RESPONSIBILITY MATRIX

DESCRIPTION	OWNER FURN.	OWNER INSTALL	CON. FURN.	CON. INSTALL	REMARKS
FIELD ENGINEERING			X	X	
PROJECT PROCEDURES, PROJECT CLOSEOUT			X	X	
TEMPORARY POWER/FACILITIES, SERVICES AND CONTROLS			X	X	
TEMPORARY BARRICADES			X	X	
PERMITS/INSPECTIONS	X		X	X	BUILDING PERMIT: ARCHITECT REQUIREMENT
PROTECTION OF SITE WORK AND ADJACENT CONSTRUCTION			X	X	
UNLOADING OF ALL OWNER SUPPLIED ITEMS			X	X	COORDINATE WITH SUPPLIER AS REQUIRED
DISPOSAL OF CRATING/PACKING MATERIALS			X	X	COORDINATE WITH SUPPLIER AS REQUIRED
DEMOLITION WORK			X	X	
FLOOR & ROOF PENETRATIONS			X	X	
CONCRETE			X	X	
MASONRY			X	X	
GRANITE/STONE			X	X	
STRUCTURAL FRAMING SYSTEMS/SUPPORTS			X	X	
ROOF ACCESS LADDER			X	X	REFER TO ITEMS OF IMPORTANCE ON G1.0 FOR PRE-FAB BUILDING SUB CONTRACTOR FOR SCOPE
ROUGH CARPENTRY & ALL BLOCKING			X	X	
MILLWORK - CABINETS, WAINSCOT, PANELS, TRIM	X	X			
INSULATION, FIRESTOPPING, CAULK, & BACKER ROD			X	X	
VAPOR/AIR BARRIERS/FLASHING			X	X	AS REQUIRED
WATERPROOF MEMBRANE			X	X	INCLUDES FLOOR PREPARATION AND SEALING. PROVIDE MOISTER TESTS AT SLAB AS REQUIRED BY FLOORING MANUFACTURER. SPECIFICATIONS TO ENSURE NEW FLOORING IS INSTALLED AS REQ.
ELIASON DOOR, DOOR FRAME, & HARDWARE			X	X	***COORDINATE WITH OWNER FOR PRICING PRIOR TO ORDERING
DOORS, DOOR FRAMES, TRIM & HARDWARE & SEALS			X	X	
ACCESS PANELS			X	X	
STOREFRONT & GLAZING			X	X	INCLUDES STOREFRONT ENTRY DOORS
GLASS			X	X	
CABINET HARDWARE & ACCESSORIES	X	X			
GYPSUM BOARD ASSEMBLIES			X	X	INCLUDES PREPARATION & REPAIR TO DAMAGED WALLS
METAL & WOOD STUD/GYP BD (INTERIOR)			X	X	
HALF WALL			X	X	
CEILINGS, SOFFITS, CEILING TILE, & GRID			X	X	
PAINTING			X	X	INCLUDES WALL PREPARATION & SEALING
STAINED/INTEGRAL COLOR CONCRETE & SEALERS			X	X	INCLUDES FLOOR PREPARATION & SEALING
FLOOR TILE & TRIM			X	X	INCLUDES FLOOR PREPARATION & SEALING
TILE WALL BASES			X	X	
WALL TILE & TRIM			X	X	
ALL TILE SETTING MATERIALS, GROUT & ACCESSORIES			X	X	
FLOOR TRANSITION STRIPS			X	X	
STAINLESS STEEL PANELS & TRIM	X	X			INCLUDES WALL PREPARATION & SEALING, PANELS INCLUDED IN KEC PACKAGE
STAINLESS STEEL CORNER GUARDS	X			X	PART OF KITCHEN EQUIPMENT PACKAGE
STAINLESS STEEL CABINETS	X	X			
FRP			X	X	INCLUDES WALL PREPARATION & SEALING
TRASH DUMPSTERS			X	X	COORDINATE WITH LOCAL AUTHORITIES
COORDINATE WITH LOCAL AUTHORITIES	X	X			
COMPUTER EQUIPMENT/SYSTEM	X	X			
CABINETS & DISPLAY CASES	X	X			
CAULKING CABINETS & MILLWORK	X	X			
SETTING/LEVELING OF CABINETS & MILLWORK			X	X	
LOCKERS	X	X			
DECORATIVE MIRRORS			X	X	
INTERIOR SIGNAGE	X			X	
CO2 TANK	X			X	PIPING AND VALVES BY G.C.; TANK BY OWNER
INTERIOR MENU BOARD	X	X			COKE CONTRACTOR INSTALL, COOR BY OWNER.
INTERIOR GRAPHICS/ART WORK	X			X	
EXTERIOR SIGNAGE	X	X			BY SIGN VENDOR, UNDER SEPARATE PERMIT, ELECTRICAL TO HOOK-UP
EXTERIOR WALL ASSEMBLY			X	X	
EXTERIOR FINISHES			X	X	
ANSUL SYSTEMS			X	X	PROVIDED & INSTALLED BY KEC
GREASE INTERCEPTOR			X	X	
3-COMPARTMENT SINK			X	X	PROVIDED BY KEC, INSTALLED BY GC
HAND SINKS			X	X	PROVIDED BY KEC, INSTALLED BY GC
MOP BASIN			X	X	
HOT WATER HEATER			X	X	
KITCHEN HOOD W/LIGHTS & FILTERS	X			X	FURNISHED AND INSTALLED BY OWNER (SERVCO) HOISTING AND MOUNTING OF THE EXHAUST FAN BY CONTRACTOR. ALL INTERCONNECTING DUCT WORK BY CONTRACTOR
KITCHEN EQUIPMENT: ICE MACHINE	X			X	
KITCHEN EQUIPMENT: WALK-IN COOLER/FREEZER	X			X	
ALL KITCHEN/OTHER EQUIPMENT NOT LISTED ON SCHEDULE			X	X	
FIRE EXTINGUISHERS			X	X	
AIR CURTAIN			X	X	
WINDOW TREATMENTS	X	X			
FLAT PANEL TV	X	X			
MOUNTING BRACKETS/HANGING BRACKETS FOR TVS	X	X			
HVAC UNITS			X	X	UNDERGROUND CONDUIT BY CONTRACTOR
MAKE UP AIR UNIT			X	X	OWNER-ALL ASSOC. CONDUIT & WIRING BY E.C.
HVAC DISTRIBUTION/GRILLES, DIFFUSERS & EXTERIOR LOUVERS			X	X	OWNER-ALL ASSOC. CONDUIT & WIRING BY E.C.
ALL HVAC, INCLUDING BALANCING			X	X	PRIOR TO OWNER ACCEPTING OF SPACE FROM G.C.
ALL GAS			X	X	
ALL PLUMBING INCLUDING SEWER			X	X	COORDINATE PLBG. HOOK-UP LOCATION W/ UTILITY PROVIDER
WATER SUPPLY DISTRIBUTION			X	X	COORDINATE WATER METER REQUIREMENTS W/ UTILITY PROVIDER
SANITARY VENTS			X	X	
UTILITIES TO ROOF			X	X	
WIRING, CONDUIT, & J-BOXES FOR FIXTURES & EQUIPMENT			X	X	
SERVICE/MAIN/SUB-PANELS/TRANSFORMERS			X	X	
ADD'L SUB-PANELS DISTR. J-BOX FOR INT. LIGHTING AND TIMERS			X	X	
INTERIOR GENERAL LIGHTING W/LAMPS			X	X	
INTERIOR ACCENT LIGHTING W/LAMPS			X	X	COORD. W/OWNER
EXIT & EMERGENCY LIGHTING			X	X	
EXTERIOR LIGHTING			X	X	
POWER REQUIREMENTS FOR MECH. EQUIPMENT			X	X	
TELEPHONE SERVICE CONDUIT STUB			X	X	
ALL PHONE, DATA & SECURITY EQUIPMENT			X	X	
ALL PHONE, DATA & SECURITY WIRING, COVER PLATES			X	X	COORD. W/OWNER
ALL PHONE, DATA & SECURITY CONDUIT, J-BOXES			X	X	
FIRE ALARM SYSTEM			X	X	NOTE: ONLY INSTALL IF REQUIRED BY LOCAL CODE
RESTROOM PLUMBING FIXTURES AND ACCESSORIES			X	X	
TABLES AND COUNTERS	X			X	
PATIO FURNITURE/PLANTERS	X	X			
LANDSCAPING	X	X			
EXTERIOR CANOPY			X	X	COORD. W/ MFR.
WINDBREAKER PANEL			X	X	COORD. W/ MFR.

NOTES:
1. THE RESPONSIBILITY SCHEDULE IS A GENERAL LIST FOR REFERENCE ONLY. ALL ITEMS NOT LISTED OR OTHERWISE NOTED SHALL BE PROVIDED, INSTALLED, DELIVERED AND ASSEMBLED BY THE G.C.
2. G.C. TO COORDINATE DELIVERY SCHEDULE & INSTALLATION OF ALL OWNER SUPPLIED ITEMS WITH OWNER/ OWNER'S REP AND SUPPLIER.
3. ALL INSTALLATION & FINAL HOOK-UP OF EQUIPMENT/ MATERIALS BY G.C. UNLESS OTHERWISE NOTED.
4. G.C. TO REMOVE ALL EQUIPMENT & MATERIALS BY OWNER FROM TRUCK, PLACE ON SITE AND HOOK-UP, TYP. U.O.N.
5. G.C. TO COORDINATE LOCATION OF ALL RECEPTACLE, SWITCH/ OTHER HEIGHTS W/ COUNTER & EQUIPMENT HEIGHTS.
6. G.C. TO COORDINATE ALL FACE PLATES, RECEPTACLE COVERS, CEILING PLATES, DIFFUSERS, ETC. TO MATCH THE FINAL WALL COLOR AS CLOSELY AS POSSIBLE.
7. G.C. TO PROVIDE ALL CONNECTIONS TO ALL EQUIPMENT, POWER, GAS, WATER, WASTE ETC.

ITEMS OF IMPORTANCE
1. REFERENCE RESPONSIBILITY SCHEDULE FOR SCOPE OF WORK ITEMS
2. VAPOR BARRIER HAS BEEN LOCATED ON THE WARM SIDE (INTERIOR) FOR NORTHERN CLIMATES
3. ROOF INSULATION IS CURRENTLY SHOWING 4" MIN (R= 38 MIN.)
4. ALL ELECTRICAL CONDUIT TO CONFORM TO LOCAL BUILDING CODE REQUIREMENTS. ANY CONDUIT TYPE EXCEEDING LOCAL ORDINANCES WILL NEED TO BE APPROVED BY OWNER, G.C. TO COORDINATE WITH ELECTRICAL CONTRACTOR

LIONS CHOICE - LEE'S SUMMIT

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LEE'S SUMMIT, MO 64063

PERMIT SET

12/10/2019

LEGEND

- SCOPE OF PROJECT — Project Limit Line
- ALIGNED SURFACES — ALIGN
- AREA TAG — Area Name; Area
- ROOM TAG — Room Name; Room No.; Room Area
- CEILING TAG — XX-1; Clg Type; 1'-0"A.F.F.; Clg Height
- DOOR TAG — 101; Door/Room No.
- WINDOW TYPE TAG — 1t; Window Type
- DIMENSION CROSSHAIR — Starting Point @ Center
- SLOPE INDICATOR — Highpoint @ Tail
- PARTITION TAG — F 1 a; Partition Configuration; Insulation; Partition Configuration
- BUILDING SECTION — SIM; 1; A101; Reference Label; Detail No.; Sheet No.
- WALL SECTION — SIM; 1; A101; Reference Label; Detail No.; Sheet No.
- DETAIL SECTION/CALLOUT — SIM; 1; A101; Reference Label; Detail No.; Sheet No.
- KEYNOTE — ?; Key Note No.
- REVISION — 1; Revision Reference Number; Revision Cloud Depicting Area Revised
- CENTERLINE — ℄
- NORTH ARROW — Plan North; Reference Label
- COLUMN GRID LINE — 0; Grid No.
- LEVEL MARKER — Name; Elevation; Level/Datum Name; Level/Datum Elevation AFF
- SPOT ELEVATION — Spot Elevation AFF
- ELEVATION — Xx.x; Xx.x; Detail No.; Sheet No.

PROJECT GENERAL NOTES

1. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE DOCUMENTS AND ANY APPLICABLE CODES BY THE AGENT INVOLVED WITH THE GOVERNING AGENCY HAVING JURISDICTION. IT IS UNDERSTOOD THAT THE 'FIELD INSPECTOR' FOR SUCH AGENCY HAS FINAL AUTHORITY TO APPROVE/DISAPPROVE PROJECT CONSTRUCTION AND CORRECTNESS OF ALL CODE RELATED ITEMS.
2. EACH SUBCONTRACTOR IS CONSIDERED A SPECIALIST IN THEIR RESPECTIVE FIELD OR TRADE AND SHALL NOTIFY, PRIOR TO PERFORMANCE OF WORK, THE GENERAL CONTRACTOR AND THE ARCHITECT OF ANY WORK CALLED OUT IN THE DRAWINGS WHICH CANNOT BE FULLY GUARANTEED OR CONSTRUCTED AS DESIGNED OR DETAILED.
3. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING THE WORK AND IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL OPENINGS, BASES, AND SPECIAL PROVISIONS REQUIRED FOR EQUIPMENT, DUCTS, PIPING, CONDUITS, FINISH HARDWARE, ETC. AND IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES.
5. DO NOT SCALE DRAWINGS. ALL DIMENSIONS SPECIFIED SHALL GOVERN.
6. WHERE CONSTRUCTION DETAILS ARE NOT SHOWN OR NOTED FOR ANY PART OF THE WORK, DETAILING SHALL BE THE SAME AS FOR OTHER SIMILAR FIRST CLASS WORK FOR THE TRADE INVOLVED. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY ALTERNATE NON-STANDARD OR UNTESTED METHOD(S) PROPOSED.
7. GENERAL CONTRACTOR SHALL COORDINATE ARCHITECTURAL DRAWINGS WITH MECHANICAL AND ELECTRICAL, PLUMBING, CIVIL, AND LANDSCAPE DRAWINGS.
8. GENERAL CONTRACTOR SHALL MAINTAIN ALL EXISTING FIRE RATINGS DURING DEMOLITION AND CONSTRUCTION.

ABBREVIATIONS

AB	Anchor Bolt	CLR	Clear (ance)	FAS	Fasten, Fastener	INCL	Include (d), (ing)	OPP	Opposite	STRUCT	Structural
ABV	Above	CLS	Closure	FBO	Furnished by Others	INFO	Information	PFB	Prefabricate (d)	SUSP	Suspended
AC	Air Conditioning	CMU	Concrete Masonry Unit	FDN	Foundation	INSUL	Insulate (d), (ion)	PFN	Pre-finished	SYM	Symmetry (ical)
ACC	Access	CO	Clean Out	F/CONC	Face of Concrete	INT	Interior	PL	Plate	SYS	System
ACOUS	Acoustical	CPT	Carpet (Ing)	FD	Floor Drain	INV	Invert	PLAM	Plastic Laminate	TEL	Telephone
ACT	Acoustical Ceiling Tile	COL	Column	FF	Finished Floor/Face	JBOX	Junction Box	PLAS	Plaster	TERR	Terrazzo
ACP	Acoustical Ceiling Panel	COMP	Compress (ed),(ion),(ible)	F/FIN	Face of Finish	JC	Janitor's Closet	PLY	Plywood	T&G	Tongue And Groove
AD	Access Door	CONC	Concrete	FE	Fire Extinguisher	JT	Joint	PM	Pressed Metal	TH	Threshold
ADD	Addendum	CONN	Connection	FEC	Fire Extinguisher Cabinet	KO	Knockout	PNB	Panic Bar	THK	Thick (ness)
ADH	Adhesive	CONST	Construction	FGL	Fiberglass	KP	Kick plate	POL	Polished	TKS	Tack Strip
ADJ	Adjustable	CONT	Continuous or Continue	FHC	Fire Hose Cabinet	L	Long	PROP	Property	TLB	Towel Bar
ADJC	Adjacent	CORR	Corridor	FHS	Fire Hose Station	LAB	Laboratory	PRT	Preservative Treated	T.O.	Top of
AFF	Above Finished Floor	CR	Card Reader	FIN	Finish (ed)	LAM	Laminate (d)	PTD	Painted	TOL	Tolerance
AHU	Air Handling Unit	CT	Ceramic Tile	FLASH	Flashing	LAV	Lavatory	PTN	Partition	T.O.S.	Top of Steel
ALT	Alternate	CTR	Counter	FLX	Flexible	LB	Pound	PTR	Paper Towel Receptor	TPD	Toilet Paper Dispenser
AL/ALUM	Aluminum	CTSK	Countersink	F/MAS	Face of Masonry	LP	Low Point	PVC	Polyvinyl Chloride	TPTN	Toilet Partition
ANC	Anchor, Anchorage	DEMO	Demolish, Demolition	FPRFG	Fireproofing	LT	Light	QT	Quarry Tile	T/S	Top of Slab
ANOD	Anodized	DET	Detail	FR	Fire Resistant	MAINT	Maintenance	RAD	Radius	T.W.	Top of Wall
APPROX	Approximate	DEPR	Depressed	FS	Face of Studs	MAS	Masonry	RB	Resilient Base	TYP	Typical
ARCH	Architect (ural)	DF	Drinking Fountain	FSZ	Full Size	MAT	Material (s)	RD	Roof Drain	UNF	Unfinished
ASB	Asbestos	DIA	Diameter	FT	Feet	MAX	Maximum	RDC	Roof Drain Conductor	UON	Unless Otherwise Noted
AUX	Auxiliary	DIAG	Diagonal	FTG	Footing	MCB	Metal Corner Bead	REF	Reference	UR	Urinal
B/D	Bottom of Deck	DIM	Dimension	FURR	Furred (ing)	MECH	Mechanic (al)	REFL	Reflect (ed),(ive),(or)	VB	Vinyl Base
BD	Board	DIV	Division	FoB	Face of Brick	MED	Medium	REINF	Reinforcement	VCT	Vinyl Composition Tile
BEL	Below	DMT	Demountable	GA	Gage, Gauge	MTL	Metal	REQD	Required	VERT	Vertical
BET	Between	DN	Down	GALV	Galvanized	MFR	Manufacturer (er)	REV	Revision (s), Revised	VIF	Verify In Field
BEV	Beveled	DP	Damp Proofing	GB	Grab Bar	MIN	Minimum	RFG	Roofing	VIN	Vinyl
BIT	Bituminous	DR	Door	GC	General Contractor (or)	MIR	Mirror	RM	Room	VPB	Vapor Barrier
BLDG	Building	DS	Downspout	GFI	Ground Fault Interrupt	MISC	Miscellaneous	RO	Rough Opening	VT	Vinyl Tile
BLK/G	Block (ing)	DWG	Drawing	GL	Glass, Glazing	MO	Masonry Opening	S	Sink	W/	With
BM	Beam	DWR	Drawer	GVL	Gravel	MULL	Mullion	SCH	Schedule	WB	Wood Base
BOT	Bottom	EA	Each	GWB	Gypsum Wall Board	N/A	Not Applicable	SIM	Similar	WC	Water Closet
BRG	Bearing	EB	Expansion Bolt	GYP/BD	Gypsum (Board)	NIC	Not In Contract	STD	Standard	WD	Wood
BRG PL	Bearing Plate	EG	Exterior Grade	HB	Hose Bibb	NOM	Nominal	SECT	Section	WG	Wired Glass
BRK	Brick	EJ	Expansion Joint	HC	Hollow Core	NRC	Noise Reduction Coefficient	SFGL	Safety Glass	WIN	Window
BS	Both Sides	EL	Elevation	HM	Hollow Metal	NTS	Not To Scale	SNT	Sealant	W/O	Without
BSMT	Basement	ELEC	Electric (al)	HORIZ	Horizontal	OA	Overall	SQ	Square	WP	Weatherproof
BUR	Built Up Roofing	ELEV	Elevator	HP	High Point	O.C.	On Center (s)	SS	Stainless Steel	WPF	Weatherproofing
BW	Both Ways	EMERG	Emergency	HR	Handrail	O.H.	Opposite Hand	STA	Station	WPT	Working Point
C	Conduit	ENAM	Enamel	HT	Height	OD	Outside Diameter	STD	Standard	WSCT	Wainscot
CAB	Cabinet	ENT	Entrance	HTG	Heating	OHD	Overhead	STG	Seating	WWM	Welded Wire Mesh
CC	Center to Center	EQ	Equal	HVAC	Heating/Ventilating/AC	OPNG	Opening	STL	Steel	XFMR	Transformer
CCTV	Closed Circuit Television	EQUIP	Equipment	HWH	Hot Water Heater						
CEM.	Cement	EST	Estimate	ID	Inside Diameter						
CER	Ceramic	EWC	Electric Water Cooler	IF	Inside Face						
CFL	Counter-flashing	EXF	Exhaust Fan								
CG	Corner Guard	EXH	Exhaust								
CIRC	Circumference	EXT	Exterior								
CJ	Construction Joint	EXTG.	Existing								
CK	Calk (ing)	EXP	Exposed								
CLG	Ceiling	FA	Fire Alarm								
CLOS	Closet	FAB	Fabric								

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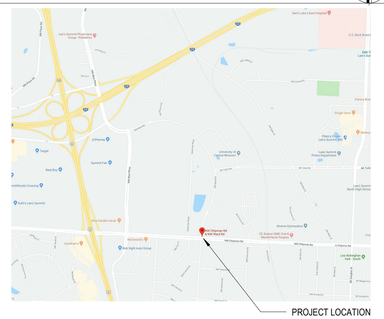
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BUILDING KEY PLAN (NTS)



PROJECT LOCATION MAP (NTS)



SHEET INDEX

SHEET #	SHEET NAME	REVISION	REVISION DATE
GENERAL			
G1.0	COVER SHEET	1	02/14//2020
G1.1	BUILDING CODE SUMMARY		
CIVIL			
C1.0	COVER SHEET		
C2.0	NOTE SHEET		
C3.0	DEMOLITION PLAN		
C4.0	SITE PLAN		
C4.1	HORIZONTAL CONTROL PLAN		
C5.0	GRADING PLAN		
C6.0	UTILITY PLAN		
C6.1	SEWER PROFILES		
C7.0	EROSION CONTROL PLAN		
C7.1	EROSION CONTROL NOTES		
C7.2	EROSION CONTROL DETAILS		
C8.0	DETAIL SHEET		
C8.1	DETAIL SHEET		
C8.2	CITY DETAIL SHEET		
C9.0	DRAINAGE AREA MAP (PRE)		
C9.1	DRAINAGE AREA MAP (POST)		
L1.0	LANDSCAPE PLAN		
STRUCTURAL			
S0.0	GENERAL NOTES		
S0.1	GENERAL NOTES		
S1.0	FOUNDATION PLAN		
S1.1	ROOF FRAMING PLAN		
S3.0	CONCRETE DETAILS		
S3.1	CONCRETE DETAILS		
S4.0	FRAMING DETAILS		
S5.0	WOOD DETAILS		
ARCHITECTURAL			
A0.1	ARCHITECTURAL SPECIFICATIONS		
A0.2	ARCHITECTURAL SPECIFICATIONS		
A0.3	ARCHITECTURAL SPECIFICATIONS		
A0.4	ARCHITECTURAL SPECIFICATIONS		
A0.5	ARCHITECTURAL SPECIFICATIONS	1	02/14//2020
A1.0	DIMENSION PLAN	1	02/14//2020
A1.1	REFLECTED CEILING PLAN	1	02/14//2020
A1.2	FLOOR FINISH PLAN	1	02/14//2020
A1.3	ROOF PLAN		
A2.0	EXTERIOR ELEVATIONS	1	02/14//2020
A2.1	INTERIOR ELEVATIONS	1	02/14//2020
A2.2	INTERIOR ELEVATIONS	1	02/14//2020
A2.3	INTERIOR ELEVATIONS	1	02/14//2020
A3.0	BUILDING SECTIONS		
A3.1	WALL SECTIONS		
A3.2	WALL SECTIONS		
A3.3	WALL SECTIONS		
A4.0	ENLARGED RR PLAN & INTERIOR ELEVATIONS	1	02/14//2020
A4.1	REFUSE ENCLOSURE PLAN, ELEVATIONS, AND DETAILS		
A5.0	ROOF DETAILS		
A5.1	INTERIOR DETAILS		
A5.2	MILLWORK DETAILS		
A5.3	PLAN SECTIONS & DETAILS	1	02/14//2020
A5.4	PLAN SECTIONS & DETAILS	1	02/14//2020
A5.5	ROOF DETAILS		
A6.0	WALL & PARTITION ASSEMBLIES		
A6.1	DOOR, WINDOW, HARDWARE SCHEDULES	1	02/14//2020
MECHANICAL			
M1.0	MECHANICAL PLAN		
M2.0	MECHANICAL ROOF PLANS & SCHEDULES		
M3.0	MECHANICAL DETAILS		
M4.0	MECHANICAL SPECIFICATIONS		
MECHANICAL			
H1.0	MECHANICAL HOOD DRAWINGS		
PLUMBING			
P1.0	PLUMBING SPECS, SCHEDULES, & DETAILS		
P2.0	FLOOR PLAN SAN & VENT		
P3.0	FLOOR PLAN HW/CW & GAS		
P4.0	PLUMBING RISERS		
P5.0	PLUMBING DETAILS		
ELECTRICAL			
E1.0	ELECTRICAL LIGHTING PLAN		
E2.0	ELECTRICAL POWER PLAN		
E2.1	ELECTRICAL LOW-VOLTAGE PLAN		
E3.0	MECHANICAL EQUIPMENT POWER & FIRE ALARM PLAN		
E4.0	ELECTRICAL ONE-LINE DIAGRAM & SCHEDULES		
E5.0	ELECTRICAL SITE PLAN		
E5.1	ELECTRICAL SITE PHOTOMETRIC		
E5.2	DRIVE-THRU EQUIPMENT REFERENCE SHEET		
E6	ELECTRICAL SPECIFICATIONS		
KITCHEN & DINING			
R-1	FOOD SERVICE EQUIPMENT PLAN		
R-2	ELECTRICAL CONNECTION PLAN		
R-3	PLUMBING CONNECTION PLAN		
R-4	SPECIAL CONDITIONS		
REFERENCE			
R1.0	SITE PLAN - FOR REFERENCE ONLY		
R1.1	FURNITURE & MILLWORK PLAN	1	02/14//2020
TOTAL: 79			

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LION'S CHOICE
Famous Roast Beef Sandwiches

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#	Description	Date
1	City Comments	02/14//2020

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

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NUMBER A-10481
ARCHITECT
FEB 14 2020

PERMIT SET

Client Approval

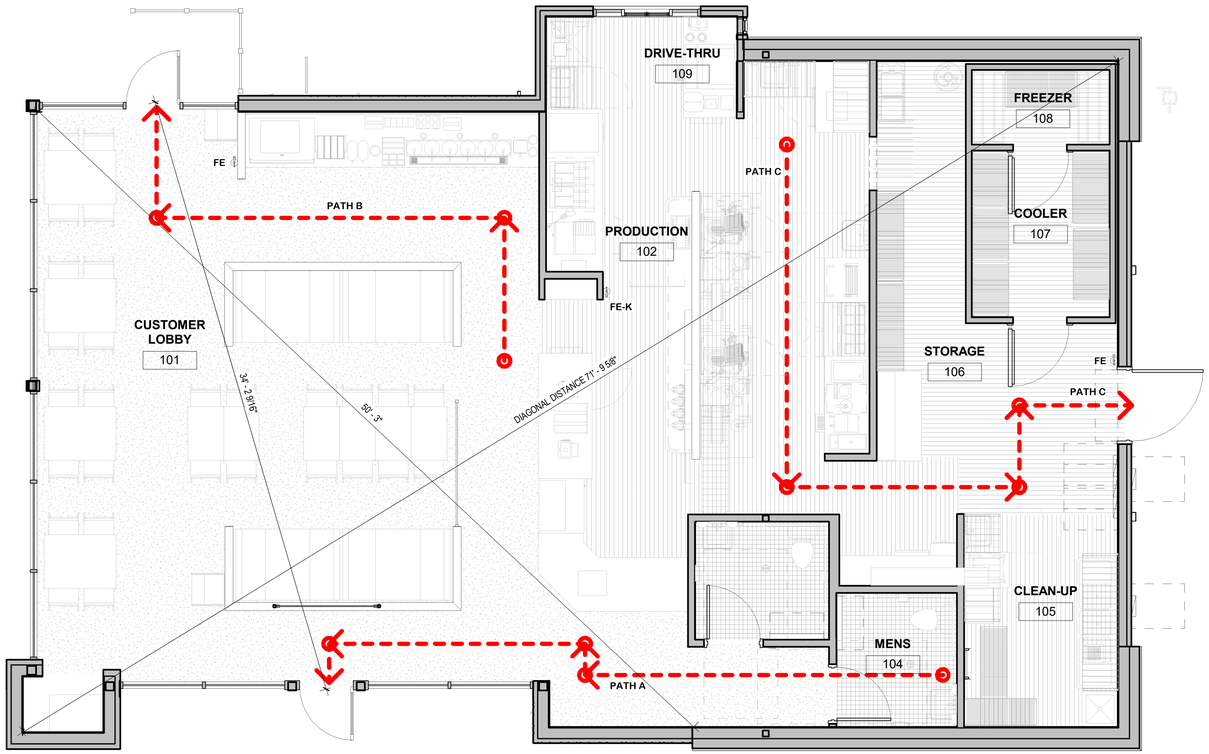
COVER SHEET

Project #	52119-MO02
Issue Date	12/10/2019
Scale	1 1/2" = 1'-0"
Drawn by	ZTM
Checked by	JMB

G1.0

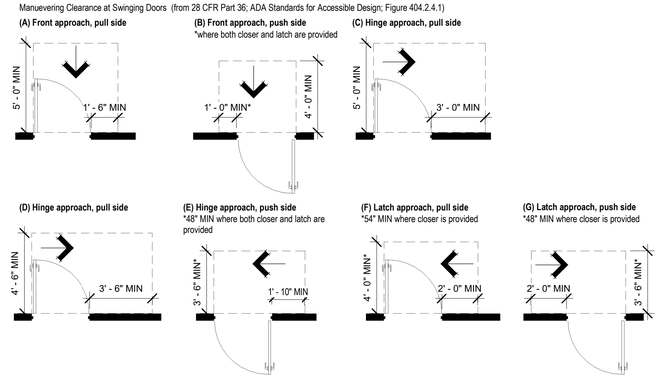
2/14/2020 2:38:52 PM LIONS CHOICE - LEE'S SUMMIT

NOTE: (3) 2A 10-BC FIRE EXTINGUISHERS (FE) SHOWN FOR REFERENCE. (1) 1.5 GALLON CLASS K FIRE EXTINGUISHER (FE-K) SHOWN FOR REFERENCE. FINAL LOCATIONS AND NUMBER REQUIRED TO BE COORDINATED WITH LOCAL FIRE MARSHAL



K1 OCCUPANCY PLAN
1/4" = 1'-0"

Manuevering Clearance at Swinging Doors (from 28 CFR Part 36; ADA Standards for Accessible Design; Figure 404.2.4.1)



S8 REQUIRED DOOR CLEARANCES
1/4" = 1'-0"

BUILDING CODE SUMMARY

PROJECT DESCRIPTION:
A 2,073 SF WOOD FRAMED GROUND-UP LION'S CHOICE STORE WITH WOOD SIDING/PLANKS, BRICK, AND STUCCO VENEER.

BUILDING CODE DATA:

BUILDING CODE AGENCY/JURISDICTION	**CITY OF LEE'S SUMMIT, MO**
BUILDING CODE	2018 International Building Code 2018 International Plumbing Code 2018 International Mechanical Code 2017 National Electrical Code 2018 International Fuel Gas Code ICC/ANSI A117.1-2017, Accessible and Usable Buildings and Facilities
PROJECT/BUILDING DATA:	
NEW CONSTRUCTION TYPE	**VB (1 STORY MAX, 6,000 SQFT MAX W/O MODIFICATION)**
PROJECT LOCATION ABOVE GRADE	**ON GRADE**
TOTAL NUMBER OF FLOORS/STORIES IN BUILDING	**1**
FIRE SUPPRESSION SYSTEM	**UNSPRINKLERED**
OCCUPANCY DATA:	
USE/OCCUPANCY GROUP	**A-2 (ASSEMBLY)**

TRAVEL DISTANCES

MAX. TRAVEL DISTANCE TO AN EXIT (TABLE 1016.2): 200'-0"
COMMON PATH OF TRAVEL (1014.3): 75'-0"

PATH "A"	PATH "B"	PATH "C"
Travel Distance	Travel Distance	Travel Distance
38' - 3"	33' - 8"	43' - 0"

OCCUPANCY DATA

Name	Area	Occupancy	LoadFactor	Occupant Load
CUSTOMER LOBBY	1000 SF	A (ASSEMBLY)	15	67
CLEAN-UP	102 SF	COMMERCIAL KITCHEN	200	1
DRIVE-THRU	47 SF	COMMERCIAL KITCHEN	200	1
PRODUCTION	501 SF	COMMERCIAL KITCHEN	200	3
COOLER	72 SF	STORAGE	300	1
FREEZER	32 SF	STORAGE	300	1
STORAGE	203 SF	STORAGE	300	1
MENS	51 SF	UNOCCUPIED	0	0
WOMENS	49 SF	UNOCCUPIED	0	0
TOTAL: 9	2057 SF			74

NOTE: AREA SQUARE FOOTAGE SHOWN ARE FOR THE BUILDING CODE REVIEWERS USE AND REVIEW ONLY. AREA CALCULATIONS SHOWN NOT RELATED TO TENANT LEASING INFORMATION.

EXIT REQUIREMENTS

	Unsprinklered
REQUIRED NUMBER OF EXITS PER CODE:	2
NUMBER OF EXITS SHOWN ON PLANS:	3
REQUIRED DISTANCE BETWEEN EXIT DOORS PER CODE:	67'-2 5/16" /2 = 33'-7 1/8"
ACTUAL DISTANCE BETWEEN EXIT DOORS:	34'-2 9/16"
MAXIMUM DEAD END CORRIDOR DEPTH:	20'

OCCUPANCY LEGEND

- A (ASSEMBLY)
- B (BUSINESS)
- STORAGE
- UNOCCUPIED

PLUMBING FIXTURE SCHEDULE

Occupancy	Name	Waterclosets Male	Waterclosets Female	Urinals	Lavatories Male	Lavatories Female	Drinking Fountains Regular	Drinking Fountains Accessible
UNOCCUPIED	MENS	1	0	0	1	0	0	0
UNOCCUPIED	WOMENS	0	1	0	0	1	0	0

*PER SECTION 410 OF THE INTERNATIONAL PLUMBING CODE: WHERE WATER IS SERVED IN RESTAURANTS, DRINKING FOUNTAINS SHALL NOT BE REQUIRED

Oculus Inc.
CONNECT • SHAPE • MOVE
ARCHITECTURE • INTERIOR DESIGN • PLANNING
ONE SOUTH MEMORIAL DRIVE | SUITE 1500ST. LOUIS, MO 63102 | (314) 367-6100

LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT
440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date

These drawings/specifications are the property of Oculus Inc. They are furnished as contract documents only. The seal(s) and signature(s) apply only to the document to which they are affixed, and expressly disclaim any responsibility for all other plans, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project. Additionally these drawings and seal(s) shall in no way convey or imply any type of warranty or certification relating to the performance of products and materials beyond those provided by their respective manufacturer.
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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004011072
ARCHITECT
FEB 14 2020

PERMIT SET

Client Approval

BUILDING CODE SUMMARY

Project #	52119-MO02
Issue Date	12/10/2019
Scale	1/4" = 1'-0"
Drawn by	ZTM
Checked by	MTB

G1.1

2/14/2020 2:38:16 PM LIONS CHOICE - LEE'S SUMMIT

LEGEND

EXISTING		PROPOSED
460 / 459	CONTOURS	460 / 459
+620.15	SPOT GRADE	+621.25 (TOP OF CURB) (FINISH PAVEMENT)
	TREE LINE	
8"	TREE	
	BUSH	
	STORM MANHOLE	
	AREA INLET	
	CURB INLET	
	GRATED INLET	
	FLARED END SECTION	
12" RCP	STORM SEWER	
	GRATED MANHOLE	
1	STORM DESIGNATOR	1
DS	DOWNSPOUT	
DP	DRAINAGE PIPE	
	SWALE/SLOPE INDICATOR	
S	SANITARY MANHOLE	
8"VCP	SANITARY SEWER	SS
	CLEAN OUT	CO
A	SANITARY DESIGNATOR	A
	UTILITY POLE	
	GUY WIRE	
OU	OVERHEAD UTILITY	OU
UE UE	UNDERGROUND ELECTRIC	UE UE
	ELECTRIC MARKER	
	ELECTRIC METER	
	ELECTRIC BOX	
EPB	ELECTRIC PULL BOX	
	ELECTRIC TRANSFORMER	
E	ELECTRIC MANHOLE	
UT	UNDERGROUND TELEPHONE	UT
	FIBER OPTIC MARKER	
	CABLE MARKER	
G	GAS LINE	G
	GAS VALVE	GV
	GAS METER	GM
	GAS MARKER	
W	WATER LINE	W
	WATER VALVE	WV
	WATER METER	
	FIRE HYDRANT	
	SIGN	
	MAIL BOX	
	TEST HOLE	
T-1 405.5		
	LIGHT STANDARD	
X X X	FENCE	X X
B	BOLLARD	
	RETAINING WALL	
	CONCRETE PAVEMENT	
	SILTATION FENCE	
AC	AIR CONDITIONER	
	FLAG POLE	
	MONITORING WELL	
PM	PARKING METER	
	PLANTER	
SCB	SPRINKLER CONTROL BOX	
SHD	SPRINKLER	
SVLV	SPRINKLER VALVE	
	TRAFFIC CONTROL BOX	
	TRAFFIC POLE	
	YARD LIGHT	
	GUARD RAIL	
	PROPERTY LINE	
	EASEMENT	
	SETBACK	
	INLET PROTECTION	
	WATTLE	
	CHECK DAM	
	USE IN PLACE	(UIP)
	TO BE REMOVED	(TBR)
	ADJUST TO GRADE	(ATG)
	TO BE REMOVED & RELOCATED	(TBR&R)
	TYPICAL	(TYP)
	NOT TO SCALE	N.T.S.
	HIGH POINT IN GRADE	HP
	LOW POINT IN GRADE	LP
	TOP OF WALL	TW
	BOTTOM OF WALL	BW
	NOT IN CONTRACT	(NIC)

SITE BENCHMARK INFORMATION

X 205 – DISK LOCATED 0.6 MILE SOUTH ALONG THE MISSOURI PACIFIC RAILROAD FROM THE STATION AT LEE'S SUMMIT. 19.1 FEET WEST OF THE WEST RAIL OF THE MAIN TRACK, SET IN THE TOP OF THE WEST END OF THE NORTHWEST ABUTMENT OF AN OVERPASS OVER U.S. HIGHWAY 50. ELEVATION = 1046.10

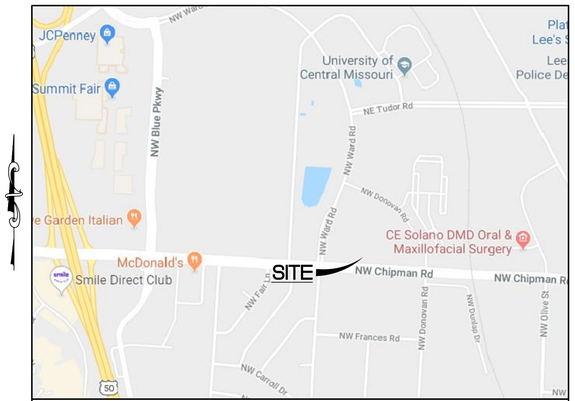
LION'S CHOICE

LOT 4D OF SUMMIT ORCHARD
LEE'S SUMMIT, MO 64063

LION'S CHOICE
Famous Roast Beef Sandwiches

Saint Louis, Missouri Since 1967

FINAL DEVELOPMENT PLAN



LOCATION MAP
(NOT TO SCALE)

PERTINENT DATA

SITE DATA

PARCEL NUMBER	52-900-03-65-00-0-00-000
CURRENT ZONING DISTRICT	PMIX, PLANNED MIX USE
PROPOSED ZONING DISTRICT	PMIX, PLANNED MIX USE

AREA CALCULATIONS

BUILDING AREA	2,311 S.F. = 0.05 AC
IMPERVIOUS AREA	24,758 S.F. = 0.57 AC
PERVIOUS AREA	12,179 S.F. = 0.28 AC
TOTAL SITE AREA	39,248 S.F. = 0.90 AC

UTILITIES

GAS SERVICE
SPIRE
3025 SE CLOVER DR.
LEE'S SUMMIT, MO 64082
CONTACT: JON HARRELL
(816)969-2298

WATER SERVICE
CITY OF LEE'S SUMMIT PUBLIC WORKS
WATER UTILITIES
1200 SE HAMBLEN ROAD,
LEE'S SUMMIT, MO 64081
(816)969-1900

ELECTRIC SERVICE
KANSAS CITY POWER AND LIGHT
1201 WALNUT ST.
P.O. BOX 418679
KANSAS CITY, MO 64141
(816)471-5275

COMMUNICATIONS SERVICE
AT&T
CONTACT: MARTY LOPER
(800)499-7928

SANITARY SEWER SERVICE
CITY OF LEE'S SUMMIT PUBLIC WORKS
WATER UTILITIES
1200 SE HAMBLEN ROAD,
LEE'S SUMMIT, MO 64081
(816)969-1900

STORM SEWER SERVICE
CITY OF LEE'S SUMMIT PUBLIC WORKS
WATER UTILITIES
1200 SE HAMBLEN ROAD,
LEE'S SUMMIT, MO 64081
(816) 969-1940

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DESIGN AND DEVELOPMENT CONTACTS

OWNER
LION'S CHOICE
12977 NORTH FORTY DRIVE
ST. LOUIS, MO 63141
(314) 821-8665
CONTACT: JASON DENBOW

CIVIL ENGINEER
COLE & ASSOCIATES, INC.
401 SOUTH 18TH STREET, SUITE 200
ST. LOUIS, MO 63103
(314) 984-9887
CONTACT: CHRIS WILSON

ARCHITECT
OCULUS INC
ONE SOUTH MEMORIAL DR
SUITE 1500
ST. LOUIS, MO 63102
(314) 367-6100
CONTACT: JACK BOWE

SURVEYOR
COLE & ASSOCIATES, INC.
401 SOUTH 18TH STREET, SUITE 200
ST. LOUIS, MO 63103
(314) 984-9887
CONTACT: TOM REYNOLDS

LAND DESCRIPTION (PER TITLE)

LOT 4D, SUMMIT ORCHARD, LOTS 4A-4E, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE PLAT THEREOF.

FLOODPLAIN INFORMATION

AS DETERMINED THROUGH GRAPHIC PLOTTING ONLY, SUBJECT TRACT FALLS IN ZONE "X"; AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP FOR JACKSON COUNTY, MISSOURI AND INCORPORATED AREAS, PANEL 417 OF 625, MAP NUMBER 29095C0417G, EFFECTIVE DATE OF JANUARY 20, 2017.

UTILITY INFORMATION

UTILITIES SHOWN HAVE BEEN TAKEN FROM AVAILABLE SURVEYS, UTILITY COMPANY MAPS AND PHYSICAL PROPERTY INSPECTION. THE LOCATIONS AND FACILITIES SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE ADDITIONAL UTILITIES THAT HAVE NOT BEEN SHOWN ON THIS SURVEY. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG!

CALL 1-800-DIG-RITE (MISSOURI ONE CALL TO HAVE LOCATIONS MARKED IN THE FIELD (SUBSCRIBING UTILITIES REQUIRE 48 HOURS NOTICE PRIOR TO CONSTRUCTION).

NO	DESCRIPTION	DATE
7	ARCHITECT COMMENTS	7/11/20
6	VALUE ENGINEERING/REVIEW COMMENTS	1/22/20
5	REVIEW COMMENTS	1/8/20
4	PER ARCHITECT COMMENTS	12/2/19
3	REVIEW COMMENTS	11/21/19
2	REVIEW COMMENTS	9/30/19
1	REVIEW COMMENTS	9/9/19

DEVELOPER/OWNER:
RED LION BEEF CORPORATION
12977 N FORTY DRIVE, SUITE 100
ST. LOUIS, MO 63141
(314) 821-8665

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CIVIL ENGINEERS
CORPORATE
DRONEKING
OSTERLE
JOHN F. HARSHBARGER
NO. E-29716
STATE OF MISSOURI
REGISTERED
PE 9/10/19

LION'S CHOICE
SUMMIT ORCHARD
4401 NW CHIPMAN ROAD
LEE'S SUMMIT, MO

COVER SHEET

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DRAWING SCALE: AS SHOWN
DATE: 08/29/2019
Job Number: 18-0136
Sheet Number: C1.0

USER: Bryan-Nicole Samuels TAB: Cover
DATE: February 11, 2020 - 10:17:45 AM
DRAWING: S:\JOBS\Jobs2018\18-0136\CADD\C-Plan\PlotSheets\D_PLAN_COVER-SHEET_18-0136.dwg

GENERAL NOTES

1. THESE PLANS ARE BASED ON A SURVEY PREPARED BY COLE & ASSOCIATES, INC, DATED 07/26/19. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT THE IMPROVEMENTS EXIST AS SHOWN ON THE SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER AND COLE OF ANY DEVIATIONS OR OMISSIONS THAT MAY EFFECT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

2. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

3. THE CONTRACTOR IS NOT TO START WORK UNTIL WRITTEN AUTHORIZATION FROM THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER HAS BEEN RECEIVED.

4. FLOOD CERTIFICATION:
AS DETERMINED THROUGH GRAPHIC PLOTTING ONLY, SUBJECT TRACT FALLS IN ZONE "X"; AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP FOR JACKSON COUNTY, MISSOURI AND INCORPORATED AREAS, PANEL 417 OF 625, MAP NUMBER 29095C0417G, EFFECTIVE DATE OF JANUARY 20, 2017.

5. WETLANDS NOTE:
ANY DEVELOPMENT, EXCAVATION, CONSTRUCTION, OR FILLING IN A U.S. ARMY CORPS OF ENGINEERS DESIGNATED WETLAND IS SUBJECT TO LOCAL, STATE AND FEDERAL APPROVALS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND/OR RESTRICTIONS AND ANY VIOLATION WILL BE SUBJECT TO FEDERAL PENALTY. THE CONTRACTOR SHALL HOLD THE OWNER/DEVELOPER, THE ENGINEER AND THE LOCAL GOVERNING AGENCIES HARMLESS AGAINST SUCH VIOLATION.

6. WARRANTY/DISCLAIMER:
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

7. SAFETY NOTICE TO CONTRACTOR:
IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTORS SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

8. NOTICE TO BIDDERS:
ALL QUESTIONS REGARDING THE PREPARATION OF THE CONTRACTOR'S BID SHALL BE DIRECTED TO THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER. SUBCONTRACTORS MUST DIRECT THEIR QUESTIONS THROUGH THE CONTRACTOR. THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECTLY WITHOUT PRIOR AUTHORIZATION FROM THE OWNER/DEVELOPER.

9. OIL AND GAS WELLS:
PER THE OVERALL RECORDED SURVEY FOR THIS TRACT OF LAND "ACCORDING TO AN ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MO IN 1995 BY EDWARD ALTON MAY JR, PE, THERE ARE NO OIL AND GAS WELLS WITHIN THE PROPERTY.

GENERAL DEMOLITION NOTES

1. ALL EXISTING IMPROVEMENTS ARE TO REMAIN UNLESS NOTED OTHERWISE IN THESE PLANS.

2. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL OF (IN A LOCATION APPROVED BY ALL JURISDICTIONS HAVING AUTHORITY) ALL DEBRIS, STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.

3. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.

4. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.

5. ALL EXISTING UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK. UTILITIES DETERMINED TO BE ABANDONED AND LEFT IN PLACE SHALL BE GROUTED IF UNDER BUILDINGS.

6. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL PUBLIC AND PRIVATE UTILITIES, INCLUDING IRRIGATION, SPECIFIC TO THIS PROJECT PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION. SHOULD ANY UTILITY REQUIRE RELOCATION, CONTRACTOR SHALL COORDINATE WITH THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER AND THE ENGINEER.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO ANY EXISTING BUILDINGS PRIOR TO DEMOLITION OF THE EXISTING BUILDINGS.

8. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO ANY EXISTING BUILDINGS TO REMAIN AT ALL TIMES. UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM AND COORDINATION WITH THE BUILDING OWNER.

9. THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.

10. ANY DRY UTILITY LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION. CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE. CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN THE RIGHT OF WAY DURING CONSTRUCTION.

11. THE CONTRACTOR SHALL COORDINATE WATER MAIN WORK WITH THE FIRE DEPARTMENT AND THE UTILITY COMPANY TO PLAN PROPOSED IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATER MAIN SHUT OFFS WITH THE UTILITY COMPANY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATER MAIN SHUT OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

12. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY EXISTING IRRIGATION SYSTEMS IN THE AREAS OF PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL CAP ANY EXISTING IRRIGATION SYSTEMS TO REMAIN SUCH THAT THE REMAINING SYSTEMS SHALL CONTINUE TO FUNCTION PROPERLY.

13. EXISTING PAVEMENT THAT WILL REMAIN AFTER CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE. CONTRACTOR MAY LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE PLANS, BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.

14. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING IMPROVEMENTS TO REMAIN DURING CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, DRAINAGE STRUCTURES, UTILITIES, PAVEMENT, STRIPING, CURBS, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS AND SHALL BE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.

15. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

16. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER.

17. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.

18. THE CONTRACTOR SHALL RESTORE ALL OFF SITE CONSTRUCTION AREAS TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF WORK.

GENERAL SITE NOTES

1. ALL CONSTRUCTION MATERIALS AND TECHNIQUES OF INSTALLATION SHALL MEET PERFORMANCE VALUES OF THE MATERIALS SPECIFIED AND COMPLY WITH ALL REGULATIONS AND CODES OF THE AUTHORITY HAVING JURISDICTION AND O.S.H.A. STANDARDS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THIS PROJECT IS CONSTRUCTED IN ACCORDANCE WITH THESE DOCUMENTS AND IN COMPLIANCE WITH CODES INDICATED HEREIN. THE QUALITY OF WORKMANSHIP AND INSTALLATION OF MATERIALS SPECIFIED BY THE ENGINEER ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER WILL NOT BE HELD RESPONSIBLE FOR ANY SUBSTANDARD OR INSUFFICIENT WORKMANSHIP, MATERIALS, OR SERVICES PROVIDED IN THE EXECUTION OF ANY PHASE OF CONSTRUCTION OF THIS PROJECT.

3. ALL MATERIALS ARE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL MANUFACTURER'S WARRANTIES WILL BE HONORED.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF EXISTING FIELD CONDITIONS AND OF ALL DRAWINGS AND SPECIFICATIONS RELATED TO THEIR FIELD. THE FAILURE TO ACQUAINT HIMSELF WITH THIS PROJECT AND HIS FIELD OF SERVICE SHALL NOT RELIEVE HIM OF ANY RESPONSIBILITY FOR PERFORMING HIS WORK PROPERLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED DUE TO THE CONTRACTOR'S FAILURE TO CONVEY THE NECESSARY KNOWLEDGE TO FAMILIARIZE WORKERS AND SUBCONTRACTORS WITH THIS PROJECT.

5. ALL CONDITIONS SHOWN TO BE "EXISTING" SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE NOTED AND SUBMITTED TO THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER AND THE ENGINEER FOR REVIEW. CHANGES TO THE ORIGINAL DESIGN OF THE PROJECT DUE TO EXISTING SITE CONDITIONS MUST BE APPROVED BY BOTH THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER AND THE ENGINEER PRIOR TO MAKING ANY CHANGES.

6. SAWCUT AND REMOVE PORTIONS OF EXISTING PAVING ONLY AS REQUIRED TO INSTALL NEW UTILITIES OR TO CONSTRUCT PROPOSED FACILITIES PER THIS PLAN. REPLACE PORTIONS REMOVED TO MATCH EXISTING FLUSH AND SMOOTH.

7. CONTRACTOR SHALL MATCH PROPOSED CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.

8. ALL DIMENSIONS AND RADII ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

9. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF SLOPE PAVING, SIDEWALKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS (UNLESS OTHERWISE NOTED ON PLANS) INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.

11. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.

12. THE CONTRACTOR SHALL PROVIDE DUMPSTERS, PORTABLE TOILETS AND TEMPORARY POWER FOR UNRESTRICTED PROJECT RELATED USE BY OTHERS FOR THE DURATION OF THE PROJECT.

13. THE CONTRACTOR IS RESPONSIBLE FOR RECEIVING, UNLOADING, STORING AND PROTECTING MATERIALS AND EQUIPMENT SUPPLIED BY THE OWNER/DEVELOPER UNTIL IT HAS BEEN INSTALLED AND ACCEPTED BY THE OWNER/DEVELOPER.

14. THE CONTRACTOR SHALL COORDINATE PROJECT PHASING AND STORAGE OF MATERIALS WITH THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE AREA CLEAN AND FREE OF DEBRIS AT ALL TIMES DURING CONSTRUCTION.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE SAFETY OF ALL PERSONS ON THE JOB SITE AT ALL TIMES INCLUDING (BUT NOT LIMITED TO) SUBCONTRACTORS, STORE PERSONNEL, VENDORS, DESIGN STAFF PROFESSIONALS AND INSPECTION PERSONNEL.

17. NO MONUMENT SIGNS OR THEIR PROPOSED LOCATIONS CAN BE APPROVED WITH THESE DOCUMENTS. A SEPARATE SIGN APPLICATION MUST BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL.

18. ANY RETAINING WALLS REFERRED TO IN THESE PLANS ARE SHOWN FOR REFERENCE ONLY AND ARE NOT TO BE INTERPRETED AS THE DESIGN OF THE WALL SYSTEM. THE CONTRACTOR SHALL REFER TO STRUCTURAL PLANS PREPARED BY OTHERS FOR WALL DESIGN AND CONSTRUCTION DETAILS. A SEPARATE BUILDING PERMIT MAY BE REQUIRED FOR EACH WALL.

GENERAL GRADING NOTES

1. TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER/DEVELOPER FOR REVIEW.

2. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.

3. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.

4. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

5. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

6. ALL CUT OR FILL SLOPES SHALL BE 3H:1V OR FLATTER UNLESS OTHERWISE NOTED. THE ENGINEER ASSUMES NO LIABILITY FOR SLOPES EXCEEDING THOSE RECOMMENDED IN THE APPLICABLE GEOTECHNICAL REPORT.

7. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.

8. EXISTING DRAINAGE STRUCTURES AND STORM SEWER PIPES ARE TO BE INSPECTED, REPAIRED AS NEEDED, AND CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

9. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:

PIPES DIAMETERS LESS THAN 12"

HIGH DENSITY POLYETHYLENE PIPE (HDPE):	TYPE S PER AASHTO M252 (SMOOTH INTERIOR WITH CORRUGATIONS EXTERIOR)
POLYVINYL CHLORIDE PIPE (PVC):	SDR35 PER ASTM D3034 (FOR PIPES LESS THAN 12' DEEP)
POLYVINYL CHLORIDE PIPE (PVC):	SDR26 PER ASTM D3034 (FOR PIPES MORE THAN 12' DEEP)

PIPES DIAMETERS 12" OR GREATER

REINFORCED CONCRETE PIPE (RCP):	CLASS III PER ASTM C76
POLYPROPYLENE (PP):	SMOOTH INTERIOR WITH CORRUGATIONS EXTERIOR PER ASTM F2764

10. ALL STORM SEWER PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.

11. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.

12. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING AND COVERS. STORM MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE.

13. ALL PROPOSED CONTOURS SHOWN ARE TO FINISHED ELEVATIONS ON PAVED AREAS. THE CONTRACTOR SHALL GRADE ALL AREAS TO REQUIRED SUBGRADE.

14. ALL PROPOSED SPOT GRADES SHOWN ARE TO FINISHED GRADE, FINISHED PAVEMENT, OR FINISHED BOTTOM FACE OF CURB UNLESS NOTED OTHERWISE.

15. ALL FILLS AND BACKFILLS SHALL CONSIST OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.

16. ALL FILL PLACED FOR PROPOSED STORM AND SANITARY SEWER LINES, PAVED AREAS, OR DRAINAGE BERMS SHALL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY THE AASHTO T 180 MODIFIED PROCTOR COMPACTION TEST OR 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO T 99 STANDARD PROCTOR COMPACTION TEST. ALL TESTS SHALL BE VERIFIED BY A GEOTECHNICAL ENGINEER CONCURRENT WITH THE GRADING AND BACKFILLING OPERATIONS.

17. ALL STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT.

18. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION. PERMANENT SOD SHALL BE ESTABLISHED AS SOON AS POSSIBLE.

GENERAL UTILITY NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATIONS AND SIZES OF ALL EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN IN THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER HAS NOT FIELD VERIFIED THE EXISTING UTILITIES. THE UTILITIES SHOWN ON THESE PLANS HAVE BEEN TAKEN FROM RECORDS AND UTILITY MAPS MADE AVAILABLE TO THE ENGINEER AND THE LOCATIONS AND SIZES SHALL BE CONSIDERED APPROXIMATE ONLY. OTHER UTILITIES, NOT SHOWN ON THIS PLAN, MAY EXIST ON OR NEAR THE PROJECT SITE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SCHEDULE FOR INSTALLATION WITH THE UTILITY COMPANIES AND THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER. ALL EXISTING CONDITIONS THAT ARE REMOVED OR DISRUPTED DURING THE PLACEMENT OF NEW UTILITIES SHALL BE RESTORED OR REPAIRED TO MATCH ORIGINAL CONDITIONS. ANY EXISTING UTILITIES DISRUPTED DURING PLACEMENT OF NEW UTILITIES SHALL BE REPAIRED AND OPERATING NORMALLY THE SAME DAY OF DISRUPTION. ITEMS THAT NEED TO BE RESTORED OR REPAIRED INCLUDE, BUT ARE NOT LIMITED TO: EXISTING ASPHALT PAVING, EXISTING CONCRETE PAVING, WATER LINES, IRRIGATION LINES, GRASS AREAS, LANDSCAPING, AND SITE LIGHTING. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF ALL EXISTING ITEMS THAT WILL BE DISRUPTED DURING THE PLACEMENT OF NEW UTILITIES AND PROVIDE THE OWNER/DEVELOPER'S CONSTRUCTION MANAGE WITH A DETAILED SCHEDULE OUTLINING THE TIMELINE FOR INSTALLATION OF NEW UTILITIES INCLUDING THE PROPOSED TIMES THAT EXISTING UTILITIES WILL BE DISRUPTED.

3. THE NEW UTILITY TRENCH WIDTHS AND DEPTHS SHALL MEET ALL LOCAL AND STATE REQUIREMENTS.

4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ANY "STUB OUTS" FOR POWER, TELEPHONE, FIBER OPTICS, WATER AND SEWER (IF APPLICABLE) HAVE BEEN PROVIDED BY OTHERS AT THE AREA ADJACENT TO THE SITE BUILDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL CONNECTIONS AT THE BUILDING.

5. PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM THE ENGINEER AND THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

6. CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE APPROPRIATE AUTHORITY HAVING JURISDICTION.

7. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS AT LEAST 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.

8. EXISTING DRAINAGE STRUCTURES AND STORM SEWER PIPES ARE TO BE INSPECTED, REPAIRED AS NEEDED, AND CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

9. ALL UTILITY EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.

10. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.

11. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF SLOPE PAVING, SIDEWALKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

12. SANITARY SEWER PIPE SHALL BE AS FOLLOWS:

POLYVINYL CHLORIDE PIPE (PVC):	SDR35 PER ASTM D3034 (FOR PIPES LESS THAN 12' DEEP)
POLYVINYL CHLORIDE PIPE (PVC):	SDR26 PER ASTM D3034 (FOR PIPES MORE THAN 12' DEEP)

13. ALL SANITARY SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RINGS AND COVERS. SANITARY MANHOLES IN UNPAVED AREAS SHALL BE 12" ABOVE FINISH GRADE WITH WATER TIGHT LIDS.

14. WATER LINES SHALL BE AS FOLLOWS:

PIPE DIAMETERS 1.5" OR LESS

COPPER (CPR):	TYPE K PER AWWA C800

PIPE DIAMETERS 2" THROUGH 3"

COPPER (CPR):	TYPE K PER AWWA C800
POLYVINYL CHLORIDE PIPE (PVC):	SDR21 PER ASTM D2241, CLASS 200

PIPE DIAMETERS 4" THROUGH 12"

POLYVINYL CHLORIDE PIPE (PVC):	DR18 PER AWWA C900 (DOMESTIC SERVICE)
POLYVINYL CHLORIDE PIPE (PVC):	DR14 PER AWWA C900 (FIRE SERVICE IN LIEU OF DIP, WHERE ALLOWED BY LOCAL CODES)
DUCTILE IRON PIPE (DIP):	PRESSURE CLASS 350 PER AWWA C151

PIPE DIAMETERS LARGER THAN 12"

POLYVINYL CHLORIDE PIPE (PVC):	DR18 PER AWWA C905
DUCTILE IRON PIPE (DIP):	PRESSURE CLASS 250 PER AWWA C151

14. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING.

15. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.

16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.

17. CONTRACTOR TO RELOCATE LIGHT POLES AND REPLACE LUMINAIRES AS INDICATED. CONTRACTOR TO BUILD NEW POLE BASES AND STUB WIRE AS NEEDED.

18. CONTRACTOR SHALL START LAYING PIPE AT DOWNSTREAM STRUCTURE AND WORK UPSTREAM.

19. CLEANOUTS SHALL BE LOCATED AT ALL HORIZONTAL AND VERTICAL CHANGES IN DIRECTION OF FLOW IN BUILDING LATERALS AND ANY SANITARY LATERAL OF 100 FEET OR LONGER.

20. ALL TRENCHES UNDER AREAS TO BE PAVED, EXISTING PAVED AREAS, OR PUBLIC RIGHT-OF-WAY SHALL BE GRANULARLY BACKFILLED WITH ¾ INCH MINUS CRUSHED WHITE ROCK.

21. GAS, WATER AND OTHER UNDERGROUND UTILITIES SHALL NOT CONFLICT WITH THE DEPTH OR HORIZONTAL LOCATION OF EXISTING OR PROPOSED SANITARY AND STORM SEWERS.

22. THE CONTRACTOR SHALL PREVENT ALL STORM WATER, SURFACE WATER, MUD AND CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER SYSTEM.

23. THE EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.

24. ALL SANITARY FLOW LINES AND TOPS BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER SHALL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR.

25. ALL SEWER PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH STRUCTURES. NO FLAT INVERT STRUCTURES ARE ALLOWED.

26. ANY ABANDONED SEWERS SHALL BE REMOVED OR COMPLETELY GROUT FILLED.

NO	REVISION DESCRIPTION	DATE
1	PER ARCHITECT COMMENTS	12/2/19
2	REVIEW COMMENTS	11/21/19
3	REVIEW COMMENTS	9/9/19
4	PER ARCHITECT COMMENTS	12/2/19
5	REVIEW COMMENTS	1/8/20
6	VALUE ENGINEERING/REVIEW COMMENTS	1/22/20
7	ARCHITECT COMMENTS	2/11/20

DEVELOPER/OWNER:
RED LION BEEF CORPORATION
12977 N FORTY DRIVE, SUITE 100
ST. LOUIS, MO 63141
(314) 821-6665

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CIVIL ENGINEERS
CORPORATE
DRINKING
DOGS

JOHN F. HARSHBARGER
NUMBER
E-24716
STATE OF MISSOURI
REGISTERED
ENGINEER
JOHN F. HARSHBARGER
PE NO. E-24716
DATE 9/10/19

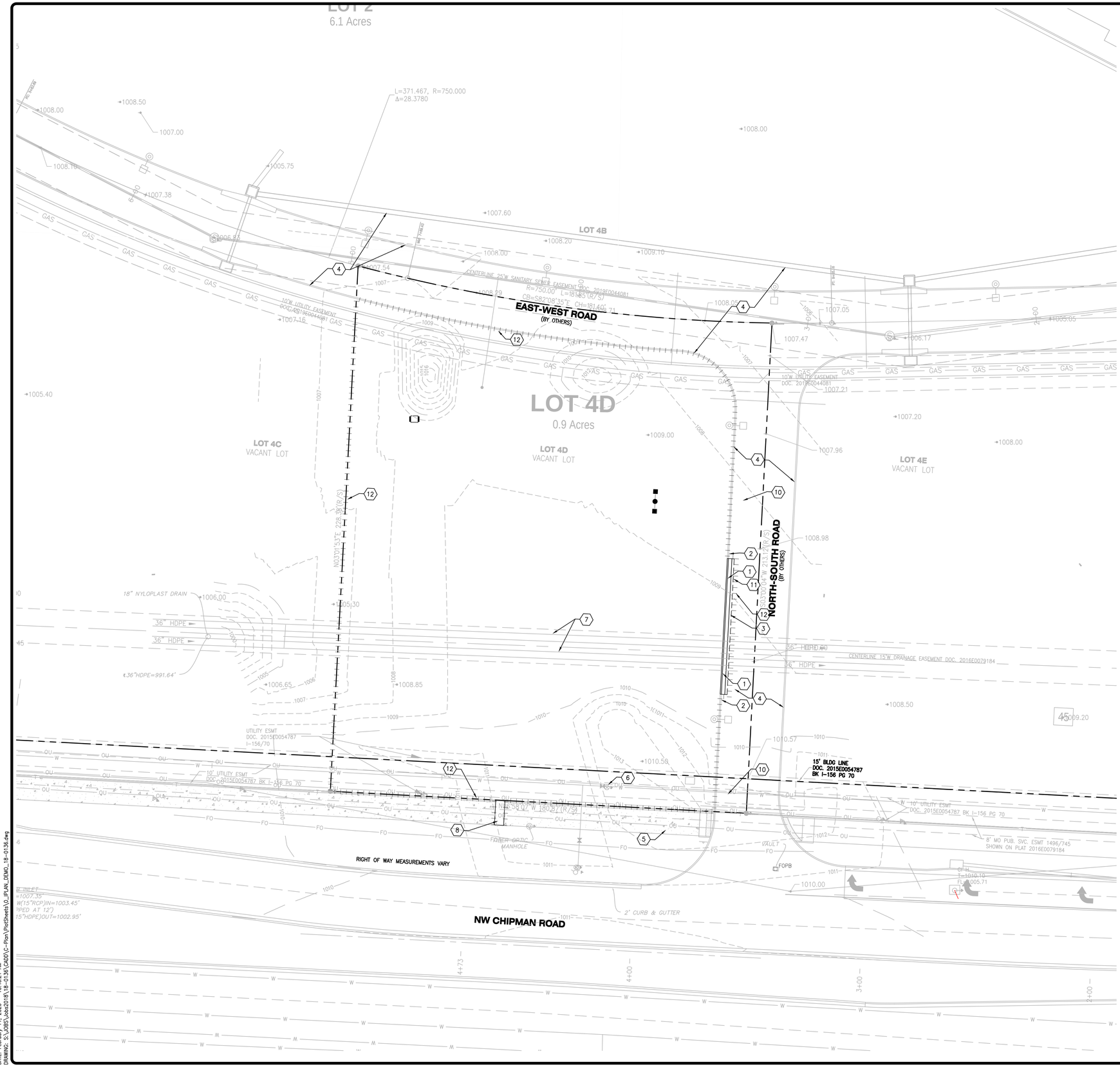
LION'S CHOICE
SUMMIT ORCHARD
440 SW CHIPMAN ROAD
LEE'S SUMMIT, MO

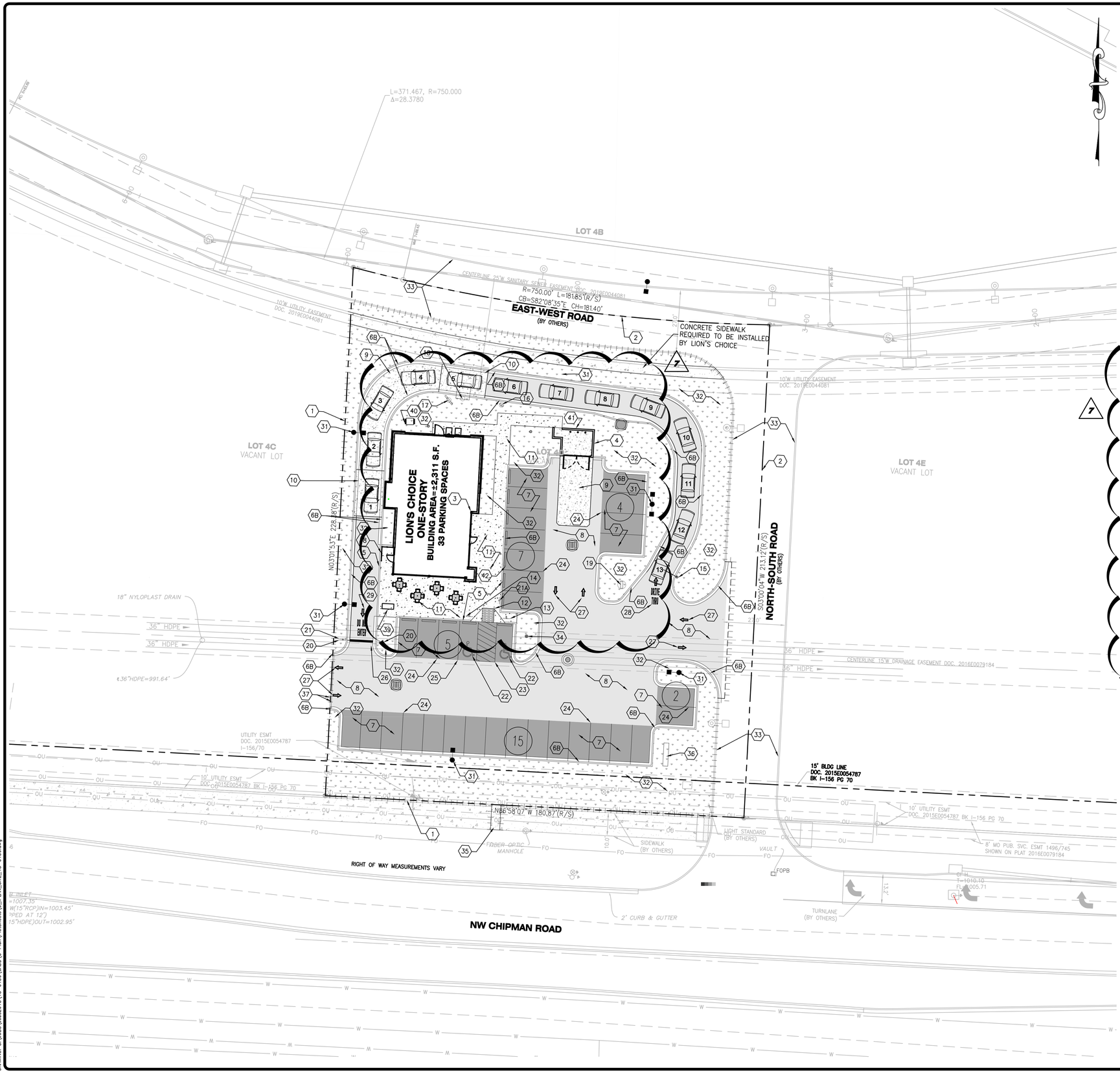
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LOT 4D
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LOT 4E
VACANT LOT
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(BY OTHERS)
NORTH-SOUTH ROAD
(BY OTHERS)
NW CHIPMAN ROAD
RIGHT OF WAY MEASUREMENTS VARY
L=371.467, R=750.000
Δ=28.3780
CENTERLINE 25'W SANITARY SEWER EASEMENT DOC. 2019E0044081
R=750.00' L=181.85 (R/S)
CH=181.46'
10'W. UTILITY EASEMENT DOC. 2019E0044081
CENTERLINE 15'W DRAINAGE EASEMENT DOC. 2016E0079184
36" HDPE
18" NYLOPLAST DRAIN
UTILITY ESMT DOC. 2015E0054787 I-156/70
10' UTILITY ESMT DOC. 2015E0054787 BK I-156 PG 70
15' BLDG LINE DOC. 2015E0054787 BK I-156 PG 70
8" MO PUB. SVC. ESMT 1496/745 SHOWN ON PLAT 2016E0079184
FIBER OPTIC MANHOLE
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KEYED NOTES

1. ALL IMPROVEMENTS ARE PARALLEL AND PERPENDICULAR TO THE SOUTH AND WEST PROPERTY LINE(S) UNLESS DIMENSIONED OTHERWISE.

NEW STRUCTURES

2. NEW LION'S CHOICE PROPERTY AREA LIMITS.
3. NEW LION'S CHOICE BUILDING. REFER TO ARCHITECTURAL PLANS.
4. NEW DUMPSTER ENCLOSURE. REFER TO ARCHITECTURAL PLANS.

NEW CURBS

5. NEW INTEGRAL CONCRETE CURB (STANDARD SECTION). REFER TO DETAIL ON SHEET C8.0.
6. (NOT USED).

6B. NEW CONCRETE CURB AND GUTTER. PER CITY OF LEE'S SUMMIT DETAIL GEN-4. REFER TO DETAIL ON SHEET C8.2.

NEW PAVEMENTS

7. NEW ASPHALT PAVEMENT (LIGHT DUTY). REFER TO DETAIL ON SHEET C8.0.
8. NEW ASPHALT PAVEMENT (HEAVY DUTY). REFER TO DETAIL ON SHEET C8.0.
9. NEW CONCRETE PAVEMENT (HEAVY DUTY). REFER TO DETAIL ON SHEET C8.0.
10. NEW CONCRETE PAVEMENT (HEAVY DUTY) WITH DETECTOR LOOP. REFER TO MECHANICAL PLANS. REFER TO SHEET C8.0 FOR CONCRETE PAVEMENT (HEAVY DUTY) DETAIL.

NEW SIDEWALKS

11. NEW CONCRETE SIDEWALK. REFER TO DETAIL ON SHEET C8.0.
12. NEW CURB RAMP (TYPE A). REFER TO DETAIL ON SHEET C8.0.

12B. NEW CURB RAMP (TYPE B). REFER TO DETAIL ON SHEET C8.0.

NEW SIGNS

13. NEW ACCESSIBLE PARKING SIGN. REFER TO DETAIL ON SHEET C8.1.
14. NEW VAN ACCESSIBLE PARKING SIGN. REFER TO DETAIL ON SHEET C8.1.
15. NEW DRIVE-THRU CLEARANCE BAR.
16. NEW PREVIEW BOARD.
17. NEW MENU BOARD.
18. NEW CANOPY, SPEAKER POST, AND ORDER CONFIRMATION BOARD.
19. NEW "DRIVE-THRU" SIGN.
20. NEW "DO NOT ENTER" SIGN. REFER TO DETAIL ON SHEET C8.1.
21. NEW "STOP" SIGN. REFER TO DETAIL ON SHEET C8.1.

21A. NEW RESERVED PARKING SIGN FOR ONLINE ORDER PICK-UP.

NEW PAVEMENT MARKINGS

22. NEW PAINTED ACCESSIBLE PARKING SYMBOL. REFER TO DETAIL ON SHEET C8.1.
23. NEW PAINTED AISLE (BLUE). REFER TO DETAIL ON SHEET C8.1.
24. NEW PAINTED PARKING SPACE LINE (WHITE). REFER TO DETAIL ON SHEET C8.1.
25. NEW PAINTED PARKING SPACE LINE (BLUE). REFER TO DETAIL ON SHEET C8.1.
26. NEW PAINTED STOP BAR LINE (WHITE). REFER TO DETAIL ON SHEET C8.1.
27. NEW PAINTED TRAFFIC FLOW ARROW. REFER TO DETAIL ON SHEET C8.1.
28. NEW "DRIVE-THRU" STRIPING AND TRAFFIC FLOW ARROW. REFER TO DETAIL ON SHEET C8.1.
29. NEW "DO NOT ENTER" STRIPING AND TRAFFIC FLOW ARROWS. REFER TO DETAIL ON SHEET C8.1.
30. (NOT USED).

NEW MISCELLANEOUS ITEMS

31. NEW AREA LIGHT. REFER TO PHOTOMETRIC PLANS. REFER TO DETAIL ON SHEET C8.0
32. NEW LANDSCAPE AREA. REFER TO LANDSCAPE PLANS.
33. INTERNAL DRIVE AISLE BY OTHERS.
34. NEW FLAGPOLE.
35. REPLACE CONCRETE SIDEWALK IN KIND.
36. NEW MONUMENT SIGN.
37. TEMPORARY CONCRETE CURB. REFER TO DETAIL NUMBER 1 ON SHEET C8.0.
38. NEW 36" TWO RAIL, SMOOTH TOP, STYLE E PREMANUFACTURED COMMERCIAL ALUMINUM FENCE.
39. NEW BIKE RACK. TREE TOP PRODUCTS 5-BIKE RACK(SINGLE SIDED), MODEL NO. 7ZT7082 OR APPROVED EQUAL.
40. NEW TRANSFORMER PAD.
41. NEW YARD HYDRANT.
42. NEW WHEEL STOP (TYPICAL OF 12). REFER TO DETAIL ON SHEET C8.0.

LAND USE SCHEDULE

TOTAL FLOOR AREA	=	2,311 SQFT
TOTAL LOT AREA	=	39,248 SQFT
FLOOR AREA RATIO	=	2,311/39,248 =0.059
TOTAL IMPERVIOUS AREA	=	24,758 SQFT
WATERSHED	=	LITTLE BLUE RIVER

LAND USE

EXISTING	VACANT / UNDEVELOPED LOT
PROPOSED	LION'S CHOICE RESTAURANT

PARKING REQUIREMENTS (STANDARD)

USE CATEGORY	14 SPACE PER 1,000 S.F. GROSS FLOOR AREA
GROSS FLOOR AREA	2,311 S.F.
CALCULATION	(14 SPACE/1000 S.F.) * (2,311 S.F.) = 32.4 SPACES

PARKING REQUIREMENTS (ACCESSIBLE)

26 TO 50 STANDARD SPACES	2 ACCESSIBLE SPACES
VAN ACCESSIBLE REQUIREMENT	1 VAN ACCESSIBLE SPACE FOR EVERY 6 ACCESSIBLE SPACES

PARKING DATA

SPACES REQUIRED (TOTAL)	33 SPACES
SPACES PROVIDED (STANDARD)	31 SPACES
SPACES PROVIDED (ACCESSIBLE)	2 SPACES (1 VAN ACCESSIBLE)
SPACES PROVIDED (TOTAL)	33 SPACES

DRIVE THRU STACKING REQUIREMENTS

SPACES REQUIRED:	4 BEHIND THE MENU BOARD AND 4 IN FRONT OF THE MENU BOARD TO THE PICKUP WINDOW.
SPACES PROVIDED:	8 BEHIND THE MENU BOARD AND 4 IN FRONT OF THE MENU BOARD TO THE PICKUP WINDOW

SETBACKS

FRONT	=	15'
SIDE	=	0'
REAR	=	0'

NO	DATE	REVISION DESCRIPTION
7	7/11/20	ARCHITECT COMMENTS
6	1/22/20	VALUE ENGINEERING/REVIEW COMMENTS
5	1/8/20	REVIEW COMMENTS
4	12/2/19	PER ARCHITECT COMMENTS
3	11/21/19	REVIEW COMMENTS
2	10/7/19	REVIEW COMMENTS
1	9/9/19	REVIEW COMMENTS

DEVELOPER/OWNER:
RED LION BEEF CORPORATION
12977 N FORTY DRIVE, SUITE 100
ST. LOUIS, MO 63141
(314) 821-8665

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JOHN F. HARSHBARGER
NUMBER
E-24916
PE, ENGINEER
DATE 9/10/19

LIONS CHOICE
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440 NW CHIPMAN ROAD
LEE'S SUMMIT, MO

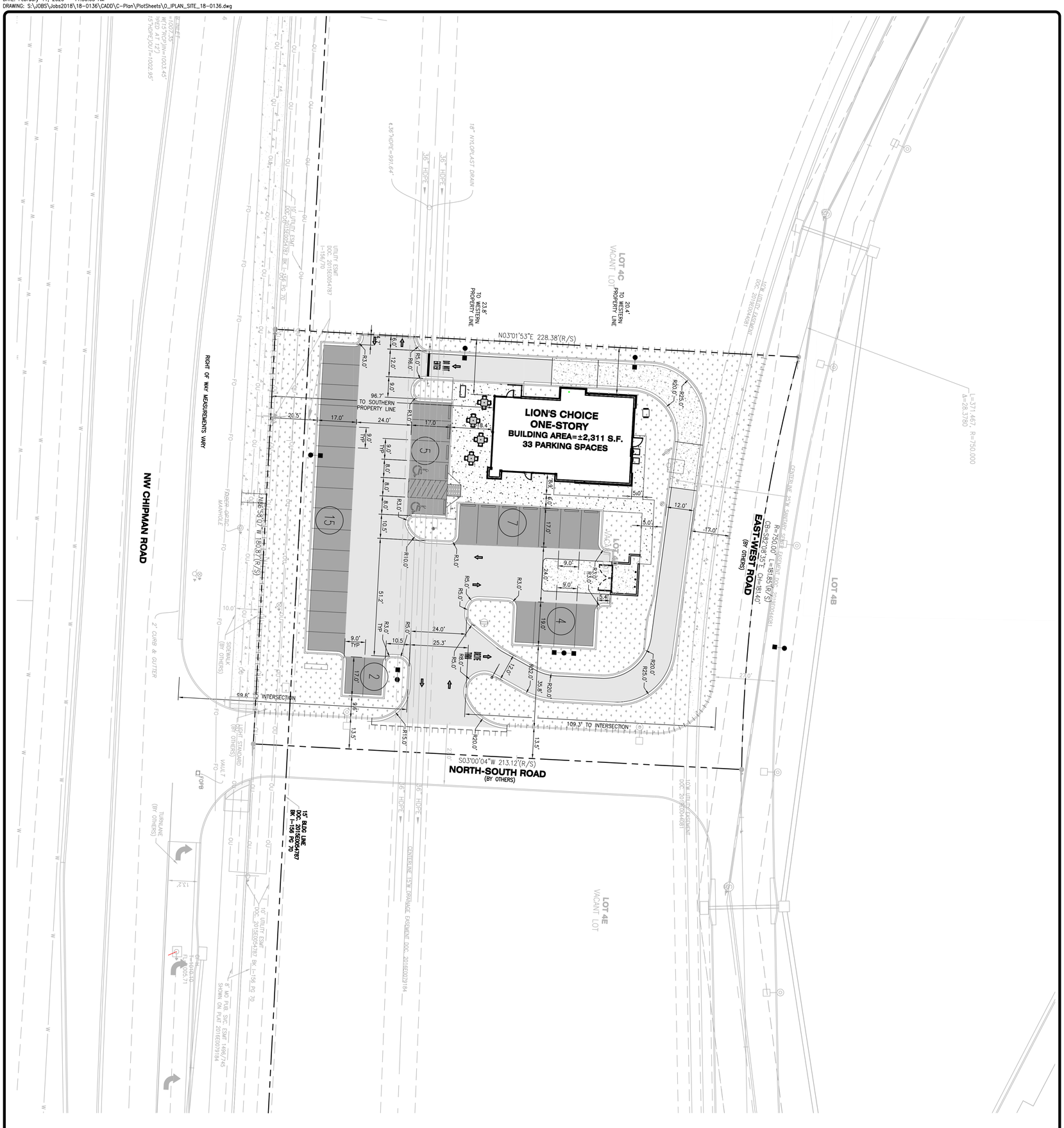
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SCALE: 1" = 20'
20' 0' 20' 40'

2/11/20	7	ARCHITECT COMMENTS
1/22/20	6	VALUE ENGINEERING/REVIEW COMMENTS
1/9/20	5	REVIEW COMMENTS
12/2/19	4	PER ARCHITECT COMMENTS
11/21/19	3	REVIEW COMMENTS
10/17/19	2	REVIEW COMMENTS
9/9/19	1	REVIEW COMMENTS
DATE	NO	REVISION DESCRIPTION

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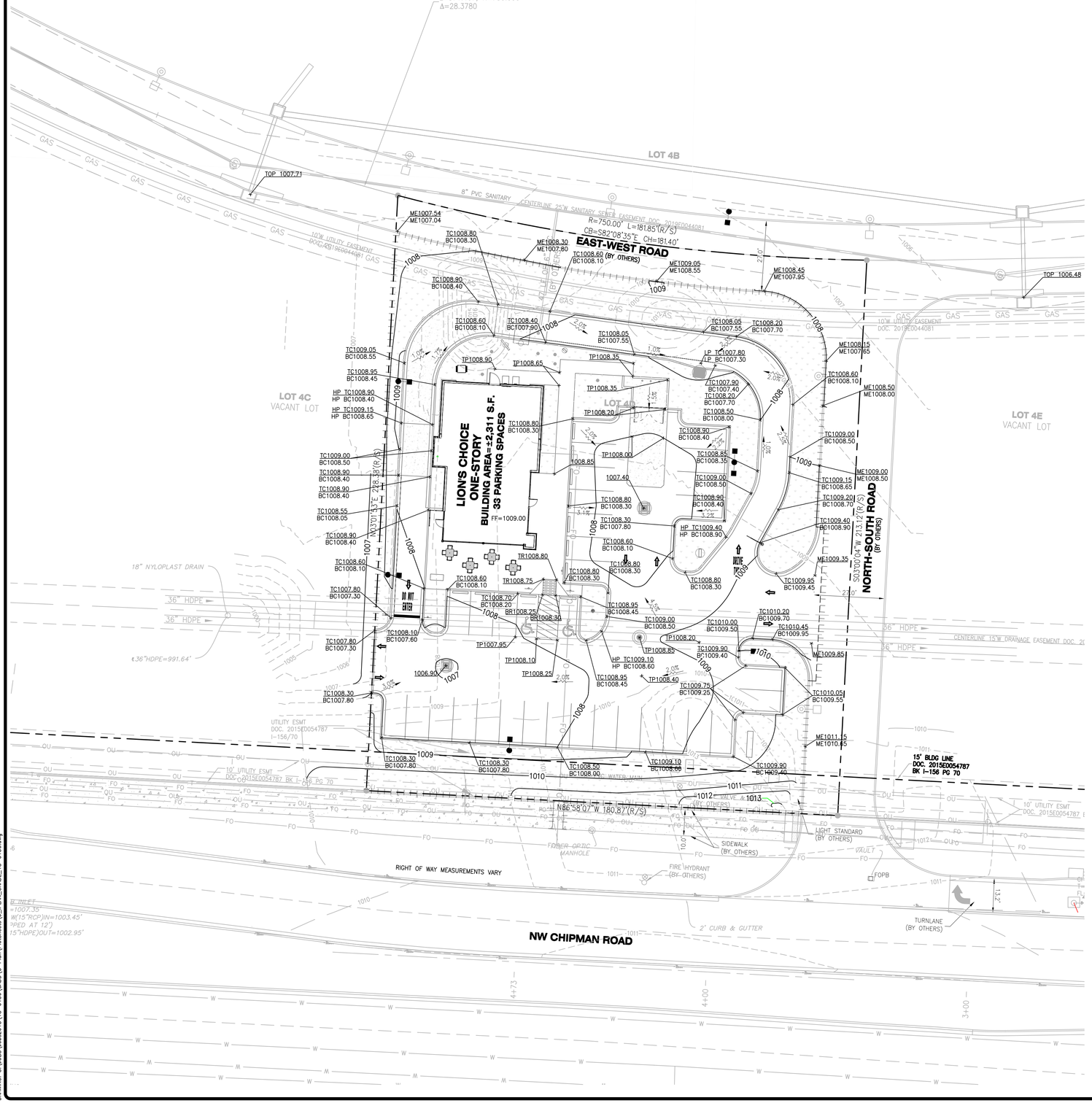
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STATE OF MISSOURI
JOHN F. HARSHBARGER
NUMBER E-29716
PROFESSIONAL ENGINEER
JOHN F. HARSHBARGER
CIVIL ENGINEER
PE NO.-29716
DATE: 9/10/19

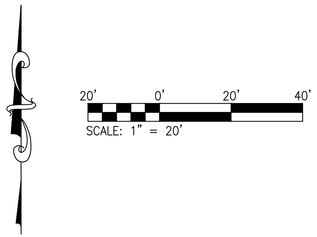
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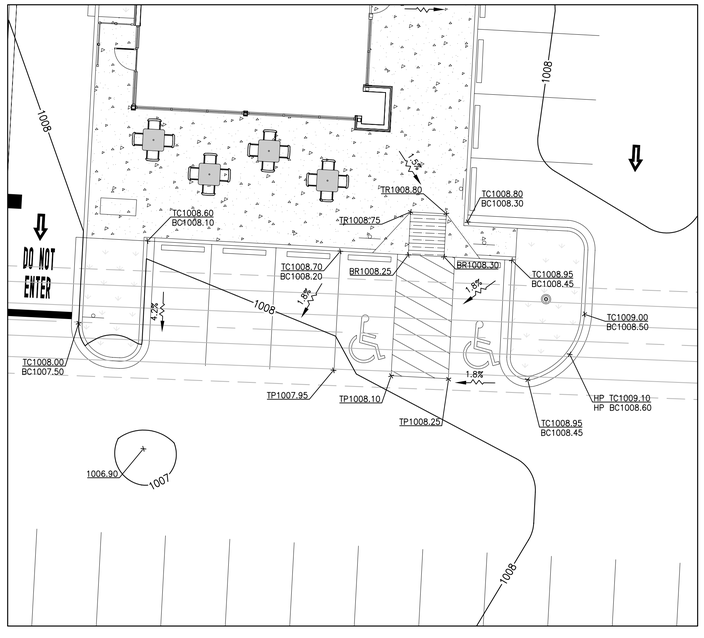
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GRADING ABBREVIATIONS

BC	BOTTOM OF CURB FACE
BW	BOTTOM OF WALL
EC	EDGE OF CONCRETE
FF	FINISHED FLOOR
FG	FINISHED GRADE
HP	HIGH POINT
LP	LOW POINT
ME	MATCH EXISTING
TC	TOP OF CURB FACE
TP	TOP OF PAVEMENT
TW	TOP OF WALL



ADA PARKING DETAIL

10' 0' 10' 20'
SCALE: 1" = 10'

2/11/20	7	ARCHITECT COMMENTS
1/22/20	6	VALUE ENGINEERING/REVIEW COMMENTS
1/8/20	5	REVIEW COMMENTS
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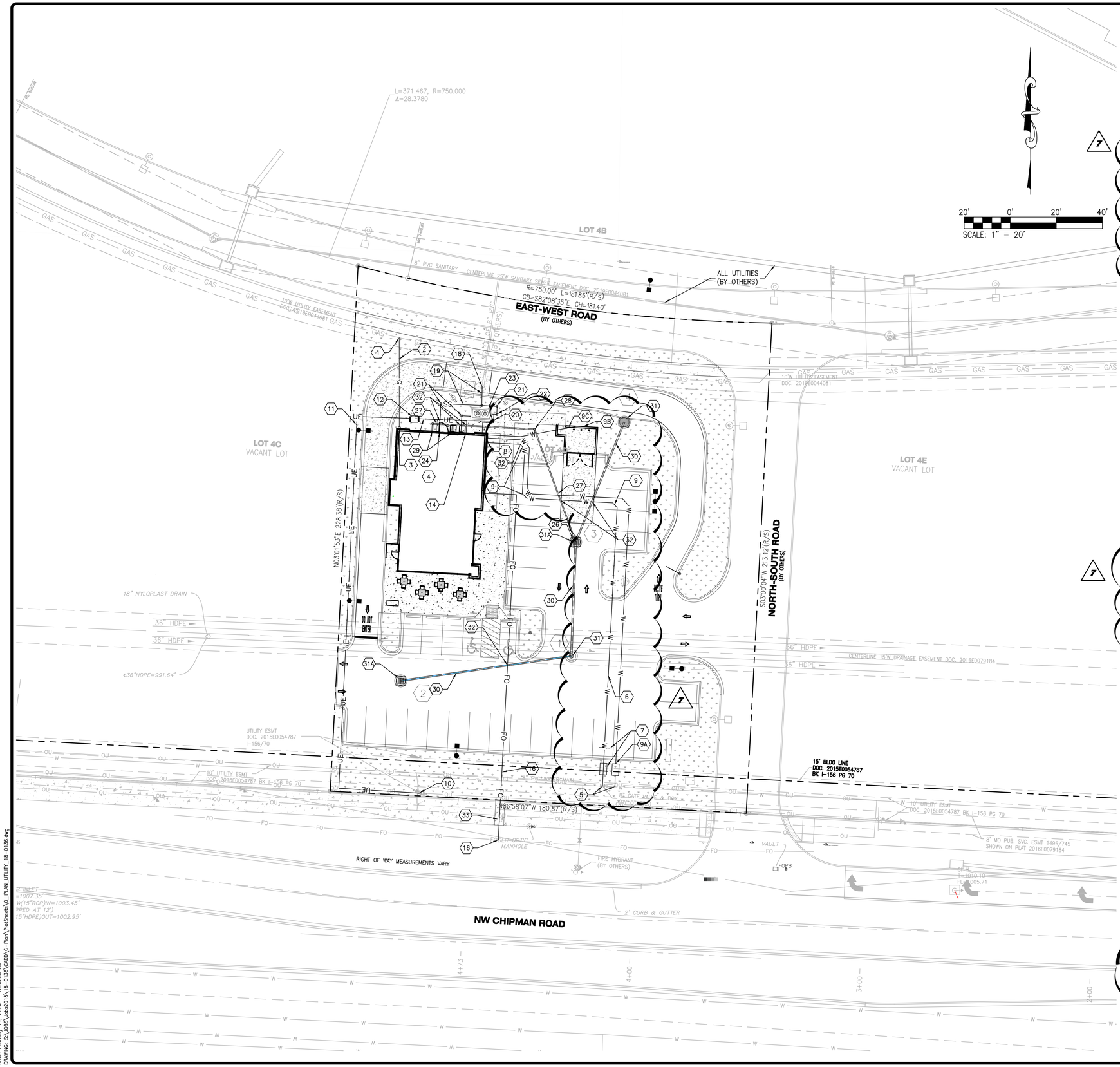
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KEYED NOTES

GAS SERVICE

1. NEW GAS SERVICE POINT OF CONNECTION. ALL MATERIAL AND INSTALLATION BY GAS UTILITY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL CONTACT GAS UTILITY AS SOON AS POSSIBLE TO ACCOMMODATE REQUIRED LEAD TIME FOR DESIGN AND COORDINATION OF THE NEW SERVICE.
2. NEW 2" GAS SERVICE. ALL MATERIAL AND INSTALLATION BY GAS UTILITY AT THE CONTRACTOR'S EXPENSE.
3. NEW GAS METER. ALL MATERIAL AND INSTALLATION BY GAS UTILITY AT THE CONTRACTOR'S EXPENSE.
4. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND CONTINUATION OF GAS SERVICE.

WATER SERVICE

5. NEW POINT OF CONNECTION TO EXISTING 8" MAIN. THE CONTRACTOR SHALL CONTACT WATER UTILITY AS SOON AS POSSIBLE TO ACCOMMODATE REQUIRED LEAD TIME FOR DESIGN AND COORDINATION OF THE NEW SERVICE.
6. NEW 203' – 1-½" PVC DOMESTIC WATER SERVICE WITH 42" MINIMUM COVER.
7. NEW 1-½" DOMESTIC WATER METER AND PIT (PER WATER UTILITY STANDARDS) WITH 10' MINIMUM OF SOFT TYPE "K" COPPER BEYOND THE METER (PER CITY OF LEE'S SUMMIT DETAIL WAT–11). WATER UTILITY TO PROVIDE AND SET THE METER AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OTHER MATERIAL AND INSTALLATION.
8. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND CONTINUATION OF DOMESTIC WATER SERVICE.
9. NEW 45° BEND WITH CONCRETE THRUST BLOCK (PER WATER UTILITY STANDARDS).
9A. NEW ⅝" IRRIGATION METER AND PIT, IRRIGATION DESIGN BY OTHERS (PER CITY OF LEE'S SUMMIT DETAIL WAT–11). REFERENCE PLUMBING DRAWINGS FOR IRRIGATION CONTROL INSIDE BUILDING.
9B. LOCATION OF YARD HYDRANT, WOODFORD MODEL RHY1–MS (YH–1).
9C. NEW ⅝" PVC WATER LINE TO YARD HYDRANT.

ELECTRIC SERVICE

10. NEW ELECTRIC SERVICE POINT OF CONNECTION. ALL MATERIAL AND INSTALLATION BY ELECTRIC UTILITY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL CONTACT ELECTRIC UTILITY AS SOON AS POSSIBLE TO ACCOMMODATE REQUIRED LEAD TIME FOR DESIGN AND COORDINATION OF THE NEW SERVICE.
11. NEW PRIMARY UNDERGROUND ELECTRIC SERVICE. ELECTRIC UTILITY SHALL SIZE CONDUIT AND PROVIDE AND PULL CONDUCTOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING THE CONDUIT.
12. NEW GROUND MOUNTED TRANSFORMER (PER ELECTRIC UTILITY STANDARDS). ELECTRIC UTILITY TO PROVIDE AND INSTALL THE TRANSFORMER AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING THE CONCRETE PAD (ELECTRIC UTILITY STANDARDS).
13. NEW SECONDARY UNDERGROUND ELECTRIC SERVICE. ELECTRIC UTILITY TO SIZE CONDUIT AND CONDUCTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL AND INSTALLATION.
14. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND CONTINUATION OF ELECTRIC SERVICE.

COMMUNICATIONS SERVICE

15. NEW COMMUNICATIONS SERVICE POINT OF CONNECTION. ALL MATERIAL AND INSTALLATION BY COMMUNICATIONS UTILITY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL CONTACT COMMUNICATIONS UTILITY AS SOON AS POSSIBLE TO ACCOMMODATE REQUIRED LEAD TIME FOR DESIGN AND COORDINATION OF THE NEW SERVICE. [NEW COMMUNICATIONS SERVICE TO THE NEAREST POINT OF CONNECTION. ALL MATERIAL AND INSTALLATION BY COMMUNICATIONS UTILITY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL CONTACT COMMUNICATIONS UTILITY AS SOON AS POSSIBLE TO ACCOMMODATE REQUIRED LEAD TIME FOR DESIGN AND COORDINATION OF THE NEW SERVICE.]
16. NEW (1) 2" PVC AND (1) 4" PVC COMMUNICATION SERVICE CONDUIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING THE CONDUIT AND PULLWIRE. ALL OTHER MATERIAL AND INSTALLATION BY COMMUNICATIONS UTILITY AT THE CONTRACTOR'S EXPENSE.
17. REFER TO MECHANICAL PLANS FOR EXACT LOCATION AND CONTINUATION OF COMMUNICATIONS SERVICE. COORDINATE DEPTH OF INSTALL – AT LEAST 18" BELOW GROUND.

SANITARY SEWER SERVICE

18. NEW SANITARY SEWER SERVICE POINT OF CONNECTION (PER SANITARY SEWER UTILITY STANDARDS, INVERT ELEVATION = 1000.41).
19. NEW 38' – 6" PVC SANITARY SEWER SERVICE WITH 2.0% MINIMUM SLOPE AND 42" MINIMUM COVER.
20. NEW 2" VENT PIPE.
21. NEW SANITARY SEWER CLEANOUT. REFER TO DETAIL ON SHEET C8.1.
22. NEW SANITARY SEWER SAMPLING TEE (PER SANITARY SEWER UTILITY STANDARDS). REFER TO DETAIL ON SHEET C8.1
23. NEW GREASE TRAP. REFER TO ARCHITECTURAL PLANS.
24. NEW SANITARY SEWER POINT OF BUILDING ENTRY (INVERT ELEVATION = 1004.00). REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND CONTINUATION OF SANITARY SEWER SERVICE.
25. (NOT USED)

STORM SEWER SERVICE

26. NEW ROOF DRAIN POINT OF CONNECTION TO PROPOSED STRUCTURE (INVERT = 1001.00).
27. NEW 6" HDPE ROOF DRAIN WITH 2.00% MINIMUM SLOPE AND 42" MINIMUM COVER.
28. NEW STORM SEWER CLEANOUT. REFER TO DETAIL ON SHEET C8.1.
29. NEW ROOF DRAIN DOWNSPOUT CONNECTION (INVERT = 1003.00). REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND CONTINUATION OF ROOF DRAIN.
30. NEW STORM SEWER. REFER TO STORM SEWER PROFILES ON SHEET C6.1.
31. NEW NYLOPLAST CURB INLET STORM SEWER STRUCTURE. REFER TO STORM SEWER PROFILES ON SHEET C6.1.
31A. NEW NYLOPLAST DRAIN BASIN STORM SEWER STRUCTURE. REFER TO STORM SEWER PROFILES ON SHEET C6.1

MISCELLANEOUS ITEMS

32. THE CONTRACTOR SHALL MAINTAIN 18" MINIMUM VERTICAL CLEARANCE AT ALL UTILITY CROSSINGS.
33. REMOVE AND REPLACE EXISTING SIDEWALK IN KIND AS NECESSARY TO INSTALL THE PROPOSED UTILITIES.

CONTRACTOR SHALL VERIFY STUB LOCATION, SIZE, AND FLOWLINE PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES MUST BE RELAYED TO CIVIL ENGINEER AND ARCHITECT FOR COORDINATION.

NO	REVISION DESCRIPTION	DATE
7	ARCHITECT COMMENTS	7/11/20
6	VALUE ENGINEERING/REVIEW COMMENTS	1/22/20
5	REVIEW COMMENTS	1/8/20
4	PER ARCHITECT COMMENTS	12/2/19
3	REVIEW COMMENTS	11/21/19
2	REVIEW COMMENTS	10/7/19
1	REVIEW COMMENTS	9/9/19

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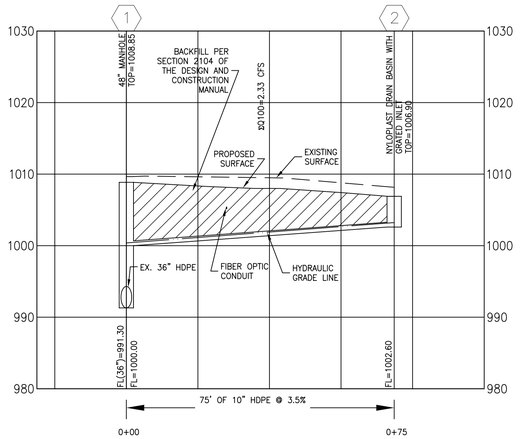
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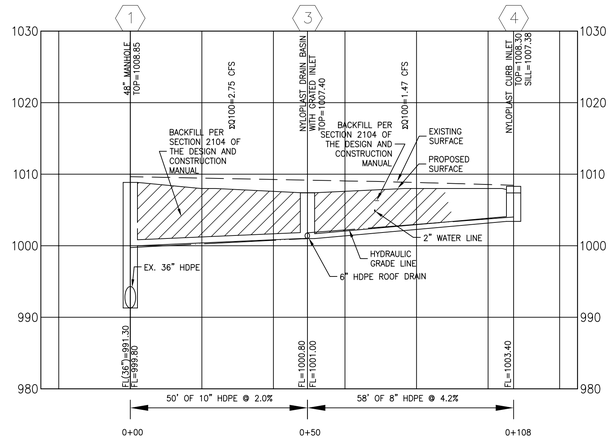
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1 STORM SEWER PROFILE

SCALE: 1"=20' HORIZ. 1"=10' VERT. REF. DWG. C6.0



2 STORM SEWER PROFILE

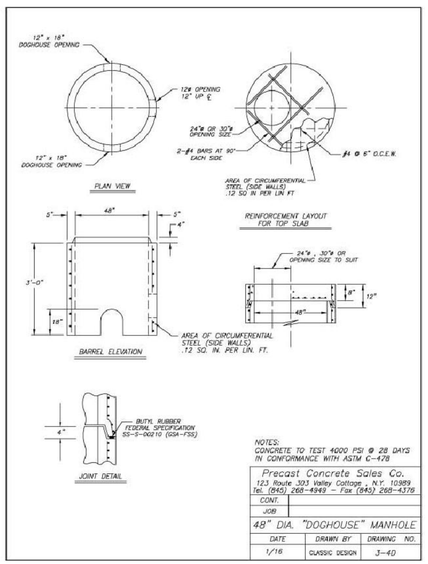
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Conduit FlexTable: Cole

Label	Diameter (in)	Length (Unified) (ft)	Manning's n	Bend Angle (Calculated) (degrees)	Slope (Calculated) (ft/ft)	Flow (cfs)	Capacity (Excess Full Flow) (cfs)	Capacity (Full Flow) (cfs)	Velocity (In) (ft/s)	Velocity (Out) (ft/s)	Stop Node	Invert (Stop) (ft)	Elevation Ground (Stop) (ft)	Hydraulic Grade Line (Out) (ft)	Start Node	Invert (Start) (ft)	Elevation Ground (Start) (ft)	Hydraulic Grade Line (In) (ft)	Freeboard
3-4	8.0	57.6	0.010	19.61	0.042	1.47	1.74	3.21	4.64	4.21	GI-3	1,001.00	1,007.40	1,001.93	CI-4	1,003.40	1,007.80	1,003.97	3.83
2-1	10.0	74.9	0.010	0.00	0.035	2.33	2.98	5.31	4.88	9.42	MH-1	1,000.00	1,008.85	1,000.39	GI-2	1,002.60	1,006.90	1,003.28	3.62
1-3	10.0	49.5	0.010	0.00	0.020	2.75	1.30	4.05	5.43	7.70	MH-1	1,000.00	1,008.85	1,000.52	GI-3	1,001.00	1,007.40	1,001.73	5.67

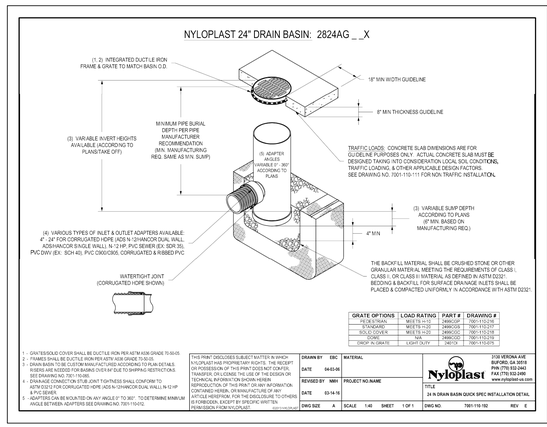
3 HYDRAULIC CALCULATIONS (100 YR, 5 MIN.)

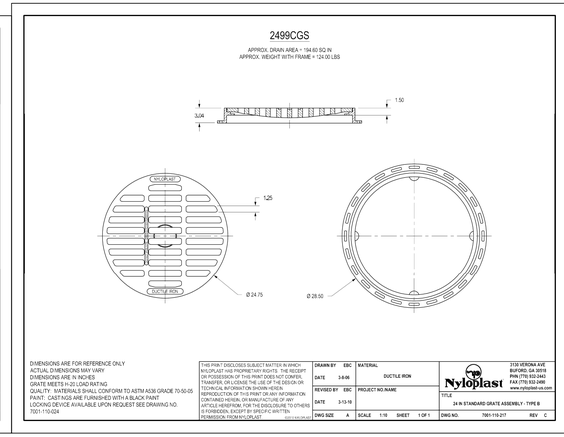
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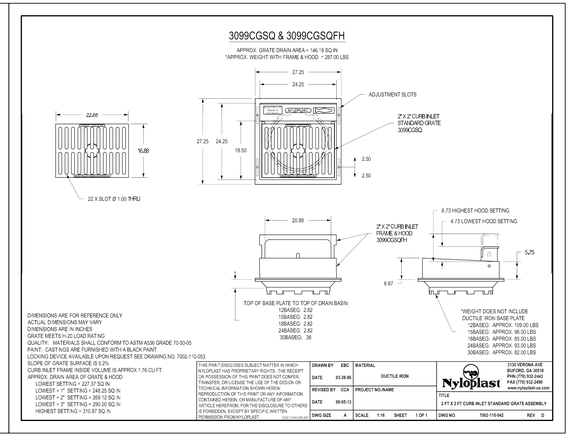


1 DOG HOUSE CONNECTION AT STRUCTURE 1

SCALE: NTS REF. DWG. C6.1







1 STORM STRUCTURE DETAILS

SCALE: NTS REF. DWG. C6.0

7	2/11/20	ARCHITECT COMMENTS
6	1/22/20	VALUE ENGINEERING/REVIEW COMMENTS
5	1/8/20	REVIEW COMMENTS
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1	9/9/19	REVIEW COMMENTS
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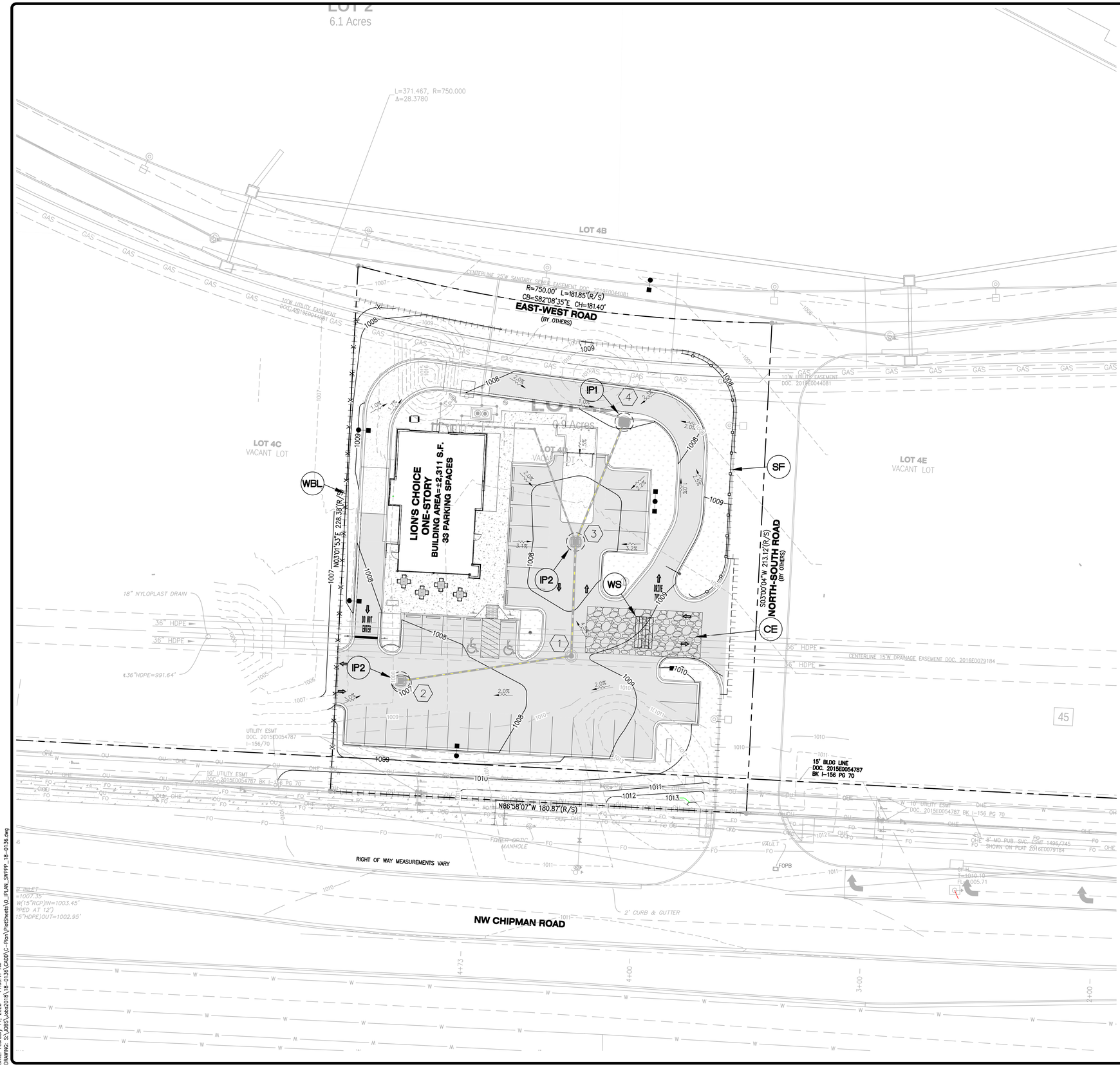
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20' 0' 20' 40'

SCALE: 1" = 20'

EROSION CONTROL LEGEND

LABEL	SYMBOL	DESCRIPTION
LD		LIMITS OF DISTURBANCE
CE		CONSTRUCTION ENTRANCE – APWA (REFER TO DETAIL ON SHEET C7.2)
IP1		CURB INLET PROTECTION – APWA (REFER TO DETAIL ON SHEET C7.2)
IP2		INLET PROTECTION – DANDY BAG (REFER TO DETAIL ON SHEET C7.2)
PS		PERMANENT SEEDING / SODDING (REFER TO SUMMARY ON SHEET C7.2)
SF		SILT FENCE – APWA (REFER TO DETAIL ON SHEET C7.2)
WBL		WATTLES / BIODEGRADABLE LOG – APWA (REFER TO DETAIL ON SHEET C7.2)
WS		WASHDOWN STATION – APWA (REFER TO DETAIL ON SHEET C7.2)

NO	DESCRIPTION	DATE
7	ARCHITECT COMMENTS	2/11/20
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CHIPMAN, INC.
JOHN F. HARSHBARGER
PE NO. E-24716
DATE 9/10/19

STATE OF MISSOURI
JOHN F. HARSHBARGER
NUMBER
E-24716
REGISTERED
ENGINEER

LION'S CHOICE

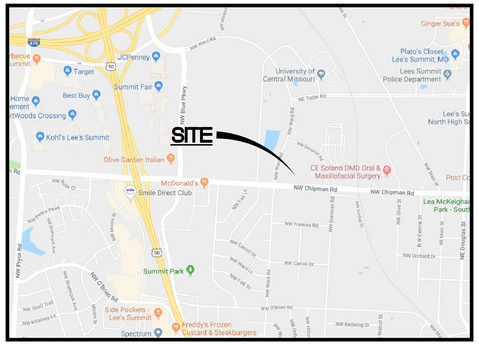
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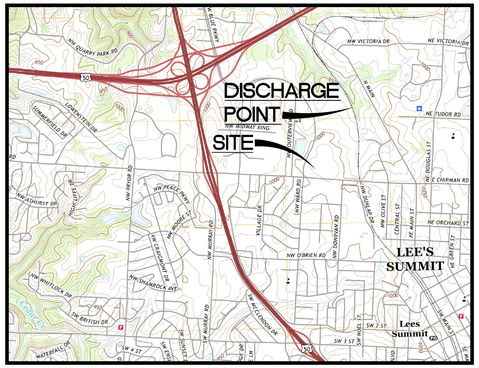
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LOCATION MAP

(NOT TO SCALE)



USGS MAP

(NOT TO SCALE)



SOILS MAP

(NOT TO SCALE)

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
10082	Arisburg-Urban land complex, 1 to 5 percent slopes	1.2	100.0%
Totals for Area of Interest		**1.2**	**100.0%**

SOILS MAP KEY

(NOT TO SCALE)

EROSION CONTROL CONTACT DATA

SITE ADDRESS	440 NW CHIPMAN ROAD LEE'S SUMMIT, MO 64063
OWNER	LION'S CHOICE 12977 NORTH FORTY DRIVE ST. LOUIS, MO 63141
EMERGENCY CONTACT	TBD
SITE OPERATOR	TBD

EROSION CONTROL SITE DATA

TOTAL SITE AREA	0.90 ACRES
ON–SITE DISTURBED AREA	0.78 ACRES
OFF–SITE DISTURBED AREA	0.00 ACRES
TOTAL DISTURBED AREA	0.78 ACRES
RUNOFF COEFFICIENT (IMPERVIOUS AREA)	0.90
RUNOFF COEFFICIENT (PERVIOUS AREA)	0.30
IMPERVIOUS AREA (PRE–DEVELOPED)	0.14 ACRES
PERVIOUS AREA (PRE–DEVELOPED)	0.76 ACRES
RUNOFF COEFFICIENT (PRE–DEVELOPED)	0.39
IMPERVIOUS AREA (POST–DEVELOPED)	0.58 ACRES
PERVIOUS AREA (POST–DEVELOPED)	0.32 ACRES
RUNOFF COEFFICIENT (POST–DEVELOPED)	0.69

EROSION CONTROL SEQUENCE

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE(S) AND SWPPP INFORMATION SIGN.
2. INSTALL SILT FENCE(S) AND WATTLES/ BIODEGRADABLE LOG(S) ON THE SITE (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE).
3. PREPARE TEMPORARY PARKING AND STORAGE AREA.
4. HALT ALL ACTIVITIES AND OBTAIN ANY AND ALL REQUIRED INITIAL BMP INSPECTIONS BEFORE PROCEEDING WITH CONSTRUCTION.
5. INSTALL AND STABILIZE ANY HYDRAULIC CONTROL STRUCTURES (DIKES, SWALES, CHECK DAMS, ETC.).
6. BEGIN CLEARING AND GRUBBING THE SITE.
7. BEGIN GRADING THE SITE.
8. START CONSTRUCTION OF THE BUILDING PAD AND ACCESSORY STRUCTURES.
9. TEMPORARILY SEED, THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE.
10. INSTALL BUILDING AND ACCESSORY STRUCTURES.
11. INSTALL PIPING, UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
12. INSTALL INLET PROTECTION AT ALL STORM SEWER STRUCTURES AS EACH INLET STRUCTURE IS INSTALLED.
13. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
14. PREPARE SITE FOR PAVING.
15. PAVE SITE.
16. INSTALL APPROPRIATE INLET PROTECTION DEVICES FOR PAVED AREAS AS WORK PROGRESSES.
17. COMPLETE GRADING AND INSTALL PERMANENT STABILIZATION OVER ALL AREAS.
18. OBTAIN CONCURRENCE FROM THE OWNER/DEVELOPER'S DESIGNATED REPRESENTATIVE (AS APPROPRIATE) THAT THE SITE HAS BEEN FULLY STABILIZED.
19. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
20. STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF BMP'S.
21. OBTAIN ANY AND ALL REQUIRED FINAL BMP INSPECTIONS.

EROSION CONTROL NOTES

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("SITE MAP"), THE STANDARD DETAILS, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. THE GENERAL CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE GENERAL CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
5. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. THE GENERAL CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. THE GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. CONTRACTOR SHALL CONSTRUCT TEMPORARY BERM ON DOWN STREAM SIDES IN COMPLIANCE WITH THIS SWPPP.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN–UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST–GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS AS SHOWN ON SITE MAP.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED, AND/OR VEGETATED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OF MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
17. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON–SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES, STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTION DISCHARGE.
21. SEE SITE PLAN FOR PERMANENT AND TEMPORARY SIGNAGE.
22. GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
23. REFER TO THE APPLICABLE NPDES PERMIT FOR REPORTABLE SPILL QUANTITIES OF PETROLEUM PRODUCTS AND/OR HAZARDOUS WASTES.
24. GENERAL CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH EROSION CONTROL SEQUENCING SHOWN ON THIS PLAN. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.
25. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE CONSTRUCTION SITE BY USING THE DESIGNATED ENTRANCE OVERLAID WITH GRAVEL.
26. NO CONSTRUCTION MATERIALS OR EQUIPMENT CAN BE STORED ON ADJACENT PROPERTIES.
27. NO COMBUSTIBLE RUBBISH SHALL ACCUMULATE ON THE CONSTRUCTION SITE. ALL COMBUSTIBLE RUBBISH MUST BE REMOVED DAILY AND SHALL NOT BE DISPOSED OF BY BURNING.
28. THE GENERAL CONTRACTOR SHALL MAINTAIN THE SILTATION CONTROL DEVICES SO AS TO PREVENT SILT FROM BYPASSING THEM AND DISTURBED AREAS SHALL BE BE ADEQUATELY RE–VEGETATED.
29. ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING. EROSION CONTROL SHALL NOT BE LIMITED TO WHAT IS SHOWN ON THE PLAN. WHATEVER MEANS NECESSARY SHALL BE TAKEN TO PREVENT SILTATION AND EROSION FROM ENTERING NATURAL STREAMS AND ADJACENT ROADWAYS, PROPERTIES AND DITCHES.
30. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED AT SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE. BETWEEN PERMANENT GRASS SEEDING PERIODS, TEMPORARY COVER SHALL BE PROVIDED.

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE–HALF THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY AS BEEN REDUCED BY 50%.
7. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

NO	DATE	REVISION DESCRIPTION
7	7/11/20	ARCHITECT COMMENTS
6	1/22/20	VALUE ENGINEERING/REVIEW COMMENTS
5	1/8/20	REVIEW COMMENTS
4	12/2/19	PER ARCHITECT COMMENTS
3	11/21/19	REVIEW COMMENTS
2	9/30/19	REVIEW COMMENTS
1	9/9/19	REVIEW COMMENTS

DEVELOPER/OWNER:
RED LION BEEF CORPORATION
12977 N FORTY DRIVE, SUITE 100
ST. LOUIS, MO 63141
(314) 821-8665

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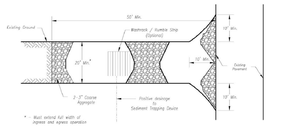
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SUMMIT ORCHARD
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LEE'S SUMMIT, MO

EROSION CONTROL NOTES

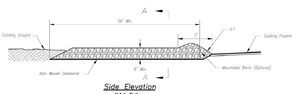
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DRAWN BY	MAB
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DRAWING SCALE	AS SHOWN
DATE	08/29/2019
Job Number	18-0136
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Plan View
Not to Scale



Side Elevation
Not to Scale



Section A--A
Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6 - to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

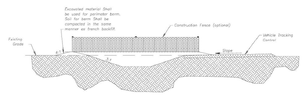
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized appropriately for the concrete truck(s) using the site. The slopes leading out of the subsurface pit shall be 2:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit to evenly or gravelly soils.

Maintenance for Concrete Washout:

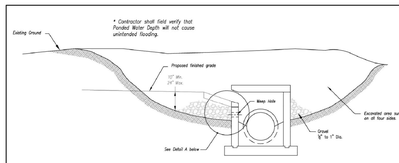
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for washout concrete.
3. Concrete washout water, washed pieces of concrete and all other materials shall be disposed of in accordance with the pre-site into a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with compacted soil and topsoil. Any other disturbance areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



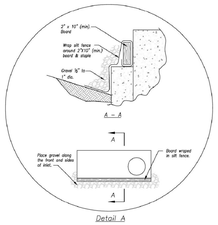
CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details
Concrete Washout modified from 2009 City of Grand Island Standard Drawings

AMERICAN PUBLIC WORKS ASSOCIATION		
APWA	KANSAS CITY METRO CHAPTER	
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT	STANDARD DRAWING NUMBER ESC-01	
	ADOPTED: 10/24/2016	



On Grade Curb Inlet Protection



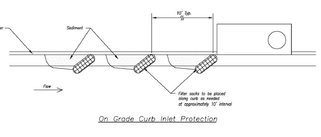
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

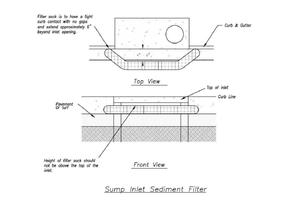
Notes:

1. Immediately following brief construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Secure board to inlet opening with gravel bags, stakes or other settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



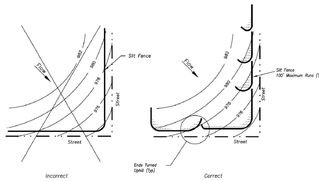


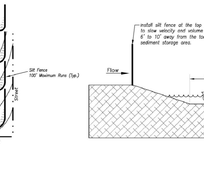
Sump Inlet Sediment Filter

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION		
APWA	KANSAS CITY METRO CHAPTER	
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06	
	ADOPTED: 10/24/2016	



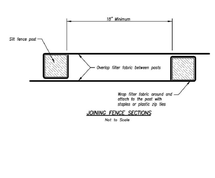


Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure 4).
2. Long perimeter runs of silt fence must be limited to 1320'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure 4).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2" into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

SILT FENCE DETAILS
Not to Scale

SILT FENCE LAYOUT
Not to Scale



Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.

AMERICAN PUBLIC WORKS ASSOCIATION		
APWA	KANSAS CITY METRO CHAPTER	
SILT FENCE	STANDARD DRAWING NUMBER ESC-03	
	ADOPTED: 10/24/2016	

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

Dandy® Bag

The patented Dandy Bag® is designed for use with flat grates (including round) and mountable curbs to detain sediment-laden storm water. The suspended solids are allowed to settle out of the slowed flow prior to entering the Dandy Bag®.

Installation

1. Stand the grate on end
2. Place the Dandy Bag® over the grate
3. Roll the grate over so that the open end is up
4. Pull up the slack
5. Tuck the flap in
6. Press the velcro strips together
7. Be sure that the end of the grate is completely covered by the flap or The Dandy Bag® will not work properly
8. Holding the handles, carefully place the Dandy Bag® with the grate inserted into the catch basin frame

Maintenance

To insure proper operation remove silt, sediment, and debris from the surface and the vicinity of the unit with a square point shovel or stiff bristle broom away from environmentally sensitive areas and waterways in manner satisfactory to the engineer/inspector. Remove fine material from inside Dandy Bag® as needed. Dispose of Dandy Bag® no longer in use at an appropriate recycling or solid waste facility.

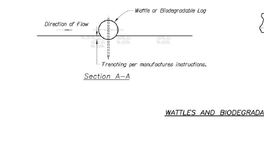
Inlet Inspection

To inspect inlet, remove Dandy Bag® with grate inside, inspect catch basin and replace Dandy Bag back into grate frame.

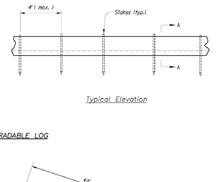
Ponding or likely'd sediment is not removed regularly The Dandy Bag' must never be used where overflow may endanger an exposed slope The Dandy Bag' is nox ivended lor any other use and should not be used lor any other purpose

DANDY PRODUCTS, INC.
2011 Harrisburg Pike, Suite R
Grove City, Ohio 43123

1-800-591-2284
(local) 614-875-2284
FAX: 614-875-6305
E-MAIL: dandy@dandyproducts.com
www.dandyproducts.com



Section A–A



Typical Elevation

WATTLES AND BIODEGRADABLE LOG

Notes for Wattles and Biodegradable Log Slope Protection

1. The Slope barriers shall be placed along contour lines, with a short section turned upgrade at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
2. Install wattles and biodegradable logs per manufacturer's instructions.
3. Spacing of stakes per manufacturer's instructions with 4' max. spacing. Length of stakes shall be a minimum of 2 times the diameter of the log with minimum of 24".

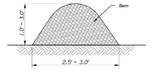


Figure 1
(Perimeter Control)

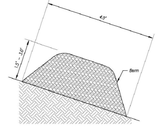


Figure 2
(Steep Slopes)

MULCH OR COMPOST FILTER BERMS

Notes for Mulch and Compost Filter Beam:

1. The sediment control berm shall be placed uncompacted in a widrow at locations shown on the plans or as directed by the engineer.
2. Parallel to the base of the slope, or around the perimeter of other affected areas, construct a 1 to 3 foot high by 2.5 to 3 foot wide berm (See Figure 1). For maximum water treatment ability or for steep slopes, the berm shall be 2 to 3 feet wide at the base (See Figure 2) a minimum of 4 feet wide at the base (See Figure 2). In extreme conditions, or where specified by the engineer, a second berm shall be constructed at the top of the slope. Engineer will specify berm requirements.
3. If berm is to be left as permanent or part of the natural landscape, the compost berm may be seeded during application for permanent vegetation.
4. Do not use compost or wood mulch berms in any runoff channels or concentrated flow areas.
5. Wood mulch shall consist of tree and shrub debris resulting from clearing and grubbing and shall be ground by the mechanical means such as a chipper, hammermill, or tub grinder to a maximum length of 6".
Mulch sizing varies with a maximum width of 3" and a maximum length of 16".

Maintenance for Mulch and Compost Filter Beam:

1. Berm shall be reshaped and material added as necessary to maintain function and dimensions.
2. Breaches in the berm shall be repaired promptly.

AMERICAN PUBLIC WORKS ASSOCIATION		
APWA	KANSAS CITY METRO CHAPTER	
WATTLES/BIODEGRADABLE LOG AND MULCH/COMPOST FILTER BERM	STANDARD DRAWING NUMBER ESC-04	
	ADOPTED: 10/24/2016	

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

TABLE 1: VEGETATION/SEEDING RATES AND MIXTURES

SEEDING REQUIREMENTS

Dates for Seeding

Permanent Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Tall Fescue			O	O	O			O	O			
Smooth Brome			O	O	O			O	O			
Fescue & Brome			O	O	O	O		O	O			
Fescue, Rye & Bluegrass	A	A	O	O	O	P	P	O	O	P	P	A

Temporary Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Rye or Sudan	A	A	O	O	O	O	O	O	O	O	A	A
Oats		A	O	O	O	O	O	O	O			

O = Optimum seeding dates
A = Acceptable seeding dates
P = Permitted seeding dates with reseeding 2 months later - Initially use 50% of seed and 75% of fertilizer. Reseed with additional 75% seed and remaining fertilizer.

Minimum Fertilizer and Seeding Rates

Permanent Seeding*	Pounds per acre	Pounds Per 1000 sq. ft.
Tall Fescue	300	7.0
Smooth Brome	200	4.6
Mixture # 1	250	5.7
Mixture # 2	210	4.8

Mixture # 1 = Tall Fescue @ 150 pounds per acre and Brome @ 100 pounds per acre.
Mixture # 2 = Tall Fescue @ 100 pounds per acre; Perennial Rye grass @ 100 pounds per acre; and Kentucky Blue grass @ 10 pounds per acre.
* = Seeding rate for slopes in excess of 20% (5:1), shall be 10 pounds per 1000 sq. ft.

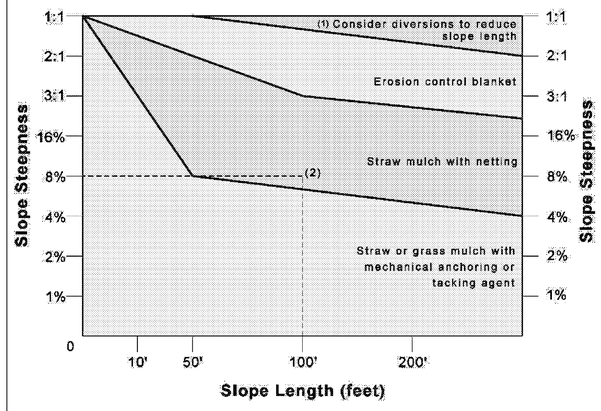
Temporary Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Rye or Sudan	150	3.5
Oats	200	2.5

Fertilizer	Permanent Seeding (pounds per acre)	Temporary Seeding (pounds per acre)
Nitrogen	45	30
Phosphate	65	30
Potassium	65	30
Lime - ENM	600	600

ENM = Effective neutralizing material per State evaluation of quarried rock.

TABLE 2: MULCH SCHEDULE

MULCH SELECTION AS A FUNCTION OF SLOPE



(1) For slopes steeper than 1:1, consider building a diversion above slope to divert water.
(2) Example: An 8% slope, 100 feet long, requires straw mulch with netting

GENERAL MULCH RECOMMENDATIONS TO PROTECT FROM SPLASH AND SHEET FLOW

Material	Rate Per Acre	Requirements	Notes
Straw	2 to 2.5 tons	Dry, unchopped unweathered; avoid weeds	Spread by hand or machine; must be tacked or tied down
Wood Fiber or Wood Cellulose	0.5 to 1 ton		Use with hydro seeder; may be used to tack straw. Do not use in hot, dry weather.
Wood Chips	5 to 6 tons	Air dry. Add nitrogen fertilizer at 12 lb per ton	Apply with blower, chip handler, or by hand. Not for fine turf areas.
Bark	35 cu. yds.	Air dry, shredded, or hammermilled; or chips	Apply with mulch blower, chip handler or by hand. Do not use asphalt tack.

NO	DATE	REVISION DESCRIPTION
7	7/11/20	ARCHITECT COMMENTS
6	1/22/20	VALUE ENGINEERING/REVIEW COMMENTS
5	1/8/20	REVIEW COMMENTS
4	12/2/19	PER ARCHITECT COMMENTS
3	11/21/19	REVIEW COMMENTS
2	9/30/19	REVIEW COMMENTS
1	9/9/19	REVIEW COMMENTS

DEVELOPER/OWNER:
RED LION BEEF CORPORATION
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PE, PLS, PROFILER
NUMBER
E-23716
STATE OF MISSOURI
JOHN F. HARSHBARGER
NUMBER E-23716
PROFESSIONAL ENGINEER
DATE 9/10/19

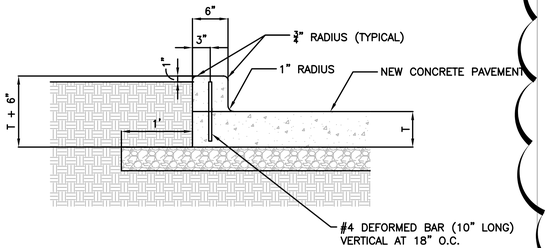
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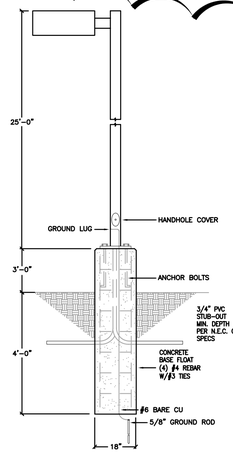
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DRAWN BY: MAB
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DRAWING SCALE: AS SHOWN
DATE: 08/29/2019
Job Number: 18-0136
Sheet Number: C7.2

USER: Bryan-Nicole Samuels TAB: C7.2
DATE: February 11, 2020 - 11:12:49 AM
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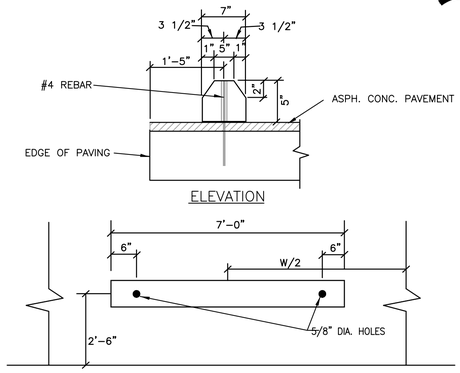


DETAIL NOTES:
1. COMPACT AGGREGATE BASE COURSE TO 95% MODIFIED PROCTOR PER ASTM D-1557.
2. COMPACT PREPARED EARTH SUBGRADE TO 90% OR GREATER OF MAXIMUM DRY DENSITY PER ASTM D-1557.
3. IF CURB IS POURED INTEGRAL WITH PAVEMENT, THEN DOWEL BAR AND CONSTRUCTION JOINT MAY BE OMITTED.
4. CONTINUE ALL PAVEMENT JOINTS THROUGH CURB.

1 INTEGRAL CONCRETE CURB DETAIL (STANDARD SECTION)
SCALE: N.T.S. REF. DWG. C4.0

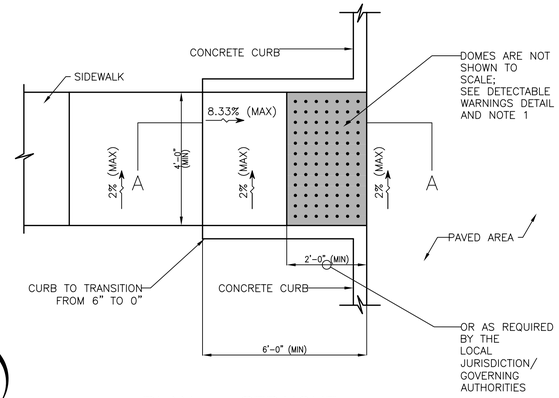


2 LIGHTING DETAIL
SCALE: N.T.S. REF. DWG. C4.0

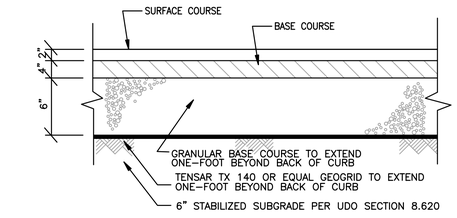


NOTE:
1.) SIMILAR SHAPE MAY BE USED UPON APPROVAL OF ENGINEER. 2.) HOLD IN PLACE WITH 18" LONG #4 REBARS PLACED IN THE HOLES AT EACH END AND DRIVEN FLUSH WITH THE TOP.

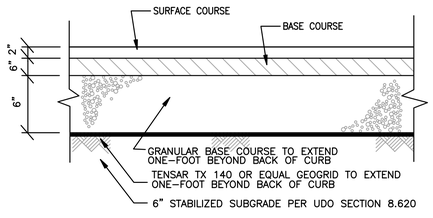
3 WHEEL STOP DETAIL
SCALE: REF. DWG. C4.0



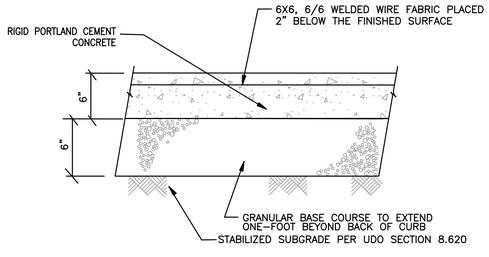
PLAN – STRAIGHT



4 ASPHALT PAVEMENT (LIGHT DUTY)
SCALE: N.T.S. REF. DWG. C4.0

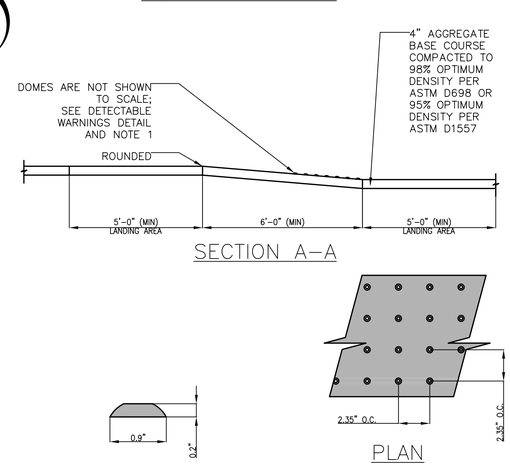


5 ASPHALT PAVEMENT (HEAVY DUTY)
SCALE: N.T.S. REF. DWG. C4.0



NOTE:
CONTRACTOR TO INSTALL CONCRETE PAVEMENT JOINTS PER THE AMERICAN CONCRETE INSTITUTES "GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS"

6 CONCRETE PAVEMENT (HEAVY DUTY)
SCALE: N.T.S. REF. DWG. C4.0



SECTION A–A

ELEVATION PLAN

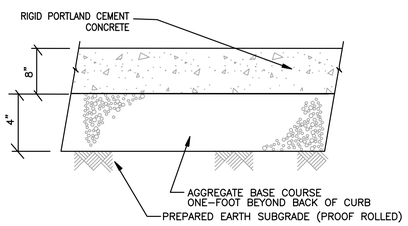
DETAIL NOTE:

PREFABRICATED PANELS PER A.D.A. ACCESSIBILITY GUIDELINES SECTION 4.29.2 & A4.29.2 SHALL BE USED.

DETECTABLE WARNING DETAIL

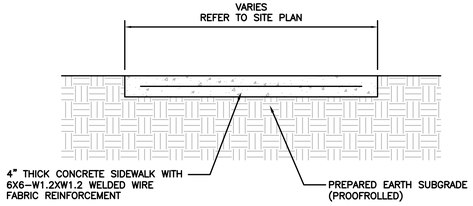
DETAIL NOTES:
1. THE SURFACE OF RAMP SHALL HAVE DETECTABLE WARNINGS AS SHOWN. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES. SEE DETECTABLE WARNINGS DETAIL.
2. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
3. CONSTRUCT PER A.D.A. STANDARDS.
4. REFER TO PLANS FOR ADJACENT SLOPES.
5. THE CROSS SLOPE OF THE RAMP SURFACE SHALL BE NO GREATER THAN 1:50.

10 CURB RAMP (TYPE B) DETAIL
SCALE: N.T.S. REF. DWG. C4.0



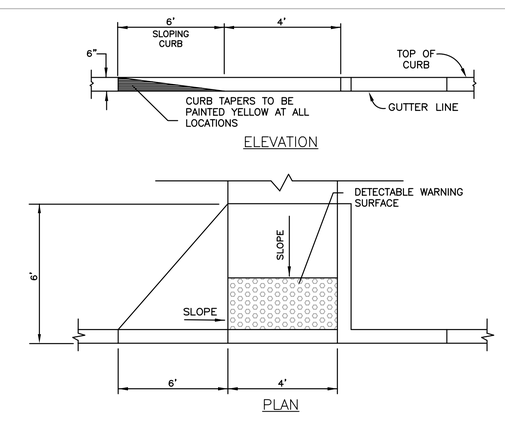
NOTE:
CONTRACTOR TO INSTALL CONCRETE PAVEMENT JOINTS PER THE AMERICAN CONCRETE INSTITUTES "GUIDE FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS"

7 CONCRETE PAVEMENT (HEAVY DUTY) WITH DETECTOR LOOP
SCALE: N.T.S. REF. DWG. C4.0



DETAIL NOTES:
1. PROVIDE ½" PREMOLDED EXPANSION JOINT FILLER AT 60' CENTERS.
2. PROVIDE TOOLED CONTRACTION JOINTS AT 10' CENTERS.

8 CONCRETE SIDEWALK DETAIL
SCALE: N.T.S. REF. DWG. C4.0



NOTE: MAINTAIN 4" SIDEWALK THICKNESS IN DEPRESSED AREA.

9 CURB RAMP (TYPE A) DETAIL
SCALE: N.T.S. REF. DWG. C4.0

NO	REVISION DESCRIPTION	DATE
7	ARCHITECT COMMENTS	7/11/20
6	VALUE ENGINEERING/REVIEW COMMENTS	1/22/20
5	REVIEW COMMENTS	1/8/20
4	PER ARCHITECT COMMENTS	12/2/19
3	REVIEW COMMENTS	11/21/19
2	REVIEW COMMENTS	10/4/19
1	REVIEW COMMENTS	9/9/19

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NUMBER
PE-2010018782
STATE OF KANSAS REGISTERED PROFESSIONAL ENGINEER
DATE 9/10/19

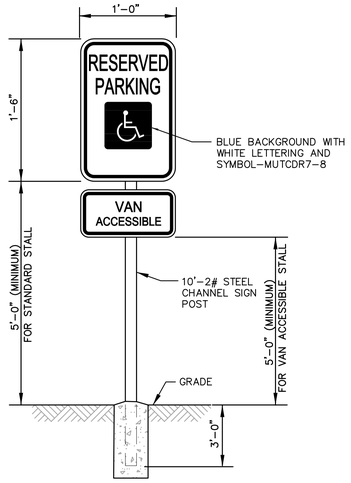
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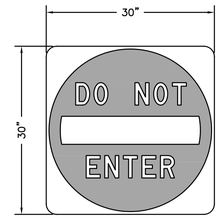
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DATE: 08/29/2019
Job Number: 18-0136
Sheet Number: C8.0

USER: Bryan-Nicole Samuels TAB: C8.0
DATE: February 12, 2020 - 10:48:10 AM
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1 ACCESSIBLE SIGN DETAIL

SCALE: N.T.S. REF. DWG. C4.0

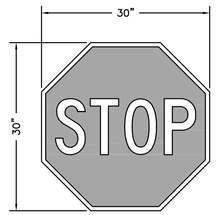


R5-1

DETAIL NOTES:
1. LEGEND AND BACKGROUND SHALL BE WHITE (RETROREFLECTIVE).
2. SYMBOLS SHALL BE RED (RETROREFLECTIVE).

2 "DO NOT ENTER" SIGN DETAIL

SCALE: N.T.S. REF. DWG. C4.0

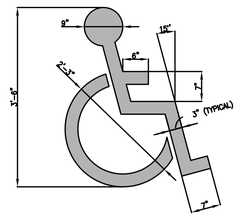


R1-1

DETAIL NOTES:
1. LEGEND SHALL BE WHITE (RETROREFLECTIVE).
2. BACKROUND SHALL BE RED (RETROREFLECTIVE).

3 "STOP" SIGN DETAIL

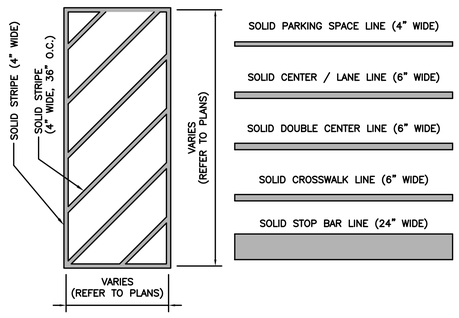
SCALE: N.T.S. REF. DWG. C4.0



DETAIL NOTES:
1. SYMBOL COLOR SHALL COMPLY WITH ALL LOCAL REGULATIONS.

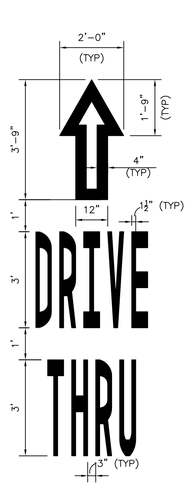
4 HANDICAP SYMBOL DETAIL

SCALE: N.T.S. REF. DWG. C4.0

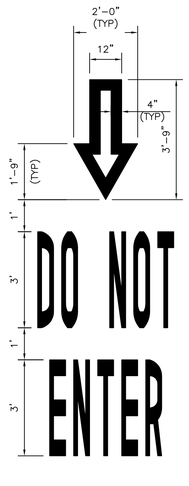


5 PAVEMENT STRIPING DETAIL

SCALE: N.T.S. REF. DWG. C4.0



DRIVE THRU ARROW

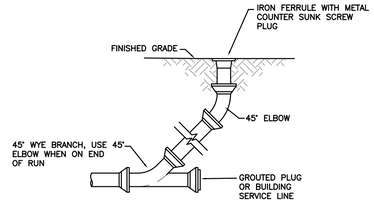


DO NOT ENTER ARROW

DETAIL NOTES:
1. ARROWS SHALL BE PAINTED SOLID REFLECTIVE YELLOW OR PER LOCAL CODES.

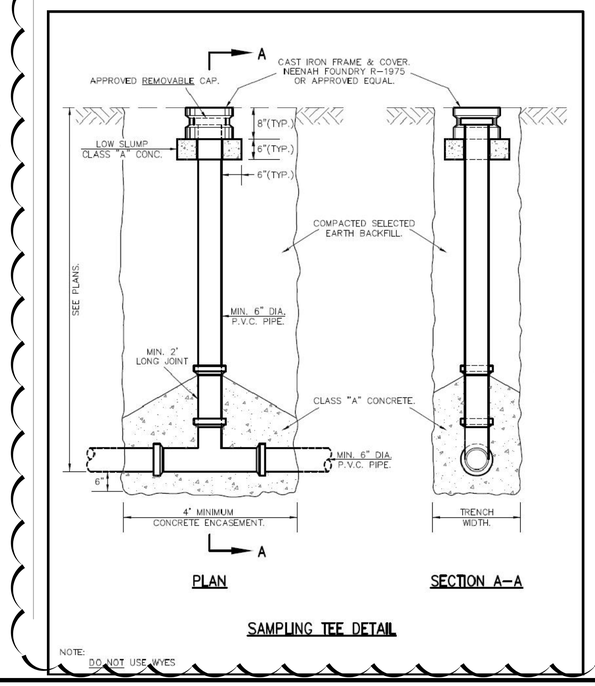
6 DRIVE-THRU/DO NOT ENTER DETAIL

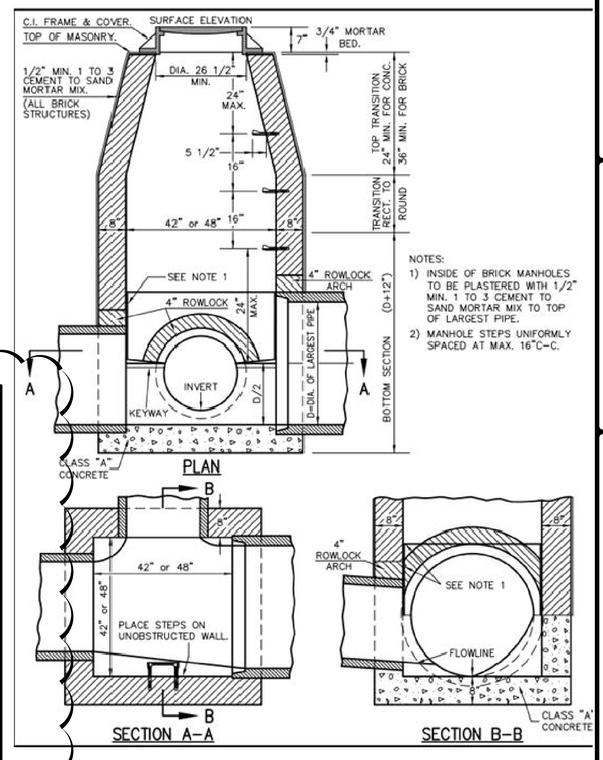
SCALE: N.T.S. REF. DWG. C4.0



7 CLEANOUT DETAIL

SCALE: N.T.S. REF. DWG. C4.0





NO	REVISION DESCRIPTION	DATE
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6	VALUE ENGINEERING/REVIEW COMMENTS	1/22/20
5	REVIEW COMMENTS	1/8/20
4	PER ARCHITECT COMMENTS	12/2/19
3	REVIEW COMMENTS	11/21/19
2	REVIEW COMMENTS	10/4/19
1	REVIEW COMMENTS	9/9/19

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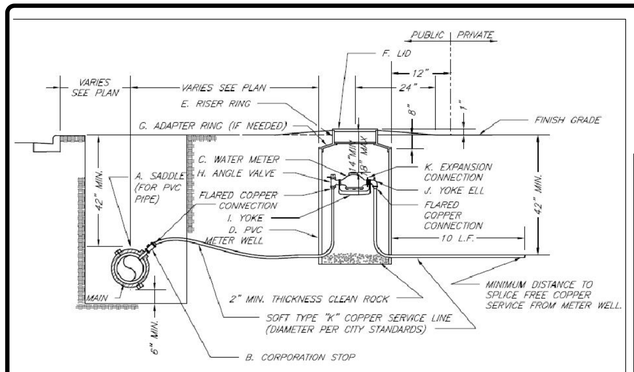
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TYPICAL METER INSTALLATION – 2" AND SMALLER
NOT TO SCALE

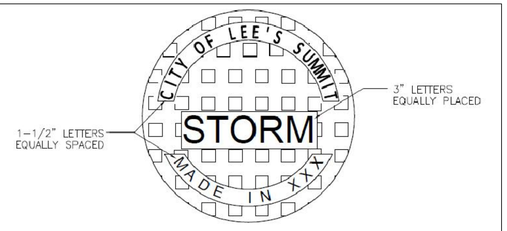
NOTES:

1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A–K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9. LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SERVICE CONNECTION/METER WELL

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-11
Rev: 1/14
Rev:



STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB
NOTE: PICK HOLES NOT SHOWN

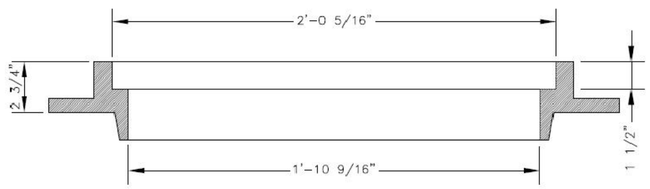
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

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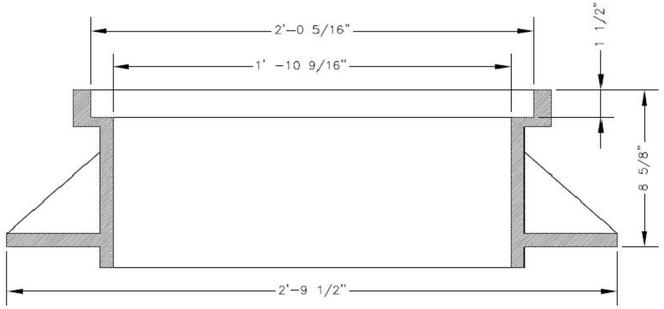
STORM MANHOLE COVER DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

STM-6



SLAB MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS103A
MINIMUM WEIGHT = 145 LB



STANDARD 24" MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS101A
MINIMUM WEIGHT = 250 LB

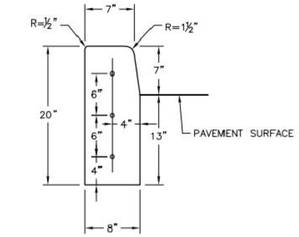
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

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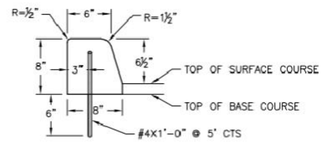
STORM MANHOLE FRAME DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

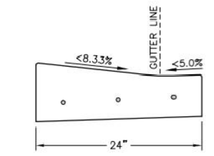
STM-7



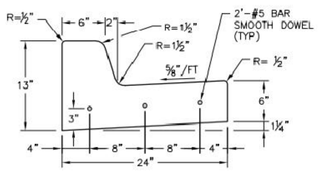
STRAIGHT CURB
(TYPE C–1)



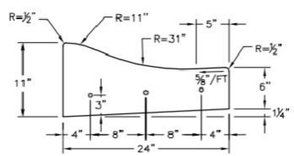
DOWELLED CURB
(TYPE DC)



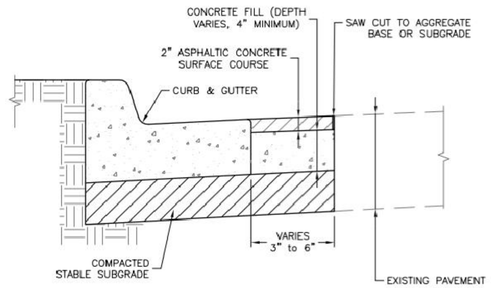
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



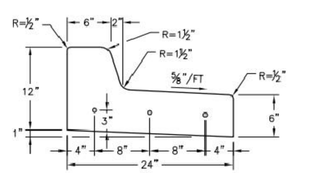
STRAIGHT BACK CURB & GUTTER
(TYPE CG–1)



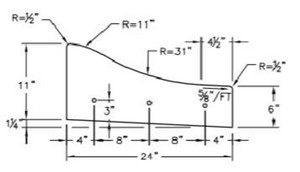
ROLL BACK CURB & GUTTER
(TYPE CG–2)



CURB REPLACEMENT DETAIL



STRAIGHT BACK DRY CURB & GUTTER
(TYPE CG–1 DRY)



ROLL BACK DRY CURB & GUTTER
(TYPE CG–2 DRY)

GENERAL NOTES

1. ¾" ISOLATION JOINTS WITH 3 (2'–#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Project:
CURB & GUTTER DETAIL
Sheet Name:

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

GEN-4

DEVELOPER/OWNER:
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4	12/3/19	PER ARCHITECT COMMENTS
3	11/21/19	REVIEW COMMENTS
2	10/9/19	REVIEW COMMENTS
1	9/9/19	REVIEW COMMENTS

CIVIL ENGINEERS
CORPORATE
DRINKING
COUNTRY
JOHN F. HARSHBARGER
NUMBER
E-25716
STATE OF MISSOURI
REGISTERED
ENGINEER
JOHN F. HARSHBARGER
PE, CFM, CPESC
DATE: 9/10/19

LION'S CHOICE
SUMMIT ORCHARD
4400 NW CHIPMAN ROAD
LEE'S SUMMIT, MO

CITY DETAIL SHEET

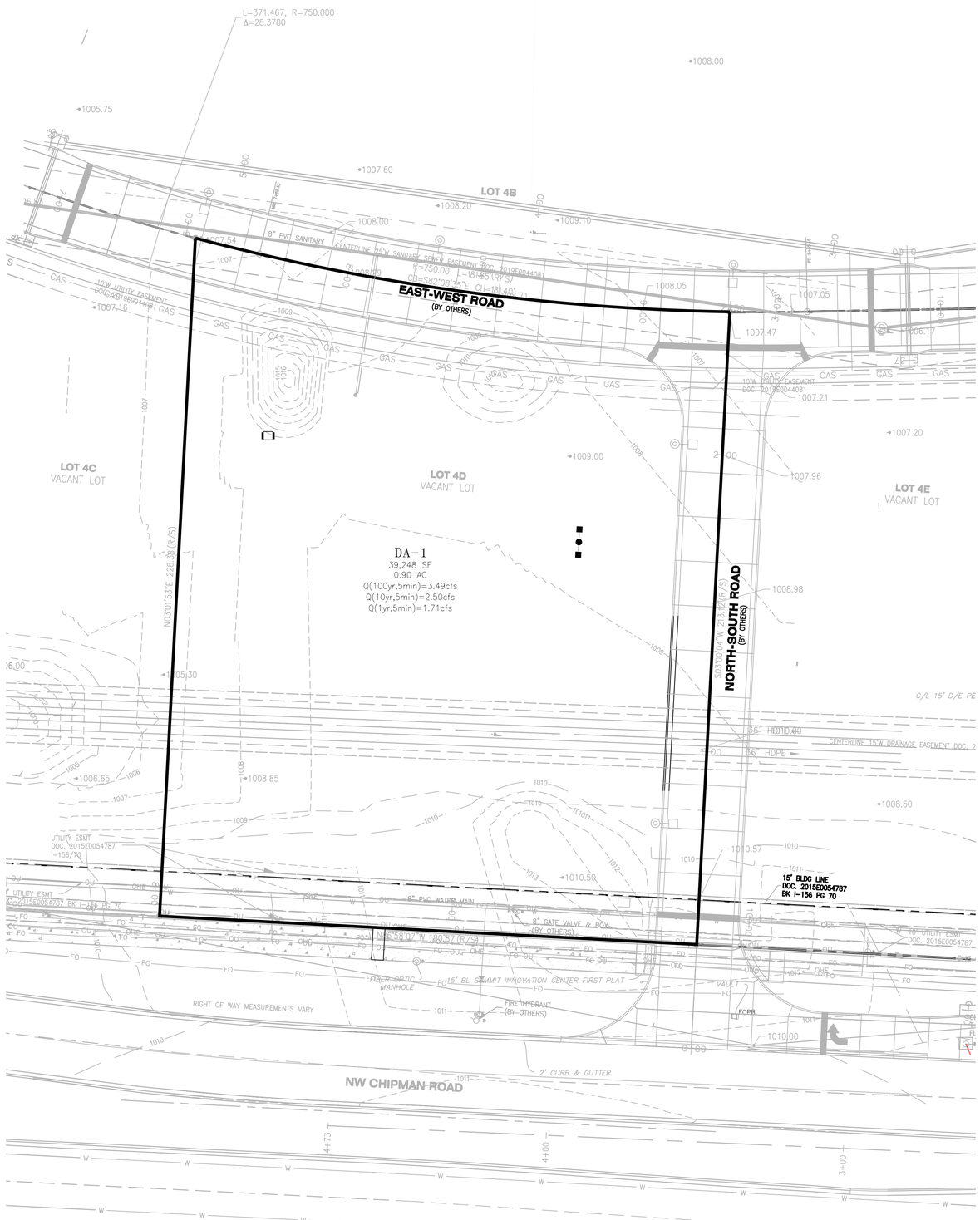
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Sheet Number: C8.2

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DATE: February 11, 2020 - 12:17:29 PM
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20' 0' 20' 40'
SCALE: 1" = 20'





Q VALUES

RATIONAL METHOD:
Q=CiA
C (IMPERVIOUS) =0.90
C (PERVOUS) =0.30

PERVIOUS AREA = 0.78 AC.
IMPERVIOUS AREA = 0.12 AC.
TOTAL AREA = 0.90 AC.

100 YEAR STORM (1% CHANCE), 5 MIN. DURATION
i FOR 100 YEAR, 5 MINUTE DURATION = 10.2

Q(PER) =(0.30*10.2*0.78)
Q(PER) =2.39 CFS

Q(IMP) =(0.90*10.2*0.12)
Q(IMP) =1.10 CFS

Q100(TOTAL) =3.49 CFS

10 YEAR STORM (10% CHANCE), 5 MIN. DURATION
i FOR 10 YEAR, 5 MINUTE DURATION = 7.3

Q(PER) =(0.30*7.3*0.78)
Q(PER) =1.71 CFS

Q(IMP) =(0.90*7.3*0.12)
Q(IMP) =0.79 CFS

Q10(TOTAL) =2.50 CFS

1 YEAR STORM (100% CHANCE), 5 MIN. DURATION
i FOR 1 YEAR, 5 MINUTE DURATION = 5.0

Q(PER) =(0.30*5.0*0.78)
Q(PER) =1.17 CFS

Q(IMP) =(0.90*5.0*0.12)
Q(IMP) =0.54 CFS

Q1(TOTAL) =1.71 CFS

NO	REVISION DESCRIPTION	DATE
7	ARCHITECT COMMENTS	2/11/20
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2	REVIEW COMMENTS	10/4/19
1	REVIEW COMMENTS	9/9/19

DEVELOPER/OWNER:
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DRAINAGE
DISTRICTS
JOHN F. HARSHBARGER
NO. E-29716
PROFESSIONAL ENGINEER
DATE 9/10/19

LION'S CHOICE
SUMMIT ORCHARD
440 NW CHIPMAN ROAD
LEE'S SUMMIT, MO

DRAINAGE AREA MAP (PRE)

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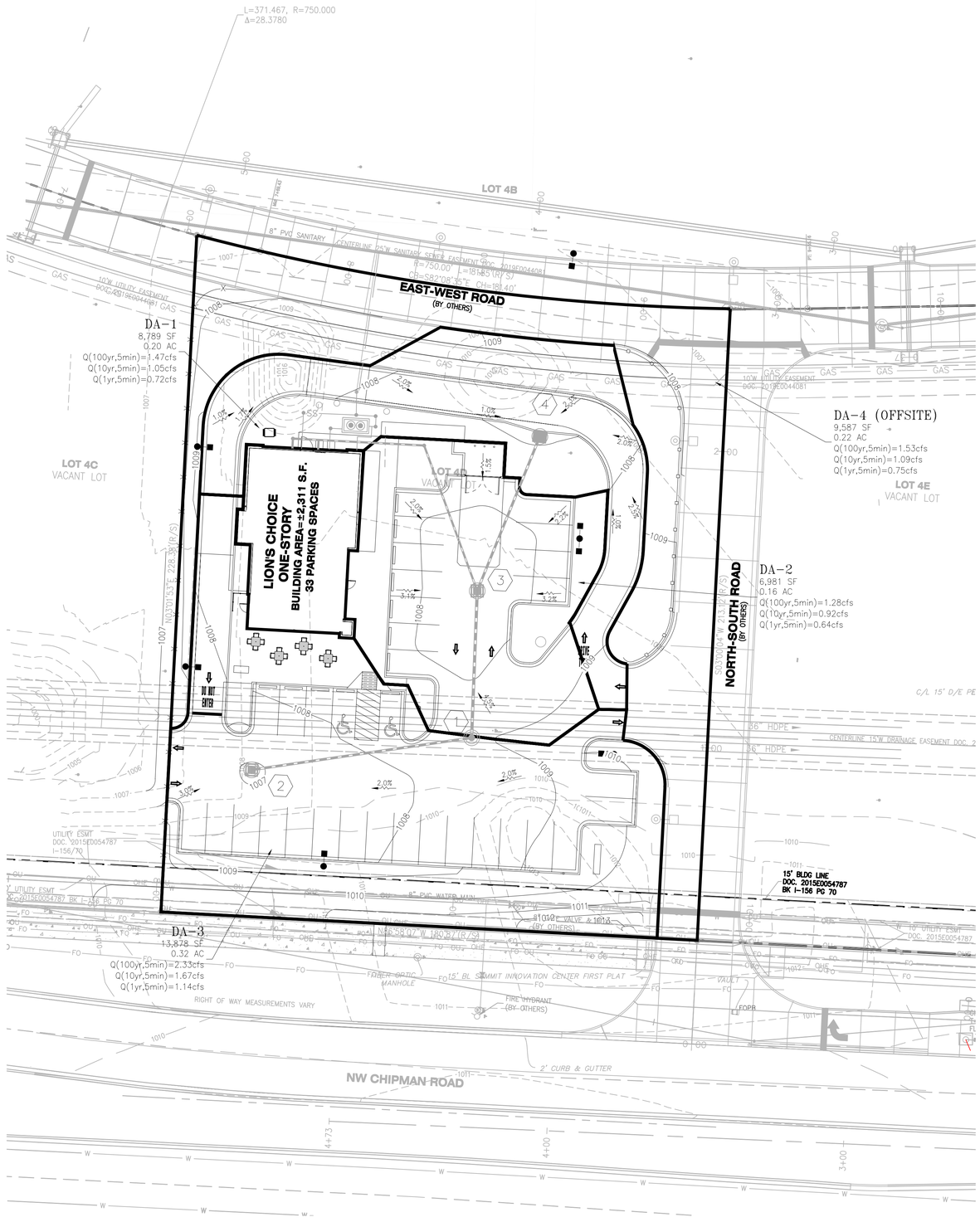
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20' 0' 20' 40'
SCALE: 1" = 20'



Q VALUES FOR CURB INLET (DA-1)

RATIONAL METHOD:
Q=CiA
C (IMPERVIOUS) =0.90
C (PERVIOUS) =0.30

PERVIOUS AREA = 0.06 AC.
IMPERVIOUS AREA = 0.14 AC.
TOTAL AREA (A) = 0.20 AC.

100 YEAR STORM (1% CHANCE), 5 MIN. DURATION
i FOR 100 YEAR, 5 MINUTE DURATION = 10.2

Q(PER) =(0.30*10.2*0.06)
Q(PER) =0.18 CFS

Q(IMP) =(0.90*10.2*0.14)
Q(IMP) =1.29 CFS

Q100(TOTAL) =1.47 CFS

10 YEAR STORM (10% CHANCE), 5 MIN. DURATION
i FOR 10 YEAR, 5 MINUTE DURATION = 7.3

Q(PER) =(0.30*7.3*0.06)
Q(PER) =0.13 CFS

Q(IMP) =(0.90*7.3*0.14)
Q(IMP) =0.92 CFS

Q10(TOTAL) =1.05 CFS

1 YEAR STORM (100% CHANCE), 5 MIN. DURATION
i FOR 1 YEAR, 5 MINUTE DURATION = 5.0

Q(PER) =(0.30*5.0*0.06)
Q(PER) =0.09 CFS

Q(IMP) =(0.90*5.0*0.14)
Q(IMP) =0.63 CFS

Q1(TOTAL) =0.72 CFS

Q VALUES FOR GRATED INLET (DA-2)

RATIONAL METHOD:
Q=CiA
C (IMPERVIOUS) =0.90
C (PERVIOUS) =0.30

PERVIOUS AREA = 0.03 AC.
IMPERVIOUS AREA = 0.13 AC.
TOTAL AREA (A) = 0.16 AC.

100 YEAR STORM (1% CHANCE), 5 MIN. DURATION
i FOR 100 YEAR, 5 MINUTE DURATION = 10.2

Q(PER) =(0.30*10.2*0.03)
Q(PER) =0.09 CFS

Q(IMP) =(0.90*10.2*0.13)
Q(IMP) =1.19 CFS

Q100(TOTAL) =1.28 CFS

10 YEAR STORM (10% CHANCE), 5 MIN. DURATION
i FOR 10 YEAR, 5 MINUTE DURATION = 7.3

Q(PER) =(0.30*7.3*0.03)
Q(PER) =0.07 CFS

Q(IMP) =(0.90*7.3*0.13)
Q(IMP) =0.85 CFS

Q10(TOTAL) =0.92 CFS

1 YEAR STORM (100% CHANCE), 5 MIN. DURATION
i FOR 1 YEAR, 5 MINUTE DURATION = 5.0

Q(PER) =(0.30*5.0*0.03)
Q(PER) =0.05 CFS

Q(IMP) =(0.90*5.0*0.13)
Q(IMP) =0.59 CFS

Q1(TOTAL) =0.64 CFS

Q VALUES FOR GRATED INLET (DA-3)

RATIONAL METHOD:
Q=CiA
C (IMPERVIOUS) =0.90
C (PERVIOUS) =0.30

PERVIOUS AREA = 0.10 AC.
IMPERVIOUS AREA = 0.22 AC.
TOTAL AREA (A) = 0.32 AC.

100 YEAR STORM (1% CHANCE), 5 MIN. DURATION
i FOR 100 YEAR, 5 MINUTE DURATION = 10.2

Q(PER) =(0.30*10.2*0.10)
Q(PER) =0.31 CFS

Q(IMP) =(0.90*10.2*0.22)
Q(IMP) =2.02 CFS

Q100(TOTAL) =2.33 CFS

10 YEAR STORM (10% CHANCE), 5 MIN. DURATION
i FOR 10 YEAR, 5 MINUTE DURATION = 7.3

Q(PER) =(0.30*7.3*0.10)
Q(PER) =0.22 CFS

Q(IMP) =(0.90*7.3*0.22)
Q(IMP) =1.45 CFS

Q10(TOTAL) =1.67 CFS

1 YEAR STORM (100% CHANCE), 5 MIN. DURATION
i FOR 1 YEAR, 5 MINUTE DURATION = 5.0

Q(PER) =(0.30*5.0*0.10)
Q(PER) =0.15 CFS

Q(IMP) =(0.90*5.0*0.22)
Q(IMP) =0.99 CFS

Q1(TOTAL) =1.14 CFS

Q VALUES FOR OFFSITE DRAINAGE (DA-4)

RATIONAL METHOD:
Q=CiA
C (IMPERVIOUS) =0.90
C (PERVIOUS) =0.30

PERVIOUS AREA = 0.08 AC.
IMPERVIOUS AREA = 0.14 AC.
TOTAL AREA (A) = 0.22 AC.

100 YEAR STORM (1% CHANCE), 5 MIN. DURATION
i FOR 100 YEAR, 5 MINUTE DURATION = 10.2

Q(PER) =(0.30*10.2*0.08)
Q(PER) =0.24 CFS

Q(IMP) =(0.90*10.2*0.14)
Q(IMP) =1.29 CFS

Q100(TOTAL) =1.53 CFS

10 YEAR STORM (10% CHANCE), 5 MIN. DURATION
i FOR 10 YEAR, 5 MINUTE DURATION = 7.3

Q(PER) =(0.30*7.3*0.08)
Q(PER) =0.17 CFS

Q(IMP) =(0.90*7.3*0.14)
Q(IMP) =0.92 CFS

Q10(TOTAL) =1.09 CFS

1 YEAR STORM (100% CHANCE), 5 MIN. DURATION
i FOR 1 YEAR, 5 MINUTE DURATION = 5.0

Q(PER) =(0.30*5.0*0.08)
Q(PER) =0.12 CFS

Q(IMP) =(0.90*5.0*0.14)
Q(IMP) =0.63 CFS

Q1(TOTAL) =0.75 CFS

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PE NO. E-24916
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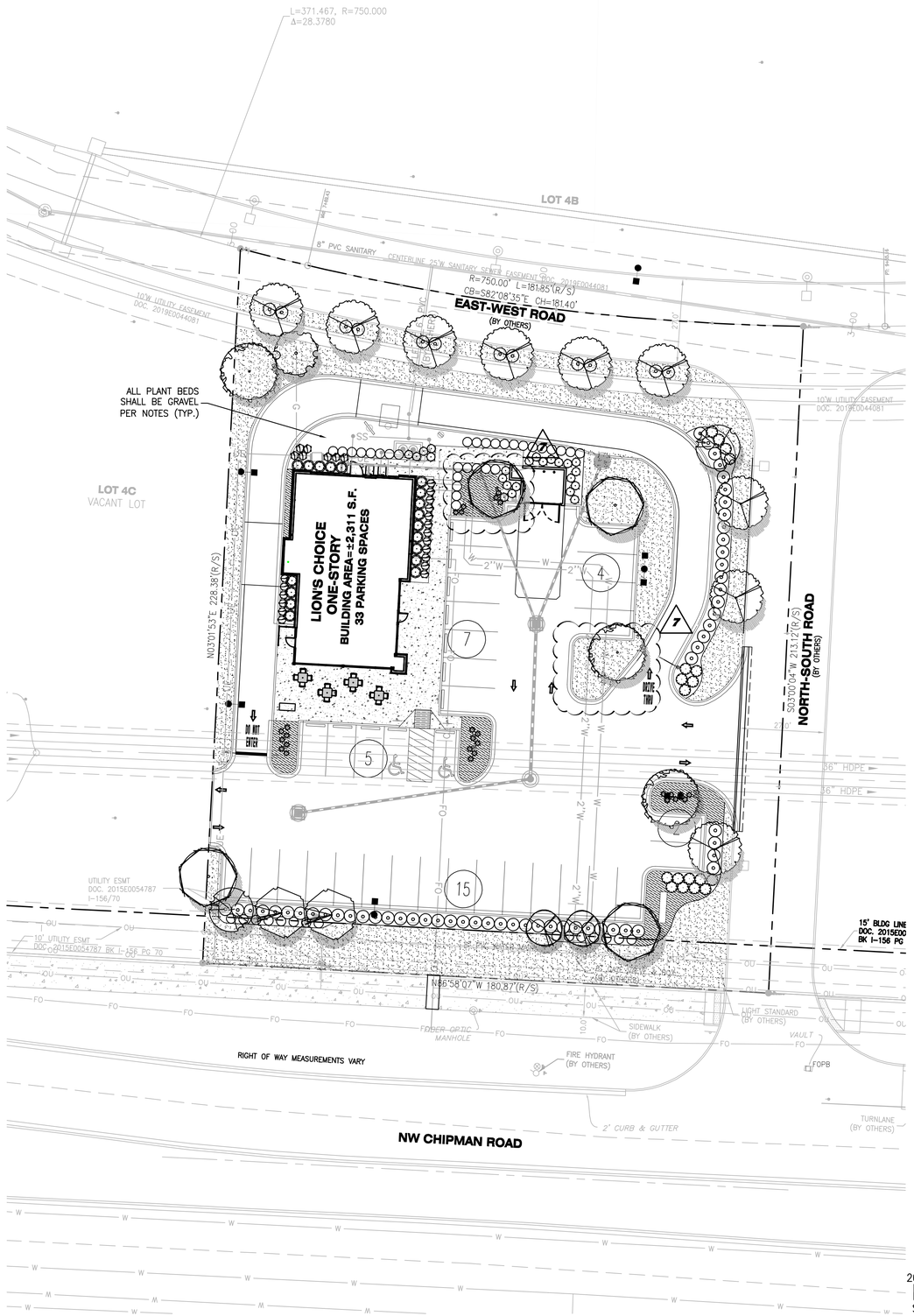
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DRAINAGE AREA MAP (POST)

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LANDSCAPE AND TREE REQUIREMENTS

REQUIREMENT	AREA / MEASUREMENT	REQ'D	PROV'D
LEE'S SUMMIT UDO - SECTION 8.790 (a) (1)&(3) - STREET FRONTAGE			
NW CHIPMAN ROAD 1 TREE FOR EVERY 30 LINEAL FEET OF FRONTAGE AND 1 SHRUB FOR EVERY 20 LINEAL FEET OF STREET FRONTAGE	+/- 167 LF OF FRONTAGE 167/30=5.6 – 6 TREES 167/20=8.35 – 9 SHRUBS	6 TREES 9 SHRUBS	6 TREES 49 SHRUBS AS REQUIRED BY SECT. 8.820 (C) (1)
EAST-WEST ROAD 1 TREE FOR EVERY 30 LINEAL FEET OF FRONTAGE AND 1 SHRUB FOR EVERY 20 LINEAL FEET OF STREET FRONTAGE	+/- 167 LF OF FRONTAGE 167/30=5.6 – 6 TREES 167/20=8.35 – 9 SHRUBS	6 TREES 9 SHRUBS	6 TREES 12 SHRUBS
LEE'S SUMMIT UDO - SECTION 8.790 (b) (1) - OPEN YARD AREAS			
2 SHRUBS PER 5,000 S.F. OF TOTAL LOT AREA	39,247.8 S.F. TOTAL LOT AREA 39,247.8/5,000 = 7.8 7.8x2 = 15.6 – 16 SHRUBS REQ.	16 SHRUBS	16 SHRUBS
LEE'S SUMMIT UDO - SECTION 8.790 (b) (3) - OPEN YARD AREAS			
1 TREE FOR EVERY 5,000 S.F. OF LOT AREA NOT COVERED BY BUILDINGS	39,247.8 S.F. TOTAL LOT AREA 39,247.8–2,285 = 36,962.8 S.F. 36,962.8/5,000 = 7.4 – 8 TREES REQ.	8 TREES	8 TREES
LEE'S SUMMIT UDO - SECTION 8.820 (c) (1) - SCREENING PARKING LOT			
NW CHIPMAN ROAD A HEDGE WITH MIN. 12 SHRUBS PER 40 LINEAR FEET MIN. 18" TALL AT INSTALL	+/- 167 LF OF FRONTAGE 167/40=4.1 4.1x12 = 49 SHRUBS	49 SHRUBS	49 SHRUBS
NORTH-SOUTH ROAD A HEDGE WITH MIN. 12 SHRUBS PER 40 LINEAR FEET MIN. 18" TALL AT INSTALL	+/- 136 LF OF FRONTAGE 136/40=3.4 3.4x12 = 41 SHRUBS	41 SHRUBS	41 SHRUBS

PLANT SCHEDULE

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	COMMENTS
	3	Acer Rubrum	Red Maple	As Shown	3"Cal.	B&B
	4	Tilia americana	American Linden	As Shown	3"Cal.	B&B
	9	Gleditsia triacanthos f. inermis 'Skycole' SKYLINE	Skyline Honeylocust	As Shown	3"Cal.	B&B

FLOWERING ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	COMMENTS
	1	Cercis canadensis	Eastern Redbud	As Shown	3"Cal.	B&B
	2	Betula nigra	River Birch	As Shown	3"Cal.	B&B
	2	Chionanthus retusus	Chinese Fringe Tree	As Shown	3"Cal.	B&B

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	COMMENTS
	18	Rhus aromatica 'Grow-Low'	Fragrant sumac	As Shown	18"-24" min.	Cont.
	25	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	As Shown	3 GAL.	Cont.
	18	Physocarpus opulifolius 'SMPOTW'	Tiny Wine Ninebark	As Shown	24" min.	Cont.
	45	Ceanothus americanus	New Jersey Tea	As Shown	24" min.	Cont.
	70	Juniperus x pfitzeriana 'Sea Green'	Chinese Juniper	As Shown	30" min.	Cont.
	23	Rhamnus frangula	Fine Line Buckthorn	As Shown	36" ht. min.	Cont.

ORNAMENTAL GRASS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	COMMENTS
	75	Sporobolus heterolepis	Prairie Dropseed	24" o.c.	1 gal.	Cont.

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	COMMENTS
	27	Echinacea purpurea	Purple Coneflower	As Shown	1gal.	Cont.

LANDSCAPE NOTES:

7 ~~GENERAL CONTRACTOR SHALL INSTALL DECORATIVE GRAVEL. DECORATIVE GRAVEL COLOR SHALL MATCH BUILDING COLOR AND BE 5/8"-1" IN SIZE.~~

1. LANDSCAPE CONTRACTOR TO VERIFY LOCATION OF UNDERGROUND UTILITIES BEFORE BEGINNING WORK.
2. ALL LANDSCAPE SHALL COMPLY WITH THE CURRENT EDITION OF ANSI Z 60.1 "AMERICAN STANDARD FOR NURSERY STOCK."
3. ALL PLANTS SHALL MEET THE REQUIREMENTS OF THE STATE AND FEDERAL LAW WITH RESPECT TO DISEASE AND INSECT INFESTATION.
4. ALL PLANT BEDS SHALL BE COVERED WITH DECORATIVE GRAVEL, 2" MIN. DEPTH WITH LANDSCAPE FABRIC. SUBMIT SAMPLE TO OWNERS REPRESENTATIVE FOR APPROVAL.
5. ~~GENERAL CONTRACTOR SHALL INSTALL DECORATIVE GRAVEL. DECORATIVE GRAVEL COLOR SHALL MATCH BUILDING COLOR AND BE 5/8"-1" IN SIZE.~~
6. ALL LANDSCAPE SUBSTITUTIONS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT.
7. FORMAL LINES AND GROUPINGS OF A SPECIES OF TREE, SHRUB, OR GROUNDCOVER SHALL BE MATCHED FOR SIZE, FORM, AND COLOR.
8. ALL BACKFILL IN PLANTING BEDS AND TREE PITS SHALL BE BACKFILLED WITH PLANTING SOIL.
9. ALL TREES OUTSIDE OF PLANT BEDS SHALL BE PLANTED WITH A MULCH RING. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT FOR ANY TREES THAT WILL NOT BE MULCHED FOR EXCESSIVE MOISTURE REASONS.
10. ALL LANDSCAPING SHALL BE INSTALLED AS SHOWN ON THE APPROVED PLAN.
11. AT PLANTING, TREE TRUNKS MUST BE STRAIGHT WITH MINIMAL DOGLEGS.
12. WIRE BASKETS, BURLAP WRAPPINGS, ROPE, TWINE OR ANY SIMILAR SHIPPING MATERIALS SHALL BE REMOVED BEFORE PLANTING.
13. A SPADE CUT EDGE SHALL BE CREATED AT ALL LOCATIONS WHERE PLANTING BEDS ARE ADJACENT TO GRASS AREAS UNLESS OTHERWISE NOTED.
14. SEE CIVIL PLANS FOR TYPE AND LOCATION OF EROSION CONTROL MATERIALS.
15. DO NOT DISTURB EXISTING UTILITIES WITHIN WORK AREA. SILT FENCE AND PLANTINGS SHALL AVOID ANY EXISTING UTILITIES.
16. THE CONTRACTOR SHALL FOLLOW THE LANDSCAPE PLANS. ANY SUBSTITUTION OR ALTERATION SHALL NOT BE ALLOWED WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT. OVERALL PLANT QUANTITY AND QUALITY SHALL BE CONSISTENT WITH THE PLANS.
17. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. WRITTEN QUANTITIES TAKES PRECEDENCE OVER GRAPHIC QUANTITIES. NOTIFY OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT OF DISCREPANCIES.
18. THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT RESERVES THE RIGHT TO INSPECT AND TAG ALL PLANT MATERIAL PRIOR TO SHIPPING TO THE SITE. IN ALL CASES, THE LANDSCAPE ARCHITECT MAY REJECT PLANT MATERIAL AT THE SITE IF MATERIAL IS DAMAGED, DISEASED, OR DECLINING IN HEALTH AT THE TIME OF ONSITE INSPECTIONS OR IF THE PLANT MATERIAL DOES NOT MEET THE MINIMUM SPECIFIED STANDARD IDENTIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT FOR INSPECTION AND APPROVAL OF ALL MATERIALS AND PRODUCTS PRIOR TO INSTALLATION.
19. THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT MAY ELECT TO UPSIZE PLANT MATERIAL AT THEIR DISCRETION BASED ON SELECTION, AVAILABILITY, OR TO ENHANCE SPECIFIC AREAS OF THE PROJECT. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL SIZES WITH OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT PRIOR TO PURCHASING, SHIPPING OR STOCKING OF PLANT MATERIALS. SUBMIT CHANGE ORDER REQUEST TO OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT FOR APPROVAL IF ADDITIONAL COST IS REQUESTED BY THE CONTRACTOR PRIOR TO INSTALLATION. RE-STOCKING CHARGES WILL NOT BE APPROVED IF THE CONTRACTOR FAILS TO SUBMIT A REQUEST FOR MATERIAL CHANGES.
20. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR SPECIFICATIONS.
21. THE DEVELOPER, HIS SUCCESSORS AND ASSIGNS SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND REPLACEMENT OF ALL LANDSCAPING MATERIALS SHOWN OR INDICATED ON THE APPROVED LANDSCAPE PLAN ON FILE WITH THE PLANNING DEPARTMENT. ALL LANDSCAPING WILL BE INSTALLED AS DELINEATED ON THE PLAN, PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
22. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENED TO A DEPTH OF 8" – 12" AND AMENDED.
23. ALL LANDSCAPED AREAS ARE TO HAVE SOIL PREPARATION, (MINIMUM RATE OF 3 CU. YDS. OF ORGANIC MATTER PER 1000 S.F.). TREES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DRAINAGE AREAS, OR UTILITY EASEMENTS. CONTACT OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT FOR RELOCATION OF PLANTS IN QUESTIONABLE AREAS PRIOR TO INSTALLATION.
24. ALL TREES ARE TO BE STAKED AND GUYED FOR A PERIOD OF 1 YEAR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STAKES AT THE END OF 1 YEAR FROM ACCEPTANCE OF LANDSCAPE INSTALLATION BY THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT. OBTAIN APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.
25. PLACE PLANT MATERIAL IN SHRUB BED SO THAT ONCE PLANTS GROW TO FULL SIZE THEY ARE FULLY CONTAINED WITHIN THE SHRUB BED AREA AND DO NOT HANG OVER THE EDGER LINE.
26. REFER TO IRRIGATION PLANS BY OTHERS FOR LIMITS AND TYPES OF IRRIGATION DESIGNED FOR THE LANDSCAPE. IN NO CASE SHALL IRRIGATION BE EMITTED WITHIN THE MINIMUM DISTANCE FROM BUILDING OR WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT. ALL IRRIGATION DISTRIBUTION LINES, HEADS AND EMITTERS SHALL BE KEPT OUTSIDE THE MINIMUM DISTANCE AWAY FROM ALL BUILDING AND WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT.
27. LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM WITH INDIVIDUAL ZONES FOR TURF AND NON-TURF AREAS, AND MUST INCLUDE A MOISTURE DETECTION DEVICE TO PREVENT OPERATION DURING RAINY PERIODS. TURF AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. SHRUB AND PERENNIAL BEDS SHALL HAVE DRIP IRRIGATION.
28. LANDSCAPE MATERIAL LOCATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION MAINLINE AND LATERAL LOCATIONS. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
29. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE EXISTS IN ALL LANDSCAPE AREAS. SURFACE DRAINAGE ON LANDSCAPE AREAS SHALL NOT FLOW TOWARD STRUCTURES AND FOUNDATIONS. MAINTAIN SLOPE AWAY FROM FOUNDATIONS PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. ALL LANDSCAPE AREAS BETWEEN WALKS AND CURBS SHALL DRAIN FREELY TO THE CURB UNLESS OTHERWISE IDENTIFIED ON THE GRADING PLAN. IN NO CASE SHALL THE GRADE, TURF THATCH, OR OTHER LANDSCAPE MATERIALS DAM WATER AGAINST WALKS. MINIMUM SLOPES ON LANDSCAPE AREAS SHALL BE 2%; MAXIMUM SLOPE SHALL BE 25% UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS OR APPROVED BY THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT.
30. SHRUB, GROUNDCOVER AND PERENNIAL BEDS ARE TO BE CONTAINED BY A SPADE CUT EDGE. EDGER IS NOT REQUIRED WHEN ADJACENT TO CURBS, WALLS, WALKS OR SOLID FENCES WITHIN 3" OF PRE-MULCHED FINAL GRADE. EDGER SHALL NOT BE REQUIRED TO SEPARATE MULCH TYPES UNLESS SPECIFIED ON THE PLANS.
31. AT SEED AREA BOUNDARIES ADJACENT TO EXISTING NATIVE AREAS, OVERLAP ABUTTING NATIVE AREAS BY THE FULL WIDTH OF THE SEEDER.
32. EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES. DISTURBED NATIVE AREAS WHICH ARE TO REMAIN SHALL BE OVER SEEDED AND RESTORED WITH SPECIFIED SEED MIX.
33. WHEN COMPLETE, ALL GRADES SHALL BE WITHIN +/- 1/8"OF FINISHED GRADES AS SHOWN ON THE PLANS.THESE PLANS ARE NOT INTENDED FOR CONSTRUCTION OR PERMITTING UNLESS STATED IN THE TITLE BLOCK.
34. DRAWINGS ARE INTENDED TO BE PRINTED ON 24" X 36" PAPER. PRINTING THESE DRAWINGS AT A DIFFERENT SIZE WILL IMPACT THE SCALE. VERIFY THE GRAPHIC SCALE BEFORE REFERENCING ANY MEASUREMENTS ON THESE SHEETS. THE RECIPIENT OF THESE DRAWINGS SHALL BE RESPONSIBLE FOR ANY ERRORS RESULTING FROM INCORRECT PRINTING, COPYING, OR ANY OTHER CHANGES THAT ALTER THE SCALE OF THE DRAWINGS.
35. VERIFY ALL PLAN DIMENSIONS PRIOR TO START OF CONSTRUCTION. NOTIFY THE OWNER'S REPRESENTATIVE TO ADDRESS ANY QUESTIONS OR CLARIFY ANY DISCREPANCIES.
36. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
37. SUBMIT A CHANGE ORDER FOR APPROVAL FOR ANY CHANGES TO WORK SCOPE RESULTING FROM FIELD CONDITIONS OR DIRECTION BY OWNER'S REPRESENTATIVE WHICH REQUIRE ADDITIONAL COST TO THE OWNER PRIOR TO PERFORMANCE OF WORK.
38. A METAL EDGE SHALL BE CREATED AT ALL LOCATIONS WHERE TURF IS ADJACENT TO GRAVEL PLANT BEDS.

NO	REVISION DESCRIPTION	DATE
7	ARCHITECT COMMENTS	7/11/20
6	VALUE ENGINEERING/REVIEW COMMENTS	1/22/20
5	REVIEW COMMENTS	1/8/20
4	PER ARCHITECT COMMENTS	12/2/19
3	REVIEW COMMENTS	11/21/19
2	REVIEW COMMENTS	10/4/19
1	REVIEW COMMENTS	9/9/19

DEVELOPER/OWNER:
RED LION BEEF CORPORATION
12977 N FORTY DRIVE, SUITE 100
ST. LOUIS, MO 63141
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THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS RESPONSIBILITY FOR ANY ADDITIONS OR DELETIONS TO THE PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO, OR INTENDED TO BE USED FOR, ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

LANDSCAPE ARCHITECTS
CORPORATE LANDSCAPE ARCHITECTURE DESIGNATE #2004029446
STATE OF MISSOURI
JOSEPH C. HORVATH
NUMBER LA-2007013280
LANDSCAPE ARCHITECT
JOSEPH C. HORVATH III
LANDSCAPE ARCHITECT
LA-2007013280
02/12/2020

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LEE'S SUMMIT, MO

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DATE: 08/29/2019
Job Number: 18-0136
Sheet Number: L1.0

DESIGN CRITERIA AND LOADS

1. STRUCTURE HAS BEEN DESIGNED TO COMPLY WITH:
   IBC 2018
   ASCE/SEI 7-16
   ACI 318-14
   ACI 530-13
   AISC 360-16 (ASD)
   AWS D1.1
   NDS-18 AND SDPWS-15

2. RISK CATEGORY — II

3. SEISMIC:

SEISMIC DESIGN CATEGORY	B
IMPORTANCE FACTOR	1.0
SOIL CLASSIFICATION PER GEOTECHNICAL REPORT	D
S_S	0.100 g
S_1	0.068 g
S_{MS}	0.106 g
S_{D1}	0.109 g
SEISMIC FORCE RESISTING SYSTEM	WOOD SHEATHED SHEAR WALLS AND STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
R	3
ANALYSIS PROCEDURE	EQUIVALENT LATERAL PROCEDURE
BASE SHEAR, STRENGTH LEVEL	V = C_S x W = 0.036 x 108 = 4 KIPS

4. WIND:

BASIC WIND SPEED	115 MPH
EXPOSURE CLASS	C
MWFRS DESIGN PRESSURE	28 PSF
NET ROOF UPLIFT PRESSURE	10 PSF [LC: 0.6DL + 0.6WL]
C&C DESIGN PRESSURE	PER APPLICABLE BUILDING CODE

5. LIVE LOADS:

TYPICAL ROOF	20 PSF (REDUCIBLE)

6. SNOW:

GROUND SNOW	20 PSF
SNOW EXPOSURE FACTOR	0.9
THERMAL FACTOR	1.0
IMPORTANCE FACTOR	1.0
FLAT-ROOF SNOW	20 PSF
DESIGN SNOW	25 PSF
RAIN-ON-SNOW SURCHARGE	5 PSF
DRIFTING SNOW	SEE PLAN

GENERAL

1. NEITHER THE PROFESSIONAL ACTIVITIES OF THE ENGINEER, NOR THE PRESENCE OF THE ENGINEER OR THEIR EMPLOYEES AND SUBCONSULTANTS AT THE CONSTRUCTION SITE, SHALL RELIEVE THE CONTRACTOR AND ANY OTHER ENTITY OF THEIR OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE ENGINEER AND THEIR PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR OTHER ENTITY OR THEIR EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PRECAUTIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE JOBSITE SAFETY. THE ENGINEER AND THE ENGINEER'S CONSULTANTS SHALL BE MADE ADDITIONAL INSUREDS UNDER THE CONTRACTOR'S GENERAL LIABILITY INSURANCE POLICY.

2. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OF RECORD (AOR) PRIOR TO THE START OF CONSTRUCTION SO A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR AOR.

3. ALL DIMENSIONS AND SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOBSITE PRIOR TO CONSTRUCTION, START OF SHOP DRAWINGS, START OF CONSTRUCTION, AND/OR FABRICATION OF MATERIALS. IF DISCREPANCIES ARE ENCOUNTERED, OR CONDITIONS DEVELOP THAT ARE NOT COVERED BY THE CONTRACT DOCUMENTS, THE AOR SHALL BE NOTIFIED FOR CLARIFICATION.

4. CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ADJACENT EXISTING SURFACES AND AREAS WHICH MAY BE DAMAGED AS A RESULT OF NEW WORK.

5. STRUCTURAL DRAWINGS INCLUDE DESIGN REQUIREMENTS AND DIMENSIONS FOR STRUCTURAL INTEGRITY BUT DO NOT SHOW ALL DETAIL DIMENSIONS TO FIT INTRICATE ARCHITECTURAL AND MECHANICAL DETAILS. CONTRACTOR SHALL SO CONSTRUCT THE WORK SO IT WILL CONFORM TO THE CLEARANCES REQUIRED BY ARCHITECTURAL, MECHANICAL AND ELECTRICAL DESIGN.

6. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE AOR PRIOR TO PROCEEDING WITH THE WORK.

7. DO NOT SCALE DRAWINGS, PRINTED DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS AND LARGE-SCALE OVER SMALL-SCALE DRAWINGS. CONTRACTOR TO DETERMINE FINAL DIMENSION WITH AOR.

8. TYPICAL DETAILS SHALL APPLY UNLESS SPECIFICALLY DETAILED OTHERWISE. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.

9. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKMEN DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE AOR OR STRUCTURAL ENGINEER OF RECORD (SEOR) SHALL NOT INCLUDE INSPECTION OR APPROVAL OF THE ABOVE ITEMS AND DOES NOT IN ANY WAY RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITIES FOR THE ABOVE.

10. SEE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR DETAILS, CONDITIONS, PITS, TRENCHES, PADS, DEPRESSIONS, ROOF/FLOOR OPENINGS, STAIRS, SLEEVES, ITEMS TO BE EMBEDDED OR ATTACHED TO STRUCTURAL ELEMENTS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.

11. SEE ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR DETAILS, CONDITIONS, PITS, TRENCHES, PADS, DEPRESSIONS, ROOF/FLOOR OPENINGS, STAIRS, SLEEVES, ITEMS TO BE EMBEDDED OR ATTACHED TO STRUCTURAL ELEMENTS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.

12. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL AND PLUMBING WITH APPROPRIATE TRADE CONTRACTORS. OPENING SIZES AND LOCATIONS SHOWN FOR DUCTS, PIPE, INSERTS AND OTHER PENETRATIONS WHEN SHOWN ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED PRIOR TO FORMING.

13. NO HOLES, NOTCHES, BLOCKOUTS, ETC. ARE ALLOWED IN STRUCTURAL ELEMENTS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE SEOR.

14. BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, EACH BIDDER SHALL VISIT THE PREMISES AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS, TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPE OF EQUIPMENT, ETC. THE BID SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK WITHIN THE EXISTING CONDITIONS.

15. SHOP DRAWINGS SHALL BE REVIEWED AND COORDINATED PRIOR TO SUBMITTING TO THE AOR. EACH SHOP DRAWING SUBMITTED SHALL BE STAMPED INDICATING REVIEW BY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR AND REVIEW BY THE AOR SHALL NOT BEGIN UNTIL THIS IS COMPLETE. WORK SHALL NOT BEGIN WITHOUT REVIEW BY THE AOR/SEOR.

16. SHOP DRAWINGS SHALL BE REVIEWED BY THE AOR/SEOR FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT ONLY. NOTATIONS MADE BY THE AOR/SEOR ON THE SHOP DRAWINGS DO NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS.

17. ELEVATIONS ARE BASED ON THE FIRST FLOOR ELEVATION OF (+0' - 0") WHICH IS EQUIVALENT TO CIVIL ELEVATION (1009.0').

EARTHWORK

1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT DATED OCTOBER 25, 2019 BY GEOTECHNOLOGY INC. REPORT IS ON FILE WITH THE AOR.

2. SOIL PROPERTIES PER THE GEOTECHNICAL REPORT:

ALLOWABLE NET SOIL BEARING PRESSURE:	
FOOTINGS	2000 PSF
FROST DEPTH	3'-0" FT

3. ALL EXCAVATIONS SHALL BE PROPERLY AND SAFELY BACKFILLED.

4. CONTRACTOR SHALL PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER OR SEEPAGE. FREE GROUND WATER WAS ENCOUNTERED IN THE BORINGS. DETAILS OF GROUND WATER INFORMATION CAN BE OBTAINED FROM THE ABOVE MENTIONED GEOTECHNICAL REPORT. IF GROUND WATER SHOULD OCCUR DURING EXCAVATION, SPECIAL PROCEDURES SHALL BE IMPLEMENTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER OF RECORD.

5. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEETING AND SHORING REQUIRED TO SAFELY RETAIN EARTH BANKS AS REQUIRED.

6. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILL MATERIAL OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS AND FOUNDATIONS. IF ANY SUCH MATERIAL OR STRUCTURES ARE FOUND, AOR SHALL BE NOTIFIED IMMEDIATELY. ALL ABANDONED FOOTINGS, UTILITIES AND OTHER STRUCTURES THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

7. ALL FOOTINGS SHALL BE PLACED ONTO FIRM UNDISTURBED SOIL OR CONTROLLED COMPACTED FILL, REMOVING ANY EXISTING FILL OR UNSUITABLE SOILS, AS RECOMMENDED BY THE GEOTECHNICAL REPORT. EXCAVATIONS FOR FOOTINGS SHALL BE INSPECTED AND APPROVED BY THE INSPECTION AGENCY PRIOR TO PLACING CONCRETE. CONTRACTOR SHALL NOTIFY INSPECTION AGENCY WHEN EXCAVATION IS READY FOR TESTING. INSPECTION AGENCY TO SUBMIT LETTER OF COMPLIANCE TO THE OWNER.

8. FOOTING ELEVATIONS SHOWN DESIGNATE A MINIMUM DEPTH WHERE AN ADEQUATE SOIL BEARING PRESSURE IS EXPECTED. FOOTINGS SHALL BE LOWERED OR EXTENDED AS REQUIRED TO REACH SOIL MEETING THE DESIGN BEARING PRESSURE.

9. ALL REQUIRED BACKFILL AND UTILITY TRENCH BACKFILL WITHIN THE BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN 8" LOOSE LAYERS TO 95% MAXIMUM DRY DENSITY PER ASTM D698 AND TO THE APPROVAL OF THE INSPECTION AGENCY. BACKFILL SHOULD BE PROOFROLLED WITH A 20 KIP PER AXLE, TANDEM AXLE DUMP TRUCK. SOFT AREAS SHOULD BE OVEREXCAVATED AND BACKFILLED WITH ENGINEERED FILL.

10. THE MOISTURE CONTENT OF ONSITE CLAYEY SOILS AT THE TIME OF COMPACTION SHALL BE BETWEEN 1% BELOW TO 3% ABOVE OPTIMUM MOISTURE CONTENT.

11. ANY IMPORT FILL SOIL REQUIRED SHALL HAVE A LOW POTENTIAL FOR EXPANSION AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER OF RECORD PRIOR TO IMPORTING.

12. ALL UNACCEPTABLE MATERIAL AND ORGANIC MATERIAL SHALL BE REMOVED FROM BELOW ALL PROPOSED SLABS-ON-GRADE. THE EXPOSED NATURAL SOIL SHALL BE PROOF-ROLLED AND THE COMPACTION VERIFIED BY AN INSPECTION AGENCY PRIOR TO PLACING FILL. AREAS EXHIBITING WEAKNESS SHALL BE REMOVED AND REPLACED BY ACCEPTABLE COMPACTED FILL.

13. ALL SITE WORK SHALL BE PERFORMED UNDER THE INSPECTION OF THE SPECIAL INSPECTION AGENCY. VARIATIONS IN SITE CONDITIONS AND THE GEOTECHNICAL REPORT SHALL BE REPORTED TO THE AOR/SEOR FOR CLARIFICATIONS PRIOR TO PROCEEDING.

14. EXISTING FILL WAS ENCOUNTERED UP TO A DEPTH OF 4 FEET. FILL BELOW BUILDING FOUNDATIONS SHOULD BE FULLY REMOVED AND BACKFILLED WITH COMPACTED FILL OR LEAN CONCRETE. FILL MAY REMAIN BELOW FLOOR SLABS PROVIDED UNSTABLE AREAS ARE PROOFROLLED AND REPLACED AS REQUIRED.

15. THE NATIVE SOILS CONSISTS OF FAT CLAYS. FAT CLAYS WITHIN 24 INCHES OF FLOOR SLAB SHOULD BE EXCAVATED AND REPLACED WITH LOW VOLUME CHANGE MATERIAL OR MODIFIED BY INCORPORATION OF HYDRATED LIME, PORTLAND CEMENT, OR TYPE C FLY ASH WITH LESS THAN 5 PERCENT SULFATE PER THE GEOTECHNICAL REPORT.

16. THE NATIVE SOILS ARE UNDERLAIN BY HIGHLY WEATHERED AND SOFT SHALE STARTING AROUND 3 TO 5 FEET BELOW EXISTING GRADE. BEDROCK EXCAVATION MAY BE REQUIRED AND SHOULD BE EXPECTED.

17. BASE BID OVEREXCAVATION BELOW FOOTINGS = 55 CY
BASE BID OVEREXCAVATION BELOW FLOOR SLAB = 200 CY
CONTRACTOR TO PROVIDE A PER CY UNIT PRICE ON THE BID FORM TO EITHER ADD OR DEDUCT FROM THE SPECIFIED QUANTITY OF OVEREXCAVATION.

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH THE AMERICAN CONCRETE INSTITUTE "ACI DETAILING MANUAL" (SP-066) EXCEPT AS OTHERWISE SHOWN, NOTED OR SPECIFIED.

2. CONCRETE REINFORCING STEEL SHALL BE HIGH STRENGTH NEW BILLET STEEL CONFORMING TO THE FOLLOWING STANDARDS:

DEFORMED BARS	ASTM A615, GR60	Fy = 60 KSI
WELDED WIRE REINFORCING	ASTM A1064	Fy = 65 KSI

3. MINIMUM CONCRETE COVER SHALL BE PROVIDED AS FOLLOWS TO THE OUTERMOST REINFORCING BARS:

CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	3"
EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
#6 BARS OR LARGER	2"
#5 BARS OR SMALLER	1 1/2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
SLABS, JOISTS AND WALLS WITH #11 BARS OR SMALLER	3/4"
BEAMS, COLUMNS, PEDESTALS AND TENSION TIES	1 1/2"

4. BAR SPLICES SHALL BE PROVIDED WHERE INDICATED ON THE DRAWINGS. ALL SPLICES SHALL BE CLASS 'B' AS DEFINED IN ACI 318. IF SPLICE LENGTH IS NOT GIVEN ON THE DRAWINGS, PROVIDE LAP LENGTH (IN INCHES) AS FOLLOWS:

BAR SIZE	3000 PSI CONCRETE		4000 PSI CONCRETE	
	OTHER	TOP	OTHER	TOP
#3	22	28	19	25
#4	29	38	25	33
#5	36	47	31	41

LAP LENGTHS ASSUME CLEAR SPACING BETWEEN BARS OF 2 BAR DIAMETERS, AND A MINIMUM COVER OF 1 BAR DIAMETER. FOR DEVELOPMENT LENGTHS, DIVIDE BY 1.3. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 1'-0" OF FRESH CONCRETE BELOW.

5. PROVIDE ADEQUATE TIES FOR ALL REINFORCING BARS AND STIRRUPS IN CONCRETE SLABS AND BEAMS. ANCHOR BOLTS, DOWELS, REINFORCING STEEL, INSERTS, ETC., SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE. CONCRETE BLOCKS SHALL ONLY BE USED TO SUPPORT REINFORCING OFF GRADE.

6. SUPPORTS FOR REINFORCEMENT SHALL HAVE CLASS 2 PROTECTION AS DEFINED IN THE CRSI MANUAL OF STANDARD PRACTICE, UNO.

7. SUPPORTS FOR COATED REINFORCEMENT SHALL HAVE CLASS 1 PROTECTION AS DEFINED IN THE CRSI MANUAL OF STANDARD PRACTICE, UNO.

8. ALL WELDED WIRE REINFORCING (WWR) SHALL BE LAPPED 2 PANELS AT EDGES AND ENDS.

9. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE AND SPACING OR NUMBER AS THE VERTICAL REINFORCING, RESPECTIVELY, UNO.

10. REINFORCING IN WALL FOOTINGS BETWEEN COLUMNS SHALL EXTEND INTO COLUMN FOOTINGS A MINIMUM OF 2 FEET.

11. REINFORCING IN FOOTINGS AND GRADE BEAMS SHALL BE ACCURATELY PLACED, SPACED, SUPPORTED AND SECURED BEFORE PLACING CONCRETE.

12. CUTTING OF REINFORCING WHICH CONFLICTS WITH EMBEDDED OBJECTS IS NOT ACCEPTABLE.

13. REINFORCING BARS SHALL BE BENT COLD, AND NO METHOD OF FABRICATION SHALL BE USED WHICH WOULD BE INJURIOUS TO THE MATERIAL. HEATING OF BARS FOR BENDING IS NOT PERMITTED.

14. FIELD WELDING OR BENDING OF REINFORCING IS NOT PERMITTED EXCEPT AS INDICATED ON THE DRAWINGS OR AS APPROVED BY THE STRUCTURAL ENGINEER.

15. SUBMIT SHOP DRAWINGS FOR FABRICATION AND PLACEMENT OF REINFORCING STEEL. INCLUDE SCHEDULES AND DIAGRAMS OF BENT BARS AND SHOW ARRANGEMENT OF REINFORCEMENT. SEOR'S REVIEWS WILL BE FOR COMPLIANCE WITH DESIGN REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS AND QUANTITIES.

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE PUBLICATIONS: ACI 117, ACI 301, ACI 305.1, ACI 306.1, ACI 308.1, ACI 318 AND SP-066, UNO.

2. CONCRETE MATERIALS SHALL CONFORM TO:

CEMENT	ASTM C150, TYPE I OR II
FLY ASH	ASTM C618, TYPE C OR F
FINE AND COARSE AGGREGATE	ASTM C33
LIGHTWEIGHT AGGREGATE	ASTM C330
WATER	POTABLE
AIR-ENTRAINING ADMIXTURE	ASTM C260
WATER-REDUCING ADMIXTURE	ASTM C494

3. CONCRETE STRENGTHS SHALL CONFORM TO:

INTENDED USE	28-DAY STRENGTH (PSI)	MAX W/C RATIO	A/E	SLUMP
FOUNDATIONS	4000	0.45	5-8%	1"-4"
SLAB-ON-GRADE	3000	0.5	N/A	4"-6"
UNLESS NOTED OTHERWISE	4000	0.45	5-8%	1"-4"

4. DRYPACK SHALL BE 1:3-1/2 PORTLAND CEMENT TO SAND WITH A MINIMUM 28-DAY STRENGTH OF 7000 PSI.

5. GROUT SHALL BE 1:3:2 PORTLAND CEMENT TO SAND TO PEA GRAVEL WITH A MINIMUM 28-DAY STRENGTH OF 7000 PSI.

6. SLAB ON GRADE CONSTRUCTION:
LOCATE SAW CUT CONTROL JOINTS ALONG COLUMN LINES WITH INTERMEDIATE JOINTS SPACED PER THE TABLE BELOW, UNO. SLAB PANELS SHALL HAVE A MAXIMUM LENGTH TO WIDTH RATIO OF 1.5:1. PROVIDE ADDITIONAL CONTROL JOINTS AT ALL RE-ENTRANT CORNERS.

THICKNESS (IN)	MAX JOINT SPACING (FT)
4	12

7. CROSS REFERENCE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO ASSURE PROPER DIMENSIONS AND PLACEMENT OF ALL ANCHOR BOLTS, INSERTS, NOTCHES, EDGES OF WALLS/GRADE BEAMS AND PIERS.

8. UNO, ALL FOOTINGS SHALL BE CENTERED UNDER WALLS, PIERS OR COLUMNS.

9. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL PENETRATIONS THROUGH CONCRETE BEFORE PLACING. SECURE SUCH SLEEVES TO PREVENT MOVEMENT DURING PLACING OPERATIONS. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF PENETRATIONS.

10. CORE DRILLING CONCRETE IS NOT PERMITTED UNLESS NOTED OTHERWISE OR APPROVED IN WRITING BY THE AOR. NOTIFY THE AOR IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.

11. CONFIRM WITH AOR THAT MATERIALS TO BE EMBEDDED ARE SUITABLE FOR EMBEDMENT IN CONCRETE.

12. CONDUIT OR PIPES SHALL NOT RUN WITHIN THE SLAB ON GRADE THICKNESS.

13. NO ALUMINUM SHALL BE ALLOWED IN THE CONCRETE WORK UNLESS COATED TO PREVENT ALUMINUM-CONCRETE REACTION.

14. PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 1/2 INCH CHAMFER, UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS.

15. SLOPE SLABS TO DRAINS OR FOR POSITIVE DRAINAGE IF NO DRAINS ARE PRESENT, AND PROVIDE DEPRESSIONS WHERE SHOWN ON THE STRUCTURAL AND/OR ARCHITECTURAL DRAWINGS, WITHOUT REDUCING THE THICKNESS OF SLAB INDICATED. FOR SLAB-ON-GRADE DEPRESSIONS GREATER THAN 1 INCH, REFER TO DETAILS FOR ADDITIONAL REINFORCING.

16. INTERNALLY VIBRATE ALL CAST-IN-PLACE CONCRETE EXCEPT SLABS-ON-GRADE WHICH NEED ONLY BE VIBRATED AROUND UNDER FLOOR DUCTS AND OTHER EMBEDDED ITEMS.

17. CONCRETE SHALL NOT BE PERMITTED TO DROP MORE THAN 5 FEET.

18. CONCRETE SLABS SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR 7 DAYS.

19. NOTIFY THE AOR/SEOR 48 HOURS MINIMUM PRIOR TO ALL POURS.

20. CONDUIT OR PIPES SHALL NOT RUN WITHIN TH SLAB ON GRADE THICKNESS.

21. NO CONCRETE SHALL BE PLACED ONTO OR AGAINST SUBGRADES CONTAINING FREE WATER, FROST, ICE OR SNOW.

22. DURING WINTER CONSTRUCTION, ALL FOOTINGS SHALL BE PROTECTED FROM FROST PENETRATION UNTIL THE BUILDING IS ENCLOSED AND TEMPORARY HEAT IS PROVIDED.

23. THE CONCRETE CONTRACTOR SHALL FURNISH MIX DESIGN SHOP DRAWINGS FOR REVIEW.

MASONRY

1. MINIMUM 28-DAY COMPRESSIVE STRENGTHS FOR MASONRY CONSTRUCTION SHALL BE:

DESIGN ASSEMBLY STRENGTH, f'm	1500 PSI
INDIVIDUAL CONCRETE MASONRY UNITS	1900 PSI
MORTAR	1800 PSI
GROUT	2000 PSI

2. MASONRY MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS:

CONCRETE MASONRY UNITS (CMU)	ASTM C90, GRADE N-1
MORTAR	ASTM C270, TYPE S
GROUT	ASTM C476
REINFORCING STEEL	ASTM A615, GR 60
PLATE AND BENT BAR ANCHORS	ASTM A36
SHEET METAL ANCHORS AND TIES	ASTM A1008
WIRE MESH TIES	ASTM A1064
WIRE TIES AND ANCHORS	ASTM A951
ANCHOR BOLTS	ASTM A307, GRADE A

3. BAR SPLICES SHALL BE PROVIDED WHERE INDICATED ON THE DRAWINGS. IF SPLICE LENGTH IS NOT GIVEN ON THE DRAWINGS, PROVIDE LAP LENGTHS (IN INCHES) AS FOLLOWS EXCEPT BARS LARGER THAN #9 SHALL BE MECHANICALLY SPLICED:

ASD:

MINIMUM LAP SPLICE LENGTH	
BAR SIZE	f'm = 1500 PSI
	6" CMU
#4	20
#5	32
#6	54

4. PROVIDE A MINIMUM OF 1 INCH GROUT BETWEEN MAIN REINFORCING AND/OR BOLTS AND MASONRY UNIT FACE. VERTICAL REINFORCEMENT SHALL BE CENTERED IN WALL, UNO.

5. CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CORES CONTAINING REINFORCING STEEL.

6. ALL CELLS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT, AND ALSO WHERE NOTED ON THE DRAWINGS.

7. REFER TO ARCHITECTURAL DRAWINGS FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN AND JOINT TYPE. ALL BLOCK SHALL BE RUNNING BOND, UNO.

8. THE MASONRY CONTRACTOR SHALL FURNISH SHOP DRAWINGS OF PRODUCT DATA, REINFORCEMENT DETAILS, AND MIX DESIGNS FOR AOR/SEOR'S REVIEW BEFORE FABRICATION.

LINTELS

1. PROVIDE LINTELS OVER ALL OPENINGS AND RECESSES IN MASONRY CONSTRUCTION.

2. PENETRATIONS NOT IDENTIFIED ON THE DOCUMENTS ARE TO BE TREATED IN A MANNER SIMILAR TO THE IDENTIFIED LOCATIONS. LINTELS OCCURRING IN EXISTING BEARING WALLS ARE TO BE SIZED ACCORDING TO SIMILAR CONDITIONS AND SPANS IN THE NEW CONSTRUCTION. LINTELS ARE NOT REQUIRED OVER OPENINGS 12" WIDE OR LESS AND AT LEAST 1 COURSE BELOW THE TOP OF WALL.

3. LINTELS IN NON-BEARING MASONRY CAN BE SIZED PER THE FOLLOWING:

SPAN	STEEL OPTION (FOR EACH 4" OF MASONRY WIDTH)*
0'-0" TO 8'-0"	L5x3 1/2x5/16 (LLV)

4. ALL LINTELS SHALL HAVE A MINIMUM OF 8" END BEARING AND DO NOT REQUIRE BEARING PLATES, UNO.

5. ALL LINTELS IN EXTERIOR WALL CONSTRUCTION SHALL BE HOT-DIP GALVANIZED, UNO.

POST-INSTALLED ANCHORS

1. ANCHORS SERVING AS THE BASIS OF DESIGN ARE SHOWN ON THE DRAWINGS. ACCEPTABLE ALTERNATIVE ANCHORS MAY BE SUPPLIED PROVIDED THE QUANTITY AND CONFIGURATION MATCH THE CAPACITY OF THE DESIGN ANCHOR QUANTITY AND CONFIGURATION. ANY ALTERNATES ARE TO BE SUBMITTED TO THE SEOR FOR REVIEW. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. BELOW SUMMARIZES EACH ANCHOR TYPE USED ON THE PROJECT.

2. MECHANICAL ANCHORS:
EXPANSION ANCHORS

ANCHORED INTO	BASIS OF DESIGN	ACCEPTABLE ALTERNATES
CONCRETE	HILTI KWIK BOLT TZ	DEWALT POWER STUD+ SD2 RED HEAD TRUBOLT+ SIMPSON STRONG BOLT 2

THREADED SCREW ANCHORS

ANCHORED INTO	BASIS OF DESIGN	ACCEPTABLE ALTERNATES
CONCRETE	HILTI KWIK HUS-EZ [ESR-3027]	DEWALT POWER SCREW-BOLT+ [ESR-3889] SIMPSON TITEN HD [ESR-2713]

3. ADHESIVE ANCHORS: SHALL CONSIST OF DEFORMED REINFORCING BARS OR ASTM A193 GRADE B7 RODS, HEAVY DUTY NUTS AND WASHERS AND A TWO COMPONENT STRUCTURAL ADHESIVE. WHERE ANCHORING INTO HOLLOW MASONRY, A SCREEN TUBE SHALL BE PROVIDED.

ANCHORED INTO	BASIS OF DESIGN	ACCEPTABLE ALTERNATES
GROUTED MASONRY	HILTI HIT-HY 270	DEWALT AC 100+ GOLD [ESR-3200] RED HEAD A7 ACRYLIC [ESR-3951] SIMPSON SET-XP [ESR-0265]
CONCRETE	HILTI HIT-HY 200	DEWALT AC 200+ [ESR-4027] SIMPSON SET-3G [ESR-4057]

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date

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STATE OF MISSOURI
KATHERINE M. GOLDBERG
Number PE-2016000036
PROFESSIONAL ENGINEER
21/1/2020

Client Approval

GENERAL NOTES

Project #	52119-MO01
Issue Date	11/22/2019
Scale	12" = 1'-0"
Drawn by	MKG
Checked by	BRY

S0.0

2/5/2020 2:21:13 PM LIONS CHOICE - LEE'S SUMMIT

STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "DETAILING FOR STEEL CONSTRUCTION" AND FABRICATED AND ERECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".

2. STRUCTURAL STEEL SHALL CONFORM TO ASTM STANDARDS AS NOTED BELOW:

WIDE FLANGE SHAPES	ASTM A992	Fy = 50 KSI
OTHER ROLLED SHAPES	ASTM A36	Fy = 36 KSI
HSS SECTIONS, SQ/RECT	ASTM A500, GR B	Fy = 46 KSI
BASE AND CONNECTION PLATES	ASTM A36	Fy = 36 KSI
ANCHOR RODS	ASTM F1554, GR 36	Fy = 36 KSI
HIGH STRENGTH BOLTS	ASTM F3125, GR A325	Fv = 120 KSI
HIGH STRENGTH TWIST-OFF BOLTS	ASTM F3125, GR F1852	Fv = 120 KSI
HEAVY HEX NUTS	ASTM A563	
WASHERS	ASTM F436	
HEADED STUDS	ASTM A108, TYPE B	
ELECTRODES FOR ARC WELDING	AWS 5.1, E70XX	

3. HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS". REFER TO DETAILS FOR BOLT SIZE AND MATERIAL ASTM DESIGNATION.

4. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM F3125, GRADE A325SC, UNO.

5. ALL BOLTED CONNECTIONS SHALL BE BEARING TYPE, UNLESS NOTED OTHERWISE.

6. STANDARD BOLT HOLES IN STEEL SHALL BE 1/16 INCH LARGER IN DIAMETER THAN NOMINAL SIZE OF BOLT USED, UNO.

7. BOLTS IN SLOTTED HOLES SHALL BE LOCATED IN THE CENTER OF THE HOLE AFTER FIELD ASSEMBLY IS COMPLETE, UNLESS DETAILED OTHERWISE.

8. ALL WELDS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1), "STRUCTURAL WELDING CODE - SEISMIC SUPPLEMENT" (AWS D1.8), AND BE MADE WITH APPROVED ELECTRODES.

9. WELD LENGTHS INDICATED ON THE DRAWINGS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC 360, SECTION J2.4.

10. WELD ACCESS HOLES SHALL BE FABRICATED IN ACCORDANCE WITH THE RECOMMENDATIONS OF AWS D1.1.

11. ALL WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED BY CERTIFIED WELDERS WITH EXPERIENCE AND CERTIFICATION IN THE TYPES OF WELDING CALLED FOR. WELDERS SHALL HAVE BEEN RECENTLY QUALIFIED AS PRESCRIBED IN "QUALIFICATION PROCEDURES" OF THE AMERICAN WELDING SOCIETY (AWS).

12. FIELD CONNECTIONS SHALL BE WELDED OR BOLTED. SHOP CONNECTIONS SHALL BE WELDED, UNO. WELDS INDICATED WITH A SHOP WELD SYMBOL MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE SEOR. LOCATIONS OF ALL FIELD WELDS SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS. WELDS SHALL BE DESIGNED TO BE FULLY EQUIVALENT IN STRENGTH TO BOLTED CONNECTIONS DETAILED TO MINIMIZE BENDING IN THE CONNECTION.

13. ALL STEEL EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION. ABRADED AREAS TO BE TOUCHED UP WITH GALVALOY. ALL HOLLOW SECTIONS SHALL HAVE WELDED CAP PLATES TO SEAL EXPOSED ENDS.

14. PROVIDE ONE SHOP COAT OF PAINT ON STRUCTURAL STEEL EXPOSED TO PUBLIC VIEW ONLY.

15. CUTS, HOLES, OPENINGS, ETC., REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS. BURNING OF HOLES AND CUTS IN THE FIELD SHALL NOT BE ALLOWED, EXCEPT BY WRITTEN AUTHORIZATION FROM THE SEOR. NO HOLES SHALL BE CUT IN STRUCTURAL STEEL BY OTHER TRADES UNLESS SHOWN ON STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE SEOR.

16. FURNISH AND INSTALL MISCELLANEOUS STEEL (CURBS, HANGERS, EXPANSION JOINT ANGLES, STRUTS, ETC.) AS CALLED FOR OR AS NECESSARY PER ARCHITECTURAL AND MECHANICAL/ELECTRICAL DRAWINGS.

17. NON-SHRINK GROUT FOR BASE AND BEARING PLATES SHALL BE A PRE-MIXED, NON-METALLIC, NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING SELECTED SILICA SAND, PORTLAND CEMENT, SHRINKAGE COMPENSATING AGENTS AND PLASTICIZING/WATER REDUCING AGENTS. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 7000 PSI.

18. ALL LATERAL LOAD RESISTANCE AND STABILITY OF THE BUILDING IN THE COMPLETED STRUCTURE IS PROVIDED BY STEEL MOMENT FRAME AND WOOD SHEAR WALLS IN EACH ORTHOGONAL DIRECTION. REFER TO PLANS FOR LOCATIONS. THE WOOD DECK SERVE AS HORIZONTAL DIAPHRAGMS DISTRIBUTING THE LATERAL WIND AND SEISMIC FORCES TO THE VERTICAL LATERAL ELEMENTS WHICH IN TURN CARRY THE LOAD TO THE BUILDING FOUNDATIONS.

19. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL STRUCTURAL STEEL FOR AOR/SEOR'S REVIEW BEFORE FABRICATION.

WOOD

1. SHEATHING
   A. UNO, SHALL CONFORM TO:
      ROOF SHEATHING, SUPPORTS SPACED > 2'-0" OC — 7/8" THICK; 60/32 APA SPAN RATING
      ROOF SHEATHING, SUPPORTS SPACED <= 2'-0" OC — 5/8" THICK; 32/16 APA SPAN RATING
      SHEAR WALL SHEATHING — SEE SHEAR WALL SCHEDULE
      NON-SHEAR WALL SHEATHING — 1/2" THICK
   B. REFER TO TYPICAL DETAILS AND WALL SCHEDULES FOR FASTENING REQUIREMENTS. WHERE NOT NOTED, PROVIDE 6d NAILS AT 6" OC ALONG ALL EDGES AND AT 12" OC AT INTERMEDIATE SUPPORTS.
   C. ALL SHEATHING WHICH IS EXPOSED TO OUTDOOR APPLICATIONS SHALL BE EXTERIOR TYPE. SHEATHING EXPOSED TO WEATHER ONLY DURING CONSTRUCTION SHALL BE EXPOSURE 1. ALL WOOD STRUCTURAL PANELS SHALL CONFORM TO 2303.1.4 AND WHEN USED IN HORIZONTAL DIAPHRAGM AND VERTICAL SHEAR WALLS SHALL BE FIVE-PLY MINIMUM.
   D. FLOOR SHEATHING SHALL BE GLUED TO ALL SUPPORTING MEMBERS WITH AN ELASTOMERIC ADHESIVE CONFORMING TO ASTM D3498.
   E. WHERE ORIENTED STRAND BOARD SHEATHING IS USED HORIZONTALLY, REMOVE AND REPLACE IF SHEATHING REMAINS WET FOR EXTENDED PERIODS OF TIME WHEREBY REDUCING THE STIFFNESS.

2. DIMENSIONAL LUMBER
   A. FRAMING SHALL BE DOUGLAS FIR (LARCH), SPRUCE PINE FIR OR SOUTHERN PINE AND CONFORM TO THE FOLLOWING STRENGTHS:
      BEARING/EXTERIOR WALL STUDS — #2 OR BETTER — Fb = 875 PSI — Fc|| = 1150 PSI
      JOISTS & BEAMS & HEADERS — #2 OR BETTER — Fb = 875 PSI — Fc|| = 1150 PSI
      POSTS & TIMBERS — SELECT STRUCTURAL — Fb = 1500 PSI — Fc|| = 1700 PSI
   B. COMPLY WITH ANSI/AWC NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION.
   C. ALL LUMBER STRESSES SHOWN ABOVE ARE FOR VISUALLY STRESS-RATED LUMBER USED AT 19% MAXIMUM MOISTURE CONTENT, SINGLE MEMBER USE. ALL LUMBER SHALL BE GRADE MARKED.
   D. PROVIDE A MINIMUM OF 3" OF BEARING.
   E. DOUBLE UP FLOOR JOISTS UNDER ALL PARTITIONS.
   F. PROVIDE METAL OR 1x3 WOOD CROSS BRACING AT 8 FT ON CENTER WHEN JOIST DEPTH-TO-THICKNESS RATIO EXCEEDS 6:1.
   G. PROVIDE 2x SOLID BLOCKING AT JOIST SUPPORTS EXCEPT WHERE THE JOIST ENDS ARE SUPPORTED BY JOIST HANGERS.
   H. ADD JOISTS WHEN CONCENTRATED LOAD EXCEEDS 100 LBS, MAXIMUM CONCENTRATED LOAD.
   I. OPENINGS NOT IDENTIFIED ARE TO BE TREATED AS FOLLOWS:
      1) WHERE OPENING FITS BETWEEN JOISTS, FRAME WITH LUMBER EQUALING THE NOMINAL DIMENSIONS OF THE EXISTING JOISTS.
      2) WHERE OPENING CUTS ONE JOIST, FRAME WITH LUMBER EQUALING THE NOMINAL DIMENSIONS OF THE EXISTING JOISTS. USE THIS FRAMING AS A HEADER FOR THE INTERRUPTED JOIST. FOR EACH JOIST BYPASSING THE OPENING, CUT AND SISTER A NEW JOIST. USE 1/2"ø LAG SCREWS AT 12" OC TO SISTER JOISTS TOGETHER. PENETRATIONS WHERE MORE THAN ONE JOIST IS CUT TO BE REVIEWED BY SEOR.

3. MANUFACTURED WOOD PRODUCTS
   A. STRENGTHS SHALL CONFORM TO: WOOD I-JOIST (BASIS OF DESIGN) WEYERHAEUSER
   B. I-JOIST, IF STORED PRIOR TO ERECTION, SHALL BE STORED IN A VERTICAL POSITION.
   C. I-JOISTS SHALL HAVE ERECTION BRACING TO KEEP THE JOIST STRAIGHT, TRUE AND PLUMB, AS REQUIRED AND TO ASSURE ADEQUATE LATERAL SUPPORT FOR THE INDIVIDUAL JOIST AND THE ENTIRE SYSTEM UNTIL THE SHEATHING MATERIAL HAS BEEN APPLIED.
   D. LATERAL SUPPORT SHALL BE PROVIDED AT ALL BEARING LOCATIONS. FOR JOIST SPANS GREATER THAN 16'-0", ONE ROW OF BRIDGING OR FULL DEPTH BLOCKING SHALL BE INSTALLED AT MIDSPAN.
   E. NOTCHES AND HOLES IN I-JOISTS ARE ONLY ALLOWED AS DETAILED OR APPROVED BY THE SEOR.
   F. DO NOT NAIL PARALLEL TO GLUE LINE LAMINATIONS ON THE NARROW FACE OF AN I-JOIST TOP/BOTTOM CHORD.
   G. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION PER DETAILED INSTALLATION SUGGESTIONS AND GUIDELINES OF THE MANUFACTURER.
   H. ALL FRAMING HARDWARE MUST BE THE TYPE SPECIFIED FOR THE PRODUCT AND APPROVED BY THE MANUFACTURER FOR INSTALLATION.

4. FASTENING
   A. ALL NAILS SHALL BE COMMON WIRE NAILS. AT ALL EXPOSED NAILING TO WEATHER, (IE-DECKING & SIDING), USE HOT-DIPPED GALVANIZED NAILS. USE OF PLASTIC COATED OR CASING NAILS IS NOT ALLOWED. NAIL DESIGNATIONS SHALL MEET THE FOLLOWING LENGTHS AND DIAMETERS:

6d	2" x 0.113"	12d	3 1/4" x 0.148"
8d	2 1/2" x 0.131"	16d	3 1/2" x 0.162"
10d	3" x 0.148"	20d	4" x 0.192"

   B. THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL NOT BE LESS THAN THE FOLLOWING:

CONNECTION	FASTENING
TOP PLATE TO 2x STUD AND STUD TO SILL PLATE	(2) 16d END NAILS
2x STUD TO TOP OR SILL PLATE	(4) 8d TOENAILS OR (2) 16d END NAILS
STUD TO STUD	16d @ 24" OC, FACE NAIL
DOUBLE TOP PLATES	16d @ 16" OC, FACE NAIL
DOUBLE TOP PLATES, LAP SPLICE	(12) 16d EACH SIDE OF SPLICE
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	(3) 8d TOENAILS
TOP PLATE LAPS AT CORNERS AND INTERSECTIONS	(2) 16d, FACE NAIL
BUILT-UP HEADER	16d @ 16" OC ALONG EACH EDGE
BUILT-UP CORNER STUDS	16d @ 24" OC
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d @ 16" OC, FACE NAIL

   C. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION AND THE APPROVAL OF THE AOR/SEOR. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING IS NOT ALLOWED FOR 5/16" SHEATHING. IF THE NAIL HEADS PENETRATE MORE THAN WOULD BE NORMAL FOR A HANDHELD HAMMER, OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY AND MACHINE NAILING WILL BE DISCONTINUED.
   D. ALL BOLTED WOOD CONNECTIONS SHALL BE MADE WITH BOLTS CONFORMING TO THE REQUIREMENTS OF ANSI/ASME B18.2.6. BOLT HOLES SHALL BE 1/32" TO 1/16" LARGER THAN THE BOLT. FORCIBLE DRIVING OF BOLTS IS NOT ALLOWED. RETIGHTEN ALL BOLTS BEFORE CLOSING-IN.
   E. USE STANDARD CUT WASHERS BETWEEN THE BOLT HEADS, BOLT NUTS AND LAG SCREW HEADS AND WOOD FRAMING.
   F. ALL WOOD CONNECTIONS MADE WITH LAG SCREWS SHALL BE MADE WITH SCREWS CONFORMING TO THE REQUIREMENTS OF ANSI/ASME B18.2.6. LEAD HOLES FOR THE SHANK SHALL HAVE THE SAME DIAMETER AS THE SHANK AND THE SAME DEPTH AS THE LENGTH OF UNTHREADED SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 60-75% OF THE THREADED PORTION.
   G. METAL FRAMING CONNECTORS NOTED ON THE DRAWINGS USE SIMPSON STRONG-TIE AS BASIS OF DESIGN, UNLESS NOTED OTHERWISE. SUBSTITUTIONS OF ALTERNATE CONNECTOR MANUFACTURERS WILL BE ACCEPTABLE AS LONG AS LOAD CAPACITIES ARE MET OR EXCEEDED AND ARE SUBSTANTIATED BY AN ICC REPORT.
   H. WHERE THERE ARE CONNECTOR NAILING ALTERNATIVES LISTED IN THE MANUFACTURER'S CATALOG, THE NAILING PROVIDING THE HIGHEST LOAD CAPACITY SHALL BE USED.

5. GENERAL CONSTRUCTION REQUIREMENTS:
   A. FRAMING PLANS INDICATE GENERAL LAYOUT AND DIMENSIONAL CONTROL ONLY. REFER TO SHOP DRAWINGS FOR ENGINEERING AND ERECTION.
   B. SILL PLATES SHALL HAVE 1/2"ø ANCHOR BOLTS WITH 7" EMBEDMENT SPACED NOT MORE THAN 6'-0" ON CENTER, UNO. EACH PIECE SHALL HAVE 2 BOLTS MINIMUM AND HAVE AN ANCHOR LOCATED 4" MINIMUM AND 12" MAXIMUM FROM THE END. PLATE WASHERS SHALL BE A MINIMUM OF 3/16" THICK x 3".
   C. WHERE MULTIPLE JOISTS OR HEADERS OCCUR, THERE SHALL BE A SHOULDER STUD FOR EACH PLY (IE - PROVIDE DOUBLE STUDS UNDER DOUBLE JOISTS).
   D. SOLID-SAWN LUMBER BEAMS, RAFTERS AND JOISTS SHALL HAVE LATERAL SUPPORT PREVENTING ROTATION OR DISPLACEMENT AS FOLLOWS BASED UPON SPAN-TO-DEPTH RATIOS:
      1) 2:1, NO LATERAL SUPPORT IS REQUIRED;
      2) 3:1 OR 4:1, THE ENDS SHALL BE HELD IN POSITION BY FULL-DEPTH BLOCKING, BRIDGING, NAILING OR BOLTING TO OTHER FRAMING MEMBERS;
      3) 5:1, ONE EDGE SHALL BE HELD IN LINE FOR ITS ENTIRE LENGTH;
      4) 6:1, FULL-DEPTH BLOCKING, BRIDGING OR CROSS BRACING SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 8 FT UNLESS BOTH EDGES ARE HELD IN LINE;
      5) 7:1, BOTH EDGES SHALL BE HELD IN LINE FOR THE ENTIRE LENGTH.
   E. ALL LUMBER, UNLESS NOTED, SHALL BE MILL SIZED AND SURFACED ON FOUR SIDES AND SHALL BE STRAIGHT STOCK, FREE FROM WARP OR CUP AND SINGLE LENGTH PIECES.
   F. ALL ROUGH CARPENTRY SHALL PRODUCE JOINTS TRUE, TIGHT AND WELL NAILED WITH MEMBERS ASSEMBLED IN ACCORDANCE WITH THE DRAWINGS AND ALL PERTINENT BUILDING CODES. THE SHIMMING OF SILLS, JOISTS, SHORT STUDS, TRIMMERS, HEADERS OR OTHER FRAMING MEMBERS SHALL NOT BE PERMITTED. ALL WALLS AND PARTITIONS SHALL BE STRAIGHT, PLUMB AND ACCURATELY LOCATED. CAREFULLY SELECT ALL STRUCTURAL MEMBERS SO KNOTS AND OBVIOUS MINOR DEFECTS WILL NOT INTERFERE WITH MAKING SOUND CONNECTIONS.
   G. INSTALL ALL BLOCKING AS REQUIRED TO SUPPORT ALL ITEMS OF FINISH SUCH AS BULKHEADS AND DOOR BUCKS. PROVIDE FIREBLOCKING TO CUT OFF ALL CONCEALED DRAFT OPENINGS, BOTH VERTICAL AND HORIZONTAL, BETWEEN CEILING AND FLOOR AREAS. VERIFY ALL REQUIRED BLOCKING WITH ARCHITECTURAL DRAWINGS AND LOCAL BUILDING OFFICIAL.
   H. ALL LUMBER AND PRODUCTS SHALL BE HANDLED AND STORED TO PREVENT MARRING AND MOISTURE ABSORPTION FROM RAIN. NO DIRECT CONTACT WITH THE GROUND IS PERMITTED.
   I. ALL LUMBER EXPOSED TO WEATHER SHALL BE TREATED WOOD.
   J. PROTECTION AGAINST DECAY AND TERMITES:
      1) PLATES, SILLS AND SLEEPERS - WHEN IN DIRECT CONTACT WITH CONCRETE OR MASONRY, SHALL BE TREATED WOOD. BOTTOM OF SILLS AT EXTERIOR WALLS SHALL NOT BE LESS THAN 6" ABOVE OUTSIDE GRADE EXCEPT WHERE GRADE IS PAVED OVER FOR 18" MINIMUM WIDTH AND DRAINING AWAY FROM THE BUILDING. FOR THAT CONDITION, SILL MAY BE 2" ABOVE.
      2) COLUMNS AND POSTS - IN AREAS EXPOSED TO WATER SPLASH AND EXTERIOR CONDITIONS, COLUMN/POST SHALL BE SUPPORTED BY A METAL CONNECTOR AND BE TREATED UNLESS BASE IS LIFTED 2" ABOVE THE CONCRETE SLAB.
      3) STRUCTURAL SUPPORTS OF BALCONIES, PORCHES OR SIMILAR APPURTENANCES - WHEN MEMBERS ARE EXPOSED TO THE WEATHER WITHOUT ADEQUATE ROOF PROTECTION PREVENTING WATER ACCUMULATION, THEY SHALL BE TREATED WOOD.
      4) MOISTURE CONTENT - WHEN WOOD IS PRESSURE TREATED WITH A WATERBORNE PRESERVATIVE AND LOCATED IN ENCLOSED SPACES WHERE DRYING IN SERVICE CANNOT READILY OCCUR, SUCH WOOD SHALL BE AT A MOISTURE CONTENT OF 19% OR LESS BEFORE BEING COVERED.
   K. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER SHALL BE CUT, NEITHER DRILLED NOR NOTCHED, WITHOUT WRITTEN APPROVAL FROM THE SEOR.
      1) AT NON-BEARING STUDS: A HOLE NOT GREATER THAN 40% OF THE STUD WIDTH MAY BE BORED. BORED HOLES NOT GREATER THAN 60% OF THE STUD WIDTH ARE PERMITTED WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH CONSECUTIVE DOUBLE STUDS ARE SO BORED. IN NO CASE SHALL THE EDGE OF THE BORE HOLE BE NEARER THAN 5/8" TO THE STUD EDGE. BORE HOLES SHALL NOT BE LOCATED AT THE SAME SECTION IF CUT OR NOTCHED.
   L. ALL FRAMING APPLICABLE STANDARDS OR GRADING RULES SPECIFIED SHALL BE SO IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION BY AN APPROVED AGENCY. ALL LUMBER AND PLYWOOD REQUIRED TO BE TREATED WOOD SHALL BE IDENTIFIED BY THE QUALITY MARK OF AN APPROVED INSPECTION AGENCY WHICH MAINTAINS CONTINUED SUPERVISION, TESTING AND INSPECTION OVER THE QUALITY OF THE PRODUCT.
   M. WALL STUD CONSTRUCTION IS DESIGNED TO BE BRACED BY THE WALL SHEATHING (WOOD STRUCTURAL PANEL OR GYPSUM BOARD). CONTRACTOR TO PROVIDE TEMPORARY BRACING, AS REQUIRED, UNTIL SHEATHING IS INSTALLED.
   N. STRUCTURAL HEADERS OR OTHER STRUCTURAL COMPONENTS MAY BE SUBSTITUTED UPON APPROVAL OF THE SEOR. SUPPLIER SHALL PROVIDE SEALED DESIGN CALCULATIONS FOR THE COMPONENTS.

METAL PLATE CONNECTED WOOD TRUSSES

1. DESIGN, FABRICATE, TRANSPORT AND ERECT METAL PLATE CONNECTED WOOD TRUSSES IN ACCORDANCE WITH LATEST STRUCTURAL BUILDING COMPONENTS ASSOCIATION (SBCA) STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.

2. DESIGN FOR LOADS, IN ADDITION TO MEMBER WEIGHTS, AS GIVEN IN THE DESIGN CRITERIA NOTES AND AS NOTED ON THE DRAWINGS.

3. TRUSS CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING THE PROPERLY SIZED ANCHORAGE FOR TRUSS-TO-TRUSS CONNECTIONS.

4. ALL PERMANENT AND TEMPORARY BRACING AND FASTENING AT BEARINGS SHALL BE DESIGNED BY THE TRUSS MANUFACTURER, UNO.

5. SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS FOR REVIEW BY THE SEOR THROUGH THE AOR. FABRICATION SHALL NOT BEGIN WITHOUT APPROVED SHOP DRAWINGS.

6. SHOP DRAWINGS SHALL SHOW THE TRUSS DESIGN LOADS, SIZE AND GRADE OF THE CHORDS AND WEBS, LOCATIONS OF THE JOINTS AND CONNECTIONS, SIZE AND TYPE AND LOCATION OF THE METAL PLATES, AND ALL BRACING AND BLOCKING REQUIREMENTS.

STRUCTURAL TESTS AND INSPECTION

1. UNLESS NOTED, MATERIALS SHALL CONFORM AND TESTS AND INSPECTIONS SHALL BE PERFORMED BY THE INSPECTION AGENCY WHO IS APPROVED THE AOR AND THE SEOR. CONTINUOUS AND PERIODIC TESTING AND INSPECTION SHALL CONFORM TO IBC CHAPTER 17, AND AS FOLLOWS:

A. CONCRETE CONSTRUCTION	1705.3
B. STEEL CONSTRUCTION	1705.2
C. WOOD CONSTRUCTION	1705.5
D. SOILS	1705.6

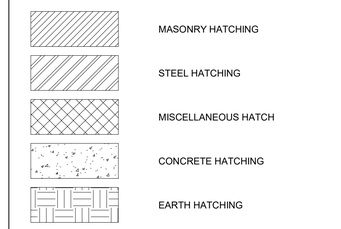
2. REFER TO ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR TESTING AND INSPECTION REQUIREMENTS OF NON-STRUCTURAL COMPONENTS.

3. DUTIES OF THE INSPECTION AGENCY PER IBC CHAPTER 17:
   A. SUBMIT A PROPOSED TESTING AND INSPECTION PROGRAM TO THE OWNER, THE AOR AND THE SEOR FOR REVIEW AND APPROVAL AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF WORK.
   B. PERFORM ALL TESTING AND INSPECTION REQUIRED PER APPROVED TESTING AND INSPECTION PROGRAM.
   C. FURNISH INSPECTION REPORT TO THE BUILDING OFFICIAL, THE OWNER, THE AOR, SEOR AND THE GENERAL CONTRACTOR. THE REPORTS SHALL BE COMPLETED AND FURNISHED WITHIN 48 HOURS OF INSPECTED WORK.
   D. SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTION AGENCY'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS.

STRUCTURAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
#	NUMBER OR POUNDS
@	AT
°	DEGREE
ø	DIAMETER
-3"	SLAB DEPRESSION
A.B.	ANCHOR BOLT
AHU	AIR-HANDLING UNIT
ARCH	ARCHITECT, -URE, -URAL
B.O.	BOTTOM OF
bf	BEAM FLANGE WIDTH
BF	BRACE FRAME
BLKG	BLOCKING
BM	BEAM
B.N.	BOUNDARY NAILING
B.O.F.	BOTTOM OF FOOTING
BOTT	BOTTOM
BP	BASE PLATE
BTWN	BETWEEN
CFSF	COLD FORM STEEL FRAMING
CLR	CLEAR
CL	CENTERLINE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DET	DETAIL
DWG	DRAWING
DWL	DOWEL
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
E.N.	EDGE NAILING
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
(E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
f'c	CONCRETE COMPRESSIVE STRENGTH
FDN	FOUNDATION
FIN	FINISH, -ED
FLR	FLOOR
F.N.	FIELD NAILING
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FRMG	FRAMING
FT	FOOT
FTG	FOOTING
Fy	YIELD STRESS
GA	GAGE OR GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
HI	HIGH
HORIZ	HORIZONTAL
HSB	HIGH STRENGTH BOLT
IN	INCH
INT	INTERIOR
JT	JOINT
K, KIP	KILOPOUND (1,000 POUNDS)
KSP	KIPS PER SQUARE FOOT
LB	POUND
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SIDE HORIZONTAL
LSV	LONG SIDE VERTICAL
LO	LOW
LONG	LONGITUDINAL
LT WT	LIGHTWEIGHT
M.B.	MACHINE BOLT
MAX.	MAXIMUM
MECH	MECHANICAL
MANUF	MANUFACTURER
MIN	MINIMUM
MTL	METAL
N	NORTH
(N)	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OH	OPPOSITE HAND
OPNG	OPENING
PC	PIECE
PCF	POUNDS PER CUBIC FOOT
P.H.	PENTHOUSE
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTDF	PRESSURE TREADED DOUGLAS FIR
R	RADIUS
REINF	REINFORCING, -MENT, -ED
REQD	REQUIRED
RTU	ROOF-TOP UNIT
SC	TC WITH CLASS A FAYING SURFACE
SCBF	SPECIAL CONCENTRIC BRACE FRAME
SCHED	SCHEDULE
SEP'N	SEPARATION
SIM	SIMILAR
SHTG	SHEATHING
SL	SNOW LOAD
SLRS	SEISMIC LOAD RESISTING SYSTEM
SOG	SLAB ON GRADE
SP	SPACE(S)
SPEC	SPECIFICATION(S)
SQ	SQUARE
STIFF	STIFFENER
STL	STEEL
SUPPT	SUPPORT
SYM	SYMMETRICAL
T.O.	TOP OF
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
TC	PRE-TENSIONED BOLT
TEMP	TEMPERATURE
tf	BEAM FLANGE THICKNESS
THK	THICK
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VWA	VERIFY WITH ARCHITECTURAL DRAWINGS
W/	WITH
WP	WORK POINT
WT	WEIGHT
WWR	WELDED WIRE REINFORCING

STRUCTURAL DRAWING SYMBOLS



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LION'S CHOICE Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

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#	Description	Date

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STATE OF MISSOURI
KATHERINE M. GOLDBERG
Number PE-2016000036
PROFESSIONAL ENGINEER
2/4/2020

Client Approval

GENERAL NOTES

Project #	52119-MO01
Issue Date	11/22/2019
Scale	As indicated
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Checked by	BRY

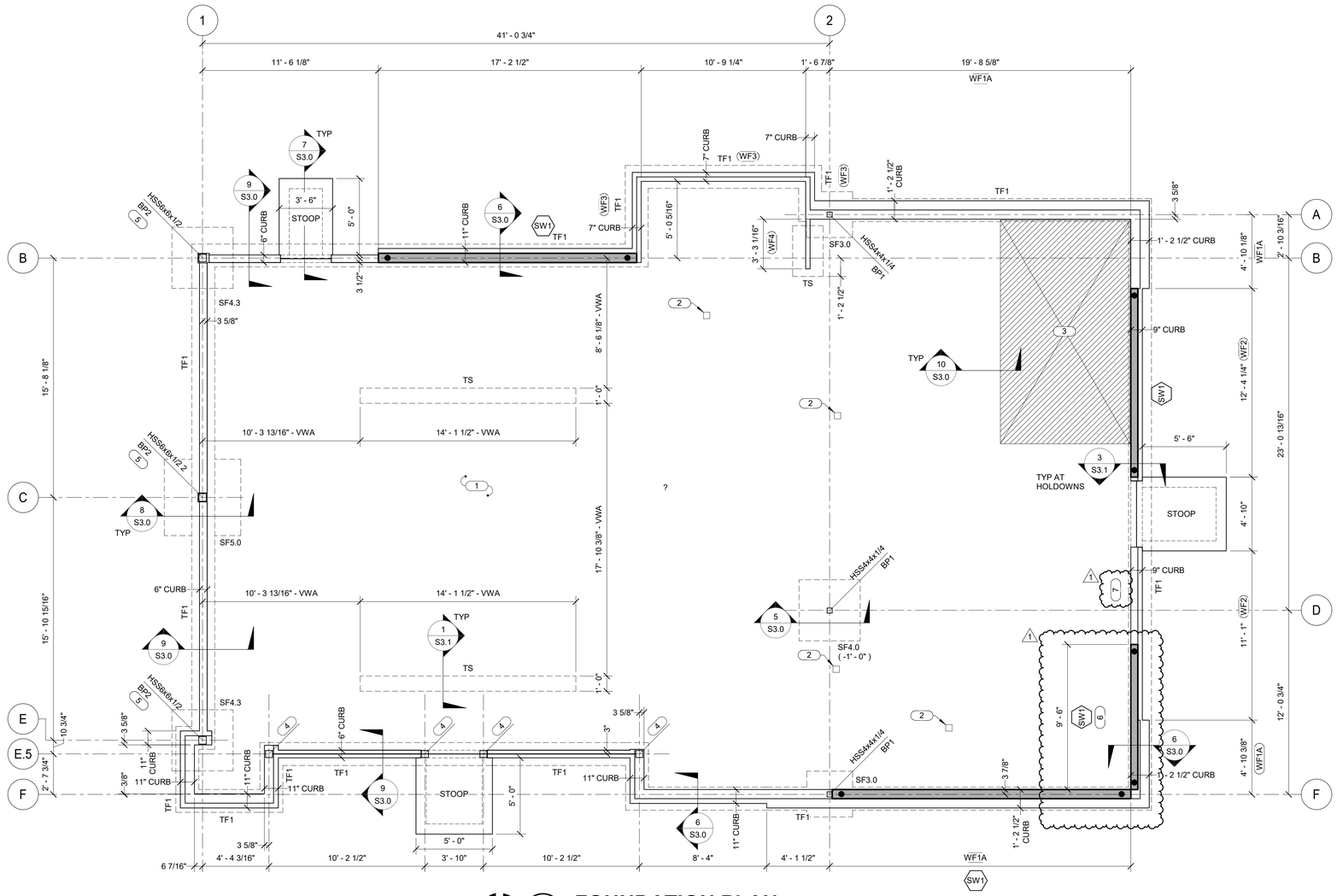
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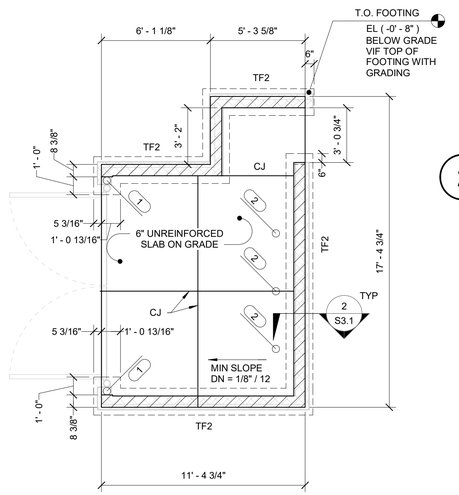
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1 FOUNDATION PLAN

1/4" = 1'-0"

NORTH



2 TRASH ENCLOSURE PLAN

1/4" = 1'-0"

NOTES:

1. ALL MASONRY IS 6" CMU WITH #5 @ 40" OC - GROUT ALL CELLS SOLID. AT CORNERS, PROVIDE 2'-0" x 2'-0" CORNER BARS IN BOND BEAMS - MATCH BOND BEAM REINFORCING. ALSO, PROVIDE (1) END BAR IN THE CORNER - SIZE TO MATCH VERTICAL REINFORCING.
2. REFER TO ARCHITECTURAL PLANS FOR LOCATION OF TRASH ENCLOSURE.
3. REFER TO FOUNDATION PLAN FOR ALL OTHER PERTINANT NOTES.

KEYNOTES: (#)

1. BOLLARD FOR GATE ATTACHMENT, CAST IN FOOTING. REF ARCH FOR LOCATION.
2. BOLLARD, REF ARCH.

NOTES:

1. TOP OF TRENCH FOOTING ELEVATION (-0' - 8"), TOP OF SPREAD FOOTING ELEVATION (-0' - 8") UNO.
2. BP# INDICATES BASE PLATE. REFER TO S4.0 FOR ANCHOR ROD AND BASE PLATE DETAILS.
3. TS# INDICATES THICKENED SLAB. REFER TO THIS SHEET FOR SCHEDULE.
4. SF# AND TF# INDICATE SPREAD AND TRENCH FOOTINGS. REFER TO THIS SHEET FOR SCHEDULES. CENTER FOOTINGS ON CONCRETE CURBS, UNO.
5. (SW#) INDICATES SHEAR WALL. REFER TO S1.1 FOR SCHEDULE
6. REFER TO 1, 2, AND 3/S3.0 FOR TYPICAL SLAB ON GRADE CONSTRUCTION DETAILS.
7. PROVIDE 2' - 6" x 2' - 6" CORNER BARS FOR FOOTING AND WALL INTERSECTIONS. BAR SIZE AND QUANTITY TO MATCH LONGITUDINAL AND HORIZONTAL BARS.
8. SLEEVE UTILITIES THROUGH FOUNDATION PER 4/S3.0. COORDINATE SIZE AND LOCATION WITH MECHANICAL AND PLUMBING CONTRACTORS.
9. ● INDICATES HOLD-DOWN. REFER TO S1.1 FOR SCHEDULE.
10. (WF#) INDICATES WALL FRAMING. REFER TO SHEET FOR STUD WALL SCHEDULE.
11. OVEREXCAVATE PER DETAILS 5 AND 6/S3.1.
12. CONTRACTORS OPTION TO USE FORMED FOOTINGS PER 4/S3.1 IF TRENCH FOOTINGS ARE NOT DESIRED OR IF SOIL IS NOT CONDUCTIVE TO THEM.

KEYNOTES: (#)

1. 4" CONCRETE SLAB ON GRADE WITH 6x6 - W2.1xW2.1 WWR. TOP OF SLAB ELEVATION (+0' - 0").
2. FLOOR DRAIN - REF PLUMBING. SLOPE CONCRETE TO DRAIN. PROVIDE (2) #4 x 1'-0" DIAGONAL BARS AT EACH CORNER, CENTERED WITHIN SLAB.
3. 4" THICK DEPRESSED CONCRETE SLAB ON GRADE WITH 6x6 - W2.1xW2.1 WWR. TOP OF SLAB ELEVATION (-0' - 10"). AT EXTERIOR EDGE, ABUT DEPRESSED SLAB TO TRENCH FOOTING WITH EXPANSION JOINT MATERIAL. COORDINATE DEPTH AND EXTENTS WITH ARCHITECTURAL DRAWINGS AND COOLER SUPPLIER.
4. 6x6 DOUGLAS FIR POST WITH SIMPSON MPB66Z POST BASE EMBEDDED 7 1/4" INTO TRENCH FOOTING. ATTACH POST TO BASE WITH (24) SDS25212 SCREWS PER MANUFACTURERS RECOMMENDATIONS.
5. BASE PLATE ELEVATION (-1' - 8"). REFER TO 8/S3.0 FOR BASE PLATE AND FOOTING DETAIL.
6. CONTINUOUS SILL PLATE REQUIRED FOR LENGTH OF SHEAR WALL.
7. IN WALL ELECTRICAL PANELS. COORDINATE LOCATION WITH ELECTRICAL CONTRACTOR AND AVOID CONFLICT WITH SHEAR WALL.

FOOTING SCHEDULE			
MARK	SIZE	THICKNESS	REINFORCING
SF4.0	4' - 0" x 4' - 0"	1' - 0"	(4) #5 EACH WAY, BOTTOM
SF4.3	4' - 0" x 4' - 0"	2' - 10"	(6) #5 EACH WAY, TOP AND BOTTOM
SF3.0	3' - 0" x 3' - 0"	2' - 10"	(3) #5 EACH WAY, BOTTOM
SF5.0	5' - 0" x 5' - 0"	2' - 10"	(6) #5 EACH WAY, TOP AND BOTTOM
TS	1' - 0" x CONT	1' - 0"	(2) #5 CONT
TF1	1' - 6" x CONT	2' - 10"	(3) #5 CONT, BOTTOM
TF2	1' - 6" x CONT	3' - 6"	(3) #5 CONT, TOP AND BOTTOM

NOTES:

1. TRENCH FOOTING BARS TO BE CONTINUOUS THROUGH COLUMN FOOTINGS.

WOOD FRAMING SCHEDULE				
MARK	SIZE	SPACING	CURB WIDTH	REMARKS
WF1A	2x8	16" OC	1' - 2 1/2"	-
WF1B	2x8	16" OC	0' - 11"	-
WF2	2x6	16" OC	0' - 9"	-
WF3	2x4	16" OC	0' - 7"	-
WF4	2x4	16" OC	-	-

NOTES:

1. TYPICAL WALL FRAMING IS TYPE WF1B, UNO.
2. INSIDE FACE OF CURB IS THE INSIDE FACE OF STUD, TYP.

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

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LEE'S SUMMIT, MO 64063

#	Description	Date
1	Revision #1: City Comments	02/06/2020

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STATE OF MISSOURI
KATHERINE M. GOLDBERG
Number PE-2010000036
PROFESSIONAL ENGINEER
2/4/2020

Client Approval

FOUNDATION PLAN

Project #	52119-MO01
Issue Date	11/22/2019
Scale	As indicated
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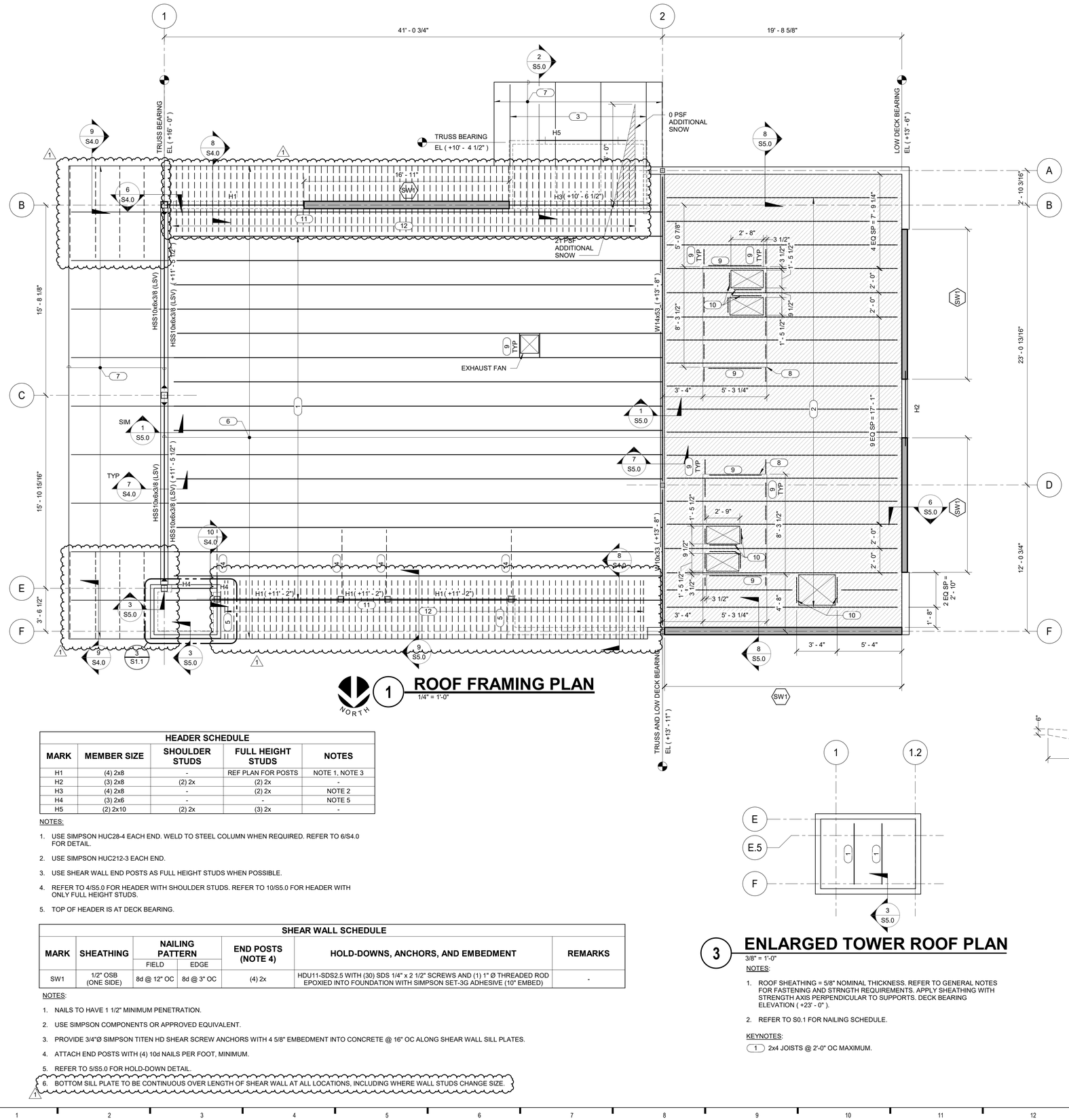
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1 ROOF FRAMING PLAN

1/4" = 1'-0"

HEADER SCHEDULE				
MARK	MEMBER SIZE	SHOULDER STUDS	FULL HEIGHT STUDS	NOTES
H1	(4) 2x8	-	REF PLAN FOR POSTS	NOTE 1, NOTE 3
H2	(3) 2x8	(2) 2x	(2) 2x	-
H3	(4) 2x8	-	(2) 2x	NOTE 2
H4	(3) 2x6	-	-	NOTE 5
H5	(2) 2x10	(2) 2x	(3) 2x	-

NOTES:

1. USE SIMPSON HUC28-4 EACH END. WELD TO STEEL COLUMN WHEN REQUIRED. REFER TO 6/S4.0 FOR DETAIL.
2. USE SIMPSON HUC212-3 EACH END.
3. USE SHEAR WALL END POSTS AS FULL HEIGHT STUDS WHEN POSSIBLE.
4. REFER TO 4/S5.0 FOR HEADER WITH SHOULDER STUDS. REFER TO 10/S5.0 FOR HEADER WITH ONLY FULL HEIGHT STUDS.
5. TOP OF HEADER IS AT DECK BEARING.

SHEAR WALL SCHEDULE						
MARK	SHEATHING	NAILING PATTERN		END POSTS (NOTE 4)	HOLD-DOWNS, ANCHORS, AND EMBEDMENT	REMARKS
		FIELD	EDGE			
SW1	1/2" OSB (ONE SIDE)	8d @ 12" OC	8d @ 3" OC	(4) 2x	HDU11-SDS2.5 WITH (30) SDS 1/4" x 2 1/2" SCREWS AND (1) 1" Ø THREADED ROD EPOXIED INTO FOUNDATION WITH SIMPSON SET-3G ADHESIVE (10" EMBED)	-

NOTES:

1. NAILS TO HAVE 1 1/2" MINIMUM PENETRATION.
2. USE SIMPSON COMPONENTS OR APPROVED EQUIVALENT.
3. PROVIDE 3/4"Ø SIMPSON TITEN HD SHEAR SCREW ANCHORS WITH 4 5/8" EMBEDMENT INTO CONCRETE @ 16" OC ALONG SHEAR WALL SILL PLATES.
4. ATTACH END POSTS WITH (4) 10d NAILS PER FOOT, MINIMUM.
5. REFER TO 5/S5.0 FOR HOLD-DOWN DETAIL.
6. BOTTOM SILL PLATE TO BE CONTINUOUS OVER LENGTH OF SHEAR WALL AT ALL LOCATIONS, INCLUDING WHERE WALL STUDS CHANGE SIZE.

3 ENLARGED TOWER ROOF PLAN

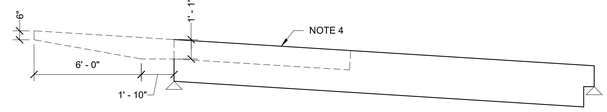
3/8" = 1'-0"

NOTES:

1. ROOF SHEATHING = 5/8" NOMINAL THICKNESS. REFER TO GENERAL NOTES FOR FASTENING AND STRNGTH REQUIREMENTS. APPLY SHEATHING WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS. DECK BEARING ELEVATION (+23' - 0").
2. REFER TO S0.1 FOR NAILING SCHEDULE.

KEYNOTES:

(1) 2x4 JOISTS @ 2'-0" OC MAXIMUM.



2 TRUSS PROFILE

1/4" = 1'-0"

NOTES:

1. TRUSS DESIGN LOADS:
   TOP CHORD DL = 10 PSF
   BOTTOM CHORD DL = 10 PSF
   FLAT ROOF SNOW = 25 PSF
   OUTRIGGER UPLIFT = 50 PSF UPWARDS (1.0 WL)
   REFER TO GENERAL NOTES FOR FIELD UPLIFT
2. BEARING POINTS SHOWN ARE AT CENTERLINE OF BEARING WALLS AND MEMBERS.
3. TRUSS OVERHANG OCCURS AT EVERY OTHER TRUSS - REF PLAN.
4. OUTRIGGER INTENDED TO BE EXTENDED TOP CHORD ELEMENT TO BE CUT TO SHAPE FROM SINGLE MEMBER.

NOTES:

1. REFER TO 3/S4.0 FOR TYPCIAL STEEL SHEAR CONNECTION.
2. ▶ INDICATES MOMENT CONNECTION PER 4 AND 5/S4.0.
3. REFER TO GENERAL NOTES FOR FASTENING AND STRENGTH REQUIREMENTS OF ROOF SHEATHING. APPLY SHEATHING WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS.
4. H# INDICATES HEADER. REFER TO THIS SHEET FOR SCHEDULE.
5. REFER TO S0.2 FOR NAILING SCHEDULE.
6. TRUSS LAYOUT ON PLAN IS SCHEMATIC. REFER TO 2/S1.1 FOR TRUSS PROFILE AND TYPICAL LOADING.
7. TRUSS MANUFACTURER TO CONFIRM ALL ROOF OPENINGS WITH MECHANICAL. PROVIDE ADDITIONAL FRAMING AS REQUIRED TO FRAME OUT OPENINGS.
8. (SW#) INDICATES SHEAR WALL. REFER TO THIS SHEET FOR SCHEDULE.
9. INDICATES 35 PSF UNIFORM SNOW LOAD.

KEYNOTES: (#)

1. 28" WOOD TRUSSES @ 24" OC. REF 2/S1.1 FOR PROFILE.
2. 11 7/8" I-JOISTS (TJI 560 OR EQUIVALENT) AT 24" OC MAX.
3. (2) 2x12 JOISTS @ 4' - 0" OC MAX. REFER TO DETAIL 2/S5.0, CUT OUTRIGGER SHAPE.
4. 2x4 BLOCKING, REFER TO DETAIL 9/S5.0.
5. USE BOUNDRY NAILING SPACING INTO WALL TOP PLATE.
6. 5/8" NOMINAL ROOF SHEATHING. ORIENTED WITH LONG DIRECTION PERPENDICULAR TO SUPPORTS, 3 SPAN MINIMUM.
7. 7/8" NOMINAL ROOF SHEATHING. ORIENTED WITH LONG DIRECTION PERPENDICULAR TO SUPPORTS, 2 SPAN MINIMUM.
8. RTU - 1400 LBS USED AS BASIS OF DESIGN. FINAL DIMENSIONS AND LOCATION TO BE COORDINATED WITH MECHANICAL CONTRACTOR PRIOR TO TRUSS FABRICATION.
9. (2) 2x6 BLOCKING BETWEEN TRUSSES, AT EDGE OF UNIT WITH LUS26-2 FACE MOUNT HANGER WITH (4) 10d x 1 1/2" NAILS TO TRUSS. SUPPLY WEB STIFFENERS ON EACH SIDE OF TRUSS AT HANGER.
10. 2x6 BLOCKING BETWEEN TRUSSES, WITH LUS26 FACE MOUNT HANGER TO OTHER BLOCKING. SUPPLY WEB STIFFENERS ON EACH SIDE OF TRUSS AT HANGER WHEN APPLICABLE.
11. DROP TOP CHORD OF TRUSS PER DETAILS 8/S4.0 AND 9/S5.0.
12. 2x6 FLAT OUTRIGGERS, REF 8/S4.0 AND 9/S5.0.

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	Revision #1: City Comments	02/06/2020

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STATE OF MISSOURI
KATHERINE M. GOLDBERG
Number PE-2016000036
PROFESSIONAL ENGINEER
3/1/2020

Client Approval

ROOF FRAMING PLAN

Project #	52119-MO01
Issue Date	11/22/2019
Scale	As indicated
Drawn by	MKG
Checked by	BRY

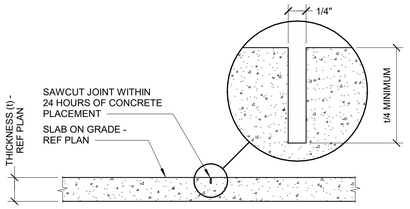
S1.1

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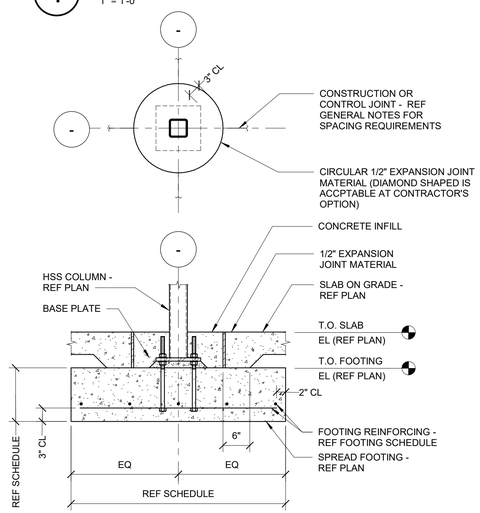
REFERENCE SCALE IN INCHES
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2/5/2020 2:21:36 PM LIONS CHOICE - LEE'S SUMMIT



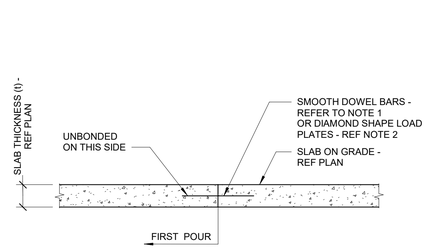
1 TYPICAL SLAB ON GRADE CONTROL JOINT

1" = 1'-0"



5 TYPICAL SPREAD FOOTING

3/4" = 1'-0"

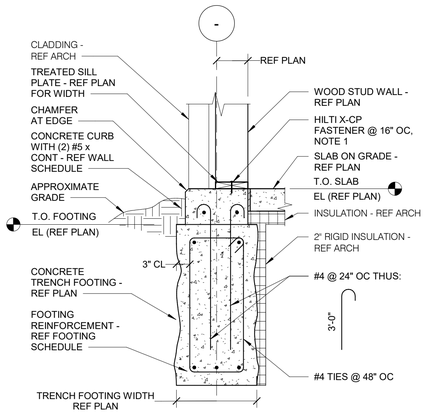


2 TYPICAL SLAB CONSTRUCTION JOINT

3/4" = 1'-0"

NOTES:

1. USE 1/2"Ø x 1'-4" SMOOTH DOWEL BARS AT 18" OC.
2. USE 1/4"x4 1/2"x4 1/2" DIAMOND LOAD PLATES AT 18" OC.

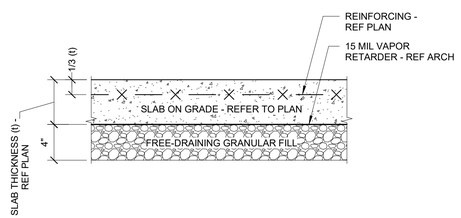


6 TYPICAL TRENCH FOOTING DETAIL

3/4" = 1'-0"

NOTES:

1. AT SHEAR WALLS, PROVIDE SIMPSON TITEN HD SCREW ANCHOR IN PLACE OF PAF. REFER TO S1.1 FOR SHEAR WALL SCHEDULE.

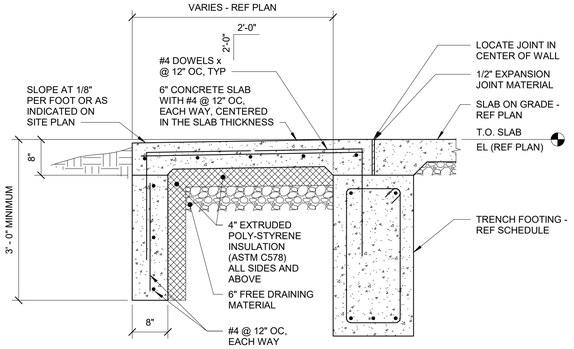


3 TYPICAL SLAB ON GRADE SECTION

1 1/2" = 1'-0"

NOTES:

1. REFERENCE GENERAL NOTES FOR MATERIAL AND COMPACTION REQUIREMENTS.

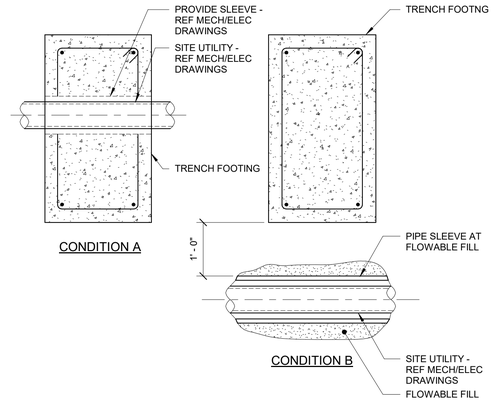


7 TYPICAL STOOP SECTION

3/4" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT STOOP LAYOUT AND LOCATIONS.



4 TYPICAL FOUNDATION DETAILS AT SITE UTILITIES

3/4" = 1'-0"

NOTES:

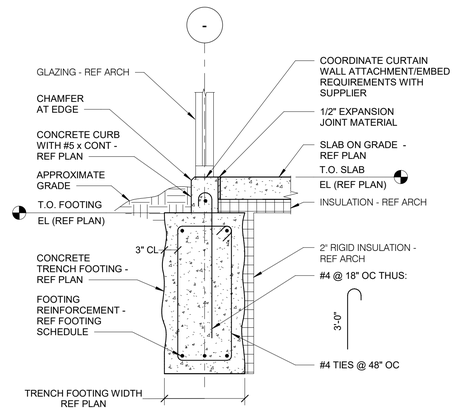
1. REFERENCE MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL LOCATIONS, ELEVATIONS, ETC., OF SITE UTILITIES.
2. DETAIL REQUIRED AT ALL UTILITIES HAVING A PLAN WIDTH UP TO 3' - 0". FOR WIDTHS GREATER THAN 3' - 0", REFERENCE PLAN FOR REQUIRED DETAIL.
3. CONDITION B DOES NOT APPLY AT SPREAD FOOTING SITUATIONS. GENERAL CONTRACTOR SHALL NOTIFY ENGINEER SHOULD SUCH A CONDITION ARISE AND AWAIT FURTHER INSTRUCTIONS.

8 TYPICAL EXTERIOR SPREAD FOOTING

3/4" = 1'-0"

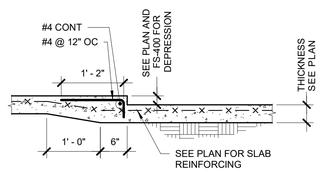
NOTES:

1. BLOCK OUT 3'-0" x 3'-0" x 1'-0" SECTION CENTERED ON COLUMN LOCATION. CAST ANCHOR RODS IN LOWER SECTION OF FOOTING AND SET COLUMN. WHEN STABILITY OF COLUMN IS REACHED, POUR BACK BLOCK OUT TO TOP OF FOOTING.
2. ENSURE PROPER VIBRATION OF CONCRETE UNDER BLOCK OUT TO FULLY ENCAPSULATE ANCHOR RODS.
3. CONTRACTOR'S OPTION: MOVE TOP OF FOOTING DOWN 1'-0" AND CAST COLUMN BLOCK OUT WITH CURB.



9 TRENCH FOOTING AT CURTAIN WALL

3/4" = 1'-0"



10 TYPICAL SLAB DEPRESSION

3/4" = 1'-0"

NOTE:

1. CONTRACTOR OPTION TO PROVIDE CONSTRUCTION JOINT AT STEP.

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2/4/2020

Client Approval

CONCRETE DETAILS

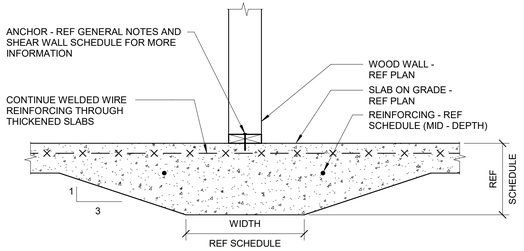
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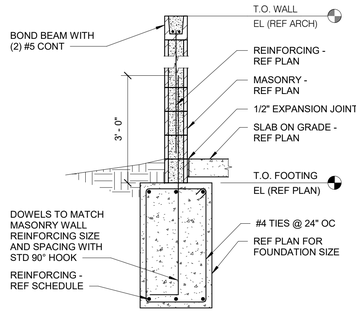
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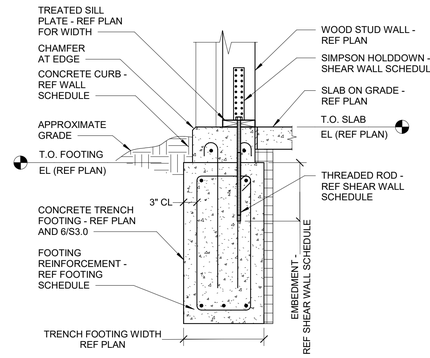
1 TYPICAL INTERIOR BEARING WALL DETAIL

1" = 1'-0"



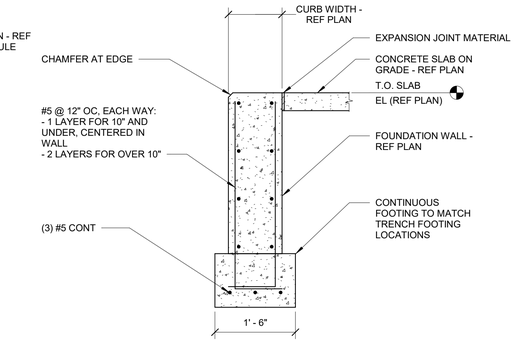
2 FOUNDATION DETAIL

1/2" = 1'-0"



3 HOLDDOWN DETAIL

3/4" = 1'-0"

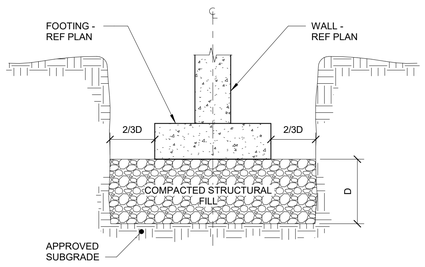


4 FORMED FOOTING DETAIL

3/4" = 1'-0"

NOTES:

1. CONTRACTORS OPTION TO USE FORMED FOOTINGS IF TRENCH FOOTINGS ARE NOT DESIRED OR IF SOIL IS NOT CONDUCTIVE TO THEM.

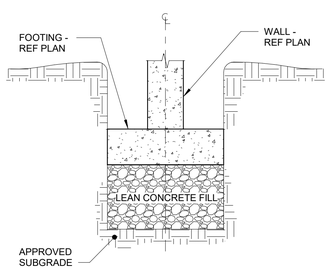


5 OVEREXC DIAGRAM-1

1/2" = 1'-0"

NOTES:

1. OVEREXCAVATE BELOW FOOTING AS DIRECTED BY OWNER'S TESTING AGENCY.



6 OVEREXC DIAGRAM-2

1/2" = 1'-0"

NOTES:

1. USE FOR TRENCH FOOTINGS AND WHEN LEAN CONCRETE IS DESIRED OVER COMPACTED FILL.

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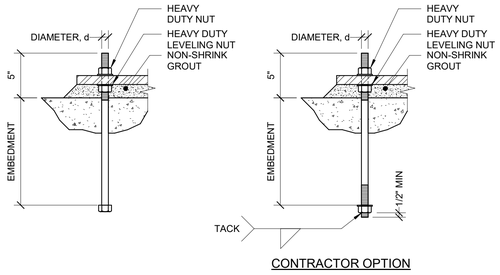
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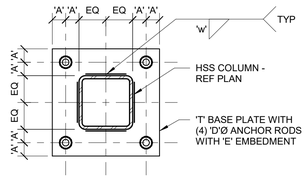
CONTRACTOR OPTION

1 TYPICAL ANCHOR ROD

1 1/2" = 1'-0"

NOTES:

1. REFERENCE BASE PLATE DETAILS FOR DIAMETER AND EMBEDMENT.
2. REFERENCE GENERAL NOTES FOR MATERIAL REQUIREMENTS.
3. ANCHOR RODS SHALL BE SET PRIOR TO PLACEMENT OF CONCRETE.
4. PROTECT ANCHOR RODS FROM DAMAGE.
5. ANCHOR SHALL BE SET SO AS NOT TO VARY FROM THE DIMENSIONS SHOWN ON THE ERECTION DRAWINGS BY MORE THAN THE FOLLOWING:
   A. 1/8" CENTER TO CENTER OF ANY TWO RODS WITHIN AN ANCHOR ROD GROUP.
   B. 1/4" CENTER TO CENTER OF ADJACENT ANCHOR ROD GROUPS.
   C. ELEVATION OF THE TOP OF ANCHOR RODS ± 1/2".
   D. MAXIMUM ACCUMULATION OF 1/4" PER HUNDRED FEET ALONG THE ESTABLISHED COLUMN LINE.
   E. 1/4" FROM THE CENTER OF ANY ANCHOR ROD GROUP TO THE ESTABLISHED COLUMN LINE THROUGH THAT GROUP.
   F. REFERENCE AISC CODE OF STANDARD PRACTICE FOR ADDITIONAL INFORMATION.
6. SET ANCHOR RODS PERPENDICULAR TO BEARING SURFACE, UNLESS NOTED OTHERWISE.
7. PROVIDE 1 1/2" NON-SHRINK GROUT AT ALL BASE PLATES.



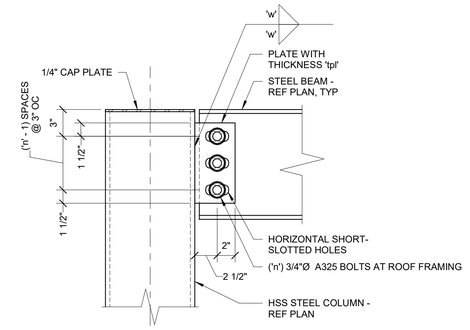
HSS BASE PLATE SCHEDULE							
MARK	COLUMN	'T'	'A'	'D'	'E'	'w'	COMMENTS
BP1	HSS4x4	3/4"	1 1/2"	3/4"	9"	1/4"	-
BP2	HSS6x6	1 1/4"	2"	1"	12"	3/8"	-

2 HSS COLUMN BASE PLATE DETAIL

1 1/2" = 1'-0"

NOTES:

1. REFER TO TYPICAL ANCHOR ROD DETAIL FOR ADDITIONAL INFORMATION.
2. NO WELDS REQUIRED AT RADIUSES.



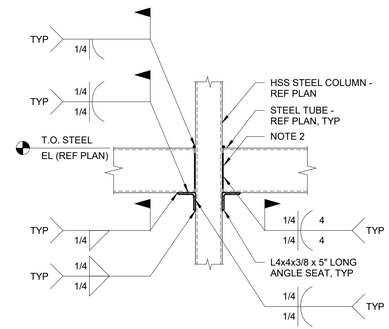
KNIFE PLATE CONNECTION TABLE			
SUPPORTED BEAM	'tpl'	'n'	'w'
W10	1/4"	2	3/16"
W14	5/16"	3	1/4"

3 WIDE FLANGE TO HSS COLUMN DETAIL

1 1/2" = 1'-0"

NOTES:

1. WHERE TYPICAL SHEAR CONNECTION DETAIL IS NOT APPLICABLE, FABRICATOR SHALL SELECT AND DETAIL ALTERNATE CONNECTION CAPABLE OF DEVELOPING EQUAL STRENGTH. ALTERNATE CONNECTION SHALL BE SELECTED IN ACCORDANCE WITH AISC ASD CONNECTION TABLES.

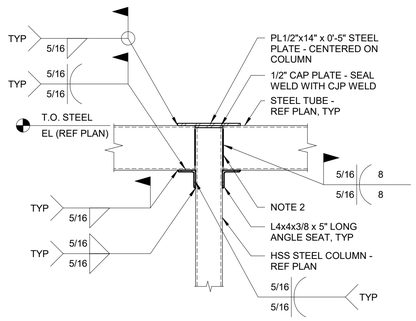


4 LOWER MOMENT FRAME DETAIL

3/4" = 1'-0"

NOTES:

1. AT SIM, CONNECTION IS ON ONE SIDE ONLY.
2. USE 3/8" x 5" STEEL ROD, (3) SIDES, TO AID IN WELDING AS NEEDED, TYP. IF FIT UP ALLOWS, USING A SINGLE 1/4" FILLET WELD BETWEEN COLUMN AND BEAM IS ACCEPTABLE.

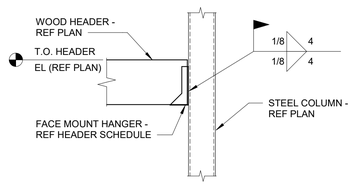


5 UPPER MOMENT FRAME DETAIL

3/4" = 1'-0"

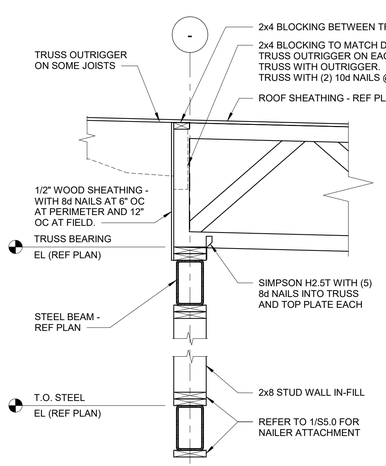
NOTES:

1. AT SIM, CONNECTION IS ON ONE SIDE ONLY. COLUMN CAP PLATE IS 1/2"x10" x 0'-5".
2. USE 3/8" x 5" STEEL ROD, EACH SIDE, TO AID IN WELDING AS NEEDED, TYP.



6 FACE MOUNT HANGER TO STEEL COLUMN

3/4" = 1'-0"

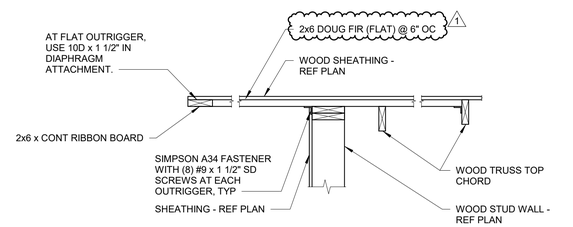


7 TRUSS BEARING DETAIL

3/4" = 1'-0"

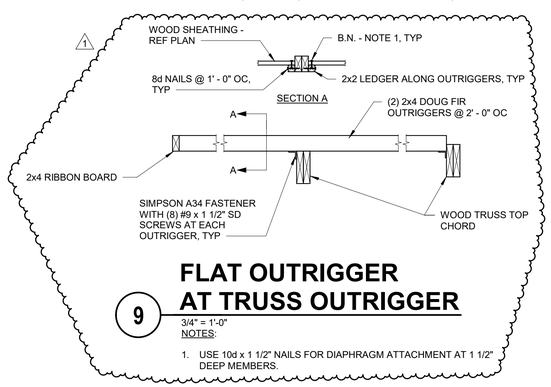
NOTES:

1. NOTCH PLYWOOD SHEATHING AS REQUIRED TO FIT AROUND TRUSS OUTRIGGER.



8 FRAMING DETAIL

3/4" = 1'-0"

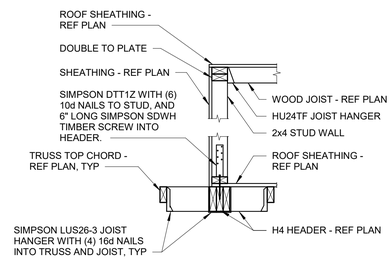


9 FLAT OUTRIGGER AT TRUSS OUTRIGGER

3/4" = 1'-0"

NOTES:

1. USE 10d x 1 1/2" NAILS FOR DIAPHRAGM ATTACHMENT AT 1 1/2" DEEP MEMBERS.



10 TOWER DETAIL AT HEADER

3/4" = 1'-0"

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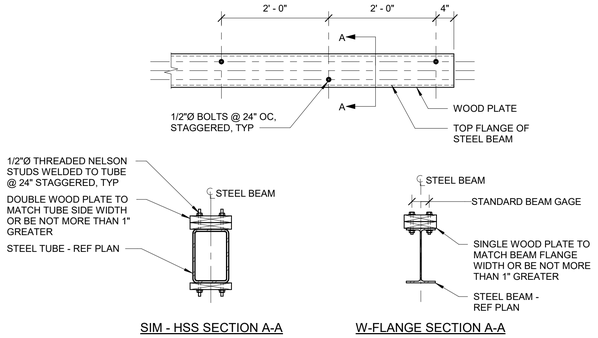
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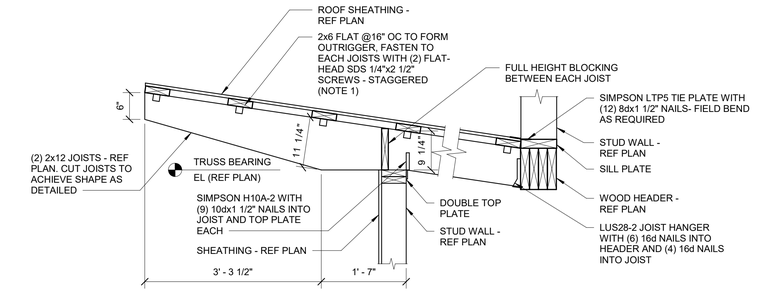


1 WOOD NAILER PLATE ON STEEL BEAM

3/4" = 1'-0"

NOTES:

1. AT SIM, NAILER IS ON STEEL TUBE.

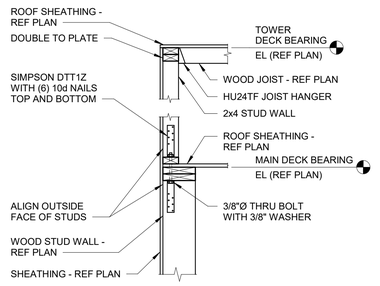


2 JOIST OUTRIGGER AT DRIVE THRU DETAIL

3/4" = 1'-0"

NOTES:

1. INTENDED TO BE CONTINUOUS.

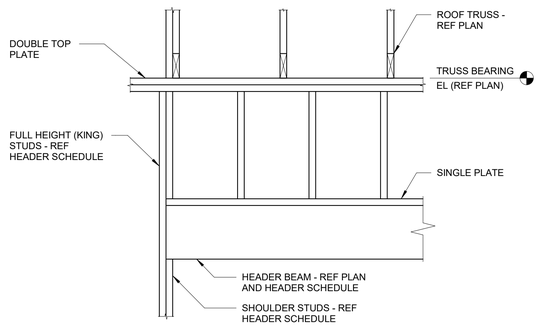


3 TOWER DETAIL

3/4" = 1'-0"

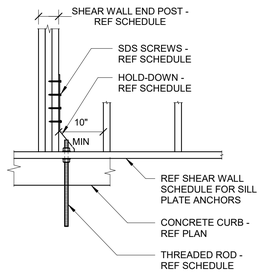
NOTES:

1. PROVIDE DTT1Z AT EACH END OF EACH WALL, (8) TOTAL LOCATIONS.
2. AT SIM, PROVIDE 6" LONG SIMPSON SDWH TIMBER SCREW INTO HEADER. BOTTOM TENSION TIE NOT REQUIRED.



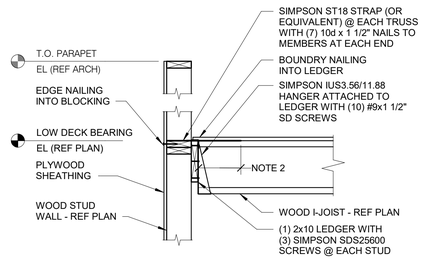
4 HEADER DETAIL

3/4" = 1'-0"



5 HOLD-DOWN DETAIL

3/4" = 1'-0"

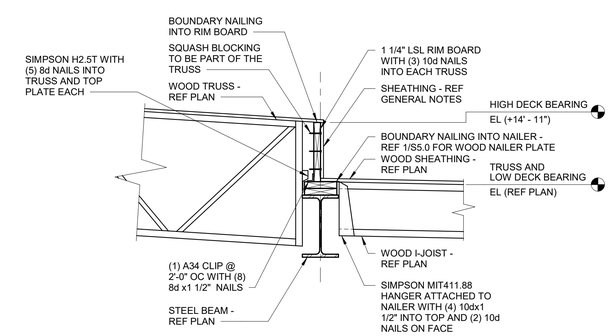


6 LEDGER DETAIL

3/4" = 1'-0"

NOTES:

1. INSTALL STRAP BEFORE SHEATHING.
2. 9" AT 2x8 WALLS, 10 3/4" AT 2x6 WALLS.

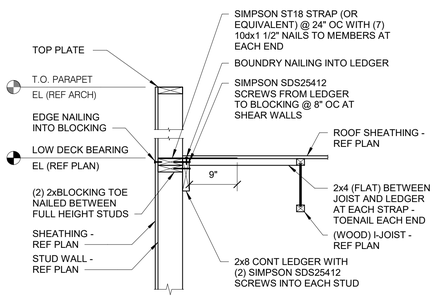


7 FRAMING DETAL

3/4" = 1'-0"

NOTES:

1. TRUSS SUPPLIER TO PROVIDE STEPPED BEARING SEAT AS REQUIRED.

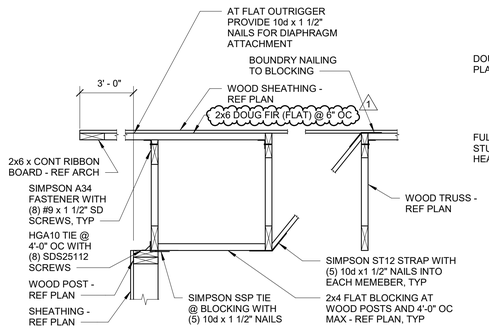


8 PARAPET DETAIL

3/4" = 1'-0"

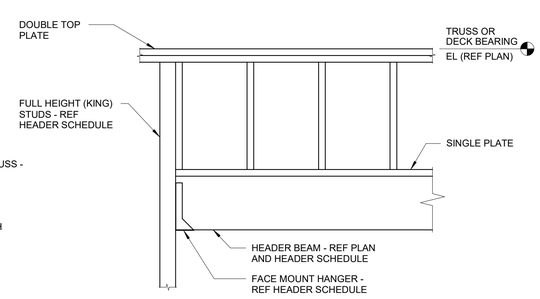
NOTES:

1. FASTEN ROOF SHEATING TO LEDGER AND BLOCKING.
2. INSTALL STRAP BEFORE SHEATHING.



9 FRAMING DETAIL

3/4" = 1'-0"



10 HEADER DETAIL

3/4" = 1'-0"

Oculus Inc.
ARCHITECTURE I STRATEGIC PLANNING I INTERIORS I MOVE MANAGEMENT
ONE SOUTH MEMORIAL DRIVE I SUITE 1500ST. LOUIS, MO 63102 I (314) 367-6100

LION'S CHOICE Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	Revision #1: City Comments	02/06/2020

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STATE OF MISSOURI
KATHERINE M. GOLDBERG
Number PE-2016000036
PROFESSIONAL ENGINEER
3/4/2020

Client Approval

WOOD DETAILS

Project #	52119-MO01
Issue Date	11/22/2019
Scale	3/4" = 1'-0"
Drawn by	MKG
Checked by	BRY

S5.0

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2882 106TH STREET
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PROJECT # 17002315.05
Missouri State Certificate of Authority E-2017008530

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REFERENCE SCALE IN INCHES
0 1 2 3

SECTION 01 1000
SUMMARY
PART 1 GENERAL
1.01 WORK BY OWNER
A. Items noted on Responsibility Matrix will be supplied and installed by Owner before Substantial Completion.
1.02 OWNER OCCUPANCY
A. Owner intends to occupy the Project upon Substantial Completion.
B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
C. Schedule the Work to accommodate Owner occupancy.
END OF SECTION 01 1000

SECTION 01 2500
SUBSTITUTION PROCEDURES
PART 1 GENERAL
PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION
3.01 GENERAL REQUIREMENTS
A. A Substitution Request for products, assemblies, materials, and equipment constitutes a representation that the submitter:
1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product, equipment, assembly, or system.
2. Agrees to provide the same warranty for the substitution as for the specified product.
3. Agrees to coordinate installation and make changes to other work that may be required for the work to be complete, with no additional cost to Owner.
4. Waives claims for additional costs or time extension that may subsequently become apparent.
B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
D. Limit each request to a single proposed substitution item.
3.02 RESOLUTION
A. Architect will notify Contractor in writing of decision to accept or reject request.
3.03 ACCEPTANCE
A. Accepted substitutions change the work of the Project. They will be documented and incorporated into work of the project by Change Order, Construction Change Directive, Architectural Supplementary Instructions, or similar instruments provided for in the Conditions of the Contract.
END OF SECTION 01 2500

SECTION 01 3114
FACILITY SERVICES COORDINATION
PART 1 GENERAL
1.01 MECHANICAL AND ELECTRICAL COORDINATOR
PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION
3.01 COORDINATION REQUIRED
A. Coordinate the work listed below:
1. Fire Suppression: Division 21.
2. Plumbing: Division 22.
3. Heating, Ventilating, and Air Conditioning: Division 23.
4. Electrical: Division 26.
5. Communications: Division 27.
6. Electronic Safety and Security: Division 28.
7. Site Utilities: Division 33.
B. Coordinate progress schedules, including dates for submittals and for delivery of products.
C. Conduct meetings among subcontractors and others concerned, to establish and maintain coordination and schedules, and to resolve coordination matters in dispute.
3.02 COORDINATION OF SUBMITTALS
A. Review shop drawings, product data, and samples for compliance with Contract Documents and for coordination with related work. Transmit copies of reviewed documents to Architect.
B. Check field dimensions and clearances and relationship to available space and anchors.
3.03 COORDINATION OF SUBSTITUTIONS AND MODIFICATIONS
A. Review proposals and requests for substitution prior to submission to Architect.
B. Verify compliance with Contract Documents and for compatibility with work of other sections.
C. Submit with recommendation for action.
3.04 OBSERVATION OF WORK
3.05 EQUIPMENT START-UP
END OF SECTION 01 3114

SECTION 01 4000
QUALITY REQUIREMENTS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Submittals.
B. Control of installation.
C. Defect Assessment.
1.02 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
PART 3 EXECUTION
2.01 CONTROL OF INSTALLATION
A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
B. Comply with manufacturers' instructions, including each step in sequence.
C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
E. Have Work performed by persons qualified to produce required and specified quality.
F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.
2.02 DEFECT ASSESSMENT
A. Replace Work or portions of the Work not conforming to specified requirements.
END OF SECTION 01 4000

SECTION 01 5000
TEMPORARY FACILITIES AND CONTROLS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Temporary utilities.
B. Temporary sanitary facilities.
C. Temporary Controls: fencing.
D. Waste removal facilities and services.
1.02 TEMPORARY UTILITIES - SEE SECTION 01 5100
A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.
1.03 TEMPORARY SANITARY FACILITIES
A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
B. Maintain daily in clean and sanitary condition.
1.04 FENCING
A. Construction: Commercial grade chain link fence.
B. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.
1.05 WASTE REMOVAL
A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED
END OF SECTION 01 5000

SECTION 01 5713
TEMPORARY EROSION AND SEDIMENT CONTROL
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Prevention of erosion due to construction activities.
B. Prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities.
C. Restoration of areas eroded due to insufficient preventive measures.
D. Compensation of Owner for fines levied by authorities having jurisdiction due to non-compliance by Contractor.
1.02 PERFORMANCE REQUIREMENTS
A. Comply with requirements of EPA (NPDES) for erosion and sedimentation control, as specified by the NPDES, for Phases I and II, and in compliance with requirements of Construction General Permit (CGP), whether the project is required by law to comply or not.
B. Comply with all requirements of the local AHJ for erosion and sedimentation control.
C. Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.
D. Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.
1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less.
2. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall events that might occur in 25 years.
E. Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.
1. Control movement of sediment and soil from temporary stockpiles of soil.
2. Prevent development of ruts due to equipment and vehicular traffic.
3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
F. Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.
1. Prevent windblown soil from leaving the project site.
2. Prevent tracking of mud onto public roads outside site.
3. Prevent mud and sediment from flowing onto sidewalks and pavements.
4. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost to Owner.
G. Sedimentation of Waterways On Site: Prevent sedimentation of waterways on the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
2. If sediment basins are used as temporary preventive measures, pump dry and remove deposited sediment after each storm.
H. Sedimentation of Waterways Off Site: Prevent sedimentation of waterways off the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.
1. If sedimentation occurs, install or correct preventive measures immediately at no cost to Owner; remove deposited sediments; comply with requirements of authorities having jurisdiction.
I. Open Water: Prevent standing water that could become stagnant.
J. Maintenance: Maintain temporary preventive measures until permanent measures have been established.
END OF SECTION 01 5713

SECTION 01 5813
TEMPORARY PROJECT SIGNAGE
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Project identification sign.
PART 2 PRODUCTS
2.01 SIGN MATERIALS
A. Structure and Framing: New, wood, structurally adequate.
2.02 PROJECT IDENTIFICATION SIGN
A. One painted sign of construction, design, and content indicated on drawings, location designated.
B. Content:
1. Project number, title, logo and name of Owner as indicated on Contract Documents.
2. Names and titles of authorities.
3. Names and titles of Architect and Consultants.
4. Name of Prime Contractor and major Subcontractors.
C. Graphic Design, Colors, Style of Lettering: Designated by Architect.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install project identification sign within 30 days after date fixed by Notice to Proceed.
B. Install sign surface plumb and level, with butt joints. Anchor securely.
C. Paint exposed surfaces of sign, supports, and framing.
3.02 REMOVAL
A. Remove signs, framing, supports, and foundations at completion of Project and restore the area.
END OF SECTION 01 5813

SECTION 01 7000
EXECUTION AND CLOSEOUT REQUIREMENTS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Examination, preparation, and general installation procedures.
B. Surveying for laying out the work.
C. Cleaning and protection.
D. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
E. General requirements for maintenance service.
1.02 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Survey work: Submit name, address, and telephone number of Surveyor before starting survey work.
1. On request, submit documentation verifying accuracy of survey work.
2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in conformance with Contract Documents.
3. Submit surveys and survey logs for the project record.
1.03 QUALIFICATIONS
A. For survey work, employ a land surveyor registered in the State in which the Project is located and acceptable to Architect. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.
1.04 PROJECT CONDITIONS
A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
B. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
C. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
D. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
E. Pest and Rodent Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.
F. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.
1.05 COORDINATION
A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
B. Notify affected utility companies and comply with their requirements.
C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities.
D. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
F. Coordinate completion and clean-up of work of separate sections.
G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.
PART 3 EXECUTION
2.01 EXAMINATION
A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
C. Examine and verify specific conditions described in individual specification sections.
D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.
2.02 PREPARATION
A. Clean substrate surfaces prior to applying next material or substance.
B. Seal cracks or openings of substrate prior to applying next material or substance.
C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.
2.03 LAYING OUT THE WORK
A. Verify locations of survey control points prior to starting work.
B. Promptly notify Architect of any discrepancies discovered.
C. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
D. Promptly report to Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
E. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.
F. Utilize recognized engineering survey practices.
G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations; and _____.
2. Grid or axis for structures.
3. Building foundation, column locations, ground floor elevations, and _____.
H. Periodically verify layouts by same means.
I. Maintain a complete and accurate log of control and survey work as it progresses.
2.04 GENERAL INSTALLATION REQUIREMENTS
A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
E. Make neat transitions between different surfaces, maintaining texture and appearance.
2.05 PROGRESS CLEANING
A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.
2.06 PROTECTION OF INSTALLED WORK
A. Protect installed work from damage by construction operations.
B. Provide special protection where specified in individual specification sections.
C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
G. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.
2.07 ADJUSTING
A. Adjust operating products and equipment to ensure smooth and unhindered operation.
2.08 FINAL CLEANING
A. Use cleaning materials that are nonhazardous.
B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces,
C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
D. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
E. Clean filters of operating equipment.
F. Clean debris from roofs, gutters, downspouts, scuppers, overflow drains, area drains, and drainage systems.
G. Clean site; sweep paved areas, rake clean landscaped surfaces.
H. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
2.09 CLOSEOUT PROCEDURES
A. Make submittals that are required by governing or other authorities.
B. Accompany Project Coordinator on preliminary inspection to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
C. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
2.10 MAINTENANCE
A. Provide service and maintenance of components indicated in specification sections.
B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.
C. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
E. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.
END OF SECTION 01 7000

SECTION 01 7800
CLOSEOUT SUBMITTALS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Project Record Documents.
B. Operation and Maintenance Data.
C. Warranties and bonds.
1.02 SUBMITTALS
A. Project Record Documents: Submit documents to Architect with claim for final Application for Payment.
B. Operation and Maintenance Data:
1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
C. Warranties and Bonds:
1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.
PART 3 EXECUTION
2.01 PROJECT RECORD DOCUMENTS
A. Maintain on site one set of the following record documents; record actual revisions to the Work:
1. Drawings.
2. Addenda.
3. Change Orders and other modifications to the Contract.
B. Ensure entries are complete and accurate, enabling future reference by Owner.
C. Store record documents separate from documents used for construction.
D. Record information concurrent with construction progress.
E. Record Drawings : Legibly mark each item to record actual construction including:
1. Field changes of dimension and detail.
2.02 OPERATION AND MAINTENANCE DATA
A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
2.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES
A. For Each Product, Applied Material, and Finish:
B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
C. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
2.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS
A. For Each Item of Equipment and Each System:
1. Description of unit or system, and component parts.
2. Identify function, normal operating characteristics, and limiting conditions.
3. Include performance curves, with engineering data and tests.
4. Complete nomenclature and model number of replaceable parts.
B. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
C. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
F. Provide servicing and lubrication schedule, and list of lubricants required.
G. Include manufacturer's printed operation and maintenance instructions.
H. Include sequence of operation by controls manufacturer.
I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
J. Additional Requirements: As specified in individual product specification sections.
2.05 ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS
A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
2.06 WARRANTIES AND BONDS
A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
B. Verify that documents are in proper form, contain full information, and are notarized.
C. Co-execute submittals when required.
D. Retain warranties and bonds until time specified for submittal.
END OF SECTION 01 7800

SECTION 03 0505
UNDERSLAB VAPOR BARRIER
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Sheet vapor barrier under concrete slabs on grade.
PART 2 PRODUCTS
2.01 MATERIALS
A. Underslab Vapor Barrier:
1. Water Vapor Permeance: Not more than 0.010 perms, maximum.
2. Thickness: 15 mils.
B. Accessory Products: Vapor barrier manufacturer's recommended tape, adhesive, mastic, etc., for sealing seams and penetrations in vapor barrier.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install vapor barrier in accordance with manufacturer's instructions and ASTM E1643.
B. Install vapor barrier under interior slabs on grade; lap sheet over footings and seal to foundation walls.
C. Lap joints minimum 6 inches.
D. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions.
E. No penetrations of vapor barrier is allowed except for reinforcing steel and permanent utilities.
F. Repair damaged vapor retarder before covering with other materials.
END OF SECTION 03 0505

SECTION 03 3000
CAST-IN-PLACE CONCRETE
PART 1 GENERAL
1.01 REFER TO STRUCTURAL DRAWINGS
PART 2 PRODUCTS
END OF SECTION 03 3000

SECTION 03 3511
CONCRETE FLOOR FINISHES
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Surface treatments for concrete floors and slabs.
1.02 RELATED REQUIREMENTS
A. Section 03 3000 - Cast-in-Place Concrete: Finishing of concrete surface to tolerance; floating, troweling, and similar operations; curing.
B. Section 03 3000 - Cast-in-Place Concrete: Curing compounds that also function as sealers.
1.03 ADMINISTRATIVE REQUIREMENTS
A. Coordinate the work with concrete floor placement and concrete floor curing.
1.04 DELIVERY, STORAGE, AND HANDLING
A. Deliver materials in manufacturer's sealed packaging, including application instructions. Store in dry conditions.
1.05 FIELD CONDITIONS
A. Integrally Colored Concrete Environmental Requirements:
1. Schedule placement to minimize exposure to wind and hot sun before curing materials are applied.
2. Avoid placing concrete if rain, snow, or frost is forecast within 24-hours. Protect fresh concrete from moisture and freezing.
3. Comply with professional practices described in ACI 305R and ACI 306R.
B. Schedule delivery of concrete to provide consistent mix times from batching until discharge. Mix times shall meet manufacturer's written recommendations.
C. Integrally colored concrete engo
PART 2 PRODUCTS
2.01 ACCEPTABLE MANUFACTURER
A. Scofield, A Business unit of sika corporation (herein referred to as scofield), Douglasville, Georgia (800) 800-9900 or the appropriate local contact, or approved alternate.
2.02 MATERIALS
A. Colored Admixture for Integrally Colored Concrete: CHROMIX® Admixtures for Color-Conditioned Concrete including CHROMIX P® Admixtures, CHROMIX G® Admixtures, CHROMIX ML® Admixtures or CHROMIX L® Admixtures; SCOFIELD.
1. Admixture shall be a colored, water-reducing, admixture containing no calcium chloride with coloring agents that are limeproof and ultra-violet resistant.
2. Colored admixture shall conform to the requirements of ACI 303.1, ASTM C979, ASTM C494 and ASSHTO M194.
3. Raw pigments are not an equivalent and may not be substituted.
B. Curing Compound for Integrally Colored Concrete: Curing compound shall comply with ASTM C309 and be of same manufacturer as colored admixture, for use with integrally colored concrete.
1. Exterior Integrally Colored Concrete: LITHOCHROME® Colorwax&; Scofield. Use to cure exterior flatwork that will be allowed to cure naturally with only occasional maintenance.
2. Interior Integrally Colored Concrete: COLORCURE® Concrete Sealer (Pigmented) or CEMENTONE® Clear Sealer (Clear); Scofield. Use to cure interior flatwork that will receive regular maintenance.
C. Curing and Sealing Compound: SCOFIELD® Cureseal-Wa Semi-gloss and SCOFIELD® Cureseal-Sà Matte; SCOFIELD. Curing and sealing compound shall comply with ASTM C309 and be of same manufacturer as colored admixture, for use with integrally colored concrete.
D. SUBSTITUTIONS: The use of products other than those specified will be considered, and shall be accompanied by the following:
1. A certificate of compliance from material manufacturer stating that proposed products meet or exceed requirements of this Section, including standards ACI 303.1, ASTM C979, ASTM C494 and AASHTO M194.
2. Documented proof that proposed materials have a 10-year proven record of performance, confirmed by at least 5 local projects.
2.03 COLORS
A. Concrete Color[s]:
1. Cement: Color shall be gray.
2. Sand: Color shall be locally available natural sand.
3. Aggregate: Concrete producer's standard aggregate complying with specifications.
4. Colored Admixture: As shown on drawings
B. Curing Compound: Color to match integrally colored concrete.
2.04 CONCRETE MIX DESIGN
A. Slump of concrete shall be consistent throughout Project at 4-inches or less. At no time shall slump exceed 5-inches.
B. Do not add calcium chloride to mix as it causes mottling and surface discoloration.
C. Supplemental admixtures shall not be used unless approved by manufacturer.
D. Do not add water to the mix in the field.
E. Add colored admixture to concrete mix according to manufacturer's written instructions.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install concrete according to requirements of Division 3 Section "Cast-In-Place Concrete."
B. Do not add water to concrete mix in the field.
C. Surfaces shall be finished uniformly with the following finish:
1. Trowel: Precautions should be taken to ensure that the surface is uniformly troweled so that it will not be slippery. Do not over-trowel or burnish the surface.
3.02 CURING
A. Integrally Colored Concrete: Apply curing and sealing compound for integrally colored concrete according to manufacturer's instructions using manufacturer's recommended application techniques. Apply curing and sealing compound at consistent time for each pour to maintain close color consistency.
B. Curing compound shall be same color as the colored concrete and supplied by same manufacturer of the colored admixture.
C. Precautions shall be taken in hot weather to prevent plastic cracking resulting from excessively rapid drying at surface as described in CIP 5 Plastic Shrinkage Cracking published by the National Ready Mixed Concrete Association.
D. Do not cover concrete with plastic sheeting.
3.03 TOLERANCES
A. Minor variations in appearance of integrally colored concrete, which are similar to natural variations in color and appearance of uncolored concrete, are acceptable.
3.04 APPLICATORS
3.05 FOR A LIST OF QUALIFIED CONTRACTORS, CONTACT YOUR LOCAL SCOFIELD REPRESENTATIVE.
END OF SECTION 03 3511

SECTION 04 0511
MORTAR AND MASONRY GROUT
PART 2 PRODUCTS
1.01 MORTAR AND GROUT APPLICATIONS
A. Mortar Mix Designs: ASTM C270, Property Specification.
1.02 MATERIALS
A. Mortar Aggregate: ASTM C144.
B. Water: Clean and potable.
END OF SECTION 04 0511

SECTION 04 2000
UNIT MASONRY
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Clay Facing Brick.
B. Common Brick.
C. Mortar and Grout.
D. Reinforcement and Anchorage.
E. Flashings.
F. Accessories.
G. Cordova Stne Masunry untis
1.02 RELATED REQUIREMENTS
A. Section 04 0511 - Mortar and Masonry Grout.
B. Section 07 9200 - Joint Sealants: Sealing control and expansion joints.
1.03 QUALITY ASSURANCE
A. Comply with provisions of TMS 402/602, except where exceeded by requirements of the contract documents.
B. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section with minimum ten years of experience.
C. Installer Qualifications: Company specializing in performing work of the type specified and with at least ten years of experience.
1.04 DELIVERY, STORAGE, AND HANDLING
A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.
PART 2 PRODUCTS
2.01 BRICK UNITS
A. Brick Units
1. Manufacturers:
a. Endicott Clay Products Co
B. Facing Brick: A. ASTM C 216 Grade: SW Type: FBX.
1. Modular Size: 3-5/8 inches (92.1 mm) deep, 2-1/4 inches (57.2 mm) high, 7-5/8 inches (193.7 mm) long.
2. Color and texture: Executive Ironspot, Velour.
C. Building (Common) Brick: ASTM C62, Grade SW; solid units.
1. Nominal size: As indicated on drawings.
D.
2.02 MORTAR AND GROUT MATERIALS
A. Masonry Cement: ASTM C91/C91M, Type N.
1. Colored Mortar: Premixed cement as required to match drawings.
B. Water: Clean and potable.
2.03 REINFORCEMENT AND ANCHORAGE
A. Flexible Anchors: 2-piece anchors that permit differential movement between masonry and building frame, sized to provide not more than 1 inch and not less than 1/2 inch of mortar coverage from masonry face.
B. Two-Piece Wall Ties: Formed steel wire, 0.1875 inch thick, adjustable, eye and pintle type, hot dip galvanized to ASTM A 153/A 153M, Class B, sized to provide not more than 1 inch and not less than 1/2 inch of mortar coverage from masonry face and to allow vertical adjustment of up to 1-1/4 in. Allow for cavity insulation as indicated on drawings.
2.04 FLASHINGS
A. Metal Flashing Materials: Aluminum, as specified in Section 07 6200.
2.05 ACCESSORIES
A. Cavity Mortar Control: Semi-rigid polyethylene or polyester mesh panels, sized to thickness of wall cavity, and designed to prevent mortar droppings from clogging weeps and cavity vents and allow proper cavity drainage.
B. Termite-Excluding Weep and Vent:
1. Type: Polytetrafluoroethylene (PTFE) vent body with stainless-steel mesh closure.
2. Termite Resistance: 100 percent when tested in accordance with 1.
3. Stainless Steel Mesh: 1 ; opening size 0.018 inch, maximum.
C. Drainage Fabric: Polyester or polypropylene mesh.

Oculus Inc.
CONNECT • SHAPE • MOVE
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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT
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LEE'S SUMMIT, MO 64063

#	Description	Date

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER A-10040116472
ARCHITECT
FEB 14 2020

PERMIT SET

Client Approval

ARCHITECTURAL SPECIFICATIONS

Project #	52119-MO02
Issue Date	12/10/2019
Scale	
Drawn by	MTB
Checked by	MTB

A0.1

SECTION 04 2000
UNIT MASONRY
PART 1 GENERAL
1.01 SUBMITTAL
A. Submit product literature, unit shop drawings, certification, test reports and full size sample(s) of each color selected.
1.02 QUALITY ASSURANCE
A. All high density pre-finished concrete masonry units shall be Cordova Stone masonry units manufactured by Northfield Block Company. All units shall conform to ASTM C90 - current edition and shall have either a GROUNDFACE finish as shown on the drawings. Field Constructed Mock-up: Construct a sample panel, no less than 4' x 4', of units of each color and size to be used in the project. The cleaning agent and method should also be determined and applied at the time the sample panel is constructed.
1.03 DELIVERY, STORAGE and HANDLING
A. Cordova Stone units shall be delivered to the jobsite banded on wood pallets. Each exposed ground face shall be protected by a plastic protective layer. Each edge of the cube shall be protected by a pre-molded edge protector. Each cube shall be covered with a clear plastic wrap. Pallets should be stored in single stacks on level ground and covered with a waterproof covering (e.g., tarpaulins) to protect the units from inclement weather. Units must be handled carefully to avoid breakage and damage to the finished surfaces.
1.04 PROJECT/SITE CONDITIONS and HANDLING
A. Cover walls each day after installation to keep open walls protected and dry.
PART 2 PRODUCTS
2.01 PRODUCT NAME
A. Cordova Stone Masonry Units
2.02 MANUFACTURER
A. Oldcastle Architectural
Northfield Block Company (800) 358-3003
3400 E. Bungalow Road, Morris, IL 60450PART
3 EXECUTION
3.01 LAYING MASONRY PATTERNS
A. Lay units using the best concrete masonry practices. Install only quality units; reject all defective units. Align units level, plumb, and true with uniform, carefully tooled 3/8" wide joints on the finished side of the wall. Draw blocks from two or more pallets at a time during installation. Use a water repellent mortar additive, following the manufacturer's instructions, for all exterior walls.
3.02 INSTALLATION
A. Lighting: Provide adequate lighting for masonry work by placing all lighting a reasonable distance from the wall for even illumination. DO NOT USE TROUGH LIGHTING.Cutting: Make all unit cuts, including those for bonding, holes, boxes, etc., with motor-driven masonry saws, using either an abrasive or diamond blade. Cut neatly for best appearance.
3.03 INSPECTION
A. The facing shall be free from chips, cracks, crazes or any other imperfection that would detract from the overall appearance of the finished wall when viewed from a distance of ffteen (15) feet at right angles to the wall under difused lighting.
3.04 FLASHING of MASONRY WORK
A. Install fashing at locations shown in the plans and in strict accordance with the details and the best masonry fashing practices.
3.05 WEEP HOLES and VENTS
A. Install weep holes and vents at proper intervals (24" O.C.) at courses above grade, above fashing, and at any water stops (24" O.C.) over windows, doors and beams.
3.06 CLEANING
A. Keep walls clean daily during installation using brushes, rags and burlap squares. Do not allow excess mortar lumps or smears to harden on the finished surfaces. Remove green mortar with burlap or a dry cloth. Harsh cleaning methods after walls have been erected may mar the surface of the units.
3.07 FINAL CLEAN DOWN
A. No acid or acid-based solutions shall be used in the cleaning of Cordova Stone™ units. A detergent masonry cleaner shall be used following the manufacturer's instructions and the surface shall be thoroughly rinsed with clean water.
3.08 MAINTENANCE
A. Cordova Stone units, when properly installed and cleaned, need virtually no maintenance other than routine cleaning with standard commercial grade cleaning agents. Grafti, paint or dye stains may need special cleaning methods and roducts. Contact EchelonMasonry.com for specifc cleaning recommendations.
3.09 INSTALLATION RECOMMENDATIONS
A. Cavity wall construction is recommended for exterior walls, with proper fashing, venting and weep holes. A complementary or matching mortar color is recommended when using Cordova Stone units. A water repellent mortar additive is highly recommended for all exterior walls. Control joint spacing should be approximately 20'-25' maximum. Located at approximately 4' from corners, all inside corners, at wall piers at a window or large openings. Continuous horizontal joint reinforcement is recommended in the exterior wythe every 16" or every course with 12" and 16" high units.
3.10 LIMITATIONS
A. The facing is not intended for use as an impervious surface. Acid solutions should not be used as a cleaning agent or in direct contact with the facing.
END OF SECTION 04 2000

D. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.
2.06 LINTELS
A. Steel Lintels: Reference Structural
2.07 MORTAR AND GROUT MIXES
A. Mortar for Unit Masonry: ASTM C270, using the Proportion Specification.
B. Colored Mortar: Proportion selected pigments and other ingredients to match Architect's sample, without exceeding manufacturer's recommended pigment-to-cement ratio.
PART 3 EXECUTION
3.01 COURSING
A. Establish lines, levels, and coursing indicated. Protect from displacement.
B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
C. Brick Units:
1. Bond: Running.
2. Coursing: Three units and three mortar joints to equal 8 inches.
3. Mortar Joints: Weathered.
3.02 PLACING AND BONDING
A. Lay hollow masonry units with face shell bedding on head and bed joints.
B. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
C. Remove excess mortar and mortar smears as work progresses.
D. Remove excess mortar with water repellent admixture promptly. Do not use acids, sandblasting or high pressure cleaning methods.
E. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
F. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
3.03 WEEPS/CAVITY VENTS
A. Install weeps in veneer and cavity walls at 24 inches on center horizontally above through-wall flashing, above shelf angles and lintels, and at bottom of walls.
B. Install cavity vents in veneer and cavity walls at 32 inches on center horizontally below shelf angles and lintels and near top of walls.
3.04 CAVITY MORTAR CONTROL
A. Do not permit mortar to drop or accumulate into cavity air space or to plug weep/cavity vents.
3.05 REINFORCEMENT AND ANCHORAGE - GENERAL
A. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 16 inches on center.
B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.
C. Place continuous joint reinforcement in first and second joint below top of walls.
D. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Unless otherwise indicated on drawings or closer spacing is indicated under specific wall type, space anchors at maximum of 36 inches horizontally and 24 inches vertically.
3.06 MASONRY FLASHINGS
A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
1. Extend flashings full width at such interruptions and at least 6 inches, minimum, into adjacent masonry or turn up at least 8 inches, minimum, to form watertight pan at non-masonry construction.
B. Extend metal flashings through exterior face of masonry and turn down to form drip. Install joint sealer below drip edge to prevent moisture migration under flashing.
3.07 CONTROL AND EXPANSION JOINTS
A. Do not continue horizontal joint reinforcement through control or expansion joints.
B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.
3.08 TOLERANCES
A. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.
B. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.
C. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.
3.09 CLEANING
A. Remove excess mortar and mortar droppings.
B. Clean soiled surfaces with cleaning solution.
3.10 PROTECTION
A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.
END OF SECTION 04 2000

SECTION 05 5000
METAL FABRICATIONS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Shop fabricated steel and aluminum items.
B. Prefabricated ladders and ship ladders.
1.02 REFERENCE STANDARDS
A. ANSI A14.3 - American National Standard for Ladders -- Fixed -- Safety Requirements.
B. ASTM A36/A36M - Standard Specification for Carbon Structural Steel.
C. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
D. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
E. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
F. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.
G. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.
H. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
I. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
J. ASTM B210 - Standard Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes.
K. ASTM B210M - Standard Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes (Metric).
L. ASTM B211 - Standard Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire.
M. ASTM B211M - Standard Specification for Aluminum and Aluminum-Alloy Rolled or Cold-Finished Bar, Rod, and Wire (Metric).
N. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
O. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination.
P. AWS D1.1/D1.1M - Structural Welding Code - Steel.
Q. AWS D1.2/D1.2M - Structural Welding Code - Aluminum.
R. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic").
1.03 SUBMITTALS
A. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
PART 2 PRODUCTS
2.01 MATERIALS - STEEL
A. Steel Sections: ASTM A36/A36M.
B. Plates: ASTM A283/A283M.
C. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.
D. Bolts, Nuts, and Washers: ASTM A307, Grade A, plain.
E. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
F. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.
2.02 MATERIALS - ALUMINUM
A. Extruded Aluminum: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.
B. Aluminum-Alloy Drawn Seamless Tubes: ASTM B210 (ASTM B210M), 6063 alloy, T6 temper.
C. Aluminum-Alloy Bars: ASTM B211 (ASTM B211M), 6061 alloy, T6 temper.
D. Bolts, Nuts, and Washers: Steel, galvanized to ASTM A153/A153M.
E. Welding Materials: AWS D1.2/D1.2M; type required for materials being welded.
2.03 FABRICATION
A. Fit and shop assemble items in largest practical sections, for delivery to site.
B. Fabricate items with joints tightly fitted and secured.
C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
D. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
2.04 PREFABRICATED LADDERS
A. Prefabricated Ladder: Welded metal unit complying with ANSI A14.3; factory fabricated to greatest degree practical and in the largest components possible.
1. Components: Manufacturer's standard rails, rungs, treads, handrails. returns, platforms and safety devices complying with the requirements of the MATERIALS article of this section.
2. Materials: Carbon steel; ASTM A1011/A1011M, Grade 36, minimum.
3. Finish: Powder coat; color to be selected by Architect from manufacturer's standard range.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install items plumb and level, accurately fitted, free from distortion or defects.
B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
C. Obtain approval prior to site cutting or making adjustments not scheduled.
END OF SECTION 05 5000

SECTION 05 7000
DECORATIVE METAL
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Railing and guardrail assemblies.
1.02 SUBMITTALS
A. Product Data: Submit manufacturer's product data including description of materials, components, finishes, fabrication details, glass, anchors, and accessories.
B. Test Reports: Submit test reports from an independent testing agency showing compliance with specified design and performance requirements.
1.03 DELIVERY, STORAGE, AND HANDLING
A. Deliver materials in factory provided protective coverings and packaging.
B. Protect materials against damage during transit, delivery, storage, and installation at site.

C. Inspect materials upon delivery for damage. Repair damage to be indistinguishable from undamaged areas; if damage cannot be repaired to be indistinguishable from undamaged parts and finishes, replace damaged items.
D. Prior to installation, store materials and components under cover, in a dry location.
PART 2 PRODUCTS
2.01 MANUFACTURERS
A. Decorative Metal Railings:
1. C. R. Laurence Company, Inc; _____: www.crl-arch.com/sle.
2.02 RAILING SYSTEMS
A. Railing Systems - General: Factory- or shop-fabricated in design indicated, to suit specific project conditions, and for proper connection to building structure, and in largest practical sizes for delivery to site.
1. Design Criteria: Design and fabricate railings and anchorages to resist the following loads without failure, damage, or permanent set; loads do not need to be applied simultaneously.
a. Lateral Force: 75 lb minimum, at any point, when tested in accordance with ASTM E935.
b. Distributed Load: 50 lb/ft minimum, applied in any direction at the top of the handrail, when tested in accordance with ASTM E935.
c. Concentrated Loads on Intermediate Rails: 50 psf, minimum.
d. Concentrated Load: 200 lbs minimum, applied in any direction at any point along the handrail system, when tested in accordance with ASTM E935.
2. Assembly: Join lengths, seal open ends, and conceal exposed mounting bolts and nuts using slip-on non-weld mechanical fittings, flanges, escutcheons, and wall brackets.
3. Joints: Tightly fitted and secured, machined smooth with hairline seams.
4. Field Connections: Provide sleeves to accommodate site assembly and installation.
5. Welded and Brazed Joints: Make exposed joints butt tight, flush, and hairline; use methods that avoid discoloration and damage of finish; grind smooth, polish, and restore to required finish.
a. Ease exposed edges to small uniform radius.
b. Welded Joints:
1) Carbon Steel: Perform welding in accordance with AWS D1.1/D1.1M.
2) Stainless Steel: Perform welding in accordance with AWS D1.6/D1.6M.
c. Brass/Bronze Brazed Joints:
1) Perform torch brazing in accordance with AWS C3.4M/C3.4.
2) Perform induction brazing in accordance with AWS C3.5M/C 3.5.
3) Perform resistance brazing in accordance with AWS C3.9M/C3.9.
B. Metal Tube Railing: Engineered, post supported railing system with metal infill.
1. Decorative Flanges for Embedded Posts: Circular, collared cover plate without screw holes.
2. Wall Mounted Components: Components necessary to support railing with 1-1/2 inch clearance from wall, and as follows:
3. Fasteners: Concealed.
4. End and Intermediate Posts: Same material and size as top rails.
a. Horizontal Spacing: As indicated on drawings.
b. Mounting: Welded.
5. Basis of Design: C.R. Laurence Company, Inc; CRL Aluminum Railing Systems with Pickets: www.crl-arch.com/sle.
PART 3 EXECUTION
3.01 INSTALLATION
A. Comply with manufacturer's drawings and written instructions.
B. Install components plumb and level, accurately fitted, free from distortion or defects and with tight joints, except where necessary for expansion.
C. Anchor securely to structure.
D. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.
E. Isolate dissimilar materials with bituminous coating, bushings, grommets or washers to prevent electrolytic corrosion.
3.02 CLEANING
A. Remove protective film from exposed metal surfaces.
B. Metal: Clean exposed metal finishes with potable water and mild detergent, in accordance with manufacturer recommendations; do not use abrasive materials or chemicals, detergents or other substances that may damage the material or finish.
3.03 PROTECTION
A. Protect installed components and finishes from damage after installation.
B. Repair damage to exposed finishes to be indistinguishable from undamaged areas.
1. If damage to finishes and components cannot be repaired to be indistinguishable from undamaged finishes and components, replace damaged items.
END OF SECTION 05 7000

SECTION 06 1000
ROUGH CARPENTRY
PART 1 GENERAL
1.01 REFERENCE STRUCTURAL
PART 2 PRODUCTS
2.01 GENERAL REQUIREMENTS
A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
1. If no species is specified, provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.
2. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.
B. Lumber fabricated from old growth timber is not permitted.
END OF SECTION 06 1000

SECTION 06 1500
WOOD DECKING
PART 1 GENERAL
1.01 REFERENCE STRUCTURAL
PART 2 PRODUCTS
2.01 WOOD MATERIALS
A. Wood fabricated from old growth timber is not permitted.
END OF SECTION 06 1500

SECTION 06 1733
WOOD I-JOISTS
PART 1 GENERAL
1.01 REFERENCE STRUCTURAL
PART 2 PRODUCTS
END OF SECTION 06 1733

SECTION 06 1753
SHOP-FABRICATED WOOD TRUSSES
PART 1 GENERAL
1.01 REFERENCE STRUCTURAL
1.02 QUALITY ASSURANCE
PART 2 PRODUCTS
2.01 TRUSSES
A. Wood Trusses: Designed and fabricated in accordance with TPI 1 and TPI DSB-89 to achieve structural requirements indicated.
2.02 MATERIALS
A. Lumber:
1. Moisture Content: Between 7 and 9 percent.
2. Lumber fabricated from old growth timber is not permitted.
B. Truss Bridging: Type, size and spacing recommended by truss manufacturer.
END OF SECTION 06 1753

SECTION 06 8316
FIBERGLASS REINFORCED PANELING
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Fiberglass reinforced plastic panels.
B. Trim.
1.02 REFERENCE STANDARDS
A. 9 CFR 416.2 - Regulatory Requirements Under the Federal Meat Inspection Act and the Poultry Products Inspection Act, Part 416-Sanitation.
B. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
C. ASTM D5319 - Standard Specification for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels.
D. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
E. ISO 846 - Plastics -- Evaluation of the action of microorganisms.
F. ISO 2812-1 - Paints and varnishes -- Determination of resistance to liquids -- Part 1: Immersion in liquids other than water.
1.03 DELIVERY, STORAGE, AND HANDLING
A. Store panels flat, indoors, on a clean, dry surface. Remove packaging and allow panels to acclimate to room temperature for 48 hours prior to installation.
PART 2 PRODUCTS
2.01 PANEL SYSTEMS
A. Wall Panels:
1. Panel Size: 4 by 8 feet.
2. Panel Thickness: 0.10 inch.
3. Surface Design: Embossed.
4. Color: White.
5. Attachment Method: Adhesive only, with trim and sealant in joints.
2.02 MATERIALS
A. Panels: Fiberglass reinforced plastic (FRP), complying with ASTM D5319.
1. Surface Burning Characteristics: Maximum flame spread index of 25 and smoke developed index of 450; when system tested in accordance with ASTM E84.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. Sanitation and Cleanability: Comply with 9 CFR 416.2.
4. Chemical Cleanability: Excellent chemical resistance to common cleaners and detergents when tested in accordance with ISO 2812-1.
5. Biological Resistance: Rating of 0, when tested in accordance with ISO 846.
B. Trim: Vinyl; color coordinating with panel.

C. Sealant: Type recommended by panel manufacturer; white.
PART 3 EXECUTION
3.01 EXAMINATION
A. Verify existing conditions and substrate flatness before starting work.
B. Verify that substrate conditions are ready to receive the work of this section.
3.02 INSTALLATION - WALLS
A. Install panels in accordance with manufacturer's instructions.
B. Cut and drill panels with carbide tipped saw blades, drill bits, or snips.
C. Apply adhesive to the back side of the panel using trowel as recommended by adhesive manufacturer.
D. Apply panels to wall with seams plumb and pattern aligned with adjoining panels.
E. Install panels with manufacturer's recommended gap for panel field and corner joints.
F. Place trim on panel before fastening edges, as required.
G. Fill channels in trim with sealant before attaching to panel.
H. Install trim with adhesive and screws or nails, as required.
I. Seal gaps at floor, ceiling, and between panels with applicable sealant to prevent moisture intrusion.
J. Remove excess sealant after paneling is installed and prior to curing.
END OF SECTION 06 8316

SECTION 07 2100
THERMAL INSULATION
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Board insulation and integral vapor retarder at cavity wall construction, perimeter foundation wall, underside of floor slabs, over roof deck, over roof sheathing, and exterior wall behind exterior wall finish.
B. Batt insulation and vapor retarder in exterior wall construction.
1.02 REFERENCE STANDARDS
A. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
B. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
C. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
D. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials.
E. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C.
F. ASTM E2357 - Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.
1.03 FIELD CONDITIONS
A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.
PART 2 PRODUCTS
2.01 APPLICATIONS
A. Insulation Under Concrete Slabs: Extruded polystyrene board.
B. Insulation at Perimeter of Foundation: Expanded polystyrene board.
C. Insulation Inside Masonry Cavity Walls: Extruded polystyrene board.
D. Insulation in Metal Framed Walls: Batt insulation with integral vapor retarder.
E. Insulation Over Roof Deck: Polyisocyanurate board.
2.02 FOAM BOARD INSULATION MATERIALS
A. Expanded Polystyrene (EPS) Board Insulation: ASTM C578, Type XI; with the following characteristics:
1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
B. Extruded Polystyrene Board Insulation: Extruded polystyrene board; ASTM C578; with either natural skin or cut cell surfaces, and the following characteristics:
1. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
2. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
3. R-value: 1 inch of material at 72 degrees F: 5, minimum.
2.03 BATT INSULATION MATERIALS
A. Where batt insulation is indicated, either glass fiber or mineral fiber batt insulation may be used, at Contractor's option.
B. Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.
1. Flame Spread Index: 75 or less, when tested in accordance with ASTM E84.
2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
3. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.
4. Formaldehyde Content: Zero.
5. Thermal Resistance: R-value as shown on drawings____.
C. Mineral Fiber Batt Insulation: Flexible or semi-rigid preformed batt or blanket, complying with ASTM C665; friction fit; unfaced flame spread index of 0 (zero) when tested in accordance with ASTM E84.
1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
2. Smoke Developed Index: 0 (zero), when tested in accordance with ASTM E84.
3. Provide foil facing on one side, at locations indicated on drawings.
4. Thermal Resistance: R-value as shown on drawings____.
2.04 ACCESSORIES
A. Tape joints of rigid insulation in accordance with roofing and insulation manufacturers' instructions.
PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.
3.02 BOARD INSTALLATION AT FOUNDATION PERIMETER
A. Install boards horizontally on foundation perimeter.
B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
3.03 BOARD INSTALLATION AT EXTERIOR WALLS
A. Install boards horizontally on walls.
B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
C. Tape insulation board joints.
3.04 BOARD INSTALLATION AT CAVITY WALLS
A. Install boards to fit snugly between wall ties.
B. Install boards horizontally on walls.
C. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
3.05 BOARD INSTALLATION UNDER CONCRETE SLABS
A. Place insulation under slabs on grade after base for slab has been compacted.
B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.
C. Prevent insulation from being displaced or damaged while placing vapor retarder and placing slab.
3.06 BOARD INSTALLATION OVER LOW SLOPE ROOF DECK
A. Board Installation Over Roof Deck, General:
1. See applicable roofing specification section for specific board installation requirements.
2. Fasten insulation to deck in accordance with roofing manufacturer's written instructions and applicable Factory Mutual requirements.
3. Do not apply more insulation than can be covered with roofing in same day.
3.07 BATT INSTALLATION
A. Install insulation and vapor retarder in accordance with manufacturer's instructions.
B. Install in exterior wall spaces without gaps or voids. Do not compress insulation.
C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
E. At wood framing, place vapor retarder on warm side of insulation by stapling at 6 inches on center. Lap and seal sheet retarder joints over member face.
F. Tape seal tears or cuts in vapor retarder.
G. Extend vapor retarder tightly to full perimeter of adjacent window and door frames and other items interrupting the plane of the membrane. Tape seal in place.
3.08 PROTECTION
A. Do not permit installed insulation to be damaged prior to its concealment.
END OF SECTION 07 2100

SECTION 07 2500
WEATHER BARRIERS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Vapor Retarders: Materials to make exterior walls, joints between exterior walls and roof, and joints around frames of openings in exterior walls water vapor resistant and air tight.
B. Air Barriers: Materials that form a system to stop passage of air through exterior walls and joints around frames of openings in exterior walls.
1.02 DEFINITIONS
A. Weather Barrier: Assemblies that form either water-resistive barriers, air barriers, or vapor retarders.
B. Vapor Retarder: Air tight barrier made of material that is relatively water vapor impermeable, to the degree specified, with sealed seams and with sealed joints to adjacent surfaces.
1. Water Vapor Permeance: For purposes of conversion, 57.2 ng/(Pa s sq m) = 1 perm.
C. Water-Resistive Barrier: Water-shedding barrier made of material that is moisture resistant, to the degree specified, intended to be installed to shed water without sealed seams.
PART 2 PRODUCTS
2.01 WEATHER BARRIER ASSEMBLIES
A. Water-Resistive Barrier: Provide on exterior walls under exterior cladding.
1. Under Portland cement stucco, use two separate layers of building paper.
B. Air Barrier:
1. On outside surface of inside wythe of exterior masonry cavity walls use air barrier sheet, mechanically fastened type.
C. Interior Vapor Retarder:
1. On inside face of studs of exterior walls, under cladding, use mechanically fastened vapor retarder sheet (reference Insulation Specification section for batt insulation with vapor retarder.
2.02 WATER-RESISTIVE BARRIER MATERIALS (NEITHER AIR BARRIER NOR VAPOR RETARDER)
A. Building Paper: Asphalt-saturated Kraft building paper complying with requirements of ICC-ES AC38 Grade D.
2.03 VAPOR RETARDER MATERIALS (AIR BARRIER AND WATER-RESISTIVE)
PART 3 EXECUTION
3.01 PREPARATION
A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.
3.02 INSTALLATION
A. Install materials in accordance with manufacturer's instructions.
B. Water-Resistive Barriers: Install continuous barrier over surfaces indicated, with sheets lapped to shed water but with seams not sealed.
C. Vapor Retarders: Install continuous air tight barrier over surfaces indicated, with sealed seams and with sealed

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#	Description	Date

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Rein AR-5489.

STATE OF MISSOURI
BRIAN KERN NUMBER 2004014672
ARCHITECT
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PERMIT SET

Client Approval

ARCHITECTURAL SPECIFICATIONS

Project #	52119-MO02
Issue Date	12/10/2019
Scale	
Drawn by	MTB
Checked by	MTB

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joints to adjacent surfaces.
D. Mechanically Fastened Sheets - On Exterior:
1. Install sheets shingle-fashion to shed water, with seams generally horizontal.
2. Overlap seams as recommended by manufacturer but at least 6 inches.
3. Overlap at outside and inside corners as recommended by manufacturer but at least 12 inches.
4. Install water-resistive barrier over jamb flashings.
5. Install air barrier and vapor retarder UNDER jamb flashings.
6. Install head flashings under weather barrier.
7. At openings to be filled with frames having nailing flanges, wrap excess sheet into opening; at head, seal sheet over flange and flashing.
E. Mechanically Fastened Sheets - Vapor Retarder On Interior:
1. When insulation is to be installed in assembly, install vapor retarder over insulation.
2. Seal seams, laps, perimeter edges, penetrations, tears, and cuts with self-adhesive tape, making air tight seal.
3. Locate laps at a framing member; at laps fasten one sheet to framing member then tape overlapping sheet to first sheet.
4. Seal entire perimeter to structure, window and door frames, and other penetrations.
5. Where conduit, pipes, wires, ducts, outlet boxes, and other items are installed in insulation cavity, pass vapor retarder sheet behind item but over insulation and maintain air tight seal.
F. Openings and Penetrations in Exterior Weather Barriers:
1. Install flashing over sills, covering entire sill frame member, extending at least 5 inches onto weather barrier and at least 6 inches up jambs; mechanically fasten stretched edges.
2. At openings to be filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with at least 4 inches wide; do not seal sill flange.
3. At openings to be filled with non-flanged frames, seal weather barrier to all sides of opening framing, using flashing at least 9 inches wide, covering entire depth of framing.
4. At head of openings, install flashing under weather barrier extending at least 2 inches beyond face of jambs; seal weather barrier to flashing.
5. At interior face of openings, seal gap between window/door frame and rough framing, using joint sealant over backer rod.
6. Service and Other Penetrations: Form flashing around penetrating item and seal to weather barrier surface.

3.03 PROTECTION
A. Do not leave materials exposed to weather longer than recommended by manufacturer.
B. Do not leave paper- or felt-based barriers exposed to weather for longer than one week.

END OF SECTION 07 2500

SECTION 07 4113
METAL ROOF PANELS
PART 1 GENERAL
1.01 STANDING-SEAM METAL ROOF PANELS
1.02 SUMMARY
A. Section includes standing-seam metal roof panels.
1.03 ACTION SUBMITTALS
A. Product Data: For each type of product.
1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.
B. Shop Drawings:
1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 3 inches per 12 inches (1:5).
1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in architectural sheet metal products.
B. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
1.05 DELIVERY, STORAGE, AND HANDLING
A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.
B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.
C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.
D. Retain strippable protective covering on metal panels until installation. Remove as panels are being installed. Verify film is not left on installed panels.
1.06 FIELD CONDITIONS
A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.
1.07 COORDINATION
A. Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.
B. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.
1.08 PART 2 - PRODUCTS
1.09 PERFORMANCE REQUIREMENTS
A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 1592:
1. Wind Loads: As indicated on Drawings.
1.10 STANDING-SEAM METAL ROOF PANELS
A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.
1. Steel Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1514.
2. Aluminum Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1637.
B. Standing-Seam Metal Roof Panels: Formed with vertical ribs at panel edges and a flat pan between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Berridge Manufacturing Company; Zee-lock (90 degree seam) with continuous Zee Rib Clip
2. Clips: Continuous Zee-rib with Vinyl Weatherseal insert to accommodate thermal movement.
a. Material: 0.024-inch (0.61-mm) nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
3. Joint Type: Single folded.
4. Panel Coverage: 16 inches (406 mm).
5. Panel Height: 2.0 inches (51 mm).
1.11 UNDERLAYMENT MATERIALS
A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 40 mils (1.02 mm) thick, consisting of slip-resistant, polyethylene-film top surface laminated to a layer of butyl or SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.
1. Thermal Stability: Stable after testing at 240 deg F (116 deg C); ASTM D 1970.
2. Low-Temperature Flexibility: Passes after testing at minus 20 deg F (29 deg C); ASTM D 1970.
3. Manufacturers: <http://www.specagent.com/Lookup?uid=6911> Subject to compliance with requirements, provide products by one of the following:
a. Mid-States Asphalt Quick Stick HT Pro
b. Polyglass Polystick MTS
c. Soprema Lastobond Shield HT
d. Tamko TW Underlayment or TW Metal & Tile Underlayment
4. Felt Underlayment: ASTM D 226/D 22M, Type II (No. 30), asphalt-saturated organic felts.
1.12 MISCELLANEOUS MATERIALS
A. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fascias, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.
1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
B. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.
C. Panel Fasteners: Zinc-coated steel, corrosion resisting steel, zinc cast head, or nylon capped steel, type and size as approved for the applicable loading requirements.
D. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.
1. Joint Sealant: Silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
1.13 FABRICATION
A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using factory set, non-adjustable, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.
C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.
1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
3. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.
a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.
1.14 FINISHES
A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
C. Steel Panels and Accessories:
1. Retain one exposed fluoropolymer finish from subparagraphs below. Verify availability of finishes for products specified. If retaining more than one, indicate location of each on Drawings or by inserts. To obtain a proprietary finish system, insert names of coating manufacturers and products.
2. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat applied by manufacturer on a continuous coil coating line, with a top side dry film thickness of 0.75± 0.05 mil (0.0013 mm) over 0.2± 0.05 mil (0.0013 mm) primer coat, to provide a total dry film thickness of 0.95± 0.10 mil (0.024 mm). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
1.15 PART 3 - EXECUTION
1.16 EXAMINATION
A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.
1. Retain one or both subparagraphs below.
2. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support members and anchorages have been installed within alignment tolerances required by metal roof panel manufacturer.
3. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal roof panel manufacturer.
a. Retain subparagraph below with subparagraph above for systems that depend on air- or water-resistive barriers to prevent air infiltration or water penetration.
b. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.
C. Proceed with installation only after unsatisfactory conditions have been corrected.
1.17 PREPARATION
A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations.
1.18 UNDERLAYMENT INSTALLATION
A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated [below] [on Drawings], wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches (152 mm) staggered 24 inches (610 mm) between courses. Overlap side edges not less than 36 inches (914.4 mm).[Extend underlayment into gutter trough.] Roll laps with roller. Cover underlayment within 14 days or as directed by the underlayment product manufacturer.
1. Apply over the entire roof surface.
2. At minimum apply over the roof area indicated below:
a. Roof perimeter for a distance up from eaves of 24 inches (610 mm) beyond interior wall line.
b. Rake edges for a distance of 18 inches (460 mm).
c. Roof-to-wall intersections for a distance from wall of 18 inches (460 mm).
d. Around dormers, chimneys, skylights, and other penetrating elements for a distance from element of 18 inches (460 mm).
3. Felt Underlayment: Apply at locations indicated below, in shingle fashion to shed water, and with lapped joints of not less than 2 inches (50 mm).
a. Apply on roof not covered by self-adhering sheet underlayment. Lap over edges of self-adhering sheet underlayment not less than 6 inches (152.4 mm), in shingle fashion to shed water.
4. Flashings: Install flashings to cover underlayment to comply with requirements specified.
1.19 METAL PANEL INSTALLATION
A. General: Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
1. Shim or otherwise plumb substrates receiving metal panels to be level to 1/4 inch in 20 ft. (6 mm in 6.1 m).
2. Flash and seal metal panels at perimeter of all openings. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Locate and space fastenings in uniform vertical and horizontal alignment.
4. Install flashing and trim as metal panel work proceeds.
5. Panels should be continuous without end laps.
6. Align bottoms of metal panels and fasten.
7. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.
B. Fasteners:
1. Steel Panels: Use stainless-steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
C. Anchor Clips: Anchor metal roof panels and other components of the Work securely in place, using manufacturer's approved fasteners according to manufacturers' written instructions.
D. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.
E. Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.
1. Install clips to supports with self-tapping fasteners.
2. Install pressure plates, if required, at locations indicated in manufacturer's written installation instructions.
3. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied vinyl weatherseal are completely engaged.
F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by metal roof panel manufacturer.
G. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.
H. Roof Curbs: Install flashing around bases where they meet metal roof panels.
1.20 FIELD QUALITY CONTROL
A. Remove and replace applications of metal roof panels where tests and inspections indicate that they do not comply with specified requirements.
1.21 CLEANING AND PROTECTION
A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.
B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.
PART 2 PRODUCTS
2.01 ATTACHMENT SYSTEM
2.02 ACCESSORIES
A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, and equipment curbs of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.
C. Sealants:
1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
2. Concealed Sealant: Non-curing butyl sealant or tape sealant.

END OF SECTION 07 4113

SECTION 07 5423
THERMOPLASTIC POLYOLEFIN (TPO) MEMBRANE ROOFING
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Adhered system with thermoplastic polyolefin (TPO) roofing membrane.
B. Flashings.
C. Roofing cant strips, stack boots, roofing expansion joints, and walkway pads.
1.02 REFERENCE STANDARDS
A. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
B. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
C. ASTM C1325 - Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units.
D. ASTM D6878/D6878M - Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing.
E. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials.
F. FM DS 1-28 - Wind Design.
G. FM DS 1-29 - Roof Deck Securement and Above-Deck Roof Components; Factory Mutual System.
H. NRCA (RM) - The NRCA Roofing Manual.
I. NRCA (WM) - The NRCA Waterproofing Manual.
J. UL (DIR) - Online Certifications Directory.
K. UL 790 - Standard for Standard Test Methods for Fire Tests of Roof Coverings.
1.03 SUBMITTALS
A. Product Data: Provide manufacturer's written information listed below.
1. Product data indicating membrane materials, flashing materials, vapor retarder, and surfacing.
B. Warranty:
1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
2. Submit installer's certification that installation complies with all warranty conditions for the waterproof membrane.
1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum twenty (20) years of documented experience.
B. Installer Qualifications: Company specializing in performing the work of this section:
1. Approved by membrane manufacturer.
1.05 DELIVERY, STORAGE, AND HANDLING
A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
B. Store products in weather protected environment, clear of ground and moisture.
C. Protect foam insulation from direct exposure to sunlight.
D. Keep Material Safety Data Sheets (MSDS) at the project site at all times during transportation, storage, and installation of materials.
E. Comply with all requirements of Owner to prevent overloading or disturbance of the structure when loading materials onto the roof.
1.06 FIELD CONDITIONS
A. Do not apply roofing membrane during unsuitable weather. Refer to manufacturer's written instructions.
B. Do not apply roofing membrane when ambient temperature is below 40 degrees F or above manufacturer limit.
C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
E. Proceed with work so new roofing materials are not subject to construction traffic as work progresses.
F. Do not allow grease, oil, fats, or other contaminants to come into direct contact with membrane.
1.07 WARRANTY
A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
B. Material Warranty: Provide membrane manufacturer's warranty agreeing to replace material that shows manufacturing defects within 10 years after installation.
C. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
1. Warranty Term: 20 years.
2. For repair and replacement include costs of both material and labor in warranty.
3. Include accidental punctures according to the manufacturer's standard warranty terms.
4. Include hail damage according to the manufacturer's standard warranty terms.
PART 2 PRODUCTS
2.01 ROOFING APPLICATIONS
A. TPO Membrane Roofing: One ply membrane, fully adhered.
B. Roofing Assembly Performance Requirements and Design Criteria:
1. Wind Uplift:
a. Designed to withstand wind uplift forces calculated with ASCE 7.
2. Drainage: No standing water within 48 hours after precipitation.
2.02 ROOFING MEMBRANE AND ASSOCIATED MATERIALS
A. Membrane:
1. Material: Thermoplastic Polyolefin (TPO) complying with ASTM D6878/D6878M.
2. Reinforcing: Internal fabric.
3. Thickness: 60 mils (0.060 inch), minimum.
4. Color: White.
5. Product:
B. Seaming Materials: As recommended by membrane manufacturer.
C. Flexible Flashing Material: Same material as membrane.
D. Base Flashing: Provide waterproof, fully adhered base flashing system at all penetrations, plane transitions, and terminations.
2.03 DECK SHEATHING AND COVER BOARDS
A. Coverboard: Cement roof board, complying with ASTM C1325.
1. Board Thickness: 1/2 inch.
2.04 INSULATION
A. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1, fiber reinforced felt both faces; Grade 2 and with the following characteristics:
1. Compressive Strength: 20 pounds per square inch.
2. Tapered Board: Slope as indicated; minimum thickness 2 inch; fabricate of fewest layers possible.
2.05 ACCESSORIES
A. Prefabricated Flashing Accessories:
1. Corners and Seams: Same material as membrane, in manufacturer's standard thicknesses.
2. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
3. Sealant Pockets: Same material as membrane, with manufacturer's standard accessories, in manufacturer's standard configuration.
4. Pressure Sensitive Cover Strips: 6 inch wide, 45 mils (0.045 inch) thick, non-reinforced TPO membrane laminated to 35 mils (0.035 inch) thick cured synthetic rubber with pressure sensitive adhesive.
5. TPO Pressure Sensitive RUSS:
6. Walkway Rolls: Sure-Flex Heat Weldable Walkway Rolls; 80 mils (0.080 inch) thick; gray membrane.
7. Miscellaneous Flashing: Non-reinforced TPO membrane; 80 mils (0.080 inch) thick, in manufacturer's standard lengths and widths.
B. Membrane Adhesive: As recommended by membrane manufacturer.
C. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
D. Sealants: As recommended by membrane manufacturer.
E. Cleaner: Manufacturer's standard, clear, solvent-based cleaner.
F. Edgings and Terminations: Manufacturer's standard edge and termination accessories.
PART 3 EXECUTION
3.01 INSTALLATION - GENERAL
A. Perform work in accordance with manufacturer's instructions and NRCA (RM) applicable requirements.
B. Do not apply roofing membrane during unsuitable weather.
C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
F. Coordinate the work with installation of associated counterflashings installed by other sections as the work of this section proceeding.
G. When substrate preparation is responsibility of another installer, notify Architect of unsatisfactory conditions before proceeding.
3.02 MEMBRANE APPLICATION
A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
B. Shingle joints on sloped substrate in direction of drainage.
C. Fully Adhered Application: Apply adhesive at manufacturer's recommended rate. Fully embed membrane in adhesive except in areas directly over or within 3 inches of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
D. Seam Welding:
1. Seam Welding: Overlap edges and ends and seal seams by heat welding, minimum 2 inches.
2. Cover all seams with manufacturer's recommended joint covers.
3. Probe all seams once welds have thoroughly cooled. (Approximately 30 minutes.)
4. Repair all deficient seams within the same day.
5. Seal cut edges of reinforced membrane after seam probe is complete.
E. At intersections with vertical surfaces:
1. Extend membrane over cant strips and up a minimum of 4 inches onto vertical surfaces.
2. Fully adhere flexible flashing over membrane and up to nailing strips.
F. Coordinate installation of roof drains and related flashings. Locate all field splices away from low areas and roof drains. Lap upslope sheet over downslope sheet.
G. Daily Seal: Install daily seal per manufacturers instructions at the end of each work day. Prevent infiltration of water at incomplete flashings, terminations, and at unfinished membrane edges.
3.03 CLEANING
A. Remove scrappings, empty containers, paper, and other debris from the roof daily. Dispose of debris in compliance with local, State, and Federal regulations.
B. Remove bituminous markings from finished surfaces.
C. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
D. Repair or replace defaced or damaged finishes caused by work of this section.
3.04 PROTECTION
A. Protect installed roofing and flashings from construction operations.
B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION 07 5423

SECTION 07 6200
SHEET METAL FLASHING AND TRIM
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, and sheet metal roofing.
B. Sealants for joints within sheet metal fabrications.
C. Precast concrete splash pads.
1.02 RELATED REQUIREMENTS
A. Section 04 2000 - Unit Masonry: Metal flashings embedded in masonry.
B. Section 07 6100 - Sheet Metal Roofing.
1.03 SUBMITTALS
A. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, color, and installation details.
1.04 QUALITY ASSURANCE
A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 10 years of documented experience.
PART 2 PRODUCTS
2.01 SHEET MATERIALS
A. Aluminum: ASTM B209 (ASTM B209M); 20 gage, (0.032 inch) thick; anodized finish of color as selected.
B. Pre-Finished Aluminum: ASTM B209 (ASTM B209M); 20 gage, (0.032 inch) thick; plain finish shop pre-coated with modified silicone coating.
1. Modified Silicone Polyester Coating: Pigmented Organic Coating System, AAMA 2603; baked enamel finish system.
2. Color: As indicated on drawings.
2.02 FABRICATION
A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
B. Form pieces in longest possible lengths.
C. Hem exposed edges on underside 1/2 inch; miter and seam corners.
D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
E. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant.
F. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
G. Fabricate flashings to allow toe to extend 2 inches over roofing gravel. Return and brake edges.
2.03 GUTTER AND DOWNSPOUT FABRICATION
A. Downspouts: Rectangular profile.
B. Accessories: Profiled to suit gutters and downspouts.
1. Anchorage Devices: In accordance with SMACNA (ASMM) requirements.
2. Downspout Supports: Straps.
C. Splash Pads: Precast concrete type, of size and profiles indicated; minimum 3000 psi at 28 days, with minimum 5 percent air entrainment.
D. Seal metal joints.

END OF SECTION 07 6200

SECTION 07 9200
JOINT SEALANTS
PART 2 PRODUCTS
1.01 JOINT SEALANT APPLICATIONS
A. Scope:
1. Exterior Joints: Seal open joints, whether or not the joint is indicated on the drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
a. Wall expansion and control joints.
b. Joints between door, window, and other frames and adjacent construction.
c. Joints between different exposed materials.
d. Openings below ledge angles in masonry.
e. Other joints indicated below.
2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
a. Joints between door, window, and other frames and adjacent construction.
b. Other joints indicated below.
3. Do not seal the following types of joints.
a. Intentional weepholes in masonry.
b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
d. Joints where installation of sealant is specified in another section.
e. Joints between suspended panel ceilings/grid and walls.
B. Type ___ - Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.
C. Type ___ - Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
1. Type ___ - Wall and Ceiling Joints in Non-Wet Areas: Acrylic emulsion latex sealant.
1.02 JOINT SEALANTS - GENERAL
1.03 NONSAG JOINT SEALANTS
A. Type ___ - Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: _____, minimum.
2. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
B. ------ Conventional Silicone Sealant, Parking Structure and Highway -----
C. Type ___ - Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 25 percent, minimum.
D. Type ___ - Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-sagging; not intended for exterior use.

END OF SECTION 07 9200

SECTION 08 1113
HOLLOW METAL DOORS AND FRAMES
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Non-fire-rated hollow metal doors and frames.
B. Thermally insulated hollow metal doors with frames.
1.02 REFERENCE STANDARDS
A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design.
B. ANSI/SDI A250.3 - Test Procedure and Acceptance Criteria for Factory Applied Finish Coatings for Steel Doors and Frames.
C. ANSI/SDI A250.4 - Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames and Frame Anchors.
D. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100).
E. ANSI/SDI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
F. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
G. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
H. ASTM A1011/A1011M - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.
I. ICC A117.1 - Accessible and Usable Buildings and Facilities.
PART 2 PRODUCTS
2.01 DESIGN CRITERIA
A. Requirements for Hollow Metal Doors and Frames:
1. Steel used for fabrication of doors and frames shall comply with one or more of the following requirements; Galvannealed steel conforming to ASTM A653/A653M, cold-rolled steel conforming to ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel conforming to ASTM A1011/A1011M, Commercial Steel (CS) Type B for each.
2. Accessibility: Comply with ICC A117.1 and ADA Standards.
3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.
2.02 HOLLOW METAL DOORS
A. Door Finish: Factory primed and field finished.
B. Type A, Exterior Doors: Thermally insulated.
1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
a. Level 2 - Heavy-duty.
b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
c. Model 1 - Full Flush.
d. Door Face Metal Thickness: 18 gage, 0.042 inch, minimum.
2. Door Thermal Resistance: R-Value of 6.0 minimum, for installed thickness of polystyrene.
3. Door Thickness: 1-3/4 inch, nominal.
4. Door Face Sheets: Flush.
2.03 HOLLOW METAL FRAMES
A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
B. Exterior Door Frames: Face welded type.
1. Weatherstripping: Integral, recessed into door edge or frame.
2.04 FINISHES
A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.
2.05 ACCESSORIES
A. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.
B. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
B. Coordinate frame anchor placement with wall construction.
3.02 ADJUSTING
A. Adjust for smooth and balanced door movement.

END OF SECTION 08 1113

SECTION 08 1416
FLUSH WOOD DOORS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Flush wood doors; flush and flush glazed configuration; non-rated.
1.02 REFERENCE STANDARDS
A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
B. ASTM C1172 - Standard Specification for Laminated Architectural Flat Glass.
C. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards.
D. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards, U.S. Version 3.0.
E. ICC (IBC) - International Building Code.
F. WDMA I.S. 1A - Interior Architectural Wood Flush Doors.
1.03 SUBMITTALS
A. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
B. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
1.04 DELIVERY, STORAGE, AND HANDLING
A. Package, deliver and store doors in accordance with specified quality standard.
B. Accept doors on site in manufacturer's packaging. Inspect for damage.
C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges with tinted sealer if stored more than one week. Break seal on site to permit ventilation.
PART 2 PRODUCTS
2.01 DOORS AND PANELS
A. Doors: Refer to drawings for locations and additional requirements.
1. Quality Standard: Custom Grade, Standard Duty performance, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
2. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.
B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
1. Provide solid core doors at each location.
2. Wood veneer facing for field transparent finish as indicated on drawings.

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT
440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date

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2.02 DOOR AND PANEL CORES
A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.
2.03 DOOR FACINGS
A. Veneer Facing for Transparent Finish: White oak, veneer grade in accordance with quality standard indicated, plain sliced (flat cut), with book match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.
2.04 DOOR CONSTRUCTION
A. Fabricate doors in accordance with door quality standard specified.
B. Cores Constructed with stiles and rails:
1. Provide solid blocks at lock edge and top of door for closer for hardware reinforcement.
C. Where supplementary protective edge trim is required, install trim after veneer facing has been applied full-width.
D. Glazed Openings: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings.
E. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
F. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
G. Provide edge clearances in accordance with the quality standard specified.
2.05 ACCESSORIES
A. Hollow Metal Door Frames: As specified in Section 08 1113.
B. Glazed Openings:
1. Laminated Glass: Float glass laminated in accordance with ASTM C1172.
C. Glazing Stops: Wood, of same species as door facing, butted corners; prepared for countersink style tamper proof screws.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install doors in accordance with manufacturer's instructions and specified quality standard.
B. Field-Finished Doors: Trimming to fit is acceptable.
1. Adjust width of non-rated doors by cutting equally on both jamb edges.
2. Trim maximum of 3/4 inch off bottom edges.
C. Use machine tools to cut or drill for hardware.
D. Coordinate installation of doors with installation of frames and hardware.
E. Coordinate installation of glazing.
3.02 ADJUSTING
A. Adjust doors for smooth and balanced door movement.
B. Adjust closers for full closure.
END OF SECTION 08 1416

SECTION 08 4313
ALUMINUM-FRAMED STOREFRONTS
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Aluminum-framed storefront, with vision glass.
B. Infill panels of metal and glass.
C. Aluminum doors and frames.
D. Weatherstripping.
E. Door hardware.
1.02 REFERENCE STANDARDS
A. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site.
B. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document).
C. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
D. ASTM B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric).
E. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
F. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric).
G. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
1.03 SUBMITTALS
A. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, internal drainage details.
B. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related Work, expansion and contraction joint location and details, and field welding required.
1.04 DELIVERY, STORAGE, AND HANDLING
A. Handle products of this section in accordance with AAMA CW-10.
B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.
1.05 FIELD CONDITIONS
A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.
1.06 WARRANTY
A. Correct defective Work within a five year period after Date of Substantial Completion.
B. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
C. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.
PART 2 PRODUCTS
2.01 STOREFRONT
A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
1. Glazing Rabbet: For 1 inch insulating glazing.
2. Glazing Position: Front-set.
3. Finish: Class II natural anodized.
a. Factory finish all surfaces that will be exposed in completed assemblies.
4. Finish Color: Black.
5. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
6. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
7. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
8. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
9. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
10. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
2.02 COMPONENTS
A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
1. Glazing Stops: Flush.
B. Infill Panels: Insulated, aluminum sheet face and back, with edges formed to fit glazing channel and sealed.
1. Finish: Same as storefront.
C. Swing Doors: Glazed aluminum.
1. Thickness: 1-3/4 inches.
2. Top Rail: 4 inches wide.
3. Vertical Stiles: 4-1/2 inches wide.
4. Bottom Rail: 10 inches wide.
5. Finish: As indicated on drawings.
2.03 MATERIALS
A. Extruded Aluminum: ASTM B221 (ASTM B221M).
B. Sheet Aluminum: ASTM B209 (ASTM B209M).
C. Fasteners: Stainless steel.
D. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.
2.04 HARDWARE
A. For each door, include weatherstripping, sill sweep strip, and threshold.
B. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.
C. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.
D. Threshold: Extruded aluminum, one piece per door opening, ribbed surface; provide on all doors.
E. Hinges: Butt type, swing clear; top and bottom.
1. Provide on all doors.
F. Push/Pull Set: Standard configuration push/pull handles.
1. Provide on doors as indicated.
G. Exit Devices: Panic type.
1. Provide on doors as indicated.
H. Door Closers: Exposed overhead.
1. Provide on all doors.
I. Locks: Dead latch with thumbturn inside; keyed cylinder outside.
1. Provide on all doors.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install wall system in accordance with manufacturer's instructions.
B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
C. Provide alignment attachments and shims to permanently fasten system to building structure.
D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
E. Provide thermal isolation where components penetrate or disrupt building insulation.
F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
H. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
I. Set thresholds in bed of sealant and secure.
J. Install hardware using templates provided.
K. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.
3.02 ADJUSTING
A. Adjust operating hardware and sash for smooth operation.

3.03 CLEANING
A. Remove protective material from pre-finished aluminum surfaces.
B. Upon completion of installation, thoroughly clean aluminum surfaces in accordance with AAMA 609 & 610.
3.04 PROTECTION
A. Protect installed products from damage until Date of Substantial Completion.
END OF SECTION 08 4313

SECTION 08 7100
DOOR HARDWARE
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Hardware for wood and hollow metal doors.
B. Thresholds.
C. Weatherstripping and gasketing.
1.02 REFERENCE STANDARDS
A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design.
B. BHMA (CPD) - Certified Products Directory.
C. BHMA A156.1 - American National Standard for Butts and Hinges.
D. BHMA A156.2 - American National Standard for Bored and Preassembled Locks & Latches.
E. BHMA A156.3 - American National Standard for Exit Devices.
F. BHMA A156.4 - American National Standard for Door Controls - Closers.
G. BHMA A156.5 - American National Standard for Cylinders and Input Devices for Locks.
H. BHMA A156.6 - American National Standard for Architectural Door Trim.
I. BHMA A156.16 - American National Standard for Auxiliary Hardware.
J. BHMA A156.18 - American National Standard for Materials and Finishes.
K. BHMA A156.21 - American National Standard for Thresholds.
L. BHMA A156.22 - American National Standard for Door Gasketing and Edge Seal Systems, Builders Hardware Manufacturers Association.
M. ICC A117.1 - Accessible and Usable Buildings and Facilities.
N. NFPA 101 - Life Safety Code.
O. UL (DIR) - Online Certifications Directory.
1.03 SUBMITTALS
A. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project, and includes construction details, material descriptions, finishes, and dimensions and profiles of individual components.
B. Shop Drawings - Door Hardware Schedule: Submit detailed listing that includes each item of hardware to be installed on each door. Use door numbering scheme as included in Contract Documents.
1. Prepared by or under supervision of Architectural Hardware Consultant (AHC).
2. Provide complete description for each door listed.
PART 2 PRODUCTS
2.01 DESIGN AND PERFORMANCE CRITERIA
A. Provide specified door hardware as required to make doors fully functional, compliant with applicable codes, and secure to extent indicated.
B. Provide individual items of single type, of same model, and by same manufacturer.
C. Provide door hardware products that comply with the following requirements:
1. Applicable provisions of federal, state, and local codes.
2. Accessibility: ADA Standards and ICC A117.1.
3. Applicable provisions of NFPA 101.
2.02 HINGES
A. Hinges: Complying with BHMA A156.1, Grade 1.
1. Provide hinges on every swinging door.
2. Provide following quantity of butt hinges for each door:
a. Doors up to 60 inches High: Two hinges.
b. Doors From 60 inches High up to 90 inches High: Three hinges.
c. Doors 90 inches High up to 120 inches High: Four hinges.
2.03 EXIT DEVICES
A. Exit Devices: Complying with BHMA A156.3, Grade 1.
1. Lever design to match lockset trim.
2. Provide cylinder with cylinder dogging or locking trim.
3. Provide exit devices properly sized for door width and height.
4. Provide strike as recommended by manufacturer for application indicated.
5. Provide UL (DIR) listed exit device assemblies for fire-rated doors and panic device assemblies for non-fire-rated doors.
2.04 LOCK CYLINDERS
A. Lock Cylinders: Provide key access on outside of each lock, unless otherwise indicated.
1. Provide cylinders from same manufacturer as locking device.
2. Provide cams and/or tailpieces as required for locking devices.
2.05 CYLINDRICAL LOCKS
A. Cylindrical Locks (Bored): Complying with BHMA A156.2, Grade 1, 4000 Series.
1. Bored Hole: 2-1/8 inch diameter.
2. Latchbolt Throw: 1/2 inch, minimum.
3. Backset: 2-3/4 inch unless otherwise indicated.
4. Strikes: Provide manufacturer's standard strike for each latchset or lockset with strike box and curved lip extending to protect frame in compliance with indicated requirements.
a. Finish: To match lock or latch.
2.06 DOOR PULLS AND PUSH PLATES
A. Door Pulls and Push Plates: Complying with BHMA A156.6.
1. Pull Type: Straight, unless otherwise indicated.
2. Push Plate Type: Flat, with square corners, unless otherwise indicated.
a. Edges: Beveled, unless otherwise indicated.
3. Material: Aluminum, unless otherwise indicated.
2.07 DOOR PULLS AND PUSH BARS
A. Door Pulls and Push Bars: Complying with BHMA A156.6.
1. Bar Type: Bar set, unless otherwise indicated.
2. Material: Aluminum, unless otherwise indicated.
2.08 CLOSERS
A. Closers: Complying with BHMA A156.4, Grade 1.
1. Type: Surface mounted to door.
2. Provide door closer on each exterior door.
3. At corridor entry doors, mount closer on room side of door.
4. At outswinging exterior doors, mount closer on interior side of door.
2.09 PROTECTION PLATES
A. Protection Plates: Complying with BHMA A156.6.
B. Metal Properties: Aluminum.
1. Metal, Standard Duty: Thickness 0.05 inch, minimum.
C. Edges: Beveled, on four sides unless otherwise indicated.
D. Fasteners: Countersunk screw fasteners.
E. Drip Guard: Provide at head of exterior doors unless covered by roof or canopy.
2.10 KICK PLATES
A. Kick Plates: Provide along bottom edge of push side of every door with closer, except aluminum storefront and glass entry doors, unless otherwise indicated.
1. Size: 8 inch high by 2 inch less door width (LDW) on push side of door.
2.11 FLOOR STOPS
A. Floor Stops: Complying with BHMA A156.16, Grade 1 and Resilient Material Retention Test as described in this standard.
1. Provide floor stops when wall surface is not available; be cautious not to create a tripping hazard.
2. Type: Manual hold-open, with dome floor stop.
3. Material: Aluminum housing with rubber insert.
2.12 WALL STOPS
A. Wall Stops: Complying with BHMA A156.16, Grade 1 and Resilient Material Retention Test as described in this standard.
1. Provide wall stops to prevent damage to wall surface upon opening door.
2. Type: Bumper, concave, wall stop.
3. Material: Aluminum housing with rubber insert.
2.13 THRESHOLDS
A. Thresholds: Complying with BHMA A156.21.
1. Provide threshold at each exterior door, unless otherwise indicated.
2. Type: Flat surface.
3. Material: Aluminum.
4. Threshold Surface: Fluted horizontal grooves across full width.
5. Field cut threshold to profile of frame and width of door sill for tight fit.
6. Provide non-corroding fasteners at exterior locations.
2.14 WEATHERSTRIPPING AND GASKETING
A. Weatherstripping and Gasketing: Complying with BHMA A156.22.
1. Head and Jamb Type: Adjustable.
2. Door Sweep Type: Encased in retainer.
3. Material: Aluminum, with brush weatherstripping.
4. Provide weatherstripping on each exterior door at head, jambs, and meeting stiles of door pairs, unless otherwise indicated; .
5. Provide door bottom sweep on each exterior door, unless otherwise indicated.
2.15 9. MISCELLANEOUS ITEMS (ON DOOR)
2.16 COAT HOOKS
A. Coat Hooks: Provide on room side of Restroom door(s), screw fastened.
1. Material: Stainless steel.
2.17 SILENCERS
A. Silencers: Provide at equal locations on door frame to mute sound of door's impact upon closing.
1. Single Door: Provide three on strike jamb of frame.
2. Pair of Doors: Provide two on head of frame, one for each door at latch side.
3. Material: Rubber, black color.
2.18 VIEWER
A. Viewer: Provide at inside of Back Exterior door at eye level to see who is on outside of door, with integral door knocker.
1. Material: Brass.
2.19 KEY CONTROL SYSTEMS
2.20 FIRE DEPARTMENT LOCK BOX
A. Fire Department Lock Box:
1. Capacity: Holds 10 keys.
2. Finish: Manufacturer's standard black.

2.21 FINISHES
A. Finishes: Provide door hardware of same finish, unless otherwise indicated.
1. Primary Finish: 630; satin stainless steel, with stainless steel 3000 series base material (former US equivalent US32D); BHMA A156.18.
2. Secondary Finish: 626; satin chromium plated over nickel, with brass or bronze base material (former US equivalent US26D); BHMA A156.18.
a. Use secondary finish in kitchens, bathrooms, and other spaces containing chrome or stainless steel finished appliances, fittings, and equipment; provide primary finish on one side of door and secondary finish on other side if necessary.
3. Exceptions:
a. Where base material metal is specified to be different, provide finish that is an equivalent appearance in accordance with BHMA A156.18.
b. Hardware for Aluminum Storefront Doors: Finished to match door panel finish, except at hand contact surfaces provide stainless steel with satin finish, unless otherwise indicated.
PART 3 EXECUTION
3.01 INSTALLATION
A. Install hardware in accordance with manufacturer's instructions and applicable codes.
B. Use templates provided by hardware item manufacturer.
C. Door Hardware Mounting Heights: Distance from finished floor to center line of hardware item. As indicated in following list; unless noted otherwise in Door Hardware Schedule or on drawings.
1. For Aluminum-Framed Storefront Doors and Frames: Refer to Section 08 4313.
D. Set exterior door thresholds with full-width bead of elastomeric sealant at each point of contact with floor providing a continuous weather seal; anchor thresholds with stainless steel countersunk screws.
3.02 ADJUSTING
A. Adjust hardware for smooth operation.
B. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.
3.03 CLEANING
A. Clean finished hardware in accordance with manufacturer's written instructions after final adjustments have been made.
B. Clean adjacent surfaces soiled by hardware installation.
C. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.
3.04 PROTECTION
A. Do not permit adjacent work to damage hardware or finish.
END OF SECTION 08 7100

SECTION 09 2116
GYPSUM BOARD ASSEMBLIES
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Performance criteria for gypsum board assemblies.
B. Metal stud wall framing.
C. Acoustic insulation.
D. Gypsum wallboard.
E. Joint treatment and accessories.
1.02 REFERENCE STANDARDS
A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
B. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members.
C. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
D. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
E. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board.
F. ASTM C1047 - Standard Specification for Accessories For Gypsum Wallboard and Gypsum Veneer Base.
G. ASTM C1396/C1396M - Standard Specification for Gypsum Board.
H. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
I. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
J. ASTM E413 - Classification for Rating Sound Insulation.
K. GA-216 - Application and Finishing of Gypsum Board.
PART 2 PRODUCTS
2.01 GYPSUM BOARD ASSEMBLIES
A. Provide completed assemblies complying with ASTM C840 and GA-216.
B. Interior Partitions, Indicated as Acoustic: Provide completed assemblies with the following characteristics:
1. Acoustic Attenuation: STC of 45-49 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.
2.02 METAL FRAMING MATERIALS
A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/120 at 5 psf.
1. Studs: "C" shaped with flat or formed webs with knurled faces.
2. Runners: U shaped, sized to match studs.
2.03 BOARD MATERIALS
A. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
a. Mold resistant board is required in our around moisture-prone areas.
3. Thickness:
a. Vertical Surfaces: 5/8 inch.
b. Ceilings: 1/2 inch.
2.04 ACCESSORIES
A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: 3.5 inch.
B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
C. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise.
1. Rigid Corner Beads: Low profile, for 90 degree outside corners.
D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
E. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.
PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that project conditions are appropriate for work of this section to commence.
3.02 FRAMING INSTALLATION
A. Studs: Space studs at 16 inches on center.
1. Extend partition framing to structure where indicated and to ceiling in other locations.
2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
B. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.
C. Blocking: Install wood blocking for support of:
1. Wall mounted cabinets.
2. Plumbing fixtures, as needed.
3. Toilet accessories, as needed.
4. Locations as noted on drawings
3.03 ACOUSTIC ACCESSORIES INSTALLATION
A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
B. Acoustic Sealant: Install in accordance with manufacturer's instructions.
3.04 BOARD INSTALLATION
A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
3.05 JOINT TREATMENT
A. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
1. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
B. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
1. Feather coats of joint compound so that camber is maximum 1/32 inch.
C. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.
END OF SECTION 09 2116

SECTION 09 2236
LATH
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Metal lath for cement plaster.
1.02 REFERENCE STANDARDS
A. ASTM C847 - Standard Specification for Metal Lath.
B. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness.
C. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
D. ASTM C1063 - Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster.
PART 2 PRODUCTS
2.01 LATH
A. Diamond Mesh Metal Lath: ASTM C847, galvanized; self-furring.
1. Weight: To suit application and as specified in ASTM C841 or ASTM C1063 for framing spacing.
B. Beads, Screeds, Joint Accessories, and Other Trim: Depth governed by plaster thickness, and maximum possible lengths.
1. Material: Formed galvanized sheet steel, expanded metal flanges.
2. Casing Beads with Weep Holes: Square edges.
3. Expansion Joints: Accordion profile with factory-installed protective tape, 2 inch wide flanges.
4. Control Joints: Accordion profile with factory-installed protective tape, 2 inch flanges.
2.02 ACCESSORIES
A. Anchorage: Tie wire, nails, and other metal supports, of type and size to suit application; to rigidly secure materials in place, galvanized.
B. Fasteners: Self-piercing tapping screws; ASTM C1002 or ASTM C954.

PART 3 EXECUTION
3.01 INSTALLATION - GENERAL
A. Install metal lath and furring for Portland cement plaster in accordance with ASTM C1063.
3.02 CONTROL AND EXPANSION JOINT INSTALLATION
A. Locate joints as indicated on drawings and comply with ASTM C1063.
1. Area of plaster panel not to exceed 144 sq ft for vertical surfaces.
2. Area of plaster panel not to exceed 100 sq ft for horizontal, curved or angled surfaces.
3. Spacing between control joints not to exceed 18 ft in each direction.
3.03 LATH INSTALLATION
A. Apply lath taut, with long dimension perpendicular to supports.
B. Continuously reinforce internal angles with corner mesh, except where the metal lath returns 3 inches from corner to form the angle reinforcement; fasten at perimeter edges only.
C. Place corner bead at external wall corners; fasten at outer edges of lath only.
D. Place base screeds at termination of plaster areas; secure rigidly in place.
E. Place lath vertically above each top corner and each side of door frames to 6 inches above ceiling line.
F. Place casing beads at terminations of plaster finish. Butt and align ends. Secure rigidly in place.
G. Place additional strip mesh diagonally at corners of lathed openings. Secure rigidly in place.
END OF SECTION 09 2236

SECTION 09 2400
CEMENT PLASTERING
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Cement plastering.
1.02 REFERENCE STANDARDS
A. ASTM C91/C91M - Standard Specification for Masonry Cement.
B. ASTM C150/C150M - Standard Specification for Portland Cement.
C. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes.
D. ASTM C926 - Standard Specification for Application of Portland Cement-Based Plaster.
E. ASTM C932 - Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
F. ASTM C1328/C1328M - Standard Specification for Plastic (Stucco) Cement.
G. ICC (IBC) - International Building Code.
H. UL (DIR) - Online Certifications Directory.
1.03 SUBMITTALS
A. Product Data: Provide data on plaster materials and trim accessories.
1.04 QUALITY ASSURANCE
A. B. Manufacturer: All component materials shall be SMA approved and shall be distributed by authorized dealers.
B. Installer Qualifications: Company specializing in performing the work of this section with minimum 5 years experience.
1.05 FIELD CONDITIONS
A. Exterior Plaster Work: Do not apply plaster when substrate or ambient air temperature is 40 degrees F or lower, or when temperature is expected to drop below 40 degrees F within 48 hours of application.
PART 2 PRODUCTS
2.01 CEMENT PLASTER APPLICATIONS
A. Lath Plaster Base: Metal lath.
1. Plaster Type: Factory prepared plaster mix.
2. Number of Coats: One.
3. First Coat: Apply to a nominal thickness of 3/8 inch.
4. Leveling Coat: Apply to a nominal thickness of 1/32 to 1/16 inch.
5. Finish Coat: Apply to a nominal thickness of 1/8 inch.
a. Texture: as indicated on drawings.
2.02 FACTORY PREPARED CEMENT PLASTER
A. Exterior Portland cement plaster system made of scratch and brown base coat, leveling coat with reinforcing mesh, and acrylic finish coat; install in accordance with ASTM C926.
1. Provide continuous exterior insulation as part of the system.
2. Provide weather resistive barrier as part of the system.
3. Manufacturer - Basis of Design:
a. LaHabra; FastWall 300: www.lahabrastucco.com/sle.
b. Parex USA, Inc; Armourwall 300: www.parexusa.com/sle.
4. Other Acceptable Manufacturers:
a. Parex USA, Inc; Armourwall 300: www.parexusa.com/sle.
b. Sto Corp; Sto Powerwall: www.stocorp.com/sle.
B. Premixed One-Coat Base: Mixture of Type I Portland cement complying with ASTM C150/C150M, hydrated lime complying with ASTM C207, fibers and other approved ingredients; install in accordance with ASTM C926.
C. Premixed Base Coats: Mixture of cement, aggregate, fibers, and proprietary admixtures for scratch and brown coats; install in accordance with ASTM C926.
D. Premixed Leveling Coat: Acrylic polymer-based blend approved for use with plaster manufacturer's base coat and finish materials.
E. Painted Finish Coating: As specified in Section 09 9113.
2.03 ACCESSORIES
A. Lath: As specified in Section 09 2236.
B. Beads, Screeds, and Joint Accessories: As specified in Section 09 2236.
C. Water Resistive Barrier: As specified in Section 07 2500.
PART 3 EXECUTION
3.01 EXAMINATION
A. Verify existing conditions are acceptable prior to starting this work.
B. Verify lath is flat, secured to substrate, and joint and surface perimeter accessories are properly in place.
3.02 MIXING
A. Mix only as much plaster as can be used prior to initial set.
B. Mix materials dry, to uniform color and consistency, before adding water.
C. Protect mixtures from frost or freezing temperatures, contamination, and excessive evaporation.
3.03 APPLICATION
A. Apply plaster in accordance with manufacturer's written instructions and comply with ASTM C926.
B. Base Coats:
1. Apply base coat(s) to fully embed lath and to specified thickness.
2. Follow guidelines in ASTM C926 and manufacturer's written installation instructions for moist curing base coats and application of subsequent coats.
C. Leveling Coat:
1. Apply leveling coat to specified thickness.
D. Finish Coats:
1. Cement Plaster:
a. Apply with sufficient material and pressure to ensure complete coverage of base to specified thickness.
b. Apply desired surface texture while mix is still workable.
2. Primer and Acrylic Coatings:
a. Remove surface contaminants such as dust and dirt without damaging substrate.
b. Apply primer in accordance with manufacturer's instructions.
c. Apply finish coating in number of coats and to thickness recommended by manufacturer.
E. Install exterior contraction joints after initial set, scribed every 3 feet in each direction by cutting through two-thirds of cement plaster depth, neatly, and in straight lines.
END OF SECTION 09 2400

SECTION 09 3000
TILING
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Tile for floor applications.
B. Tile for wall applications.
C. Cementitious backer board as tile substrate.
D. Coated glass mat backer board as tile substrate.
E. Non-ceramic trim.
1.02 REFERENCE STANDARDS
A. ANSI A108/A118/A136.1 - American National Standard Specifications for the Installation of Ceramic Tile (Compendium).
B. ANSI A108.1a - American National Standard Specifications for Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar.
C. ANSI A108.1b - American National Standard Specifications for Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland Cement Mortar.
D. ANSI A108.1c - Specifications for Contractors Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Bed with Dry-Set or Latex-Portland Cement.
E. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive.
F. ANSI A108.5 - American National Standard Specifications for Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar.
G. ANSI A108.6 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy.
H. ANSI A108.8 - American National Standard Specifications for Installation of Ceramic Tile with Chemical Resistant Furan Resin Mortar and Grout.
I. ANSI A108.9 - American National Standard Specifications for Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout.
J. ANSI A108.10 - American National Standard Specifications for Installation of Grout in Tilework.
K. ANSI A108.12 - American National Standard for Installation of Ceramic Tile with EGP (Exterior Glue Plywood) Latex-Portland Cement Mortar.
L. ANSI A108.13 - American National Standard for Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone.
M. ANSI A118.3 - American National Standard Specifications for Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy and Water Cleanable Tile-Setting Epoxy Adhesive.
N. ANSI A118.4 - American National Standard Specifications for Modified Dry-Set Cement Mortar.
O. ANSI A118.6 - American National Standard Specifications for Standard Cement Grouts for Tile Installation.
P. 11
Q. ANSI A137.1 - American National Standard Specifications for Ceramic Tile.
R. ASTM C1178/C1178M - Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel.
S. TCNA (HB) - Handbook for Ceramic, Glass, and Stone Tile Installation.

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT
440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER A-2004011672
ARCHITECT
FEB 14 2020

PERMIT SET

Client Approval

ARCHITECTURAL SPECIFICATIONS

Project #	52119-MO02
Issue Date	12/10/2019
Scale	
Drawn by	MTB
Checked by	MTB

A0.4

PART 2 PRODUCTS

2.01 TILE

A. Glazed Wall Tile: ANSI A137.1, standard grade.
1. Color(s): As indicated on drawings.
2. Pattern: As indicated on drawings.

B. Quarry Tile: ANSI A137.1, standard grade.
1. Size: 6 by 6 inch, nominal.
2. Thickness: 1/2 inch, nominal.
3. Surface Finish: Non-slip.
4. Color(s): As indicated on drawings.
5. Pattern: As indicated on drawings.
6. Trim Units: Matching bullnose and cove base shapes in sizes coordinated with field tile.

2.02 TRIM AND ACCESSORIES

A. Non-Ceramic Trim: Satin natural anodized extruded aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.
1. Applications:
a. Open edges of wall tile.
b. Transition between floor finishes of different heights.
c. Borders and other trim as indicated on drawings.
2. Manufacturers:
a. Schluter-Systems: www.schluter.com.

2.03 SETTING MATERIALS

A. Latex-Portland Cement Mortar Bond Coat: ANSI A118.4.

2.04 GROUTS

A. Standard Grout: ANSI A118.6 standard cement grout.
1. Applications: Use this type of grout where indicated and where no other type of grout is indicated.
2. Use sanded grout for joints 1/8 inch wide and larger; use unsanded grout for joints less than 1/8 inch wide.
3. Color(s): As indicated on drawings.

B. Epoxy Grout: ANSI A118.3 chemical resistant and water-cleanable epoxy grout.
1. Applications: All kitchen and cleaning areas.

2.05 MAINTENANCE MATERIALS

A. Grout Sealer: Liquid-applied, moisture and stain protection for existing or new Portland cement grout.
1. Composition: Water-based colorless silicone.

2.06 ACCESSORY MATERIALS

A. Backer Board: Cementitious type complying with 2; high density, glass fiber reinforced, 1/2 inch thick; 2 inch wide coated glass fiber tape for joints and corners.

B. Backer Board: Coated glass mat type complying with ASTM C1178/C1178M; inorganic fiberglass mat on both surfaces and integral acrylic coating vapor retarder.

C. Mesh Tape: 2 inch wide self-adhesive fiberglass mesh tape.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL

A. Install tile and grout in accordance with applicable requirements of ANSI A108.1a through ANSI A108.13, manufacturer's instructions, and TCNA (HB) recommendations.

B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.

C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.

D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.

E. Form internal angles square and external angles as indicated.

F. Install non-ceramic trim in accordance with manufacturer's instructions.

G. Sound tile after setting. Replace hollow sounding units.

H. Keep control and expansion joints free of mortar, grout, and adhesive.

I. Prior to grouting, allow installation to completely cure; minimum of 48 hours.

J. Grout tile joints unless otherwise indicated. Use standard grout unless otherwise indicated.

K. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.

3.02 INSTALLATION - FLOORS - THIN-SET METHODS

A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F113, dry-set or latex-Portland cement bond coat, with standard grout, unless otherwise indicated.

3.03 INSTALLATION - FLOORS - MORTAR BED METHODS

A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F111, with cleavage membrane, unless otherwise indicated.

B. Mortar Bed Thickness: 5/8 inch, unless otherwise indicated.

3.04 INSTALLATION - WALL TILE

A. Over gypsum wallboard on wood or metal studs install in accordance with TCNA (HB) Method W243, thin-set with dry-set or latex-Portland cement bond coat, unless otherwise indicated.

3.05 CLEANING

A. Clean tile and grout surfaces.

3.06 PROTECTION

A. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION 09 3000

SECTION 09 5100
ACOUSTICAL CEILINGS
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Suspended metal grid ceiling system.

B. Acoustical units.

1.02 REFERENCE STANDARDS

A. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.

B. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.

C. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions.

D. ASTM E1264 - Standard Classification for Acoustical Ceiling Products.

1.03 SUBMITTALS

A. Product Data: Provide data on ceiling tile, and suspension system components.

PART 2 PRODUCTS

2.01 ACOUSTICAL UNITS

A. Acoustical Units - General: ASTM E1264, Class A.

B. Acoustical Tile: Painted mineral fiber, ASTM E1264 Type III, with the following characteristics:
1. Size: 24 by 24 inches.
2. Edge: As indicated.
3. Surface Color: As indicated on drawings.

C. Acoustical Tile: Plastic faced mineral fiber, ASTM E1264 Type IV, with the following characteristics:
1. Size: 24 by 24 inches.
2. Edge: Square.
3. Surface Color: White.

1

2.02 SUSPENSION SYSTEM(S)

A. Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with stabilizer bars, clips, splices, and perimeter moldings as required.

B. Exposed Steel Suspension System: Formed steel, commercial quality cold rolled; heavy-duty.
1. Profile: Tee; 15/16 inch wide face.
2. Finish: As indicated on drawings.

2.03 ACCESSORIES

A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, (as required) and ceiling system flatness requirement specified.

B. Perimeter Moldings: Same material and finish as grid.
1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.

C. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION

3.01 INSTALLATION - SUSPENSION SYSTEM

A. Install suspension system in accordance with ASTM C636/C636M, ASTM E580/E580M, and manufacturer's instructions and as supplemented in this section.

B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.

C. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.

D. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.

F. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.

G. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.

H. Do not eccentrically load system or induce rotation of runners.

I. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
1. Use longest practical lengths.
2. Overlap and rivet corners.

3.02 INSTALLATION - ACOUSTICAL UNITS

A. Install acoustical units in accordance with manufacturer's instructions.

B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.

C. Fit border trim neatly against abutting surfaces.

D. Install units after above-ceiling work is complete.

E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.

F. Cutting Acoustical Units:
1. Make field cut edges of same profile as factory edges.

END OF SECTION 09 5100

SECTION 09 9000
PAINTING AND COATING - COMMERCIAL GUIDE SPEC
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation and field painting of exposed interior items and surfaces.

B. Surface preparation and field painting of exposed exterior items and surfaces.

1.02 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F. Maintain storage containers in a clean condition, free of foreign materials and residue.

1.03 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 degrees F and 90 degrees F.

C. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 degrees F and 95 degrees F.

D. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 degrees F above the dew point; or to damp or wet surfaces.
1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.04 EXTRA MATERIALS

A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.

B. Quantity: Furnish Owner with an additional three percent, but not less than 1 gallon or 1 case, as appropriate, of each material and color applied.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design Manufacturer: PPG Paints, 400 Bertha Lamme Drive Cranberry, PA 16066. Toll Free Tel: 888-PPG-IDEA. Web: www.ppgpaints.com/#sle.

B. Other Acceptable Manufacturers:
1. Sherwin Williams .
2. Benjamin Moore.

2.02 PAINT MATERIALS - GENERAL

A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. VOC Classification: Provide high-performance coating materials, including primers, undercoats, and finish-coat materials, that meet the applicable local, state or federal VOC requirements.

PART 3 EXECUTION

3.01 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.

C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each substrate condition and as specified.
1. Ferrous Metal Substrates: Clean ungalvanized ferrous metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.
a. Blast-clean steel surfaces as recommended by coating manufacturer and according to SSPC-SP 6.
b. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
c. Touch up bare areas and shop-applied prime coats that have been damaged. Wire brush, solvent clean, and touch up with same primer as the shop coat.

D. Material Preparation: Carefully mix and prepare coating materials according to manufacturer's written instructions.
1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.
2. Stir materials before applying to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into the material. Remove film and, if necessary, strain coating material before using.
3. Use only the type of thinners approved by manufacturer and only within recommended limits.
4. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.03 APPLICATION

A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.

B. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
1. The number of coats and film thickness required is the same regardless of application method.
2. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements.

3.04 CLEANING

A. After completing painting, clean glass and paint spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

3.05 PROTECTION

A. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.

B. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.

C. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

END OF SECTION 09 9000

SECTION 09 9113
EXTERIOR PAINTING
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints.

C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
1. Exposed surfaces of steel lintels and ledge angles.

D. Do Not Paint or Finish the Following Items:
1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
2. Items indicated to receive other finishes.
3. Items indicated to remain unfinished.
4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
5. Stainless steel, anodized aluminum, bronze, terne coated stainless steel, zinc, and lead.
6. Floors, unless specifically indicated.
7. Ceramic and other types of tiles.
8. Brick, glass unit masonry, architectural concrete, cast stone, integrally colored plaster and stucco.
9. Glass.
10. Concealed pipes, ducts, and conduits.

1.02 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.03 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.

D. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 PAINTS AND FINISHES - GENERAL

A. Paints and Finishes: Ready mixed, unless required to be a field-catalyzed paint.
1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
2. Supply each paint material in quantity required to complete entire project's work from a single production run.
3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.

B. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.

C. Colors: As indicated on drawings.

2.02 PAINT SYSTEMS - EXTERIOR

2.03 PRIMERS

A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.
1. Anti-Corrosive Alkyd Primer for Metal; MPI #79.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.

C. Test shop-applied primer for compatibility with subsequent cover materials.

D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
1. Exterior Plaster and Stucco: 12 percent.

3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.

D. Seal surfaces that might cause bleed through or staining of topcoat.

E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

F. Exterior Plaster: Fill hairline cracks, small holes, and imperfections with exterior patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.

3.03 APPLICATION

A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

C. Apply each coat to uniform appearance.

D. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

E. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.05 PROTECTION

A. Protect finishes until completion of project.

B. Touch-up damaged finishes after Substantial Completion.

END OF SECTION 09 9113

SECTION 10 2800
TOILET, BATH, AND LAUNDRY ACCESSORIES
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Commercial toilet accessories.

B. Diaper changing stations.

1.02 REFERENCE STANDARDS

A. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design.

B. ASTM A269/A269M - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.

C. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.

D. ASTM C1036 - Standard Specification for Flat Glass.

E. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass.

F. ASTM C1503 - Standard Specification for Silvered Flat Glass Mirror.

G. ASTM F2285 - Standard Consumer Safety Performance Specification for Diaper Changing Tables for Commercial Use.

PART 2 PRODUCTS

2.01 MATERIALS

A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.

B. Stainless Steel Sheet: ASTM A666, Type 304.

C. Stainless Steel Tubing: ASTM A269/A269M, Grade TP304 or TP316.

D. Mirror Glass: Annealed float glass, ASTM C1036 Type I, Class 1, Quality Q2, with silvering, protective and physical characteristics complying with ASTM C1503.

2.02 FINISHES

A. Stainless Steel: Satin finish, unless otherwise noted.

2.03 COMMERCIAL TOILET ACCESSORIES

A. Toilet Paper Dispenser: Double roll, surface mounted, for coreless type rolls.

B. Washer Receptacle: Stainless steel, freestanding style with swing top.

C. Soap Dispenser: Liquid soap dispenser, wall-mounted, surface, with stainless steel cover and horizontal stainless steel tank and working parts; push type soap valve, check valve, and window gage refill indicator, tumbler lock.

D. Mirrors: Stainless steel framed, 1/4 inch thick annealed float glass; ASTM C1036.
1. Annealed Float Glass: Silvering, protective and physical characteristics in compliance with ASTM C1503.
2. Backing: Full-mirror sized, minimum 0.03 inch galvanized steel sheet and nonabsorptive filler material.
3. Fixed Tilt Mirrors: Minimum 3 inches tilt from top to bottom.

E. Grab Bars: Stainless steel, nonslip grasping surface finish.
1. Standard Duty Grab Bars:
a. Push/Pull Point Load: 250 pound-force, minimum.
b. Dimensions: 1-1/4 inch outside diameter, minimum 0.05 inch wall thickness, exposed flange mounting, 1-1/2 inch clearance between wall and inside of grab bar.
c. Length and Configuration: As indicated on drawings.

F. Combination Sanitary Napkin/Tampon Dispenser: Stainless steel, surface-mounted.

2.04 DIAPER CHANGING STATIONS

A. Diaper Changing Station: Wall-mounted folding diaper changing station for use in commercial toilet facilities, meeting or exceeding ASTM F2285.
1. Material: Polyethylene.
2. Mounting: Surface.
3. Color: White.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install accessories in accordance with manufacturers' instructions in locations indicated on the drawings.

B. Install plumb and level, securely and rigidly anchored to substrate.

C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.

3.02 PROTECTION

A. Protect installed accessories from damage due to subsequent construction operations.

END OF SECTION 10 2800

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT
440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	02/14/2020

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER 2004041672
ARCHITECT
FEB 14 2020

PERMIT SET

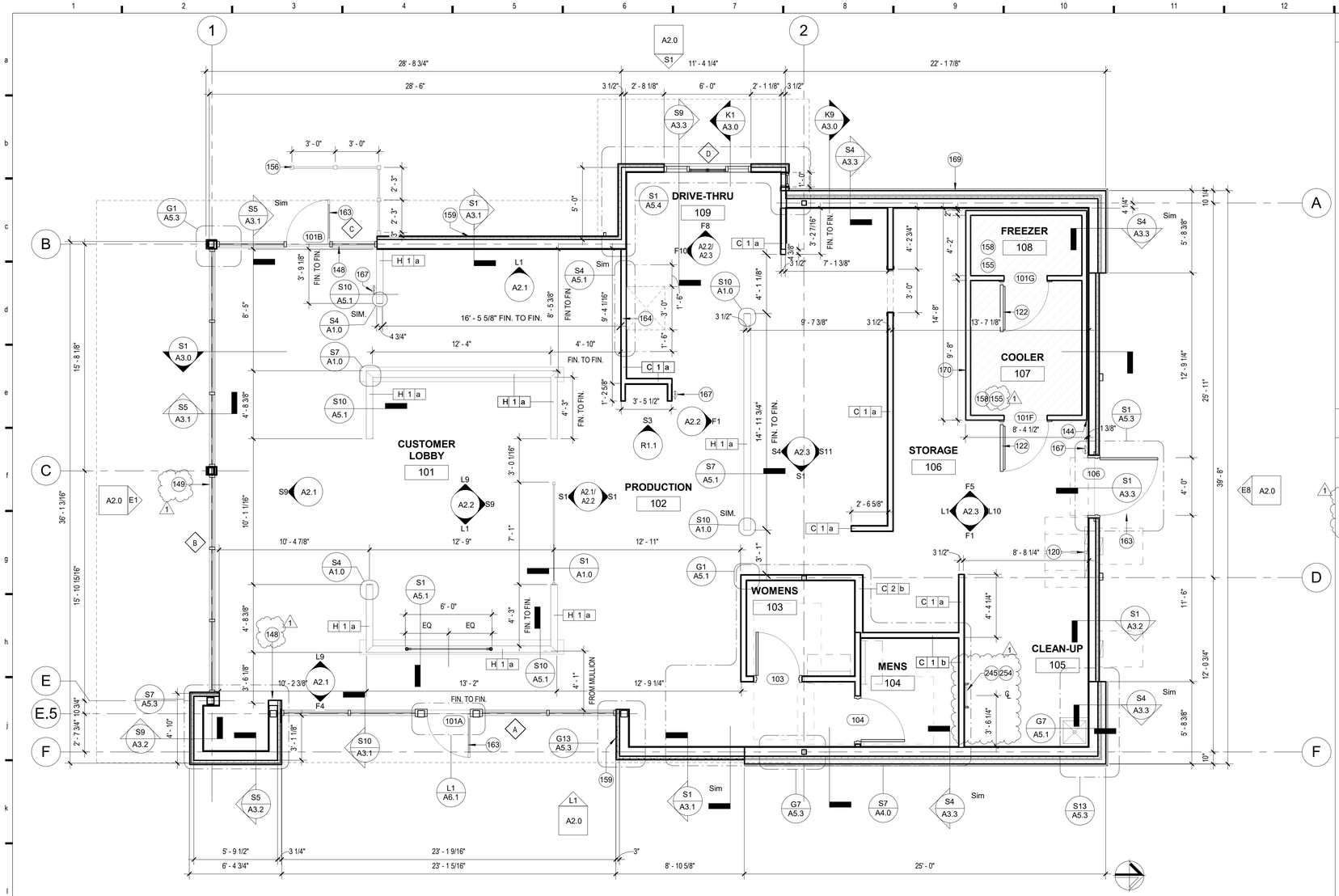
Client Approval

ARCHITECTURAL SPECIFICATIONS

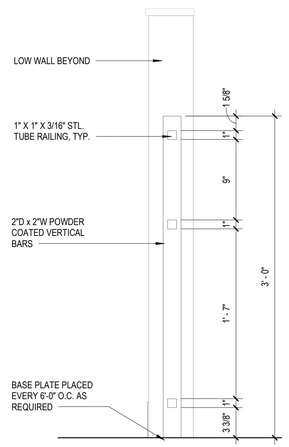
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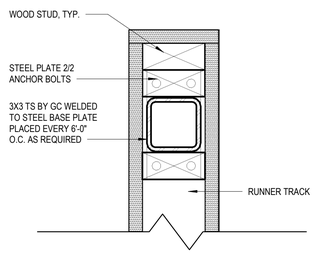
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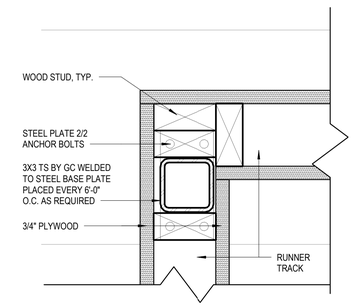
L1 DIMENSION PLAN
1/4" = 1'-0"



S1 INTERIOR RAILING SECTION
1 1/2" = 1'-0"



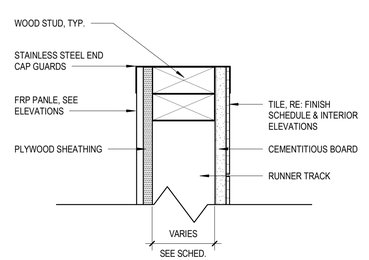
S4 LOW WALL STIFFENER
3" = 1'-0"



S7 LOW WALL STIFFENER CORNER
3" = 1'-0"

NOTE: STAINLESS STEEL METAL PANEL AT AREAS UNDER EXHAUST HOOD AND AROUND MOP SINK
TYP. SEE INT. ELEVATIONS FOR ADDITIONAL LOCATIONS.

NOTE: SEE ALSO KITCHEN DWGS. FOR END & CORNER GUARD LOCATIONS



S10 END CAP PLAN DETAIL AT TILE
3" = 1'-0"

SHEET NOTES

1. DIMENSIONS ARE FROM THE FACE OF STUD TO FACE OF STUD. (UNLESS NOTED OTHERWISE)
2. PROVIDE 5½" HIGH CONCRETE FOR MILLWORK CURBS BY THE GENERAL CONTRACTOR (RE: SHOP DRAWINGS FOR EXACT LOCATIONS & DIMENSIONS).
3. ALL BLOCKING SHALL BE THE GENERAL CONTRACTORS RESPONSIBILITY. BLOCKING SHALL INCLUDE, BUT IS NOT LIMITED TO, THE AREAS INDICATED ON: THE INTERIOR ELEVATIONS FOR SHELVING, BRACKETS, GROUNDS, FIXTURES, ETC., THE BUILDING SECTIONS AND DETAILS FOR BLOCKING AT WINDOWS, CANOPIES, ROOF FRAMING, ETC.
4. ALL FASTENERS, ANCHORS, CLIPS, STRAPS & ETC. WHICH ARE IN CONTACT WITH COPPER BASED TREATED WOOD AND ARE LESS THAN 3/8" THICK SHALL BE G185 COATED GALVANIZED, STAINLESS STEEL OR AN APPROVED EQUAL.
5. NON-COMBUSTIBLE CONSTRUCTION SHALL CONSIST OF 6" OR 8" WOOD STUDS (COORDINATE W/ STRUCTURAL) W/ 5/8" DURAROCK ON INTERIOR SIDE FOR FIRE RATING. EXTERIOR SHEATHING SHALL BE 1/2" DOW THERMAX SHEATHING OR EQUAL 1 1/2" OR MIN. R-7.5 NON-COMBUSTIBLE BLOCKING AND CONSTRUCTION SHALL BE USED WITHIN 18", BEHIND & UNDER ALL HOODS.
6. PROVIDE 6" KRAFT FACED FIBERGLASS (R-19) BATT INSULATION WITH FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 AT ALL EXTERIOR WALLS UP TO ROOF DECK. AT HOOD LOCATIONS ONLY, FOIL FACED SHALL BE USED IN LIEU OF KRAFT FACED. INSULATION SHALL BE INSTALLED ON WARM SIDE OF WALL, TYP.
7. REFER TO CIVIL DRAWINGS FOR LOCATIONS OF WALKS, BOLLARDS, LANDSCAPING AREAS, FLAG POLE, ETC.
8. REFER TO FLOOR FINISH PLAN FOR LOCATIONS AND TYPES OF CORNER GUARDS.
9. PROVIDE 3 1/2" SOUND ATTENUATION WITH FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450 IN RESTROOM PERIMETER AND RESTROOM VESTIBULE WALLS, UNLESS NOTED OTHERWISE.
10. VENDOR TO COORDINATE LOCATION OF POLE MOUNTED EXTERIOR SECURITY CAMERA AND INSTALL UNDERGROUND CONDUIT AS REQUIRED. RE: ELECTRICAL
11. AT SHEAR WALL LOCATIONS ONLY, USE 5/8" DURAROCK ON INTERIOR FACE OF STUD & FIRE RETARDANT TREATED SHEATHING ON EXTERIOR FACE OF WALL. RE: STRUCTURAL
12. SECURE SAFE USING (4) HILTI-HAS-E 1/2" X 4 1/2" ANCHOR BOLTS W/ HILTI HVUADHESIVE CAPSULE AT EACH HOLE. FASTEN THRU PHENOLIC BASE OF CABINET AND INTO CONCRETE CURB BELOW. VERIFY LOCATION W/ SAFE MANUFACTURER. G.C. TO COORDINATE W/ EQUIPMENT INSTALLER.
13. WALLS GOING TO THE ROOF DECK SHALL BE FASTENED AND ANCHORED TO TOP CHORD OF TRUSSES. PENETRATIONS INTO ROOF DECK ARE NOT ALLOWED.
14. ALL SUSPENDED CEILING FRAMING TO BE FRAMED FROM/ ANCHORED TO TOP CHORD OF TRUSSES. PENETRATIONS INTO THE ROOF DECK ARE NOT ALLOWED.
15. WALLS BEHIND WALK-IN (COOLER/FREEZER) UNITS SHALL BE FINISHED. PROVIDE CEMENT BOARD FOR FIRST 12" ABOVE SLAB THEN PROVIDE GYPSUM BOARD TO 6" ABOVE FINISH CEILING.
16. REFERENCE WALL&PARTITION ASSEMBLIES SHEET FOR INFORMATION.

KEYNOTES

#	NOTE
120	ELECTRIC PANEL, REF. ELECTRICAL
122	DOORS SUPPLIED BY FREEZER/COOLER MANUFACTURER
144	CLOSE OFF CORNERS OF WALK-IN COOLER BOX TO ADJACENT WALLS USING 16 GA STAINLESS STEEL CLOSURE TRIM, EXTENDING FROM FLOOR TO CEILING.
148	MAX OCCUPANCY SIGN PROVIDED AND INSTALLED BY GC, PER 2018 IFC 505.1. REF SHEET G1.1 FOR DATA.
149	VINYL ADDRESS NUMBERS SIGN BY GC, PER 2018 IFC 505.1.
155	6" RIGID INSULATION UNDER COOLER/FREEZER SLAB. COORDINATE WITH 10" DEPRESSED SLAB. REF STRUCTURAL AND KITCHEN DRAWINGS.
156	36" H. PREMANUFACTURED BLACK ALUMINUM RAILING. REF CIVIL
158	KEC TO INSTALL WALK-IN FREEZER BOX. CONDENSING UNIT AND LINE SET BY GC.
159	EXTERIOR HOSE BIB. REFERENCE PLUMBING DRAWINGS
163	TACTILE EXIT SIGN AT 5'-0" O.C. ON LATCH SIDE OF DOOR.
164	ALL MATERIALS WITHIN 18" OF HOOD TO BE NON COMBUSTABLE.
167	PROVIDE SLBS TYPE K FIRE EXTINGUISHER. MOUNT EXTINGUISHER ON A WALL HOOK WITH SOLID BLOCKING WITH TOP AT 44" AFF. COORDINATE FINAL LOCATION WITH FIRE DEPARTMENT.
169	LOCATION OF CO2 TANK PORT, REF PLUMBING.
170	DEPRESSED CONCRETE SLAB ON GRADE, REF STRUCTURAL DWGS.
245	INITERIOR ROOF LADDER. INSTALL PER MANUFACTURER SPECIFICATIONS. BLOCKING BEHIND AS REQUIRED.
254	PROVIDE SIDE RAIL EXTENDER @ ROOF HATCH LADDER. PER 2018 IMC 306.5.

LEGEND

- NEW PARTITION
- RATED PARTITION
- LOW PARTITION - SEE ELEVATION FOR HEIGHT
- EXISTING DOOR TO REMAIN
- EXISTING DOOR RELOCATED
- NEW CONSTRUCTION DOOR

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	02/14//2020

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER 2003011672
ARCHITECT
FEB 14 2020

PERMIT SET

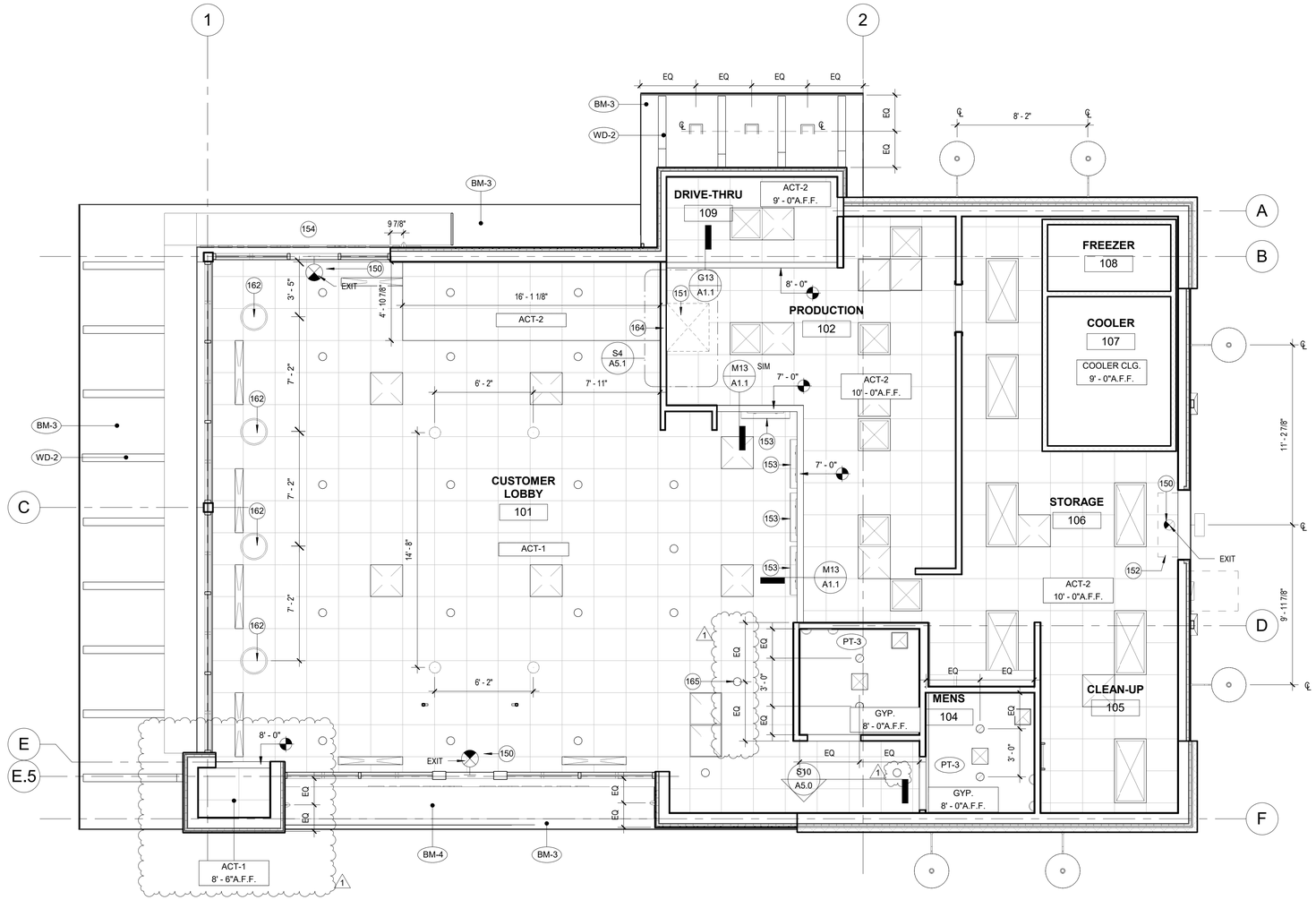
Client Approval

DIMENSION PLAN

Project #	52119-MO02
Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

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2/14/2020 3:26:30 PM LIONS CHOICE - LEE'S SUMMIT



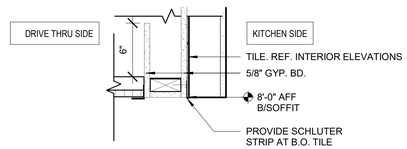
M1 REFLECTED CEILING PLAN
1/4" = 1'-0"

SHEET NOTES

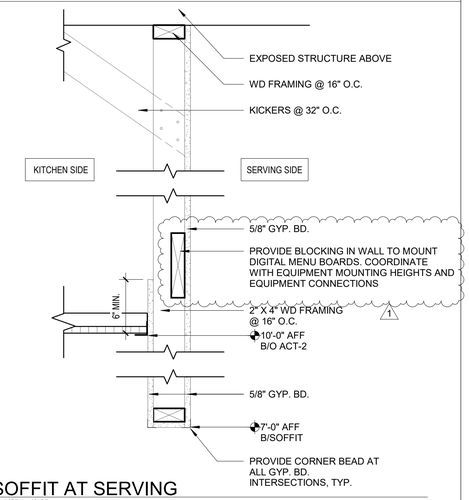
1. IN ACT AREAS ALL CEILING GRIDS TO BE CENTERED IN ROOM, U.N.O.
2. IN ACT AREAS, ALL LIGHT FIXTURES, DIFFUSERS, SPRINKLER HEADS TO BE CENTERED IN TILE, U.N.O.
3. REFER TO ELECTRICAL LIGHTING PLAN AND FIXTURE SCHEDULE FOR LIGHTING SPECIFICATIONS.
4. REFERENCE FINISH SCHEDULE FOR FINISH INFORMATION.
5. ALL MEP ITEMS ARE SHOWN FOR THE PURPOSES OF COORDINATION AND ARE TO BE COORDINATED WITH THE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
6. REFERENCE MEP DRAWINGS FOR LIGHT FIXTURES, HVAC EQUIPMENT, FIRE PROTECTION EQUIPMENT, AND OTHER CEILING MOUNTED EQUIPMENT.
7. ALL ELEVATION TAGS IN CEILING PLANS LOCATE FINISH CEILING A.F.F.
8. ALL CEILING HEIGHTS ARE FROM FLOOR ELEVATION 0'-0" U.N.O.
9. EXPOSED STRUCTURE TO BE CLEANED, PREPPED, AND PAINTED AS SPECIFIED.
10. REFER TO ELEC. PLANS FOR RECESSED LIGHTING IN WALLS.
11. CEILING GRID TO BE PAINTED SAME AS SURROUNDING ACT.
12. ALL CEILING MECHANICAL GRILLES TO BE PAINTED TO MATCH ADJACENT CEILING FINISH
13. IN GYPSUM BOARD CEILINGS, ALIGN FIXTURES AND GRILLES BETWEEN CEILING JOISTS.
14. PROVIDE A MINIMUM OF 50 FOOT CANDLES IN ALL AREAS WHERE STAFF IS WORKING WITH FOOD, UTENSILS OR EQUIPMENT, AND A MINIMUM OF 20 FOOT CANDLES IN ALL OTHER AREAS PER COMAR. RE: ELECTRICAL DRAWINGS FOR LIGHTING SPECS.

KEYNOTES

#	NOTE
150	CONTRACTOR TO COORDINATE INTERIOR EMERGENCY LIGHTING WITH 90 MINUTE BATTERY BACKUP WITH FIRE DEPT AND CITY AS REQUIRED.
151	EXHAUST HOOD #1; REF. MECHANICAL DWGS. KEC TO INSTALL, GC TO PROVIDE AND INSTALL GREASE DUCT.
152	AIR CURTAIN; REF. MECHANICAL DWGS, PROVIDE BLOCKING AND ELECT. AS NEEDED
153	DIGITAL MENU BOARD PROVIDED BY OWNER, INSTALLED BY GC.
154	PREMANUFACTURED METAL SYSTEM
162	GC TO INCLUDE EXTRA CABLING FOR HANGING LIGHTS IN BID.
164	ALL MATERIALS WITHIN 18" OF HOOD TO BE NON COMBUSTABLE.
165	DIRECTIONAL LIGHT FOCUSED ON LION HEAD WALL LOGO.



G13 SOFFIT AT DRIVE THRU DETAIL
1 1/2" = 1'-0"



M13 SOFFIT AT SERVING
1 1/2" = 1'-0"

LEGEND

NOT TO SCALE. ARCHITECTURAL INFORMATION SHOWN FOR REFERENCE ONLY. MEP/HVAC DRAWINGS SHALL GOVERN.

- ACOUSTICAL CEILING AND GRID
- GYPSUM BOARD
- SPRINKLER HEAD
- SD — SMOKE DETECTOR
- WALL MOUNTED EXIT SIGN

LIGHTING FIXTURES

- A1 & A2 — RECESSED TROFFER (2x2, 2X4, ETC)
- B1 — RECESSED CAN 6"
- B3 — RECESSED CAN 6" WET LOCATION
- C1 — LIGHT TRACK
- C2 — LIGHT TRACK FIXTURE
- J — DINING CHANDELIER
- D — PENDANT LIGHTING
- E — EXTERIOR SCONCE
- G — RESTROOM SCONCE
- X — EXTERIOR WALL PACK
- Y — EXTERIOR DOWNLIGHT GOOSENECK

MECHANICAL FIXTURES

- RETURN AIR
- SUPPLY AIR
- CIRCULAR DIFFUSER
- LINEAR DIFFUSER
- EXHAUST FAN

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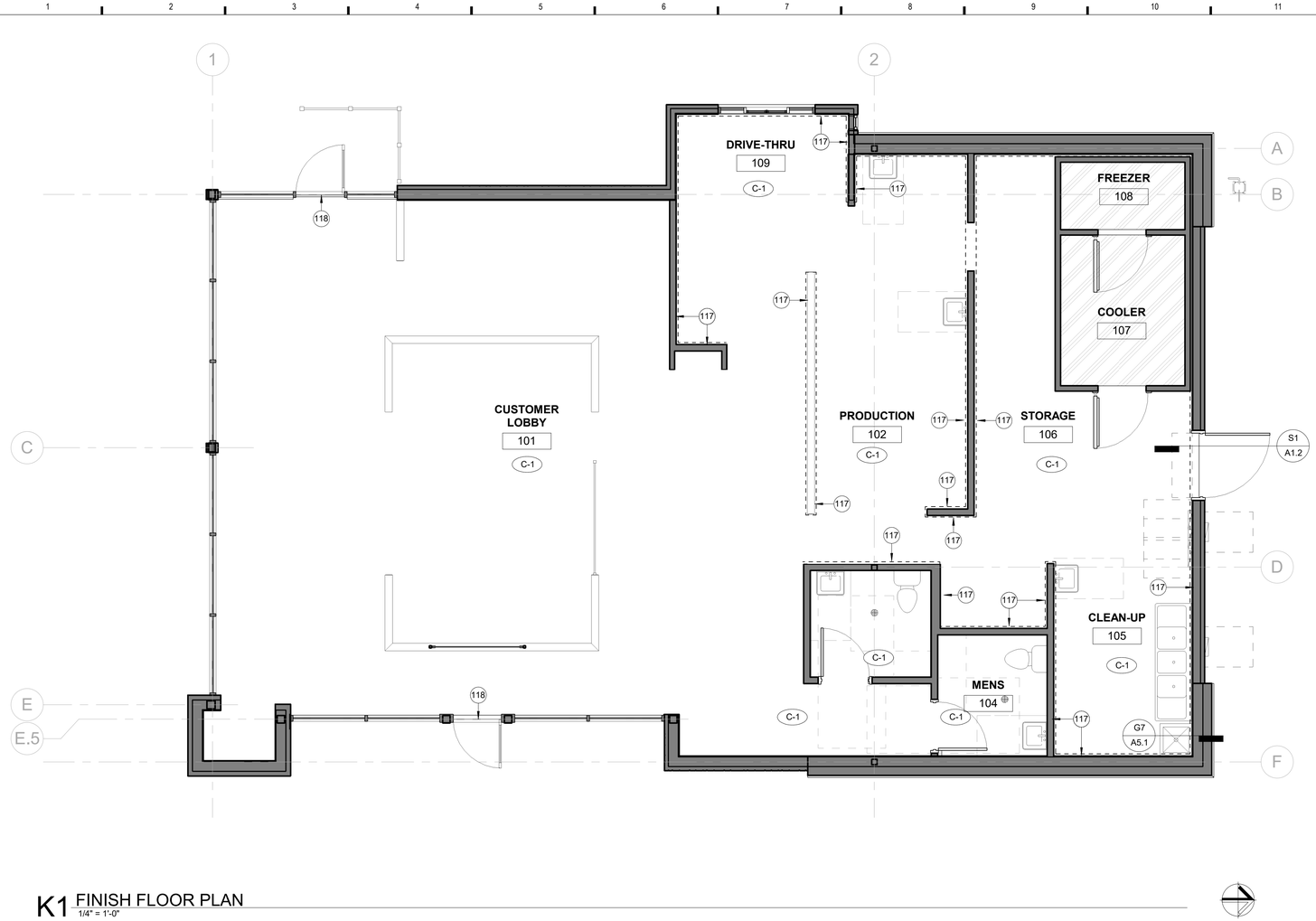
Client Approval

REFLECTED CEILING PLAN

Project #	52119-MO02
Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

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2/14/2020 2:37:24 PM LIONS CHOICE - LEE'S SUMMIT



K1 FINISH FLOOR PLAN
1/4" = 1'-0"

SHEET NOTES

1. THE PAINTING CONTRACTOR SHALL PAINT THE DOOR FRAMES USING A ROLLER COAT FOR THE FIRST COAT AND A BRUSH COAT AS THE FINISH COAT.
2. FULLY PRIME AND PAINT ALL EXTERIOR FERROUS METALS WITH ONE COAT OF PRIMER FOLLOWED BY TWO COATS OF PAINT, UNLESS NOTED OTHERWISE.
3. PROVIDE SMOOTH LEVEL 5 FINISH ON ALL GYPSUM BOARD WALLS.
4. PROVIDE 5" BAND OF ¼" CEMENTITIOUS BOARD AT BASE OF ALL WALLS IN DINING ROOM, KITCHEN & RESTROOMS FOR ALL WALLS WITH TILE BASE. PROVIDE FULL COVERAGE OF CEMENTITIOUS BOARD FROM FLOOR TO THE FULL HEIGHT OF WALL TILE. RE: INTERIOR ELEVATIONS. CEMENTITIOUS BOARD SHALL BE 'DUROCK' BY USG.
5. ALL FLOOR TILE JOINTS TO BE 3/16" MAX.
6. ALL WALL TILE JOINTS TO BE 1/8" MAX.
7. ADJUST TOP OF TILE HEIGHT AS REQUIRED TO INSTALL FULL WALL TILES IN RESTROOMS.
8. NORMAL SAFETY AND 'WET PAINT' SIGNS, NECESSARY LIGHTING, ETC. SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH OSHA REQUIREMENTS WHILE WORK IS IN PROGRESS.
9. CEILING TILES SHALL BE CLASSIFIED AS CLASS 'A'.
10. KEEP SURFACES DUST, DIRT AND DEBRIS FREE BEFORE AND DURING PAINTING.
11. ALL SHEETROCK TO BE FASTENED WITH SCREWS, NOT NAILS.
12. PROVIDE SS CORNER GUARDS AT ALL 90 DEGREE WALL CORNERS AT PATRON SIDE.
13. CONTINUE SPECIFIED FLOOR FINISH TO UNDER KNEE SPACE OF MILLWORK OR ANY EXPOSED FLOOR FINISH.
14. PROVIDE BASE FINISH AS SCHEDULED AT MILLWORK.
15. ALL WALLS TO RECEIVE PAINT FINISH TO MINIMUM 6" ABOVE FINISHED SUSPENDED CEILING.
16. PROVIDE SILICONE SEALANT JOINTS AT ALL PLUMBING FIXTURES AND COUNTER TOPS TO WALL SURFACE. PROVIDE SILICONE SEALANT AT TILE CORNERS, INTERSECTIONS, PENETRATIONS, AND AROUND DOOR JAMBS TO PREVENT CRACKING.
17. IN ALL FOOD SERVICE AREAS PROVIDE CAULK JOINTS AT THE INTERSECTION OF SUSPENDED CEILING GRID TO FRP PANELS, AT ALL WALL PENETRATIONS (PLUMBING LINES, GAS LINES, ESCUTCHEONS, COVER PLATES, ETC.) AND AT INTERSECTION OF METAL DOOR FRAMES TO FRP PANELS. ALL CAULK SHALL BE FOOD-GRADE SILICONE, WHITE.
18. ALL FLOOR FINISHES SHALL BE SLIP RESISTANT, U.N.O.
19. ALL KITCHEN AREA FLOORS SHALL BE CLEANED PRIOR TO DELIVERY OF STAINLESS STEEL FOOD SERVICE EQUIPMENT. CLEANING ACID WILL DAMAGE STAINLESS STEEL FINISHES.
20. ALL LIGHT FIXTURE TRIM RINGS, EXPOSED CONDUITS, J-BOXES, SPEAKER CEILING FINISHES, UNLESS NOTED OTHERWISE. GRILLES, AND HVAC GRILLES SHALL BE FINISHED TO MATCH ADJACENT SURFACE
21. REFER TO REFLECTED CEILING PLANS, INTERIOR ELEVATIONS, ENLARGED TOILET PLANS, AND FINISH SCHEDULE FOR MORE FINISH INFORMATION.
22. INSTALL 5/8" USG "DUR-ROCK" CONC. BACKER BOARD BEHIND S/S FLASHING & TILE AT COOKLINE WALL FROM FLOOR TO UNDERSIDE OF HOOD. INSTALL 5/8" MOISTURE RESISTANT GYP. BP. BEHIND HOOD.
23. ALL INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH FLAME SPREAD RATINGS.
24. PROVIDED FRACTURE MEMBRANE/SLIP SHEET @ ALL CONTROL/EXPANSION JOINTS TO ALLOW TILE TO BRIDGE.
25. WATER PROOFING OF FLOOR SHALL BE PER ARCHITECTURAL SPECIFICATIONS.
26. ALL GROUT MUST BE SEALED PER MANUFACTURER'S SPECIFICATIONS. SEALER NOT REQUIRED WHERE EPOXY GROUT IS USED.
27. INSTALL GROUT PER MANUFACTURER'S SPECIFICATIONS
28. FOR CLARIFICATION OF THRESHOLDS SEE DOOR SCHEDULE.
29. REFERENCE INTERIOR ELEVATONS FOR ALL WALL FINISHES.

KEYNOTES

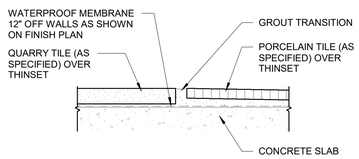
#	NOTE
117	WATERPROOFING MEMBRANE ALONG WALL UP TO 1'-0" CEMENTIOUS BOARD.
118	THRESHOLD SET IN BED OF MASTIC

FINISH ABBREVIATIONS

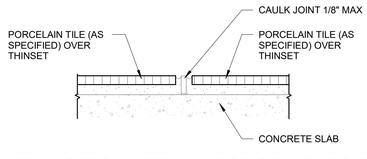
ACT	ACOUSTIC CEILING TILE
AL	ALUMINUM
AP	ACOUSTICAL PANEL
ACR	ACRYLIC PANEL
APF	PANEL FABRIC - ACOUSTIC
CF	CORK FLOORING
CPT	CARPET
CT	CERAMIC TILE
EP	EPOXY PAINT
FRP	FIBER REINFORCED PLASTIC
GL	GLASS
GT	GLASS TILE
LF	LINOLEUM FLOORING
LVT	LUXURY VINYL TILE
MB	MARKER BOARD
P	PAINT
PF	PANEL FABRIC
PL	PLASTIC LAMINATE
PT	PORCELAIN TILE
QT	QUARRY TILE
RB	RUBBER BASE
RB	RUBBER FLOOR & STAIR TREAD/RISER
RF	RUBBER FLOORING
RS	RESINOUS FLOORING
RTR	RUBBER TREAD, RISER & LANDING TILE
SC	SEALED CONCRETE
SS	SOLID SURFACE
ST	STAIN
STS	STAINLESS STEEL
TF	TERAZZO FLOORING
TP	TOILET PARTITION
TR	TRANSITION STRIP
UP	UPHOLSTERY
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VF	VINYL FLOORING
WC	WALLCOVERING
WD	WOOD
WT	WINDOW TREATMENT
WW	WOOD VENEER

NOTE:
1. FLAME AND SMOKE DEVELOPMENT RATINGS OF INTERIOR FINISH MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 8 OF THE 2012 IBC.
2. ALL CURTAINS, DRAPERIES, HANGINGS AND OTHER DECORATIVE MATERIALS SUSPENDED FROM WALLS OR CEILING SHALL BE NONCOMBUSTIBLE OR FLAME RESISTANT IN ACCORDANCE WITH SECTION 806.1.2 OF THE 2012 IBC AND NFPA 701. THE PERMISSIBLE AMOUNT OF NONCOMBUSTIBLE DECORATIVE MATERIALS SHALL NOT BE LIMITED. THE PERMISSIBLE AMOUNT OF FLAME-RESISTANT DECORATIVE MATERIALS SHALL NOT EXCEED 10 PERCENT OF THE AGGREGATE AREA OF WALLS AND CEILINGS.

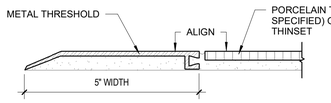
TRANSITION DETAILS



N1 TRANSITION DETAIL - PORCELAIN TO QUARRY
1 1/2" = 1'-0"



P1 TRANSITION DETAIL - PORCELAIN TO PORCELAIN
1 1/2" = 1'-0"



S1 TRANSITION DETAIL - PORCELAIN TO EXTERIOR
1 1/2" = 1'-0"

FINISH SPECIFICATIONS

T-1 DESC: CERAMIC WALL TILE
MANUF: DALTILE
LINE/SERIES: RITTENHOUSE SQUARE
COLOR: K101(2): WHITE
FINISH: GLOSSY
SIZE: 3" X 6"
REMARKS/USE: RESTROOM WALL TILE
CONTACT: LYNN MILLS
lynn.mills@daltile.com
(312) 467-0642

T-2 DESC: CERAMIC WALL TILE
MANUF: TRANSCERAMICA
LINE/SERIES: AURA
COLOR: BREEZE
FINISH: GLOSSY #754944
SIZE: 4" X 12"
REMARKS/USE: FOH KITCHEN
CONTACT: NOREEN SHERTLER
ns@transceramica.com
(312) 342-4689

MB-1 DESC: KITCHEN COVE BASE
MANUF: MARLITE
LINE/SERIES: M350
COLOR: BLACK
FINISH:
SIZE: 6" X X"
REMARKS/USE: KITCHEN COVE BASE
CONTACT:

PT-5 DESC: EXTERIOR PAINT
MANUF: SHERWIN WILLIAMS
LINE/SERIES:
COLOR: TRICORN BLACK 6258
FINISH:
SIZE:

PT-1 DESC: INTERIOR PAINT
MANUF: BENJAMIN MOORE
LINE/SERIES:
COLOR: CC-518 ESCARPMENT
FINISH: EGGSHELL
SIZE:
REMARKS/USE: DINING CEILING
CONTACT: JASON WALKER
jason.walker@benjaminmoore.com
(773) 597-8698

PT-2 DESC: INTERIOR PAINT
MANUF: BENJAMIN MOORE
LINE/SERIES:
COLOR: OC-27 BALBOA MIST
FINISH: EGGSHELL
SIZE:
REMARKS/USE: DINING WALL
CONTACT: JASON WALKER
jason.walker@benjaminmoore.com
(773) 597-8698

PT-3 DESC: INTERIOR PAINT
MANUF: BENJAMIN MOORE
LINE/SERIES:
COLOR: SNOWFALL WHITE
FINISH: EGGSHELL
SIZE:
REMARKS/USE: BOH
CONTACT: JASON WALKER
jason.walker@benjaminmoore.com
(773) 597-8698

PT-4 DESC: INTERIOR PAINT
MANUF: BENJAMIN MOORE
LINE/SERIES:
COLOR: SNOWFALL WHITE
FINISH: FLAT
SIZE:
REMARKS/USE: RESTROOM CEILING
CONTACT: JASON WALKER
jason.walker@benjaminmoore.com
(773) 597-8698

WD-1 DESC: RECLAIMED WOOD
MANUF:
LINE/SERIES:
COLOR:
FINISH:
SIZE:
REMARKS/USE: BY MILLWORKER
CONTACT:

WD-2 DESC: EXT. WOOD FINISH
COLOR: PAINT WHITED BLACK
SIZE: SEE WALL SECTIONS
REMARKS/USE:

WD-3 DESC: EXT. WOOD FINISH
COLOR: PAINTED WHITE
SIZE: SEE EXT. ELEVATIONS
REMARKS/USE:

WB-1 DESC: WOOD BASE
COLOR: S-1
SIZE: 4" BASE, TYP.
REMARKS/USE: BY MILLWORKER

TB-1 DESC: TILE WALL BASE
MANUF: DALTILE
LINE/SERIES: RITTENHOUSE SQUARE
COLOR: WHITE
FINISH: SEMI-GLOSSY
SIZE: COVE BASE 3" X 6"
REMARKS/USE: RESTROOM
CONTACT: DALTILE LYNN MILLS
lynn.mills@daltile.com
(312) 467-0642

C-1 DESC: INTEGRAL STAINED CONCRETE
MANUF: SCOFIELD
LINE/SERIES: CHROMIX
COLOR: C-27 WESTWOOD BROWN
FINISH:
SIZE:
REMARKS/USE: OR APPROVED EQUAL; FLAT TROWEL FINISH, FLUID-APPLIED, SEMI-GLOSS SEALANT

F-1 DESC: UPHOLSTERY
MANUF: MAYER FABRICS
LINE/SERIES: FLORENTINA
COLOR: SLATE
REMARKS/USE: BOOTH BACK/SEAT

SC-1 DESC: SOLID SURFACE COUNTERTOP
MANUF: WILSONART
LINE/SERIES: HOT STONE
COLOR: 9201GS
REMARKS/USE: COUNTERTOP
CONTACT: SANDY SMITH
sandysmith@di-2.com
(847) 274-5420

SC-2 DESC: SOLID SURFACE COUNTERTOP
MANUF: WILSONART
LINE/SERIES: ARCTIC DUNE
COLOR: 9253CM
REMARKS/USE: RESTROOM COUNTERTOP
CONTACT: SANDY SMITH
sandysmith@di-2.com
(847) 274-5420

BR-1 DESC: BRICK VENEER
MANUF: ENDICOTT BRICK
LINE/SERIES: MODULAR FACE BRICK
COLOR: EXECUTIVE IRONSPOT
FINISH: VELOUR
SIZE: STANDARD BRICK SIZE
REMARKS/USE: SUBMIT MORTAR COLOR TO ARCHITECT FOR APPROVAL
CONTACT: MICHAEL HANLEY
MHANLEY@RICHARDSBRICK.COM

BR-2 DESC: FAUX BRICK
MANUF:
LINE/SERIES:
COLOR:
FINISH:
SIZE:
REMARKS/USE: BY MILLWORKER
CONTACT:

SS-1 DESC: STAINLESS STEEL WALL PANELS & CORNERGUARDS
MANUF: SERVCO EQUIPMENT COMPANY
COLOR:
FINISH:
SIZE:
REMARKS/USE: BY MILLWORKER
CONTACT:

ACT-1 DESC: CEILING PANELS
MANUF: ARMSTRONG
LINE/SERIES: CALLA
COLOR: STONE (SE)
FINISH: -
SIZE: 24" X 24"
REMARKS/USE: FOH; SQUARE LAY-IN
CONTACT: BRETT LINDENMEYER
balindenmeyer@armstrongceilings.com
(618) 830-5462

ACT-2 DESC: CEILING PANELS
MANUF: NATIONAL GYPSUM CO
LINE/SERIES: CLEANROOM GRIDSTONE
COLOR: WHITE
FINISH: GYP. CORE, VINYL LAM. FINISH
SIZE: 24" X 24"
REMARKS/USE: BOH
CONTACT: LOU GEORGETTA
slsifg@nationalgypsum.com
(847) 922-8307

S-1 DESC: STAIN
MANUF: MINIWAX
COLOR: DARK WALNUT
REMARKS/USE: SUBMIT TO COMPARE TO ARCHITECTS' SAMPLE

SB-1 DESC: STONE BASE
MANUF: OLDCASTLE ARCHITECTURAL
LINE: CORDOVA STONE MASONRY UNITS
COLOR: LIMESTONE
FINISH: GROUNDFACE
SIZE: 16"X16"
REMARKS: CAP WITH SILL BLOCK

FRP-1 DESC: FIBER REINFORCED PANEL
MANUF: MARLITE
LINE/SERIES: STANDARD
COLOR: WHITE
FINISH: SMOOTH
SIZE:
REMARKS/USE: BOH
CONTACT: KAREN KANE
kkane@marlite.com
(815) 260-7617

STO-1 DESC: STUCCO FINISH
MANUF: MENARDS - COORD. W/ OWNER
LINE/SERIES:
COLOR: SHERWIN WILLIAMS SW 7647
FINISH: RAKED - VERTICAL OR HORIZONTAL
SIZE: CUSTOM
REMARKS/USE: COORDINATE RAKED FINISH WITH ARCHITECT

STO-2 DESC: STUCCO FINISH
MANUF: MENARDS - COORD. W/ OWNER
LINE/SERIES:
COLOR: SHERWIN WILLIAMS SW 7075 WEB
FINISH: FINE BRUSHED
SIZE:
REMARKS/USE:
CONTACT:

LAM-1 DESC: HIGH PRESSURE LAMINATE
MANUF: DECOTONE
LINE/SERIES:
COLOR: DISTRESSED STEEL
FINISH:
SIZE:
REMARKS/USE:
CONTACT: JOHN UNDERHILL
john@decotonesurfaces.com
(908) 301-0800

LAM-2 DESC: HIGH PRESSURE LAMINATE
MANUF: CHEMETAL
LINE/SERIES:
COLOR: CORE ALUMINUM
FINISH:
SIZE:
REMARKS/USE:
CONTACT: YOUNGHI KIM
ykim@parkwoodchicago.com
(847) 577-8001

LAM-3 DESC: HIGH PRESSURE LAMINATE
MANUF: LAB DESIGNS
LINE/SERIES:
COLOR: ETERNIT WALNUT
FINISH:
SIZE:
REMARKS/USE:
CONTACT: YOUNGHI KIM
ykim@parkwoodchicago.com
(847) 577-8001

BM-1 DESC: BREAK METAL
MANUF: TO MATCH STOREFRONT
LINE/SERIES:
COLOR: PREFINISHED BLACK
FINISH:
SIZE:
REMARKS/USE: BY CONTRACTOR
CONTACT:

BM-2 DESC: PREFIN. SHEET MTL. CAP FLASHING
MANUF: TBD
LINE/SERIES:
COLOR: PREFINISHED BLACK
FINISH: NON-CORROSIVE
SIZE: SEE WALL SECTIONS
REMARKS/USE: BY CONTRACTOR
CONTACT:

BM-3 DESC: BREAK METAL FASCIA
MANUF: TBD
LINE/SERIES:
COLOR: PREFINISHED WHITE
FINISH: NON-CORROSIVE
SIZE: SEE WALL SECTIONS
REMARKS/USE: BY CONTRACTOR
CONTACT:

BM-4 DESC: MANF. METAL AT CANOPY
MANUF: LAWRANCE FABRIC STRUCTURES
LINE/SERIES:
COLOR: PREFINISHED RED
FINISH: NON-CORROSIVE
SIZE: SEE EXTERIOR ELEVATIONS
REMARKS/USE:
CONTACT: MIKE BOWMAN
mikebowman@lawrencefabric.com
(636) 861-0100

BM-5 DESC: METAL DOWNSPOUT
MANUF: TBD
LINE/SERIES:
COLOR: PREFINISHED BLACK
FINISH: NON-CORROSIVE
SIZE: SEE EXTERIOR ELEVATIONS
REMARKS/USE: BY CONTRACTOR
CONTACT:

WS-1 DESC: SWIPLAP WOOD SIDING
MANUF: IDENTITY WOOD PRODUCTS, LLC
LINE/SERIES: SIDING SYSTEM
COLOR: BROWN
FINISH: PER MFR. STANDARD
SIZE: SEE EXTERIOR ELEVATIONS
REMARKS/USE: TOWER / DRIVE THRU
CONTACT: Andy Johansen
andy@awnexinc.com
(678) 438-9598

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	02/14//2020

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004014672
ARCHITECT
FEB 14 2020

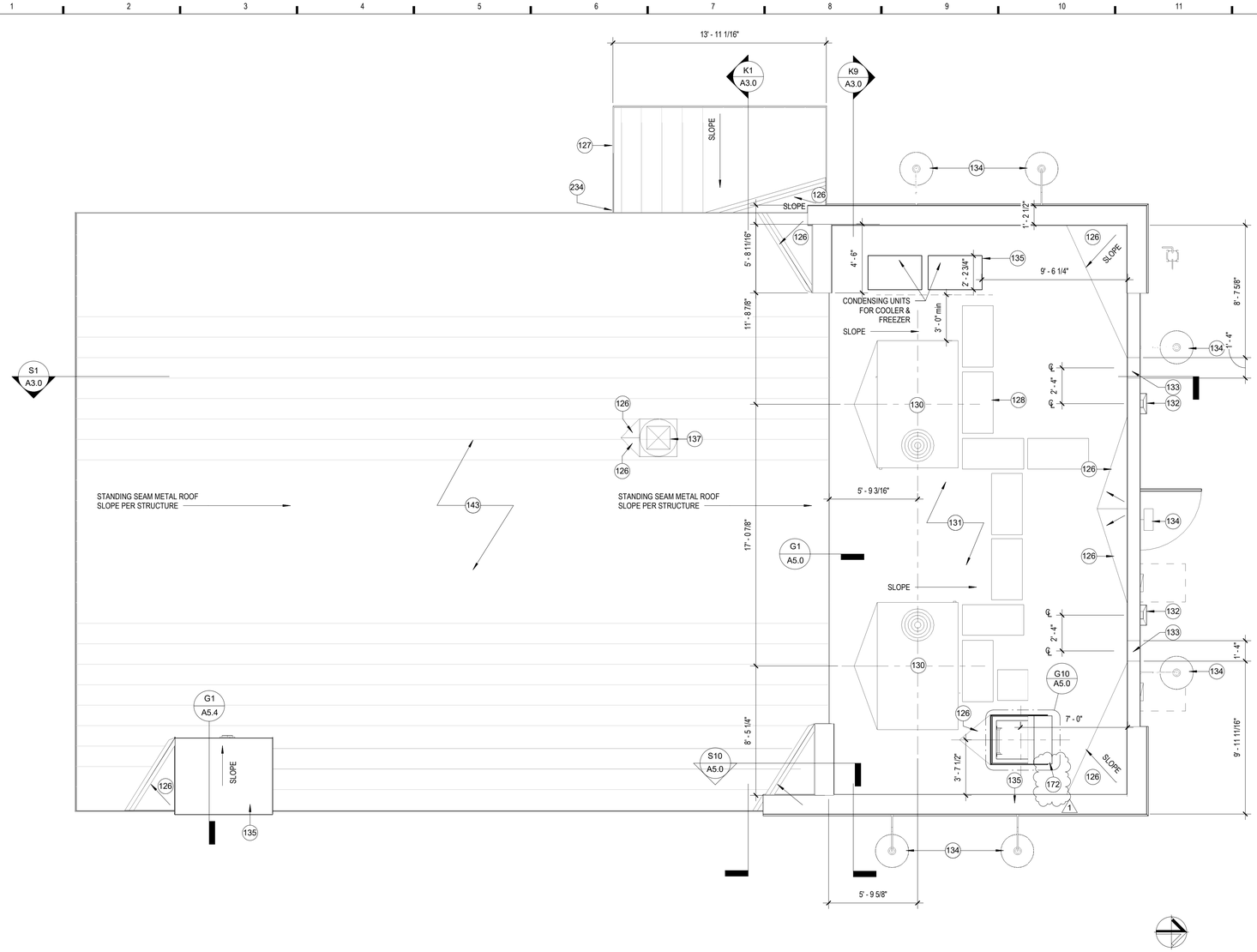
PERMIT SET

Client Approval

FLOOR FINISH PLAN

Project #	52119-MO02
Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

A1.2



L1 ROOF PLAN
1/4" = 1'-0"

SHEET NOTES

1. CRICKETS SHALL BE CONSTRUCTED OF RIGID INSULATION AS REQUIRED TO PROVIDE SLOPE OF 1/8" PER FOOT MIN.
2. PAINT ALL EXPOSED GAS PIPING ON ROOF BLACK (2 COATS).
3. ALL CONDENSATE LINES SHALL BE INSTALLED TO PROVIDE POSITIVE DRAINAGE. GENERAL CONTRACTOR SHALL PROVIDE BLOCKING AS REQUIRED TO ELIMINATE SAGGING.
4. OVERFLOW SCUPPERS SHALL BE 4" HIGH BY 16" WIDE AND SHALL BE INSTALLED WITH THEIR BOTTOM EDGE 2" ABOVE THE BOTTOM EDGE OF THE ROOF SURFACE.
5. HORIZONTAL ROOFING MEMBRANE(S) SHALL BE TAN.
6. WALK PAD MEMBRANES SHALL BE GRAY.
7. ARCHITECT OF RECORD (A.O.R) TO ENGINEER EQUIPMENT STANDS PER LOCAL WIND REQUIREMENTS.
8. EXHAUST FANS TO BE LOCATED A MINIMUM OF 10 FEET FROM THE ROOFTOP UNITS OUTSIDE AIR INTAKES. RE: MECHANICAL DRAWINGS.

KEYNOTES

#	NOTE
126	PROVIDED CRICKETS; MATCH ROOF FINISH
127	DRIVE THRU ROOF
128	MEMBRANE WALKWAY PADS. PROVIDE SLIP RESISTANT SURFACE - TYPICAL
130	RTU OR OTHER MECHANICAL ROOFTOP EQUIPMENT. GC TO VERIFY SCREENING IF REQ. WITH LOCAL CODE - RE: MECHANICAL FOR EXACT EQUIPMENT AND LAYOUT
131	SINGLE PLY TPO ROOFING, WALKWAY PADS & PARAPET WALL FLASHING SYSTEM TO BE "GAF" EVERGUARD TPO 60 MIL SINGLE PLY, FULLY ADHERED, ROOF SYSTEM OR EQUAL. ROOF SLOPE SHALL BE PER STRUCTURE; VERIFY MANUFACTURER'S MINIMUM SLOPE
132	24 GA., 16" X 6" GALVANIZED METAL BOX DOWNSPOUT AND 6" X 3" DOWNSPOUT WITH KYNAR FINISH RUN UNDER SIDEWALK AND DRAINED INTO PARKING LOT PER CIVIL. SEE EXTERIOR FINISH SCHEDULE FOR FINISH COLOR
133	24 GA., 16" X 8" GALVANIZED METAL BOX OVERFLOW SCUPPER PLACED 4" MIN. HIGHER THAN DOWNSPOUT.
134	EXTERIOR LIGHT FIXTURE (TYP.) VERIFY FIXTURE WITH OWNER. SEE ELEVATIONS AND ELECTRICAL FOR MORE INFORMATION.
135	PREMANUFACTURED 26 GA. SHEET METAL CAP FLASHING SYSTEM W/S.S. FASTENERS SPACED PER MANUF. - PREFINISHED KYNAR PAINT. SEE EXTERIOR ELEVATIONS
137	OVEN HOOD EXHAUST. LOCATE IN FIELD. PROVIDE ROOF CURB AS REQUIRED. SEE MECHANICAL FOR MORE INFORMATION
143	STANDING SEAM METAL ROOF WITH CONTINUOUS ROLL-FORMED SEAMS. ROOF SLOPE SHALL BE PER STRUCTURE; VERIFY MANUFACTURER'S MINIMUM SLOPE
172	GC TO INSTALL SAFETY GRAB BAR FOR ROOF HATCH, 11" W x 20" HIGH. mANUF: BEST MATERIALS, PRODUCT: SAFETY-GRAB-RM.
234	24 GA., 4" X 4" DOWNSPOUT WITH KYNAR FINISH RUN UNDER SIDEWALK AND DRAINED INTO PARKING LOT PER CIVIL.

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LIONS CHOICE - LEE'S SUMMIT
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1	City Comments	02/14//2020

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T KIRN
NUMBER 2008011672
ARCHITECT
FEB 14 2020

PERMIT SET

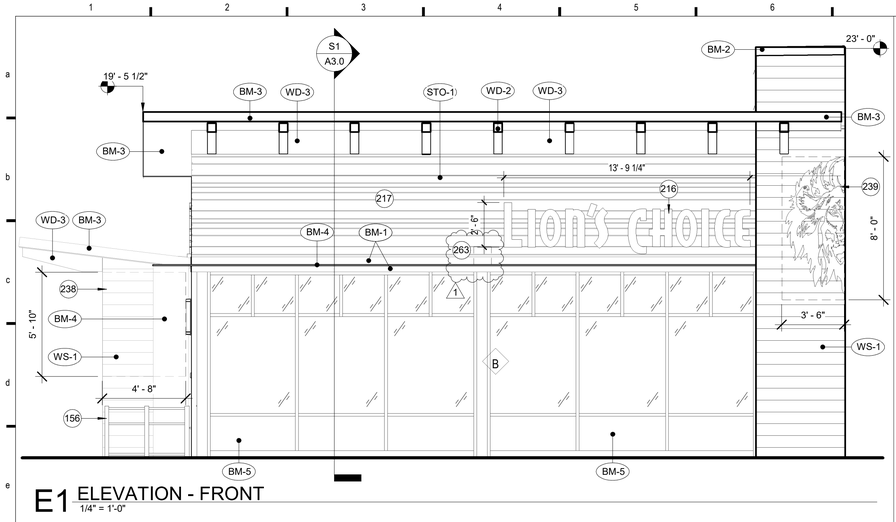
Client Approval

ROOF PLAN

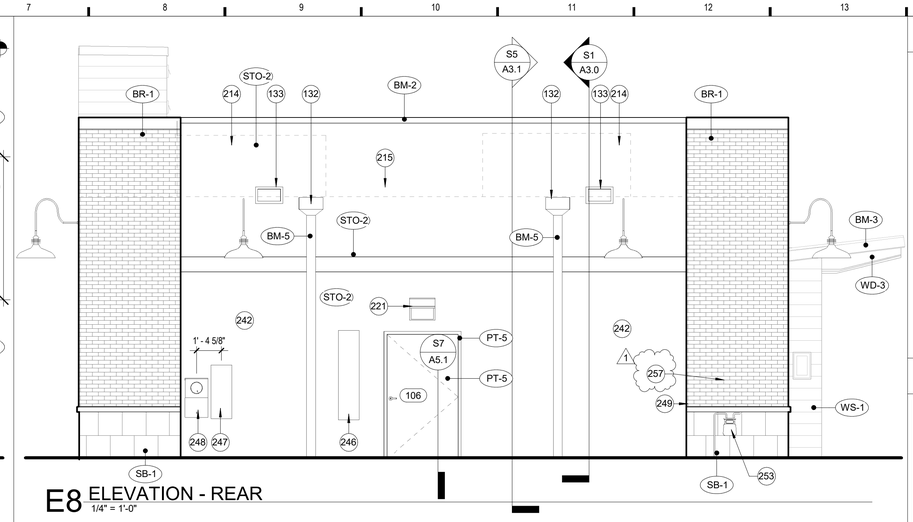
Project #	52119-MO02
Issue Date	12/10/2019
Scale	1/4" = 1'-0"
Drawn by	ZTM
Checked by	JMB

A1.3

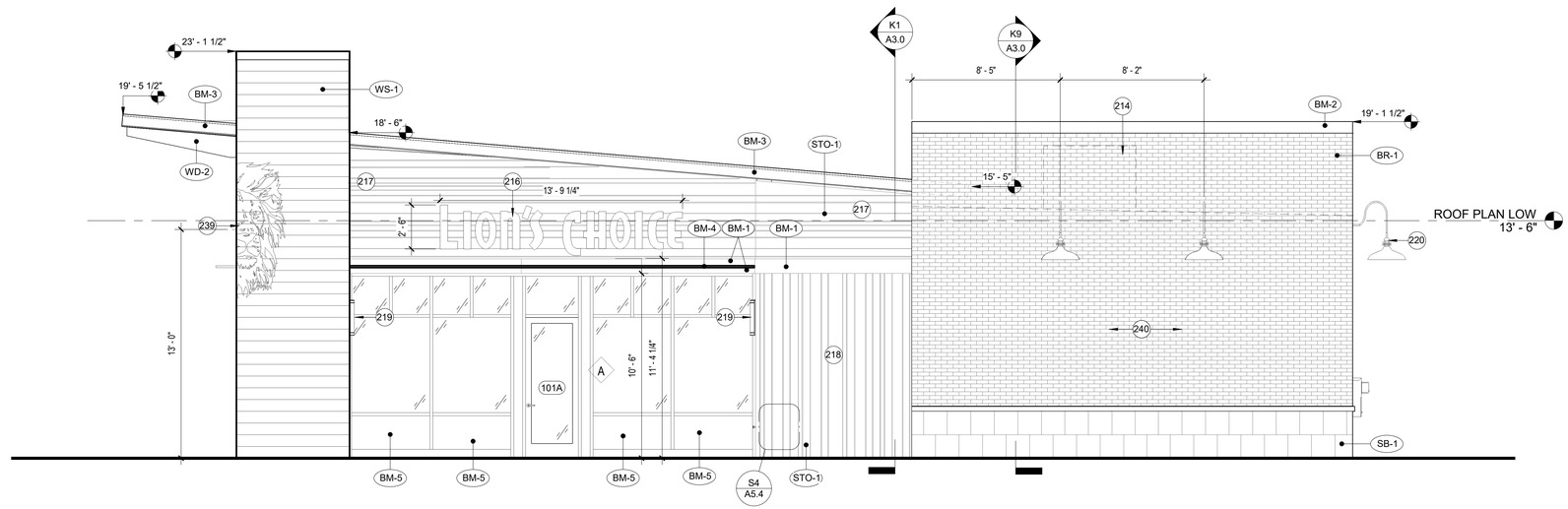
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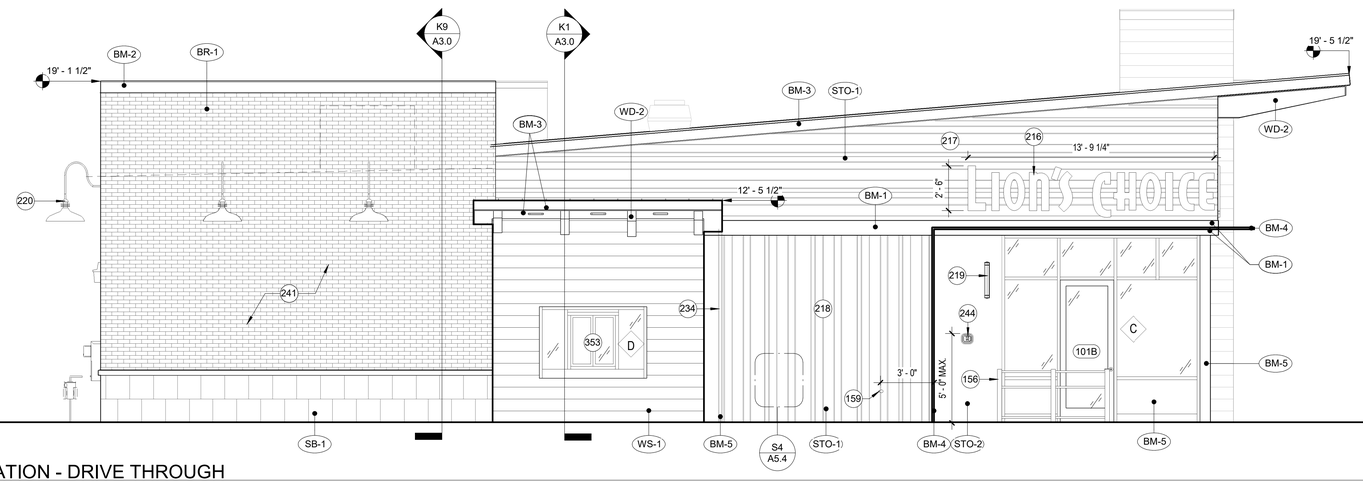
E1 ELEVATION - FRONT
1/4" = 1'-0"



E8 ELEVATION - REAR
1/4" = 1'-0"



L1 ELEVATION - MAIN ENTRY
1/4" = 1'-0"



S1 ELEVATION - DRIVE THROUGH
1/4" = 1'-0"

SHEET NOTES

1. CONTRACTOR TO COORDINATE REQUIRED INSTALLATION OF ALL BLOCKING FOR (NOT LIMITED TO) ALL FIXTURES, EQUIP, OR SIGNAGE.
2. ALL SIGNAGE AND SIGNAGE PERMITTING BY SIGNAGE VENDOR.

KEYNOTES

#	NOTE
132	24 GA., 16" X 6" GALVANIZED METAL BOX DOWNSPOUT AND 6' X 3" DOWNSPOUT WITH KYNAR FINISH RUN UNDER SIDEWALK AND DRAINED INTO PARKING LOT PER CIVIL. SEE EXTERIOR FINISH SCHEDULE FOR FINISH COLOR
133	24 GA., 16" X 8" GALVANIZED METAL BOX OVERFLOW SCUPPER PLACED 4" MIN. HIGHER THAN DOWNSPOUT.
156	36" H. PREMANUFACTURED BLACK ALUMINUM RAILING. REF CIVIL.
159	EXTERIOR HOSE BIB. REFERENCE PLUMBING DRAWINGS
214	LINE OF ROOF TOP UNIT BEYOND
215	ROOF LINE BEYOND
216	EXTERIOR SIGNAGE UNDER SEPARATE PERMIT BY OTHERS, SEE ELEC. DWGS.
217	HORIZONTAL RAKED STUCCO
218	VERTICAL RAKED STUCCO
219	WALL SCONCE, MOUNT AT 7'-0" A.F.F. TO B.O. FIXTURE
220	EXTERIOR LIGHT FIXTURE (TYP.) MOUNT AT 13'-3" A.F.F. TO B.O. FIXTURE
221	EXTERIOR WALL PACK W/ BACKUP POWER, MOUNT AT 9'-0" A.F.F.
234	24 GA., 4" X 4" DOWNSPOUT WITH KYNAR FINISH RUN UNDER SIDEWALK AND DRAINED INTO PARKING LOT PER CIVIL.
238	DRIVE THROUGH GRAPHIC, BY OWNER
239	POWDER COATED METAL LION LOGO W/ CENTER CREASE, BY OWNER
240	FAMOUS ROAST BEEF GRAPHIC, BY OWNER
241	LION HEAD LOGO GRAPHIC, BY OWNER
242	L.C. LOGO GRAPHIC, BY OWNER
244	KNOX BOX - MOUNT @ 5'-0" MAX. A.F.F. TO TOP OF BOX.
246	MAIN DISTRIBUTION PANEL. REFERENCE ELECTRICAL DRAWINGS
247	CT CABINET. REFERENCE ELECTRICAL DRAWINGS.
248	ELECTRICAL METER. REFERENCE ELECTRICAL DRAWINGS
249	RETURN BRICK.
253	GAS METER. REFERENCE PLUMBING DRAWINGS.
257	PAINT GAS LINE TO MATCH ADJACENT SURFACE.
263	PATIO SPEAKER. REFERENCE ELECTRICAL DRAWINGS
353	DRIVE-THRU WINDOW READY ACCESS 606-72. REF SPECS

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LIONS CHOICE - LEE'S SUMMIT

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1	City Comments	02/14/2020

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Missouri Architect in responsible Charge - Ronald Melvin Rein AR-5489.

STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004011672
ARCHITECT
FEB 14 2020

PERMIT SET

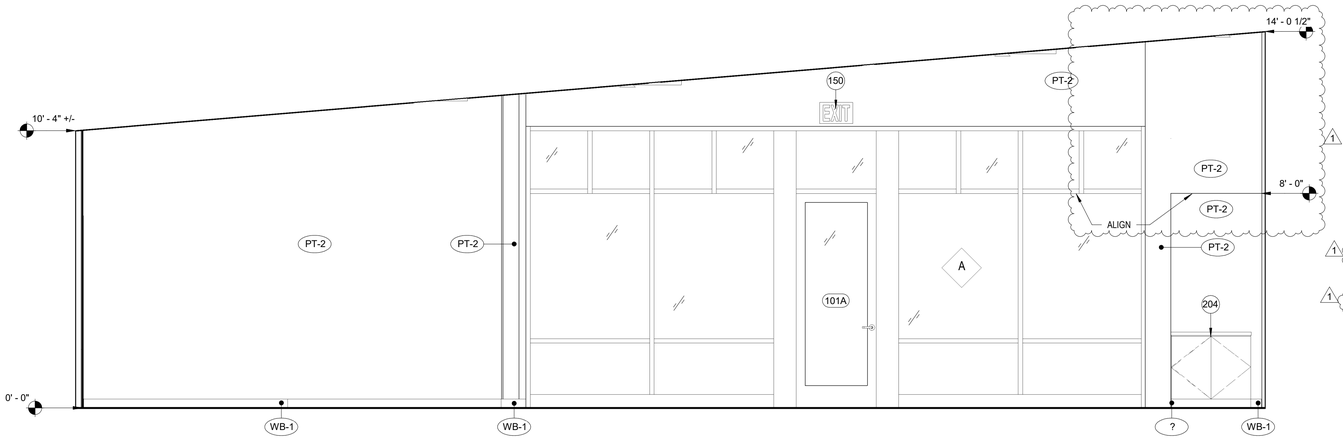
Client Approval

EXTERIOR ELEVATIONS

Project #	52119-MO02
Issue Date	12/10/2019
Scale	1/4" = 1'-0"
Drawn by	ZTM
Checked by	JMB

A2.0

2/14/2020 2:37:43 PM LIONS CHOICE - LEE'S SUMMIT



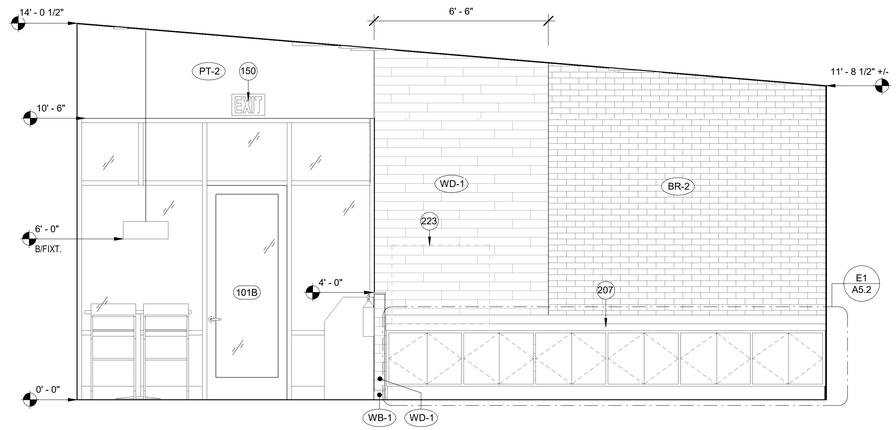
F4 ENTRY STOREFRONT ELEVATION
3/8" = 1'-0"

SHEET NOTES

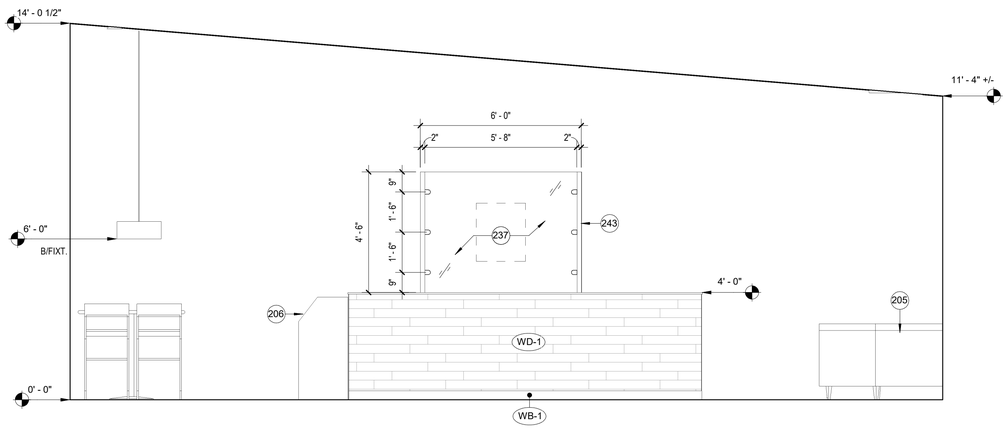
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KEYNOTES

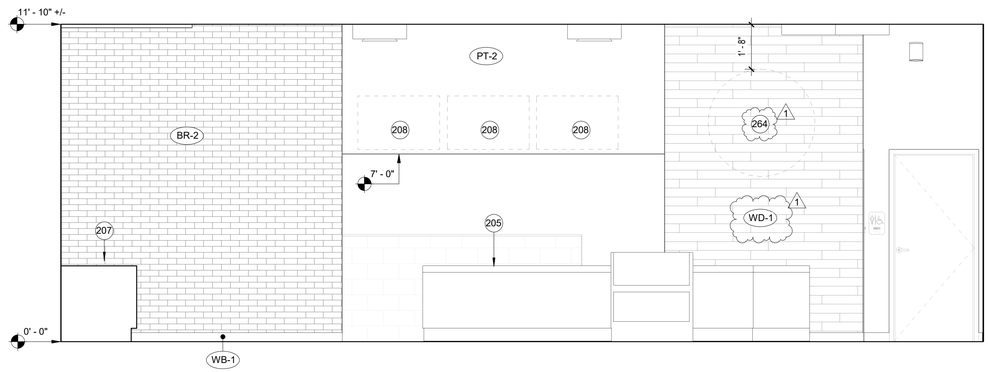
#	NOTE
150	CONTRACTOR TO COORDINATE INTERIOR EMERGENCY LIGHTING WITH 90 MINUTE BATTERY BACKUP WITH FIRE DEPT AND CITY AS REQUIRED.
204	BASE CABINET & COUNTERTOP; REF. MILLWORK DETAILS
205	FRONT COUNTER; REF. MILLWORK DETAILS
206	TRASH COUNTER; REF. MILLWORK DETAILS
207	BEVERAGE COUNTER; REF. MILLWORK DETAILS
208	MENU BOARDS, INSTALL OUTLETS 8" MIN ABOVE BOTTOM OF SOFFIT. REF. ELECTRICAL DRAWINGS.
223	EQUIPMENT SHOWN DASHED, SEE KEC DWGS.
237	GC TO INSTALL BLACK VINYL LION DECAL OVER SOLYX® LIGHT DIFFUSING WINDOW FILM ON GLASS PANE. GC TO COORDINATE WITH OWNER FOR GRAPHIC
243	PREMANUFACTURED WINDBREAKER SCREEN; INSTALL PER MFR. INSTRUCTIONS. PAINT TO MATCH STOREFRONT MULLIONS.
264	48" Ø LION HEAD SIGN BY OTHERS, GC TO INSTALL TOP OF SIGN 20" BELOW CEILING.



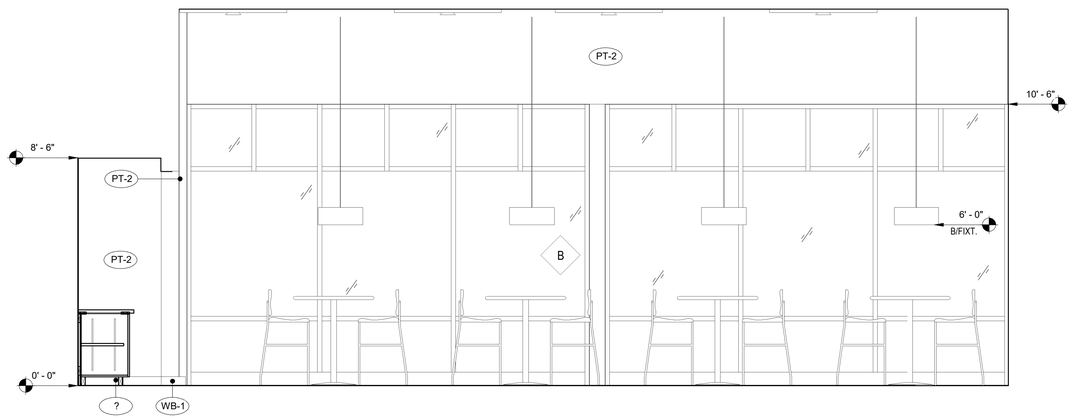
L1 BEVERAGE COUNTER ELEVATION
3/8" = 1'-0"



L9 ENTRY PARTITION ELEVATION
3/8" = 1'-0"



S1 ORDER COUNTER ELEVATION
3/8" = 1'-0"



S9 INTERIOR DINING ELEVATION
3/8" = 1'-0"

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER 2004041672
ARCHITECT
FEB 14 2020

PERMIT SET

Client Approval

INTERIOR ELEVATIONS

Project #	52119-MO02
Issue Date	12/10/2019
Scale	3/8" = 1'-0"
Drawn by	ZTM
Checked by	JMB

A2.1

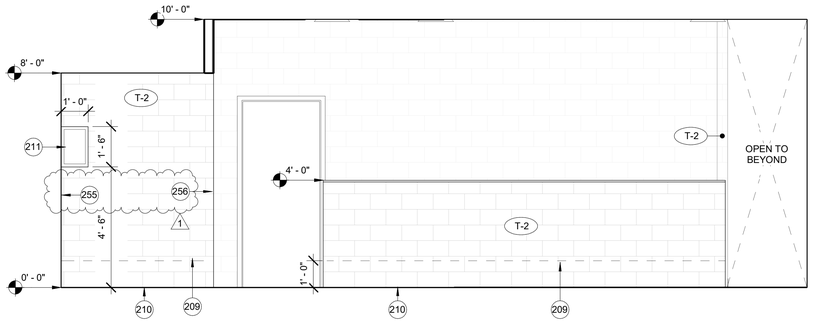
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SHEET NOTES

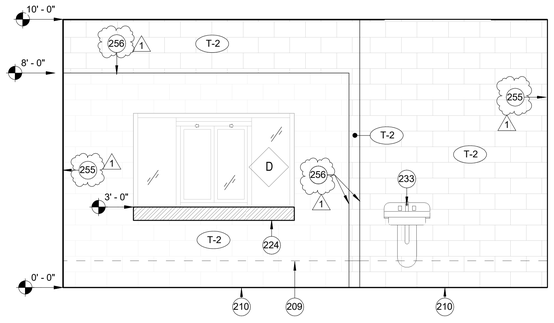
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KEYNOTES

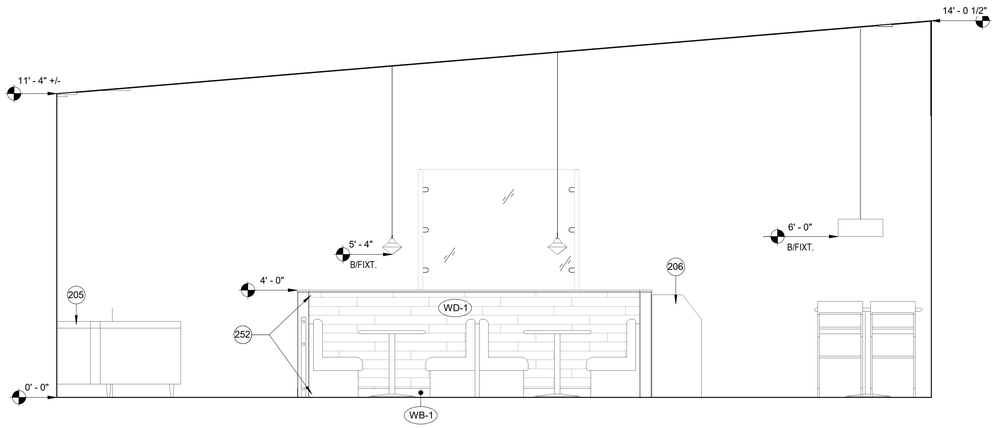
#	NOTE
205	FRONT COUNTER; REF. MILLWORK DETAILS
206	TRASH COUNTER; REF. MILLWORK DETAILS
207	BEVERAGE COUNTER; REF. MILLWORK DETAILS
209	CEMENTITIOUS BOARD
210	SCHLUTER STRIP (DILEX-AHKA) AT HORIZONTAL KITCHEN TILE BASE
211	FIXED WINDOW FOR DRIVE THRU VIEW
224	18 GA. STAINLESS STEEL SILL
233	HAND SINK; REF. PLUMB. DWGS.
252	MILLWORK VENDOR TO INSTALL BASE AND TRIM AFTER BOOTH INSTALL, TYP.
255	SCHLUTER STRIP (DILEX-EHK) AT VERTICAL INSIDE CORNERS OF KITCHEN TILE
256	SCHLUTER STRIP (RONDEC) AT VERTICAL OUTSIDE CORNERS OF KITCHEN TILE



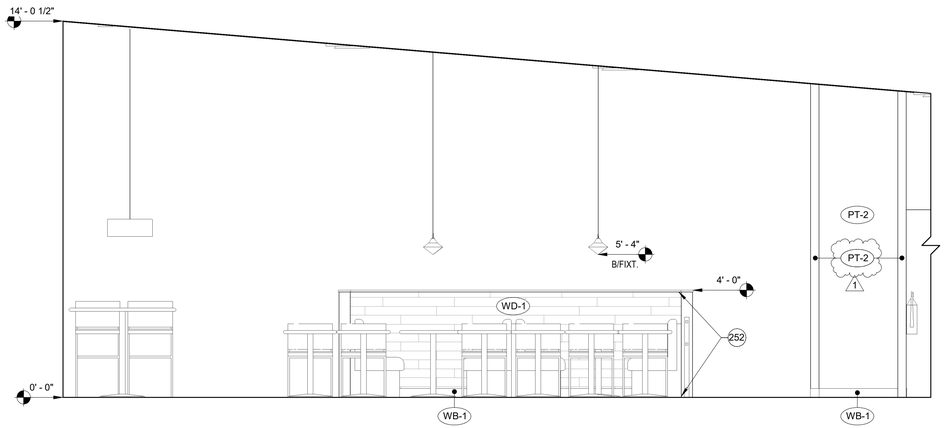
F1 KITCHEN LOW WALL ELEVATION
3/8" = 1'-0"



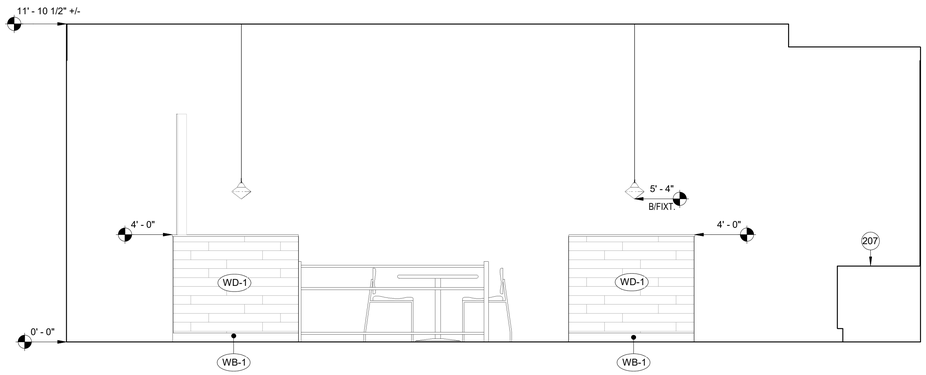
F8 DRIVE THRU ELEVATION
3/8" = 1'-0"



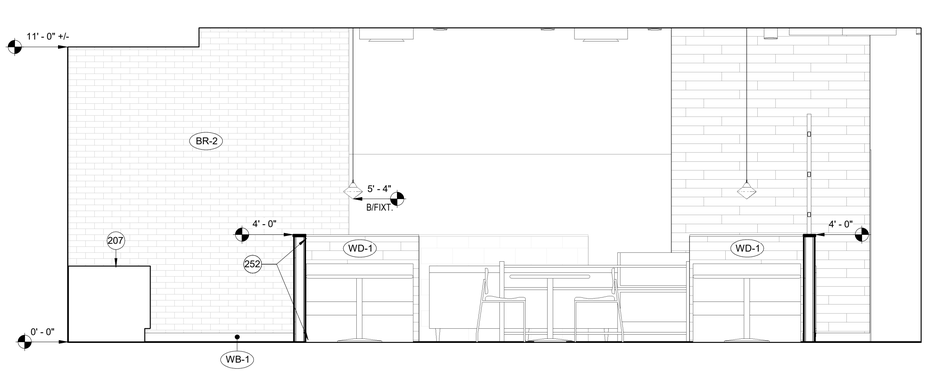
L1 BOOTH PARTITION ELEVATION 1
3/8" = 1'-0"



L9 BOOTH PARTITION ELEVATION 2
3/8" = 1'-0"



S1 DINING ROOM PARTITION
3/8" = 1'-0"



S9 DINING LOW WALL
3/8" = 1'-0"

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STATE OF MISSOURI
RONALD MELVIN REIM
NUMBER 2004011672
ARCHITECT
FEB 14 2020

PERMIT SET

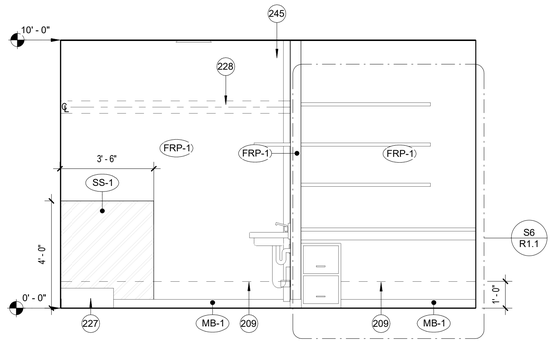
Client Approval

INTERIOR ELEVATIONS

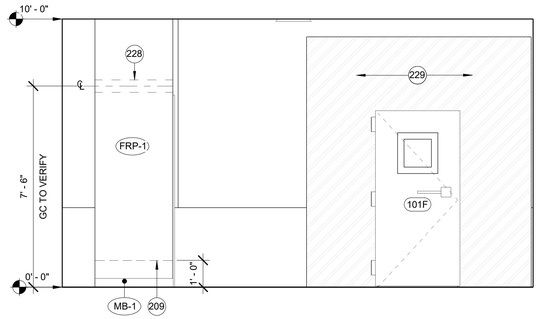
Project #	52119-MO02
Issue Date	12/10/2019
Scale	3/8" = 1'-0"
Drawn by	ZTM
Checked by	JMB

A2.2

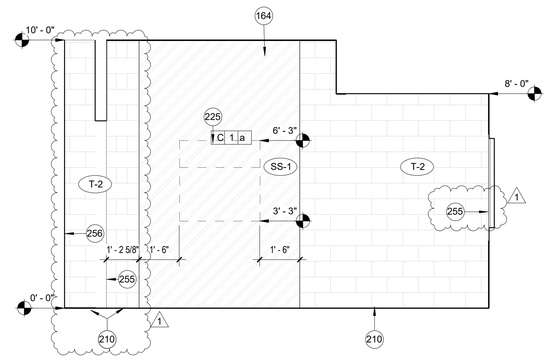
2/14/2020 2:37:53 PM LIONS CHOICE - LEE'S SUMMIT



F1 BOH ELEVATION
3/8" = 1'-0"



F5 BOH ELEVATION
3/8" = 1'-0"



F10 DRIVE THRU ELEVATION
3/8" = 1'-0"

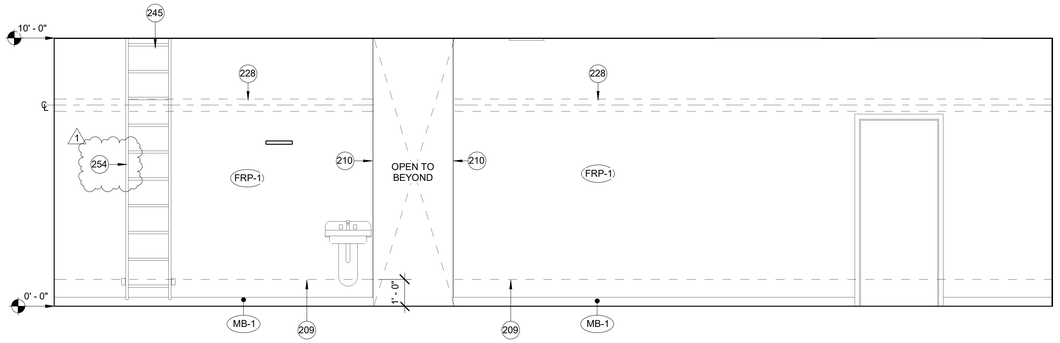
SHEET NOTES

1. CONTRACTOR TO COORDINATE REQUIRED INSTALLATION OF ALL BLOCKING FOR (NOT LIMITED TO) ALL FIXTURES, EQUIP, OR SIGNAGE.
2. GC TO ADD TRACTION TAPE IN WALK-IN COOLER.

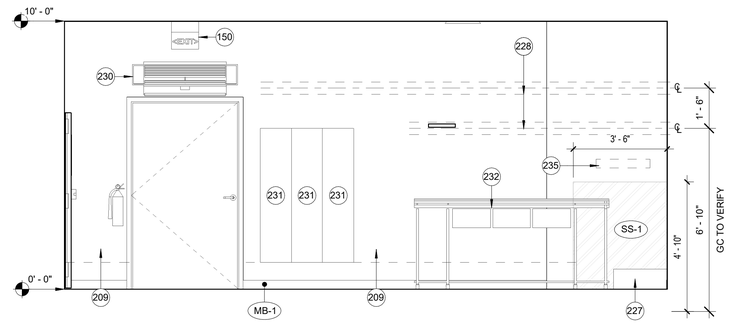
KEYNOTES

#	NOTE
150	CONTRACTOR TO COORDINATE INTERIOR EMERGENCY LIGHTING WITH 90 MINUTE BATTERY BACKUP WITH FIRE DEPT AND CITY AS REQUIRED.
164	ALL MATERIALS WITHIN 18" OF HOOD TO BE NON COMBUSTABLE.
209	CEMENTITIOUS BOARD
210	SCHLUTER STRIP (DILEX-AHKA) AT HORIZONTAL KITCHEN TILE BASE
225	EXHAUST HOOD; REF. MECH. DWGS.
227	MOP SINK, SEE DETAIL ON SHEET A1.1
228	CL 2X6 BLOCKING FOR SHELVING TYPICAL THROUGHOUT KITCHEN
229	COOLER; RE: KITCHEN DWGS.
230	AIR CURTAIN; RE: MECHANICAL PROVIDE BLOCKING & ELECTRICAL AS REQUIRED
231	ELEC. PANELS; SEE ELEC. DWGS.
232	3 COMP. SINK; REF. PLUMB. DWGS.
233	HAND SINK; REF. PLUMB. DWGS.
235	MOP RACK, COORDINATE WITH OWNER
245	INITERIOR ROOF LADDER. INSTALL PER MANUFACTURER SPECIFICATIONS. BLOCKING BEHIND AS REQUIRED.
254	PROVIDE SIDE RAIL EXTENDER @ ROOF HATCH LADDER. PER 2018 IMC 306.5.
255	SCHLUTER STRIP (DILEX-EHK) AT VERTICAL INSIDE CORNERS OF KITCHEN TILE
256	SCHLUTER STRIP (RONDEC) AT VERTICAL OUTSIDE CORNERS OF KITCHEN TILE

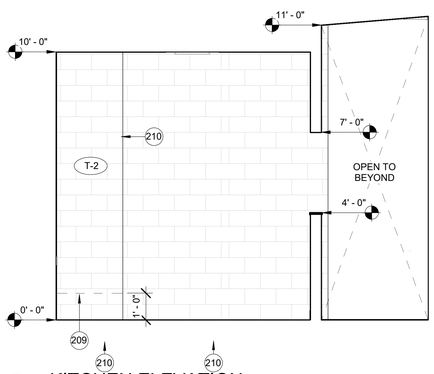
NOTE:
1. 1/2" PLYWOOD THROUGHOUT FULL HEIGHT WALL FOR SHELVING
2. STAINLESS STEEL WALL PANELS TO BE 18 GA. GRADE 304, BRUSHED #4 W/ MATTE FINISH



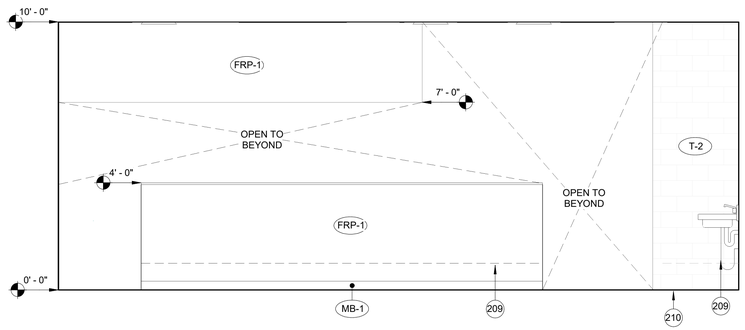
L1 BOH ELEVATION
3/8" = 1'-0"



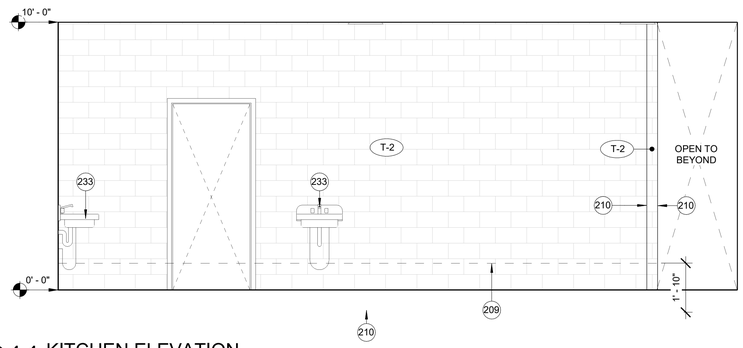
L10 BOH ELEVATION
3/8" = 1'-0"



S1 KITCHEN ELEVATION
3/8" = 1'-0"



S4 KITCHEN ELEVATION
3/8" = 1'-0"



S11 KITCHEN ELEVATION
3/8" = 1'-0"

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LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
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#	Description	Date
1	City Comments	02/14//2020

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004011672
ARCHITECT
FEB 14 2020

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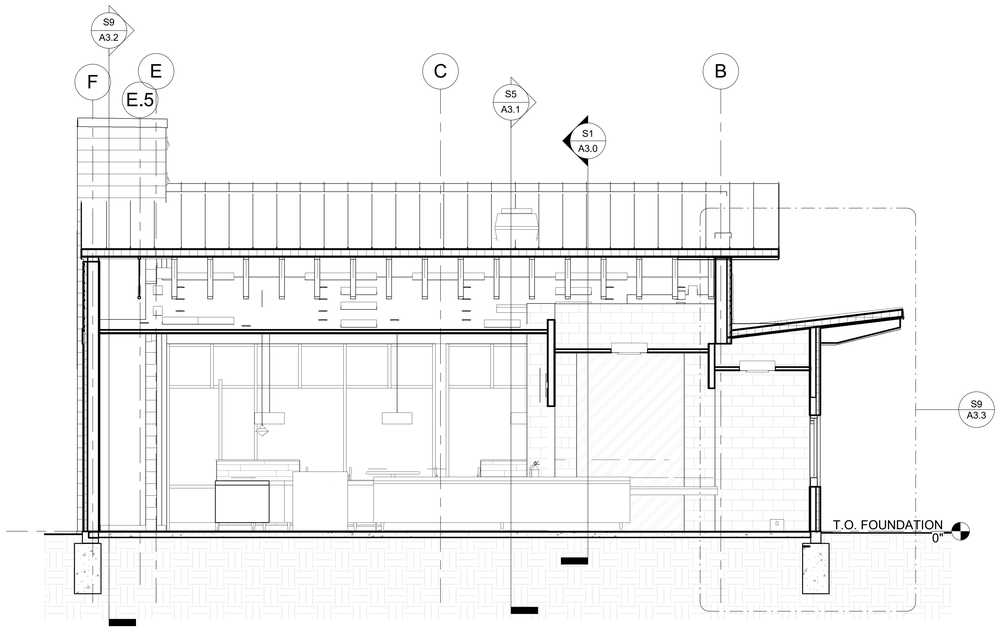
Client Approval

INTERIOR ELEVATIONS

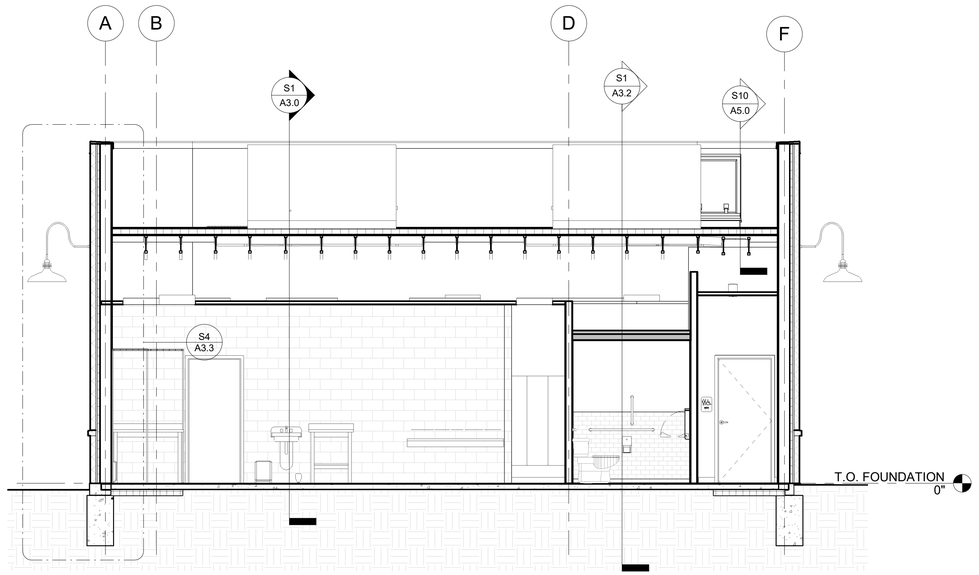
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Issue Date	12/10/2019
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Checked by	JMB

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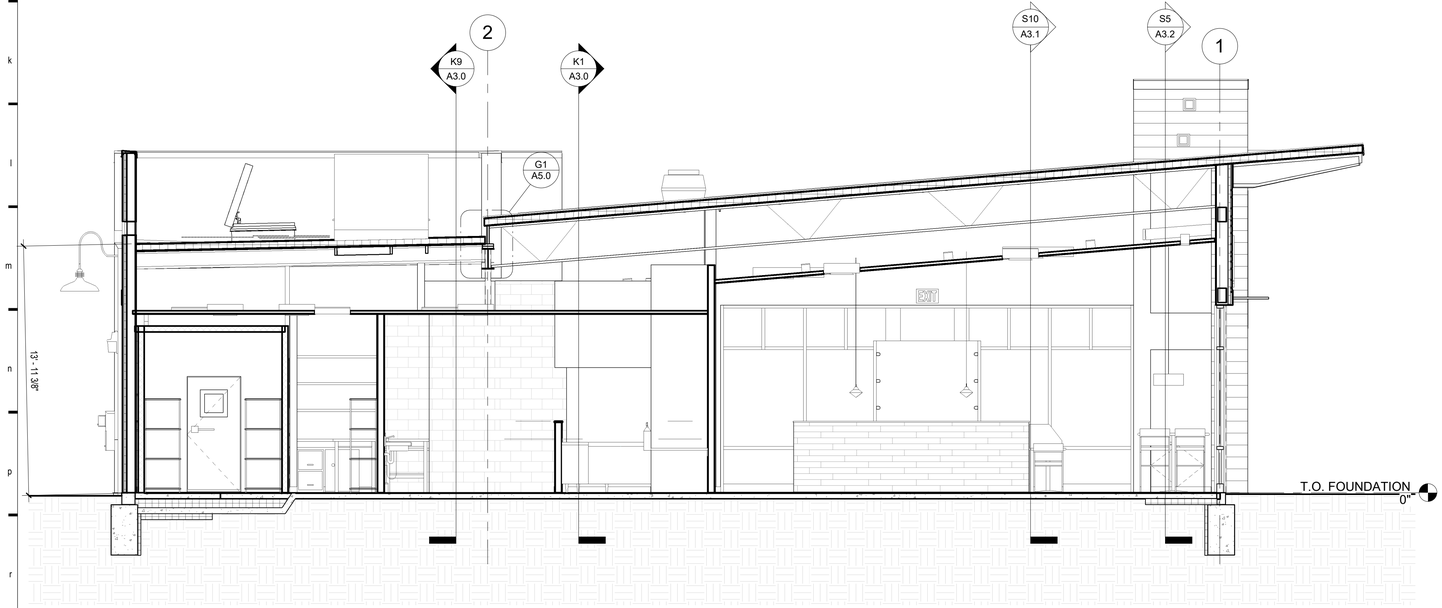
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K1 SECTION AT CORRIDOR/ORDER/DRIVE THRU
1/4" = 1'-0"



K9 SECTION AT RR/KITCHEN
1/4" = 1'-0"



S1 SECTION AT KTICHEN/ORDER/DINING
1/4" = 1'-0"

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STATE OF MISSOURI
RONALD M. REIM
NUMBER
2004011672
ARCHITECT
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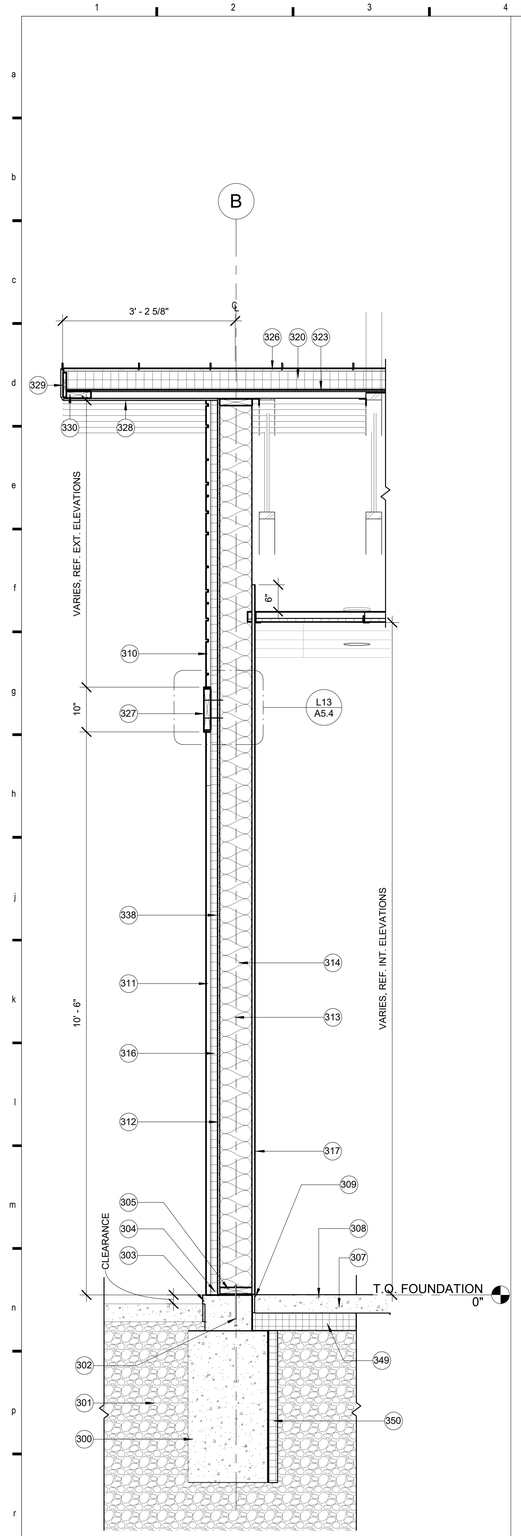
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BUILDING SECTIONS

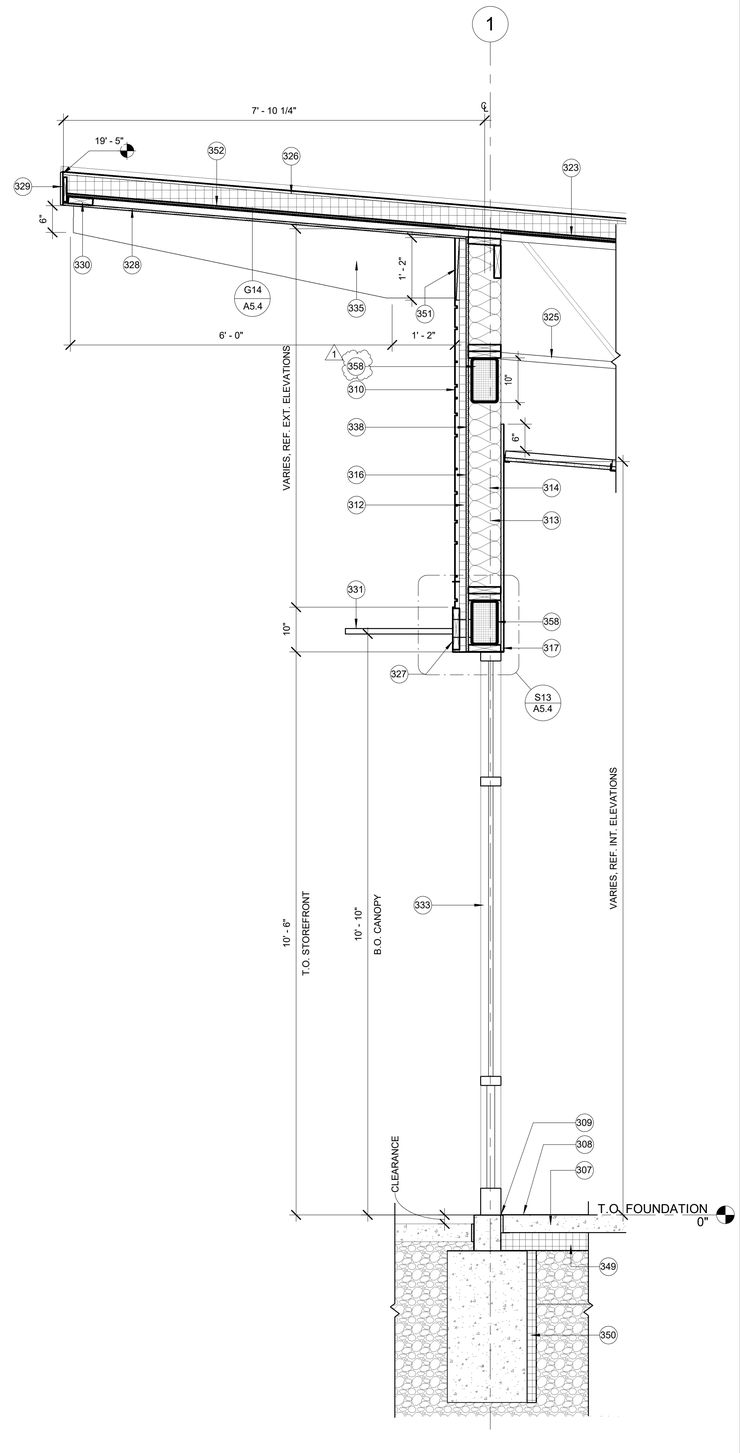
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Issue Date	12/10/2019
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Drawn by	ZTM
Checked by	JMB

A3.0

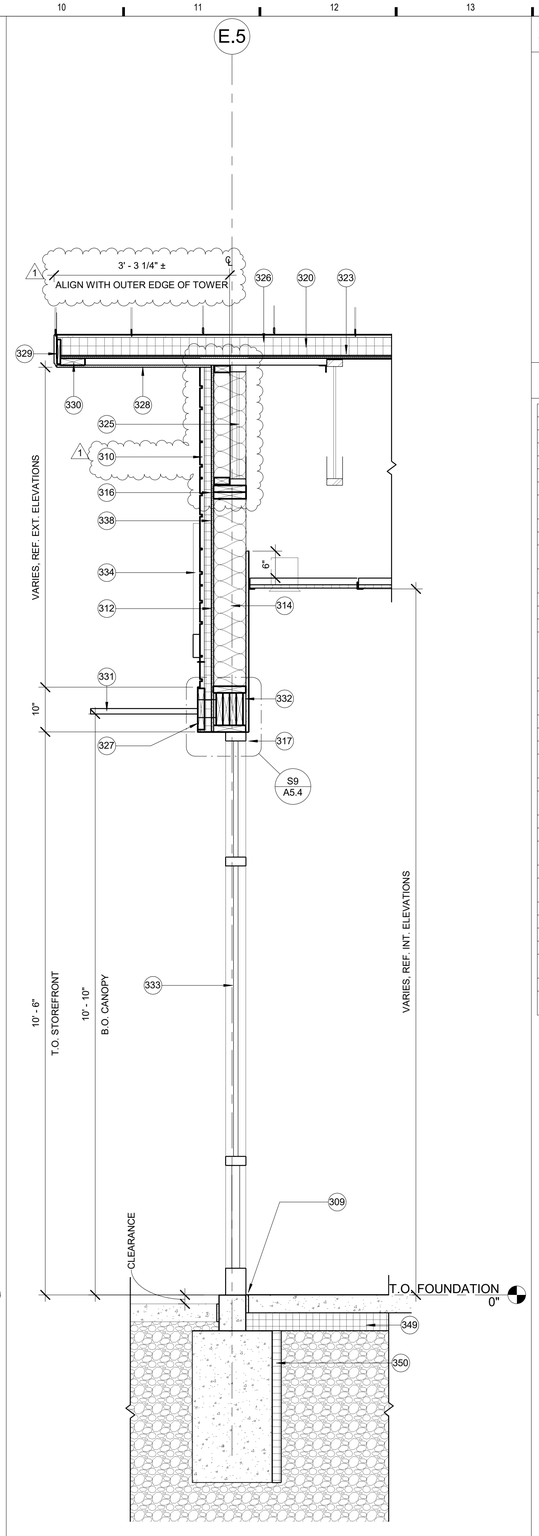
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S1 WALL SECTION AT WOOD PLANKS WALL
3/4" = 1'-0"



S5 WALL SECTION AT STOREFRONT
3/4" = 1'-0"



S10 WALL SECTION AT STOREFRONT ENTRANCE
3/4" = 1'-0"

SHEET NOTES

KEYNOTES

#	NOTE
300	WALL FOOTING, SEE STRUCT. DWGS.
301	FREE DRAINING STONE AGGREGATE BACKFILL, TYP.
302	ANCHOR ROD AS REQUIRED, SEE STRUCT. DWGS.
303	HELD A MIN. OF 4" ABOVE GRADE OR 2" ABOVE PAVED SURFACES
304	WRB LAPPED OVER WEEP SCREED
305	TREATED WOOD SILL PLATE, 2X8 NOM. WOOD STUD FRAMING
307	REINFORCED CONCRETE FLOOR SLAB ON GRADE OVER VAPOR BARRIER AND 2" RIGID INSUL. (R=7.5 MIN) 4'-0" HORIZ. VERT. OVER COMPACTED GRANULAR FILL, SEE STRUCT DWGS.
308	FLOOR FINISH AND BASE AS SCHEDULED, SEE FINISH PLAN AND SCHEDULE, TYP.
309	1/2" EXPANSION JOINT MATERIAL
310	HORIZONTAL RAKED STUCCO ON SCRATCH COAT & SELF-FURRING METAL LATH, REF. EXTERIOR ELEV.
311	VERTICAL RAKED STUCCO ON SCRATCH COAT & SELF-FURRING METAL LATH, REF. EXTERIOR ELEV.
312	SHEATHING. RE. STRUCTURAL DRAWINGS
313	MIN. R-20 FLAME RESISTANT KRAFT-FACED FIBERGLASS WALL CAVITY BATTS INSULATION
314	2X8 NOM. WOOD STUD FRAMING, REF. STRUCTURAL DWGS.
316	CLOSED CELL 1-1/2" (R7.5) CONTINUOUS INSULATION FOAM BOARD ANCHORED TO WALL STRUCTURE PER MANUF. APPROVED SCREW AND THERMAL WASHER. GC TO TAPE ALL SEAMS WITH MANF. APPROVED AIR & MOISTURE TAPE. PROVIDE J MOLD METAL FLASHING AT BASE OF ALL EXPOSED INSULATION EDGES.
317	5/8" GYP BOARD
320	1/2" CEMENT ROOF BOARD SHEATHING ON CONTINUOUS MIN. R-38 POLYISOCYANURATE RIGID INSULATION. RE: STRUCTURE
323	5/8" PLYWOOD SHEATHING. REFERENCE STRUCTURAL DRAWINGS.
325	TRUSS PER STRUCTURAL DRAWINGS.
326	STANDING SEAM METAL ROOFING (PAINTED WHITE)
327	METAL ENCLOSED WOOD BLOCKING ATTACHED TO WOOD STUD FRAMING; REF. EXTERIOR ELEVATIONS
328	METAL SOFFIT ATTACHED TO SHEATHING, MATCH S.S. METAL ROOFING
329	METAL ENCLOSED FASCIA BLOCKING ATTACHED TO ROOF STRUCTURE, MATCH S.S. METAL ROOFING
330	2X6 MON. WOOD FRAMING @16" O.C. ATTACHED TO ROOF STRUCTURE; REF. STRUCT. DWGS.
331	PREFABRICATED METAL CANOPY ATTACHED TO EXTERIOR WALL.
332	(4X) 2X8 HEADER - SEE STRUC. DWGS. DWGS FOR WOOD BLOCKING TO STEEL ATTACHMENT DETAIL
333	STOREFRONT SYSTEM, SEE SPECIFICATIONS
334	EXTERIOR SIGNAGE UNDER SEPARATE PERMIT BY OTHERS, SEE ELEVATIONS AND ELEC. DWGS.
335	WOOD ENCLOSED OUTRIGGER, SEE EXT. ELEVATIONS
338	WEATHER BARRIER (TYVEK OR EQUAL) ON EXTERIOR SHEATHING. SEAL/TAPE ALL JOINTS
349	CONTINUOUS PERIMETER INSULATION FOR 48"
350	2' RIGID INSULATION. HOLD OFF OF BOTTOM OF FOOTING
351	WOOD BLOCKING BETWEEN OUTRIGGERS, SEE EXT. ELEVATIONS; FINISH TO MATCH STUCCO COLOR & STOP STUCCO WITH WEEP SCREED
352	7/8" PLYWOOD SHEATHING ON OVERHANG. REFERENCE STRUCTURAL DRAWINGS.
358	STEEL TUBE - SEE STRUC. DWGS. (FILL SOLID W/ EXPANDING FOAM INSULATION) SEE STRUCT. DWGS FOR WOOD BLOCKING TO STEEL ATTACHMENT DETAIL

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440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	02/14/2020

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER 2004014672
ARCHITECT
FEB 14 2020

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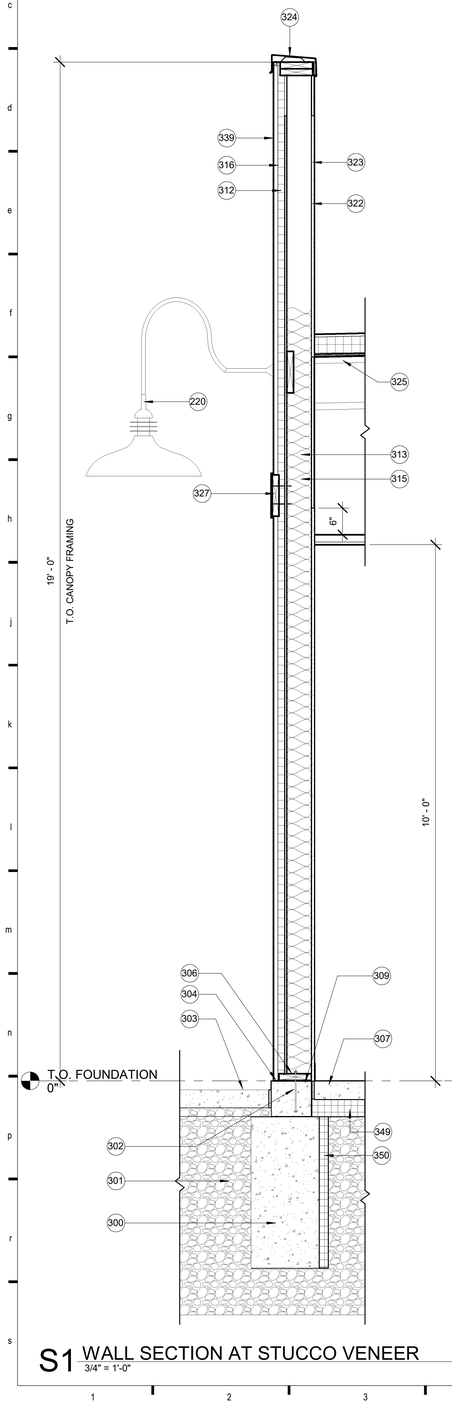
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WALL SECTIONS

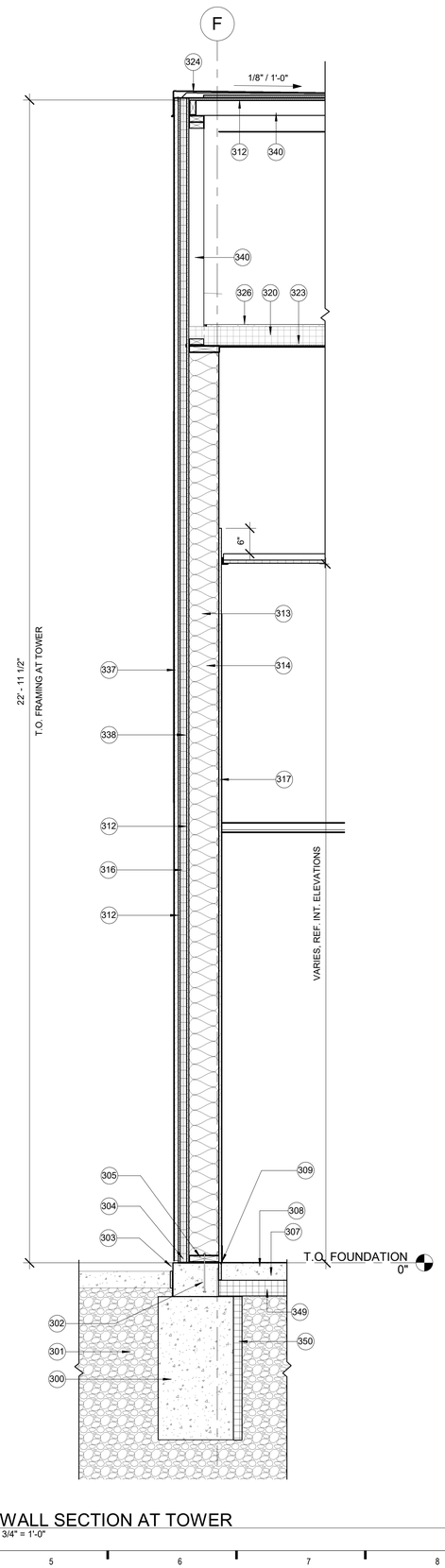
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Checked by	JMB

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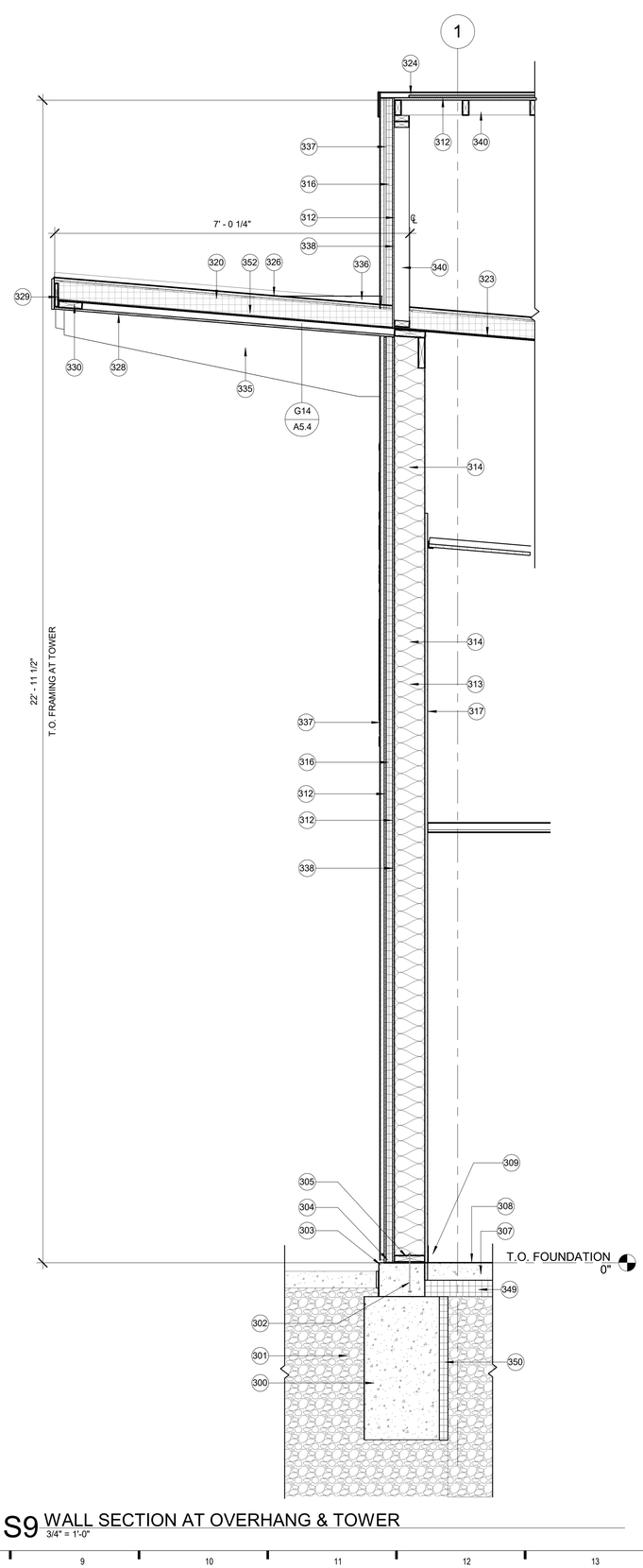
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S1 WALL SECTION AT STUCCO VENEER
3/4" = 1'-0"



S5 WALL SECTION AT TOWER
3/4" = 1'-0"



S9 WALL SECTION AT OVERHANG & TOWER
3/4" = 1'-0"

SHEET NOTES

KEYNOTES

#	NOTE
220	EXTERIOR LIGHT FIXTURE (TYP.) MOUNT AT 13'-3" A.F.F. TO B.O. FIXTURE
300	WALL FOOTING, SEE STRUCT. DWGS.
301	FREE DRAINING STONE AGGREGATE BACKFILL, TYP.
302	ANCHOR ROD AS REQUIRED, SEE STRUCT. DWGS.
303	HELD A MIN. OF 4" ABOVE GRADE OR 2" ABOVE PAVED SURFACES
304	WRB LAPPED OVER WEEP SCREED
305	TREATED WOOD SILL PLATE, 2X8 NOM. WOOD STUD FRAMING
306	TREATED WOOD SILL PLATE, 2X6 NOM. WOOD STUD FRAMING
307	REINFORCED CONCRETE FLOOR SLAB ON GRADE OVER VAPOR BARRIER AND 2" RIGID INSUL. (R=7.5 MIN) 4'-0" HORIZ. VERT. OVER COMPACTED GRANULAR FILL, SEE STRUCT DWGS.
308	FLOOR FINISH AND BASE AS SCHEDULED, SEE FINISH PLAN AND SCHEDULE, TYP.
309	1/2" EXPANSION JOINT MATERIAL
312	SHEATHING. RE. STRUCTURAL DRAWINGS
313	MIN. R-20 FLAME RESISTANT KRAFT-FACED FIBERGLASS WALL CAVITY BATTS INSULATION
314	2X8 NOM. WOOD STUD FRAMING, REF. STRUCTURAL DWGS.
315	2X6 NOM. WOOD STUD FRAMING, REF. STRUCTURAL DWGS.
316	CLOSED CELL 1-1/2" (R7.5) CONTINUOUS INSULATION FOAM BOARD ANCHORED TO WALL STRUCTURE PER MANUF. APPROVED SCREW AND THERMAL WASHER. GC TO TAPE ALL SEAMS WITH MANF. APPROVED AIR & MOISTURE TAPE. PROVIDE J MOLD METAL FLASHING AT BASE OF ALL EXPOSED INSULATION EDGES.
317	5/8" GYP BOARD
320	1/2" CEMENT ROOF BOARD SHEATHING ON CONTINUOUS MIN. R-38 POLYISOCYANURATE RIGID INSULATION. RE: STRUCTURE
322	CONTINUE TPO ROOFING MEMBRANE UP PARAPET AND UNDER COPING. WRAP TO TOP OF WALL AND ATTACHED PER MANUFACTURER.
323	5/8" PLYWOOD SHEATHING. REFERENCE STRUCTURAL DRAWINGS.
324	PREMANUFACTURED 26 GA. SHEET METAL CAP FLASHING SYSTEM W/S.S. FASTENERS SPACED PER MANUF. - PREFINISHED KYNAR PAINT. SEE EXTERIOR ELEVATIONS
325	TRUSS PER STRUCTURAL DRAWINGS
326	STANDING SEAM METAL ROOFING (PAINTED WHITE)
327	METAL ENCLOSED WOOD BLOCKING ATTACHED TO WOOD STUD FRAMING; REF. EXTERIOR ELEVATIONS
328	METAL SOFFIT ATTACHED TO SHEATHING, MATCH S.S. METAL ROOFING
329	METAL ENCLOSED FASCIA BLOCKING ATTACHED TO ROOF STRUCTURE, MATCH S.S. METAL ROOFING
330	2X6 MON. WOOD FRAMING @16" O.C. ATTACHED TO ROOF STRUCTURE; REF. STRUCT. DWGS.
335	WOOD ENCLOSED OUTRIGGER, SEE EXT. ELEVATIONS
336	CRICKET BUILD UP TO SLOPE AWAY FROM WALL; REF. ROOF PLAN
337	SHIPLAP WOOD SIDING; REF. EXTERIOR ELEV.
338	WEATHER BARRIER (TYVEK OR EQUAL) ON EXTERIOR SHEATHING. SEAL/TAPE ALL JOINTS
339	FINE BRUSHED STUCCO ON SCRATCH COAT & SELF-FURRING METAL LATH, REF. EXTERIOR ELEV.
340	2X4 NOM. WOOD STUD FRAMING, REF. STRUCTURAL DWGS.
349	CONTINUOUS PERIMETER INSULATION FOR 48"
350	2" RIGID INSULATION, HOLD OFF OF BOTTOM OF FOOTING
352	7/8" PLYWOOD SHEATHING ON OVERHANG. REFERENCE STRUCTURAL DRAWINGS.

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LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
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#	Description	Date

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STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004014672
ARCHITECT
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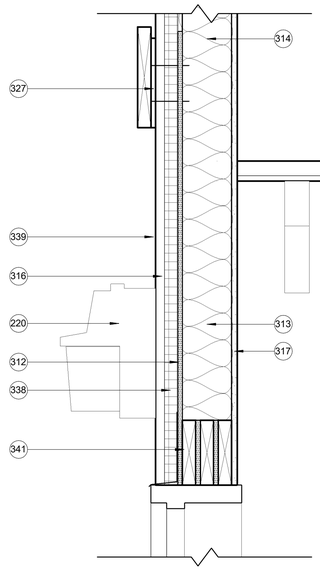
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WALL SECTIONS

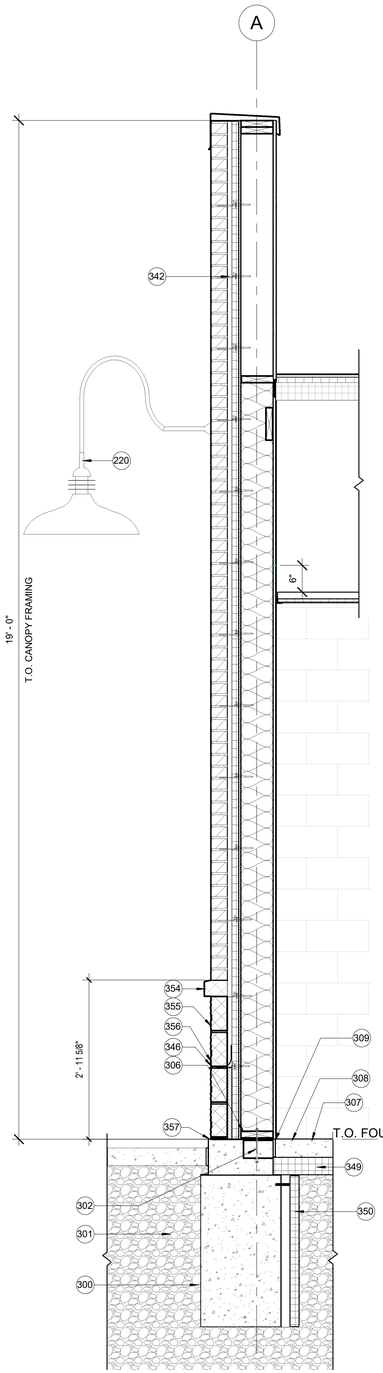
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Checked by	JMB

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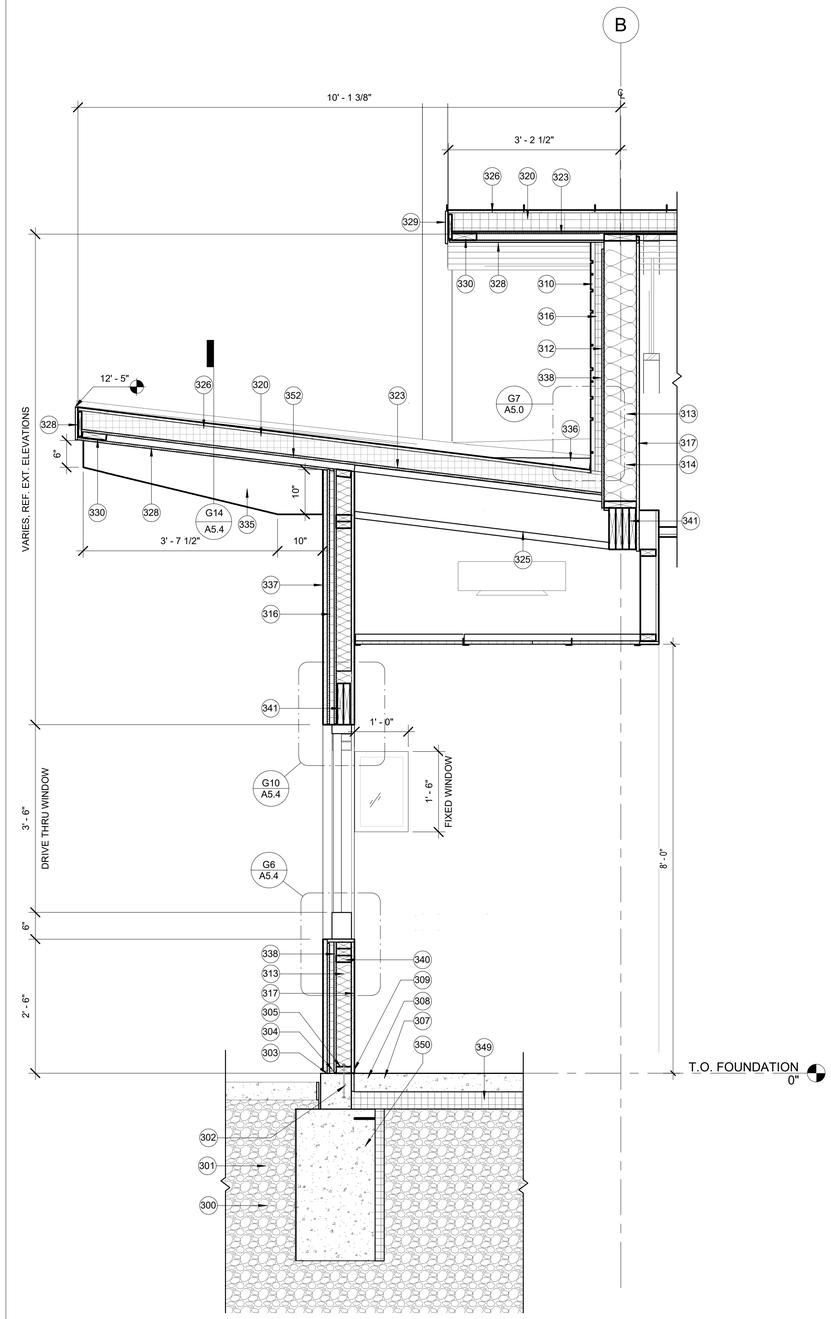
21402202 2:38:11 PM LIONS CHOICE - LEE'S SUMMIT



S1 HEADER DETAIL AT EXTERIOR DOOR
1 1/2" = 1'-0"



S4 WALL SECTION AT BRICK VENEER
3/4" = 1'-0"



S9 WALL SECTION AT DRIVE THRU
3/4" = 1'-0"

SHEET NOTES

KEYNOTES

#	NOTE
220	EXTERIOR LIGHT FIXTURE (TYP.) MOUNT AT 13'-3" A.F.F. TO B.O. FIXTURE
300	WALL FOOTING, SEE STRUCT. DWGS.
301	FREE DRAINING STONE AGGREGATE BACKFILL, TYP.
302	ANCHOR ROD AS REQUIRED, SEE STRUCT. DWGS.
303	HELD A MIN. OF 4" ABOVE GRADE OR 2" ABOVE PAVED SURFACES
304	WRB LAPPED OVER WEEP SCREED
305	TREATED WOOD SILL PLATE, 2X8 NOM. WOOD STUD FRAMING
306	TREATED WOOD SILL PLATE, 2X6 NOM. WOOD STUD FRAMING
307	REINFORCED CONCRETE FLOOR SLAB ON GRADE OVER VAPOR BARRIER AND 2" RIGID INSUL. (R=7.5 MIN) 4'-0" HORIZ. VERT. OVER COMPACTED GRANULAR FILL, SEE STRUCT DWGS.
308	FLOOR FINISH AND BASE AS SCHEDULED, SEE FINISH PLAN AND SCHEDULE, TYP.
309	1/2" EXPANSION JOINT MATERIAL
310	HORIZONTAL RAKED STUCCO ON SCRATCH COAT & SELF-FURRING METAL LATH, REF. EXTERIOR ELEV.
312	SHEATHING. RE. STRUCTURAL DRAWINGS
313	MIN. R-20 FLAME RESISTANT KRAFT-FACED FIBERGLASS WALL CAVITY BATTS INSULATION
314	2X8 NOM. WOOD STUD FRAMING, REF. STRUCTURAL DWGS.
316	CLOSED CELL 1-1/2" (R7.5) CONTINUOUS INSULATION FOAM BOARD ANCHORED TO WALL STRUCTURE PER MANUF. APPROVED SCREW AND THERMAL WASHER. GC TO TAPE ALL SEAMS WITH MANF. APPROVED AIR & MOISTURE TAPE. PROVIDE J MOLD METAL FLASHING AT BASE OF ALL EXPOSED INSULATION EDGES.
317	5/8" GYP BOARD
320	1/2" CEMENT ROOF BOARD SHEATHING ON CONTINUOUS MIN. R-38 POLYISOCYANURATE RIGID INSULATION. RE: STRUCTURE
323	5/8" PLYWOOD SHEATHING. REFERENCE STRUCTURAL DRAWINGS.
325	TRUSS PER STRUCTURAL DRAWINGS
326	STANDING SEAM METAL ROOFING (PAINTED WHITE)
327	METAL ENCLOSED WOOD BLOCKING ATTACHED TO WOOD STUD FRAMING; REF. EXTERIOR ELEVATIONS
328	METAL SOFFIT ATTACHED TO SHEATHING, MATCH S.S. METAL ROOFING
329	METAL ENCLOSED FASCIA BLOCKING ATTACHED TO ROOF STRUCTURE, MATCH S.S. METAL ROOFING
330	2X6 MON. WOOD FRAMING @16" O.C. ATTACHED TO ROOF STRUCTURE; REF. STRUCT. DWGS.
335	WOOD ENCLOSED OUTRIGGER, SEE EXT. ELEVATIONS
336	CRICKET BUILD UP TO SLOPE AWAY FROM WALL; REF. ROOF PLAN
337	SHIPLAP WOOD SIDING; REF. EXTERIOR ELEV.
338	WEATHER BARRIER (TYVEK OR EQUAL) ON EXTERIOR SHEATHING. SEAL/TAPE ALL JOINTS
339	FINE BRUSHED STUCCO ON SCRATCH COAT & SELF-FURRING METAL LATH, REF. EXTERIOR ELEV.
340	2X4 NOM. WOOD STUD FRAMING, REF. STRUCTURAL DWGS.
341	NOM. WOOD STUD HEADER, SEE STRUCT. DWGS.
342	MASONRY VENEER ANCHORS @ 16" O.C. (BOTH DIRECTIONS) MAX.
346	PROVIDE MESH WEEPS @ 24" O.C. - SEE SPEC
349	CONTINUOUS PERIMETER INSULATION FOR 48"
350	2" RIGID INSULATION, HOLD OFF OF BOTTOM OF FOOTING
352	7/8" PLYWOOD SHEATHING ON OVERHANG. REFERENCE STRUCTURAL DRAWINGS.
354	CORDOVA LIMESTONE WATERTABLE W/ CHAMFER EDGE - SEE SPEC
355	CORDOVA LIMESTONE VENEER, GROUNDFACE FINISH - SEE SPEC
356	SELF ADHERING, RUBBERIZED ASPHALT STEPPED THROUGH WALL FLASHING
357	STAINLESS STEEL DRIP EDGE

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LEE'S SUMMIT, MO 64063

#	Description	Date

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004014672
ARCHITECT
FEB 14 2020

PERMIT SET

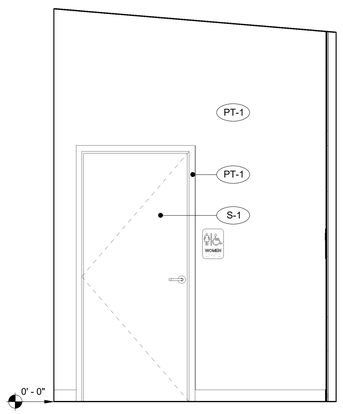
Client Approval

WALL SECTIONS

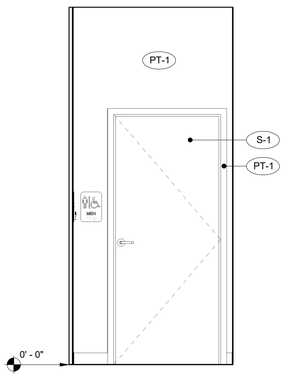
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Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

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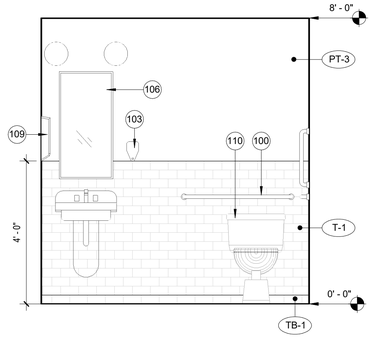
21452020 2:36:15 PM LIONS CHOICE - LEE'S SUMMIT



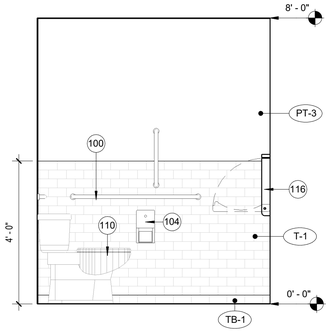
F1 CORRIDOR ELEVATION
1/2" = 1'-0"



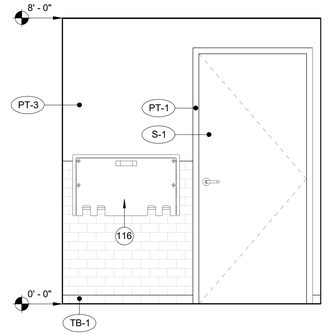
F4 CORRIDOR ELEVATION
1/2" = 1'-0"



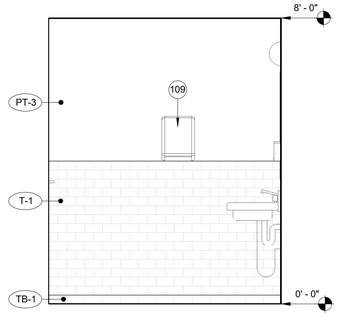
K1 RESTROOM ELEVATION 1
1/2" = 1'-0"



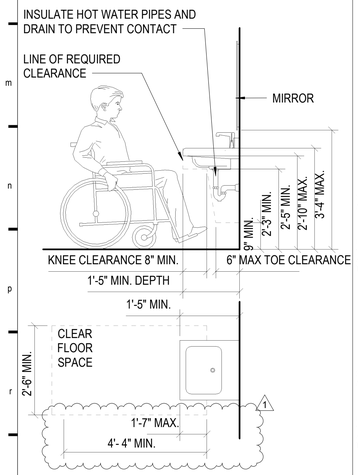
K4 RESTROOM ELEVATION 2
1/2" = 1'-0"



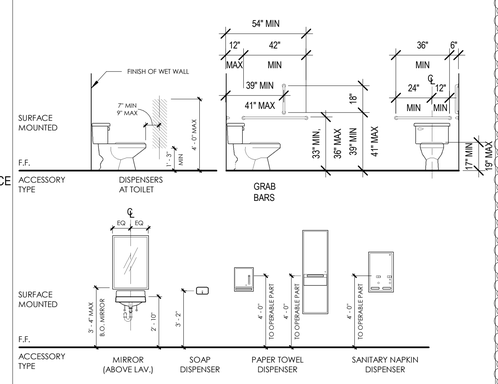
K7 RESTROOM ELEVATION 3
1/2" = 1'-0"



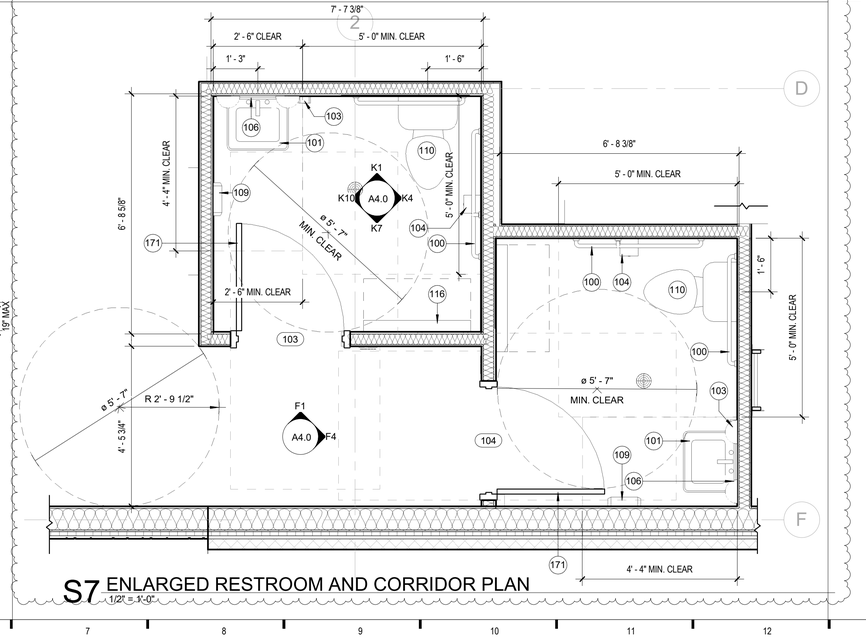
K10 RESTROOM ELEVATION 4
1/2" = 1'-0"



S1 LAV. CLEARANCES
1/2" = 1'-0"



S3 FIXTURE MOUNTING DIMS
1/4" = 1'-0"



S7 ENLARGED RESTROOM AND CORRIDOR PLAN
1/2" = 1'-0"

SHEET NOTES

A. PROVIDE BACKING/BLOCKING IN WALL AS REQUIRED. GC TO COORDINATE BACKING/BLOCKING FOR ALL FIXTURE VENDOR-PROVIDED ITEMS. 1
B. REFERENCE CONSTRUCTION MANUAL FOR MATERIAL, SIGNAGE, AND OTHER VENDOR CONTACT INFORMATION.
C. ALL UNDER COUNTER PIPING TO BE PROTECTED FROM CONTACT.
D. ALL TOILETS TO HAVE ROOM SIGNAGE MEETING ALL ACCESSIBILITY CODE REQUIREMENTS.
E. ALL TOILET ROOM FLOORS TO PITCH TO DRAIN AT 1/8" PER 1'-0" MINIMUM.
F. ALL OUTSIDE CORNERS AND EDGES OF TILE TO APPROPRIATE CORNER UNITS TO PROVIDE COMPLETE INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

KEYNOTES

#	NOTE
100	ADA GRAB BAR. DIAMETER OF THE GRIPPING SURFACE OF THE GRAB BAR SHALL BY 1-1/4" TO 1-1/2". BARS SHOULD MAINTAIN A DISTANCE OF 1-1/2" FROM INSIDE OF BAR TO FINISH WALL.
101	ACCESSIBLE LAVATORY AND COUNTERTOP
103	SOAP DISPENSER
104	TOILET PAPER DISPENSER
106	ADA COMPLIANT MIRROR
109	PAPER TOWEL DISPENSER
110	ACCESSIBLE WATER CLOSET
116	BABY CHANGING STATION, VERIFY PULL DOWN HANDLE HEIGHT TO BE 48" MAX. OPEN TABLE HEIGHT TO BE BETWEEN 28"-34"
171	GC TO INSTALL COAT HOOK TO BACK OF RESTROOM DOOR.

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LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	02/14//2020

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004014672
ARCHITECT
FEB 14 2020

PERMIT SET

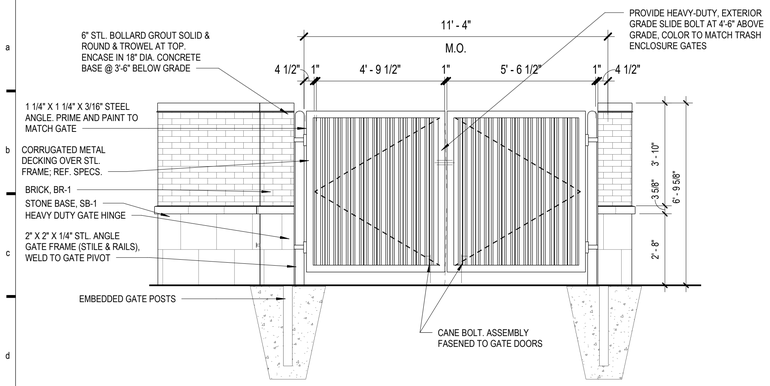
Client Approval

ENLARGED RR PLAN & INTERIOR ELEVATIONS

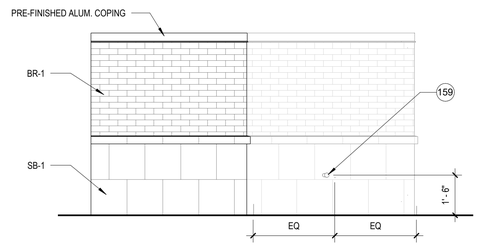
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Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

A4.0

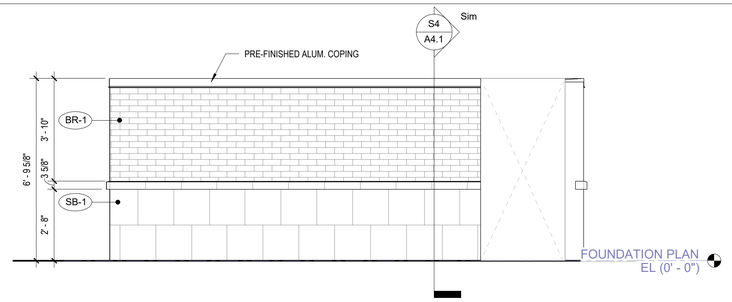
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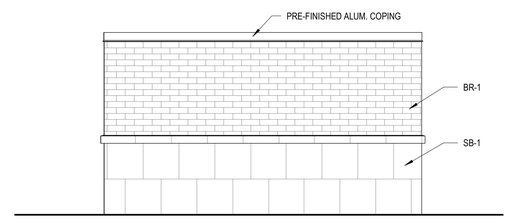
E1 CMU TRASH ENCLOSURE ELEVATION
3/8" = 1'-0"



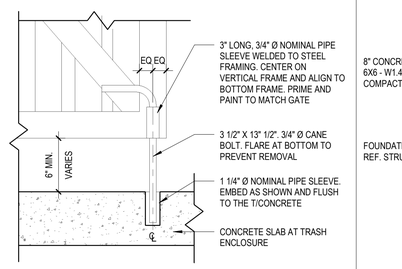
E7 CMU TRASH ENCLOSURE ELEVATION
3/8" = 1'-0"



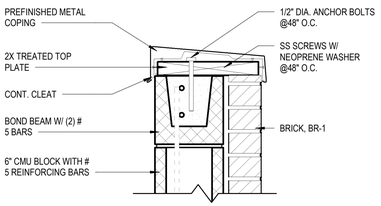
J1 CMU TRASH ENCLOSURE ELEVATION
3/8" = 1'-0"



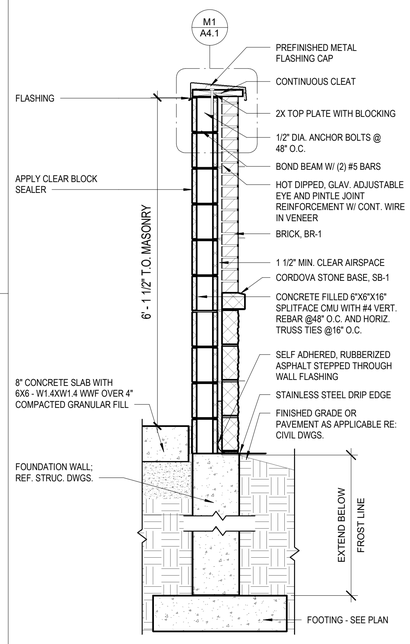
J7 CMU TRASH ENCLOSURE ELEVATION
3/8" = 1'-0"



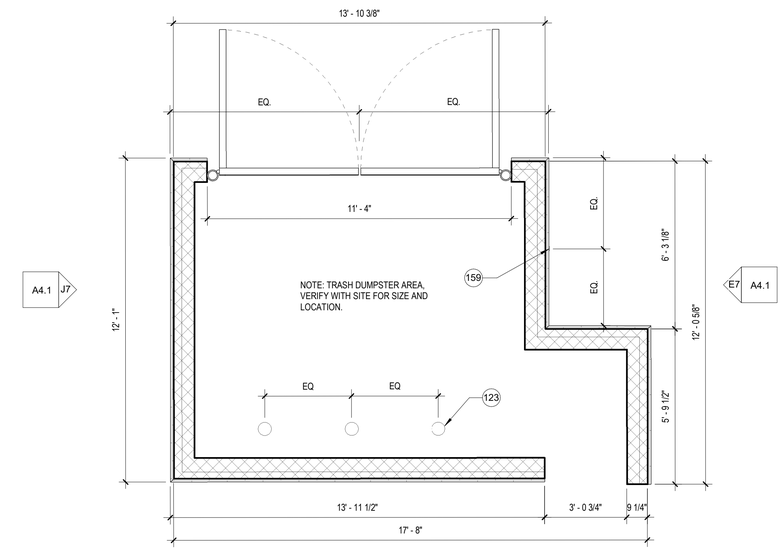
S1 CANE BOLT DETAIL
1 1/2" = 1'-0"



M1 TRASH ENCLOSURE CAP DETAIL
1 1/2" = 1'-0"



S4 CMU TRASH ENCLOSURE SECTION
3/4" = 1'-0"



S7 CMU TRASH ENCLOSURE PLAN
3/8" = 1'-0"

SHEET NOTES

A. REFERENCE STRUCTURAL DRAWINGS FOR MORE INFORMATION.

KEYNOTES

#	NOTE
123	6" STEEL BOLLARD 60"H. GROUT SOLID WITH ROUND TROWEL AT TOP. ENCASE IN 18" DIAMETER CONCRETE 42" DEEP
159	EXTERIOR HOSE BIB. REFERENCE PLUMBING DRAWINGS

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STATE OF MISSOURI
RONALD MELVIN REIM
NOTARY PUBLIC
KERN COUNTY
NUMBER 20040116672
ARCHITECT
FEB 14 2020

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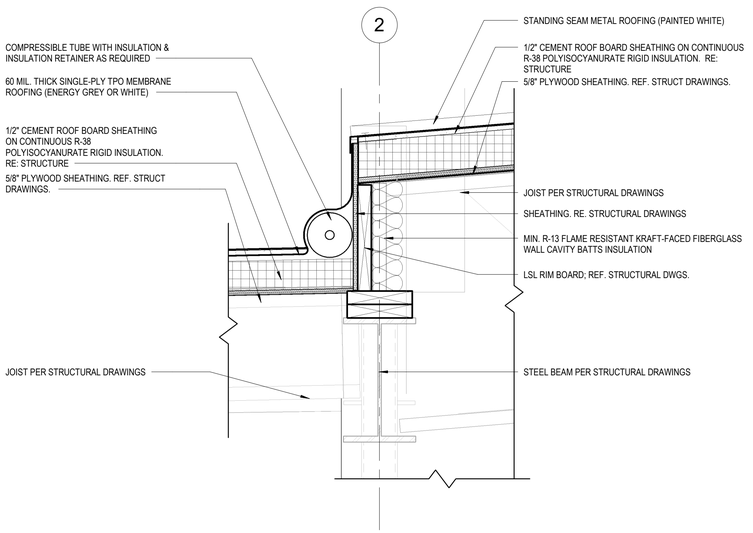
Client Approval

REFUSE ENCLOSURE PLAN, ELEVATIONS, AND DETAILS

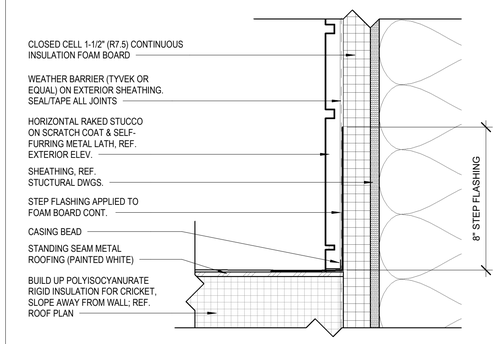
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Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

A4.1

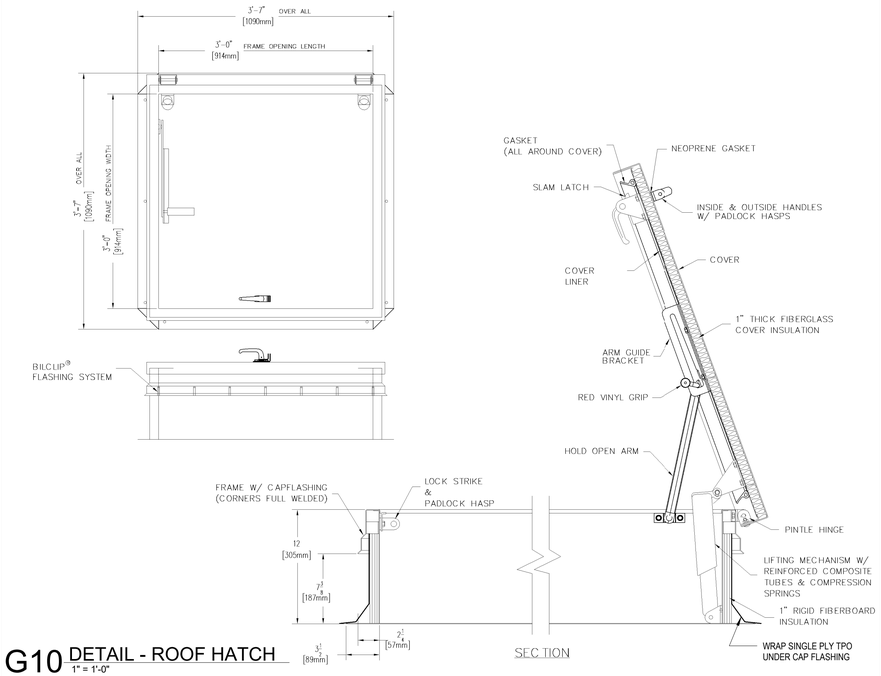
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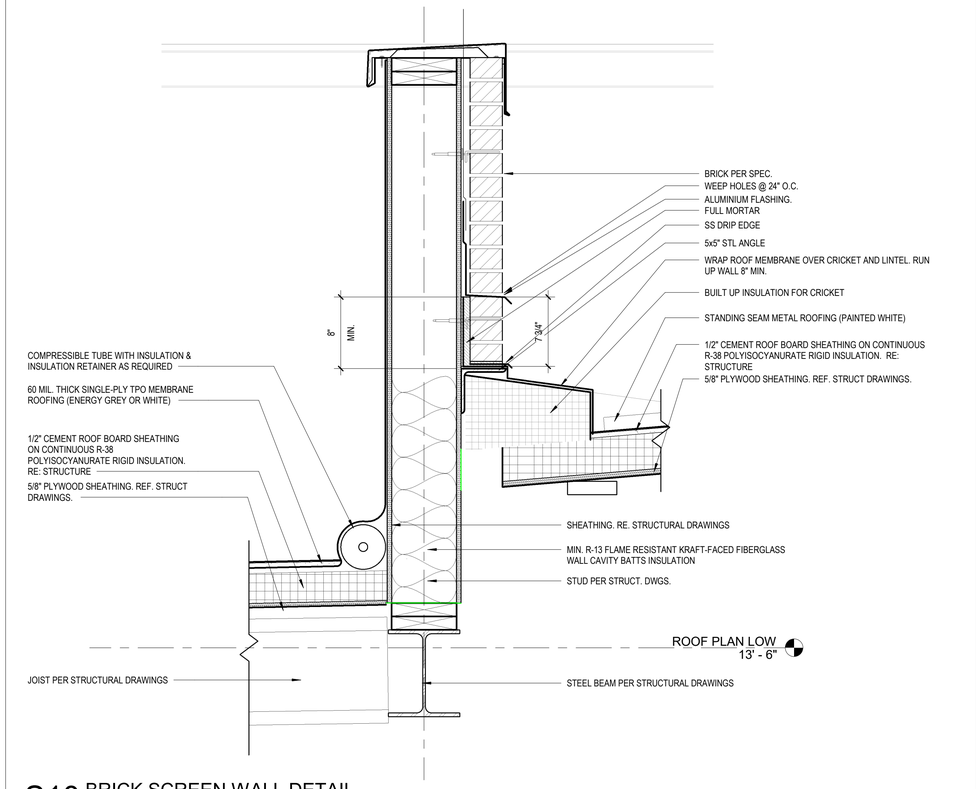
G1 ROOF TRANSITION DETAIL
1 1/2" = 1'-0"



G7 DETAIL AT DRIVE THRU ROOF
3" = 1'-0"



G10 DETAIL - ROOF HATCH
1" = 1'-0"



S10 BRICK SCREEN WALL DETAIL
1 1/2" = 1'-0"

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STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004011072
ARCHITECT
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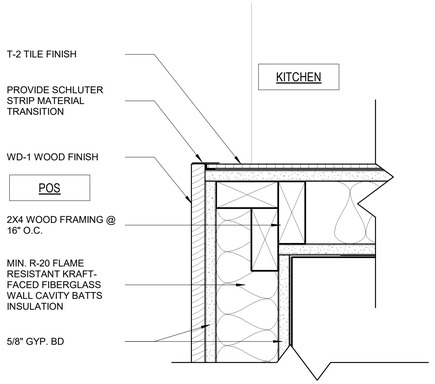
Client Approval

ROOF DETAILS

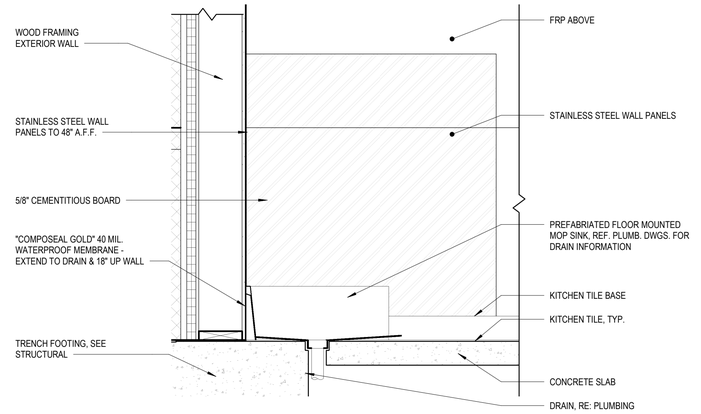
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Issue Date	12/10/2019
Scale	As indicated
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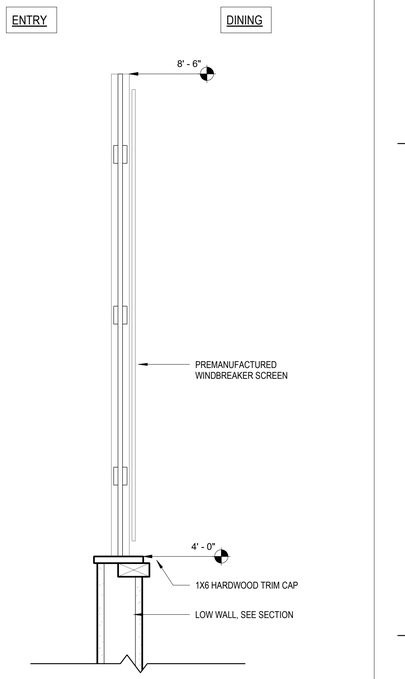
G1 DETAIL AT MATERIAL TRANSITION
3" = 1'-0"



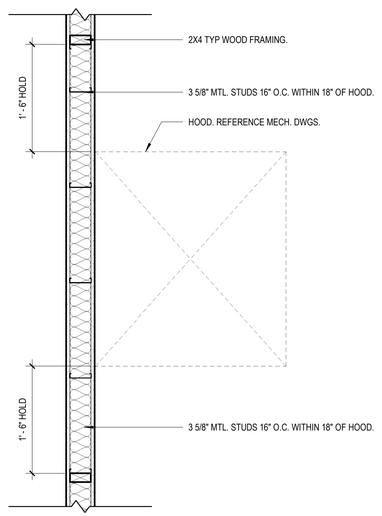
G7 MOP SINK SECTION
1" = 1'-0"

SHEET NOTES

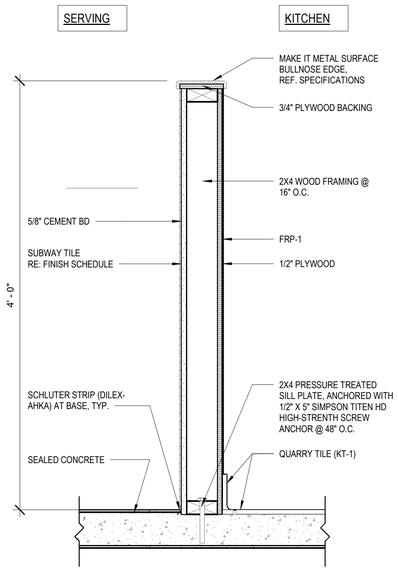
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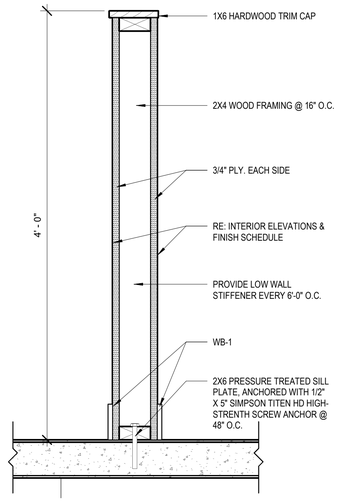
S1 WINDBREAKER SECTION
1 1/2" = 1'-0"



S4 HOOD CLEARANCE
1" = 1'-0"



S7 LOW WALL AT KITCHEN
1 1/2" = 1'-0"



S10 LOW WALL AT DINING
1 1/2" = 1'-0"

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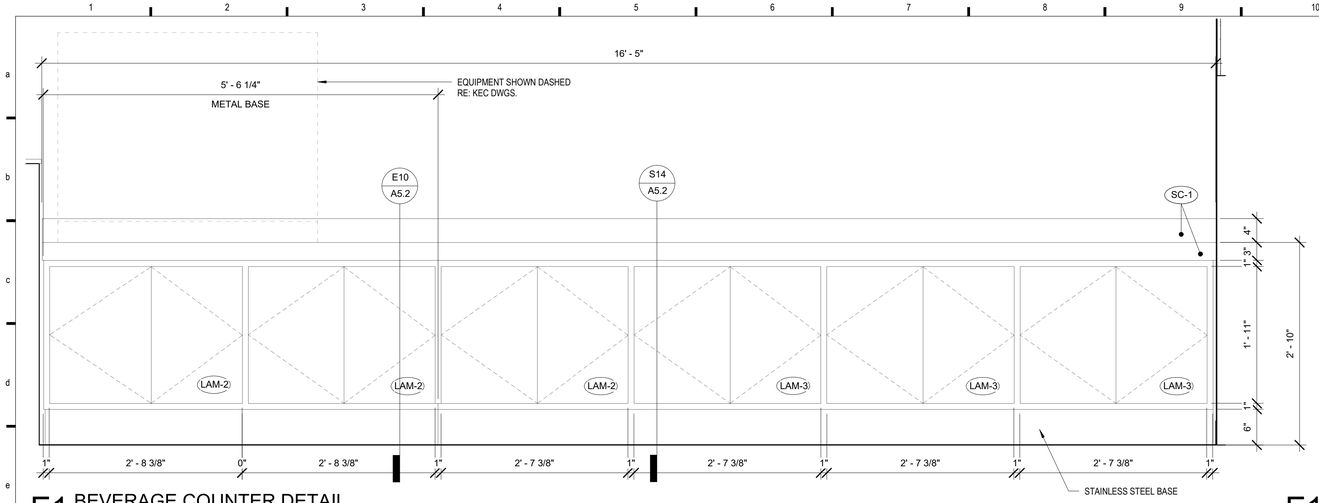
Client Approval

INTERIOR DETAILS

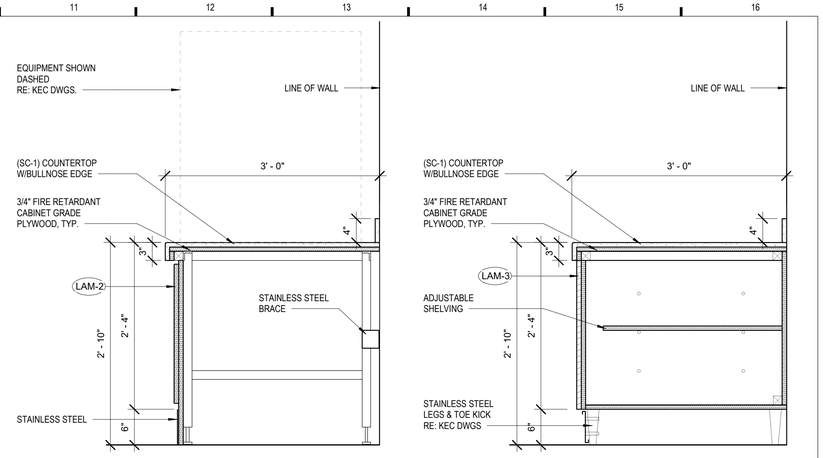
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Issue Date	12/10/2019
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Checked by	JMB

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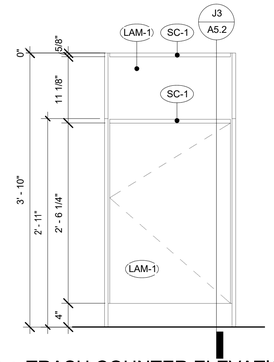


E1 BEVERAGE COUNTER DETAIL
1" = 1'-0"

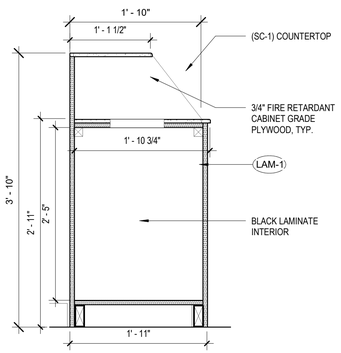


E10 BEVERAGE COUNTER SECTION AT METAL BASE
1" = 1'-0"

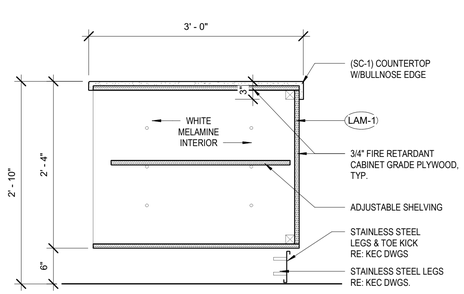
S14 BEVERAGE COUNTER SECTION
1" = 1'-0"



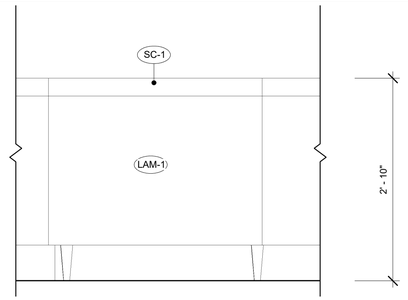
J1 TRASH COUNTER ELEVATION
1" = 1'-0"



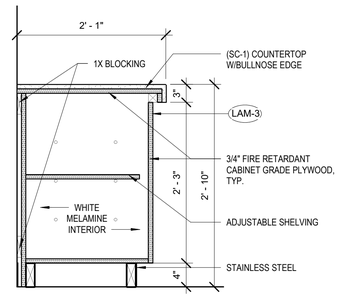
J3 TRASH COUNTER SECTION
1" = 1'-0"



H6 FRONT COUNTER SEC. A
1" = 1'-0"



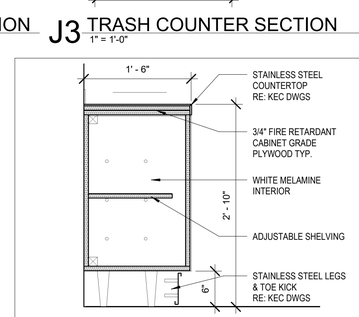
H10 FRONT COUNTER ELEV. B
1" = 1'-0"



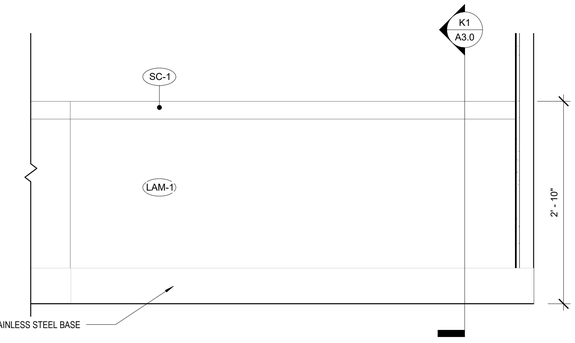
H14 BASE CABINET SECTION
1" = 1'-0"



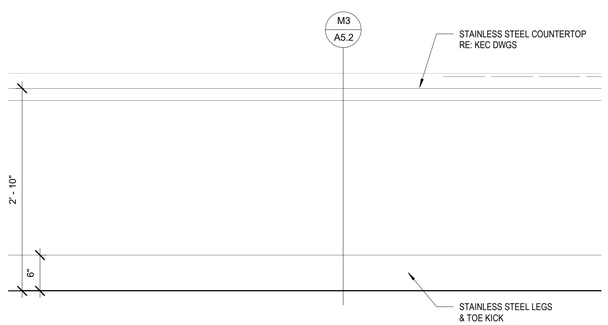
M1 TRASH COUNTER PLAN
1" = 1'-0"



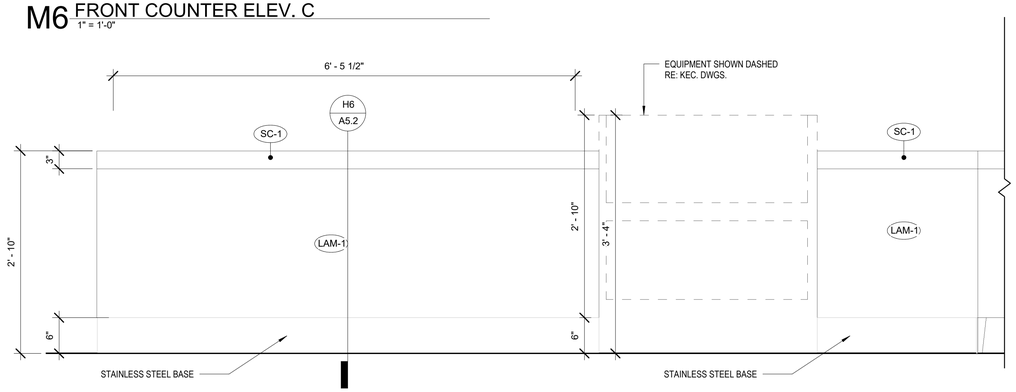
M3 SOUP COUNTER SECTION
1" = 1'-0"



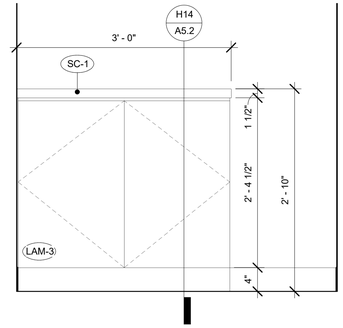
M6 FRONT COUNTER ELEV. C
1" = 1'-0"



S1 SOUP COUNTER ELEVATION
1" = 1'-0"



S6 FRONT COUNTER ELEV. A
1" = 1'-0"



M14 BASE CABINET AT TOWER
1" = 1'-0"

SHEET NOTES

1. MILLWORK TO BE COORDINATED WITH OWNER & KEC DWGS

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Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER 2004011672
ARCHITECT
FEB 14 2020

PERMIT SET

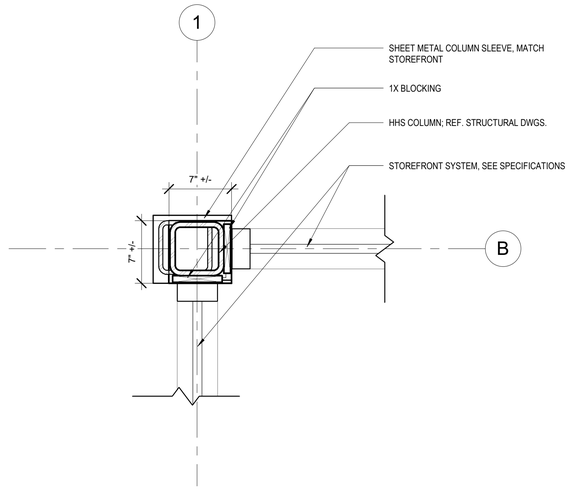
Client Approval

MILLWORK DETAILS

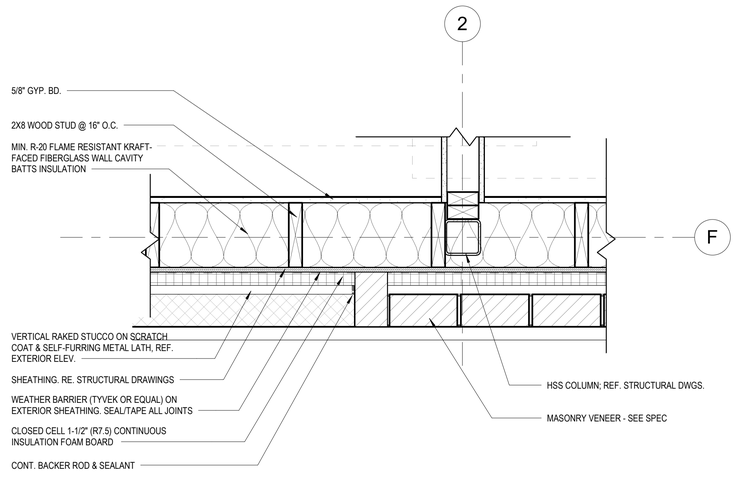
Project #	52119-MO02
Issue Date	12/10/2019
Scale	1" = 1'-0"
Drawn by	ZTM
Checked by	JMB

A5.2

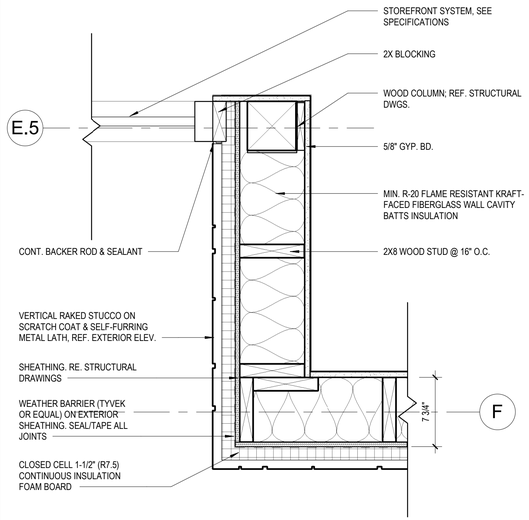
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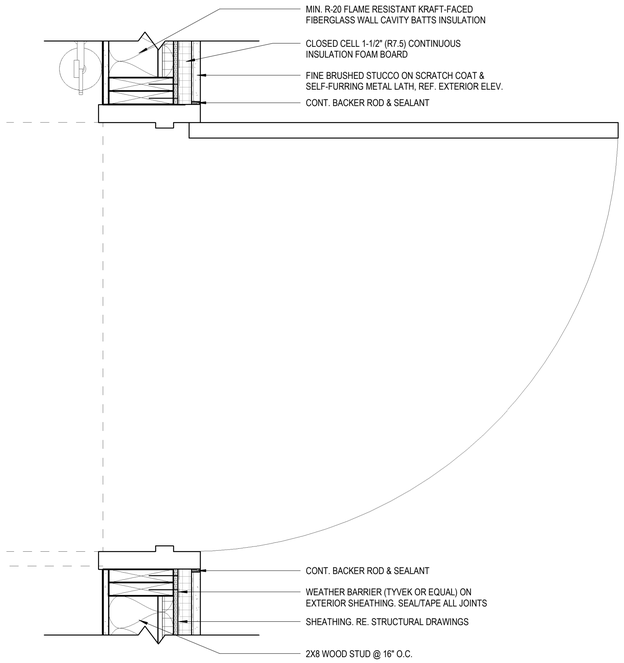
G1 DETAIL AT STOREFRONT CORNER
1 1/2" = 1'-0"



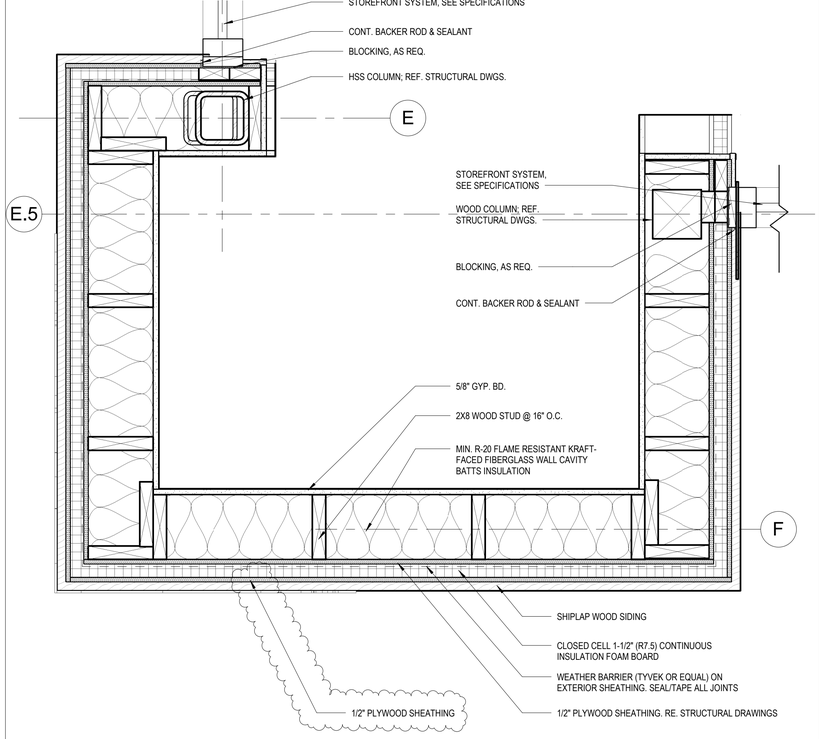
G7 DETAIL AT MTL. TRANSITION
1 1/2" = 1'-0"



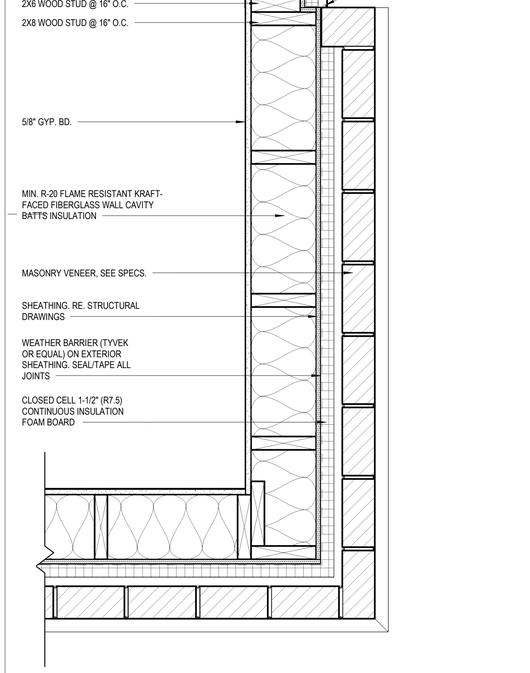
G13 DETAIL AT STOREFRONT END
1 1/2" = 1'-0"



S1 DETAIL AT DOOR JAMB
1 1/2" = 1'-0"



S7 DETAIL AT CORNER TOWER
1 1/2" = 1'-0"



S13 DETAIL AT BRICK CORNER
1 1/2" = 1'-0"

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#	Description	Date
1	City Comments	02/14/2020

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STATE OF MISSOURI
BRIAN T. KERN NUMBER 2004011672
ARCHITECT
FEB 14 2020

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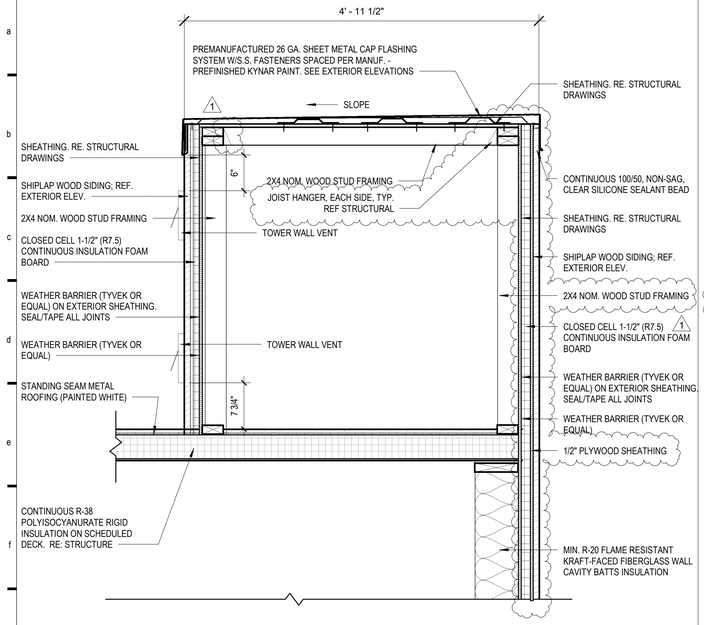
Client Approval

PLAN SECTIONS & DETAILS

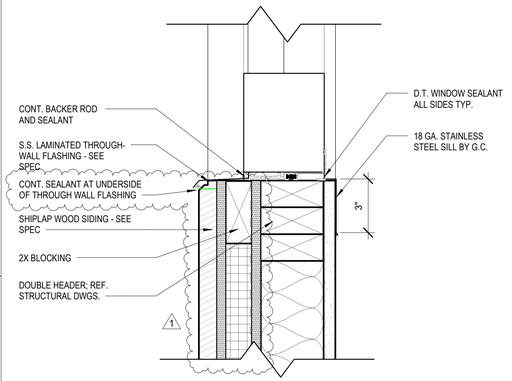
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Issue Date	12/10/2019
Scale	1 1/2" = 1'-0"
Drawn by	ZTM
Checked by	JMB

A5.3

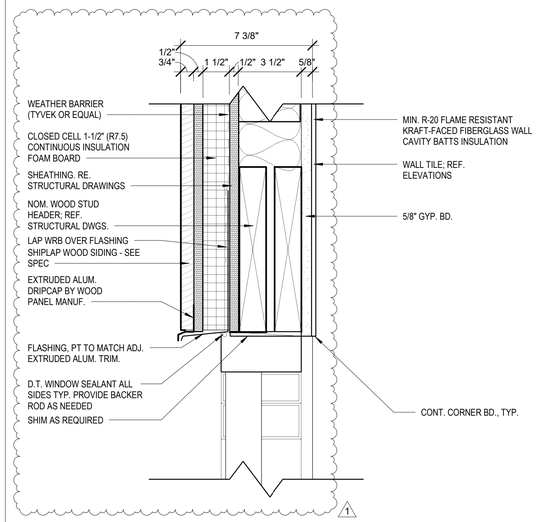
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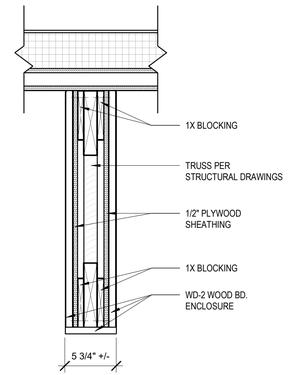
G1 DETAIL @ TOWER CAP
1" = 1'-0"



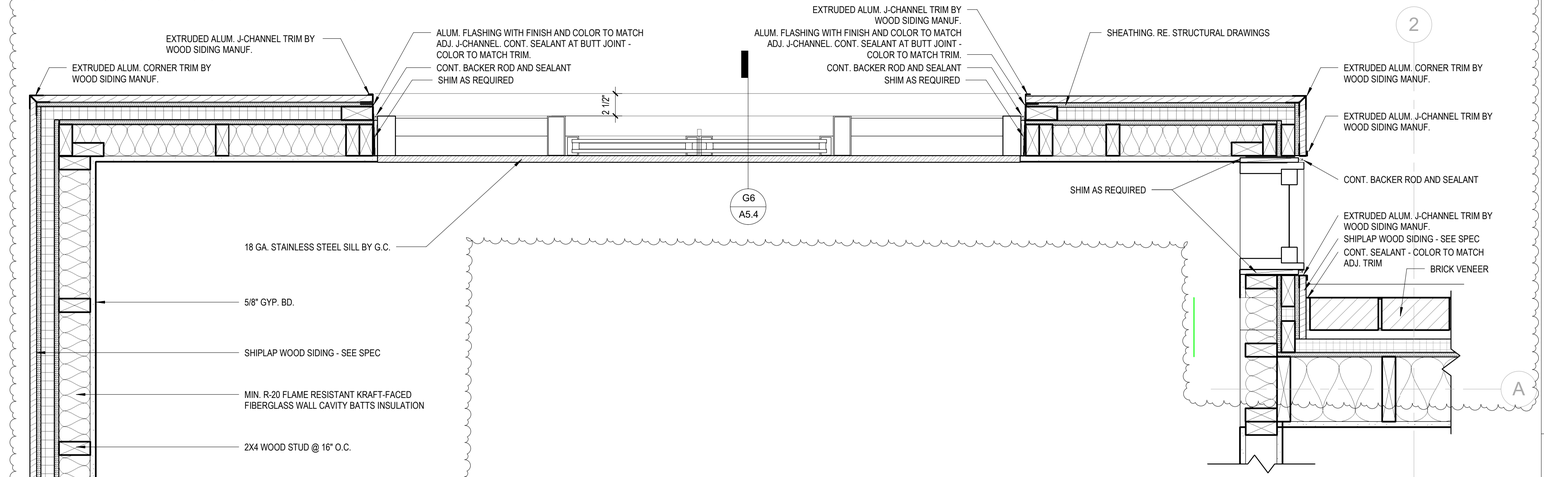
G6 DETAIL AT DRIVE THRU -SILL
3" = 1'-0"



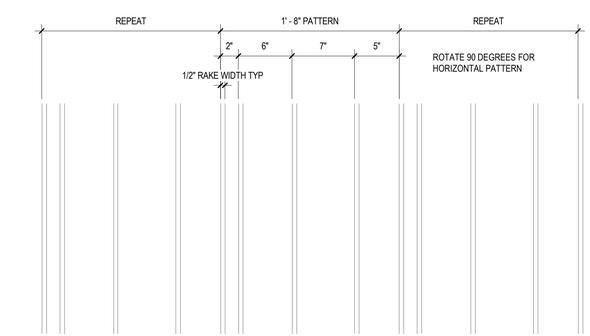
G10 DETAIL AT DRIVE THRU - HEAD
3" = 1'-0"



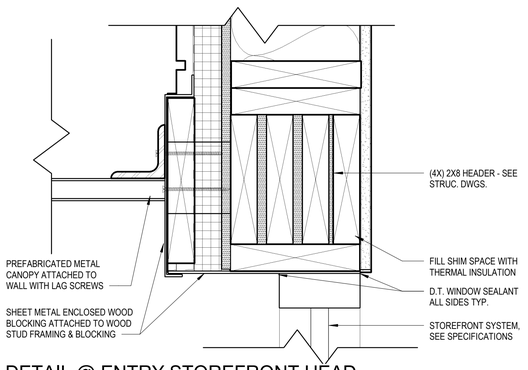
G14 OUTRIGGER SECTION
1 1/2" = 1'-0"



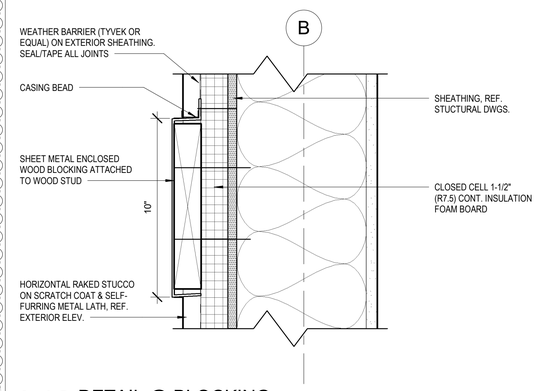
S1 PLAN SECTION AT DRIVE THRU
1 1/2" = 1'-0"



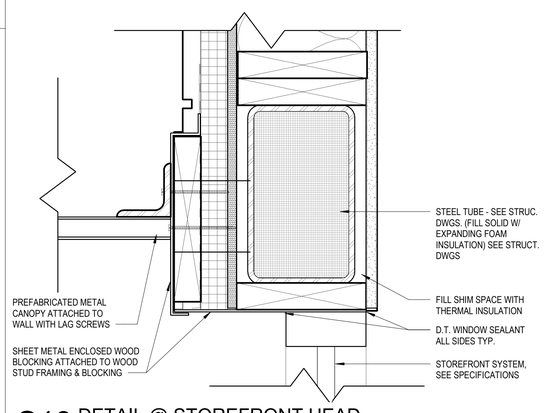
S4 STUCCO RAKING PATTERN
1 1/2" = 1'-0"



S9 DETAIL @ ENTRY STOREFRONT HEAD
3" = 1'-0"



L13 DETAIL @ BLOCKING
3" = 1'-0"



S13 DETAIL @ STOREFRONT HEAD
3" = 1'-0"

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#	Description	Date
1	City Comments	02/14//2020

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STATE OF MISSOURI
BRIAN T KERN
NUMBER 2004011672
ARCHITECT
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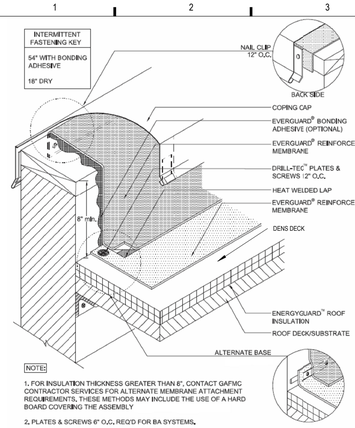
Client Approval

PLAN SECTIONS & DETAILS

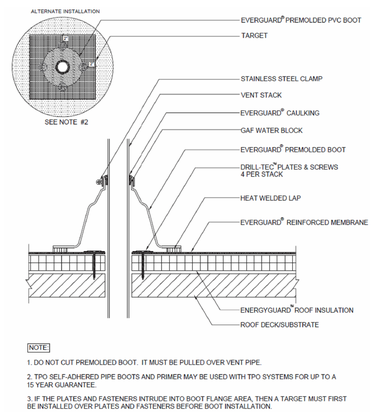
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Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

A5.4

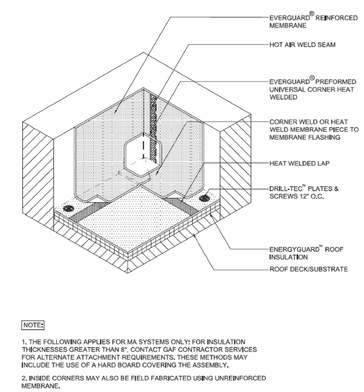
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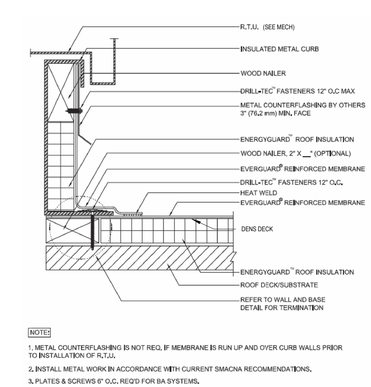
1 COPING
3/4" = 1'-0"



2 HOT STACK FLASHING
3/4" = 1'-0"



3 INSIDE CORNER FLASHING
3/4" = 1'-0"



4 MECHANICAL CURB
3/4" = 1'-0"

5 METAL JOINT DETAILS
3/4" = 1'-0"

6 PARAPET WALL FLASHING W/ TERMINATION
3/4" = 1'-0"

7 SCUPPER AT PARAPET
3/4" = 1'-0"

8 WALKWAY PADS
3/4" = 1'-0"

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STATE OF MISSOURI
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NUMBER 2004014672
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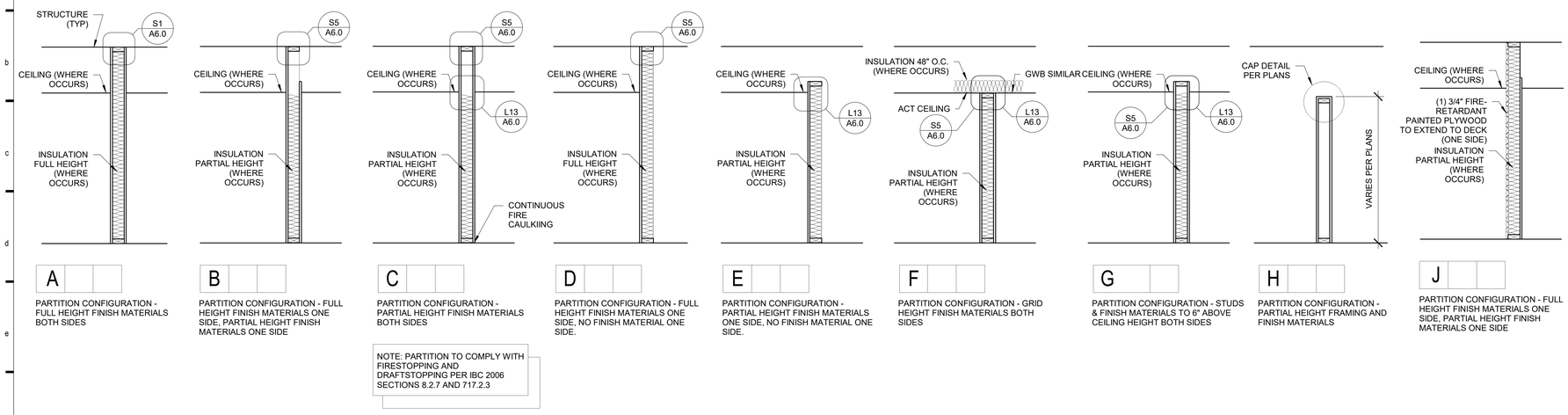
Client Approval

ROOF DETAILS

Project #	52119-MO02
Issue Date	12/10/2019
Scale	3/4" = 1'-0"
Drawn by	Author
Checked by	Checker

A5.5

2/14/2020 2:36:47 PM LIONS CHOICE - LEE'S SUMMIT



NOTE: PARTITION TO COMPLY WITH FIRESTOPPING AND DRAFTSTOPPING PER IBC 2006 SECTIONS 8.2.7 AND 717.2.3

F1 WALL/PARTITION CONFIGURATIONS
1 1/2" = 1'-0"

UL #	FR	Typical Partition Type
U305	1 hr	A1a - 3 1/2" Wood Studs, One Layer 5/8" Type X GWB Each Side
U301	2 hr	A7a - 3 1/2" Wood Studs, Two Layers 5/8" Type X GWB Each Side

C14 UL REFERENCE
3" = 1'-0"

a NO INSULATION

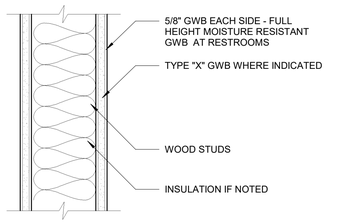
b BATT ACOUSTICAL INSULATION

c RIGID INSULATION

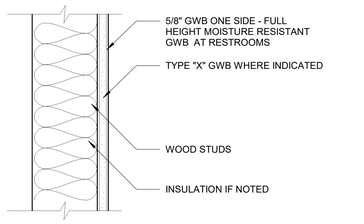
d BATT THERMAL INSULATION

e

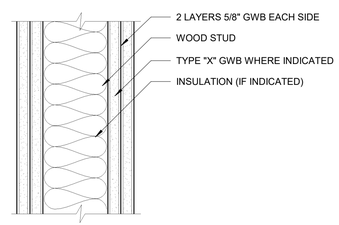
F14 WALL/PARTITION INSULATION
1 1/2" = 1'-0"



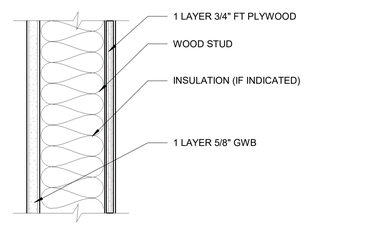
L1 WALL/PARTITION CONSTRUCTION 1
1 1/2" = 1'-0"



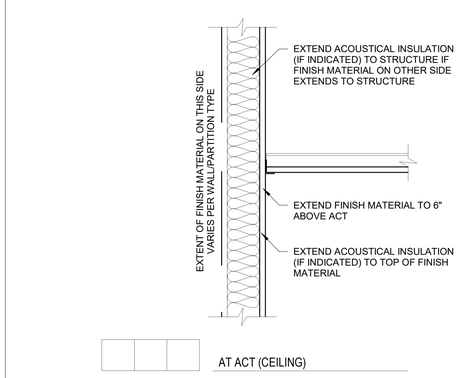
L4 WALL/PARTITION CONSTRUCTION 2
1 1/2" = 1'-0"



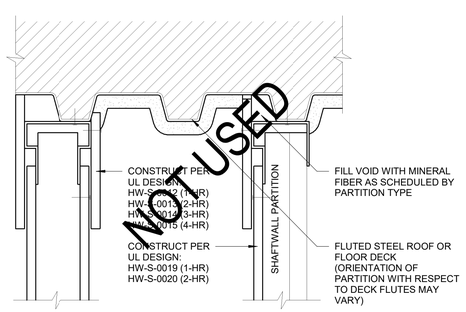
L7 WALL/PARTITION CONSTRUCTION 3
1 1/2" = 1'-0"



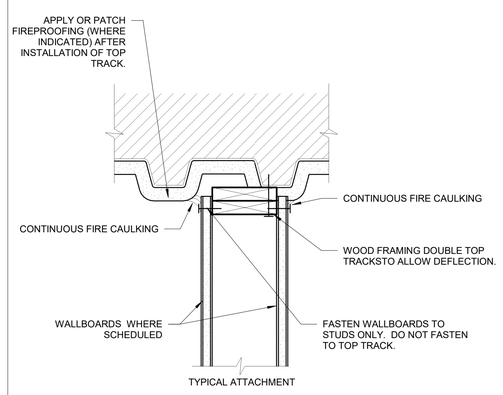
L10 WALL/PARTITION CONSTRUCTION 4
1 1/2" = 1'-0"



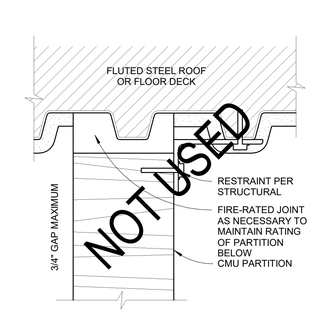
L13 WALL/PARTITION CONSTRUCTION 5
1 1/2" = 1'-0"



S1 JOINT @ RATED PARTITIONS
1 1/2" = 1'-0"

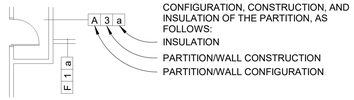


S5 JOINT @ NON-RATED PARTITIONS
1 1/2" = 1'-0"



S10 JOINT @ MASONRY PARTITIONS
1 1/2" = 1'-0"

1. SEE FLOOR PLANS FOR WALL RATINGS
   - NON-RATED
   - SMOKE PARTITION
   - 1 HR RATED
   - 2 HR RATED
   - 3 HR RATED
2. SEE SPECS FOR STUD SPACING
3. COORDINATE CONSTRUCTION OF FIRE-RATED WALS/PARTITIONS WITH DESIGN NUMBER SPECIFIED AT EACH PARTITION-TYPE DETAIL
4. FRAME AND FINISH OPENINGS FOR MECHANICAL AND ELECTRICAL SYSTEMS AS REQUIRED AND AS SPECIFIED ON MECHANICAL/ELECTRICAL DRAWINGS/SPECIFICATIONS
5. ACOUSTICAL PARTITIONS SHALL BE CONSIDERED ANY PARTITIONS CONTAINING ACOUSTICAL INSULATION



S13 WALL/PARTITION NOTES
1 1/2" = 1'-0"

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER 2004041672
ARCHITECT
FEB 14 2020

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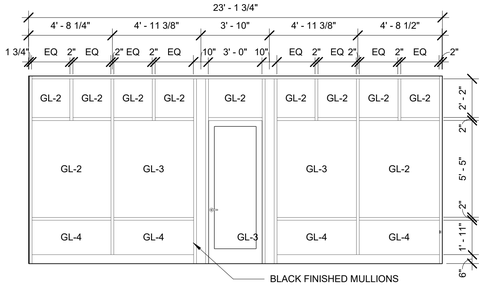
Client Approval

WALL & PARTITION ASSEMBLIES

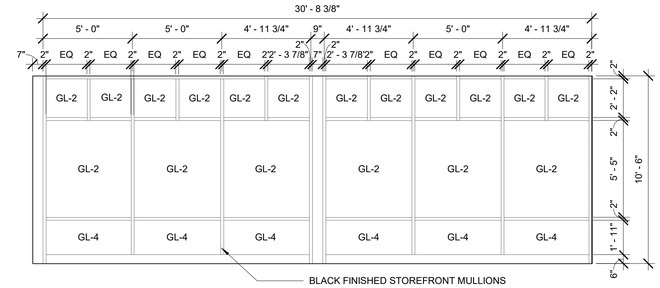
Project #	52119-MO02
Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

A6.0

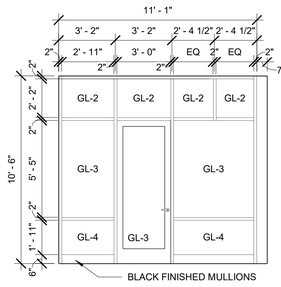
2/14/2020 2:39:45 PM LIONS CHOICE - LEE'S SUMMIT



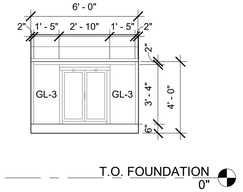
H1 STOREFRONT - A
1/4" = 1'-0"



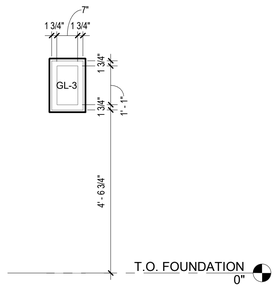
D5 STOREFRONT - B
1/4" = 1'-0"



D10 STOREFRONT - C
1/4" = 1'-0"

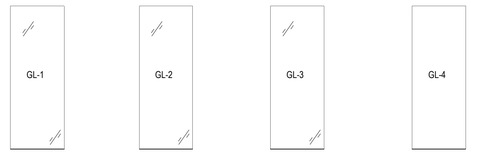


G1 DRIVE THRU WINDOW - D
1/4" = 1'-0"



G5 DRIVE THRU WINDOW - E
1/2" = 1'-0"

PANEL TYPES

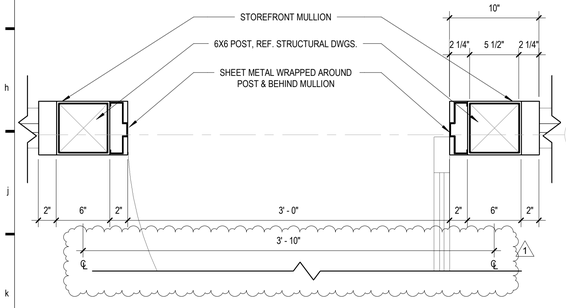


SPANDREL GLASS

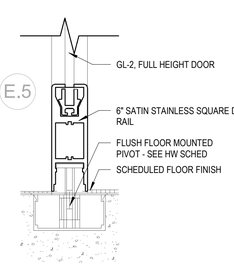
GLAZING PANEL GL-2
1" THICKNESS W/INSUL.
LAMINATED - CLEAR

GLAZING PANEL GL-3
1" THICKNESS W/INSUL.
TEMPERED - CLEAR

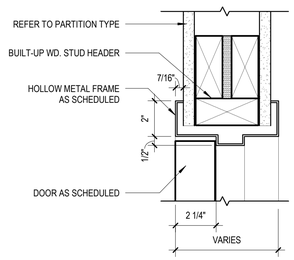
METAL PANEL GL-4
1" THICKNESS W/INSUL.
SOLID PANEL - MATCH MULLION



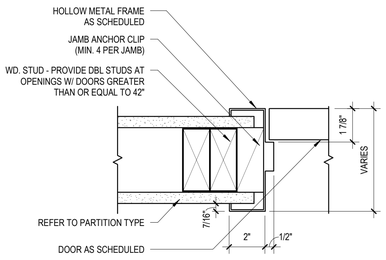
L1 DETAIL AT STOREFRONT ENTRANCE
1 1/2" = 1'-0"



L4 DETAIL AT GLASS DOOR SILL
3" = 1'-0"



L7 DETAIL @ TYP DOOR HEAD
3" = 1'-0"

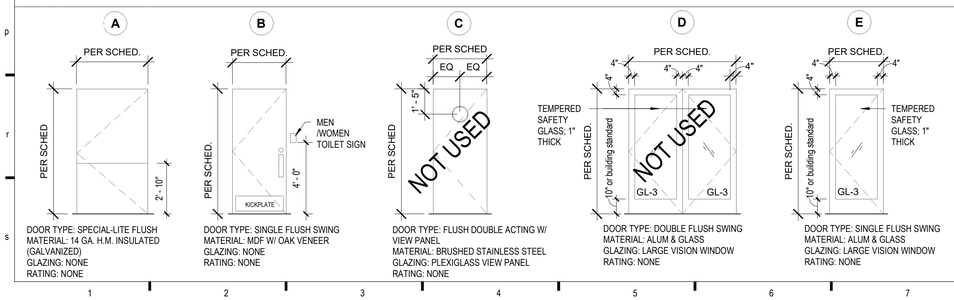


L10 DETAIL @ TYP DOOR JAMB
3" = 1'-0"

DOOR SCHEDULE

NO.	DOOR SIZE HEIGHT	SIZE WIDTH	SIZE THICKNESS	TYPE	MATERIAL	FINISH	HARDWARE	FRAME MATERIAL	FRAME TYPE	FRAME FINISH	REMARKS
101A	8' - 0"	3' - 0"	1 3/4"	E	ALUMINUM W/GLASS	RED	HW-A	ALUM.	F	BLACK	
101B	8' - 0"	3' - 0"	1 3/4"	E	ALUMINUM W/GLASS	RED	HW-A	ALUM.	F	BLACK	
101F	6' - 6"	3' - 0"	4"	-	-	-	-	-	-	-	COOLER/FREEZER DOOR BY MANUFACTURER
101G	6' - 6"	3' - 0"	4"	-	-	-	-	-	-	-	COOLER/FREEZER DOOR BY MANUFACTURER
103	7' - 0"	3' - 0"	1 3/4"	B	MDF W/ OAK VENEER	S-1 (DARK STAINED OAK)	HW-D	H.M.	F1	PT-1	
104	7' - 0"	3' - 0"	1 3/4"	B	MDF W/ OAK VENEER	S-1 (DARK STAINED OAK)	HW-D	H.M.	F1	PT-1	
106	7' - 0"	4' - 0"	1 3/4"	A	14 GA. H.M. INSULATED	PAINTED BLACK	HW-G	H.M. (GALVANIZED)	F2	BLACK	
107	6' - 6"	10' - 5"	3"	V							

DOOR TYPES



DOOR TYPE: SPECIAL-LITE FLUSH
MATERIAL: 14 GA. H.M. INSULATED
(GALVANIZED)
GLAZING: NONE
RATING: NONE

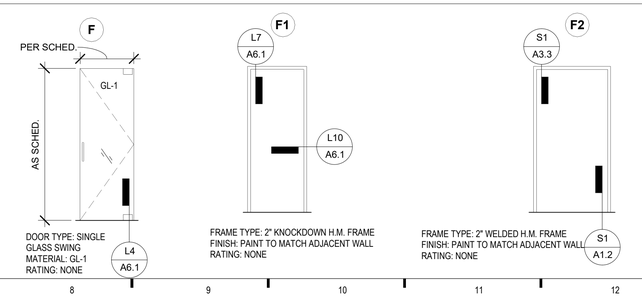
DOOR TYPE: SINGLE FLUSH SWING
MATERIAL: MDF W/ OAK VENEER
GLAZING: NONE
RATING: NONE

DOOR TYPE: FLUSH DOUBLE ACTING W/
VIEW PANEL
MATERIAL: BRUSHED STAINLESS STEEL
GLAZING: PLEXIGLASS VIEW PANEL
RATING: NONE

DOOR TYPE: DOUBLE FLUSH SWING
MATERIAL: ALUM & GLASS
GLAZING: LARGE VISION WINDOW
RATING: NONE

DOOR TYPE: SINGLE FLUSH SWING
MATERIAL: ALUM & GLASS
GLAZING: LARGE VISION WINDOW
RATING: NONE

FRAME TYPES



DOOR TYPE: SINGLE
GLASS SWING
MATERIAL: GL-1
RATING: NONE

FRAME TYPE: 2" KNOCKDOWN H.M. FRAME
FINISH: PAINT TO MATCH ADJACENT WALL
RATING: NONE

FRAME TYPE: 2" WELDED H.M. FRAME
FINISH: PAINT TO MATCH ADJACENT WALL
RATING: NONE

SHEET NOTES

1. DOOR CLOSERS: IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.
2. DOOR OPENING FORCE. THE MAXIMUM FORCE FOR PUSHING OR PULLING OPEN A DOOR SHALL BE AS FOLLOWS: A) INTERIOR HINGED DOORS 5 LBS (22.2N) THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES THAT MAY HOLD THE DOOR IN A CLOSED POSITION
3. HARDWARE FINISH ON STOREFRONT DOORS TO MATCH STOREFRONT FINISH.
4. HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" A.F.F.
5. NON-EGRESS DOOR - PROVIDE KEYED LOCK AND KEEP LOCKED AT ALL TIMES.
6. PANIC HARDWARE TO BE PROVIDED FOR ALL EXIT DOORS.
7. THE FRONT AND REAR EXIT DOORS ARE REQUIRED TO HAVE APPROVED PANIC HARDWARE IN ACCORDANCE WITH SECTION 1010.1.10 OF THE 2012 IBC
8. EXCEPT AS SPECIFICALLY PERMITTED BY SECTION 1008.1.9 OF THE 2012 IBC EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

HARDWARE TYPES

HW-A EXTERIOR STOREFRONT
(1) THRESHOLD, YKK, ES0407
(1) CYLINDER, SAR, 942972626
(1) DOOR SWEEPS, YKK, H-7107
1 (1) PULL, YKK, H141
(1) EXIT PANIC BAR DEVICE, YKK, FIRST CHOICE 3700
(1) CLOSER, YKK, 4041 SMC
(2) SWEEP, NGP 102V
(1 SET) O/S PIVOTS, YKK, H2101RH/H2102LH
(VERIFY WITH VENDOR)

HW-D INTERIOR, RESTROOMS
(1 1/2) HINGES, MCK, TA2714X4-1/2X4-1/2XUS26D
(1) PUSH PLATE, BLD, 14X6"X16"XUS32D
(1) PULL, BLD, 27X2901 4"X16"XUS32D
(1) DOOR CLOSER, LCN, 4111N CUSH X ALUM X TB X I/RH I/LH
(3) SILENCERS, BLD, W07
(1) KICK PLATE, BLD, 8"X1/8"X34"XUS32D - INSTALL PUSH SIDE
(1) FLOOR STOP, BLD, 3063NX X US26D
1 (1) PRIVACY DEADBOLT WITH THUMBTURN, GRA, #19YU80, D292x626, UNSPC # 46171503

HW-E INTERIOR, DUAL ACTING
(2) PUSH PLATE, BLD, 27X2901 XUS32D
NOT USED

HW-G EXTERIOR SINGLE, SERVICE
(1-1/2) HINGES (PAIR), MCK, TA2714X4-1/2X4-1/2XUS32DXNRP
(1) PUSH PLATE, BLD, 47X6"X16"XUS32D
(1) PULL PLATE, BLD, 47X2901 4"X16"XUS32D
(1) DOOR CLOSER, LCN, 4111N CUSH X ALUM X TB X RH
(3) SILENCES, BLD, W07
(1) KICK PLATE, BLD, 8"X1/8"X34"XUS32D - INSTALL PUSH SIDE
1 (1) FLOOR STOP, BLD, 3063NX X US26D
(1) ROCKWOOD 619 DOOR VIEWER, MCK, 11/16"-1-1/16"
(1) LOCKGUARD, PRE, #1462SNL X US32D, STAINLESS STEEL
(1) THRESHOLD, NAT, 425X48"
(1 SET) WEATHERSTRIPPING, NAT, 160X1/48" & 160X1/48"-2/84"
(1) DRIPCAP, NAT, 16AX62"
1 (1) HEAVY DUTY RIM EXIT DEVICE, DSH, 1000R-42" WITH EXTERIOR KIL STOREROOM LATCH & OUTSIDE TRIM US32D

MANUFACTURERS LISTING:
"YKK" - YKK
"SAR" - SARGENT
"MCK" - MCKINNEY MFG.
"BLD" - BUILDERS BRASSWORKS
"LCN" - LCN CLOSERS
"PRE" - PRECISION HARDWARE
"NAT" - NATIONAL GUARD
"ARM" - ARM-A-DOR
"BES" - BEST LOCK
"GRA" - GRAINGER
"DSH" - DESIGN HARDWARE

DOOR ABBREVIATIONS

AL-SF	ALUMINUM STOREFRONT
CO	CASED OPENING
CG	COILING GRILLE
F	FLUSH
F (D)	FLUSH (DUTCH)
FACT	FACTORY
FG	FULL GLASS
FR 45	FIRE RATING LABEL IN MINUTES
G	GLASS
GL-#	GLAZING TYPE
HO	HOLD-OPEN
HM	HOLLOW METAL
HW	HARDWARE
MFR	MANUFACTURER'S STANDARD
NCO	NON-CASED OPENING
OPP	OPPOSITE
PNL	PANEL
PR	PAIR
PS	POCKET SLIDE
PT	PAINT
PVC	POLYVINYL CHLORIDE
S	SMOKE CONTROL "S" LABEL
STL	STEEL
STL-CC	STEEL COMPOSITE CORE
STL-KD	STEEL KNOCK-DOWN
STL-W	STEEL WELDED
T	TEMPERATURE RISE LABEL - DOOR
TC	TRANSPARENT FINISH - CLEAR
TS	TRANSPARENT FINISH - STAINED
WD	WOOD
WD-HC	WOOD HOLLOW CORE
WD-SC	WOOD SOLID CORE

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	02/14/2020

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
BRIAN T. KERN
NUMBER 2004014672
ARCHITECT
FEB 14 2020

PERMIT SET

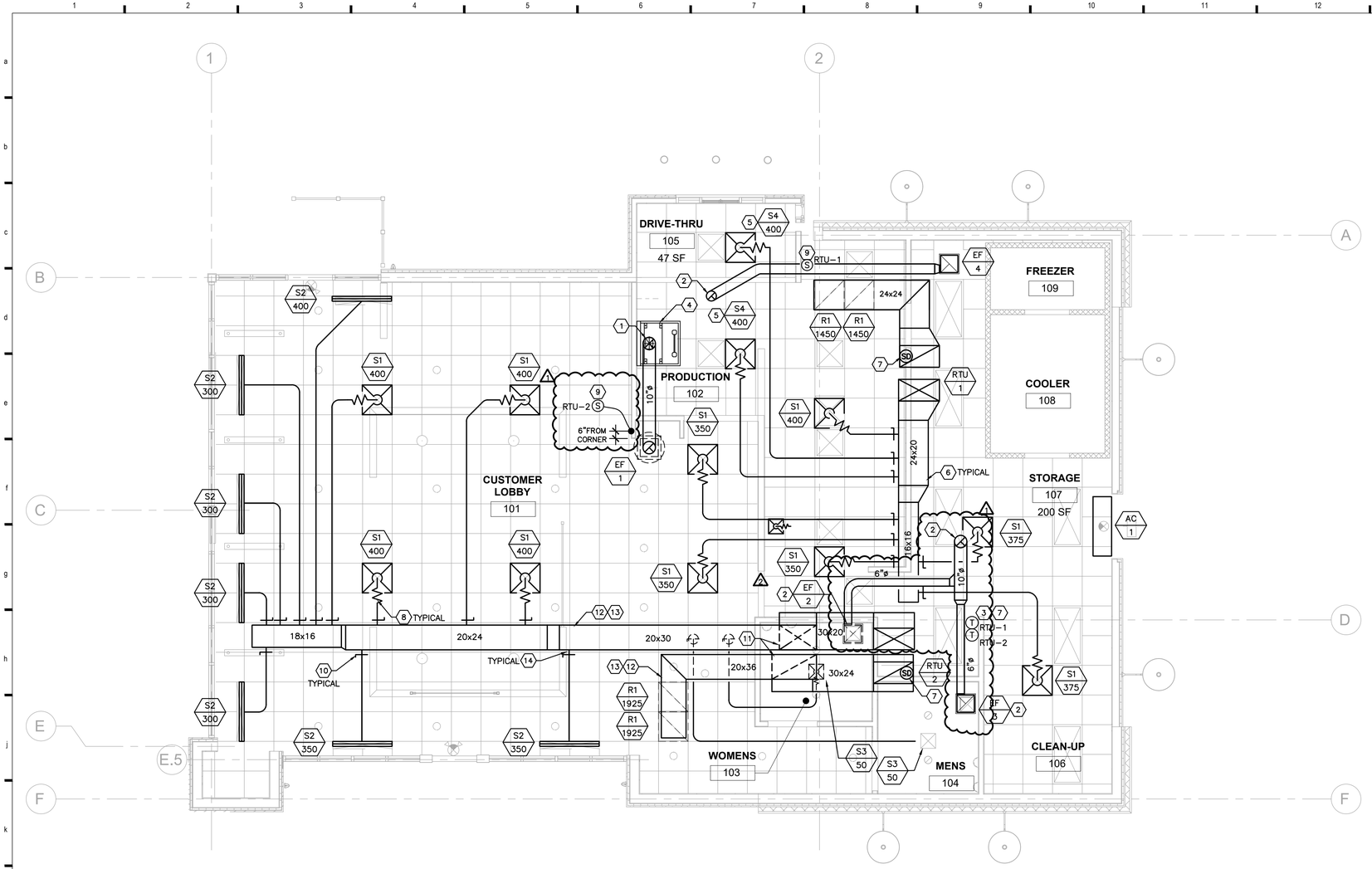
Client Approval

DOOR, WINDOW, HARDWARE SCHEDULES

Project #	52119-MO02
Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

A6.1

2/14/2020 2:38:48 PM LIONS CHOICE - LEE'S SUMMIT



1 MECHANICAL PLAN
1/4" = 1'-0"

GRAPHIC SCALE
4' 0 2' 4' 8' 16'
(IN FEET)
1 INCH = 4 FT.

MECHANICAL SYMBOLS LEGEND	
T	THERMOSTAT
	FLEXIBLE DUCT
	VOLUME DAMPER
FD	FIRE DAMPER
	CEILING SUPPLY AIR DIFFUSER
	CEILING RETURN AIR GRILLE
	NEW DUCTWORK
	EXISTING DUCTWORK
D	CONDENSATE DRAIN
	SUPPLY DUCT, SECTION
	RETURN DUCT, SECTION
	EXHAUST DUCT, SECTION
AD / #	AIR DEVICE # / CFM — S – SUPPLY, R – RETURN, E – EXHAUST

NOTE: GREASE DUCT SHOULD BE PROVIDED & INSTALLED BY GC/HVAC SUBCONTRACTOR

MECHANICAL KEYED NOTES

1. 10"ø EXHAUST RISER UP FROM HOOD COLLAR. EXTEND CAPTIVE AIRE DUCT UP TO FAN ON ROOF. IF WELDED EXHAUST DUCT IS USED, MECHANICAL CONTRACTOR TO PROVIDE EXHAUST DUCT AND FIRE BARRIER DUCT WRAP.
2. 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.
3. 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 4).
4. PROVIDE EXHAUST HOOD. SEE DRAWINGS SHEETS H1.0 AND MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION. VOLUME OF EXHAUST PER U.L. LISTING FOR HOOD. SEE ARCHITECTURAL DRAWINGS FOR HOOD MOUNTING LOCATION.
5. SUPPLY AIR DIFFUSER CFM RATES SHALL BE ADJUSTED AS REQUIRED FOR PROPER AIR FLOW AROUND THE HOOD.
6. 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.
7. PROVIDE DUCT SMOKE DETECTOR IN RETURN AIR DUCT TO SHUT DOWN UNIT UPON ACTIVATION. PROVIDE TEST/RESET SWITCH, PIEZO ALERT SOUNDER AND REMOTE ANNUNCIATOR ALARM LED MOUNTED, AS DIRECTED, BY LOCATION AHJ. PROVIDE ALL INTERLOCK WIRING. COORDINATE WITH ELECTRICAL CONTRACTOR FOR FINAL CONNECTIONS.
8. MAXIMUM FIVE (5) FEET OF FLEXIBLE DUCT. ONLY ONE 90° ELBOW ALLOWED IN FLEXIBLE DUCTWORK.
9. PROVIDE COMPATIBLE COMBINATION REMOTE TEMPERATURE AND HUMIDITY SENSORS. CONNECT TO CORRESPONDING THERMOSTATS AND RTUs. MOUNT 48" A.F.F. WITH A MINIMUM OF 8" TO THE EDGE OF THE WALL. COORDINATE EXACT LOCATION WITH OWNER ON SITE.
10. MANUAL BALANCE DAMPER (TYP). DAMPER TO BE INSTALLED SO THAT OPERATION IS FULLY ACCESSIBLE FROM LAY–IN CEILING.
11. ROUTE DUCT BELOW STRUCTURAL BEAM AND TURN UP 90 DEGREES. SEE DETAIL 10/M3.0
12. TURN DUCT TO FOLLOW THE UPWARD SLOPE OF THE CEILING.
13. ROUTE DUCT BETWEEN STRUCTURAL JOISTS. SEE DETAIL 10/M3.0
14. (TYP.) CONTRACTOR TO COORDINATE LOCATION OF BRANCH DUCTWORK WITH STRUCTURE PRIOR TO ANY WORK. CONTACT ENGINEER IMMEDIATELY IF ANY CONFLICTS WITH DUCTWORK GOING THROUGH JOIST WEBBING.

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, INCLUDING BUT NOT LIMITED TO, CEILING HEIGHTS 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 DUCT AS SHOWN AND TRANSITION AS REQUIRED TO HOOD TAPS. REFER TO HOOD DRAWINGS 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 15A 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, AND RTU'S WITH STEEL BEAMS AND JOIST. COORDINATE WITH STRUCTURAL ENGINEER.
12. ALL EXHAUST OUTLETS WILL BE A MINIMUM OF 10'–0" FROM ANY AIR INTAKE.
13. KITCHEN EXHAUST DUCT TO BE PROVIDED AND INSTALLED BY GC/HVAC CONTRACTOR.
14. ALL SUPPLY AND RETURN DUCTWORK TO BE INSULATED WITH AT R–5 INSULATION.

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CERTIFICATE OF AUTHORITY NO. 001498

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2230S
PROFESSIONAL ENGINEER
02-14-2020

PERMIT SET

Client Approval

Mechanical Plan

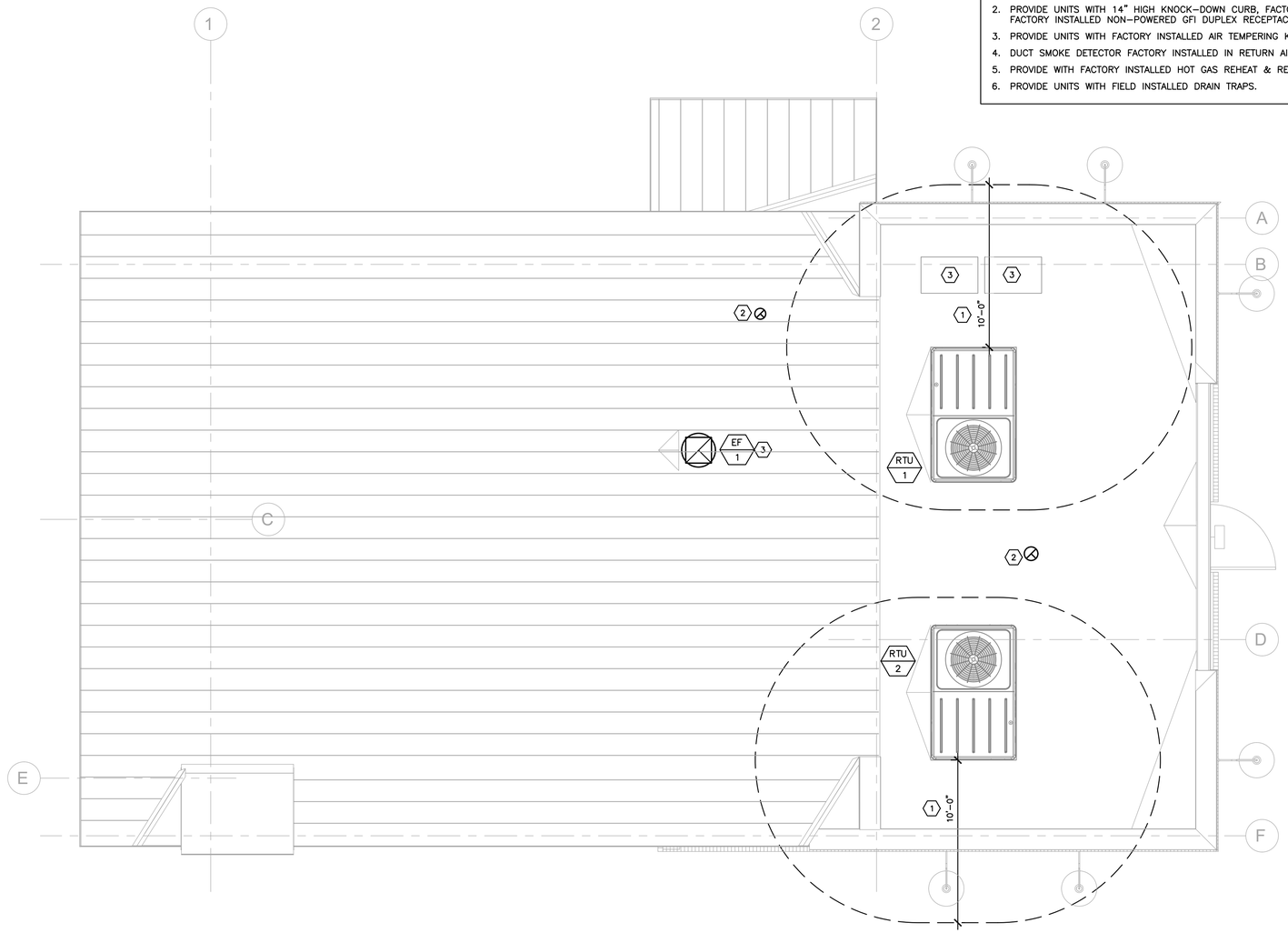
Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	IAF
Checked by	JV

M1.0

RTU SCHEDULE

MARK	MFGR	MODEL NO.	S.A. CFM	O.A. CFM	E.S.P. IN.W.G.	COOLING NOMINAL TONS	COOLING TTL/SENS MBH	COOLING EER	EAT (°F) DB/WB	LAT (°F) DB/WB	HEATING IN/OUT MBH	SUPPLY FAN HP EEF.	SUPPLY FAN (BHP)	SUPPLY FAN DRIVE	ELECTRICAL RPM	ELECTRICAL V/PH/HZ	ELECTRICAL MCA/MOCP	WEIGHT LBS.	REMARKS
RTU–1	TRANE	YHC092	3000	500	1.0	7.5	88.7/68.3	12.6	77.0/63.7	55.7/53.3	200/160	0.81	(1.18)	DIRECT	1055	208/3/60	46.1/60	1389	1,2,3,4,5,6
RTU–2	TRANE	YHC120	4000	750	1.0	10	109.8/90.8	12.4	78.7/65.2	56.2/55.0	250/200	0.81	(1.84)	DIRECT	1389	208/3/60	46.1/60	1608	1,2,3,4,5,6

1. FURNISH UNIT WITH FACTORY INSTALLED ECONOMIZER WITH ENTHALPY CONTROLLER, BAROMETRIC RELIEF DAMPERS, POWER EXHAUST, AND FIELD INSTALLED EXHAUST HOOD.
2. PROVIDE UNITS WITH 14" HIGH KNOCK–DOWN CURB, FACTORY MOUNTED DISCONNECT SWITCH, AND FACTORY INSTALLED NON–POWERED GFI DUPLEX RECEPTACLE.
3. PROVIDE UNITS WITH FACTORY INSTALLED AIR TEMPERING KITS.
4. DUCT SMOKE DETECTOR FACTORY INSTALLED IN RETURN AIR.
5. PROVIDE WITH FACTORY INSTALLED HOT GAS REHEAT & REMOTE WALL MOUNTED HUMIDITY SENSOR.
6. PROVIDE UNITS WITH FIELD INSTALLED DRAIN TRAPS.



1 MECHANICAL ROOF PLAN
1/4" = 1'–0"

EXHAUST FAN SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	CFM	ESP IN.W.G.	MOTOR SONES	MOTOR DRIVE	MOTOR RPM	MOTOR HP	V/PH/HZ	WEIGHT LBS.	REMARKS
EF–1	KITCHEN	CAPTIVEAIRE	SEE H DWGS	600	0.75	13.0	DIRECT	1392	1/3	115/1/60	95	1,2,3,4,6
EF–2	TOILET ROOM	COOK	GC–148	75	0.5	3.0	DIRECT	930	43W	115/1/60	13	4,5
EF–3	TOILET ROOM	COOK	GC–148	75	0.5	3.0	DIRECT	930	43W	115/1/60	13	4,5
EF–4	CO2 STORAGE	COOK	GC–542	300	0.5	3.5	DIRECT	1354	98W	115/1/60	26	4,7

1. VENTED 20" ROOF CURB EXTENSION, GREASE GUARDS, GREASE TERMINATORS, GREASE CUP AND HINGE KIT PROVIDED WITH FAN.
2. UNIT SHALL BE PROVIDED FROM FACTORY WITH DISCONNECT SWITCH, BIRDSCREEN, AND BACKDRAFT DAMPER.
3. VERIFY ELECTRICAL VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
4. MAINTAIN 10'–0" FROM ALL OUTSIDE AIR INTAKES (RTU–1,2).
5. CONTROLLED THROUGH LIGHT CIRCUIT.
6. INTERLOCK EF–1 WITH RTU–1,2. RTU'S SHALL BE ENERGIZED WITH EF–1 IS ENERGIZED.
7. RUN DURING OCCUPIED HOURS. INTERLOCK WITH TIMECLOCK.

DIFFUSER NECK/RUNOUT SIZE SCHEDULE	
NECK SIZE	CFM
6"ø	0 – 140
8"ø	150 – 250
10"ø	260 – 400
12"ø	410 – 600
14"ø	610 – 1000
16"ø	1010 – 1400
18"ø	1410 – 1900

AIR DEVICE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	MATL.	NECK SIZE	FRAME TYPE	PANEL SIZE	NOTES
S1	TITUS	TMS	ST	SCHED.	LAY–IN	24"x24"	1,2
S2	TITUS	TBDI–10	ST	12"ø	LAY–IN	48"x6"	1,2
S3	TITUS	TMS	ST	SCHED.	FLANGED	12"x12"	1,2
S4	TITUS	PAS	ST	SCHED.	LAY–IN	24"x24"	1,2
R1	TITUS	355RL	ST	SCHED.	LAY–IN	24"x24"	1,2

1. AIR DEVICE RUN–OUT SHALL BE SAME SIZE AS DIFFUSER NECK. FLEX DUCT, MAXIMUM LENGTH 5'–0".
2. ALL AIR DEVICES TO BE PAINTED TO MATCH THE CEILING, VERIFY COLOR WITH ARCHITECT.

VENTILATION SCHEDULE

ROOM NAME	OCCUPANCY CATEGORY	FLOOR AREA As(FT2)	OUTDOOR AIRFLOW RATE PER PERSON (CFM)	PEOPLE Ps(PEOPLE)	REQUIRED OUTDOOR AIRFLOW (CFM)	EXHAUST RATE (CFM/FT2)	REQUIRED EXHAUST AIRFLOW (CFM)	ACTUAL PROVIDED OUTDOOR AIRFLOW(CFM)	ACTUAL PROVIDED EXHAUST AIRFLOW(CFM)	MECHANICAL UNIT
CUSTOMER LOBBY	DINING ROOM	1156	7.5	66	495.0	0	0.0	500	0	RTU–1 & 2
KITCHEN	KITCHEN	558	7.5	8	60	0.7	390.6	491	600	RTU–2 & EF–1
STORAGE/ CLEAN–UP	STORAGE	300	0	1	0	1.0*	300.0	195	300	RTU–2, EF–1 & 4
MENS	PUBLIC TOILET	49	–	–	–	75 PER FIXTURE	75	32	75	RTU–2, EF–2
WOMENS	PUBLIC TOILET	49	–	–	–	75 PER FIXTURE	75	32	75	RTU–2, EF–3
TOTAL					555.0		840.6	1250.0	1050.0	

* VENTILATION REQUIRED PER 2015 IFC FOR CO2 STORAGE.

AIR BALANCE SCHEDULE

MARK	SUPPLY AIR	OUTSIDE AIR	EXHAUST AIR	RESULTING PRESSURE
RTU–1	3000	500	0	+500
RTU–2	4000	750	0	+1250
EF–1	–	–	–600	+650
EF–2, 3, 4	–	–	–450	+200
TOTALS	7000	1250	–1050	+200

AIR CURTAIN SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	LENGTH	MAX FPM	MOTOR HP	MOTOR V/PH/HZ	WEIGHT LBS.	REMARKS
AC–1	KITCHEN	POWERED AIR	RBT–1–148	48"	4218	3/4	208/1/60	47	1,2

1. PROVIDE DOOR ACTIVATED MICRO SWITCH FOR AUTOMATIC ON/OFF CONTROL.
2. FACTORY INSTALLED MAGNETIC DOOR SWITCH WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN UNIT.

MECHANICAL KEYED NOTES

1. CONTRACTOR SHALL ENSURE THAT EXHAUST FANS ARE AT LEAST 10'–0" AWAY FROM ANY OUTSIDE AIR INTAKES FOR RTU–1 AND RTU–2.
2. 10" EXHAUST DUCT THROUGH ROOF. PROVIDE ROOF CAP OR GOOSENECK WITH BIRD SCREEN.
3. ROOFTOP EXHAUST FAN: PROVIDE AND INSTALL NEW ROOFTOP DOWNBLAST BELT DRIVE EXHAUST FAN ON FACTORY CURB PER DETAIL 3/M300. SEE FAN SCHEDULE ON SHT. M100 FOR ADDITIONAL INFORMATION. VERIFY PITCH OF ROOF AND LEVEL CURB FOR PROPER OPERATION. PROVIDE AND INSTALL DUCTWORK PER PLAN. INSTALL CONTROL WIRE FOR CONTROLS AS REQUIRED. ELECTRICAL CONTRACTOR TO INSTALL CONDUIT FOR CONTROL WIRE. VERIFY AND COORDINATE POWER, CONTROL CONDUIT, AND DISCONNECT LOCATIONS WITH ELECTRICAL CONTRACTOR. START–UP, TEST, AND BALANCE FOR PROPER OPERATION.
3. LOCATION OF REMOTE CONDENSERS FOR ICE MACHINE AND COOLER/FREEZER.

GRAPHIC SCALE
4' 0 2' 4' 8' 16'
(IN FEET)
1 INCH = 4 FT.

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LIONS CHOICE - LEE'S SUMMIT
LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #014.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL B. CASE
NUMBER PE-23305
PROFESSIONAL ENGINEER
02-14-2020

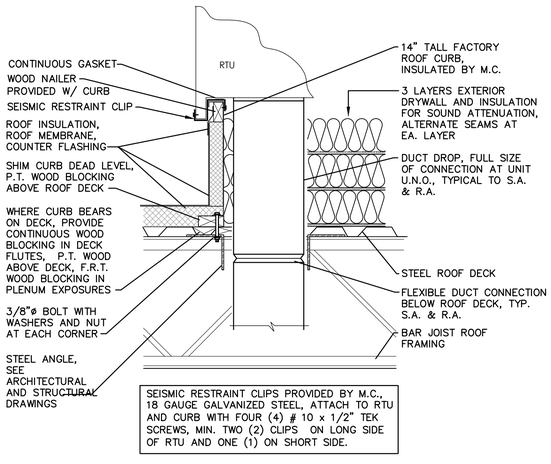
PERMIT SET

Client Approval

Mechanical Roof Plan & Schedules

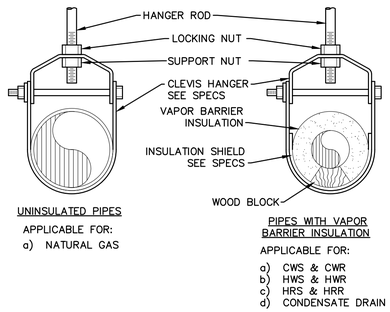
Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	IAF
Checked by	JV

M2.0



SEISMIC RESTRAINT CLIPS PROVIDED BY M.C., 18 GAUGE GALVANIZED STEEL, ATTACH TO RTU AND CURB WITH FOUR (4) # 10 x 1/2" TEK SCREWS, MIN. TWO (2) CLIPS ON LONG SIDE OF RTU AND ONE (1) ON SHORT SIDE.

1 M3.0 RTU CURB DETAIL
SCALE: NO SCALE



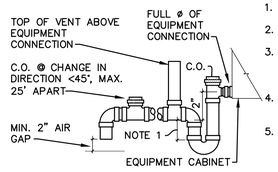
UNINSULATED PIPES

APPLICABLE FOR:
a) NATURAL GAS

PIPES WITH VAPOR BARRIER INSULATION

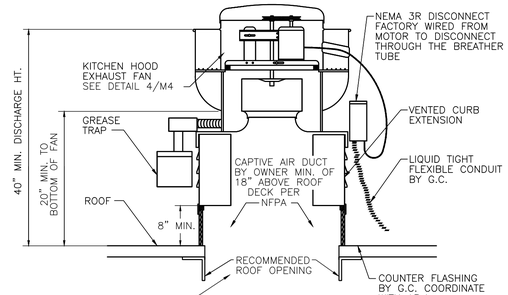
APPLICABLE FOR:
a) CWS & CWR
b) HWS & HWR
c) HRS & HRR
d) CONDENSATE DRAIN

5 M3.0 PIPE HANGER DETAIL
SCALE: NO SCALE



1. T.S.P. OF FAN PLUS 1" WATER
2. SLOPE PIPE MINIMUM 1%
3. TERMINATE CONDENSATE DRAIN WITH MINIMUM 2" AIR GAP AT ROOF DRAIN, GUTTER, OR FLOOR DRAIN
4. OMIT TRAP ON EQUIPMENT WITH INTERNAL TRAP, SEE I.O.M.
5. PIPE INSTALLATION SHALL PROVIDE SERVICE ACCESS TO EQUIPMENT AND TO TRAP.
6. INSULATE PIPE ON BUILDING INTERIOR AS SPECIFIED.

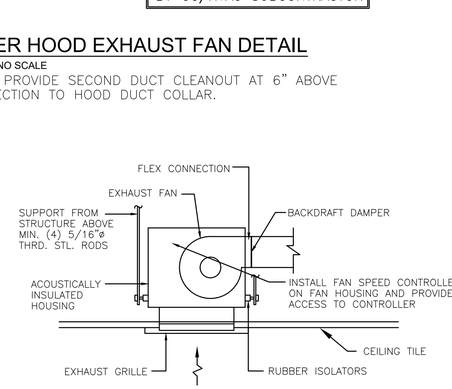
2 M3.0 AC EQUIPMENT CONDENSATE DRAIN
SCALE: NO SCALE



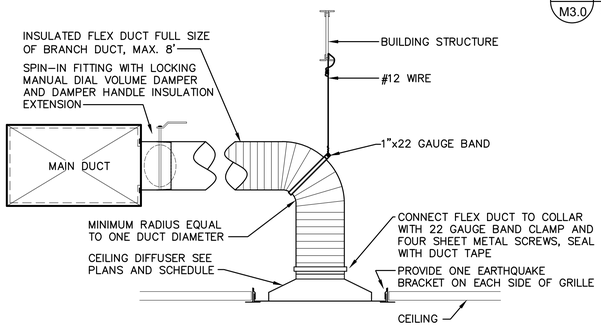
NOTE: GREASE DUCT SHOULD BE PROVIDED & INSTALLED BY GC/HVAC SUBCONTRACTOR

6 M3.0 FRYER HOOD EXHAUST FAN DETAIL
SCALE: NO SCALE

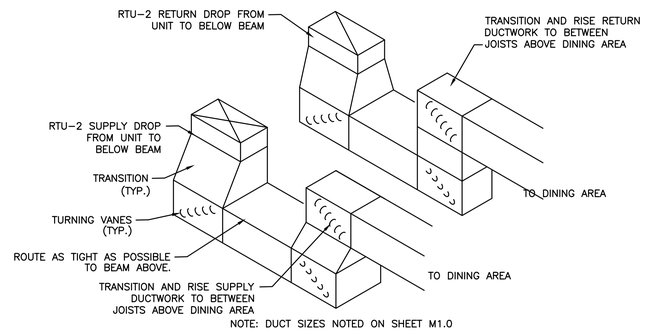
NOTE: PROVIDE SECOND DUCT CLEANOUT AT 6" ABOVE CONNECTION TO HOOD DUCT COLLAR.



9 M3.0 CEILING MTD. EXHAUST FAN
SCALE: NO SCALE

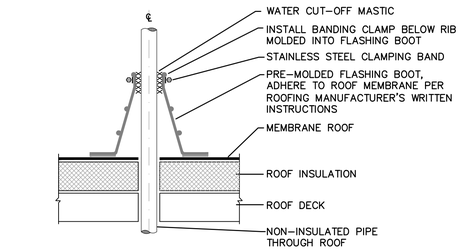


10 M3.0 BRANCH DUCT - AIR GRILLE DETAIL
SCALE: NO SCALE

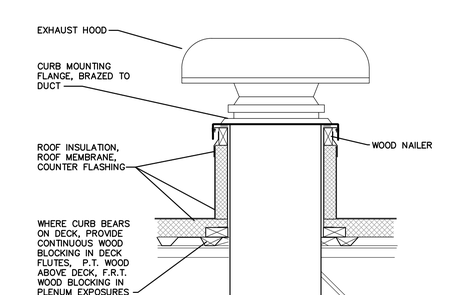


NOTE: DUCT SIZES NOTED ON SHEET M1.0

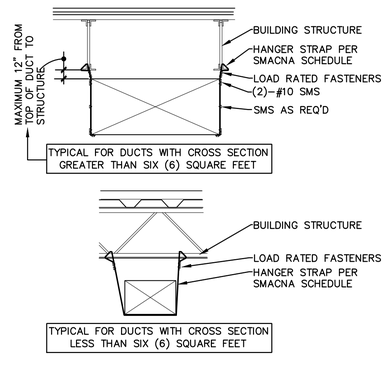
11 M3.0 RTU-2 DUCTWORK DETAIL
SCALE: NO SCALE



3 M3.0 PIPE THROUGH ROOF DETAIL
SCALE: NO SCALE



7 M3.0 CEILING EXHAUST FAN VENT DETAIL
SCALE: NO SCALE



4 M3.0 DUCT HANGER DETAIL
SCALE: NO SCALE

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23305
PROFESSIONAL ENGINEER
02-14-2020

PERMIT SET

Client Approval

Mechanical Details

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	IAF
Checked by	JV

M3.0

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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. 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.

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

Oculus Inc.
CONNECT • SHAPE • MOVE
ARCHITECTURE • INTERIOR DESIGN • PLANNING
ONE SOUTH MEMORIAL DRIVE, SUITE 1500ST. LOUIS, MO. 63102
(314) 367-6100

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL B. CASE
NUMBER PE-23305
PROFESSIONAL ENGINEER
02-14-2020

PERMIT SET

Client Approval

Mechanical Specifications

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	IAF
Checked by	JV

M4.0

HOOD INFORMATION – Job#3978648

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	APPLIANCE DUTY	DESIGN CFM/ft	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.	HOOD CONSTRUCTION	HOOD CONFIG. END TO END	ROW
1	Item 37	3347 BD-2	3' 0"	600 Deg.	Heavy	200	600	8"	7'	4'		600	1543	-0.482"	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 WGHT
1	Item 37	Captrate Solo Filter	2	16'	16'	85% See Filter Spec.	2	L55 Series E26	NO	Wall Mnt	12"x48"x24"	Ansul R102	3.0	SC-110110FP	1 Light 1 Fan	YES	145 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1	Item 37	RIGHT QUARTER END PANEL 23" Top Width, 0" Bottom Width, 23" High 430 SS
		LEFT QUARTER END PANEL 23" Top Width, 0" Bottom Width, 23" High 430 SS
		SENSOR-CV

Fire System Information – Job#3978648

FIRE SYSTEM NO.	Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION SYSTEM	INSTALLATION LOCATION ON HOOD
1	Item 37	Ansul R102	3.0	8	Wall Utility Cabinet Left	N/A

GAS VALVE(S)

FIRE SYSTEM NO.	TAG	TYPE	SIZE	SUPPLIED BY
1	Item 37	Mechanical	1.500	Distributor

EXHAUST FAN INFORMATION – Job#3978648

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	E.S.P.	RPM	H.P.	B.H.P.	ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS.)	SONES
1	Item 37	DU03HFA	600	0.750	1392	0.333	0.1780	1	115	5.6	297 FPM	75	13

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. - Descr.)
1	Item 37	1 - Grease Box
		1 - Exhaust Fan Heat Baffle

FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST GREASE CUP	EXHAUST GRAVITY DAMPER	EXHAUST WALL MOUNT	SUPPLY SIDE DISCHARGE	SUPPLY GRAVITY DAMPER	SUPPLY MOTORIZED DAMPER	SUPPLY WALL MOUNT
1	Item 37	YES						

CURB ASSEMBLIES

NO.	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	Item 37	31 LBS	Curb	19.500"W x 19.500"L x 20.000"H 1.000-12.000 Pitch Hinged

ELECTRICAL PACKAGE – Job#3978648

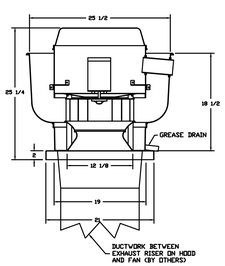
NO.	TAG	PACKAGE #	LOCATION	SWITCHES LOCATION	SWITCHES QUANTITY	OPTION	FANS CONTROLLED FAN TAG	TYPE	◊	H.P.	VOLT	FLA
1	Item 37	SC-110110FP	Wall Utility Cabinet Left	GE = Face Mount Right Side of Hood Hood # 1	1 Light 1 Fan	Smart Controls Thermostatic Control	Item 37	Exhaust	1	0.333	115	5.6

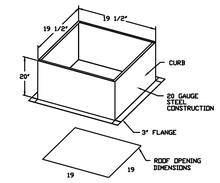
CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:

ETL SANITATION LISTED

ETL LISTED FILE# 3054804-001

FAN #1 DU03HFA - EXHAUST FAN (ITEM 37)







FEATURES:

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

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.
EXHAUST FAN HEAT BAFFLE.

BD-2 Specification

The model BD-2 is a low proximity hood with optional rear discharge make-up plenum (BD-2-BR) 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. The manufacturer and ETL, shall determine individual component construction. 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, which 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. Connectors shall have 9/16" holes pre-punched in 1 ¼" x 1 ¼" angle iron at the factory to allow for hanger rod connection by others.

Ventilator shall be furnished with UL. 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.

UL. incandescent light fixtures and globes shall be installed and pre-wired to a junction box where available on 30" to 36" models. The light fixtures shall be installed with a maximum of 4'0" 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 on 30"-36" wide sizes. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 96B.
- An integral baffle to direct grease laden vapors toward the exhaust filter bank.
- 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 220 CFM/Ft.

Optional back supply plenum shall provide make-up air discharged below the cooking equipment. All seams shall be welded and have stainless steel on exposed surfaces. Perforated diffuser plates shall be included in the design, to provide even air distribution. Unexposed surfaces shall be constructed of aluminized steel. Plenum shall be insulated to prevent condensation.

Optional Features
- Back Supply Plenum
- End Panels
- Captrate Combo, Captrate Solo, high efficiency stainless steel baffle, stainless steel baffle, and high velocity cartridge filters
- Enclosure Panels
- Utility Cabinet

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

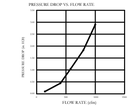
THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A 16" DEEP BAFFLE WITH A HOOK AND A 3" INTERNAL STANDOFF WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 5-INCH DEEP HOOD CHANNELS.

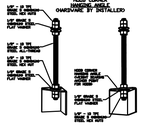
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TVD COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.6 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05.

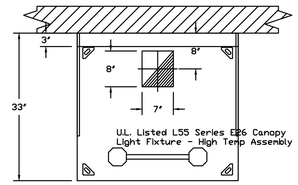


CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA 96
MSP STANDARD 82
UL STANDARD 8046
INT. MECH. CODE (IMC)
ULC-S649

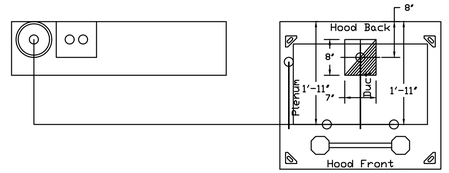


ASSEMBLY INSTRUCTIONS

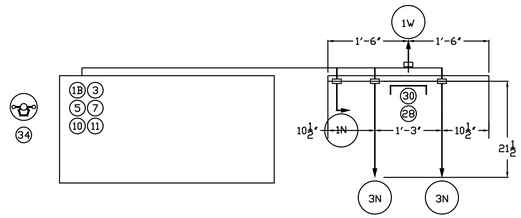
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 OVERHUNG ALL-THREAD SAMEVIEW HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 OVERHUNG ALL-THREAD SAMEVIEW HANGING ANGLES AND GRADE 5 OVERHUNG HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 37 FT-LBS.

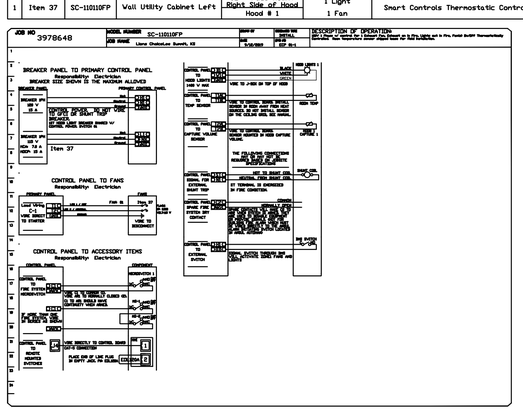


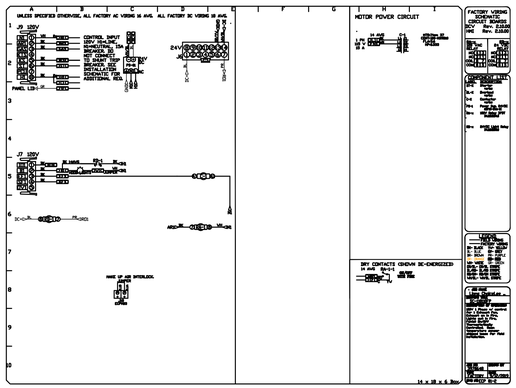
PLAN VIEW – Hood #1 (Item 37)
3' 0.00" LONG 3347BD-2

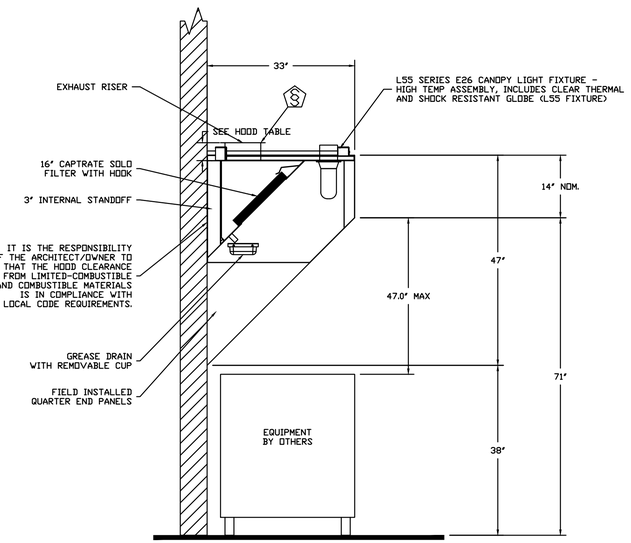


Hood # 1 Job # 3978648
Model: BD-2 Size: 33"x47"
Length: 3' 0"

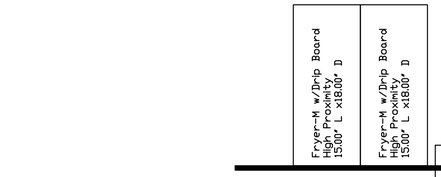








SECTION VIEW – MODEL 3347BD-2
HOOD – #1 (Item 37)



REVISIONS		
	DESCRIPTION	DATE:
△		
△		
△		
△		

Lions ChoiceLee Summit, KS
LEES SUMMIT, MO, 64082

DATE: 9/12/2019

DWG.#: 3978648

DRAWN BY: JB-72

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

MASTER DRAWING

SHEET NO.

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

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LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI * DARRELL E. CASE * NUMBER PE-2005035 * PROFESSIONAL ENGINEER
02-14-2020

PERMIT SET

Client Approval

MECHANICAL HOOD DRAWINGS

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	IAF
Checked by	JV

H1.0

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 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.

GENERAL PROVISIONS

1. SCOPE: 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.

   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.

   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.

2. 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.

   A. DRAWINGS: 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.

   B. 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 90 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. ALL TRENCHES UNDER ASPHALT OR CONCRETE PAVED SURFACES SHALL BE BACKFILLED WITH STABILIZED CONCRETE OR FLOW FILL TO THE BOTTOM OF THE ASPHALT OR CONCRETE SURFACE AND THEN TOPPED WITH THE SAME MATERIAL AND SAME THICKNESS AS THAT ADJACENT TO THE TRENCH. ASPHALT AND CONCRETE SHALL BE SAW CUT IN SQUARE OR RECTANGULAR SECTIONS FOR REPAIRS. LANDLORD APPROVED PAVING CONTRACTOR SHALL BE USED FOR MAKING PAVING REPAIRS.

4. 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.

   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.

   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.

5. NATURAL GAS PIPING: FOR ABOVE GROUND INSTALLATIONS, ALL FITTINGS TO BE JOINED WITH TEFLON TAPE SEAL OR OTHER SUITABLE SEAL AND MADE IN CONFORMANCE 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 OIL, THREAD CUTTINGS AND RESIDUALS TO ACCEPT ENAMEL PAINT. ROUGH OR SHARP EXPOSED THREAD SURFACES SHALL BE FILED SMOOTH. TESTING SHALL BE AS OUTLINED UNDER SECTION 15A, PARAGRAPH 11, TESTS.

6. 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 - HIGH TEMPERATURE, SOLDER, 1200 DEG. F OR GREATER MELTING POINT.

   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. INSULATION: INSULATION FOR COLD WATER PIPING SHALL BE 1/2" THICK ARMAFLEX UL LABELED OR FIBERGLASS 25 WITH ASJ/SSL FOIL/VINYL JACKET OR EQUAL. INSULATE ALL PIPING AND FITTINGS.

   D. INSULATION: INSULATION FOR HOT AND HOT WATER RETURN PIPING SHALL BE 1" THICK ARMAFLEX UL LABELED OR FIBERGLASS 25 WITH ASJ/SSL FOIL/VINYL JACKET OR EQUAL. INSULATE ALL PIPING AND FITTINGS.

7. GAS PIPING

   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.

8. WASTE PIPING: INSTALL HORIZONTAL DRAIN AND WASTE PIPES WITH MIN. 1/8"/FT. SLOPE.

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

9. PIPE SLEEVES/ESCUTCHEONS: PROVIDE CHROME-PLATED ESCUTCHEONS ON ALL PIPES PASSING THROUGH WALLS, FLOORS, OR CEILINGS OF FINISHED ROOMS. ESCUTCHEONS TO BE BEATON & CADWELL, #10, 40, 6A OR EQUIVALENT WITH SET-SCREWS. PROVIDE ESCUTCHEONS ON ALL WASTE LINES FROM PLUMBING FIXTURES, WHETHER THROUGH WALLS, FLOORS, AND WHETHER CONCEALED BEHIND COUNTERS OR EXPOSED. PIPE SLEEVES SHALL BE PROVIDED WHEN PIPES PENETRATE FOUNDATION AND SHALL BE 1" LARGER THAN PIPE, SEAL SLEEVE W/CAULKING.

10. PLUMBING FIXTURES: FURNISH AND INSTALL PLUMBING FIXTURES AS SHOWN ON DRAWINGS WITH ALL ACCESSORIES AND TRIM AS LISTED. ALL FIXTURES SHALL BE PROTECTED THROUGH THE COURSE OF THE CONSTRUCTION. ANY FIXTURE DAMAGED SHALL BE REPLACED WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

11. CONNECTION TO OTHER FIXTURES: CONNECT BUILDING SERVICE PIPING, INCLUDING BUT NOT LIMITED TO WATER, DRAIN, AND GAS PIPES TO FOOD SERVICE EQUIPMENT AS INDICATED IN EQUIPMENT SPECIFICATIONS. PROVIDE BACKFLOW PROTECTION ON ICE MACHINES AND BEVERAGE EQUIPMENT SUPPLY CONNECTIONS.

12. TESTS:

   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. WATER 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.

13. 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.

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

15. 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.

16. 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.

WATER HEATER SCHEDULE

MARK	MFR	MODEL	GPM	RECOVERY	°F. RISE	VOLT/PHASE	HEAT INPUT	REMARKS	SUPP	INST
GWH-1	RHEEM	RTGH-RH11DV	4.5	NA	77°	120/1	199 MBH	INSTANT	GC	GC

KITCHEN EQUIPMENT SCHEDULE

ITEM NUMBER	DESCRIPTION	MFR	MODEL	SUPP	INST
6	ICE MACHINE	SCOTSMAN	NO922R-32A	OWNER	GC
7	DINING SODA	BY OTHERS		GC	GC
27	CUSTARD MACHINE	BY OTHERS	-	GC	GC
32	DRIVE THRU SODA	BY OTHERS		GC	GC
41	FRYER	HENNY PENNY	EED-242	OWNER	GC
45	HAND SINK	EAGLE GROUP	HAS-10-F	OWNER	GC
48	COOK AND HOLD OVEN	BY OWNER	BY OWNER	OWNER	GC
49	COFFEE / TEA BREWER	BUNN	ITCB-TWIN-HV	OWNER	GC
53	DROP-IN HOT FOOD UNIT	SERVCO	-	GC	GC
64	STEAM GENERATOR	BY OTHERS	-	GC	GC
66	WALK IN COOLER / FREEZER	NORLAKE	CUSTOM	GC	GC
74	BEER TOWER DRAIN TRAY	FIAT	MSBID2424	OWNER	GC
78	WATER HEATER	SEE SCHEDULE	SEE SCHEDULE	-	-
82	BAG-IN-BOX	BY OTHERS		GC	GC
85	THREE COMPARTMENT SINK	JOHN BOOS	3PB1620-2D18	OWNER	GC
92	DRIVE-THRU ICE MACHINE	SCOTSMAN	NO622R-1	OWNER	GC
103	COOK & HOLD OVEN	WINSTON	CAC507	OWNER	GC

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	SAN.	VENT	C.W.	H.W.	REMARKS
LAV-1	LAVATORY LUCERNE VITREOUS CHINA AMERICAN STANDARD 0356.041 SINGLE CENTER FAUCET HOLE WALL HUNG	2"	2"	1/2"	1/2" -	PROVIDE ZURN AQUASENSE Z6913-XL (1.15GPM) WITH MIXING VALVE BELOW COUNTER, VANDAL RESISTANT. R367 1-1/4" P-TRAP AND ARM, CLEANOUT, AND ESCUTCHION. PROVIDE TRUEBRO LAVGAURD AND ZURN Z1224 RIGID SYSTEM LAV SUPPORT.
WC-1	WATER CLOSET, AMERICAN STANDARD- CADET FLOWISE RIGHT HEIGHT (ADA) PRESSURE ASSISTED	3"	2"	1/2"	-	EXTRA HEAVY DUTY OPEN FRONT WHITE TOILET SEAT, WHITE FIXTURE. ADA COMPLIANT, 1.6 GPF PRESSURE ASSISTED TANK TYPE, ANSI A117.1
WCO	WALL CLEANOUT ZURN Z1446-3-VP	-	-	-	-	SQUARE OR RECTANGULAR FRAMES WITH HINGED LOCKED DOOR, FACE-OFF WALL TYPE PRIMER.
FD-1	FLOOR DRAIN ZURN ZS415-4NH-SQ6	3"	2"	-	-	HEAVY DUTY SQUARE SS STRAINER AND TRAP
FS-1	FLOOR SINK ZURN Z1902-3NH	3"	2"	-	-	12"X12"X10" FLOOR AREA DN INDIRECT SANITARY WASTE DRAIN. A.R.E. LOOSE SET 1/2 GRATE
HD-1	HUB DRAIN ZURN Z325-3	3"	2"	-	-	3" INDIRECT WASTE FUNNEL WITH INTEGRAL BACKWATER VALE.
TMV-1	THERMOSTATIC MIXING VALVE ZURN 38-ZW3870XLT	-	-	3/8"	3/8"	PROVIDE 110° OUTLET TEMPERATURE
BFP-1	BACKFLOW PREVENTER ZURN 38-740 (DUAL CHECK)	-	-	3/8"	-	SODA DISPENSER, TEA, ICE MACHINE - ASSE 1022
CP-1	CIRCULATING PUMP TACO MODEL 006	-	-	-	3/4"	115V, 3250 RPM, PROVIDE WITH AQUASTAT
RD-1	COMBINATION MAIN ROOF DRAIN AND OVERFLOW DRAIN ZURN Z164 12" LOW SILHOUETTE DOME	4"	-	-	-	12"ø DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARDS, DOUBLE TOP-SET DECK PLATE, AND LOW SILHOUETTE CAST IRON DOME.
RD-2	COMBINATION MAIN ROOF DRAIN AND OVERFLOW DRAIN ZURN Z164 12" LOW SILHOUETTE DOME	3"	-	-	-	12"ø DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARDS, DOUBLE TOP-SET DECK PLATE, AND LOW SILHOUETTE CAST IRON DOME.
SD-1	SCUPPER DRAIN ZURN Z199	SEE ABOVE	-	-	-	PLAIN BRONZE BODY WITH GASKET, PLAN BRONZE GRATE WITH INTEGRAL MEMBRANE CLAMP.
YH-1	YARD HYDRANT WOODFORD MODEL Y34	-	-	3/4"	-	GALVANIZED STEEL PIPE

GENERAL PLUMBING NOTES

1. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS, AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
2. FURNISH A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE OWNER REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS PREPARED BY THE ENGINEER-OF-RECORD AFTER FINAL INSPECTION OF INSTALLED PLUMBING SYSTEMS.
3. FURNISH TO THE OWNER A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM THE LOCAL AND STATE INSPECTIONS.
4. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
5. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.
6. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
7. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
8. PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEALED; EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO WALLS.
9. COORDINATE ALL WITH WITH OTHER TRADES AND CONTRACTORS.
10. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR, AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.
11. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.
12. PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES.
13. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS.
14. PAINT ALL EXPOSED GAS PIPING USING RUST INHIBITOR PAINT. PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND / OR OWNER. GAS PIPE ON BACK WALL OF THE BUILDING SHALL BE PAINTED SHERWIN WILLIAMS SW6054 CANYON CLAY TO MATCH THE BACK WALL OF THE BUILDING.
15. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
16. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING. ALL OTHER COLD AND HOT WATER LINES SHALL BE INSULATED WITH MINIMUM OF 3/4" FIBERGLASS INSULATION.
17. PROVIDE SHIELDED ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON AT SLAB ON GRADE. SEE DIVISION 15 SPECIFICATION SECTION "DRAINAGE AND VENT SYSTEMS" FOR MORE INFORMATION.
18. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.
19. PROVIDE CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES.
20. AIR PIPING MUST BE BLED THOROUGHLY PRIOR TO CONNECTING TO TOOLS OR EQUIPMENT.

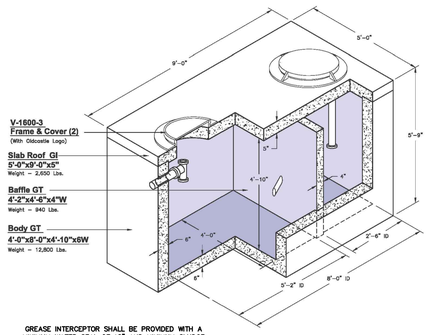
PLUMBING SYMBOLS LEGEND

— G —	GAS PIPING
— CD —	CONDENSATE DRAIN PIPING
— - —	COLD WATER PIPING
— - - - —	HOT WATER PIPING (140°)
— - - - - —	HOT WATER RECIRCULATING PIPING
—SAN—	SANITARY WASTE PIPING
— FW —	FILTERED WATER PIPING
—140°—	140° WATER PIPING
— GW —	GREASE WASTE PIPING
- - - - - -	SANITARY VENT PIPING
VTR	VENT THROUGH ROOF
	PLUMBING TRAP
	PIPE TURNING DOWN
	PIPE TURNING UP
	CHECK VALVE
	UNION
AFF	ABOVE FINISHED FLOOR
CO	CLEAN OUT
	PRESSURE REGULATING VALVE (

Oldcastle Precast®

Water

750 Gallon Grease Interceptor
Model: 750-GI



GREASE INTERCEPTOR SHALL BE PROVIDED WITH A MINIMUM WATER SEAL OF 18" AND MINIMUM SLUDGE COLLECTION DEPTH OF 6". COORDINATE WITH MANUFACTURER THE DEPTH OF THE OUTLET PIPE TO ENSURE THE EFFICIENCY OF THE GREASE INTERCEPTOR CAN ACHIEVE A MINIMUM SEPARATION OF 1125 GREASE POUNDS PER QUARTER PRIOR TO PURCHASE.

SPECIFICATIONS:
1. Concrete: Design Strength of 5500 PSI at 28 Days.
2. Steel Reinforcement: ASTM A-615 Grade 60.
3. Loading: Designed for H5-20 Loading.
4. C.I. Castings: ASTM A-48 Class 30/35.

GENERAL NOTES:
1. Interceptor is Structurally and Hydraulically Engineered Conforming to Uniform Plumbing Code.
2. Liquid Capacity is 765 Gallons with Solids Retention Capacity of Approx. 2,004 Pounds.
3. Recommended for Flow Rate up to 21 GAL Per Minute.

Texas Region

For more information about our products please visit us on the web at: oldcastleprecast.com
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WT-13

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1

TABLE TO CALCULATE DRAINAGE FIXTURE UNITS FOR GREASE WASTE			
PLUMING FIXTURE	DRAINAGE FIXTURE UNITS	NUMBER OF FIXTURES	TOTAL DRAINAGE FIXTURE UNITS
FLOOR SINK	5	1	5
FLOOR DRAIN	3	3	9
MOP SINK	3	1	3
	TOTAL DRAINAGE UNITS		17

TABLE 10-3 GRAVITY GREASE INTERCEPTOR SIZING	
DFU'S	INTERCEPTOR VOLUME
8	500 GALLONS
21	750 GALLONS
35	1,000 GALLONS
90	1,250 GALLONS
172	1,500 GALLONS
216	2,000 GALLONS
307	2,500 GALLONS
342	3,000 GALLONS
428	4,000 GALLONS

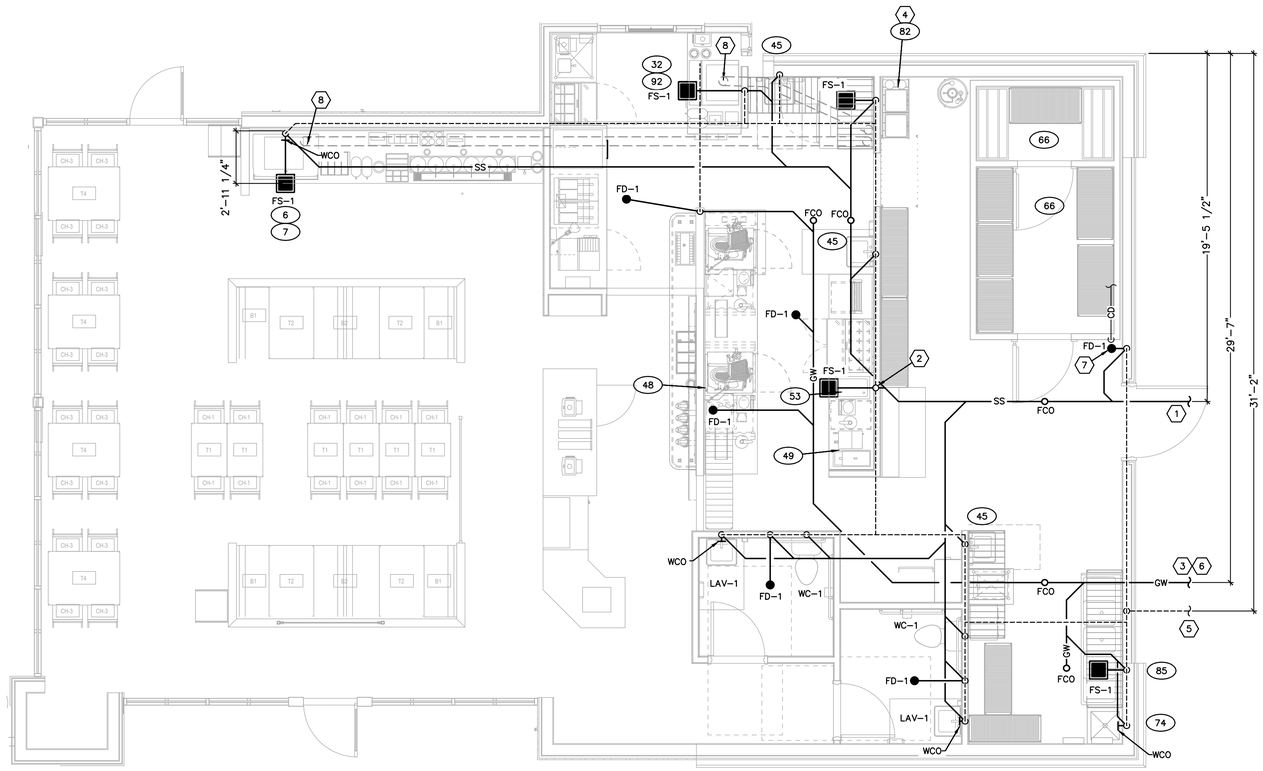
TABLE TO CALCULATE DRAINAGE FIXTURE UNITS			
PLUMING FIXTURE	DRAINAGE FIXTURE UNITS	NUMBER OF FIXTURES	TOTAL DRAINAGE FIXTURE UNITS
WATER CLOSET	4	2	8
LAVATORIES	1	2	2
HAND SINKS	2	3	6
MOP SINK	3	1	3
FLOOR DRAIN	3	6	18
FLOOR SINK	5	5	25
	TOTAL DRAINAGE FIXTURE UNITS		62
	SANITARY PIPE SIZE= 4"		

KITCHEN EQUIPMENT SCHEDULE	
ITEM NUMBER	DESCRIPTION
6	ICE MACHINE
7	DINING SODA
27	CUSTARD MACHINE
32	DRIVE THRU SODA
41	FRYER
45	HAND SINK
48	COOK AND HOLD OVEN
49	COFFEE / TEA BREWER
53	DROP IN HOT FOOD UNIT
64	STEAM GENERATOR
66	WALK IN COOLER / FREEZER
74	BEER TOWER DRAIN TRAY
78	WATER HEATER (GWH-1)
82	BAG-IN-BOX
85	THREE COMPARTMENT SINK
92	DRIVE-THRU ICE MACHINE
103	COOK & HOLD OVEN

NOTE:

- FLAT VENTING IS PROHIBITED. VENT SHALL BE MADE AT NOT LESS THAN 6" ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST TRAP OR TRAPPED FIXTURE BEING VENTED AND SLOPED BACK TO SANITARY PER CODE.
- 3-COMPARTMENT TO BE INDIRECTLY PLUMBED.
- ADD PANS UNDER EXPOSED SOIL OR WASTE PIPING AND CONDENSATE PIPES ABOVE FLOOR OR DRINK PREPARATION OR STORAGE AREAS.
- GREASE INTERCEPTOR SHALL MAINTAIN A MINIMUM OF 18" WATER SEAL.
- GREASE INTERCEPTOR CLEANING FREQUENCY SHALL BE BASED ON BROWN GREASE SURVEY STUDY OR EQUIVALENT, AND SHOULD NOT EXCEED 90 DAYS.
- RECOMMEND TO EPOXY-LINE ALL INTERIOR SURFACES OF THE CONCRETE GREASE INTERCEPTOR FOR LONGEVITY OF INTERCEPTOR.
- ALL SANITARY SEWER PIPING OUTSIDE THE BUILDING FOUNDATION IS SHOWN ON SHEET C500. THIS PIPING SHALL MEET LOCAL CODE STANDARDS AND SHALL BE INSPECTED BY LOCAL AHJ.
- FIELD INSPECTION OF ALL GREASE WASTE PLUMBING INSIDE THE BUILDING IS REQUIRED BEFORE THE PIPING IS COVERED.

FLOOR SINKS SHALL BE INSTALLED HALF-EXPOSED BELOW CABINET, OR IN ACCESSIBLE LOCATION FOR MAINTENANCE. COORDINATE ROUGH-IN WITH OTHER DISCIPLINES PRIOR TO ANY WORK.



1 PLUMBING FLOOR PLAN - SAN & VENT
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. VENT LINE TO BE SLOPED AT 1%.
2. SANITARY LINE TO BE SLOPED AT 2%.
3. ALL THE PLUMBING MUST BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL PLUMBING CODE, IN THE PRESENCE OF THE PLUMBING INSPECTOR.
4. VENT TERMINAL INCREASER FITTING SHALL HAVE A DIAMETER AT LEAST ONE INCH GREATER THAN THAT OF THE STACK IT SERVES, BUT NOT LESS THAN THREE INCHES IN DIAMETER.
5. THE USE OF VISIBLE COLORED PRIMER FOR ALL PVC GLUED JOINTS IS REQUIRED.
6. FOR PVC PIPE FOR SEWER, CLEAN GRAVEL OR OTHER APPROVED MATERIAL SHALL BE USED AS BEDDING AND BACKFILL. A MINIMUM OF 4 INCHES OF BEDDING MATERIAL SHALL BE PLACE IN THE TRENCH THROUGHOUT THE ENTIRE LENGTH OF THE SEWER BEFORE ANY PIPE IS INSTALLED. AFTER INSPECTION APPROVAL, 12 INCHES OF BACKFILL MATERIAL SHALL BE REQUIRED OVER THE TOP OF THE PIPE.
7. HANGERS, ANCHORS, AND SUPPORTS SHALL BE SECURELY ATTACHED TO THE BUILDING STRUCTURE AT INTERVALS AS REQUIRED BY CODE.
8. CONTACT CITY OFFICIAL TO INSPECT EXTERIOR CLEAN-OUT ASSEMBLY, PRIOR TO BACK FILL THEN AFTER ITS CONCRETE IS IN PLACE.
9. PLEASE CONTACT CITY OFFICIAL TO COORDINATE AN INSPECTION OF THE INSTALLED FIXTURES (AS DESIGNATED IN THE PLUMBING FIXTURE SCHEDULE) THAT ARE TO BE CONNECTED TO THE GREASE WASTE AND SANITARY PIPING.
10. PRIOR TO MAKING ANY REVISIONS TO FIXTURES CONNECTED TO THE GREASE WASTE PIPING, PLEASE CONTACT CITY OFFICIAL FOR PRIOR APPROVAL.
11. FAILURE TO CONTACT CITY OFFICIAL FOR AN INSPECTION OF THE KITCHEN FIXTURES, GREASE TRAP AND EXTERIOR CLEAN OUT, AS NOTED IN ITEM 8 AND 9 ABOVE, WILL RESULT IN NOT SIGNING OFF ON ITS END OF THE C OF O.
12. CHEMICAL FEED FOR THE MOP SINK TO BE CONNECTED TO COLD WATER LINE. CHEMICAL FEED FOR TRIPLE COMPARTMENT SINK TO BE CONNECTED TO TEMPERED WATER LINE.
13. SURFACE MOUNTED PIPING IS NOT ACCEPTABLE. PIPING AND CONDUITS OF ALL PIPES MUST BE CONCEALED WITHIN WALLS, FLOORS AND CEILINGS.
14. VENTING ABOVE HIGH RIM, 6" MINIMUM.

PLUMBING KEYED NOTES

1. ROUTE TO CONNECT TO EXISTING SANITARY SEWER PIPING, SEE CIVIL DRAWINGS FOR CONTINUATION. VERIFY INVERT ELEVATION, LOCATION AND SIZE PRIOR TO ANY WORK. CONTACT ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED. SEE CIVIL PLANS FOR CONTINUATION.
2. VENT PIPING THROUGH ROOF. MAINTAIN A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES.
3. ROUTE TO EXTERIOR BELOW GRADE GREASE INTERCEPTOR. SEE CIVIL DRAWINGS FOR CONTINUATION, SEE C500 FOR DETAILS. VERIFY INVERT ELEVATION, AND LOCATION PRIOR TO WORK WITH CIVIL DRAWINGS.
4. BAG-IN-BOX AND WATER FILTER RELIEF VALVE TO DISCHARGE INTO FLOOR SINK. VERIFY EQUIPMENT DRAIN PIPING INSTALLATION REQUIREMENTS, LOCATION AND SIZE PRIOR TO WORK. CONTACT ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
5. SANITARY VENT PIPING BELOW GRADE FROM GREASE INTERCEPTOR.
6. SEE CIVIL SHEET C500 FOR EXACT LOCATION AND ADDITIONAL INFORMATION ON THE SAMPLE WELL.
7. ROUTE CONDENSATE FROM WALK-IN COOLER TO DISCHARGE AT FLOOR DRAIN, PROVIDE FUNNEL AT DRAIN.
8. SODA LINES FROM SODA SYSTEM ROUTED THROUGH IN-FLOOR PVC CHASE. VERIFY WITH SODA VENDOR THE EXACT REQUIREMENTS BEFORE WORK.

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2330
PROFESSIONAL ENGINEER

02-14-2020

PERMIT SET

Client Approval

FLOOR PLAN- SAN & VENT

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	EBH
Checked by	

P2

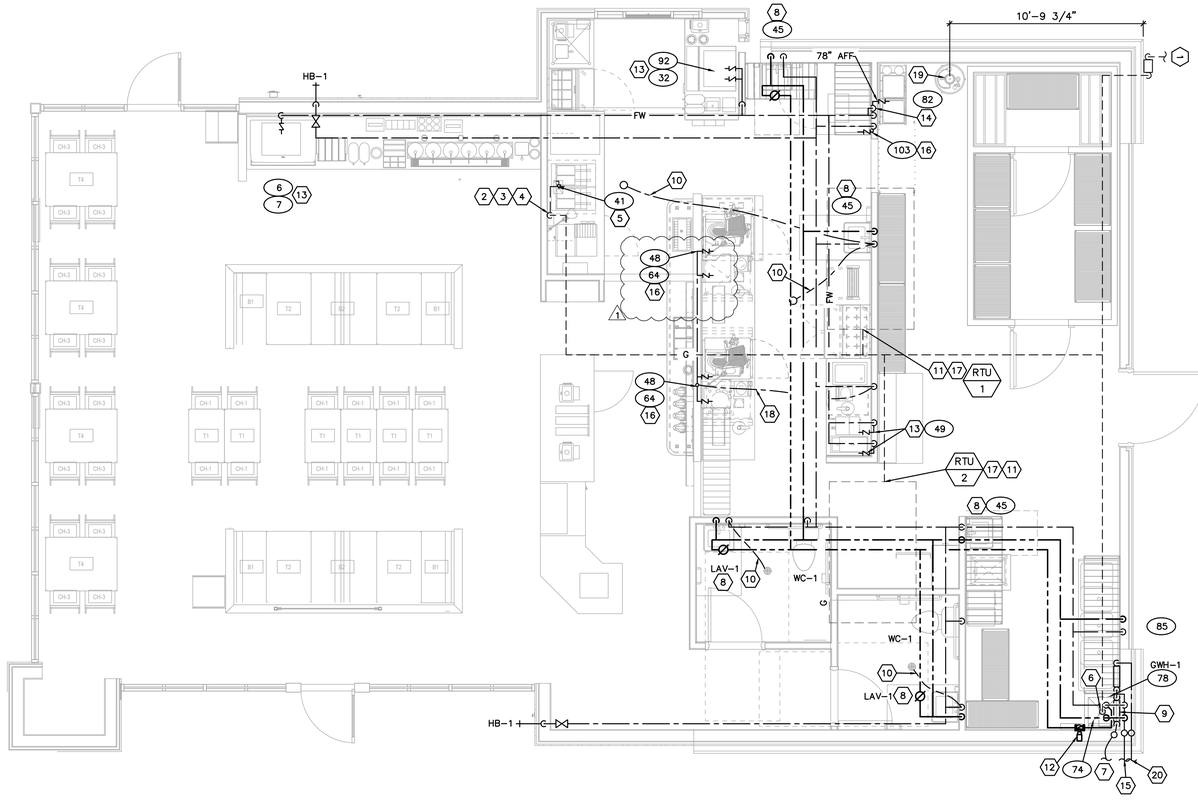
GAS LOAD SUMMARY			
SYSTEM	DESIGNATION	EQUIPMENT	MBH
DOMESTIC WATER	(78) GWH-1	WATER HEATER	199
		SUB-TOTAL	199
KITCHEN EQUIPMENT	KITCHEN	GAS FRYERS (2)	150
		SUB-TOTAL	150
BUILDING HEAT	RTU-1	ROOFTOP UNIT	200
	RTU-2	ROOFTOP UNIT	250
		SUB-TOTAL	450
TOTAL NATURAL GAS CONNECTED LOAD			799
GAS METER REQUIREMENTS	MBH CAPACITY		799
	TOTAL DEVELOPED LENGTH INCLUDING EQUIVALENT PIPE LENGTH FOR FITTING AND VALVE FRICTION LOSSES TO GAS METER.		91 FT X 1.2 =110 FT
	CONSULT GAS UTILITY COMPANY FOR REGULATOR RATING		

BACK FLOW PREVENTER ASSEMBLY REQUIREMENTS			
TYPE OF EQUIP. ON SYSTEM	METHOD OF CROSS CONNECTION CONTROL	MANUFACTURE AND MODEL NUMBER	REMARKS
SODA SYSTEM WATER FILTER	REDUCED PRESSURE ZONE ASSEMBLY	WATTS SD3-3QT ASSE 1022 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, COFFEE BREWER	DOUBLE CHECK VALVE ASSEMBLY	WATTS 9D-LF 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.

KITCHEN EQUIPMENT SCHEDULE	
ITEM NUMBER	DESCRIPTION
6	ICE MACHINE
7	DINING SODA
27	CUSTARD MACHINE
32	DRIVE THRU SODA
41	FRYER
45	HAND SINK
48	COOK AND HOLD OVEN
49	COFFEE / TEA BREWER
53	DROP IN HOT FOOD UNIT
64	STEAM GENERATOR
66	WALK IN COOLER / FREEZER
74	BEER TOWER DRAIN TRAY
78	WATER HEATER (GWH-1)
82	BAG-IN-BOX
85	THREE COMPARTMENT SINK
92	DRIVE-THRU ICE MACHINE
103	COOK & HOLD OVEN

TABLE TO CALCULATE WATER FIXTURE UNITS			
PLUMING FIXTURE	WATER FIXTURE UNITS	NUMBER OF FIXTURES	TOTAL WATER FIXTURE UNITS
WATER CLOSET	2.5	2	5.0
LAVATORIES	1	2	2
HAND SINKS	2	3	6
MOP SINK	3	1	3
3-COMPARTMENT SINK	3	1	3
SODA/ICE MACHINES	1	4	4
	TOTAL WATER FIXTURE UNITS		23.0
	(23 WFU=21 GPM) WATER PIPE SIZE= 1"		



1 PLUMBING FLOOR PLAN - CW, HW & GAS
SCALE: 1/4" = 1'-0"

NOTE:
TEST REPORTS FOR ALL NEW BACKFLOW DEVICES MUST BE RECEIVED BY THE WATER DEPARTMENT PRIOR TO APPROVAL OF FINAL INSPECTION.

PLUMBING KEYED NOTES

1. NEW GAS METER DEMAND = 799 MBH, (FIELD VERIFY ACTUAL LOCATION). APPROXIMATE LENGTH FROM FURTHEST FIXTURE TO METER BANK 110-0". CONTRACTOR TO VERIFY EXACT LENGTH, AVAILABLE PRESSURE AND LOCATION IN FIELD. COORDINATE EXACT INSTALLATION AND METER REQUIREMENTS WITH ATMOS ENERGY PRIOR TO ANY WORK.
2. MECHANICAL SHUTOFF VALVE BY CAPTIVEAIRE BELOW CEILING IN ACCESSIBLE LOCATION.
3. EMERGENCY SHUTOFF SOLENOID VALVE SWITCH WITHIN HOOD PROVIDED BY CAPTIVEAIRE. IF NOT, INSTALL IN ACCESSIBLE LOCATION RIGHT BELOW CEILING UPSTREAM OF MECHANICAL SHUTOFF VALVE.
4. GAS DOWN THROUGH ROOF TO MANIFOLD, PIPING SHALL BE INSTALLED OUTSIDE OF WALL
5. GAS TO FRYERS WITH SHUTOFF VALVE (150 MBH)
6. GAS DOWN THROUGH ROOF TO WATER HEATER WITH SHUTOFF VALVE (199 MBH)
7. ROUTE TO CONNECT TO SITE COLD WATER PIPING. SEE CIVIL DRAWINGS FOR CONTINUATION. VERIFY WITH WATER COMPANY FOR EXACT CONNECTION, DELIVERY PRESSURE AND METER REQUIREMENTS PRIOR TO WORK. WATER PIPING SIZE BASED ON MIN 65 PSI INCOMING STATIC WATER PRESSURE. PROVIDE PRESSURE REDUCING VALVE IF PRESSURE IS OVER 80 PSI. CONTACT ENGINEER IMMEDIATELY IF LOW PRESSURE (BELOW 65 PSI) OR DISCREPANCIES ARE FOUND FOR PIPING CHANGES. PROVIDE WATER SERVICE WITH A SHUTOFF VALVE ONCE WATER PIPING ENTERS BUILDING IN AN ACCESSIBLE LOCATION AND BEFORE ROUTING TO ANY EQUIPMENT.
8. PROVIDE MIXING VALVE AT THE POINT OF USE. SEE PLUMBING FIXTURE SCHEDULE ON DRAWING P1. REFER TO THE RISER DIAGRAM ON P4 FOR ADDITIONAL INFORMATION.
9. INSTALL REDUCED PRESSURE ZONE ASSEMBLY BACKFLOW PREVENTOR IMMEDIATELY AFTER INCOMING SERVICE ENTRANCE, PRIOR TO ANY WYE, TEE, OR BY-PASSES IN SERVICE LINE. BACK FLOW PREVENTOR TO BE WATTS LF-919-QT. SIZED FOR WATER SERVICE.
10. COLD WATER DOWN FROM TRAP PRIMER TO FLOOR DRAIN. SEE DETAIL ON DRAWING P5-01 FOR MORE INFORMATION.
11. CONDENSATE PIPING TO DISCHARGE ON TO ROOF.
12. CIRCULATING PUMP. SEE FIXTURE SCHEDULE ON P1 FOR MORE INFORMATION.
13. 1/2" COLD WATER DOWN TO COFFEE & TEA BREWER, ICE MACHINE, AND/OR SODA DISPENSER AT 50" AFF, PROVIDE BACKFLOW PREVENTER PRIOR TO CONNECTION TO EQUIPMENT.
14. ROUTE 3/4" COLD WATER DOWN TO BAG-IN-BOX RACK FOR SODA SYSTEM, AND WATER FILTER. PROVIDE BACKFLOW PROTECTION. COORDINATE WITH SODA VENDOR THE EXACT INSTALLATION REQUIREMENTS.
15. ROUTE 3/4" COLD WATER DOWN BELOW GRADE TO TRASH ENCLOSURE, UP TO YH-1. SEE SCHEDULE ON P1 FOR MORE INFORMATION.
16. FILTERED WATER DOWN TO COOK AND HOLD OVEN AND STEAM GENERATOR, AND COOK AND HOLD OVENS, PROVIDE BACKFLOW DEVICE AT CONNECTION WHERE REQUIRED BY AHJ OR LOCAL PLUMBING INSPECTOR.
17. GAS ON ROOF TO CONNECT TO NEW RTU, PROVIDE DIRT LEG AND CONNECTION.
18. COLD WATER DOWN IN WALL, BELOW SLAB, AND UP TO FIXTURE.
19. INSTALL CO2 PORT FOR KITCHEN EQUIPMENT, PROVIDED BY OWNER. INSTALL AT 48" AFF AND SEAL EACH SIDE. REFER TO SHEET R1.
20. 3/4" CW DOWN TO CAPPED STUB OUT FOR IRRIGATION CONNECTION. PROVIDE WITH REDUCED PRESSURE ZONE BACKFLOW PREVENTER LOCATED ABOVE MOP SINK. COORDINATE IRRIGATION CONTROLS WITH ELECTRIC CONTRACTOR.

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #614.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2330
PROFESSIONAL ENGINEER
02-14-2020

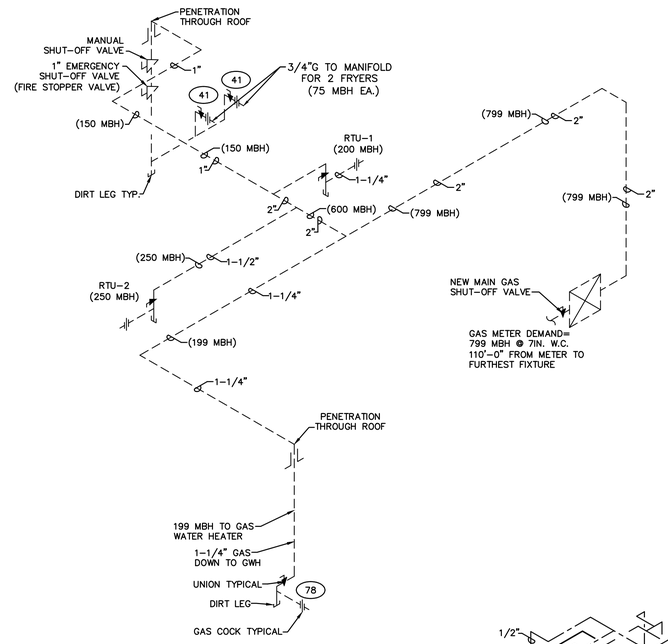
PERMIT SET

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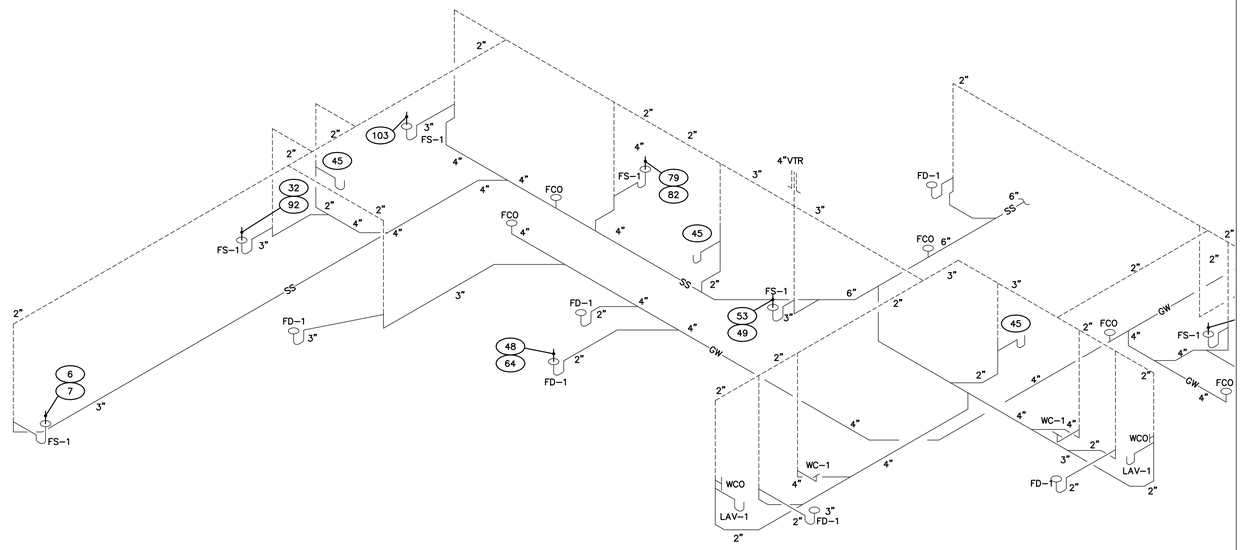
FLOOR PLAN- HW/CW & GAS

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	EBH
Checked by	

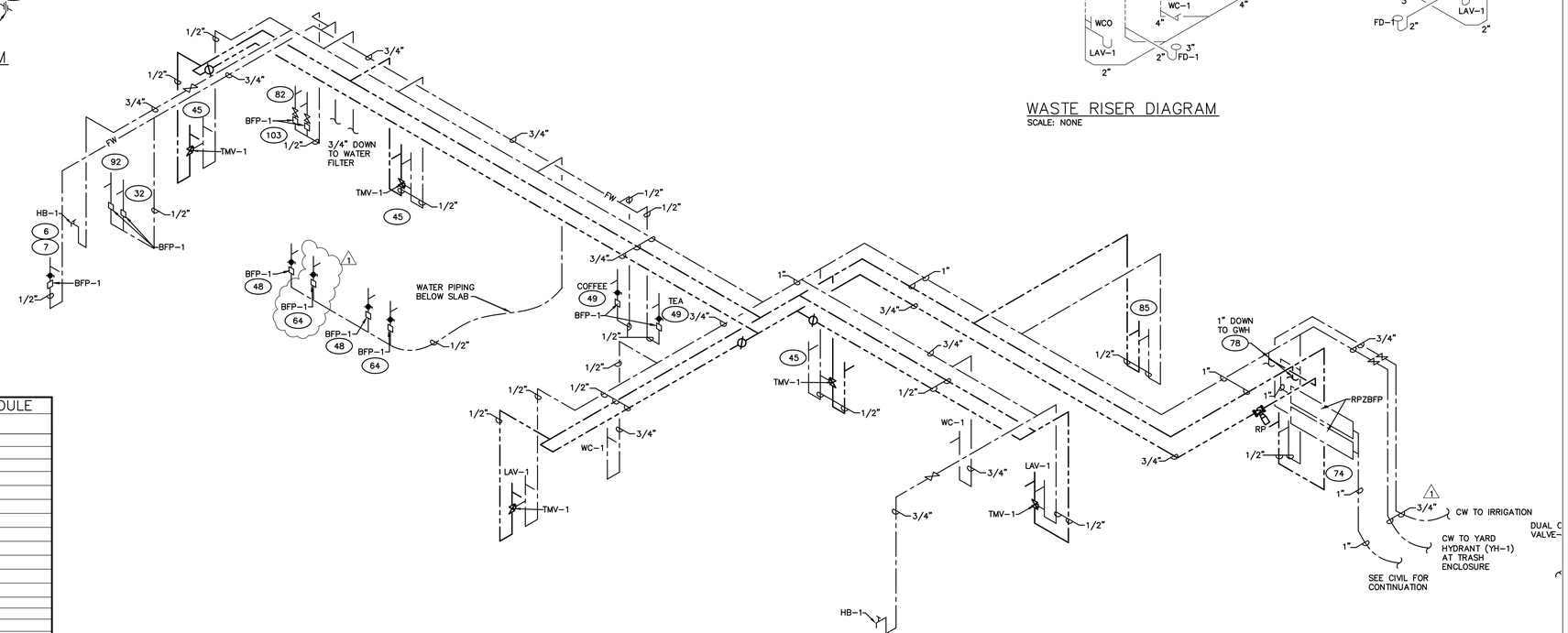
P3



GAS RISER DIAGRAM
SCALE: NONE



WASTE RISER DIAGRAM
SCALE: NONE



WATER RISER DIAGRAM
SCALE: NONE

KITCHEN EQUIPMENT SCHEDULE

ITEM NUMBER	DESCRIPTION
6	ICE MACHINE
7	DINING SODA
27	CUSTARD MACHINE
32	DRIVE THRU SODA
41	FRYER
45	HAND SINK
49	COFFEE / TEA BREWER
53	DROP IN HOT FOOD UNIT
64	STEAM GENERATOR
66	WALK IN COOLER / FREEZER
74	BEER TOWER DRAIN TRAY
78	WATER HEATER (GWH-1)
82	BAG-IN-BOX
85	THREE COMPARTMENT SINK
92	DRIVE-THRU ICE MACHINE
103	COOK & HOLD OVEN

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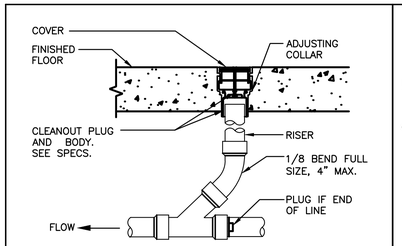
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PLUMBING RISERS

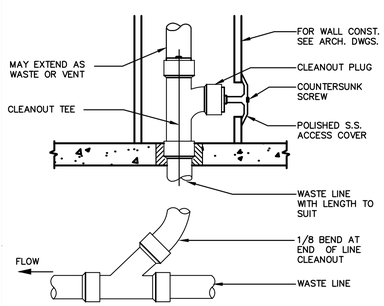
Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
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P4

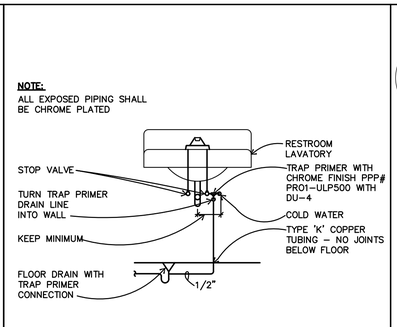
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796 Meras Court
St. Louis, MO 63026
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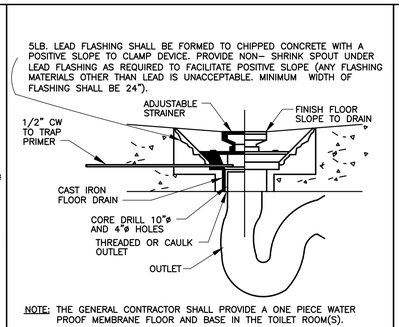
FLOOR CLEAN–OUT DETAIL
SCALE: NONE



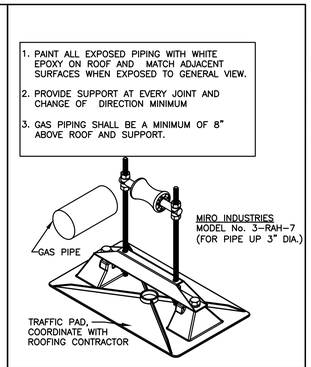
WALL CLEAN–OUT DETAIL
SCALE: NONE



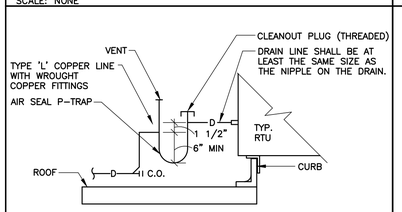
TRAP PRIMER PIPING DETAIL
SCALE: NONE



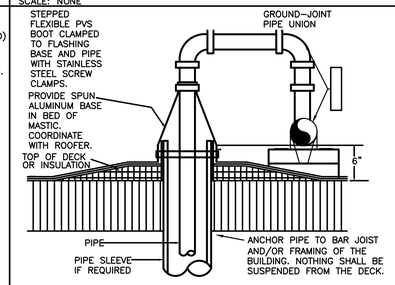
FLOOR DRAIN w/TRAP PRIMER
SCALE: NONE



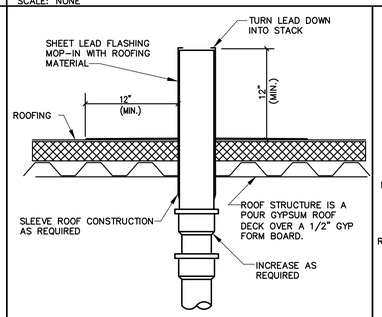
PIPE SUPPORT DETAIL
SCALE: NONE



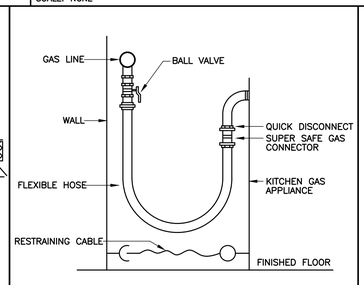
RTU CONDENSATE PIPING DETAIL
SCALE: NONE



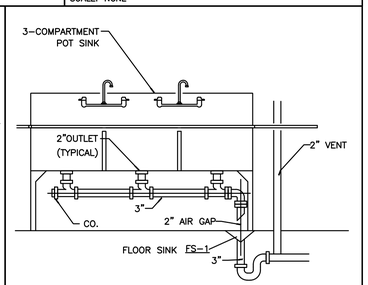
ROOF PENETRATION DETAIL
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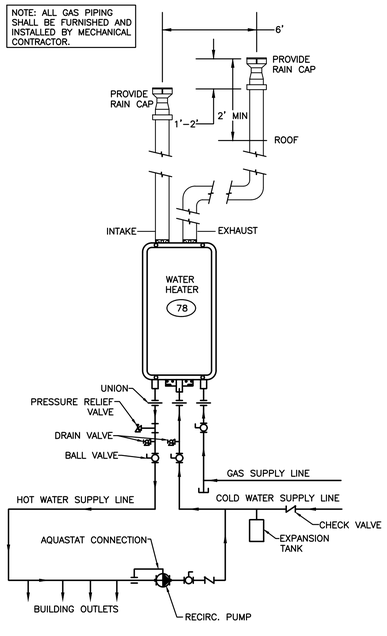
VENT THROUGH ROOF DETAIL
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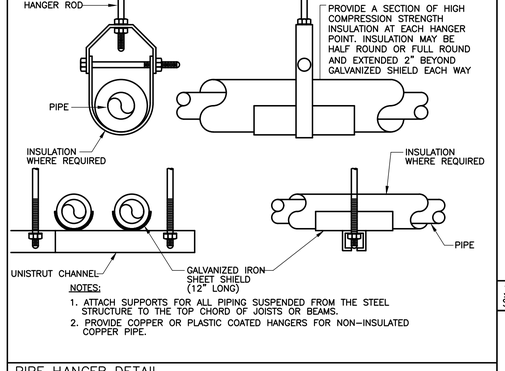
KITCHEN EQUIPMENT GAS CONNECTION DETAIL
SCALE: NO SCALE



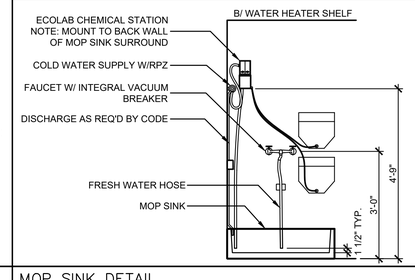
3–COMP SINK DETAIL
SCALE: NO SCALE



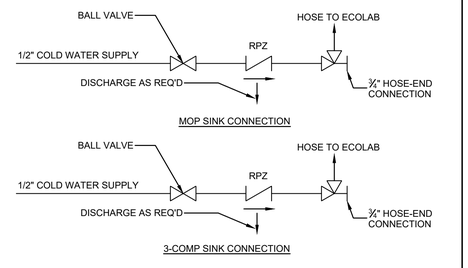
GAS WATER HEATER DETAIL
SCALE: NO SCALE



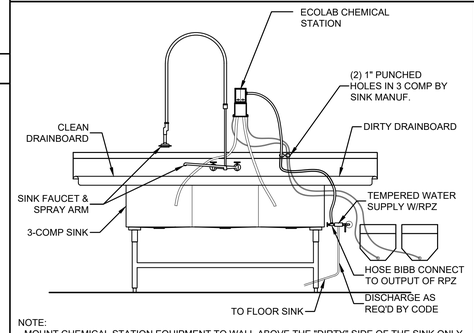
PIPE HANGER DETAIL
SCALE: NONE



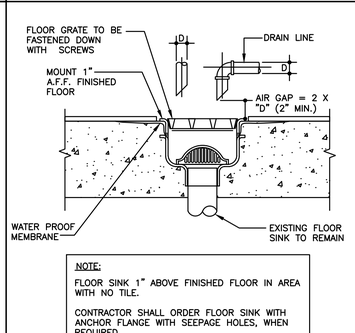
MOP SINK DETAIL
SCALE: NO SCALE



3–COMP AND MOP SINK CONNECTION DETAIL
SCALE: NONE



3–COMP CHEMICAL AND WATER DETAIL
SCALE: NO SCALE



INDIRECT DRAIN TO FLOOR SINK DETAIL
SCALE: NO SCALE

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STATE OF MISSOURI
DARRELL B. CASE
NUMBER PE-2330
PROFESSIONAL ENGINEER
02-14-2020

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Client Approval

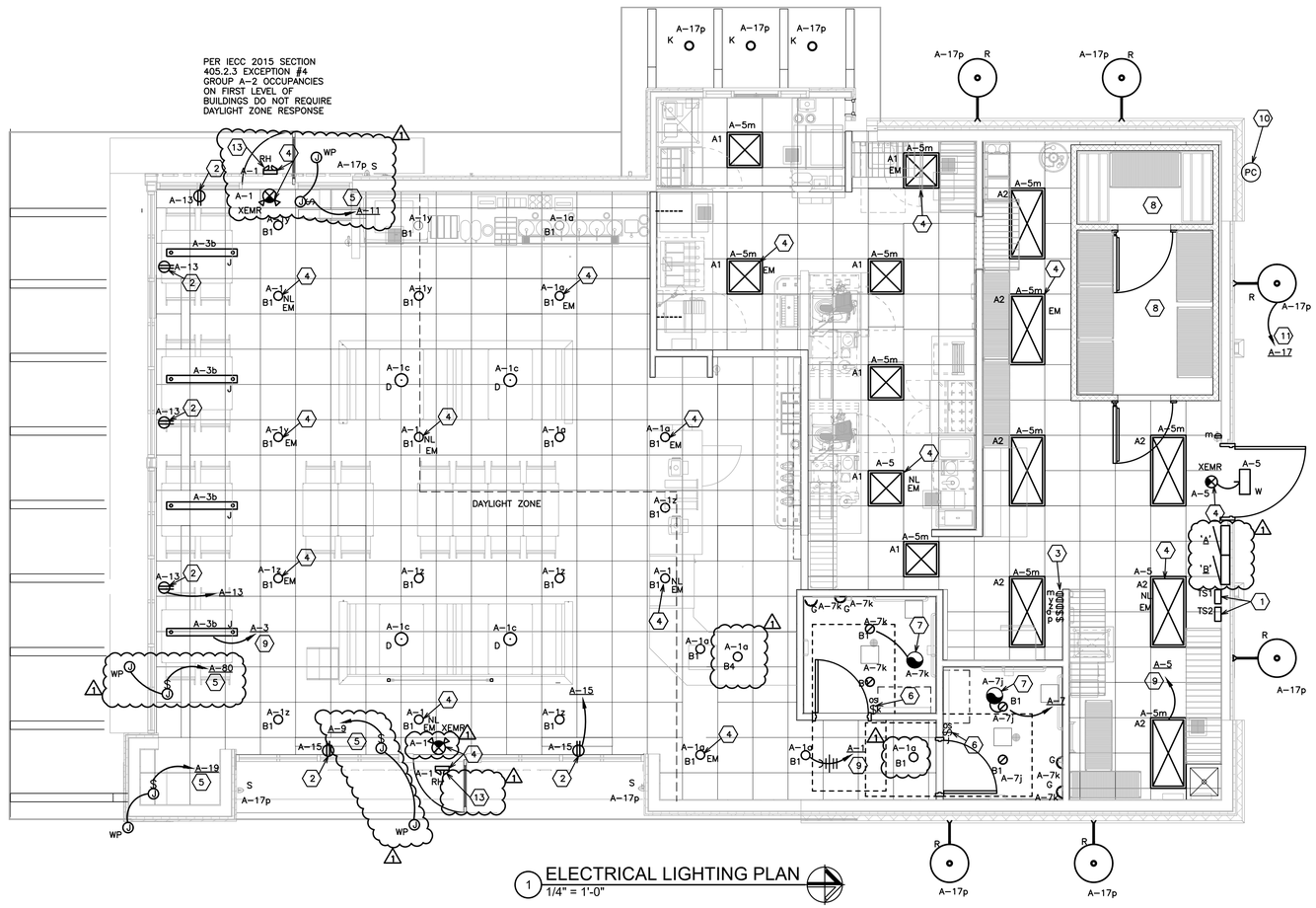
PLUMBING DETAILS

Project #	52119-MO01
Issue Date	12/11/2019
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P5

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796 Merus Court
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PER IECC 2015 SECTION 405.2.3 EXCEPTION #4 GROUP A-2 OCCUPANCIES ON FIRST LEVEL OF BUILDINGS DO NOT REQUIRE DAYLIGHT ZONE RESPONSE



1 ELECTRICAL LIGHTING PLAN
1/4" = 1'-0"

GENERAL ELECTRICAL NOTES:

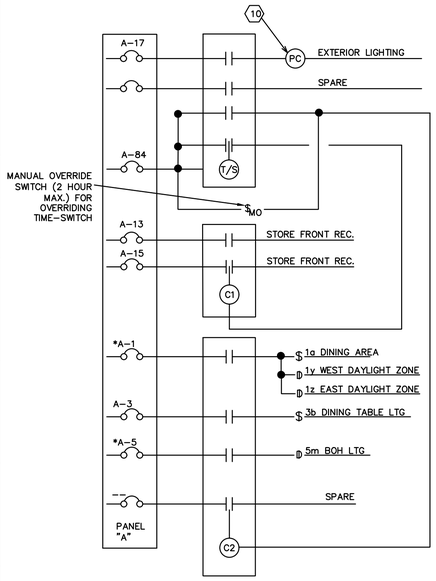
1. CONNECT ALL SIGNALING/CONTROL DEVICES PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH NEW NATIONAL ELECTRICAL CODE AND ANY STATE/LOCAL CODES.
3. ALL CONDUIT SHALL BE GALVANIZED RIGID HEAVY WALL STEEL, OR EMT, SIZES SHALL BE DETERMINED PER N.E.C. WATERTIGHT FITTINGS SHALL BE PROVIDED AS REQUIRED BY CODE. EMT CONDUITS SHALL HAVE COMPRESSION FITTINGS. FLEXIBLE CONDUITS (GALVANIZED STEEL) MAY BE USED FOR SHORT CONDITIONS TO VIBRATING EQUIPMENT, AND SHOWCASES, AS REQUIRED. 1/2 INCH SIZE MINIMUM, WITH A MAXIMUM LENGTH OF 6 FEET.
4. ALL ELECTRICAL EQUIPMENT SHALL BE RESTRAINED FOR SEISMIC FORCES IN ACCORDANCE WITH ALL BUILDING CODES.
5. ALL EQUIPMENT NOT TO BE REUSED IS TO BE REMOVED FROM SPACE COMPLETELY. NO EQUIPMENT OR COMPONENTS MAY BE ABANDONED IN PLACE WITHOUT WRITTEN PERMISSION FROM THE LANDLORD.
6. EXACT LOCATION, CUT-OUTS AND MOUNTING HEIGHTS FOR WIRING DEVICES IN CASEWORK SHALL BE COORDINATED WITH OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.
7. REFER TO ARCHITECTS REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHTING FIXTURES, DO NOT SCALE FROM THESE DRAWINGS.
8. ALL CIRCUIT BREAKERS USED FOR LIGHTING CIRCUITS SHALL BE SWITCH DUTY RATED TYPE CIRCUIT BREAKERS.
9. VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO BID. NOTIFY OWNER OF ANY DISCREPANCIES. IF ACCEPTABLE TO OWNER'S REPRESENTATIVE, EXISTING EQUIPMENT MAY BE RE-USED. IF NOT ACCEPTABLE, FURNISH AND INSTALL NEW.
10. ALL RECEPTACLES, DATA AND TELEPHONE OUTLETS ARE TO BE MOUNTED AT +20" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.

KEYED ELECTRICAL NOTES:

1. EC TO PROVIDE INTERMATIC #ET2145C (4-CHANNEL) DIGITAL TIME SWITCH AND CONTACTORS AS REQUIRED TO CONTROL STOREFRONT SIGNAGE/EXTERIOR SIGNAGE AND SHOW WINDOW RECEPTACLES.
2. FURNISH AND INSTALL DUPLEX RECEPTACLE FOR SHOW WINDOW LIGHTING. MOUNT VERTICAL ON WALL ABOVE SHOW WINDOW OR RECESSED IN CEILING, WITHIN 18" OF WINDOW. FIELD VERIFY EXACT LOCATION PRIOR TO FINAL ROUGH-IN.
3. LOCATION OF SWITCHES FOR CONTROLLING LIGHTING. FIELD VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN. REFER TO LIGHTING CONTROL DIAGRAM ON SHEET E5.
4. CIRCUIT ALL EXIT LIGHTS, EMERGENCY LIGHTS AND NIGHT LIGHTS TO UNSWITCHED LEG OF LIGHTING CIRCUIT.
5. EC TO PROVIDE 120 VOLT, 1ø POWER FOR SIGN. PROVIDE NON-FUSED DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING. PROVIDE DEDICATED #10 COPPER GROUND WIRE FROM EQUIPMENT GROUND BUS IN PANEL FOR CIRCUIT SERVING SIGN. DO NOT USE CONDUIT AS A GROUND. FIELD VERIFY EXACT LOCATION OF ROUGH-IN WITH OWNER REPRESENTATIVE. ROUTE CIRCUIT THROUGH TIME CLOCK.
6. PROVIDE OCCUPANCY WALL SWITCH EQUAL OR SIMILAR TO WATT STOPPER #PW100-WH. SWITCH TO CONTROL RESTROOM LIGHTING AND EXHAUST FAN.
7. CONNECT RESTROOM EXHAUST FAN TO LIGHTING CIRCUIT AND CONTROLS.
8. COOLER / FREEZER LIGHTING AND SWITCH ARE FURNISHED WITH EQUIPMENT.
9. ROUTE CIRCUIT THRU SWITCH/DIMMER AT SALES COUNTER AND BACK THRU TIME SWITCH CONTROLLED RELAY PANEL. EC TO PROVIDE UNSWITCHED HOT LEG TO ALL EMERGENCY AND EXIT LIGHTS ON CIRCUIT AS NOTED.
10. EC TO PROVIDE PHOTOCELL FOR CONTROL OF EXTERIOR LIGHTING. MOUNT AT ROOF TOP UNIT AND AIM NORTH.
11. ROUTE CIRCUIT THRU SWITCH AT SALES COUNTER AND BACK THRU TIME SWITCH CONTROLLED RELAY PANEL AND PHOTOCELL.
12. EC TO PROVIDE JUNCTION BOX FOR LION'S HEAD SIGN. COORINDATE EXACT LOCATION WITH OWNER.
13. COORDINATE LOCATION OF EXTERIOR EGRESS FIXTURE MOUNTING WITH LAWRENCE AWNING AND ARCHITECTURAL DRAWINGS.

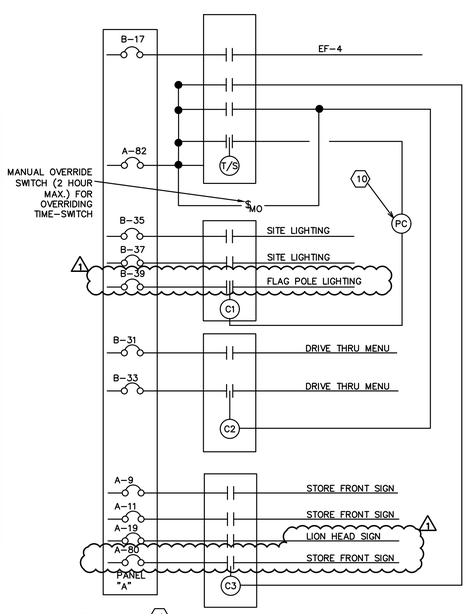
LIGHTING SYSTEMS SHALL BE TESTED TO ENSURE PROPER CALIBRATION, ADJUSTMENT, PROGRAMMING, AND OPERATION.

TIME SWITCH 1



*CIRCUIT EGRESS/EMERGENCY/EXIT LIGHTING AHEAD OF ALL LIGHTING CONTROLS

TIME SWITCH 2



2 LIGHTING CONTROL
NTS

LIGHT FIXTURE SCHEDULE

TYPE	MFR.	CATALOG NUMBERS FIXTURE	CATALOG NUMBERS LAMP	DESCRIPTION	VA
A1	LITHONIA	2BLT2 33L SDSM MVOLT LP935 LATC	LED	2X2 LAY IN FIXTURE, PROVIDE EMERGENCY BATTERY BACK-UP AS NOTED BY 'EM'	31
A2	LITHONIA	2BLT4 30L SDSM MVOLT LP835 LATC	LED	2X4 LAY IN FIXTURE, PROVIDE EMERGENCY BATTERY BACK-UP AS NOTED BY 'EM'	39
B1	JUNO	TC922LEDG4-27K-U HB-26 27C-WH	LED	RECESSED CAN LIGHT, PROVIDE EMERGENCY BATTERY BACK-UP AS NOTED BY 'EM'	18
B2	JUNO	TC922LEDG4-27K-U HB-26 262G3W-WH	LED	RECESSED CAN LIGHT	18
B3	LITHONIA	LDN6 35/10 L06AR LSS MVOLT WE GRA6B JZ	LED	RECESSED CAN LIGHT	13
1 B4	WAC LIGHTING	REFLEX MONOPOINT #MO-LED17F-27-WH	LED	RECESSED, DIRECTIONAL CAN LIGHT FOR LION'S HEAD SIGN	17
C	JUNO	L4 13LM 27K U 90 L400P C L WH HB-52	LED	RECESSED CAN LIGHT	13
D	AFX	BOON LED	LED	PENDANT.	14
S	TECH LIGHTING	700OWZUR-930-18-Z-UNV	LED	WALL SCONCE	20
F	JUNO	DCS30 2LH N1 N2 N3 10LM 27K 120 90CRI WH HB28	LED	WALL SCONCE	24
G	HOME DECORATORS COLLECTION	SMALL EXTERIOR WALL MOUNT LED LANTERN MORRILTON COLLECTION 1000 639 096	LED	BATHROOM WALL SCONCE	7
H	SLOANLED	HIGHLINER 2	LED	TAPE LIGHTING	24
J	GOLDEN	2073-LP GMT	INCANDESCENT	PENDANT LIGHT, EC SHALL PROVIDE NECESSARY DOWNRODS. SEE ARCHITECTURAL ELEVATIONS	300
1 K	SUNCO	DL_SL6_14W_50K-1PK	LED	EXTERIOR CANOPY LIGHT, VERIFY COLOR WITH OWNER	14
R	HI-LITE	H-15127-91/HL-H-91/INC	LED	EXTERIOR WALL SCONCE	6.5
XEM	LITHONIA	ECR LED M6	LED	EXIT EMERGENCY COMBO	24
XEMR	LITHONIA	ECR LED HO M6	LED	EXIT EMERGENCY COMBO	24
RH	LITHONIA	ELA LED WP	LED	REMOTE HEAD	24
EM	LITHONIA	EU2 LED	LED	EMERGENCY LIGHT	24
W	EATON	LUMARK #XTOR1B-Y	LED	EXTERIOR EMERGENCY LIGHT	12
1 Y	LITHONIA	OFL1 LED P1 50K MVOLT THK DDBXD	LED	FLAG POLE LIGHT	21

ALL FIXTURES WITH EMERGENCY BATTERY BACK-UP SHALL BE CAPABLE OF MAINTAINING FULL LUMENS FOR A MINIMUM OF 90 MINUTES.

CASE Engineering Inc.
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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23303
PROFESSIONAL ENGINEER
02-14-2020

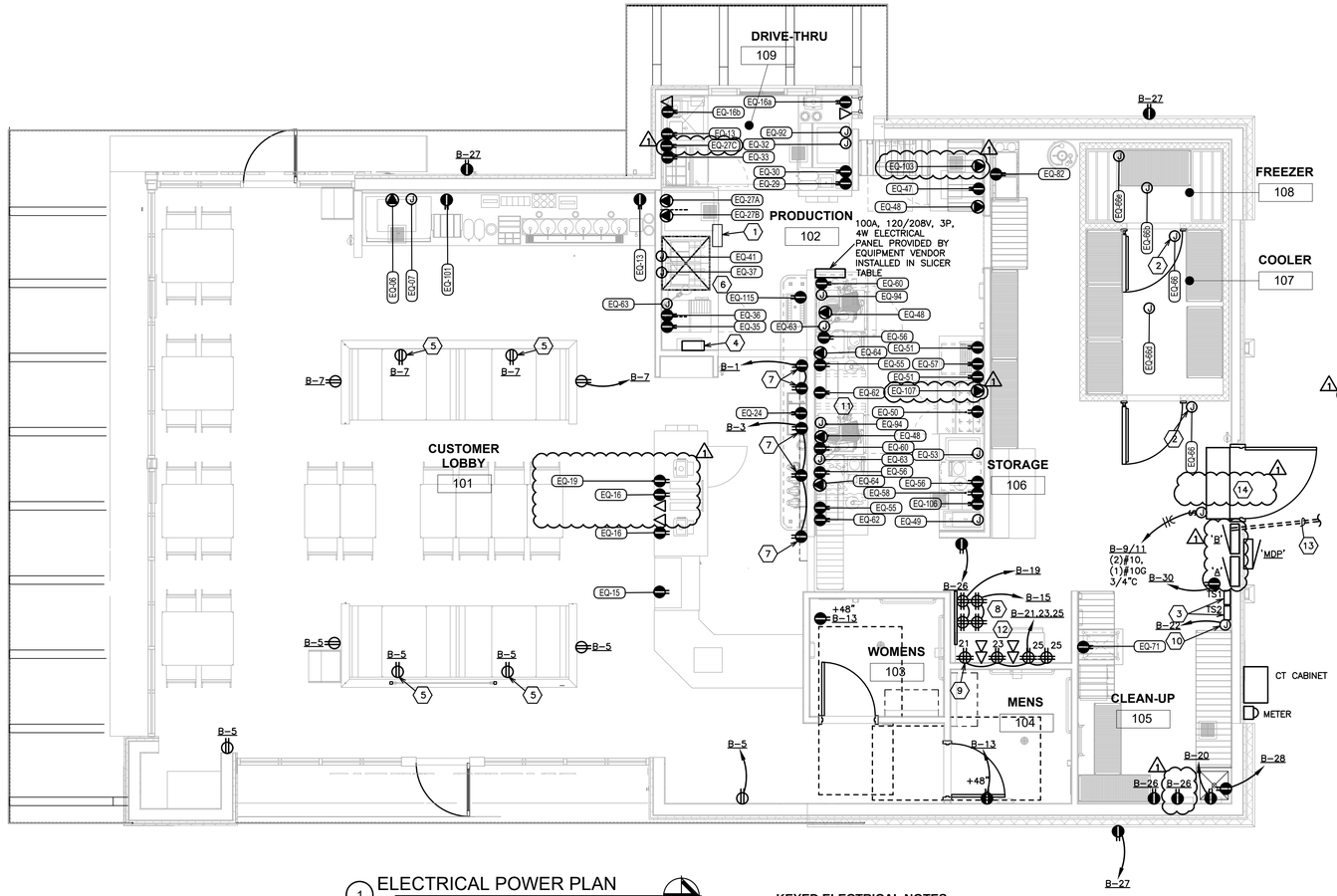
PERMIT SET

Client Approval

Electrical Lighting Plan

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
Checked by	

E1



1 ELECTRICAL POWER PLAN
1/4" = 1'-0"

KEYED ELECTRICAL NOTES:

1. SWITCHES FOR HOOD LIGHTS AND FAN CONTROL ARE SUPPLIED WITH HOOD, INSTALLED BY THIS CONTRACTOR. CONTRACTOR SHALL INTERCONNECT LIGHTS AS REQUIRED. REFER TO HOOD DRAWINGS FOR ADDITIONAL INFORMATION. VERIFY EXACT LOCATION WITH OWNER.
2. CONTRACTOR SHALL INSTALL COOLER LIGHTING AND MAKE ALL FINAL CONNECTIONS FOR A PROPER WORKING SYSTEM IF REQUIRED. COORDINATE WITH COOLER SUPPLIER.
3. FURNISH AND INSTALL NEW TIME SWITCH 'TS1', 'TS2', AND CONTACTORS FOR CONTROLLING INTERIOR LIGHTING AND EXTERIOR SIGNAGE. REFER TO LIGHTING CONTROL DIAGRAM ON SHEET E1.
4. ANSUL PULL STATION PROVIDED WITH HOOD. FIELD VERIFY LOCATION WITH HOOD INSTALLER PRIOR TO ROUGH-IN.
5. FURNISH AND INSTALL HUBBELL #USB15X2W – BLACK TAMPER-RESISTANT DUPLEX RECEPTACLE WITH (2) TYPE A 5 AMP, 5 VOLT USB PORTS. FIELD VERIFY EXACT LOCATION IN FIELD. OUTLETS MUST BE ACCESSIBLE TO CUSTOMERS.
6. SEE HOOD DRAWINGS FOR ADDITINAL INFORMATION. ALL CIRCUITS UNDER HOOD TO BE ON A SHUNT TRIP BREAKER. WIRE SHUNT TRIP BREAKERS THROUGH CONTROL PANEL.
7. EC TO PROVIDE RECEPTACEL IN ACCESSIBLE CONCEALED SPACE FOR OWNER PROVIDED DIGITAL MENU BOARDS. MOUNT RECEPTACLE 8" ABOVE BOTTOM OF SOFFIT. ALL OUTLET BOXES, CONDUIT, ETC SHALL BE CONCEALED FROM VIEW. COORDINATE EXACT LOCATION WITH TENANT. CIRCUIT SHALL BE CONTROLLED BY TIME CLOCK.
8. PROVIDE FIRE RATED PLYWOOD BACK BOARD FOR PHONE EQUIPMENT. EXTEND (2) 2" CONDUITS TO BOTTOM OF PHONE BOARD. PROVIDE GROUND BAR AND (1)#6 7STRAND COPPER GROUNDING AT BOTTOM RIGHT CORNER. EXTEND (2) 4" CONDUITS FROM TOP RIGHT CORNER OF PHONE BOARD TO 2' ABOVE LAY IN CEILING.
9. EC TO PROVIDE PROVIDE DEDICATED CIRCUIT FOR OWNER'S SECURITY SYSTEM. COORDINATE WITH OWNER'S REPRESENTATIVE FOR SYSTEM SYTEM POWER REQUIREMENTS.
10. EC TO PROVIDE JUNCTION BOX FOR CO2 ALARM SYSTEM. COORDINATE LOCATION AND ALL REQUIREMENTS WITH ALARM VENDOR AND MECHANICAL CONTRACTOR FOR COMPLETE SYSTEM.
11. ALL EQUIPMENT IN SLICER TABLE WILL BE POWERED THROUGH INTERNAL BUILT-IN PANELBOARD.
12. SEE DETAIL 2 THIS SHEET FOR MANAGER'S DESK ELEVATION.
13. (2) 1" CONDUITS TO FOR MENU BOARD AND LOOP DETECTOR. SEE SHEET E5.0 FOR CONTINUATION OF CONDUIT ROUTING.
14. DOOR ACTIVATED MICRO SWITCH PROVIDED WITH UNIT. EC SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS AND COORDINATE ALL WORK MECHANICAL CONTRACTOR.

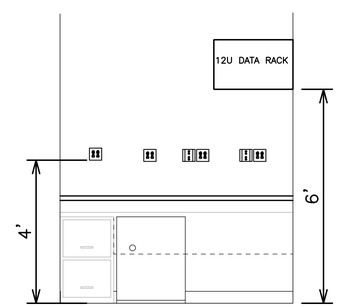
KITCHEN EQUIPMENT ELECTRICAL NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, AND FEES TO INSTALL THE ELECTRICAL SERVICE AND SYSTEMS AS REQUIRED TO OPERATE THE FOOD SERVICE EQUIPMENT, AND AS INDICATED BY THESE DRAWINGS AND SPECIFICATIONS. HE SHALL MAKE THE FINAL CONNECTIONS FROM THE ROUGH-IN POINTS TO THE CONNECTION POINTS ON THE FOOD SERVICE EQUIPMENT. ALL ELECTRICAL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES AND REGULATIONS AND SHALL BE ENFORCED BY THE ELECTRICAL CONTRACTOR AT ALL TIMES.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRE, JUNCTION BOXES, CONVENIENCE OUTLETS, SWITCHES, DISCONNECTS, STARTERS, RECEPTACLES AND PULL BOXES NOT BUILT INTO THE EQUIPMENT.
3. THE ELECTRICAL CONTRACTOR SHALL MOUNT ALL DISPOSER SWITCHES OR CONTROL PANELS AND PROVIDE AND INSTALL ALL INTERCONNECTING WIRING BETWEEN DISPOSER SWITCHES OR CONTROL PANELS AND SOLENOID VALVE(S).
4. THE ELECTRICAL CONTRACTOR SHALL MOUNT AND WIRE EXTRA COOLER/FREEZER LIGHTS SHIPPED 'LOOSE' WITH THE CABINETS.
5. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL INTERCONNECTING WIRING BETWEEN COMPRESSORS, CONDENSERS, EVAPORATORS, DOOR HEATERS, HEATED VENTS, DEFROST HEATERS, LIGHTS, HEAT TAPE SWITCHES, CONTROLS AND DISCONNECTS ON ALL WALK-IN COOLER/FREEZER UNITS (UNLESS OTHERWISE SPECIFIED).
6. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL INTERCONNECTING WIRING BETWEEN THE EXHAUST HOOD FIRE SUPPRESSION SYSTEM AND THE BUILDING FIRE ALARM SYSTEM, IF REQUIRED BY CODES OR INDICATED BY THE ARCHITECTURAL OR ELECTRICAL AND MECHANICAL DRAWINGS (VERIFY).
7. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ELECTRIC TO THE ROOF FOR EXHAUST FANS AND MAKE-UP AIR UNITS. SEE HOOD DRAWINGS AND HVAC DRAWINGS FOR LOCATIONS AND CAPACITIES. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL MOTOR STARTERS, DISCONNECTS AND FURNISH AND INSTALL ALL FAN AND MAKE-UP AIR UNIT CONTROL WIRING.
8. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL CONTACTORS OR SHUNT BREAKERS AS REQUIRED ON ELECTRICAL COOKING EQUIPMENT AND INTER WIRE FROM MICRO SWITCH (FURNISHED WITH THE FIRE PROTECTION SYSTEM) TO THE CONTACTORS OR BREAKERS SO AS TO SHUT DOWN THE ELECTRICAL POWER TO THE COOKING EQUIPMENT SHOULD THE FIRE PROTECTION SYSTEM BE ACTIVATED.
9. THE ELECTRICAL CONTRACTOR SHALL INSTALL REMOTE LIGHT FIXTURES, BALLASTS, STARTERS, AND SWITCH AS REQUIRED ON KITCHEN/SERVING EQUIPMENT, INTERWIRE TO ALL LIGHT FIXTURES AND REMOTE SWITCHES ON EQUIPMENT AND MAKE FINAL CONNECTIONS TO UNITS.
10. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL J-BOXES AND CONDUIT AS REQUIRED FOR THE FIRE PROTECTION SYSTEM REMOTE PULL BOX(ES). SEE DETAIL ON KITCHEN SUPPLIER EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION. LOCATION TO BE DETERMINED BY AUTHORITIES HAVING JURISDICTION (AHJ).
11. ELECTRICAL ROUGH-INS SHALL BE BY THE ELECTRICAL CONTRACTOR.
12. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL INTERCONNECTIONS AT FIELD JOINTS IN EQUIPMENT REQUIRING THEM DUE TO LENGTH OR OTHER CONSTRAINTS. THIS MAY INCLUDE, BUT NOT LIMITED TO, HOODS, VENTILATORS, AND SERVING COUNTERS.
13. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DEDICATED CIRCUIT WITH A ISOLATED GROUND AT ALL POINTS OF SALE AND COMPUTER EQUIPMENT AND SHALL PROVIDE CONDUIT FOR COMMUNICATIONS LINK AS REQUIRED – VERIFY WITH SUPPLIER.

ELECTRICAL SCHEDULE

ITEM NO	EQUIPMENT CATEGORY	AMPS	VOLTS	CYCLE	PHASE	NEMA	ELECTRICAL AFF. (IN)	PANEL	CIRCUIT NUMBER	CIRCUIT BREAKER		WIRE SIZE	GND SIZE	ISO GND SIZE	CONDUIT SIZE
EQ-06	ICE MACHINE	13.0	208	60	1		60	A	2/4	HACR	20 2	2 #12	12		3/4"
	ICE MACHINE – REMOTE CONDENSER (ROOF)	5	208	60	1		–	A	6/8	HACR	20 2	2 #12	12		3/4"
EQ-07	SODA/ICE DISPENSER	5.2	120	60	1		12	A	10		20 1	2 #12	12		3/4"
EQ-13	AU JUS DISPENSER (QTY. 2)	4	120	60	1	5-15P	48	A	14		20 1	2 #12	12		3/4"
		4	120	60	1	5-15P	48	A	23		20 1	2 #12	12		3/4"
EQ-15	AIR CURTAIN REFRIGERATED MERCHANDISER	9.4	120	60	1	5-15P	6	A	22		20 1	2 #12	12		3/4"
E-16	POS MACHINE (QTY. 2)	5	120	60	1	5-15P	6	A	18		20 1	2 #12	12		3/4"
		5	120	60	1	5-15P	6	A	20		20 1	2 #12	12		3/4"
EQ-16a	POS MACHINE – ORDER	5	120	60	1	5-15P	48	A	31		20 1	2 #12	12		3/4"
EQ-16b	POS MACHINE – CASHIER	5	120	60	1	5-15P	48	A	21		20 1	2 #12	12		3/4"
EQ-19	UNDER COUNTER REFRIGERATOR	6.3	120	60	1	5-15P	6	A	53		20 1	2 #12	12		3/4"
EQ-24	DROP-IN SOUP WELL	6.7	120	60	1	5-15P	18	A	55		20 1	2 #12	12		3/4"
EQ-27A	FLAVOR BURST LEFT	21	208	60	3	14-30R	18	A	67/69/71		30 3	4 #10	10		3/4"
EQ-27B	FLAVOR BURST RIGHT	23	208	60	3	14-30R	18	A	73/75/77		30 3	4 #10	10		3/4"
EQ-27C	FLAVOR BURST MACHINE	13	120	60	1	5-20R	18	A	79		20 1	2 #12	12		3/4"
EQ-29	DIP CONE WARMER	4.2	120	60	1	5-15P	48	A	65		20 1	2 #12	12		3/4"
EQ-30	MALT MIXER	6.4	120	60	1	5-15P	48	A	24		20 1	2 #12	12		3/4"
EQ-32	SODA & ICE DISPENSER – DRIVE THRU	5.2	120	60	1		12	A	29		20 1	2 #12	12		3/4"
EQ-33	REFRIGERATED SANDWICH UNIT	6.3	120	60	1	5-15P	18	A	33		20 1	2 #12	12		3/4"
EQ-35	UNDER COUNTER FREEZER	5	120	60	1	5-15P	18	A	49	ST	20 1	2 #12	12		3/4"
EQ-36	FRENCH FRY WARMER	10	120	60	1	5-15P	18	A	45	ST	20 1	2 #12	12		3/4"
EQ-37	EXHAUST HOOD LIGHTS	1400	120	60	1		60	A	37		20 1	2 #12	12		3/4"
EQ-41	FRYER	12.2	120	60	1		18	A	41	ST	20 1	2 #12	12		3/4"
EQ-47	POTATO & COOKIE OVEN	12	120	60	1	5-15P	54	A	26		20 1	2 #12	12		3/4"
EQ-48	COOK & HOLD OVEN (QTY. 3)	27.7	208	60	1		48	A	28/30		35 2	2 #8	10		3/4"
		27.7	208	60	1		48	A	36/38		35 2	2 #8	10		3/4"
		27.7	208	60	1		48	A	52/54		35 2	2 #8	10		3/4"
EQ-49	COFFEE-TEA BREWER	14.1	120	60	1		48	A	66		20 1	2 #12	12		3/4"
EQ-50	REFRIGERATED SANDWICH UNIT – 2 DOOR	6.3	120	60	1	5-15P	18	A	50		20 1	2 #12	12		3/4"
EQ-51	MICROWAVE OVEN (QTY. 2)	8.5	120	60	1	5-15P	18	A	42		20 1	2 #12	12		3/4"
		8.5	120	60	1	5-15P	18	A	48		20 1	2 #12	12		3/4"
EQ-53	DROP-IN HOT FOOT UNIT	12.5	120	60	1		18	A	58		20 1	2 #12	12		3/4"
EQ-55	CHEESE PUMP (QTY. 3)	5	120	60	1	5-15P	48	A	44		20 1	2 #12	12		3/4"
		5	120	60	1	5-15P	48	A	62		20 1	2 #12	12		3/4"
		5	120	60	1	5-15P	48	A	64		20 1	2 #12	12		3/4"
EQ-56	SCALE	3	120	60	1	5-15P	48	A	40		20 1	2 #12	12		
EQ-57	HOT DOG ROLLER GRILL	4.6	120	60	1	5-15P	48	A	46		20 1	2 #12	12		3/4"
EQ-58	DRAWER WARMER	7.5	120	60	1	5-15P	18	A	60		20 1	2 #12	12		3/4"
EQ-60	SLICER (QTY. 2)	5.6	120	60	1	5-15P	48	NOTE 1	–		20 1	2 #12	12		3/4"
		5.6	120	60	1	5-15P	48	NOTE 1	–		20 1	2 #12	12		3/4"
EQ-62	TOASTER WITH DRESSER (QTY. 2)	13	120	60	1	5-15P	48	NOTE 1	–		20 1	2 #12	12		3/4"
		13	120	60	1	5-15P	48	NOTE 1	–		20 1	2 #12	12		3/4"
EQ-63	HEAT LAMPS (QTY. 3)	2.2	120	60	1		48	NOTE 1	–		20 1	2 #12	12		3/4"
EQ-64	STEAM GENERATOR (QTY. 2)	16	208	60	1	6-30R		NOTE 1	–		20 1	2 #12	12		3/4"
		16	208	60	1	6-30R		NOTE 1	–		20 1	2 #12	12		3/4"
EQ-66	WALK IN COOLER/FREEZER LIGHTS	6	120	60	1		114	B	2		20 1	2 #12	12		3/4"
EQ-66a	FREEZER CONDENSING UNIT	13.6	208	60	1			B	4/6		20 2	2 #12	12		3/4"
EQ-66b	FREEZER EVAPORATOR COIL	5.7	208	60	1			B	8/10		20 2	2 #12	12		3/4"
EQ-66c	COOLER CONDENSING UNIT	10.7	208	60	1			B	12/14		20 2	2 #12	12		3/4"
EQ-66d	COOLER EVAPORATOR COIL	1.8	120	60	1			B	16		20 1	2 #12	12		3/4"
EQ-66e	HEAT TRACE	5	120	60	1		84	B	18	GFI	20 1	2 #12	12		3/4"
EQ-71	SCALE	3	120	60	1	5-15P	48	A	72		20 1	2 #12	12		3/4"
EQ-82	BAG & BOX SODA SYSTEM	15	120	60	1		24	A	74		20 1	2 #12	12		3/4"
EQ-92	ICE MAKER AT DRIVE THRU	19.4	120	60	1		60	A	25	HACR	25 1	2 #10	10		3/4"
	ICE MAKER – REMOTE CONDENSER (ROOF)	5	120	60	1		–	A	27	HACR	20 1	2 #12	12		3/4"
EQ-94	HEAT LAMP (QTY. 2)	3.1	120	60	1		–				20 1	2 #12	12		3/4"
EQ-101	LEMONADE BUBBLER MACHINE	6	120	60	1	5-15P	48	A	12		20 1	2 #12	12		3/4"
EQ-103	COOK & HOLD CABINET	24	208	60	1	6-30R	24	B	51/53		30 2	2 #10	10		3/4"
EQ-106	COFFEE BREWER	13.3	120	60	1	5-20R	48	A	76		20 1	2 #12	12		3/4"
EQ-107	HEATED HOLDING BIN	6.3	208	60	1	6-15R	54	B	47/49		20 2	2 #12	12		3/4"
EQ-115	FRY WARMER	7.8	120	60	1	5-15P	44	A	57		20 1	2 #12	12		3/4"

NOTE 1 – POWERED THROUGH INTERNAL PANEL PROVIDED WITH EQUIPMENT.
VERIFY RECEPTACLE MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH IN.



2 MANAGER'S DESK ELEVATION
3/8" = 1'-0"

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.

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 125 VOLT, SINGLE PHASE, 15 AND 20 AMP RECEPTACLES SHALL BE GFI TYPE PER NEC SECTION 210.8 (B)
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.

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-23305
PROFESSIONAL ENGINEER
02-14-2020

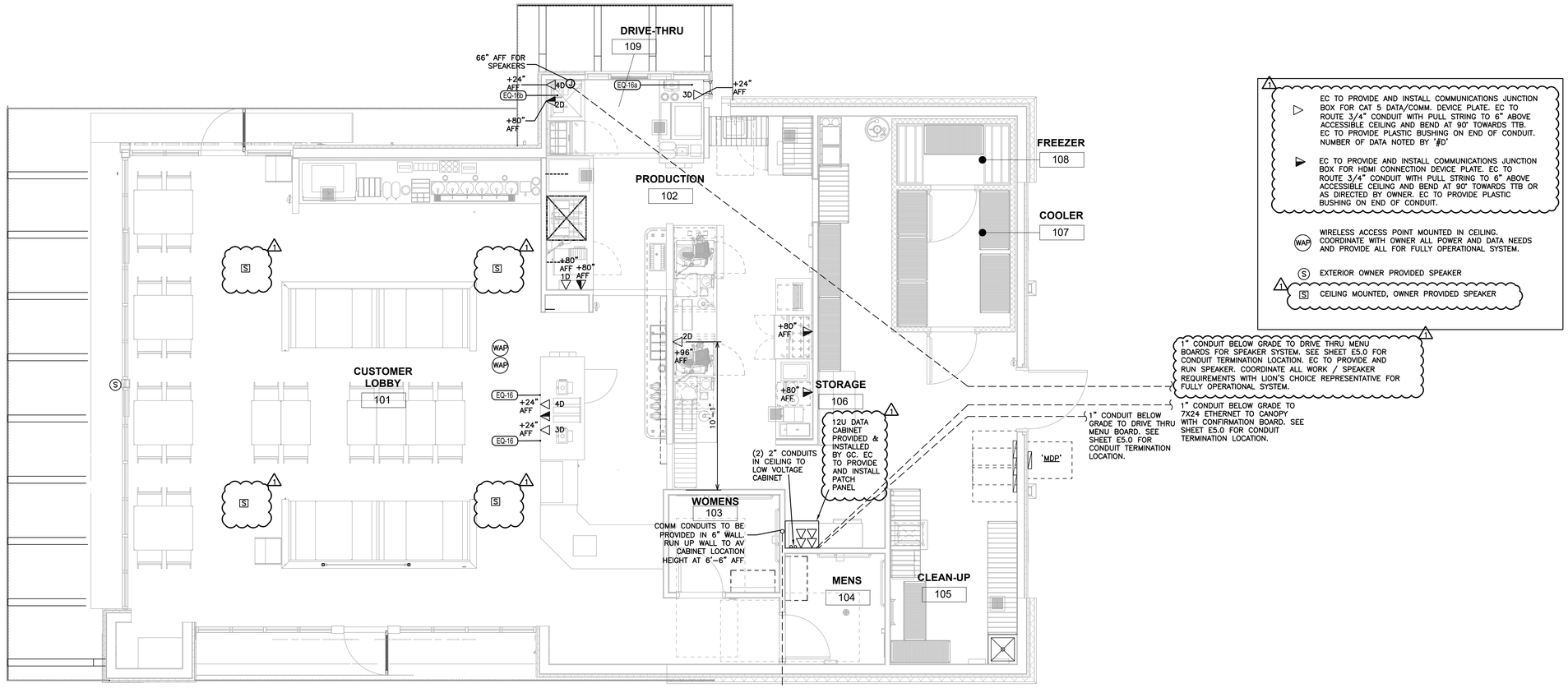
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Client Approval

Electrical Power Plan

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
Checked by	

E2



1 ELECTRICAL LOW VOLTAGE PLAN
1/4" = 1'-0"

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STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2539
PROFESSIONAL ENGINEER
02-14-2020

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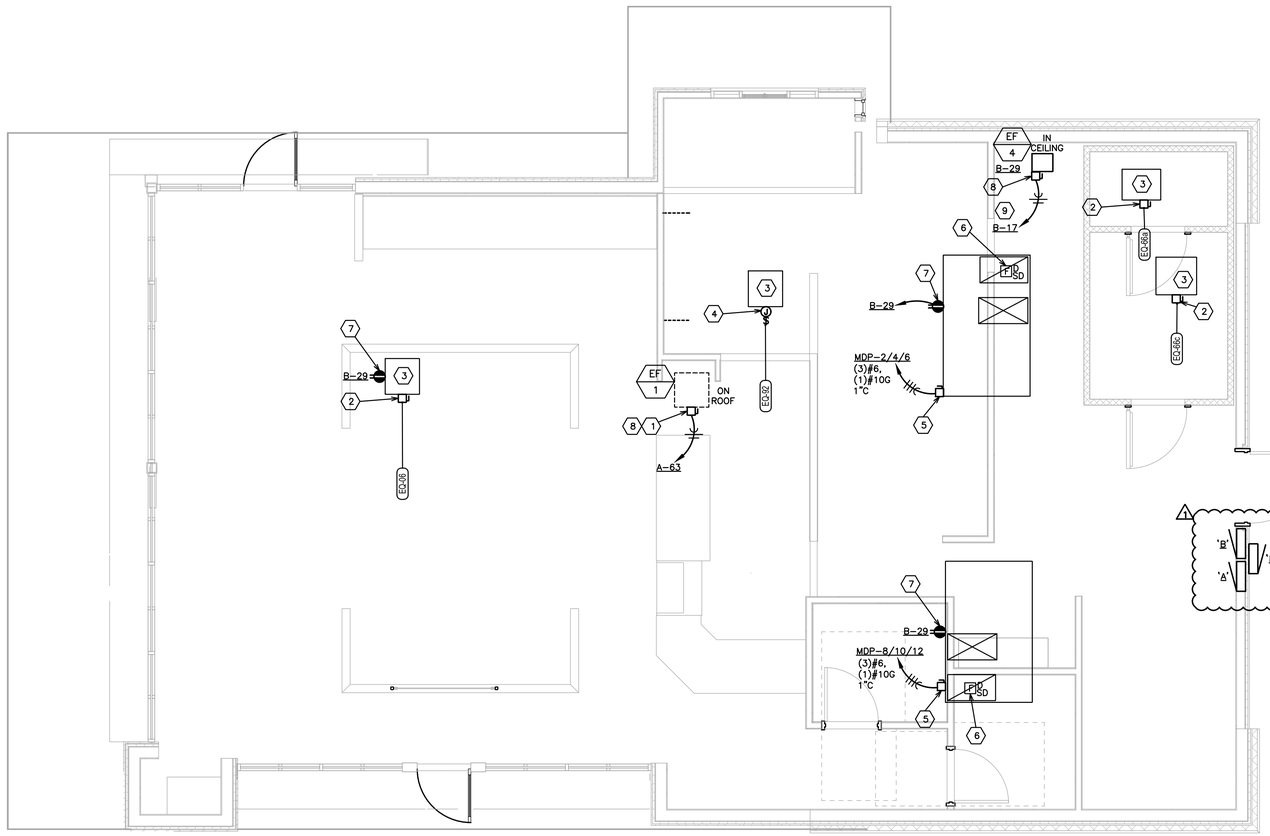
Client Approval

Electrical Low Voltage Plan

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
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E2.1

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1 MECHANICAL EQUIPMENT POWER PLAN
1/4" = 1'-0"

KEYED ELECTRICAL NOTES:

1. EXHAUST FAN CONTROLLED BY SWITCH AT HOOD.
2. EC TO PROVIDE 30A, 208V, 1ϕ. N.F, NEMA 3R DISCONNECT SWITCH.
3. VERIFY EXACT LOCATION OF CONDENSER WITH EQUIPMENT PROVIDER PRIOR TO ROUGH IN.
4. EC TO PROVIDE (1) JUNCTION BOX AND (1) 120V, 20A TOGGLE SWITCH FOR ICE MAKER REMOTE CONDENSER.
5. EC TO PROVIDE 60A, 208V, 3ϕ, N.F., NEMA 3R DISCONNECT SWITCH.
6. MC TO PROVIDE DUCT SMOKE DETECTOR IN RETURN AIR DUCT TO SHUT DOWN UNIT UPON ACTIVATION. EC TO 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.
7. EC TO PROVIDE WEATHER RESISTANT TYPE, GFCI RECEPTACLE IN WEATHERPROOF WHILE IN USE COVER AT HVAC EQUIPMENT.
8. EC TO PROVIDE 120V MOTOR RATED DISCONNECT SWITCH.
9. EC TO ROUTE CIRCUIT THROUGH TIME CLOCK.

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LIONS CHOICE - LEE'S SUMMIT

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL B. CASE
NUMBER PE-2230S
PROFESSIONAL ENGINEER

02-14-2020

PERMIT SET

Client Approval

Mechanical Equipment Power & Fire Alarm Plan

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
Checked by	

E3

NEW PANEL BOARD A

SURFACE MOUNTED — 22,000 A.I.C. SERIES RATED — 1 RECESSED MOUNTING

120/208 VOLTS — 3 PHASE — 4 WIRE — 225 AMP. BUS

CIRCUIT BREAKER TYPE 225 MLO — FED FROM METER

CKT. NO.	TRIP AMP	NO. POLE	LOAD SERVED	LOAD– V. A. AØ	LOAD– V. A. BØ	LOAD– V. A. CØ	LOAD SERVED	NO. POLE	TRIP AMP	CKT. NO.	
1	20	1	DINING LIGHTING	823 1352			(06) ICE MACHINE	2	20	2	HACR
3	20	1	DINING TABLE LIGHTING		1200 1352					4	
5	20	1	BOH LIGHTING			315 520	(06) REMOTE CONDENSER	2	20	6	HACR
7	20	1	RESTROOM LIGHTING/ EF"S	675 520						8	
9	20	1	EXTERIOR SIGN		1200 624		(07) SODA/ICE DISPENSER	1	20	10	
11	20	1	EXTERIOR SIGN			1200 720	(101) LEMONADE BUBBLER	1	20	12	
13	20	1	SHOW WINDOW REC.	1200 480			(13) AU JUS DISPENSER	1	20	14	
15	20	1	SHOW WINDOW REC.		1200 --		SPARE	1	20	16	
17	20	1	EXTERIOR LIGHTING			60 600	(16) POS MACHINE	1	20	18	
19	20	1	EXTERIOR SIGN	500 600			(16) POS MACHINE	1	20	20	
21	20	1	(16b) POS MACHINE CASHIER		600 1128		(15) MERCHANDISER	1	20	22	
23	20	1	(13) AU JUS DISPENSER			480 768	(30) MALT MIXER	1	20	24	
25	25	1	(92) DRIVE THRU ICE MACHINE	2328 1400			(47) POTATO & COOKIE OVEN	1	20	26	
27	20	1	(92) DRIVE THRU CONDENSER		600 2880		(48) COOK & HOLD OVEN	2	35	28	
29	20	1	(32) SODE/ICE DISPENSER			624 2880				30	
31	20	1	(16a) POS MACHINE ORDER	600 --			SPARE	1	20	32	
33	20	1	(33) REFRIGERATED SW UNIT		756 --		SPARE	1	20	34	
35	20	1	SPARE			-- 2880	(48) COOK & HOLD OVEN	2	35	36	
37	20	1	(37) EXHAUST HOOD LIGHTS	1400 2880						38	
39	20	1	SPARE		1080		(56) SCALE	1	20	40	
41	20	1	(41) FRYER			1464 1020	(51) MICROWAVE	1	20	42	
43			SHUNT TRIP	-- 600			(55) CHEESE PUMP	1	20	44	
45	20	1	(36) FRENCH FRY WARMER		1200 360		(57) HOT DOG ROLLER	1	20	46	
47			SHUNT TRIP			-- 1020	(51) MICROWAVE	1	20	48	
49	20	1	(35) UC FREEZER	600 756			(50) REFRIGERATED SW UNIT	1	20	50	
51			SHUNT TRIP		2880		(48) COOK & HOLD OVEN	2	35	52	
53	20	1	(19) UC REFRIGERATOR			756 2880				54	
55	20	1	(24) DROP IN SOUP WELL	1200 --			SPARE	1	20	56	
57	20	1	(115) FRY WARMER		890 1500		(53) DROP IN HOT FOOD UNIT	1	20	58	
59	20	1	SPARE			-- 900	(58) DRAWER WARMER	1	20	60	
61	20	1	SPARE	-- 600			(55) CHEESE PUMP	1	20	62	
63	20	3	(37) EXHAUST HOOD FAN		864 800		(55) CHEESE PUMP	1	20	64	
65	20	1	(29) DIP CONE WARMER			500 1692	(49) COFFEE/TEA BREWER	1	20	66	
67	30	3	FLAVOR BURST LEFT	2520 --			SPARE	1	20	68	
69					2520 --		SPARE	1	20	70	
71						2520 360	(71) SCALE	1	20	72	
73	30	3	FLAVOR BURST RIGHT	2760 1800			(82) BAG & BOX	1	20	74	
75					2760 1600		(106)COFFEE BREWER	1	20	76	
77						2760 --	SPARE	1	20	78	
79	20	1	(27C) FLAVOR BURST MACHINE	1560 500			EXTERIOR SIGN	1	20	80	
81	20	1	SPARE		200 --		TIME SWITCH 2	1	20	82	
83	20	1	SPARE			-- 200	TIME SWITCH 1	1	20	84	
				27654	27994	27119	TOTAL VA PER PHASE				
				82767			TOTAL VA				

LOAD DESCRIPTION	DEMAND FACTOR D.F.	VOLT – AMPS CONNECTED	VOLT – AMPS DEMAND
LIGHTING	1.25	7873	9841
RECEPTACLES	1st 10KVA @ 100%	1600	1600
RECEPTACLES	REMAINDER @ 50%	--	--
MOTORS	NEC	864	864
ELECTRIC HEAT	1.25	--	--
KITCHEN EQUIPMENT	0.65	71430	46430
	TOTAL–	81767	58735
	TOTAL–AMPS	227.1	163.2

HACR – HEATING, AIR CONDITIONING, REFRIGERATION BREAKER

NEW PANEL BOARD B

SURFACE MOUNTED — 22,000 A.I.C. SERIES RATED — 1 RECESSED MOUNTING

120/208 VOLTS — 3 PHASE — 4 WIRE — 225 AMP. BUS

CIRCUIT BREAKER TYPE 225 MLO — FED FROM METER

CKT. NO.	TRIP AMP	NO. POLE	LOAD SERVED	LOAD– V. A. AØ	LOAD– V. A. BØ	LOAD– V. A. CØ	LOAD SERVED	NO. POLE	TRIP AMP	CKT. NO.	
1	20	1	DIGITAL MENU BOARDS	500 1800			(66) WALK IN CLR/FRZR LTG	1	20	2	
3	20	1	DIGITAL MENU BOARDS		500 1632		(66a) FRZR CONDENSING UNIT	2	20	4	
5	20	1	DINING REC.			1080 1632				6	
7	20	1	DINING REC.	720 684			(66b) FRZR EVAPORATOR COIL	2	20	8	
9	20	2	AIR CURTAIN		728 684					10	
11						728 1284	(66c) COOLER CONDENSING UNIT	2	20	12	
13	20	1	RESTROOM REC.	360 1284						14	
15	20	1	TELEPHONE BOARD		720 216		(66d) COOLER EVAPORATOR COIL	1	20	16	
17	20	1	EXHAUST FAN –4			600 600	(66e) HEAT TRACE	1	20	18	GFI
19	20	1	OFFICE REC	720 500			WATER HEATER	1	20	20	
21	20	1	MANAGER'S DESK		500 600		CO2 ALARM SYSTEM	1	20	22	
23	20	1	MANAGER'S DESK			500 --	SPARE	1	20	24	
25	20	1	MANAGER'S DESK	720 720			BOH CONVENIENCE REC	1	20	26	
27	20	1	EXTERIOR REC.		540 1000		CIRCULATING PUMP	1	20	28	
29	20	1	HVAC CONVENIENCE REC.			360 360	PANEL RECEPTACLE	1	20	30	
31	20	1	DRIVE THRU MENU BOARD	1500 1000			PREVIEW BOARD	1	20	32	
33	20	1	DRIVE THRU MENU BOARD		1500 --		SPARE	1	20	34	
35	20	2	SITE LIGHTING			1400 --	SPARE	1	20	36	
37				1400 --			SPARE	1	20	38	
39	20	1	FLAG POLE		20 --		SPARE	1	20	40	
41	20	1	SPARE			-- --	SPARE	1	20	42	
43	20	1	SPARE	-- --			SPARE	1	20	44	
45	20	1	SPARE		-- --		SPARE	1	20	46	
47	20	2	(107) HEATED HOLDING BIN			1250 --	SPARE	1	20	48	
49				1250 --			SPARE	1	20	50	
51	30	2	(103) COOK & HOLD		2450 --		SPARE	1	20	52	
53						2450 --	SPARE	1	20	54	
55	20	1	SPARE	-- --			SPARE	1	20	56	
57	20	1	SPARE		-- --		SPARE	1	20	58	
59	20	1	SPARE			-- --	SPARE	1	20	60	
61	20	1	SPARE	-- --			SPARE	1	20	62	
63	20	1	SPARE		-- --		SPARE	1	20	64	
65	20	1	SPARE			-- --	SPARE	1	20	66	
67	20	1	SPARE	-- --			SPARE	1	20	68	
69	20	1	SPARE		-- --		SPARE	1	20	70	
71	20	1	SPARE			-- --	SPARE	1	20	72	
73	20	1	SPARE	-- --			SPARE	1	20	74	
75	20	1	SPARE		-- --		SPARE	1	20	76	
77	20	1	SPARE			-- --	SPARE	1	20	78	
79	20	1	SPARE	-- --			SPARE	1	20	80	
81	20	1	SPARE		-- --		SPARE	1	20	82	
83	20	1	SPARE			-- --	SPARE	1	20	84	
				11708	11090	12244	TOTAL VA PER PHASE				
				35042			TOTAL VA				

LOAD DESCRIPTION	DEMAND FACTOR D.F.	VOLT – AMPS CONNECTED	VOLT – AMPS DEMAND
LIGHTING	1.25	2800	3500
RECEPTACLES	1st 10KVA @ 100%	10000	10000
RECEPTACLES	REMAINDER @ 50%	2680	1340
MOTORS	NEC	2056	2420
ELECTRIC HEAT	1.25	--	--
KITCHEN EQUIPMENT	1.00	18516	12040
	TOTAL–	36052	29300
	TOTAL–AMPS	100.1	81.4

SERVICE ENTRANCE RATED

NEW PANEL 'MDP' — NEMA 3R ENCLOSURE

SURFACE MOUNTED

120/208 VOLTS — 3 PHASE — 4 WIRE — 600 AMP. BUS — 65,000 A.I.C. FULLY RATED

600 AMP. MAIN CIRCUIT BREAKER — CIRCUIT BREAKER TYPE

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				27654 5532						2
3	225	3	PANEL A		27994 5532		RTU–1	3	60	4
5						27119 5532				6
7				11708 5532						8
9	225	3	PANEL B		11090 5532		RTU–2	3	60	10
11						8544 5532				12
13				9600			– – – SPACE – – –	1	--	14
15	100	3	PANEL KP		9600		– – – SPACE – – –	1	--	16
17						9600	– – – SPACE – – –	1	--	18
19	--	1	– – – SPACE – – –				– – – SPACE – – –	1	--	20
21	--	1	– – – SPACE – – –				– – – SPACE – – –	1	--	22
23	--	1	– – – SPACE – – –				– – – SPACE – – –	1	--	24
25	--	1	– – – SPACE – – –				– – – SPACE – – –	1	--	26
27	--	1	– – – SPACE – – –				– – – SPACE – – –	1	--	28
29	--	1	– – – SPACE – – –			-- --	– – – SPACE – – –	1	--	30
31	--	1	– – – SPACE – – –	-- --			– – – SPACE – – –	1	--	32
33	--	1	– – – SPACE – – –		-- --		– – – SPACE – – –	1	--	34
35	--	1	– – – SPACE – – –			-- --	– – – SPACE – – –	1	--	36
37	--	1	– – – SPACE – – –	-- --			– – – SPACE – – –	1	--	38
39	--	1	– – – SPACE – – –		-- --		– – – SPACE – – –	1	--	40
41	--	1	– – – SPACE – – –			-- --	– – – SPACE – – –	1	--	42
				60026	59748	56327				

LOAD DESCRIPTION	DEMAND FACTOR D.F.	VOLT – AMPS CONNECTED	VOLT – AMPS DEMAND
LIGHTING	1.25	10673	13341
RECEPTACLES	1st 10KVA @ 100%	10000	10000
RECEPTACLES	REMAINDER @ 50%	4280	2140
KITCHEN EQUIPMENT	0.65	89946	58470
MISC. EQUIPMENT	1.00	28800	28800
ELECTRIC HEAT	1.25	--	--
MOTORS	125% FOR LARGEST MOTOR REMAINDER @ 100%	2920	3284
MECHANICAL EQUIPMENT	1.00	33192	33192
	TOTAL–	179811	149227

HT PROVIDE HANDLE TIE ON BREAKERS
L/O PROVIDE LOCK–ON DEVICE
GFI GROUND FAULT CURRENT INTERRUPTER

PANELBOARD LOAD = 149227 V.A.
FULL LOAD AMPS = 414.5 A.

GENERAL NOTES

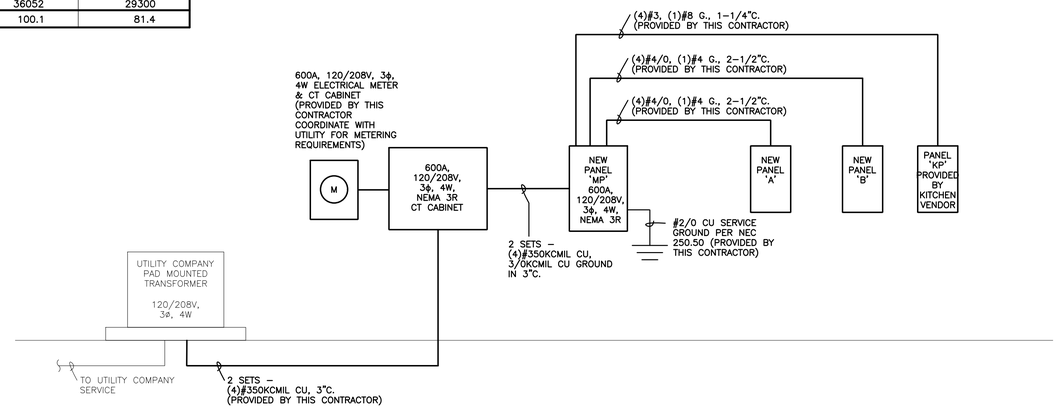
1. EC TO PROVIDE HANDLE TIE ON ALL MULTIWIRE BRANCH CIRCUITS PER NEC 210.4(B).
2. ALL SPARE CIRCUIT BREAKERS AND DISCONNECT SWITCHES SHALL BE LEFT IN THE OFF POSITION.
3. EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OF ALL EQUIPMENT DELIVERED TO THE SITE PRIOR TO CONNECTION. EC SHALL NOTIFY OWNER OF ANY DIFFERENCE.
4. SERIES RATED PANELS PER NEC 240.86.

ANSUL SYSTEM CONTROL WIRING NOTE:

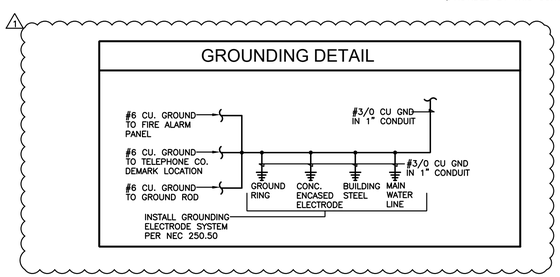
EC SHALL BE RESPONSIBLE FOR ALL LINE VOLTAGE CONTROL WIRING FROM ANSUL SYSTEM TO SHUNT TRIP BREAKER AND GAS VALVE. COORDINATE ALL WORK WITH HVAC CONTRACTOR.

KITCHEN RECEPTACLE NOTES

1. ALL KITCHEN ALL 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 PERSONAL PER 2017 NEC SECTION 210.8 (B)
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.



1 ELECTRICAL ONE-LINE DIAGRAM
NO SCALE



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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #814
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-22305
PROFESSIONAL ENGINEER
02-14-2020

PERMIT SET

Client Approval

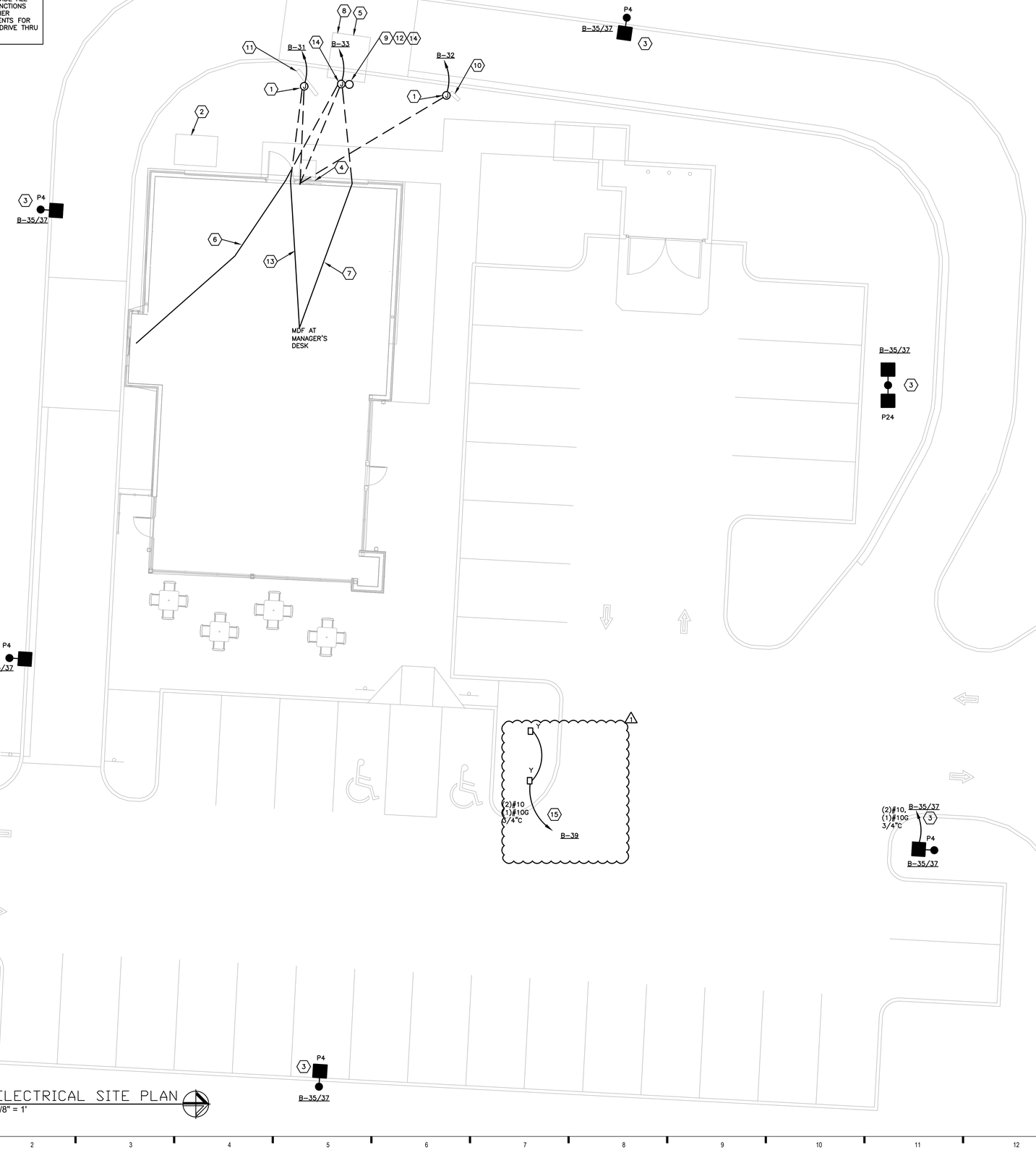
Electrical One-Line Diagram & Schedules

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
Checked by	DC

E4

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796 Merus Court
St. Louis, MO 63026
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CERTIFICATE OF AUTHORITY NO. 001498

SEE SHEET E5.2 FOR DRIVE THRU EQUIPMENT INSTALLATION DETAILS. EC TO PROVIDE ALL CONDUIT, WIRING, JUNCTIONS BOXES, AND ALL OTHER ELECTRICAL COMPONENTS FOR FULLY OPERATIONAL DRIVE THRU SYSTEM.



1 ELECTRICAL SITE PLAN
1/8" = 1'

KEYED ELECTRICAL NOTES:

1. EC TO PROVIDE (2) 20A DEDICATED CIRCUIT TO PREORDER AND MENU BOARD. ROUTE (1) CIRCUIT THROUGH BUILDING TIME SWITCH AND (1) UNSWITCHED. PROVIDE (2) 1" CONDUITS TO ABOVE FINISHED CEILING IN DRIVE THRU. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS WITH DRIVE THRU EQUIPMENT DRAWINGS PRIOR TO PERFORMING ANY WORK.
2. LOCATION OF UTILITY PAD MOUNTED TRANSFORMER.
3. NEW SITE LIGHTING FIXTURE. REFERENCE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON SITE POLE HEIGHT. ROUTE CIRCUIT THRU TIME CLOCK.
4. LOCATION OF METERING EQUIPMENT AND PANEL MDP. SEE E4 FOR MORE INFORMATION.
5. EC TO INSTALL LOOP DETECTOR FURNISHED BY OWNER AT DRIVE THRU MENU BOARD. REFERENCE DRIVE THRU DRAWINGS PRIOR TO PERFORMING ANY WORK. STUB (1) 1" PVC CONDUIT FROM BASE OF MENU BOARD TO OUTSIDE OF CURB LINE.
6. EC TO PROVIDE (1) 1" CONDUIT FOR LOW VOLTAGE/COMMUNICATIONS WIRING FOR DRIVE THRU SPEAKER SYSTEM. SEE SHEET E2.1 FOR EXACT TERMINATION POINTS WITHIN THE STORE.
7. EC TO PROVIDE (1) 1" CONDUIT FOR LOW VOLTAGE/COMMUNICATIONS WIRING FOR DRIVE THRU CONFIRMATION BOARD. SEE SHEET E2.1 FOR EXACT TERMINATION POINTS WITHIN THE STORE.
8. LOOP DETECTOR
9. CANOPY AND SPEAKER POST
10. PREVIEW BOARD
11. MENU BOARD
12. ORDER CONFIRMATION BOARD MOUNTED TO CANOPY.
13. EC TO PROVIDE (1) 1" CONDUIT FOR LOW VOLTAGE/COMMUNICATIONS WIRING FOR DRIVE THRU MENU BOARD. SEE SHEET E2.1 FOR EXACT TERMINATION POINTS WITHIN THE STORE.
14. EC TO PROVIDE 20A DEDICATED CIRCUIT FOR CONNECTION TO ORDER CONFIRMATION SCREEN.
15. NEW FLAG POLE LIGHTING FIXTURE. ROUTE CIRCUIT THRU TIME CLOCK.

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Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL B. CASE
NUMBER PE-2393
PROFESSIONAL ENGINEER

02-14-2020

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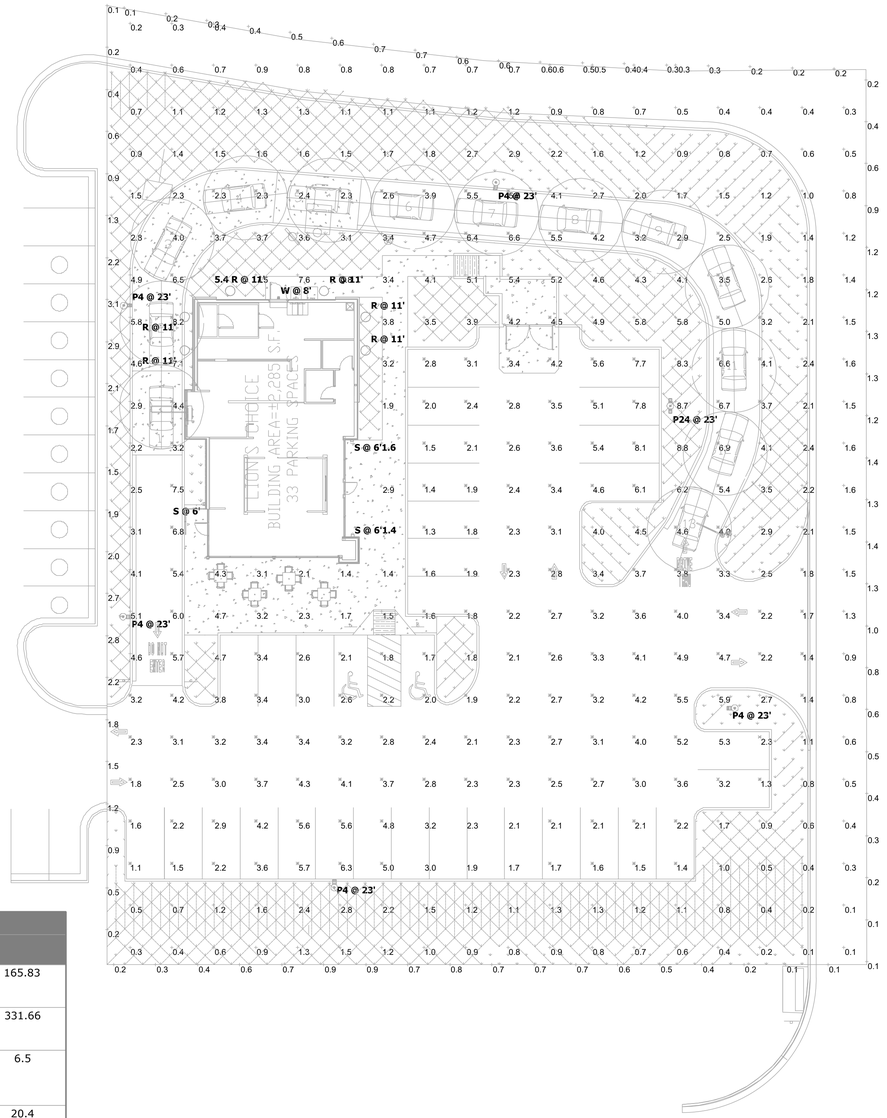
Client Approval

ELECTRICAL SITE PLAN

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
Checked by	DC

E5.0

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1 ELECTRICAL SITE PHOTOMETRIC
1" = 17'

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
OVERALL Site Light Levels	+	2.7 fc	8.8 fc	0.1 fc	88.0:1	27.0:1
Parking Lot Light Levels	X	3.4 fc	8.2 fc	1.1 fc	7.5:1	3.1:1
Property Line Light Levels	+	0.9 fc	3.1 fc	0.1 fc	31.0:1	9.0:1

Schedule

Symbol	Label	Qty	Catalog Number	Description	Lamp	Wattage
	P4	5	GL2-17-4S-740-STD-0-BZ-SA	Single Head Power Secure Solais GL2 GridLite Series LED Area Unit w/Type 4S Distribution (20ft. Pole Height w/3ft. Base)	LED/40K	165.83
	P24	1	GL2-17-4S-740-STD-0-BZ-SA	Double Head Power Secure Solais GL2 GridLite Series LED Area Unit w/Type 4S Distribution (20ft. Pole Height w/3ft. Base)	LED/40K	331.66
	R	6	H-15127-91/HL-H-91/INC	Hi-Lite Manufacturing Wall Mounted 27in Diameter Architectural INC Shade Unit w/Screw-In ST19 Edison Style LED Filament Lamp (11ft. Fixture Mounting Height)	6.5ST19/CL/LED/E26/30K/120V	6.5
	S	3	700OWZUR-930-18-Z-UNV	Tech Lighting ZUR 18 Series Wall Mounted Architectural LED Wall Sconce Unit (6ft. Fixture Mounting Height)	LED/30K	20.4
	W	1	XTOR1B-Y	Eaton Lumark Crosstour Series Wall Mounted LED Over-Door Wallpack Unit (8ft. Fixture Mounting Height)	LED/30K	12.2

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LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #614.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL B. CASE
NUMBER PE-2230S
PROFESSIONAL ENGINEER
02-14-2020

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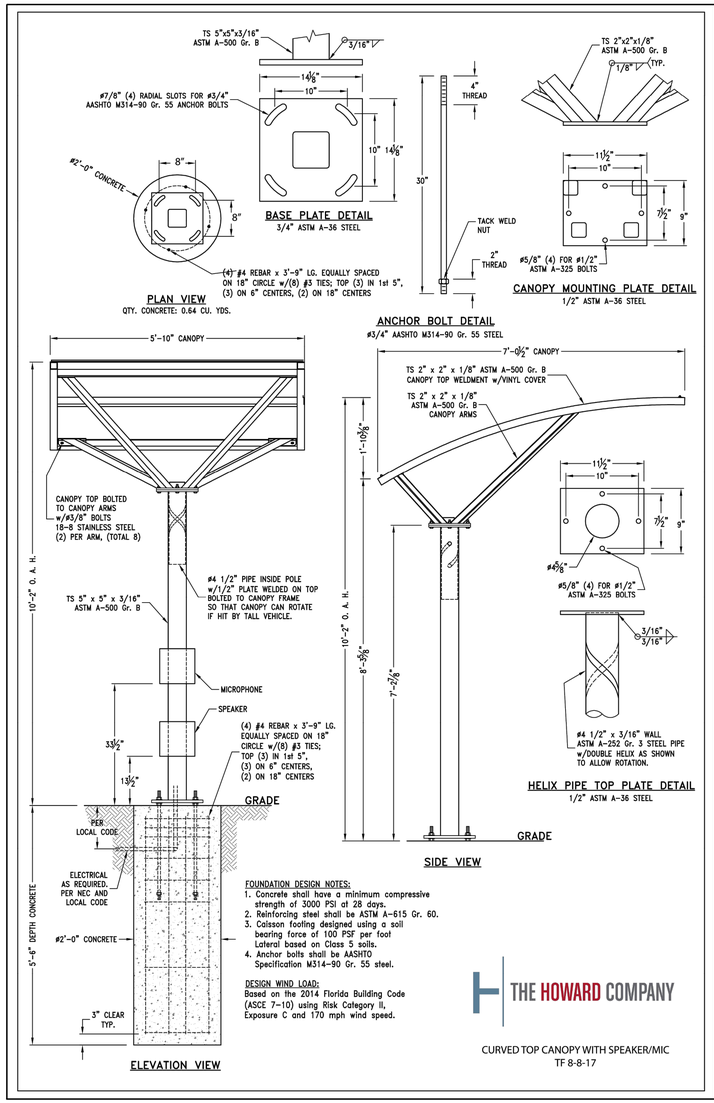
Client Approval

ELECTRICAL SITE PHOTOMETRIC

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
Checked by	DC

E5.1

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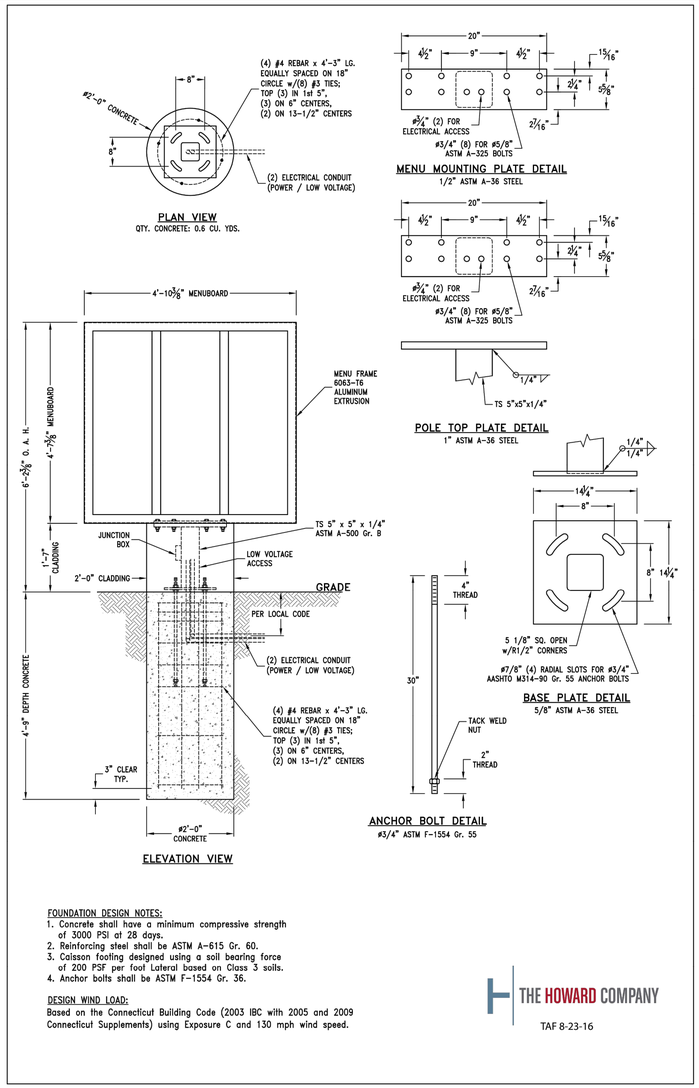
FOUNDATION DESIGN NOTES:
1. Concrete shall have a minimum compressive strength of 3000 PSI at 28 days.
2. Reinforcing steel shall be ASTM A-615 Gr. 60.
3. Caisson footing designed using a soil bearing force of 100 PSF per foot Lateral based on Class 5 soils.
4. Anchor bolts shall be AASHTO Specification M314-90 Gr. 55 steel.

DESIGN WIND LOAD:
Based on the 2014 Florida Building Code (ASCE 7-10) using Risk Category II, Exposure C and 170 mph wind speed.

THE HOWARD COMPANY

CURVED TOP CANOPY WITH SPEAKER/MIC
TF 8-8-17

M1 - CANOPY & SPEAKER POST

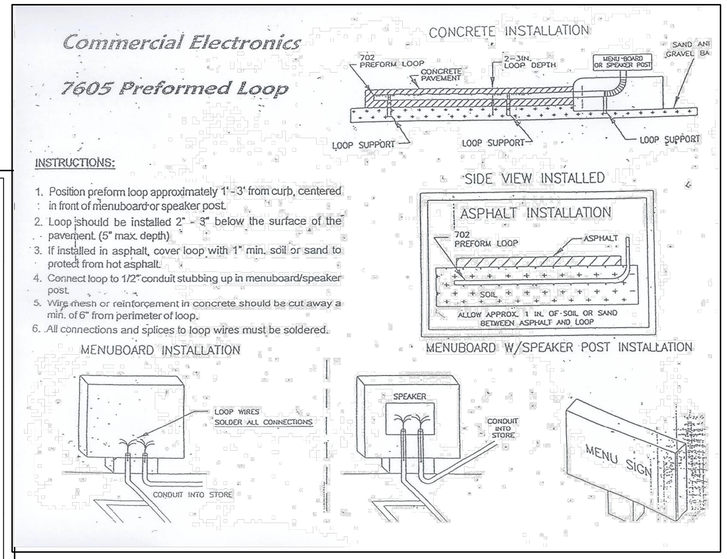


FOUNDATION DESIGN NOTES:
1. Concrete shall have a minimum compressive strength of 3000 PSI at 28 days.
2. Reinforcing steel shall be ASTM A-615 grade 60.
3. Caisson footing designed using a soil bearing force of 400 PSF per foot Lateral.
4. Anchor bolts shall be AASHTO specification M314-90 Gr. 36.

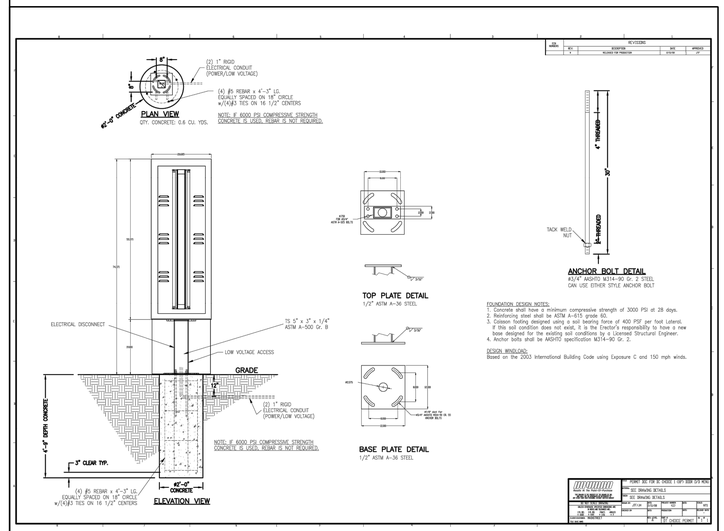
DESIGN WIND LOAD:
Based on the Connecticut Building Code (2003 IBC with 2005 and 2009 Connecticut Supplements) using Exposure C and 130 mph wind speed.

THE HOWARD COMPANY
TAF 8-23-16

M6 - MENU BOARD



LOOP DETECTOR



M12 - ORDER CONFIRMATION BOARD

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LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	1/15/20

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2330
PROFESSIONAL ENGINEER
02-14-2020

PERMIT SET

Client Approval

DRIVE THRU EQUIPMENT REFERENCE SHEET

Project #	52119-MO01
Issue Date	12/11/2019
Scale	AS SHOWN
Drawn by	LKM
Checked by	DC

E5.2

ELECTRICAL SPECIFICATIONS

Note! Manufacturers' names on which the specification is based indicate the minimum quality of product required. Substitution may be made to those specified if deemed equivalent by the owner's representative. All work and products shall meet the requirements of the landlord.

1. The general conditions and supplementary general conditions shall be considered as part of this specification.

2. Existing Conditions

   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.

   Contractors shall visit the site prior to bidding. bids shall serve as evidence of knowledge of existing conditions.

3. Furnish 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.

   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 and other applicable codes.

4. The word "provide" as used herein means to furnish and install complete.

5. All work to be in accordance with NEC and all applicable federal, state, and local codes.

6. Secure and pay for all required permits and inspection certificates.

7. Submit material lists and shop drawings for major equipment to the architect for approval. Submittals shall be in accordance with general conditions and shall bear the stamp of the electrical contractor showing that he has reviewed and approved them. Lack of such contractor's approval will be cause for rejection without review by the architect.

8. Scope of work:

   Provide electrical service to space per drawings and landlords requirements.

   Furnish and install new lighting fixtures, per schedule.

   New receptacles as indicated.

   If applicable, circuiting of relocated panel(s). Provide new circuit breakers as required. Relocate transformer.

   Provide telephone service and telephone system raceway and junction boxes. All telephone system wiring and devices within tenant space furnished and installed by Electrical Contractor.

   Testing of all cables and circuit wiring after installation.

   Testing of all electrical equipment.

   Provision for temporary construction power.

   Warranty of all work for a period of one year from date of project closeout.

9. Conductor insulation and multiconductor cable applications and wiring methods.

   Conduit shall be standard steel, rigid IMC or EMT (thin wall). Conduit shall be concealed in finished areas. Except as otherwise approved by Landlord's representative. EMT connections shall be compression or set screw type.

   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.

   Use heavy wall conduit or PVC for under slab installations.

   The use of nonmetallic-sheathed cable, Type NM, and Type USE with ground wire cables are not acceptable.

   The use of metal clad cables is not acceptable for branch circuit home runs to panelboards and dedicated branch circuits.

   Service Entrance: Type XHHW, single conductors in raceway.

   Exterior Feeders: Type XHHW, single conductors in raceway.

   Feeders from VFD to motor: Type XHHW-2.

   Exposed, Interior, Feeders: Type THHN-THWN, single conductors in raceway.

   Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspaces: Type THHN-THWN, single conductors in raceway or Metal-clad cable, Type MC.

   Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.

   Exposed, Interior, Branch Circuits, Including in Crawlspaces: Type THHN-THWN, single conductors in raceway.

   Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway or Metal-clad cable, Type MC.

   Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.

   Class 1 Control Circuits: Type THHN-THWN, in raceway.

   Class 2 Control Circuits: Power-limited cable, concealed in building finishes.

10. All conductors shall be soft drawn, annealed copper, with 600V insulation:

    #10 and smaller- solid with single braid.

    #8 and larger- stranded with at least double braid.

    All wiring to be 2 #12, unless otherwise noted. #14 may be used for control applications. All low voltage wiring not required to be in conduit shall be fire retardant plenum rated.

    All wire and cable shall be new and shall be brought to the site in unbroken packages.

    General wiring shall have THW, THHN, or THWN insulation.

    Aluminum conductors are not permitted.

    Wire connectors shall be equal to Scotchlock for #8 and smaller, and T&B "Lock-Tite" for #6 and larger.

    Wires shall be color coded and followed throughout for feeders and branch circuits and used as a basis for balancing loads:

    Use 10 Awg (minimum) conductors for 20 ampere, 120 volt branch circuits longer than 75 feet.

    Use 10 Awg (minimum) conductors for 20 ampere, 277 volt branch circuits longer than 150 feet.

120/208 Y VOLTS		277/480 Y VOLT	
PHASE	COLOR	PHASE	COLOR
A	BLACK	A	BROWN
B	RED	B	ORANGE
C	BLUE	C	YELLOW
NEUTRAL	WHITE	NEUTRAL	WHITE W/TRACER OR GRAY
GROUND	GREEN	GROUND	GREEN

11. Boxes and fittings:

    Boxes and fittings shall be new, top quality and located where required to install the conductors in compliance with the prevailing codes. approved manufactures are: STEEL CITY, RACO or APPLETON.

    Sheet metal boxes: NEMA OS 1.

    cast metal boxes: NEMA FB 1, type FS or FD, cast ferroalloy box with gasketed cover.

    Boxes in fire-rated walls shall have a fire rating equal to or greater than the rating of the wall.

12. Wiring Devices:

    Wall switches, single pole, double pole, and three way shall be spec. grade, 20A, 120/277V, with screw terminals, equal to Hubbell #HBL1221. manufacturer shall be Hubbell, Bryant, Pass and Seymour or Leviton.

    General duty duplex receptacles shall be 2-pole, 3-wire grounding type, commercial grade, 20A, 125V equal to Hubbell #5362. Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Ground fault interrupter duplex receptacles, feed-through type, capable of protection connected downstream receptacles on a single circuit, 20A, 120V, 60 HZ; with solid-state ground fault sensing and signaling; with 5 milliamperes ground-fault trip level equal to Hubbell #GF5362. Approved Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Weatherproof receptacle cover shall be Hubbell #WP826MP. Approved Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Dedicated duplex receptacles shall be 2-pole, 3-wire grounding type, red, commercial grade, 20A, 125V equal to Hubbell #5362-R. Manufacturers shall be Hubbell, Bryant, Pass and Seymour, or Leviton.

    Wiring device accessories including all wall plates shall be provided at each device. Wall plates shall be same color as device and manufactured as a companion to the device. All wiring devices shall be, color by architect, unless otherwise noted.

    Mounting heights of devices shall be to the following centerlines, unless otherwise noted:

Toggle switches	4'-0"
Receptacles	1'-6"
Telephone outlets	4'-6"
Disconnect switches (TOP)	5'-6"
Panelboards (TOP)	6'-0"

13. Grounding system: This contractor shall provide, install, and connect a complete system of grounding for all equipment and structures. Mechanical and electrical connection shall be made with approved grounding connectors.

    Electrical system and equipment grounds shall comply with all local, state, and NEC codes and regulations.

    Panels, conduit systems, motor frames, lighting fixtures and other equipment that are a part of this installation shall be securely grounded.

    Main grounding system shall be sized to confirm with section 250 of the NEC. Provide conduit to protect ground wire from damage to an area 6'-0" above floor.

    Ground all 3 wire receptacles to the outlet boxes.

    Ground conductor shall be supplied in all non-metallic conduit.

14. Panelboards: Panelboards shall be dead front and consist of cabinets, interiors, bus, main and branch circuit protective devices, main lugs, and all necessary equipment for a complete panelboard. Detailed characteristics such as number of branches, frame or ampere rating, trip, bus size, type mounting or voltage ratings, shall be as shown on the drawings.

    Cabinet shall be fabricated of code gauge, hot galvanized steel with adequate gutters. Joints shall be welded and reinforced where required. The outside of surface mounted cabinets shall be finished with one coat of zinc chromate primer and at least one coat of gray enamel. Load center type panelboards are not acceptable.

    Trim and panelboard front cover shall be made of cold-rolled steel of code gauge steel. Trim shall have doors with concealed hinges and have a flush type combination lock and catch or a multiple point contact catch. Each lock shall be provided with two keys. All panelboards shall be keyed alike. Provide a typed index identifying the panelboard and indicating the circuit number with the description or function of the associated branch circuit. Index shall be mounted under a clear glass or plastic protective cover. Trim shall be cleaned, and given a prime coat of paint and at least one finished coat of gray enamel.

    All lugs shall be of the solderless type and rated for at a minimum 75 degrees.

    All panelboards shall have engraved nameplates identifying panelboards as indicated by Owner. All panelboard switches and circuit breakers shall be labeled as directed by Owner.

    277/480 volt panels shall be equal to Square D type NF with type EDB (25000 AIC) bolt-on circuit breakers.

    120/208 volt panels shall be equal to Square D type NQOD with type QO-VH (22000 AIC) bolt-on circuit breakers.

    Perform tests and inspections

    Acceptance Testing Preparation:

    1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
    2. Test continuity of each circuit.

    Tests and Inspections:

    1. Perform each visual and mechanical inspection and electrical test for low-voltage air circuit breakers stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
    2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

    Panelboards will be considered defective if they do not pass tests and inspections.

    Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes scanning results, with comparisons of the two scans. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

15. Work in electrical panel shall include:

    Check and tighten all connections and wiring.

    Verify operation of all breakers.

    New circuit breakers shall be quick-make, quick-break, trip indicating type and ambient compensating. Circuit breakers shall be bolt on type, minimum interrupting shall be as noted on panel schedule.

    Breakers serving lighting circuits shall be rated for switch service. Breakers serving HVAC equipment shall be HACR rated.

    Provide "Lock-on" device at breakers serving cash register, night light/emergency, fire alarm equipment and time switch circuits, as indicated on the panel schedule.

    Provide new panel directory, typed and installed behind clear plastic cover on inside of the door.

    Panel shall be circuited so that the load is distributed evenly across all three phases to within 10% per NEC.

16. Safety and disconnect switches: Provide safety and disconnect switches, fused or non-fused, as called for on drawing and as required by code. Switches shall be heavy duty, load and horsepower rated. Square D type H. Switch enclosure to be suitable for application.

17. Fuses: Cartridge fuses shall be one time Bussmann "Fusetron", "Low-peak", or "Hi-cap", sized according to the load or as indicated on the drawings.

    Provide fuses in all switches requiring them. In addition, furnish to the Owner one set of each size and type fuse on the job.

18. Dry type transformers: Transformers shall be of KVA rating as noted on the drawings, 2 winding, dry type, 3 phase, with six 2-1/2% taps, 2 above and 4 below normal primary voltage. Transformer shall be NEMA type 1, quiet type with core and coils isolated from the case by vibration dampers. Transformers shall be Square D type (DOE 2016).

19. Seismic restrains on electrical equipment: All electrical equipment shall be provided with seismic restraining services as required by local building Codes. Contractor shall have local building office review each piece of equipment when installed and the Contractor shall install all required tie down, anchors, straps or other devices required.

20. Telephone system: Make arrangements with the local utility for installation of telephone service.

    Conduit system for telephone distribution within tenants premises shall be provided as required by code or as indicated on the drawings. Telephone rough-in outlet boxes shall be 4" square minimum with single device cover and telephone plate.

21. This contractor shall make arrangements for temporary power and shall pay the cost for the utility connection and shall be responsible for the proper maintenance of the temporary work and for the removal of same.

    General Contractor shall pay all utility charges in connection with the temporary power.

    Contractor shall provide ground fault protection for all equipment used on the premises during construction.

22. This contractor shall do all cutting, chasing, or channeling and patching required for any work herein specified. Any cutting shall have prior approval by the landlord.

    Contractor is responsible to take whatever measures are necessary including but not limited to those measures prescribed by the landlord in the exercise of its reasonable judgment to assure that coreboring will not damage landlord's structure, conduits, etc. or the work of other tenant's below. The cost of such tests or repair of any damage will be borne by this contractor.

    All sleeved, openings, etc. through fire rated walls and floors shall be sealed after conduit installation with sealer equal to or exceeding fire rating of floor or wall.

23. All electrical work shall be installed so as to be readily accessible for operating, servicing, maintaining and repair.

    All outlet boxes, receptacles, equipment power connections, disconnect switches, etc. shall be marked with the panelboard designation and the circuit number of all the feeders serving the equipment or in the junction box. This marking shall be made with a permanent type ink. The location of this marking shall be reviewed with Loomis' Representative before installation.

    Hangers shall include all miscellaneous steel, such as channels, rods, etc., necessary for the installation of work and shall be secured to the building structure, not to piping or ductwork.

    All conduit shall be concealed where possible. Exposed conduit shall be run in straight lines parallel with or at right angles to column lines and separated at least 3" from water lines wherever they run along side or across suck lines.

24. Lighting Fixtures:

    The contractor shall install a new lighting fixture of the type specified for each lighting fixture shown complete with lamps. All fixtures shall be hung and mounted in place, properly wired, tested and left ready for operation.

    All lighting fixtures, complete with accessories shall be purchased through the Owner's national account. Refer to the light fixture schedule on Electrical drawings for all contact information.

    This contractor shall survey the shipment upon arrival to verify fixture quantities and damages. In the event that shipment is incomplete or damaged, this contractor shall inform Owner.

    After the shipment is verified and accepted, contractor shall move fixture to an area of safety for storage until they may be installed. He assumes responsibility for the fixtures until the project is turned over to the owner.

25. Painting of electrical conduits, etc,. if required, will be by general contractor.

26. Electrical contractor shall record all field changes in his work as the job progresses, and upon completion shall turn over to the tenant a record set of prints showing these changes.

27. At the completion of job, contractor shall replace any lamps that have burned out, new and existing, clean all fixtures, touch up any scratches and replace any fixtures that have been damaged.

28. Guarantee:

    Materials, equipment and installation shall be guaranteed for a period of one year from the date of acceptance. Defects which appear during that period shall be corrected at this contractor's expense.

    For the same period, electrical contractor shall be responsible for any damage to the premises caused by defects in workmanship or in the work or equipment furnished and/or installed by him.

29. It is the intent that the foregoing work shall be complete in every respect and that any material or work not specifically mentioned or shown on the drawings, but necessary to fully complete the work shall be furnished.

30. The location of receptacles and fixtures shown on the drawing is approximate and the owner shall have the right to relocate any receptacles or fixtures before they are installed without additional cost.

31. Substitutions:

    Manufacturers' equipment and materials scheduled, noted, and specified in the construction documents are the design standard. no substitutions will be allowed without prior written approval by the architect or engineer. In bidding, do not assume acceptance of substitutions. Contractor must state in substitution request: "Proposed substitutions are equal or of higher quality, efficiency and dependability to specified equipment and material. contractor assumes all responsibility for additional engineering costs and costs to other contractors due to substitutions." If deemed necessary by the architect or engineer, substitutions which are not approved or not equal to design standard shall be removed and the scheduled, noted, and specified equipment and materials shall be installed at contractor's expense. Submitting contractor assumes full responsibility for additional engineering costs and costs to other contractors due to substitutions.

32. Coordination with Electric Utility Company:

    Prior to beginning work, this Contractor shall be required to fully coordinate his construction operations and all metering equipment locations with authorized representative of the Electric Utility Company by timely notice or scheduling of service equipment dates, service modification dates and notification of Owner of required Owner authorizations involving the Utility Company.

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

Oculus Inc.
CONNECT • SHAPE • MOVE
ARCHITECTURE • INTERIOR DESIGN • PLANNING
ONE SOUTH MEMORIAL DRIVE, SUITE 1500ST. LOUIS, MO 63102
(314) 361-6100

LION'S CHOICE Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

LOT 4D OF SUMMIT ORCHARDS
LEE'S SUMMIT, MO 64063

#	Description	Date
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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2393
PROFESSIONAL ENGINEER

02-14-2020

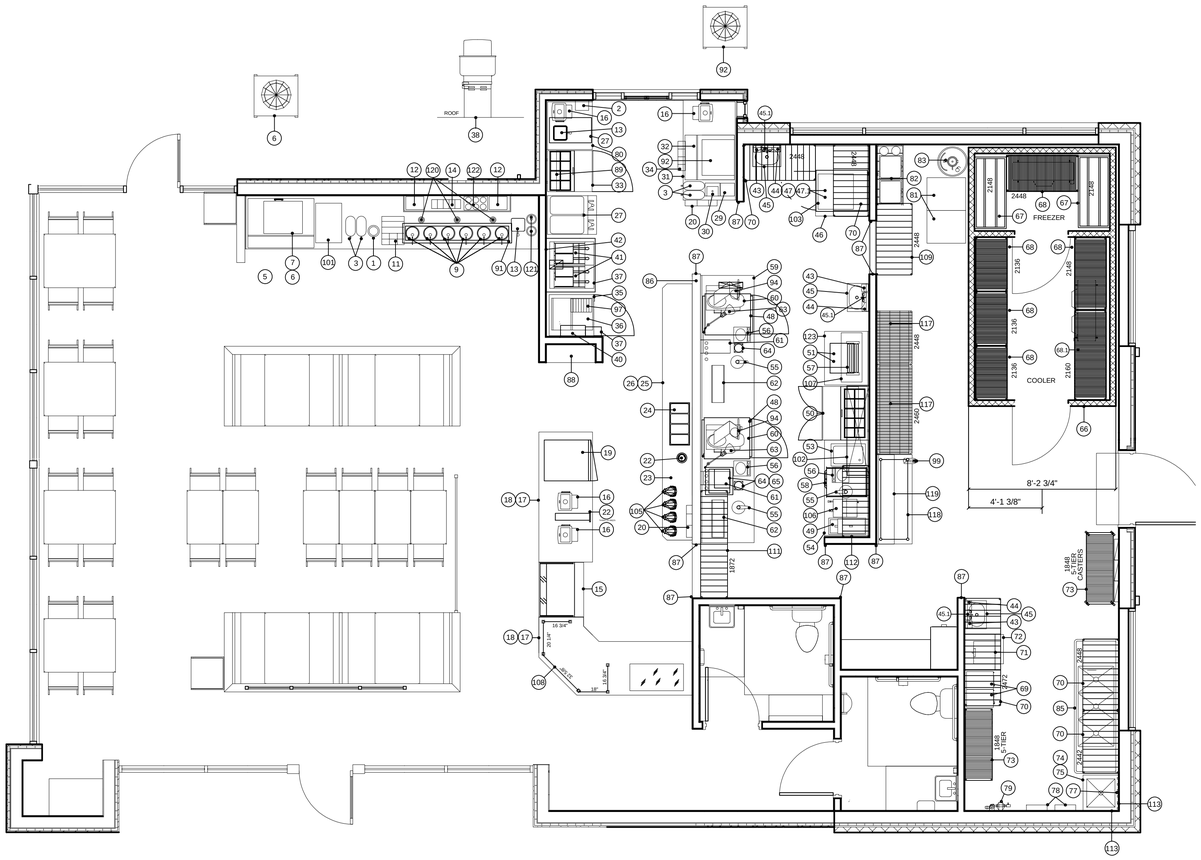
PERMIT SET

Client Approval

ELECTRICAL SPECIFICATIONS

Project #	52119-MO01
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Checked by	DC

E6



KITCHEN & DINING
FOODSERVICE EQUIPMENT FLOOR PLAN

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

GENERAL CONTRACT NOTES:

- PRIME CONTRACTOR AS WELL AS SUB-CONTRACTOR BACK CHARGES AGAINST FOOD SERVICE EQUIPMENT CONTRACTOR WILL BE CONSIDERED BY FOOD SERVICE EQUIPMENT CONTRACTOR WHEN WORK ORDER SIGNED BY AUTHORIZED AGENT ACCOMPANIES SUCH BACK CHARGE & DATE OF OCCURRENCE IS LESS THAN 30 CALENDER DAYS FROM DATE OF INVOICE. BACK CHARGES FOR WORK NOT FALLING WITHIN SCOPE OF FOOD SERVICE CONTRACT WILL NOT BE HONORED UNDER ANY CIRCUMSTANCES.
- FOOD SERVICE DIMENSIONAL ROUGH-INS MAY SHOW ROUGH-IN REQUIREMENTS WHICH VARY FROM FOOD SERVICE SPOT ROUGH-IN BID DOCUMENTS. FOOD SERVICE CONTRACTOR WILL NOT BE RESPONSIBLE FOR EXTRA COST INCURRED BY OTHER TRADES DUE TO THE VARIANCES.
- IF THE WALL LOCATION CHANGES FROM WHAT IS ALREADY SHOWN ON THE ARCHITECTURALS, SERVCO WILL NOT BE RESPONISABLE FOR RELOCATION OF ANY THUR-THE=SLAB ROUGH-IN.

ITEM #	QTY.	DESCRIPTION	REMARKS
1	1	S.S. SCRAP CHUTE	SERVCO
2	1	WALL MOUNTED NAPKIN DISPENSER	N.I.C. - BY OWNER
3	4	ICED TEA DISPENSER	N.I.C. - BY OWNER
4	0	SPARE NUMBER	
5	1	BEVERAGE COUNTER (MILLWORK)	N.I.C. - BY OWNER
6	1	ICE MACHINE (DINING) W/ REMOTE COMPRESSOR	SERVCO
7	1	SODA/ICE DISPENSER-DINING	N.I.C. - BY VENDOR
8	0	SPARE NUMBER	
9	6	CONDIMENT PUMPS	SERVCO
10	0	SPARE NUMBER	
11	1	LID/CONDIMENT DISPENSER	N.I.C. - BY OWNER
12	2	NAPKIN DISPENSER	N.I.C. - BY OWNER
13	2	AU JUS DISPENSER	SERVCO
14	1	PICKLE/ONION DISPENSER	N.I.C. - BY OWNER
15	1	AIR CURTAIN MERCHANDISER	SERVCO
16	4	POS	N.I.C. - BY OWNER
17	16	CABINET LEGS & S.S. KICKPLATES	SERVCO-SUPPLY TO M.C.
18	1	FRONT COUNTER (MILLWORK)	N.I.C. - BY OWNER
19	1	UNDERCOUNTER REFRIGERATOR (LO-PRO)	SERVCO
20	2	BAG HOLDER (CUSTOM FAB)	SERVCO
21	0	SPARE NUMBER	
22	4	CUP DISPENSERS	SERVCO
23	1	BACK COUNTER TOP (CUSTOM FAB)	SERVCO
24	1	DROP-IN HOT FOOD WELL	SERVCO
25	1	BACK COUNTER (MILLWORK)	N.I.C. - BY OWNER
26	14	CABINET LEGS & S.S. KICKPLATES	SERVCO-SUPPLY TO M.C.
27	1	COMBINATION FREEZER WITH FLAVORBURST	N.I.C. - BY OWNER
28	0	SPARE NUMBER	
29	1	DIP CONE WARMER	N.I.C. - BY OWNER
30	1	MALT MIXER	SERVCO
31	1	DRIVE-THRU BEVERAGE COUNTER (CUSTOM FAB)	SERVCO
32	1	SODA/ICE DISPENSER-DRIVE-THRU	N.I.C. - BY VENDOR
33	1	REFRIGERATED SANDWICH UNIT	SERVCO
34	1	LID AND STRAW DISPENSER	SERVCO
35	1	UNDERCOUNTER FREEZER	SERVCO
36	1	FRENCH FRY WARMER	SERVCO
37	1	EXHAUST HOOD WITH "WALL MOUNTED CONTROL CABINET"	SERVCO
38	1	EXHAUST FAN	SERVCO
39	0	OPEN NUMBER	
40	1	FIRE PROTECTION SYSTEM	SERVCO
41	1	DOUBLE FRYER	SERVCO
42	1-LOT	STAINLESS STEEL WALL PANELS	SERVCO
43	3	SOAP DISPENSER	N.I.C. - BY OWNER
44	3	PAPER TOWEL DISPENSER	N.I.C. - BY OWNER
45	3	HAND SINK W/END SPLASHES	SERVCO
45.1	3	ELECTRONIC EYE FAUCET	SERVCO
46	1	S.S. WORKTABLE	SERVCO
47	1	POTATO OVEN	SERVCO
47.1	1	COOKIE OVEN	N.I.C.-PURVEYOR
48	2	COOK AND HOLD OVEN	N.I.C. - BY OWNER
49	1	COFFEE/TEA BREWER	N.I.C. - BY OWNER
50	1	REFRIGERATED SANDWICH UNIT	SERVCO
51	2	MICROWAVE OVEN	SERVCO
52	0	SPARE NUMBER	
53	1	DROP-IN HOT FOOD UNIT W/CORD AND PLUG	SERVCO
54	1	HAM & TURKEY COUNTER (CUSTOM FAB)	SERVCO
55	3	CHEESE PUMP	SERVCO
56	3	SCALE	SERVCO
57	1	HOT DOG ROLLER GRILL	SERVCO
58	1	DRAWER WARMER	SERVCO
59	1	MAIN SLICER TABLE (CUSTOM FAB)	SERVCO
60	2	SLICER	SERVCO
61	2	SANDWICH SLIDE (CUSTOM FAB)	SERVCO

ITEM #	QTY.	DESCRIPTION	REMARKS
62	2	TOASTER WITH DRESSER	SERVCO
63	2	HEAT LAMPS	SERVCO
64	1	STEAM GENERATOR W/ (2) STEAM HEADS	SERVCO
65	1	STEAMER STAND (CUSTOM FABRICATED)	SERVCO
66	1	WALK-IN COOLER/FREEZER	SERVCO
67	2	DUNNAGE RACKS	SERVCO
67.1	0	SPARE NUMBER	
68	5	SHELVING - 4 TIER	SERVCO
68.1	1	SHELF/DUNNAGE RACK	SERVCO
69	2	LOCKERS	SERVCO
70	5	WALL SHELVES	SERVCO
71	1	SCALE	SERVCO
72	1	SCALE TABLE	SERVCO
73	2	WIRE SHELVING - 5 TIER (ONE WITH CASTERS)	SERVCO
74	1	MOP SINK	N.I.C. - BY OTHERS
75	1	SERVICE FAUCET	N.I.C. - BY OTHERS
76	0	SPARE NUMBER	
77	1	MOP RACK	N.I.C. - BY OWNER
78	2	WATER HEATERS	N.I.C. - BY PLUMBER
79	1	WATER FILTER	SERVCO
80	1	DRIVE-THRU SERVICE COUNTER (CUSTOM FAB)	SERVCO
81	LOT	BREAD RACKS	N.I.C. - BY OTHERS
82	LOT	BAG-N-BOX SODA SYSTEM	N.I.C. - BY OTHERS
83	1	CO2 TANK	NUCO-BY OWNER
84	0	SPARE NUMBER	
85	1	THREE COMPARTMENT SINK W/LEVER DRAINS & FAUCET	SERVCO
86	1	S.S. WALL CAP (CUSTOM FABRICATED)	SERVCO
87	10	S.S. CORNER GUARDS	SERVCO
88	1	ON-LINE SHELVING COUNTER	N.I.C. - BY OTHERS
89	1	S.S. SLOPED CONDIMENT SHELF (CUSTOM FAB)	SERVCO
90	0	SPARE NUMBER	
91	1	S.S. INSULATED CONDIMENT PAN	SERVCO
92	1	ICE MAKER AT DRIVE THRU W/ REMOTE COMPRESSOR	SERVCO
93	0	SPARE NUMBER	
94	2	HEAT LAMP	SERVCO
95	0	SPARE NUMBER	
96	0	SPARE NUMBER	
97	1	FRY RACK W/BOX HOLDERS (CUSTOM FABRICATED)	SERVCO
98	0	SPARE NUMBER	
99	1	CAN OPENER	SERVCO
100	0	SPARE NUMBER	
101	1	LEMONADE BUBBLER MACHINE	N.I.C. - BY OWNER
102	1	WALL SHELF	SERVCO
103	1	COOK & HOLD OVEN	N.I.C. - BY OWNER
104	0	SPARE NUMBER	
105	4	AIRPOTS	N.I.C. - BY OTHERS
106	1	COFFEE BREWER	N.I.C. - BY OTHERS
107	1	HEATED HOLDING BIN	SERVCO
108	1	VERTICAL SCREEN	SERVCO
109	1	SHELVING	SERVCO
110	0	SPARE NUMBER	
111	1	SHELVING	SERVCO
112	1	SHELVING	SERVCO
113	1	S.S. WALL PANELS (CUSTOM FABRICATED)	SERVCO
114	0	SPARE NUMBER	
115	0	SPARE NUMBER	
116	0	SPARE NUMBER	
117	2	SHELVING (5-TIER)	SERVCO
118	1	MOBILE WORK TABLE	SERVCO
119	1	S.S. WALL SHELF	SERVCO
120	3	SOUFFLE CUP DISPENSERS	SERVCO
121	2	AUJUS CUP DISPENSERS	SERVCO
122	1	SILVERWARE DISPENSER	N.I.C. - BY OTHERS
123	1	WORK TABLE	SERVCO

REVISIONS:	DATE:	BY:
REVISED PER CONVERSATION WITH JASON D. ON 2/12/2020	2/13/2020	KGH

Servco Equipment Company
3189 Jamieson Avenue, St. Louis, Missouri 63139
(314)781-3189 fax:(314)645-7003
www.servco-stl.com

FOODSERVICE EQUIPMENT PLAN

KITCHEN & DINING

DRAWN BY:	DATE:	SCALE:
KGH	9/10/19	1/4" = 1'

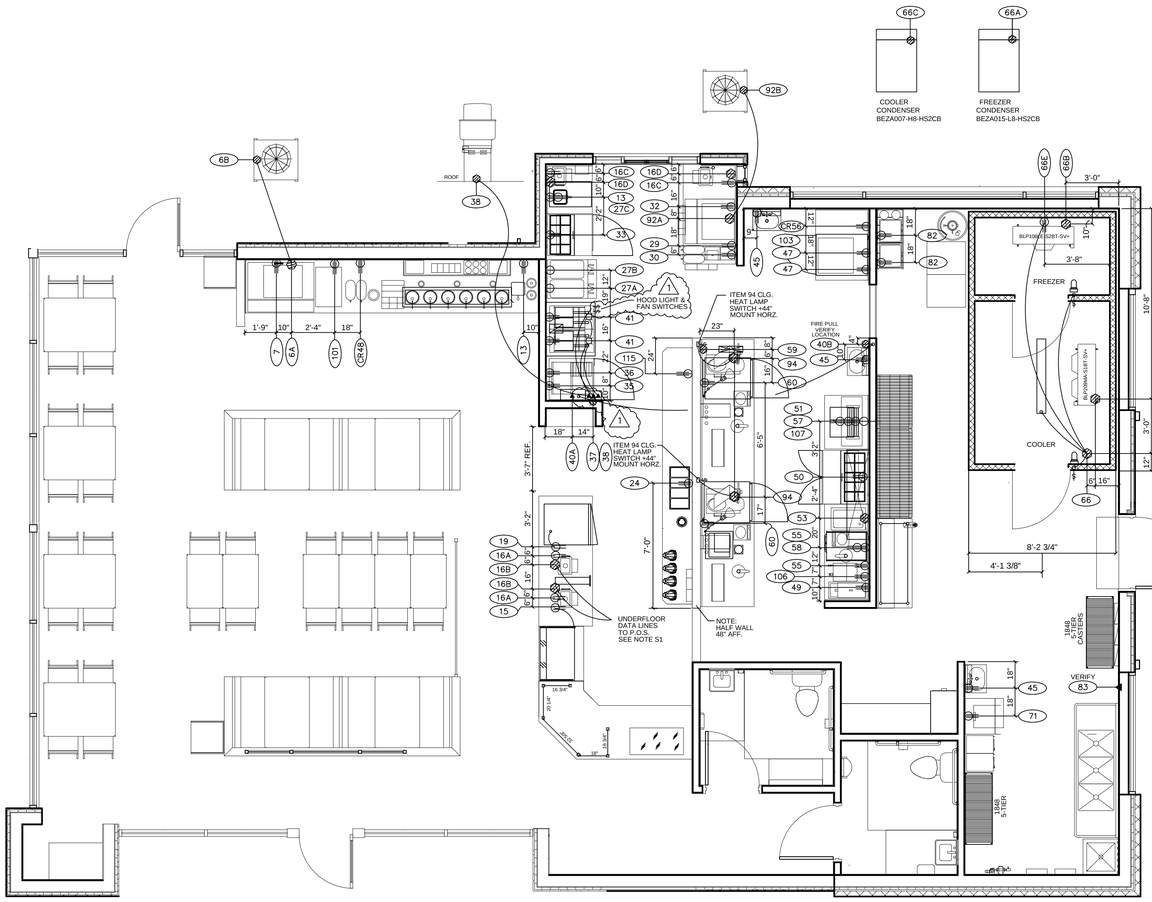
PROJECT NAME: Lions Choice
Lee's Summit, MO

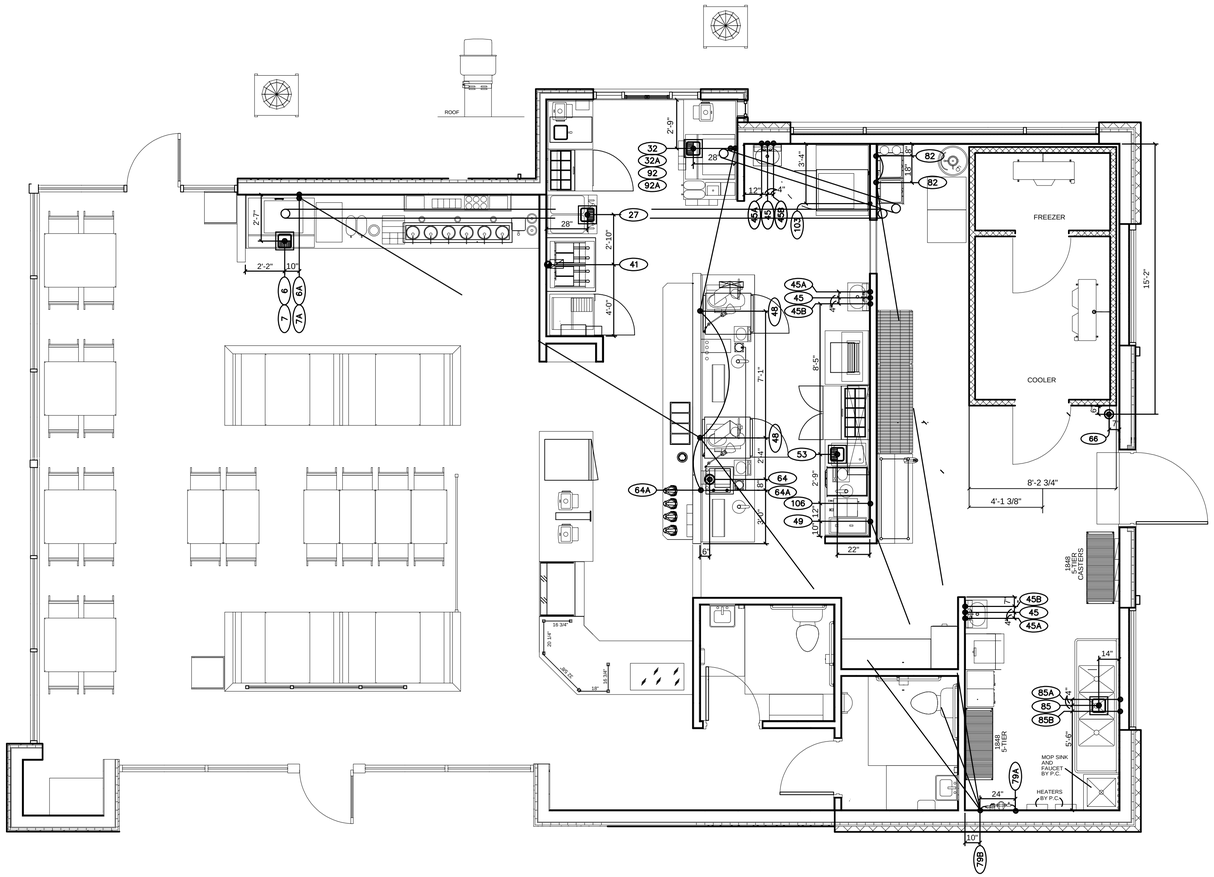
PROJECT NO. 2786

SHEET NO. R-1

food service facilities design ■ planning ■ custom fabrication ■ installation ■ service

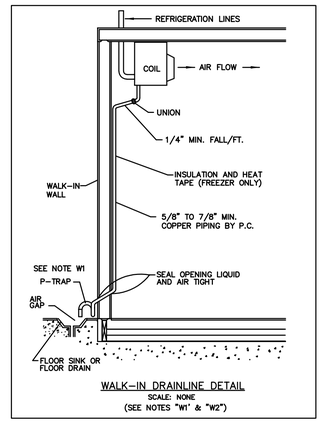
CONDENSING UNITS ARE LOCATED OUTSIDE ON THE ROOF. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER. ALL PENETRATIONS AND ROOF CURBS FOR UTILITIES AND REFRIGERATION LINES ARE NOT BY F.S.E.C.


66C
66A
COOLER CONDENSER BEZA007-H8-HS2CB
FREEZER CONDENSER BEZA015-L8-HS2CB
92B
6B
ROOF
38
16C
16D
13
27C
32
92A
33
29
30
27B
27A
HOOD LIGHT & FAN SWITCHES
41
115
36
35
ITEM 94 CLG. HEAT LAMP SWITCH +44" MOUNT HORZ.
1'-9"
10"
2'-4"
18"
7
6A
101
CR48
13
CR56
103
47
45
82
18"
9"
21"
68E
68B
3'-0"
10'-8"
3'-8"
FREEZER
BLP20HA-S2BT-SV=
10"
66D
3'-0"
12" REF.
COOLER
6'-16"
66
8'-2 3/4"
4'-1 3/8"
3'-7" REF.
3'-2"
7'-0"
40A
40B
59
94
45
60
51
57
107
50
53
58
55
106
49
24
19
16A
16B
15
UNDERFLOOR DATA LINES TO P.O.S. SEE NOTE S1
NOTE: HALF WALL 48" AFF.
18"
14"
23"
FIRE PULL VERIFY LOCATION
10"
6'-5"
24"
17"
12"
60
18"
18"
18"
45
71
83
VERIFY
18"
18"
18"

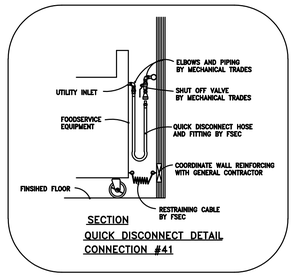


KITCHEN & DINING
PLUMBING CONNECTION PLAN

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

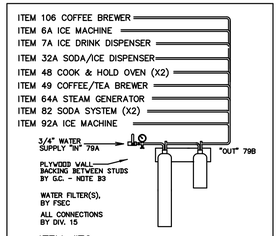


WALK-IN DRAINLINE DETAIL
SCALE: NONE
(SEE NOTES "W1" & "W2")



SECTION
QUICK DISCONNECT DETAIL
CONNECTION #41

ITEM 106 COFFEE BREWER
ITEM 6A ICE MACHINE
ITEM 7A ICE DRINK DISPENSER
ITEM 32A SODA/ICE DISPENSER
ITEM 48 COOK & HOLD OVEN (X2)
ITEM 49 COFFEE/TEA BREWER
ITEM 64A STEAM GENERATOR
ITEM 82 SODA SYSTEM (X2)
ITEM 92A ICE MACHINE



ITEM #79
CENTRAL WATER FILTER SYSTEM
NO SCALE

PLUMBING CONNECTIONS

ITEM	CONN.	DESCRIPTION
6	6	FLOOR SINK FOR ICE MACHINE & BIN – P.C. TO EXTEND DRAIN LINES
6	6A	1/2" FILTERED WATER +72" AFF. ICE MACHINE
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER
7	7	FLOOR SINK FOR ICE DRINK DISPENSER "SODA" – VERIFY N.I.C. EQUIPMENT
7	7A	1/2" FILTERED WATER +24" AFF. ICE DRINK DISPENSER "SODA"
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER
27	27	FLOOR SINK FOR COMBINATION FREEZER W/FLAVOR BURST – VERIFY N.I.C. EQUIPMENT
32	32	FLOOR SINK FOR POST-MIX DISPENSER "SODA"
32	32A	1/2" FILTERED WATER +16" AFF. SODA/ICE DISPENSER – VERIFY N.I.C. EQUIPMENT
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER
41	41	3/4" GAS 150,000 BTU @ 6" W.C. +30" AFF DOUBLE FRYER
45	45	1-1/2" DIRECT DRAIN +21" AFF. HAND SINK
45	45A	1/2" HW +24" AFF. HAND SINK FAUCET
45	45B	1/2" CW +24" AFF. HAND SINK FAUCET
48	48	3/8" FILTERED WATER +18" AFF. COOK & HOLD OVEN – VERIFY N.I.C. EQUIPMENT
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER
49	49	3/8" FILTERED WATER +42" AFF. COFFEE/TEA BREWER – VERIFY N.I.C. EQUIPMENT
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER
53	53	FLOOR SINK FOR HOT FOOD WELL
64	64	FUNNEL FLOOR DRAIN FOR STEAM "RELIEF VALVES"
64	64A	1/2" FILTERED WATER +12" AFF. STEAM GENERATOR – REDUCE TO 3/8" CONNECTION INLET
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER – VERIFY N.I.C. EQUIPMENT
64	64B	P.C. TO INTERPLUMB FROM STEAMER 1/2" OUTLET OUTPUT TO (2) TWO STEAM HEADS 1/4"
66	66	FUNNEL FLOOR DRAIN FOR WALK-IN EVAPORATOR LINE LINES – SEE DETAIL AND NOTE W1
74	---	MOP SINK –BY OTHERS
75	---	MOP SINK FAUCET – BY OTHERS
78	---	WATER HEATERS – BY OTHERS
79	79A	3/4" CW DFA +90" AFF. WATER FILTER "INPUT"
79	79B	3/4" FILTERED DFA +90" AFF. WATER FILTER "OUTPUT" – SEE DETAIL
82	82	1/2" FILTERED WATER +24" AFF. SODA SYSTEM – VERIFY N.I.C. EQUIPMENT
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER
83	83	CO2 TANK – BY OTHERS
85	85	FLOOR SINK FOR PREP, POT SINK DRAIN – P.C. TO MANIFOLD (3) SINK DRAINS TO HERE
85	85A	1/2" HW +18" AFF. POT SINK FAUCET
85	85B	1/2" CW +18" AFF. POT SINK FAUCET
92	92	FLOOR SINK FOR ICE MACHINE & BIN – P.C. TO EXTEND DRAIN LINES
92	92A	1/2" FILTERED WATER +72" AFF. ICE MAKER
---	---	P.C. TO BRANCH FROM CONNECTION 79B WATER FILTER
103	103	1/2" CW +24" AFF. COOK-&-HOLD – P.C. TO INNER CONNECT
106	106	3/8" FILTERED WATER +42" AFF. COFFEE BREWER

PLUMBING CONTRACTOR NOTES...

1) All work to be done in compliance with national and local plumbing and electrical codes.
2) All rough-in dimensions are to centerline positions, unless otherwise noted.
3) Any penetrations by electrical or plumbing contractor in walls of walk-in cooler or freezer must be sealed or tight, ie, lights, drains, etc., by appropriate trades.
4) General Contractor to provide holes, sleeves through ceiling, roofs, and walls for soda and refrigeration lines, and seal them in accordance with local fire and building fire codes.
5) All indirect wastes for foodservice equipment will be extended to floor drains by Div. 15, unless otherwise noted. Any additional general purpose drains to be located by architect.
6) P.C. to verify requirements of all existing, owner furnished and/or vendor supplied equipment being disconnected and/or not-in-contract equipment, and provide accordingly.
7) In order to insure proper leveling of food service equipment, DO NOT pitch floor towards drains located in proximity of equipment.
8) Sink faucets and wastes are furnished loose by FSEC for installation by Division 15. Final drain connections by Division 15, unless otherwise noted.
9) Health codes require that all plumbing be enclosed in walls or floor and that exposed piping runs be as short as possible. Exposed horizontal piping must be 6" above the floor and at least 1" off the wall and secured to wall or equipment. ALL EXPOSED PIPING TO BE CHROME PLATED.
10) The use of mixing valves requires building hot and cold water supplies to be equal in pressure to prevent uncontrolled water temperature conditions to dishmachine.
11) Rough-in of fire control panel(s), hood(s) and refrigeration rack(s) to be held until receiving of equipment, where as locations can be verified. hold drop above ceiling line.
12) P.C. to install flexible hose connectors for food service & beverage equipment requireing gas and water connections. Refer to contract documents and specifications for installation requirements and supplier of equipment.

PLUMBING / MECHANICAL

HW	HOT WATER SUPPLY	● FD	FLOOR DRAIN
CW	COLD WATER SUPPLY	◉ FFD	FUNNEL FLOOR DRAIN
DR	DIRECT WASTE	⊠ FD	FLOOR DRAIN
○ IDR	INDIRECT WASTE	▣ FS	FLOOR SINK (open)
⊛ G	GAS	▣ FS	FLOOR SINK (half grate)
⊛ SS	STEAM SUPPLY	▣ FS	FLOOR SINK (3/4 grate)
⊛ SR	STEAM RETURN (condensate)		
⊛ CW	CHILLED WATER (supply & return)		Pipe run in walls and out wall face at location and height indicated. ← Stub pipe above finished floor as indicated.

GENERAL ABBREVIATIONS

FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR	CLG	CEILING
G.C.	GENERAL CONTRACTOR	P.C.	PLUMBING CONTR.
HVAC	HEATING/VENTILATION/AIR CONTRACTOR	E.C.	ELECTRICAL CONTR.
AFF	ABOVE FINISHED FLOOR	M.C.	MECHANICAL CONTR.
BFF	BELOW FINISHED FLOOR	SO	STUB-OUT/from wall
DFA	DOWN FROM ABOVE	SU	STUB-UP/from floor
TFD	TELL-TALE FLOOR DRAIN (floor drain w/o a backwater valve)	RL	REFRIGERATION LINE
		N.I.C.	NOT IN CONTRACT

FIRE PROTECTION SYSTEMS – GENERAL NOTE

F1) PLUMBING CONTRACTOR TO INSTALL GAS SHUT-OFF VALVE IN THE MAIN GAS SUPPLY LINE(S) WHICH SUPPLY GAS TO THE FOOD SERVICE COOKING EQUIPMENT. VALVE PROVIDED BY F.S.E.C. (UNLESS OTHERWISE NOTED). VERIFY PIPE SIZE AND QUANTITY. VALVE LOCATION BY P.C.
FIRE PROTECTION SYSTEM CONTRACTOR TO INTERCONNECT GAS VALVE TO FIRE PROTECTION SYSTEM CONTROL CABINET FOR FUEL SHUT-OFF TO COOKING EQUIPMENT BENEATH EXHAUST HOOD(S) UPON ACTIVATION OF THE SYSTEM.
NOTE: BUILDING GAS REGULATOR SUPPLYING GAS TO FOOD SERVICE EQUIPMENT IS NOT SUPPLIED BY F.S.E.C.

H.V.A.C. EXHAUST HOOD(S) – GENERAL NOTES

H1) MECHANICAL CONTRACTOR TO FURNISH AND INSTALL EXHAUST FAN(S), MAKE-UP "SUPPLY" AIR FAN AND ALL RELATED DUCTWORK, AS REQ'D.

H2) PLUMBING CONTRACTOR TO PROVIDE GAS LINE FOR GAS FIRED MAKE-UP "SUPPLY" AIR UNIT (WHEN REQUIRED). SEE HOOD MANUFACTURE'S DRAWING(S) FOR REQUIREMENTS.

MECHANICAL EQUIPMENT – GENERAL NOTES

M1) PLUMBING CONTRACTOR TO VERIFY ALL DRAIN STYLES, TYPES & SIZES (i.e FLOOR SINKS, FLOOR DRAINS, FUNNELS, HUBS, ETC.) PER JOB REQUIREMENTS. DRAIN STYLES SHOWN ON PLAN OR FOR REFERENCE ONLY.

PLUMBING CONTRACTOR TO SUPPLY AND INSTALL ACCEPTABLE DRAIN PIPING MATERIAL FOR HIGH TEMPERATURE WATER DISCHARGE EQUIPMENT SUCH AS STEAMERS, COMBI-OVENS, DISH MACHINES, ETC. UNLESS EQUIPMENT IS SUPPLIED WITH DRAIN TEMPERING KIT PER JOB SPECIFICATIONS OR UNLESS OTHERWISE NOTED.

PLUMBING CONTRACTOR TO VERIFY WHICH DRAINS ARE TO BE CONNECTED TO GREASE TRAP WHEN REQUIRED, PER LOCAL CODE. COORDINATE GREASE TRAP LOCATION WITH FOODSERVICE EQUIPMENT CONTRACTOR IF GREASE TRAP IS LOCATED NEAR OR UNDER FOODSERVICE EQUIPMENT i.e POT SINK. VERIFY PLUMBING CONNECTION REQUIREMENTS DIRECT CONNECT (IN WALL OR STUB-UP) V.S. FLOOR SINK OR DRAIN.

M2) PLUMBING CONTRACTOR TO SIZE, SUPPLY AND INSTALL BACK FLOW PREVENTION DEVICES AND SHUT-OFF VALVES AS REQUIRED PER LOCAL CODE AND EQUIPMENT SPECIFICATIONS

M3) PLUMBING CONTRACTOR TO INSTALL APPROPRIATE GAS LINE REGULATORS FOR ALL GAS SUPPLIED FOOD SERVICE EQUIPMENT. REGULATORS ARE USUALLY SUPPLIED WITH FOOD SERVICE EQUIPMENT OR BUILT-IN. IF NOT, NOTIFY F.S.E.C. TO DETERMINE AVAILABILITY.

THIS PLAN INDICATES GAS PIPING TO BE CONCEALED IN WALL AND NOT RAN EXPOSED ON SURFACE OF WALL. NOTIFY F.S.E.C. IF THIS IS NOT THE CASE AND SURFACE WALL MANIFOLDING IS REQUIRED.

F.S.E.C. TO PROVIDE QUICK-DISCONNECT FLEXIBLE GAS HOSE FOR SUPPLIED EQUIPMENT - TO BE INSTALLED BY PLUMBING CONTRACTOR, UNLESS OTHERWISE SPECIFIED.

M4) PLUMBING CONTRACTOR TO EXTEND ALL EQUIPMENT DRAIN LINES TO FLOOR SINKS OR DRAINS. UNLESS OTHERWISE NOTED.

M5) PLUMBING/MECHANICAL/GENERAL CONTRACTOR'S SHALL REQUEST IN WRITING FROM FOOD SERVICE CONTRACTOR ALL NECESSARY COMPONENTS REQUIRED FOR IN-WALL INSTALLATION PRIOR TO CLOSING OF BUILDING WALLS, CHASES, CEILINGS, ETC. TYPICAL EQUIPMENT TO BE CONSIDERED IS PLUMBING VALVES AND COMPONENTS FOR HOSE REELS AND CONTROL BOXES FOR HOSE REELS, ELECTRICAL CONTROL PANELS RECESSED MOUNTED, ETC

WALK-IN(S) – REFRIGERATOR COOLER / FREEZER

W1) FOOD SERVICE EQUIPMENT CONTRACTOR TO RUN HARD COPPER DRAIN LINE AS HIGH AS POSSIBLE FROM EVAPORATOR COIL TO INSIDE WALL THEN DOWN ON A SLOPE TO A POINT AS CLOSE AS POSSIBLE TO FLOOR THEN EXTEND THRU WALK-IN WALL FORMING A "P" TRAP FLAT AGAINST OUTSIDE WALK-IN WALL. THEN EXTEND TO FLOOR DRAIN. ALL LINES TO BE STRAPPED IN A NEAT MANNER. WRAP WITH FROXTEC HEAT TAPE AND WIRE FOR CONTINUOUS "ON" OPERATION. INSULATE WITH 1/2" THICK ARMAFLEX AND SECURE TO WALL. SEAL ALL PENETRATIONS.

REVISIONS:	DATE:	BY:
REVISED PER CONVERSATION WITH JASON D. ON 2/12/2020	2/13/2020	KGH

Servco Equipment Company
3189 Jamieson Avenue, St. Louis, Missouri 63139
(314)781-3189 fax:(314)645-7003
www.servco-stl.com

PROJECT NAME: Lions Choice
Lee's Summit, MO

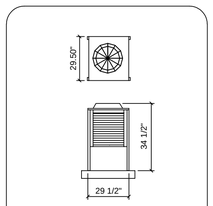
PLUMBING CONNECTION PLAN
KITCHEN & DINING

DRAWN BY:	DATE:	SCALE:
KGH	9/10/19	1/4" = 1'

PROJECT NO. 2786
SHEET NO. R-3

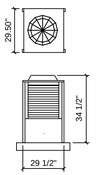
food service facilities design ■ planning ■ custom fabrication ■ installation ■ service

CONDENSING UNIT IS LOCATED OUTSIDE ON THE ROOF. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER. ALL PENETRATIONS AND ROOF CURBS FOR UTILITIES AND REFRIGERATION LINES ARE NOT BY F.S.E.C. (SECT. 11400)

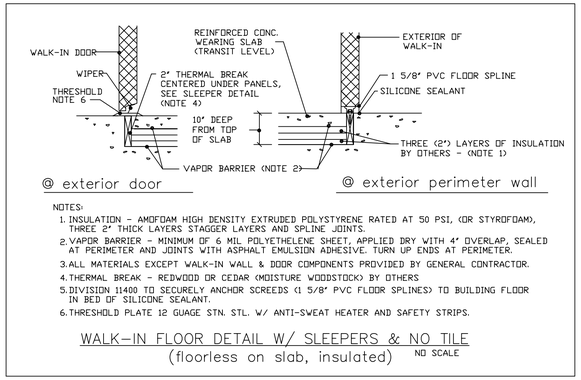


ICE MAKER – 6
SCOTSMAN
ERC311–32
COMPRESSOR
SHIP WEIGHT: 130 LBS

CONDENSING UNIT IS LOCATED OUTSIDE ON THE ROOF. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER. ALL PENETRATIONS AND ROOF CURBS FOR UTILITIES AND REFRIGERATION LINES ARE NOT BY F.S.E.C. (SECT. 11400)



ICE MAKER – 92
SCOTSMAN
ERC311–32
COMPRESSOR
SHIP WEIGHT: 130 LBS



NOTES:
1. INSULATION – AMOFOAM HIGH DENSITY EXTRUDED POLYSTYRENE RATED AT 50 PSI, (OR STYROFOAM), THREE 2" THICK LAYERS STAGGER LAYERS AND SPLINE JOINTS.
2. VAPOR BARRIER – MINIMUM OF 6 MIL POLYETHELENE SHEET, APPLIED DRY WITH 4" OVERLAP, SEALED AT PERIMETER AND JOINTS WITH ASPHALT EMULSION ADHESIVE. TURN UP ENDS AT PERIMETER.
3. ALL MATERIALS EXCEPT WALK-IN WALL & DOOR COMPONENTS PROVIDED BY GENERAL CONTRACTOR.
4. THERMAL BREAK – REDWOOD OR CEDAR (MOISTURE WOODSTOCK) BY OTHERS
5. DIVISION 11400 TO SECURELY ANCHOR SCREEDS (1 5/8" PVC FLOOR SPLINES) TO BUILDING FLOOR IN BED OF SILICONE SEALANT.
6. THRESHOLD PLATE 12 GUAGE STN. STL. W/ ANTI-SWEAT HEATER AND SAFETY STRIPS.

WALK–IN FLOOR DETAIL W/ SLEEPERS & NO TILE
(floorless on slab, insulated) NO SCALE

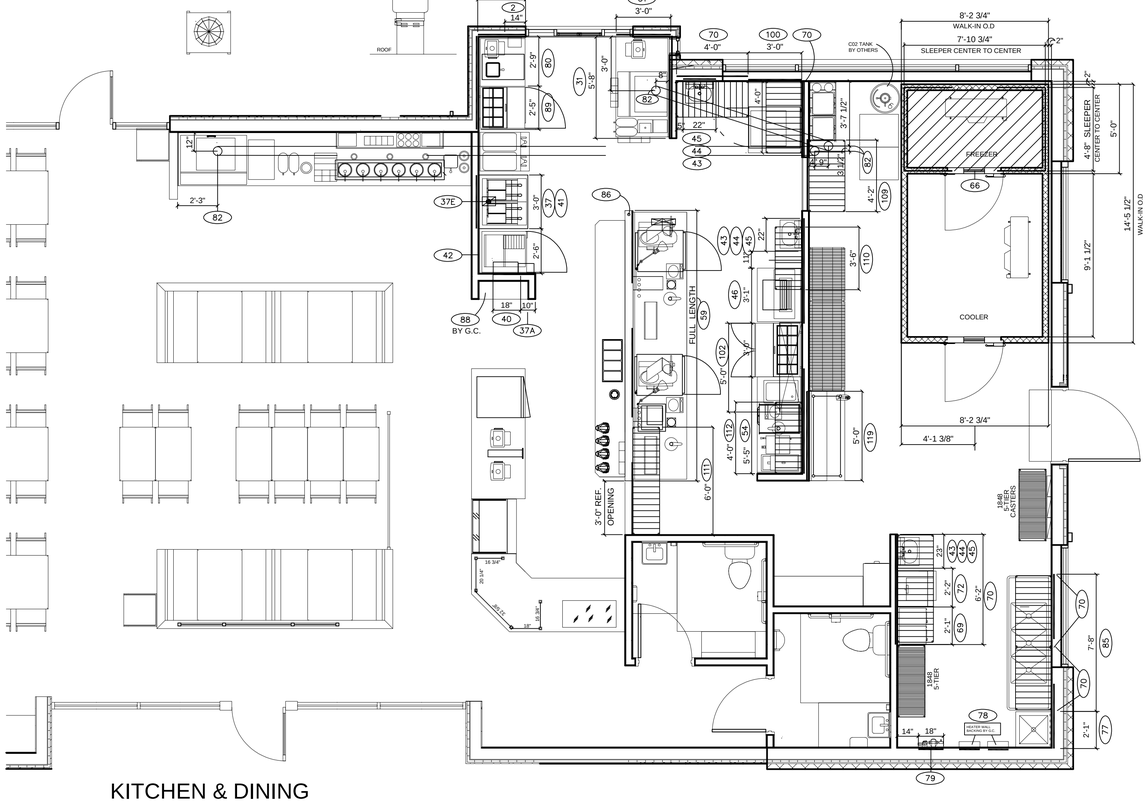
THERMAL BREAKER "SLEEPER" PLAN

1) ALL DIMENSIONS ARE TO CENTER OF SLEEPER

2) SEE "KOOL STAR" DRAWING #1108-177 FOR ADDITIONAL INFORMATION

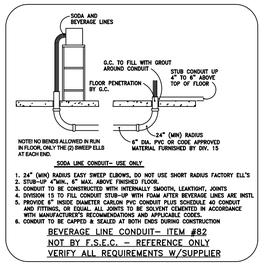
3) NOTCH SLEEPER 1" DOWN BELOW FINISHED CONCRETE FLOOR AT FREEZER DOORS "ONLY IF FLOOR IS NOT TILED" TO ALLOW FOR FLUSH MOUNTING OF DOOR THRESHOLD.
IF FLOOR IS TILED - SLEEPER NOTCHING IS "NOT" NECESSARY
DOOR THRESHOLD TO FIT IN BETWEEN TILE "FLUSH' WITH FLOOR

⚠ 4) NOTCH SLEEPER 1" DOWN BELOW FINISHED CONCRETE FLOOR AT COOLER DOORS "ONLY IF FLOOR IS NOT TILED" SO THAT SLEEPER IS NOT EXPOSED.



KITCHEN & DINING
SPECIAL CONDITIONS PLAN

1/4"=1'–0"
0' 2' 4' 8'

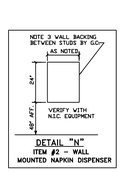


NOTE! NO BENDS ALLOWED IN RUN IN FLOOR, ONLY THE (2) SWEEP ELLS

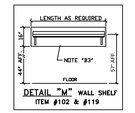
SODA LINE CONDUIT– USE ONLY

1. 24" (MIN) RADIUS EASY SWEEP ELBOWS, DO NOT USE SHORT RADIUS FACTORY ELL'S
2. STUB–UP 4"MIN., 6" MAX. ABOVE FINISHED FLOOR.
3. CONDUIT TO BE CONSTRUCTED WITH INTERNALLY SMOOTH, LEAKTIGHT, JOINTS
4. DIVISION 15 TO FILL CONDUIT STUB–UP WITH FOAM AFTER BEVERAGE LINES ARE INSTL
5. PROVIDE 6" INSIDE DIAMETER CARLON PVC CONDUIT PLUS SCHEDULE 40 CONDUIT AND FITTINGS, OR EQUAL; ALL JOINTS TO BE SOLVENT CEMENTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES.
6. CONDUIT TO BE CAPPED & SEALED AT BOTH ENDS DURING CONSTRUCTION

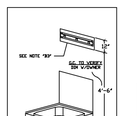
BEVERAGE LINE CONDUIT– ITEM #82
NOT BY F.S.E.C. – REFERENCE ONLY
VERIFY ALL REQUIREMENTS W/SUPPLIER



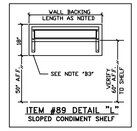
DETAIL "N"
ITEM #2 – WALL MOUNTED NAPKIN DISPENSER



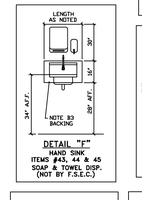
DETAIL "M" WALL SHELF
ITEM #102 & #119



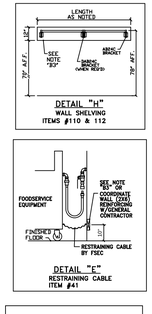
DETAIL "J"
ITEM #77
MOP HANGER
NOT BY F.S.E.C.
SUPPLIED, LOCATED & INSTALLED BY OTHERS



ITEM #89 DETAIL "L"
SLOPED CONDIMENT SHELF

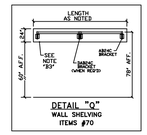


DETAIL "F"
HAND SINK
ITEMS #43, 44 & 45
SOAP & TOWEL DISP.
(NOT BY F.S.E.C.)

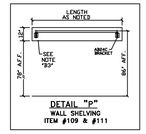


DETAIL "H"
WALL SHELVING
ITEMS #110 & 112

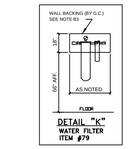
DETAIL "E"
RESTRAINING CABLE
ITEM #41



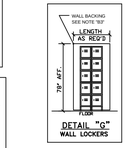
DETAIL "Q"
WALL SHELVING
ITEMS #70



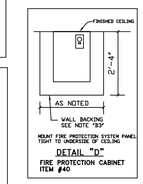
DETAIL "P"
WALL SHELVING
ITEM #109 & #111



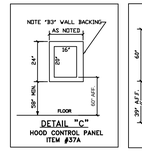
DETAIL "K"
WATER FILTER
ITEM #79



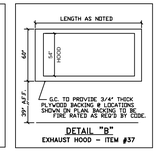
DETAIL "G"
WALL LOCKERS



DETAIL "D"
FIRE PROTECTION CABINET
ITEM #40

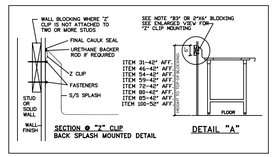


DETAIL "C"
HOOD CONTROL PANEL
ITEM #37A



S.C. TO PROVIDE 3/4" THICK PLYWOOD BACKING @ LOCATIONS SHOWN ON PLAN. BACKING TO BE FIRE RATED AS REQ'D BY CODE.

DETAIL "B"
EXHAUST HOOD – ITEM #37



SECTION @ "Z" CLIP
BACK SPLASH MOUNTED DETAIL

DETAIL "A"

ITEM #	QTY.	SPECIAL BUILDING CONDITIONS	REMARKS
2	1	WALL MOUNTED NAPKIN DISPENSER	SEE NOTE "B3" AND DETAIL "N"
31	1	BEVERAGE COUNTER - BACKSPLASH	SEE NOTE "B3" AND DETAIL "A"
37	1	EXHAUST HOOD - WALL BACKING	SEE NOTE "B3" AND DETAIL "B"
37A	1	HOOD CONTROL PANEL - WALL BACKING	SEE NOTE "B3" AND DETAIL "C"
37E	1	HOOD EXHAUST DUCT "COLLAR CONNECTION"	SEE HOOD CONNECTION SCHEDULE
40	1	FIRE PROTECTION SYSTEM - WALL BACKING	SEE NOTE "B3" AND DETAIL "D"
41	1	FRYERS - RESTRAINING CABLE	SEE NOTE "B3" AND DETAIL "E"
42	1-LOT	STAINLESS STEEL WALL PANELS	SEE SERVCO EQUIPMENT DETAIL DRAWING
43	2	SOAP DISPENSER - WALL MOUNTED	SEE NOTE "B3" AND DETAIL "F"
44	2	PAPER TOWEL DISPENSER - WALL MOUNTED	SEE NOTE "B3" AND DETAIL "F"
45	2	HAND SINK - BACK SPLASH	SEE NOTE "B3" AND DETAIL "F"
46	1	S.S. WORKTABLE - BACKSPLASH	SEE NOTE "B3" AND DETAIL "A"
54	1	HAM & TURKEY COUNTER - BACKSPLASH	SEE NOTE "B3" AND DETAIL "A"
59	1	MAIN SLICER TABLE	SEE NOTE "B3" AND DETAIL "A"
66	1	WALK-IN COOLER/FREEZER - DEPRESSION	SEE WALK-IN FLOOR DETAIL
69	2	LOCKERS	SEE NOTE "B3" AND DETAIL "G"
70	5	WALL SHELVES - WALL BACKING	SEE NOTE "B3" AND DETAIL "H" AND "Q"
72	1	SCALE TABLE - BACKSPLASH	SEE NOTE "B3" AND DETAIL "A"
77	1	MOP RACK - WALL BACKING - N.I.C. BY G.C.	SEE NOTE "B3" AND DETAIL "J"
78	2	WATER HEATERS - WALL BACKING - N.I.C. BY G.C.	N.I.C. P.C./G.C. TO SUPPLY & INSTALL
79	1	WATER FILTER - WALL BACKING	SEE NOTE "B3" AND DETAIL "K"
80	1	SERVICE COUNTER - BACKSPLASH	SEE NOTE "B3" AND DETAIL "A"
82	1	BAG-N-BOX SODA SYSTEM - N.I.C. BY OTHERS	VERIFY REQUIREMENTS W/ SUPPLIER
85	1	THREE COMPARTMENT SINK - BACKSPLASH	SEE NOTE "B3" AND DETAIL "A"
86	1	S.S. WALL CAP	SEE SERVCO EQUIPMENT DETAIL DRAWING
88	1	ON-LINE SHELVING COUNTER - N.I.C.	N.I.C. BY G.C./ARCH.
89	1	S.S. SLOPED CONDIMENT SHELF - WALL BACKING	SEE NOTE "B3" AND DETAIL "L"
100	1	S.S. WORKTABLE - BACKSPLASH	SEE NOTE "B3" AND DETAIL "A"
102	1	WALL SHELF - WALL BACKING	SEE NOTE "B3" AND DETAIL "M"
109	1	WALL SHELF - WALL BACKING	SEE NOTE "B3" AND DETAIL "P"
110	1	WALL SHELF - WALL BACKING	SEE NOTE "B3" AND DETAIL "H"
111	1	WALL SHELF - WALL BACKING	SEE NOTE "B3" AND DETAIL "P"
112	1	WALL SHELF - WALL BACKING	SEE NOTE "B3" AND DETAIL "H"
119	1	WALL SHELF - WALL BACKING	SEE NOTE "B3" AND DETAIL "M"

VENTILATION SYMBOLS
DUCT UNDER NEGATIVE PRESSURE (EXHAUST)
DUCT UNDER PRESSURE (SUPPLY)

MECHANICAL "HVAC" CONNECTION NOTES:
1) HVAC CONTR. NOTE!! DO NOT CUT HOLES IN TRUNK OR INSTALL DROPS UNTIL AFTER HOODS HAVE BEEN HUNG IN THEIR PERMANENT LOCATIONS.

MECHANICAL CONNECTION SCHEDULES:

ITEM #37 – HOOD VENTILATION REQUIREMENTS							
ITEM#	QTY	COLLAR SIZE	TOTAL CFM	EXHAUST CFM	S.P. COLLAR	CONN. HGT.
37E	1	7" x 9"	600	600	0.450"	79" AFF.
ITEM#	QTY	COLLAR SIZE	TOTAL CFM	SUPPLY CFM	S.P. COLLAR	TOTAL S.P.

COMPRESSOR INSTALLATION NOTES:
C1) GENERAL CONTRACTOR/ARCH. TO VERIFY COMPRESSOR LOCATIONS WITH MECHANICAL DRAWINGS AND COORDINATE BUILDING PENETRATIONS FOR REFRIGERATION LINE SLEEVING.

C2) COMPRESSOR CURBS i.e. MASONRY BASES FOR FOODSERVICE EQUIPMENT, ROOF CURBS/PADS FOR FANS & REFRIGERATION RACKS, ETC. ARE NOT PROVIDED BY FOODSERVICE EQUIPMENT CONTRACTOR.

WALK-IN GENERAL INSTALLATION NOTES:
W1) GENERAL CONTRACTOR TO PROVIDE "AS NOTED" DEEP DEPRESSION (FROM FINISHED FLOOR) IN CONCRETE SLAB FOR WALK–IN COOLER/FREEZER. BOTTOM OF DEPRESSION MUST BE TROWELED SMOOTH AND TRANSIT LEVEL.

W2) WHEN TILING UP TO WALK–IN DOORS, THRESHOLD (WHICH HOUSES HEATER STRIP) MUST BE REMOVED SO THAT TILE CAN BE LAID UP FLUSH WITH HEATER CHANNEL. REINSTALL THRESHOLD AND SEALED. THIS WILL PREVENT WATER DAMAGE TO HEATER.

W3) SHEET METAL PANEL FACINGS ARE SUSCEPTIBLE TO STAINING DUE TO EXCESSIVE MOISTURE CREATED BY HYDRATION OF CONCRETE TYPE MATERIALS. THEREFORE, IT IS ABSOLUTELY NECESSARY THAT EASH ROOM BE PROPERLY VENTILATED. ALSO, NOTE THAT SPECIAL PRECAUTIONS MUST BE TAKEN WHEN USING MURLATIC ACID DUE TO EFFECTS HYDROCHLORIC ACID FUMES HAVE ON ALUMINUM AND ATAINLESS STEEL.

W4) ANY PENETRATIONS BY ELECTRICAL OR PLUMBING CONTRACTOR IN WALLS OF WALK–IN COMPLEX MUST BE SEALED AIR TIGHT – i.e. LIGHTS, DRAINS, ETC. BY APPROPRIATE TRADE.

W5) SEE WALK-IN MANUFACTURE'S DRAWING FOR MORE INFORMATION.

LEGEND
WALL BACKING
DEPRESSED FLOOR
WALL RECESS
CEILING SUPPORT BRACING

GENERAL BUILDING WORKS NOTES:
B1) ALL DIMENSIONS SHOWN ARE FROM FINISHED WALLS, FLOORS, CEILINGS AND/OR THE CENTERLINE OF STRUCTURAL COLUMNS. DIMENSIONS ARE TO BE VERIFIED BY F.S.E.C. AND ALL TRADES UTILIZING THIS PLAN,

B2) REFER TO ARCHITECTURAL/ENGINEERING DRAWINGS FOR ACTUAL CONSTRUCTION DIMENSIONS AND LOCATIONS.

B3) SUPPORT BACKING FOR WALL MOUNTED EQUIPMENT TO BE PROVIDED BY THE GENERAL CONTRACTOR, BACKING TO BE EITHER 3/4" PLYWOOD BETWEEN STUDS OR #18 GUAGE SHEET METAL ON THE FACE OF STUDS.

B4) GENERAL CONTRACTOR TO PROVIDE HOLES, SLEEVES THROUGH CEILING, ROOFS AND WALLS FOR WALK–IN REFRIGERATION LINES. HOLES TO BE SEALED IN ACCORDANCE WITH LOCAL FIRE AND BUILDING FIRE CODES.

B5) GENERAL CONTRACTOR SHALL PROVIDE WALL OPENINGS TO ACCOMMODATE ITEMS OF PASS–THRU EQUIPMENT.

B6) GENERAL CONTRACTOR TO PROVIDE AT PERIMETER OF HOOD IN COMPLIANCE WITH NEPH 96'S REQUIREMENTS OF 18" CLEARANCE TO COMBUSTIBLE MATERIALS. CONFIRM CEILING MATERIAL REQUIREMENTS WITH FIRE AUTHORITIES.

WALL BACKING IS NOT REQUIRED IF WALL IS "CMU" CONSTRUCTION (CONCRETE MANSONARY UNIT)

REVISIONS:	DATE:	BY:
REVISED PER CONVERSATION WITH JASON D. ON 2/12/2020	2/13/2020	KGH

Servco Equipment Company
3189 Jamieson Avenue, St. Louis, Missouri 63139
(314)781-3189 fax:(314)645-7003
www.servco-stl.com

PROJECT NAME: Lions Choice
Lee's Summit, MO

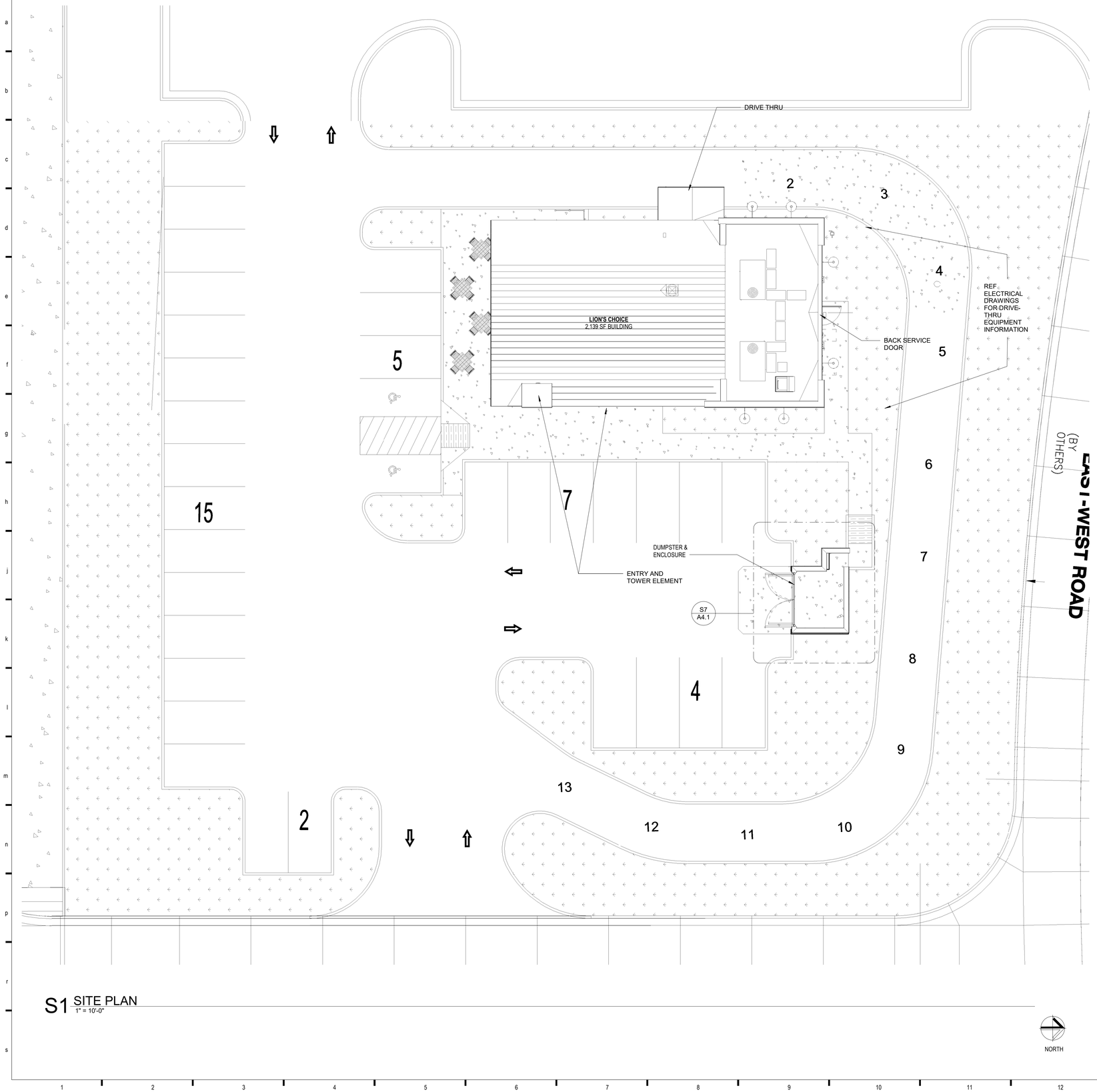
SPECIAL CONDITIONS PLAN

KITCHEN & DINING

DRAWN BY:	DATE:	SCALE:
KGH	9/10/19	1/4" = 1'

PROJECT NO.	SHEET NO.
2786	R-4

food service facilities design ■ planning ■ installation ■ service



S1 SITE PLAN
1" = 10'-0"

SHEET NOTES

1. ARCHITECTURAL SITE PLAN IS FOR GRAPHIC REFERENCE ONLY. SEE CIVIL DRAWINGS FOR DIMENSIONS AND OTHER INFORMATION.
2. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE.
3. DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH THE WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
4. DOOR AND WINDOW OPENINGS ARE DIMENSIONED TO THE EDGE OF THE OPENINGS. DOOR OPENINGS THAT ARE NOT DIMENSIONALLY LOCATED ARE TO BE CENTERED BETWEEN THE WALLS OR POSITIONED WITH ONE JAMB 4" FROM AN ADJACENT WALL OR COLUMN AS SHOWN ON PLANS AND/OR DETERMINED FROM DETAILS.
5. EQUIPMENT SHOWN DASHED, PROVIDED BY OWNER. CONTRACTOR SHALL COORDINATE OWNER FURNISHED EQUIPMENT WITH CONSTRUCTION DOCUMENTS AND INFORM ARCHITECT OF DISCREPANCIES.
6. LOCATE CONTROL JOINTS AND EXPANSION JOINTS AS SPECIFIED.
7. ACCESS TO THE BUILDING SHALL BE PROVIDED AT PRIMARY ENTRANCE(S).
8. WALKS AND SIDEWALKS SHALL HAVE A CONT. COMMON SURFACE NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2", AND SHALL BE A MINIMUM OF 48" IN WIDTH.
9. SURFACES WITH A SLOPE OF LESS THAN 6 PERCENT GRADIENT SHALL BE AT LEAST AS SLIP RESISTANT AS THAT DESCRIBED AS A MEDIUM SALTED FINISH.
10. SURFACES WITH A SLOPE OF 6% GRADIENT OR GREATER SHALL BE SLIP RESISTANT.
11. SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4" PER FOOT.
12. WALKS, SIDEWALKS AND PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. FOR GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS, GRID OPENINGS IN THE GRATINGS SHALL BE LIMITED TO 1/2" IN THE DIRECTION OF TRAFFIC FLOW.
13. WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1 VERTICAL TO 20 HORIZ., IT SHALL COMPLY WITH THE PROVISIONS OF A PEDESTRIAN RAMP.
14. WHEN CHANGES IN LEVEL DO OCCUR, THEY SHALL BE BEVELED NO GREATER THAN 1:2, EXCEPT THAT LEVEL CHANGES NOT EXCEED 1/4" MAY BE VERTICAL. WHEN CHANGES IN LEVELS GREATER THAN 1/2", THEY SHALL COMPLY WITH THE REQ'S. FOR CURB RAMPS.
15. THERE SHALL BE A LEVEL AND CLEAR FLOOR OR LANDING ON EACH SIDE OF A DOOR. THE LEVEL AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60", AND THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 48" AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN THE CLOSED POSITION.
16. ALL WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE LEVEL AREAS AT LEAST 5 FEET IN LENGTH AT INTERVALS OF AT LEAST EVERY 400 FEET.
17. ABRUPT CHANGES IN LEVEL, EXCEPT BETWEEN A WALK OR SIDEWALK AND AN ADJACENT STREET OR DRIVEWAY, EXCEEDING 4" IN A VERTICAL DIMENSION SHALL BE IDENTIFIED BY CURBS PROJECTING AT LEAST 6" IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE TO WARN THE BLIND OF A POTENTIAL DROP OFF. WHEN A GUARDRAIL OR HANDRAIL IS PROVIDED, NO CURB IS REQUIRED WHEN A GUIDE RAIL IS PROVIDED CENTERED 3" (PLUS OR MINUS 1"), ABOVE THE SURFACE OF THE WALK OR SIDEWALK, THE WALK IS 5 % OR LESS GRADIENT OR NO ADJACENT HAZARD EXITS.

KEYNOTES

#	NOTE

SITE DATA

SITE DATA SUMMARY	TOTAL
PROPOSED USE DESIGNATION:	RESTAURANT W/DRIVE THRU
ZONING:	SEE CIVIL DRAWINGS
LAND AREA:	SEE CIVIL DRAWINGS
IMPERVIOUS AREA:	SEE CIVIL DRAWINGS
NUMBER OF STORIES:	1
BUILDING HEIGHT:	23'-0"
PROPOSED FLOOR AREA (GROSS):	2139 SF
PARKING REQUIRED:	32.4 SPACES
PARKING PROVIDED:	33 SPACES (INC. 2 HANDICAP)

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date

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Missouri Corporate Authority Number #814.
Missouri Architect in responsible Charge - Ronald Melvin Reim AR-5489.

FOR DESIGN INTENT REFERENCE ONLY

PERMIT SET

Client Approval

SITE PLAN - FOR REFERENCE ONLY

Project #	52119-MO02
Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

R1.0

FURNITURE SCHEDULE

TAG	DESCRIPTION	QUANTITY
B1	48" SINGLE BOOTH	4
B2	48" DOUBLE BOOTH	2
CH-1	DINING CHAIR	12
CH-2	PATIO CHAIR	20
CH-3	DINING CHAIR BAR HEIGHT	16
T1	30"X24" TWO TOP TABLE	6
T2	30"X48" FOUR TOP TABLE	4
T3	36"X36" PATIO FOUR TOP TABLE	5
T4	30"X48" FOUR TOP TABLE BAR HEIGHT	4

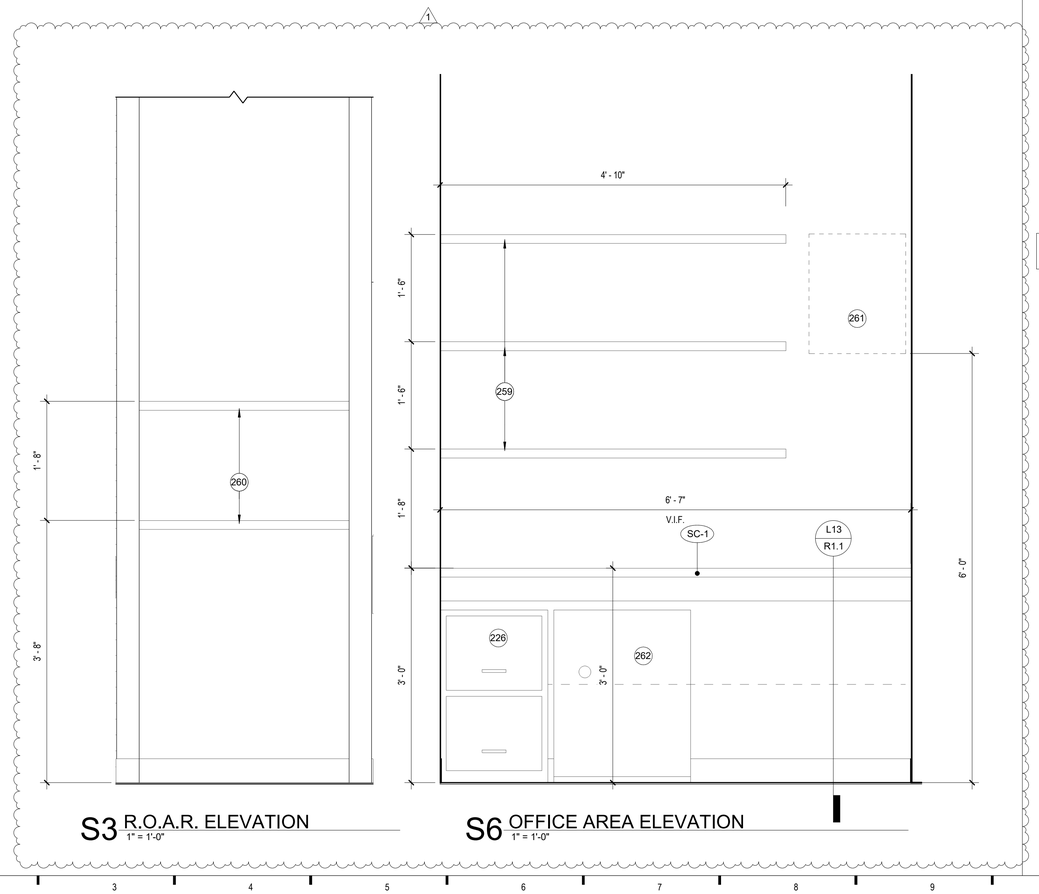
NOTES:
1. PROVIDE FINISH END PANELS AT EXPOSED END OF MILLWORK.
2. PROVIDE SELF EDGE FINISH AT ALL COUNTER TOPS, UNLESS NOTED OTHERWISE.
3. GROMMET LOCATIONS TO BE COORDINATED WITH OWNER.
4. MILLWORKER TO COORDINATE ALL OPENING FOR OWNER SUPPLIED EQUIPMENT PRIOR TO FABRICATION.
5. ALL EXPOSED MILLWORK FACES TO BE FINISHED.

SHEET NOTES

1. KITCHEN EQUIPMENT IS SHOWN FOR REFERENCE ONLY. REF: KITCHEN DWGS. FOR MORE INFORMATION.
2. GC TO REQUIREST CO2 PORT FROM NUCO EARLY, COORDINATE WITH OWNER.

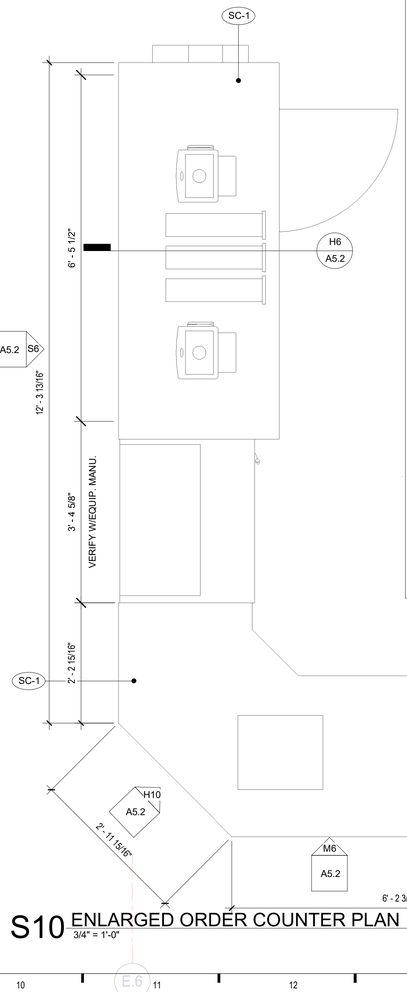
KEYNOTES

#	NOTE
226	FILE CABINET, FURNISHED BY OWNER
259	SHELVES, BY MILLWORK VENDOR
260	R.O.A.R. SHELVES, BY MILLWORK VENDOR
261	A.V. CABINET, PROVIDED AND IINTALLED BY EC. SEE ELECTRICAL DRAWINGS
262	SAFE, FURNISHED BY OWNER.

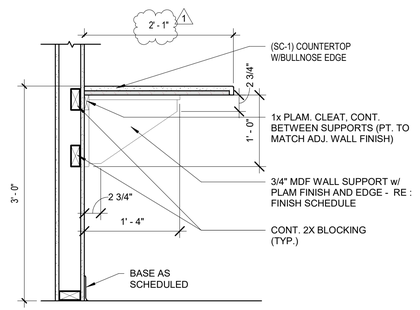


S3 R.O.A.R. ELEVATION
1" = 1'-0"

S6 OFFICE AREA ELEVATION
1" = 1'-0"



S10 ENLARGED ORDER COUNTER PLAN
3/4" = 1'-0"



L13 WORK COUNTER SECTION
1" = 1'-0"

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LION'S CHOICE
Famous Roast Beef Sandwiches

LIONS CHOICE - LEE'S SUMMIT

440 NW CHIPMAN RD
LEE'S SUMMIT, MO 64063

#	Description	Date
1	City Comments	02/14//2020

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Client Approval

FURNITURE & MILLWORK PLAN

Project #	52119-MO02
Issue Date	12/10/2019
Scale	As indicated
Drawn by	ZTM
Checked by	JMB

R1.1