS350	MADE TO ORDER	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED FRENCH CLEATS AND PAINTED RETURNS , WOOD CLEATS TO HANG OVER STANOFFS. 71" x 41.75"
WS350A	MADE TO ORDER ALTERNATE	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED FRENCH CLEATS AND PAINTED RETURNS , WOOD CLEATS TO HANG OVER STANOFFS. 79.75" x 47"
WS410	LEMON PEPPER	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED CLEATS AND PAINTED RETURNS. 24" X 26"
WS420	MANGO HABANERO	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED CLEATS AND PAINTED RETURNS. 24" X 26"
WS430	ORIGINAL HOT	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED CLEATS AND PAINTED RETURNS. 24" X 26"
WS440	LOUISIANA RUB	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED CLEATS AND PAINTED RETURNS. 24" X 26"
WS450	HICKORY SMOKED BBQ	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED CLEATS AND PAINTED RETURNS. 24" X 26"
WS460	GARLIC PARMESAN	CUSTOM	N/A	X	-	-	X	DIRECT PRINT ON 1/2" WHITE PVC WITH RECESSED CLEATS AND PAINTED RETURNS. 24" X 26"
WS500	MENU BOARD	CUSTOM	N/A	X	-	-	X	MENU BOARD WITH MOUNTING HARDWARE (NO GRAPHICS) -
WS510	FLAVOR BOARD	CUSTOM	N/A	X	-	-	X	DIRECT PRINT 'ZINC' BACKGROUND ON .20 MAGNET ROLL (MAGNET SIDE PRINT) AND DIRECT PRINT ARTON FERRO PAPER. 1/2" DIRECT PRINT PVC.
WS520	CHANGEABLE PROMO PLAQUES	CUSTOM	N/A	X	-	-	X	DIRECT PRINT 'ZINC' BACKGROUND ON .20 MAGNET ROLL 1/2" DIRECT PRINT PVC
WS530	KRAFT PAPER ROLL	CUSTOM	N/A	X	-	-	X	DIRECT PRINT KRAFT PAPER ROLL (24") ART ROLLED INWARD AND HUNG TO TEAR. 1-1/4" DIAMETER MALEABLE GAS PIPE PAINTED BLACK.
WS600	OWNER PLAQUE	CUSTOM	N/A	X	-	-	X	OWNERS SIGN (OPERATOR NAME SPECIFIC PER LOCATION) -
WS610	DINE IN	CUSTOM	N/A	X	-	-	X	MOUNTED U-BRACKET PAINTED SATIN BLACK- 4" X 4" GALVANIZED BASE. 1/2" DIRECT PRINT PVC SIGN ATTACHED.
WS620	PICK UP	CUSTOM	N/A	X	-	-	X	AIRCRAFT CABLE AND CRIMPING FERRELS.1/2" DIRECT PRINT PVC SIGN ATTACHED WITH ROUTED HOLES.
WS630	RESTROOM SIGNS	CUSTOM	N/A	X	-	-	X	MEN AND WOMEN
WS640	UNISEX RESTROOM SIGN	CUSTOM	N/A	X	-	-	X	UNISEX
WS710	ARROW 36"	CUSTOM	N/A	X	-	-	X	INTERNALLY ILLUMINATED ARROW OPEN SIGN 36"
WS720	ARROW 36"	CUSTOM	N/A	X	-	-	X	INTERNALLY ILLUMINATED ARROW OPEN SIGN 36"
WS730	ARROW 28"	CUSTOM	N/A	X	-	-	X	INTERNALLY ILLUMINATED ARROW OPEN SIGN 28.5"
WS740	ARROW 28"	CUSTOM	N/A	X	-	-	X	INTERNALLY ILLUMINATED ARROW OPEN SIGN 28.5"
WS810	PROPELLER	CUSTOM	N/A	X	-	-	X	-
WS820	PAPER TOWEL HOLDER	CUSTOM	N/A	X	-	-	X	RESTROOMS



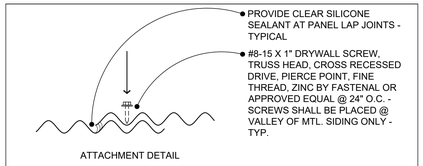
1 A3.1 DECOR ELEVATION

1/4" = 1'-0"

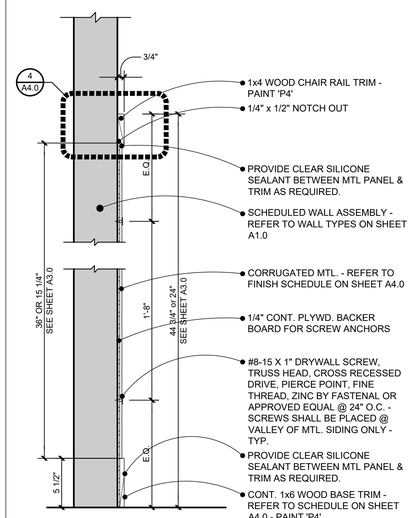


2 A3.1 DECOR ELEVATION

1/4" = 1'-0"

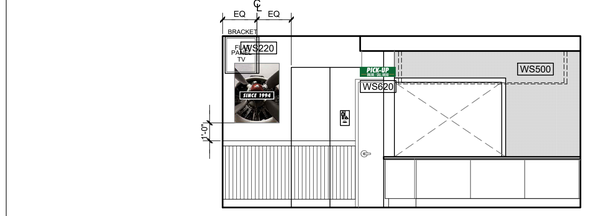


ATTACHMENT DETAIL



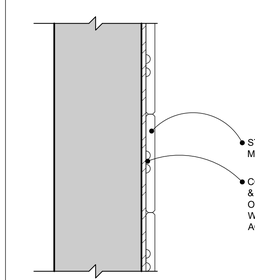
5 A3.1 TYP. WALL PANELING DTL. @ SEATING

1 1/2" = 1'-0"



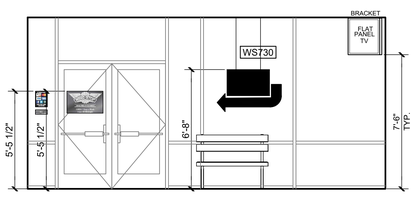
3 A3.1 DECOR ELEVATION

1/4" = 1'-0"



6 A3.1 TYP. WOOD WALL PANELING DTL.

N.T.S.



4 A3.1 DECOR ELEVATION

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
NOT APPROVED FOR PERMIT
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

CONSULTANT:

WILKUS ARCHITECTS

15 Ninth Aveaune North, Hopkins, MN 55343
Phone: 952.941.8650/ www.wilkusarch.com

CLIENT:

WINGSTOP

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

DISCLAIMER:

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PROJECT INFORMATION:

WING·STOP

STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: NAV
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ISSUE:	DATE:
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REVISION:	DATE:

PROJECT LOCATION:

LEE'S SUMMIT, MO

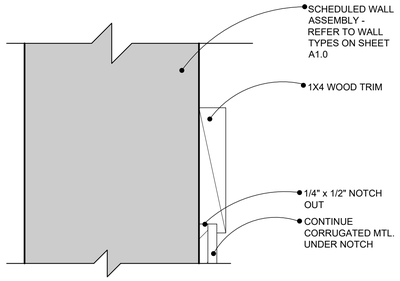
SHEET NUMBER / TITLE:

A3.1

DECOR ELEVATIONS

NOT USED

3
A4.0



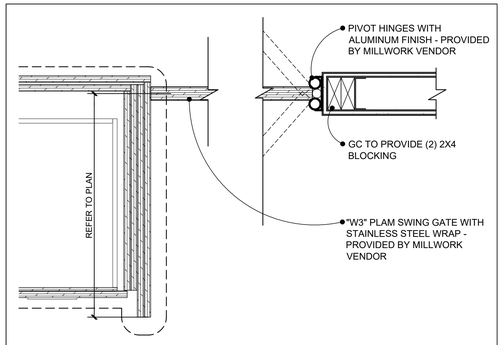
TYP. CHAIR RAIL

4
A4.0

6" = 1'-0"

NOT USED

5
A4.0



TYPICAL SWING GATE DETAIL

1
A4.0

1 1/2" = 1'-0"

NOT USED

2
A4.0

HARDWARE SCHEDULE

HARDWARE SET	DESCRIPTION	QTY.
1	NOTE: FIELD VERIFY EXISTING DOOR CONDITIONS AND REUSE IF ALLOWABLE	
	KEYED LOCK	1 EA
	SIGN: "THESE DOORS TO REMAIN UNLOCKED WHILE BUSINESS IS OCCUPIED"	1 EA
	CLOSER	1 EA
	HINGES	1 SET
	THRESHOLD	1 EA
	PUSH/ PULL BAR WITH PADDLE HANDLE	1 EA
2	DOUBLE ACTION KITCHEN HINGES REFER TO DETAIL 1/A4.0	1 SET
3	LOCKSET W/ LEVER HAND OR REPLACE CYLINDER	1 EA
	EXTERIOR STRIKE GUARD PLATE	1 EA
	VIEWER	1 EA
	CLOSER	1 EA
	THRESHOLD	1 EA
	36" HIGH 14 GA STEEL DIAMOND PLATE KICK PLATE ON INTERIOR SIDE	1 EA
4	NOT USED	
5	HINGES	1 SET
	PRIVACY LOCK SET LEVER HANDLE	1 EA
	CLOSER	1 EA
	SIGN "MEN" / "WOMEN" (DECOR BY OWNER) ACCESSIBLE SIGN "MEN" / "WOMEN" (BY CONTRACTOR)	1 EA
	DOOR / WALL STOP - REFER TO A1.0	1 EA
	8" HIGH KICK PLATE (BRUSHED SS FINISH) ONE ON EACH SIDE	1 EA

HARDWARE NOTES

1. ALL HARDWARE NEW AND EXISTING SHALL BE IN ACCORDANCE WITH LOCAL AND STATE ACCESSIBILITY STANDARDS, AND AMERICANS WITH DISABILITY STANDARDS.

2. A READILY VISIBLE, DURABLE SIGN IS POSTED ON THE EGRESS SIDE OR ADJACENT TO THE DOOR STATING, "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".

3. EGRESS DOORS TO BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR ANY REQUIRED SPECIAL KNOWLEDGE OR EFFORT.

4. EGRESS DOOR LOCK AND LATCHES SHALL COMPLY WITH ALL LOCAL AND STATE CODE REQUIREMENTS.

DOOR SCHEDULE

MARK	SIZE	DESCRIPTION	FRAME	NOTES	RATING	HARDWARE
101	EXISTING	EXISTING ALUMINUM AND GLASS STOREFRONT	ALUM.	FIELD VERIFY EXISTING CONDITIONS USE EXISTING HARDWARE IF POSSIBLE	N/A	NUMBER 1
104	CUSTOM	SALES COUNTER MILLWORK GATE	WOOD	SUPPLIED BY OWNER, INSTALLED BY G.C. -	N/A	NUMBER 2
107	3'-0" x 7'-0" x 1 3/4"	NEW HOLLOW METAL (PAINTED)	METAL	PAINT INTERIOR SIDE P5	N/A	NUMBER 3
110	3'-0" x 7'-0" x 1 3/4"	NEW SOLID CORE WOOD (PAINT GRADE)	METAL	KNOCK-DOWN PRIMER GRADE FRAME PAINTED P4 ALL SIDES	N/A	NUMBER 5
111	3'-0" x 7'-0" x 1 3/4"	NEW SOLID CORE WOOD (PAINT GRADE)	METAL	KNOCK-DOWN PRIMER GRADE FRAME PAINTED P4 ALL SIDES	N/A	NUMBER 5

ROOM FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
101	ORDER	F1	F5	W6, W7, W9, W10	C1	-
102	SEATING	F1	F5	W1, W6, W7, W9, W10, W11, W12	C1	-
103	HALLWAY	F1	F5	W6, W9, W10	C1	-
104	SALES	F2	F2	W7, W11	C2	REFER TO SHEET EQ2 FOR WALL TILE LOCATION
105	COOKING	F2	F2	W2, W8	C2	-
106	PREP	F2	F2	W2	C2	-
107	JANITOR	F2	F2	W2	C2	-
108	WALK-IN COOLER	F2	F2	REFER TO WALK-IN SPECIFICATIONS ON EQ1	-	EXTERIOR WALLS HAVE F2 AS BASE
109	WALK-IN FREEZER	-	-	REFER TO WALK-IN SPECIFICATIONS ON EQ1	-	EXTERIOR WALLS HAVE F2 AS BASE
110	MEN	F7	F7	W2	C2	REFER TO SHEET A3.0 FOR FINISH LOCATIONS
111	WOMEN	F7	F7	W2	C2	REFER TO SHEET A3.0 FOR FINISH LOCATIONS

ROOM FINISH SCHEDULE NOTES

1. REFER TO SHEET A2.0 FOR CEILING HEIGHTS

2. REFER TO SHEETS A1.1 FOR ADDITIONAL FLOOR FINISH NOTES

3. REFER TO SHEETS A3.0 AND EQ2 FOR PAINT AND FINISH MATERIAL LOCATIONS

FINISH TYPES

FLOORS

F1) EXISTING CONCRETE SLAB TO BE DYED: COLOR:DRIFTWOOD #1395
ALTERNATE: 20"X20" CMC ANTWERP BROWN, W/ MAPEI ULTRACOLOR PLUS FA, 07 CHOCOLATE GROUT, TILE LAID DIAGONAL

F2) 6x6 QUARRY TILE (HARD, SMOOTH UNDER ALL EQUIPMENT AND WALKWAYS, NON ABSORBENT) CMC RED QUARRY TILE COVE BASE, CMC RED SMOOTH 6X6X1/2"QUARRY TILE, CMC RED ABRASIVE 6X6X1/2" QUARRY TILE, W/ MAPEI KERAPOXY IEG (INDUSTRIAL EPOXY GROUT), 47 CHARCOAL GROUT

F3) CMC ANTWERP BROWN 6X12 COVE BASE, W/ MAPEI ULTRACOLOR PLUS FA 07 CHOCOLATE GROUT

F4) CMC RETRO BLACK 6X8 COVE BASE, W/ MAPEI ULTRACLOR PLUS FA 07 CHOCOLATE GROUT

F5) 1X6 WOOD BASE - PAINT P4

F6) 20"X20" CMC ANTWERP BROWN, W/ MAPEI ULTRACOLOR PLUS FA, 07 CHOCOLATE GROUT, TILE LAID DIAGONAL

F7) 6x6 QUARRY TILE, CMC GRAY QUARRY TILE COVE BASE, W/ MAPEI KERAPOXY INDUSTRIAL EPOXY GROUT

WALLS

W1) 1X6 TONGUE & GROOVE YELLOW PINE WITH CHAMFERED EDGES. 10'-12' LONG BOARDS - SANDED UP TO 220 GRIT. (1) COAT (MINWAX PERFORMANCE - SEMI TRANSPARENT STAIN FRUITWOOD SW3118 TO BE MIXED IN STORE) - (2) COATS OF MINWAX FAST DRYING POLYURETHANE CLEAR SATIN - PROVIDED & INSTALLED BY CONTRACTOR - REFER TO 6/A3.1 FOR INSTALLATION DETAIL
SATIN - PROVIDED & INSTALLED BY CONTRACTOR
* SEE BELOW FOR CALIFORNIA STAIN SPECS

W2) F.R.P. (FIBERGLASS REINFORCED PANELING) PEBBLED FINISH - #P199, COLOR: WHITE

W3) PLASTIC LAMINATE, MATTE SURFACE- #ES2003T, COLOR: SIENNA ESSENCE

W4) 20x20 CMC ANTWERP BROWN - 07 CHOCOLATE GROUT

W5) NOT USED

W6) WALL SURFACE FINISH- LEVEL 03 TEXTURED FINISH: ORANGE PEEL

W7) WALL SURFACE FINISH- LEVEL 04 SMOOTH FINISH: SMOOTH SURFACE W/ NO TEXTURE

W8) STAINLESS STEEL WALL PANEL- CUSTOM PANEL: SMOOTH SURFACE, REFER TO SHEET EQ2 FOR LOCATION - PROVIDED BY HOOD VENDOR

W9) CORRUGATED METAL 1 1/4" X 1/4" PANEL PROFILE

W10) 1X CHAIR RAIL: CUSTOM

W11) CMC MEZCALAS GREEN 1X1 GLOSSY MOSAIC, W/ MAPEI ULTRACLOR PLUS FA, 93 WARM GRAY GROUT

W12) SCHLUTER STRIP: QUADEC-EB. BRUSHED STAINLESS STEEL

* IN CALIFORNIA ONLY, THE STAIN SPECS ARE THE FOLLOWING:
MINWAX WATER BASED WOOD FINISH, CLEAR TINT BASE, COLOR- COLONIAL PINE

CEILING

C1) 2X2 LAY-IN CEILING TILES W/ PRELUDE GRID SYSTEM- FINE FISSURED #1728 COLOR: BLACK W/ BLACK GRID; OR APPROVED EQUAL

C2) 2X4 LAY-IN CEILING TILES W/ PRELUDE PLUS GRID SYSTEM- CLEAN ROOM VL #870, COLOR: WHITE; OR APPROVED EQUAL

C3) GYP. BD. - PAINTED W7, P5

PAINT SCHEDULE

P1) COLOR: CRAFTSMAN BROWN , COLOR NO: SW 2835, PROMAR 200 ZERO VOC SEMI-GLOSS

P2) COLOR: WINGSTOP BRICK RED, COLOR NO: CUSTOM, PROMAR 200 ZERO VOC SEMI-GLOSS

P3) COLOR: PAVILION BEIGE, COLOR NO: SW 7512, PROMAR 200 ZERO VOC SEMI-GLOSS

P4) COLOR: 2016 WINGSTOP GREEN, PROMAR 200 ZERO VOC SEMI-GLOSS

P5) COLOR: EXTRA WHITE, COLOR NO: SW 7006, PROMAR 200 ZERO VOC SEMI-GLOSS

ADDITIONAL MATERIAL FINISH NOTES:

1. ALL FINISH MATERIALS TO COMPLY W/ THE FLAME SPREAD CLASSIFICATION RATING AS SPECIFIED IN THE BUILDING CODES INDICATED ON THE COVER SHEET, A0.0

ADDITIONAL CONCRETE FLOOR FINISH NOTES:

1. THE G.C. SHALL INSPECT THE EXIST. FLOOR PRIOR TO ANY INSTALLATION PROCEDURES & NOTIFY WINGSTOP OF ANY SERIOUS DEFECTS W/ THE EXIST. FLOOR THAT WOULD WARRANT THE INSTALLATION OF A FLOOR LEVELING COMPOUND. THE LEVELING COMPOUND SHALL BE NOTED AS AN ALTERNATE BID TO THE CONSTRUCTION CONTRACTOR.
2. MECHANICALLY GRIND FLOOR & EDGES W/ 50-HYBRID DIAMONDS TO BEGIN PROCESS OF PROFILING THE CONC.
3. CLEAN & PATCH FLOOR.
4. MECHANICALLY GRIND FLOOR & EDGES W/ 100-HYBRID DIAMONDS TO BEGIN THE PROCESS OF PROFILING THE CONC.
5. MASK OFF WALLS AND APPLY SCOFIELD FORMULA ONE LIQUID DYE CONCENTRATE TO FLOOR.
6. APPLY SCOFIELD FORMULA ONE LITHIUM DENSIFIER TO FLOOR.
7. MECHANICALLY GRIND FLOOR & EDGES W/ 400/800-HYBRID DIAMONDS TO BEGIN PROCESS OF POLISHING THE CONC.
8. APPLY (1) ONE COAT OF SCOFIELD CONCRETE GUARD - BURNISH FLOOR W/ 1500 GRIT DIAMOND PADS.
9. APPLY SECOND COAT OF SCOFIELD FORMULA ONE GUARD & BURNISH W/ 3000 GRIT DIAMOND PADS.

ADDITIONAL QUARRY TILE FINISH NOTES:

1. EDGE PROFILE @ QUARRY TILE - REFER TO DETAIL 5/A1.1

MATERIAL INFORMATION

FLOOR DYE
SCOFIELD CONCRETE PRODUCTS/ 1-800-800-9900 FORMULA ONE LIQUID DYE CONCENTRATE SEALED WITH FINISH HARDENER: FORMULA ONE LITHIUM DENSIFIER. A CERTIFIED SCOFIELD INSTALLER IS RECOMMENDED, CONTACT CUSTOMER SERVICE FOR LOCAL INSTALLER AT THE NUMBER SPECIFIED ABOVE
* REFER TO THE ADDITIONAL CONCRETE FLOOR FINISH NOTES.

QUARRY TILE, WALL TILE & TILE COVE BASE & SETTING MATERIAL
CREATIVE MATERIALS CORPORATION (CMC)
MAPEI or equal
AMY BURKE / 518-713-5386
ABURKE@CREATIVEMATERIALSCORP.COM

WOOD BASE TRIM
LIGHTLY SAND W/ 220 GRIT SANDPAPER & PAINT 'P4'

FRP
MARILITE / 330-343-6621
FRP SHALL BE PROVIDED ON ALL WALLS AT FULL HEIGHT IN THE SALES, COOKING, PREPARATION, SCULLERY & JANITOR AREAS. (ALSO IN OFFICE AREA IF APPLICABLE)

WINDOW SHADES
ROLL-A-SHADE
TEL:951.245.5077 X 402
ESTIMATES@ROLLASHADE.COM
SHEER WEAVE 2390 (5%) V20 PEARL GRAY WITH DIGITALLY PRINTED WINGSTOP LOGO

CORRUGATED METAL PANELS
RANDAL RETAIL
507 N. RADDANT RD.
BATAVIA, IL 60510
TYLER LOGAN
tyler@randalretail.com
630-761-0400
PANELS ARE TESTED FOR UL 790 CLASS A FIRE RESISTANCE RATING AND UL 2218 CLASS 4 HAIL IMPACT RESISTANCE.

PAINT
SHERWIN WILLIAMS / 214-728-6696, REFERENCE PARENT CODE #3729
REFER TO SHEET A3.0 FOR LOCATIONS

WRI LIGHTING
MELETIO LIGHTING
JIM ELLIS
JELLIS@METELIO.COM
PH: 214-352-3900

GREASE INTERCEPTOR - NATIONAL ACCOUNT INFORMATION
SCHIER NATIONAL STRATEGIC PRICING AGREEMENT #001078
PLEASE CONTACT :
SEAN MOLEN - NATIONAL ACCOUNTS MANAGER
SEAN.MOLEN@SCHIERPRODUCTS.COM
PH: 816-506-3203

RELEASE FOR CONSTRUCTION
NOT RELEASED FOR PERMIT
CONSULTANT: DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
07/08/2021

WILKUS ARCHITECTS
15 Ninth Aveuna North, Hopkins, MN 55343
Phone: 952.941.8650/ www.wilkusarch.com

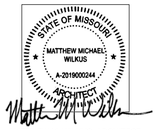
CLIENT:

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:



MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

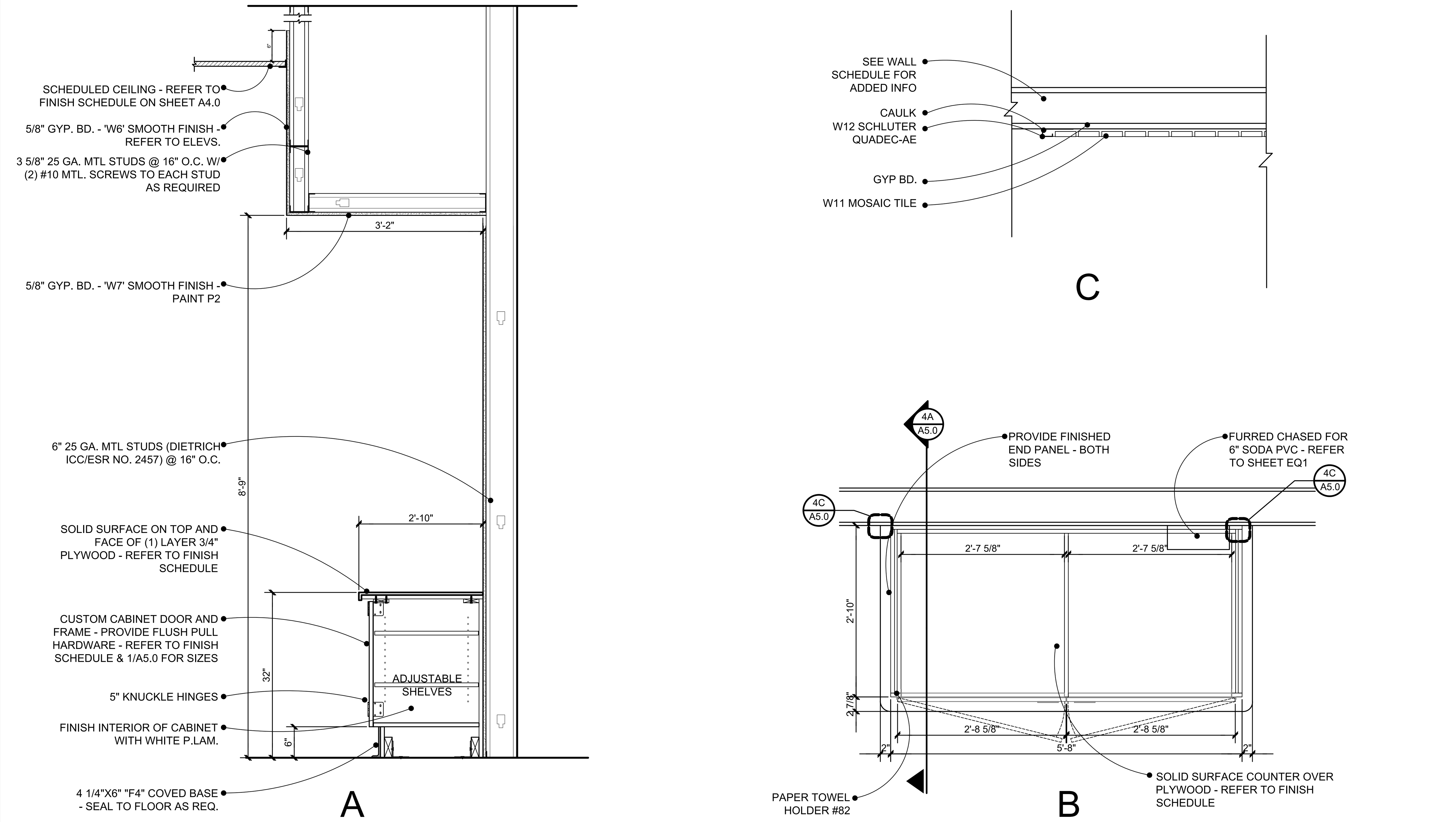
PROJECT NO.: 2021-0158
DRAWN BY: NAV
CHECKED BY: JSS

ISSUE:	DATE:
PERMIT & BID SET	06-16-21

REVISION:	DATE:

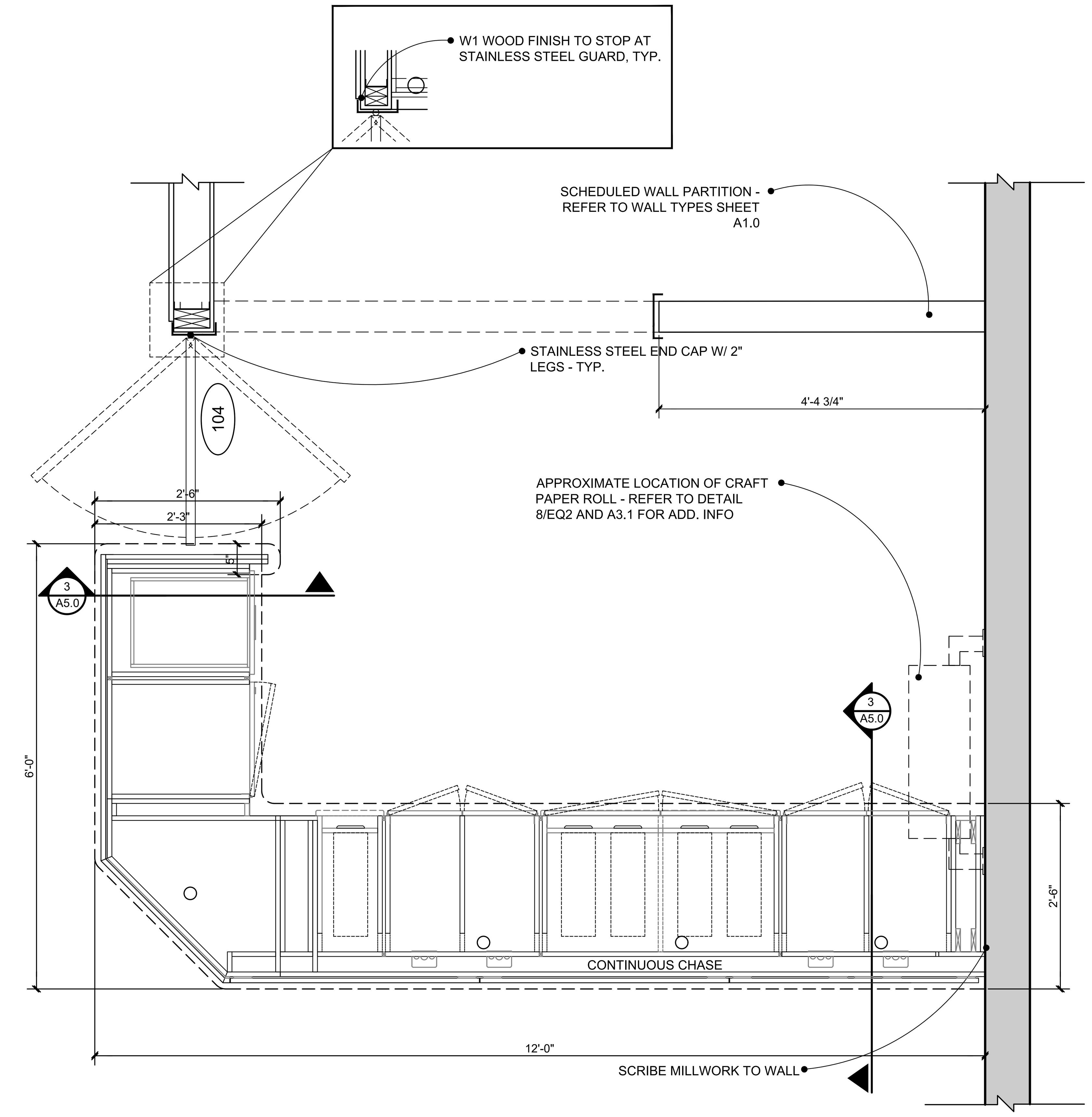
PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
A4.0
FINISH / DOOR /HARDWARE



4 A5.0 TYP. BEVERAGE STATION DETAILS

3/4" = 1'-0"



1 A5.0 SALES COUNTER PLAN

3/4" = 1'-0"

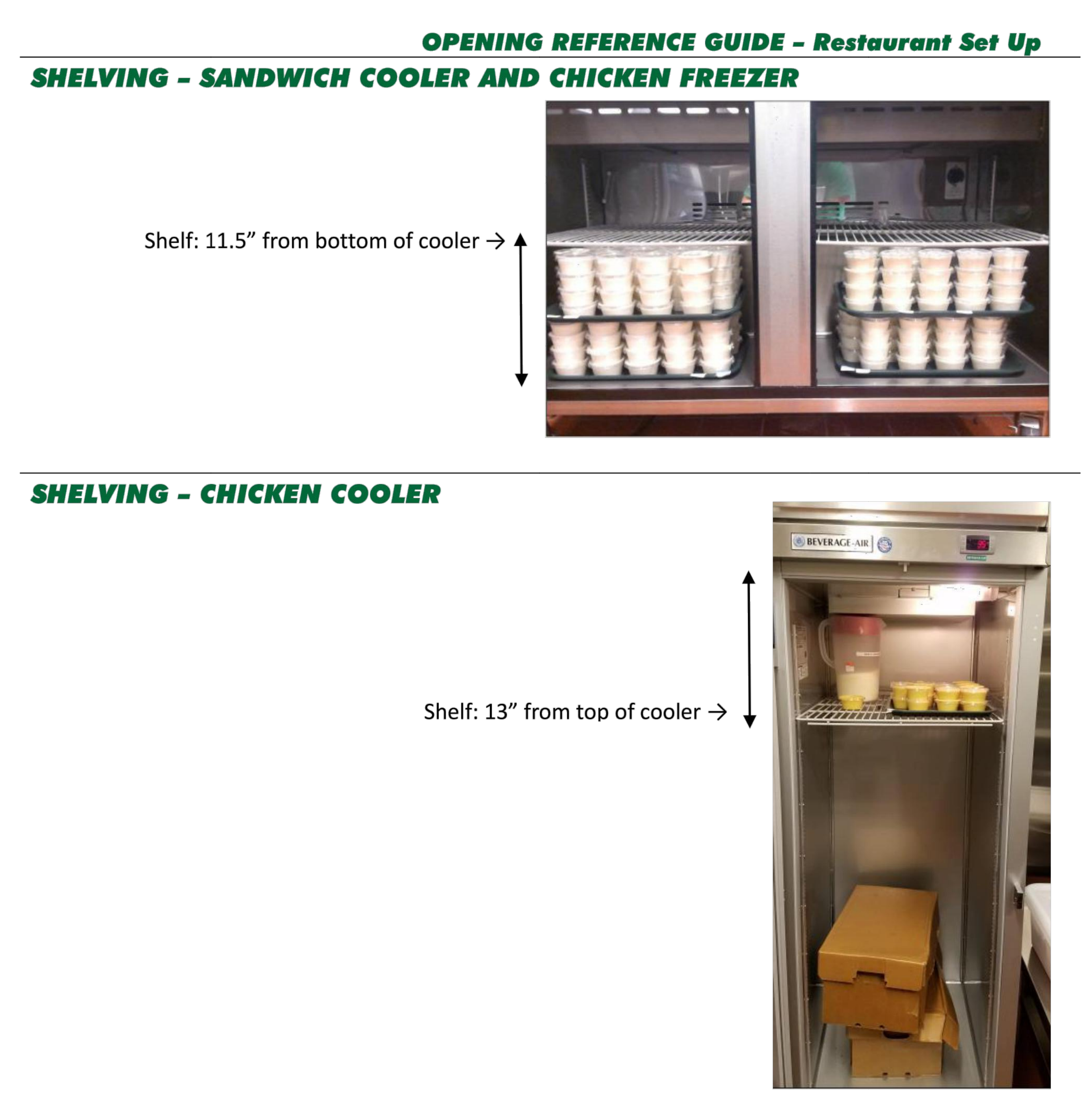
6 A5.0 SHELVING DETAILS

NTS

SALES COUNTER NOTES

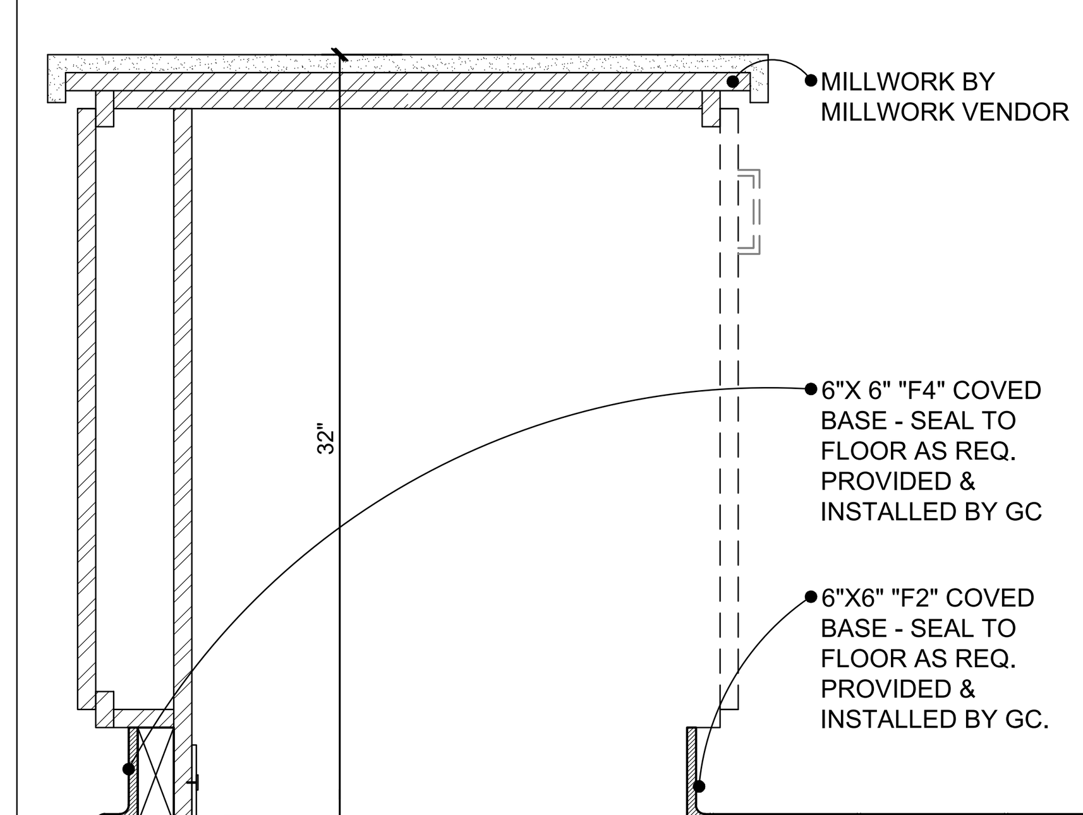
1. REFER TO MANUFACTURER'S CUT-SHEETS FOR ALL EQUIPMENT PRIOR TO ANY CUT-OUTS FOR DATA, ELECTRICAL, SODA LINES, RECESSED CUP HOLDERS, OR ANY OTHER APPLICABLE ITEMS.

2. MILLWORK S.S. & SOLID SURFACE WILL BE PART OF THE MILWORK FIXTURE PACKAGE BY EQUIP VENDOR, GC TO ASSEMBLE, SEAM COUNTER TOP AND INSTALL



5 A5.0 SHELVING DETAILS

NTS



3 A5.0 SALES CTR. SECTION (OPENING)

1 1/2" = 1'-0"

2 A5.0 NOT USED

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

CONSULTANT:

WILKUS ARCHITECTS

15 Ninth Aveune North, Hopkins, MN 55343
Phone: 952.941.8660/ www.wilkusarch.com

CLIENT:

WING·STOP

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

DISCLAIMER:

PROJECT INFORMATION:

WING·STOP

STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

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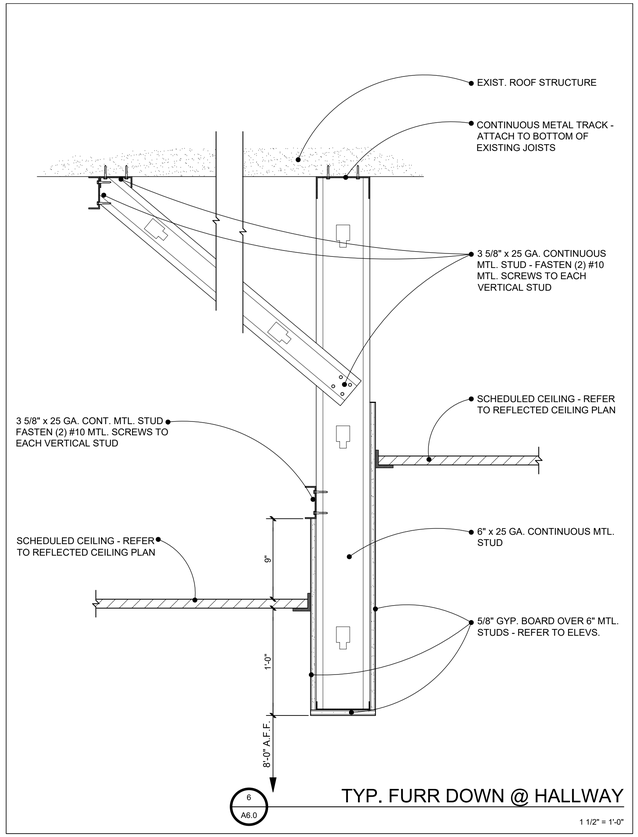
PROJECT LOCATION:
LEE'S SUMMIT, MO

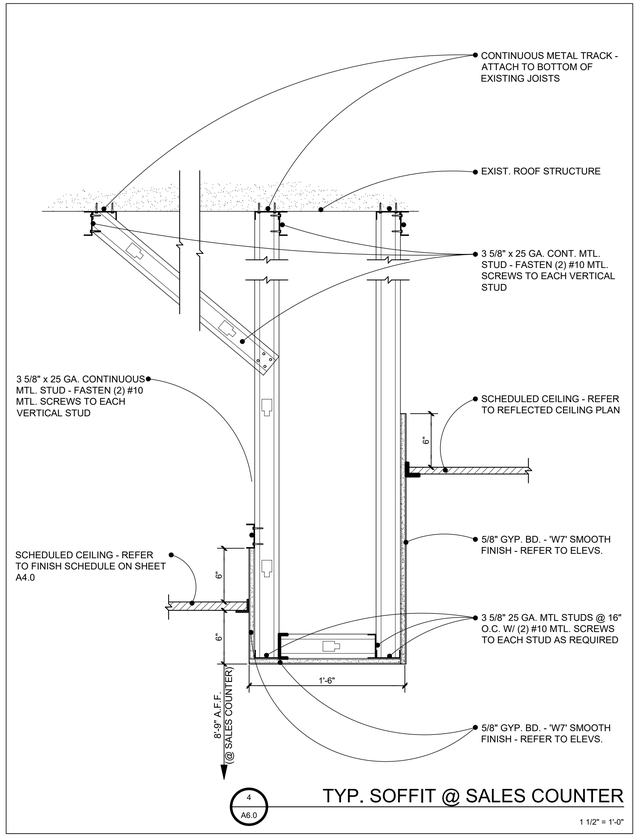
SHEET NUMBER / TITLE:
A5.0
SALES COUNTER PLAN/DETAILS



6 A6.0

TYP. FURR DOWN @ HALLWAY

1 1/2" = 1'-0"



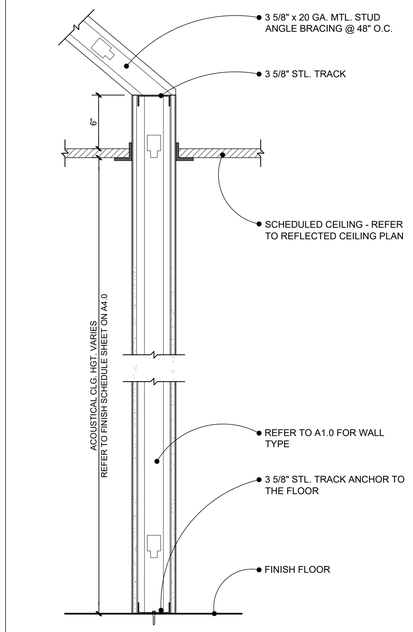
4 A6.0

TYP. SOFFIT @ SALES COUNTER

1 1/2" = 1'-0"

3 A6.0

NOT USED



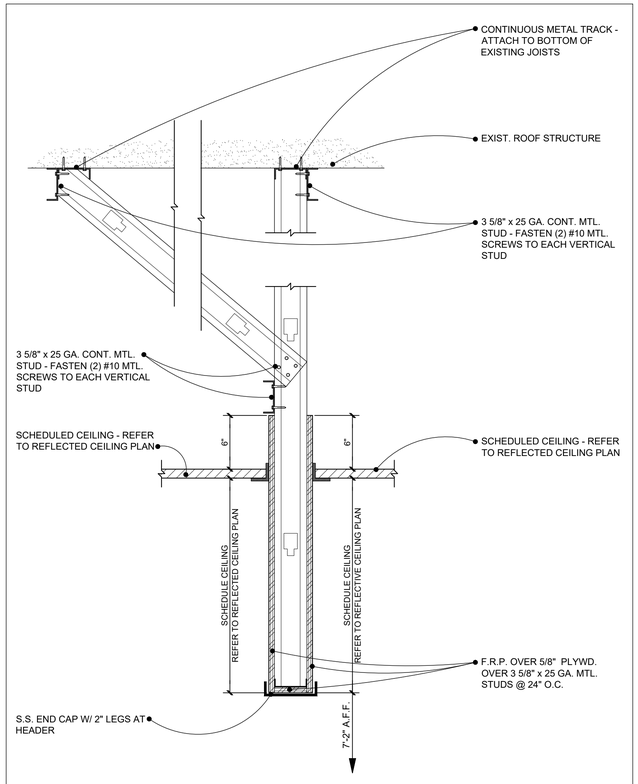
1 A6.0

TYPICAL WALL BRACING DETAIL

1 1/2" = 1'-0"

7 A6.0

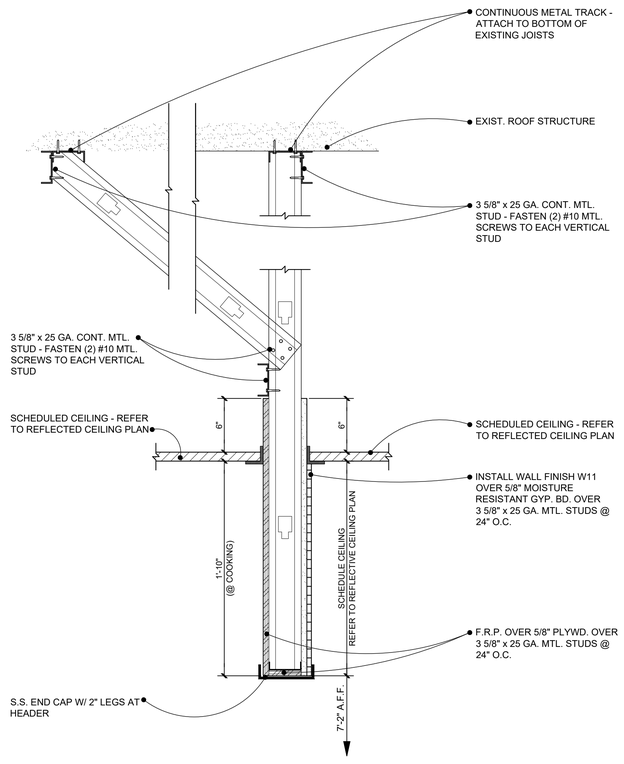
NOT USED



5 A6.0

TYPICAL FURR DOWN @ KITCHEN

1 1/2" = 1'-0"



2 A6.0

TYPICAL FURR DOWN @ SALES

1 1/2" = 1'-0"

RELEASE FOR CONSTRUCTION
AS APPROVED BY THE CITY OF
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

CONSULTANT:

WILKUS ARCHITECTS

15 Ninth Aveune North, Hopkins, MN 55343
Phone: 952.941.8650/ www.wilkusarch.com

CLIENT:

WING·STOP

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

DISCLAIMER:

PROJECT INFORMATION:

WING·STOP

STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
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LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:

A6.0

WALL SECTIONS & DETAILS

EQUIP. LEGEND & AREA OF RESPONSIBILITY

ITEM	DESCRIPTION	MODEL	NSF	SUPPLIER		INSTALLATION		COORD./SUPERVISED BY CONTRACTOR	REMARKS
				OWNER	CONT.	OWNER	CONT.		
01	DOUBLE GLASS DOOR MERCHANDISER	GDM-33-HC-LD	X	X	-	-	X	-	115 VOLTS, 6.3 AMPS / WITH CASTORS / NOTE 09
02	NOT USED	-	-	-	-	-	-	-	-
03	SANDWICH/SALAD UNIT	SR48A-8	X	X	-	-	X	-	115 VOLTS, 11.8 AMPS / WITH INTEGRAL SHELVING #38 / NOTE 09
04	1-DR. REACH-IN REFRIGERATOR	CR1S-FS	X	X	-	-	X	-	115 VOLTS, 4.0 AMPS / WITH CASTORS / NOTE 09
05	48" WOODEN BENCH	CUSTOM	N/A	X	-	X	-	-	-
06	HOOD FIRE ANSUL SUPPRESSION SYSTEM	CUSTOM	N/A	X	-	X	-	X	REF. TO HOOD DRAWINGS FIRE SUPPRESSION PERMITTED/ INSTALLED BY CAPTIVE AIRE
07	S.S. 3-COMPARTMENT SINK, 96"L.	CUSTOM	X	X	-	-	X	-	WITH (2) 18" DRAIN BOARDS, (2) 8" SIDE SPLASHES. VERIFY W/ LOCAL JURISDICTIONS FOR DRAIN BOARD & BOWL SIZE.
08	MOP SERVICE BASIN	MSB-2424	X	-	X	-	X	-	WITH BUILT-IN ANTI SIPHON DEVICE
09	S.S. WORK TABLE 30"D. x 96"L.	CUSTOM	X	X	-	-	X	-	WITH DRAWER / WITH INTEGRAL SHELVING #38 / WITH CASTORS
10	S.S. WORK TABLE 30"D. x 96"L.	CUSTOM	X	X	-	-	X	-	WITH UNDERSHELF / WITH INTEGRAL SHELVING #38
11	S.S. WORK TABLE 30"D. x 18"L	CUSTOM	X	X	-	-	X	-	24" TALL
12	HAND SINK W/ SIDE SPLASH (R & L)	7-PS-66	X	X	-	-	X	-	WITH (2) 8" HIGH SIDE SPLASHES
12B	HAND SINK W/ SIDE SPLASH (R & L)	PBHS-W-KVMB-SSP-X	X	X	-	-	X	-	WITH (2) 8" HIGH SIDE SPLASHES
13	POTATO SLICER	300 SERIES	X	X	-	-	X	-	WITH SHOVEL LEVER/INSTALL 2" ABOVE SINK BACK SPLASH
14	ICE MACH. W/ STORAGE BIN	KM-901MAH	X	X	-	-	X	-	208 VOLTS, 13 AMPS / S.B. MODEL: B-500 / WITH 6" HIGH LEGS
14A	ICE MACH. FILTER	CUSTOM	X	X	-	-	X	X	SUPPLIED BY EQUIPMENT VENDOR
15	TANKLESS WATERHEATER	RHEEM	X	-	X	-	X	-	REFER TO PLUMBING PLANS FOR SPECIFICATIONS
16	SWING GATE	CUSTOM	-	X	-	-	X	-	-
17	NOT USED	-	-	-	-	-	-	-	-
18	SOLSTICE SUPREME GAS FRYER	SSH75	X	X	-	-	X	-	105,000 BTU, 75 LBS (OIL CAPACITY) / WITH 6" CASTORS
19	SOLSTICE SUPREME GAS FRYER	SSH55	X	X	-	-	X	-	80,000 BTU, 40-50 LBS (OIL CAPACITY) / WITH 6" CASTORS
20	COOKING & HOLDING TIMER	U160DKB7503	X	X	-	-	X	-	-
21	SOLSTICE SUPREME FILTER	SFSH75	X	X	-	-	X	-	120 VOLTS, 6.2 AMPS / ITEM IS AN INTEGRAL PART OF THE FRYERS
22	STEAM TABLE PAN RACK & COVER	1509/PRC 12	X	X	-	X	-	X	QUANTITY: 02 / NOT INDICATED ON PLAN
23	NOT USED	-	-	-	-	-	-	-	-
24	NOT USED	-	-	-	-	-	-	-	-
25	24" x 30" TABLE & BASE	CUSTOM	N/A	X	-	-	X	-	-
26A	30" x 42" TABLE & BASE	CUSTOM	N/A	X	-	-	X	-	-
26B	ACCESSIBLE 30" x 42" TABLE & BASE	CUSTOM	N/A	X	-	-	X	-	-
27	WOOD CHAIR	6305P	N/A	X	-	-	X	-	-
28	ICED TEA BREWER & URNS	CUSTOM	X	X	-	X	-	X	120 VOLTS, 13.8 AMPS
28A	ICED TEA URNS	CUSTOM	X	X	-	X	-	X	-
29	SLIM-JIM TRASH RECEPTACLE	8323G4	X	X	-	-	X	-	-
30	SANITARY NAPKIN RECEPTACLE	1102	X	X	-	-	X	-	-
31	TRASH RECEPTACLE	MODEL VARIES	X	X	-	-	X	-	-
32	BEVERAGE / CONDIMENTS COUNTER	CUSTOM	N/A	X	-	-	X	-	PROVIDED OWNER AND INSTALLED BY CONTRACTOR
33	SHORTENING SHUTTLE	SS-611-T	X	X	-	-	X	-	ITEM NUMBER NOT INDICATED ON EQUIPMENT PLAN
34	6-VALVE SELF-SERVE SODA SYSTEM	DURAFLEX 150	X	X	-	X	-	X	115 VOLTS, 3 AMPS / 6-VALVE
34A	LEGACY DISPENSER FILTER	-	X	X	-	X	-	X	-
35	CARBONATOR	N/A	N/A	X	-	X	-	X	SUPPLIED BY COCA COLA PRODUCTS
36	BIB FLEX RACK SYSTEM	44239	X	X	-	X	-	X	WITH 6" HIGH LEGS
37	CO2 SYSTEM	CARBO-MIZER 450	N/A	X	-	X	-	X	-
38	SOLID SHELVES	CUSTOM	X	X	-	-	X	-	2 ROWS INTEGRAL W/ #03 & 10 REFER TO EQ.2 FOR HEIGHT
39	DRY STORAGE SHELVING	EG01.00	X	X	-	-	X	-	REFER TO EQUIPMENT PLAN FOR SIZES AND NUMBER OF TIERS
40	DUNNAGE RACK (PRODUCE STAND)	DR362012	X	X	-	-	X	-	-
41	SCULLERY SHELVING (2 ROWS)	EG01.00	X	X	-	-	X	-	2 ROWS OF 18" x 48" (TOP), 2 ROWS OF 18" x 48" (BOTTOM)
42	12'-0" TYPE 1 EXHAUST HOOD	ND SERIES	X	X	-	-	X	-	NOTES 05, 06, 07 - VERIFY TYPE, SIZE & SERIES AGAINST HOOD DRAWINGS
43	S.S. WORK TABLE 28" (FRY TABLE)	CUSTOM	X	X	-	-	X	-	-
44	BROOM & MOP RACK	40731	X	X	-	-	X	-	-
45	FIRE EXTINGUISHER	REFER NOTE 03	N/A	-	X	-	X	-	CLASS: K (AT HOOD), CLASS: 2A10BC (STANDARD)
46	POINT-OF-SALE SYSTEM	RZ-X750	N/A	X	-	X	-	X	-
47	SMARTRACK 12U WALL-MOUNT RACK	SRW9U	X	X	-	X	-	X	NOTE 11
48	POINT-OF-SALE EQUIPMENT	-	N/A	X	-	X	-	X	WALL MOUNTED MANAGER STATION
49	SAFE & STAND	P060413-03	N/A	X	-	-	X	X	MOUNTED ON BASE AS REQUIRED / COORDINATE TYPE WITH OWNER
50	STEREO (AMP.) RECEIVER	MODEL VARIES	N/A	X	-	X	-	X	PROVIDED AND INSTALLED BY OWNER
51	SATELLITE RECEIVER	MODEL VARIES	N/A	X	-	X	-	X	PROVIDED AND INSTALLED BY OWNER
52	NOT USED	-	-	-	-	-	-	-	-
53	NOT USED	-	-	-	-	-	-	-	-
54	POS COUNTER	CUSTOM	N/A	X	-	-	X	-	PROVIDED OWNER AND INSTALLED BY CONTRACTOR
55	POS SHROUD	CUSTOM	N/A	-	-	-	-	-	PROVIDED OWNER AND INSTALLED BY CONTRACTOR
56	NOT USED	-	-	-	-	-	-	-	-
57	EXTERIOR BUILDING SIGNAGE 'WINGSTOP'	CUSTOM	N/A	X	-	X	-	X	PROVIDED AND INSTALLED BY THE SIGN VENDOR.
58	T.V., WALL BRACKET & STAND	MODEL VARIES	N/A	X	-	-	X	-	-
59A	HAND SOAP DISPENSER	S4025	N/A	X	-	-	X	-	-
59B	NOT USED	-	-	-	-	-	-	-	-
60A	NOT USED	-	-	-	-	-	-	-	-
60B	PAPER TOWEL DISPENSER	T1290WS	N/A	X	-	-	X	-	-
61	NOT USED	-	-	-	-	-	-	-	-
62	36" x 1 1/2" GRAB BAR	B-6106	N/A	-	X	-	X	-	-
63	42" x 1 1/2" GRAB BAR	B-6106	N/A	-	X	-	X	X	-
64	TOILET PAPER DISPENSER	8735020	N/A	X	-	-	X	X	-
65	GREASE INTERCEPTOR	MODEL VARIES	N/A	-	X	-	X	-	REFER PLUMBING DRAWINGS FOR SPECIFICATIONS
66	NOT USED	-	-	-	-	-	X	-	-
67	WALL MOUNTED MIXING FAUCET	CUSTOM	X	X	-	-	X	-	-
68	WIRE WALL SHELVING	METRO	X	X	-	-	X	-	REFER TO EQ1 FOR SIZE
69	COOLER DUNNAGE RACK	DR362012	X	X	-	-	X	-	REFER TO EQUIPMENT PLAN FOR SIZES & MOUNTING HEIGHTS
70	COOLER SHELVING	EG01.00	X	X	-	-	X	-	5 TIERS HIGH, REFER TO EQUIPMENT PLAN FOR SIZES
71	WALK-IN COOLER	CUSTOM	X	X	-	-	X	-	NOTE 09 / WSPROTO-1
72	STOREFRONT VINYL GRAPHICS	CUSTOM	N/A	X	-	X	-	X	-
73	KNIFE HOLDER	2918P	X	X	-	-	X	-	-
74	TO-GO RACK	CUSTOM	X	X	-	-	X	-	18x36, 4 TIER WITH SOLID SHELVES AND 6" CASTERS
75	TICKET RAIL		X	X	-	-	X	-	-
76	HIGH CHAIR	CHH-104	N/A	X	-	-	X	-	-
77	S.S. 2-COMPARTMENT SINK, 60"L.	CUSTOM	X	X	-	-	X	-	WITH (1) 18" DRAIN BOARDS, (2) 8" SIDE SPLASHES WITH OPTIONAL LID COVERS. VERIFY W/ LOCAL JURISDICTIONS FOR DRAIN BOARD & BOWL SIZE. SINGLE SHELF ABOVE PREP SINK
78	DRY STORAGE WIRE SHELVING	EG01.00	X	X	-	-	X	-	REFER TO EQUIPMENT PLAN FOR SIZES
79	COMMERCIAL MOP BUCKET	7580-88	N/A	X	-	-	X	-	ITEM NOT INDICATED ON EQUIPMENT PLAN
80A	24" OFFICE BAR STOOL	4202P	N/A	X	-	-	X	-	-
80B	NOT USED	-	-	-	-	-	-	-	-
81	CONDIMENT DISPENSER	CUSTOM	X	X	-	-	X	-	-
82	NOT USED	-	-	-	-	-	-	-	-
83	NOT USED	-	-	-	-	-	-	-	-
84	REACH-IN FREEZER	CF1S-FS	X	X	-	-	X	-	115 VOLTS, 9.0 AMPS / WITH CASTORS / NOTE 09
85	NOT USED	-	-	-	-	-	-	-	-
86	S.S. STAND	SK2731U	X	X	-	-	X	-	OVEN STAND WITH WHEELS
87	CONVECTION OVEN	E31D4	X	X	-	-	X	-	208V, 14 AMPS / NEMA 6-15P CORDSET FITTED / NOTE 10
88	NOT USED	-	-	-	-	-	-	-	-
89	NOT USED	-	-	-	-	-	-	-	-
90	NOT USED	-	-	-	-	-	-	-	-
91	VERTICAL GRAB BAR	B-6106	N/A	-	X	-	X	-	-
92	MANAGER'S DESK	CUSTOM	X	X	X	-	X	-	COORDINATE WITH EQUIPMENT MANUFACTURER
93	NOT USED	-	-	-	-	-	-	-	-
94	NOT USED	-	-	-	-	-	-	-	-
95	NOT USED	-	-	-	-	-	-	-	-
96	NOT USED	-	-	-	-	-	-	-	-
97	NOT USED	-	-	-	-	-	-	-	-
98	STAINLESS STEEL CORNER GUARD		N/A	-	X	-	X	-	-
99	STAINLESS STEEL END CAP		N/A	-	X	-	X	-	-
100	NOT USED	-	-	-	-	-	-	-	-
101	DARPRO COOKING OIL COLLECTION	B.O.S.S.	X	X	-	-	X	-	-

EQUIPMENT LEGEND NOTES:

1. FLAT PANEL TV DISPLAY WALL MOUNTING BRACKET & MONITOR BRAND SELECTION TO BE DETERMINED BY OWNER. CONTRACTOR TO COORDINATE ITEM #58 WITH OWNER FOR INSTALLATION.

2. THE OWNER SHALL PROVIDE WALL MOUNTED DECOR ITEMS. THESE ITEMS ARE TO BE INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE THE DELIVERY AND INSTALLATION OF ALL DECOR ITEMS WITH THE OWNER. REFER TO A3.1

3. THE CONTRACTOR SHALL VERIFY WITH ALL LOCAL AGENCIES QUANTITY AND LOCATION OF ALL FIRE EXTINGUISHERS.

4. ALL KITCHEN EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE NATIONAL SANITATION FOUNDATION (NSF).

5. THE EXHAUST HOOD, EXHAUST FAN, EXHAUST DUCT, EXHAUST DUCT FIRE WRAP AND MAKE-UP AIR FAN SHALL BE SUPPLIED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. THE MAKE-UP AIR DUCT SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

6. THE EXHAUST HOOD FIRE SUPPRESSION SYSTEM SHALL BE SUPPLIED AND INSTALLED BY THE OWNER. THE CONTRACTOR SHALL SUPPLY AND INSTALL THE EMERGENCY GAS SHUT-OFF VALVE

7. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE THE DELIVERY OF ALL KITCHEN EQUIPMENT WITH THE EQUIPMENT VENDOR.

8. THE CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS REQUIRED FOR THE OWNER PROVIDED SIGNAGE.

9. ALL SPECIFIED REFRIGERATION UNITS SHALL BE SELF-CONTAINED AND SELF EVAPORATING.

10. NO GREASE LADEN FOODS SHALL BE PREPARED IN THE CONVECTION OVEN (ITEM #87), IT IS USED FOR BAKING ROLLS ONLY.

11. CONTACT SMARTRACK 9U WALL-MOUNT RACK SUPPLIER FOR ADDITIONAL INFORMATION: CHRIS IANNUZZI OF IT SAVVY (630) 396-6315

EQUIP. PLAN NOTES

1. ALL SWITCHES, COVER PLATES, AND PLUGS SHALL BE 'WHITE'

2. TELEPHONE SERVICE SHALL BE (3) THREE LINES OF SERVICE AS FOLLOWS:
   A. LINE 1 SHALL BE PRIMARY TELEPHONE LINE.
   B. LINE 2 SHALL BE FOR ROLL-OVER TELEPHONE LINE AND FAX LINE.
   C. LINE 3 SHALL BE FAX AND DATA LINE.

3. THE GENERAL CONTRACTOR SHALL PROVIDE THE MOUNTING OF TRANSFORMERS AND FINAL ELECTRICAL CONNECTION OF THE OWNER PROVIDED AND INSTALLED INTERIOR AND EXTERIOR BUILDING SIGNAGE. ALL SIGNS SHALL BE ON INDIVIDUAL CIRCUITS WITH DEDICATED GROUNDS.

4. THE FLOOR SINK UNDER THE 3-COMPARTMENT SINK IS USED FOR THE PLUMBING HOSE BIB.

5. COOKING AREA PROTECTION SYSTEM SHALL BE SUBMITTED FOR PLAN REVIEW UNDER A SEPARATE PLAN CHECK AND PERMIT

NOTE: EXTERIOR SIGNAGE SHALL BE SUBMITTED UNDER A SEPARATE PLAN CHECK REVIEW AND PERMIT PROCESS.

EQUIP. PLAN LEGEND

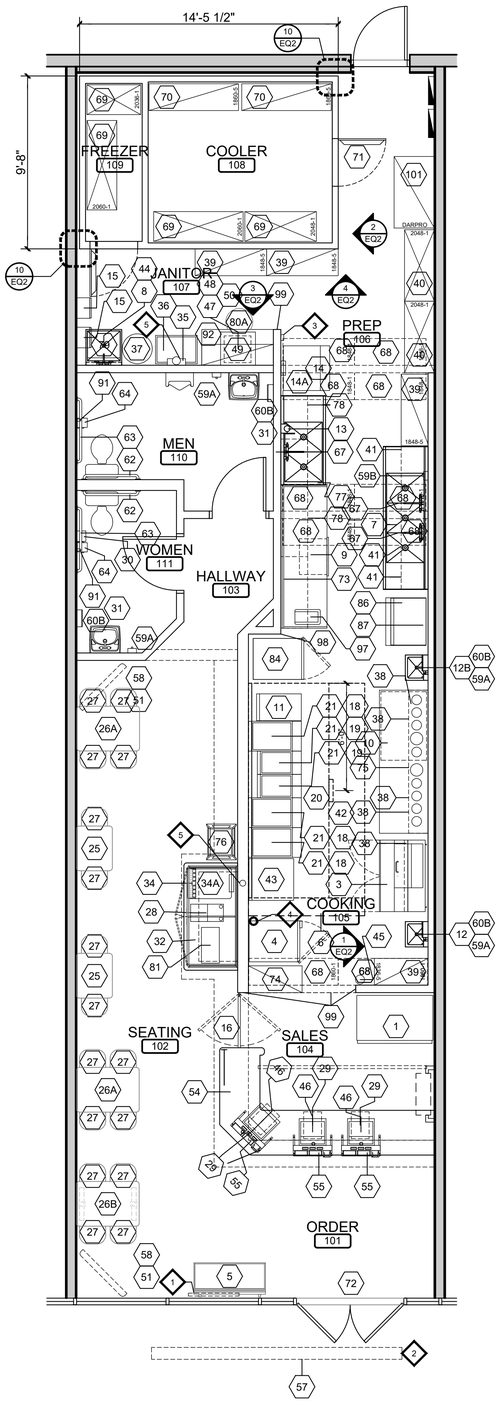
1. PROVIDE DEDICATED CIRCUIT AND GROUND 12'-0" A.F.F. ABOVE SOFFIT FOR LED SIGNS - TYPICAL - REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
2. PROVIDE DEDICATED CIRCUIT AND GROUND WITH CIRCUIT TIMER FOR EXTERIOR BUILDING SIGN - TYPICAL - VERIFY LOCATION WITH SIGN VENDOR - REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
3. REMOTE ANSUL PULL STATION - VERIFY LOCATION WITH LOCAL FIRE MARSHAL
4. GAS SERVICE CONNECTION - REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION
5. 6" P.V.C. BEVERAGE CONDUIT RUN IN CEILING WITH 6" 90's AND 6" P.V.C. IN PARTITIONS - REFER TO DETAIL 7/EQ2 FOR ADD. INFO.

WALK-IN COOLER/FREEZER SPECIFICATIONS

COMPONENT	DESCRIPTION
INSULATION:	FOAMED IN-PLACE U.L. LISTED, CLASS 1 URETHANE FOAM INSULATION WITH A FLAME SPREAD RATING OF LESS THAN 25, AND SMOKE DENSITY OF LESS THAN 450 - WGEB TESTED IN ACCORDANCE TO A.S.T.M. E84 (U.L. 723)
FLOOR:	FLOOR, WALL, AND CEILING PANELS: 4" THICK HIGH DENSITY PRE-FABRICATED FRAME - N.S.F. COVED, STEP-UP @ FREEZER FLOOR ONLY
FINISH:	INTERIOR: 26 GA. STUCCO EMBOSSED GALVALUM EXTERIOR: 26 GA. STUCCO EMBOSSED GALVALUM FLOOR FINISH: #10 SMOOTH ALUMINUM
DOORS:	(1) 34" x 78" FLUSH-IN FITTING COOLER DOOR (1) 30" x 72" FLUSH-IN FITTING FREEZER DOOR

1. INSTALLATION INSTRUCTIONS FOR THE WALK-IN COOLER/FREEZER SHALL BE ON THE JOBSITE FOR THE LOCAL BUILDING OFFICIAL

2. PROVIDE CP 25WB+ FIRE BARRIER SEALANT CAULK OR FB-3000 W/T FIRE BARRIER SEALANT FOR ANY PENETRATIONS INTO THE INSULATED PANELS



NOTE:
REFER TO A0.0 FOR GENERAL NOTES AND NOTES TO BIDDERS

TRUE NORTH

PLAN NORTH

1 EQ1

EQUIPMENT PLAN

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
NOT RELEASED FOR PERMIT
CONSULTANT: DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

WILKUS ARCHITECTS
15 Ninth Aveune North, Hopkins, MN 55343
Phone: 952.941.8680/ www.wilkusarch.com

CLIENT:

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

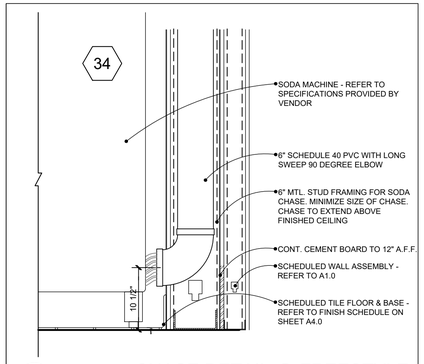
PROJECT NO.: 2021-0158
DRAWN BY: NAV
CHECKED BY: JSS

ISSUE:	DATE:
PERMIT & BID SET	06-16-21

REVISION:	DATE:

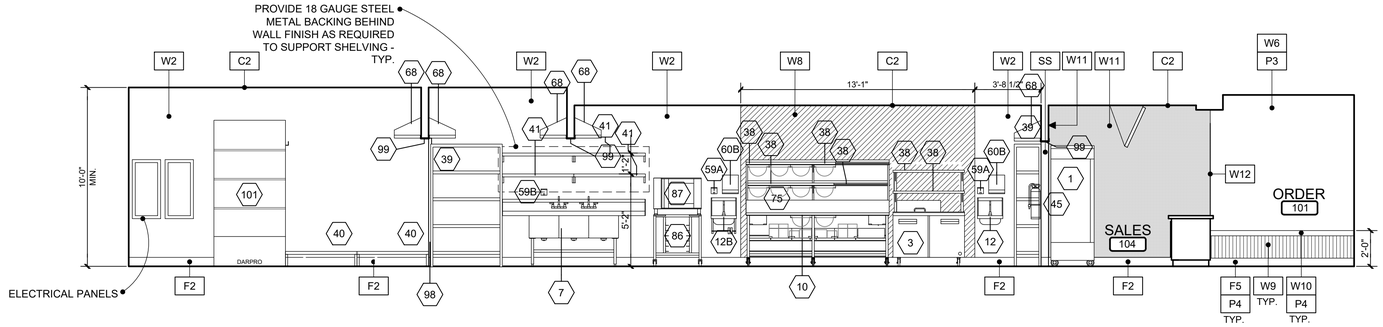
PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
EQ1
EQUIPMENT PLAN



7 EQ2 CHASE DETAIL @ FREESTYLE

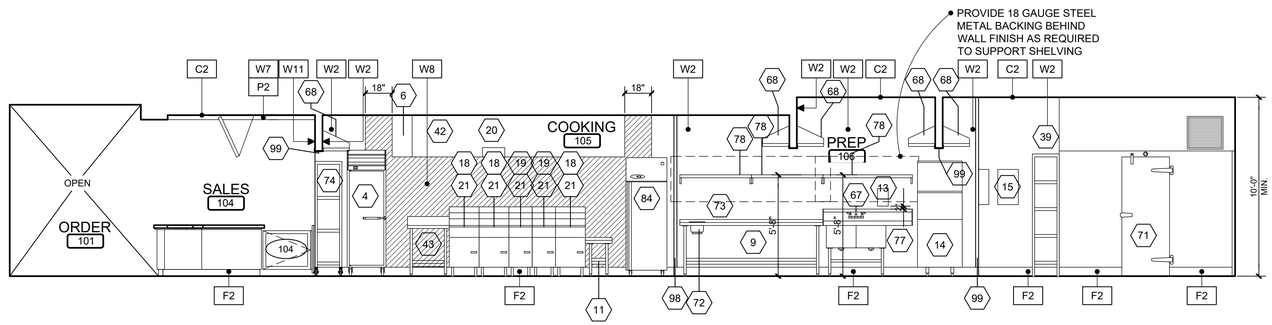
1" = 1'-0"



1 EQ2 KITCHEN ELEVATION

1/4" = 1'-0"

8 EQ2 NOT USED

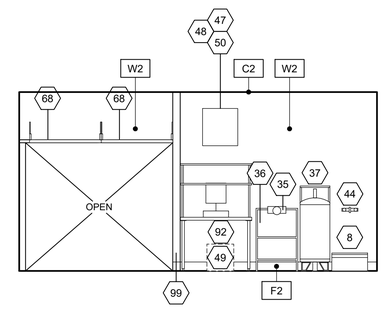


2 EQ2 KITCHEN ELEVATION

1/4" = 1'-0"

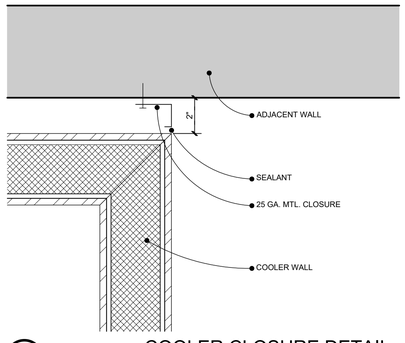
9 EQ2 NOT USED

5 EQ2 NOT USED



3 EQ2 KITCHEN ELEVATION

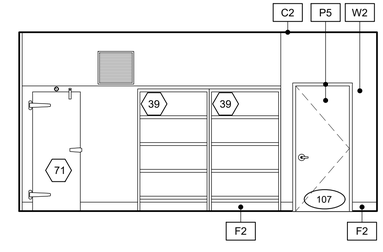
1/4" = 1'-0"



10 EQ2 COOLER CLOSURE DETAIL

3" = 1'-0"

6 EQ2 NOT USED



4 EQ2 KITCHEN ELEVATION

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
AS APPROVED BY THE CITY OF LEE'S SUMMIT DEVELOPMENT SERVICES
07/08/2021

CONSULTANT:

WILKUS ARCHITECTS
15 Ninth Aveune North, Hopkins, MN 55343
Phone: 952.941.8650/ www.wilkusarch.com

CLIENT:

WING·STOP

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

DISCLAIMER:

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PROJECT INFORMATION:

WING·STOP

STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
MATTHEW MICHAEL WILKUS
A-2019000244
ARCHITECT

MATTHEW M. WILKUS, ARCHITECT
LICENSE NUMBER: 2019000244
EXPIRATION DATE: 12-31-21

06-16-21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: NAV
CHECKED BY: JSS

ISSUE:	DATE:
PERMIT & BID SET	06-16-21

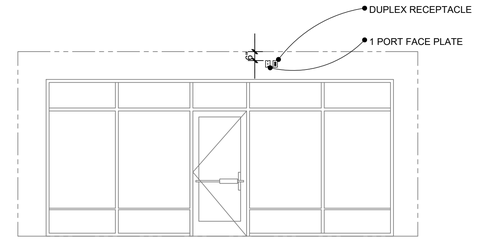
REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:

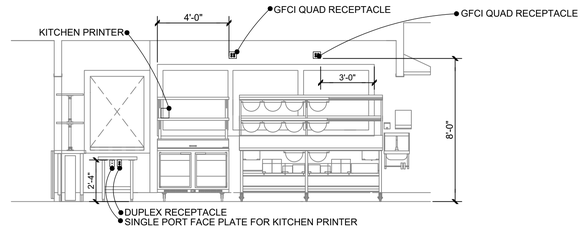
EQ2

INTERIOR EQUIP. ELEVS.



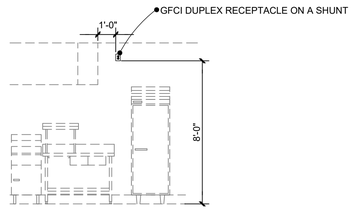
1 EQ3 TYP. STOREFRONT DATA ELEVATION

1/4" = 1'-0"



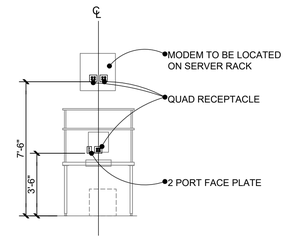
2 EQ3 TYPICAL KITCHEN DATA ELEVATION

1/4" = 1'-0"



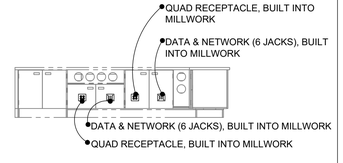
5 EQ3 TYPICAL COOKING DATA ELEVATION

1/4" = 1'-0"



3 EQ3 TYPICAL OFFICE DATA ELEVATION

1/4" = 1'-0"



4 EQ3 TYPICAL POS DATA ELEVATION

1/4" = 1'-0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021

CONSULTANT:

WILKUS ARCHITECTS
15 Ninth Avenue North, Hopkins, MN 55343
Phone: 952.941.8650/ www.wilkusarch.com

CLIENT:

15505 WRIGHT BROTHERS DRIVE
ADDISON, TX 75001
TELEPHONE: (972) 686-6500
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DISCLAIMER:

PROJECT INFORMATION:

WING·STOP

STORE NUMBER: GL#Y175
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
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REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
EQ3
DATA EQUIP. ELEVS.

HOOD INFORMATION – JOB#4921898

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1		5430 ND-2-ACPSP-F	CAPTIVEAIRE	12' 0"	600 DEG	I	HEAVY	225	2700			4"	16"	2700	1934	-1.008"	2160	650	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

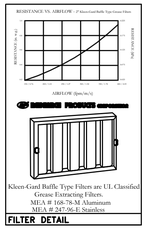
HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1		CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO	LEFT	12"x54"x30"	ANSUL R102	3.0/3.0	DCV-1111	1 LIGHT 1 FAN	YES	1002 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		BACKSPLASH 120.00" HIGH X 192.00" LONG 430 SS VERTICAL.
		BACKSPLASH 108.00" HIGH X 192.00" LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		STRUCTURAL FRONT PANEL.
		RISER SENSOR INSTALL 3IN DBL.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		GFCI DUPLEX OUTLET, 20A 125V - HOOD FRONT RIGHT - VERTICAL - DIST FROM END: 60.00 DIST FROM BOTTOM: 4.75.

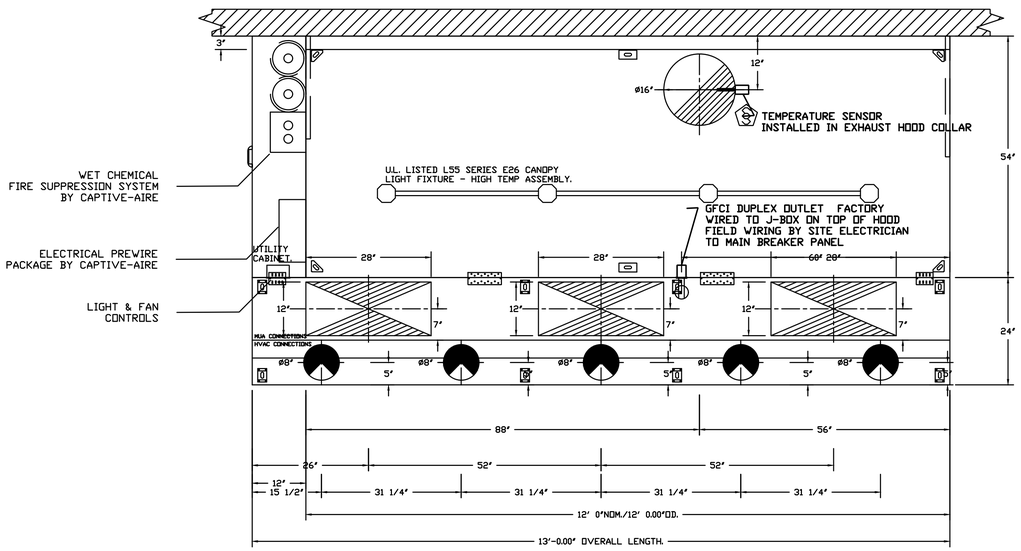
PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	PDS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1		Front	156"	24"	6"	MUA	12"	28"		720	0.195"
						MUA	12"	28"		720	0.195"
						MUA	12"	28"		720	0.195"
						AC			8"	130	0.053"
						AC			8"	130	0.053"
						AC			8"	130	0.053"
						AC			8"	130	0.053"
						AC			8"	130	0.053"



Kleen-Guard Baffle Type Filters are UL Classified Grease Extracting Filters.
MEA # 168-76-M Aluminum
MEA # 247-96-E Stainless

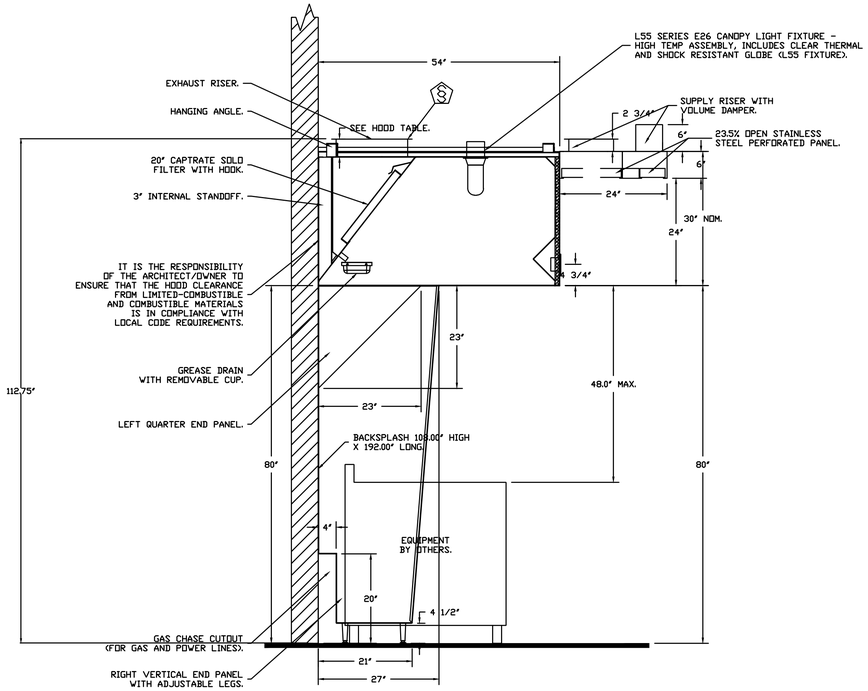
FILTER DETAIL



PLAN VIEW – HOOD #1
12' 0.00" LONG 5430ND-2-ACPSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

ACPSP SHIPS LOOSE FOR FIELD INSTALLATION

(1) DUPLEX OUTLET



SECTION VIEW – MODEL 5430ND-2-ACPSP-F
HOOD – #1

2700 CFM IN 16" DIA. EXHAUST COLLAR = 1934 FPM
HOOD CONSTRUCTION OF 18 GAUGE AND 20 GAUGE METAL

CALCULATIONS UTILIZED

Calculations utilized are based on the hood's ETL Listing
Exhaust CFM = 12 foot X 225 CFM/lin. ft. (load) = 2700 cfm
Supply CFM = 2700 Exhaust CFM X 80 percent = 2160 cfm

$$\text{Total Duct Area} = 144 \times \frac{\text{CFM}}{\text{FPM (Note 1)}}$$

$$\text{Duct Length} = \frac{\text{Total Duct Area}}{\text{Duct Depth (Note 2)}}$$

1) Captive-Aire ventilator duct sizes are calculated using an Exhaust velocity of 1500 – 1800 FPM and a Supply velocity of 800 – 1000 FPM.
2) Please consult factory for maximum allowable duct sizes.

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH
NFPA #96
NSF
UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804-001

FOR QUESTIONS, EMAIL THE
CaptiveAire Dallas Sales Office
Colin Prewitt
PHONE: (214) 220-3999
EMAIL: reg45@captiveaire.com

ALL HVAC SUPPLY DIFFUSERS WITHIN 10' OF THE EXHAUST HOOD MUST BE PERFORATED SCREEN STYLE WITH NO DIRECTIONAL VANES. HVAC AIR MUST NOT BLOW AT THE EXHAUST HOOD OR THE APPLIANCES.

ALL HVAC RETURN GRILLS MUST BE AT LEAST 10' FROM THE EXHAUST HOOD

THE BACK OF THE FRYERS SHOULD BE NO MORE THAN 6" FROM THE WALL

REFER TO HOOD MANUAL FOR PROPER INSTALLATION

CAPTIVE-AIRE HOOD PACKAGE AS SHOWN IS OWNER PROVIDED

ND-2 Specification
The model ND-2 is an exhaust only canopy hood rated for all types of cooking equipment. The hood shall have the size, shape and performance specified on drawings.

Construction shall be type 430 stainless steel with a #3 or #4 polish where exposed. Individual component construction shall be determined by the manufacturer and ETL. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints and penetrations of the hood enclosure to the lower outermost perimeter that directs and captures grease-laden vapor and exhaust gases shall have a liquid-tight continuous external weld in accordance with NFPA 96. Hood shall be wall type with a minimum of four connections for hanger rods. Corner hanging angles have a 5/8" x 1-1/2" slot pre-punched at the factory, allowing hanging rods to be used for quick and safe installation.

Ventilator shall be furnished with U.L. classified high efficiency stainless steel baffle filters, supplied in size and quantity as required by ventilator. The filters shall extend the full length of the hood and the filler panels shall not be more than 6' in width.

The hood manufacturer shall supply complete computer generated submittal drawings including hood sections view(s) and hood plan view(s). These drawings must be available to the engineer, architect and owner for their use in construction, operation and maintenance.

Exhaust duct collar to be 4" high with 1" flange. Duct sizes, CFM and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

U.L. incandescent light fixtures and globes shall be installed and pre-wired to a junction box. The light fixtures shall be installed with a maximum of 40" spacing on center and allow up to a 100 watt standard light bulb.

The hood shall have:
A double wall insulated front to eliminate condensation and increase rigidity. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.
An integral front baffle to direct grease laden vapors toward the exhaust filter bank.
A built-in wiring chase provided for outlets and electrical controls on the hood face and shall not penetrate the capture area or require an external chaseway.
Removable grease cup for easy cleaning.
The hood shall be ETL Listed as 'Exhaust Hood Without Exhaust Damper', ETL Sanitation Listed and built in accordance with NFPA 96. The hood shall be listed for 450°F cooking surfaces at 150 CFM/ft, 600°F cooking surfaces at 200 CFM/ft, and 700°F cooking surfaces at 250 CFM/ft. The hood shall be ETL Listed as 'Exhaust Hood Without Exhaust Damper'.

Clearance to Combustibles: Standard built in 3" rear standoff to meet NFPA 96 requirements.
The ND-2 Model has been certified by ITS. This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. and Canadian products safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued performance.

AC-PSP Specification
The AC Perforated Supply Plenum (ACPSP) shall provide make-up air through a dual stream perforated stainless steel plenum. All seams shall be welded and have stainless steel on exposed surfaces. Unexposed surfaces shall be constructed of aluminized steel. Perforated diffuser plates shall be included in the design and to provide even air distribution. The air-conditioned portion of the plenum shall be insulated to prevent condensation. The make-up air plenum shall be located nearest the hood and the air-conditioned plenum away from the hood. The make-up air stream and the air-conditioned stream shall not be permitted to mix until leaving the dual plenum.

Air-conditioned stream should be supplied to the AC plenum up to 80 cfm per linear foot of plenum.

CONSULTANT:

CASE Engineering Inc
796 Morse Court
St. Louis, MO 63026
T 636.349.1606
F 636.349.1730
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:

WINGSTOP
5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23307
PROFESSIONAL ENGINEER

6/15/21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
H1

FIRE SYSTEM INFORMATION – JOB#4921898

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0	21	FIRE CABINET LEFT	LEFT, HOOD 1

HOOKUP, PERMITING, AND FINAL TESTING OF ANSUL SYSTEM PROVIDED BY CAPTIVE-AIRE SYSTEMS
HORN STROBE TO BE PROVIDED BY GC WHEN REQUIRED

NOTES
- FIELD PIPE DROPS AS SHOWN
  SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS

LEGEND – FIRE CABINET ANSUL SYSTEM

1A	1.5 GALLON TANK
1B	3 GALLON TANK
2	OEM AUTOMAN RELEASE
3	OEM REGULATED RELEASE
4	OEM REGULATED ACTUATOR
5	ANSULEX LIQUID AGENT (3 GAL.)
6	ANSULEX LIQUID AGENT (1.5 GAL.)
7	CARTRIDGE (101-20)
8	CARTRIDGE (101-10)
9	CARTRIDGE (101-30)
9A	CARTRIDGE (LT-A-101-30)
9B	DOUBLE TANK CARTRIDGE
10	TEST LINK
11	DOUBLE MICROSWITCH
12	HOSE ASSEMBLY
1100	DUCT NOZZLE (430913)
2W	DUCT NOZZLE (419337)
1W	NOZZLE ASSEMBLY (419336)
1F	NOZZLE ASSEMBLY (419333)
1N	NOZZLE ASSEMBLY (419335)
1/2N	NOZZLE ASSEMBLY (419334)
3N	NOZZLE ASSEMBLY (419338)
245	NOZZLE ASSEMBLY (419340)
230	NOZZLE ASSEMBLY (419339)
2120	NOZZLE ASSEMBLY (419343)
290	NOZZLE ASSEMBLY (419342)
260	NOZZLE ASSEMBLY (419341)
28	DETECTOR BRACKET
29	LOW TEMP FUSIBLE LINK
30	HIGH TEMP FUSIBLE LINK
MGV	MECHANICAL GAS VALVE
EGV	ELECTRICAL GAS VALVE
34	REMOTE MANUAL PULL STATION
S	SWIVEL ADAPTOR

SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)

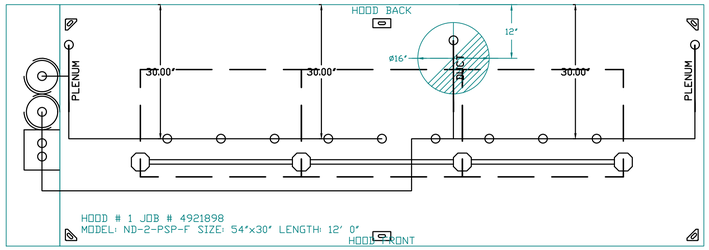
THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

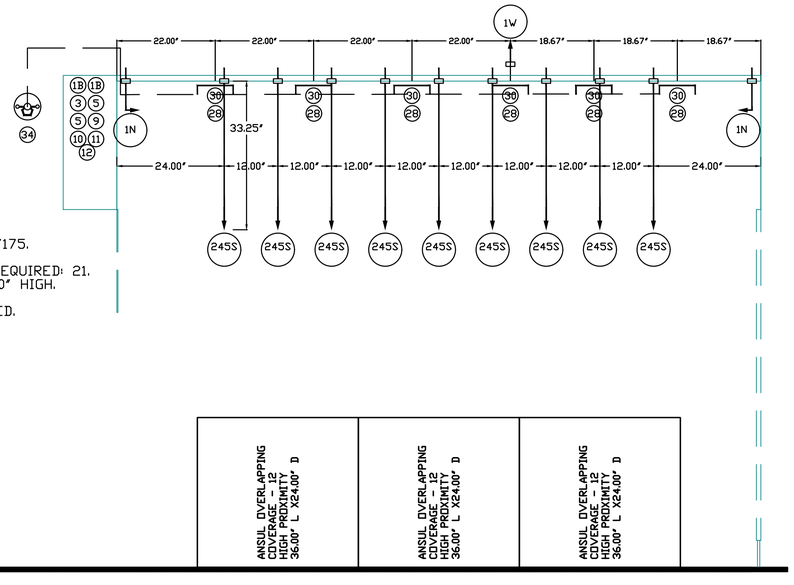
THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET/ LINKAGE ASSEMBLY.

MANUFACTURER TRAINED PERSONNEL WILL TEST THE SYSTEM AND BE WITNESSED BY THE LOCAL AUTHORITY IF APPLICABLE
MECHANICAL GAS VALVE SHALL BE MANUAL RESET TYPE.
COMPLIES WITH NFPA STANDARD 17A AND 96.
PIPING SHALL BE BLACK IRON.
NOZZLE BLOW-OFF CAPS SHALL BE RUBBER
"QUICK-SEAL" ADAPTORS AT HOOD AND DUCT PENETRATIONS PRODUCE A LIQUID-TIGHT FITTING

The system shall have been tested to the UL Standard for Fire Extinguishing Systems for Protection of Restaurant Cooking Area, UL300, and Listed by Underwriters Laboratories, Inc. It shall be installed in accordance with the National Fire Protection Association Standard No. 17A Wet Chemical Extinguisher Systems, and No. 96 Standard for the Installation of Equipment for the Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment, and comply with all local and/or state codes and standards.



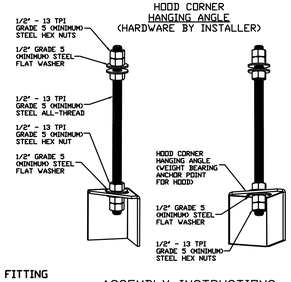


JOB #: 4921898.
JOB NAME: WINGSTOP LEE'S SUMMIT MO #Y175.

SYSTEM SIZE: ANSUL-3.0/3.0 TOTAL FP REQUIRED: 21.
HOOD # 1 12' 0.00" LONG x 54" WIDE x 30" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

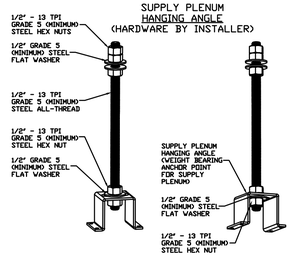
ANSUL OVERLAPPING NOZZLE COVERAGE - OPTION 1
ANSUL 2014 DESIGN MANUAL PAGES 4-53 THROUGH 4-56

HOOKUP, PERMITING, AND FINAL TESTING OF ANSUL SYSTEM PROVIDED BY CAPTIVE-AIRE SYSTEMS



ASSEMBLY INSTRUCTIONS

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



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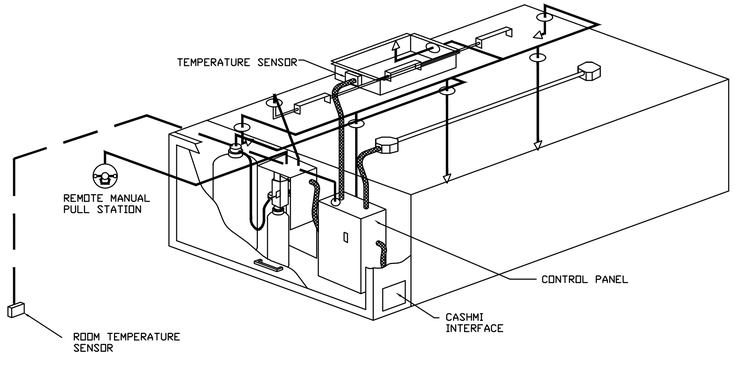


TYPICAL CONTROL CENTER INSTALLATION

CAPTIVE-AIRE HOOD PACKAGE AS SHOWN IS OWNER PROVIDED

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
CASE Engineering Inc
T 636.349.1600
F 636.349.1730
796 Morse Court
St. Louis, MO 63026
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:
WINGSTOP

5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

PROJECT INFORMATION:

WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23303
PROFESSIONAL ENGINEER
6/15/21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

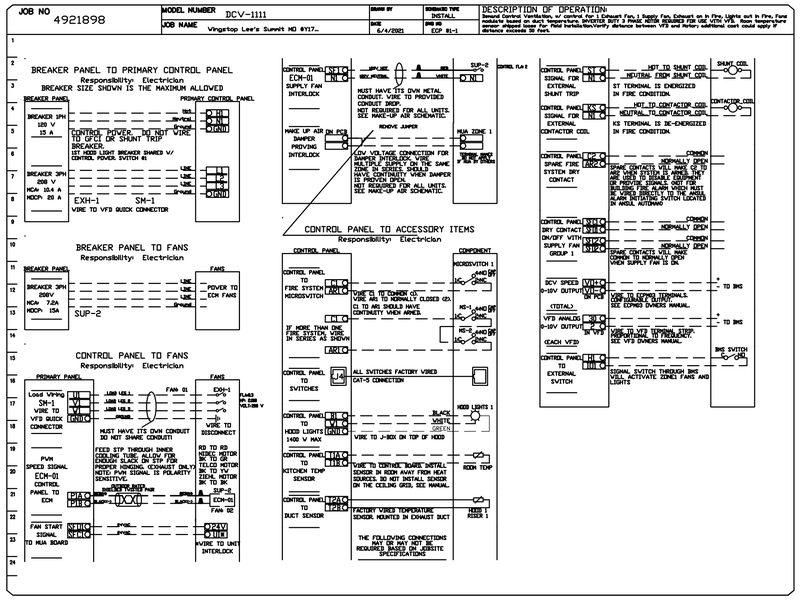
REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
H2

ELECTRICAL PACKAGE – JOB#4921898

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	÷	HP	VOLT	FLA
1		DCV-1111	UTILITY CABINET LEFT	03 - UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS DCV	EXHAUST	3	2.000	208	8.3
				HOOD # 1	1 FAN		SUPPLY	3	2.500	208	5.7



The Electrical Control Panels Model has been certified by ITS. This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. and Canadian products safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued performance. Models Electrical Control Panels are ETL Listed under file number 3054731-001 and complies with UL508A Standards and CSA C22.2, No. 14-M95 and CSA C22.2, No. 73-1953 Standards.

The OFP Electrical Package is designed to thermostatically activate the exhaust fan for an exhaust hood whenever elevated temperatures are sensed in the exhaust system. This option will meet the requirements of IMC 507.2.1.1 by providing a thermostat(s) mounted in the duct or hood riser to sense increased exhaust temperatures. Controls shall be listed by ETL (UL 508A). The control enclosure shall be NEMA 1 rated and listed for installation inside of the exhaust hood utility cabinet. The control enclosure may be constructed of stainless steel or painted steel.

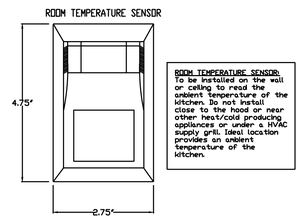
Temperature sensor(s) located in the duct riser(s) shall be constructed of Stainless Steel.
A room temperature sensor is also provided for field installation in the kitchen space in order to start the fan(s) based on the temperature differential between the room and the exhaust air in the duct, rather than fixed set-points. The system is factory pre-set to activate the fans at 15 deg F° above the room temperature.

Once the duct temperature reaches the activation point, the exhaust fans will be activated. The controls also provide hysteresis to prevent cycling of the fans after the cooking appliances have been turned off and the heat in the exhaust system is reduced. The hysteresis is factory set 2 degrees and will keep the exhaust running until the temperature falls 2 degrees below the activation set point. A hysteresis timer also exists to keep the fans running for at least 30 min after being activated by the temperature rise.

The activation and hysteresis settings may be field adjusted on the board LCD interface located inside the control enclosure to meet application needs. The panel is factory configured to shut down supply fans, turn on the exhaust fans and turn off the hood lights in a fire condition.

Actuation of the fire extinguishing system shall automatically shut down the fuel and electric power supply to the cooking equipment. The fuel and electric reset shall be manual.

A manual activation device shall be located a minimum of ten feet (10') and a maximum of twenty feet (20') from the hood system.

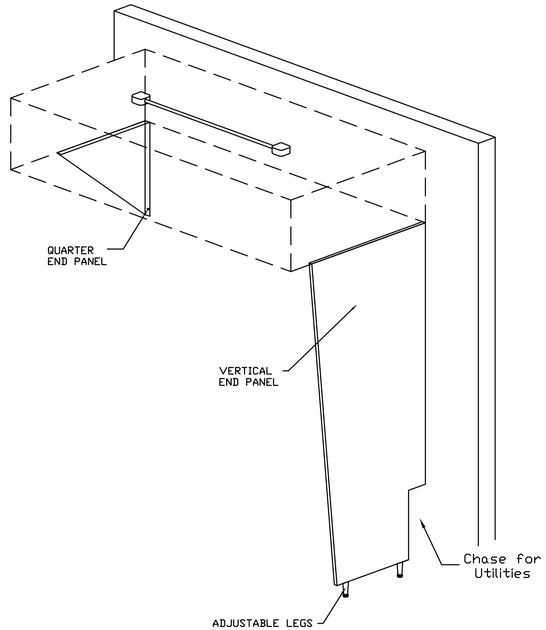


SYSTEM DESIGN VERIFICATION (SDV)

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.



CAPTIVE-AIRE HOOD PACKAGE AS SHOWN IS OWNER PROVIDED

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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
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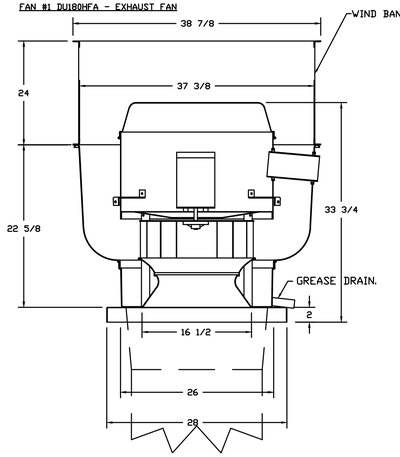

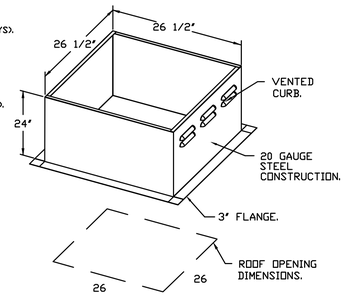

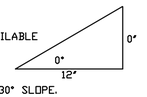

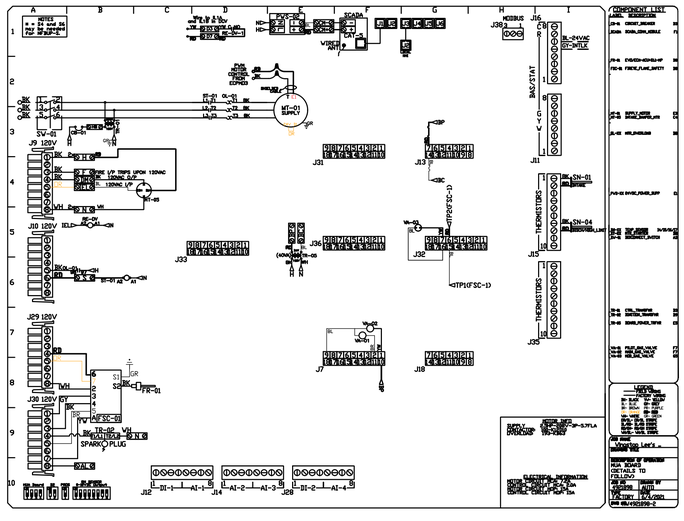

EXHAUST FAN INFORMATION – JOB#4921898

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1		1	DU180HFA	CAPTIVEAIRE	2700	1.200	1148	ODP,PREMIUM	2.000	1.1570	3	208	8.3	624 FPM	207	14.2

MUA FAN INFORMATION – JOB#4921898

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2		1	A1-D.250-16Z	16Z-1-MOD	A1-D.250	1000	2160	0.600	2376	ODP-ECM	2.500	1.6150	3	208	5.7	7.2A	15A	460	26

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2		161109	148220	66°F	7 IN. W.C. – 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1		1	GREASE BOX.
		1	24" TALL STRAIGHT WIND BAND EXTENSION 18/20 (SHIPS LOOSE).
		1	2 YEAR PARTS WARRANTY.
2		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING. MEETS AMCA CLASS 1A RATING.
		1	LOW FIRE START.
		1	INLET PRESSURE GAUGE, 0-35".
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC.
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
		1	ECM WIRING PACKAGE-SUPPLY - PWM SIGNAL FROM ECPM03 PREWIRE (3 - PHASE ZIEHL MOTOR).
		1	2 YEAR PARTS WARRANTY.

FAN ACCESSORIES

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

CURB ASSEMBLIES

NO	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	38 LBS	CURB	26.500"W X 26.500"L X 24.000"H VENTED HINGED.
2	# 2	65 LBS	CURB	21.000"W X 71.000"L X 20.000"H INSULATED.

REFER TO FAN MANUALS REGARDING PROPER STARTUP AND INSTALLATION

CAPTIVE-AIRE HOOD PACKAGE AS SHOWN IS OWNER PROVIDED

FAN #1 DU180HFA - EXHAUST FAN

FEATURES:

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

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

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

OPTIONS

GREASE BOX.
24" TALL STRAIGHT WIND BAND EXTENSION 18/20 (SHIPS LOOSE).
2 YEAR PARTS WARRANTY.

PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.

FAN #2 A1-D.250-16Z - HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 16" DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS-LOW CFM.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED.
5. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
7. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
8. CASLINK BUILDING MONITORING SYSTEM COMMUNICATIONS MODULE. REQUIRES INTERNET & FIELD WIRED ETHERNET CONNECTION OR 3G CELLULAR SERVICE. INCLUDES REV 3 COMM MODULE, RJ45 TO MODBUS CONVERTER, 3 FT CAT5 CABLE, AND 1 FT OF SHIELDED TWISTED PAIR.
9. ECM WIRING PACKAGE FOR ZIEHL SUPPLY MOTORS WITH PWM SIGNAL FROM ECPM03 PREWIRE.
10. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
11. 2 YEAR PARTS WARRANTY.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 9°F. TEMP. RISE = 66°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 152303.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 165546.
OUTPUT BTUs AT ALTITUDE OF 750 FT. = 148220.
INPUT BTUs AT ALTITUDE OF 750 FT. = 161109.

ROOF OPENING 2" SMALLER THAN CURB DIMENSION.

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PROJECT INFORMATION:

WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:
DARRELL R. CASE
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LEE'S SUMMIT, MO

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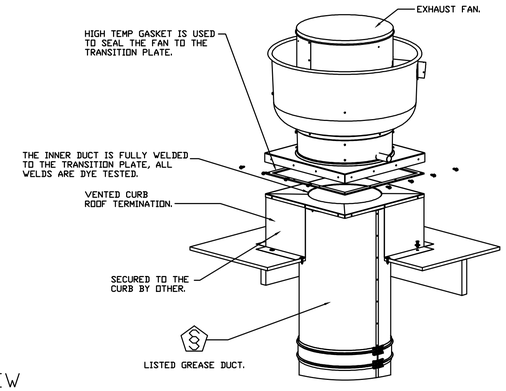
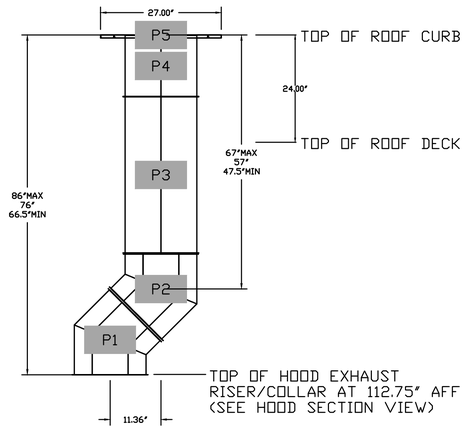
H4

DUCTWORK #1 PARTS – JOB#4921898 FOR 13'-9" ROOF DECK

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1645ASY	2700				-0.0613	7.22	1933.73	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 16" DUCT, ASSEMBLY.
P2	DW1645ASY	2700				-0.0875	7.22	1933.73	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 16" DUCT, ASSEMBLY.
P3	DW1635LT	2700				-0.0173	18.67	1933.73	1	SINGLE WALL DUCT 16" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P4 ASSEMBLED W/P5	DW1630AJDKIT	2700				-0.0067	20.06	1933.73	1	SINGLE WALL DUCT ADJUSTABLE, 16" DIAMETER, 29.5" LONG, FLANGE AT ONE END WITH A 16" ADJUSTABLE COLLAR - STAINLESS STEEL.
P5 ASSEMBLED W/P4	DW2616TPDBEX	2700					9.00	1933.73	1	DUCT TO CURB TRANSITION 3/4" DOWN TURN, 26 1/2" CURB TO 16" DUCT, 16 GA ALUMINIZED. USED ON NCA16FA / NCA16HPFA & NCA18FA / NCA18HPFA. TRANSITION PLATE OD IS 27.00" DESIGNED FOR USE WITH EXHAUST FAN. NON-STANDARD PART.
SYSTEM AT P5						-1.1808	0.00			
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	735602000						52.00		3	DUCT - DUCT INSULATION FOR ZERO CLEARANCE TO COMBUSTIBLES - 300" X 24" X 1-1/2" ROLL. UNIFRAX FYREWRAP ELITE 1.5.
	BANDING.5						5.00		1	DUCT - FIRE BARRIER WRAP STAINLESS STEEL BANDING .5" WIDTH - 200 FT PER ROLL.
	DW16CLASY						1.18		4	DUCT "V" CLAMP WITH NEW DESIGN 14 GA BRACKETS, 16" DUCT, ASSEMBLY.
	SEAL.50-50						0.50		1	DUCT - FIRE BARRIER WRAP STAINLESS STEEL BANDING SEAL .5" WIDTH. QUANTITY OF 50.
	TAPEALUM						0.25		1	DUCT - FIRE BARRIER WRAP ALUMINUM FOIL TAPE - 3" X 150' ROLL.
ADDITIONAL PARTS										
EXTRA-1	DW1607LT						4.14		2	SINGLE WALL DUCT 16" DIAMETER, 7" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
EXTRA-2	DW16CLASY						1.18		2	DUCT "V" CLAMP WITH NEW DESIGN 14 GA BRACKETS, 16" DUCT, ASSEMBLY.
TOTAL WEIGHT							240.88			



DUCTWORK #1 FRONT VIEW
FOR 13'-9" ROOF DECK



GREASE DUCT SPECIFICATION

Furnish single-wall, factory built, grease duct for use with Type I kitchen hoods, which conforms to the requirements of NFPA-96.
Products shall be ETL listed to UL-1978
for venting air and grease vapors from commercial cooking operations as described in NFPA-96.
The duct wall shall be constructed of .036 thick type 430 stainless steel and be available in diameters 8" through 24".
All supports, fan adapters, hood connections, fittings and expansion joints required to install grease duct shall be included.
Roof penetrations shall comply with listed clearance to combustibles, see *"Clearance to Combustibles"* guide for details.
The grease duct will terminate at the fan adapter plate, will be fully welded to the fan adapter plate and the fan adapter plate will be fastened to the curb using a suitably sized fastener provided by others; see page 12 of the *"Installation, Operation and Maintenance Manual"* for details.
Grease duct joints shall be held together by means of formed vee clamps and sealed with *3M Fire Barrier 2000+*. Screws used to secure the vee clamps shall be of the hex-head type with flanged stops and tapered 'lead in' threads for easy starting. Nuts shall be retained by means of a free-floating cage to allow easy alignment.
Single-Wall Grease Duct shall be installed in accordance with the manufacturer's *"Installation, Operation and Maintenance Manual"*, ETL listing and state and local codes.
Grease duct installed outside of the building shall be protected against accidental damage or vandalism.
Support vertically installed grease duct from the building structure using rigid structural supports. Anchor supports to the structure by welding or bolting steel expansion anchors or concrete inserts. Support horizontally installed grease duct from the building structure using above method or use *Duct Mate, Wire Rope & Clutchers*, part numbers WR20 & CL20. 1/2" Threaded rod and saddles may also be used for the support of horizontal grease duct.
Fans shall be supported independently from the grease duct sections. Protect grease duct from twisting or movement caused by fan torque or vibration.

FIRE WRAP SPECIFICATION - Pyroscat

Thermal Ceramics' new Pyroscat(R) Duct Wrap XL is the thinnest and lightest flexible wrap material available that passes the ASTM E 2336 test standard required by the 2006 IMC and NFPA 96 for reduced clearance enclosure materials used to provide 1 or 2 hour fire rating for kitchen exhaust ducts. Duct Wrap XL is also UL Classified and Labeled per ISD 6944 as an alternative to a 1 or 2 hour rated enclosure for air ventilation ducts. The Duct Wrap XL core blanket is manufactured using Thermal Ceramics patented Superwool® fiber, a 2000°F rated, non-combustible, alkaline-earth silicate wool with low biopersistence. Duct Wrap XL is the product of extensive research and development resulting in break-through improvements in fiberization technology with significant enhancements in thermal properties beneficial to fire protection applications. Duct Wrap XL when used in combination with an approved firestop sealant provides an effective through penetration firestop in rated floor and wall assemblies. Duct Wrap XL is UL Classified and is part of UL's Listing and Follow-Up Service Program to ensure the consistent quality essential to the critical nature of this life-safety application.

FIRE WRAP SPECIFICATION - Unifrax

Unifrax's FyreWrap®Elite®1.5 Duct Insulation is a two-layer flexible enclosure for two-hour rated commercial kitchen grease ducts. FyreWrap Elite 1.5 Duct Insulation is tested per ASTM E2336 and is acceptable as an alternate to a traditional fire-rated shaft. Installed as a two-layer system, FyreWrap Elite 1.5 complies with the International Mechanical Code (IMC) and Uniform Mechanical Code (UMC). FyreWrap Elite 1.5 Duct Insulation offers the following product features:

- 2-hour fire-resistance rating
- Alternate to shaft enclosure
- Complies with IMC and UMC
- Tested per ASTM E2336
- Two-layer system
- High-temperature, biosoluble insulation
- Zero clearance to combustibles, at any location
- GREENGUARD listed for Microbial Resistance

DUCT SEALANT & FIREWRAP PROVIDED BY CAPTIVE-AIRE

Model DW Series is ETL Listed under file number 3114021, and complies with UL-1978, as well as CAN/ULC-S662.

The DW Series has been certified by ITS. This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. and Canadian products safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued performance.

UL 1978 -Standard for Grease Duct
UL 2221 -Fire Resistive Grease Duct Enclosure Assemblies
NFPA 96 -Installation Standard
ASTM E2336 -Test Method for Fire Resistive Grease Duct Enclosure Systen

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

SINGLE WALL FACTORY BUILT DUCTWORK

- ADJUSTABLE PIECES OF DUCT MUST EXTENDED INTO THE DUCT BELOW BY AT LEAST 6" MINIMUM.
- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

DUCT DIAMETER	HORIZONTAL WALL SUPPORT (ft)	VERTICAL WALL SUPPORT (ft)	VERTICAL CURB SUPPORT (ft)
8"	10'	10'	24'
10"	10'	10'	24'
12"	10'	10'	24'
14"	10'	10'	24'
16"	10'	10'	24'
18"	10'	10'	24'
20"	10'	10'	24'
22"	10'	10'	24'
24"	10'	10'	24'

CAPTIVE-AIRE HOOD PACKAGE AS SHOWN IS OWNER PROVIDED

MINIMUM CLEARANCE TO COMBUSTIBLES

DUCT DIAMETER	COMBUSTIBLES	LIMITED COMBUSTIBLES	NON COMBUSTIBLES
8"	18"	3"	0"
10"	18"	3"	0"
12"	18"	3"	0"
14"	18"	3"	0"
16"	18"	3"	0"
18"	18"	3"	0"
20"	18"	3"	0"
24"	18"	3"	0"

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
CASE Engineering Inc
706 Morse Court
St. Louis, MO 63026
T 636.349.1606
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CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:
WINGSTOP
5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

PROJECT INFORMATION:

WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23307
PROFESSIONAL ENGINEER
6/15/21
DATE

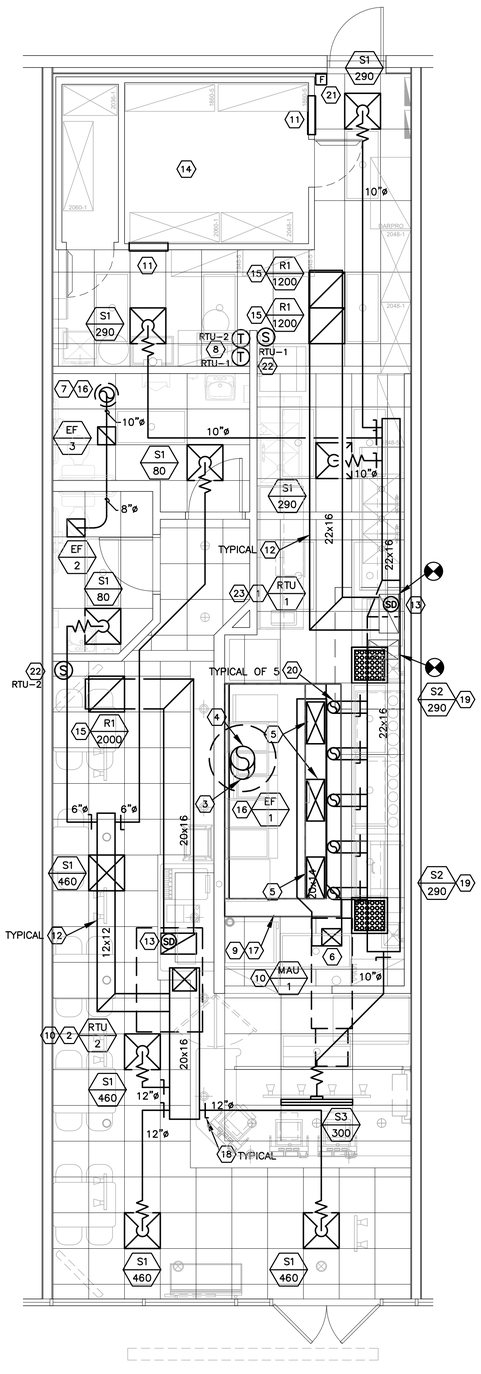
PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
H5



MECHANICAL FLOOR PLAN

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

GENERAL INSTRUCTION TO BIDDERS

EQUIPMENT SHALL BE TRANE WITH MODELS AND CONFIGURATIONS AS SHOWN. NO SUBSTITUTIONS ALLOWED. PLEASE REFER TO THE TRANE NATIONAL ACCOUNT PROGRAM SCHEDULE BLOCK FOR DETAILS ON PRICING AND ORDERING OR CONTACT: CLINT MORGAN – NATIONAL ACCOUNTS MANAGER – TEXAS DISTRICT
TRANE COMMERCIAL SYSTEMS
1617 HUTTON DRIVE, CARROLLTON, TX 75006
OFFICE: 469-758-3179 MOBILE: 469-597-4836
EMAIL: CLINT.MORGAN@TRANETECHOLOGIES.COM

MECHANICAL KEYED NOTES

1. EXISTING 6 TON ROOFTOP UNIT RTU-1, REFER TO EQUIPMENT SCHEDULE ON SHEET M2. PROVIDE FLEXIBLE CONNECTORS FOR THE SUPPLY AND RETURN AIR DUCT CONNECTIONS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE DUCT WORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO EQUIPMENT SCHEDULES FOR ADDITIONAL REQUIREMENTS.
2. HVAC CONTRACTOR SHALL SUPPLY AND INSTALL 5 TON ROOFTOP UNIT RTU-2, REFER TO EQUIPMENT SCHEDULE ON SHEET M2. PROVIDE FLEXIBLE CONNECTORS FOR THE SUPPLY AND RETURN AIR DUCT CONNECTIONS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE DUCT WORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO EQUIPMENT SCHEDULES FOR ADDITIONAL REQUIREMENTS.
3. 16"ø EXHAUST RISER UP FROM HOOD COLLAR. EXTEND DUCT UP TO FAN ON ROOF. REFER TO DETAILS ON SHEET M2 FOR EXHAUST DUCT FIRE BARRIER DUCT WRAP. EXHAUST DUCT AND FIRE BARRIER DUCT WRAP PROVIDED BY OWNER INSTALLED BY MECHANICAL CONTRACTOR. IF WELDED EXHAUST DUCT IS USED, MECHANICAL CONTRACTOR TO PROVIDE EXHAUST DUCT AND FIRE BARRIER DUCT WRAP.
4. 16"ø EXHAUST DUCT UP THROUGH ROOF TO EF-1 ON ROOF. ROOF MOUNTED KITCHEN EXHAUST FAN EF-1 AND CURB TO BE PROVIDED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR. SEE EQUIPMENT SCHEDULE AND FAN/HOOD DETAILS FOR ADDITIONAL INFORMATION. ROOF CURB TO BE 20" REFER TO HOOD DRAWINGS.
5. 28"x12" SUPPLY DUCT RISER UP FROM 28"x12" DUCT COLLAR (TYPICAL OF 3). EXTEND DUCT UP TO MAIN SUPPLY DUCT.
6. 13"x11" UP THROUGH ROOF TO MUA-1 ON ROOF. ROOF MOUNTED KITCHEN MAKE-UP AIR UNIT MUA-1 AND CURB TO BE PROVIDED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR. SEE EQUIPMENT SCHEDULE AND FAN/HOOD DETAILS FOR ADDITIONAL INFORMATION. PROVIDE EXTENSION AS REQUIRED FOR 10 FEET MINIMUM FROM EXHAUST VENT.
7. EXTEND DUCTS FROM EACH CEILING EXHAUST FAN TO 10"ø AT EXHAUST DUCT THROUGH ROOF. TERMINATE ROOF DUCT NO LESS THAN 10'-0" FROM ANY OUTSIDE AIR INTAKE. PROVIDE WEATHERPROOF CAP AND BIRDSCREEN.
8. PROVIDE AN EQUIPMENT COMPATIBLE PROGRAMMABLE THERMOSTAT WITH NIGHT SETBACK FEATURE AND LOCKING COVER. MOUNT AT 48" A.F.F. COORDINATE EXACT LOCATION WITH OWNER ON SITE. (TYPICAL OF 2).
9. EXHAUST HOOD TO BE PROVIDED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR. SEE DRAWING SHEET H1 AND MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION. VOLUME OF EXHAUST PER U.L. LISTING FOR HOOD. SEE ARCHITECTURAL DRAWINGS FOR HOOD MOUNTING LOCATION AND DIMENSIONS.
10. COORDINATE NEW RTU-2 AND MAU-1 LOCATION WITH EXISTING ROOF JOIST, COORDINATE WITH STRUCTURAL ENGINEER.
11. PROVIDE TITUS 50F 26x18 TRANSFER AIR GRILLE IN SOFFIT ABOVE COOLER.
12. FURNISH AND INSTALL GALVANIZED STEEL DUCTWORK, SIZES AS NOTED ON DRAWINGS. DUCTWORK SIZES ARE SHEET METAL SIZES. ALL NEW DUCTWORK SHALL HAVE 1" INTERNAL LINER.
13. PROVIDE 120V SMOKE DETECTOR IN RETURN AIR DUCT TO MEET LOCAL CODE REQUIREMENTS. PROVIDE INTERLOCK WIRING TO DE-ENERGIZE ALL RTU'S UPON DETECTION OF SMOKE.
14. WALK-IN COOLER WITH R-404A REFRIGERANT AT 64 OZ. CAPACITY. VOLUME OF COOLER IS 690 CU. FEET, FLAME SPREAD IS 15, AND COMPRESSOR IS 1.5 H.P.
15. 1" EXTERNALLY INSULATED RETURN AIR DUCT. COORDINATE ROUTING WITH EXISTING STRUCTURE, PIPING, ETC.
16. CONTRACTOR SHALL ENSURE THAT EXHAUST FANS ARE AT LEAST 10'-0" AWAY FROM ANY OUTSIDE AIR INTAKES FOR MAU-1, RTU-1, RTU-2, AND ADJOINING TENANT'S OUT SIDE AIR INTAKES.
17. PRE-PIPED FIRE SUPPRESSION SYSTEM SUPPLIED WITH HOOD AND PROVIDED BY OWNER. SEE SHEET H1 FOR DETAILS. MECHANICAL CONTRACTOR SHALL INSTALL OWNER PROVIDED FIRE SUPPRESSION GAS VALVE AND MAKE ALL ELECTRICAL CONNECTIONS. FIRE SYSTEM HOOKUP IS PROVIDED BY CAPTIVE AIRE.
18. VOLUME DAMPER AT DUCT CONNECTION TO MAIN SUPPLY AIR DUCT, TYPICAL.
19. SUPPLY AIR DIFFUSER CFM RATES SHALL BE ADJUSTED AS REQUIRED FOR PROPER AIR FLOW AROUND THE HOOD.
20. 8"ø SUPPLY AIR DUCT DOWN TO HOOD SUPPLY DIFFUSER. TRANSITION AS REQUIRED. BALANCE TO 130 CFM.
21. ANSUL SYSTEM PULL STATION, VERIFY EXACT LOCATION IN FIELD WITH LOCAL CODE OFFICIAL PRIOR TO INSTALLATION.
22. PROVIDE COMPATIBLE REMOTE TEMPERATURE SENSORS. CONNECT TO CORRESPONDING THERMOSTATS. MOUNT 48" A.F.F. COORDINATE EXACT LOCATION WITH OWNER ON SITE.
23. CONTRACTOR TO VERIFY ORIENTATION OF EXISTING ROOFTOP UNITS AND LOCATION OF SUPPLY AND RETURN DROPS. NOTIFY TENANT'S ENGINEER WITH ANY QUESTIONS PRIOR TO BIDDING. NO EXTRAS OR CHANGE ORDERS SHALL BE GIVEN FOR CONTRACTOR'S FAILURE TO VERIFY SITE CONDITIONS PRIOR TO BIDDING.

HVAC SYMBOLS

☒	SUPPLY AIR DUCT OR GRILLE	M	MOTORIZED DAMPER
CHS	CHILLED WATER SUPPLY	S	SMOKE DETECTION DEVICE
CHR	CHILLED WATER RETURN	T	THERMOSTAT
HS	HOT WATER SUPPLY	SD	DUCT SMOKE DETECTOR
HR	HOT WATER RETURN	R.A.G.	RETURN AIR GRILLE
R.D.	REFRIGERANT DISCHARGE LINE	DIFF.	DIFFUSER
R.S.	REFRIGERANT SUCTION LINE	M.D.	MANUAL DAMPER
O.A.	OUTDOOR AIR	F.D.	FIRE DAMPER
R.A.	RETURN AIR	F.C.	FLEXIBLE CONNECTION
S.A.	SUPPLY AIR	S.E.	SMOKE EXHAUST
☒	RETURN AIR DUCT OR GRILLE		
—D—	CONDENSATE DRAIN LINE		
TE	TOILET EXHAUST		

ALL SYMBOLS MAY NOT BE USED

MECHANICAL GENERAL NOTES

1. DUCTWORK SHALL BE RUN ABOVE CEILING AS HIGH AS POSSIBLE IN GENERAL LOCATIONS SHOWN, BUT SHALL CONFORM TO ALL STRUCTURAL AND FINISH CONDITIONS OF BUILDINGS. COORDINATE WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS PRIOR TO ANY INSTALLATION.
2. LOCATE EQUIPMENT AND FIXTURES APPROXIMATELY AS SHOWN CONFORMING TO ALL ARCHITECTURAL AND STRUCTURAL ITEMS. PROVIDE ALL SUPPORTS, HANGERS AND OPENINGS AS REQUIRED FOR A COMPLETE INSTALLATION. CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR CLEARANCES, AND EXACT LOCATIONS OF EQUIPMENT. ALL EQUIPMENT AND FIXTURES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN FULL ACCORDANCE WITH ALL APPLICABLE CODES.
3. CEILING MOUNTED AIR DEVICES SHALL BE APPROXIMATELY AS SHOWN. FOR EXACT LOCATION AND FRAME MOUNTING TYPES, REFER TO ARCHITECTURAL REFLECTED CEILING PLAN. ALL CEILING DIFFUSERS TO BE 4-WAY UNLESS NOTED OTHERWISE BY AIRFLOW ARROWS, ON FLOOR PLAN. EXTEND FLEX DUCTWORK FROM DIFFUSERS. INSTALL STRAIGHT AS POSSIBLE WITH LONG RADIUS BENDS AND CLAMPS TO BE USED AT BOTH ENDS.
4. DUCTWORK WITH TURNING VANES INSTALLED IN ALL ELBOWS OF SUPPLY AIR DUCTS, AIR EXTRACTORS AT ALL RECTANGULAR TAKE-OFFS, AND TWIST-IN TAP WITH MANUAL VOLUME DAMPER AT ALL ROUND BRANCH TAKE-OFFS TO AIR DEVICES.
5. DUCT SMOKE DETECTORS REQUIRED IN UNIT RETURN AIR PLENUM SHALL BE IONIZATION TYPE AND SHALL BE APPROVED AND LISTED BY UL OR FM FOR DUCT INSTALLATION. ACTIVATION OF A DUCT DETECTOR SHALL CAUSE SHUTDOWN OF RTU. CONTROL AND INTERLOCK WIRING SHALL RUN IN CONDUIT WHICH SHALL BE SIZED TO SUIT THE NUMBER, TYPE AND SIZE OF CONDUCTORS AND SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. CONTROL AND INTERLOCK WIRING SHALL BE IN SEPARATE CONDUIT FROM POWER WIRING PER NEC. ALL WIRING SHALL BE IN ACCORDANCE WITH NEC. PROVIDE ALL APPROPRIATE ACCESS PANELS.
6. PROVIDE ELECTRONIC PROGRAMMABLE THERMOSTAT WITH SUB-BASE AS NOTED ON PLAN. TRANSFORMERS AND 24 VOLT CONTROL WIRING. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER WIRING. THERMOSTATS SHALL BE MOUNTED 48" A.F.F. AND SET POINT SHALL BE AS FOLLOWS: COOLING IN DINING 74°F; ALL OTHERS 78°F; HEATING 68°F FOR ALL. VERIFY FINAL LOCATION WITH OWNER.
7. BUILDING AIR SYSTEMS SHALL BE BALANCED PER DATA INCLUDED ON THE DRAWINGS TO ACHIEVE RELATIVE AIR VOLUMES AS INDICATED ON THE DRAWINGS AND SCHEDULED HEREIN.
8. ALL DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INTERNAL DIMENSIONS.
9. WHERE SHOWN ON THE DRAWINGS, PROVIDE VOLUME DAMPERS WITH LOCKING QUADRANTS OR SPLITTERS WITH HINGE AND ROD THRU SIDE OF DUCT WITH SET SCREW. VOLUME DAMPER HANDLES SHALL BE INSTALLED ON THE BOTTOM OF THE SPIN-IN FITTING AND SHALL HAVE RING SET IN FULL OPEN POSITION.
10. KITCHEN EXHAUST HOODS: EXTEND EXHAUST AND MAKE-UP AIR DUCT AS SHOWN AND TRANSITION AS REQUIRED TO HOOD TAPS. REFER TO HOOD DRAWINGS SHEET H1 FOR EXACT SIZES AND LOCATIONS. SLOPE EXHAUST DUCTS BACK TO KITCHEN EXHAUST HOOD. PROVIDE ACCESS DOORS AS REQUIRED FOR INSPECTION AND CLEANING. ENCLOSE KITCHEN EXHAUST DUCT IN FIRE BARRIER 1.5A FIRE RETARDANT DUCT WRAP AS REQUIRED BY CODE. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS. HEIGHT TO FAN OUTLET: 40" ABOVE ROOF. KITCHEN HOOD SUPPLY AND EXHAUST FANS SHALL BE INTERLOCKED WITH THE FIRE SUPPRESSION SYSTEM.
11. COORDINATE LOCATIONS OF EXHAUST FAN, MAKE-UP AIR UNIT, AND RTU'S WITH EXISTING STEEL BEAMS AND JOIST. COORDINATE WITH STRUCTURAL ENGINEER.
12. ALL EXHAUST OUTLETS WILL BE A MINIMUM OF 10'-0" FROM ANY AIR INTAKE.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
CASE Engineering Inc
CERTIFICATE OF AUTHORITY NO. 001498
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CLIENT:

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DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

PROJECT INFORMATION:

WINGSTOP

STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23301
PROFESSIONAL ENGINEER

6/15/21
DATE

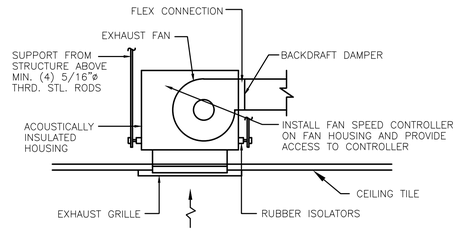
PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

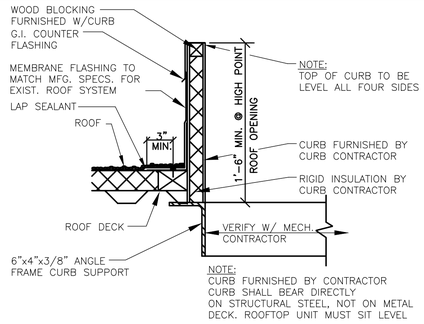
REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

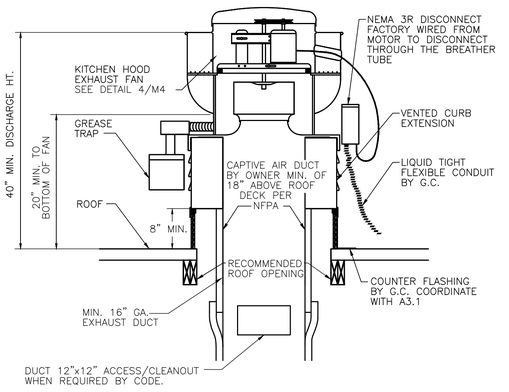
SHEET NUMBER:
M1



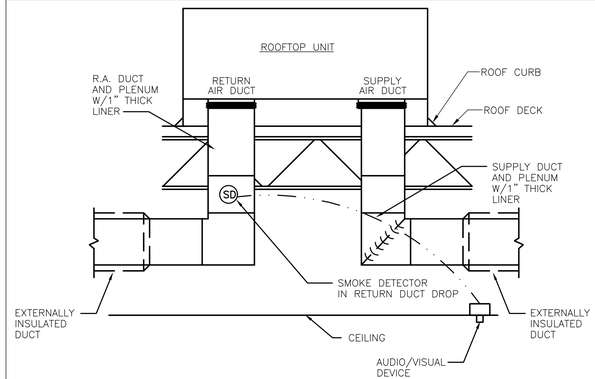
4 CEILING MTD. EXHAUST FAN
SCALE: NONE



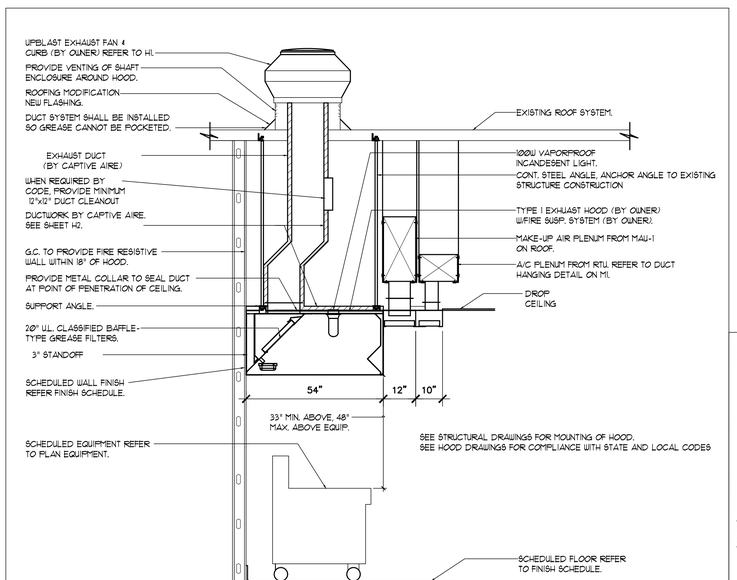
1 ROOF CURB SECTION
SCALE: NONE



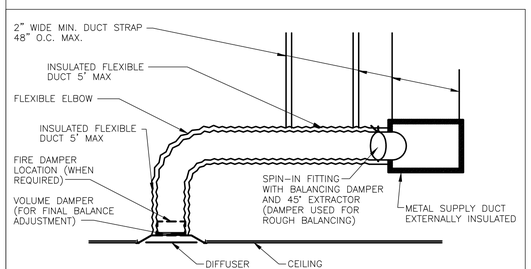
5 RANGE HOOD EXHAUST FAN DETAIL
SCALE: NONE



2 ROOFTOP UNIT MOUNTING DETAIL
SCALE: NONE



6 EXHAUST HOOD DETAIL
SCALE: NONE



* REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR COMPONENT AND DEVICE SPECIFICATIONS.

3 HVAC DUCTWORK DETAIL
SCALE: NONE

FAN SCHEDULE

MARK	TYPE	CFM	E.S.P. (IN. W.C.)	DRIVE	MOTOR DATA HP	VOLTS	PH	STARTER	SERVES	EQUAL TO MFR	MODEL	UNIT WT.	NOTES
EF-1	ROOF	2700	1.20	DIRECT	2.0	208	3	X-LINE	KITCHEN HOOD	CAPTIVE AIR	DU180HFA	218	1,2,3,5,8,9
EF-2	CEILING	150	0.125	DIRECT	1.3 A	120	1	X-LINE	TOILET	BROAN	L150	35	2,4,6,7
EF-3	CEILING	150	0.125	DIRECT	1.3 A	120	1	X-LINE	TOILET	BROAN	L150	35	2,4,6,7
MAU-1	ROOF	2160	0.60	DIRECT	2.5	208	3	X-LINE	KITCHEN HOOD	CAPTIVE AIR	A1-D.250-16Z	525	1,2,8,9

NOTES:
1. CAPTIVE AIRE SHALL PROVIDE MOTOR STARTER IN CAPTIVE AIRE WALL MOUNTED ELECTRICAL PACKAGE.
2. VERIFY ELECTRICAL VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
3. VENTED 20" ROOF CURB EXTENSION, GREASE GUARDS, GREASE TERMINATORS, GREASE CUP AND HINGE KIT PROVIDED WITH FAN INSTALLED MECHANICAL CONTRACTOR.
4. PROVIDE WITH BACKDRAFT DAMPER.
5. FAN TO BE RATED FOR UL 762.
6. PROVIDE WITH ROOF VENT CAP.
7. "ON/OFF" CONTROL WITH LIGHTS BY ELECTRICAL CONTRACTOR.
8. INTERLOCK OPERATION SUPPLY FANS AND EXHAUST FANS: EF-1 WITH MUA-1, AND RTU-1.
9. MAKE-UP AIR FAN MUA-1 AND EXHAUST FAN EF-1 AND CURBS SHALL BE FUNISHED WITH THE HOOD BY OWNER, INSTALLED BY THE MECHANICAL CONTRACTOR.

AIR BALANCE SCHEDULE

UNIT MARK	SUPPLY AIR*	OUTSIDE AIR	MAKE-UP AIR	EXHAUST AIR	RETURN AIR	NOTES
RTU-1	2400 CFM	540 CFM	–	–	1860 CFM	
RTU-2	2000 CFM	500 CFM	–	–	1500 CFM	
MUA-1	–	–	2,160 CFM	–	–	
EF-1	–	–	–	2,700 CFM	–	
EF-2	–	–	–	150 CFM	–	
EF-3	–	–	–	150 CFM	–	
BLDG. TOTAL	4,400 CFM	1,040 CFM	2,160 CFM	3,000 CFM	3,360 CFM	NET 200 CFM

MAKE-UP:
A/C UNITS OUTSIDE AIR INTAKE +1040
FAN MAKE-UP +2160
3200 CFM.

EXHAUST:
HOOD EXHAUST −2700
GENERAL EXHAUST −300
−3000 CFM.

BALANCE RESULTS:
MAKE-UP +3200
EXHAUST −3000
+200 CFM.

AIR DEVICE SCHEDULE

PLAN MARK	*TITUS MODEL NO.	FACE SIZE	NECK SIZE	TYPE	NOTES
S1	TMS	24"x24"	SEE DWG	DIFF.	1,2,3,4,6
S2	PAR	24"x24"	SEE DWG	DIFF.	1,2,4
S3	TBD-30	48"	SEE DWG	DIFF.	2,3,4,5,6
S4	TMS	24"x24"	SEE DWG	DIFF.	1,3,7
R1	50F	24"x24"	SEE DWG	R.G.	1,2,3,4,6

NOTES:
1. PROVIDE SQUARE NECK TO ROUND ADAPTER AS REQUIRED (FOR FLEX CONNECTION)
2. FRAME SHALL FIT LAY-IN CEILING MODULE
3. MAXIMUM NC = 30
4. WHITE FINISH UNLESS OTHERWISE SPECIFIED.
5. 12" INLET, 3 SLOT, 1" SLOT WITH, LAY-IN CEILING.
6. GRILLES IN SALES, ORDERING, SEATING AND CORRIDORS TO BE A FLAT BLACK FACTORY FINISH.
7. FRAME SHALL FIT HARD CEILING MODULE

* OR APPROVED EQUAL

EXISTING RTU SCHEDULE (RTU-1)

MFR.	MODEL NO.	UNIT WT.	UNIT SIZE	VOLTS	HZ	PH	MCA	MOCP	MIN. OUTSIDE AIR CFM
RHEEM	RKKN-B072	855	6.0 TONS	208	60	3	33	45	540
	12.9 EER								

TOTAL CFM	COOLING CAPACITY	HEATING MBH IN/OUT	EVAP. COIL SIZE	EVAP. COIL ROWS	CONDENSER FAN MOTOR	FILTERS NO.	FILTERS SIZE	FILTERS TYPE
2400	70.3 MBH	135.0/110.7	– SQ.FT.	–	–	–	–	T/A

RTU SCHEDULE (RTU-2)

MFR.	MODEL NO.	UNIT WT.	UNIT SIZE	VOLTS	HZ	PH	MCA	MOCP	MIN. OUTSIDE AIR CFM
TRANE	YSC060	785	5 TONS	208	60	3	29	40	500
	14.0 SEER								

TOTAL CFM	COOLING CAPACITY	HEATING MBH IN/OUT	EVAP. COIL SIZE	EVAP. COIL ROWS	CONDENSER FAN MOTOR	FILTERS NO.	FILTERS SIZE	FILTERS TYPE
2000	60.0 MBH	120/85	8.15 SQ.FT.	2	0.40	2	20x35x2	T/A

1. PROVIDE & INSTALL 100% ECONOMIZER PACKAGE AT RTU-1,2.
2. CONTRACTOR SHALL PROVIDE UNITS w/PRE-FABRICATED (14") ROOF CURB.
3. PROVIDE UNIT WITH 7-DAY PROGRAMMABLE THERMOSTATS WITH NIGHT SET BACK CAPABILITIES.
4. PROVIDE UNITS WITH ANTICYCLE TIME DELAY AND HIGH AND LOW PRESSURE PROTECTION.
5. ADJUST O.A. DAMPERS AT RTU-1 AND RTU-2 TO CFM SCHEDULED.
6. INTERLOCK RTU-1 WITH EF-1 AND MUA-1. RTU-1 AND MUA-1 MUST BE OPERATING WHEN EF-1 IS OPERATING.
7. VERIFY ELECTRICAL VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
8. EQUIPMENT SHALL BE TRANE WITH MODELS AND CONFIGURATIONS AS SHOWN. NO SUBSTITUTIONS ALLOWED. PLEASE REFER TO THE TRANE NATIONAL ACCOUNT PROGRAM SCHEDULE BLOCK FOR DETAILS ON PRICING AND ORDERING OR CONTAT:
   CLINT MORGAN – NATIONAL ACCOUNTS MANAGER – TEXAS DISTRICT
   TRANE COMMERCIAL SYSTEMS
   1617 HUTTON DRIVE, CARROLLTON, TX 75006
   OFFICE 469-758-3179 MOBILE: 469-597-4836
   EMAIL: CLINT.MORGAN@TRANETECHOLOGIES.COM

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07/09/2021

CONSULTANT:
CASE Engineering Inc
796 Morse Court
St. Louis, MO 63026
T 636.349.1606
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CERTIFICATE OF AUTHORITY NO. 001498

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WING·STOP

5501 LBJ FREEWAY, 5TH FLOOR
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WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23303
PROFESSIONAL ENGINEER

6/15/21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
M2

DIVISION - 15 MECHANICAL SPECIFICATIONS

GENERAL

A. THE GENERAL CONDITIONS OF THE GENERAL SPECIFICATIONS, ALONG WITH ALL APPLICABLE INSTRUCTIONS TO BIDDERS SHALL FORM A PART OF THIS SECTION OF THE SPECIFICATIONS.

B. REFERENCE IS MADE TO REQUISITES FOR BIDDERS AND CONTRACTORS UNDER OTHER SECTIONS OF THESE SPECIFICATIONS, WHICH SHALL BE CONSIDERED BINDING, UNLESS OTHERWISE NOTED UNDER THIS SECTION.

SCOPE

EACH CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE CONSTRUCTION DETAILS, BOTH AS ON TENANT CONSTRUCTION DRAWINGS AND LANDLORD'S AS REFERRED TO, BEFORE SUBMITTING HIS BID AS NO ALLOWANCES WILL BE MADE BECAUSE OF THE CONTRACTOR'S UNFAMILIARITY WITH THESE DETAILS. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION.

INSPECTION OF SITE

ALL PROPOSALS SHALL PRECLUDE THAT CONTRACTOR IS FAMILIAR WITH JOB SITE CONDITIONS AND UTILITY LOCATIONS AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

PERMITS

ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE SUBCONTRACTOR INVOLVED.

CODE REQUIREMENTS

ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS, DRAWINGS OR AS DIRECTED BY THE OWNER, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES, OR REGULATIONS OF THE GOVERNING BODIES, WHETHER SO SHOWN OR NOT, AND ALL MODIFICATIONS REQUIRED BY SUCH AUTHORITIES SHALL BE MADE BY THE CONTRACTOR WITHOUT ANY ADDITIONAL COST TO THE OWNER.

MATERIALS AND WORKMANSHIP

A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURERS, AND UNLESS OTHERWISE SPECIFIED SHALL BE NEW, AND FREE FROM ANY DEFECTS. ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY UNLESS OTHERWISE SPECIFIED.

B. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY COMPETENT WORKMEN AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. WORK SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION, AND ON COMPLETION, THE INSTALLATION SHALL BE THOROUGHLY CLEANED AND ALL DEBRIS PRESENT AS A RESULT OF THIS CONTRACT SHALL BE REMOVED FROM THE PREMISES, DO NOT JUST ABANDON.

CODES AND REGULATIONS

EACH SUBCONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK AS DRAWN OR SPECIFIED. IF A SUBCONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT A VARIANCE, HE SHALL PROMPTLY NOTIFY THE GENERAL CONTRACTOR AND THE TENANT IN WRITING. IF ANY SUBCONTRACTOR PERFORMS ANY WORK KNOWING IT TO BE CONTRARY TO LAWS, ORDINANCES, RULES AND REGULATIONS AND WITHOUT GIVING SUCH NOTICE, THE SUBCONTRACTOR SHALL BEAR ALL COSTS ARISING THEREFROM.

PROTECTION OF WORK AND PROPERTY

A. EACH SUBCONTRACTOR SHALL CONTINUOUSLY MAINTAIN ADEQUATE PROTECTION OF ALL HIS WORK FROM DAMAGE AND SHALL PROTECT THE OWNER'S PROPERTY FROM INJURY OR LOSS ARISING FROM HIS WORK. HE SHALL MAKE GOOD ANY SUCH DAMAGE, INJURY, OR LOSS, EXCEPT SUCH AS MAY BE DIRECTLY DUE TO CAUSES BEYOND HIS CONTROL AND NOT TO HIS FAULT OR NEGLIGENCE. HE SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS WELL.

B. EACH SUBCONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THEIR EMPLOYEES ON THE WORK AND SHALL COMPLY WITH ALL PROVISIONS OF FEDERAL, STATE AND LOCAL BUILDING CODES AND SAFETY LAWS TO PREVENT ACCIDENTS OR INJURY TO PERSONS ON OR ADJACENT TO THE PREMISES WHERE THE WORK IS BEING PERFORMED. EACH SUBCONTRACTOR SHALL MAINTAIN ALL INSURANCE REQUIRED TO PROTECT HIMSELF, OWNER AND TENANT FOR THE DURATION OF THE WORK AGAINST PROPERTY DAMAGE AND PUBLIC LIABILITY.

CHANGES IN THE WORK

THE TENANT, WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO OR DEDUCTING FROM THE WORK, THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY.

COOPERATION

ALL WORK UNDER THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN CONJUNCTION WITH OTHER CONTRACTORS AND TRADES OF THIS PROJECT IN A MANNER WHICH WILL ALLOW EACH CONTRACTOR AND TRADE ADEQUATE TIME AT THE PROPER STAGE OF CONSTRUCTION TO FULFILL HIS CONTRACTS. REFERENCE SHALL BE MADE TO THE OWNER FOR INSTRUCTIONS SHOULD ANY QUESTIONS ARISE BETWEEN TRADES AS TO THE PLACING OF LINES, DUCTS, CONDUITS, FIXTURES, OR EQUIPMENT, OR SHOULD IT APPEAR DESIRABLE TO REMOVE ANY GENERAL CONSTRUCTION WHICH WOULD AFFECT THE APPEARANCE OR STRENGTH OF THE STRUCTURE.

SUBSTITUTION OF MATERIALS

MANUFACTURER'S NAMES ARE LISTED HEREIN TO ESTABLISH A STANDARD. THE PRODUCTS OF OTHER MANUFACTURERS WILL BE ACCEPTABLE, IF IN THE OPINION OF THE TENANT, THE SUBSTITUTE MATERIAL IS OF A QUALITY AS GOOD OR BETTER THAN THE MATERIAL SPECIFIED, AND WILL SERVE WITH EQUAL EFFICIENCY AND DEPENDABILITY, THE PURPOSE FOR WHICH THE ITEMS SPECIFIED WERE INTENDED.

SHOP DRAWINGS

SHOP DRAWINGS AND CATALOG DATA ON ALL MAJOR ITEMS OF EQUIPMENT AND SYSTEMS, AND SUCH OTHER ILLUSTRATIVE MATERIAL AS MAY BE CONSIDERED NECESSARY BY THE TENANT, SHALL BE SUBMITTED BY THIS CONTRACTOR IN ADEQUATE TIME TO PREVENT DELAY AND CHANGES DURING CONSTRUCTION.

DRAWINGS AND SPECIFICATIONS

A. THE DRAWINGS SHOW DIAGRAMMATICALLY THE LOCATIONS OF THE VARIOUS LINES, DUCTS, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHOD OF CONNECTING AND CONTROLLING THEM. IT IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL AND ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM.

B. SHOULD ANY CHANGES BE DEEMED NECESSARY BY THE CONTRACTOR IN ITEMS SHOWN ON CONTRACT DRAWINGS, THE SHOP DRAWINGS, DESCRIPTIONS, AND THE REASON FOR THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL.

RESPONSIBILITY

A. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE SATISFACTORY AND COMPLETE EXECUTION OF ALL WORK INCLUDED IN HIS CONTRACT. HE SHALL PRODUCE COMPLETE FINISHED OPERATING SYSTEMS AND PROVIDE ALL INCIDENTAL ITEMS REQUIRED AS PART OF HIS WORK, REGARDLESS OF WHETHER SUCH ITEM IS PARTICULARLY SPECIFIED OR INDICATED.

B. CONTRACTOR SHALL SUPPLY TO LANDLORD AND TENANT A CERTIFIED BALANCE REPORT AT COMPLETION OF PROJECT. THIS IS REQUIRED FOR BOTH REMODELED AND NEW STORES.

HEATING, VENTILATING AND AIR CONDITIONING

GENERAL

A. THE WORK COVERED BY THIS SECTION OF THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE RESPECTIVE DRAWINGS, INFORMATION, OR INSTRUCTIONS TO BIDDERS, AND THE GENERAL CONDITIONS, ADDENDA, OR DIRECTIVES WHICH MAY BE ISSUED BY THE OWNER, HEREWITH, OR OTHERWISE, SHALL BE COMPLIED WITH IN EVERY RESPECT.

B. THE LISTING HEREIN OF AN ARTICLE OR MATERIAL, OPERATION OR METHOD, REQUIRES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL EACH ITEM LISTED, UNLESS SPECIFICALLY NOTED TO THE CONTRARY. THE CONTRACTOR SHALL PERFORM EACH OPERATION PRESCRIBED OR LISTED ACCORDING TO THE CONDITIONS STATED.

EXAMINATION OF SITE

ALL CONTRACTORS SUBMITTING PROPOSALS FOR THIS WORK SHALL FIRST EXAMINE THE SITE AND ALL CONDITIONS THEREON AND/OR THEREIN. ALL PROPOSALS SHALL TAKE INTO CONSIDERATION ALL SUCH CONDITIONS AS MAY AFFECT THE WORK UNDER THIS CONTRACT.

SCOPE

FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR A COMPLETE FULLY OPERATIVE HEATING, VENTILATING, AND AIR CONDITIONING SYSTEM EXCEPT AS SPECIFICALLY EXCLUDED BY THE DRAWINGS, AND/OR TENANT'S DIRECTIONS.

EQUIPMENT

A. 1. ROOFTOP UNITS: FURNISH HEATING AND AIR CONDITIONING AS SCHEDULED. UNIT TO BE COMBINED PACKAGED SYSTEM, ALL SEASON EQUIPMENT, CONSISTING OF GAS HEATING SECTION, BLOWER, DX COIL, COMPRESSOR(S), AND AIR COOLED CONDENSING SECTION. UNIT SHALL BE DESIGNED FOR DOWN FLOW ARRANGEMENT WITH ALL DUCT PENETRATIONS WITHIN FACTORY ROOF CURB.

2. FEATURES: UNITS TO BE WOUND FOR VOLTAGE AND PHASE AS SCHEDULED. HEAVY GAUGE ALUMINIZED STEEL, STAINLESS STEEL OR COATED HEAT EXCHANGER WILL BE ACCEPTABLE. UNIT MUST BE A.G.A. APPROVED FOR OUTDOOR APPLICATION. DIRECT EXPANSION COIL WITH FACTORY INSTALLED EXPANSION VALVE – BLOWER SHALL BE OF THE CENTRIFUGAL BELT DRIVEN OR MULTI-SPEED DIRECT DRIVE TYPE WITH FORWARD CURBED BLADES – BLOWER AND MOTOR ISOLATED FOR QUIET OPERATION – BUILT IN MOTOR STARTER WITH OVER VOLTAGE PROTECTION. HERMETICALLY SEALED COMPRESSOR WITH INHERENT OVERLOAD PROTECTION THERMOSTAT – NON-PRORATED 5-YEAR WARRANTY ON COMPRESSOR AND 10-YEAR WARRANTY ON HEAT EXCHANGER – CONDENSER COIL CONSTRUCTED OF COPPER TUBING WITH ALUMINUM FINS – CRANKCASE HEATERS – BUILT IN MOTOR STARTERS ELECTRIC IGNITION – HIGH, LOW PRESSURE CUTOUT ON COMPRESSOR – SHUTOFF VALVES ON LIQUID AND SUCTION LINES – SHORT CYCLE TIMER PROTECTION – FILTER – DRYER – VIBRATION ISOLATION. UNIT FACTORY CHARGED.

3. ACCESSORIES: SUPPLY AND RETURN FILTER CASING ASSEMBLY, TWO COMPLETE SETS OF THROWAWAY TYPE FILTERS. FILTERS SHALL BE 2" THICK. ONE SET TO BE REMOVED AND REPLACED JUST PRIOR TO FINAL INSPECTION – FULL ECONOMIZER PACKAGE WITH LOW LEAKAGE FRESH AIR STANDARD RETURN AIR DAMPERS AND DAMPER MOTOR, – MINIMUM POSITION SETTING – PROVIDE MANUFACTURER'S INTERFACE AS REQUIRED FOR OPERATION WITH THERMOSTAT AS SPECIFIED. PROVIDE MOUNTING CURB APPROVED BY NATIONAL ROOF CONTRACTORS ASSOCIATION TO SUPPORT THE ENTIRE ASSEMBLY WITH NAILER STRIP AND AIR TIGHT GASKET.

E. ALL SINGLE STAGE UNITS WILL BE EQUIPPED WITH PROGRAMMABLE THERMOSTAT.
DESIGN AND STANDARD CONDITIONS FOR THERMOSTAT OPERATION WILL BE AS FOLLOWS:

COOLING: 75°F MAXIMUM OCCUPIED COOLING TEMPERATURE
85°F COOLING NIGHT SETBACK.

HEATING: 70°F MAXIMUM OCCUPIED HEATING TEMPERATURE
60°F HEATING NIGHT SETBACK.

FAN: CONTINUOUS IN OCCUPIED AND RECOVERY MODE AND WITH HEATING OR COOLING EQUIPMENT IN UNOCCUPIED MODE.

DEADBAND: CAPABLE OF MAINTAINING A 5°F DEADBAND.

CLOCK: 7 DAY CAPABLE OF 7 DIFFERENT DAY SCHEDULES.

OVERNIGHT: HAVE A 2 HOUR OVERRIDE ACCESSIBLE TO MANAGER.

BACKUP: CAPABLE OF MAINTAINING PROGRAMMED SETTING FOR AT LEAST 10 HOURS WITHOUT POWER.

F. THE HVAC SUBCONTRACTOR SHALL IDENTIFY ALL ROOF MOUNTED HVAC EQUIPMENT AND APPARATUS WITH 2" HIGH PAINTED STENCILED STORE NAME ON ALL SIDES OF EQUIPMENT.

DUCTWORK

A. SQUARE AND RECTANGULAR DUCTWORK SHALL BE CONSTRUCTED OF NEW GALVANIZED PRIME GRADE SHEET STEEL OF THE FOLLOWING GAUGES:

DUCT SIZE	GAUGE
12" AND LESS	NO. 26 U.S. GAUGE
13" TO 30"	NO. 24 U.S. GAUGE
31" TO 54"	NO. 22 U.S. GAUGE
55" TO 84"	NO. 20 U.S. GAUGE
85" AND OVER	NO. 18 U.S. GAUGE

B. SQUARE AND RECTANGULAR DUCTWORK SHALL BE CONSTRUCTED AS FOLLOWS:

SIZE	METHOD
17" AND LESS	"S" AND DRIVE CLEATS
18" TO 30"	"L" STANDING SEAMS ON 3'-0" CENTERS
31" TO 54"	1-1/4" STANDING SEAMS ON 3'-0" CENTERS

GREASE DUCTS SHALL BE BLACK CARBON STEEL NOT LESS THAN 0.054" (16 GA.). ALL SEAMS, JOINTS, AND PENETRATIONS SHALL HAVE A LIQUID TIGHT, CONTINUOUS, EXTERNAL WELD.

1. THE KITCHEN HOOD EXHAUST DUCTWORK SHALL BE ENCLOSED IN A RATED ENCLOSURE PER CODE.

2. THE CONTRACTOR SHALL INCLUDE IN HIS PRICE:
–ALL NECESSARY TRANSITION AND CONNECTION FITTINGS TO THE HOOD AND EXHAUST FANS.
– ALL CLEAN-OUT ACCESS PANELS AS REQUIRED BY CODE.
– ALL ELBOW AND TRANSITION FITTINGS.
– ALL HANGERS AND SUPPORTS.
–SHOP DRAWINGS SHOWING PROPOSED FABRICATION AND INSTALLATION COORDINATED WITH EXISTING FIELD CONDITIONS AND OTHER TRADES.

ROUND LOW PRESSURE DUCTS SHALL BE SPIRAL WOUND AS MANUFACTURED BY UNITED SHEET METAL COMPANY OR SHOP FABRICATED ROUND DUCTS WITH PITTSBURGH LOCK LONGITUDINAL SEAMS. GAUGES FOR SHOP FABRICATED DUCTS SHALL BE AS FOLLOWS:

UP TO 12" IN DIAMETER	NO. 26 GAUGE
13" TO 30"	NO. 24 GAUGE
31" TO 42"	NO. 22 GAUGE
43" TO 60"	NO. 20 GAUGE

ELBOWS SHALL HAVE A CENTERLINE RADIUS OF 1-1/2 TIMES DUCT DIAMETER AND MAY BE SMOOTH ELBOWS OR 5 PIECE 90 DEGREE ELBOWS AND 3 PIECE 45 DEGREE ELBOWS. JOINTS OF ROUND DUCTS SHALL BE SLIP TYPE WITH A MINIMUM OF 3 SHEET METAL SCREWS.

1. ALL EXPOSED ROUND LOW PRESSURE DUCTWORK SHALL BE INTERNALLY LINED.
2. ALL LOW PRESSURE DUCTWORK SHALL BE EXTERNALLY SEALED USING UNITED SHEET METAL, MMM EC-800, OR HARDCAST DUCT SEALER INSTALLED IN THE JOINTS PRIOR TO CLOSURE. ADDITIONALLY SEAL ALL EXTERNAL TRANSVERSE JOINTS AND FITTING CONNECTIONS EXTERNALLY.

C. ALL SUPPLY AIR DUCTS (HEATING AND COOLING) AND RETURN AIR DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED STEEL WITH MIN. 1" (R-5) THICK EXTERNAL THERMAL INSULATION EXCEPT DUCT LINED FOR ACOUSTICAL PURPOSES. ALL EXHAUST AND RELIEF AIR DUCTS SHALL BE GALVANIZED STEEL.

D. CONTRACTOR WILL INSTALL INSECT SCREENS ON ALL DUCT OPENINGS WHICH LEAD TO OR ARE OUTDOORS. INSECT SCREENS SHALL BE 10 GAUGE, ONE-HALF INCH (1/2") MESH IN REMOVABLE GALVANIZED STEEL FRAMES.

E. ALL DUCTWORK SHALL BE DESIGNED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN THE AMERICAN SOCIETY OF HEATING REFRIGERATION AND AIR CONDITIONING ENGINEERS GUIDE (ASHRAE) AND FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST METHODS RECOMMENDED IN THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) LOW VELOCITY DUCT MANUAL, LATEST EDITION.

HANGERS AND SUPPORTS

A. ALL HORIZONTAL DUCTS HAVING A DIMENSION OF 40 INCHES AND LESS SHALL BE SUPPORTED BY MEANS OF BAND IRON HANGERS OF NO. 18 U.S. GAUGE ATTACHED TO THE DUCT BY MEANS OF RIVETS, SCREWS, OR CLAMPS, AND FASTENED TO STRUCTURE ABOVE BY TOGGLE BOLTS OR OTHER MEANS. EACH SECTION OF DUCTWORK SHALL HAVE AT LEAST ONE PAIR OF SUPPORTS. VERTICAL DUCTS SHALL BE SUPPORTED WITH 1-1/4" x 1-1/4" x 1-1/4" ANGLES WHERE THEY PASS THROUGH THE FLOOR LINES.

B. ALL HORIZONTAL DUCTS HAVING A DIMENSION OF 40 INCHES AND MORE SHALL BE SUPPORTED BY MEANS OF ANGLE IRON TRAPEZE HANGERS. EACH SECTION OF DUCTWORK SHALL HAVE AT LEAST ONE PAIR OF SUPPORTS.

FLASHING

A. CONTRACTOR WILL PROVIDE WATER TIGHT 24 GA. SHEET METAL FLASHINGS AT ALL EXTERIOR WALLS AND ROOF PENETRATIONS.

B. ALL CUTTING OF ROOF OPENINGS, SUPPORTS FOR ROOF OPENINGS, PITCH PANS, ROOF CURBS, FLASHINGS, COUNTER FLASHINGS, REPAIR TO ROOF, ETC. ASSOCIATED WITH HVAC SUBCONTRACTOR SHALL BE THE RESPONSIBILITY AND PART OF THE CONTRACT HVAC SUB-CONTRACTOR. HE SHALL EMPLOY THE LANDLORD'S ROOFERS FOR THIS WORK SO AS TO MAINTAIN THE ROOF BOND.

DAMPERS

A. SPLITTER DAMPERS SHALL BE FABRICATED OF SHEET STEEL NOT LESS THAN NO. 16 U.S. GAUGE WITH THE LEADING EDGE HEMMED. EACH DAMPER SHALL BE LARGE ENOUGH TO COVER THE SMALLER OF THE TWO OPENINGS IT CONTROLS. DAMPERS SHALL BE CONTROLLED AS FOLLOWS:

EXPOSED OR ACCESSIBLE DUCTWORK – LOCKING QUADRANTS EQUAL TO YOUNG REGULATOR NO. 1 WITH DAMPER ROD END BEARINGS ON OPPOSITE END.

CONCEALED DUCTWORK – LOCKING QUADRANT EQUAL TO YOUNG REGULATOR NO. 315 (CHROMIUM PLATED WITH DAMPER ROD END BEARINGS ON BOTH ENDS).

B. VOLUME DAMPERS SHALL BE OF THE OPPOSED INTERLOCKING TYPE AS MANUFACTURED BY AMERICAN FOUNDRY AND FURNACES CO. (AFFCO) OR EQUAL. BLADES SHALL BE OF NO. 16 GAUGE SHEET METAL AND SHALL NOT EXCEED 48" IN LENGTH OR 12" IN WIDTH. BLADES SHALL BE ON ONE-HALF INCH (1/2") DIAMETER RUSTPROOF AXLE. BEARINGS SHALL BE OF THE SELF-LUBRICATING FERRULE TYPE.

C. FIRE DAMPERS SHALL BE SUPPLIED AND INSTALLED BY HVAC CONTRACTOR AT DUCT PENETRATIONS IN FIRE RATED WALLS, CEILINGS, AND ROOFS AS REQUIRED. COORDINATE WITH LANDLORD, LOCAL FIRE MARSHALL AND ALL CODES AND GOVERNING AUTHORITIES HAVING JURISDICTION.

D. JOB FABRICATED TURNING VANES SHALL BE ACCEPTABLE IN SQUARE ELBOWS. PROVIDE AND INSTALL BARBER-COLEMAN AIR TURNS OR EQUAL. TURNING VANES SHALL BE OF THE SAME GAUGE METAL AS THE DUCT IN WHICH THEY ARE INSTALLED. RADIUS ELBOWS SHALL HAVE A CENTER-LINE RADIUS OF ONE AND ONE-HALF (1-1/2) TIMES THE DUCT WIDTH.

DUCTWORK - EXCEPTIONS

DUCTWORK FOR EXHAUSTING AIR OR OUTSIDE SUPPLY AIR SHALL BE ALL METAL AND CONSTRUCTED ACCORDING TO RECOMMENDED PRACTICES AS FOUND IN THE LATEST ISSUE OF ASHRAE.

SUPPORT OF DUCT SYSTEM

HANGER DESIGN SHALL BE AS DESCRIBED IN THE LATEST EDITION OF THE "SMACNA" MANUAL. REINFORCEMENT MEMBERS MAY BE USED TO SUPPORT DUCT SYSTEM PROVIDED DETAILS OUTLINED IN THE AFOREMENTIONED MANUAL ARE ADHERED TO.

DUCTS SHALL BE SUPPORTED AT ALL TURNS AND TRANSITIONS AND NOT MORE THAN 8'-0" O.C. STRAIGHT DUCTS UP TO 59" MAX. DIMENSIONS SHALL BE SUPPORTED 6'-0" O.C. DUCTS OVER 60" MAX. DIMENSIONS SHALL BE SUPPORTED AT 4'-0" O.C.

REINFORCEMENT

ALL DUCTS REQUIRING REINFORCEMENT SHALL BE REINFORCED ACCORDING TO THE LATEST EDITION OF "SMACNA" MANUAL.

MATERIALS FOR REINFORCEMENT MEMBERS SHALL BE GALVANIZED STEEL. ALL SCREWS AND WASHERS SHALL BE PLATED OR GALVANIZED.

ACCESSORY ITEMS

ALL MANUAL DAMPERS, FIRE DAMPERS, TURNING VANES, REGISTER CONNECTIONS, ACCESS DOORS OR OTHER ASSOCIATED ACCESSORIES SHALL BE INSTALLED ACCORDING TO THE LATEST PUBLICATION OF "SMACNA" MANUAL.

TESTING AND ADJUSTING

CONTRACTOR WILL DEMONSTRATE OPERATION OF SYSTEM TO FULL SATISFACTION OF TENANT, WILL BALANCE AIR FLOW IN ACCORDANCE WITH AIR QUANTITIES ON DRAWINGS AND WILL RECORD VOLUME READINGS IN ACCORDANCE WITH ASHRAE AND PROVIDE SAME TO TENANT. ALL PIPING SHALL WITHSTAND AIR PRESSURE TESTING PER GOVERNING PLUMBING CODE.

A. AIR DISTRIBUTION SYSTEMS:
1. INSPECT INSTALLATION AND VERIFY CONFORMITY TO DESIGN. VERIFY THAT SUPPLY, RETURN, AND EXHAUST DUCTS HAVE BEEN PRESSURE-TESTED FOR LEAKAGE AS RECOMMENDED IN THE APPROPRIATE SMACNA STANDARDS.
2. VERIFY THAT VOLUME AND FIRE DAMPERS ARE PROPERLY LOCATED AND FUNCTIONAL.
3. VERIFY THAT SUPPLY, RETURN, EXHAUST AND TRANSFER GRILLES, REGISTERS AND DIFFUSERS ARE INSTALLED AND OPERATING PROPERLY.

B. VERIFY THAT CONTROL COMPONENTS ARE INSTALLED IN ACCORDANCE WITH PROJECT REQUIREMENTS AND ARE FUNCTIONING AS INTENDED, INCLUDING ELECTRICAL POWER, CONTROL AND INTERLOCK WIRING, DAMPER SEQUENCES, SMOKE DETECTORS, ETC.

C. UPON COMPLETION OF THE INSTALLATION AND START-UP OF THE MECHANICAL EQUIPMENT, TEST, ADJUST AND BALANCE SYSTEM COMPONENTS TO OBTAIN OPTIMUM CONDITIONS IN EACH CONDITIONED SPACE IN THE BUILDING.

D. BEFORE FINAL ACCEPTANCE IS MADE, FURNISH TO THE ARCHITECT THE FOLLOWING DATA:
1. SUMMARY OF MAIN SUPPLY, RETURN AND EXHAUST DUCT PILOT TUBE TRANSVERSES AND FAN SETTINGS.
2. AIR QUANTITIES AT EACH SUPPLY, RETURN, RELIEF AND EXHAUST AIR HANDLING DEVICE.
3. AIR PRESSURE READINGS ENTERING AND LEAVING EACH SUPPLY FAN AND EXHAUST FAN.
4. MOTOR CURRENT AND VOLTAGE READINGS AT EACH EQUIPMENT MOTOR.
5. TEST RESULTS SHALL BE RECORDED ON STANDARD FORMS CONFORMING TO AABC AND NEBB REQUIREMENTS. THE REPORT SHALL INCLUDE AIR FLOW SCHEMATIC DIAGRAMS INDICATING AND IDENTIFYING TEST LOCATIONS SUCH AS DUCT TRANSVERSE, OUTLET READINGS, PRESSURE READINGS AND TEMPERATURE READINGS, AND SHALL BE REFERENCED TO THE RECORDED DATA ON THE FORMS.

E. MAKE AN INSPECTION IN THE BUILDING DURING THE OPPOSITE SEASON FROM THAT IN WHICH THE INITIAL ADJUSTMENTS WERE MADE, AND AT THAT TIME MAKE ANY NECESSARY MODIFICATIONS TO THE INITIAL ADJUSTMENTS REQUIRED TO PRODUCE OPTIMUM OPERATION OF THE SYSTEM COMPONENTS, TO PRODUCE THE PROPER CONDITIONS IN EACH SPACE.

F. INSTRUCTION: THE CONTRACTOR SHALL INSTRUCT THE BUILDING OPERATING PERSONNEL IN THE CONSTRUCTION AND OPERATION OF ALL EQUIPMENT.

GUARANTEE

ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF ACCEPTANCE. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY TENANT SHALL BE A CONDITION OF THIS CONTRACT. ALL WORK FOUND TO BE DEFECTIVE SHALL BE REPAIRED OR REPLACED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL CHARGE TO THE TENANT.

MECHANICAL

TEMPORARY SERVICES

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING SPECIFIC ITEMS OF TEMPORARY SERVICES:

A. TELEPHONE – THE TENANT'S GENERAL CONTRACTOR SHALL INSTALL A JOB SITE TELEPHONE AND NOTIFY TENANT AS LISTED ON SHEET A-1 OF THE TELEPHONE NUMBER AND THE NAME OF THE SUPERINTENDENT.

B. TEMPORARY WATER – WATER REQUIRED IN THE PERFORMANCE OF THE CONTRACT SHALL BE PROVIDED AND PAID FOR BY THE CONTRACTOR. WATER USED FOR HUMAN CONSUMPTION SHALL CONFORM TO REQUIREMENTS OF STATE AND LOCAL AUTHORITIES FOR POTABLE WATER.

C. TEMPORARY ELECTRICITY – TEMPORARY ELECTRIC SERVICE REQUIRED IN THE PERFORMANCE OF THE CONTRACT SHALL BE FURNISHED AND PAID FOR BY THE CONTRACTOR WHO SHALL FURNISH, INSTALL, AND MAINTAIN ALL TEMPORARY OVERHEAD CONSTRUCTION, METERS, DROPS, AND OTHER WIRING AND FITTINGS FOR BOTH LIGHT AND POWER AT LOCATIONS REQUIRED IN THE WORK AND SHALL BEAR THE COST OF MAKING THE SERVICE CONNECTIONS. BEFORE FINAL ACCEPTANCE, TEMPORARY ELECTRICAL SERVICE FACILITIES INSTALLED BY THE CONTRACTOR SHALL BE REMOVED AND THE SERVICE CONNECTIONS SEVERED IN ACCEPTABLE MANNER.

D. TEMPORARY HEAT – WHEN REQUIRED FOR PROPER INSTALLATION OR PROTECTION OF ANY PORTION OF THE WORK, THE CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY HEATING UNITS AS APPROVED BY THE LANDLORD OR LOCAL AUTHORITY.

E. COST OF LANDLORD PROVIDED UTILITY SERVICES – IF THE LANDLORD ELECTS TO PROVIDE TEMPORARY UTILITY SERVICES, THE CONTRACTOR WILL BE SO INFORMED BY THE TENANT. THE CONTRACTOR SHALL MAKE

TO PAY THE COST OF SAID TEMPORARY CONSTRUCTION AND UTILITY SERVICES.

NOTE FOR TENANT GENERAL CONTRACTOR

IT IS THE RESPONSIBILITY OF THE TENANT'S GENERAL CONTRACTOR TO MAKE USE OF APPLICABLE NOTES AND SPECIFICATIONS LISTED ON THIS SHEET AS THEY MAY PERTAIN TO THE SPECIFIC JOB.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
CASE Engineering Inc
T 636.349.1666
F 636.349.1730
796 Morse Court
St. Louis, MO 63026
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:
WINGSTOP

5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
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PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23303
PROFESSIONAL ENGINEER

6/15/21
DATE

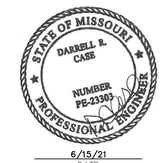
PROJECT NO.:	2021-0158
DRAWN BY:	JJV
CHECKED BY:	DRC

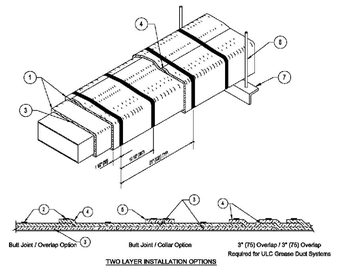
ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

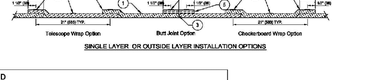
REVISION:	DATE:

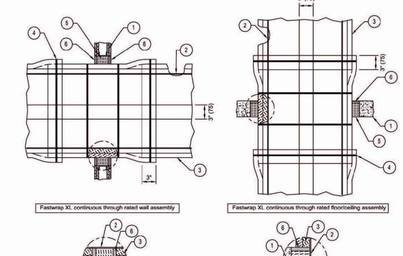
PROJECT LOCATION:
LEE'S SUMMIT, MO

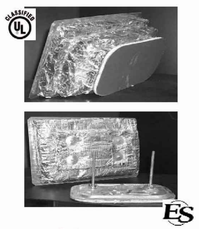
SHEET NUMBER:
M3

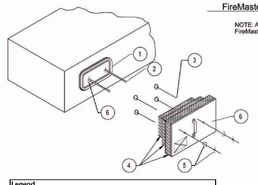


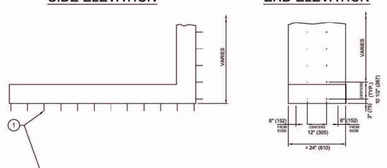


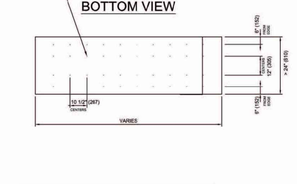


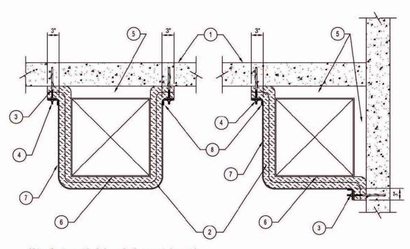












Thermal Ceramics

Insulating Our World

FIREMASTER

FastWrap® XL
Commercial Kitchen Grease Duct Enclosure System
Air Ventilation Duct Enclosure System

Product Data & Installation Guide

1. Product Description
FireMaster® FastWrap XL is a flexible blanket composed of high temperature fibers classified for applications to 2192°F (1200°C) and fully encapsulated in a durable glass fiber reinforced foil facing for easy handling and installation. FastWrap XL is UL Classified and ULC Listed in various systems for 1 and 2 hour fire resistive enclosure protection, reduced clearance for kitchen exhaust ducts, electrical circuit protection, and as a component in various UL firestop designs for fire resistance rated floors, ceilings, and walls. The core fibers in FastWrap XL are manufactured using Thermal Ceramics patented Superwool® fiber which is an alkaline-earth silicate wool with low biopersistence and therefore increased safety for installers. FastWrap XL is under UL's Follow-Up Service Program to ensure the consistent quality essential to this life-safety application.

Product Features
- Zero clearance to combustibles at any location
- Thin and Lightweight at 1-1/2" (38mm) thick, 6 pcf (96 kg/m³) density
- Contours easily to complex duct designs
- Optimized installation with inside layer butt joints on grease duct enclosures per ASTM E 2336
- Fully foil encapsulated for fast and clean installation
- Completely inorganic and non-combustible
- Contains 2192°F (1200°C) rated fibers for added safety margin
- Wide variety of through penetration firestop systems
- Resistant to mold growth
- Good sound absorption

2. Applications
- 1 and 2 hour enclosure and firestop system for kitchen exhaust ducts
- Zero clearance from enclosure to combustibles for kitchen exhaust ducts
- 1 and 2 hour enclosure and firestop system for hazardous exhaust ducts, pressurization ducts, clothes dryer exhaust ducts, trash and linen chutes, and other fire rated HVAC ducts
- 1 hour circuit integrity protection for cable trays and steel conduits
- Engineered solutions and tested systems for fire protection of structural steel beams and columns, and storage vessels per ASTM E119, ISO 834, and UL1709

3. Physical Characteristics

Product	Unit	Size	Units/ Ctn.	Wt./ Ctn.
FastWrap XL	Roll	1-1/2" x 24" x 25'	1	37.5 lbs.
FastWrap XL	Roll	1-1/2" x 48" x 25'	1	75 lbs.
FastWrap XL Collar	Roll	1-1/2" x 6" x 25'	4	37.5 lbs.
Color	White blanket with silver foil encapsulation			

4. Performance Specifications

Reference Standard	Standard No.	Performance
Grease Duct Enclosure System	ASTM E2336	Pass
Section 16.1 - Non-Combustibility	ASTM E136	Pass
Section 16.2-Fire Resistance (wall)	ASTM E119	Pass
Section 16.3 - Durability Test	ASTM C518	Pass
Section 16.4 - Internal Fire Test	ASTM E2336	Pass
Section 16.5 - Fire Engulfment (duct)	ASTM E814/E119	Pass
ULC Grease Duct Test Protocol		Pass
Grease Duct Clearances	UL 1978	Pass
Air Ventilation Duct Enclosure	ISO 6944	Pass
Surface Burning Characteristics		
Flame Spread (foil/blanket)	ASTM E84	5/0
Smoke Developed (foil/blanket)	ASTM E84	10/0
Thermal Resistance (R-value @ 70°F)	ASTM C518	7.3 per layer
Mold Growth (75% -95% humidity)	ASTM D6329	Resistant

5. Listings/Building Code Reports

Listed Uses	Agency	Listing	Layers
Grease Duct Enclosure per ASTM E2336 and AC101	UL	G18	2
	ICC-ES	ESR 2213	
Grease Duct Insulation per ULC Grease Duct Insulation Test Protocol	ULC	FRD 4, 7	2
Grease Duct Insulation (2003 IMC)	OPL	TC/BI 120-01	1
Through Penetration FireStop System per ASTM E814, UL 1479	UL	See Figure 2	1 or 2
	ULC		
Ventilation Duct Enclosure System per ISO 6944-1985	UL	HNLJ.V1, 2, 3, 4, 11, 12, 19	1
	ULC	FRD 3, 5, 6, 18	
Electrical Circuit Protective System	UL	FHIT.5	2

6. Storage
FastWrap XL must be stored in a dry warehouse environment on pallets. Pallets should not be stacked.

7. Installation
FastWrap XL shall be installed by a qualified contractor in accordance with manufacturer's instructions and design listings. See figures **1** to **5** for complete details.

Materials and Equipment
- FastWrap XL blanket
- Aluminum foil tape
- Glass filament reinforced tape (optional)
- Carbon steel or stainless steel banding material, minimum 1/2" (13mm) wide, minimum 0.015" (0.4mm) thick, with steel banding clips
- Hand banding tensioner and crimping tool
- Minimum 12 gage (3mm) steel insulation pins; steel speed clips, minimum 1-1/2" (38mm) square or 1-1/2" (38mm) diameter, or equivalent sized cup-head pins;
- Capacitor discharge stud gun
- FireMaster F2-HT-XL3 Prefabricated Door or Field Fabricated Door Hardware
- An approved firestop sealant

General
To minimize waste, FastWrap XL blanket should be rolled out tautly before measuring. Cut edges of the blanket shall be taped with aluminum foil tape to prevent exposed edges of the insulation absorbing grease and moisture in the event of a compromised grease duct joint. Overlaps are used to block heat transfer in the event of duct deformation resulting from thermal expansion. Filament tape is suggested to temporarily hold the blanket in place until steel banding or pinning is installed to permantely secure the blanket.

A. First Layer / Single Layer Installation
1) **Butt Joint for ASTM E2336 compliant grease duct enclosure (Figure 1)** - The first layer of FastWrap XL is cut to completely wrap around the perimeter of the duct with enough excess to provide a tight butt joint where the blanket ends meet. The joints of adjacent blankets are firmly butted against each other.
2) **Overlaps required for ISO 6944 compliant single layer air ventilation duct enclosure and two layer grease duct enclosures installed in Canada (Figure 1)** - The layer of FastWrap XL applied directly to the duct is cut to completely wrap around the perimeter of the duct with enough excess to overlap itself by a minimum of 3" (75mm). The joints of adjacent blankets must overlap each other by a minimum 3" (75mm).

B. Second Layer Where Required – (Figure 1)
The second layer of FastWrap XL is cut to completely wrap around the perimeter of the first layer, with enough excess to overlap itself not less than 3" (75mm). Joints in the second layer should be staggered a minimum of 6" (50mm) from joints on the inner layer. Adjacent blankets on the second layer must overlap each other by not less than 3" (75mm). As an alternative to overlaps on adjacent blankets installed on the second layer, adjacent blankets can be tightly butt jointed and wrapped with a 6" (152mm) wide FastWrap XL collar centered over the butt joint.

C. 2 & 3 Sided Wrap Installation (Figure 5)
When space does not allow for a complete wrap applied to the duct on all four sides, the FastWrap XL is approved for 2 or 3 sided installations with mechanical attachment to a rated concrete or CMU assembly. The FastWrap XL is installed on the 2 or 3 sides of the duct as described in one of the installation methods described in sections A or B with the starting edge of the blanket attached to the concrete or CMU assembly and then wrapped around the duct until the other end can be attached to the other concrete or CMU assembly, thus encapsulating the duct with insulation around all accessible sides. The blanket is to flange out onto the concrete or CMU assembly. It shall be secured to the adjoining assembly with min 3/16" (5mm) diameter, 4" (102mm) long concrete anchors, footed to a minimum 1-1/2" (38mm) wide x 3/16" (5mm) thick steel strip/strap with pre-drilled holes spaced a maximum 10" (254mm) on center. The steel strip is to be placed around the entire perimeter of the duct in the exposure area. The FastWrap XL insulation wrap is secured to the duct with minimum 1/2" (13mm) wide steel banding 10-1/2" (270mm) centers. The ends of the banding are to loop into and around the steel strips/straps that foot the blanket to the concrete floor or wall, and tightened down.

D. Mechanical Attachment Methods for Insulation Wrap
1) **Banding (Figure 1)** - Minimum 1/2" (13mm) wide carbon steel or stainless steel banding, 0.015" (0.4mm) thick, is placed around the entire perimeter of the insulated duct on maximum 10-1/2" (270mm) centers and1-1/2" (38mm) from each blanket edge or 1-1/2" (38mm) from each collar edge when using the butt joint and collar method. When banding, filament tape can be used to temporarily hold the blanket in place until the banding is applied. The banding is placed around the blanket and tightened to firmly hold the FastWrap XL in place against the duct, but not cause any cutting or damage to the blanket.
2) **Pinning (Figure 4)** - If the pin pattern shown in Figure 4 is used on all faces of the duct, then 12 Gage (0.4mm) insulation pins may be used in lieu of steel banding. To prevent blanket sag, 12 Gage (0.4mm) pins installed as shown in Figure 4 are required in addition to banding on the bottom of horizontal ducts where the bottom dimension is larger than 24" (610mm), or on one side of vertical ducts where one dimension is larger than 24" (610mm). Pins that extend beyond the outer blanket layer shall be turned down or the excessive length cut off to prevent sharp edges. Shoot through pins (cup head pins) may be used in conjunction with steel banding to prevent blanket sag.

E. Field Fabricated Access Doors
1) **Field Fabricated Access Doors (Figure 3)** - Each access door assembly has four threaded rods 1/4 inch (6mm) in diameter and 5" (127mm) in length, with one welded to each corner of the door opening. Hollow steel tubes, 4-1/2" (114mm) long are installed outside the access cover plate and over the threaded rods. Four 12 gage (3mm) and 4-1/2" (114mm) long steel insulation pins are welded to the access cover plate to allow for installation of the three layers of FastWrap XL. One layer of FastWrap XL is cut to approximately the same size as the access panel, and impaled over the insulation pins on the panel. A second layer of FastWrap XL is cut so as to overlap the first layer a minimum of 1-1/2" (38mm). It is essential that the first and second layer fit tightly against the surrounding wrap with no through openings. The third and outside layer should be cut to overlap the second insulation layer by a minimum of 1-1/2" (38mm). Minimum 1-1/2" (38mm) round or square insulation clips are installed on the insulation pins to secure the three layers of insulation to the access cover plate. All cut edges of the insulation shall be taped with minimum 3" (75mm) wide aluminum foil tape. Wing nuts and washers are installed on the four threaded rods, and tightened against the hollow steel tubes to seal the access cover plate to the duct.
2) **Field Insulated DuctMate Access Doors (Figure 3)** – DuctMate Ultimate and F2 doors are approved for use with FastWrap XL, and shall be installed according to DuctMate Industries installation instructions. A 16 gage (1.4mm) outer cover plate is required, which is 6" (152mm) larger in width and length than the DuctMate door, and which has holes drilled to match the threaded rods on the DuctMate door. Four 12 gage (3mm) insulation pins are welded to this outer cover plate, and three layers of FastWrap XL are impaled and fastened using minimum 1-1/2" (38mm) insulation clips. The insulation layer adjacent to the DuctMate door is cut to the size of the door and each successive layer has an overlap of 1-1/2" (38mm) over the adjacent layer. It is essential that the first and second layer fit tightly against the surrounding wrap with no through openings. All edges of insulation blanket must be sealed with minimum 3" (75mm) wide aluminum foil tape. The insulated cover plate is installed over the Ductmate threaded rods, and held tight against the duct with wing nuts and washers.
3) **FireMaster Factory Built Access Doors (Figure 3)** – FireMaster doors are tested per ASTM E2336 and are intended for use in two layer installations. FireMaster access doors come complete and ready for installation with a DuctMate® F2 access door, cut-out template, an outside cover plate with proper signage, an as tested FastWrap XL insulation package, and installation instructions.

F. Through Penetration Firestop System (Figure 2) - When the duct penetrates a fire rated assembly an approved fire stop system must be employed. Figure 2 provides a complete list of UL / ULC firestop design listings which can be found in the Certifications Directory at www.ul.com for US systems and www.ulc.ca for Canadian systems. Prior to installing any firestop system the surfaces of all openings and penetrating items must be clean and dry. The FastWrap XL core blanket (or mineral wool where allowed by the firestop design listing) must be compressed into the annular space. The packing material must be recessed a minimum depth from the surface of the concrete or gypsum assembly. The recessed opening must be filled with a minimum thickness of an approved firestop sealant. The packing material type and compression, minimum recess (typically 1/4" (6mm)), and approved firestop sealant and thickness (typically 1/4" (6mm)) shall be as specified in an approved UL / ULC firestop design listing. When there is not sufficient annular space around the duct to run the FastWrap XL enclosure system continuous through the fire rated assembly, the enclosure may terminate above and below the floor/ceiling assembly or on either side of a wall assembly as shown in Figure 2. When this method is used, the FastWrap XL must be mechanically attached on either side of the fire rated assembly using one of the attachment methods described in Section D, spaced a maximum of 1-1/2" (38mm) from the fire rated assembly.

G. Support Hanger Systems
1) **Grease ducts:** Trapeze support hangers shall be spaced on maximum 60 in. (1500 mm) centers. Hanger rods or straps shall be anchored with steel drop in or wedge expansion type masonary anchors. No additional protection is required for hangers and supports meeting the requirements of the Table below.

Hanger Cross Secton	Maximum Perimeter, in (mm)	Trapeze Support (or equivalent Yield Strength), in (mm)
1 in x 16 gage strap (25 mm x 1.5 gage strap)	96 (2438)	
1⁄4 in (6 mm) threaded rod	56 (1422)	2 (51) x 2 (51) x 1⁄8 (3) in angle
3⁄8 in (10 mm) threaded rod	148 (3759)	2 (51) x 2 (51) x 1⁄8 (3) in angle
1⁄2 in (12.7 mm) threaded rod	232 (5892)	2 (51) x 2 (51) x 1⁄4 (6) in angle

2) **HVAC ducts:** Trapeze support hangers shall be spaced on maximum 60 in. (1500 mm) centers. Hanger rods or straps shall be anchored with steel drop in or wedge expansion type masonary anchors. No additional protection is required for hangers and supports meeting the requirements of the Table below.

Hanger Cross Secton	Maximum Perimeter, in (mm)	Trapeze Support (or equivalent Yield Strength), in (mm)
1 in x 16 gage strap (25 mm x 1.5 gage strap)	120 (3048)	
1⁄4 in (6 mm) threaded rod	72 (1828)	1½ (38) x 1½ (38) x 3⁄16 (5) angle
3⁄8 in (10 mm) threaded rod	184 (4673)	1½ (38) x 1½ (38) x 3⁄16 (5) angle
1⁄2 in (12.7 mm) threaded rod	292 (7416)	2 (51) x 2 (51) x 1⁄4 (6) angle
5⁄8 in (15.8 mm) threaded rod	512 (13000)	3 (76) x 3 (76) x 3⁄8 (10) angle

8. Maintenance and Repair
No maintenance is required when installed in accordance with Thermal Ceramics installation instructions. If damage is limited to the foil facing, aluminum foil tape can be used to repair the foil facing. If an area of blanket is found to be damaged the following procedure must be incorporated. If the damaged area is larger than 8" (203mm) x 8" (203mm) the entire wrap section must be removed and replaced according to Thermal Ceramics installation instructions. If the damaged area is small (less than 8" (203mm) x 8" (203mm)), the damaged area must be cut away and replaced with a new section 1" (25mm) larger in length and width than the cut out are, such that the new section can be compressed tightly into the cut out area. All cut edges of the new section must be taped and sealed wth aluminum foil tape. The new section must be held in place with either pinning or banding per Thermal Ceramics installation instructions.

9. Limitations
Thermal Ceramics FastWrap XL shall be installed in accordance with these installation instructions. The integrity of FastWrap XL systems is limited to the quality of the installation.

*For personal protective equipment recommendations see the MSDS.

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DuctMate is a trademark of Ductmate Industries Inc.

FireMaster® FastWrap® XL
Grease and HVAC Duct Enclosure System
1 or 2 Hour Shaft Alternative / Zero Clearance to Combustibles

LEGEND	
1	Two Layers of FireMaster FastWrap XL Blanket for Grease Duct Enclosures One Layer of FireMaster FastWrap XL Blanket for Air Ventilation Duct Enclosures
2	Steel banding minimum 1/2" (13) wide by 0.015" (0.4) thick.
3	Tight butt joints on inner layer (ULC Grease Duct requires 3" (75) overlap)
4	Min. 3" (75) overlap on perimeter and between adjacent blanket on outside layer
5	Optional 6" FireMaster FastWrap XL collar
6	Hangers - size dependent weight of assembly (see datasheet Section G)
7	Trapaze Supports - size dependent on weight of assembly (see datasheet Section G)

The integrity of Firemaster duct systems is limited to the quality of the installation.

FMXL001-4

FireMaster® FastWrap® XL
Commercial Kitchen Grease Duct Enclosure System
Air Ventilation Duct Enclosure System
Through Penetration Firestop Systems

FIGURE 2	
1	Rated Floor/ceiling or wall assembly
2	Duct
3	Two Layers of FireMaster FastWrap XL for Grease Duct Enclosures One Layer of FireMaster FastWrap XL for Air Ventilation Duct Enclosures
4	Steel banding minimum 1/2" (13) wide by 0.015" (1.5) thick or pinning
5	FireMaster FastWrap XL (packing material)
6	Approved through-penetration firestop sealant

Firestop Designs
Per ASTM E814 / UL 1479

UL Listings		ULC Listings
C-AJ-1562	C-AJ-7004	FRD 3
C-AJ-7012	C-AJ-7014	FRD 4
C-AJ-7019	C-AJ-7021	FRD 5
C-AJ-7047	C-AJ-7095	FRD 6
C-AJ-7098	C-AJ-7119	FRD 7
F-A-1093	F-A-1094	FRD 18
F-A-3048	F-C-7036	
F-C-7037	W-L-7009	
W-L-7121	W-L-7145	
W-J-7086		

The integrity of Firemaster duct systems is limited to the quality of the installation.

FMXL003-2

FireMaster® FastWrap® XL
Access Door Systems
Commercial Kitchen Grease Duct Enclosure System

FIGURE 3	
1	DuctMate F2-HT Access Door or 16 Gage (1.5) Field Fabricated Access Door.
2	All Thread Rods.
3	Installation Pins with Speed Clips.
4	Three Layers of FireMaster FastWrap XL Blanket with Minimum 1" (25) Overlaps and All Edges Sealed with Aluminum Tape.
5	Spool Pieces for Threaded Rods
6	Wing Nuts and Washers
7	16 Gage (1.5) Outer Cover Plate Labeled "ACCESS DOOR - DO NOT OBSTRUCT"

The integrity of the duct wrap insulation product is limited to the quality of the installation

FMXL002-3

FireMaster® FastWrap® XL
TYPICAL INSULATION PIN LAYOUT
FOR DUCT SPANS > 24" (610) WIDE
To Prevent Blanket Sag

FIGURE 4	
1	Minimum 12 gage (3) steel insulation pins

The integrity of Firemaster duct systems is limited to the quality of the installation.

FMXL004-2

FireMaster® FastWrap® XL
Commercial Kitchen Grease Duct Enclosure System
Air Ventilation Duct Enclosure System

1 Or 2 Hour Shaft Alternative / Zero Clearance to Combustibles
2 and 3 Sided Wrap Detail for Attaching to Walls and/or Ceilings

Note: Ducts must be independently supported per code

FIGURE 5	
1	1 or 2 Hour Rated Concrete floor, ceiling, or wall
2	Two layers of FireMaster FastWrap XL for Grease Duct Enclosures One layer of FireMaster FastWrap XL for Air Ventilation Duct Enclosures
3	Concrete fastener system
4	3/16" (5) thick x 2" (50) -3" (75) wide bar stock perforated 12" (305) o.c.
5	8" (203) maximum Air Gap
6	Duct
7	Steel banding min. 1/2" (13) wide by 0.015" (0.4) thick.
8	Banding clip

The integrity of Firemaster duct systems is limited to the quality of the installation.

FMXL005-2

714-236/01.10

Thermal Ceramics

FireMaster® Grease Duct Access Door Systems

Product Data and Installation Guide

1. Product Description
As the pioneer of fire resistive, flexible duct enclosure protection, Thermal Ceramics continues to provide reliable and safe fire protection solutions. To complement the FireMaster FastWrap® XL grease duct wrap enclosure system, Thermal Ceramics now offers fully fire tested and building code compliant FireMaster pre-fabricated duct access doors. These FireMaster Access Doors combine the proven reliability of DuctMate® F2-HT high temperature doors and the fire tested performance of FireMaster FastWrap XL flexible enclosure wrap.

These pre-insulated and ready to install doors offer time and money savings versus the typical field fabricated access door, and provide more reliability for grease and fire containment.

Product Features
- Access doors are insulated with FireMaster FastWrap XL, which is thin and lightweight
- Zero clearance to combustibles
- High temperature rated - 2000°F
- Robust, durable system
- Approved in ICC-ES Report ESR 2213 (XL3 Model)

Product Benefits
- Easy to remove or replace
- Saves labor and time
- Easy installation - No special tools required
- Complete with threaded rods, wing nuts, and washers
- Built-in quality consistent from project to project
- Clearly identified
- No welding required at the job site
- Access holes in the duct are made to match the doors

2. Available Sizes
10" x 6"
12" x 8"
16" x 12"
18" x 14"

3. Performance Specifications

Reference Standard	Standard No.	Performance	
Grease Duct Enclosure System	ASTM E2336	Pass	XL3
Section 16.1 - Non-combustibility	ASTM E136	Pass	
Section 16.2 - Fire Resistance (wall)	ASTM E119	Pass	XL3
Section 16.3 - Durability Test	ASTM C518	Pass	
Section 16.4 - Internal Fire Test	ASTM E2336	Pass	XL3
Section 16.5 - Fire Engulfment (duct)	ASTM E814/E119	Pass	
	UL 1978	Pass	XL2

ASTM E 2336 Compliant Enclosure and Door System
FireMaster F2-HT-XL3 Access Door
3 - Layers of FastWrap XL on Door

FireMaster F2-HT-XL3 Access Doors

Opening Size	Ordering Code
10" x 6" Door Opening	434-6970-034-99X3
12" x 8" Door Opening	434-6970-035-99X3
16" x 12" Door Opening	434-6970-037-99X3
18" x 14" Door Opening	434-6970-036-99X3

UL 1978 Compliant Enclosure and Door System
FireMaster F2-HT-XL2 Access Door
2 - Layers of FastWrap XL on Door

FireMaster F2-HT-XL2 Access Doors

Opening Size	Ordering Code
10" x 6" Door Opening	434-6970-034-99X2
12" x 8" Door Opening	434-6970-035-99X2
16" x 12" Door Opening	434-6970-037-99X2
18" x 14" Door Opening	434-6970-036-99X2

4. Installation:

Materials and Equipment:
- FireMaster Pre-insulated Access Door – Complete with:
  - DuctMate F2-HT access door with 2300°F high temperature gasket
  - Template to cut correct access opening sized to fit the supplied door
  - Extended all-thread rods, attached to inner 16 gauge plate
  - Inner wing nuts to tighten access door and provide grease tight seal
  - 2 or 3 layers of Insulation depending on XL2 or XL3 system supplied
  - Outer 16 gauge insulation cover, with code prescribed signage
  - Outer wing nuts required to tighten insulation cover against duct
- Minimum 3" wide aluminum foil tape
- Insulation knives

General:
Preparation of the grease duct enclosure system and duct to receive FireMaster pre-insulated access door: Prior to installation of the FireMaster grease duct enclosure system, use the provided cut-out template to mark and cut an opening in the duct at building code or specification prescribed locations. Install the FireMaster duct enclosure system according to the Thermal Ceramics installation instructions. Cut the layers of insulation above the access opening to the same size as the access opening. Next, cut the interior layer of insulation ½" larger on all sides to accommodate the actual size of the access door and first layer of insulation. ASTM E 2336 compliant systems will have 2 layers of duct enclosure insulation on the duct which will require that the exterior layer of insulation be cut 1½" larger on all sides than the inner insulation layer to provide a tight fit against the overlaps built into the pre-insulated access door. Repair cut edges of duct insulation with minimum 3" wide aluminum foil tape.

Installation of the FireMaster pre-insulated access door: Remove the insulation pack and outer cover plate from the pre-insulated DuctMate F2-HT door. Holding the DuctMate F2-HT access door, loosen the inner wing nuts to open a gap between the inner 16 gauge plate and the 2300°F white gasket materials. Fit the inner 16 gauge steel panel inside the access opening by turning at a slight angle to clear the access opening. Center the inner 16 gauge steel plate within the opening, and tighten the wing nuts to hand-tight. Install the insulation pack and 16 gauge outer cover plate over the all-thread rods. Tighten the provided wing nuts against the 16 gauge insulation cover plate until hand-tight. FireMaster preinsulated access doors are provided with a 16 gauge outer cover plate with building code required signage "Access Door – Do not obstruct".

FireMaster® FastWrap® XL
Prefabricated Access Door Systems
Commercial Kitchen Grease Duct Enclosure System

Legend	
1	DuctMate F2-HT Access Door with 2300°F gasket
2	All thread rods
3	Installation pins with speed clips
4	FireMaster FastWrap XL blanket with minimum 1" overlaps and all edges sealed with aluminum tape
5	Wing nuts and washers
6	Outer cover plate labeled

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1. THERMAL CERAMICS FIREMASTER FASTWRAP XL OR PYROSCAT XL HAS BEEN TESTED IN ACCORDANCE WITH ASTM E2336 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND MEETS THE REQUIREMENTS FOR ONE OR TWO HOUR ENCLOSURES. THROUGH PENETRATIONS FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH EITHER ASTM E 814 OR UL 1479. ICC-ES APPROVAL PER REPORT ESR 2213 OR ESR 2832. UNDERWRITER'S LABORATORIES (UL) LISTINGS SHOW COMPLIANCE TO UL 1479 FOR THROUGH PENETRATION FIRESTOP SYSTEMS.
2. COMPLIANT TO THE FOLLOWING CODES:
   NFPA 96
   2003 AND 2006 INTERNATIONAL MECHANICAL CODES
   2006 UNIFORM MECHANICAL CODE.
3. INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON INSIDE LAYER AND 3 INCH MINIMUM OVERLAPS ON BOTH PERIMETER AND LONGITUDINAL OVERLAPS ON OUTSIDE LAYER.
4. GREASE EXHAUST DUCT RUNS FROM THE HOOD EXHAUST CONNECTION UP TO THE EXHAUST FAN ON THE ROOF WITH MINIMAL TURNS OR BENDS AND MAINTAINING MINIMUM 1/4 UNIT VERTICAL RISE PER 12 UNITS HORIZONTAL RUN. NFPA 96 COMPLIANT ACCESS DOORS LOCATED AS REQUIRED BY CODE.
5. THERMAL CERAMICS FIREMASTER ACCESS DOORS AS SPECIFIED IN ICC-ES BUILDING CODE REPORTS ESR 2213 OR ESR 2832.
6. ROOF MOUNTED EXHAUST FAN IS MOUNTED ON A HINGED BASE WHICH ALLOWS ACCESS TO THE DUCT FROM THE ROOF.
7. SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE AT LEAST A MINIMUM OF 3/8 IN. DIAMETER. USE MINIMUM 2 X 2 X 1/8 IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.
8. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
9. THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED ON THE DUCT FROM THE HOOD CONNECTION TO THE CONNECTION TO THE FAN.

Thermal Ceramic

APPROVED EQUAL FIRE WRAP FYREWRAP ELITE 1.5

RELEASE FOR ~~CONSTRUCTION~~
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:

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PROJECT INFORMATION:

WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

DARRELL R. CASE
NUMBER PE-23303

6/15/21
DATE

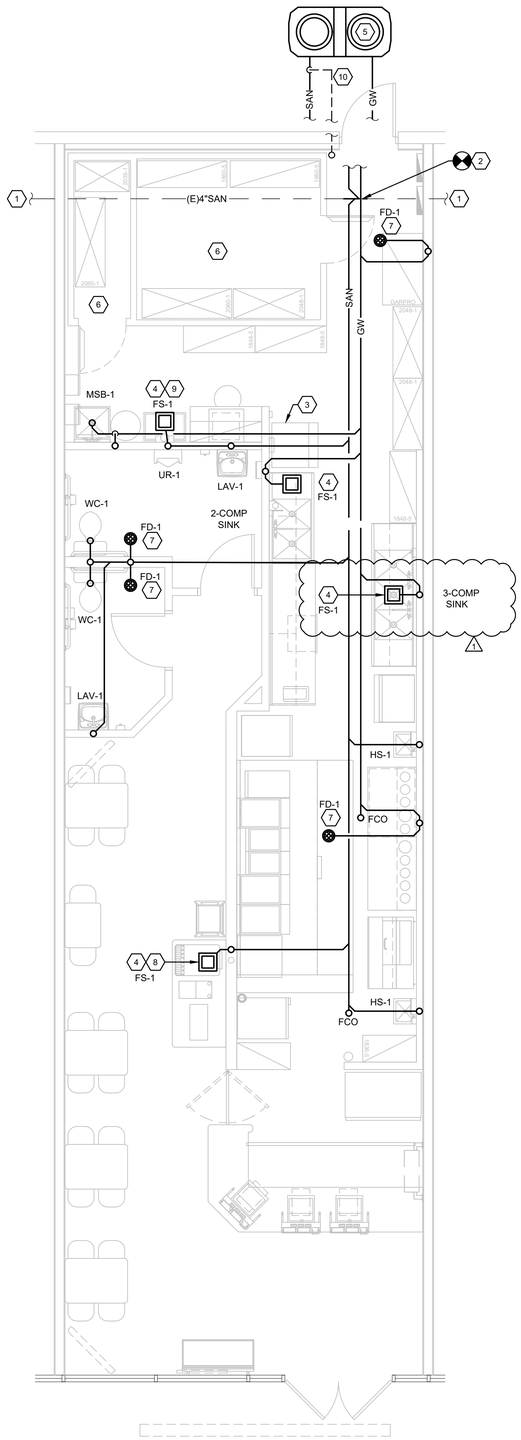
PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
M4



IN-FLOOR PLUMBING PLAN

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

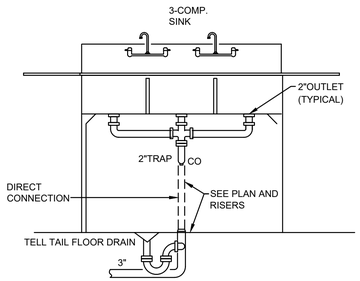
NOTE:

VENTING ABOVE RIM HEIGHT, 6" MINIMUM

CONDENSATE OR SIMILAR LIQUID WASTES SHALL BE DRAINED INDIRECTLY TO A FLOOR SINK WITH A MINIMUM 1 INCH AIR GAP FROM THE LIP OF THE BASIN.

NOTE:

THE LOCATION OF THE GREASE TRAP AS SHOWN IS FOR COORDINATION PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS DURING THE BIDDING PHASE OF THIS PROJECT AND ASSIGN ALL APPLICABLE COST. WHEN NOT INDICATED, VERIFY WITH LOCALITY IF ADDITIONAL SAMPLING PORT OR SAMPLE TEE IS REQUIREMENT.



3-COMPARTMENT SINK DETAIL

SCALE: NO SCALE

PLUMBING SYMBOLS

(E) SAN	EXISTING SANITARY SEWER LINE	F.D.	FLOOR DRAIN
SAN	SANITARY SEWER LINE	TPRV	TEMPERATURE PRESSURE RELIEF VALVE
GW	GREASE WASTE LINE		
V	VENT LINE	P.O.C.	POINT OF CONNECTION
CD	CONDENSATE DRAIN	FS	FLOOR SINK
	COLD WATER LINE	C.W.	CAN WASH
	HOT WATER LINE	MS	MOP SINK
	HOT WATER RETURN	LAV.	LAVATORY
	FILTERED WATER LINE	UR.	URINAL
	SHUT-OFF VALVE	W.C.	WATER CLOSET
	BACKFLOW PREVENTER	A.F.F.	ABOVE FINISHED FLOOR
VTR	VENT THRU ROOF	B.F.F.	BELOW FINISHED FLOOR
CI	CAST IRON	M	WATER METER
FCO	FLOOR CLEAN OUT	EWH	ELECTRIC WATER HEATER
WCO	WALL CLEAN OUT	GCO	GRADE CLEANOUT
		TWCO	TWO WAY CLEANOUT

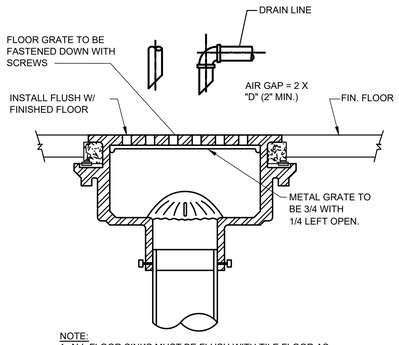
NOTE: 1. REFER TO RISER DIAGRAM ON SHEET P3 FOR PIPE SIZES.
2. REFER TO PLUMBING FIXTURE SCHEDULE ON SHEET P5 FOR KEYED NOTES

TABLE TO CALCULATE DRAINAGE FIXTURES

PLUMBING FIXTURE	DRAINAGE FIXTURE UNITS	NUMBER OF FIXTURES	DFUS
WATER CLOSET (WC-1)	4	2	8
LAVATORIES (LAV-1)	1	2	2
FLOOR DRAINS (FD-1)	3	4	12
FLOOR SINK (FS-1)	5	4	20
TRENCH DRAIN (TD-1)	4	1	4
3 COMPARTMENT SINK	4	1	4
URINAL (UR-1)	2	1	2
HAND SINK (HS-1)	3	2	6
MOP SINK	3	1	3
TOTAL DRAINAGE FIXTURE UNITS			61

PLUMBING KEYED NOTES

1. EXISTING SANITARY WASTE PIPING BELOW GRADE. VERIFY EXACT SIZE, INVERT ELEVATION, AND LOCATION IN FIELD PRIOR TO WORK.
2. POINT OF CONNECTION TO EXISTING SANITARY PIPING BELOW GRADE. VERIFY EXACT SIZE, INVERT ELEVATION AND LOCATION IN FIELD PRIOR TO WORK. CONTACT ENGINEER WITH ANY DISCREPANCIES.
3. ROUTE (2) 1-1/2" DRAINS AND (1) 1-1/4" DRAIN FROM ICE MACHINE TO FLOOR SINK. REFER TO ITEM 19 ON SCHEDULE SHEET P5. (NO TEE IN LINES.) DRAIN FROM ICE MACHINE AND ICE BIN MUST BE SEPARATELY ROUTED TO INDIRECTLY DISCHARGE TO FLOOR SINK.
4. FLOOR SINK. REFER TO ITEM 6 ON SCHEDULE SHEET P5 AND RISER DIAGRAM ON SHEET P3 FOR ADDITIONAL INFORMATION.
5. ROUTE TO GREASE INTERCEPTOR. COORDINATE WITH LANDLORD AND LOCAL AUTHORITIES FOR EXACT LOCATION. VERIFY WITH LOCAL AUTHORITIES ON EXACT TYPE, SIZE AND INSTALLATION OF GREASE INTERCEPTOR. REFER TO GREASE INTERCEPTOR DETAIL P4.
6. SELF-EVAPORATING CONDENSATE AT COOLER AND FREEZER. DRAIN NOT REQUIRED BY MANUFACTURER.
7. FLOOR DRAIN WITH SURE SEAL TRAP GUARD. ALTERNATE: PROVIDE 1/2" TRAP PRIMER LINE WHEN TRAP GUARD IS NOT ACCEPTED BY LOCAL CODE. REFER TO ITEM 4 AND 5 ON SCHEDULE SHEET P5 AND WATER SUPPLY PLAN P2 FOR TRAP PRIMER LOCATION. VERIFY PRIOR TO BID.
8. (NOT SHOWN): 3/4" DRAIN FROM SODA SYSTEM, DRAIN INDIRECTLY INTO FLOOR SINK, MOUNT UNDER COUNTER. REFER TO ITEM 20 ON SCHEDULE SHEET P5 FOR ADDITIONAL INFORMATION.
9. DRAIN CARBONATOR INDIRECTLY TO FLOOR SINK. REFER TO ITEM 24 ON SCHEDULE SHEET P5.
10. VENT PIPING BELOW GRADE.



NOTE:
1. ALL FLOOR SINKS MUST BE FLUSH WITH TILE FLOOR AS SHOWN ABOVE. INSTALLATION ON A 1/4" LIP EITHER DIRECTION IS ALSO ACCEPTABLE.

SANITARY FLOOR SINK DETAIL

SCALE: NO SCALE

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:

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SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23303
PROFESSIONAL ENGINEER

7/8/21
DATE

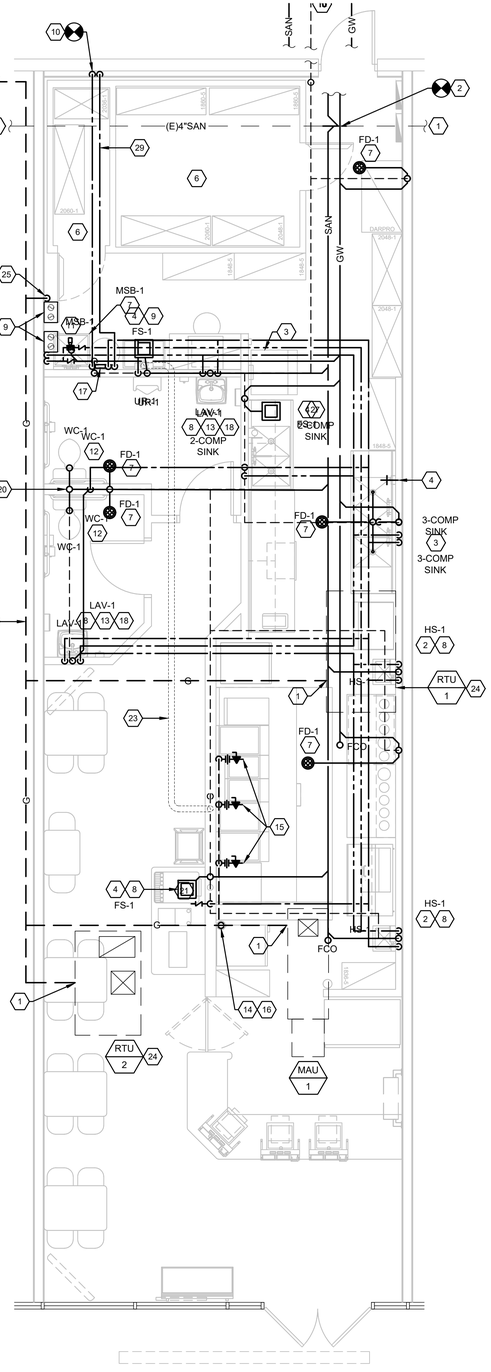
PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION:		DATE:
1	BLDG. COMMENTS	07-08-21

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
P1



WATER/VENT/GAS PLUMBING PLAN

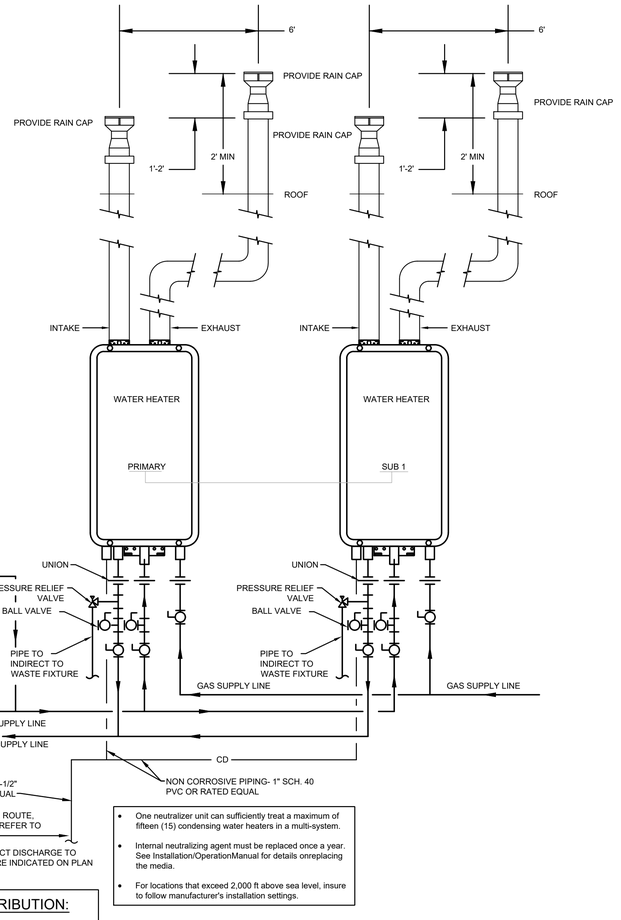
SCALE: 1/4" = 1'-0"

NOTE:
REFER TO SHEET A0.0 FOR COMPLETE OCCUPANCY DATA

NOTE:
VENTING ABOVE HIGH RIM, 6" MINIMUM

GAS LOAD SUMMARY

SYSTEM	DESIGNATION	EQUIPMENT	MBH
DOMESTIC WATER HEATING	GWH	WATER HEATER	400
		SUB-TOTAL	400
KITCHEN EQUIPMENT	"KEYNOTE" 15	FRYER	105
	"KEYNOTE" 15	FRYER	105
	"KEYNOTE" 15	FRYER	105
	"KEYNOTE" 15	FRYER	80
	"KEYNOTE" 15	FRYER	80
		SUB-TOTAL	475
BUILDING HEATING	RTU-1	ROOF TOP UNIT	135
	RTU-2	ROOF TOP UNIT	120
	MAU-1	MAKE UP AIR	161
		SUB-TOTAL	416
TOTAL NATURAL GAS CONNECTED LOAD			1291
GAS METER REQUIREMENTS	MBH CAPACITY		1291
	TOTAL DEVELOPED LENGTH INCLUDING EQUIVALENT PIPE LENGTH FOR FITTING AND VALVE FRICTION LOSSES TO GAS METER.		100 FT X 1.2 = 120 FT
	CONSULT GAS UTILITY COMPANY FOR REGULATOR RATING		



- One neutralizer unit can sufficiently treat a maximum of fifteen (15) condensing water heaters in a multi-system.
- Internal neutralizing agent must be replaced once a year. See Installation/OperationManual for details onreplacing the media.
- For locations that exceed 2,000 ft above sea level, insure to follow manufacturer's installation settings.

WATER HEATER DISTRIBUTION:

EQUIPMENT REQUIRING 140° F WATER:

1. (1) 3-COMPARTMENT SINK
2. (1) MOB SINK BASIN
3. (1) HOSE BIBB UNDER 3-COMPARTMENT SINK.

EQUIPMENT REQUIRING 110° F WATER:

1. (1) 2-COMPARTMENT SINK
2. (3) HAND SINKS
3. (2) LAVATORY

KATHY SHAW
NATIONAL HOT WATER
NATIONAL ACCOUNT SALES
888-444-4435
214-876-0938 CELL
www.nationalhotwater.com

NORITZ NCC 199 CDV FLOW RATES PER UNIT												
TEMPERATURE RISE (°F)	30	40	45	50	60	70	80	90	100	110	120	130
FLOW RATE (GPM)	11.1	9.8	8.7	7.8	6.5	5.6	4.9	4.4	3.9	3.6	3.3	2.8

TABLE TO CALCULATE WATER FIXTURE UNITS

PLUMBING FIXTURE	WATER FIXTURE UNITS	NUMBER OF FIXTURES	SFUS
WATER CLOSET (WC-1)	4	2	8
URINAL (UR-1)	2	1	2
LAVATORIES (LAV-1)	2	2	4
3 COMPARTMENT SINK	4	1	4
2 COMPARTMENT SINK	4	1	4
HAND SINK (HS-1)	2	3	6
MOP SINK	3	1	3
BEVERAGE DISPENSORS	1	3	3
HOSE BIBB	2.5	1	2.5
TOTAL WATER FIXTURE UNITS			36.5
GPM			25.0
WATER SERVICE , TYPE L COPPER			1-1/4"

BACK FLOW PREVENTER ASSEMBLY REQUIREMENTS

TYPE OF EQUIPMENT ON SYSTEM	METHOD OF CROSS CONNECTION CONTROL	MANUFACTURE AND MODEL NUMBER	REMARKS
CARBONATOR SODA SYSTEM	ATMOSPHERIC CHECK VALVE	WATTS SD3LF ASSE 1022/1024 CERT.	STAINLESS STEEL BODY WITH QUARTER TURN VALVE SS STRAINER.
ICE MACHINE	REDUCED PRESSURE ZONE ASSEMBLY	WATTS LF-009-QT-S	STAINLESS STEEL BODY WITH QUARTER TURN VALVE BRONZE STRAINER.
TEA MACHINE	DOUBLE CHECK VALVE ASSEMBLY	WATTS SD3LF ASSE 1022/1024 CERT.	STAINLESS STEEL BODY WITH QUARTER TURN VALVE BRONZE STRAINER.
WATER SERVICE	REDUCED PRESSURE ZONE ASSEMBLY	WATTS LF-919-QT	LEAD FREE CAST COPPER WITH QUATER TURN

1. CONTRACTOR SHALL PROVIDE INDIVIDUAL BACKFLOW PREVENTERS FOR EACH PIECE OF EQUIPMENT. 2. EACH BACKFLOW PREVENTER MUST HAVE TESTING PORTS.
3. BRONZE BODIED BACKFLOW PREVENTERS ARE PERMISSABLE IF ALLOWED BY LOCAL CODES.

PLUMBING KEYED NOTES

1. ROUTE GAS PIPING TO ROOF TOP AIR UNITS. PROVIDE GAS COCK AND UNION PRIOR TO CONNECTION TO EQUIPMENT.
2. HAND SINK. SEE ITEM 22 ON SCHEDULE SHEET P5 AND RISER ON P3 FOR ADDITIONAL INFORMATION.
3. 3-COMPARTMENT SINK AND FAUCETS PROVIDED BY OWNER AND INSTALLED BY PLUMBING CONTRACTOR. SEE ITEM 17 ON SCHEDULE SHEET P5 AND RISER ON SHEET P3 FOR ADDITIONAL INFORMATION.
4. 3/4" (140°F) HOT WATER HOSE BIB UNDER 3-COMPARTMENT SINK, SEE ITEM 23 ON SCHEDULE SHEET P5.
5. 1/2" COLD WATER LINE TO ICE MACHINE, PROVIDE WATER FILTER AND BACKFLOW PREVENTER, SEE ITEM 19 ON SCHEDULE SHEET P5.
6. 1/2" COLD WATER LINE TO CARBONATOR, PROVIDE BACKFLOW PREVENTER, THE PIPING MATERIAL DOWNSTREAM OF BACKFLOW DEVICE SHALL NOT BE AFFECTED BY CO2 GAS. PROVIDE 1/4" CONNECTION TO CARBONATOR. SEE ITEM 24 ON SCHEDULE SHEET P5.
7. 3/4" (140°F) HOT AND COLD WATER TO MOP SINK, SEE ITEM 3 ON SCHEDULE SHEET P5.
8. THERMOSTATIC MIXING VALVE (MV-1) SUPPLIED AND INSTALLED BY PLUMBING CONTRACTOR. SET WATER TEMPERATURE FOR 110°F MAXIMUM, SEE ITEM 7 ON SCHEDULE SHEET P5.
9. GAS FIRED WATER HEATERS, SEE WATER HEATER DETAIL THIS SHEET AND EQUIPMENT SCHEDULE ITEMS 8 AND 9, SHEET P5. SET WATER TEMPERATURE FOR 140°F MAXIMUM.
10. ROUTE TO CONNECT TO EXISTING 1" WATER SERVICE. VERIFY EXACT LOCATION AND SIZE IN FIELD PRIOR TO WORK. CONTACT ENGINEER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. VERIFY WITH LANDLORD AND WATER COMPANY EXACT CONNECTION AND METER REQUIREMENTS PRIOR TO WORK. WATER ENTRANCE SHALL BE REWORKED INCLUDING RELOCATION OF IRRIGATION SUPPLY.
11. CIRCULATION PUMP. ITEM 29 P5.
12. 1/2" COLD WATER LINE TO WATER CLOSET. REFER TO ITEM 1 ON SCHEDULE SHEET P5 AND RISER DIAGRAM SHEET P3 FOR MORE INFORMATION, TYP. OF 2.
13. 1/2" HOT & COLD WATER LINES TO LAVATORIES. REFER TO ITEM 2 ON SCHEDULE SHEET P5, AND RISER DIAGRAM SHEET P3 FOR MORE INFORMATION.
14. GAS DOWN TO KITCHEN EQUIPMENT. PROVIDE AUTOMATIC EMERGENCY FUEL SHUT-OFF VALVE IN RISER, EMERGENCY SHUT OFF INTERLOCKED TO HOOD FIRE SUPPRESSION SYSTEM.
15. GAS LINE TO FRYERS.
16. PROVIDE MANUAL SHUT-OFF VALVE FOR GAS LINE ABOVE AUTOMATIC EMERGENCY FUEL SHUT-OFF VALVE IN RISER. SEE GAS RISER DIAGRAM ON SHEET P3.
17. PROVIDE SCHEDULED BACKFLOW PREVENTER & PRV. ROUTE RELIEF PIPING TO DRAIN INDIRECTLY INTO MOP SINK. DISCHARGE INDIRECTLY INTO MOP BASIN.
18. 1/2" CW TO WALL MOUNTED TRAP PRIMER, SEE ITEM 10, SCHEDULE SHEET P5 AND WATER RISER DIAGRAM SHEET P3 PROVIDE ONLY WHEN TRAP GUARD IS NOT PERMITTED.
19. POINT OF CONNECTION TO NEW GAS METER. VERIFY WITH GAS COMPANY EXACT CONNECTION AND METER INSTALLATION REQUIREMENTS PRIOR TO WORK.
20. 4" VENT UP THROUGH ROOF, MAINTAIN MINIMUM 10'-0" FROM OUTSIDE AIR INTAKES.
21. 1/2" COLD WATER BREWER, REDUCE TO 1/4" AND PROVIDE CONNECTION.
22. 5" PVC INTAKE PIPE THROUGH ROOF FOR WATER HEATER. REFER TO DETAIL THIS SHEET. INSTALL PER MANUFACTURERS RECOMMENDATION.
23. 6"Ø SODA LINE CONDUIT ABOVE CEILING, SEE SHEETS A1.1 AND EQ.1.
24. ROUTE 1" A/C CONDUIT TO DISHCHARGE INTO ROOF GUTTER/DRAIN
25. GAS DOWN TO GWH.
26. 5" CPVC OR PVDF FLUE PIPE THROUGH ROOF FOR WATER HEATER, REFER TO DETAIL THIS SHEET, OFFSET FOR MINIMUM 10'-0" CLEARANCE FROM OUTSIDE AIR INTAKE. MOUNT AS HIGH AS POSSIBLE.
27. 1/2" COLD AND HOT WATER LINES TO TWO COMPARTMENT SINK. SINK AND FAUCETS PROVIDED BY OWNER AND INSTALLED BY PLUMBING CONTRACTOR. REFER TO ITEM 18 ON SCHEDULE SHEET P5 AND RISER ON SHEET P3 FOR ADDITIONAL INFORMATION.
28. LOW PRESSURE GAS PIPING RUN ON ROOF TOP.
29. REWORKED IRRIGATION SUPPLY. COORDINATE WITH LANDLORD AND OWNER.

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
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PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

6/16/21
DATE

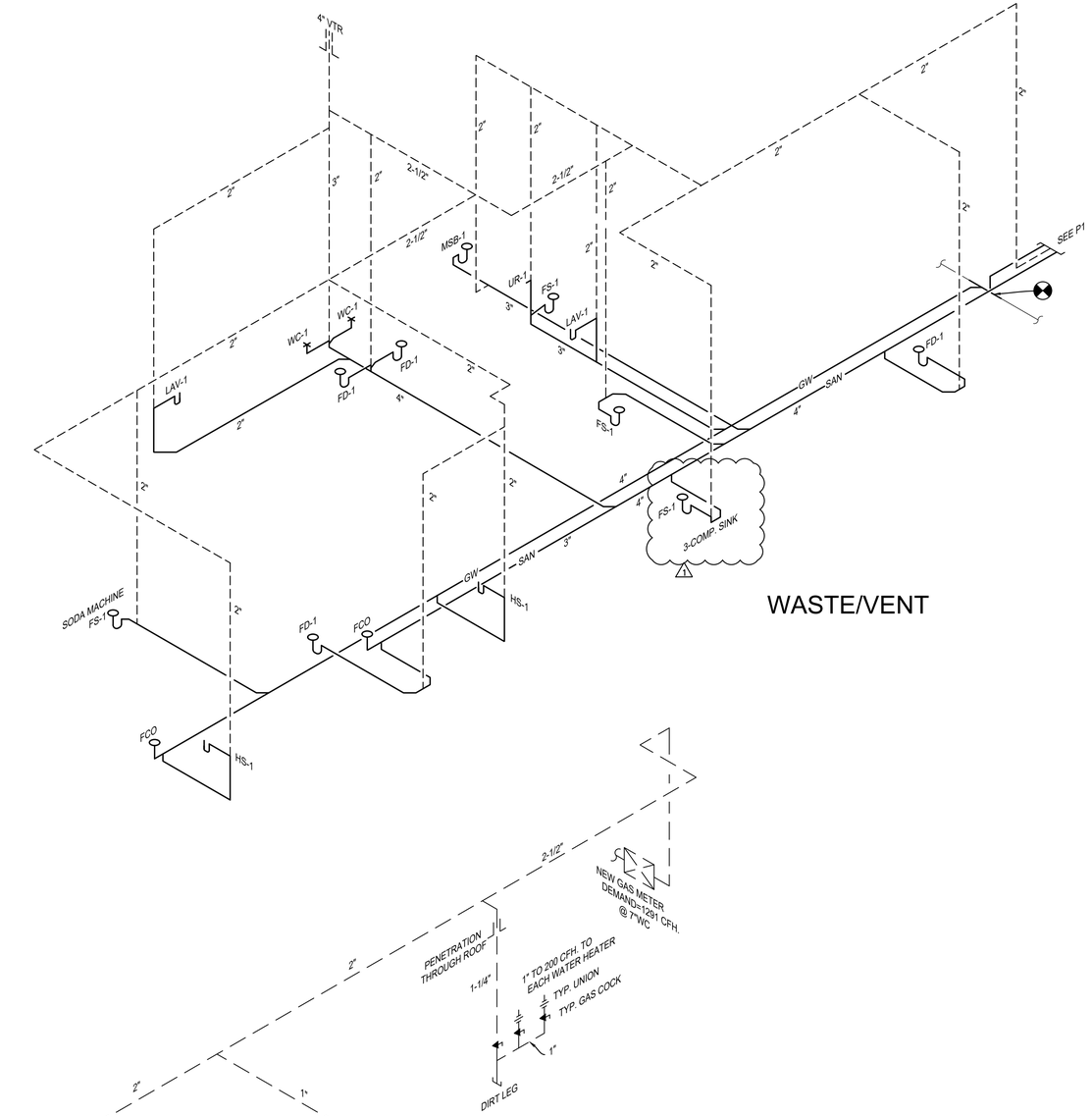
PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

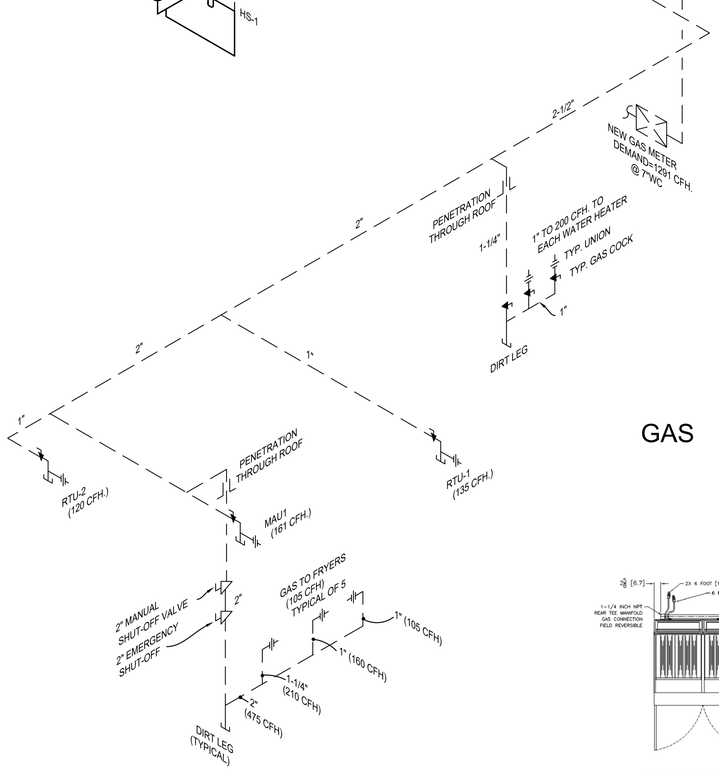
REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

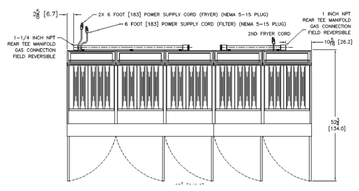
SHEET NUMBER:
P2



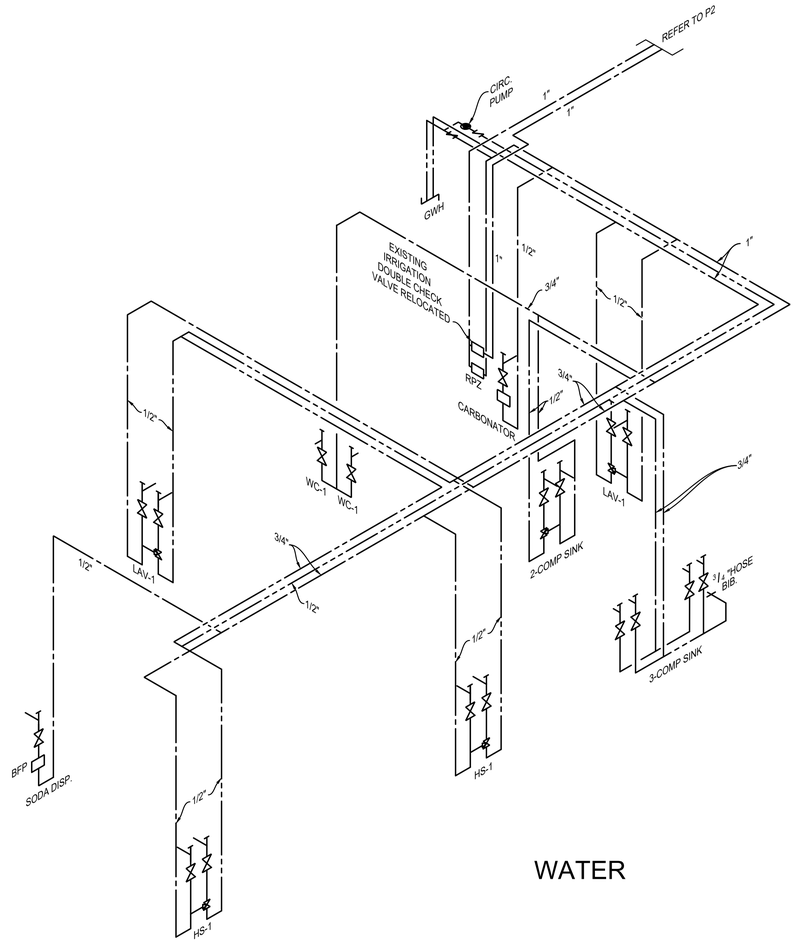
WASTE/VENT



GAS



EXAMPLE OF FRYER INSTALLATION



WATER

PLUMBING RISER DIAGRAMS

SCALE: NONE

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

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PROJECT LOCATION:
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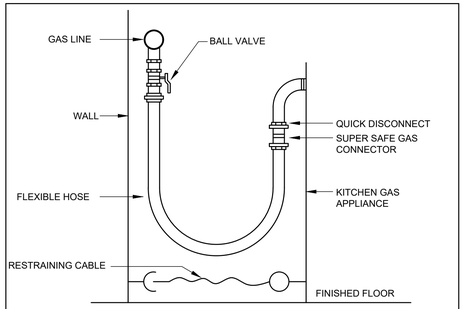
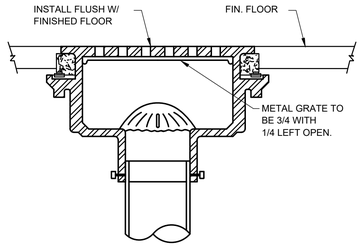
P3



KITCHEN EQUIPMENT GAS CONNECTION DETAIL

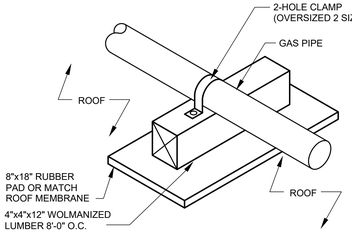
SCALE: NO SCALE



NOTE:
1. ALL FLOOR SINKS MUST BE FLUSH WITH TILE FLOOR AS SHOWN ABOVE. INSTALLATION ON A 1/4" LIP EITHER DIRECTION IS ALSO ACCEPTABLE.

FLOOR SINK DETIAL

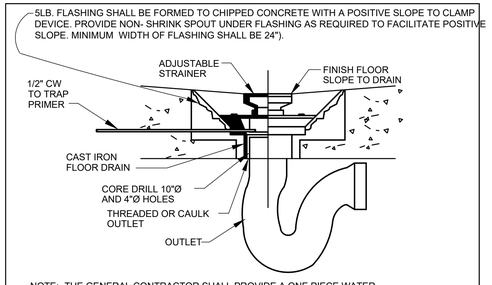
SCALE: NO SCALE



NOTE: ROOF PAD IS RECOMMENDED TO AVOID ABRASION TO ROOF

GAS MOUNTING DETAIL

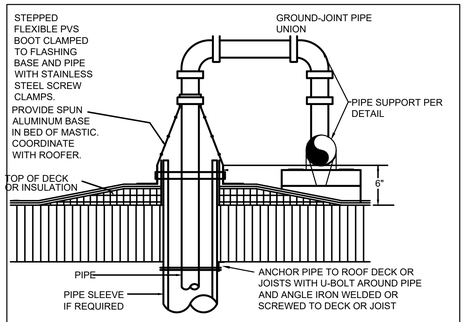
SCALE: NO SCALE



NOTE: THE GENERAL CONTRACTOR SHALL PROVIDE A ONE PIECE WATER PROOF MEMBRANE FLOOR AND BASE IN THE TOILET ROOM(S).

FLOOR DRAIN w/TRAP PRIMER

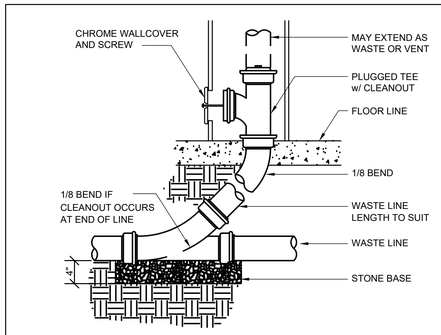
SCALE: NO SCALE



REFER TO PLANS FOR PIPE SIZES AND LOCATIONS. USE WELDED OR SCREWED FITTINGS AS SPECIFIED FOR PIPE SIZE, LOCATE PENETRATION MINIMUM 18" FROM ADJECENT WALLS.

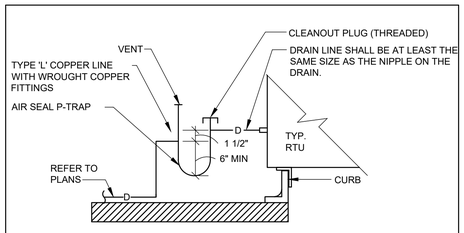
ROOF PENETRATION DETAIL

SCALE: NO SCALE



WALL CEANOUT DETAIL

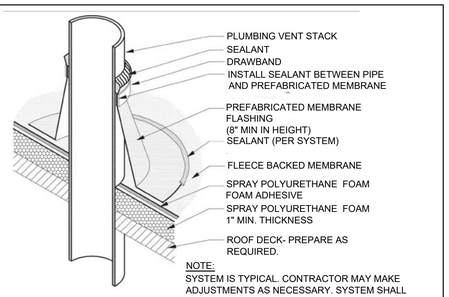
SCALE: NO SCALE



RTU CONDENSATE PIPING DETAIL

SCALE: NO SCALE

NOTE: CONDENSATE DRAIN CONNECTION UP THRU RTU CURB IS ACCEPTABLE.



NOTE:
SYSTEM IS TYPICAL. CONTRACTOR MAY MAKE ADJUSTMENTS AS NECESSARY. SYSTEM SHALL BE WATER TIGHT AND MEET BUILDING CODES LOCAL AND STATE.

VENT THRU ROOF DETAIL

SCALE: NO SCALE

SPECIFICATIONS (GB-250)
1. 4" inlet/outlet Sch. 40. (No-Hub)
2. Max flow rate: 100 GPM
3. Liquid capacity: 250 Gallons
4. Max grease capacity: 1,076 lbs. (147.4 Gallons)
5. Max solids/sediment capacity: 96 Gallons
6. Unit weight w/std. covers: 230 lbs.
7. 16,000 lb. load rated, bolted, gas/water tight composite covers.
8. Maximum operating temperature 190°F continuous.

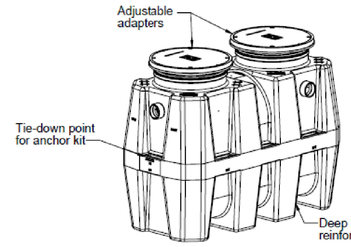
NOTES
1. Listed by IAPMO to ASME grease interceptor standard #A112.14.3
2. Factory installed Built-in Flow control.
3. For gravity drainage applications only. Do not use for pressure applications.
4. 3/8" thick seamless high density polyethylene walls.
5. Unit supplied with built-in adapter(s) for up to 6" of adjustability. Additional riser(s) available for deeper burial depth.
6. Cover placement allows full access to tank for proper maintenance.
7. Vent not required unless per local code.
8. Narrow footprint allows clearance through doorways and down stairwells.
9. Engineered inlet and outlet diffusers are removable to inspect/clean piping.
10. For on-the-floor or buried applications.
11. Integral Air Relief / Anti-siphon.
12. Three outlet options for easy rough in. Unit shipped with outlet diffuser in outlet "B".

DIFFUSION FLOW TECHNOLOGY
The inlet diffuser splits incoming effluent into two paths that utilize the entire liquid volume of the tank for efficient grease separation. The calibrated openings greatly reduce effluent turbulence. The effluent enters the main chamber without disturbing the existing grease or sediment layers.

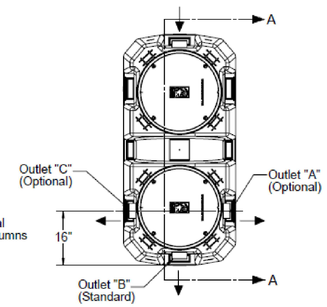
The integral air relief/anti-siphon in the top of the outlet diffuser allows pressure stabilization within the unit during operation. The bottom of the outlet diffuser allows only effluent which is free of grease to exit the tank. It can easily be attached to any of the three outlets provided to ease jobsite piping layouts.

ENGINEER SPECIFICATION GUIDE
Schier Great Basin™ grease interceptor model # _____shall be lifetime guaranteed and made in USA of seamless, rotationally-molded High Density Polyethylene with minimum 3/8" uniform wall thickness. Interceptor shall be furnished for above or below grade installation. Interceptor shall be built in accordance to ASME A112.14.3 (type C), with field adjustable riser system, built-in flow control, built-in test caps and three outlet options. Interceptor flow rate shall be _____GPM. Interceptor grease capacity shall be _____lbs. Cover shall provide water/gas-tight seal and have minimum 2,000 lbs load capacity.

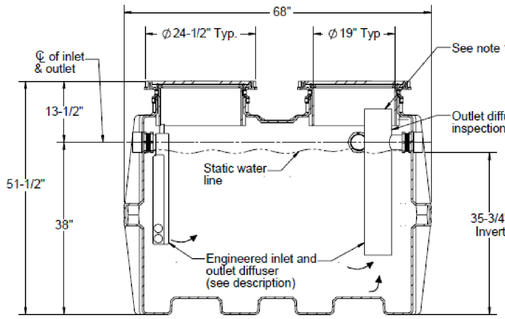
OPTIONS:
- Telegilde field adjustable risers for extending covers to grade
- Male pipe thread connections
- 6" Plain end pipe connections (No-Hub)
- High water anchor kit (set of 2)
- Clamping collar kit
- Highway rated pickable composite cover



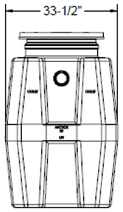
ISOMETRIC VIEW



TOP VIEW



SECTION "A-A"



END VIEW

PART NUMBER: GB-250			
DESCRIPTION: GREAT BASIN SERIES POLYETHYLENE GREASE INTERCEPTOR 100 GPM, 250 LIQUID GALLONS, 1,076 GREASE POUNDS CAPACITY			
DWG BY: TEU	DATE: 11/13/06	REV: 8 - 10/31/11	MATL: PE

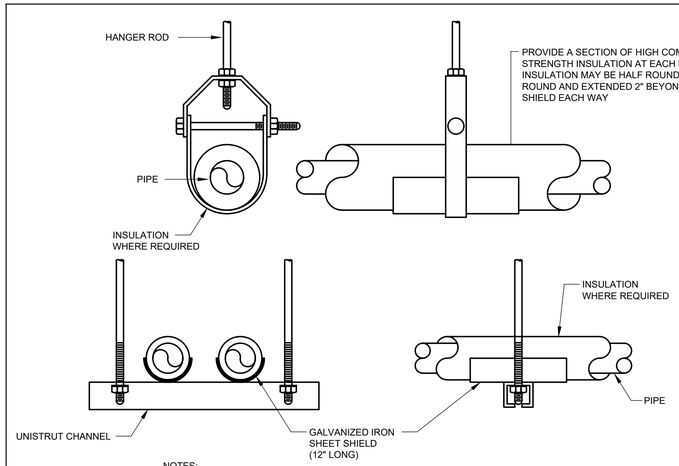
Schier Products
9500 Woodend Road
Edwardsville, KS 66111
Tel: 800-827-7119
Fax: 800-827-9664
www.schierproducts.com
Made in the U.S.A

SPECIFICATION SHEET

SCHIER PRODUCTS
Pioneering Drain Line Purity

GREASE INTERCEPTOR

SCALE: NO SCALE

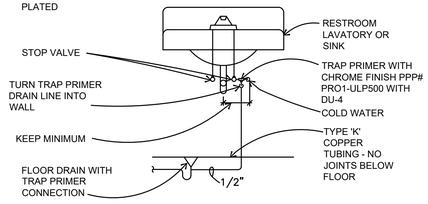


NOTES:
1. ATTACH SUPPORTS FOR ALL PIPING SUSPENDED FROM THE STEEL STRUCTURE TO THE TOP CHORD OF JOISTS OR BEAMS.
2. PROVIDE COPPER OR PLASTIC COATED HANGERS FOR NON-INSULATED COPPER PIPE.

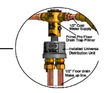
PIPE HANGER DETAIL

SCALE: NO SCALE

NOTE:
ALL EXPOSED PIPING SHALL BE CHROME PLATED



NOTE: FOR MULTIPLE DISTRIBUTION, CONTRACTOR MY SUBSTITUTE FOR #PRO1-500 IN LIEU OF SPECIFIED MODEL. REFER TO MANUFACTURE FOR INSTALLATION.



TRAP PRIMER PIPING DETAIL

SCALE: NO SCALE

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:

CASE Engineering Inc
796 Morse Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1750
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:

WINGSTOP

5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

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PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23303
PROFESSIONAL ENGINEER

6/16/21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
P4

DIVISION 15 - PLUMBING SPECIFICATIONS

GENERAL

A. THE GENERAL CONDITIONS OF THE GENERAL SPECIFICATIONS, ALONG WITH ALL APPLICABLE INSTRUCTIONS TO BIDDERS SHALL FORM A PART OF THIS SECTION OF THE SPECIFICATIONS.

B. REFERENCE IS MADE TO REQUISITES FOR BIDDERS AND CONTRACTORS UNDER OTHER SECTIONS OF THESE SPECIFICATIONS, WHICH SHALL BE CONSIDERED BINDING, UNLESS OTHERWISE NOTED UNDER THIS

SCOPE

EACH CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE CONSTRUCTION DETAILS, BOTH AS ON TENANT CONSTRUCTION DRAWINGS AND LANDLORD'S AS REFERRED TO, BEFORE SUBMITTING HIS BID AS NO ALLOWANCES WILL BE MADE BECAUSE OF THE CONTRACTOR'S UNFAMILIARITY WITH THESE DETAILS. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION.

INSPECTION OF SITE

ALL PROPOSALS SHALL PRECLUDE THAT CONTRACTOR IS FAMILIAR WITH JOB SITE CONDITIONS AND UTILITY LOCATIONS AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

PERMITS

ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE SUBCONTRACTOR INVOLVED.

CODE REQUIREMENTS

ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS, DRAWINGS OR AS DIRECTED BY THE OWNER, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES, OR REGULATIONS OF THE GOVERNING BODIES, WHETHER SO SHOWN OR NOT, AND ALL MODIFICATIONS REQUIRED BY SUCH AUTHORITIES SHALL BE MADE BY THE CONTRACTOR WITHOUT ANY ADDITIONAL COST TO THE OWNER.

MATERIALS AND WORKMANSHIP

A. MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURERS, AND UNLESS OTHERWISE SPECIFIED SHALL BE NEW, AND FREE FROM ANY DEFECTS. ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY UNLESS OTHERWISE SPECIFIED.

B. WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY COMPETENT WORKMEN AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. WORK SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION, AND ON COMPLETION, THE INSTALLATION SHALL BE THOROUGHLY CLEANED AND ALL DEBRIS PRESENT AS A RESULT OF THIS CONTRACT SHALL BE REMOVED FROM THE PREMISES, DO NOT JUST ABANDON.

CODES AND REGULATIONS

EACH SUBCONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK AS DRAWN OR SPECIFIED. IF A SUBCONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT A VARIANCE, HE SHALL PROMPTLY NOTIFY THE GENERAL CONTRACTOR AND THE TENANT IN WRITING. IF ANY SUBCONTRACTOR PERFORMS ANY WORK KNOWING IT TO BE CONTRARY TO LAWS, ORDINANCES, RULES AND REGULATIONS AND WITHOUT GIVING SUCH NOTICE, THE SUBCONTRACTOR SHALL BEAR ALL COSTS ARISING THEREFROM.

PROTECTION OF WORK AND PROPERTY

A. EACH SUBCONTRACTOR SHALL CONTINUOUSLY MAINTAIN ADEQUATE PROJECTION OF ALL HIS WORK FROM DAMAGE AND SHALL PROTECT THE OWNER'S PROPERTY FROM INJURY OR LOSS ARISING FROM HIS WORK. HE SHALL MAKE GOOD ANY SUCH DAMAGE, INJURY, OR LOSS, EXCEPT SUCH AS MAY BE DIRECTLY DUE TO CAUSES BEYOND HIS CONTROL AND NOT TO HIS FAULT OR NEGLIGENCE. HE SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS WELL.

B. EACH SUBCONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THEIR EMPLOYEES ON THE WORK AND SHALL COMPLY WITH ALL PROVISIONS OF FEDERAL, STATE AND LOCAL BUILDING CODES AND SAFETY LAWS TO PREVENT ACCIDENTS OR INJURY TO PERSONS ON OR ADJACENT TO THE PREMISES WHERE THE WORK IS BEING PERFORMED. EACH SUBCONTRACTOR SHALL MAINTAIN ALL INSURANCE REQUIRED TO PROTECT HIMSELF, OWNER AND TENANT FOR THE DURATION OF THE WORK AGAINST PROPERTY DAMAGE AND PUBLIC LIABILITY.

CHANGES IN THE WORK

THE TENANT, WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO OR DEDUCTING FROM THE WORK, THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY.

COOPERATION

ALL WORK UNDER THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN CONJUNCTION WITH OTHER CONTRACTORS AND TRADES OF THIS PROJECT IN A MANNER WHICH WILL ALLOW EACH CONTRACTOR AND TRADE ADEQUATE TIME AT THE PROPER STAGE OF CONSTRUCTION TO FULFILL HIS CONTRACTS. REFERENCE SHALL BE MADE TO THE OWNER FOR INSTRUCTIONS SHOULD ANY QUESTIONS ARISE BETWEEN TRADES AS TO THE PLACING OF LINES, DUCTS, CONDUITS, FIXTURES, OR EQUIPMENT, OR SHOULD IT APPEAR DESIRABLE TO REMOVE ANY GENERAL CONSTRUCTION WHICH WOULD AFFECT THE APPEARANCE OR STRENGTH OF THE STRUCTURE.

SUBSTITUTION OF MATERIALS

MANUFACTURER'S NAMES ARE LISTED HEREIN TO ESTABLISH A STANDARD. THE PRODUCTS OF OTHER MANUFACTURERS WILL BE ACCEPTABLE, IF IN THE OPINION OF THE TENANT, THE SUBSTITUTE MATERIAL IS OF A QUALITY AS GOOD OR BETTER THAN THE MATERIAL SPECIFIED, AND WILL SERVE WITH EQUAL EFFICIENCY AND DEPENDABILITY, THE PURPOSE FOR WHICH THE ITEMS SPECIFIED WERE INTENDED.

SHOP DRAWINGS

SHOP DRAWINGS AND CATALOG DATA ON ALL MAJOR ITEMS OF EQUIPMENT AND SYSTEMS, AND SUCH OTHER ILLUSTRATIVE MATERIAL AS MAY BE CONSIDERED NECESSARY BY THE TENANT, SHALL BE SUBMITTED BY THIS CONTRACTOR IN ADEQUATE TIME TO PREVENT DELAY AND CHANGES DURING CONSTRUCTION.

DRAWINGS AND SPECIFICATIONS

A. THE DRAWINGS SHOW DIAGRAMMATICALLY THE LOCATIONS OF THE VARIOUS LINES, DUCTS, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHOD OF CONNECTING AND CONTROLLING THEM. IT IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL AND ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM.

B. ANY CHANGES BE DEEMED NECESSARY BY THE CONTRACTOR IN ITEMS SHOWN ON CONTRACT DRAWINGS, THE SHOP DRAWINGS, DESCRIPTIONS, AND THE REASON FOR THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL.

RESPONSIBILITY

A. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE SATISFACTORY AND COMPLETE EXECUTION OF ALL WORK INCLUDED IN THE CONTRACT AND SHALL PRODUCE COMPLETE FINISHED OPERATING SYSTEMS AND PROVIDE ALL INCIDENTAL ITEMS REQUIRED AS PART OF HIS WORK, REGARDLESS OF WHETHER SUCH ITEM IS PARTICULARLY SPECIFIED OR INDICATED.

B. CONTRACTOR SHALL SUPPLY TO LANDLORD AND TENANT A CERTIFIED BALANCE REPORT AT COMPLETION OF PROJECT. THIS IS REQUIRED FOR BOTH REMODELED AND NEW STORES.

GENERAL PROVISIONS

1. PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE ACCOMPANYING DRAWINGS TO PROVIDE A COMPLETE AND PROPERLY OPERATING PLUMBING SYSTEM FOR THE BUILDING.

2. OBTAIN WATER, SEWER, GAS TAPS, AND ANY OTHER REQUIRED UTILITIES AND EXTEND SERVICE FROM SAME TO BUILDING AS SHOWN ON DRAWINGS. VISIT THE SITE FOR UNDERSTANDING OF THE WORK TO BE DONE BEFORE SUBMITTING BID.

3. COORDINATE THIS WORK WITH THE WORK OF THE OTHER TRADES ON THE PROJECT. ALL PLUMBING IS TO BE ROUGHED IN WHILE THE BUILDING IS BEING CONSTRUCTED AT SUCH TIMES AS NOT TO DELAY THE GENERAL CONTRACTOR ON THE BUILDING.

4. GENERAL REQUIREMENTS: COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS, CODES, RULES, AND ORDINANCES GOVERNING WORK OF THIS CHARACTER. PAY FOR AND OBTAIN NECESSARY CONSTRUCTION PERMITS AND CERTIFICATES OF INSPECTION.

5. THE LOCATION OF THE PIPING RUNS ARE APPROXIMATE AND THE CONTRACTOR MUST MAKE ANY NECESSARY CHANGES IN THE PIPING RUNS, ETC., AT NO ADDITIONAL COST TO THE OWNER. OUTLET LOCATIONS ARE CRITICAL AND MUST BE LOCATED EXACTLY ACCORDING TO THE PLUMBING PLAN. COORDINATE THIS WORK WITH THE INSTALLERS OF EQUIPMENT FURNISHED AND INSTALLED BY OTHERS. REFER TO THE OTHER DRAWINGS FOR DETAILS OF THE BUILDING CONSTRUCTION AND THE OTHER MECHANICAL, ELECTRICAL, AND EQUIPMENT FEATURES.

6. COORDINATION AND WORKMANSHIP: SCHEDULE THIS WORK SO THAT IT WILL BE PROPERLY COORDINATED WITH ALL OTHER TRADES. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE BEST PRACTICE FOR THE CLASS OF WORK INVOLVED. WORKMANSHIP SHALL ALLOW THE APPLIANCE TO OPERATE AS INTENDED AND BE INSTALLED TO BEST PROTECT THE PUBLIC AND OPERATORS FROM INJURY OR DAMAGE, AND TO PRESENT A NEAT, PLEASING, AND ORDERLY APPEARANCE.

MATERIALS AND PERFORMANCE

1. MATERIALS: ALL MATERIALS SHALL BE NEW AND OF THE QUALITY INDICATED BY THE SPECIFIED BRAND NAMES. SUBSTITUTIONS OF MATERIAL OF EQUAL QUALITY BY OTHER FIRST-LINE MANUFACTURERS MAY BE ACCEPTABLE PROVIDED A LIST OF SUCH SUBSTITUTIONS IS APPROVED IN WRITING. A SUBSTITUTIONS LIST SHALL BE SUBMITTED IN TRIPLICATE WITHIN FIVE (5) DAYS AFTER THE CONTRACT IS LET.

2. BACKFILLING: PERFORM ALL NECESSARY EXCAVATING AND BACKFILLING REQUIRED FOR THIS INSTALLATION. PREPARE A PROPER BED OF SAND OR GRAVEL OR EQUIVALENT IN ROCK SCREENINGS SO AS TO ELIMINATE SHIMMING AND VOID SPACES UNDER ANY OF THE UTILITY SERVICE PIPES. BENDING OF ANY HARD PIPE WILL NOT BE PERMITTED. WHERE A CHANGE IN DIRECTION IS NECESSARY ON PRESSURE PIPES, "COMPATIBLE" COUPLINGS OR EQUAL SHALL BE USED AND BENDS MAY NOT EXCEED 9O DEGREES. ALL EXCAVATION BELOW THE BOTTOM OF FOOTINGS SHALL BE BACKFILLED WITH 2000 PSI CONCRETE. OTHER BACKFILL SHALL CONSIST OF 2-3" OF SAND OR ROCK SCREENINGS AND EARTH TO A FINAL LEVEL EQUAL TO ITS ORIGINAL CONDITION. IN THE EVENT THE BACKFILL SHOULD SETTLE BEFORE THE FINAL TOP SURFACE IS APPLIED, APPLY ADDITIONAL BACKFILL TO SUSTAIN THE ORIGINAL LEVEL. CARE SHOULD BE TAKEN TO MINIMIZE THE DUST LEVEL WHEN EXCAVATING AND BACKFILLING SO AS TO COMPLY WITH FEDERAL AND STATE E.P.A. REGULATIONS RELATING TO THIS TYPE OF WORK (FUGITIVE DUST).

3. PIPING INSTALLATION: CLEANOUTS MUST BE INSTALLED ON MINIMUM DROP LINES EVEN THOUGH NOT SHOWN ON THE BLUEPRINTS. USE REDUCING FITTINGS IN MAKING REDUCTIONS IN SIZE OF PIPE. REAM ALL PIPE AFTER CUTTING, THEN TURN PIPES ON END AND KNOCK OUT ALL LOOSE DIRT AND SCALE BEFORE INSTALLING. MAKE CHANGES IN HORIZONTAL DIRECTION OF SOIL AND WASTE PIPES WITH LONG RADIUS FITTINGS OR WITH "Y" BRANCHES AND 1/8 OR 1/16 BENDS. CONNECT SOIL STACKS AT BASE TO HORIZONTAL RUNS WITH "Y" CONNECTIONS.

   A. WATER SUPPLY PIPES TO FIXTURES AND WASTE PIPES FROM FIXTURES SHALL BE CENTERED IN THE PROPER PLACE RELATIVE TO THE CENTER LINE OF THE FIXTURE. NO OFFSETS WILL BE ALLOWED. ALL PIPES SHALL BE RUN MECHANICALLY STRAIGHT AND SQUARE WITH BUILDING LINES, EXCEPT FOR REQUIRED PITCH ON HORIZONTAL LINES, AND ALL CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS. WATER PIPING TO BE ROUTED IN WALLS, UNDER THE FLOOR SLAB, AND ABOVE SUSPENDED CEILINGS AS NOTED. WHERE WATER LINES ARE ROUTED UNDER THE FLOOR SLAB, NO MECHANICAL JOINTS SHALL BE MADE UNDER THE SLAB EXCEPT AS LISTED BELOW. WATER PIPING SHALL BE INSTALLED NOT TO EXERT VERTICAL NOR HORIZONTAL STRESSES ON THE SEATING OF UNIONS. UNIONS SHALL BE COPPER TYPE NIBCO #733 OR EQUAL.

   B. NO WAX, PUTTY, OR VARNISH WILL BE PERMITTED. CRACKED FITTINGS SHALL BE REMOVED AND REPLACED WITH NEW FITTINGS. MAKE THREADED JOINTS IN BRASS PIPE AND FITTINGS WITH PIPE THREADING TO THE SHOULDER OF THE FITTINGS. NO SLIP JOINTS OR COUPLING JOINTS IN BRASS PIPE WILL BE PERMITTED, EXCEPT ON THE FIXTURE SIDE OF THE TRAP.

   C. GAS PIPING FOR ABOVE GROUND INSTALLATIONS: ALL FITTINGS TO BE OIL, THREAD CUTTINGS AND RESIDUALS TO ACCEPT ENAMEL PAINT. ROUGH OR SHARP JOINED WITH TEFLON TAPE SEAL OR OTHER SUITABLE SEAL AND MADE IN CONFORMANCE EXPOSED THREAD SURFACES SHALL BE FILED SMOOTH. TESTING SHALL BE AS OUTLINED WITH THE BEST PRACTICES OF AGA AND NFPA 54. UNIONS SHALL BE CAST BLACK IRON AND INSTALLED IN A MANNER SUCH THAT NO STRESS WILL BE PLACED ON THE MALE-FEMALE SEALING SURFACES. PROPER ALIGNMENT WILL BE MADE AT TIME OF INSTALLATION. ALL JOINTS AND CONNECTIONS SHALL BE THOROUGHLY CLEANED OF

WATER PIPE

JOINTS SHALL BE CLEANED AND DEBURRED AS RECOMMENDED BY THE MANUFACTURER AND FEDERAL, STATE, AND LOCAL CODES AND SOLDERED AS LISTED BELOW. FLUX SHALL BE NON-CORROSIVE.

ABOVE GRADE - WHERE FITTINGS ARE SOLDERED BOTH FITTINGS AND TUBING SHALL BE CLEANED AS DESCRIBED ABOVE. UNDER NO CIRCUMSTANCES SHALL DISSIMILAR METALS COME INTO DIRECT CONTACT WITH COPPER TUBING; E.G., GALVANIZED STRAPPING, HANGERS, OR CLAMPS TO SECURE THE TUBING.

BELOW GRADE, OR FLOOR SLAB ON EARTH OR STONE FILL-UPONOR PEX, NO JOINTS PERMITTED UNDER GRADE.

NOTE: WATER PIPE TO BE PROPERLY SECURED AND ALIGNED SO AS NOT TO EXERT VERTICAL OR HORIZONTAL STRESSES ON THE SEATING OF THE MATING (MALE AND FEMALE) SURFACES OF THE UNIONS.

A. MATERIALS - UNDERGROUND: TYPE "K" COPPER TUBE, SOFT TEMPER

B. MATERIALS - ABOVEGROUND: TYPE "L" COPPER TUBE, HARD DRAWN.

C. MATERIALS - PEX PIPING, IF APPROVED BY LOCAL CODE. (NOTE: WHEN PEX IS USED, CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING PROPER INSTALLATION AND BALANCING FOR HOT WATER RECIRCULATION WHEN APPLICABLE).

D. INSULATION: INSULATION FOR COLD WATER PIPING SHALL BE 1/2". HOT WATER & HOT WATER RETURN MUST BE AT LEAST THE THICKNESS OF THE PIPE DIAMETER. ACCEPTABLE MATERIALS: ARMAFLEX UL LABELED OR FIBERGLASS. INSULATE ALL PIPING AND FITTINGS.

GAS PIPE

A. GAS PIPING ABOVE GROUND: ASTM A53, SCHEDULE 40 BLACK STEEL WITH 125 POUND BLACK MALLEABLE IRON SCREWED FITTINGS. INSTALL MOISTURE TRAPS ON HVAC UNITS AND KITCHEN EQUIPMENT.

B. GAS PIPING COMPOUND AT JOINTS; IN COMPLIANCE WITH NFPA BULLETIN #54 AND LOCAL APPLICABLE CODES AND SUITABLE FOR NATURAL GAS SERVICE.

C. PRIME AND PAINT EXPOSED PIPING: ONLY WHEN REQUIRED BY LOCAL CODES.

WASTE PIPE

A. INSTALL HORIZONTAL DRAIN AND WASTE PIPES WITH MIN. 1/8"/FT. SLOPE FOR 3" OR GREATER 1/4"/FT FOR 2" AND LESS. (NOTE: CERTAIN JURISDICTIONS MANDATE 1/4" REGARDLESS OF PIPE SIZE, VERY IF WITH LOCAL PLUMBING AUTHORITY IF NOT SURE.)

B. MATERIALS: PVC SCH. 40, WITH CHEMICALLY FUSED JOINTS OR CAST IRON - (HUB TYPE WITH NEOPRENE JOINTS -WITH STAINLESS STEEL CONNECTORS WHEN PVC IS NOT ALLOWED PER LOCAL CODE.

C. FOR CAST IRON BELOW GRADE OPTION :

   1. COMPRESSION GASKET JOINTS - SANITARY PIPE & STORM PIPE: 1. JOINT SHALL BE ONE PIECE DOUBLE SEAL COMPRESSION TYPE GASKET MADE SPECIFICALLY FOR JOINING CAST IRON SOIL PIPE. GASKET SHALL BE NEOPRENE, PERMITTING JOINT TO FLEX AS MUCH AS 5 DEGREES WITHOUT LOSS OF SEAL. GASKET SHALL BE EXTRA HEAVY WEIGHT CLASS, CONFORMING TO ASTM C-564. .
   2. LEAD AND OAKUM JOINTS - SANITARY PIPE AND STORM PIPE: 1. PACK JOINT WITH OAKUM MADE OF VEGETABLE FIBER, COTTON, OR HEMP. POUR JOINT WITH MOLTEN LEAD UP TO TOP OF HUB. ENSURE LEAK-FREE JOINTS BY WORKING JOINT WITH INSIDE AND OUTSIDE CAULKING IRONS.

TESTS & CLOSEOUT PROCEDURES

A. DRAINAGE AND VENT PIPING - DRAINAGE AND VENT PIPING SHALL BE TESTED BEFORE THE PLUMBING FIXTURES ARE INSTALLED BY CAPPING THE OPENINGS AND FILLING THE ENTIRE SYSTEM WITH WATER AND ALLOWING IT TO STAND THUS FILLED NOT LESS THAN ONE (1) HOUR. INSPECT WATER LEVEL TO DETERMINE IF PIPING IS TIGHT.

B. PIPING - THE WATER SUPPLY PIPING LINES SHALL BE TESTED BEFORE THE PLUMBING FIXTURES ARE CONNECTED BY FILLING THE ENTIRE SYSTEM WITH POTABLE WATER AND APPLYING HYDROSTATIC PRESSURE OF 100 PSI AND ALLOWING TO STAND FOR NOT LESS THAN FOUR (4) HOURS AT THIS PRESSURE TO PROVE PLUMBING INTEGRITY.

C. GAS PIPING - IN LIEU OF LOCAL REQUIREMENTS, GAS PIPING SHALL BE FILLED WITH COMPRESSED AIR TO 150 PSI AND HELD FOR A PERIOD OF FOUR (4) HOURS. EACH JOINT SHALL BE CHECKED BY LIQUID SOAP OR SPECIAL LIQUID CHEMICAL FOR LEAKS. NOTE: REMOVE ALL GAS VALVES AND PROTECT FROM DAMAGE BEFORE TESTING SYSTEM.

D. DISINFECTION OF POTABLE WATER SYSTEM: UPON COMPLETION OF INSTALLATION DISINFECT THE WATER SYSTEM BY FILLING IT WITH SOLUTION CONTAINING 50 PARTS PER MILLION OF CHLORINE AND ALLOW IT TO STAND FOR NOT LESS THAN SIX (6) HOURS BEFORE FLUSHING THOROUGHLY AND RETURNING TO SERVICE. FURNISH CLEAN WATER SAMPLES TO THE LOCAL AUTHORITY FOR TESTING AFTER THE LINES HAVE BEEN DISINFECTED.THIS PROCEDURE TO BE IN ACCORDANCE WITH STATE PLUMBING CODE.

E. CLEANUP: CLEAN ALL PLUMBING FIXTURES AND EQUIPMENT THOROUGHLY BEFORE FINAL INSPECTION, LEAVING ALL READY FOR USE.

F. GUARANTEE: MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. DEFECTIVE WORK AND ALL DAMAGES CAUSED THEREBY WHICH MAY OCCUR DURING THE TERM OF THE AFOREMENTIONED GUARANTEE WILL BE REPAIRED AND/OR REPLACED AT NO EXPENSE TO THE OWNER.

G. OWNER'S MANUAL: PROVIDE THE OWNER, AT THE COMPLETION OF THIS CONTRACT, WITH AN "OWNER'S MANUAL" SO LABELED. THE MANUAL SHALL CONSIST OF A THREE-RING LOOSE-LEAF BINDER CONTAINING ALL PRINTED MATTER SUCH AS: GUARANTEE CARDS, CLEANING INSTRUCTIONS, NOTICES TO OWNER, OPERATING MANUALS, AND MAINTENANCE INSTRUCTIONS THAT MAY BE CONTAINED IN THE SHIPPING CARTONS OR EQUIPMENT HOUSINGS.

FIRE STOPPING

WHEN REQUIRED BY LOCAL CODES OR ORDINANCES. CONTRACTOR SHALL BE REPSONSIBLE FOR THE FOLLOWING:

1.1 SYSTEM DESCRIPTION

A. SPECIFIED FIRESTOPPING SYSTEMS ARE BASED ON A SOLID SEALANT ONLY, OR COMBINATIONS OF SOLID SEALANT, FOAM SEALANT, AND REFRACTORY FIBERS OF THICKNESS REQUIRED TO ATTAIN HOUR RATINGS.

B. SYSTEMS SHALL:
   1. PROVIDE A FLEXIBLE SEAL TO PREVENT PASSAGE OF FIRE, SMOKE, TOXIC GASES AND WATER THROUGH OPENINGS, AND PREVENT TRANSMISSION OF SOUND AND VIBRATION FROM THE PENETRATING ELEMENT TO THE STRUCTURE.
   2. PROVIDE HOUR RATINGS INDICATED AND IN ACCORDANCE WITH ASTM E 814 OR UL 1479.

C. REGULATORY REQUIREMENTS:
   1. PRODUCTS SHALL BE 100% ASBESTOS AND PCB FREE.

1.5 PROJECT CONDITIONS

A. EXISTING CONDITIONS: VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. CORRECT UNSATISFACTORY CONDITIONS BEFORE PROCEEDING. PROCEED WITH INSTALLATION ONLY AFTER PENETRATIONS OF SUBSTRATES HAVE BEEN COMPLETED AND SUPPORTING BRACKETS INSTALLED.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. MANUFACTURERS: 3M, HILTI, NELSON, OR UL LISTED EQUALS..

PART 3 - EXECUTION

3.1 CONDITION OF SURFACES

A. UNLESS OTHERWISE PERMITTED BY MANUFACTURER, DO NOT APPLY FIRESTOPPING MATERIALS TO POLYCARBONATES; MATERIALS THAT BLEED OILS, PLASTICIZERS OR SOLVENTS; ORGANO-METALLIC COMPOUNDS; SILICONE RUBBER CONTAINING ORGANO-TIN COMPOUND; SULFUR, POLYSULFIDES, POLYSULFONES AND OTHER SULFUR CONTAINING MATERIALS; AMINES, URETHANES AND AMINE-CONTAINING MATERIALS; AND UNSATURATED HYDROCARBON PLASTICIZERS.

B. 3.2 PREPARATION

C. THOROUGHLY CLEAN SURFACES AND SPACES TO RECEIVE FIRESTOPPING MATERIALS, REMOVING FOREIGN MATTER SUCH AS DIRT, DUST, MOISTURE, RUST, DO NOT USE CLEANING SOLVENTS WHICH LEAVE RESIDUE. WIPE JOINTS FREE OF SOLVENT USING CLEAN, DRY WHITE CLOTHS OR WHITE LINTLESS PAPER. DO NOT USE ALCOHOL OR ALCOHOL BASED MATERIALS. DO NOT PERMIT SOLVENT TO AIR DRY. DO NOT USE DETERGENTS OR SOAP AND WATER SOLUTIONS FOR CLEANING UNLESS SPECIFICALLY RECOMMENDED BY THE SEALANT MANUFACTURER.

D. FOLLOW MANUFACTURER'S DIRECTIONS FOR SPECIFIC PRODUCTS AND SURFACES.

3.4 INSTALLATION

A. INSTALL SYSTEMS IN ACCORDANCE WITH UL SYSTEMS, AND MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS, USING APPROVED EQUIPMENT AND SO AS TO ACHIEVE THE REQUIRED FIRE RATING.

PLUMBING FIXTURE SCHEDULE

FIXTURE DATA				CONNECTION DATA								
PLAN TAG	FIXTURE	MFG.	MODEL NO.	SOIL SIZE	VENT SIZE	TRAP	INDIRECT WASTE	WATER				DESCRIPTION
								COLD	HOT	T.W.	FILTER	
①	HANDICAPPED WATER CLOSET ADA WC-1	AMERICAN STANDARD	CADET 215CA.104.020	4"	2"	-	-	½"	-	-	-	HANDICAPPED VITREOUS CHINA TANK TYPE WATER CLOSET WITH ELONGATED SIPHON JET BOWL PRESSURE ASSISTED 1.28 GPF WITH SEAT MIN 17" AND MAX 19" AFF. FURNISH COMPLETE WITH CHURCH #295C OPEN FRONT TOILET SEAT AND LOOSE KEY ANGLE STOPS
②	HANDICAPPED LAVATORY ADA L-1	AMERICAN STANDARD	LUCERNE 0355.012	2"	1½"	1¼"	-	½"	-	½"	-	VITREOUS CHINA WALL HUNG LAVATORY WITH CONCEALED ARM SUPPORT. FURNISH COMPLETE WITH AMERICAN STANDARD 1340.225 SELF-CLOSING METERING LAVATORY FAUCET, OFFSET TAILPIECE MCGUIRE CHROME SUPPLIES AND LOOSE KEY ANGLE STOPS, 1¼"x½" C.P. 17 GAUGE ADJUSTABLE P-TRAP WITH CLEANOUT AND CHROME SET SCREW ESCUTCHEONS THROUGH WALL. INSULATE ALL EXPOSED PIPING WITH "TRUBRO LAV-GAURD" INSULATION KIT NO. 101. INSTALLATION SHALL COMPLY WITH ALL ADA REQUIREMENTS FOR MOUNTING HEIGHTS AND CLEARANCES.
③	1-COMPT. MOP SINK MSB-1	FIAT	MSB-2424	3"	2"	3"	-	½"	½"	-	-	PRECAST MOLDED STONE MOP SERVICE BASIN, 24"x24"x12" HIGH STAINLESS STEEL THRESHOLD AND #830-AA FAUCET WITH VACUUM BREAKER AND HOSE END, #832-AA HOSE AND HOSE BRACKET, #1453-BB STAINLESS STEEL STRAINER AND #889-CC MOP HANGER.
④	REST ROOM FLOOR DRAIN FD-1	SIOUX CHIEF	842	2"	2"	2"	-	-	-	-	-	ABS, 2-PIECE BODY WITH DOUBLE DRAINAGE FLANGE, FLASHING COLLAR WEEP HOLES, ADJUSTABLE 7" ROUND SATIN NICKALOY STAINER, BOTTOM OUTLET.
⑤	FLOOR DRAIN FD-1	SIOUX CHIEF	842-UM	2"	2"	2"	-	-	-	-	-	ABS, 2-PIECE BODY WITH DOUBLE DRAINAGE FLANGE, FLASHING COLLAR WEEP HOLES WITH SEDIMENT BUCKET, ½"TRAP PRIMER CONNECTION, BOTTOM OUTLET AND INSIDE CAULK CONNECTION.
⑥	FLOOR SINK FS-1	SIOUX CHIEF	861-23-N2	3"	2"	2"	-	-	-	-	-	CAST IRON FLOOR SINK WITH 12" SQUARE TOP AND ALUMINUM DOME STRAINER WITH ½"GRATE TOP.
⑦	THERMOSTATIC MIXING VALVE - MV	ACORN	ST-70	-	-	-	-	-	-	-	-	THERMOSTATIC MIXING VALVE FOR SMALL APPLICATIONS.
⑧	EXPANSION TANK	AMTROL	ST-12	-	-	-		-	-	-	-	MAXIMUM WORKING PRESSURE 150 PSI, TOTAL: VOLUME 6.7 GALLONS TO BE INSTALLED ON WATER HEATER PER WATER HEATER MANUFACTURES GUIDE LINES.
⑨	WATER HEATER (GWH) TYPICAL OF 2	NORITZ	SEE WATER HEATER DETAIL P2	-	-	-	TO FLOOR SINK	-	-	-	-	PROVIDE WITH INSTALLATION KIT, DIRECT VENT CONVERSION KIT WITH REMOTE, WITH CONDENSATE DRAIN WITH BACKFLOW PREVENTER.
⑩	TRAP PRIMER (ALTERNATE)	PRECISION PLUMBING PRODUCTS	PRO1-500	-	-	-	-	½"	-	-	-	ALL BRONZE TRAP PRIMER WITH VACUUM BREAKER, CONTAINS NO SPRINGS, DIAPHRAGMS, OR PLASTIC. PROVIDE PRIMERS IN RESTROOMS AND LOW USE FLOOR DRAINS..
⑪	BACKFLOW PREVENTER	WATTS	REFER TO SCHED. ON P2	-	-	-	-	-	-	-	-	EXIST. BUILDING BACKFLOW PREVENTER
⑫	BACKFLOW PREVENTER	WATTS	REFER TO SCHED. ON P2	-	-	-	-	⅜"	-	-	-	STAINLESS STEEL BACKFLOW PREVENTER FOR CARBONATED BEVERAGE DISPENSER, WATER FILTERS, ICE TEA BREWERS AND ICE MACHINES.
⑬	ACCESS PANEL	ELMDOR	PW SERIES	-	-	-	-	-	-	-	-	10"x10" SQUARE STAINLESS STEEL ACCESS PANEL.
⑭	WALL CLEANOUT -WCO	JOSAM	58600-COT	2"	2"	-	-	-	-	-	-	CAST IRON CAULKING FERRULE WITH BRASS RAISED HEAD PLUS POLISHED NIKALOY OR STAINLESS STEEL COVER PLATE. SECURE WITH SCREW SPIGOT CONNECTION.
⑮	FLOOR CLEANOUT-FCO	JOSAM	57000	4"	-	-	-	-	-	-	-	LEVELEZE COATED CAST IRON BODY WITH ADJUSTABLE HOUSING, SATIN NIKALOY TOP AND INSIDE CAULK CONNECTION.
⑯	SHOCK ABSORBER-WHA-A	JOSAM	75000	-	-	-	-	-	-	-	-	STAINLESS STEEL HYDRO-PNEUMATIC SHOCK ABSORBER WITH ELASTOMER BELLOWS.
⑰	3-COMPARTMENT SINK 3-COMP	-	-	-	-	-	INDIRECT	¾"	¾"	-	-	OWNER SUPPLIED AND CONTRACTOR TO INSTALL.
⑱	2-COMPARTMENT SINK 2-COMP	-	-	-	-	-	TO F.S.	¾"	¾"	-	-	OWNER SUPPLIED AND CONTRACTOR TO INSTALL.
⑲	ICE MACHINE W/STORAGE BIN	-	-	-	-	-	TO F.S.	½"	-	-	-	OWNER SUPPLIED AND GENERAL CONTRACTOR TO INSTALL. PROVIDE TYPE 'A' HAMMER ARRESTOR.
⑳	SODA SYSTEM	-	-	-	-	-	TO F.S.	¼"	-	-	-	OWNER SUPPLIED AND INSTALLED.
㉑	TEA BREWER	-	-	-	-	-	-	¼"	-	-	-	OWNER SUPPLIED AND INSTALLED.
㉒	HAND SINK HS-1	-	-	2"	1½"	1½"	-	½"	-	½"	-	OWNER SUPPLIED AND CONTRACTOR TO INSTALL.
㉓	HOSE BIBB (140°F. HW)	-	-	-	-	-	-	-	¾"	-	-	T & S BRASS B-0737- 001802-45T-HANDLE, CONTRACTOR SUPPLIED AND INSTALLED.
㉔	CARBONATOR	-	-	-	-	-	TO F.S.	¼"	-	-	-	OWNER SUPPLIED AND INSTALLED. PC TO PROVIDE & INSTALL CODE COMPLIANT BACKFLOW PROTECTION.
㉕	SPACE	-	-	-	-	-	TO F.S.	-	-	-	-	OWNER SUPPLIED AND INSTALLED. PC TO PROVIDE & INSTALL CODE COMPLIANT BACKFLOW PROTECTION.
㉖	GREASE INTERCEPTOR	-	-	4"	2"	-	-	-	-	-	-	SUPPLIED AND INSTALLED BY CONTRACTOR. REFER TO GREASE INTERCEPTOR DETAIL ON SHEET P4 FOR MORE INFORMATION.
㉗	EXTERIOR GRADE CLEANOUT GCO	JOSAM	57000-Z-LT	4"	-	-	-	-	-	-	-	CAST IRON BODY WITH FLANGE, WITH STRAIGHT BODY FOR CAULKING INTO SOIL PIPE. HUB WITH COUNTERSUNK TAPERED THREADED BRONZE PLUG. PROVIDE "T" HANDLE WRENCH. (ALTERNATE JOSAM NO. 58190-22)
㉘	HANDICAPPED URINAL ADA UR-1	AMERICAN STANDARD	WASH BROOK 6501.010	2"	2"	-	-	¾"	-	-	-	HANDICAPPED WALL HUNG, FLUSHING RIM, WASHOUT ACTION, 3/4" TOP SPUD, 0.5 GALLONS PER FLUSH. VALVE: SLOAN ROYAL-186-0.5 YBYC CARRIER: J.R.SMITH-0637 FLOOR MTD. WITH BEARING PLATE. MOUNTING HEIGHT: 17" FROM RIM TO FLOOR.
㉙	RE-CIRCULATING PUMP CIRC. PUMP	BELL AND GOSSETT	NRF-22	-	-	-	-	1/2"	-	-	-	PROVIDE WITH AQUASTAT AND TIMER
㉚	KITCHEN TRENCH DRAIN TD-1 (ALTERNATE BY OWNERS DIRECTION)	JOSAM	100C	3"	2"	2"	-	-	-	-	-	MEA - JOSAM 100C SERIES CHANNELS SHALL BE 39.4" (1000) LONG WITH 4" (102) INTERNAL WIDTH AND RADIUSED BOTTOM. MATERIAL AND AVAILABLE WITH AND WITHOUT SLOPE. CHANNEL SUPPORT BRACKETS CAPABLE OF ACCEPTING RE-BAR, END OUTLETS, BOTTOM OUTLETS, ENDCAPS, AND CORNER/T CONNECTORS SHALL BE AVAILABLE. ORDER WITH STAINLESS STEEL GRATE AND BOTTOM OUTLET STRAINER

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:

CASE Engineering Inc.
796 Merus Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1730
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:

WINGSTOP
5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

DISCLAIMER:

PROJECT INFORMATION:

WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

DARRELL R. CASE
NUMBER PE-23303
6/16/21
DATE

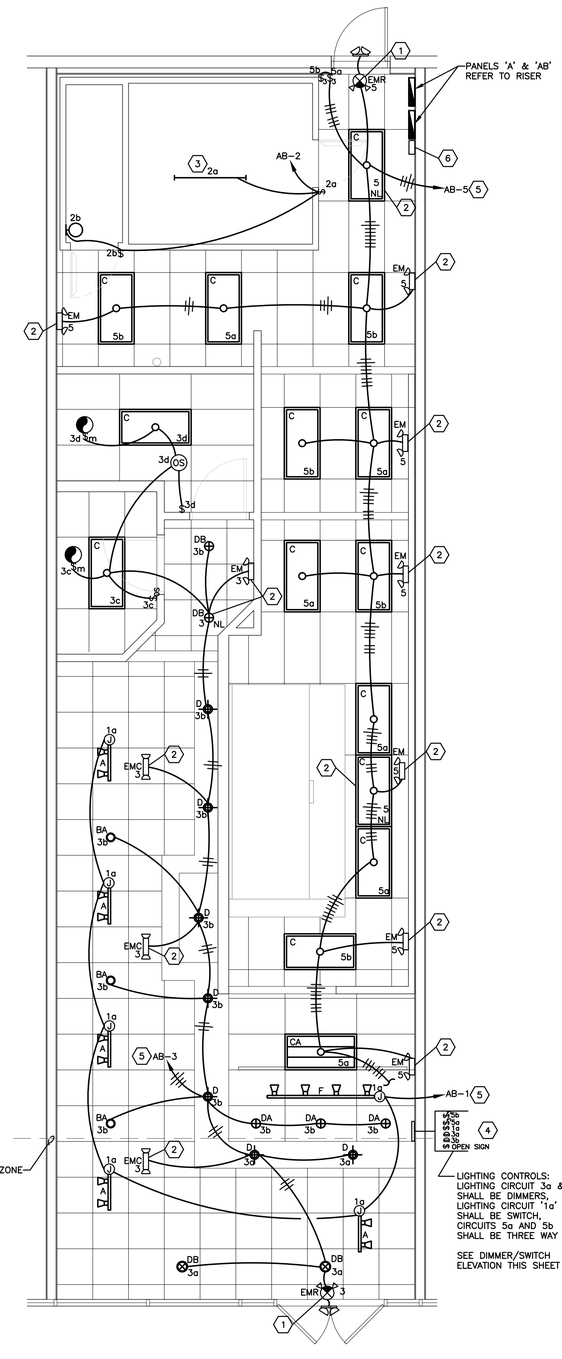
PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION: DATE:

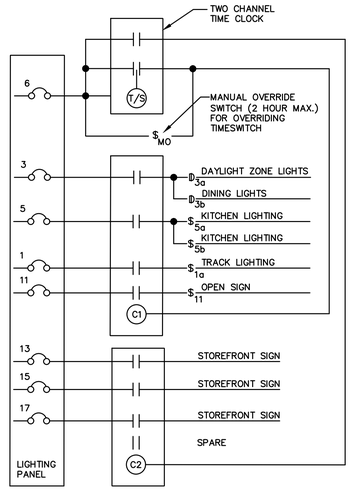
PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
P5

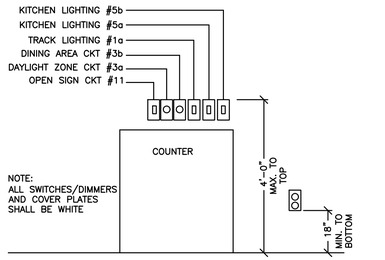


ELECTRICAL CEILING PLAN
SCALE: 1/4" = 1'-0"

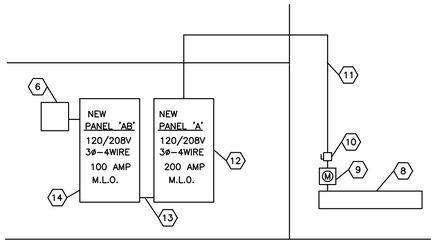
PER IECC 2018 SECTION 405.2.3
SPACES WITH LESS THAN 150
WATTS OF GENERAL LIGHTING IN
DAYLIGHT ZONE DO NOT REQUIRE
DAYLIGHT CONTROLS



LIGHTING CONTROLS DIAGRAM
SCALE: NONE



DIMMER/SWITCH ELEVATION
SCALE: NONE



POWER RISER DIAGRAM
SCALE: NONE

GENERAL NOTES:

1. PLACEMENT OF LIGHT FIXTURES SHALL BE SET AS DIMENSIONED & AS SCHEDULED.
2. LIGHT FIXTURES SHALL BE SUPPLIED AS SCHEDULED WITH NO EXCEPTIONS.
3. MINIMUM WIRE SIZE SHALL BE NO. 12 COPPER.
4. ALL EMERGENCY AND EXIT LIGHTING SHALL BE WIRED AHEAD OF THE SWITCHING. EMERGENCY LIGHTING SHALL BE ON THE SAME CIRCUITRY AS THE GENERAL LIGHTING IN THE AREA THEY SERVE. EMERGENCY LIGHTING WIRING SHALL BE IDENTIFIED (MARKED) PER NEC 700.9. PROVIDE GENERAL LIGHTING CIRCUITS, WHICH HAVE EMERGENCY LIGHTING CONNECTIONS, WITH LOCK-OUT ON BREAKER.
5. ALL LIGHTING FIXTURES IN FOOD AND BEVERAGE PREP AREA SHALL BE SHATTERPROOF.

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS	VOLTAGE	MOUNTING	WATTS PER FIXTURE	FIXTURE DESCRIPTION	NOTES
A	JUNO	TRACK: R2BL FIXTURE: R600L-3KN-BL	10W LED	120	SUSPENDED	20	2'-0" TRACK WITH (2) TRACK HEADS (BLACK)	1,10
BA	RAMCRAFT LIGHTING	SERIES 110 - 10 WATT MAX LABEL	10W PAR38	120	SUSPENDED	10	5-3/4" ROUND PENDANT W/ 15'-0" BLACK CORD	2,3
C	RAB INDOOR	EZPAN2x4-50YN/D10	50W 5300 LUMEN LED	120	RECESSED	50	2'X4' LED TROFFER WITH ACRYLIC LENS WITH 0-10V DIMMING DRIVER	4
CA	RAB INDOOR	SWISH2x4-49YN/D10	49W 6200 LUMEN LED	120	RECESSED	49	2'X4' LED LENSED TROFFER WITH 0-10V DIMMING DRIVER	4
D	HALO	H245ICAT/LT460WH6930	8W LED	120	RECESSED	8	4" ROUND LED CAN WITH WHITE TRIM	4,5
DA	HALO	H750ICAT-LT560WH6930	10W LED	120	RECESSED	10	6" ROUND LED CAN WITH WHITE TRIM	4,5
DB	HALO	H750ICAT-RLD6069301	10W LED	120	RECESSED	10	6" ROUND LED CAN WITH BLACK TRIM	4,5
F	JUNO	TRACK: R6WH FIXTURE: R600L-3KN-WH	10W LED	120	SURFACE	40	6'-0" TRACK WITH (4) TRACK HEADS (WHITE)	4
X	SURE-LITE	APX7-R	WITH UNIT	120	SURFACE	3	EXIT LIGHT WITH LED LAMPS	6,8
EM	SURE-LITE	CU2-LED	WITH UNIT	120	SURFACE	3	LED EMERGENCY LIGHT	6,9
EMC	EXITRONIX	LED90BL	WITH UNIT	120	SURFACE	3	CEILING MOUNTED LED EMERGENCY LIGHT (BLACK)	6,8
EMR	SURE-LITE	APCH7-R WITH APWR2 BASE & (2) REMOTE HEADS	WITH UNIT	120	SURFACE	3	COMBINATION EXIT/EMERGENCY LIGHT WITH (2) REMOTE EGRESS HEADS	6,8,9
EMX	SURE-LITE	APC7-R	WITH UNIT	120	SURFACE	3	COMBINATION EXIT LIGHT WITH DUAL LAMP EMERGENCY LIGHT	6,9

SUPPLIER NOTE:
ALL LIGHTING TO BE PURCHASED THROUGH:
MELETIO ELECTRICAL SUPPLY, 10930 HARRY HINES, DALLAS, TEXAS 75220 JIM ELLIS (SALES MANAGER)
DIRECT LINE (972)-559-6943, JELLIS@MELETIO.COM

LIGHT FIXTURE SCHEDULE NOTES:

1. MOUNT TO SCHEDULED CEILING BOTTOM OF TRACK MOUNTED TO OF BOTTOM OF FRAMING AND 3'-0" FROM ADJACENT WALLS UNLESS NOTED OTHERWISE. SUSPEND TRACK ON 3/8" ALL-THREAD.
2. MOUNT TO SCHEDULED CEILING: ALL AREAS SUSPEND TO 8'-0" A.F.F.
3. PROVIDED WITH FACTORY INSTALLED MAX LABEL NOTED.
4. MOUNT TO SCHEDULED CEILING.
5. CEILING INSULATION MUST BE 3" AWAY ALL SIDES
6. EMERGENCY AND EXIT LIGHTS SHALL HAVE MINIMUM 90 MINUTE BATTERY BACKUP.
7. PROVIDED WITH SHATTERPROOF LAMP.
8. MOUNT TO BOTTOM OF SCHEDULED CEILING. FURR-DOWN AS REQUIRED.
9. MOUNT TO SCHEDULED PARTITION AT 8" BELOW FINISHED CEILING.
10. VERIFY QUANTITY OF CURRENT LIMITERS WITH DRAWING, NOT REQUIRED ON ALL TYPE 'A' TRACK.

KEYED NOTES

1. CONNECT EXIT SIGN WITH REMOTE EGRESS DUAL HEAD FIXTURE AHEAD OF ALL LIGHTING CONTROLS OF GENERAL LIGHTING CIRCUIT SERVING THIS AREA.
2. CONNECT NIGHT/EXIT/EMERGENCY LIGHT AHEAD OF ALL LIGHTING CONTROLS OF GENERAL LIGHTING CIRCUIT SERVING THIS AREA.
3. LIGHTING FIXTURE AND LIGHT SWITCH FOR COOLER AND FREEZER SHALL BE FURNISHED BY EQUIPMENT SUPPLIER. EC TO MAKE FINAL ELECTRICAL CONNECTION. SEE KEYED NOTE 8 ON SHEET E2.
4. EC TO PROVIDE OVERRIDE SWITCHES, SEE DIMMER/SWITCH ELEVATION.
5. ROUTE CIRCUIT THRU SWITCH/DIMMER AT SALES COUNTER AND BACK THRU TIME SWITCH CONTROLLED CONTACTOR. EC TO PROVIDE UNSWITCHED HOT LEG TO ALL EMERGENCY AND EXIT LIGHTS ON CIRCUIT AS NOTED.
6. EC TO PROVIDE ASTRONOMIC INTERMATIC ET2825C TIME SWITCH AND CONTACTORS AS REQUIRED TO CONTROL LIGHTS AND SIGNAGE.
7. NOT USED.
8. EXISTING ELECTRICAL DISTRIBUTION GUTTER. VERIFY EXACT LOCATION IN FIELD PRIOR TO BIDDING.
9. EXISTING 200 AMP, 120/208 VOLT, 3 PHASE, 4 WIRE, METER SOCKET AT DISTRIBUTION CUTTER. EC TO ARRANGE FOR THE INSTALLATION OF PROPERLY SIZED METER WITH THE LOCAL UTILITY.
10. EXISTING 200 AMP, 208 VOLT, 3 PHASE, NEMA 3R, DISCONNECT SWITCH, AND EC TO PROVIDE 200 AMP FUSES. VERIFY ALL REQUIREMENTS WITH LANDLORD'S REPRESENTATIVE AND NOTIFY TENANT'S REPRESENTATIVE OF ANY DIFFERENCES PRIOR TO BIDDING. NO EXTRAS OR CHANGE ORDERS SHALL BE GIVEN FOR CONTRACTOR'S FAILURE TO VERIFY SITE CONDITIONS PRIOR TO BIDDING.
11. EC TO PROVIDE (4) #3/0-CU FEEDERS AND (1) #6 GND IN 2" CONDUIT. EC TO VERIFY ALL LOCATIONS AND ROUTING IN FIELD PRIOR TO BIDDING.
12. EC TO PROVIDE 200 AMP, 120/208 VOLT, 3 PHASE, 4 WIRE PANEL 'A'. SEE PANEL SCHEDULE ON SHEET E2.
13. EC TO PROVIDE (4) #3-CU FEEDERS AND (1) #8 GND IN 1-1/2" CONDUIT.
14. EC TO PROVIDE 100 AMP, 120/208 VOLT, 3 PHASE, 4 WIRE PANEL 'AB'. SEE PANEL SCHEDULE ON SHEET E2.

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION
GC	GENERAL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
WP	WEATHERPROOF
NL	NIGHT LIGHT (CONNECT TO UNSWITCHED LEG OF CIRCUIT NOTED)
GFI	GROUND FAULT CURRENT INTERRUPTER PROTECTED DEVICE
ST	SHUNT TRIP CIRCUIT
AFF	ABOVE FINISHED FLOOR
UNO	UNLESS NOTED OTHERWISE
PRS	PROJECT RESOURCE SOLUTIONS
PROVIDE	FURNISH AND INSTALL COMPLETE
J	JUNCTION BOX, MOUNTING HEIGHT
	20A, 1P, 125V, GROUNDING TYPE DUPLEX RECEPTACLE (+18" AFF UNO)
	20A, 1P, 125V, GROUNDING TYPE DOUBLE DUPLEX RECEPTACLE
	250 VOLT WALL OUTLET BY EC.
3cm	CEILING MOUNTED EXHAUST FAN WITH MANUAL DISCONNECT
30/NF/3	DISCONNECT SWITCH: 30 AMP, NON-FUSED, 3 POLE
$	LIGHT SWITCH
$3	LIGHT SWITCH (3 WAY)
$4	LIGHT SWITCH (4 WAY)
$OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH AT 3'-6" AFF TO CENTERLINE (WATT STOPPER #DW100-WH OR EQUAL)
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH (WATT STOPPER #DT-355 OR EQUAL)
	DIMMER SWITCH: LUTRON NOVA SERIES DIMMERS COMPATIBLE WITH LOW VOLTAGE LIGHTING FIXTURES AND RATED FOR LOAD NOTED IN PANEL SCHEDULE. REFER TO LOADS AT PANELBOARD SCHEDULE. MOUNTING HEIGHT AS INDICATED PER PLAN.
P D	COMMUNICATIONS JUNCTION BOX FOR DATA/COMM. DEVICE PLATE. EC TO ROUTE 3/4" CONDUIT WITH PULL STRING TO 6" ABOVE ACCESSIBLE CEILING AND BEND AT 90° TOWARDS TTB. EC TO PROVIDE PLASTIC BUSHING ON END OF CONDUIT. P=VOICE, D=DATA
CTV	JUNCTION BOX FOR CABLE TV/DATA DEVICE PLATE. EC TO ROUTE 3/4" CONDUIT WITH PULL STRING TO 6" ABOVE ACCESSIBLE CEILING AND BEND AT 90° TOWARDS CD/SAT UNIT. EC TO PROVIDE PLASTIC BUSHING ON END OF CONDUIT.
	CONDUIT RUN CONCEALED IN CEILING OR WALL. NUMBER OF HASH MARKS INDICATE NUMBER OF #12 WIRES WHEN MORE THAN TWO ARE REQUIRED UNLESS NOTED OTHERWISE. ALL CIRCUITS SHALL INCLUDE EQUIPMENT GROUND SIZED PER NEC. HASH MARK AHEAD OF NEUTRAL INDICATES UNSWITCHED LEG. CURLED HASH MARK INDICATES DEDICATED GROUND WIRE REQUIRED.
+12"	12" ABOVE FINISHED FLOOR TO CENTERLINE
	PANELBOARD
F 5a	LIGHTING FIXTURE SWITCHING DESIGNATION - LETTER 'F' INDICATES THE FIXTURE TYPE (SEE FIXTURE SCHEDULE) THE NUMBER '5' INDICATES THE CIRCUIT IN THE PANEL NOTED AND THE LOWER CASE LETTER 'a' INDICATES THE SWITCH LEG TO CONNECT THE FIXTURE TO.

NOTES:
1. ALL SWITCHES, COVER PLATES, RECEPTACLES SHALL BE 'WHITE'.
2. TELEPHONE SERVICE SHALL BE THREE (3) LINE SERVICE AS FOLLOWS:
   A. LINE 1 SHALL BE PRIMARY TELEPHONE LINE.
   B. LINE 2 SHALL BE ROLLOVER TELEPHONE LINE & FAX LINE.
   C. LINE 3 SHALL BE FAX & DATA LINE.
3. SIGNAGE INSTALLATION:
   THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE MOUNTING OF THE TRANSFORMERS AND FINAL ELECTRICAL CONNECTION OF THE OWNER PROVIDED EXTERIOR BUILDING AND INTERIOR SIGNAGE. ALL SIGNS SHALL BE ON INDIVIDUAL DEDICATED CIRCUITS W/DEDICATED GROUNDS.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
CASE Engineering Inc
796 Morse Court
St. Louis, MO 63026
T 636.349.1600
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CERTIFICATE OF AUTHORITY NO. 001498

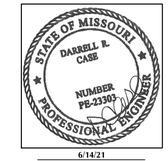
CLIENT:
WING·STOP

5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

PROJECT INFORMATION:

WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:



6/14/21
DATE

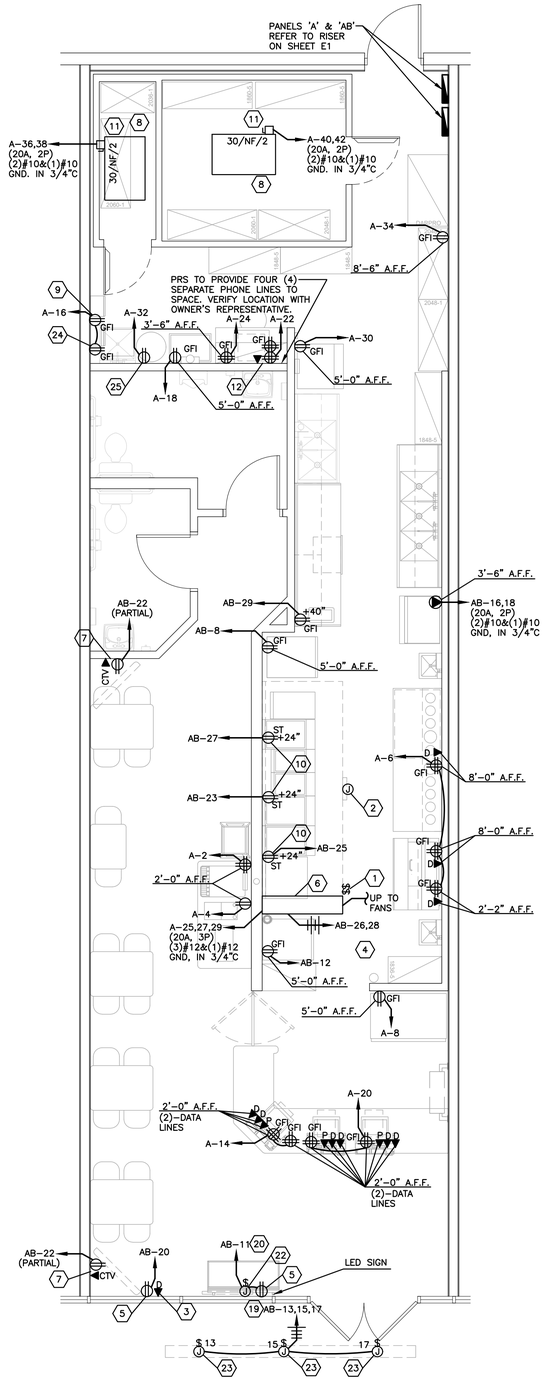
PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

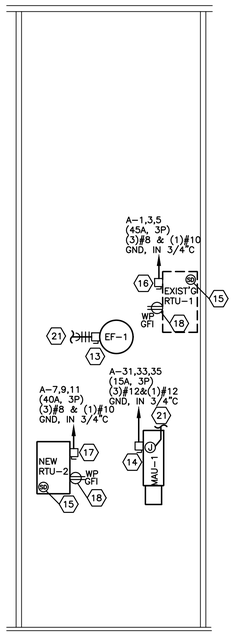
REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

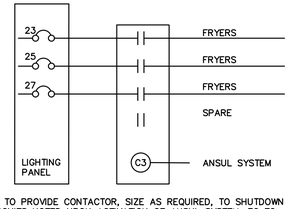
SHEET NUMBER:
E1



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



ELECTRICAL ROOF PLAN
SCALE : 1/8" = 1'-0"



EC TO PROVIDE CONTACTOR, SIZE AS REQUIRED, TO SHUTDOWN CIRCUITS NOTED UPON ACTIVATION OF ANSUL SYSTEM. EC TO VERIFY CONTROL COIL VOLTAGE WITH HOOD SYSTEM SUPPLIER

ANSUL SYSTEM SHUTDOWN
SCALE: NONE

GENERAL NOTES

1. EC TO PROVIDE HANDLE TIE ON ALL MULTIWIRE BRANCH CIRCUITS PER NEC 210.4(B).
2. ALL SPARE CIRCUIT BREAKERS AND DISCONNECT SWITCHES SHALL BE LEFT IN THE OFF POSITION.
3. EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OF ALL EQUIPMENT DELIVERED TO THE SITE PRIOR TO CONNECTION. EC SHALL NOTIFY OWNER OF ANY DIFFERENCE.
4. CIRCULATION OF AIR FROM WARMER TO COLDER SECTIONS OF INTERIOR RACEWAY SYSTEM EXPOSED TO WIDELY DIFFERENT TEMPERATURES SHALL BE PREVENTED. SEAL AS REQUIRED PER NEC 300.7(A). PROVIDE EXPANSION JOINTS FOR CONDUIT AS REQUIRED TO COMPENSATE FOR THERMAL EXPANSION AND CONTRACTION.

ANSUL SYSTEM CONTROL WIRING NOTE:

EC SHALL BE RESPONSIBLE FOR ALL LINE VOLTAGE CONTROL WIRING FROM ANSUL SYSTEM TO SHUNT TRIP BREAKER AND GAS VALVE. COORDINATE ALL WORK WITH HVAC CONTRACTOR.

KITCHEN RECEPTACLE NOTES

1. ALL KITCHEN SINGLE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 50 AMPERES OR LESS AND THREE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 100 AMPERES OR LESS SHALL HAVE GROUND–FAULT CIRCUIT–INTERRUPTER PROTECTION FOR PERSONNEL PER NEC SECTION 210.8 (B) (1)–(10).
2. ALL GFCI RECEPTACLES SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION OR A GFCI CIRCUIT BREAKER SHALL USED TO FEED THE CIRCUIT NOTED.
3. ALL 125V, 15A AND 20A CIRCUITS TO KITCHEN EQUIPMENT SHALL BE FED WITH A DEDICATED NEUTRAL WIRE.

KEYED NOTES

1. EC TO PROVIDE CONDUIT AND FEEDERS FROM HOOD CONTROLS TO (2) SWITCHES FURNISHED ON HOOD FOR HOOD LIGHTS AND EXHAUST/MAKE–UP AIR FANS.
2. GFI RECEPTACLE PROVIDED WITH HOOD FOR FRYER TIMER PANEL – EC TO CONNECT TO PRE–WIRED JUNCTION BOX MOUNTED ON TOP OF HOOD. CONNECT TO SHUNT TRIP CONTROLLED CIRCUIT NOTED.
3. EC TO PROVIDE JUNCTION BOX, ADJACENT TO SHOW WINDOW RECEPTACLE, WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING FOR 4G CRADLE POINT.
4. ALL 15 AND 20 AMP 120V OUTLETS IN KITCHEN AND PREP AREA SHALL BE GFI PER NEC.
5. EC TO PROVIDE DUPLEX RECEPTACLE MOUNTED IN SOFFIT A MAXIMUM OF 18" ABOVE WINDOW OR 4" BELOW CEILING WHICHEVER IS LOWER FOR SHOW WINDOW REQUIREMENTS. FIELD VERIFY LOCATION.
6. HOOD CONTROL PANEL PROVIDED BY HOOD MANUFACTURER. ROUTE HOOD LIGHTS, FIRE SUPPRESSION, MAKEUP AIR AND EXHAUST FAN CIRCUITS THROUGH CONTROL PANEL AND EXTEND TO HOOD AND FANS, AS REQUIRED. EXTEND CONTROLS FEEDERS FROM CONTROLLER TO FANS AS REQUIRED. SEE HOOD DRAWINGS FOR WIRING SCHEMATIC. CONTROL PANEL SHALL SHUT DOWN ALL REQUIRED CIRCUITS UPON ACTIVATION OF FIRE SUPPRESSION SYSTEM.
7. EC TO PROVIDE DUPLEX RECEPTACLE AND COAXIAL OUTLET FOR TV MONITOR AT 8'–0" AFF.
8. CIRCULATION OF AIR FROM WARMER TO COLDER SECTIONS OF INTERIOR RACEWAY SYSTEM EXPOSED TO WIDELY DIFFERENT TEMPERATURES SHALL BE PREVENTED. SEAL AS REQUIRED PER NEC 300.7(A). PROVIDE EXPANSION JOINTS FOR CONDUIT AS REQUIRED TO COMPENSATE FOR THERMAL EXPANSION AND CONTRACTION.
9. GAS WATER HEATER ON WALL. EC TO PROVIDE GFI RECEPTACLE FOR CONNECTION OF WATER HEATER CONTROLS.
10. EC TO PROVIDE RECEPTACLE FOR EQUIPMENT BELOW HOOD AND ROUTE THROUGH CONTACTOR, BY EC, CONTROLLED BY ANSUL SYSTEM TO SHUTDOWN CIRCUITS UPON ACTIVATION. EC TO PROVIDE GFCI CIRCUIT BREAKER IN PANEL NOTED.
11. EC TO PROVIDE DISCONNECT SWITCH AND MAKE FINAL CONNECTION TO SELF EVAPORATING COOLER/FREEZER CONDENSER UNIT MOUNTED ABOVE COOLER/FREEZER.
12. APPROXIMATE LOCATION OF SERVER RACK. ALL DATA IS TO TERMINATE AT THIS LOCATION. TWO DOUBLE DUPLEX RECEPTACLES AND DATA FOR SERVER RACK SHOULD BE MOUNTED AT 7'–6" AFF AND A MINIMUM 12" AWAY FROM ELECTRICAL PANELS.
13. MANUFACTURER PROVIDED, NEMA 3R, DISCONNECT SWITCH ON HOOD EXHAUST FAN, UNIT IS INTERLOCKED WITH HOOD MAKEUP AIR FAN BY HOOD CONTROLS.
14. MANUFACTURER PROVIDED, NEMA 3R, DISCONNECT SWITCH ON HOOD MAKEUP AIR FAN. UNIT IS INTERLOCKED WITH HOOD EXHAUST FAN BY HOOD CONTROLS. EC SHALL INSTALL DEDICATED CONTROL CABLES, BY CAPTIVE AIRE, FOR FAN SPEED CONTROL IN DEDICATED CONDUIT FROM HOOD CONTROL PANEL TO CONTROLLER ON MAKEUP AIR UNIT.
15. EC TO PROVIDE DUCT SMOKE DETECTOR IN RETURN AIR DUCT TO SHUT DOWN UNIT UPON ACTIVATION. PROVIDE TEST/RESET SWITCH AND PIEZO ALERT SOUNDER AND REMOTE ANNUNCIATOR ALARM LED MOUNTED AS DIRECTED BY LOCATION AHJ. EC TO PROVIDE ALL REQUIRED INTERLOCK WIRING. MAKE FINAL CONNECTIONS TO CIRCUIT #12 IN PANEL 'A'.
16. EXISTING 208V, 3P/60AMP, NON–FUSED, NEMA 3R, DISCONNECT AT RTU–1. EC TO PROVIDE NEW FEEDERS AND CONDUIT TO PANEL AS REQUIRED.
17. EC TO PROVIDE 208V, 3P/60AMP, NON–FUSED, NEMA 3R, DISCONNECT AT RTU–2. EC TO PROVIDE NEW FEEDERS AND CONDUIT TO PANEL AS REQUIRED.
18. EC TO PROVIDE WEATHER RESISTANT TYPE, GFI RECEPTACLE IN WEATHERPROOF WHILE IN USE COVER AT HVAC EQUIPMENT, COVER SHALL BE EXTRA DUTY RATED PER SECTION 406.9(B). CONNECT TO CIRCUIT #4 IN PANEL 'AB'.
19. ROUTE CIRCUIT THROUGH TIME SWITCH CONTROLLED CONTACTORS.
20. ROUTE THROUGH LIGHT SWITCH ADJACENT TO CASH COUNTER, SEE SHEET E1.
21. EC TO ROUTE ROOF MOUNTED EQUIPMENT THROUGH TERMINAL BLOCK AT HOOD CONTROL PANEL. SEE SHEET HOOD DRAWING FOR WIRING DIAGRAM.
22. EC TO PROVIDE DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING FOR CONNECTION OF SHOW WINDOW SIGN. CONNECT TO SAME CIRCUIT AND CONTROLS TO SHOW WINDOW RECEPTACLE. FIELD VERIFY LOCATION WITH SIGN SUPPLIER.
23. EC TO PROVIDE NEMA 3R, DISCONNECT SWITCHES AND CIRCUITS FOR THREE EXTERIOR SIGNS. EC SHALL VERIFY EXACT QUANTITY AND LOCATION OF SIGNAGE WITH FRANCHISEE PRIOR TO ROUGH–IN.
24. HOT WATER RECIRCULATION PUMP (1/25HP) AND TIMER BY PLUMBING CONTRACTOR. EC TO PROVIDE GFI RECEPTACLE FOR CONNECTION AS DIRECTED BY PLUMBING CONTRACTOR.
25. EC TO PROVIDE CO2METER.COM MODEL #RAD–0102 REMOTE CO2 SENSOR ADJACENT TO CO2 TANK. VERIFY ALL LOCATIONS WITH EQUIPMENT SUPPLIER.

PANEL BOARD A — SURFACE MOUNTED
120/208 VOLTS 3 PHASE 4 WIRE 200 AMP. BUS — 22,000 A.I.C. RATED
CIRCUIT BREAKER TYPE 200 AMP. MAIN LUGS ONLY

CKT. NO.	TRIP AMPS	NO. POLE	LOAD SERVED	LOAD– V. A. AØ	LOAD– V. A. BØ	LOAD– V. A. CØ	LOAD SERVED	NO. POLE	TRIP AMPS	CKT. NO.
1				3960 500			SODA SYSTEM	1	20	2
3	45	3	EXISTING RTU–1		3960 1660		TEA MACHINE	1	20	4
5						3960 1080	SANDWICH/SALAD	1	20	6
7				3480 1200			2 DOOR MERCHANDISER	1	20	8
9	40	3	RTU–2		3480 ––		SPARE	1	20	10
11						3480 200	HVAC SMOKE DETECTOR	1	20	12 LO
13	20	1	SPARE	–– 800			POS/PRINTER RECEPTACLES	1	20	14
15	20	1	SPARE		–– 400		WATER HEATER CONTROLS AND RECIRCULATION PUMP	1	20	16
17	20	1	SPARE			–– 200	BOX'N BAG SYSTEM	1	20	18
19	20	1	SPARE	–– 800			POS/PRINTER RECEPTACLES	1	20	20
21	20	1	SPARE		–– 720		SERVER RACK	1	20	22
23	20	1	SPARE			–– 400	DESK RECEPTACLES	1	20	24
25				1250 ––			SPARE	1	20	26
27	20	3	EXHAUST FAN EF–1		1250 ––		SPARE	1	20	28
29						1250 1320	ICE MACHINE	1	20	30
31				865 200			CO2 MONITORING SYSTEM	1	20	32
33	15	3	MAKE UP AIR FAN MAU–1		865 500		OIL SAVER SYSTEM	1	20	34
35						865 1050	FREEZER CONDENSER	2	20	36
37				5110 1050						38
39	100	3	PANEL AB		5385 1150					40
41						5910 1150	COOLER CONDENSER	2	20	42
				19015	19370	20865				

LOAD DESCRIPTION	DEMAND FACTOR D.F.	VOLT – AMPS CONNECTED	VOLT – AMPS DEMAND
LIGHTING & FRONT SIGN	1.25	5215	6520
RECEPTACLES	1st 10KVA @ 100% REMAINDER @ 50%	3480	3480
MOTORS	ALL @ 100% PLUS 25% OF LARGEST	10745	11680
MISC. EQUIPMENT	1.00	2800	2800
KITCHEN EQUIPMENT	NEC TABLE (220.56) 0.65	14690	9550
*HVAC EQUIPMENT	1.00	22320	22320
	TOTAL–	59250	56350

PANELBOARD LOAD = 56350 V.A.
FULL LOAD AMPS = 156.5 A.

(LO PROVIDE LOCK–ON DEVICE) (TS CIRCUIT VIA TIMESWITCH) (GFI GFCI TYPE CIRCUIT BREAKER)
* HVAC LOAD BASED ON UNIT MCA WHICH INCLUDES 25% OF LARGEST MOTOR

PANEL BOARD AB — SURFACE MOUNTED
120/208 VOLTS 3 PHASE 4 WIRE 100 AMP. BUS — 22,000 A.I.C. RATED
CIRCUIT BREAKER TYPE 100 AMP. MAIN LUGS ONLY

	CKT. NO.	TRIP AMPS	NO. POLE	LOAD SERVED	LOAD– V. A. AØ	LOAD– V. A. BØ	LOAD– V. A. CØ	LOAD SERVED	NO. POLE	TRIP AMPS	CKT. NO.	
LO	1	20	1	TRACK LIGHTING (16'–0")		1200 200		COOLER/FREEZER LIGHTS	1	20	2	
LO	3	20	1	FRONT AREA LIGHTS AND RESTROOM LIGHTS & FANS			475 360	HVAC GFI RECEPTACLES	1	20	4	
LO	5	20	1	KITCHEN/STOCKROOM LIGHTS			640 100	LIGHTING CONTROLS	1	20	6	
	7	20	1	SPARE	–– 860			REACH–IN REFRIGERATOR	1	20	8	GFI
	9	20	1	SPARE		–– ––		SPARE	1	20	10	
TS	11	20	1	SHOW WINDOW (SIGN)			500 860	REACH–IN FREEZER	1	20	12	
TS	13	20	1	MAIN EXTERIOR SIGN	1200 ––			SPARE	1	20	14	
TS	15	20	1	EXTERIOR SIGN		500 1460		CONVECTION OVEN	2	20	16	GFI
TS	17	20	1	EXTERIOR SIGN			500 1460				18	
	19	20	1	SPARE	–– 400			SHOW WINDOW RECEPTACLES	1	20	20	
	21	20	1	SPARE		–– 900		TV MONITORS (2)	1	20	22	
GFI	23	20	1	FRYER CONTROLS AND GREASE FILTER			1490 ––	SPARE	1	20	24	
GFI	25	20	1	FRYER CONTROLS AND GREASE FILTER	750 500			HOOD CONTROLS/LIGHTS	1	15	26	
GFI	27	20	1	FRYER CONTROLS AND GREASE FILTER		1490 200		HOOD GFI RECEPTACLE	1	15	28	
GFI	29	20	1	NACHOS CHEESE DISPENSER			360 ––	SHUNT TRIP SPACE	–	–	30	
					5110	5385	5910					

LOAD DESCRIPTION	DEMAND FACTOR D.F.	VOLT – AMPS CONNECTED	VOLT – AMPS DEMAND
LIGHTING & FRONT SIGN	1.25	5215	6520
RECEPTACLES	1st 10KVA @ 100% REMAINDER @ 50%	760	760
MOTORS	ALL @ 100% PLUS 25% OF LARGEST	––	––
MISC. EQUIPMENT	1.00	1700	1700
KITCHEN EQUIPMENT	NEC TABLE (220.56) 0.65	8730	5675
*HVAC EQUIPMENT	1.00	––	––
	TOTAL–	16405	14655

PANELBOARD LOAD = 14655 V.A.
FULL LOAD AMPS = 40.7 A.

(LO PROVIDE LOCK–ON DEVICE) (TS CIRCUIT VIA TIMESWITCH) (GFI GFCI TYPE CIRCUIT BREAKER)
* HVAC LOAD BASED ON UNIT MCA WHICH INCLUDES 25% OF LARGEST MOTOR

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
CASE Engineering Inc
T 636.349.1600
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796 Morse Court
St. Louis, MO 63026
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:
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5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-650

PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:
STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23303
PROFESSIONAL ENGINEER
6/14/21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION: DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
E2

DIVISION 16 - ELECTRICAL SPECIFICATIONS

SECTION 16100
ELECTRICAL SPECIAL CONDITIONS

1\. GENERAL

A. APPLICABLE PROVISIONS OF AIA DOCUMENT A201, "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AND DIVISION 1 GENERAL CONDITIONS GOVERN WORK UNDER THIS SECTION AND ALL OTHER SECTIONS OF DIVISION 16.

B. APPLICABLE PROVISIONS OF THIS SECTION GOVERN WORK UNDER ALL OTHER SECTIONS OF DIVISION 16. WORK COVERED BY THIS SECTION SHALL CONSIST OF PROVIDING ALL MATERIAL, LABOR, EQUIPMENT AND SERVICES NECESSARY FOR A COMPLETE, TESTED AND ADJUSTABLE ELECTRICAL INSTALLATION READY FOR OPERATION AS SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.

C. THE TERM CONTRACTOR AS USED IN THIS SECTION SHALL MEAN ANY CONTRACTOR OR SUBCONTRACTOR WHO HAS CONTRACTED TO PERFORM WORK INCLUDED IN AND DEFINED BY THIS SECTION AND ALL OTHER SECTIONS OF DIVISION 16.

D. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION. ALL MATERIALS AND EQUIPMENT SHALL BE COMMERCIAL GRADE AND SHALL CARRY A U.L. LABEL.

E. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING COMPONENTS THEREOF SHALL BE NEW AND SUCH AS APPEARS ON THE UNDERWRITER'S LABORATORY LIST OF APPROVED ITEMS AND SHALL MEET THE REQUIREMENTS OF RECOGNIZED STANDARDS. EQUIPMENT SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.) AND OTHER APPLICABLE CODES.

2\. EXISTING CONDITIONS

A. THESE DRAWINGS ARE BASED ON INFORMATION PROVIDED TO OUR OFFICE AT THE TIME OF DESIGN. THEREFORE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO, SERVICE LOCATION, SERVICE LAYOUTS, SECONDARY FEEDER LENGTH, TELEPHONE SERVICE LOCATION, ETC... AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO BID. FAILURE TO DO SO MAY CONSTITUTE THAT THE CONTRACTOR PROVIDE ANY AND ALL ADDITIONAL EQUIPMENT, LABOR, ETC... TO MEET THE INTENDED DESIGN PARAMETERS.

B. CONTRACTORS SHALL VISIT THE SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS.

3\. CONTRACTOR'S RESPONSIBILITY

A. PRIOR TO SUBMITTING HIS BID, CONTRACTOR SHALL CAREFULLY EXAMINE THESE CONSTRUCTION DOCUMENTS, THE DEVELOPER'S EXHIBITS, AND THE SITE, TO INQUIRE FULLY INTO DIFFICULTIES AND COSTS OF WORK, AND TO DETERMINE THE SCOPE AND CHARACTER OF WORK TO BE DONE. CONTRACTOR SHALL INCLUDE ALL NECESSARY COSTS TO LOCATE AND/OR EXTEND ALL UTILITIES INCLUDING LIGHTING PANELS, POWER PANELS, ELECTRICAL SERVICE, PHONE SERVICE AND/OR MODIFY EQUIPMENT TO MEET THE INTENT OF THE CONTRACT DOCUMENTS. THE OWNER, OWNER'S AGENT, ARCHITECT, ENGINEER OR DESIGNER SHALL NOT BE RESPONSIBLE FOR FAILURE OF THE CONTRACTOR TO DETERMINE DIFFICULTIES AND COSTS IN THE PROJECT OR FOR HIS OVERLOOKING OF THE REQUIREMENTS.

B. IF THIS CONTRACTOR DOES NOT CLEARLY UNDERSTAND THE PLANS AND SPECIFICATIONS, OR IF THERE ARE ANY REQUIREMENTS WHICH ARE AMBIGUOUS IN THE CONTRACTOR'S OPINION, HE SHOULD CALL THIS TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING, SINCE THIS CONTRACTOR WILL BE HELD RIGIDLY TO THE INTERPRETATIONS OF THE ARCHITECT AND ENGINEER.

C. CONTRACTOR SHALL SCHEDULE HIS WORK IN COOPERATION WITH OTHER TRADES INSTALLING INTERRELATED WORK. ALL WORK SHALL BE SCHEDULED TO MAINTAIN SERVICE TO ALL REQUIRED AREAS DURING THE COURSE OF THE CONSTRUCTION EXCEPT FOR SHORT TERM PLANNED SHUTDOWNS, ANY OF WHICH SHALL BE PRE-SCHEDULED WITH THE OWNERS AGENT AND THE LANDLORD.

4\. WORKMANSHIP AND GUARANTEE

A. IN ENTERING INTO A CONTRACT COVERING THIS WORK, THE CONTRACTOR ACCEPTS THE SPECIFICATIONS, AND GUARANTEES THAT THE WORK WILL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR FURTHER GUARANTEES THAT THE WORKMANSHIP AND MATERIAL WILL BE OF THE BEST PROCURABLE AND THAT NONE BUT EXPERIENCED WORKMEN EXPERIENCED IN EACH PARTICULAR CLASS OF WORK WILL BE EMPLOYED. CONTRACTOR FURTHER GUARANTEES TO REPLACE AND MAKE GOOD AT HIS OWN EXPENSE ANY DEFECTS DUE TO FAULTY WORKMANSHIP OR MATERIAL WHICH MAY DEVELOP WITHIN ONE (1) YEAR AFTER FINAL PAYMENT AND ACCEPTANCE BY THE ARCHITECT.

5\. CODES AND STANDARDS

A. CONTRACTOR WILL COMPLY IN ALL RESPECTS WITH THE ADOPTED BUILDING CODES, APPLICABLE LAWS, ORDINANCES, AND REGULATIONS AS MAY APPLY ACCORDING TO THE RULING OF THE CONTROLLING PUBLIC OFFICIAL SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE LAWS, ORDINANCES AND REGULATIONS, OR WHICH DOES NOT RECEIVE THE APPROVAL OF THE CONTROLLING PUBLIC OFFICIAL, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING THE DEFICIENCIES. ALL ELECTRICAL EQUIPMENT SHALL SHALL BEAR THE UNDERWRITER'S LABORATORY LABEL.

6\. FEES ON PERMITS

A. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND MAKING PAYMENT FOR ALL FEES, PERMITS AND INSPECTIONS RELATING TO HIS WORK.

7\. CONTRACT DRAWINGS

A. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND INTENT OF THE DESIGN AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONDITIONS AND THE WORK OF OTHER TRADES WILL PERMIT. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, AND ACCESSORIES WHICH MAY BE REQUIRED, NOR IS IT IMPLIED THAT ALL CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE SYSTEMS OR BUILDING COMPONENTS HAVE BEEN INDICATED. THE CONTRACTOR SHALL INVESTIGATE ALL EXISTING CONDITIONS AFFECTING THE WORK AND ARRANGE HIS WORK ACCORDINGLY, PROVIDING SUCH FITTINGS, OFFSETS, ACCESSORIES AND DEVICES AS MAY BE REQUIRED. THE DRAWINGS AND SPECIFICATIONS ARE MUTUALLY COMPLEMENTARY, AND ANY WORK REQUIRED BY ONE BUT NOT BY THE OTHER SHALL BE PERFORMED BY BOTH. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND SERVICES REQUIRED FOR A COMPLETE AND WORKING PROJECT AT NO ADDITIONAL COST EVEN THOUGH EACH AND EVERY NECESSARY ELEMENT THEREOF IS NOT SPECIFICALLY IDENTIFIED HEREIN EACH AND EVERY NECESSARY ELEMENT THEREOF IS NOT SPECIFICALLY IDENTIFIED HEREIN.

B. CONTRACTOR SHALL NOT SCALE FROM THE DRAWINGS BUT SHALL FOLLOW THE ARCHITECTURAL DRAWINGS OR EXISTING BUILDING CONDITIONS WHERE APPLICABLE, IN ESTABLISHING DIMENSIONS AND LINES OF RUN, SINCE DIMENSIONS ON THE FINAL ARCHITECTURAL DRAWINGS OR AT THE SITE MAY NOT COINCIDE WITH THOSE SHOWN ON THE ELECTRICAL DRAWINGS, THE CONTRACTORS SHALL VERIFY WITH THE DIMENSIONED ARCHITECTURAL DRAWINGS OR THE SITE CONDITIONS THE EXACT MATERIAL QUANTITIES AND LENGTHS NECESSARY.

C. SIGNIFICANT DEVIATIONS OR CHANGES FROM THE DRAWINGS WHICH ARE REQUIRED TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS MUST BE REVIEWED WITH THE ARCHITECT AND APPROVED BEFORE PROCEEDING.

8\. SHOP DRAWINGS

A. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, FOUR (4) COPIES MINIMUM, FOR ALL MANUFACTURED PRODUCTS. EACH SHOP DRAWING SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO ASSURE THAT ALL DIMENSIONS, QUANTITIES, CONNECTIONS, CAPACITATES AND ACCESSORIES SHOWN ARE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, AND SHALL BE MARKED OR STAMPED TO CONFIRM THAT SUCH REVIEW WAS MADE AND COMPLIANCE WAS CONFIRMED.

B. APPROVAL OF SHOP DRAWINGS BY THE OWNER, OWNER'S AGENT, ARCHITECT, ENGINEER OR DESIGNER, WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF COMPLYING WITH ALL TERMS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PERFORMANCE OF ALL EQUIPMENT PURCHASED, FOR PROPER FIT, AND OTHER DIMENSIONAL REQUIREMENTS.

9\. RECORD DRAWINGS

A. CONTRACTOR SHALL MAINTAIN AT THE JOB SITE ONE SET OF DOCUMENTS AS "RECORD DRAWINGS" FOR THE PURPOSE OF DAILY MARKING OF ALL SUBSTANTIAL REVISIONS TO THE DOCUMENTS INCLUDING BUT NOT LIMITED TO ELECTRICAL CHANGES, AND LOCATIONS OF UTILITIES, PANELBOARDS, DISCONNECTS, STARTERS AND OTHER DEVICES REQUIRING PERIODIC OPERATIONAL ATTENTION, ADJUSTMENT, OR SERVICE INCLUDING ACCESS THERETO, AT THE COMPLETION OF THE PROJECT, THIS SET SHALL BE RETURNED TO THE ARCHITECT FOR THE PURPOSE OF MAKING FINAL "AS-BUILT DRAWINGS".

10\. EQUIPMENT SUBSTITUTION

A. SPECIFIC MANUFACTURERS AND MODELS OF EQUIPMENT HAVE BEEN USED IN THE DEVELOPMENT OF THE DRAWINGS AND DESIGNS. THIS CONTRACTOR MUST SUBMIT TO THE OWNER ANY CHANGES AND/OR SUBSTITUTIONS FOR APPROVAL PRIOR TO INSTALLATION OR EXECUTION. ANY CHANGES WHICH DO NOT RECEIVE THE OWNER'S APPROVAL MAY BE SUBJECT TO REMOVAL OR REPLACEMENT AS ORIGINALLY SPECIFIED, AND WILL BE AT THE CONTRACTOR'S EXPENSE.

B. IF THIS CONTRACTOR SUBSTITUTES FOR SPECIFIED EQUIPMENT ANY OTHER EQUIPMENT WHICH REQUIRES ANY CHANGES TO THE DESIGN, ALL COST OF REDESIGN AND RECONFIGURATION RESULTING FROM SAID SUBSTITUTION SHALL BE BORNE BY THE SUBMITTING CONTRACTOR.

11\. EQUIPMENT INSTALLATION AND SUPPORT

A. CONTRACTOR SHALL SUPPORT PLUMB, RIGID AND TRUE-TO-LINE ALL WORK AND EQUIPMENT INSTALLED. THIS CONTRACTOR SHALL DETERMINE HOW EQUIPMENT, FIXTURES, ETC., ARE TO BE SUPPORTED, MOUNTED, OR SUSPENDED AND SHALL PROVIDE ACCESSORIES REQUIRED FOR PROPER SUPPORT WHETHER SHOWN ON THE DRAWINGS OR NOT. IF SUPPORTS ARE REQUIRED, CONTRACTOR SHALL SUBMIT DRAWINGS TO THE ARCHITECT FOR APPROVAL.

B. PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTALLATION AND MAINTENANCE LITERATURE. COMPONENTS REQUIRING PERIODIC MAINTENANCE OR ADJUSTMENTS SHALL BE LOCATED OR INSTALLED AS TO PERMIT ACCESS WITHOUT DAMAGE TO STRUCTURE, FINISHES OR OTHER EQUIPMENT.

C. ALL CONDUIT CONNECTING TO SWITCHGEAR, PANELS, MOTORS, AND OTHER EQUIPMENT SHALL BE INSTALLED WITHOUT STRAIN AT THE CONNECTIONS. THE CONTRACTOR MAY BE REQUIRED, AS DIRECTED, TO DISCONNECT CONDUITS TO DEMONSTRATE THAT THEY HAVE BEEN SO CONNECTED.

12\. DEMOLITION

A. ALL EXISTING EQUIPMENT, NOT INDICATED TO BE INCORPORATED INTO THE NEW SYSTEM SHALL BE DISCONNECTED BY THIS CONTRACTOR FOR REMOVAL BY OTHERS FROM THE JOB SITE. CARE SHALL BE USED SO THAT NO DAMAGE IS DONE TO EXISTING BUILDING, PIPING, DUCTWORK, AND/OR ELECTRICAL EQUIPMENT. ANY DAMAGE ATTRIBUTED TO THIS CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THIS CONTRACTOR.

13\. CUTTING AND PATCHING

A. ALL CUTTING THAT MAY BE NECESSARY FOR THE INSTALLATION OF THE WORK OR ANY REQUIRED PATCHING THAT RESULTS THEREFROM SHALL BE DONE BY THE PROPER TRADE INVOLVED AND SHALL BE INCLUDED AS PART OF THIS CONTRACT. PATCH TO DUPLICATE UNDISTURBED ADJACENT FINISHES, COLORS, TEXTURES AND PROFILES. COLUMNS, BEAMS, GIRDERS OR JOISTS SHALL NOT BE CUT.

B. ALL WORK AFFECTING ROOF OR STRUCTURES SHALL BE PERFORMED BY LANDLORD'S CONTRACTOR AT TENANT'S EXPENSE.

14\. CLEANING

A. COMPLETION AS IT PERTAINS TO THE CONTRACT COMPLETION DATE IS DEFINED AS THE DAY THE PROJECT IS TURNED OVER TO THE OWNER IN THOROUGHLY CLEAN CONDITION. READY FOR THE OWNER TO TAKE POSSESSION. ALL FIXTURES, MOTORS, EQUIPMENT AND ALL OTHER ELECTRICAL EQUIPMENT FURNISHED OR INSTALLED BY THE CONTRACTOR SHALL BE THOROUGHLY CLEANED.

15\. TESTS

A. PROVIDE THE TESTS AS OUTLINED HEREINAFTER AND OTHER TESTS NECESSARY TO ESTABLISH THE ADEQUACY, QUALITY, SAFETY, COMPLETED STATUS AND SUITABLE OPERATION OF EACH SYSTEM. CORRECT PROMPTLY ANY FAILURE OR DEFECTS REVEALED BY THESE TESTS AND RECONDUCT TEST ON THE CORRECTED ITEMS.

B. TEST THE GROUNDS WITH A GROUND RESISTANCE DIRECT READING SINGLE-TEST MEGGER.

C. INSULATION RESISTANCE BETWEEN PHASE CONDUCTORS AND GROUND NOT LESS THAN 1,000,000 OHMS.

D. THE PANELBOARDS SHALL HAVE PHASE CURRENTS BALANCED TO WITHIN +/- 10% VARIATION BETWEEN AVERAGE PHASE CURRENT AND MEASURED INDIVIDUAL PHASE.

E. AN OPERATIONAL TEST OF THE EMERGENCY LIGHTS AND THE EXIT LIGHTS SHALL BE PERFORMED FOR THE OWNER TO DEMONSTRATE CONFORMANCE TO THE SPECIFICATIONS.

16\. TEMPORARY ELECTRICAL SERVICE

A. TEMPORARY ELECTRICAL SERVICE SHALL BE IN ACCORDANCE WITH THE BUILDING CODE. TEMPORARY LIGHTING SHALL BE PROVIDED BY A LAMP LOCATED FOR EVERY 625 SQUARE FEET OF BUILDING AREA WITH A MINIMUM OF ONE PER ROOM. THE LAMP TO BE 100 WATT AND SHALL BE MAINTAINED BY THE GENERAL CONTRACTOR.

B. TEMPORARY POWER DISTRIBUTION SHALL BE SUFFICIENT TO ACCOMMODATE THE TEMPORARY LIGHTING AND CONSTRUCTION OPERATIONS, INCLUDING THE USE OF POWER TOOLS (BUT NOT INCLUDING HEAVY-DUTY ELECTRICAL WELDING UNITS), ELECTRICAL HEATING UNITS, AND START-UP OF SPECIFIED BUILDING EQUIPMENT, WHICH IS TO BE TESTED, STARTED OR PLACED INTO OUR USE PRIOR TO COMPLETION OF ITS PERMANENT POWER CONNECTIONS.

17\. EXCAVATION AND BACKFILL

A. CONTRACTOR SHALL DO ALL EXCAVATION REQUIRED AS SHOWN ON PLANS OR REQUIRED FOR PROPER OPERATION. EXCESS EXCAVATION BELOW THE REQUIRED LEVEL SHALL BE BACKFILLED WITH EARTH AND THOROUGHLY TAMPED. UTILITY SERVICES, SHALL BE INSPECTED AND APPROVED BY THE PROPER INSPECTION AUTHORITY BEFORE BACKFILLING.

18\. WEATHERPROOFING

A. CONTRACTOR SHALL ENSURE ALL PENETRATIONS THROUGH EXTERIOR ENVELOPE ARE COMPLETELY SEALED AGAINST ALL AIR AND WATER INFILTRATION.

SECTION 16200
ELECTRICAL POWER AND LIGHTING

1\. RELATED DOCUMENTS

A. APPLICABLE PROVISIONS OF AIA DOCUMENT A201, "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", DIVISION 1 GENERAL CONDITIONS AND SECTION 16100 ELECTRICAL SPECIAL CONDITIONS GOVERN WORK UNDER THIS SECTION.

B. REFER TO SECTION 16100 ELECTRICAL SPECIAL CONDITIONS REGARDING REGULATIONS AND REQUIREMENTS AFFECTING ALL WORK DESCRIBED IN THIS SECTION.

2\. POWER SERVICE

A. POWER SERVICE FOR THIS PROJECT SHALL BE PROVIDED FROM THE UTILITY CO. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TO INSURE THAT ALL WORK AND MATERIALS ARE IN CONFORMANCE WITH THE UTILITY CO'S REQUIREMENTS.

3\. NAMEPLATES

A. ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, PANELBOARDS, DISCONNECTS TRANSFORMERS, CONTROLS, ETC., SHALL BE IDENTIFIED WITH THREE PLY LAMINATED PLASTIC. THE OUTSIDE LAMINATIONS SHALL BE BLACK. ENGRAVING SHALL EXTEND THROUGH THE FRONT LAMINATION SO THAT THE BLACK LETTERS APPEAR ON A WHITE BACKGROUND. NAMEPLATES SHALL BE PERMANENTLY ATTACHED WITH SCREWS.

B. CIRCUIT DIRECTORY SHALL BE TYPEWRITTEN (HANDWRITTEN IS NOT ACCEPTABLE) AND SHALL IDENTIFY CIRCUIT AS TO TYPE AND LOCATION AS FOLLOWS:

"LTG" - FOR LIGHTING CIRCUIT FOLLOWED BY AREA IN WHICH CIRCUIT APPEARS, I.E., "STOCKROOM", "CASH WRAP", ETC.
"RECEPT" - FOR RECEPTACLE CIRCUIT FOLLOWED BY AREA IN WHICH RECEPTACLE APPEARS, "STOREFRONT", "CASH REGISTER", ETC.
"MOTOR" - FOR MOTOR FOLLOWED BY THE EQUIPMENT IDENTIFICATION AND AREA IN WHICH MOTOR IS LOCATED, I.E. "EXH FAN TOILET", "AHU-ROOF", ETC.

4\. CONDUIT

A. CONDUIT SHALL BE STANDARD STEEL, RIGID IMC OR EMT (THIN WALL). CONDUIT SHALL BE CONCEALED IN FINISHED AREAS. EXCEPT AS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE. INDOOR EMT CONNECTIONS SHALL BE SET SCREW TYPE FITTING WHERE ALLOWED BY LOCAL AUTHORITY HAVING JURISDICTION. EXTERIOR EMT CONNECTIONS SHALL BE COMPRESSION TYPE.

B. MINIMUM SIZES OF CONDUIT SHALL BE 3/4" EXCEPT 1/2" FOR SWITCH LEGS. EMT SHALL BE GALVANIZED OR ELECTRO-GALVANIZED. EMT SHALL BE USED FOR FEEDERS AND BRANCH CIRCUITS RUN ABOVE SUSPENDED CEILINGS OR CONCEALED IN INTERIOR PARTITIONS. EMT SHALL NOT BE CONCEALED IN POURED CONCRETE FLOOR OR WALLS.

C. USE HEAVY WALL CONDUIT OR PVC FOR UNDER SLAB INSTALLATIONS.

D. THE USE OF NONMETALLIC-SHEATHED CABLE, TYPE NM, IS NOT ACCEPTABLE.

1\. THE USE OF METAL CLAD CABLES, TYPE MC, IS ACCEPTABLE WHERE APPROVED BY THE LOCAL AHJ. ALL BRANCH CIRCUIT HOME RUNS TO PANELBOARDS AND DEDICATED BRANCH CIRCUITS SHALL BE IN EMT.

2\. ALL METAL CLAD CABLES, SHALL BE PROVIDED WITH A GROUND WIRE.

E. ALL OPENINGS IN FIRE AND SMOKE WALLS, PARTITIONS, FLOORS AND OTHER SIMILAR PENETRATIONS FOR ELECTRICAL CONDUITS, CABLE OR EQUIPMENT, WHETHER CUT OR IN PLACE, SHALL BE CLOSED WITH A UL APPROVED FIRE RESISTANT SILICONE FOAM SEALANT TO MAINTAIN THE FULL RATING AND INTEGRITY OF THE PARTITIONS, WALLS OR FLOOR.

F. CONDUIT BENDS FOR POWER AND LIGHTING CIRCUITS SHALL NOT BE LESS THAN STANDARD RADIUS BENDS. CONDUIT BENDS FOR FEEDERS, TELEPHONE AND COMMUNICATION CIRCUITS SHALL NOT BE LESS THAN LONG RADIUS BENDS.

G. O.Z. TYPE DX, TX, OR AX CONDUIT EXPANSION DEFLECTION FITTINGS ARE REQUIRED IN ALL CONDUIT RUNS WHERE MOVEMENT MAY BE ENCOUNTERED. ALL EMT COUPLINGS SHALL BE COMPRESSION TYPE.

H. EXPOSED CONDUIT SHALL BE SECURELY SUPPORTED IN PLACE PER CODE BUT ON A MAXIMUM OF 10 FOOT INTERVALS, WITHIN THREE FEET OF EACH BEND, AT EVERY OUTLET OR JUNCTION BOX AND AT THE END OF EACH STRAIGHT RUN TERMINATING AT A BOX OR CABINET. CONDUIT SHALL NOT BE SUPPORTED FROM DUCTWORK OR PIPE WORK. CONDUITS SHALL BE RUN PARALLEL TO AND AT RIGHT ANGLES TO THE BUILDING LINES. GENERALLY, CONDUIT SHALL BE RUN IN CONTACT WITH STRUCTURAL PARTS OF THE BUILDING SO AS TO AVOID SUSPENDED LENGTHS OF CONDUIT. CONDUIT SHALL BE INSTALLED AS TO BE ACCESSIBLE FOR REPLACEMENT AND MAINTENANCE AND GENERALLY CONDUIT SHALL BE INSTALLED TO PERMIT DRAINAGE.

5\. WIRE AND CABLE

A. ALL WIRE AND CABLE SHALL BE COPPER AND RUN IN CONDUIT. ALL WIRE AND CABLE FEEDERS AND BRANCH CIRCUITS SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE CURRENT EDITION OF THE N.E.C. AND SHALL MEET ALL ASTM SPECIFICATIONS. WIRE AND CABLE SHALL BE NEW, SHALL HAVE SIZE, GRADE OF INSULATION VOLTAGE AND MANUFACTURER'S NAME PERMANENTLY MARKED ON OUTER COVERING AT REGULAR INTERVAL AND SHALL BE DELIVERED IN COMPLETE COILS OR REELS WITH IDENTIFYING SIZE AND INSULATION TAGS.

B. THE ELECTRICAL CONTRACTOR SHALL CALCULATE VOLTAGE DROP ON CONDUCTORS WITH LENGTHS GREATER THAN 75 FEET FROM THE PANELBOARD AND PROPERLY SIZE THE CONDUCTORS PER N.E.C.

C. POWER CONDUCTORS: NO WIRE LESS THAN NO. 12 SHALL BE USED EXCEPT FOR CONTROL CIRCUITS OR LOW VOLTAGE WIRING. WIRE SIZES NO. 12 TO NO. 10 SHALL BE SOLID EXCEPT WHERE OTHERWISE INDICATED. WIRE SIZES NO. 8 AND LARGER SHALL BE STRANDED. ALL WIRE SIZES SHOWN ARE AMERICAN WIRE GAUGE SIZES. SIZES NO. 12 AWG THROUGH NO. 8 AWG SHALL BE "THHN." SIZE 4 AWG AND LARGER SHALL BE "THW."

D. CONTINUITY: ALL WIRES SHALL BE CONTINUOUS FROM OUTLET TO OUTLET.

E. ACCEPTABLE MANUFACTURERS: CABLE AND WIRE SHALL BE STANDARD TYPE AS MANUFACTURED BY GENERAL CABLE COMPANY, CAROL, ANACONDA, ROM OR ITT ROYAL.

6\. COLOR CODING

A. A COLOR CODING SYSTEM AS LISTED BELOW SHALL BE FOLLOWED THROUGHOUT FOR FEEDERS AND BRANCH CIRCUITS AND USED AS A BASIS FOR BALANCING LOAD.

--120/208V: PHASE A--BLACK, PHASE B--RED, PHASE C--BLUE, NEUTRAL--WHITE, GROUND--GREEN

--277/480V: PHASE A--BROWN, PHASE B--ORANGE, PHASE C--YELLOW, NEUTRAL--GRAY, GROUND--GREEN

7\. BOXES AND FITTINGS

A. ALL OUTLETS SHALL BE PROVIDED WITH GALVANIZED OR SHERARDIZED BOXES SUITABLE IN DESIGN TO THE SPACE THEY OCCUPY AND THE PURPOSE THEY SERVE. WALL MOUNTED OUTLET BOXES, EXCEPT FOR 2" PARTITIONS SHALL BE AT LEAST 1 1/2" DEEP AND/OR DEEPER IF REQUIRED BY THE DEVICE THEY HOLD OR THE NATIONAL ELECTRICAL CODE.

B. ALL PULLBOXES SHALL BE MADE OF GALVANIZED STEEL, OF METAL GAUGE AND PHYSICAL SIZE AS REQUIRED BY THE N.E.C. FOR THE NUMBER AND SIZE OF RACEWAYS AND CONDUCTORS INVOLVED.

C. FIXTURE OUTLET BOXES IN OR ON CEILINGS SHALL NOT BE LESS THAN 1-1/2" DEEP OR LESS THAN 4" SQUARE. ALL OUTLET BOXES INTENDED TO SUPPORT FIXTURES SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS FASTENED THROUGH THE BOTTOM OF THE BOX WITH FOUR BOLTS.

8\. CIRCUIT BREAKER PANELBOARDS

A. PANELS SHALL BE DEAD FRONT, SAFETY TYPE, FURNISHED WITH BRANCH CIRCUIT PROTECTING DEVICES, EQUIPMENT GROUNDING BOX, MAIN BUS AND CABLE LUGS FACTORY ASSEMBLED, WITH ALL COMPONENTS IN PLACE, READY FOR INSTALLATION.

B. CURRENT CARRYING CONTACT SURFACES SHALL BE SILVER OR TIN PLATED. THE CIRCUIT BREAKERS SHALL BE OF THE MOLDED CASE, PLUG-IN TYPE SUITABLE FOR VOLTAGE AND AMPERE RATINGS INDICATED ON DRAWINGS AND IN SCHEDULES AND SHALL HAVE A MINIMUM INTERRUPTING CAPACITY OF 22,000 AMPERES FOR 120/208V AND 25,000 AMPERES AT 277/480V.

C. MAIN BUSES AND CONNECTORS SHALL BE HARD DRAWN COPPER OF 98% CONDUCTIVITY, WITH CURRENT CARRYING CAPACITY TO MAINTAIN ESTABLISHED RISE TESTS AS DEFINED IN UL STANDARD UL 67.

D. CABINET SIZES ARE BASED UPON A 20" WIDE BY 6" DEEP PANEL UNLESS OTHERWISE NOTED. PANELBOARDS SHALL BE EQUIPPED WITH FLUSH TYPE LOCK AND CATCH. ALL LOCKS SHALL BE KEYED ALIKE, AND TWO KEYS ARE TO BE SUPPLIED WITH EACH LOCK.

E. BREAKERS SERVING LIGHTING CIRCUITS SHALL BE RATED FOR SWITCH DUTY.

F. BREAKERS SERVING COOLER, FREEZER AND HVAC EQUIPMENT SHALL BE HACR RATED.

G. ALL LUGS SHALL BE OF THE SOLDERLESS TYPE AND RATED AT A MINIMUM OF 75 DEGREES.

H. PROVIDE PANEL DIRECTORY, TYPED AND INSTALLED BEHIND CLEAR PLASTIC COVER ON INSIDE OF THE DOOR.

I. PANELBOARDS TO BE BY SQUARE D, GENERAL ELECTRIC, SIEMENS OR EATON.

9\. TRANSFORMERS

A. DRY-TYPE TRANSFORMERS (DOE 2016) SHALL BE OF THE ENCLOSED VENTILATED TYPE WITH KVA AND VOLTAGE RATING AS CALLED FOR ON THE DRAWINGS AND WITH 150° CLASS H INSULATION AND MINIMUM OF SIX STANDARD FULL CAPACITY TAPS. SOUND LEVEL SHALL BE LOW AND INSTALLATION SHALL INCLUDE KORFUND OR EQUAL VIBRATION DAMPENING MOUNTS AND FLEXIBLE STEEL CONDUIT FOR PRIMARY AND SECONDARY. (MOUNT TRANSFORMER ON VIBRATION ISOLATORS). LOCATE TRANSFORMER AS NOT TO CAUSE SERVICING OR CLEARANCE DIFFICULTIES OF VIOLATIONS WITH OTHER EQUIPMENT.

B. COMPARABLE EQUIPMENT AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, SIEMENS OR EATON.

10\. TOGGLE SWITCHES

A. TOGGLE SWITCHES SHALL BE WHITE AND SHALL BE RATED 20 AMPERES 120/277 VOLT AC TYPE AS MANUFACTURED BY HUBBELL AND SHALL BE AS FOLLOWS:

SINGLE POLE - 1221-W
THREE WAY - 1223-W

B. TOGGLE SWITCHES SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR TO TOP OF MOUNTING PLATE AND, AT DOORS, INSTALLED ADJACENT TO THE TRIM ON THE STRIKING SIDE OF THE DOOR, REGARDLESS OF THE LOCATION INDICATED ON THE DRAWINGS; THEREFORE, CHECK ALL DOOR SWINGS BEFORE INSTALLATION OF CONDUIT OUTLETS.

C. COMPARABLE EQUIPMENT AS MANUFACTURED BY COOPER WIRING, SLATER, LEVITON, AND BRYANT WILL BE ACCEPTABLE.

11\. RECEPTACLES

A. RECEPTACLES SHALL BE WHITE AS MANUFACTURED BY HUBBELL AND SHALL BE AS FOLLOWS:

DUPLEX RECEPTACLE - 20A-125 VOLT 5362-W
GFCI DUPLEX RECEPTACLE - 20A-125 VOLT GF5362-W

B. RECEPTACLES SHALL BE MOUNTED 18" ABOVE THE FINISHED FLOOR TO BOTTOM OF BOX UNLESS OTHERWISE NOTED.

C. COMPARABLE EQUIPMENT AS MANUFACTURED BY COOPER WIRING, SIERRA ELECTRIC CORPORATION, SLATER, BRYANT AND LEVITON WILL BE ACCEPTABLE.

12\. DEVICE PLATES

A. DEVICE PLATES SHALL BE STAINLESS STEEL UNLESS OTHERWISE NOTED. COMPARABLE EQUIPMENT AS MANUFACTURED BY COOPER WIRING, SIERRA ELECTRIC CORPORATION, HARVEY HUBBLE INC., BRYANT AND LEVITON WILL BE ACCEPTABLE. PAINT MATCH ADJACENT FINISH COLOR.

13\. DISCONNECT SWITCHES

A. FURNISH AND INSTALL DISCONNECT SWITCHES AS REQUIRED BY CODE. DISCONNECT SWITCHES SHALL BE NEMA HEAVY DUTY TYPE AND UNDERWRITERS LABORATORIES LISTED, MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, EATON OR SIEMENS.

14\. GROUNDING

A. CONTRACTOR SHALL INSTALL GROUNDING PER N.E.C. ARTICLE 250 EQUIPMENT GROUNDING SHALL USE ONLY APPROVED GROUNDING CLAMPS AND CONNECTORS AS MANUFACTURED BY PENN-UNION, BURNDY, OR O-Z MFG. COMPANY.

B. GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250 AND THE UTILITY COMPANY REGULATIONS. CONTRACTOR SHALL CONNECT THE GROUNDING ELECTRODE CONDUCTORS TO THE NEUTRAL BAR INSIDE THE MAIN PANEL.

C. THE EQUIPMENT GROUNDING SYSTEM SHALL CONSIST OF A CONTINUOUS CONDUIT INSTALLATION AND A GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR. THIS GROUNDING CONDUCTOR SHALL BE INSTALLED IN EVERY CONDUIT OR RACEWAY WITH THE FEEDER OR BRANCH CIRCUIT CONDUCTORS. THIS GROUNDING SHALL BE EXTENDED FROM THE HOUSING OF EVERY ELECTRICAL LOAD, THROUGH PANELBOARD STATIC GROUNDING BUSSES, TO THE STATIC GROUNDING BUS IN THE MAIN PANEL. THE GROUNDING BUS SHALL BE BONDED TO THE GROUNDING NEUTRAL BAR INSIDE THE MAIN PANEL.

15\. LIGHTING FIXTURES

A. ALL LIGHTING FIXTURES AND LAMPS SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE, THIS CONTRACTOR SHALL INSTALL LIGHTING FIXTURES AND LAMPS AS INDICATED ON THE DRAWINGS AND AS SPECIFIED BELOW, COMPLETE WITH HANGERS, PLASTER FRAMES AND ALL OTHER NECESSARY ACCESSORIES.

B. LED LUMINAIRES

1\. LED FIXTURES SHALL COMPLY WITH IES LM-79-08 APPROVED METHOD FOR MEASURING LUMEN MAINTENANCE OF LED LIGHT SOURCES, COMPLY WITH IES LM-80-08 APPROVED FOR ELECTRICAL AND PHOTOMETRIC MEASUREMENT OF SSL PRODUCT, COMPLY WITH IN-SITU TESTING FOR MORE RELIABLE RESULTS.

2\. LED'S SHALL BE RESTRICTED OF HAZARDOUS SUBSTANCES DIRECTIVE (ROHS) COMPLIANT.

3\. LED ARRAYS SHALL BE SEALED, HIGH PERFORMANCE, LONG LIFE TYPE; MINIMUM 70% RATED OUTPUT AT 50,000 HOURS.

4\. LUMINAIRES SHALL BE FULLY ACCESSIBLE FROM BELOW CEILING PLANE FOR CHANGING DRIVERS, POWER SUPPLIES AND ARRAYS.

5\. DRIVERS SHALL BE SOLID STATE AND ACCEPT 120 THROUGH 277 VAC AT 60 HZ INPUT.

6\. THE LED LIGHT SOURCE SHALL BE FULLY DIMMABLE WITH USE OF COMPATIBLE DIMMERS SWITCH DESIGNATED FOR LOW VOLTAGE LOADS.

7\. LED COLOR TEMPERATURES: SHALL BE AS NOTED ON DRAWING.

8\. LUMINAIRES SHALL HAVE INTERNAL THERMAL PROTECTION.

9\. INDOOR LUMINAIRES SHALL HAVE A MINIMUM CRI OF 85.

C. LED POWER SUPPLIES AND DRIVERS

1\. SHALL HAVE A POWER FACTOR: 0.90 OR HIGHER.

D. CONTROLLER AND CONTROL SYSTEMS

1\. THE CONTRACTOR SHALL ENSURE THAT EXTERNAL CONTROL EQUIPMENT IS COMPATIBLE WITH LED CONTROL REQUIREMENTS.

2\. PROVIDE CONNECTOR TYPES AND WIRING AS APPROPRIATE FOR UN-INTERRUPTED COMMUNICATION BETWEEN DEVICES, CONSIDERING DISTANCE MAXIMUMS, FIELD OBSTRUCTIONS, AND ACCESSIBILITY.

3\. ENSURE THAT CONNECTION POINTS ARE OPTICALLY ISOLATED FOR SYSTEM NOISE REDUCTION. FOR CONTROL COMPONENTS THAT ARE PART OF THE OVERALL AREA CONTROL SYSTEM. SEE DIMMING CONTROLS SPECIFICATIONS. COMPATIBILITY: CERTIFIED BY MANUFACTURE FOR USE WITH INDIVIDUALLY SPECIFIED LUMINAIRE AND INDIVIDUALLY SPECIFIED POWER SUPPLIES AND/OR DRIVERS.

E. THIS CONTRACTOR SHALL VERIFY THE FINAL CEILING AND FINISH SCHEDULES TO INSURE THE PROPER INSTALLATION AND MOUNTING OF FIXTURES AND SHALL COORDINATE BEFORE MAKING SUBMITTALS.

16\. LIGHTING CONTROLS

A. TIME SWITCHES SHALL BE 24 HOUR, 7 DAY, DAY SKIPPER 365 DAYS AND HOLIDAYS TYPE EQUAL TO INTERMATIC ET2125C TIME SWITCH. CONTACTOR SHALL BE SQUARE D LXG-xx IN NEMA 1 ENGLOSURE.

B. PANEL #GR1408LTENC-xMNE1-GR1408-DTCMOD WITH 8 RELAYS AND BUILT-IN TIME CLOCK AND AS MANUFACTURED BY LC&D.

17\. TELEPHONE SERVICE

A. THIS CONTRACTOR SHALL INSTALL A TELEPHONE SERVICE CONDUIT AS SHOWN ON THE DRAWINGS AND FURNISH AND INSTALL (1) 3' x 4' x 3/4" PLYWOOD PANEL MOUNTED ON THE WALL AT LOCATION SHOWN ON PLANS.

18\. SURFACE METAL RACEWAY

A. SURFACE METAL RACEWAY SHALL BE TWO PIECE #2100 AS MANUFACTURED BY WIREMOLD. ALL NECESSARY ACCESSORIES REQUIRED TO FIT THE CONFIGURATION SHOWN SHALL BE PROVIDED. RECEPTACLES SHALL BE 120 VAC, 23 APMS, CATALOG NUMBER #2127GT.

SECTION 16700
FIRE ALARM SPECIAL CONDITIONS (WHERE REQUIRED)

1\. GENERAL

A. WINGSTOP'S GC TO COORDINATE ALL LOCAL FIRE ALARM REQUIREMENTS WITH LOCAL FIRE MARSHALL AND PROVIDE FULLY ENGINEERED DRAWINGS SHOWING ALL DEVICES REQUIRED FOR A COMPLETE SYSTEM. GC SHALL INCLUDE THE COST IN THE BASE BID AS A LINE ITEM.

B. WINGSTOP'S GC SHALL VERIFY MANUFACTURER AND MODEL OF LANDLORD'S EXISTING FIRE ALARM SYSTEM.

C. WINGSTOP'S GC SHALL COORDINATE REQUIREMENTS WITH LANDLORD'S FIRE ALARM VENDOR.

D. WINGSTOP'S GC SHALL VERIFY ALL FIRE ALARM DEVICES THAT ARE EXISTING TO REMAIN ARE IN PROPER WORKING CONDITION. REPLACE ANY FAULTY DEVICES AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

E. ALL FIRE ALARM WORK SHALL BE PERFORMED BY A LANDLORD APPROVED FIRE ALARM CONTRACTOR.

F. WINGSTOP'S GC IS RESPONSIBLE FOR FIRE ALARM PERMIT. IT IS THE TENANTS CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL REQUIREMENTS PRIOR TO SUBMISSION FOR PERMIT.

END OF DIVISION 16

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

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PROJECT INFORMATION:
WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:
DARRELL R. CASE
NUMBER PE-23303
6/14/21
DATE

PROJECT NO.: 2021-0158
DRAWN BY: JJV
CHECKED BY: DRC

ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION: DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER:
E3

BUILDING CODES AND STANDARDS USED FOR DESIGN

1. 2018 INTERNATIONAL BUILDING CODE
   OCCUPANCY CATEGORY: II

DESIGN LOADS

1. DESIGN LOADS
   ROOF LIVE LOAD: 20 psf
   ROOF DEAD LOAD: 15 psf
2. WIND LOAD DESIGN CRITERIA
   WIND IMPORTANCE FACTOR, I: 1.0
   BASIC WIND SPEED: 109 MPH (3 SEC GUST)
   WIND EXPOSURE CATEGORY: B
   GCpi: +/- 0.18
3. SNOW LOAD DESIGN CRITERIA
   SNOW LOAD IMPORTANCE FACTOR, I: 1.0
   GROUND SNOW LOAD, Pg: 20 psf
   FLAT ROOF SNOW LOAD, Pf: 14 psf
   THERMAL FACTOR, Ct: 1.0
   EXPOSURE FACTOR, Ce: 1.0
4. SEISMIC LOAD DESIGN CRITERIA
   SEISMIC IMPORTANCE FACTOR, I: 1.0
   SITE CLASS: D
   SPECTRAL RESPONSE ACCELERATION: Ss=0.100g, S1=0.068g
   Sds=0.106g, Sd1=0.109g
   SEISMIC DESIGN CATEGORY: B

GENERAL STRUCTURAL NOTES

1. THIS DRAWING SET IS TO BE VIEWED AS A WHOLE AND COORDINATED WITH ARCHITECTURAL, MECHANICAL AND OTHER DISCIPLINES. ALL WORK PERTAINING TO A SPECIFIC CONTRACTOR MAY OR MAY NOT BE SHOWN ON SPECIFIC DRAWING SECTIONS. IT IS EACH SUBCONTRACTOR'S RESPONSIBILITY TO PREPARE HIS BID FROM A COMPLETE SET OF PLANS.
2. THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS. DIMENSIONS NOT SHOWN ON PLAN TO BE COORDINATED WITH ARCHITECTURAL PLANS.
3. WHERE INFORMATION PROVIDED IN THESE STRUCTURAL DRAWINGS CONTRADICTS INFORMATION PROVIDED IN PROJECT SPECIFICATIONS, THE SPECIFICATIONS SHALL TAKE PRECEDENCE.
4. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY AT ANY SIMILAR SITUATION ELSEWHERE ON THE JOB, EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN.
5. THE STRUCTURE SHALL BE ADEQUATELY BRACED AND SHORED DURING ERECTION AGAINST WIND AND ERECTION LOADS. STRUCTURAL MEMBERS ARE DESIGNED FOR "IN-PLACE" LOADS ONLY.
6. THE GENERAL CONTRACTOR SHALL VERIFY ALL OPENING SIZES, PAD SIZES, AND LOCATIONS WITH THE RESPECTIVE CONTRACTORS.
7. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.
8. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND INFORMATION.
9. WHERE GENERAL NOTES OR TYPICAL DETAILS CONTRADICT INFORMATION PROVIDED IN BUILDING SECTIONS, THE BUILDING SECTIONS TAKE PRECEDENCE.
10. ALL HOLES THROUGH CONSTRUCTION SHALL BE CORE DRILLED OR SAWCUT.
11. ALL REINFORCEMENT AND SUBFRAMING INDICATED ON PLAN SHALL BE INSTALLED PRIOR TO PLACING EQUIPMENT.
12. EQUIPMENT WEIGHING LESS THAN 100LBS NOT SHOWN ON PLAN. SEE MECHANICAL DRAWINGS.
13. WEIGHTS SHOWN ON DRAWING INCLUDE WEIGHTS OF UNIT, CURB, AND ALL ACCESSORIES. DO NOT PLACE UNIT WHEN OPERATING WEIGHT EXCEEDS THAT INDICATED. NOTIFY STRUCTURAL ENGINEER.
14. VERIFY LOCATIONS OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS.
15. FV = FIELD VERIFY
    (E) = EXISTING

EXISTING CONSTRUCTION NOTES

1. ALL DIMENSIONS AND ELEVATIONS TO EXISTING CONSTRUCTION ARE FOR REFERENCE ONLY. FIELD VERIFY DIMENSIONS AND ELEVATIONS PRIOR TO PREPARING SHOP DRAWINGS, FABRICATING MEMBERS (STRUCTURAL ITEMS), AND INSTALLATION.
2. ALL HOLES THROUGH EXISTING CONSTRUCTION SHALL BE CORE-DRILLED OR SAWCUT. DO NOT CUT ANY REINFORCING STEEL WHILE DRILLING INTO EXISTING CONCRETE. DO NOT TORCH CUT.
3. PRIOR TO SUBMITTING SHOP DRAWINGS TO ARCHITECT AND ENGINEER OF RECORD FOR APPROVAL, CONTRACTOR SHALL VERIFY DIMENSIONS BETWEEN NEW CONSTRUCTION AND EXISTING CONSTRUCTION, AND FORWARD TO FABRICATOR FOR THEIR REFERENCE.
4. NOTIFY STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND STRUCTURAL DRAWINGS.
5. FOR ALL EXISTING CONSTRUCTION: DUE TO LIMITED OBSERVATION, OR NOT BEING ABLE TO VISIT THE EXISTING BUILDING DURING THE PREPARATION OF THESE DOCUMENTS, CASE ENGINEERING HAS ASSUMED THE EXISTING STRUCTURE IS IN LIKE-NEW CONDITION WITH NO CORROSION, DETERIORATION, OR DAMAGE, AND WAS CONSTRUCTED PER ANY ORIGINAL CONSTRUCTION DOCUMENTS PROVIDED (IF ANY EXIST). CONTRACTOR SHALL VERIFY THESE ASSUMPTIONS TO THE BEST OF THEIR ABILITY AND NOTIFY THE ENGINEER OF ANY CONCERNS, ISSUES, OR DISCREPANCIES.
6. CONTRACTOR TO VERIFY TOP OF ROOF SLOPE IS AT LEAST ¼" PER FOOT AFTER PLACEMENT OF ANY NEW LOADS APPLIED TO ROOF OR HUNG FROM ROOF FRAMING. LOADS FROM NEW OR REPLACED ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO, ROOF TOP MECHANICAL UNITS (RTU'S) AND ASSOCIATED DUCTWORK, HUNG HOODS, MAKE-UP AIR UNITS, CONDENSERS, COMPRESSORS, EXHAUST FANS, HUNG TRANSFORMERS, ROOFTOP GENERATOR(S), RE-ROOF MATERIALS, NEW CEILINGS, HUNG SIGNAGE, HUNG SPRINKLER PIPING, ETC. ALSO VERIFY THAT ALL ROOF DRAINS INCLUDING INTERIOR PRIMARY AND SECONDARY EMERGENCY OVERFLOW DRAINS AND ANY WALL SCUPPERS ARE CLEAR AND FREE-DRAINING. REPORT RESULTS IN WRITING TO ARCHITECT AND STRUCTURAL ENGINEER AS SOON AS PRACTICAL DURING THE CONSTRUCTION PROCESS.

STRUCTURAL STEEL NOTES

1. BOLT HOLES SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED ON THE DRAWINGS. FIELD BURNING OF BOLT HOLES SHALL NOT BE PERMITTED.
2. WELDING SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN CONFORMANCE WITH AWS D1.1, USING E70 SERIES ELECTRODES, UNLESS OTHERWISE NOTED ON THE DRAWINGS. ADDITIONALLY, WELDING IN LOS ANGELES, CA SHALL BE PERFORMED BY LADBS CERTIFIED WELDERS.
3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS AND GRADES:
   - ANGLES, CHANNELS, PLATES, BARS, AND RODS = A36, fy = 36ksi

SPECIAL INSPECTIONS

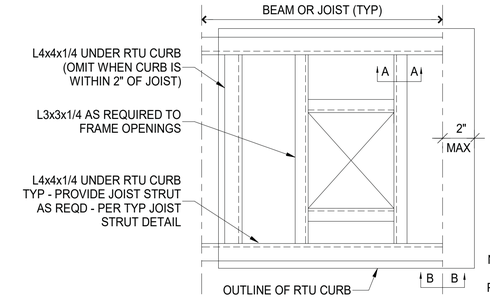
1. REFER TO THE SPECIAL INSPECTION TABLES FOR THE LIST OF ELEMENTS OF CONSTRUCTION THAT SHALL REQUIRE SPECIAL INSPECTION. THIS SHALL BE CONSIDERED A GUIDE, AND THE CONTRACTOR AND INSPECTOR SHALL REFER TO THE IBC FOR COMPLETE REQUIREMENTS, QUALIFICATIONS, EXCEPTIONS, AND SUBMITTALS. REFER TO IBC SECTION 1704 FOR 2003-2009 CODES, AND SECTION 1705 FOR 2012-2018 CODES. THE OWNER SHALL BE RESPONSIBLE FOR EMPLOYING THE SPECIAL INSPECTION AGENCY. ANY "OBSERVATIONS" BY THE EOR WILL NOT BE TO PERFORM SPECIAL INSPECTIONS AND SHALL NOT BE INTERPRETED AS SUCH.
2. COPIES OF ALL INSPECTION REPORTS THAT REPORT COMPLIANCE SHALL BE SUBMITTED TO THE ARCHITECT OF RECORD, STRUCTURAL ENGINEER OF RECORD, AND BUILDING INSPECTOR WITHIN 7 CALENDAR DAYS OF COMPLETION OF THAT PORTION OF WORK. A MINIMUM OF ONE (1) PROGRESS REPORT PER MONTH FOR EACH TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD.
3. SPECIAL INSPECTOR SHALL INFORM ENGINEER OF RECORD IMMEDIATELY OF NON-COMPLIANCE WITH CONSTRUCTION DOCUMENTS OR APPROVED SUBMITTALS. CONTACT ENGINEER OF RECORD THE SAME DAY NON-COMPLIANCE IS DISCOVERED AND FOLLOW UP WITH AN OFFICIAL REPORT WITHIN 2 BUSINESS DAYS.
4. THE SPECIAL INSPECTIONS IDENTIFIED ON THE PLANS ARE IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A BUILDING INSPECTOR.
5. SPECIAL INSPECTIONS ARE NOTED AS EITHER "CONTINUOUS" OR "PERIODIC". A "CONTINUOUS" INSPECTION REQUIRES THE PRESENCE OF A QUALIFIED INSPECTOR IN THE VICINITY OF THE WORK BEING PERFORMED FOR 100% OF THAT WORK. A "PERIODIC" INSPECTION REQUIRES PART-TIME OBSERVATION OF THE WORK BEING PERFORMED. THE INSPECTOR SHALL ALSO OBSERVE THE FINAL CONDITION OF THE WORK BEFORE IT IS CLOSED FROM VIEW.
6. WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED, IT SHALL BE THE RESPONSIBILITY OF THE AGENT TO EMPLOY A SUFFICIENT NUMBER OF SPECIAL INSPECTORS TO ASSURE THAT ALL WORK IS CONTINUOUSLY INSPECTED IN ACCORDANCE WITH THOSE PROVISIONS.

SPECIAL INSPECTIONS - STEEL TABLE

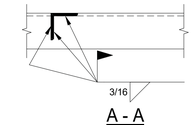
ITEM	INSPECTION FREQUENCY	SCOPE
WELDING	PERIODIC	SINGLE PASS FILLET WELDS NOT GREATER THAN 5/16"
STRUCTURAL DETAILS	PERIODIC	INSPECT STEEL FRAME FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS FOR MEMBER SIZES AND LOCATIONS, BRACING, AND CONNECTIONS

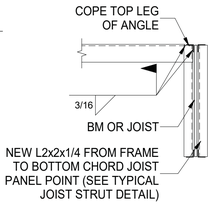
SPECIAL INSPECTIONS - MASONRY - LEVEL 1 INSPECTION (LEVEL B QUALITY ASSURANCE) FOR OCCUPANCY CATEGORY I, II, III STRUCTURES

ITEM	INSPECTION FREQUENCY	SCOPE
REINFORCEMENT	PERIODIC	LAPPING AND SPLICING OF REBAR; LOCATION, PLACEMENT, GRADE, SIZE, AND TYPE OF REINFORCEMENT AND CONNECTORS
INSTALLATION OF MASONRY, GROUT, AND MORTAR	PERIODIC	CONSTRUCTION OF MORTAR JOINTS; SIZE AND LOCATION OF STRUCTURAL ELEMENTS; PROTECTION OF MASONRY IN COLD WEATHER (BELOW 40˚F) OR HOT WEATHER (ABOVE 90˚F); CLEAN GROUT SPACE
INSTALLATION OF MASONRY, GROUT, AND MORTAR	CONTINUOUS	GROUT PLACEMENT IN CELLS WITH STEEL REINFORCEMENT
MIXING OF MORTAR AND GROUT	PERIODIC	PROPORTIONS OF SITE-PREPARED MORTAR AND GROUT
MISCELLANEOUS	PERIODIC	COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED

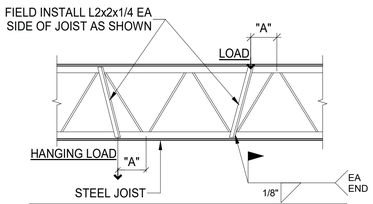


NOTE: ON THE JOIST(S) TO BE REINFORCED, REMOVE AS MUCH OF THE EXISTING LOAD AS FEASIBLE. THIS INCLUDES - BUT IT NOT NECESSARILY LIMITED TO - ROOF SNOW, HEAVY EQUIPMENT, CONSTRUCTION LIVE LOAD, OCCUPANT LIVE LOAD, ETC...





B - B

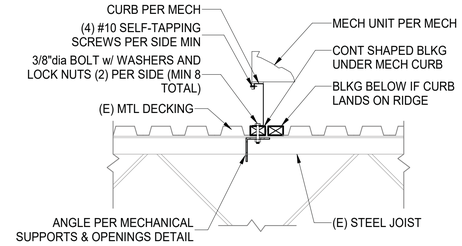


NOTE:
DETAIL APPLIES TO ALL CONCENTRATED LOADS WHICH EXCEED 100# (OR MULTIPLE LOADS WHOSE SUM BTW PANEL POINTS EXCEEDS 100#) AND ARE LOCATED MORE THAN 3" ("A") OFF PANEL POINTS (TOP OR BOTTOM CHORDS)

TYP JOIST STRUT DETAIL

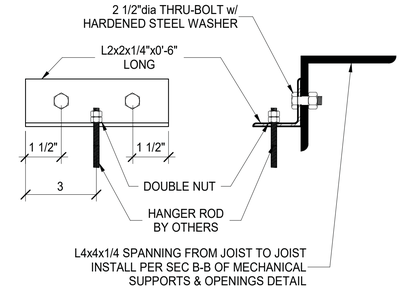
A S1 MECHANICAL SUPPORTS & OPENINGS

N.T.S.



B S1 CURB ATTACHMENT DETAIL

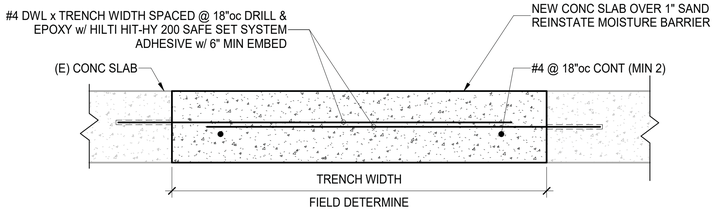
N.T.S.



C S1 HANGER ROD AT HOOD DETAIL

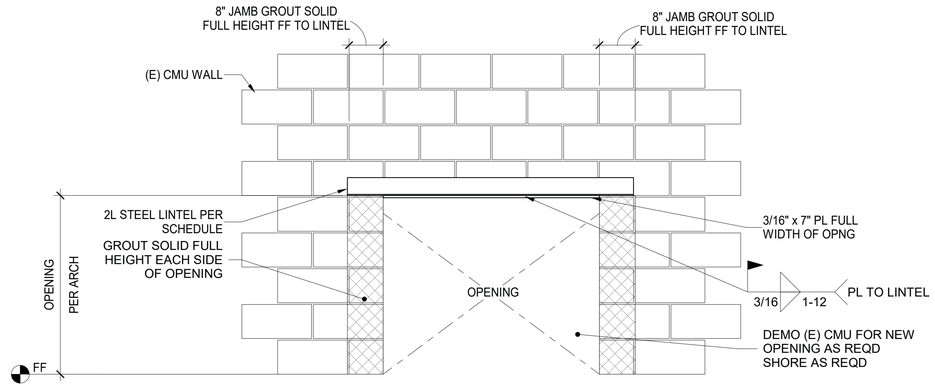
N.T.S.

NOTES:
1. NEW SLAB TO BE 4,000 PSI
2. MATCH EXISTING SLAB DEPTH
3. COORD WITH ARCH & PLUMBING DRAWINGS



D S1 TYPICAL TRENCH REPAIR DETAIL

N.T.S.



E S1 TYPICAL CMU WALL OPENING w/ 2L STEEL LINTEL IN (E) CMU

N.T.S.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/09/2021

CONSULTANT:
CASE Engineering Inc.
796 Metro Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1751
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:

5501 LBJ FREEWAY, 5TH FLOOR
DALLAS, TX 75240
TELEPHONE: (972) 686-6500
FAX: (972) 686-6502

PROJECT INFORMATION:

WINGSTOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

STATE OF MISSOURI
STEPHEN J. SACCO
NUMBER PE-21871
PROFESSIONAL ENGINEER

6/16/2021
DATE

PROJECT INFO: WIL-MO-04-21
DRAWN BY: JS
CHECKED BY: KW

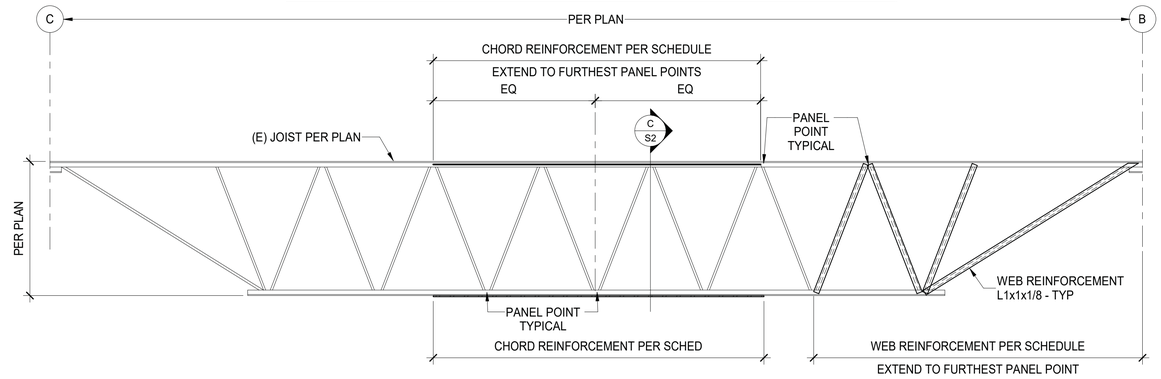
ISSUE:	DATE:
FOR PERMIT & BID	06-10-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

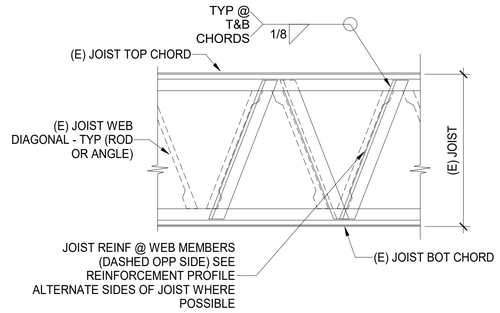
SHEET NUMBER / TITLE:
S1
GENERAL NOTES AND TYP DETAILS

NOTES:
1. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR
2. CONSTRUCTION SEQUENCE:
   1. ON THE JOIST(S) TO BE REINFORCED, REMOVE AS MUCH OF THE EXISTING LOAD AS FEASIBLE. THIS INCLUDES - BUT IT NOT NECESSARILY LIMITED TO - ROOF SNOW, HEAVY EQUIPMENT, CONSTRUCTION LIVE LOAD, OCCUPANT LIVE LOAD, ETC...
   2. INSTALL REINFORCING
   3. PLACE NEW UNITS AFTER REINFORCING IS COOL TO TOUCH

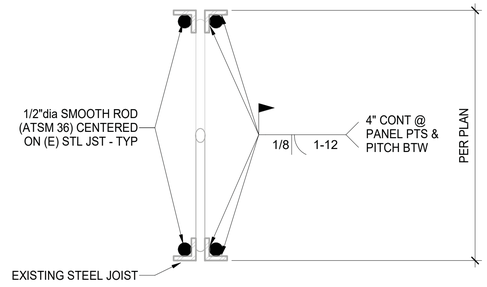


JOIST DESCRIPTION	END WEB REINFORCEMENT DIMENSION (MIN)	CHORD REINFORCEMENT DIMENSION (MIN)
R1	8'-0"	8'-0"
R2	8'-0"	9'-6"

A / S2 TYPICAL BAR JOIST REINFORCEMENT PROFILE
N.T.S.



B / S2 JOIST WEB REINFORCEMENT DETAIL
N.T.S.

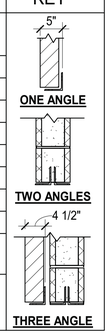


C / S2 JOIST CHORD REINFORCEMENT DETAIL
N.T.S.

STEEL LINTEL SCHEDULE				
FOR LINTELS NOT SHOWN IN THE DOOR OR WINDOW SCHEDULE OR ON THE ARCHITECT'S DRAWINGS, USE THE ANGLE SIZE SHOWN IN THE TABLE BELOW.				
OPENING SIZE	BRICK VENEER	8" MASONRY WALL	10" MASONRY WALL	12" MASONRY WALL
	ANGLE SIZE	ANGLE SIZE	ANGLE SIZE	ANGLE SIZE
UP TO 1'-0"	N/A	N/A	N/A	N/A
1'-1" TO 3'-4"	L 4"x4"x1/4"	L 3 1/2"x3 1/2"x1/4"	L 4"x3 1/2"x1/4" LLH	L 5"x3 1/2"x1/4" LLH
3'-5" TO 4'-8"	L 4"x4"x1/4"	L 4"x3 1/2"x1/4" LLV	L 4"x4"x1/4"	L 5"x3 1/2"x1/4" LLH
4'-9" TO 6'-8"	L 4"x4"x1/4"	L 6"x3 1/2"x5/16" LLV	L 4"x4"x5/16"	L 5"x5"x5/16"
6'-9" TO 10'-0"	L 6"x4"x3/8" LLV	L 6"x3 1/2"x3/8" LLV	L 6"x4"x3/8" LLV	L 5"x5"x5/8"
10'-1" TO 12'-0"	L 7"x4"x3/8" LLV	L 6"x3 1/2"x1/2" LLV	L 6"x4"x3/4" LLV	L 6"x4"x7/8" LLV w/ PLATE *
				* 10"x3/8" PLATE

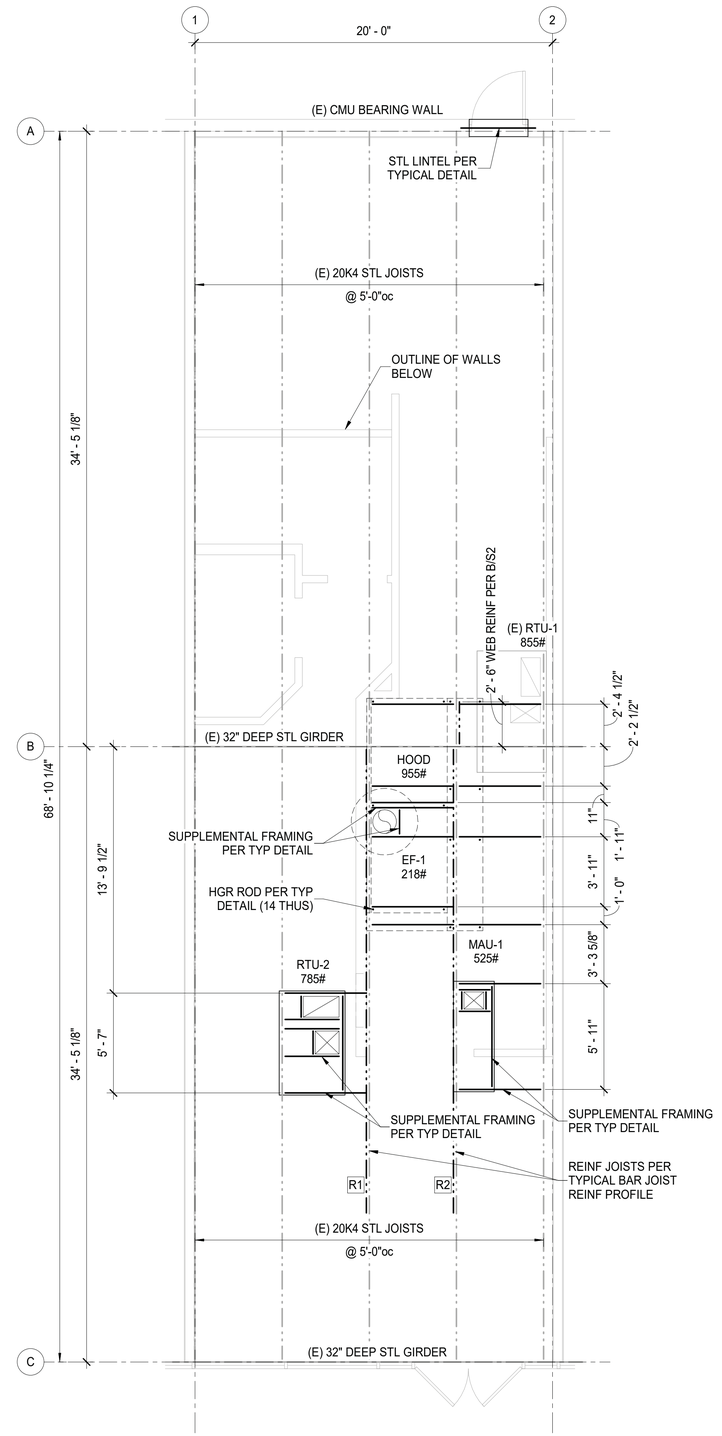
NOTES
1. ALL ANGLES MUST HAVE 8" OF BEARING AT EACH END.
2. THIS SCHEDULE DOES NOT INCLUDE EFFECT OF FLOOR OR ROOF FRAMING LOADS.
3. ALL ANGLES TO BE GALVANIZED.
4. WELD ANGLES TOGETHER, BACK-TO-BACK, w/ 3/16" WELDS , 2" EVERY 12", TOP & BOTTOM.

KEY



PARTIAL EXISTING ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

PLAN NOTES:
1. SEE SHEET S1 FOR GENERAL NOTES AND TYPICAL DETAILS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION.
3. REFERENCE MECHANICAL DRAWINGS FOR EXACT WEIGHTS AND LOCATIONS OF MECHANICAL EQUIPMENT.
4. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, SECTIONS, AND ELEVATIONS NOT SHOWN HEREON.
5. ALL NEW AND EXISTING MECHANICAL EQUIPMENT MOUNTED TO OR HUNG FROM EXISTING ROOF FRAMING STRUCTURE THAT HAS BEEN ACCOUNTED FOR IN STRUCTURAL CAPACITY ANALYSIS IS SHOWN ON FRAMING PLAN. GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT AND ENGINEER OF RECORD IMMEDIATELY IF EQUIPMENT EXISTS THAT IS NOT SHOWN ON PLAN.



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DEVELOPMENT SERVICES
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07/09/2021

CONSULTANT:
CASE Engineering Inc.
796 Metro Court
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T 636.349.1600
F 636.349.1750
CERTIFICATE OF AUTHORITY NO. 001498

CLIENT:
WING STOP

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FAX: (972) 686-6502

PROJECT INFORMATION:

WING·STOP
STORE NUMBER: GL#Y715
HALLBUSTER SHOPS
1041 N.E. SAM WALTON LANE
LEE'S SUMMIT, MO 64086

SEAL:

6/16/2021
DATE

PROJECT INFO: WIL-MO-04-21
DRAWN BY: JS
CHECKED BY: KW

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FOR PERMIT & BID	06-10-21

REVISION:	DATE:

PROJECT LOCATION:
LEE'S SUMMIT, MO

SHEET NUMBER / TITLE:
S2
ROOF FRAMING PLAN & TYPICAL DETAILS