Piedmont Natural Gas

September 23, 2021

Michael Dewey
RE: Old Hydes Ferry Pike (Indicated in attached drawing)
Ashland City, Tn 37015

To Michael Dewey

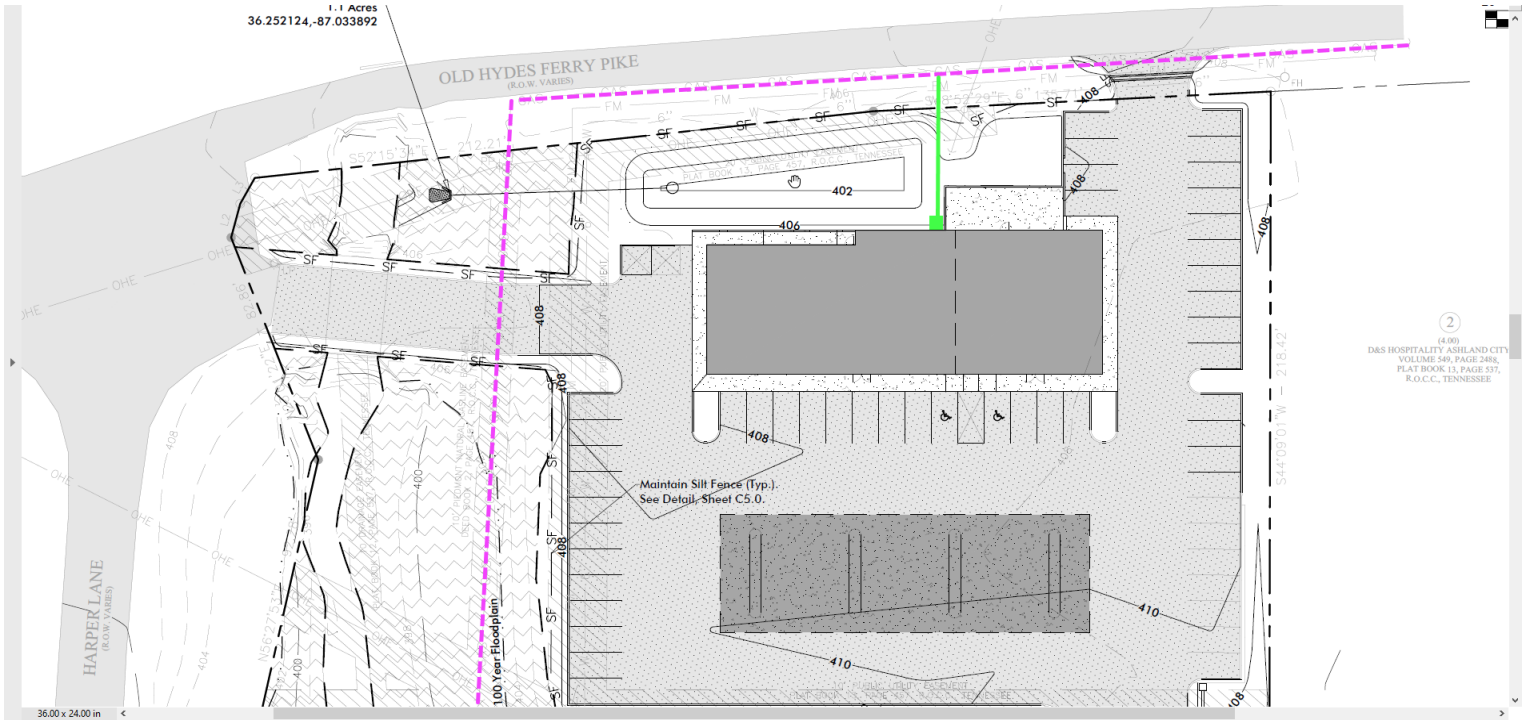
In response to your request, natural gas is or can be made available to the above mentioned property in Ashland City, TN. Please have business owner contact us with specific natural gas needs (total connected btu/cfh of natural gas equipment) to determine if any costs are applicable.

If you need further assistance, please do not hesitate to contact Matt Brown. He can be reached at 615-872-2349.

Sincerely,

PIEDMONT NATURAL GAS

Matt Brown
Commercial/Residential Sales Specialist
Matt.Brown@duke-energy.com


1.1 Acres
36.252124,-87.033892
OLD HYDES FERRY PIKE
(R.O.W. VARIES)
HARPER LANE
(R.O.W. VARIES)
100 Year Floodplain
Maintain Silt Fence (Typ.).
See Detail, Sheet C5.0.
402
406
408
410
(4.00)
D&S HOSPITALITY ASHLAND CITY
VOLUME 549, PAGE 2488,
PLAT BOOK 13, PAGE 537,
R.O.C.C., TENNESSEE
36.00 x 24.00 in

DHAVAL PATEL
ASHLAND CITY C-STORE

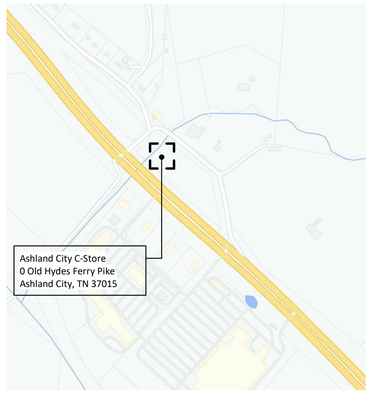
CONSULTANT INFO

Dewey Enginering
2925 Berry Hill Drive
Nashville, Tennessee 37204
Michael Dewey
mdewey@dewey-engineering.com
(615) 401-9956

Scallion Structural Engineering
401 Redfield Drive
Jackson, TN 38305
Jeremy Scallion
jeremy@scallionstructural.com
(731) 217-1614

Win Engineering
2 International Plaza, Suite 410
Nashville, Tennessee 37217
Lori A. Walters
lwalters@winengineer.com
(615) 891-4565
(615) 400-8371

VICINITY MAP



SPECIAL INSPECTIONS

Provide Special Inspections during construction as required by IBC 1704. A qualified Special Inspector must provide a Certificate of Special Inspection signed and sealed by a Registered Professional Engineer prior to commencing work.

Submit Reports to the Building Official and the Architect in a timely manner, per
Section 13300.

STRUCTURAL SPECIAL INSPECTIONS

Inspections must be performed as specified in General Structural Notes on the Structural Drawings. May include but not limited to:

- Anchor Bolts
- Structural Steel Braced Frames
- Multi-pass field welds
- Attachment of metal roof deck

SHEET INDEX

general

SHEET #	DESCRIPTION	ORIG. ISSUE	REV. DELTA #	REV. DATE
G-001	COVER SHEET	10/20/2021		
G-002	PROJECT INFORMATION	10/20/2021		
G-003	WALL & ROOF TYPES	10/20/2021		
G-004	ADA DETAILS	10/20/2021		
G-005	ADA DETAILS	10/20/2021		
G-006	ADA DETAILS	10/20/2021		

civil

SHEET #	DESCRIPTION	ORIG. ISSUE	REV. DELTA #	REV. DATE
C0.0	Cover Sheet	10/20/2021		
C1.0	Layout & Utilities Plan	10/20/2021		
C2.0	Existing Conditions & Initial Erosion Control Plan	10/20/2021		
C3.0	Intermediate Erosion Control Plan	10/20/2021		
C4.0	Grading & Drainage Plan	10/20/2021		
C5.0	Details	10/20/2021		
C5.1	Details (Cont.)	10/20/2021		
L1.0	Landscape Compliance Plan	10/20/2021		

architectural

SHEET #	DESCRIPTION	ORIG. ISSUE	REV. DELTA #	REV. DATE
AS102	ARCHITECTURAL SITE PLAN	10/20/2021		
A-101	FIRST FLOOR PLAN	10/20/2021		
A-102	FIRST FLOOR DIMENSION PLAN	10/20/2021		
A-103	REFLECTED CEILING PLAN	10/20/2021		
A-104	ROOF PLAN	10/20/2021		
A-105	EQUIPMENT	10/20/2021		
A-201	BUILDING ELEVATIONS	10/20/2021		
A-202	BUILDING 3D VIEWS - EXTERIOR	10/20/2021		
A-203	INTERIOR ELEVATIONS	10/20/2021		
A-204	BUILDING 3D VIEWS - INTERIOR	10/20/2021		
A-301	BUILDING SECTIONS	10/20/2021		
A-302	WALL SECTIONS	10/20/2021		
A-501	EXTERIOR / INTERIOR DETAILS	10/20/2021		
A-601	DOOR & WINDOW SCHEDULES, ELEVATIONS	10/20/2021		
A-701	FIRST FLOOR FINISH PLAN	10/20/2021		
A-800	FOR INFORMATION ONLY - COOLER / FREEZER	10/20/2021		

structure

SHEET #	DESCRIPTION	ORIG. ISSUE	REV. DELTA #	REV. DATE
S1.0	General Notes	10/20/2021		
S1.1	Quality Assurance Plan	10/20/2021		
S2.0	Foundation Plan	10/20/2021		
S3.0	Canopy Framing Plan	10/20/2021		
S3.1	Low Roof Framing Plan	10/20/2021		
S3.2	High Roof Framing Plan	10/20/2021		
S4.0	Base Plate and Pier Details	10/20/2021		
S4.1	Foundation Sections	10/20/2021		
S5.0	Typical Framing Sections	10/20/2021		
S5.1	Canopy Framing Sections	10/20/2021		
S5.2	Roof Framing Sections	10/20/2021		
S6.1	Framing Elevations	10/20/2021		
S6.2	Framing Elevations	10/20/2021		

mechanical

SHEET #	DESCRIPTION	ORIG. ISSUE	REV. DELTA #	REV. DATE
M-101	MECHANICAL PLAN	10/20/2021		
M-102	MECHANICAL GAS PLAN	10/20/2021		
M-201	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-202	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-203	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-204	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-205	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-206	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-207	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-208	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-209	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-210	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		
M-211	MECHANICAL HOOD SPECIFICATIONS	10/20/2021		

plumbing

SHEET #	DESCRIPTION	ORIG. ISSUE	REV. DELTA #	REV. DATE
P-101	PLUMBING PLAN	10/20/2021		
P-102	PLUMBING RISER PLAN	10/20/2021		

electrical

SHEET #	DESCRIPTION	ORIG. ISSUE	REV. DELTA #	REV. DATE
E-001	ELECTRICAL LEGENDS & SCHEDULES	10/20/2021		
E-002	ELECTRICAL PANEL SCHEDULES RISER DIAGRAM	10/20/2021		
E-003	ELECTRICAL LIGHT FIXTURE SCHEDULE IECC REPORT	10/20/2021		
E-101	ELECTRICAL LIGHTING FLOOR PLAN	10/20/2021		
E-102	ELECTRICAL POWER FLOOR PLAN	10/20/2021		
E-103	ELECTRICAL HVAC POWER ROOF & FLOOR PLANS	10/20/2021		
E-200	ELECTRICAL SPECIFICATIONS	10/20/2021		

10/20/2021 1:33:41 PM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / G-001- COVER SHEET

ASHLAND CITY C-STORE

DHAVAL PATEL
0 Old Hydes Ferry Pike, Ashland City, TN 37015

CLIENT CONTACT:
DHAVAL PATEL
(615)-598-5887 | dhawalom@gmail.com

MERIDIAN | ARCHITECTURE
nashville, tennessee
e: office@meridiantn.com
t: 615.390.2236
www.meridiantn.com

DAVID A. BROWN
REGISTERED ARCHITECT
No. 19214
STATE OF TENNESSEE
10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE: 10.20.2021
MA PROJECT NO: 0214-21
PROJECT PHASE: CD
DRAWN BY: TEAM

COVER SHEET

G-001

© 2021

ABBREVIATIONS LIST

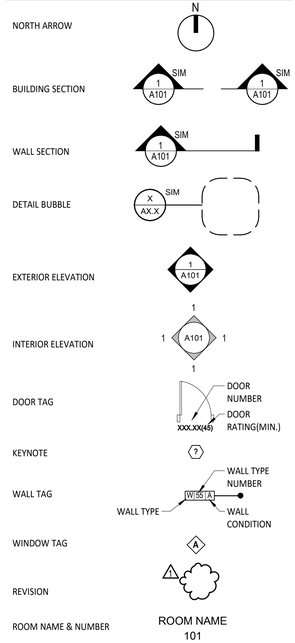
AB	Anchor Bolt	MAS.	Masonry
ABC	Aggregate Base Course	MAX	Maximum
A/C	Air Conditioning/Conditioner	MECH	Mechanical
ACT	Acoustical Ceiling Tile	MFR	Manufacturer
AFF	Above Finish Floor	MO	Masonry Opening
ALT	Alternate	MIN	Minimum
ALUM	Aluminum	MISC	Miscellaneous
		MTL.	Metal
BRG.	Bearing		
BUR	Built up roof	NIC	Not In Contract
BM	Beam	NTS	Not To Scale
CI	Cast Iron	OC	On Center
CJ	Control Joint	OD	Outside Diameter
CL	Center Line	OPP.	Opposite
CLG	Ceiling	ORD	Overflow Roof Drain
CLR	Clear		
CMU	Concrete Masonry Unit	PL	Property Line
CO	Clean Out	PLAM	Plastic Laminate
COL	Column	PLMB.	Plumbing
CONC	Concrete	PLYWD.	Plywood
CONT	Continuous	PWR	Power
CPT	Carpet		
CT	Ceramic Tile	RD	Roof Drain
		RO	Rough Opening
DF	Drinking Fountain		
DIA	Diameter	SCHED	Schedule
DIM	Dimension	SF	Square Foot
DS	Downspout	SHT	Sheet
DWG	Drawing	SIM.	Similar
		SLV	Short Leg Vertical
EDF	Electric Drinking Fountain	SPEC.	Specifications
ELEC	Electrical	SQ	Square
EJ	Expansion Joint	STD	Standard
EL	Elevation	STRL	Structural
EQ	Equal	S/S	Stainless Steel
EXIST	Existing	SS	Sanitary Sewer
EXT	Exterior	SUSP.	Suspended
FBO	Furnished By Owner	T &G	Tongue and Groove
FD	Floor Drain	TEMP.	Tempered
FDC	Fire Department Connection	TLT	Toilet
FEC	Fire Extinguisher Cabinet	TOJ	Top of Joist
FF	Finished Floor	TOB	Top of Beam
FG	Finished Grade	TOC	Top of Curb/Conc.
FIN	Finish	TOM	Top of Masonry
FLR.	Floor	TOP	Top of Plate
		TOS	Top of Steel
GA	Gauge	TOW	Top of Wall
GAL.	Galvanized	TYP.	Typical
GLB	Glue Laminated Beam		
GWB	Gypsum Wall Board	UG	Underground
GYP	Gypsum	UNO	Unless Noted Otherwise
HB	Hose Bibb	VCT	Vinyl Composition Tile
HM	Hollow Metal	VERT.	Vertical
HORIZ	Horizontal		
HVAC	Heating/Ventilating/Air Conditioning	WC	Water Closet
		WD	Wood
ID	Inside Diameter	WH	Water Heater
INFO	Information	WWF	Welded Wire Fabric
INT	Interior		
LAV	Lavatory		
LLG	Long Leg Vertical		
LVR	Louver		

MATERIALS LEGEND

NOTE: PATTERNS SHOWN REPRESENT CUT MATERIALS IN PLAN OR SECTION, UNLESS NOTED OTHERWISE ABOVE.

- EARTH
- GRANULAR FILL
- SAND, GROUT AS NOTED
- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE, CAST STONE
- CONCRETE MASONRY UNIT
- BRICK MASONRY
- STONE: LIMESTONE, GRANITE, MARBLE OR AS NOTED
- TERRA COTTA, STRUCTURAL CLAY TILE
- METAL: TYPE AS NOTED
- METAL: ROLLED SHAPES
- FINISHED WOOD SHOWN CUT AND ELEVATION
- ENGINEERED WOOD: GLUE LAMINATED
- WOOD FLOOR, WOOD SHINGLES, OR SIDING
- PARTICLEBOARD
- PLYWOOD
- GLASS FIBER REINFORCED CONCRETE SIDING OR TRIM
- EIFS
- SPRAYED FIREPROOFING SHOWN ON ROLLED SHAPE
- BATT INSULATION: THERMAL OR ACOUSTICAL, UNO
- RIGID INSULATION: THERMAL, ACOUSTICAL, OR SAFING
- SHEATHING: GYPSUM, OR AS NOTED
- ACOUSTICAL CEILING TILE
- WOOD FRAMING / BLOCKING: CONTINUOUS
- WOOD SHIM
- MEMBRANE: WATERPROOF, ROOF, DAMPPROOFING
- AIR BARRIER SYSTEM

TYPICAL SYMBOLS LEGEND



PROJECT GENERAL NOTES

A. Do not scale drawings. Rely only on Architect's written dimensions.

B. Typical details may not be necessarily be cut on plans, but apply unless noted otherwise.

C. All work and material shall be regarded as new unless specifically indicated as "**existing**" or "**(e)**" on the drawings and/or within the specifications.

D. Contractor shall coordinate all trades and methods of construction as required for completion of the project with the intent of these documents.

E. All materials and unfinished surfaces exposed to view shall be painted unless factory prefinished, noted otherwise, or directed by the Architect.

F. No utilities, plumbing, piping, conduit, etc. shall be exposed without the written approval of the Architect.

G. Should dimensions be missing or conflicting, notify the Architect prior to proceeding with related work.

H. Contractor shall verify locations of utilities prior to excavating, trenching, etc. and shall repair or replace utilities damaged as a result of construction.

I. Contractor shall be responsible for all temporary shoring and bracing required during construction.

J. Security and safety are the Contractor's responsibility. Site shall be completely fenced and secured during construction.

K. No asbestos shall be used or incorporated into the project in any form.

L. Separate dissimilar metals as they occur and/or per manufacturer's recommendations.

M. Apply sealant at intersections of all dissimilar materials.

Plumbing Fixture Calculations

See IBC Chapter 29

Required Plumbing Fixtures

Group	Description	Total Occ	Each Sex	Toilets Men	Toilets Women	Urinals (max*)	Lavatories Men	Lavatories Women	Bathtubs/ Showers	Drinking Fountains	Service Sinks
M	Mercantile	53	26.5	1.0	1.0	1.0	1.0	1.0	N/A	1.0	1/floor
Total Required				1	1	1	1	1	0	1	1
Total Provided				1	1	1	1	1	0	1	1

Required Accessibility

Accessible Toilets:	1per bathroom
Accessible Sinks:	1per bathroom

CODE INFORMATION

BUILDING CODE:
2018 INTERNATIONAL BUILDING CODE (IBC)
2018 INTERNATIONAL FUEL GAS CODE
2018 INTERNATIONAL PLUMBING CODE (IPC)
2018 INTERNATIONAL MECHANICAL CODE (IMC)
2018 INTERNATIONAL ENERGY CONCERVATION CODE (IECC)
2018 INTERNATIONAL FIRE CODE

2017 NFPA NATIONAL ELECTRIC CODE (NEC)

AMERICANS WITH DISABILITY ACT (ADA)
ICC / ANSI A 117.1

NFPA 101 LIFE SAFETY CODE

OCCUPANCY TYPE:
GROUP M (MERCHANTILE)
GROUP B (BUSINESS)
STORAGE S-2

CONSTRUCTION TYPE:
TYPE II-B UNSPRINKLERED BUILDING

FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS:
TYPE II-B:
PRIMARY STRUCTURAL FRAME: 0 HOURS
BEARING WALLS (EXTERIOR / INTERIOR): 0 HOUR
FLOOR CONSTRUCTION:
ROOF CONSTRUCTION:

ALLOWABLE BUILDING HEIGHT:
TYPE II-B: 55 FT.

ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE:
TYPE II-B: 3 STORIES

ALLOWABLE AREA:
TYPE II-B (NON-SPRINKLERED): 12,500

TRAVEL DISTANCE:
W/ SPRINKLER SYSTEM: 250'
W/OUT SPRINKLER SYSTEM: 200'

OCCUPANT LOADS:

MERCHANTILE	60 S.F. / PERSON	
STORAGE / MECH	300 S.F. / PERSON	
BUSINESS	100 S.F. / PERSON	

BUILDING AREAS & OCCUPANT LOAD:

MERCHANTILE / 60	3,196	S.F.	53 OCCUPANTS
BUSINESS/100	2,106	S.F.	14 OCCUPANTS
STORAGE/ 300	801	S.F.	3 OCCUPANTS
RESTROOM /60	57	S.F./EA.	1 OCCUPANT/EA.

EXIT REQUIREMENTS:
EXIT WIDTH REQ'D: VARIES; SEE FIRST FLOOR LIFE SAFETY PLAN
EXIT WIDTH PROVIDED: 72"

CODE PLAN LEGEND

- 1 HOUR FIRE
- FE — FIRE EXTINGUISHER
- ANN — FIRE ALARM ANNUNCIATOR PANEL
- EXIT
- EGRESS PATH/ TRAVEL DISTANCE
- EXIT
- HE — HORIZONTAL EXIT
- D — EXIT DISCHARGE
- 72" — DOOR WIDTH
- BUSINESS OCCUPANCY; LOAD FACTOR: 150 gross
- MERCANTILE OCCUPANCY; LOAD FACTOR: 60 gross
- STORAGE OCCUPANCY; LOAD FACTOR: 300 gross

CODE GENERAL NOTES

A. Fire Department access and water supply shall be in place prior to commencement of vertical construction.

B. See reflected ceiling plans and electrical drawings for exit signs.

C. All exits to be openable from the inside without the use of a key or any special knowledge.

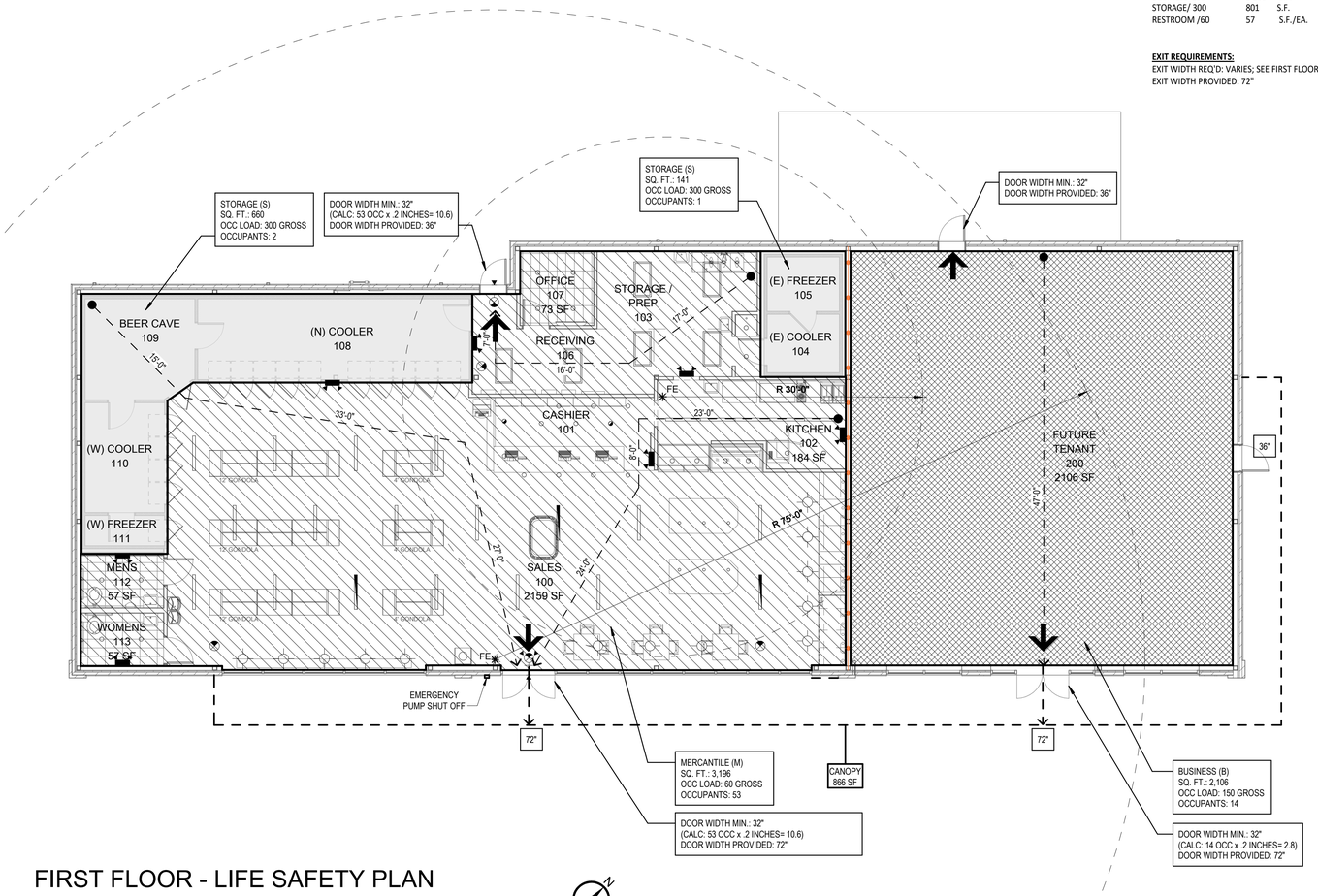
D. Panic hardware to be provided at each exit door from rooms with an occupant load of more than 50, including main corridor exterior exits.

E. All utilities will be placed underground.

F. Special structural inspections may be required. Review general structural notes for requirements.

G. Special electrical inspections may be required. Review electrical drawings and specifications for requirements.

H. Fire sprinklers and fire alarm system shall comply with NFPA No. 13. Submit all required drawings and information to A.H.J. Prior to commencement of any related work. Obtain approval of completed systems prior to final acceptance.



FIRST FLOOR - LIFE SAFETY PLAN

0 8' 16' 24'

1/8" = 1'-0"

ASHLAND CITY C-STORE

DHAVAL PATEL
0 Old Hydes Ferry Pike, Ashland City, TN 37015

CLIENT CONTACT:
DHAVAL PATEL
(615)-598-5887 | dhawalom@gmail.com

ARCHITECTURE

10.20.2021

MERIDIAN
nashville, tennessee
e: office@meridiantn.com
t: 615.390.2236
www.meridiantn.com

REVISIONS:

DELTA	DESCRIPTION	DATE

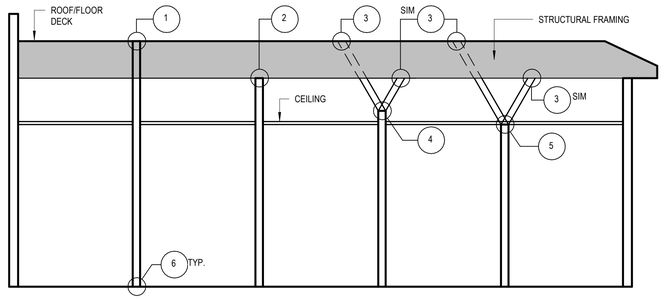
DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	TEAM

PROJECT INFORMATION

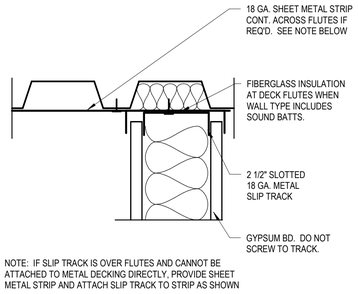
G-002

© 2021

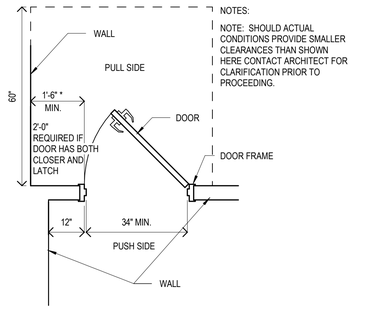
10/20/2021 1:33:43 PM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / G-002- PROJECT INFORMATION



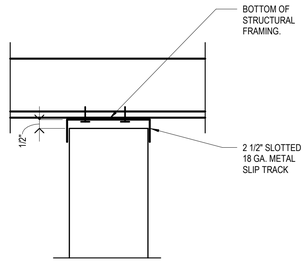
WALL COMBO CONDITIONS DIAGRAM



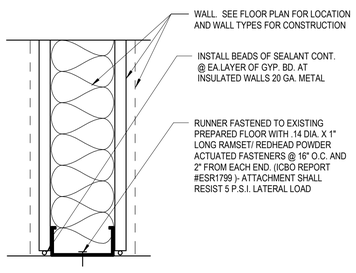
1 TOP OF WALL METAL DECK1



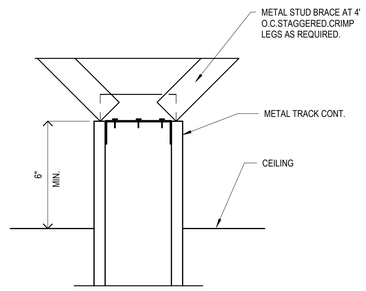
DOOR CLEARANCE1



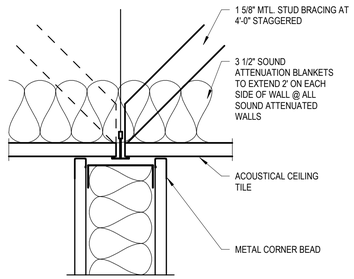
2 TOP OF WALL AT STRUCTURAL FRAME



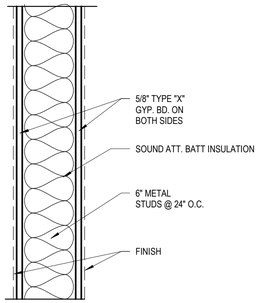
6 WALL AT FLOOR STEEL STUD PARTITIONS1



4 WALL AT CEILING 6 IN ABOVE1

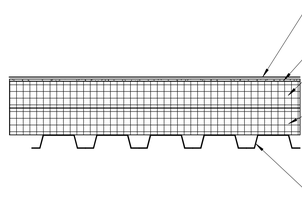


5 WALL AT GRID CEILING1

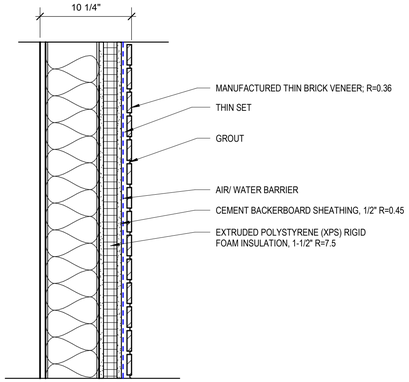


S 06 INTERIOR WALL TYPE
1 1/2" =1'-0"

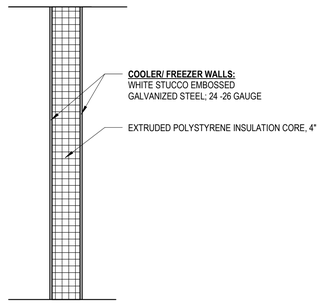
S 06 WALL TYPE



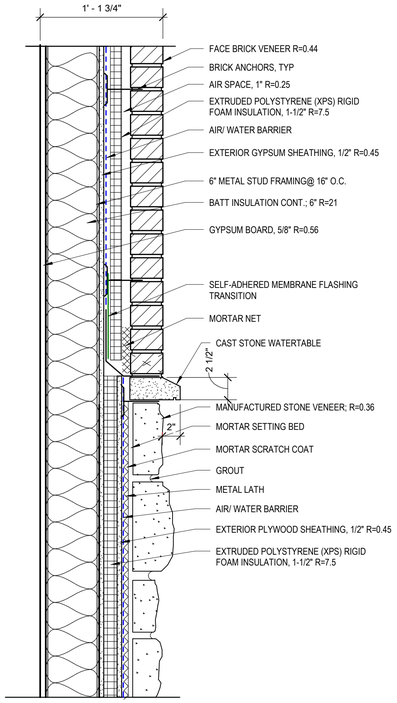
R 01 ROOF TYPE
1 1/2" =1'-0"

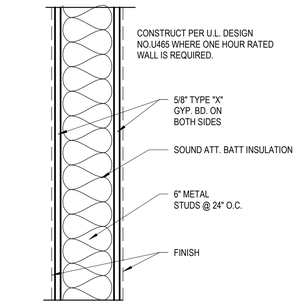


W 03 EXTERIOR WALL TYPE TOTAL: R=30.2
1 1/2" =1'-0"

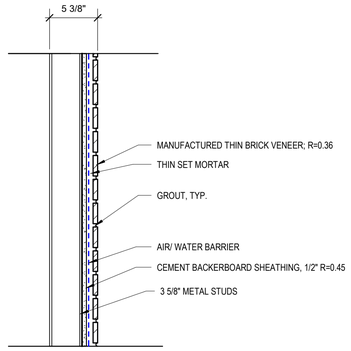


S 00 INTERIOR WALL TYPE
1 1/2" =1'-0"



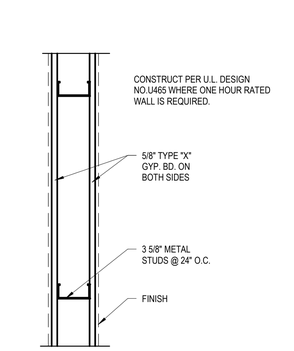


S 02 INTERIOR WALL TYPE
1 1/2" =1'-0"



W 04 EXTERIOR WALL TYPE
1 1/2" =1'-0"

W 01 EXTERIOR WALL TYPE TOTAL: R=30.2
1 1/2" =1'-0"



S 01 INTERIOR WALL TYPE
1 1/2" =1'-0"

WALL & PARTITION GENERAL NOTES

A. All fire rated walls shall be completely and continuously constructed first, and then other non-rated walls constructed to the finished surface.

B. All fire rated walls extend full height to structure above and seal to deck, UNO. See Fire Rated Details for approved joint conditions.

C. All penetrations at smoke and fire rated assemblies shall be protected, sealed, and dampered, using only UL or ICC-ES approved methods, materials and installation, as required to maintain the assembly's rating and smoke resistance. All materials and installation details shall conform to the UL listings for "through penetration fire stop systems" where applicable. The Contractor shall submit shop drawing details, furnished by the manufacturer of the fire stop material, that show complete conformance to the UL Listing, and such drawings shall be available to the Fire or Building Inspectors on-site. The drawings shall be specific for each penetration type.

D. Smoke separation walls shall form an effective membrane, continuous from outside wall to outside wall, from fire barrier to fire barrier, from smoke barrier to smoke barrier and from floor slab to floor or roof slab above, thereby providing continuity through all concealed spaces. The Contractor shall completely seal all openings where the smoke barrier abuts other smoke barriers, fire barriers, exterior walls, the floor below and the floor or ceiling above.

E. All backing support for wall mounted items shall be 16 gauge min. metal strapping, UNO.

F. Brace interior non-bearing walls to structure per Architectural Drawings.

G. Slotted slip track shall be used at all top of full-height wall conditions subject to loading by deflection of the structure above.

H. All light gauge metal framing shall be installed in strict accordance with ASTM 754 "Standard Specifications for Installation of Steel Framing Members".

ASHLAND CITY C-STORE

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10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	TEAM

WALL & ROOF TYPES

G-003

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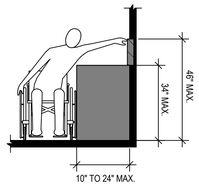
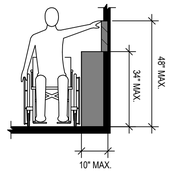
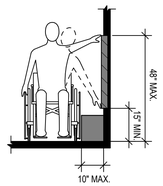
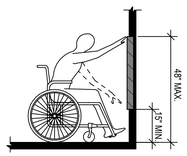
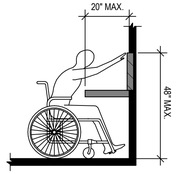


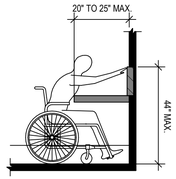




SIDE REACH







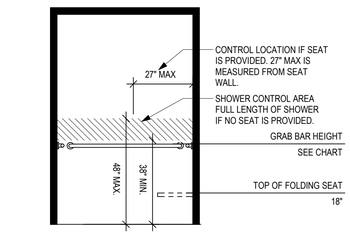
FORWARD REACH

* FOR CHILDREN'S REACHES SEE CHART THIS SHEET.

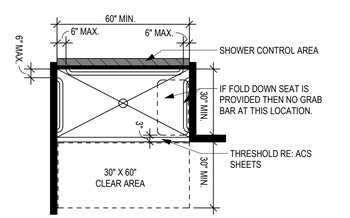
ACCESSIBLE REACH RANGES

GENERAL SHOWER NOTES:

1. A FIXED SHOWER HEAD LOCATED AT 48" MAX. ABOVE SHOWER FINISH FLOOR SHALL BE PERMITTED INSTEAD OF A HAND-HELD SPRAY UNIT.
2. FLOOR FOR SHOWER SHALL NOT SLOPE IN EXCESS OF 1:48 IN ANY DIRECTION.
3. FOLD DOWN SEATS ARE NOT REQUIRED IN ROLL-IN TYPE SHOWER COMPARTMENTS.
4. "L" SHAPED SEAT IS NOT REQUIRED AT TRANSFER TYPE STALL.
5. PROVIDE ONE TOWEL HOOK @ 48" ABOVE F.F. ADJACENT TO ACCESSIBLE SHOWER.

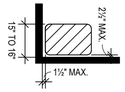


ELEVATION

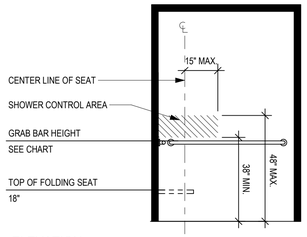


PLAN

STANDARD **ROLL-IN** TYPE SHOWER COMPARTMENT



FOLDING SEAT (RECTANGULAR)



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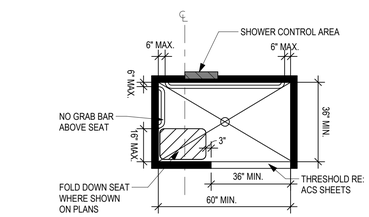
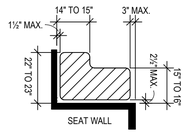
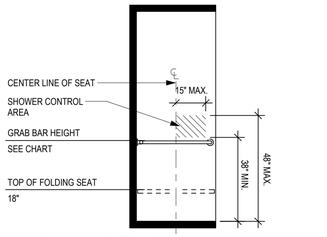


PLAN

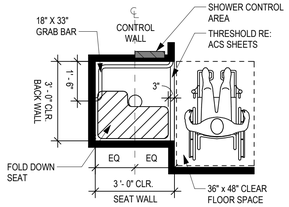
ALTERNATE **ROLL-IN** TYPE SHOWER COMPARTMENT



FOLDING SEAT (L SHAPED)



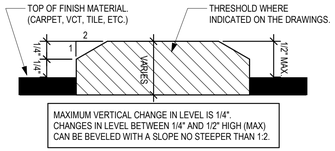
ELEVATION (CONTROL WALL)



PLAN

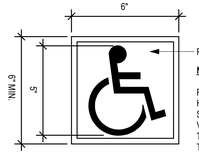
TRANSFER TYPE SHOWER COMPARTMENT

ACCESSIBLE SHOWER TYPES



MAXIMUM VERTICAL CHANGE IN LEVEL IS 1/4". CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" HIGH (MAX) CAN BE BEVELED WITH A SLOPE NO STEEPER THAN 1:2.

THRESHOLD

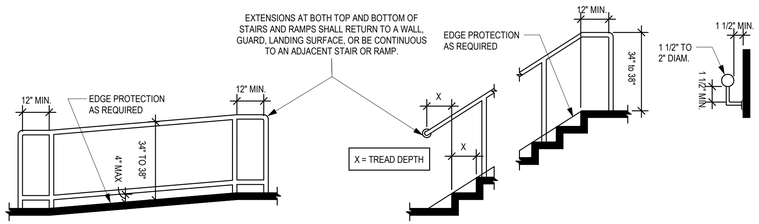


PICTOGRAPH SYMBOL

NOTES:

RAISED CHARACTERS SHALL BE AT LEAST 5/8" HIGH BUT NO HIGHER THAN 2". PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6" MINIMUM IN HEIGHT. ADD BRAILLE WHERE REQUIRED.

INTERNATIONAL SYMBOL OF ACCESSIBILITY



RAMPS

STAIRS

HANDRAIL

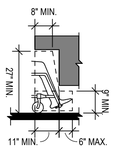
RAMP GENERAL NOTES:

1. RUNNING SLOPE CANNOT BE STEEPER THAN 1:12
2. AT EXISTING CONDITIONS:
   A. STEEPER THAN 1:10 BUT NOT STEEPER THAN 1:8 - MAX RISE IS 3"
   B. STEEPER THAN 1:12 BUT NOT STEEPER THAN 1:10 - MAX RISE IS 6"
3. MAX RISE OF ANY RAMP IS 30"
4. EDGE PROTECTION CAN BE CURB/ BARRIER (AS SHOWN ABOVE) OR EXTEND FLOOR /GROUND SURFACE 12" FROM EACH HANDRAIL.
5. EDGE PROTECTION NOT REQUIRED ON RAMP LANDINGS SERVING AN ADJOINING RAMP RUN OR STAIRWAY

STAIR GENERAL NOTES:

1. EXTENSIONS SHALL NOT BE REQUIRED FOR CONTINUOUS HANDRAILS AT THE INSIDE TURN OF SWITCHBACK OR DOGLEG STAIRS AND RAMPS.
2. TREAD AND RISERS TO BE UNIFORM AND HAVE A RISE BETWEEN 4"-7" AND TREAD OF 11" DEEP MIN.

HANDRAILS AT STAIRS & RAMPS



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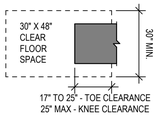


PLAN

ACCESSIBLE TOE & KNEE CLEARANCE

MOUNTING CHART

DESCRIPTION & LOCATION	ACCESSIBLE DIMENSIONS		STANDARD (NON ADA)
	CHILDREN (AGES 5 TO 12)	ADULT	
FORWARD AND SIDE REACH RANGES	18" TO 40"	15" TO 48"	-------
WATER CLOSET CENTERLINE TO WALL	15"	17"	PER PLAN
TOILET SEAT HEIGHT	15"	18"	16"
TOILET & SHOWER STALL GRAB BAR HEIGHTS	25"	34"	-------
TOP OF TOILET PAPER DISPENSER HEIGHT	2" BELOW GRAB BAR IF MTD BELOW. 12" TO BOTTOM IF MTD ABOVE	2" BELOW GRAB BAR IF MTD BELOW. 12" TO BOTTOM IF MTD ABOVE	18"
FLUSH CONTROL HEIGHT FOR WATER CLOSET POSITION FLUSH VALVE TO WIDE SIDE OF STALL OR ROOM	2" MIN. BELOW GRAB BAR	2" MIN. BELOW GRAB BAR	48"
DRINKING FOUNTAIN & WATER COOLER SPOUT HEIGHT	36" MAX ACCESSIBLE AND 42" STANDING	36" MAX ACCESSIBLE AND 42" STANDING	42"
FLUSH CONTROL HEIGHT FOR URINAL POSITION FLUSH VALVE TO WIDE SIDE OF STALL OR ROOM	38"	44"	46"
FEMININE NAPKIN DISPENSER CONTROL LOCATION	42"	46" OR 48" MAX. SEE ACCESSIBLE REACH RANGES	46"
MIRRORS MOUNTED ABOVE COUNTER TOPS OR SINKS HEIGHTS ARE TO REFLECTING SURFACE	76" AFF TO TOP EDGE 40" MAX BOTTOM EDGE	76" AFF TO TOP EDGE 40" MAX BOTTOM EDGE	76" AFF TO TOP EDGE 40" BOTTOM EDGE
FREE STANDING MIRRORS HEIGHTS ARE TO REFLECTING SURFACE	76" AFF TO TOP EDGE 35" MAX TO BOTTOM EDGE	76" AFF TO TOP EDGE 35" MAX TO BOTTOM EDGE	76" AFF TO TOP EDGE 35" BOTTOM EDGE
LAVATORY AND SINK RIM HEIGHT	31" MAX	34" MAX	36"
PAPER TOWEL DISPENSER CONTROL HEIGHT	38"	46" OR 48" MAX. SEE ACCESSIBLE REACH RANGES	48"
SOAP DISPENSER CONTROL HEIGHT	38"	46" OR 48" MAX. SEE ACCESSIBLE REACH RANGES	48"
SOAP DISH	38"		48"
FEMININE NAPKIN DISPOSAL MTD. ON "BACK" HEIGHT TO TOP OF DISPOSAL UNIT	2" MIN. BELOW GRAB BAR	2" MIN. BELOW GRAB BAR	32"
TOWEL BAR	25"	34"	48"
LIGHT SWITCHES, THERMOSTATS, WALL MOUNTED COMMUNICATION AND FIRE ALARM PULL DEVICES. HEIGHT TO CENTER OF CONTROL.	38"	46" OR 48" MAX. SEE ACCESSIBLE REACH RANGES	48"
ELECTRICAL OUTLETS, TELEPHONE OUTLETS, & DATA RECEPTACLES. HEIGHT TO CENTER OF OUTLET OR RECEPTACLE.	18"	18"	18"
TOP OF STAIR AND RAMP HANDRAILS HEIGHT IS ABOVE STAIR NOSING OR RAMP SURFACE	-------	36"	36"
CENTER OF DEDICATION PLAQUE	-------	-------	60"
FIRE EXTINGUISHER CABINET. HEIGHT TO DOOR HANDLE	-------	42"	42"
DOOR HARDWARE CENTER LINE	DOOR LEVER	39"	41"	41"
	DOOR PULL	39"	41"	41"
	PANIC BAR	39"	41"	41"
	THE CENTER LINE OF DOOR HARDWARE MAY VARY BETWEEN WOOD DOOR WITH SIDE LIGHT AND ALUMINUM STORE FRONT DOORS. COORDINATE WITH PLANS AND HARDWARE MANUFACTURER			
TOP OF TRAY SLIDES	28" MIN.	34" MAX	36"
TRAY RETURN COUNTER	30"	34" MAX	36"
HEIGHT OF WORK SURFACES	-------	34" MAX	30"
HEIGHT OF TABLES AND COUNTERS	-------	30" MAX	30"

1. ON PLUMBING FIXTURES THERE IS A RANGE OF +/- 1".
2. CHILDREN AGES 5 THRU 12 REPRESENTS PRIMARY USER GROUP AS ELEMENTARY STUDENTS. MIDDLE SCHOOL IS CONSIDERED ADULT.
3. COORDINATE MOUNTING HEIGHTS WITH ACCESSIBLE REACH RANGES.

ACCESSIBILITY GENERAL NOTES

A. Accessible entrances to the building shall be identified by the international symbol of accessibility.

B. Exits that are located adjacent to accessible areas & within 6' of adjacent ground level shall be accessible.

C. Accessible ramps over 1:20 (5%) slope as required by ICC/ANSI A117.1 shall have handrails and no slopes that exceed 1:12 (8.3%), UNO.

D. The surface of all ramps, floors, stairs and ground surfaces shall be of slip resistant materials/textures, and not exceed 1:50 (2%) cross-slope.

E. An accessible route of travel (3 ft. wide min.) must be provided to all portions of the building and between the building and the public way.

F. Thresholds must be 1/2" in height or less, and be beveled over 1/4" height.

G. All accessible parking spaces shall have a slope not exceeding 1:50 (2%).

H. All accessible parking spaces shall be outlined on all four sides, have a contrasting color and the international wheelchair symbol on the ground within the space.

I. All accessible parking spaces shall have a sign (min. 5 ft. above finish grade in front of the space) which includes the international symbol of accessibility and applicable municipal language.

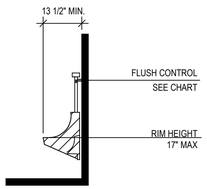
J. Signs designating permanent rooms and spaces shall meet accessibility requirements.

K. All alarms shall meet accessibility requirements.

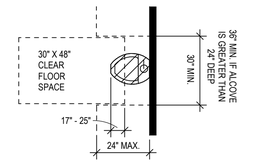
L. Accessible route shall be without steps or changes in level greater than 1/2" without an approved ramp.

M. Accessible routes shall serve as exit access or connect to areas of rescue assistance.

N. No item shall protrude more than 4" from the surface of a wall along an accessible way, above 27" and below 80" AFF.

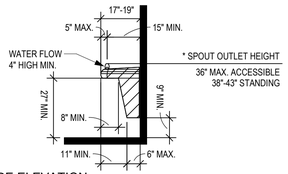


SIDE ELEVATION

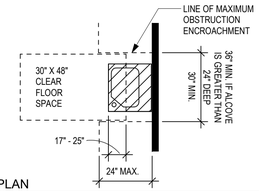


FLOOR PLAN

ACCESSIBLE URINAL



SIDE ELEVATION



PLAN

- PROVIDE A MIN. OF ONE ACCESSIBLE & ONE STANDING DRINKING FOUNTAIN PER PROJECT

GENERAL DRINKING FOUNTAIN NOTES:

1. A PARALLEL APPROACH SHALL BE PERMITTED AT UNITS FOR CHILDREN'S USE WHERE THE SPOUT IS 30" MAX A.F.F. AND IS 3 1/2" MAX FROM THE FRONT EDGE OF THE UNIT.
2. WHERE MORE THAN 2 DRINKING FOUNTAINS ARE PROVIDED 50 MUST COMPLY WITH 602.1-602.6 (ACCESSIBLE) AND 50% COMPLY WITH 602.7 (STANDING) HEIGHTS. 211.3

ACCESSIBLE DRINKING FOUNTAIN

ASHLAND CITY C-STORE

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DAVID A. BROWN — REGISTERED ARCHITECT — STATE OF TENNESSEE

10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	TEAM

ADA DETAILS

G-004

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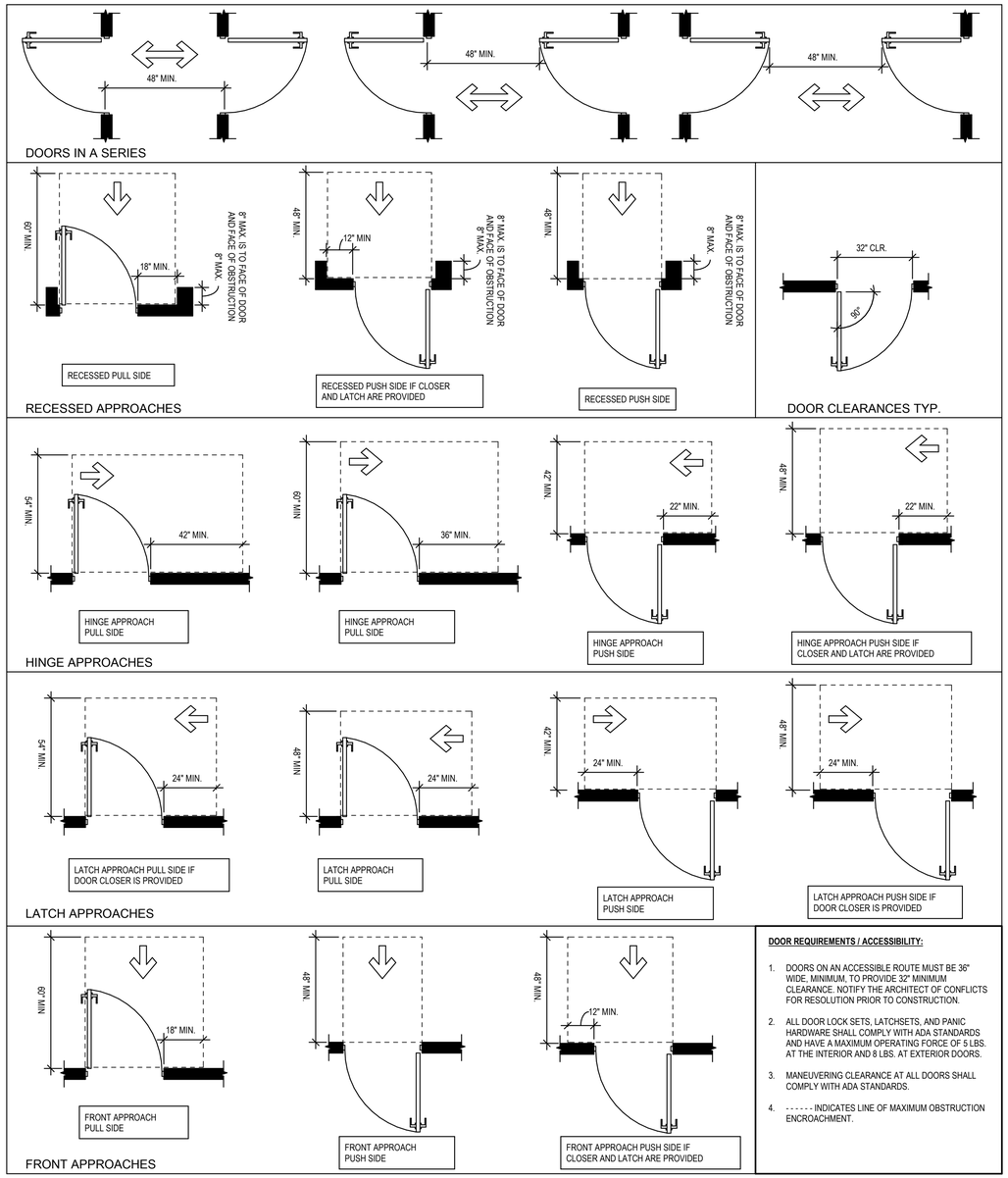
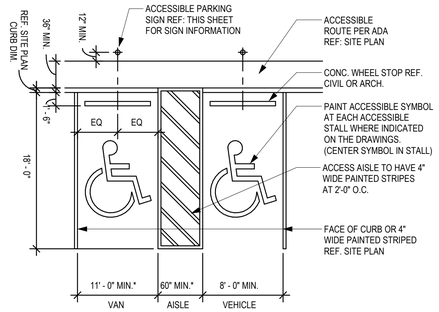
10/20/2021 1:33:47 PM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / G-004- ADA DETAILS



DOOR REQUIREMENTS / ACCESSIBILITY:

1. DOORS ON AN ACCESSIBLE ROUTE MUST BE 36" WIDE, MINIMUM, TO PROVIDE 32" MINIMUM CLEARANCE. NOTIFY THE ARCHITECT OF CONFLICTS FOR RESOLUTION PRIOR TO CONSTRUCTION.
2. ALL DOOR LOCK SETS, LATCHSETS, AND PANIC HARDWARE SHALL COMPLY WITH ADA STANDARDS AND HAVE A MAXIMUM OPERATING FORCE OF 5 LBS. AT THE INTERIOR AND 8 LBS. AT EXTERIOR DOORS.
3. MANEUVERING CLEARANCE AT ALL DOORS SHALL COMPLY WITH ADA STANDARDS.
4. - - - - - - INDICATES LINE OF MAXIMUM OBSTRUCTION ENCROACHMENT.

ACCESSIBLE DOOR DIAGRAMS



* - VAN PARKING SPACE CAN BE 8'-0" WIDE IF ACCESS AISLE IS 8'-0" WIDE

REQUIRED PARKING SPACES

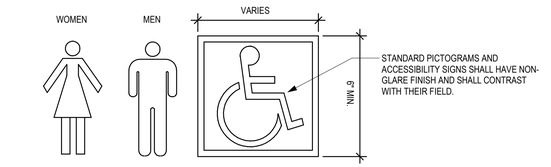
# SPACES PROVIDED IN PARKING FACILITY	MIN. # REQUIRED HC PARKING SPACES
001 TO 025	1
026 TO 050	2
051 TO 075	3
076 TO 100	4
101 TO 150	5
151 TO 200	6
201 TO 300	7
301 TO 400	8
401 TO 500	9
501 TO 1000	2% OF TOTAL
OVER 1001	20 + 1 FOR EACH 100 OVER 1000

* - PROVIDE ONE VAN PARKING SPACE FOR EVERY 6 REQUIRED HC PARKING SPACES.

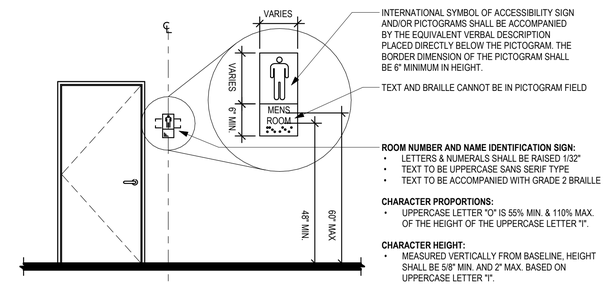
GENERAL PARKING NOTES:

1. REFER TO LOCAL CODES FOR ADJUSTMENTS TO THESE STANDARDS.
2. ACCESS AISLES SHALL NOT OVERLAP THE VEHICULAR WAY AND CAN BE PLACED ON EITHER SIDE OF THE PARKING SPACE EXCEPT FOR ANGLED VAN PARKING. WHICH SHALL HAVE ACCESS AISLES LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACES.
3. IT IS RECOMMENDED TO HAVE THE VAN ACCESS AISLE ON THE PASSENGER SIDE OF THE VAN PARKING SPACE.
4. ACCESSIBLE ROUTE REQUIRED FOR VAN PARKING SPACE SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 98".

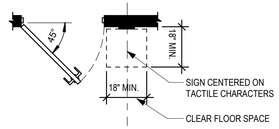
TYPICAL ACCESSIBLE PARKING STALLS



PICTOGRAMS AND INTERNATIONAL SYMBOL OF ACCESSIBILITY



ELEVATION



FLOOR PLAN

ROOM NUMBER AND NAME IDENTIFICATION SIGN:
- LETTERS & NUMERALS SHALL BE RAISED 1/32"
- TEXT TO BE UPPERCASE SANS SERIF TYPE
- TEXT TO BE ACCOMPANIED WITH GRADE 2 BRAILLE

CHARACTER PROPORTIONS:
- UPPERCASE LETTER "O" IS 55% MIN. & 110% MAX. OF THE HEIGHT OF THE UPPERCASE LETTER "I".

CHARACTER HEIGHT:
- MEASURED VERTICALLY FROM BASELINE, HEIGHT SHALL BE 5/8" MIN. AND 2" MAX. BASED ON UPPERCASE LETTER "I".

LOCATION AT DOORS:
- SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE.
- AT DOUBLE DOORS WITH ONE ACTIVE LEAF, SIGN TO BE LOCATED AT INACTIVE LEAF.
- AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, SIGN TO BE LOCATED AT THE RIGHT OF THE RIGHT HAND DOOR.
- WHERE NO WALL SPACE IS AVAILABLE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGN TO BE LOCATED ON THE NEAREST ADJACENT WALL.

SPECIAL LOCATIONS:
- DOORS AT EXIT PASSAGEWAYS, EXIT DISCHARGE AND EXIT STAIRWAYS SHALL BE IDENTIFIED WITH TEXTILE SIGNS.
- IF ONE ENTRANCE IS NOT ACCESSIBLE THEN ALL ACCESSIBLE ENTRANCES MUST BE MARKED WITH INTERNATIONAL SIGN OF ACCESSIBILITY.
- IF EXISTING RESTROOMS ARE NOT ACCESSIBLE, THEN PROVIDE A SIGN WITH INTERNATIONAL SIGN OF ACCESSIBILITY TO INDICATED CLOSEST ACCESSIBLE RESTROOM.

GENERAL SIGNAGE NOTES:
1. REFER TO PLANS AND SPECS FOR SIGNAGE SCHEDULE
2. REFER TO THIS SHEET FOR INTERNATIONAL SYMBOL OF ACCESSIBILITY

TYPICAL SIGNAGE

ACCESSIBILITY GENERAL NOTES

A. Accessible entrances to the building shall be identified by the international symbol of accessibility.

B. Exits that are located adjacent to accessible areas & within 6' of adjacent ground level shall be accessible.

C. Accessible ramps over 1:20 (5%) slope as required by ICC/ANSI A117.1 shall have handrails and no slopes that exceed 1:12 (8.3%), UNO.

D. The surface of all ramps, floors, stairs and ground surfaces shall be of slip resistant materials/textures, and not exceed 1:50 (2%) cross-slope.

E. An accessible route of travel (3 ft. wide min.) must be provided to all portions of the building and between the building and the public way.

F. Thresholds must be 1/2" in height or less, and be beveled over 1/4" height.

G. All accessible parking spaces shall have a slope not exceeding 1:50 (2%).

H. All accessible parking spaces shall be outlined on all four sides, have a contrasting color and the international wheelchair symbol on the ground within the space.

I. All accessible parking spaces shall have a sign (min. 5 ft. above finish grade in front of the space) which includes the international symbol of accessibility and applicable municipal language.

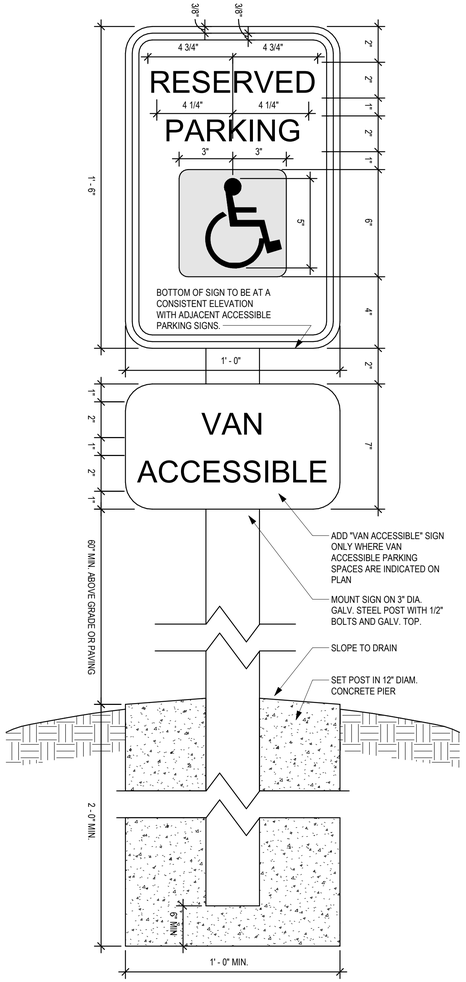
J. Signs designating permanent rooms and spaces shall meet accessibility requirements.

K. All alarms shall meet accessibility requirements.

L. Accessible route shall be without steps or changes in level greater than 1/2" without an approved ramp.

M. Accessible routes shall serve as exit access or connect to areas of rescue assistance.

N. No item shall protrude more than 4" from the surface of a wall along an accessible way, above 27" and below 80" AFF.



ACCESSIBLE PARKING SIGN

ASHLAND CITY C-STORE

DHAVAL PATEL
0 Old Hydes Ferry Pike, Ashland City, TN 37015

CLIENT CONTACT:
DHAVAL PATEL
(615)-598-5887 | dhavalom@gmail.com

MERIDIAN | ARCHITECTURE
nashville, tennessee
e: office@meridiantn.com
t: 615.390.2236
www.meridiantn.com

DAVID A. BROWN — REGISTERED ARCHITECT — STATE OF TENNESSEE
10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	TEAM

ADA DETAILS

G-005

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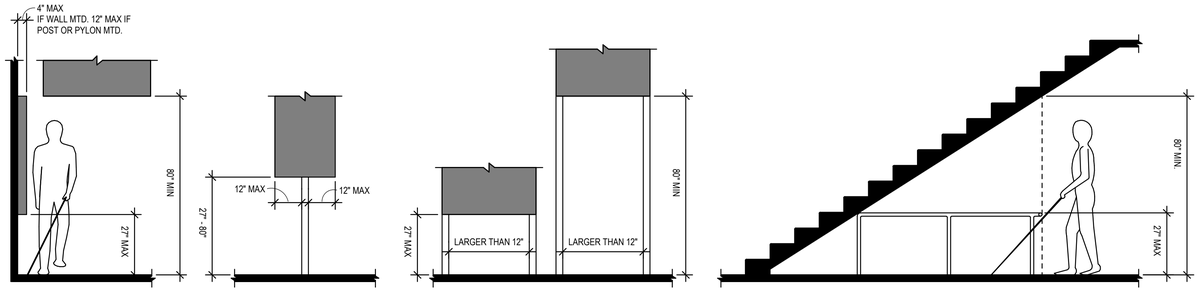
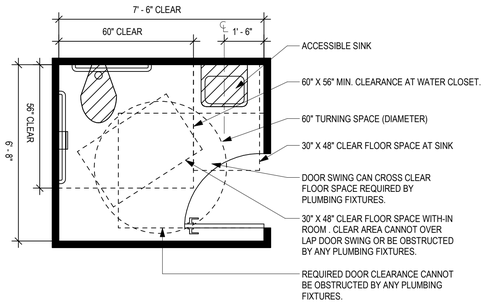


PROTRUDING OBJECT | POST MOUNTED PROTRUDING OBJECTS | VERTICAL CLEARANCE

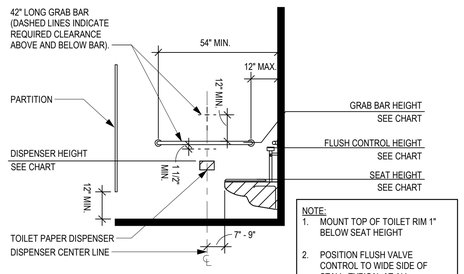
NOTE:

IF BOTTOM OF PROTRUDING OBJECT IS GREATER THAN 27" AFF THEN OBJECT MAY NOT PROTRUDE MORE THAN 4" MAXIMUM. IF MOUNTED ON POST OR PYLON, OBJECTS MAY PROTRUDE 12" MAXIMUM FROM 27" - 80" ABOVE GROUND OR FINISHED FLOOR. NO PROTRUDING OBJECT SHALL REDUCE THE CLEAR WIDTH REQUIRED FOR ACCESSIBLE ROUTES. DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78" MINIMUM ABOVE THE FINISH FLOOR.

PROTUDING OBJECTS

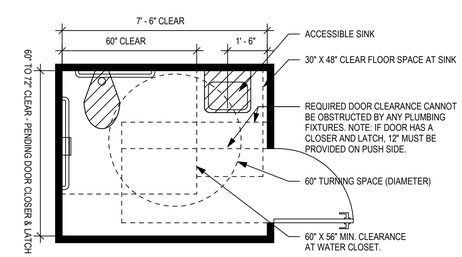


TOILET ROOM (INWARD SWINGING DOOR)

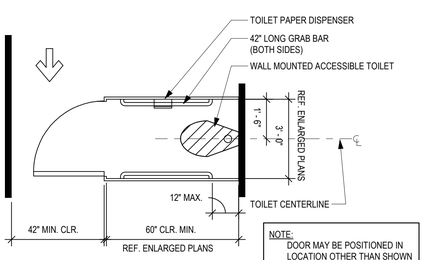


NOTE:
1. MOUNT TOP OF TOILET RIM 1" BELOW SEAT HEIGHT
2. POSITION FLUSH VALVE CONTROL TO WIDE SIDE OF STALL. TYPICAL AT ALL LOCATIONS

SIDE ELEVATION (USE FOR ALL PLANS)

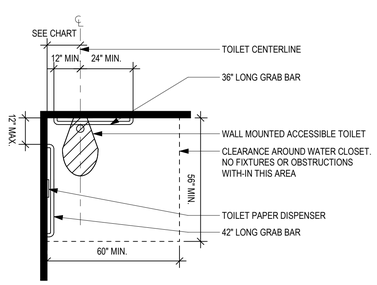


FLOOR PLAN - SINGLE OCCUPANCY (OUTWARD SWINGING DOOR)

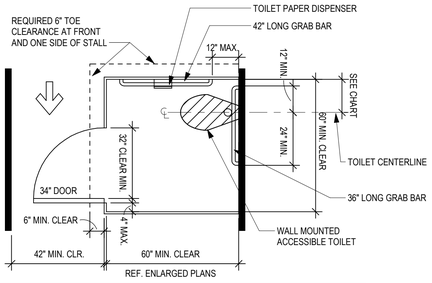


NOTE:
DOOR MAY BE POSITIONED IN LOCATION OTHER THAN SHOWN RE: FLOOR PLAN FOR LOCATION

FLOOR PLAN - AMBULATORY STALL



FLOOR PLAN - SINGLE OCCUPANCY



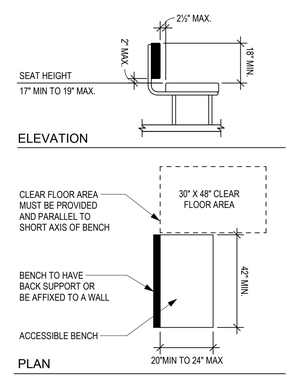
NOTE: DOOR MAY BE POSITIONED IN LOCATION OTHER THAN SHOWN RE: FLOOR PLAN FOR LOCATION

FLOOR PLAN - PARTITION STALL

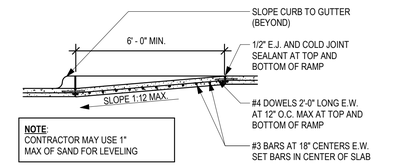
GENERAL WATER CLOSET NOTES:

1. REQUIRED CLEAR FLOOR SPACES, CLEARANCE AT FIXTURES, AND TURNING SPACE SHALL BE PERMITTED TO OVERLAP
2. DOORS SHALL NOT SWING INTO THE CLEAR FLOOR SPACE OR CLEARANCE REQUIRED FOR ANY FIXTURE EXCEPT IN A TOILET ROOM FOR INDIVIDUAL USE WHERE THE 30"X48" CLEAR FLOOR SPACE IS PROVIDED BEYOND THE ARC OF THE DOOR SWING.
3. DOORS SHALL BE PERMITTED TO SWING INTO THE REQUIRED TURNING SPACE.
4. ALL DOORS MUST COMPLY WITH THEIR CLEAR FLOOR SPACE REQUIREMENTS.
5. IF THE TOTAL NUMBER OF TOILET FIXTURES (INCLUDING URINALS) IN A RESTROOM IS EQUAL TO 6 OR MORE, THEN AN AMBULATORY STALL IS REQUIRED.
6. DIMENSIONS SHOWN FROM WALL ARE ASSUMED TO BE CLEAR DIMENSIONS. CONTRACTOR TO ALLOW FOR FINISH MATERIAL.

ACCESSIBLE WATER CLOSETS

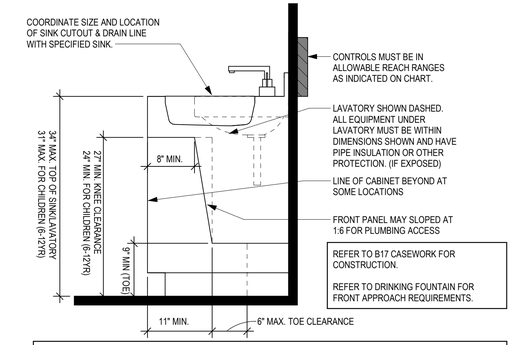


ACESSILE BENCH



NOTE:
CONTRACTOR MAY USE 1"
MAX OF SAND FOR LEVELING

SECTION THROUGH CURB RAMP



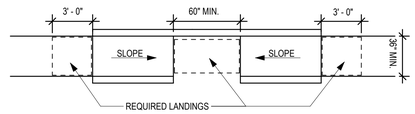
REFER TO B17 CASEWORK FOR CONSTRUCTION.

REFER TO DRINKING FOUNTAIN FOR FRONT APPROACH REQUIREMENTS.

GENERAL NOTES:

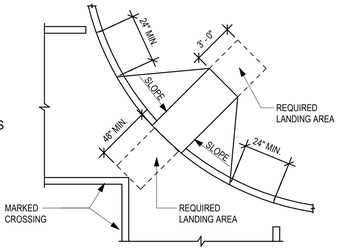
1. A PARALLEL APPROACH CAN BE PROVIDED TO LAVATORIES AND SINKS USED PRIMARILY BY CHILDREN 5 YEARS AND YOUNGER
2. DIP OF THE OVERFLOW SHALL NOT BE CONSIDERED IN DETERMINING KNEE AND TOE CLEARANCES.
3. METERED FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS MINIMUM.

ACCESSIBLE SINK AND LAVATORY

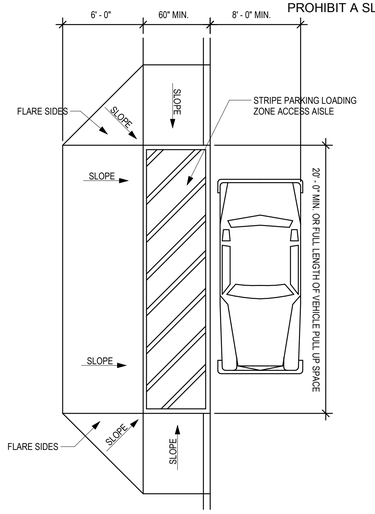


STRAIGHT RAMP

ALL CURB RAMP SLOPES AND FLARED SIDES SHALL BE 1:12 MAX. FLARED SIDES AT CURB RAMPS MAY BE ALLOWED TO SLOPE 1:10 MAX WHERE EXISTING CONDITIONS PROHIBIT A SLOPE OF 1:12.

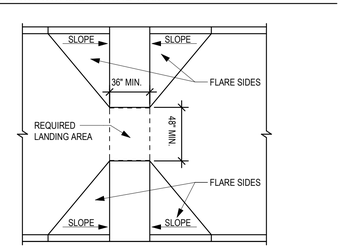


DIAGONAL OR CORNER CURB RAMP

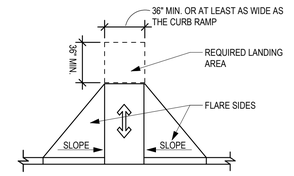


* - ONE PASSENGER LOADING ZONE SHALL BE PROVIDED FOR EVERY CONTINUOUS 100 LINEAR FEET OF LOADING SPACE, OR FRACTION THEREOF.

PASSENGER LOADING ZONE



ISLAND CURB RAMP



SIDES AND TOP OF STANDARD CURB RAMP

GENERAL CURB RAMP NOTES:

1. ADJACENT SURFACES TO RAMP MUST BE NO STEEPER THAN 1:20, REQUIRED LANDING AREAS SHALL BE NO STEEPER THAN 1:48.
2. ALL CURB RAMPS OUTSIDE OF PROPERTY (IN RIGHT OF WAY) ARE TO BE DESIGNED BASED ON THE LOCAL JURISDICTION.
3. CURB RAMPS ARE NOT TO BE PROJECTED INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES.
4. RAMPS THAT ARE IN MARKED CROSSINGS SHALL BE CONTAINED WITHIN THAT MARKING.

TYPICL CURB RAMP DETAILS

10/20/2021 1:33:49 PM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / G-006: ADA DETAILS

ASHLAND CITY C-STORE

DHAVAL PATEL
0 Old Hydes Ferry Pike, Ashland City, TN 37015

CLIENT CONTACT:
DHAVAL PATEL
(615)-598-5887 | dhavalom@gmail.com

MERIDIAN | ARCHITECTURE
nashville, tennessee
e: office@meridiantn.com
t: 615.390.2236
www.meridiantn.com

DAVID A. BROWN — REGISTERED ARCHITECT — STATE OF TENNESSEE
10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	TEAM

ADA DETAILS

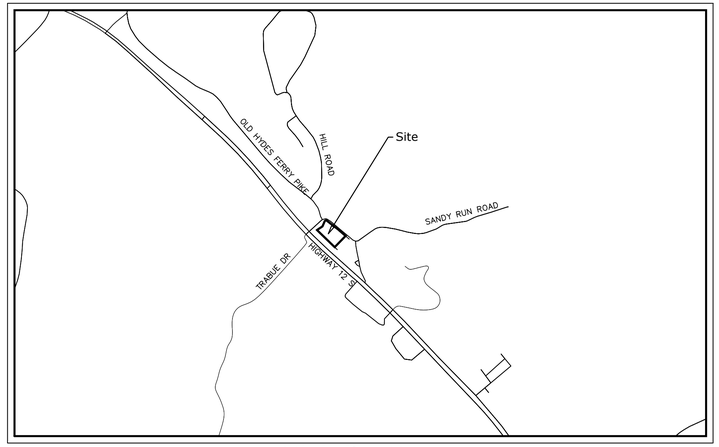
G-006

© 2021

Site Plan
for
Old Hydes Ferry Pike
Being a Portion of Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

General Notes:

1. BOUNDARY, EASEMENT AND TOPOGRAPHIC INFORMATION SHOWN IN BASED ON A ALTA/ACSM LAND TITLE SURVEY CONDUCTED BY SOUTHERN CONSULTING AND DATED DECEMBER 3, 2020.
2. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS. INFORM ENGINEER OF ANY CONFLICTS DETRIMENTAL TO THE DESIGN INTENT.
3. 72 HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: TENNESSEE 811 AND ALL OTHER AGENCIES THAT MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT AND ARE NON-MEMBERS OF TENNESSEE 811.
4. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
5. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
6. CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES AND PERFORM SAID ACTIVITIES IN ACCORDANCE WITH ALL LOCAL, STATE, FEDERAL & OSHA REGULATIONS.
7. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
8. ANY WORK PERFORMED IN THE LOCAL RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
9. THE PROPOSED SITE IMPROVEMENTS ARE NOT EXPECTED TO REQUIRE COVERAGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT ISSUED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC). THE TOTAL SITE DISTURBANCE WILL BE LESS THAN ONE ACRE.
10. CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL, PRACTICES REQUIRED BY METRO NASHVILLE AND TDEC.
11. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE PERMANENTLY STABILIZED AS SOON AS PRACTICAL IN ACCORDANCE WITH SPECIFICATIONS.
12. ALL WORK SHALL COMPLY WITH METRO NASHVILLE PUBLIC WORKS SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF METRO NASHVILLE.
13. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
14. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
15. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT THEY ARE NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
16. WHERE CURB IS PRESENT, DIMENSIONS ARE SHOWN TO THE FACE OF CURB, OTHERWISE DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT AND/OR EDGE OF BUILDING UNLESS OTHERWISE NOTED.
17. SITE SIGNAGE AND STRIPING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
18. CONSTRUCTION OF ALL ROADWAYS AND SIDEWALKS SHALL MEET THE REQUIREMENTS OF METRO NASHVILLE PUBLIC WORKS ROADWAY CONSTRUCTION CRITERIA AND STANDARD DETAILS.
19. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
20. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH ALL FEDERAL OSHA REGULATIONS. CONTRACTOR TO PAY PARTICULAR ATTENTION TO 29 CFR PART 1926, SUBPARTS M AND P.



Vicinity Map
NTS

Sheet Schedule

1	C0.0	Cover Sheet
2	C1.0	Layout & Utilities Plan
3	C2.0	Existing Conditions & Initial Erosion Control Plan
4	C3.0	Intermediate Erosion Control Plan
5	C4.0	Grading & Drainage Plan
6	C5.0	Details
7	C5.1	Details (Cont.)
8	L1.0	Landscape Compliance Plan

Project Summary

Site Data

Commissioner District - 4
Brian Abston

Property Location/Address:
0 Old Hydes Ferry Pike
Ashland City, TN 37015

Property Owner/Developer:
Ramdal Ashland City LLC
Address: 505 Whirlaway CT
Burns, TN 37029
Phone: (615) 598-5887

Engineer:
Dewey Engineering
Contact: Michael Dewey, PE
Address: 2925 Berry Hill Drive
Nashville, TN 37204
Phone: (615) 401-9956

Flood Note:
A Portion of this Property is Located Within a Flood Hazard Area as Indicated by Zone 'AE' on FEMA Map Number 47189C0142C.
Dated: Feb. 20, 2008.

Site Information

Parcel: Tax Map 62, Portion of Parcel 4.01

Current Zoning: C2

Total Site Area: 1.60 Acres (69,752 SF)

Current Use: Vacant
Proposed Use: Convenience Retail Sales and Services, Food & Beverage Service

Setbacks:
Street Yard: 40'
Side Yard: 10'

Max Building Height: 40'

ISR of Site: 62%

Building Coverage of Site: 9%
Building Square Footage (Gross)
4,002 SF Convenience Retail Sales and Services
2,520 SF Food & Beverage Service

Parking Required: 29 Stalls (Per Section 4.010.1.C)
Parking Provided: 50 Stalls

TENNESSEE ONE CALL SYSTEM, INC. 1-800-351-1111 STOP - CALL BEFORE YOU DIG!

MICHAEL RANDOLPH DEWEY REGISTERED LANDSCAPE ARCHITECT STATE OF TENNESSEE COMMISSIONED TO PRACTICE LANDSCAPE ARCHITECTURE

Revisions:

Drawing Notes:

Date: October 20, 2021

Old Hydes Ferry Pike
Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

DEWEY ENGINEERING

Cover Sheet

Job No. 20053
C0.0
1 of 8

TDOT NOTES:
1. THERE WILL BE NO INCREASE IN THE Q50 RUNOFF FROM THE DEVELOPMENT ONTO TDOT ROW.
2. ALL DRIVEWAYS MEET AASHTO INTERSECTION SIGHT DISTANCE.

E /One Grinder Pump. Detail This Sheet.

Tie into Forcemain at Existing Cleanout. Contractor Shall Coordinate Connection with Utility Provider.

1,000 Gallon Grease Interceptor See Detail This Sheet. Septic Tank. Size to Be Determined at Final Approval

Contractor to Coordinate Removal/Relocation of Existing Light Pole with Utility Provider.

Provide Signage Stating "Maximum Load = 20 Tons"

Owner/Contractor Shall Coordinate with Structural Engineer to Verify the Structural Integrity of the Existing Box Culvert is Adequate for Use per AASHTO Standards.

Install Tapping Sleeve & Valve. Tap Existing 6" Main with 2" Service.

Install Gate Valve
Install 1" Meter
Install 1" RPBP
Install 2" Meter
Install 2" RPBP
Install 1" Water Service
Install 2" Water Service

OLD HYDES FERRY PIKE (R.O.W. VARIES)

HARPER LANE (R.O.W. VARIES)

HIGHWAY 12 (R.O.W. VARIES)

20' PUBLIC UTILITY EASEMENT PLAT BOOK 13, PAGE 457, R.O.C.C., TENNESSEE

10' DRAINAGE EASEMENT PLAT BOOK 12, PAGE 537, R.O.C.C., TENNESSEE

10' PIEDMONT NATURAL GASLINE EASEMENT DEED BOOK 21, PAGE 457, R.O.C.C., TENNESSEE

10' PUBLIC UTILITY EASEMENT PLAT BOOK 13, PAGE 457, R.O.C.C., TENNESSEE

Area Reserved for Detention

Dumpsters

C.O.

6" SS

Unit 1
4,002 sf
Convenience
Retail Sales
Install Flush Curb Ramp. See Detail, Sheet C5.0.

Unit 2
2,520 sf
Food & Beverage
Service

50.6'
6' Curb Cut
1:12 Handicap Ramp with Handrail
84.4'
45.0'
50.0'
135.0'

Proposed Wall
40' Street Setback
Patio
Steps
6' Curb Cut
Proposed Wall
24' Drive
4 Stalls (9' x 18')
10 Stalls (9' x 18')
11 Stalls (9' x 18')
12 Stalls (9' x 18')
13 Stalls (9' x 18')
5' Turndown Sidewalk
Install 6" Turndown Sidewalk
Green
15' Side Setback
Proposed Wall

Install 6" Post Curb. See Detail, Sheet C5.0.

Install Heavy Duty Asphalt. See Detail, Sheet C5.0.

126'
Install Heavy Duty Concrete. See Detail, Sheet C5.0.
30' Drive
31' Island
41'
Concrete Islands Shall be Installed Per Architectural Plans.

40' Street Setback
40' Stream Buffer
100 Year Floodplain

28' Clearance
40' Drive

N45°58'27"W - 308.95'
S44°09'01"W - 218.42'
S52°15'34"E - 212.21'

Install Thermoplastic Double Yellow Centerline
Install Thermoplastic Stop Bar
Install MUTCD Stop Sign
Install Full Depth TDOT Pavement Section. See TDOT Detail, Sheet C5.1.

Approximate Location of Sign. Sign Shall Not Exceed 20' in Height or 40 SF of Display Area. Sign Shall not be Constructed Until Sign Permit is Issued.

GUARDRAIL

(4.00)
D&S HOSPITALITY ASHLAND CITY, G.P.
VOLUME 549, PAGE 2488,
PLAT BOOK 13, PAGE 537,
R.O.C.C., TENNESSEE

BENCHMARK
EXISTING FIRE HYDRANT
ELEV. = 410.30

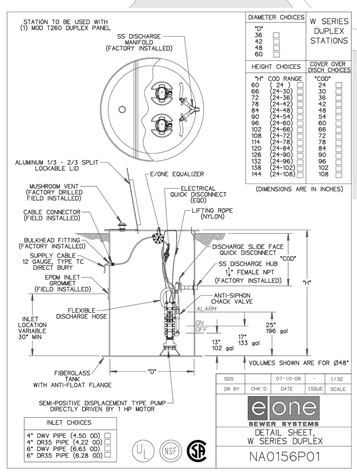
N E S W

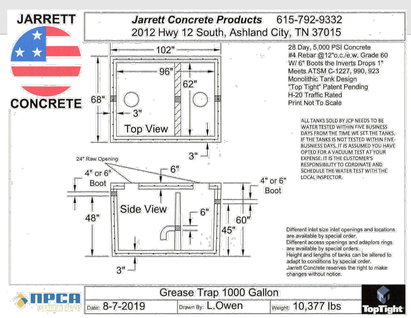
-20 0 20 40 60
Scale 1" = 20'

Property Owner/Developer:
Randal Ashland City LLC
Contact: Dhaval Patel
Address: 505 Whirlaway Ct
Burns, TN 37029
Phone: (615) 598-5887

Engineer:
Dewey Engineering
Contact: Michael Dewey, PE
Address: 2925 Berry Hill Drive
Nashville, TN 37204
Phone: (615) 401-9956

Flood Note:
A Portion of this Property is Located Within a Flood Hazard Area as Indicated by Zone 'AE' on FEMA Map Number 47189C0142C.
Dated: Feb. 20, 2008.





Revisions:

Drawing Notes:

Date: October 20, 2021

Old Hydes Ferry Pike

Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

DEWEY ENGINEERING

Layout & Utilities Plan

Job No. 20053

C1.0

2 of 8

TENNESSEE ONE CALL SYSTEM, INC. 1-800-351-1111 STOP-CALL BEFORE YOU DIG

MICHAEL RANDOLPH DEWEY REGISTERED ENGINEER AGRICULTURE COMMERCE CONSTRUCTION STATE OF TENNESSEE

OLD HYDES FERRY PIKE
(R.O.W. VARIES)

HARPER LANE
(R.O.W. VARIES)

HIGHWAY 12
(R.O.W. VARIES)

20' PUBLIC UTILITY EASEMENT
PLAT BOOK 13, PAGE 457, R.O.C.C., TENNESSEE

10' PUBLIC UTILITY EASEMENT
PLAT BOOK 13, PAGE 457, R.O.C.C., TENNESSEE

20' PUBLIC UTILITY EASEMENT

10' DRAINAGE EASEMENT
PLAT BOOK 12, PAGE 537, R.O.C.C., TENNESSEE

10' PIEDMONT NATURAL GASLINE EASEMENT
DEED BOOK 2, PAGE 457, R.O.C.C., TENNESSEE

100 Year Floodplain

S52°15'34"E 242.21'

N56°27'57"W 40.10'

N45°58'27"W – 308.95'

S44°09'01"W – 218.42'

Install Construction Entrance.
See Detail, Sheet C5.0.

90 S.F. of Buffer Encroachment.

132 S.F. of Additional Buffer for Averaging.

CUT OFF PP

Existing Pole to be Removed.

Existing Fence to be Removed.

Install Silt Fence.
See Detail, Sheet C5.0.

Contractor Shall not Place Fill within Floodplain or ~~Make any Modifications that~~ Affect Flood Elevations.

GUARDRAIL

BENCHMARK
EXISTING FIRE HYDRANT
ELEV. = 410.30

SSMH

1
(4.01)
69,752 Sq. Ft.
1.60 Acres

2
(4.00)
D&S HOSPITALITY ASHLAND CITY, G.P.
VOLUME 549, PAGE 2488,
PLAT BOOK 13, PAGE 537,
R.O.C.C., TENNESSEE

N E S W

-20 0 20 40 60

Scale 1" = 20'

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Dewey Engineering
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Phone: (615) 401-9956

Flood Note:
A Portion of this Property is Located Within a Flood Hazard Area as Indicated by Zone 'AE' on FEMA Map Number 47189C0142C.
Dated: Feb. 20, 2008.

Erosion Control & Grading Notes:

1. EXPOSE AS SMALL AN AREA OF SOIL AS POSSIBLE ON THE SITE FOR NO MORE THAN 15 DAYS. KEEP DUST WITHIN TOLERABLE LIMITS BY SPRINKLING OR OTHER ACCEPTABLE MEANS.
2. ALL CUT/FILL AREAS TO HAVE A MINIMUM OF 6" OF TOPSOIL COVER. AREAS DRESSED WITH TOPSOIL SHALL RECEIVE 12 POUNDS PER 1000 SQUARE FEET OF 6-12-12 FERTILIZER (UNLESS OTHERWISE SPECIFIED IN WRITTEN SPECIFICATIONS), 5 POUNDS OR MORE OF KENTUCKY 31 FESCUE SEED PER 1000 SQUARE FEET, AND A STRAW MULCH OF 70%-80% COVERAGE (APPROXIMATELY 125 POUNDS PER 1000 SQUARE FEET), UNLESS OTHERWISE NOTED.
3. EROSION CONTROL BARRIER IS CALLED OUT ON THE PLANS AND IS TO COMPLY WITH THE METROPOLITAN STORMWATER MANAGEMENT MANUAL VOLUME FOUR, SECTION TCP-14.
4. DISTURBED AREAS ARE TO BE GRADED TO DRAIN AS INDICATED IN THE PLAN TO SEDIMENT BARRIERS DURING AND UPON THE COMPLETION OF CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION AND THE LOCATION OF ANY EXISTING UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AVOID DAMAGE TO ALL EXISTING UTILITIES DURING CONSTRUCTION. IF DAMAGE DOES OCCUR TO ANY SUCH INSTALLATION, FULL REPAIR WILL BE ACCOMPLISHED AS PER THE CURRENT SPECIFICATION GOVERNING SUCH WORK.
6. ANY ACCESS ROUTES TO THE SITE SHALL BE BASED WITH CRUSHED STONE, ASTM #1 STONE, 100 FEET LONG AND AT LEAST 8" THICK.
7. THE PLACING AND SPREADING OF ANY FILL MATERIAL IS TO BE STARTED AT THE LOWEST POINT AND BROUGHT UP IN HORIZONTAL LAYERS OF 8" THICKNESS (OR AS DIRECTED BY THE SOILS INVESTIGATIVE REPORT). SAID FILL MATERIAL IS TO BE FREE OF SOD, ROOTS, FROZEN SOILS, OR ANY OTHER DECOMPOSABLE MATERIAL. SAID FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR, OR AS OTHERWISE SPECIFIED BY THE SOILS REPORT OR WRITTEN SPECIFICATIONS.
8. THE CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE METRO WATER SERVICES NPDES DEPARTMENT (880-2420) PRIOR TO COMMENCING WORK.
9. THE CONTRACTOR SHALL LOCATE AND STAKE THE LAYOUT OF THE SITE IN THE FIELD FOR INSPECTION BY THE ENGINEER. THE CONTRACTOR SHALL CHECK THE GRADES AND FINAL DIMENSIONS ON THE GROUND, AND REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY FOR A DECISION.
10. SURPLUS EXCAVATION OF TOPSOIL SHALL BE PLACED ON THE SITE AS APPROVED BY THE OWNER FOR THE PURPOSE OF FUTURE LANDSCAPE USE.
11. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY TEMPORARY WORKS FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES, INCLUDING WARNING SIGNS AND LIGHTS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION CAUSED BY HIMSELF, HIS SUB-CONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
13. ALL WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SHALL BE IN COMPLIANCE WITH THE RULES AND REGULATIONS SET FORTH IN THE METRO WATER SERVICES STORM WATER MANAGEMENT MANUAL. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICE, OBTAIN ALL PERMITS, AND PAY FEES REQUIRED FOR THE COMPLETION FOR HIS PORTION OF THE WORK. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY, AND STATE LAWS AND ORDINANCES OR REGULATIONS RELATING TO PORTIONS OF WORK WHICH HE IS TO PERFORM.
14. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL SITE IS STABILIZED AND CONSTRUCTION IS COMPLETE.
15. CONTRACTOR SHALL PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH METRO CP-10 & CP-13. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE. LOCATIONS OF AND/OR NOTES REFERRING TO THESE BMP'S SHALL BE SHOWN ON THE EPSC PLAN.
16. IT IS RECOMMENDED THAT THE CONTRACTOR OBTAIN THE SERVICES OF A LICENSED GEOTECHNICAL ENGINEER PRIOR TO COMMENCING WITH CONSTRUCTION TO DETERMINE THE POTENTIAL OF THE EXISTENCE OF UNSUITABLE SOIL MATERIAL ONSITE. IF IT IS DETERMINED THAT THE SUBSURFACE IS NOT SUITABLE FOR CONSTRUCTION AND UNDERCUTTING IS REQUIRED, THE CONTRACTOR SHALL CONTACT THE OWNER AND THE ENGINEER IMMEDIATELY.
17. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE COMMENCING OF ANY CONSTRUCTION ACTIVITIES LOCATED WITHIN PUBLIC RIGHT OF WAY.
18. STEEP SLOPES TO BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.
19. VEHICULAR TRAFFIC SHALL BE PROHIBITED ON THE PERVIOUS PAVEMENT UNTIL THE SITE IS STABLE TO PREVENT MUD FROM BEING DEPOSITED BY VEHICLES.
20. CONTRACTOR, ENGINEER, OR OWNERS REPRESENTATIVE SHALL NOTIFY MWS DEVELOPMENT REVIEW AT LEAST 24 HOURS PRIOR THE INSTALLATION OF THE PERVIOUS LAYER TO OBSERVE THE SUB-BASE MATERIAL.
21. ALL PERIMETER AND TEMPORARY EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING GRADING.
22. SEDIMENT BASIN NOTES: THE SEDIMENT BASIN SHALL BE CONVERTED TO A BIORETENTION AREA. THE FOLLOWING ITEMS SHALL BE PERFORMED DURING CONSTRUCTION TO ENSURE THE BIORETENTION AREA FUNCTIONS PROPERLY:
    A. THE MAXIMUM EXCAVATION DEPTH OF THE SEDIMENT BASIN SHALL BE AT LEAST 1 FOOT ABOVE THE INVERT OF THE BIORETENTION AREA.
    B. BEFORE CONSTRUCTION OF THE BIORETENTION AREA BEGINS, THE SEDIMENT BASIN SHALL BE DEWATERED, ACCUMULATED SEDIMENT SHALL BE REMOVED, AND THE SITE DRAINING TO THE SEDIMENT BASIN SHALL BE STABILIZED.

Revisions:

Drawing Notes:

Date: October 20, 2021

Old Hydes Ferry Pike

Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

DEWEY ENGINEERING

Existing Conditions & Initial Erosion Control Plan

Job No. 20053

C2.0

3 of 8

TENNESSEE ONE CALL SYSTEM, INC.
1-800-351-1111
STOP - CALL BEFORE YOU DIG!

MICHAEL RANDOLPH DEWEY
REGISTERED ENGINEER
AGRICULTURE
COMMERCE
NOV 00113
STATE OF TENNESSEE

Site Outfall 1
1.1 Acres
36.252124,-87.033892

OLD HYDES FERRY PIKE
(R.O.W. VARIES)

HARPER LANE
(R.O.W. VARIES)

HIGHWAY 12
(R.O.W. VARIES)

GUARDRAIL

100 Year Floodplain

Maintain Silt Fence (Typ.).
See Detail, Sheet C5.0.

Install Rock Check Dams.
See Detail, Sheet C5.0.

Install Outlet Protection.
See Detail, Sheet C2.0.
Apron Shall be 16' Long of 6"
Minimum D50 Diameter Rip Rap.

Install Headwall Inlet Protection.
See Detail, Sheet C5.0.

BENCHMARK
EXISTING FIRE HYDRANT
ELEV. = 410.30

2
(4.00)
D&S HOSPITALITY ASHLAND CITY, G.P.
VOLUME 549, PAGE 2488,
PLAT BOOK 13, PAGE 537,
R.O.C.C., TENNESSEE

S44°09'01"W – 218.42

N45°58'27"W – 308.95'

S52°15'11"E – 212.21'

SW 8°52'29" E 6" 135.71'

-20 0 20 40 60

Scale 1" = 20'

Property Owner/Developer:
Randal Ashland City LLC
Contact: Dhaval Patel
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Burns, TN 37029
Phone: (615) 598-5887

Engineer:
Dewey Engineering
Contact: Michael Dewey, PE
Address: 2925 Berry Hill Drive
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Phone: (615) 401-9956

Flood Note:
A Portion of this Property is Located Within a Flood Hazard Area as Indicated by Zone 'AE' on FEMA Map Number 47189C0142C.
Dated: Feb. 20, 2008.

Revisions:

Drawing Notes:

Date: October 20, 2021

Old Hydes Ferry Pike

Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

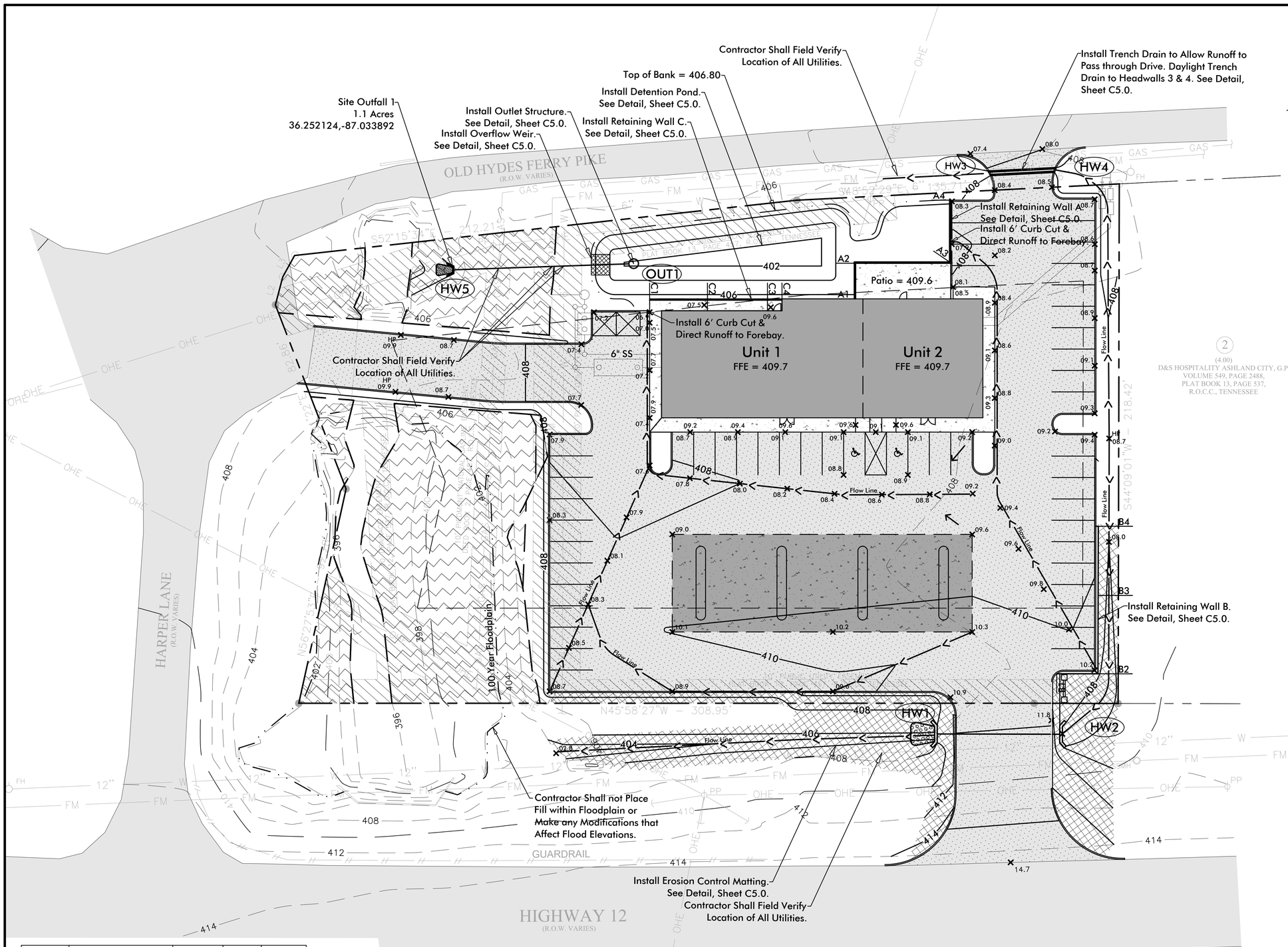
DEWEY ENGINEERING

Intermediate Erosion Control Plan

Job No. 20053

C3.0

4 of 8



STRUCTURE LABEL	STRUCTURE TYPE	T.C. ELEV.1	INVERT IN	INVERT OUT
HW01	TDOT HEADWALL	409.80		405.80
HW02	TDOT HEADWALL	410.50		406.00
HW03	TRENCH DRAIN/HEADWALL	408.00		406.70
HW04	TRENCH DRAIN/HEADWALL	408.30		407.00
HW05	HEADWALL	403.00		401.00
OUT1	OUTLET STRUCTURE	405.30		401.40

DOWNSTREAM STRUCTURE	INVERT	UPSTREAM STRUCTURE	INVERT	PIPE SIZE	LENGTH (LF)	Slope (%)
HW01	405.70	HW02	406.00	30" RCP	52	0.53
HW03	406.70	HW04	407.00	TRENCH DRAIN	28	1.07
HW05	401.12	OUT1	401.50	12" RCP	75	0.50

Wall 'A' Table			
Label	TOW	BOW	Height (ft)
A1	409.6	404.8	4.8
A2	409.6	404.8	4.8
A3*	408.4	406.8	1.6
A4*	408.8	405.8	2.0

*Note: TOW Includes 6" Curb.

Wall 'B' Table			
Label	TOW	BOW	Height (ft)
B1*	411.0	410.5	0.5
B2*	410.7	408.2	2.5
B3*	410.6	408.8	1.8
B4*	410.2	409.8	0.4

*Note: TOW Includes 6" Curb.

Wall 'C' Table			
Label	TOW	BOW	Height (ft)
C1	407.5	406.6	0.9
C2	407.5	406.6	0.9
C3	409.6	406.6	3.0
C4	409.6	406.6	3.0

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Dated: Feb. 20, 2008.

I, Michael Dewey, AS THE "CERTIFIED" EROSION CONTROL SPECIALIST FOR THIS SITE, HAVE REVIEWED AND APPROVED THE EROSION PREVENTION AND SEDIMENT CONTROL BMP's OF THIS PLAN ON 10/20/21 DATE

THE PROJECT ASSOCIATED WITH THESE SUBMITTED PLANS IS COVERED UNDER TENNESSEE CONSTRUCTION GENERAL PERMIT TNR000000.
THE TOTAL DISTURBED AREA IS: 1.57 ACRES.
THE RECEIVING WATERS ARE: MARROWBONE CREEK.

CHECK ALL THAT APPLY: THIS SITE DISCHARGES INTO WATERS IDENTIFIED BY TDEC AS:
☐IMPAIRED FOR SILTATION
☐IMPAIRED FOR HABITAT ALTERATION
☒EXCEPTIONAL

Michael Dewey 10/20/21
SIGNATURE DATE

TENNESSEE ONE CALL SYSTEM, INC. 1-800-351-1111 STOP-CALL BEFORE YOU DIG!

MICHAEL RANDOLPH DEWEY REGISTERED ENGINEER 120351 AGRICULTURE COMMERCE & INSURANCE STATE OF TENNESSEE

Revisions:

Drawing Notes:

Date: October 20, 2021

Old Hydes Ferry Pike

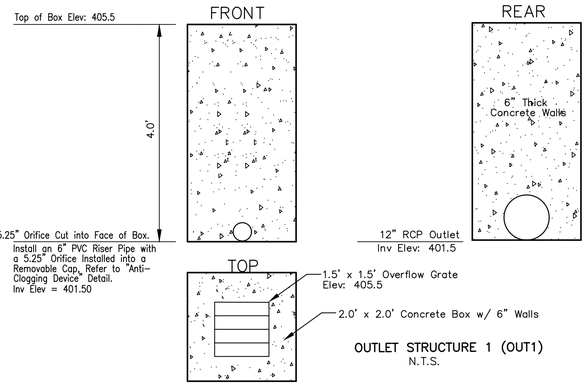
Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

DEWEY ENGINEERING

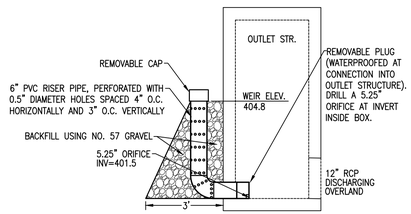
Grading & Drainage Plan

Job No. 20053

C4.0

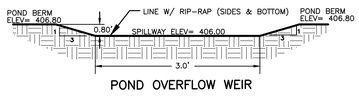


OUTLET STRUCTURE 1 (OUT1)
N.T.S.

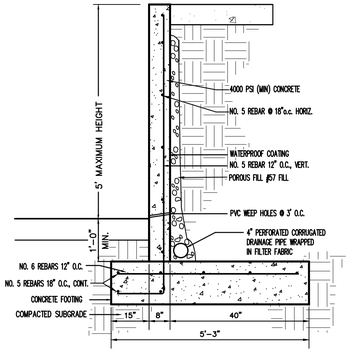


1. INSPECT TWICE WEEKLY DURING CONSTRUCTION.
2. REPAIR WHEREVER GRAVEL IS DAMAGED.
3. REMOVE SEDIMENT WHEN IT REACHES 1/2 THE HEIGHT OF THE GRAVEL BACKFILL AND REPLACE GRAVEL & FABRIC
4. GRAVEL & FILTER FABRIC TO REMAIN IN PLACE & REPAIRED AS NEEDED THROUGHOUT THE CONSTRUCTION PROCESS.
5. FILTER FABRIC AND STONE SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED.

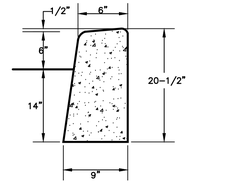
ANTI-CLOGGING DEVICE
FOR OUTLET STRUCTURE



POND OVERFLOW WEIR



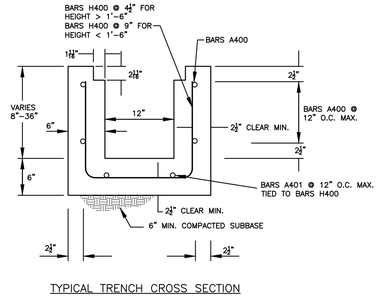
SECTION: CONCRETE RETAINING WALL



GENERAL NOTES

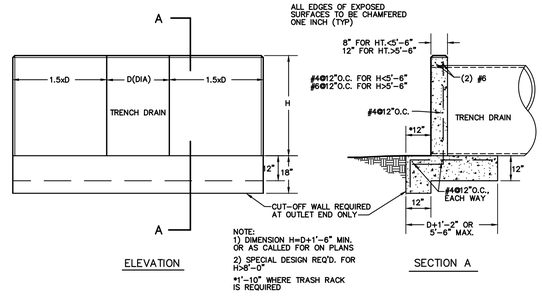
1. EXPANSION JOINTS TO BE SPACED A MAXIMUM OF 100 FEET APART OR AS DIRECTED BY THE ENGINEER.
2. EXPANSION JOINTS WILL ALSO BE REQUIRED AT TANGENT POINTS, RAMPS, AND INLETS.
3. CONTRACTION JOINTS ARE TO BE CUT INTO CURB AND GUTTER EVERY 10 FEET TO A DEPTH OF D/4, WHERE D EQUALS THE THICKNESS OF THE SECTION. THE SPACING OF 10 FEET MAY BE REDUCED AT CLOSURES BUT NO SECTION OF CURB SHALL BE LESS THAN 10 FEET.
4. COST OF JOINS TO BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE CURB.

STANDARD POST CURB
N.T.S.



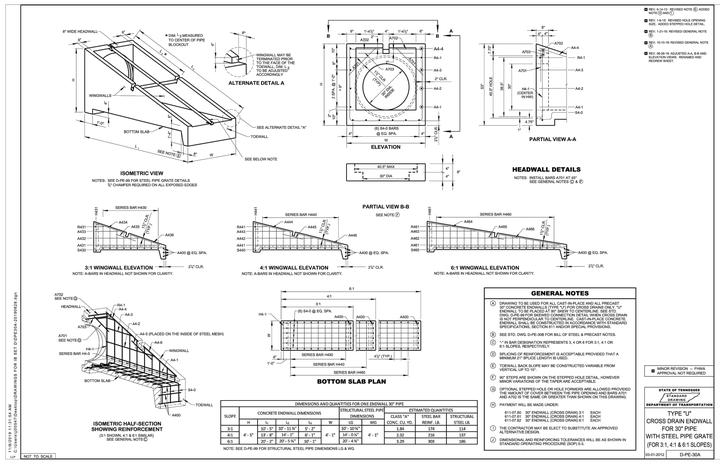
TYPICAL TRENCH CROSS SECTION

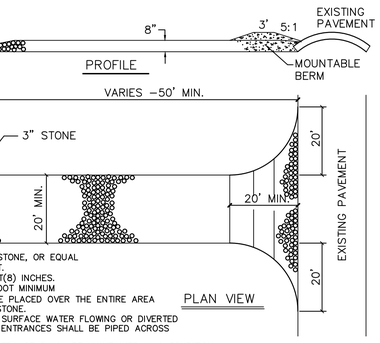
TRENCH DRAIN DETAIL
NOT TO SCALE



NOTE:
1) DIMENSION H=D+1'-6" MIN. OR AS CALLED FOR ON PLANS
2) SPECIAL DESIGN REQ'D. FOR H>8'-0"
*1'-10" WHERE TRASH RACK IS REQUIRED

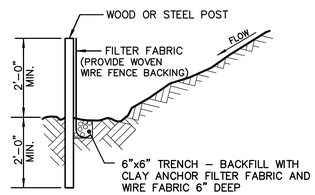
TRENCH DRAIN HEADWALL





1. STONE SIZE – USE 3" STONE, OR EQUAL
2. MIN. LENGTH – 50 FEET.
3. MIN. THICKNESS – EIGHT(8) INCHES.
4. WIDTH – TWENTY(20) FOOT MINIMUM
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

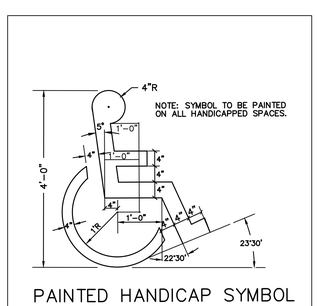
TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE



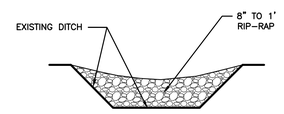
NOTES:
1. FILTER FABRIC FENCE TO BE PLACED PRIOR TO START OF ROUGH GRADING.
2. STEEL POSTS SHALL BE APPROVED BY OWNER PRIOR TO USE.
3. WOOD POSTS SHALL BE 2"x 2" MIN., OAK OR SIMILAR HARDWOOD.
4. POSTS SHALL BE SPACED AT 6' INTERVALS.
5. FILTER FABRIC SHALL BE SECURELY BOUND TO POSTS WITH EITHER STAPLES OR WIRE TIES.
6. FILTER FABRIC SHALL BE POLYPROPYLENE FABRIC BY CORPS OF ENGINEERS GUIDE SPEC. CW 02215. WITH EQUIVALENT OPENING SIZE (EOS) OF NO.100 SIEVE MIN., NO. 40 SIEVE MAX., AS DETERMINED

MAINTENANCE NOTES:
1. INSPECT TWICE WEEKLY, 72 HOURS APART AND AFTER EACH RAINFALL
2. REPAIR WHEREVER FENCE IS DAMAGED.
3. REMOVE SEDIMENT WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE
4. REMOVE SILT FENCE WHEN NO LONGER NEEDED. FILL AND COMPACT PAST HOLES AND ANCHOR TRENCH REMOVE SEDIMENT ACCUMULATION, AND GRADE

SILT FENCE DETAIL
NOT TO SCALE

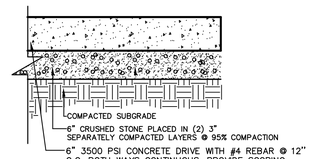


PAINTED HANDICAP SYMBOL

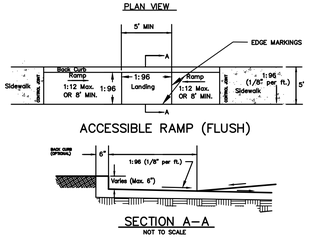


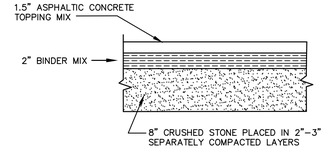
MAINTENANCE NOTES:
1. INSPECT SEDIMENT BUILDUP BEHIND CHECK DAM AND SIGNS OF EROSION AROUND THE CHECK DAM AFTER EACH RAIN.
2. REMOVE ACCUMULATED SEDIMENT WHEN REACHES 1/2 THE SUMP DEPTH BY LIFTING THE FILTER FABRIC AND HAND SHOVELING OR BACK HOEING THE SILT.

ROCK CHECK DAM

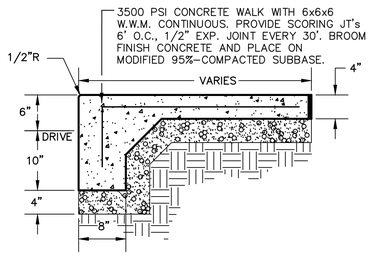


HEAVY DUTY
CONCRETE DETAIL





HEAVY-DUTY
PAVEMENT DETAIL



SIDEWALK DETAIL

Revisions:

Drawing Notes:

Date: October 20, 2021

Old Hydes Ferry Pike

Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

DEWEY ENGINEERING

Details

Job No. 20053

C5.0

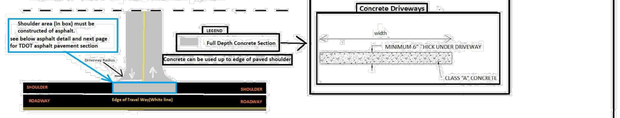
6 of 8

TO ENGINEERS DESIGNING PLANS: PLEASE SHADE AREA ON PLANS WHERE THE FULL DEPTH PAVEMENT SECTION IS LOCATED. PLEASE INCUDE APPROPRIATE TDOT PAVEMENT DETAIL ON ALL DRIVEWAY PLANS (SEE BELOW)

PLEASE NOTE ON CURB AND GUTTER SECTIONS, THE SHOULDER OF THE ROADWAY IS TYPICALLY FULL DEPTH PAVEMENT, SO REINFORCEMENT OF THE SHOULDER IS NOT NECESSARY. PLEASE USE TDOT STANDARD DRAWING RP-D-15 or RP-D-16 WHEN CONSTRUCTING DRIVEWAYS IN CURB AND GUTTER SECTIONS. A FULL DEPTH TDOT PAVEMENT SECTION MUST BE USED FROM THE CURB TO EITHER THE BACK OF THE DITCH LINE, THE RIGHT-OF-WAY LINE, OR TEN FEET (10') FROM THE OUTER EDGE OF THE SHOULDER OR CURB LINE, WHICHEVER IS THE GREATEST.

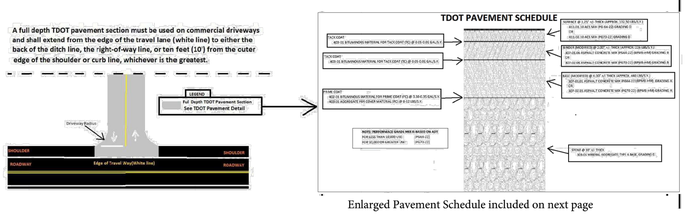
CONCRETE DRIVEWAY IN SHOULDER SECTION

A full depth TDOT pavement section must be used on commercial driveways and shall extend from the edge of the travel lane (white line) to either the back of the ditch line, the right-of-way line, or ten feet (10') from the outer edge of the shoulder or curb line, whichever is the greatest.



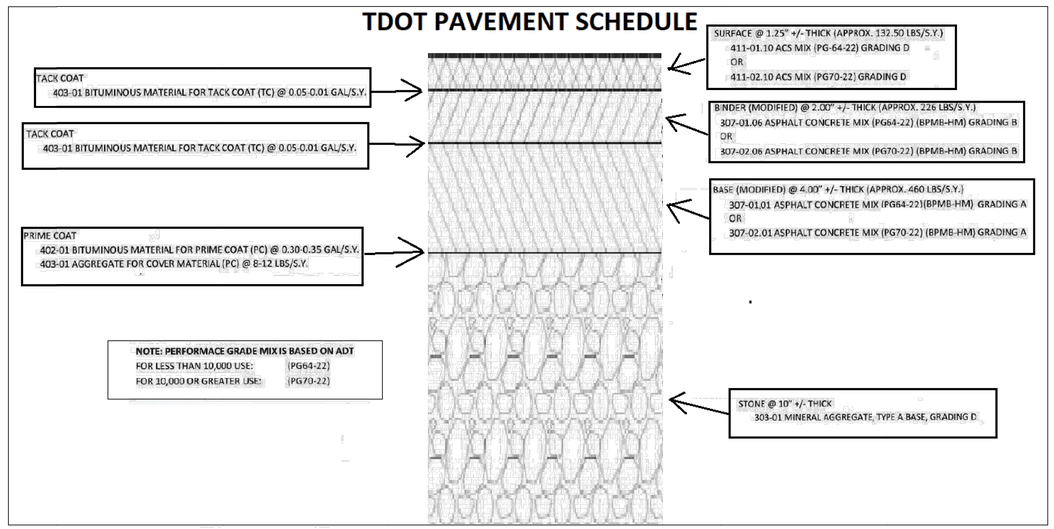
ASPHALT DRIVEWAY IN SHOULDER SECTION

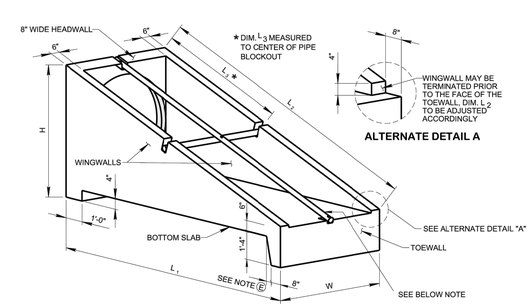
A full depth TDOT pavement section must be used on commercial driveways and shall extend from the edge of the travel lane (white line) to either the back of the ditch line, the right-of-way line, or ten feet (10') from the outer edge of the shoulder or curb line, whichever is the greatest.



Enlarged Pavement Schedule included on next page

TDOT PAVEMENT SCHEDULE

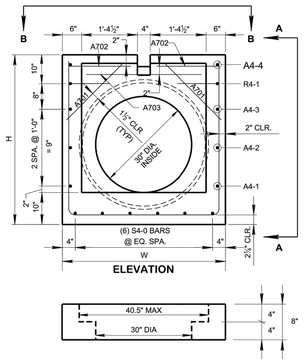




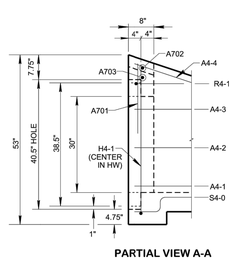
ISOMETRIC VIEW

NOTES: SEE D-PE-99 FOR STEEL PIPE GRATE DETAILS
¾" CHAMFER REQUIRED ON ALL EXPOSED EDGES

ALTERNATE DETAIL A



ELEVATION



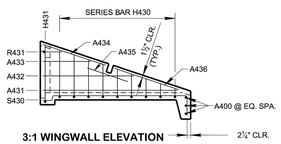
PARTIAL VIEW A-A

HEADWALL DETAILS

NOTES: INSTALL BARS A701 AT 45°
SEE GENERAL NOTES Ⓒ & Ⓕ

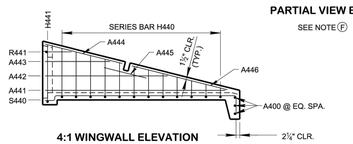
PARTIAL VIEW B-B

SEE NOTE Ⓕ



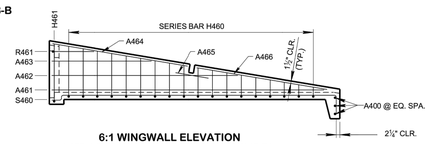
3:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



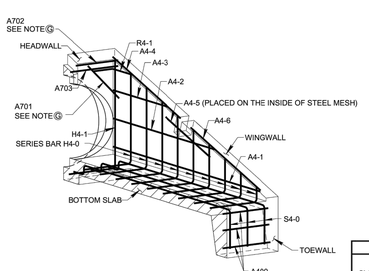
4:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



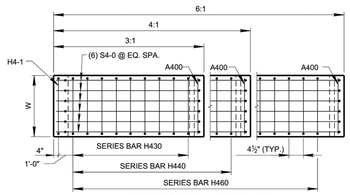
6:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



ISOMETRIC HALF-SECTION SHOWING REINFORCEMENT

(3:1 SHOWN, 4:1 & 6:1 SIMILAR)
SEE GENERAL NOTE Ⓒ



BOTTOM SLAB PLAN

DIMENSIONS AND QUANTITIES FOR ONE ENDWALL 30" PIPE											
SLOPE	CONCRETE ENDWALL DIMENSIONS						STRUCTURAL STEEL PIPE DIMENSIONS		ESTIMATED QUANTITIES		
	H	L_1	L_2	L_3	W		LG	WG	CLASS "A" CONC. CU. YD.	STEEL BAR REINF. LB.	STRUCTURAL STEEL LB.
3:1	4' - 5"	10' - 5"	10' - 11 ⅜"	5' - 2"	4' - 1"		10' - 10 ⅜"	4' - 1"	1.84	174	114
4:1		13' - 8"	14' - 1"	6' - 1"			14' - 0 ⅜"		2.32	216	137
6:1		20' - 2"	20' - 5 ⅜"	10' - 1"			20' - 4 ⅜"		3.29	303	186

NOTE: SEE D-PE-99 FOR STRUCTURAL STEEL PIPE DIMENSIONS LG & WG.

GENERAL NOTES

Ⓐ DRAWING TO BE USED FOR ALL CAST-IN-PLACE AND ALL PRECAST 30" CONCRETE ENDWALLS (TYPE "U") FOR CROSS DRAINS ONLY. "U" ENDWALL TO BE PLACED AT 90° SKEW TO CENTERLINE. SEE STD. DWG. D-PE-99 FOR SKEWED CONNECTION DETAIL WHEN CROSS DRAIN IS NOT PERPENDICULAR TO CENTERLINE. CAST-IN-PLACE CONCRETE ENDWALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.

Ⓑ SEE STD. DWG. D-PE-30B FOR BILL OF STEEL & PRECAST NOTES.

Ⓒ "-" IN BAR DESIGNATION REPRESENTS 3, 4 OR 6 FOR 3:1, 4:1 OR 6:1 SLOPES, RESPECTIVELY.

Ⓓ SPLICING OF REINFORCEMENT IS ACCEPTABLE PROVIDED THAT A MINIMUM 21" SPLICE LENGTH IS USED.

Ⓔ TOEWALL BACK SLOPE MAY BE CONSTRUCTED VARIABLE FROM VERTICAL UP TO 15°.

Ⓕ 90° STEPS ARE SHOWN ON THE STEPPED HOLE DETAIL, HOWEVER MINOR VARIATIONS OF THE TAPER ARE ACCEPTABLE.

Ⓖ OPTIONAL STEPPED HOLE OR HOLE FORMERS ARE ALLOWED PROVIDED THE AMOUNT OF COVER BETWEEN THE PIPE OPENING AND BARS A701 AND A702 IS THE SAME OR GREATER THAN SHOWN ON THIS DRAWING.

Ⓗ PAYMENT WILL BE MADE UNDER:

611-07.60	30" ENDWALL (CROSS DRAIN) 3:1	EACH
611-07.61	30" ENDWALL (CROSS DRAIN) 4:1	EACH
611-07.62	30" ENDWALL (CROSS DRAIN) 6:1	EACH

Ⓘ THE CONTRACTOR MAY BE ELECT TO SUBSTITUTE AN APPROVED ALTERNATIVE DESIGN.

Ⓙ DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE (SOP) 5-3.

- REV. 6-14-13: REVISED NOTE Ⓔ. ADDED NOTE Ⓗ AND Ⓘ.
- REV. 1-6-15: REVISED HOLE OPENING SIZE. ADDED STEPPED HOLE DETAIL.
- REV. 1-21-16: REVISED GENERAL NOTE Ⓑ.
- REV. 10-10-16: REVISED GENERAL NOTE Ⓐ.
- REV. 06-28-19: ADJUSTED A-A, B-B AND ELEVATION VIEWS. RENAMED AND REDREW SHEET.

▫ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

TYPE "U"
CROSS DRAIN ENDWALL
FOR 30" PIPE
WITH STEEL PIPE GRATE
(FOR 3:1, 4:1 & 6:1 SLOPES)

03-01-2012 | D-PE-30A

NOT TO SCALE

11/8/2019 11:31:54 AM
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LLP

Revisions:

Drawing Notes:

Date: October 20, 2021

Old Hydes Ferry Pike

Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

DEWEY ENGINEERING

Details (Cont.)

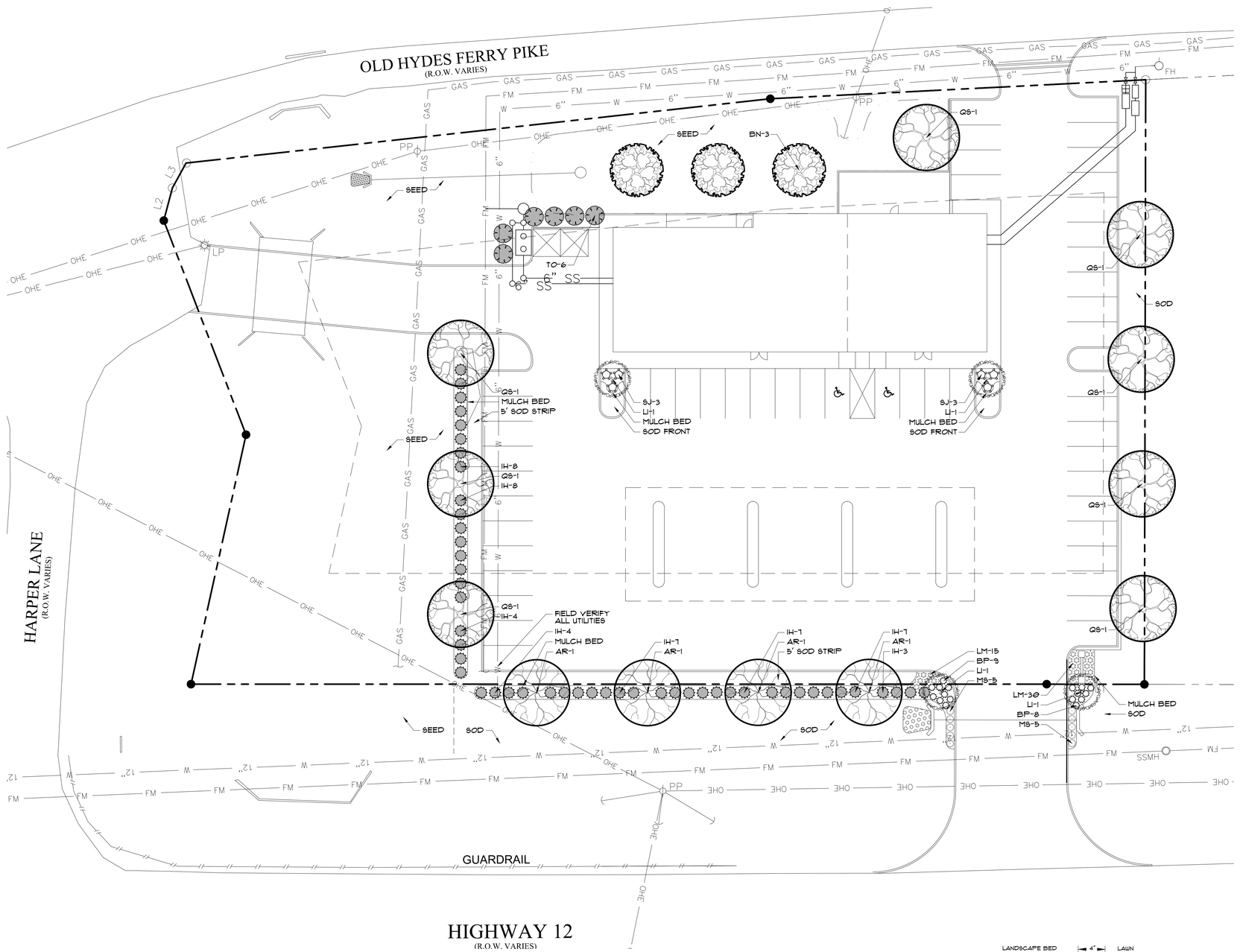
Job No. 20053

C5.1

811 CALL BEFORE YOU DIG

20 10 5 0 20 40

Scale: 1" = 20'-0"



NOTES

THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

THE LANDSCAPE CONTRACTOR SHALL FINE GRADE ALL PLANTING AREAS.

ALL PLANTING AREAS SHALL BE FERTILIZED WITH 12#/1000 S.F. OF 10-10-10 FERTILIZER.

ALL PLANTING BEDS SHALL HAVE A MINIMUM OF 3" DEPTH OF SHREDDED BARK MULCH. FINELY GROUND, NO NUGGETS, 1/2" DIAMETER MAX. PIECES. REFUSE & STONE FREE.

THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL MATERIAL QUANTITIES.

THE LANDSCAPE CONTRACTOR NOTIFY THE LANDSCAPE ARCHITECT OF ANY ARCHITECTURAL FEATURES SUCH AS WALKWAYS, WINDOWS, OR BUILT ELEMENTS WHICH CONFLICT WITH THE APPROVED PLANTING PLAN.

DISTURBED AREAS SHALL BE PLANTED WITH TURF AS INDICATED ON THE MATERIALS SCHEDULE.

NO PLANT MATERIALS SHOULD BE SUBSTITUTED WITHOUT AUTHORIZATION.

PLANT SIZES SHOWN ARE MINIMUMS REQUIRED BY THE LOCAL MUNICIPALITY AND MATERIALS SHOWN HAVE BEEN SELECTED SPECIFICALLY FOR THIS PROJECT.

ALL WIRE BASKETS SHALL BE COMPLETELY REMOVED AND DISPOSED OF, BURLAP SHOULD BE REMOVED OR PUNCTURED IN AT LEAST 5 PLACES. REMOVE ALL TWINE FROM BURLAP MATERIALS.

STAKE TREES IN PLACE PER DETAIL – WIRE OR ROPE GUYING IS NOT ALLOWED.

NO CANOPY TREE LOCATED WITHIN 15' OF AN OVERHEAD UTILITY, POWER LINE, OR LIGHT POLE.

NO CANOPY TREE SHALL BE LOCATED WITHIN A GAS, WATER, SEWER, UNDERGROUND ELECTRIC, CABLE, FIBER, OR PUBLIC UTILITY EASEMENT WITHOUT SIGNING OF A RELEASE WAIVER AND APPROVAL BY THE EASEMENT HOLDER.

MATERIALS SCHEDULE

KEY	AMOUNT	SCIENTIFIC NAME/ COMMON NAME	HEIGHT	SPREAD	TRUNK	NOTES
		TREES				
AR	4	Acer rubrum 'Armstrong'/ Armstrong Red Maple	14'–16'	4'–5'	3 1/2"	Matched 5' Clear
BN	3	Betula nigra/ River Birch	7'–9'	4'–5'	3 Cane,	1.5" Each
LI	4	Lagerstroemia indica/ Crapemyrtle	6' Min.	2'–3'	3 Cane,	1" Each
QS	8	Quercus acutissima/ Sawtooth Oak	14'–16'	6'–7'	2 1/2"	Matched 5' Clear
		SHRUBS				
BP	17	Berberis thunbergii 'Goruzam'/ Golden Ruby Barberry	12" Min.	15"–18"	F.T.B.	Or Equal
IH	49	Ilex crenata 'Helleri'/ Heller's Japanese Holly	24" Min.	18"–24"	F.T.B.	Or Equal
SJ	6	Spiraea x 'Zelda'/ Solar Flair Spirea	18" Min.	15"–18"	F.T.B.	Or Equal
TO	6	Thuja occidentalis 'Smaragd'/ Emerald Green Arborvitae	60" Min.	15"–18"	F.T.B.	
		ORNAMENTAL GRASS				
MS	10	Pennisetum alopecuroides 'Moudry'/ Black Fountain Grass			1 Gallon Containers	
		GOUNDCOVER / TURF				
LM	45	Liriope muscarii/ Monkeygrass			1 Gallon, divide bibs, install plugs at 18" 18" O.C. in triangular pattern.	
SOD		Rebel II Fine Bladed Sod			Install where shown.	
SEED		Rebel II Fine Bladed Fescue			Seed at 5 lbs per 1,000 sf Install w/ weed free Straw	
		MISCELLANEOUS			REMARKS	
Mulch Bed		Hardwood Bark Mulch			Minimum 3" depth throughout.	

NOTES

FTB = Full To Bottom

THE LANDSCAPE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS

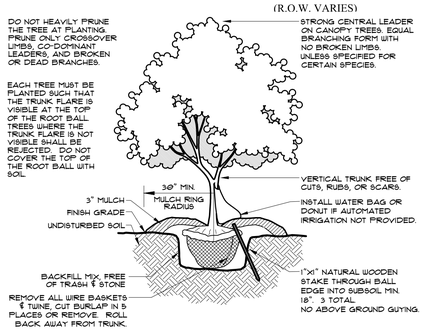
REQUIREMENTS

VEHICLE USE AREA:	35,500 SF
LANDSCAPE AREA (10%):	3,550 SF

	REQUIRED	PROVIDED
1 TREE PER 250 SF: (3,550 / 250)	15	15
HIGHWAY 12 STREET TREES: (200 / 40LF)	5	5
STREET SHRUB SCREENING: (200 / 5LF)	40	47
HARPER LANE STREET TREES: (125 / 40LF)	4	4
STREET SHRUB SCREENING: (125 / 5LF)	25	26

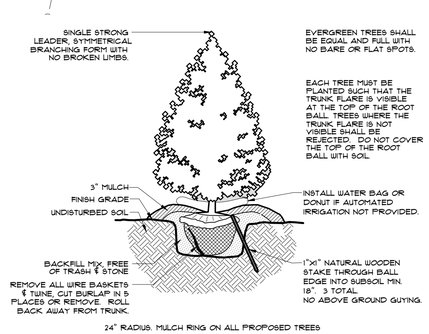
NO EXISTING TREES TO REMOVE OR TO BE PRESERVED

BUFFERYARDS NOT PROPOSED AT UNDEVELOPED PARCEL



PLANT MATERIAL TO MEET ANSI (Z60.1) AMERICAN STANDARD FOR NURSERY STOCK.
DETAIL BY CUMBERLAND LANDESIGN INC. 615-333-4636 NOT TO SCALE

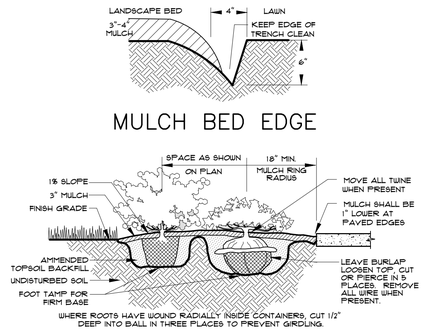
DECIDUOUS TREE PLANTING DETAIL



24" RADIUS MULCH RING ON ALL PROPOSED TREES

PLANT MATERIAL TO MEET ANSI (Z60.1) AMERICAN STANDARD FOR NURSERY STOCK.
DETAIL BY CUMBERLAND LANDESIGN INC. 615-333-4636 NOT TO SCALE

EVERGREEN TREE PLANTING DETAIL



WHERE ROOTS HAVE WOUND RADIALLY INSIDE CONTAINERS, CUT 1/2" DEEP INTO BALL IN THREE PLACES TO PREVENT GIRDLING.
PLANT MATERIAL TO MEET ANSI (Z60.1) AMERICAN STANDARD FOR NURSERY STOCK.
DETAIL BY CUMBERLAND LANDESIGN INC. 615-333-4636 NOT TO SCALE

SHRUB PLANTING DETAIL

landscapearchitect-tn.com
cumberlandesign@bellsouth.net
© 2021 - Cumberland Landesign Inc.
615-333-4636
615-512-3018
Nashville, TN

SOLAR POWERED PLANS

N

Date: 01-15-2021

Revisions:
02-15-2021
09-23-2021

Landscape Compliance Plan

Old Hydes Ferry Pike

Being Parcel 4.01 on Tax Map 62
Ashland City, Cheatham County, Tennessee

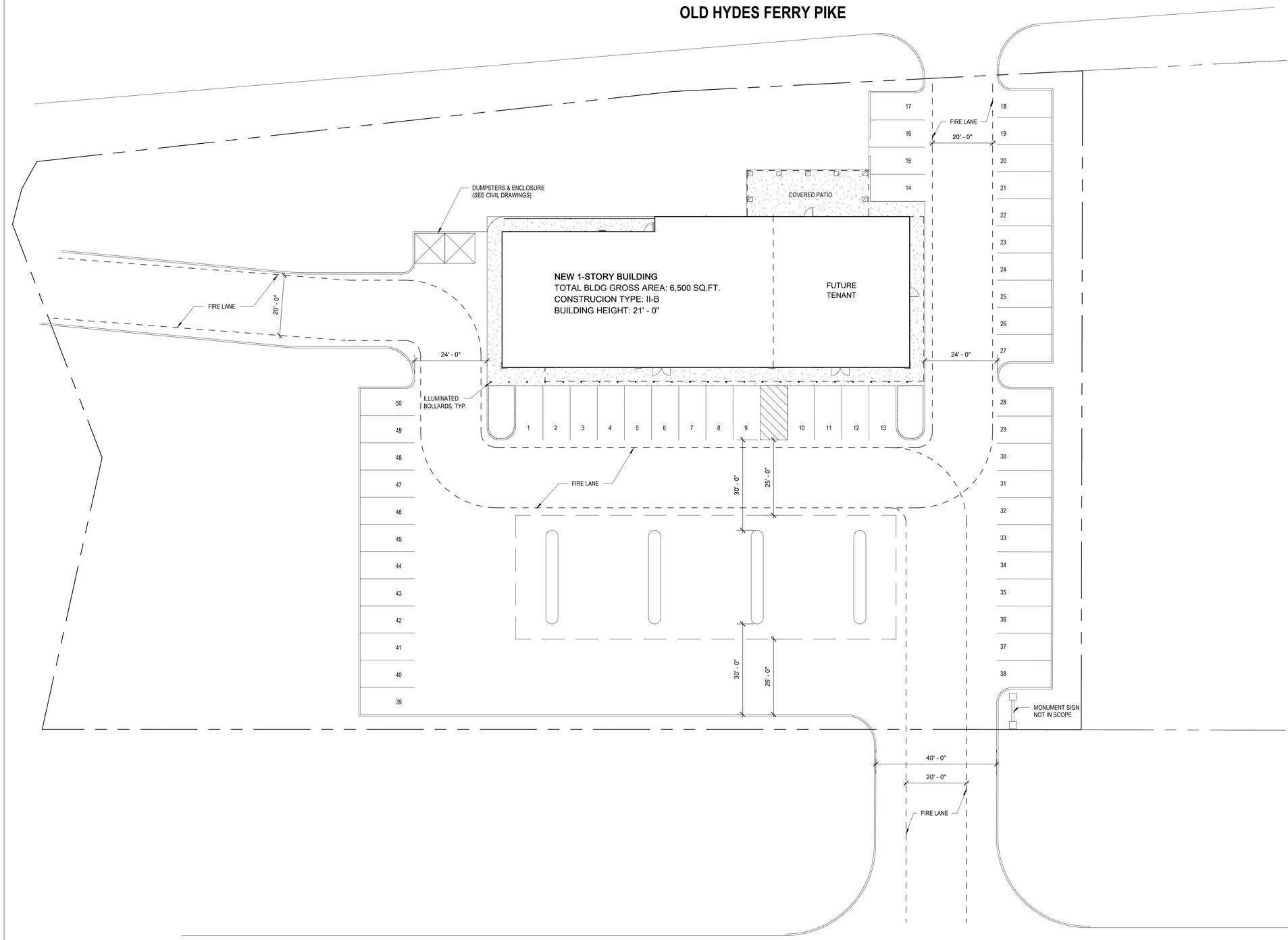
ROBERT BRYAN WRAY
TENNESSEE
LANDSCAPE ARCHITECT

21102

Sheet:

L1.0

1 of 1



N

A5 ARCHITECTURAL SITE PLAN

1/16" = 1'-0" REF A5 / A-201

SITE PLAN GENERAL NOTES

A. Contractor shall remove all existing vegetation, site improvements, etc. whether or not specifically indicated on the drawings to facilitate the completion of all required new work. Contractor shall visit the site and verify all quantities and items that are required to be removed prior to submittal of this proposal.

B. Slope all grades and pavement away from building(s) to provide positive drainage, unless noted otherwise.

C. Finish grade at sidewalks, buildings, etc., as required to provide smooth transition to grade.

D. Angles indicated are 45 degrees unless noted otherwise.

E. Construction debris shall be removed from the site on a continuing basis for the duration of construction.

F. Concrete walks shall have expansion joints at a maximum spacing of 20 feet O.C. and control joints at 5 feet O.C., unless noted otherwise.

G. Perform all clearing, grubbing and earthwork in accordance with the Geotechnical Report, unless more restrictive requirements exist.

H. Should slopes of greater than 1:20 (5%) occur at pavement locations, notify architect immediately.

I. All proposed imported fill material shall be tested by a qualified testing agency to verify that it meets all specification requirements prior to placing on site.

J. Dimensions are to outside face of stem walls/foundations unless noted otherwise.

K. All areas disturbed by construction, staging, etc. shall be restored to their original condition by the General Contractor. General Contractor is responsible for documenting original condition.

L. All sidewalks at building entryways shall be "keyed" into building slab to prevent differential movement.

PARKING SCHEDULE	
TYPE	PARKING COUNT
PARKING SPACES REQUIRED	**29**
PARKING SPACES PROVIDED	**50**
ACCESSIBLE PARKING SPACES	**2** (incl. 1 VAN ACCESSIBLE SPACE)

ASHLAND CITY C-STORE

DHAVAL PATEL
0 Old Hydes Ferry Pike, Ashland City, TN 37015

CLIENT CONTACT:
DHAVAL PATEL
(615)-598-5887 | dhawalom@gmail.com

MERIDIAN | ARCHITECTURE

nashville, tennessee
e: office@meridiantn.com
t: 615.396.2236
www.meridiantn.com

DAVID A. BROWN — REGISTERED ARCHITECT — STATE OF TENNESSEE

10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

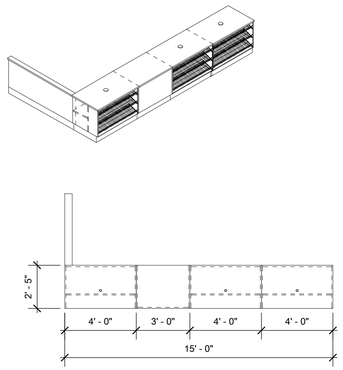
DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	Author

ARCHITECTURAL SITE PLAN

AS102

© 2021

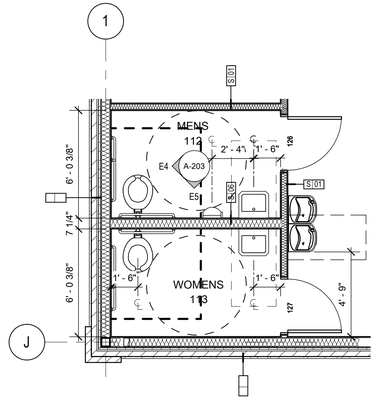
10/20/2021 1:33:38 PM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / AS102- ARCHITECTURAL SITE PLAN



ENLARGED CASHIER COUNTER

0 20' 40' 60'

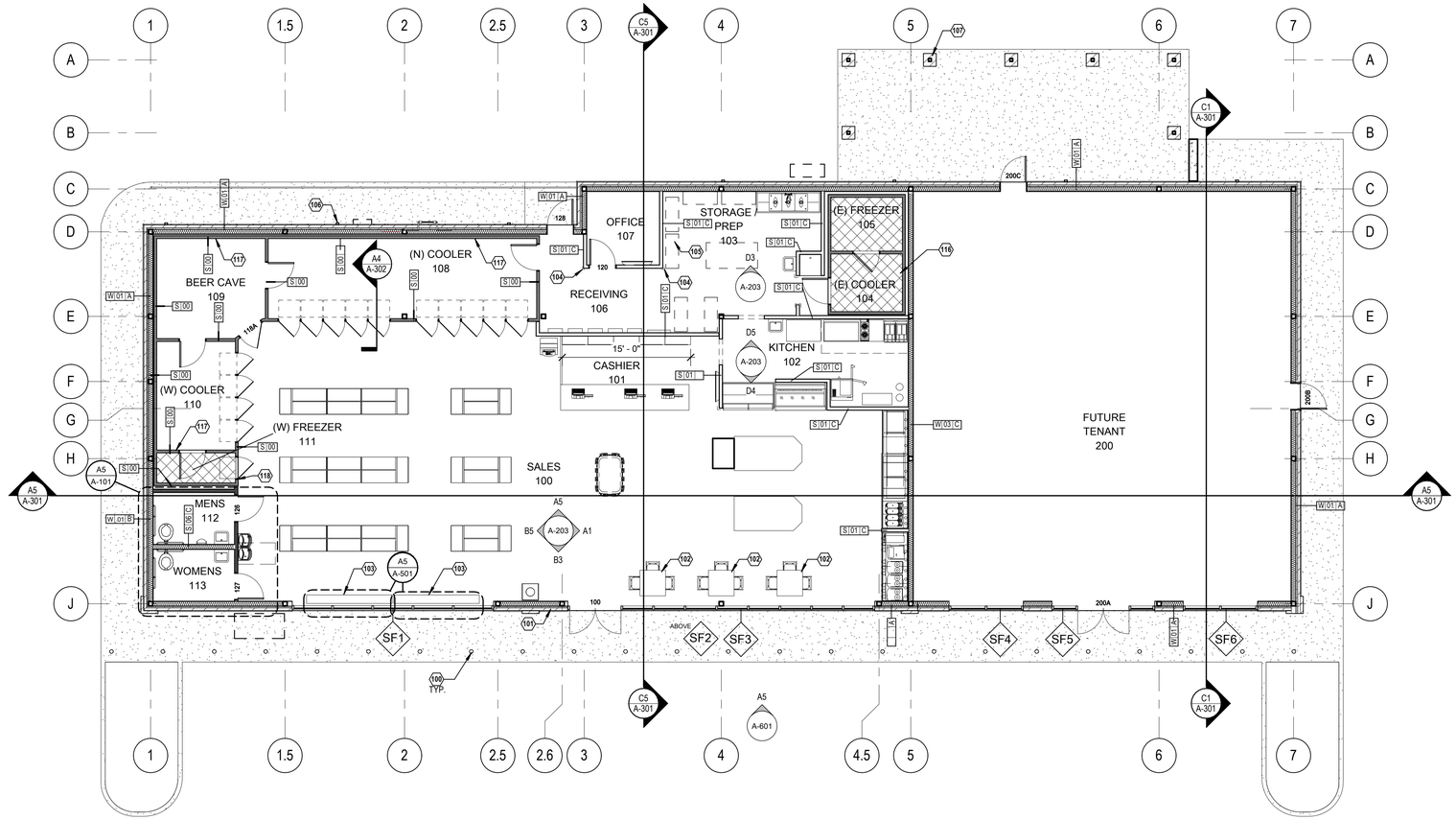
1/4" = 1'-0"



ENLARGED PLAN - RESTROOMS

0 20' 40' 60'

1/4" = 1'-0"



FIRST FLOOR - NOTED

0 8' 16' 24'

1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

A. Keynotes and legends are typical for all floor plan sheets, and may not apply to each sheet.

B. Dimensions are to face of masonry, concrete and [studs OR gypsum board] and centerline of columns unless noted otherwise.

C. See enlarged floor plans and details for specific locations of plumbing fixtures.

D. Field verify all dimensions prior to fabrication of any cabinetry, frames, structural items, etc.

E. Provide painted access panels in walls and ceilings at concealed items, such as valves, shock absorbers, controls, switches, etc., and any other items that may require access. It is the Contractor's responsibility to determine access panel locations.

F. All guardrails and handrails shall be fabricated and installed in accordance with applicable codes, regulations, and AHJ.

G. Seal all penetrations in fire rated assemblies as required by all applicable codes. Permanently label all penetrations and assemblies.

H. Verify and coordinate all requirements for owner furnished items, prior to performance of any work that is to accommodate and interface with such items.

I. All angles are increments of 45 degrees unless noted otherwise.

J. Extend wall envelope insulation from floor line to meet roof insulation.

K. Provide "Fry" reveal FDM 625-75 or equal at all gypsum board to masonry or concrete transitions.

L. All frame walls to be Type [S01C OR CHOOSE TYPE] and all furring walls to be [F01E OR CHOOSE TYPE], unless noted otherwise.

LEGEND

RECESSED SLAB; COORDINATE WITH COOLER / FREEZER MANUFACTURER

CONCRETE

KEYNOTES - PLAN

100	ILLUMINATED BOLLARDS, TYP; REFER TO ELECT. DRAWINGS
101	EMERGENCY PUMP SHUTOFF SWITCH
102	CHAIRS & TABLE SEATING (OWNER SUPPLIED)
103	STANDING COUNTER (OWNER SUPPLIED)
104	STAINLESS STEEL CORNER GUARD, TYP.
105	STORAGE SHELVING (OWNER SUPPLIED)
106	DOWNSPOUT, TYP.
107	COLUMN, TYP.

(IF NOT KEYNOTED, SEE A-105)

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10.20.2021

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FIRST FLOOR PLAN

A-101

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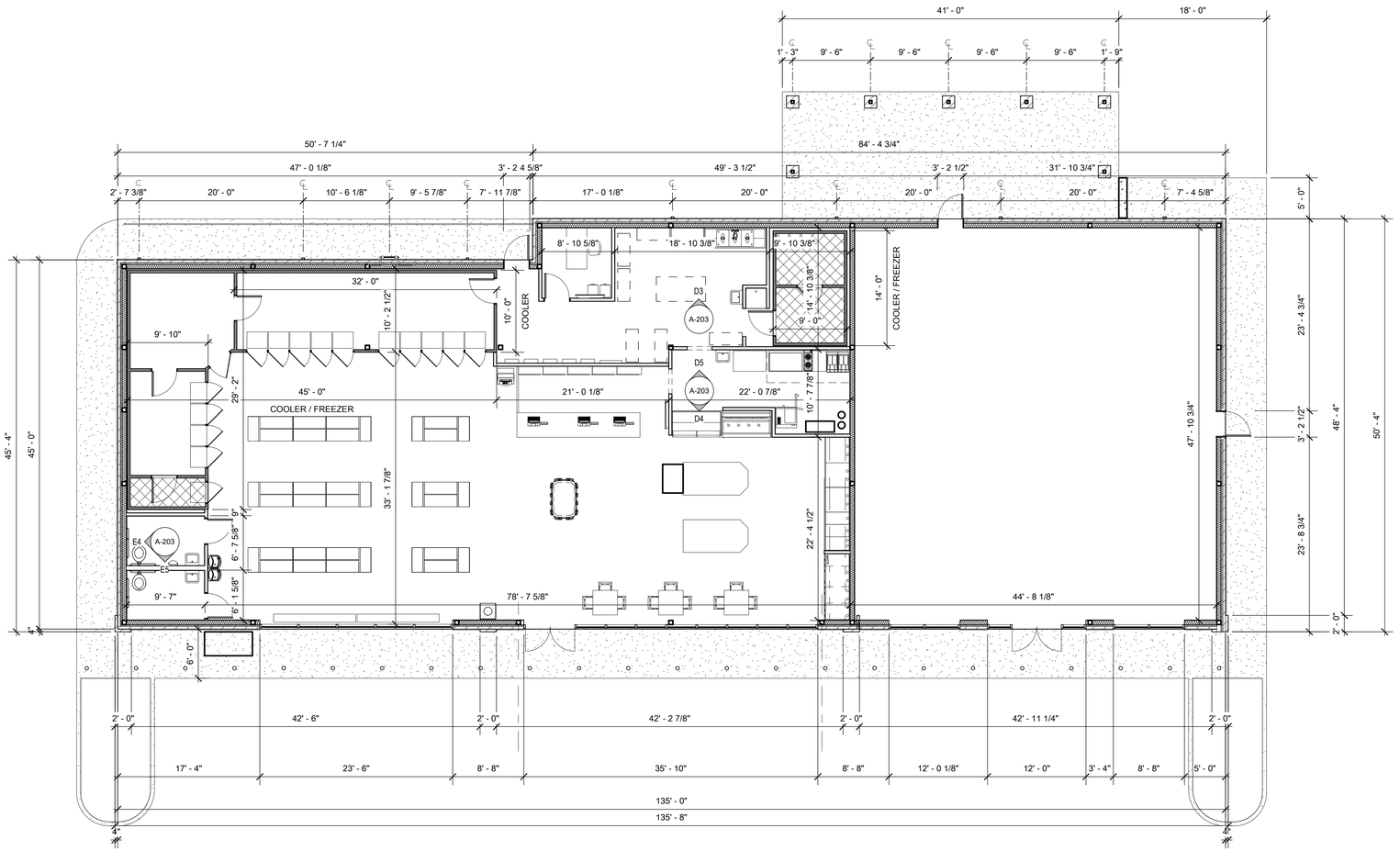

FIRST FLOOR - DIMENSIONED

0 8' 16' 24'

1/8" = 1'-0"

GENERAL DIMENSION NOTES

A. The contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements, conditions, and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the Architect at once.

B. The Contractor shall not scale drawings.

C. Dimensions are not adjustable unless noted with plus/minus tolderance.

D. Dimensions are indicated as follows unless otherwise noted:

E. Columns - from centerline to centerline.

F. Metal stud partition - from face of stud to face of stud.

G. Wood stud partitions - from face of stud to face of stud.

H. Concrete - from face of concrete to face of concrete.

I. Masonry - from face of masonry to face of masonry.

J. Exterior wall - from exterior face of wall to interior face of stud.

K. Interior elevation - from finished floor to finished ceiling or finished wall to finished wall.

L. Door shall be located 6" from clear opening to adjacent wall unless otherwise noted.

M. All floor to floor and ceiling heights shown on drawings are from finish floor.

GENERAL FLOOR PLAN NOTES

A. Keynotes and legends are typical for all floor plan sheets, and may not apply to each sheet.

B. Dimensions are to face of masonry, concrete and [studs OR gypsum board] and centerline of columns unless noted otherwise.

C. See enlarged floor plans and details for specific locations of plumbing fixtures.

D. Field verify all dimensions prior to fabrication of any cabinetry, frames, structural items, etc.

E. Provide painted access panels in walls and ceilings at concealed items, such as valves, shock absorbers, controls, switches, etc., and any other items that may require access. It is the Contractor's responsibility to determine access panel locations.

F. All guardrails and handrails shall be fabricated and installed in accordance with applicable codes, regulations, and AHJ.

G. Seal all penetrations in fire rated assemblies as required by all applicable codes. Permanently label all penetrations and assemblies.

H. Verify and coordinate all requirements for owner furnished items, prior to performance of any work that is to accommodate and interface with such items.

I. All angles are increments of 45 degrees unless noted otherwise.

J. Extend wall envelope insulation from floor line to meet roof insulation.

K. Provide "Fry" reveal FDM 625-75 or equal at all gypsum board to masonry or concrete transitions.

L. All frame walls to be Type [S01C OR CHOOSE TYPE] and all furring walls to be [F01E OR CHOOSE TYPE], unless noted otherwise.

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FIRST FLOOR
DIMENSION PLAN

A-102

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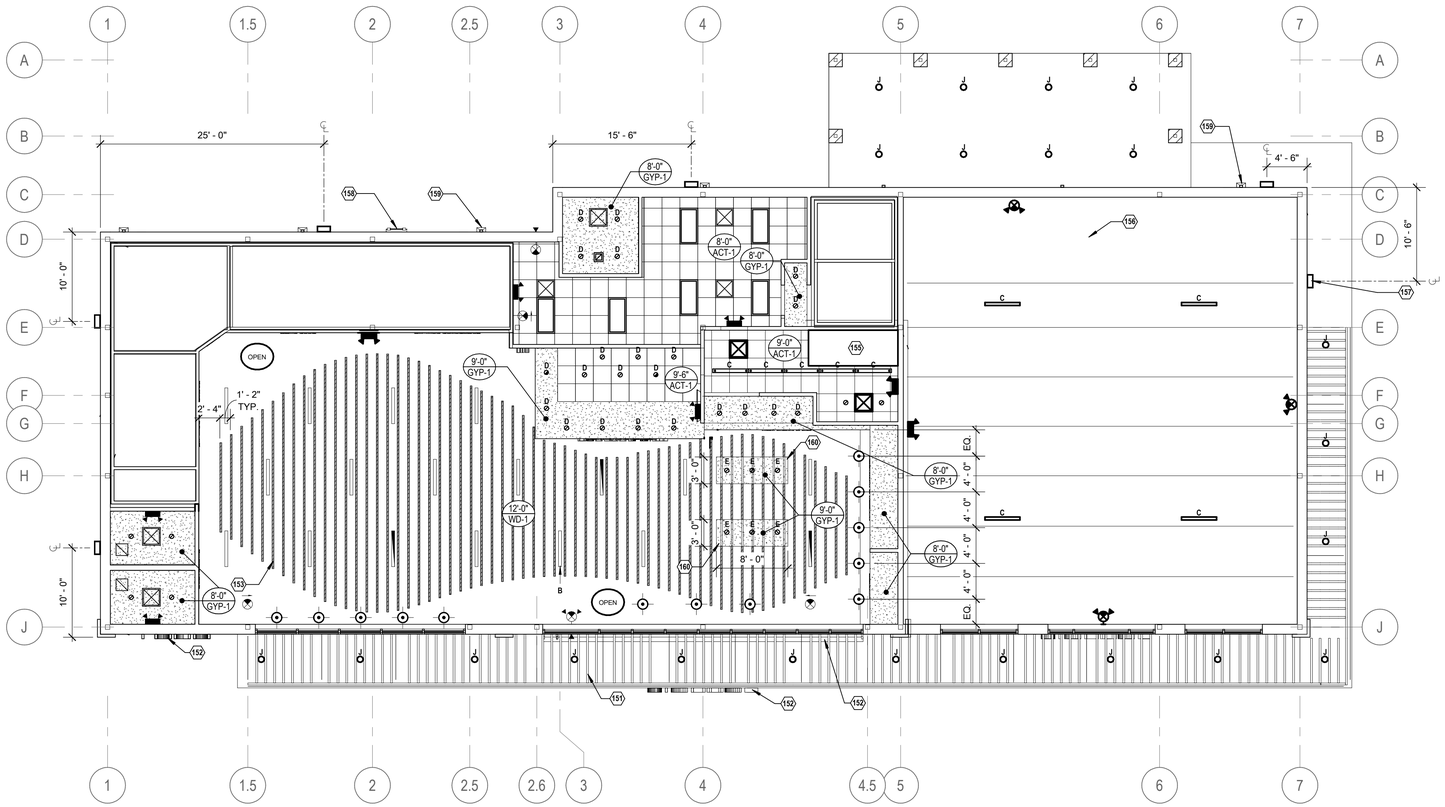
ROOM FINISH LEGEND						
DESIGNATION	DESCRIPTION	SIZE	COLOR	MANUFACTURER	PRODUCT	NOTES
CONC-1	SEALED CONCRETE	- -	- -	- -	- -	- -
FRP-1	FIBERGLASS REINFORCED PANEL	- -	WHITE	- -	- -	TRIM PIECES AT TRANSITIONS AND PERIMETER
FT-1	CERAMIC	12" x 24"	METRO CREAM	EMSER	- -	HONED
PNT-1	PAINT	- -	ANTIQUE WHITE	SHERWIN WILLIAMS	#SW6119	- -
PNT-2	PAINT	- -	TRICORN BLACK	SHERWIN WILLIAMS	#SW6258	- -
RB-1	RESILENT COVED RUBBER WALL BASE	4"	EBONY	ARMSTRONG	#R48EB	- -
QT-1	QUARRY TILE	6 "x 6"	DIABLO RED	DAL-TILE	#0T01	- -
ACT-1	ACOUSTICAL CEILING TILE	2' x 2'	WHITE	ARMSTRONG	CLEANROOM VL	SCRUBBABLE/WASHABLE CEILING TILE
GYP-1	GYPSUM BOARD	- -	PT-1 (SEE ABOVE)	- -	- -	- -
GYP-2	GYPSUM BOARD	- -	PT-1 (SEE ABOVE)	- -	- -	WATER RESISTANT GYP. BD. IN WET AREAS
WD-1						



REFLECTED CEILING PLAN

0 8' 16' 24'

1/8" = 1'-0"

REFL. CEILING PLAN GEN. NOTES:

A. Ceilings and other suspended items shall be attached to structure by fully embedded or "shear" connection; pull out connections are not acceptable.

B. All gypsum board ceilings shall be 5/8" type 'X' gypsum board on light gauge framing or suspension system.

C. Ceiling and soffit heights noted on Reflected Ceiling Plans, are above finish floor.

D. Center all devices, sprinkler heads, etc. in ceiling tiles.

E. All soffits over casework to extend 1" beyond the face of casework.

F. Provide continuous sound batt insulation above all toilet room ceilings.

G. Fire sprinkler contractor shall reference all drawings and specifications for determining proper coverage and sprinkler head layout/design.

H. Reveal molding to be used at all intersections of different materials. All soffit reveals shall be a continuation of vertical wall reveals.

I. Refer to electrical drawings for location of reused, relocated, existing or new light locations. Patch all GWB ceilings with new gypsum wall board where damaged or removed for new work. Match existing depth, finish and color of ceiling to be patched.

J. Ceiling heights indicated in existing areas are approximate. Maximize where possible. Where ceiling grids are to extend, match existing height, direction, manufacturer, style, color and type of grid.

KEYNOTES - RCP

150	BUILDING SIGNAGE (OWNER TO SUPPLY)
151	SUSPENDED WOOD BEAM TRELLIS, TYP. EVENLY SPACED WITHIN STRUCTURAL FRAMING, TYP.
152	SUNSHADE
153	SUSPENDED WOOD BEAM CEILING MOUNTED TO STRUCTS, TYP.
155	HOOD (SEE MECHANICAL)
156	STRUCTURE (SEE STRUCTURAL)
157	EXTERIOR LIGTH FIXTURE (SEE MEP DRAWINGS), TYP.
158	ROOF ACCESS LADDER
159	DOWNSPOUT
160	PAINTED GYP BOARD CEILING WITH CAN LIGHT FIXTURES

LEGEND

OPEN — EXPOSED TO STRUCTURE ABOVE; PAINT MATTE BLACK INCLUDING EXPOSED MECHANICAL & ELECTRICAL EQUIPMENT AND CONDUIT

8'-0" GYP-1 — HEIGHT ABOVE FINISHED FLOOR; CEILING TYPE; GYP: GYP. BOARD CEILING; ACT: ACOUSTIC CEILING TILE

2x4 L.E.D. FLAT PANEL TROFFER LIGHT FIXTURE (SEE ELEC.)

B — 4' LED LINEAR PENDANT LIGHT FIXTURE (SEE ELEC.)

C — 4' LED STRIP LIGHT FIXTURE (SEE ELEC.)

WALL MOUNTED EXTERIOR LIGHT FIXTURE (SEE ELEC.)

D — 6" DOWNLIGHT LIGHT FIXTURE (SEE ELEC.)

E — 4" DOWNLIGHT LIGHT FIXTURE (SEE ELEC.)

G — 4' L.E.D. STRIP GASKETED LIGHT FIXTURE (SEE ELEC.)

J — L.E.D. CYLINDER DOWNLIGHT EXTERIOR LIGHT FIXTURE (SEE ELEC.)

DECORATIVE L.E.D. PENDANT LIGHT FIXTURE (SEE ELEC.)

EMERGENCY LIGHTING FIXTURES (SEE ELEC.)

SUPPLY DIFFUSER (SEE MECH.)

RETURN DIFFUSER (SEE MECH.)

CEILING MOUNTED EMERGENCY EXIT LIGHT (SEE ELEC.)

WALL MOUNTED EMERGENCY EXIT LIGHT (SEE ELEC.)

WALL MOUNTED EMERGENCY EXIT LIGHT (SEE ELEC.)

DECORATIVE L.E.D. PENDANT LIGHT FIXTURE (SEE ELEC.)

ACOUSTIC CEILING TILE

GYP. BD. CEILING

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REFLECTED CEILING PLAN

A-103

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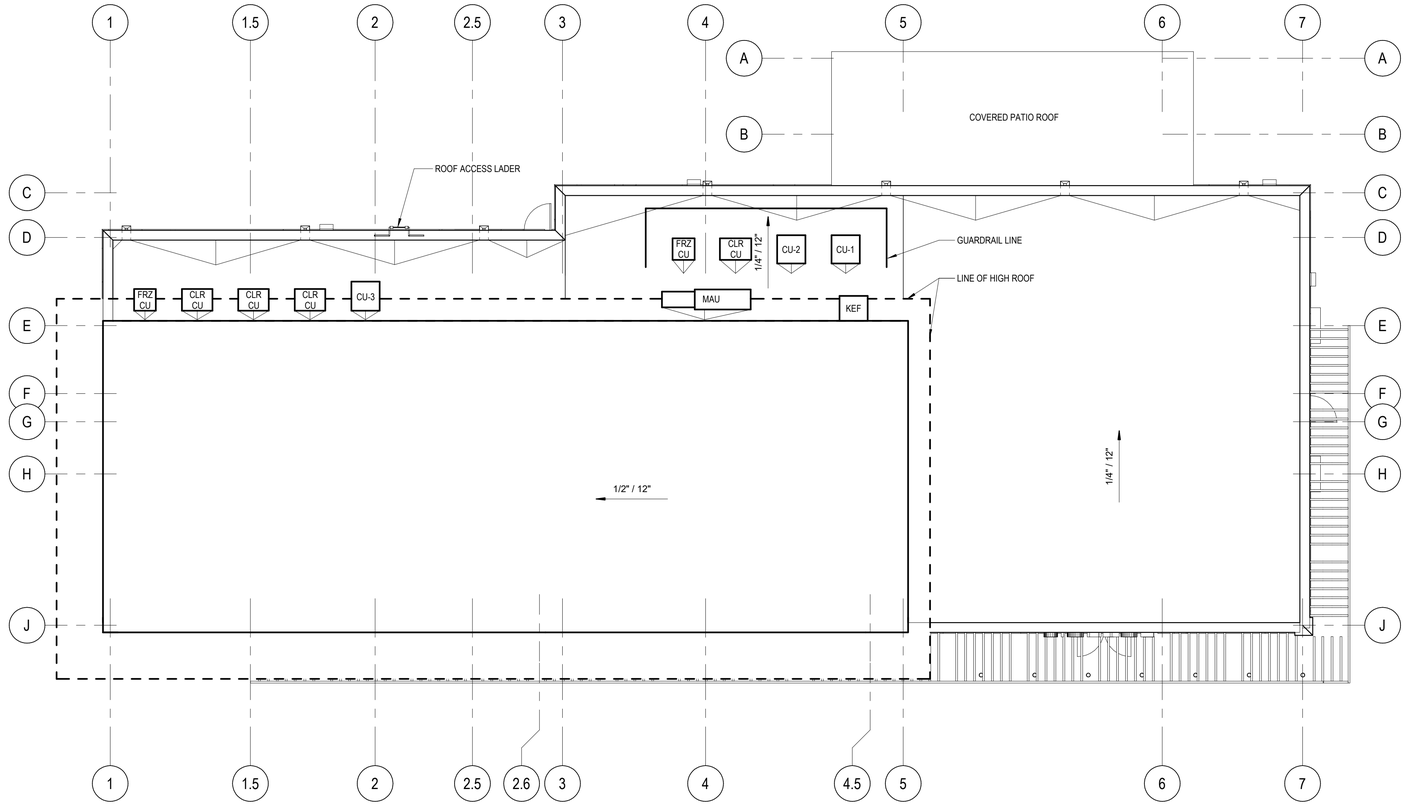

ROOF PLAN

0 8' 16' 24'

1/8" = 1'-0"

ROOF PLAN GENERAL NOTES

A. Do not begin work without holding a pre-roofing conference. Notify Architect, Roofing Supplier, Manufacturer, Installer, Sheet Metal Subcontractor and other related subcontractors a minimum of 7 days before commencing roofing work.

B. Roofing Supplier, Manufacturer and Installer shall review all roofing details and advise Architect on any recommended changes. Unless notified otherwise, details will be assumed to have been reviewed by all parties.

C. Provide crickets behind all mechanical equip. curbs, roof hatch curbs, etc

D. Minimum slope at all cricket valleys shall be 1/4" per foot. Do not scale plan for cricket dimensions.

E. All cricket slopes shall be achieved in a manner acceptable to Architect and in accordance with roofing manufacturer's requirements.

F. Provide curbs and flashing at any equipment not provided with pre-manufactured curbs.

G. Separate all dissimilar metals with bituminous coatings or other methods acceptable to the Architect.

H. Flashing details shall be in strict compliance with approved Roof Manufacturer's standards for application, and shall be fabricated in accordance with the latest edition of "Sheet Metal and Air Conditioning Contractor's National Association" (SMACNA) technical manual.

I. All sheet metal scuppers, sleeves, etc., penetrating roofing or parapets to which rooming must attach shall be a minimum of 20 gauge, all soldered construction, with minimum 3" wide flanges.

J. All scuppers shall be constructed with four full sides, with flanges through the thickness of the wall, forming a complete "sleeve" through the wall.

K. Provide flashing per Roofing Manufacturer's standard details at all electrical conduit, HVAC lines, plumbing vents, etc.

L. Flashing shall be factory finished where indicated. Galvanized unfinished flashing exposed to view shall be washed, primed, and finished with paint per the Specifications.

M. Provide concrete splash blocks below all scuppers and at all drain leaders that daylight above grade or onto other roof surfaces.

N. Contractor and all sub-trades shall exercise the necessary care to limit traffic and prevent damage to the roof membrane.

O. Where existing roofing is modified, engage qualified installers of the roofing systems to maintain roof warranties. It is the Contractor's responsibility to verify types and manufacturers of existing roofing systems.

GENERAL NOTES

1.) LOCATIONS OF HVAC EQUIPMENT APPROXIMATE, SEE MECHANICAL DRAWINGS FOR MORE DETAILS)

2.) EACH UNIT NEEDS 3FT OF CLEAR SPACE AROUND IT

3.)INSTALL GUARD RAIL AROUND UNITS AFTER INSTALLATION, STILL PROVIDING THE REQUIRED CLEAR SPACE AROUND EACH UNIT

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ROOF PLAN

A-104

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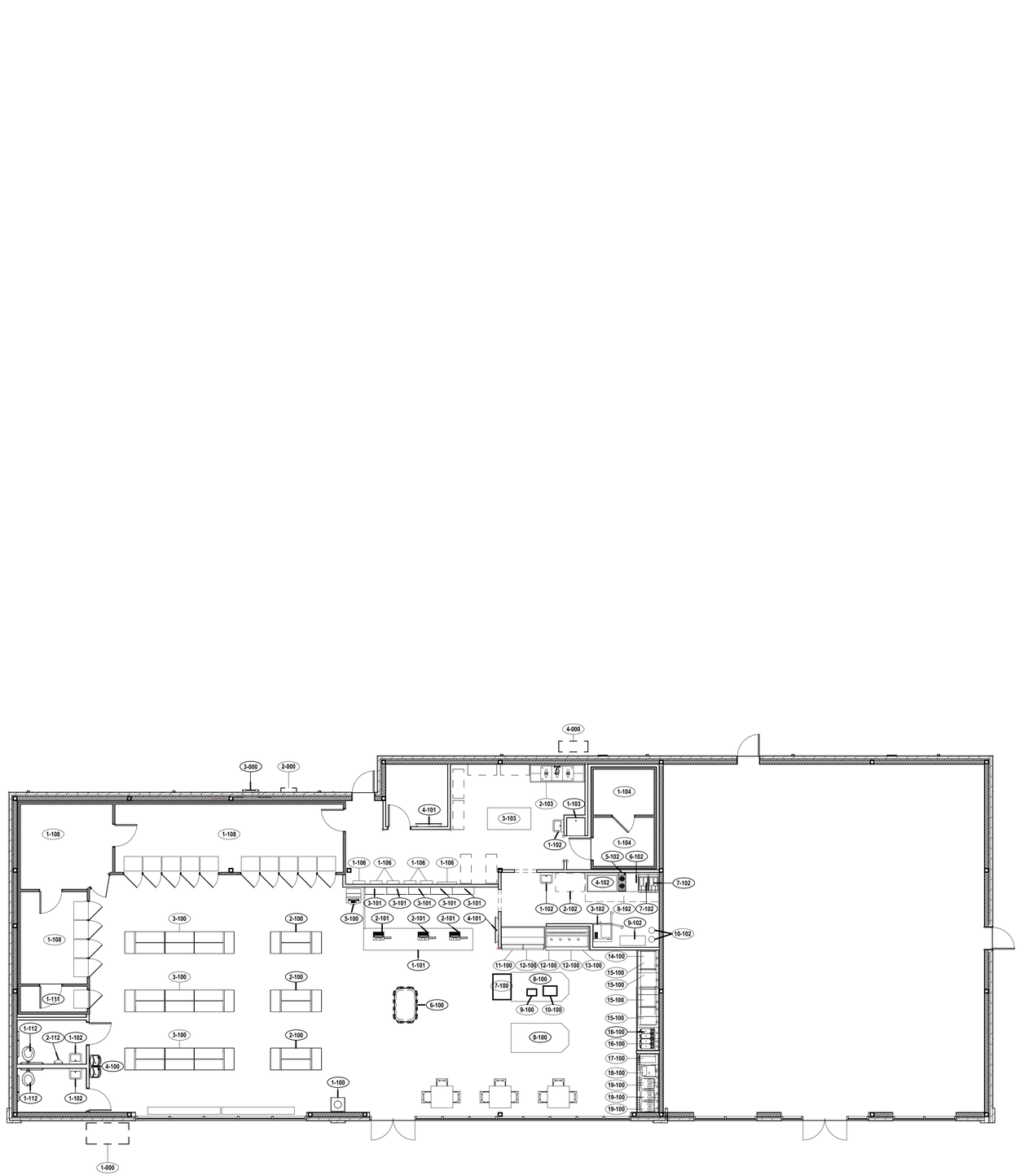
EQUIPMENT SCHEDULE

ITEM #	QTY	DESCRIPTION (length x width x height)	MANUFACTURER	MODEL
Exterior-000				
1-000	1	Exterior Bagged Ice Machine	Polar Temp. Ice Merchandisers	Model 600 Outdoor Unit-Slant Front
2-000	1	Exterior Electrical Panels	See MEP drawings	See MEP drawings
3-000	1	Roof Access Ladder	Contractor to select	Contractor to select
4-000	1	Gas Connection	Contractor to select	Contractor to select
Sales-100				
1-100	1	Trash cabinet 23" x 23" x 42"	Royston	FSDM232442DWLFD-CB,NOB,SMF2324-DW-OVAL
2-100	3	Gondola, 7ft x 3ft x 4ft	Owner to select	Owner to select
3-100	3	Gondola, 15ft x 3ft x 4ft	Owner to select	Owner to select
4-100	1	Elkay Versatile Cooler Wall Mount Bi-Level ADA Non-Filtered 8 GPH Light Gray Granite 36-3/4" x 19" x 25-5/16"	ELKAY	EZSTL8LC
5-100	1	Atm Machine	Owner to select	Owner to select
6-100	1	Refrigerated Self-Serve Island Merchandiser 60" x 40" x 60"	Federal Industries	EIMSS60SC-3
7-100	1	Wall Display Non-Refrigerated, Self-Serve Bakery Case 42" x 30" x 62"	Federal	WCD42
8-100	2	Center Island Cabinet 96" x 48" x 34"	Royston	(2) CENTER STORAGE: CS48-23-34-DRSFP4830 RIGHT END UNIT: CIM60-CD12-34-SFP6024M LEFT END UNIT: CI24-48-34-DR SFP4830
9-100	1	Hot Dog Bun Warmer 15 ¾" x 11" x 4 7/8"	Grand Slam	177BW24D
10-100	1	24 Hot Dog Roller Grill 22 ½" x 16" x 6 ½"	Grand Slam	177HDRG24
11-100	1	Glo-Ray Buffet Warmers 67" x 22.5" x 20.75"	HATCO	GRBW-66
12-100	3	2 door storage cabinet	Royston	(3) CS48-29-34-DR-CB-B SF48-29
13-100	1	48" Self Service, 3 Shelf Heated Display Warmer with Sliding Doors 48" x 19" x 32"	Avantco Equipment	177HDC48
14-100	2	Cabinet w/built in cup holder & trash Solid surface countertop w/backsplash (see details)	Royston	(3); CB36-36-34-3C-OB-B (3); CB18-36-34-3C-OB-B
15-100	4	Flavor Select 30 Ice Beverage Dispensers 30" x 30.5"x 40.25"	Lancer WorldWide	Flavor Select 30
16-100	2	Ultra-Frozen Beverage System with 2 hoppers 16" x 24.5" x 31.9"	BUNN	ULTRA-2, HP LAFI
17-100	2	Cabinet w/built in cup holder & trash Solid surface countertop w/backsplash (see details)	Royston	(2); CB24-36-34-3C-OB-B (3); CB30-36-34-3C-OB-B (1); CS18-36-34-SW-LFD
18-100	1	Nuova Simonelli ProntoBar Touch 1-Step Super Automatic Espresso Machine - 220V 13" x 21" x 25"	Nuova Simonelli	Item #: 238PT1
19-100	3	K-Series Cappuccino Dispensers	CEILWARE	5K-10-GB-LD
Cashier-101				
1-101	1	Front Display Cabinet	Royston	(3); CS48-29-34-MF (1); CS36-29-34-SF
2-101	3	Cash Register	Owner to select	Owner to select
3-101	5	Cigarette display shelving 36" x 1'-0" 78"/92.74"	Royston Tobacco Merchandisers	
4-101	2	Security Monitor/TV Display	Owner to select	Owner to select
Kitchen-102				
1-102	4	Declyn Wall-Hung Lavatory	American Standard	0321.026
2-102	1	16-gauge stainless steel work tables with 4" backsplash 48" x 30" x 34"	Regency	600TSB3048S
3-102	1	Duke Baking Center- DBC-1 30" x 30" x 66"	Duke	DBC-1 59-E3 Oven with PFB-1 Proofer Base
4-102	1	Gas Griddle 48" x 30" x 15.6"	Cecilware Pro	GCP48
5-102	1	Countertop Range 12" x 26 13/16" x 15"	Cooking Performance Group	351RCPG12NL
6-102	1	16 gauge stainless steel work tables with 4" backsplash 48" x 30" x 34"	Regency	600TSB3084S
7-102	2	Avantco FF300 Natural Gas 40 lb. Stainless Steel Floor Fryer 15 ½" x 30 ¼" x 47 1/8"	Avantco	177FF300N
8-102	1	Kitchen Hood	Econ Air	5424EX-2-PSP-F
9-102	1	Fountain Drink Supply	Owner to select	Owner to select
10-102	2	C02 Tanks for Soda Machines	Owner to select	Owner to select
Stor./Prep.-103				
1-103	1	Stainless Steel Economy Fabricated Floor Mop Sink 25" x 21" x 10"	Advance Tabco Smart Fabrication	9-OP-20-EC-X
2-103	1	Deep Three Compartment Economy Sink- S/S	Kintera	KES31818S-218
3-103	1	Worktables with Backsplash and Stainless Steel Base with Undershelf -Deluxe Series 72" x 36" x 35 1/8"	Eagle Group	T3672SEB-BS
1-104	1	Walk in Cooler & Freezer Combo	U.S. Cooler	Quote No. 555182, Rev 1
Receiving- 106	6	Electrical Panels	See MEP Drawings	See MEP Drawings
1-108	1	Walk in Cooler w/doors System & Beer Cave	U.S. Cooler	Quote No. 555187, Rev 1
1-111	1	Walk in Freezer with door System	U.S. Cooler	Quote No. 555183, Rev 0
Mens Restroom- 112				
1-112	2	Toilet with grab bars	Contractor to select	Contractor to select
2-112	1	Urinal	Contractor to select	Contractor to select



EQUIPMENT PLAN

0 8' 16' 24'

1/8" = 1'-0"

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EQUIPMENT

A-105

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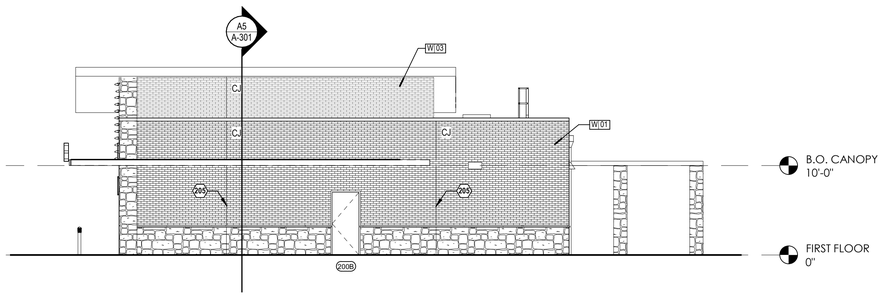
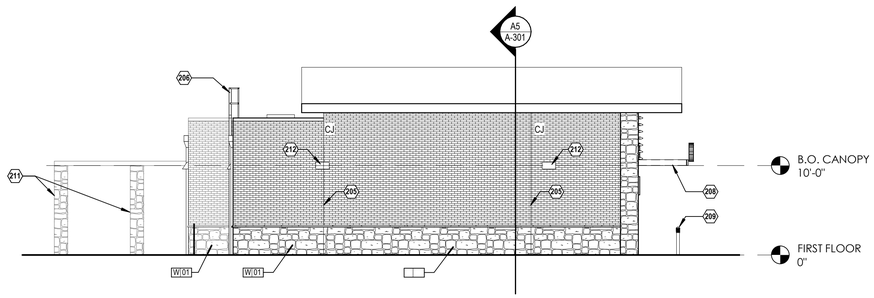
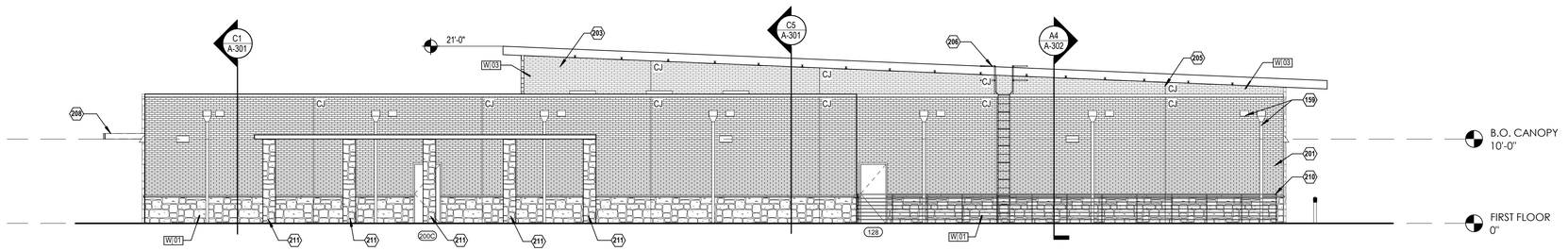


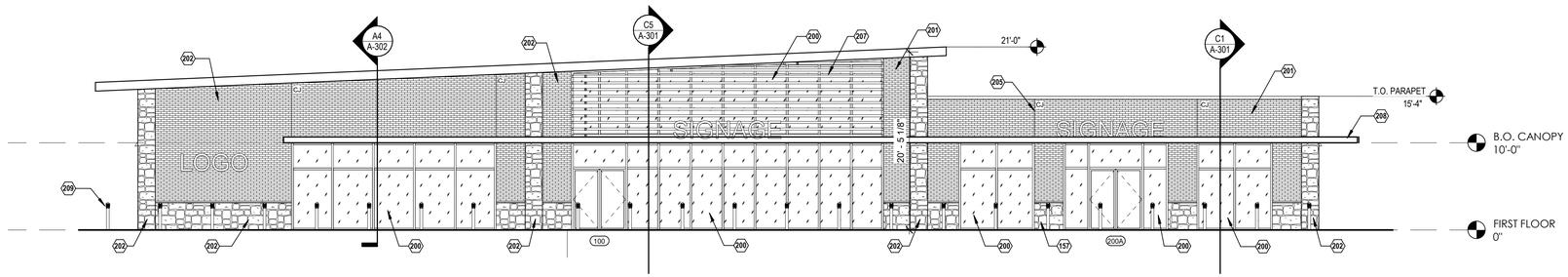
C5 EAST ELEVATION
1/8" = 1'-0"



C3 WEST ELEVATION
1/8" = 1'-0"



B5 NORTH ELEVATION
1/8" = 1'-0"



A5 SOUTH ELEVATION
1/8" = 1'-0"

ELEVATION GENERAL NOTES

A. All exposed stem walls shall be of masonry type indicated for walls above floor line.

B. Sidewalks at building and structures shall match finish floor flush at doorways and slope away from the building.

C. Paint all exposed metal that is not specified to receive factory finish.

D. All exposed flashing shall be factory finished.

E. See Plans and Schedule for door and window types and sizes.

KEYNOTES - ELEVATION

200	SCHEDULED ALUMINUM STOREFRONT; REF.
201	FACE BRICK
202	STONE
203	THIN BRICK FACADE AT UPPER ROOF, TYP.
205	MASONRY CONTROL JOINT, TYP.
206	ROOF ACCESS LADDER
207	ALUMINUM AIRFOIL SUNSHADE, TYP.
208	PAINTED STEEL CANOPY WITH INFILL SLATS
209	ILLUMINATED BOLLARDS, TYP.
210	PAINTED STEEL GUARDRAIL
211	STONE COLUMN, TYP.
212	EXTERIOR LIGHTING; REF. ELECT

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BUILDING ELEVATIONS

A-201

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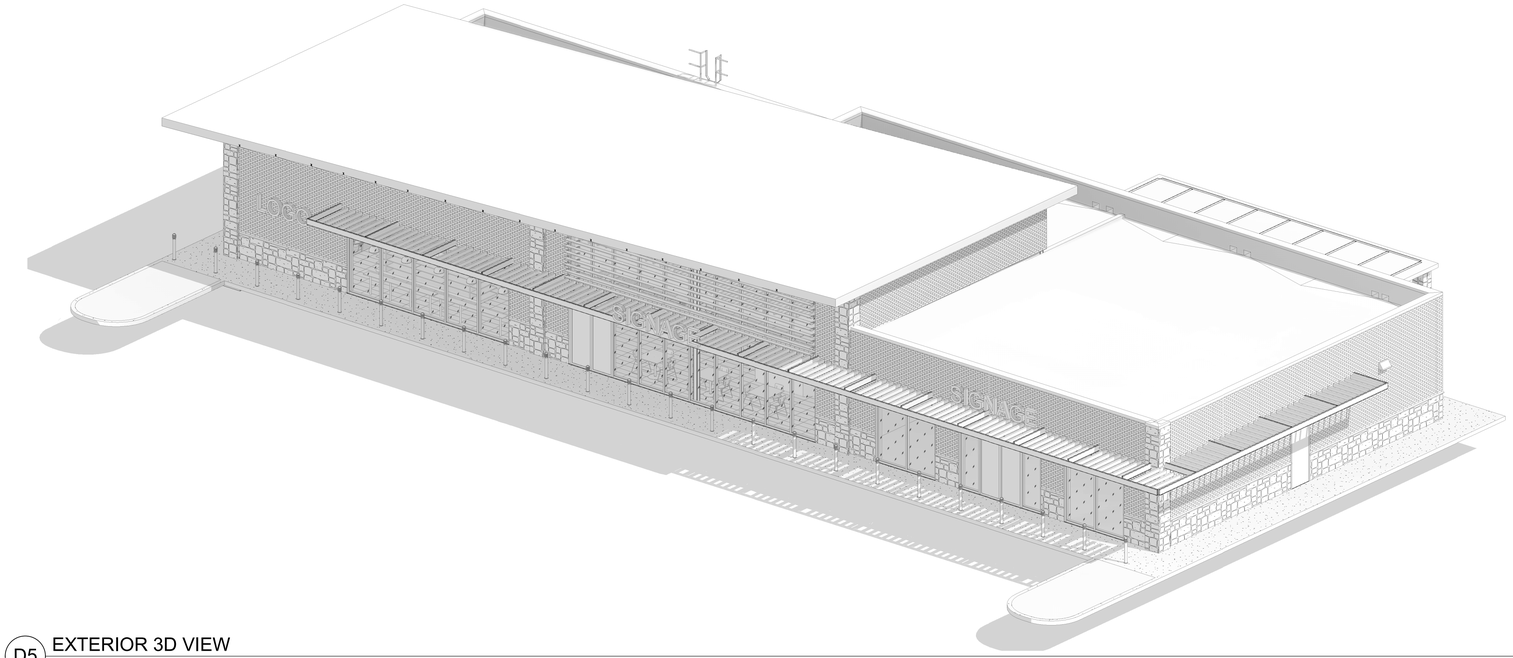
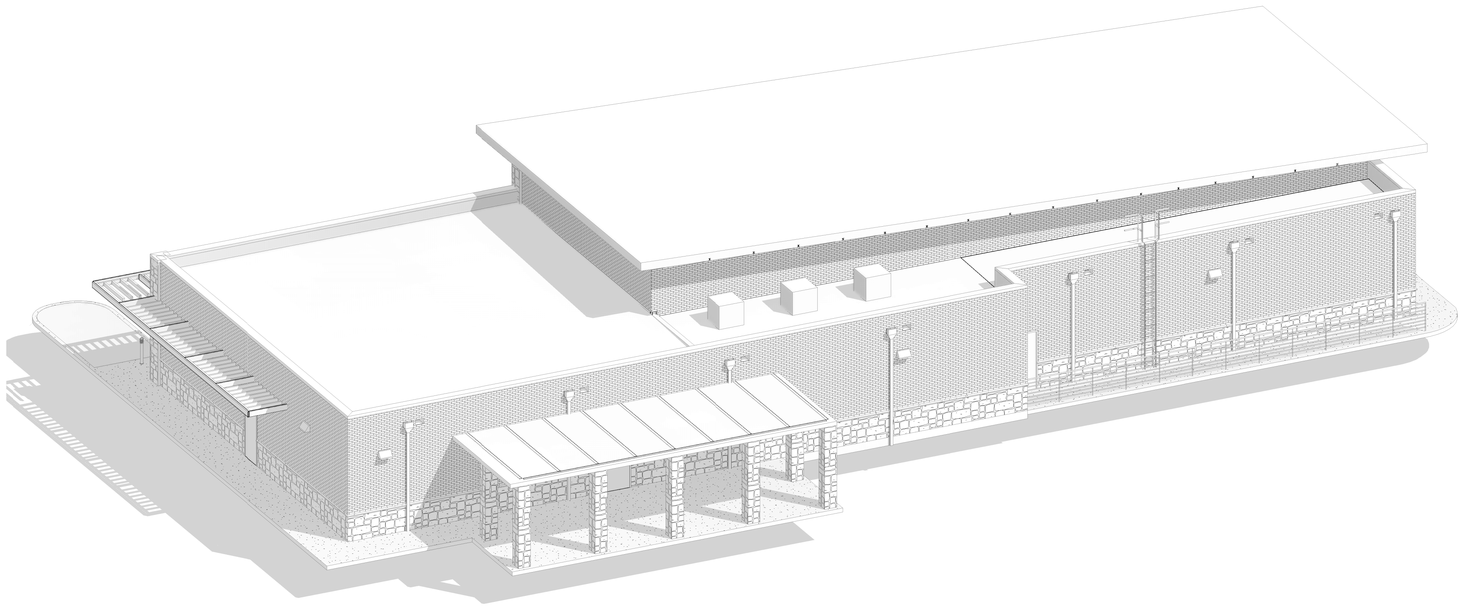


D5 EXTERIOR 3D VIEW



A5 EXTERIOR 3D VIEW

ASHLAND CITY C-STORE

DHAVAL PATEL
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DAVID A. BROWN — REGISTERED ARCHITECT — STATE OF TENNESSEE

10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
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BUILDING 3D VIEWS - EXTERIOR

A-202

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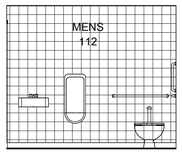
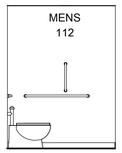
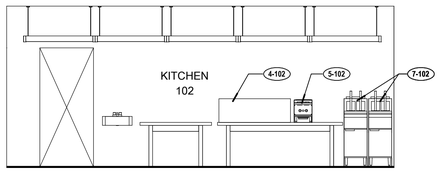


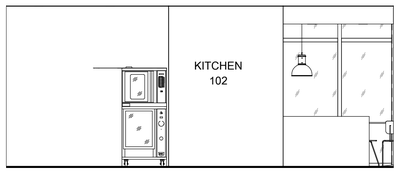
E5 INTERIOR ELEVATION
1/4" = 1'-0" REF A5 / A-101



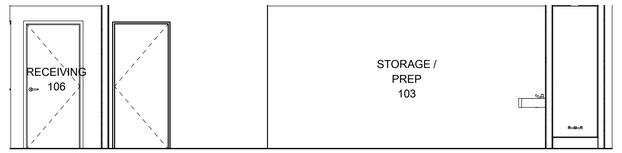
E4 INTERIOR ELEVATION
1/4" = 1'-0" REF A5 / A-101



D5 INTERIOR ELEVATION
1/4" = 1'-0" REF A4 / A-101



D4 INTERIOR ELEVATION
1/4" = 1'-0" REF A4 / A-101



D3 INTERIOR ELEVATION
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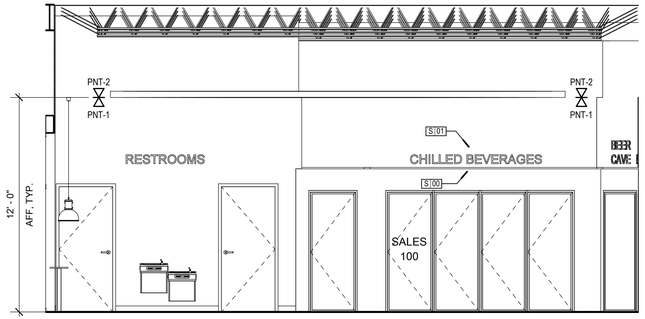

B5 INTERIOR ELEVATION
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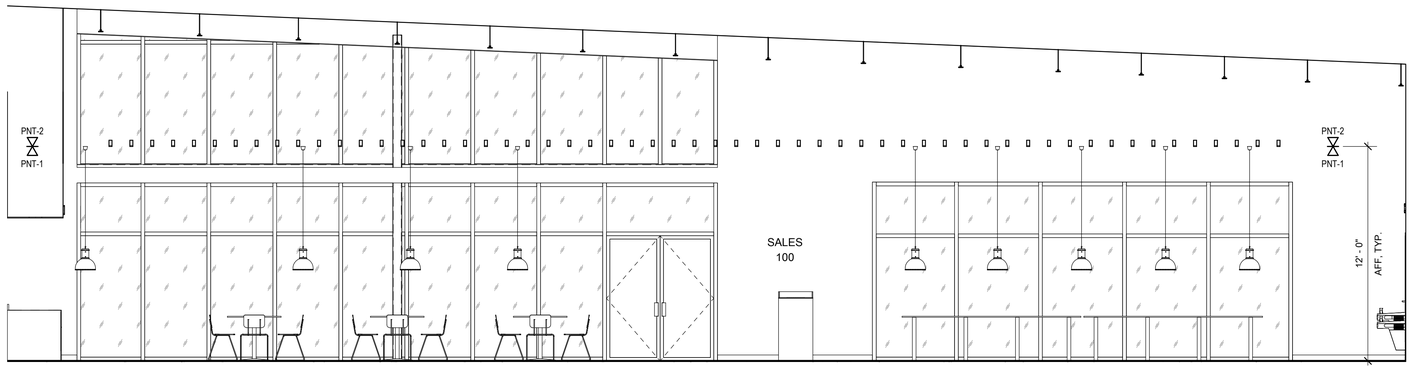
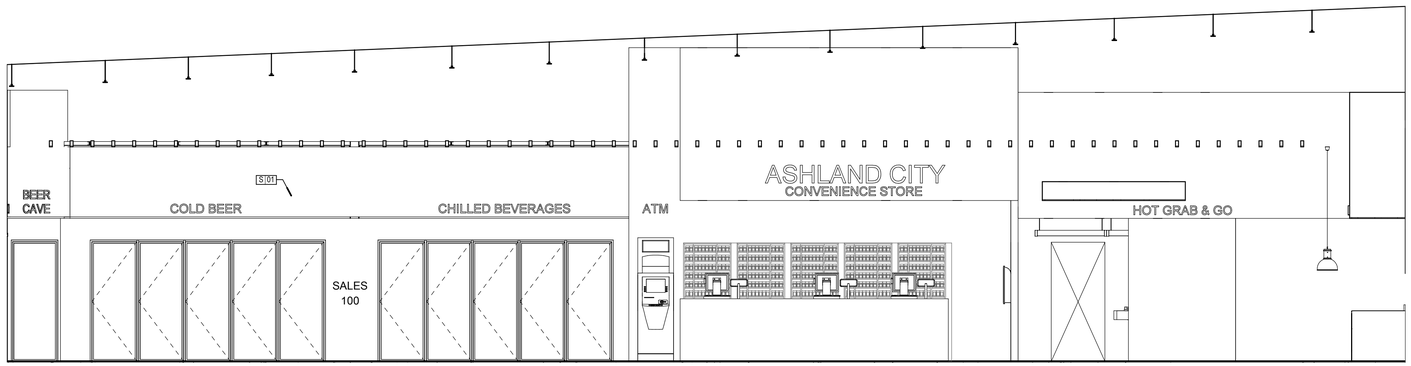
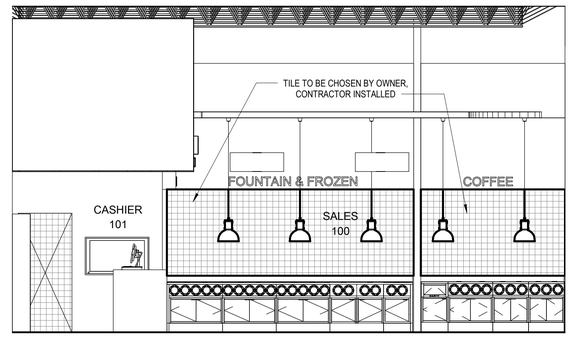


B3 INTERIOR ELEVATION
1/4" = 1'-0" REF A4 / A-101



A5 INTERIOR ELEVATION
1/4" = 1'-0" REF A4 / A-101



A1 INTERIOR ELEVATION
1/4" = 1'-0" REF A4 / A-101

10/20/2021 1:33:03 PM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / A-203- INTERIOR ELEVATIONS

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DAVID A. BROWN
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STATE OF TENNESSEE
10.20.2021

REVISIONS:

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INTERIOR ELEVATIONS

A-203

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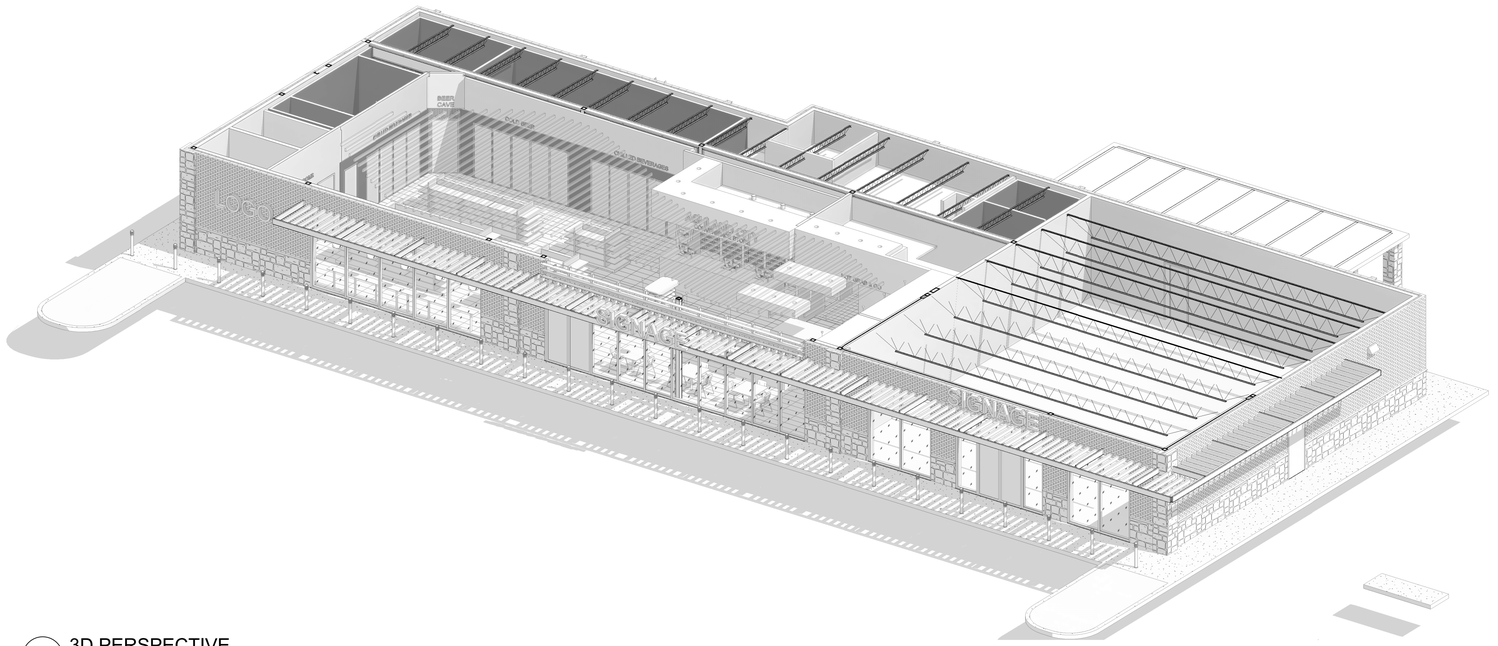
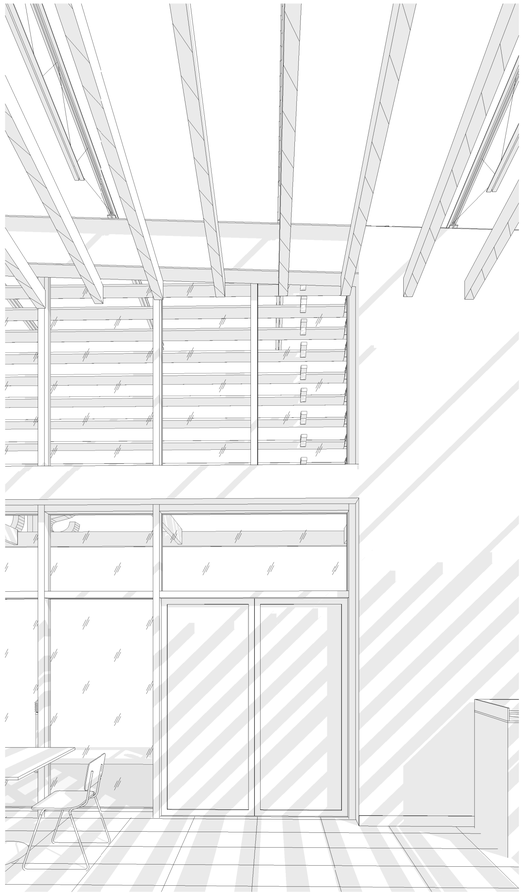
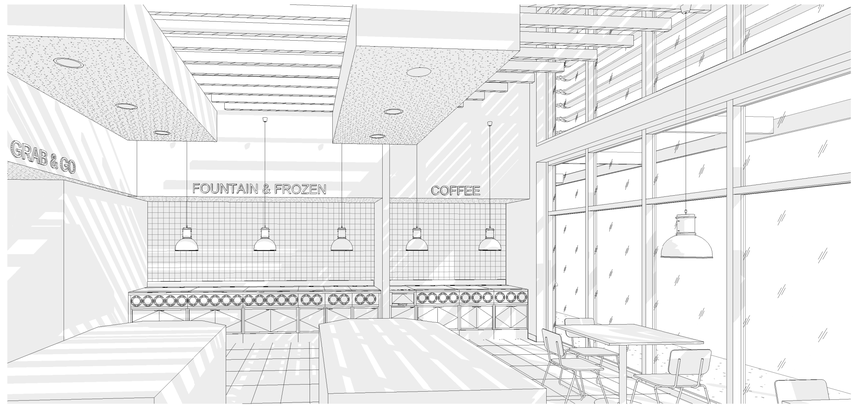


E3 3D PERSPECTIVE

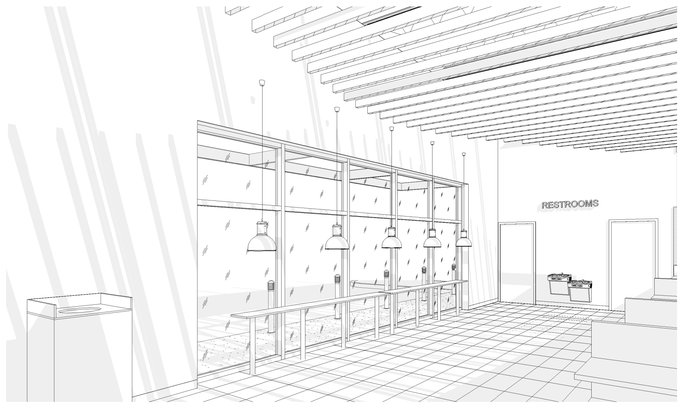


A5 INTERIOR 3D PERSPECTIVE

B4 INTERIOR 3D PERSPECTIVE



B2 INTERIOR 3D PERSPECTIVE



A4 INTERIOR 3D PERSPECTIVE

A2 INTERIOR 3D PERSPECTIVE

ASHLAND CITY C-STORE

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BUILDING 3D VIEWS - INTERIOR

A-204

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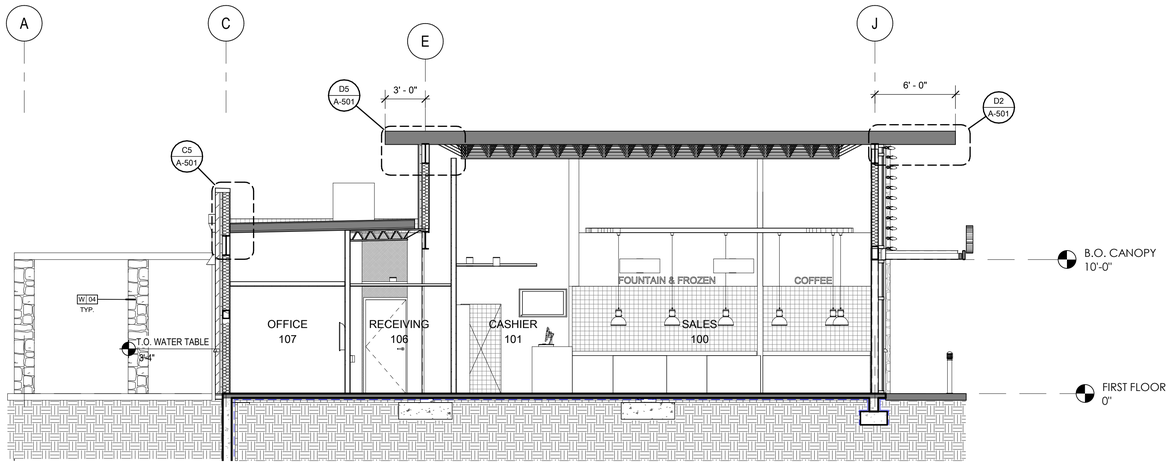
SECTION GENERAL NOTES

A. Suspended materials shall be attached to structure with tested connectors for tension or shear condition at frequency to support load applied.

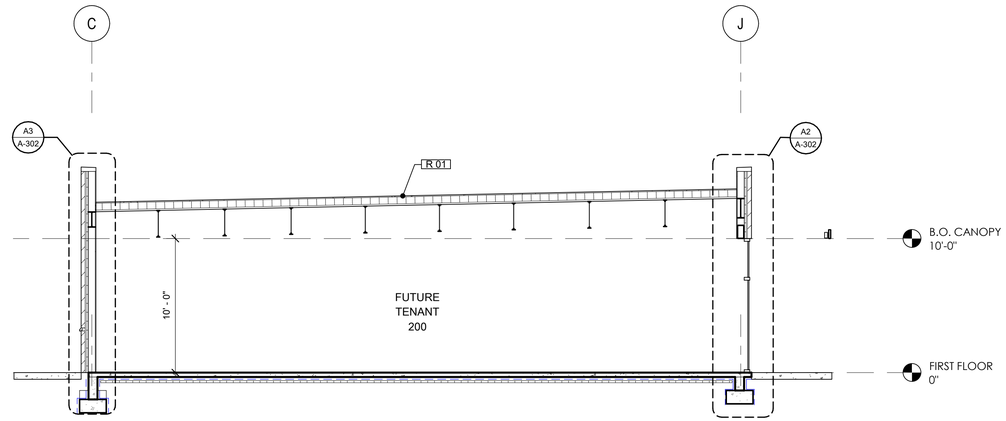
B. Insulation shall be continuous at the roof plane and shall lap wall insulation.

C. Route all plumbing, fire sprinkler, mechanical, electrical, fire alarm, piping, and conduit in concealed or furred area only. Exposed piping and conduit shall not be allowed in any area except at electrical and fire riser rooms.

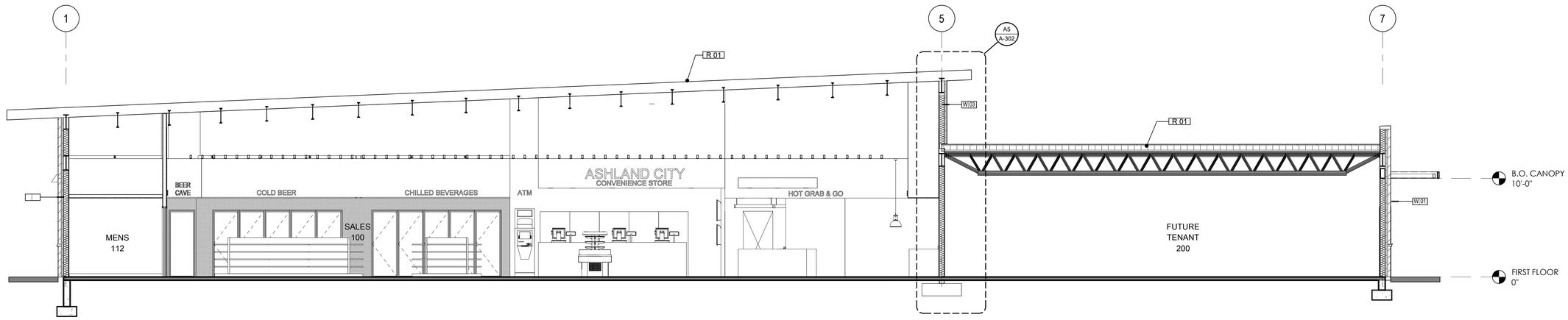
KEYNOTES - BUILDING SECTION



C5 BUILDING SECTION
3/16" = 1'-0" REF A4 / A-101



C1 BUILDING SECTION
3/16" = 1'-0" REF A4 / A-101



A5 BUILDING SECTION
3/16" = 1'-0" REF A4 / A-101

10/20/2021 1:33:26 PMMERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / A-301- BUILDING SECTIONS

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STATE OF TENNESSEE
10.20.2021

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BUILDING SECTIONS

A-301

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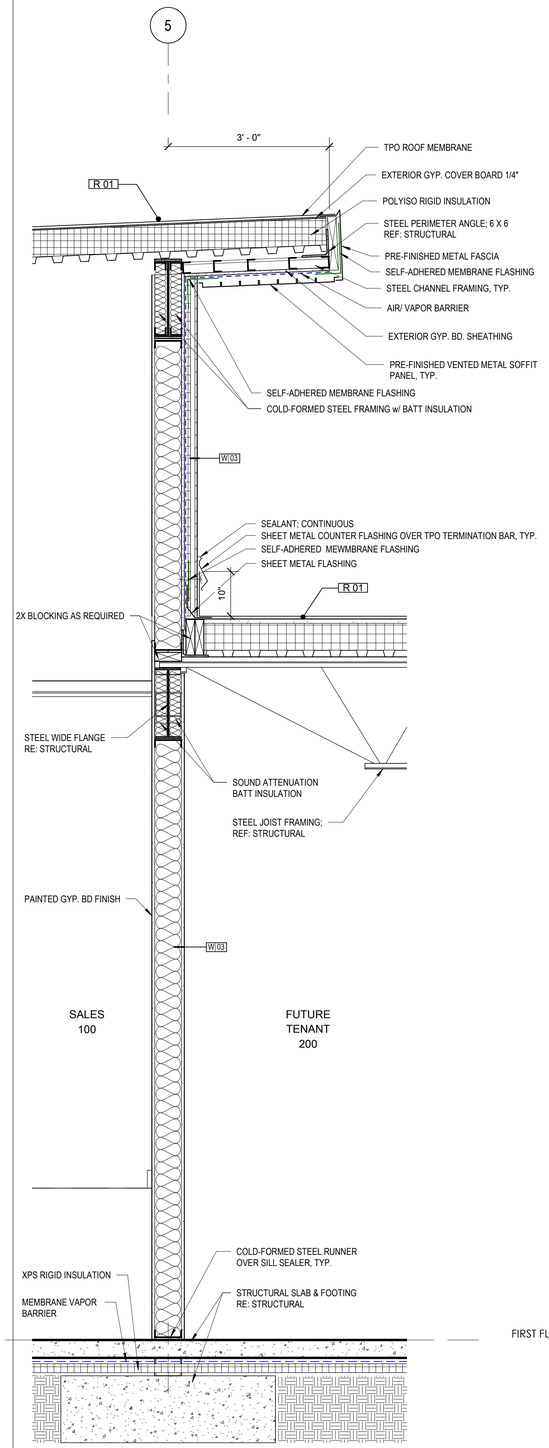

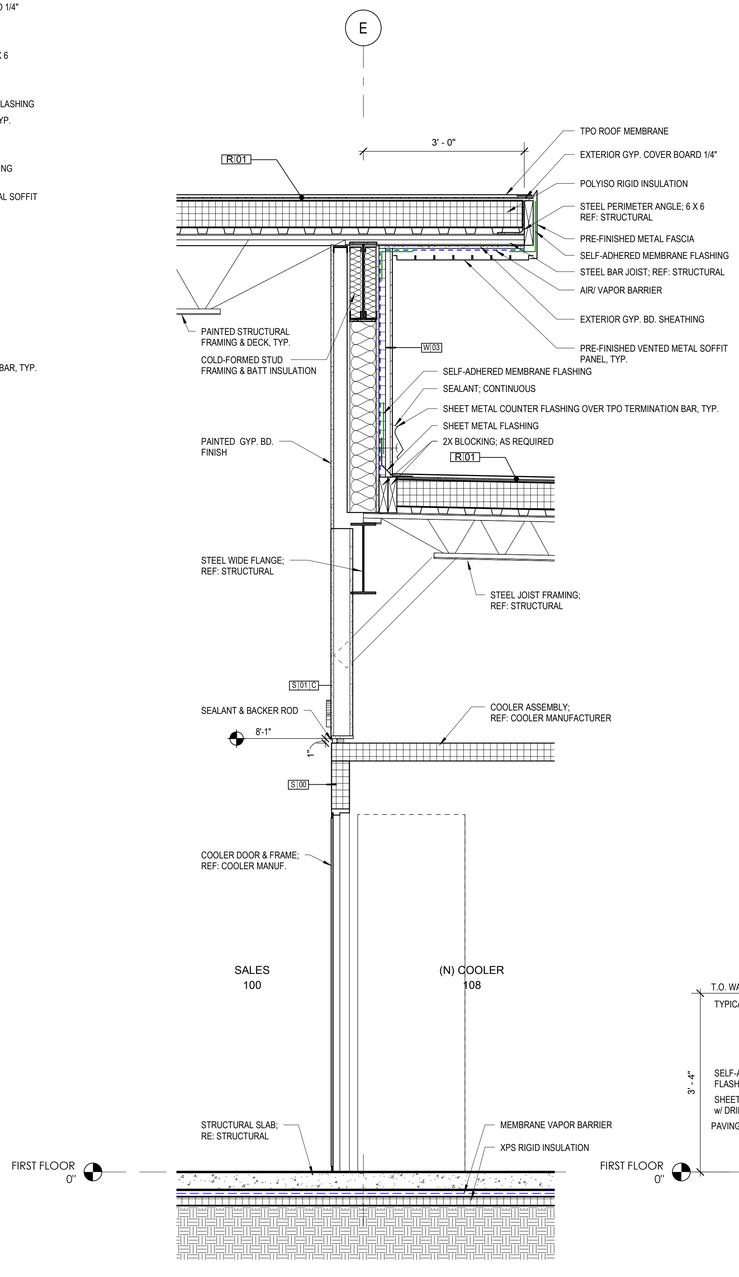

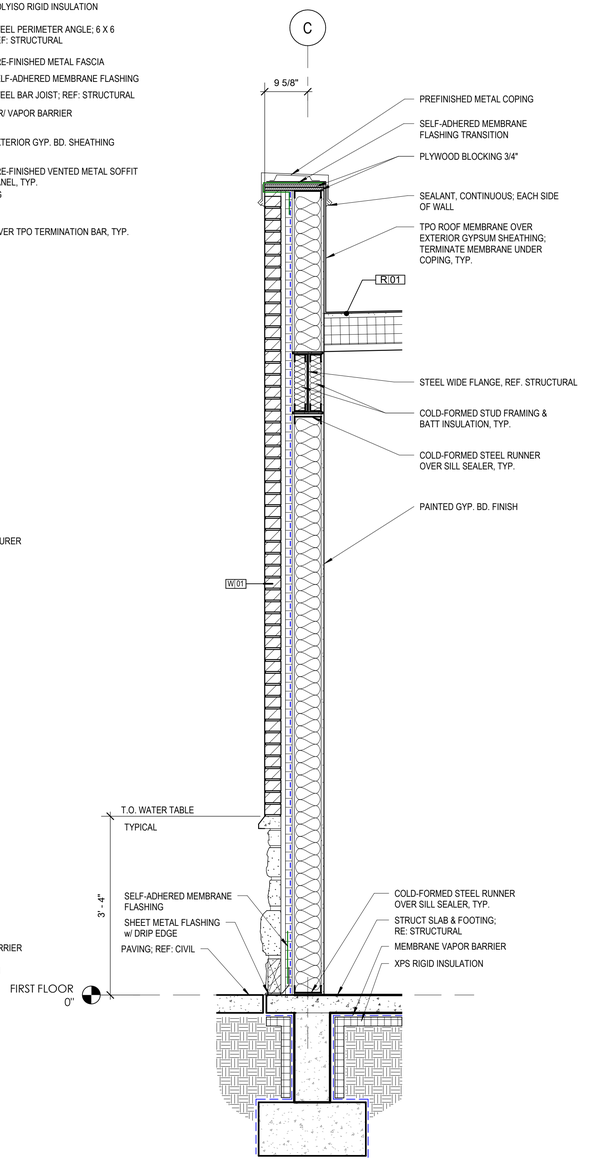

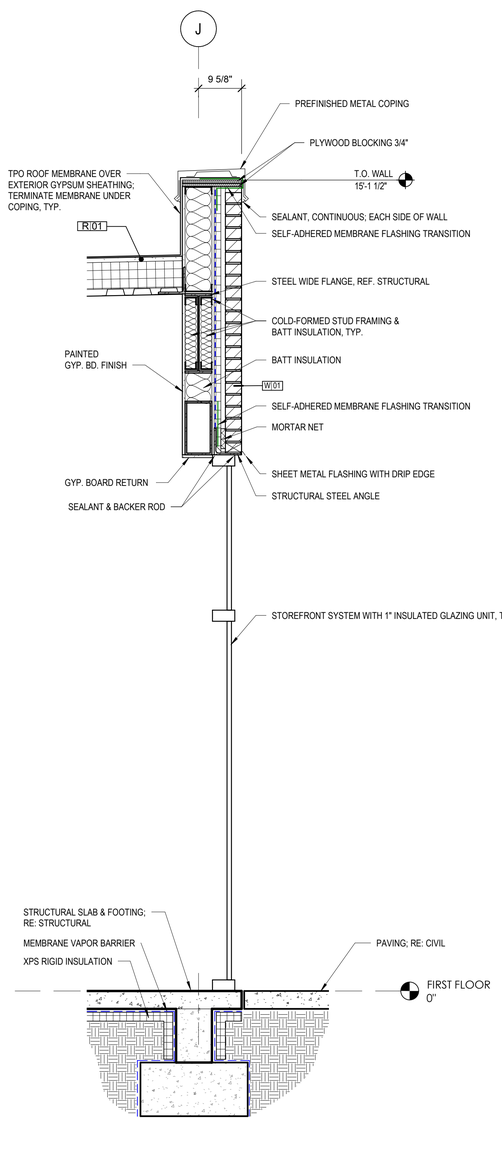

A5 WALL SECTION
3/4" = 1'-0" REF A5 / A-301

A4 WALL SECTION
3/4" = 1'-0" REF A4 / A-101

A3 WALL SECTION
3/4" = 1'-0" REF C1 / A-301

A2 WALL SECTION
3/4" = 1'-0" REF C1 / A-301

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No. 102135
STATE OF TENNESSEE
10.20.2021

REVISIONS:

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WALL SECTIONS

A-302

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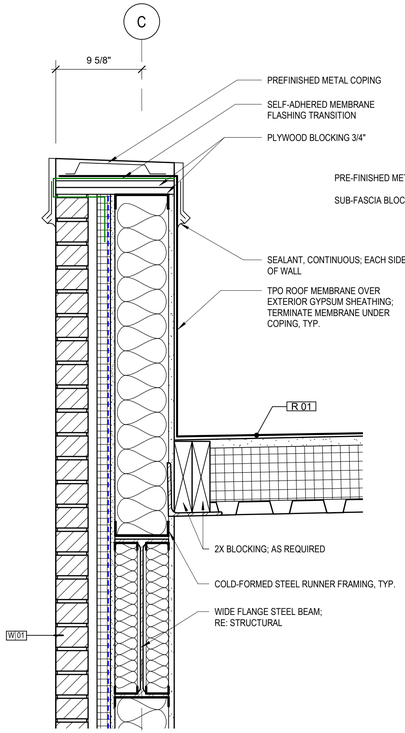
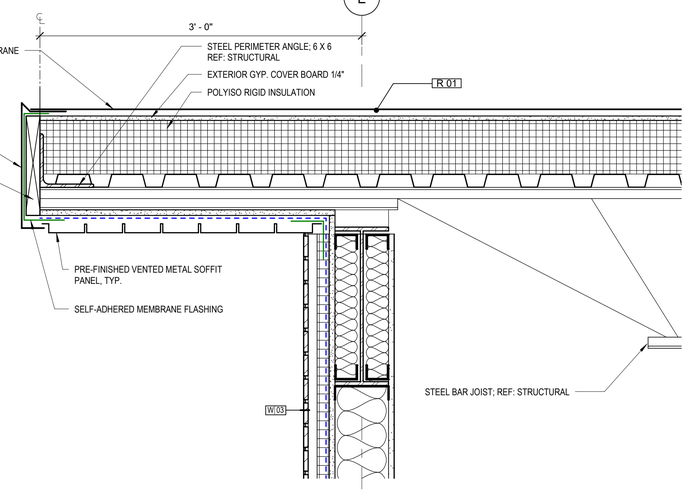
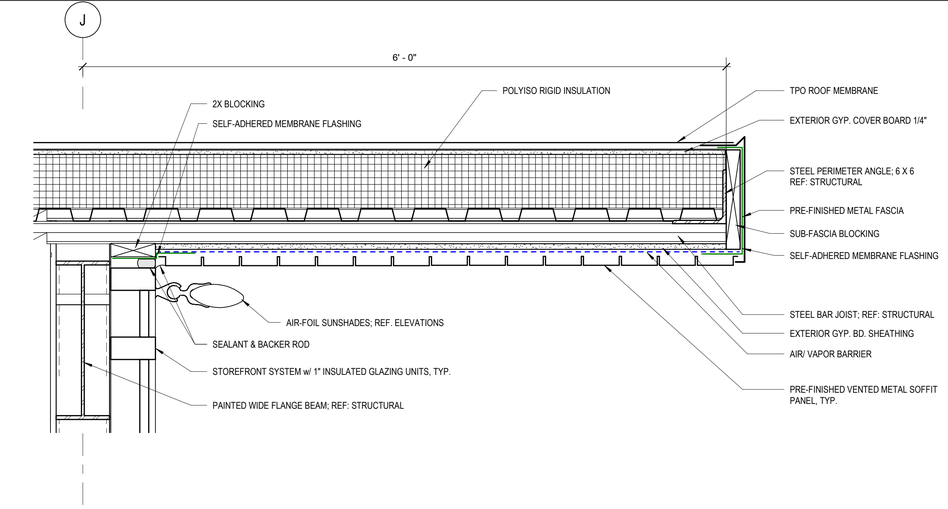


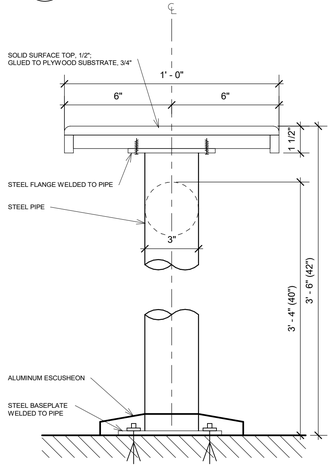
C5 SECTION DETAIL
1 1/2" = 1'-0" REF C5 / A-301



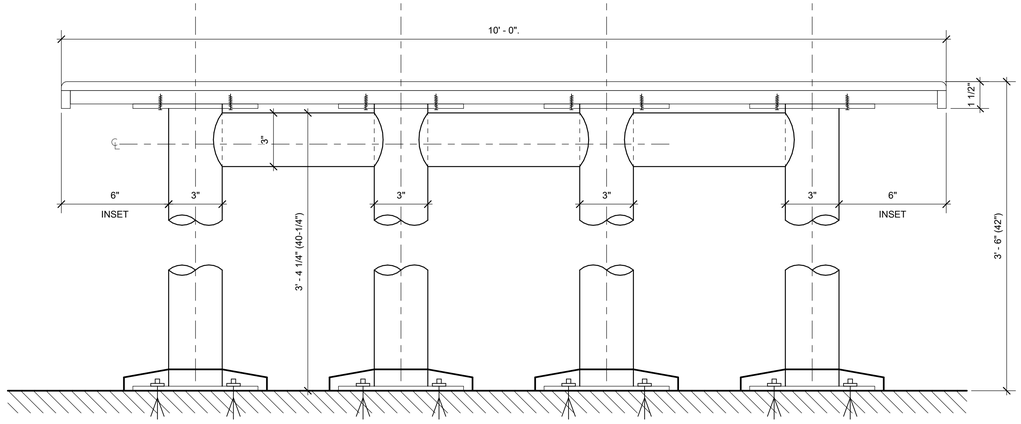
D5 SECTION DETAIL
1 1/2" = 1'-0" REF C5 / A-301



D2 SECTION DETAIL
1 1/2" = 1'-0" REF C5 / A-301



B5 SECTION - STANDING BAR
3" = 1'-0" REF A5 / A-501



B4 CROSS SECTION @ STANDING BAR
3" = 1'-0" REF A5 / A-501

A5 ENLARGED PLAN - STANDING BAR
3" = 1'-0" REF A4 / A-101

10/20/2021 1:33:29 PMMERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - DHAVAL PATEL / SCHEMATIC DESIGN / A-501- EXTERIOR / INTERIOR DETAILS

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DAVID A. BROWN REGISTERED ARCHITECT AND LANDSCAPE ARCHITECT COMMISSION NO. 102145 STATE OF TENNESSEE
10.20.2021

REVISIONS:

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EXTERIOR / INTERIOR DETAILS

A-501

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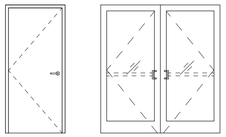
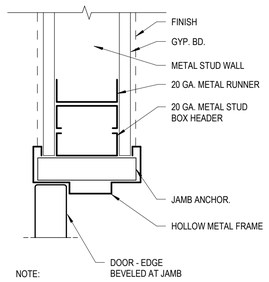
DOOR AND FRAME SCHEDULE

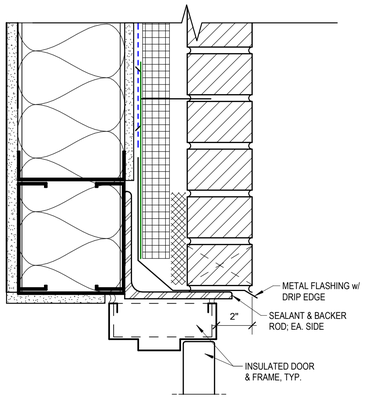
Door Number	To Room Name	Door Size Width	Height	Thickness	Door Type	Door Material	Door Finish	Door Frame Type	Frame Material	Frame Finish	Fire Rating	Hardware	Details Head	Jamb	Threshold	Remarks
FIRST FLOOR																
100	SALES	6'-0"	7'-0"		SF	GL		AL								
119	RECEIVING	3'-0"	7'-0"	1 3/4"	F	HM		HM								
120	OFFICE	3'-0"	7'-0"	1 3/4"	F	HM		HM								
126	MENS	3'-0"	7'-0"	1 3/4"	F	HM		HM								
127	SALES	3'-0"	7'-0"	1 3/4"	F	HM		HM								
128	RECEIVING	3'-0"	7'-0"	1 3/4"	F	HM		HM								
200A	FUTURE TENANT	6'-0"	7'-0"		SF	GL		AL								
200B	FUTURE TENANT	3'-0"	7'-0"	1 3/4"	F	MH		HM								
200C	FUTURE TENANT	3'-0"	7'-0"	1 3/4"	F	HM		HM								

9

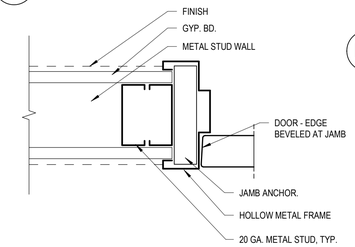




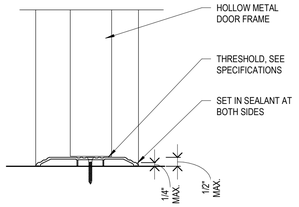
E2 DTL-INTERIOR DOOR HEAD
3" = 1'-0"



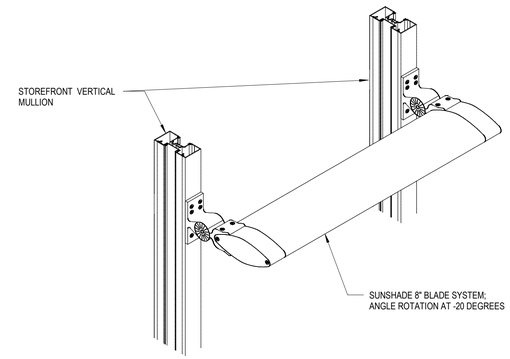
B2 EXTERIOR HM DOOR HEAD
3" = 1'-0"



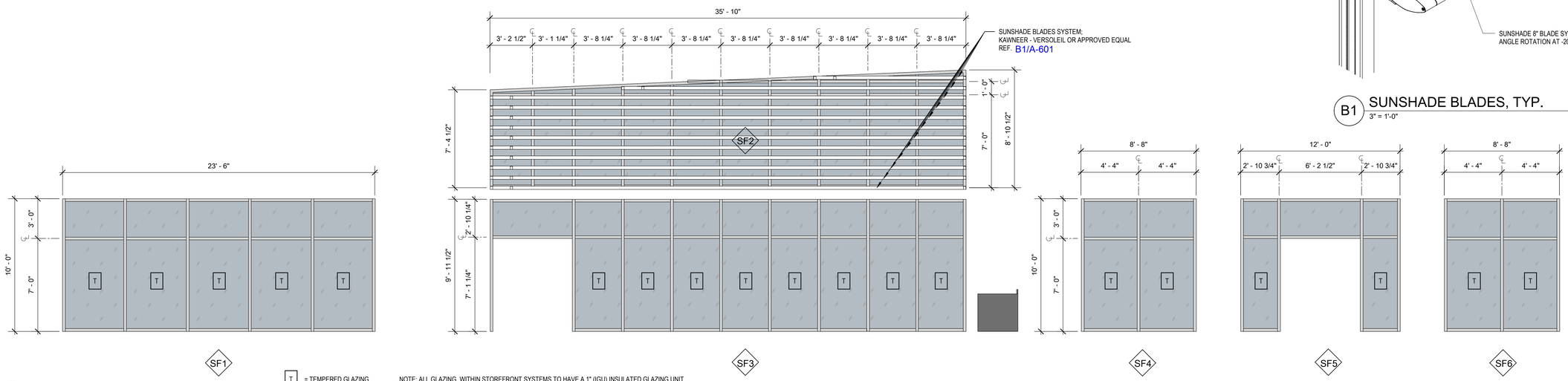
D2 DTL-INTERIOR DOOR JAMB
3" = 1'-0"



C2 DTL-INTERIOR DOOR SILL
3" = 1'-0"



B1 SUNSHADE BLADES, TYP.
3" = 1'-0"



T = TEMPERED GLAZING

NOTE: ALL GLAZING WITHIN STOREFRONT SYSTEMS TO HAVE A 1" (IGU) INSULATED GLAZING UNIT

A5 STOREFRONT ELEVATION
1/4" = 1'-0" REF A4 / A-101

DOOR & WINDOW GENERAL NOTES

A. Fire Protection Glazing - Glazing in Fire Window assemblies shall be fire protection rated in accordance with the requirements of IBC section 715.

B. Safety Glazing - All glazing at hazardous locations subject to human impact loads shall comply with IBC section 2406.

C. Refer to Accessible Details for plumbing fixtures and accessories installation.

SCHEDULE LEGEND

MATERIAL	HM HOLLOW METAL SC SOLID CORE WOOD AL ALUMINUM STD MANUFACTURER'S STANDARDS
FACING	WP WOOD VENEER - PAINTED WV WOOD VENEER - PREFINISHED PL PLASTIC LAMINATE MP METAL PAINTED AL ANODIZED ALUMINUM STD MANUFACTURER'S STANDARD
FRAME	HM WELDED HOLLOW METAL KD KNOCK DOWN STEEL AL ALUMINUM WD WOOD MFR FRAME BY MANUFACTURER
GLASS	LSG LAMINATED SAFETY GLASS MR MIRROR PC POLYCARBONATE T TEMPERED GLASS FRG FIRE RATED GLASS
ACCESSORIES	AO AUTOMATIC OPERATOR W/ PUSH BUTTON HO MAGNETIC HOLD OPEN
RATING	20, 45, 60 ASSEMBLY RATING IN MINUTES
HARDWARE	H-# HARDWARE SET NUMBER PER SECTION 087100

ASHLAND CITY C-STORE

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DAVID A. BROWN REGISTERED ARCHITECT No. 19218 STATE OF TENNESSEE
10.20.2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	TEAM

DOOR & WINDOW SCHEDULES, ELEVATIONS

A-601

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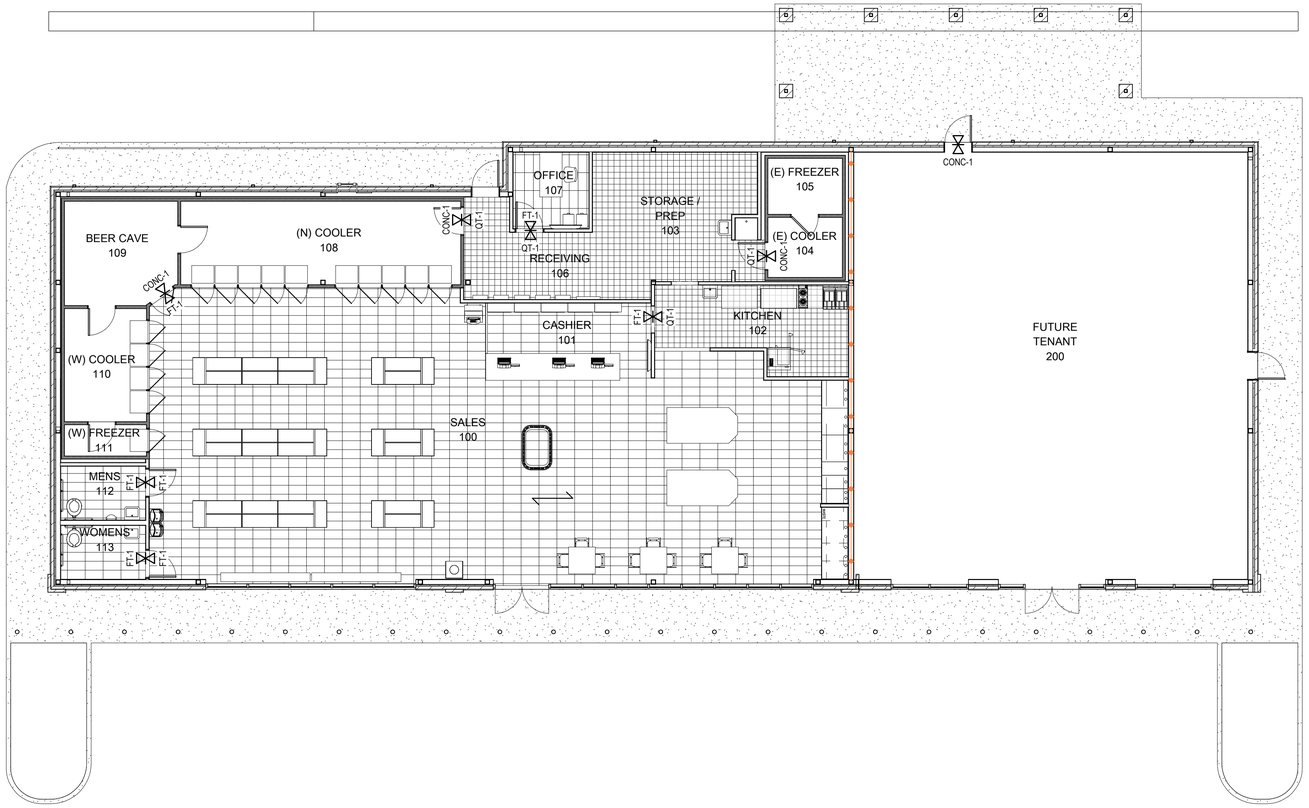
ROOM FINISH SCHEDULE							
ROOM NO.	ROOM NAME	FLOOR	BASE	WALL	CEILING	CEILING HEIGHT	NOTES
100	SALES	FT-1	RB-1	PNT-1/PNT-2	WD-1 / PNT-2	SEE RCP	SEE INT. ELEVATIONS FOR WALL PAINT TRANSITION
101	CASHIER	FT-1	RB-1	PNT-1/PNT-2	ACT-1/ PNT-1	SEE RCP	SEE INT. ELEVATIONS FOR WALL PAINT TRANSITION
104	KITCHEN	QT-1	QT-1	FRP-1	ACT-1	SEE RCP	
118	BEER CAVE	CONC-1	- -	- -	NO CEILING	N/A	
119	(N) COOLER	CONC-1	- -	- -	NO CEILING	N/A	
120	OFFICE	FT-1	RB-1	PNT-1	PNT-1	SEE RCP	
121	STORAGE / PREP	QT-1	QT-1	FRP-1	ACT-1	SEE RCP	
122/123	COOLER / FREEZER	CONC-1	- -	- -	NO CEILING	N/A	
124	(W) COOLER	CONC-1	- -	- -	NO CEILING	N/A	
125	(W) FREEZER	CONC-1	- -	- -	NO CEILING	N/A	
126	MENS RESTROOM	PT-1	PT-1	PT-1	PNT-1	SEE RCP	
127	WOMENS RESTROOM	PT-1	PT-1	PT-1	PNT-1	SEE RCP	
128	RECEIVING	QT-1	QT-1	PT-1	PNT-1	SEE RCP	

ROOM FINISH LEGEND						
DESIGNATION	DESCRIPTION	SIZE	COLOR	MANUFACTURER	PRODUCT	NOTES
CONC-1	SEALED CONCRETE	- -	- -	- -	- -	- -
FRP-1	FIBERGLASS REINFORCED PANEL	- -	WHITE	- -	- -	TRIM PIECES AT TRANSITIONS AND PERIMETER
FT-1	CERAMIC	12" x 24"	METRO CREAM	EMSER	- -	HONED
PNT-1	PAINT	- -	ANTIQUE WHITE	SHERWIN WILLIAMS	#SW6119	- -
PNT-2	PAINT	- -	TRICORN BLACK	SHERWIN WILLIAMS	#SW6258	- -
RB-1	RESILENT COVED RUBBER WALL BASE	4"	EBONY	ARMSTRONG	#R48EB	- -
QT-1	QUARRY TILE	6 "x 6"	DIABLO RED	DAL-TILE	#0T01	- -
ACT-1	ACOUSTICAL CEILING TILE	2' x 2'	WHITE	ARMSTRONG	CLEANROOM VL	SCRUBBABLE/WASHABLE CEILING TILE
GYP-1	GYPSUM BOARD	- -	PT-1 (SEE ABOVE)	- -	- -	- -
GYP-2	GYPSUM BOARD	- -	PT-1 (SEE ABOVE)	- -	- -	WATER RESISTANT GYP. BD. IN WET AREAS
WD-1						



A1 FIRST FLOOR FINISH PLAN

1/8" = 1'-0" REF A5 / A-201

FINISH PLAN GENERAL NOTES

A. All flooring materials to meet at center of doorway UNO.

B. All flooring materials continue under casework to toe kick or under open counter to wall.

C. Interior door frames to be painted Sherwin Williams, Color: SW1076. Finish: Semi-gloss enamel, UNO.

D. Refer to Reflected Ceiling Plan sheet(s) for soffit ceiling finishes.

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FIRST FLOOR FINISH PLAN

A-701

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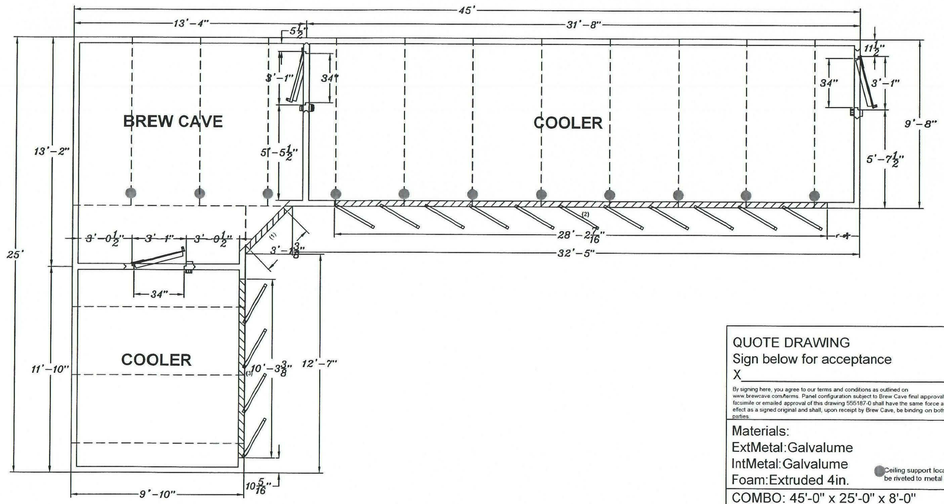


(1) Opening for 1 set of 1 Anthony 36 x 81 Entry Glass Doors to be 3'-1 3/8" X 6'-9" - centered on angle wall - sill to be 0" Glass Doors are on a separate quote.

(2) Opening for 1 set of 11 Anthony 30 x 75 Glass Doors to be 10'-3 1/8" X 6'-3 1/4" - centered on front 31'-8" wall - sill to be 6" Glass Doors are on a separate quote.

(3) Opening for 1 set of 4 Anthony 30 x 75 Glass Doors to be 10'-3 1/8" X 6'-3 1/4" - centered on right 11'-10" wall - sill to be 6" Glass Doors are on a separate quote.

To aid in packing, please indicate with an X the corner where installation will be starting.

QUOTE DRAWING
Sign below for acceptance
X_____

By signing here, you agree to our terms and conditions as outlined on www.brewcave.com/terms. Panel configuration subject to Brew Cave final approval. A facsimile or emailed approval of this drawing 555187-0 shall have the same force and effect as a signed original and shall, upon receipt by Brew Cave, be binding on both parties.

Materials:
ExtMetal:Galvalume
IntMetal:Galvalume
Foam:Extruded 4in.

Ceiling support location must be riveted to metal and cam

COMBO: 45'-0" x 25'-0" x 8'-0"

U.S. COOLER
401 DELAWARE ST. * QUINCY, IL 62301
TEL 217-228-2421 * 800-521-2665 * FAX 217-228-2424

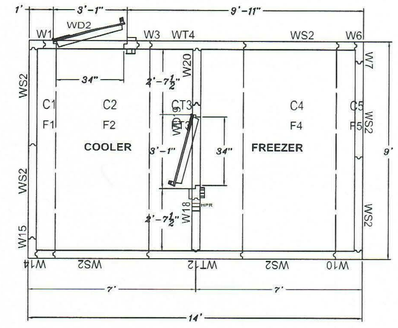
CUSTOMER: Meridian Architect

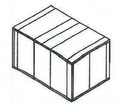
JOB#	P.O.#
DATE 09/28/2021	DRAWN LS
DWG REF 555187-1	APV

Refrigeration Specifications

Qty	Manufacturer	Model	HP	Electrical	MCA	CmpRLA	CmpLRA	Dimensions DxWxH
Pre-assembled Remote Med Temp R404A Air Cooled Outdoor Condensing Unit								
1	Russell	RFH200E4SDA	2	208-230/1Phase/60Hz	15	9.8	56	28.25"x39.875"x18.75"
1	Russell	RL6A130ADAA		115/1Phase/60Hz	1.6			15.5"x43.625"x18.125"
Pre-assembled Remote Med Temp R404A Air Cooled Outdoor Condensing Unit								
1	Russell	RFO150E4SDA	1.5	208-230/1Phase/60Hz		11.3	55	28.25"x39.875"x18.75"
1	Russell	RL6A117ADAA		115/1Phase/60Hz	1.6			15.5"x43.625"x18.125"

E5 COOLER COMBO WITH BREW CAVE
1" = 1'-0"





QUOTE DRAWING
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Materials:
ExtMetal:Galvalume
IntMetal:Galvalume
Foam:Extruded 4in.

Legend
Ceiling
Floor

COMBO: 14'-0" x 9'-0" x 8'-0"
COOLER: 7'-0" x 9'-0" x 8'-0"
FREEZER: 7'-0" x 9'-0" x 8'-0"

Scale: 1/4"= 1'

U.S. COOLER
401 DELAWARE ST. * QUINCY IL 62301
TEL 217-228-2421 * 800-521-2665 * FAX 217-228-2424

CUSTOMER: Meridian Architect

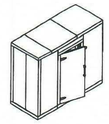
JOB#	P.O.#
DATE 09/24/2021	DRAWN C.G.S. 3.0
DWG REF 555182-1	APV

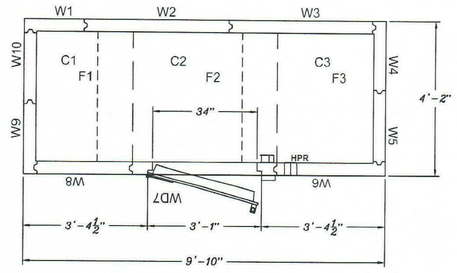
To aid in packing, please indicate with an X the corner where installation will be starting.

Refrigeration Specifications

Qty	Manufacturer	Model	HP	Electrical	MCA	CmpRLA	CmpLRA	Dimensions DxWxH
Pre-assembled Remote Med Temp R404A Air Cooled Outdoor Condensing Unit								
1	Russell	RFO060M4SDA	0.5	208-230/1Phase/60Hz	19.7	5.4	36	28.25"x27.875"x18.75"
1	Russell	RL6A066ADAA		115/1Phase/60Hz	0.8			15.5"x27.125"x18.125"
Pre-assembled Remote Low Temp R404A Air Cooled Outdoor Condensing Unit								
1	Russell	RFO180E4SDA	1.75	208-230/1Phase/60Hz		10.8	56	28.25"x39.875"x18.75"
1	Russell	RL6E049DDA		208-230/1Phase/60Hz	5.4			15.5"x27.125"x18.125"

E1 COOLER FREEZER COMBO
1" = 1'-0"





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Materials:
ExtMetal:Galvalume
IntMetal:Galvalume
Foam:Extruded 4in.

Legend
Ceiling
Floor

Freezer 9'-10" x 4'-2" x 8'-0"

Scale: 3/8"= 1'

U.S. COOLER
401 DELAWARE ST. * QUINCY, IL 62301
TEL 217-228-2421 * 800-521-2665 * FAX 217-228-2424

CUSTOMER: Meridian Architect

JOB#	P.O.#
DATE 09/24/2021	DRAWN C.G.S. 3.0
DWG REF 555183-0	APV

To aid in packing, please indicate with an X the corner where installation will be starting.

Refrigeration Specifications

Qty	Manufacturer	Model	HP	Electrical	MCA	CmpRLA	CmpLRA	Dimensions DxWxH
Pre-assembled Remote Low Temp R404A Air Cooled Outdoor Condensing Unit								
1	Russell	RFH150L44DA	1.5	208-230/1Phase/60Hz		10.3	59.2	28.25"x27.875"x18.75"
1	Russell	RL6E042DDAA		208-230/1Phase/60Hz	5.4			15.5"x27.125"x18.125"

A5 FREEZER
1" = 1'-0"

REFER TO U.S. COOLER QUOTE
No. 555187 Rev 1 & Rev 2 for more detailed specifications.
Contact U.S. Cooler for more information.

ASHLAND CITY C-STORE

DHAVAL PATEL
0 Old Hydes Ferry Pike, Ashland City, TN 37015

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(615)-598-5887 | dhavalom@gmail.com

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FOR INFORMATION ONLY - COOLER / FREEZER

A-800

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Abbreviations

AFF	Above Finished Floor
Approx	Approximate(ly)
Arch	Architectural
Bldg	Building
BTM	Bottom
Brg	Bearing
CL	Centerline
Clr	Clear or Clearance
CMU	Concrete Masonry Unit
Col	Column
Conc	Concrete
Conn	Connection
Const	Construction
Cont	Continuous
Dia, Ø	Diameter
Dim	Dimension
Dwg	Drawing
Ea	Each
EF	Each Face
Elec	Electrical
Elev	Elevation
Embed	Embedment
Eq	Equal
EW	Each Way
Exist	Existing
Exp	Expansion
Ext	Exterior
Fnd	Foundation
FFE	Finished Floor Elevation
FP	Full Penetration
FS	Far Side
Ftg	Footing
Ga	Gage or Gauge
Horiz	Horizontal
Int	Interior
K	Kips(1000 LBS.)
KSI	Kips per Square Inch
LB, #	Pound
LL	Live Load
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
Long	Longitudinal
Manuf	Manufacturer
Max	Maximum
Mech	Mechanical
Mid	Middle
Min	Minimum
Misc	Miscellaneous
N/A	Not Applicable
NS	Near Side
NTS	Not to Scale
o.c.	On Center
Opp	Opposite
Perp	Perpendicular
PL	Plate
Prelim	Preliminary
Proj	Projection
PSF	Pounds per Square Foot
PSI	Pounds per Square Inch
Reinf	Reinforcing(-ed, -ment)
Req'd	Required
Rev	Revision
RW	Retaining Wall
Sched	Schedule(d)
Sect	Section
Sim	Similar
Spec	Specifications(s)
Sym	Symmetrical
T	Top, Tension
T/, T.O.	Top of
T/Conc	Top of Concrete
T/Ftg	Top of Footing
T/Slab	Top of Slab
T&B	Top & Bottom
Temp	Temperature
Thk	Thickness
TOS	Top of Steel
TOW	Top of Wall
Trnv	Transverse
Typ	Typical
UNO	Unless Noted Otherwise
Vert	Vertical
w/	With
w/o	Without
W.W.F.	Welded Wire Fabric

Design Criteria

Building Codes:

2015 International Building Code (IBC)
ASCE 7-10

Roof Loads:

Dead Load =	20 psf
Live Load =	20 psf
Ground Snow Load =	10 psf

Wind Loads (Per ASCE 7-10):

Ultimate Wind Speed	115 mph
Nominal Wind Speed	89.1 mph
Risk Category	II
Internal Pressure Coeff	+/- 0.18
Wind Exposure	B

Seismic Loads (Per ASCE 7-10):

Spectral Response Coefficients		
	Ss	0.358
	S1	0.162
	Sds	0.361
	Sd1	0.233
Soil Site Class		D
Seismic Design Category		D
Seismic Force Resisting System		Ordinary Concentrically Braced Steel Frames
Risk Category		II
Analysis Procedure		Equivalent Lateral Force
Design Base Shear:		V =Cs * W

Shallow Foundations

1. Foundations are designed based upon assumed soil bearing capacities as stated below.

2. Allowable soil bearing pressures used in design: Spread footings =1500 psf /Continuous footing = 1500 psf

3. Footing excavations shall be observed and tested by an experienced geotechnical engineer prior to steel or concrete placement in order to assess that the foundation materials are consistent with above stated assumed soil bearing capacities.

4. In the event that the soils test results are disapproved, footing excavations shall be undercut (under the direction of the soils engineer) until soils of adequate bearding capacity are encountered. Backfill under footings shall consist of concrete f'c = 2500 psi @ 28 days placed up to the proposed bottom of footing elevation.

5. Footings shall bear on undisturbed residual soils or compacted fill, maximum desnist of 98% ASTM D-698.

6. Footing elevations shown on the plans are for estimating purposes only. Actual footing elevations shall be determined by the contractor at the site and shall be a minimum of 12" below finished grade.

7. All water shall be removed from foundation excavations prior to placing of concrete. If bottoms of trenches become softened due to water before footings are cast, the contractor, at his own expense, shall excavate the softened material and replace with concrete.

8. All pipes (water lines, sewer lines, etc.) And conduits running through walls / slabs shall be protected with ½" expansion material.

9. Continuous footing perpendicular to pipe runs shall be either lowered to allow pipes to pass through above such footings or have concrete jacket if pipes are low enough to be placed below such footings. Footings parallel to pipe runs shall be lowered to avoid surcharge onto the trench excavations.

General Notes

1. No provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of the owner, contractor, architect, engineer, supplier, or any of the consultants, agents, or employees from those set forth in the contract documents, nor shall it be effective to assign to the structural engineer of record (S.E.R.) or any of the S.E.R.'s consultants, agents, or employees any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibilities contrary to the provisions of the contract documents.

2. Reference to standard specifications (concerning structural design) of any technical society, organization, or association or to codes of local or state authorities, shall mean the latest standard codes, specification or tentative specification adopted at the date of taking bids, unless specifically stated otherwise.

3. In the event contract documents conflict with the code of practice or specifications of ACI, PCI, AISC, AISI, SJI or other standards, contact structural engineer for clarification.

4. Notes and specific details on the drawings shall take precedence over general structural notes and typical details. Contact the architect / engineer for a determination of intent before proceeding with related work if there is any discrepancy or question regarding which note to follow.

5. Material, workmanship, and design shall conform to the referenced building code.

6. The contractor shall verify the dimensions, elevations and site conditions before starting work. The architect / engineer shall be notified of any discrepancy.

7. The design, adequacy, and safety of erection bracing, shoring, temporary supports, etc. is the sole responsibility of the contractor.

8. The contractor shall coordinate the architectural, mechanical, electrical, plumbing and civil works with the structural contract documents. The architect / engineer shall be notified of any discrepancies or omissions.

9. The contractor shall notify, in writing, the engineer of conditions encountered in the field that are contradictory to those shown on the contract documents.

10. For dimensions not shown on the structural drawings see the architectural drawings.

Concrete

1. All phases of work pertaining to the concrete construction shall conform to the "Building Code Requirements for Structural Concrete" (ACI 318), latest edition with modifications as noted in the drawings or specifications.

2. Concrete mixes shall be designed by a qualified testing laboratory and approved by the structural engineer.

3. All exposed corners or edges of columns, piers, walls, etc., shall be formed with a 3/4" chamfer unless noted otherwise on structural or architectural drawings.

4. All reinforcing bars, anchor bolts and other concrete inserts shall be well secured in position prior to placing concrete.

5. Provide sleeves for plumbing and electrical openings in concrete before placing concrete. Do not cut any reinforcing that may conflict. Coring is not permitted except as shown. Notify the structural engineer in advance of conditions not shown on the drawings.

6. Conduit or pipe size (o.d.) shall not exceed 30% of the slab thickness and shall be placed between the top and bottom reinforcing unless specifically detailed otherwise. Concentrations of conduits or pipes shall be avoided except where detailed openings are provided.

7. Curing compounds on concrete that is to receive special finish shall be approved by the manufacturer before use.

8. Roughen surface of horizontal or nearly horizontal construction joints so that the aggregate shall be exposed uniformly, leaving no laitance, loosed particles or damaged concrete.

9. Locate joints not indicated to least impair strength and appearance of the structure. Locate horizontal joints in concrete only where they normally occur or where indicated. Locate vertical joints in middle third of spans of slabs, beams, or girders unless a beam intersects a girder at middle location, in which case offset joints in girders twice the width of the beam.

10. Once formwork has been removed from concrete retaining walls, brace walls thoroughly before placing soil against wall and keep bracing in place for a minimum of 7 days after earthwork is complete.

Schedule of Concrete Strengths

Use (Location)	28 Day Strength	Aggregate Size (Max.)	Cement/CY (Min.)	W/C ratio (Max.)	Slump (Max.)	Air Entrainment
Slab-on-grade (Interior)	f'c=3,000 psi	1"	480#	.62	4-1/2"	None
Exposed Concrete	f'c=4,000 psi	1"	560#	.54	4-1/2"	4%-6%
Footings	f'c=3,000 psi	1"	480#	.62	4-1/2"	None

1. All aggregate shall be Limestone
2. All cement shall be Portland Cement Type 1

Reinforcing

1. Reinforcing shall be detailed and placed in conformance with ACI Detailing Manual.

2. Reinforcing bars shall conform to the requirements of ASTM A615 Grade 60 except all reinforcing in concrete moment frames and shear walls and all welded reinforcement shall conform to ASTM A706 Grade 60.

3. Welded wire fabric shall conform to ASTM A185.

4. Minimum lap of welded wire fabric shall be 6" or one full mesh + 2", whichever is greater.

5. Dowels between footings and walls shall be the grade, size and spacing or number as the vertical reinforcing, respectively.

6. Reinforcing steel in all concrete walls and footings shall be continuous around corners.

7. Provide (2) #5 extra reinforcing bars around all side of openings in concrete, unless noted otherwise on the plans. Extend bars 2'-0" beyond each edge of opening.

8. Minimum clear coverage of concrete over reinforcement shall be:
   a. Concrete cast against and permanently exposed to earth .....3"
   b. Concrete exposed to earth or weather:
      i. No. 6 through no. 18 bar.....2"
      ii. No. 5 bar, w31 or d31 wire or smaller.....1-1/2"
   c. Concrete not exposed to weather or in contact with ground:
      i. Slabs walls and joists no. 14 & no. 18.....1-1/2"
      ii. Slabs walls and joists no. 11 & smaller.....3/4"
      iii. Beams, columns: ties and primary reinforcing.....1-1/2"

Metal Decking

1. Provide design, fabrication, and erection of metal deck conforming to the Steel Deck Institute's "Code of Recommended Standard Practice and Basic Design Specifications".

2. Form roof deck from steel sheets conforming to ASTM A611 or A653 or higher specifications with minimum yield strength of 33 ksi.

3. Attach sheets to steel support members as indicated and in accordance with the manufacturer's instructions for installation. When deck is scheduled to be exposed, de-slag, clean and touched up welds with a zinc-rich primer.

4. Lap roof ends minimum of 2 inches when fastening deck to support members provide welding materials installation procedures to prevent burning of holes in deck.

5. Metal deck fabricator to furnish shop drawings for structural engineer's review prior to fabrication. Shop drawings shall include welding procedure, side lap connections, testing programs for welding, coating material and erection sequence.

6. Roof deck shall have the following minimum section properties.
   a. Section properties (per foot of width).
      Type = 1.5B: 20 gauge: I = .212 in^4; Sp = .234 in^3; Sn = .247 in^3

Structural Steel

1. Structural steel shall conform to:
   - W-Shapes = A992
   - Pipe columns = ASTM A53 type E or S Grade B.
   - HSS = ASTM A500 Grade B.
   - Plates, Channels, Angles, Misc, etc. = A36

2. Design, fabrication, and erection shall be in accordance with aisc specification for the design, fabrication, and erection of structural steel buildings.

3. Structural steel shall be detailed in accordance with standard practices of AISC
   a. Connections: AISC Manual standard connections, unless noted.
   b. High-strength bolts: ASTM A325 bearing type N installed in accordance with "specification for structural joints Using ASTM A325 or A490 Bolts", research council on riveted and bolted structural joints.

4. All welds must be made in accordance with the American Welding Society Code D-1.1.

5. Field and shop connections shall be welded as shown on drawings or bolted with high strength bolts, unless noted otherwise.

6. See architectural drawings for angles, clips, bars, plates, and other items attached to structural members, and for chamfers on concrete walls, beams, etc.

7. Provide temporary bracing as required to maintain alignment and security of structures during construction.

8. Do no cutting, drilling or modifying of structural members without the approval of the engineer.

9. The manufacturer's name, brand or trademark (mill identification marks) shall be shown in raised letters at intervals along the length. (ASTM A6/A6M 96-97, paragraph 12.2) note: small shapes with the greatest cross-sectional dimension not greater.

Bar Joist

1. Provide open web under slung, parallel chord joists and joist girders unless noted otherwise on the drawings.

2. Design, fabricate, and erect open web steel joists and joist girders to the specifications of the Steel Joist Institute, latest edition.

3. Unless noted otherwise, weld K-series joists to supporting beams or bearing plates with 1/8 inch fillet weld, 2 inches long on each side of joist seat. Use minimum of 2-3/4 inch diameter A325-N bolts at joist connections on or nearest to column lines.

4. Unless noted otherwise, weld LH or DLH-series joists to supporting beams or bearing plates with ¼ inch fillet weld, 2 inches long on each side of joist seat. Use minimum of 2-3/4 inch diameter A325-N connection bolts at joist connections on or nearest to column lines.

5. Provide joist bridging, size and spacing, in accordance with Steel Joist Institute. Provide supplemental bridging as required for net wind uplift pressures.

6. Design roof joists for the following net uplift wind uplift pressures
   a. Edge zones (regions within "Z" distance of roof edge) = 20 psf.
   b. Corner zones (regions within "Z" distance of two intersecting roof edges) = 25 psf.
   c. Interior zones (regions that are not edge or corner zones = 15 psf.
   d. Distance Z = 10.0 ft.

7. Joist sizes as shown on drawings are based on gravity load capacities. Design joists for the gravity load capacities in addition to other loads (uplift, axial loads, concentrated loads, moments, etc.) as indicated on drawings.

8. Shop drawings for joists, and joist accessories to be prepared by the joist manufacturer's detailers.

9. Submit design calculations in accordance with steel joist institute design standards for all joist and joist girders. Design calculations to be signed and sealed by a professional engineer licensed in the state where the project is located.

10. Provide 2-1/2 inch minimum bearing on structural steel for K-series joists, 4 inch minimum bearing on masonry or provide bearing lengths per steel joist institute requirements unless greater lengths are shown on drawings.

11. Verify size, weight, location and configuration of all roof top equipment with the architect and mechanical engineer. Coordinate openings with the mechanical and general contractor.

12. All concentrated loads greater than 100 pounds supported by open web steel joists and girders shall be located within 6 inches of joist or girder panel points or the joist or girder shall be reinforced with an additional web member. Refer to the "Typical Joist Modification Detail" on the structural drawings.

13. Provide special bearing ends to accommodate slopes from sloped joists or sloped bearing conditions.

14. Extend all joist bottom chords at columns and weld after dead load is applied. Provide additional bottom chord extensions as required indicated in structural or architectural drawings.

15. At joist parallel to beams anchor bridging by welding to beams. At joists parallel to walls, weld bridging to an L3x3x3/16 at top and bottom. Anchor angle to wall using (2) 3/8" diameter sleeve anchors.

DRAWING LIST

Sheet No:	Sheet Name
S1.0	General Notes
S1.1	Quality Assurance Plan
S2.0	Foundation Plan
S3.0	Canopy Framing Plan
S3.1	Low Roof Framing Plan
S3.2	High Roof Framing Plan
S4.0	Base Plate and Pier Details
S4.1	Foundation Sections
S5.0	Typical Framing Sections
S5.1	Canopy Framing Sections
S5.2	Roof Framing Sections
S6.1	Framing Elevations
S6.2	Framing Elevations

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JEREMY RANDOLPH BLANTON — REGISTERED ARCHITECT — No. 104890 — STATE OF TENNESSEE
10/20/2021

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE: 10/20/2021
MA PROJECT NO: 0214-21
PROJECT PHASE: CD
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General Notes

S1.0

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STRUCTURAL QUALITY ASSURANCE PLAN

GENERAL

THIS STRUCTURAL QUALITY ASSURANCE PLAN IDENTIFIES THE RESPONSIBILITIES OF THE CONTRACTOR AND THE SPECIAL INSPECTOR IN PERFORMING THE TESTING AND INSPECTION OF THE WORK REQUIRED BY CHAPTER 17 OF THE 2015 INTERNATIONAL BUILDING CODE THAT IS WITHIN THE SCOPE OF THE STRUCTURAL ENGINEERING SERVICES FOR THIS PROJECT. REFER TO OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS FOR TESTING AND INSPECTIONS REQUIRED OF ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR OTHER BUILDING COMPONENTS.

CONTRACTOR RESPONSIBILITIES

THE CONTRACTOR SHALL SUBMIT TO THE BUILDING OFFICIAL AND THE ARCHITECT A WRITTEN STATEMENT OF RESPONSIBILITY THAT CONTAINS THE FOLLOWING:

1. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED WITHIN THIS STRUCTURAL QUALITY ASSURANCE PLAN.
2. ACKNOWLEDGMENT THAT CONTROL SHALL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.
4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

THE STRUCTURAL TESTING/INSPECTION AGENCY THAT IS TO ACT AS THE SPECIAL INSPECTOR SHALL BE HIRED BY THE OWNER AND SHALL BE APPROVED BY THE BUILDING OFFICIAL AND THE ARCHITECT. THE CONTRACTOR SHALL SUBMIT WITH HIS BID THE NAME AND QUALIFICATIONS OF THE STRUCTURAL TESTING/INSPECTION AGENCY AND IT PERSONNEL THAT WILL ACT AS THE SPECIAL INSPECTOR. IF MULTIPLE STRUCTURAL TESTING/INSPECTION AGENCIES ARE USED, SUBMIT THE INFORMATION STATED ABOVE FOR EACH FIRM ALONG WITH A STATEMENT OF THE SPECIAL INSPECTION RESPONSIBILITIES FOR EACH FIRM.

CONTRACTOR SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING /INSPECTION REQUIRED FOR WORK OR MATERIALS NOT COMPLYING WITH THE CONSTRUCTION DOCUMENTS DUE TO NEGLIGENCE OR NONCONFORMANCE AND SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING/ INSPECTION REQUIRED FOR HIS CONVENIENCE.

CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SPECIAL INSPECTOR IS PRESENT FOR ALL WORK REQUIRING SPECIAL INSPECTION. ANY WORK THAT REQUIRES SPECIAL INSPECTION AND IS PERFORMED WITHOUT THE SPECIAL INSPECTOR BEING PRESENT IS SUBJECT TO BEING DEMOLISHED AND RECONSTRUCTED.

CONTRACTOR HAS THE FOLLOWING RESPONSIBILITIES TO THE SPECIAL INSPECTOR:

1. PROVIDE COPY OF CONSTRUCTION DOCUMENTS TO THE SPECIAL INSPECTOR.
2. NOTIFY THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF OPERATIONS TO ALLOW ASSIGNMENT OF PERSONNEL AND SCHEDULING OF TESTS.
3. COOPERATE WITH SPECIAL INSPECTOR AND PROVIDE ACCESS TO WORK.
4. PROVIDE SAMPLES OF MATERIALS TO BE TESTED IN REQUIRED QUANTITIES.
5. PROVIDE STORAGE SPACE FOR THE SPECIAL INSPECTOR'S EXCLUSIVE USE, SUCH AS FOR STORING AND CURING CONCRETE TESTING SAMPLES.
6. PROVIDE LABOR TO ASSIST THE SPECIAL INSPECTOR IN PERFORMING TESTS/ INSPECTIONS.

SPECIAL INSPECTOR RESPONSIBILITIES

SPECIAL INSPECTOR SHALL MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE 2015 INTERNATIONAL BUILDING CODE AND SHALL DISTRIBUTE THESE RECORDS TO THE BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER ON A REGULAR BASIS. AT THE CONCLUSION OF THE PROJECT, THE SPECIAL INSPECTOR SHALL SUBMIT A WRITTEN STATEMENT THAT THE SPECIAL INSPECTIONS DURING CONSTRUCTION HAVE COMPLIED WITH THE STRUCTURAL QUALITY ASSURANCE PLAN AND THAT ANY DISCREPANCIES NOTED DURING CONSTRUCTION HAVE BEEN CORRECTED.

CAST-IN-PLACE CONCRETE:

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. SUBMIT MANUFACTURER'S DATA FOR TENSILE AND COMPRESSIVE SPLICES.
2. ESTABLISH CONCRETE MIX DESIGN PROPORTIONS PER ACI 318, CHAPTER 5. SUBMIT THREE COPIES OF THE CONCRETE MIX DESIGNS.
   INCLUDE THE FOLLOWING:
   2.1 TYPE AND QUANTITIES OF MATERIALS
   2.2. SLUMP
   2.3. AIR CONTENT
   2.4. FRESH UNIT WEIGHT
   2.5. AGGREGATES SIEVE ANALYSIS
   2.6. DESIGN COMPRESSIVE STRENGTH
   2.7. LOCATION OF PLACEMENT IN STRUCTURE
   2.8. METHOD OF PLACEMENT
   2.9. METHOD OF CURING
   2.10. 7-DAY AND 28-DAY COMPRESSIVE STRENGTHS
3. SUBMIT A CERTIFICATION FROM EACH MANUFACTURER OR SUPPLIER STATING THAT MATERIALS MEET THE REQUIREMENTS OF THE SPECIFIED ASTM AND ACI STANDARDS.
4. SUBMIT CERTIFICATION THAT THE READY-MIX CONCRETE PLANT COMPLIES WITH THE REQUIREMENTS OF THE NATIONAL READY MIX CONCRETE ASSOCIATION.

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING ITEMS
NON REQUIRED THIS PROJECT

STRUCTURAL STEEL:

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. SUBMIT CERTIFICATION THAT STEEL FABRICATOR IS CERTIFIED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) QUALITY CERTIFICATION PROGRAM FOR: CONVENTIONAL STEEL BUILDINGS.
2. FABRICATOR NOT CERTIFIED BY THE AISC QUALITY CERTIFICATION PROGRAM SHALL HAVE FABRICATION PROCEDURES AND FABRICATED STEEL TESTED AND INSPECTED BY AN INDEPENDENT TESTING AGENCY. PAYMENT OF THESE TESTS AND INSPECTIONS SHALL BE BY THE FABRICATOR. TESTS AND INSPECTIONS SHALL BE PERFORMED BY AWS CERTIFIED WELDING INSPECTORS. PRIOR TO DELIVERY OF STRUCTURAL STEEL TO THE PROJECT, SUBMIT COPIES OF THE INSPECTION REPORTS TO THE STRUCTURAL ENGINEER. THE PURPOSE OF THIS INSPECTION IS TO ENABLE THE TESTING/INSPECTION AGENCY TO VERIFY THAT, IN GENERAL, THE STEEL IS BEING FABRICATED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. A MINIMUM OF ONE TRIP PER WEEK IS RECOMMENDED. THE FIRST TRIP SHOULD BE SCHEDULED IN THE EARLY STAGES OF FABRICATION. CONTACT STRUCTURAL ENGINEER PRIOR TO INITIAL INSPECTION. TESTS AND INSPECTIONS SHALL INCLUDE THE FOLLOWING:
   2.1. EXAMINE MILL TEST REPORTS AND VERIFY THAT MATERIAL BEING USED IS THE SAME AS THE MILL TESTED REPORT.
   2.2. REVIEW THE FABRICATOR'S WRITTEN WELDING PROCEDURES. VERIFY THAT THE FABRICATOR'S WELDING PROCEDURES ARE BEING FOLLOWED. VERIFY THAT WELDERS ARE CERTIFIED WITH CURRENT PAPERS AND THAT THEY DEMONSTRATE PROPER TECHNIQUES.
   2.3. OBSERVE HIGH STRENGTH BOLTING PROCEDURES. VERIFY THAT SHOP INSTALLATION OF HIGH STRENGTH BOLTS CONFORM TO AISC SPECIFICATIONS.
   2.4. EXAMINE JOINT PREPARATION FOR COMPLETE PENETRATION JOINTS. ULTRASONICALLY INSPECT 100% OF THE COMPLETE PENETRATION WELDS.
   2.5. EXAMINE FILLET WELDS FOR PROPER SIZE, PROFILE, THROAT, POROSITY AND END RETURNS.
   2.6. EXAMINE STEEL MEMBERS FOR LAMELLAR TEARING. SPOT CHECK DIMENSIONS AND HOLE SIZES.
   2.7. EXAMINE BOLT AREA BURRS.
3. SUBMIT CERTIFIED MILL TEST REPORTS FOR STRUCTURAL STEEL.
4. SUBMIT MANUFACTURE'S CERTIFICATION OF COMPLIANCE FOR HIGH-STRENGTH BOLTING AND WELD FILLER MATERIALS.

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING ITEMS:
SEE SPECIAL INSPECTION TABLE

SPECIAL INSPECTION TABLE: STRUCTURAL STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	FREQUENCY OF INSPECTION	REFERENCED STANDARD	REMARKS
1. MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS AND WASHERS:			
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	AISC 360, SECTION A3.3 AND APPLICABLE ASTM MATERIAL STANDARDS	
b. MANUFACTURER'S CERTIFICATION OF COMPLIANCE REQUIRED.	PERIODIC		
2. INSPECTION OF HIGH-STRENGTH BOLTING:			
a. SNUG-TIGHT JOINTS.	PERIODIC	AISC 360, SECTION M2.5	
b. PRETENSIONED AND SLIP-DRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	PERIODIC		SEE NOTE 1
c. PRETENSIONED AND SLIP-DRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	CONTINUOUS		SEE NOTE 1
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:			
a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	PERIODIC	AISC 360, SECTION M5.5	
b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	APPLICABLE ASTM MATERIAL STANDARDS SEE DWG. NOTES	
c. MANUFACTURER'S CERTIFIED TEST REPORTS.	PERIODIC		
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:			
a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	PERIODIC	AISC 360, SECTION A3.5 AND APPLICABLE AWS AS DOCUMENTS	
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	PERIODIC		
5. INSPECTION OF WELDING:			
a. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:			
1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	CONTINUOUS	AWS D1.1	
2) MULTIPASS FILLET WELDS.	CONTINUOUS		
3) SINGLE-PASS FILLET WELDS > 5/16"	CONTINUOUS		
4) PLUG AND SLOT WELDS.	CONTINUOUS		
5) SINGLE-PASS FILLET WELDS <= 5/16"	PERIODIC		
6) FLOOR AND ROOF DECK WELDS.	PERIODIC	AWS D1.3	
b. REINFORCING STEEL:			
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	PERIODIC	AWS D1.4 AND ACI 318, SECTION 3.5.2	SEE NOTE 2
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	CONTINUOUS		SEE NOTE 2
3) SHEAR REINFORCEMENT.	CONTINUOUS		SEE NOTE 2
4) OTHER REINFORCING STEEL.	PERIODIC		SEE NOTE 2
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:			
a. DETAILS SUCH AS BRACING AND STIFFENING.	PERIODIC	VERIFICATION WITH DESIGN DOCUMENTS AND APPROVED SHOP DRAWINGS	
b. MEMBER LOCATIONS.	PERIODIC		
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	PERIODIC		

TABLE NOTES:
1. INSPECTION NOT REQUIRED; NO PRETENSIONED OR SLIP-CRITICAL JOINTS INCLUDED IN THIS PROJECT.
2. INSPECTION NOT REQUIRED; NO WELDING OF REINFORCING STEEL INCLUDED IN THIS PROJECT.

SPECIAL INSPECTION TABLE: SOILS

VERIFICATION AND INSPECTION	FREQUENCY OF INSPECTION	REFERENCED STANDARD
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATION ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	PERIODIC	VERIFICATION WITH DESIGN DOCUMENTS AND GEOTECHNICAL REPORT
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	PERIODIC	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	PERIODIC	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF FILL.	CONTINUOUS	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	PERIODIC	

TABLE NOTES:
1. *NONE*

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Quality Assurance Plan

S1.1

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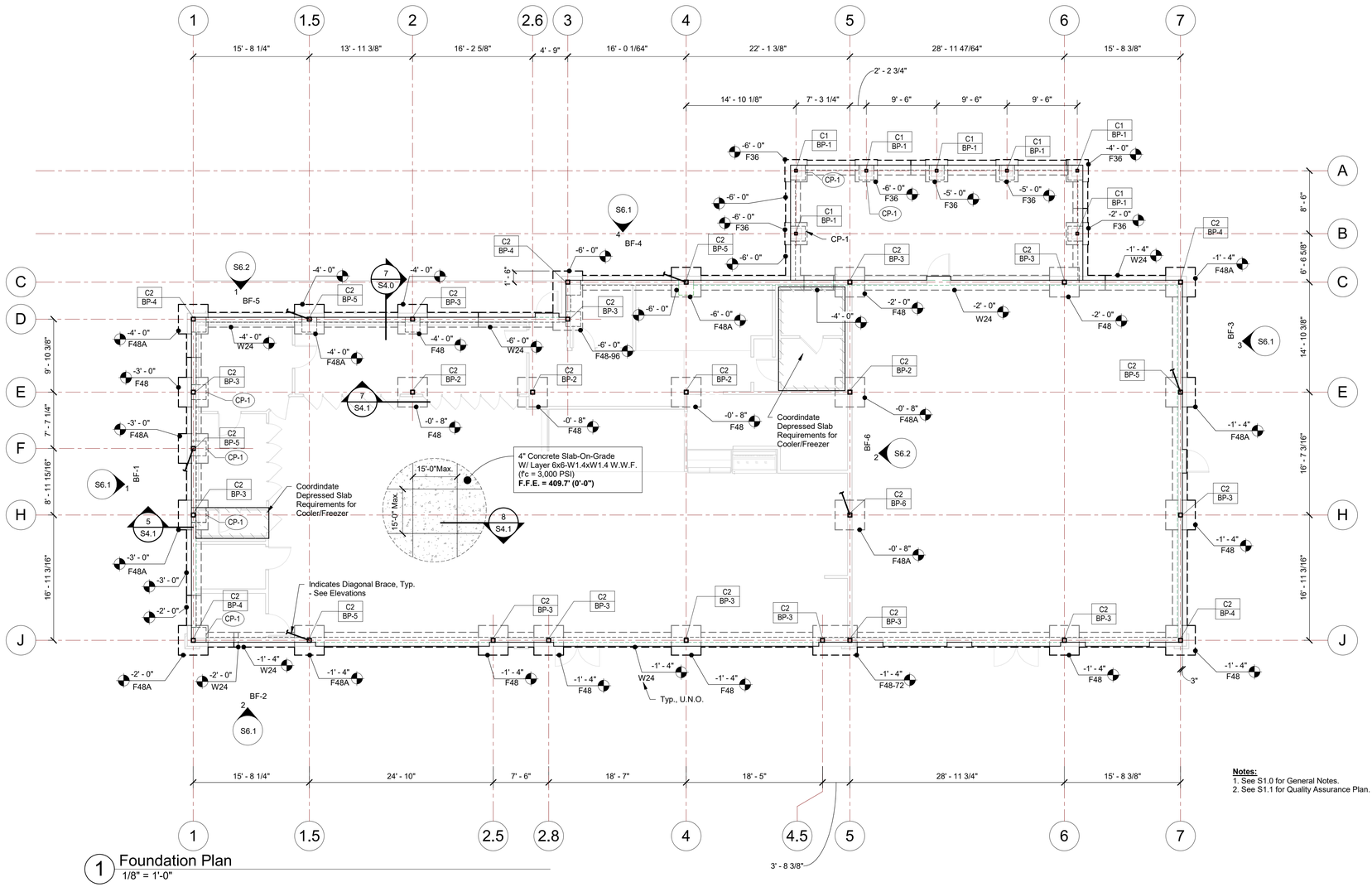

1 Foundation Plan
1/8" = 1'-0"

Notes:
1. See S1.0 for General Notes.
2. See S1.1 for Quality Assurance Plan.

LEGEND / SYMBOLS

- Concrete Pier - See S4.0 (CP-x)
- Steel Col. - See Schedule (C-x)
- Base Plate Type See S4.0 (BP-x)
- Footing Type - See Schedule for Size & Reinforcing (Fxxx)

COLUMN SCHEDULE

TYPE	COLUMN SIZE
C1	HSS4X4X1/4
C2	HSS6X6X3/8

FOOTING SCHEDULE

	Dimensions			Reinforcing		
Type	Length	Width	Depth	Longitudinal	Transverse	Remarks
F36	3' - 0"	3' - 0"	1' - 3"	(4) #5	(4) #5	
F48	4' - 0"	4' - 0"	1' - 3"	(5) #5	(5) #5	
F48-72	6' - 0"	4' - 0"	1' - 3"	(5) #5	(7) #5	
F48-96	8' - 0"	4' - 0"	1' - 3"	(5) #5	(8) #5	
F48A	4' - 0"	4' - 0"	1' - 3"	(5) #5	(5) #5	Top & Btm

CONTINUOUS WALL FOOTING SCHEDULE

	Dimensions		Reinforcing		
Type	Width	Depth	Longitudinal	Transverse	Remarks
W24	2' - 0"	1' - 0"	(3) #4 x Cont.	#4 x 1'-6" @ 60"o.c.	

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Foundation Plan

S2.0

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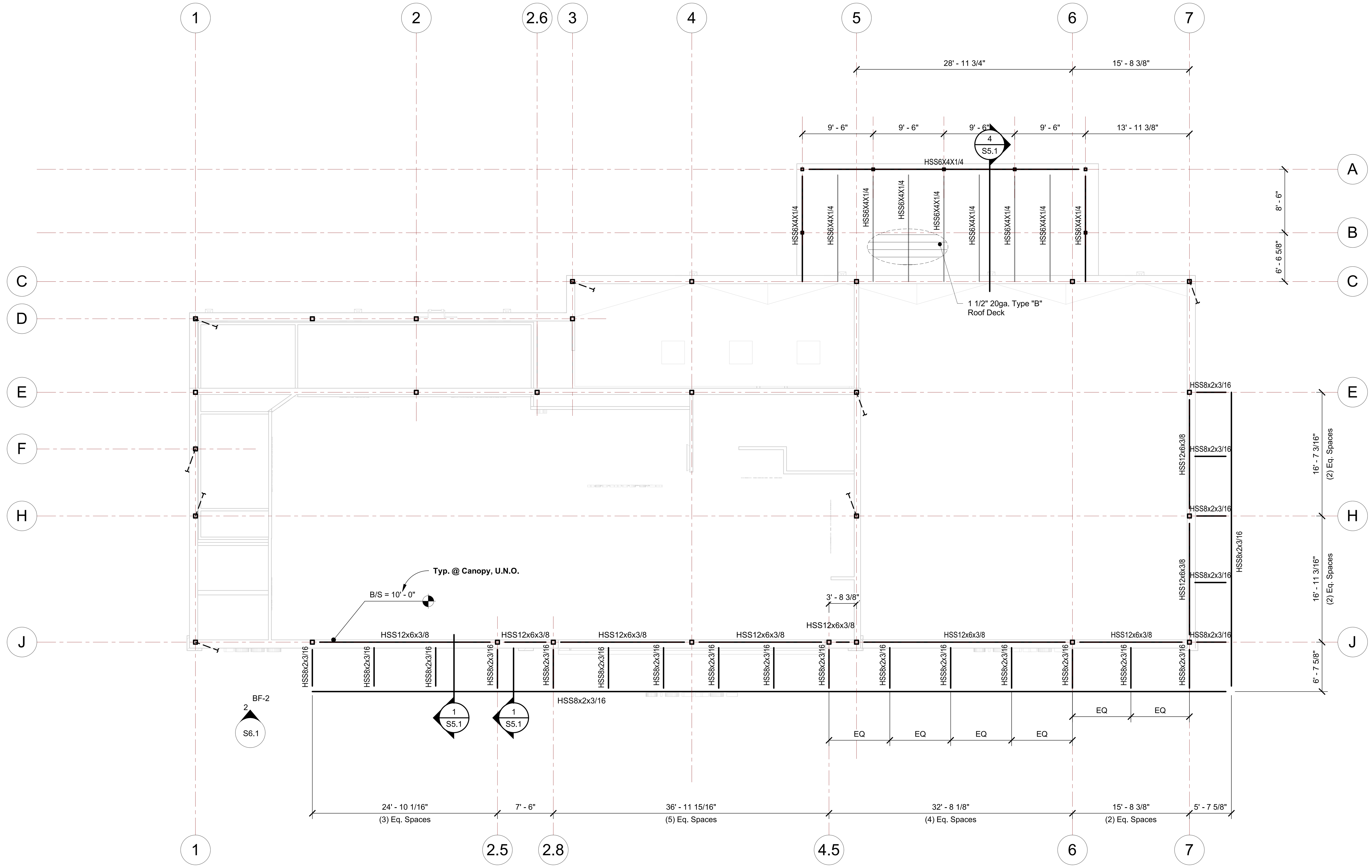

1 Canopy Framing Plan
1/8" = 1'-0"

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Canopy Framing Plan

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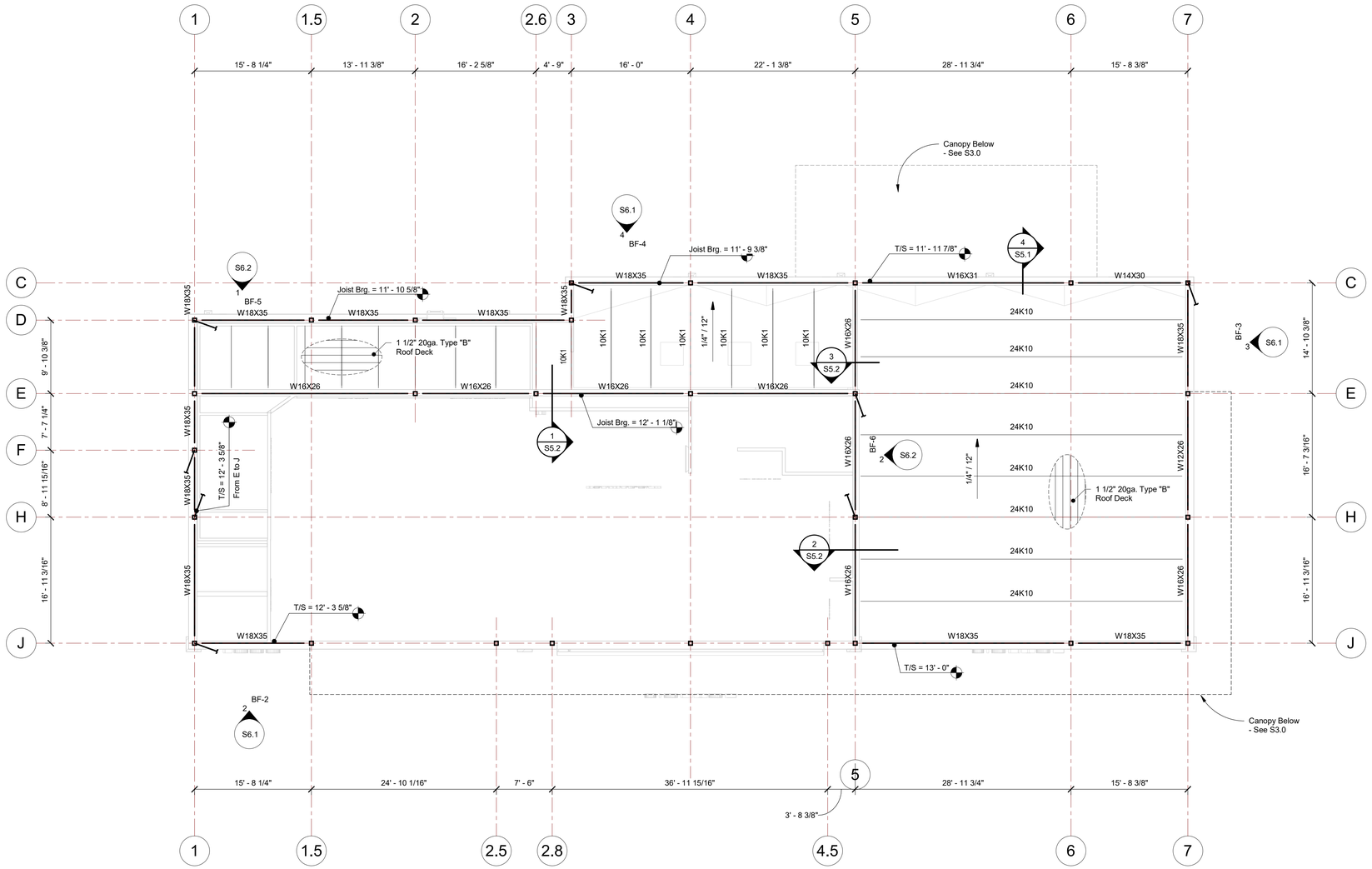

1 Low Roof Framing Plan
1/8" = 1'-0"

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Low Roof Framing Plan

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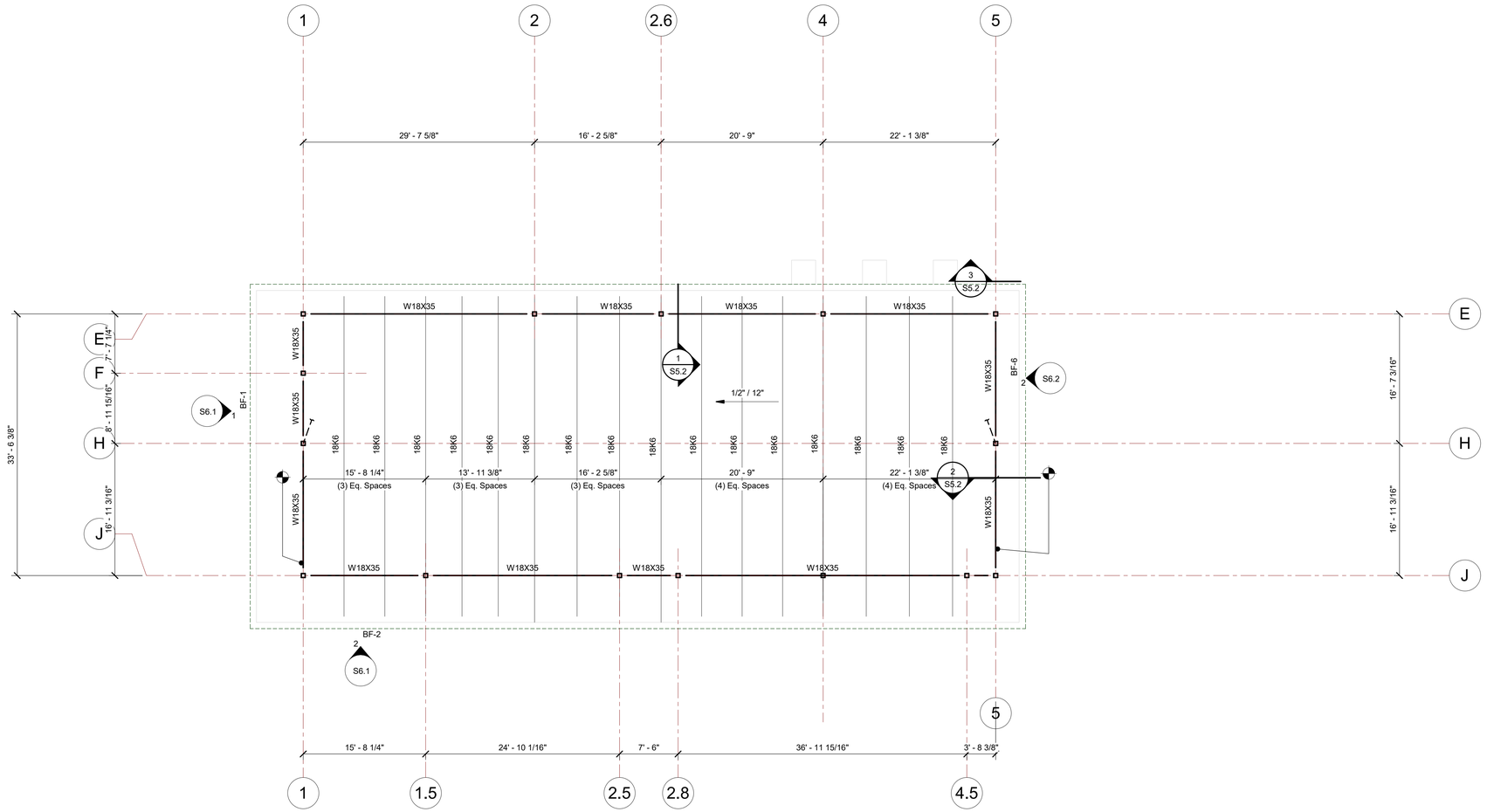

1 High Roof Framing Plan
1/8" = 1'-0"

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High Roof Framing Plan

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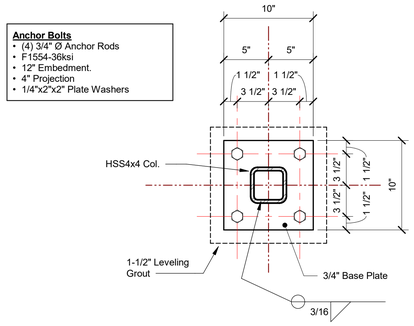
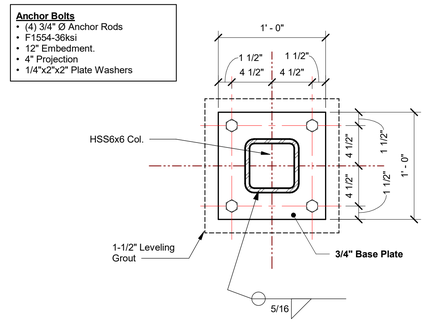
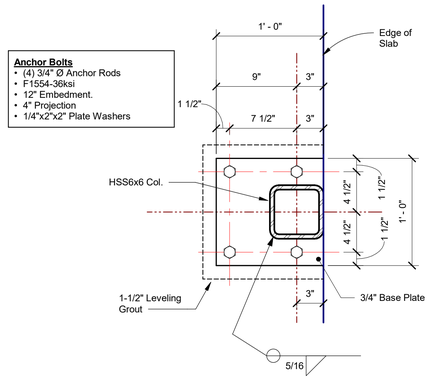


1 Base Plate BP-1
1 1/2" = 1'-0"



2 Base Plate BP-2
1 1/2" = 1'-0"



3 Base Plate BP-3
1 1/2" = 1'-0"

4 Base Plate BP-4
1 1/2" = 1'-0"

5 Base Plate BP-5
1 1/2" = 1'-0"

6 Concrete Pier Detail - CP-1
1 1/2" = 1'-0"

7 Section @ Concrete Pier
3/4" = 1'-0"

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Base Plate and Pier Details

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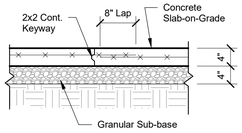
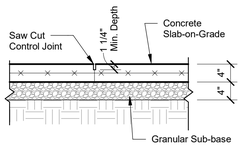


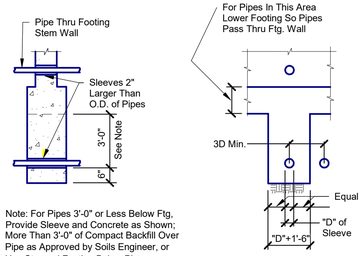
CONSTRUCTION JOINT



CONTROL JOINT

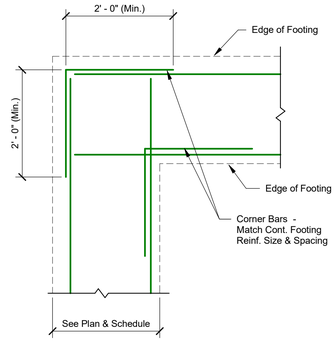
Notes:
1. Maximum spacing of control joints shall be 15'-0"o.c. (U.N.O.).
2. Locate control joints as specified on architectural drawings (when applicable).
3. Provide 10 MIL Vapor Barier below slab (U.N.O.)

1 Slab-on-Grade Details
3/4" = 1'-0"

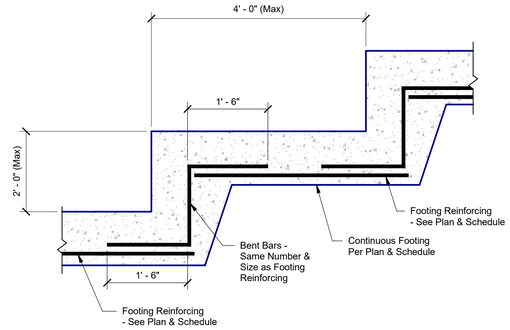


Note: For Pipes 3'-0" or Less Below Ftg, Provide Sleeve and Concrete as Shown; More Than 3'-0" of Compact Backfill Over Pipe as Approved by Soils Engineer, or Use Stepped Footing Below Pipe.
Where Pipes Cross Under and are More Than 3' Below, the Ftgs Shall be Stepped if the Following Exists:
a) Multiple Pipes Where the Spacing Betw. is < 3 Times the Diameter of the Larger Pipe Size.
b) Pipes 24" Diameter or Larger.

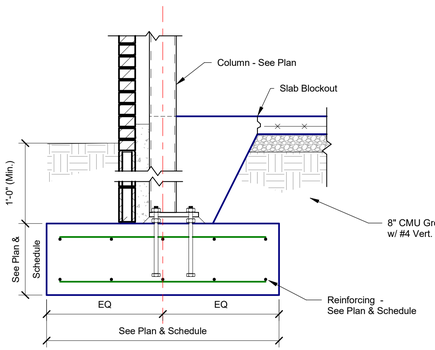
2 Pipe @ Footing Detail
3/4" = 1'-0"



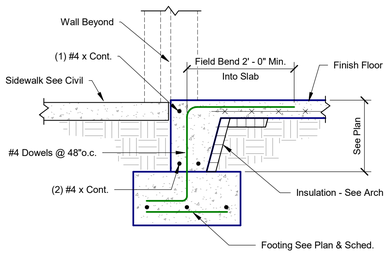
3 Typ. Cont. Corner Footing Detail
3/4" = 1'-0"



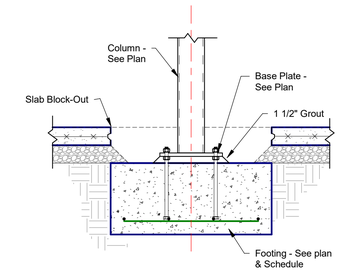
4 Typical Footing Step Detail
3/4" = 1'-0"



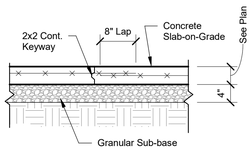
5 Footing at Exterior Column
3/4" = 1'-0"



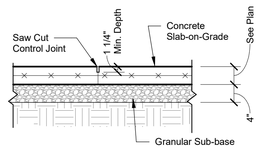
6 Section @ Door
3/4" = 1'-0"



7 Footing @ Interior Column
3/4" = 1'-0"



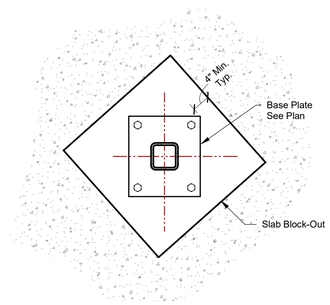
CONSTRUCTION JOINT



CONTROL JOINT

Notes:
1. Maximum spacing of control joints shall be 15'-0"o.c. (U.N.O.).
2. Locate control joints as specified on architectural drawings (when applicable).
3. Provide 10 MIL Vapor Barier below slab (U.N.O.)

8 Slab-on-Grade Details
3/4" = 1'-0"



9 Typical Slab Block-Out Detail
3/4" = 1'-0"

10/20/2021 8:12:30 AM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - PRELIMINARY / S4.1- Foundation Sections

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AGRICULTURE
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STATE OF TENNESSEE
10/20/2021

REVISIONS:

DELTA	DESCRIPTION	DATE

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PROJECT PHASE:	CD
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Foundation Sections

S4.1

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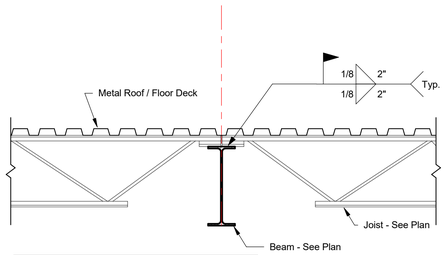
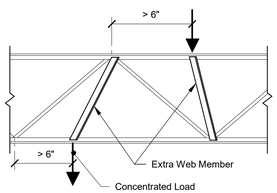


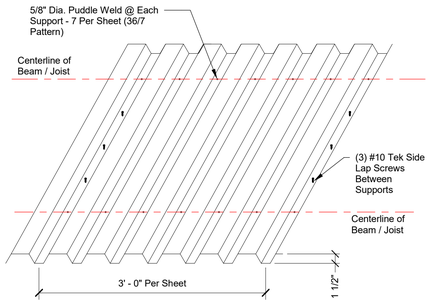
Notes:
1. Joist Shall Bear 2-1/2" Min.
2. Where Beam Flange Width <5" Stagger Joist 6" Min.

1 Joist Bearing on WF Beam
3/4" = 1'-0"

Note:
Concentrated Loads Must Be Located At A Joist Panel Point. Where Loads Cannot Be Located Within 6" of A Panel Point An Additional Web Member Must Be Added As Shown Below.

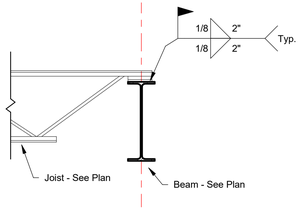


2 Typical Joist Modification Detail
Not To Scale



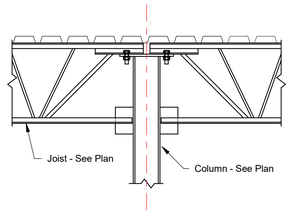
Notes:
1. Weld Deck Edge to Supports With 5/8" Dia. Puddle Weld @ 12"o.c.
2. Lap Deck 2" Minimum.

3 Roof Deck Attachment Detail
Not To Scale



Notes:
1. Joist Shall Bear 2 1/2" min.
2. Where Beam Flange Width <5" Stagger Joist 6" Min.

4 Typ. Joist to Beam Attachment
3/4" = 1'-0"



5 Typical Joist @ Column at Roof
3/4" = 1'-0"

10 RTU Support Detail
Not To Scale

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Typical Framing Sections

S5.0

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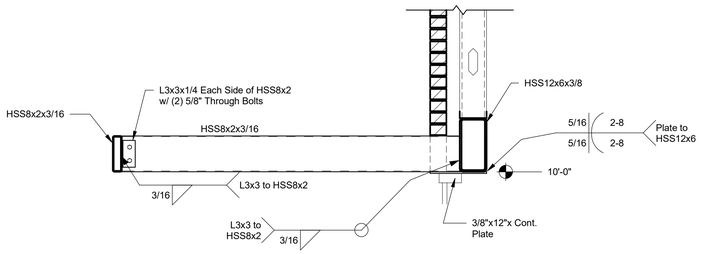
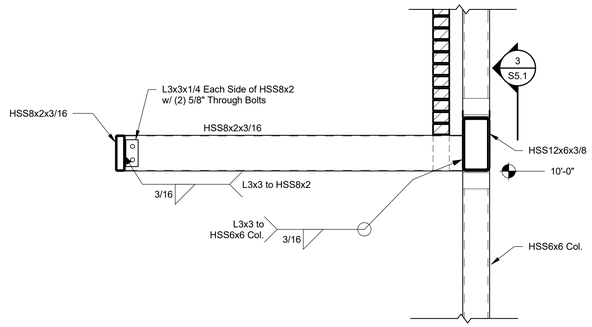
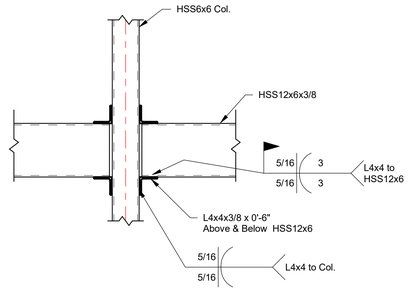


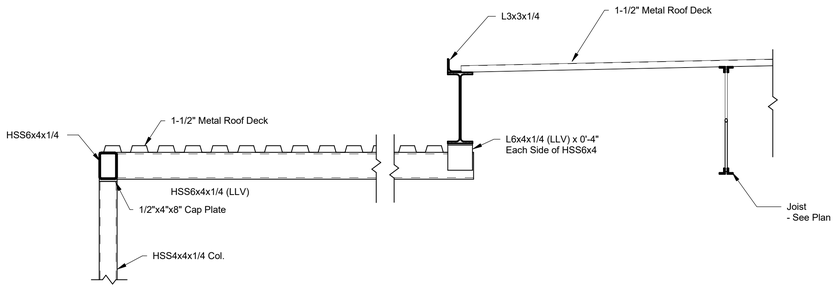
1 Canopy Section @ Storefront
3/4" = 1'-0"



2 Canopy Section @ Column
3/4" = 1'-0"



3 Detail at HSS12x6 to HSS6x6 Col. Connection
3/4" = 1'-0"



4 Canopy Section @ Back of Store
3/4" = 1'-0"

10/20/2021 8:12:30 AM MERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - PRELIMINARY / S5.1- Canopy Framing Sections

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Canopy Framing Sections

S5.1

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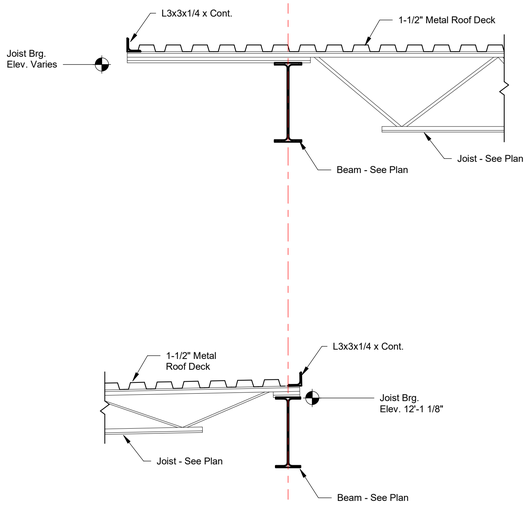
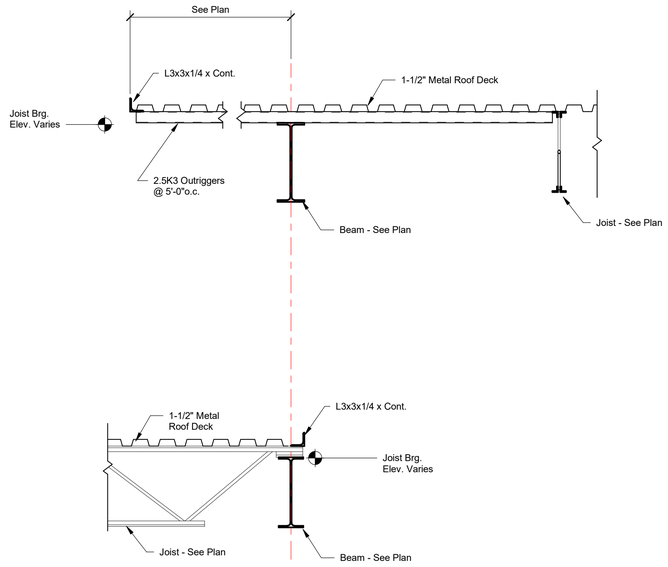
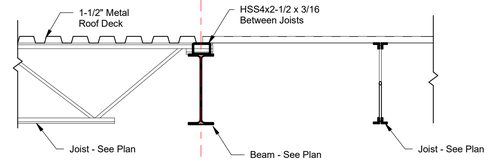


1 Section @ High / Low Roof
3/4" = 1'-0"



2 Section 2 @ High / Low Roof
3/4" = 1'-0"



3 Section @ Change in Deck Direction
3/4" = 1'-0"

10/20/2021 8:12:31 AMMERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - PRELIMINARY / S5.2- Roof Framing Sections

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STATE OF TENNESSEE
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Roof Framing Sections

S5.2

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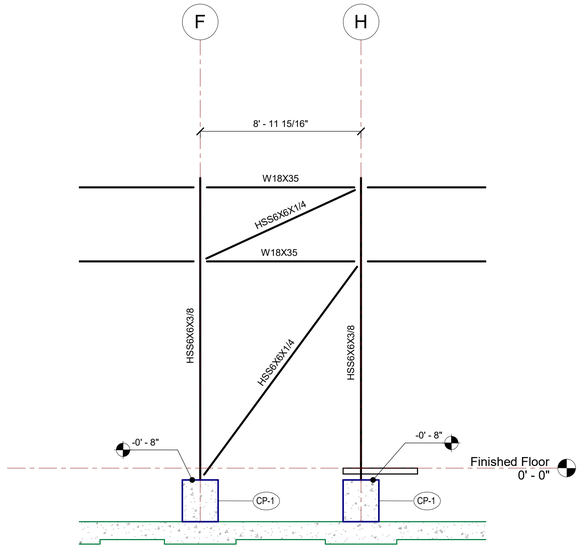
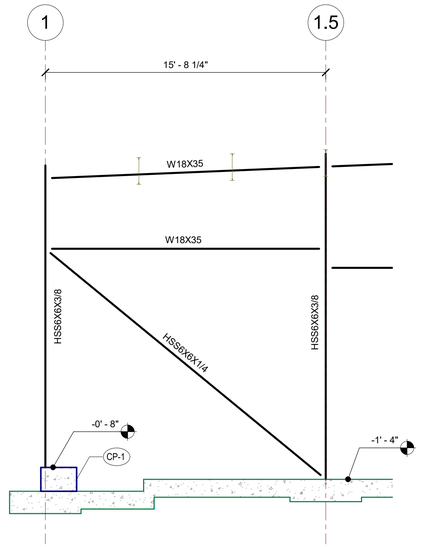
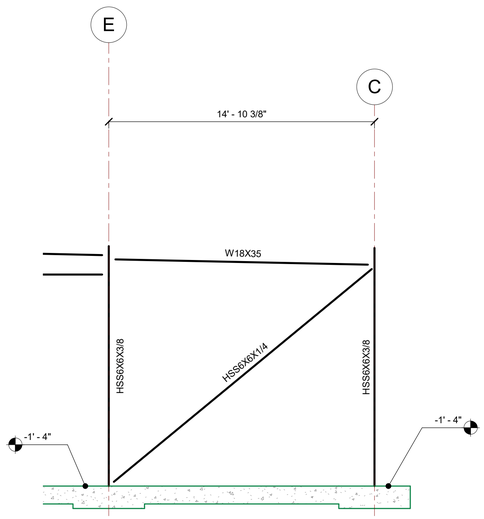


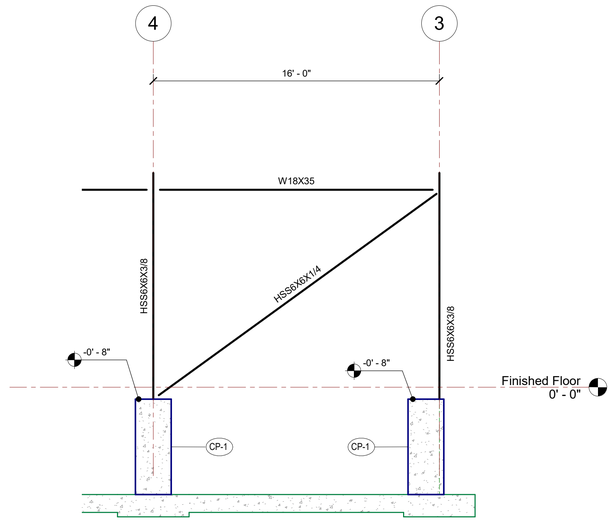
1 BF-1
1/4" = 1'-0"



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



3 BF-3
1/4" = 1'-0"



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

10/20/2021 8:12:31 AMMERIDIAN ARCHITECTURE 0214-21 / ASHLAND CITY C-STORE - PRELIMINARY / S6.1- Framing Elevations

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Framing Elevations

S6.1

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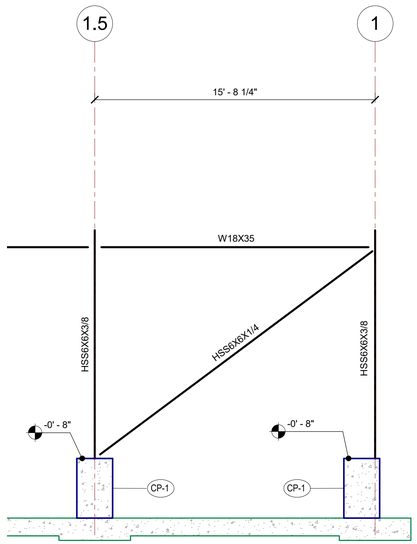
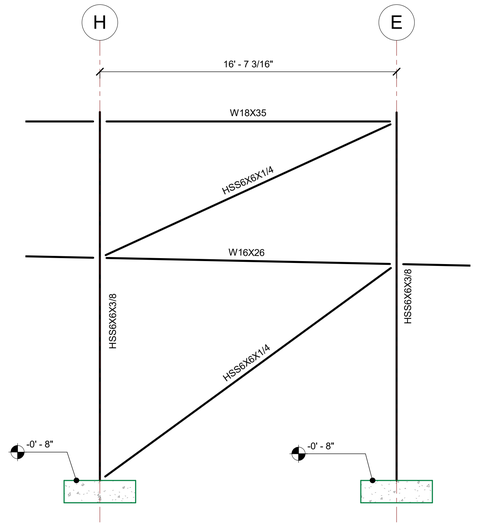


1 BF-5
1/4" = 1'-0"



2 BF-6
1/4" = 1'-0"

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Framing Elevations

S6.2

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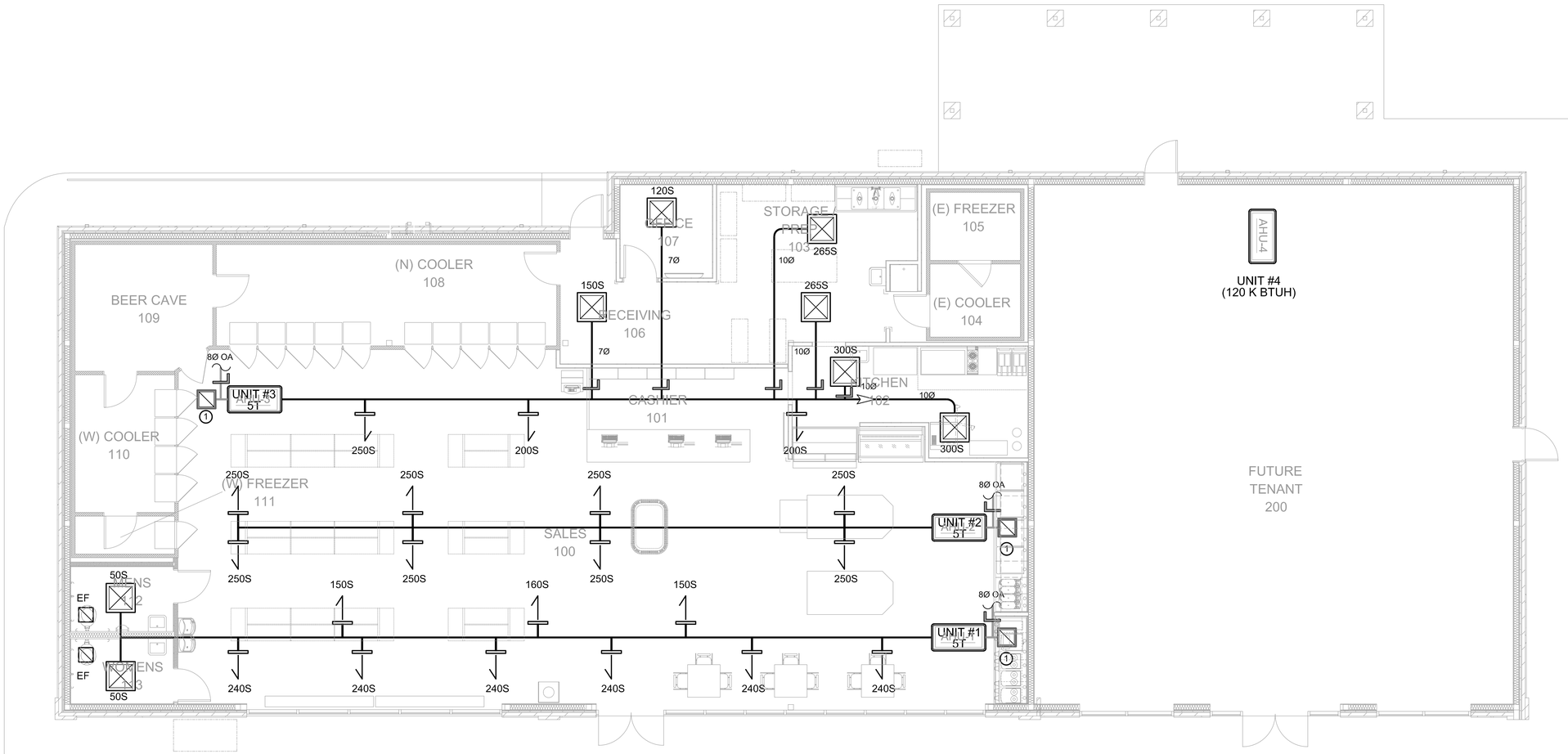

1 H&C RHF 45
30X30 RAFG

MECHANICAL FLOOR PLAN

SCALE: 3/16" = 1'-0"

COMcheck Software Version 4.1.2.2

Mechanical Compliance Certificate

Project Information

Energy Code:	2018 IECC
Project Title:	ASHLAND CITY C-STORE
Location:	Ashland City, Tennessee
Climate Zone:	4a
Project Type:	New Construction

Construction Site: ASHLAND CITY, TN
Owner/Agent:
Designer/Contractor:

Additional Efficiency Package(s)
Unspecified

Mechanical Systems List

Quantity	System Type & Description
3	HVAC System 1 (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 120 kBtu/h Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Split System, Capacity = 59 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: None
1	HVAC System 2 (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 120 kBtu/h Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Split System, Capacity = 1 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: None
1	Water Heater 1: Electric Storage Water Heater, Capacity: 30 gallons Proposed Efficiency: 1.20 SL, %/h (if > 12 kW), Required Efficiency: 1.20 SL, %/h (if > 12 kW)
1	Water Heater 2: Electric Instantaneous Water Heater, Capacity: 0 gallons No minimum efficiency requirement applies

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.2.2 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MR BUSBY, PE — Name - Title
MR Busby — Signature
9/22/21 — Date

HART & COOLEY #821 SIDEWALL DIFFUSERS	
8x4	10 - 50 CFM
10x4	60 - 110 CFM
12x4	115 -140 CFM
10x6	150 - 180 CFM
12x6	190 - 240 CFM
16x6	250 - 300 CFM
20x6	320 - 380 CFM
24x6	380 - 460 CFM
30x6	460 - 580 CFM
36X86	790 - 945 CFM
36X12	960 - 1440 CFM

SUPPLY REGISTER SCHEDULE T-BAR CEILING CONSTRUCTION HART & COOLEY HVS CEILING DIFFUSERS (Unless noted)	
6-IN	50 - 100 CFM
8-IN	120 - 200 CFM
10-IN	230 - 300 CFM
12-IN	320 - 400 CFM
14-IN	420 - 500 CFM

GENERAL NOTES

1. ALL DUCT DIMENSIONS INDICATE CLEAR INSIDE OPENING: 26 GA. MINIMUM FOR DUCT LARGER THAN 14" OR 28 GA. MINIMUM FOR DUCT SMALLER THAN 14"
2. PROVIDE ALL NECESSARY DUCT TRANSITIONS TO AND FROM ALL AIR MOVING EQUIPMENT
3. CO-ORDINATE EXACT LOCATION OF CEILING DIFFUSERS AND REGISTERS WITH ARCHITECT CEILING PLAN AND ELECTRICAL LIGHTING
4. CONTRACTOR TO FIELD VERIFY ALL DUCTWORK SIZING AND ROUTING WITH BUILDING CONTRACTOR PRIOR TO FABRICATION
5. SCREW AND TAPE ALL DUCT JOINTS; SCREW AND CAULK ALL TAKE-OFFS
6. WRAP ALL DUCTWORK WITH R-8 FOILBACK DUCTWRAP INSULATION EXCEPT DOUBLE WALL SPIRAL DUCT
7. ALL REGISTERS SHALL BE HART & COOLEY OR EQUIVALENT; STYLE AND SIZE AS INDICATED
8. PROVIDE FLEXIBLE CONNECTORS AT SUPPLY AND RETURN DUCTS AT UNITS
9. INSTALL ALL SYSTEMS IN COMPLIANCE WITH LOCAL, STATE, AND NATIONAL CODES
10. MECHANICAL CONTRACTOR TO INSTALL REFRIGERANT LINES IN ACCORDANCE TO MANUFACTURER'S DATA AND TO PROVIDE OUTDOOR UNIT CONCRETE PADS.
11. PROVIDE VIBRATION ISOLATORS AND CONDENSATE PAN WITH DRAIN FOR AHU
12. HVAC CONTRACTOR TO COORDINATE AND VERIFY ALL UNIT SPECIFICATIONS AND ELECTRICAL REQUIREMENTS PRIOR TO PURCHASE OF EQUIPMENT AND INSTALLATION

ASHLAND CITY C-STORE

SPECIFICATIONS (UNIT #1, UNIT #2, UNIT #3)	
GAS FUR (TRANE OR EQUAL)	4TTR4060/4TXCD010+SSVD120
NOMINAL TONS	5
DESIGN CFM	2000
COOLING CAPACITY, BTUH	59000
HEATING CAPACITY, IN/OUT, BTU	120000/113100
EXTERNAL STATIC, IN WG	0.30
V/PH/HZ (CU)	208-230/1/60
MCA/MOCP (CU)	27/45
V/PH/HZ (AH)	115/1/60
MCA/MOCP (AH)	14,1/15
OA (CFM)	200 EA
SPECIFICATIONS (UNIT #4)	
GAS FUR (TRANE OR EQUAL)	SSVD120
DESIGN CFM	2000
HEATING CAPACITY, IN/OUT, BTU	120000/113100
V/PH/HZ (AH)	115/1/60
MCA/MOCP (AH)	14,1/15

EF: PENN-ZEPHR Z3H: 39 W; 0.5 A; 1550 RPM; 70 CFM @ 0.125 "

NOTE: UNITS TO HAVE ECONOMIZERS IF REQUIRED BY LOCAL CODES

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Phone: 615-891-4565 | Fax: 615-250-0580
Project #04321

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TIMOTHY W. BUSBY — REGISTERED PROFESSIONAL ENGINEER — AGRICULTURE — No. 110554 — STATE OF TENNESSEE — 10/20/21

REVISIONS:

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DATE OF ISSUE:	10.20.2021
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MECHANICAL PLAN

M-101

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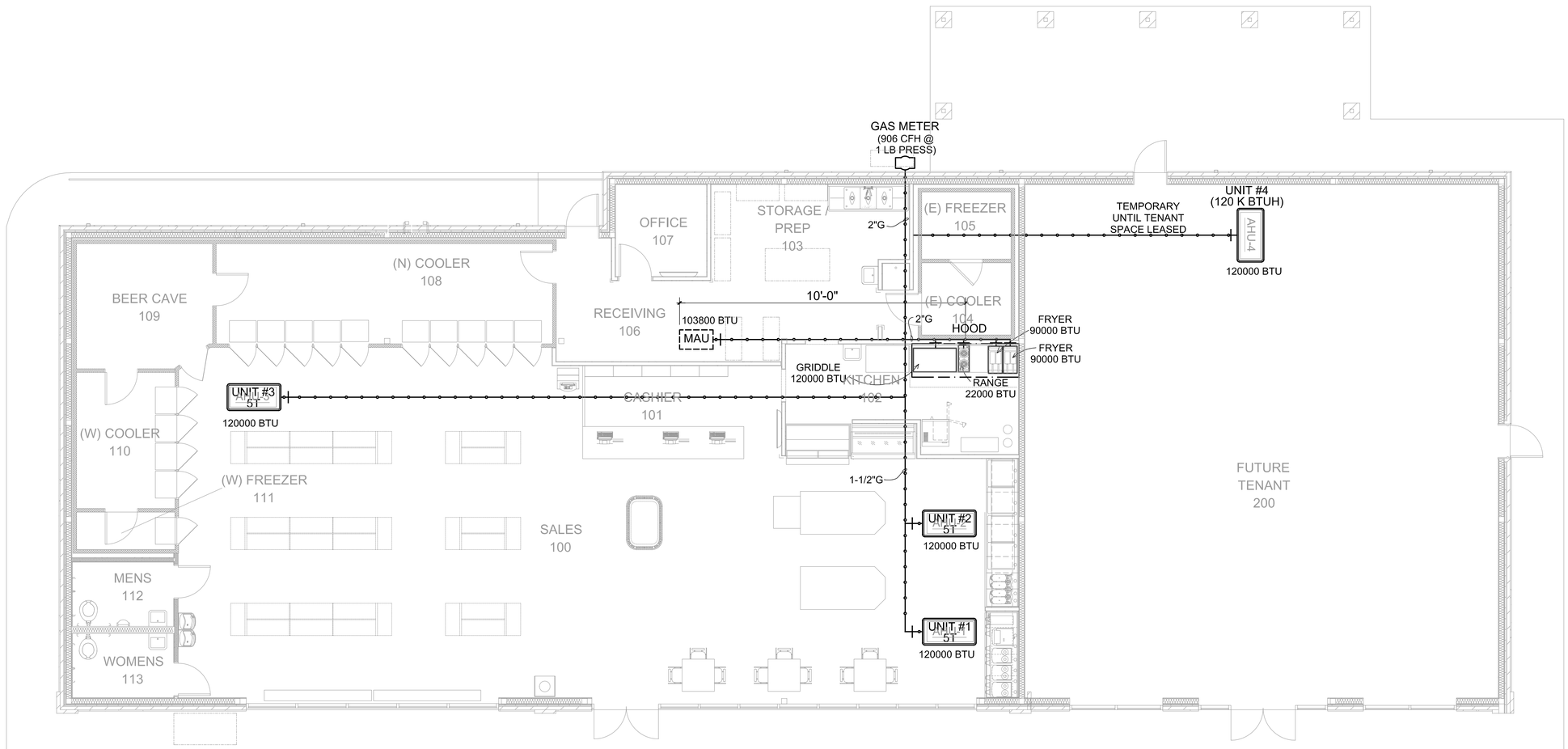
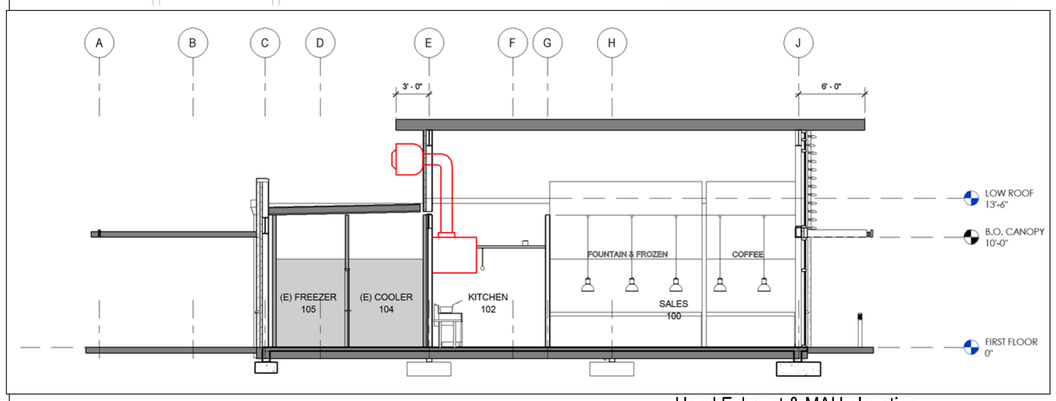


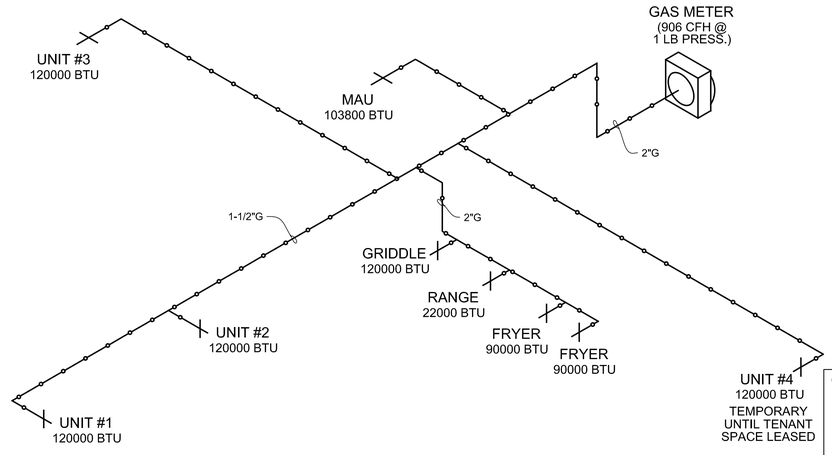
GAS FLOOR PLAN

SCALE: 3/16" = 1'-0"



Hood Exhaust & MAU elevation

SCALE: NTS



GAS RISER

SCALE: NTS

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MECHANICAL GAS PLAN

M-102

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HOOD INFORMATION – JOB#5109685

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP			END TO END	ROW
1	KH1	5424 EX-2-PSP-F	ECON-AIR	10' 0"	600 DEG	I	HEAVY	200	2000			4"	14"	2000	1871	-0.801"	1600	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)						FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
												FIRE SYSTEM		ELECTRICAL	SWITCHES		
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	QUANTITY		
1	KH1	CAPTRATE SOLO FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	876 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	KH1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT.
		RIGHT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		INSULATION FOR BACK OF HOOD.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1	KH1	Front	133"	14"	6"	MUA	12"	28"		800	0.191"
						MUA	12"	28"		800	0.191"

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

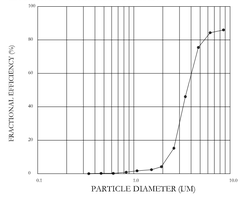
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

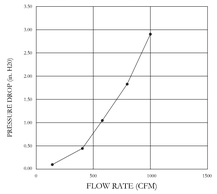
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

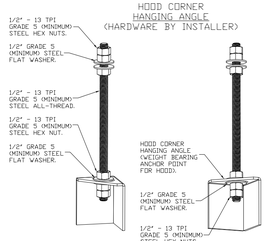


PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

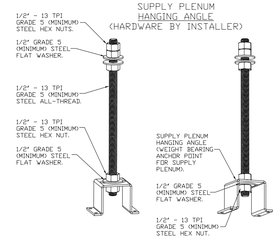
HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

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

SUPPLY PLENUM HANGING ANGLE (HARDWARE BY INSTALLER)



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SYSTEM DESIGN VERIFICATION (SDV)

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

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

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

ECON AIR HOODS ARE BUILT IN COMPLIANCE WITH

Intertek

NFPA #96
UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804-001

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE _____
Your Title _____ Date _____ _____

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REGION 44
PHONE: (615) 599-8300
EMAIL: reg44@econair.com

GREASE DUCT SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 LISTED DOUBLE WALL GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

REVISIONS

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Ashland City C-Store
ASHLAND CITY, TN, 37015

DATE: 9/28/2021
DWG.#: HOOD-1-5109685
DRAWN BY: DDR-44
SCALE: 3/4" = 1'-0"
HOOD

SHEET NO. 1

CONSULTANT

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MECHANICAL HOOD SPECIFICATIONS

M-201

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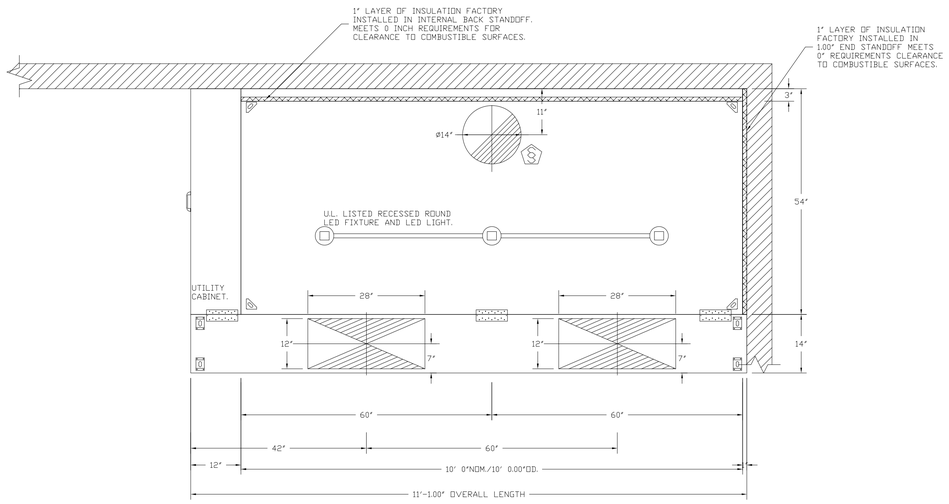


PLAN VIEW – HOOD #1 (KH1)
10' 0.00" LONG 5424EX-2-PSP-F

VERIFY CEILING HEIGHT

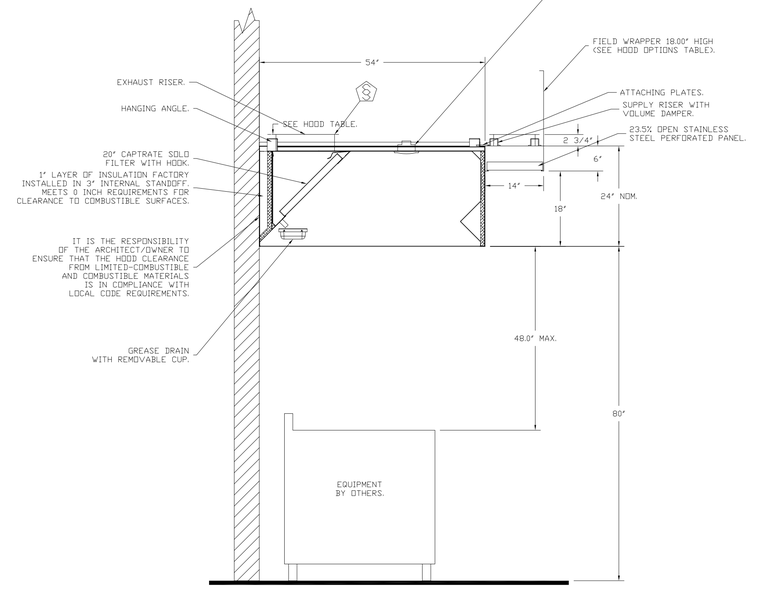
___' - ___"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

HVAC DISTRIBUTION NOTE

IT IS RECOMMENDED NOT TO INSTALL HIGH VELOCITY DIFFUSERS OR HVAC RETURNS WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

ECONAIR SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT



SECTION VIEW – MODEL 5424EX-2-PSP-F
HOOD – #1 (KH1)

ECON AIR HOODS ARE BUILT IN COMPLIANCE WITH

BUILT IN ACCORDANCE WITH NFPA No. 96

Intertek

NFPA #96
UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804-001

CUSTOMER APPROVAL TO MANUFACTURE:

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Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE _____
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DRAWN BY: DDR-44
SCALE: 3/4" = 1'-0"
HOOD

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MECHANICAL HOOD SPECIFICATIONS

M-202

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SECTION 23 38 13 13

SPECIFICATIONS
TAG: Commercial Kitchen Ventilation Hoods, Listed Commercial Kitchen Hoods

PART 1 - GENERAL

1.1 SUMMARY

A. The ND2 series is a Type I, wall canopy hood for use over 600°F cooking surface temperatures. The aerodynamic design includes a mechanical baffle and performance enhancing lip for exceptional capture and containment.

B. The hood shall have the size, shape, and performance specified on drawings.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the project's requirements and meet Federal, State, and Local codes and regulations.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

C. The manufacturer shall supply complete computer generated submittal drawings, including hood section 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.

1.3 QUALITY ASSURANCE

A. This hood is ETL-listed to standard UL710, ULC710, and ULC-S646 when installed in accordance with these installation instructions and National Fire Protection Association Standard "NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations."

B. Built-in compliance with NSF/ANSI Standard 2.

C. The hood shall be ETL Listed as:

1. "Exhaust Hood Without Exhaust Damper."
2. ETL Sanitation Listed and built in accordance with NFPA 96.
3. The ETL label shall list temperature rating(s) and minimum CFM/ft rating(s).

1.4 WARRANTY

A. All units shall be provided with the following standard warranty:

1. This equipment is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 2-years from date of shipment.

B. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

C. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. 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.

B. 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.

2.2 CONSTRUCTION

A. Construction shall be type 430 stainless steel.

B. Double wall insulated front to eliminate condensation and increase rigidity on wide sizes. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.

C. Hood shall be equipped with a minimum of four connections for hanger rods. Hood lengths greater than 12'will have added hangers.

D. Exhaust duct collar to be 4"high with flange.

E. The grease drain system shall be an enclosed integral part of the hood back and have slopes with an exposed, removable 1/2 grease cup to facilitate cleaning.

F. An integral baffle to direct grease laden vapors toward the exhaust filter bank.

G. Hood shall be furnished with UL classified filters, supplied in size and quantity as required by ventilator.

H. All seams shall be welded and have stainless steel on exposed surfaces.

2.3 LIGHTING

A. Recessed round LED fixture and LED light, 3500K Warm output.

2.4 FILTERS

A. Stainless Steel Captrate Solo filter with hook, ETL Listed. Particulate capture efficiency: 85% efficient at 9 microns, 76% efficient at 5 microns.

2.5 OPTIONS

A. Fire Suppression System: UL 300 fire suppression system.

B. Optional perforated supply plenum shall provide make-up air discharged below the cooking equipment.

1. Perforated diffuser plates shall be included in the design to provide even air distribution.
2. Unexposed surfaces shall be constructed of aluminized steel. Plenum shall be insulated to prevent condensation.
3. Perforated Supply Plenum (PSP)

C. Hood Mounted Utility Cabinet - Cabinet can store listed fire suppression system, listed components, pre-wired electrical controls.

2.6 ACCESSORIES

A. Standoff(s) selected:

1. Right End Standoff

B. Wrapper(s) may be installed from the factory or field installed. Wrapper(s) selected:

1. Wrapper

C. Miscellaneous option(s) selected:

1. Insulation for Back of Hood -Backside of hood is fully insulated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

ECON AIR HOODS ARE
BUILT IN COMPLIANCE WITH

Intertek

NFPA #96
UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804-001

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SIGNATURE _____
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ASHLAND CITY, TN, 37015

DATE: 9/28/2021
DWG.#: HOOD-3-5109685
DRAWN BY: DDR-44
SCALE: 3/4" = 1'-0"
HOOD
SHEET NO. 3

CONSULTANT

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Project #04321

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MECHANICAL HOOD SPECIFICATIONS

M-203

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FIRE SYSTEM INFORMATION – JOB#5109685

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1	KH1 FS	TANK FS	4.0/4.0	24	FIRE CABINET LEFT	LEFT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1	KH1 FS	SC ELECTRICAL	2.000	ECON-AIR

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER – PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1	KH1 FS	0 – 0 – 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F.	1	0
		0 – 0 – 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) – SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-300001-001 TANK – PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
		0 – 0 – 87-300030-001 PRIMARY ACTUATOR KIT (PAK) – ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 – 0 – 87-300033-001 DIN CONNECTOR, CANFIELD PART #5J560-201-EU0A, TANK FIRE SUPPRESSION, SUBMINATURE SOLENOID CONNECTION (CED VENDOR 30377).	1	0
		0 – 0 – 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
		0 – 0 – 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	5	0
		0 – 0 – 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	5	0
		0 – 0 – 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
		0 – 0 – A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 – 0 – B1145 3/8" BLACK IRON 90 ELL.	2	0
		0 – 0 – DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – TANK STRAP TANK STRAP – USED FOR TANK FIRE SUPPRESSION.	6	0
		0 – 0 – TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 – 0 – WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
		16 – 16 – 3070-3/8H-10-SS NOZZLE – TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, AND CHROME-PLATED PIPE)– 4 FLOW POINTS.	6	0
		16 – 16 – 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	6	0
		26 – 26 – QSA-3/8 QUIK SEAL – 3/8" (UL).	6	0
		34 – 34 – A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

JOB NO 5109685 | MODEL NUMBER DCV-1111 | JOB NAME Ashland City C-Store | DRAWN BY | DATE 9/28/2021 | SCHEMATIC TYPE INSTALL. | DWG NO ECP #1-3

DESCRIPTION OF OPERATION: Fire System #: TANK FS - 4.0/40 GNS FSI Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.

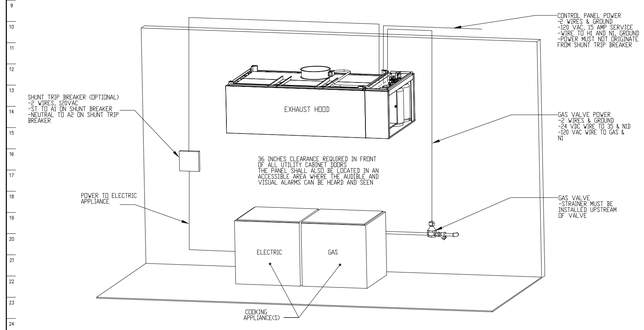
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-1: MASTER

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

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AUI, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AUI, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	3S & N3 OF 24 VDC) GAS & N1 OF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 10 AMPS	IF 24 VDC – 3 WIRES & GROUND (N3 TO RED, 3S TO BLK, AND GREEN TO GROUND IF 120 VAC – 3 WIRES & GROUND (GAS TO RED, N1 TO BLK, AND GREEN TO GROUND



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

JOB NO 5109685 | MODEL NUMBER DCV-1111 | JOB NAME Ashland City C-Store | DRAWN BY | DATE 9/28/2021 | SCHEMATIC TYPE INSTALL. | DWG NO ECP #1-4

DESCRIPTION OF OPERATION: Fire System #: TANK FS - 4.0/40 GNS FSI Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.

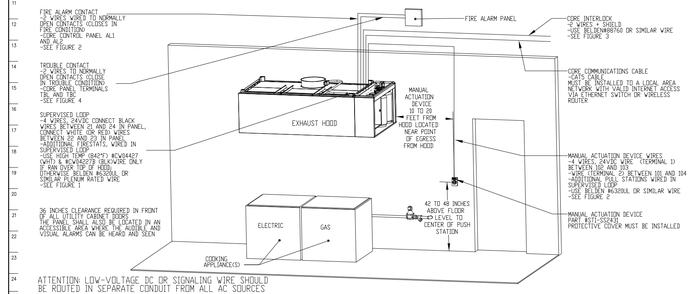
TANK PROTECTION LOW-VOLTAGE DETAIL

02/10/2021 Rev. 2

FS-1: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP IN SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR(S) BETWEEN CORE PANEL TERMINALS 21 AND 24 WIRE FIRE SENSOR WHITE WIRE BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 HIGH TEMP (664°F) #CWD4427 (QWT) & #CWD4429 (BLK)WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD; OTHERWISE BELDEN #A22001 OR SIMILAR PLENUM RATED WIRE- SEE FIGURE 3
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (3) ILA, TO CORE SYSTEM (2) ILA, CORE SYSTEM (2) ILB, TO CORE SYSTEM (3) ILB, CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC USE BELDEN# 8876O OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<10 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



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

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

CUSTOMER APPROVAL TO MANUFACTURE:

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Ashland City C-Store
ASHLAND CITY, TN, 37015

DATE: 9/28/2021

DWG.#: FS-1-5109685

DRAWN BY: DDR-44

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

FIRE SYSTEM

SHEET NO. 4

CONSULTANT

Win ENGINEERING
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Project #04321

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STATE OF TENNESSEE
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2021

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DATE OF ISSUE: 10.20.2021
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PROJECT PHASE: CD
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MECHANICAL HOOD SPECIFICATIONS

M-204

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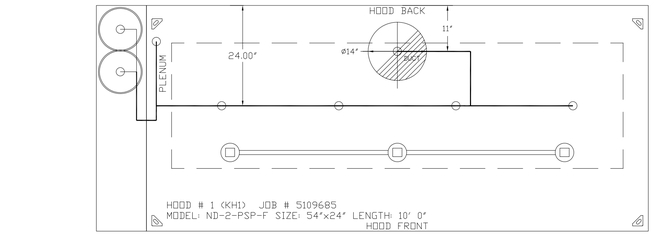
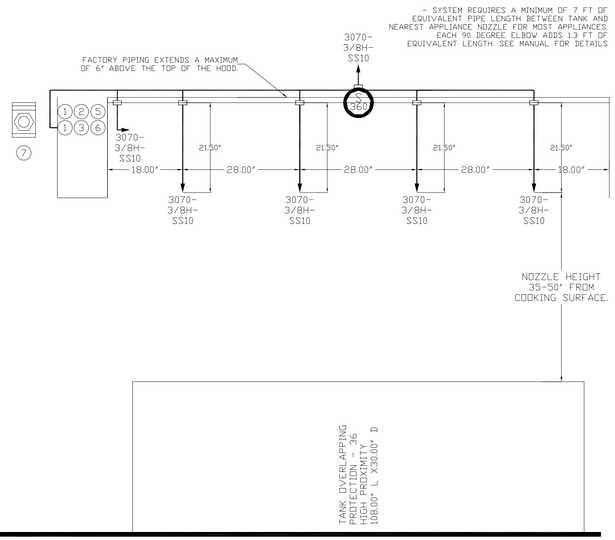




JOB #: 5109685.
JOB NAME: ASHLAND CITY C-STORE.

SYSTEM SIZE: TANK-SP-2 TOTAL FP REQUIRED: 24.
HOOD # 1 10' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 14" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

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

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

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

LEGEND – FIRE CABINET TANK SYSTEM

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

GAS VALVES AND STRAINERS

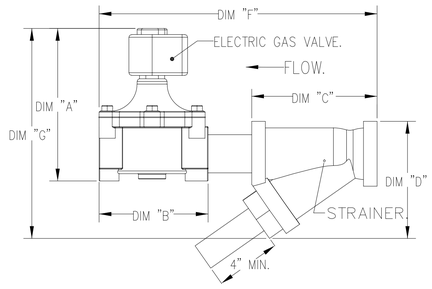
	GAS VALVE SIZING							GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS		
	TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "F"	DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
GAS VALVE FOR FS#1 →	ELECTRICAL	2"	120 VAC	0 PSI (0 IN.W.C.)	5 PSI (13.8 IN.W.C.)	2,940,500 BTU/HR	1,908,048 BTU/HR	7-5/8"	6-3/8"	7-1/4"	7-13-16"	15-5/8"	13-15/16"	HORIZONTAL/ VERTICAL	8214280	4417K68	(SC)EGVA2

ALL GAS VALVES/STRAINERS

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

CALCULATIONS

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



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Ashland City C-Store
ASHLAND CITY, TN, 37015

DATE: 9/28/2021
DWG.#: FS-2-5109685
DRAWN BY: DDR-44
SCALE: 3/4" = 1'-0"
FIRE SYSTEM

SHEET NO. 5

ASHLAND CITY C-STORE

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DATE OF ISSUE: 10.20.2021
MA PROJECT NO: 0214-21
PROJECT PHASE: CD
DRAWN BY: WIN

MECHANICAL HOOD SPECIFICATIONS

M-205

CONSULTANT
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2 International Plaza Suite 410 Nashville, TN 37217
Phone: 615-891-4565 | Fax: 615-250-0580
Project #04321

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TANK FIRE SUPPRESSION SYSTEM SPECIFICATIONS

TAG: TANK Fire Suppression

PART 1 - GENERAL

1.1 SUMMARY

A. TANK Fire Suppression is a pre-engineered, stored-pressure wet chemical solution extinguishing system.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the requirements of the project and meet Federal, State, and Local codes.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE

A. TANK Fire Suppression System shall be UL & ULC listed in accordance with UL300, UL1254, ULCORD-C1254.6.

B. Microprocessor-based control board shall be ETL Listed to UL Standard 864 and CAN/ ULC-S527-11.

C. TANK Fire Suppression System intended for installation and for use in accordance with the National Fire Protection Association Standards:

1. Wet Chemical Extinguishing Systems, NFPA 17A
2. National Electrical Code, NFPA 70
3. National Fire Alarm & Signaling Code, NFPA 72

D. New York City and FDNY approved under COA# 5870.

E. California State Fire Marshal (CFSM), Listing No. 7085-2199:0501.

1.4 Warranty

A. All units shall be provided with the following standard warranties:

1. TANK Fire Suppression System is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 60-months from date of shipment.

B. Warranty does not cover consumable products such as batteries, nitrogen, and nozzle caps.

C. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 60-month warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

D. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. A pre-engineered, fixed pipe, automatic wet chemical agent fire suppression system for protection of all hazard areas associated with cooking operations, including exhaust hoods, plenums, ductwork, and cooking appliances.

2.2 COMPONENTS

A. Exhaust hood fire system components to be factory installed.

B. Cylinder and Valve Assembly

1. The cylinders shall have a tin-nickel alloy plated brass valve with pressure gauge.
2. Wet chemical agent shall be contained in one or more stored pressure DOT/TC rated steel cylinder and valve assemblies.
3. Each cylinder is factory-filled with liquid fire suppressant and pressurized to 200 PSIG at 70°F.

C. Distribution Nozzles

1. Nozzles shall be located to protect the exhaust ducts, plenums, and all cooking appliances requiring protection.
2. All nozzles shall be equipped with strainers to prevent foreign matter in the agent distribution piping or tubing from clogging the nozzle orifice. All nozzles shall be equipped with foil seals to prevent entry of grease and foreign matter into the nozzles and piping. The foil seals are to be ruptured by pressure at system discharge.
3. All nozzles shall incorporate a ring identification system to easily identify nozzle types. Rings are to be machined into the nozzle body by the manufacturer.

D. Distribution System

1. The distribution system shall consist of Schedule 40 black iron, chrome-plated or stainless-steel pipe and fittings. All exposed piping and fittings must be chrome-plated or stainless steel.
2. Fittings shall be minimum class 150. Galvanized fittings shall not be used.

E. Suppression System

1. The system control equipment shall be capable of all functions associated with automatically and manually discharging the wet chemical agent from all cylinder and valve assemblies, including automatic shutdown of the heat source or fuel and electrical power to all protected areas upon system discharge.
2. Liquid Fire Suppressant shall be Aqueous Potassium Carbonate (APC).
3. All mechanical components of the actuator kit shall be enclosed.
4. The actuator kit shall be capable of automatic or manual activation means.
5. Supervisory Pressure Switch added to monitor operating system pressure.
6. For manual activation, an electrically operated manual release shall be used to actuate the system manually.
7. For automatic activation, the system will be activated by a Firestat (heat) detector.

F. Electrical

1. Electrical Division to provide shunt trip breakers at main power panel, or disconnects, as designated by the Electrical Engineer; interconnection provided at hood control panel for the signal to shut down all electricity in and under the exhaust hood. Shunt trips/disconnects to accomplish shut off of electricity in the event of fire system activation by others.
2. Printed circuit board with microprocessor-based controller that provides all the necessary monitoring, timing, and supervision functions required for the reliable operation of the fire system.
3. Independent supervised loops incorporate redundancy and fault detection.
4. Real-time cloud-based monitoring connection provided with system by ownership.
5. Primary power supply, with battery backup for power loss.
6. All wiring must be in accordance to NFPA 70 and the Authority Having Jurisdiction (AHJ).
7. Electric gas valve provided for equipment below exhaust hood. Coordinate size and installation with Plumbing Division.
8. All wiring is to be in accordance with the applicable manufacturer's instructions for the fire alarm control panel, gas shut-off valve, manual reset relay, and contractor supplied shut-off devices.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

3.2 APPLICATION

A. Wet chemical-based fire suppression system for use in commercial kitchens. It can be mounted in the integral cabinet located at the end of the hood or offered as a wall mount package.

3.3 INSTALLATION

A. As part of this item, provide wall mounted type K handheld portable fire extinguisher, placard, and mounting bracket as required in the immediate vicinity of each cooking area, per NFPA-96 and NFPA-10. Additional fire extinguishers as required in the kitchen area are to be specified by the Architect and provided by the General Contractor.

B. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

C. Six-month and twelve-month inspections, servicing, and replacement of components as per NFPA 96 to be provided by the General Contractor or Owner.

CUSTOMER APPROVAL TO MANUFACTURE:

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Revise and Resubmit ☐

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Ashland City C-Store
ASHLAND CITY, TN, 37015

DATE: 9/28/2021

DWG.#: FS-3-5109685

DRAWN BY: DDR-44

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

FIRE SYSTEM

SHEET NO. 6

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Project #04321

ASHLAND CITY C-STORE

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MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	WIN

MECHANICAL HOOD SPECIFICATIONS

M-206

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EXHAUST FAN INFORMATION – JOB#5109685

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF1	1	EADU180H	ECON-AIR	2000	1.200	1076	ODP,PREMIUM	1.500	0.8370	3	208	6.6	462 FPM	182	12.6

MUA FAN INFORMATION – JOB#5109685

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	MAU1	1	EA1-D.500-15D	15MF-1-MOD	A1-D.500	1000	1600	0.500	1772	ODP,PREMIUM	1.500	0.8580	3	208	4.4	5.5A	15A	478	16.7

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	MAU1	103779	95477	57°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

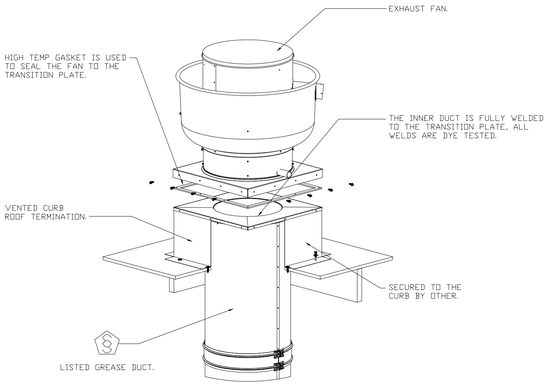
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF1	1	GREASE BOX.
		1	EXHAUST FAN HEAT BAFFLE.
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
		1	2 YEAR PARTS WARRANTY.
2	MAU1	1	INLET PRESSURE GAUGE, 0-35".
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC.
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING. MEETS AMCA CLASS 1A RATING.
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY.
		1	2 YEAR PARTS WARRANTY.

FAN ACCESSORIES

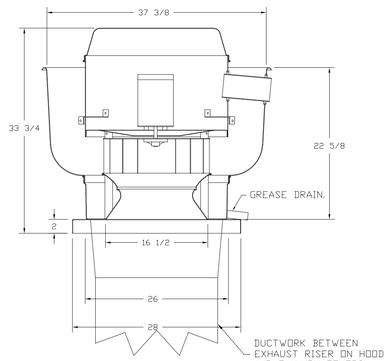
FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF1	YES						
2	MAU1						YES	

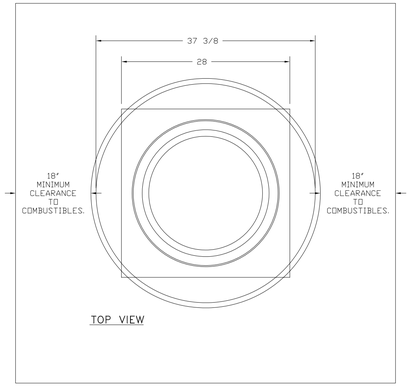
CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF1	34 LBS	CURB	26.500"W X 26.500"L X 26.000"H 4.000:12.000 PITCH ALONG LENGTH, RIGHT VENTED HINGED.
2	# 2	MAU1	65 LBS	CURB	21.000"W X 71.000"L X 20.000"H 4.000:12.000 PITCH ALONG WIDTH, RIGHT INSULATED.



FAN #1 EADU180H - EXHAUST FAN (KEF1)





TOP VIEW

FEATURES:

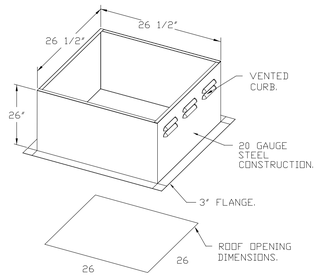
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT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

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

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

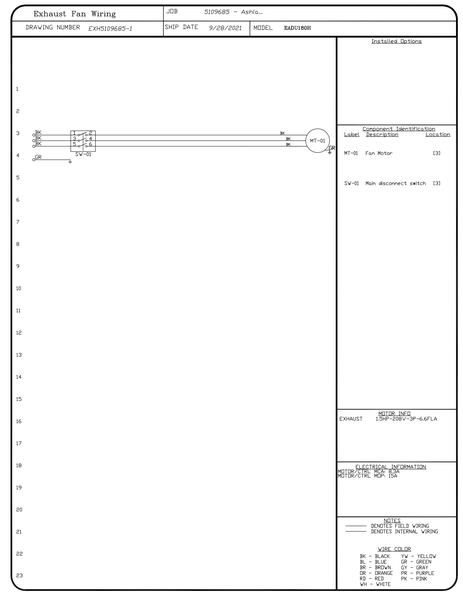
OPTIONS:

GREASE BOX.
EXHAUST FAN HEAT BAFFLE.
FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

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



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FAN

SHEET NO. 7

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MECHANICAL HOOD SPECIFICATIONS

M-207

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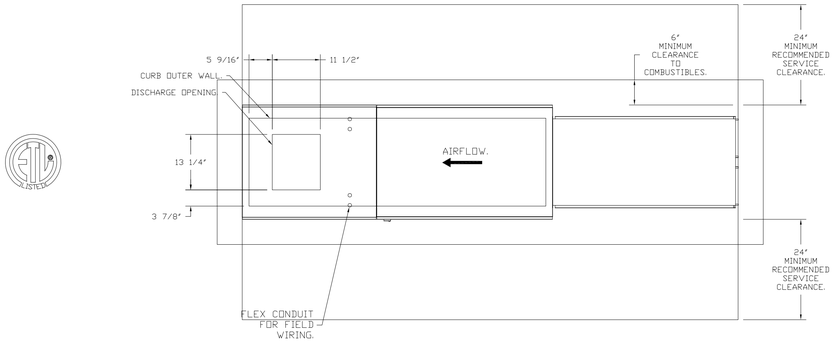
Project #04321

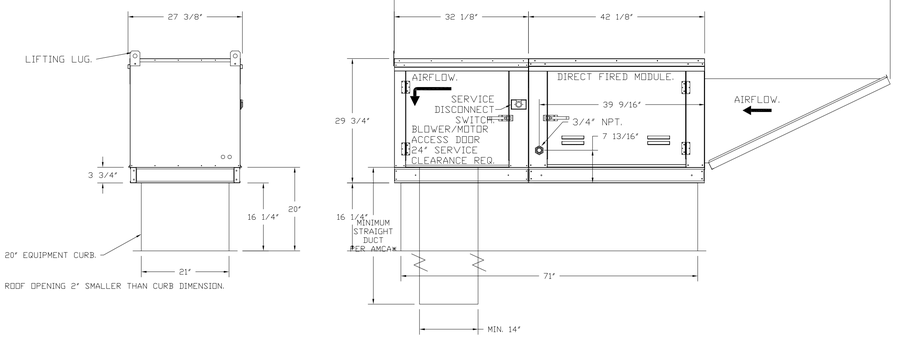
FAN #2 EA1-D,500-15D = HEATER (MAU)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
6. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TF81203 ACTUATOR INCLUDED.
7. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
8. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
9. 2 YEAR PARTS WARRANTY.

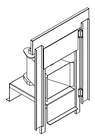
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE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

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 18°F. TEMP. RISE = 57°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 97433.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 105905.
OUTPUT BTUs AT ALTITUDE OF 560 FT. = 95477.
INPUT BTUs AT ALTITUDE OF 560 FT. = 103779.







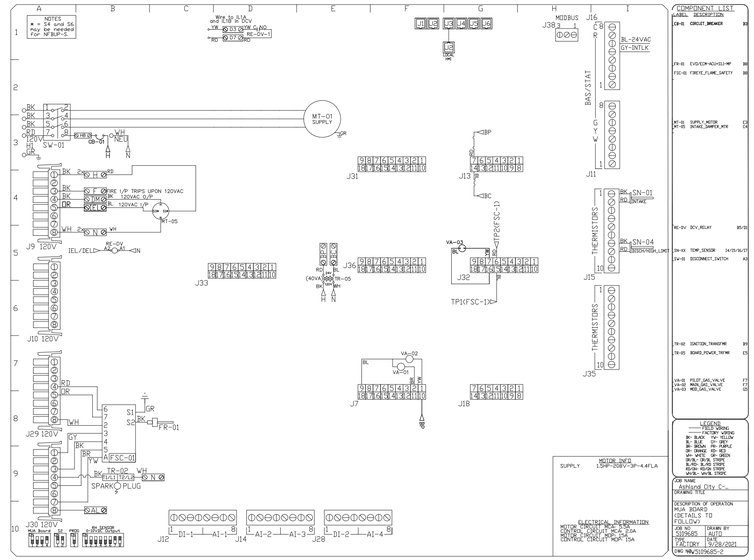
DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

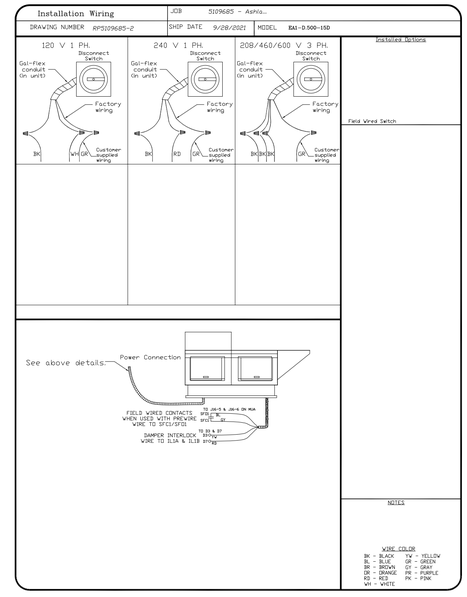
DIRECT FIRED PROFILE PLATE SPECIFICATIONS:
DESCRIPTION:
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO: US6629529B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2)DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
SPRING-LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:
-PROFILE PLATES SHALL BE FORMED FROM G90 GALVANIZED STEEL.
-PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
-PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
-DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
-SPRING HINGES SHALL BE MADE FROM PLATED STEEL.





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MECHANICAL HOOD SPECIFICATIONS

M-208

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SECTION 23 74 33

FACTORY FABRICATED PACKAGED HEATING AND COOLING MAKE-UP AIR UNITS SPECIFICATIONS

TAG: Modular Direct-Fired Heater

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes modular packaged heating and cooling units capable of supplying up to 100 percent outdoor air.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use of this document. This specification is to be reviewed by the engineer to confirm requirements of the project and building codes are met.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE

A. ETL-Listed to the American National Standard/CSA Standard for Gas Unit Heaters And Gas-Fired Duct Furnaces ANSI Z83.4, CSA 3.7.

B. The Safety Control Board is ETL-Listed to standards UL 60730-2-9, UL 60730-1; CSA E60730-1, and CSA E60730-2-9.

1.4 WARRANTY

A. All units are provided with the following 2-year standard warranty.

B. This warranty shall not apply if:

1. The equipment is not installed by a qualified installer per the manufacturer's installation instructions shipped with the product.
2. The equipment is not installed in accordance with Federal, State, Local codes and regulations.
3. The equipment is misused, neglected, or not maintained per the manufacturer's maintenance instructions.
4. The equipment is not operated within its published capacity.
5. The invoice is not paid within the terms of the sales agreement.

C. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by the manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

PART 2 - PRODUCTS

2.1 GENERAL ASSEMBLY

A. Unit(s) shall be factory assembled, tested and shipped as a complete packaged assembly, for indoor or outdoor mounting, consisting of the following specifications, deliver all capacities scheduled, and conform to design indicated herein. Alternate layouts or dimensional changes will not be accepted.

2.2 CABINET

A. Unit(s) shall be constructed of minimum 20-gauge G-90 galvanized steel riveted together via structural pop-rivets. All metal shall be CNC bent for precise assembly.

1. Base Construction: The base shall be constructed of galvanized steel for improved rigidity. Base shall be structurally reinforced to accommodate the blower assembly and burner.
2. Rigging Provisions: The unit shall have a structural base constructed of minimum 14ga. G-90 galvanized steel, and include lifting points on all four sides.
3. Roof Construction: Roof shall be pitched to allow for proper drainage.
4. Exterior Wall Construction: All exterior walls shall consist of insulated galvanized steel construction.
5. Service Access Doors: All door jambs shall be gasketed around their perimeter. Doors may be mounted via spring actuated, stainless steel hinges with stainless steel rivets, and self-compressing stainless steel pad lockable latches or through removable sliding panels.
6. Each compartment shall have removable access panels to allow for ease of service and maintainability. Electrical cabinet doors shall be outfitted with schematic/manual pouches formed into the door, along with wiring diagram attached to the indoor of the door from the factory.

B. Entire interior and exterior casing shall be constructed of minimum 20-gauge G-90 galvanized steel with no painting, and shall have undergone a salt spray corrosion test as per ASTM B 117.

C. An observation port shall be located on the exterior of the unit for observation of the main flame and pilot flame. All controls, gas valves, modulating controls and electrical components shall be mounted within the burner vestibule. The burner vestibule shall be an integral part of the unit and not extend outside the exterior casing of the unit and not exposed to the main air stream.

2.3 AIRFLOW CONFIGURATIONS

A. Unit shall be configurable for down (vertical) discharge through unit.

B. Unit intake airflow configuration shall be through use of a fresh/outdoor damper.

1. Damper: Manufacturer shall provide and install on unit, when possible, a two-position, motor-operated damper with internal end switch to energize the blower-starter circuit, when damper is 80% open. Blades shall be a maximum of 6" wide 16-gauge G-90 galvanized steel and shall be made to guarantee the absence of noticeable vibration at design air velocities. Damper blades are to be mounted on friction-free synthetic bearings. Damper edges shall have PVC coated polyester fabric mechanically locked into blade edge. Jamb seals used are flexible metal, compression type. Damper shall exceed AMCA Class 1A standard for low leakage. Damper assembly shall be a single assembly, and outfitted with an integral bird screen and louver/gutter system to divert any drainage through the base of the unit -intake air hood not required.
2. Discharge Diffuser: Shall be constructed of G-90 galvanized steel with horizontal and vertical blades capable of four-way diffusion.
3. Actuator: A single direct drive damper actuator shall be used with spring return to ensure that the outdoor air section opens when not powered.

2.4 SUPPLY AIR BLOWER AND MOTOR

A. All supply fans shall be:

1. Direct Drive: Blower assembly shall consist of a centrifugal backward inclined, non- overloading wheel secured directly to a heavy-duty, ball bearing type motor via two set screws. The motor and wheel assembly shall be mounted to a heavy gauge galvanized steel frame. The motor shall be controlled by a variable frequency drive, allowing for variable airflow without the need of belts and pulleys.

B. Blower Motor: Motor shall be a premium efficiency motor available as:

1. Open Drip Proof (ODP) motor driven by a Variable Frequency Drive.

C. Fans to be selected at or near efficiency peak. Check fan curves provided with job.

D. Blower and motor assembly shall be dynamically balanced. The entire blower and motor assembly shall be mounted on rubber vibration isolators. Wheels balanced as per AMCA 204-96; Balance Quality and Vibration Levels for fans.

2.5 SHAFTS AND BEARINGS

A. Shafts shall be precision ground and polished. Heavy duty, pre-lubricated bearings designed for, and individually tested, specifically for, use in air handling applications.

2.6 HEATING SYSTEM

A. The gas burner shall be a direct-fired, pull-through type, using natural gas at an inlet-supply pressure to the unit of 7"w.c. minimum natural gas.

B. Burner design shall be capable of using natural gas. Burner ignition shall be of the direct-spark design with remote flame sensing at the pilot assembly to detect the presence of flame in the burner.

C. Direct-sparking sequence shall last through the complete duration of the trial for ignition period for guaranteed light-off. Each burner ignition module shall have LED indicators for troubleshooting and a set of exposed prongs for testing flame indication signal.

D. Unit should include self-adjusting burner profile plates, which ensure proper air velocity and pressure drop across the burner for clean combustion. Spring-loaded profile plates should react to the momentum of the fresh air stream. No motors or actuators are needed to drive them, nor should they need to be manually set to a specific position. Units should be capable of variable air volume applications.

E. Each furnace shall have:

1. The burner shall have non-clogging, stainless steel combustion baffles attached to a ductile aluminum gas-supply section with no moving parts to wear out or fail. The burner shall be capable of 92% combustion efficiency with a maximum turndown ratio of up to 30 to 1.
2. Stainless steel Quick Seal Connection for gas connection.
3. Manifold and Input gas pressure gauges.
4. Inlet pressure gauge installed on the gas manifold (0-35"wc).
5. Inlet pressure gauge installed on the gas manifold (-5 to 15"wc).

2.7 FILTERS

A. Provide filters as part of unit. All filters shall be furnished and installed to meet the performance requirements set forth in the schedule and as specified under another section of this work.

B. The filters shall be (2") thick, aluminum mesh coated with super-filter adhesive, aluminum mesh with polyester foam or pleated throw away. Aluminum-mesh filters shall have aluminum frames with media to be layers of slit and expanded aluminum, varying in pattern to obtain maximum depth loading. Washable 2" filters shall be enclosed in two- piece, die-cut frame with diagonal supports. Frame shall be constructed of heavy-duty beverage board. Filter media is supported on the air leaving side by a metal grid.

C. All filters shall be installed on tracks for easy removal from the unit.

D. Shall be either insulated or non-insulated constructed of G-90 galvanized steel with filters supported by internal slides and with removable access panels.

2.8 ELECTRICAL

A. All controls shall be pre-wired and housed in an insulated electrical cabinet within the unit to protect against risk of condensation.

B. All direct fired and cooling only units shall be provided with single point electrical connection.

C. Unit shall be provided with a door safety switch that de-energizes the supply fan when the door is opened.

D. Units shall be provided with a factory mounted averaging intake air temperature sensor to allow for accurate intake temperature reading regardless of how the OA/RA dampers are positioned.

E. The electrical cabinet shall be outfitted with the following:

1. Color wiring schematics, laminated to the interior wall of the cabinet doors.
2. Factory mounted disconnect with unit bottom knockouts.
3. A LED backlit, LCD Human-Machine Interface (HMI) shall be mounted within the unit's control cabinet to allow for all set points configuration and refrigeration system monitoring at the unit.
4. Up to 4 additional space mounted HMIs available. Additional HMIs shall allow for full programming capabilities and are outfitted with integral temperature and humidity sensors. Additional HMIs shall be capable of being individually averaged for space temperature/humidity readings. All HMIs shall be wired using standard CAT5/6 cables.

2.9 CONTROLS

A. Unit shall be outfitted with a control board to allow for full control of the entire unit.

B. Provide onboard air flow switch located on MUA control board to sense air flow.

C. All unit controls shall be compatible with BACnet and LonWorks based building management systems.

D. All units shall be outfitted with CASLink cloud based monitoring, which monitors every point of operation. Provides configurable automated fault alert e-mails, and remote control capabilities.

E. Integrated cellular module to provide remote connection to monitoring services to view both real time and historical unit operation. Data shall be stored a minimum of 3 years on the cloud. Data sample rate shall be a maximum of 60 seconds.

F. Temperature Control System:

1. Discharge Temp Control (Heating) - Unit modulates the burner flame (current supply in the case of electric heating) to accurately maintain the desired discharge temperature set point and compensate for fluctuations in entering air temperature, air volume and % of OA using heating PID controls.

G. Activation Controls:

1. Activate Based on Intake (Heating) - Unit will activate heating when the intake temperature drops below the desired set point.
2. Activate Based on Space (Heating) - Unit will activate heating when the space temperature drops below the desired set point.
3. Activate Based on Both (Heating) - Unit will activate heating when the space AND intake temperature drop below the desired set point.
4. Activate Based on Either (Heating) - Unit will activate heating when the space OR intake temperature drops below the desired set point.
5. Activate Based on Stat (Heating) - Unit will activate heating when the space thermostat sends a 24V signal to W and G on the main control board. Unit will modulate to maintain a constant discharge heat set point.

2.10 ROOF CURBS

A. Unit shall be factory assembled, and constructed of 18GA galvanized steel.

B. Curb shall be fully insulated with 1"acoustical and thermal insulation.

C. Curb shall be factory outfitted with duct support hangers.

2.11 VARIABLE FREQUENCY DRIVES

A. Provide Variable Frequency Drive for speed control on all non-ECM direct drive supply fans.

B. All VFDs shall provide the following inherent protections:

1. Phase protection
2. Brownout protection
3. Overload/Overheat protection
4. Soft starts to protect bearings/hardware
5. Low & High voltage & over-torque protections

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine all areas and conditions under which packaged units are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install units in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual and all applicable building codes.

3.3 CONNECTIONS

A. Piping installation requirements are specified in other Division 23 Sections. Drawings indicate the general arrangement of piping, fittings, and specialties. Install piping to allow service and maintenance.

B. Duct installation requirements are specified in other Division 23 Sections. Drawings indicate the general arrangement of ducts.

C. Electrical connections conform to applicable requirements in Division 26 Sections.

3.4 SYSTEM START-UP

A. System start-up is performed by a factory-trained Service Technician.

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

FAN

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MECHANICAL HOOD SPECIFICATIONS

M-209

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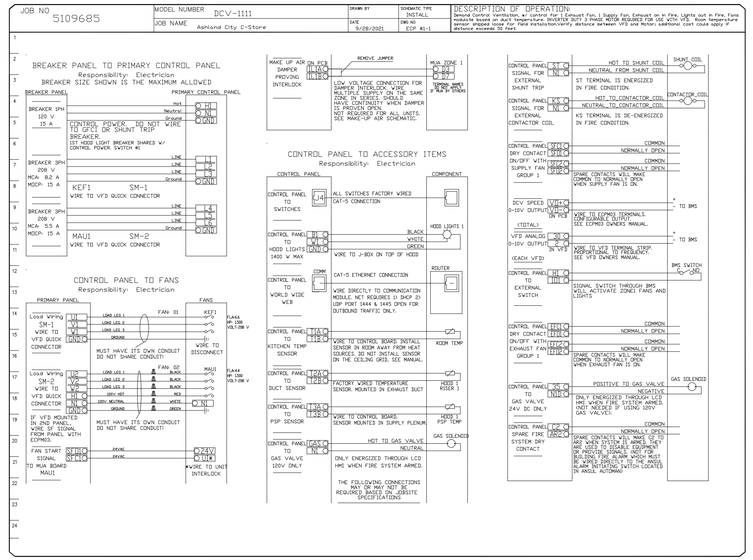
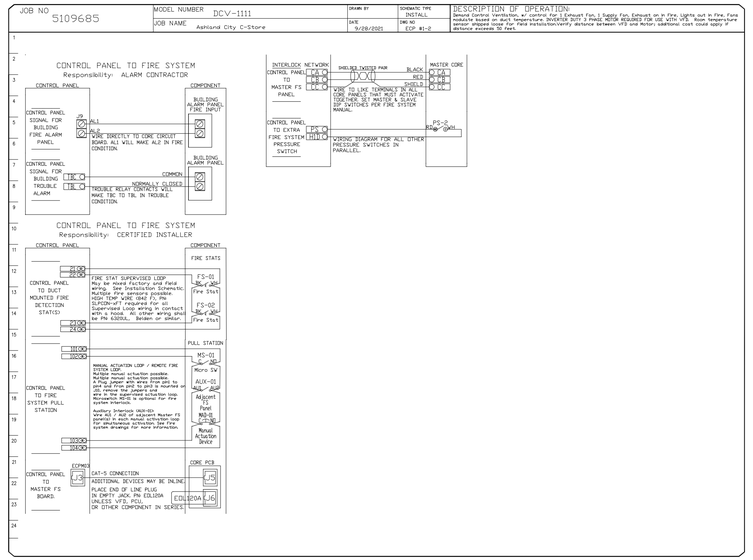
ELECTRICAL PACKAGE – JOB#5109685

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION
				LOCATION	QUANTITY	
1	DCV1	DCV-1111	UTILITY CABINET LEFT	D3 - UTILITY CABINET LEFT HOOD # 1	1 LIGHT 1 FAN	SMART CONTROLS DCV

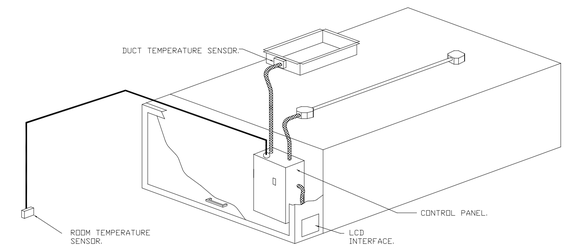
FANS CONTROLLED					
FAN TAG	TYPE	Φ	HP	VOLT	FLA
KEF1	EXHAUST	3	1.500	208	6.6
MAU1	SUPPLY	3	1.500	208	4.4





DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.2.8 (2015).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.

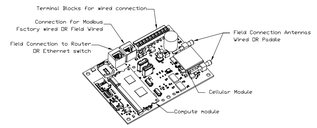


TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.2.8.
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.



CASLink Monitor and Control

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

MONITORING AND CONTROL POINTS LIST

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

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

CUSTOMER APPROVAL TO MANUFACTURE:

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Approved with NO Exception Taken ☐
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Ashland City C-Store
ASHLAND CITY, TN, 37015

DATE: 9/28/2021
DWG.#: DCV-1-5109685
DRAWN BY: DDR-44
SCALE: 3/4" = 1'-0"
DEMAND CONTROL

SHEET NO. 10

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Project #04321

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DELTA	DESCRIPTION	DATE

DATE OF ISSUE: 10.20.2021
MA PROJECT NO: 0214-21
PROJECT PHASE: CD
DRAWN BY: WIN

MECHANICAL HOOD SPECIFICATIONS

M-210

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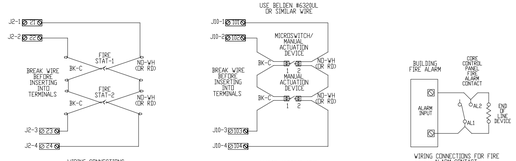
JOB NO 5109685 | MODEL NUMBER DCV-1111 | JOB NAME Ashland City C-Store | DRAWN BY | DATE 9/28/2021 | SCHEMATIC TYPE INSTALL. | DWG NO FCP #1-5

TANK PROTECTION LOW-VOLTAGE FIGURES

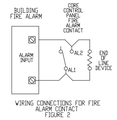
02/10/2021 Rev. 17

FS-1: MASTER

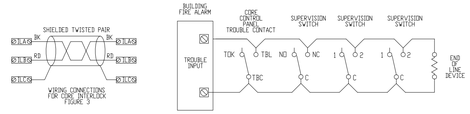


WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1

WIRING CONNECTIONS FOR MANUAL ACTUATION LOOP
FIGURE 1A



WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2



WIRING CONNECTIONS FOR CORE INTERLOCK
FIGURE 3

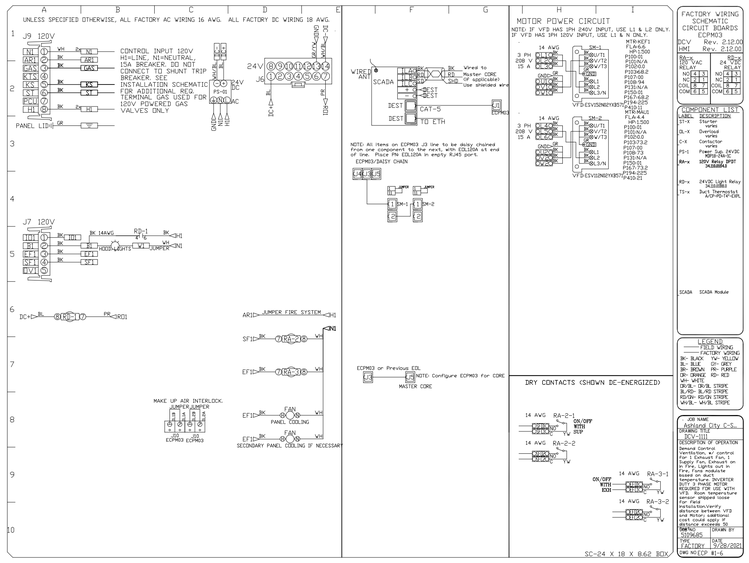
WIRING CONNECTIONS FOR TROUBLE CONTACT
FIGURE 4

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

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

DESCRIPTION OF OPERATION:

Fire System #1 Tank FS - 83.43 Jobs FSI, Tube-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood preview panel.



FACTORY WIRING SCHEMATIC CIRCUIT BOARDS ECPM03

DCV Rev. 2.12.00
UMC Rev. 2.12.00

RA/B 120 VAC RELAY: NO, NC, COM
24 VDC RELAY: NO, NC, COM

COMPONENT LIST

LABEL	DESCRIPTION
ST-2	Starter
OL-X	Overload relay
C-X	Contactor relay
FS-1	Power Sup. DEVICE 24VDC/5A
RR-x	120V Relay #ref 14-000064
RD-x	24VDC Light Relay 14-000065
TT-x	Duct Thermostat A/D-PS-ST-DPL
SCADA	SCADA Module

LEGEND

FIELD WIRING — FACTORY WIRING

BK- BLACK, YW- YELLOW, BL- BLUE, GY- GREY, BR- BROWN, PU- PURPLE, OR- ORANGE, RD- RED, WH- WHITE, GR- GREEN
2BK/B- BK/BL STRIPE, BL/RD- BL/RD STRIPE, RD/GN- RD/GN STRIPE, WH/BL- WH/BL STRIPE

JOB NAME: Ashland City C-S.
DRAWING TITLE: DCV-1111

DESCRIPTION OF OPERATION: Fire System #1 Tank FS - 83.43 Jobs FSI, Tube-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood preview panel.

JOB NO 5109685 | DRAWN BY DDR-44
DATE FACTORY 9/28/2021
DWG NO CP #1-6

FACTORY WIRING SCHEMATIC CORE FIRE PROTECTION

RA/B 120 VAC RELAY: NO, NC, COM
24 VDC RELAY: NO, NC, COM

COMPONENT LIST

LABEL	DESCRIPTION
MAS-01	MANUAL ACTIVATION DEVICE
PSM-2	CORE POWER SUPPLY 1606-XLP-60EQ
PSM-2	CORE POWER SUPPLY 1606-XLP-100
WS-x	Water Solenoid valve
LT-06	24V Red Ind. Light 14-000158
LL-01	Tank Level Sensor #2055
AA-01	Audible Alarm DS26LXAPPB
FB-01	Prime/Reset Switch 83-000
SW-05	TEST/ARM Switch 29960
SW-04	Door Switch 83-000-KIT
SP-1	Surfactant Pump 5888-100
SV-1	24v DC Gas Valve #2000
FS-XX	Duct Fire Sensor SV-DTX60-HOOD
LT-05	Tank Level, VAP ML-LSU-03
FS-01	Remote Pull/Push Station 14-000066
PWS-01	PWSE Power Supply 14-000067 24VDC 3A POWER
RD-XX	24VDC Prewire Relay RS-497-080-05
PS	Pressure Switch 1VC/PRESSURE

LEGEND

FIELD WIRING — FACTORY WIRING

BK- BLACK, YW- YELLOW, BL- BLUE, GY- GREY, BR- BROWN, PU- PURPLE, OR- ORANGE, RD- RED, WH- WHITE, GR- GREEN
2BK/B- BK/BL STRIPE, BL/RD- BL/RD STRIPE, RD/GN- RD/GN STRIPE, WH/BL- WH/BL STRIPE

JOB NAME: Ashland City C-S.
DRAWING TITLE: DCV-1111

DESCRIPTION OF OPERATION: Fire System #1 Tank FS - 83.43 Jobs FSI, Tube-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood preview panel.

JOB NO 5109685 | DRAWN BY DDR-44
DATE FACTORY 9/28/2021
DWG NO CP #1-7

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Ashland City C-Store
ASHLAND CITY, TN, 37015

DATE: 9/28/2021
DWG.#: DCV-2-5109685
DRAWN BY: DDR-44
SCALE: 3/4" = 1'-0"
DEMAND CONTROL
SHEET NO. 11

ASHLAND CITY C-STORE

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DRAWN BY:	WIN

MECHANICAL HOOD SPECIFICATIONS

M-211

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Project #04321

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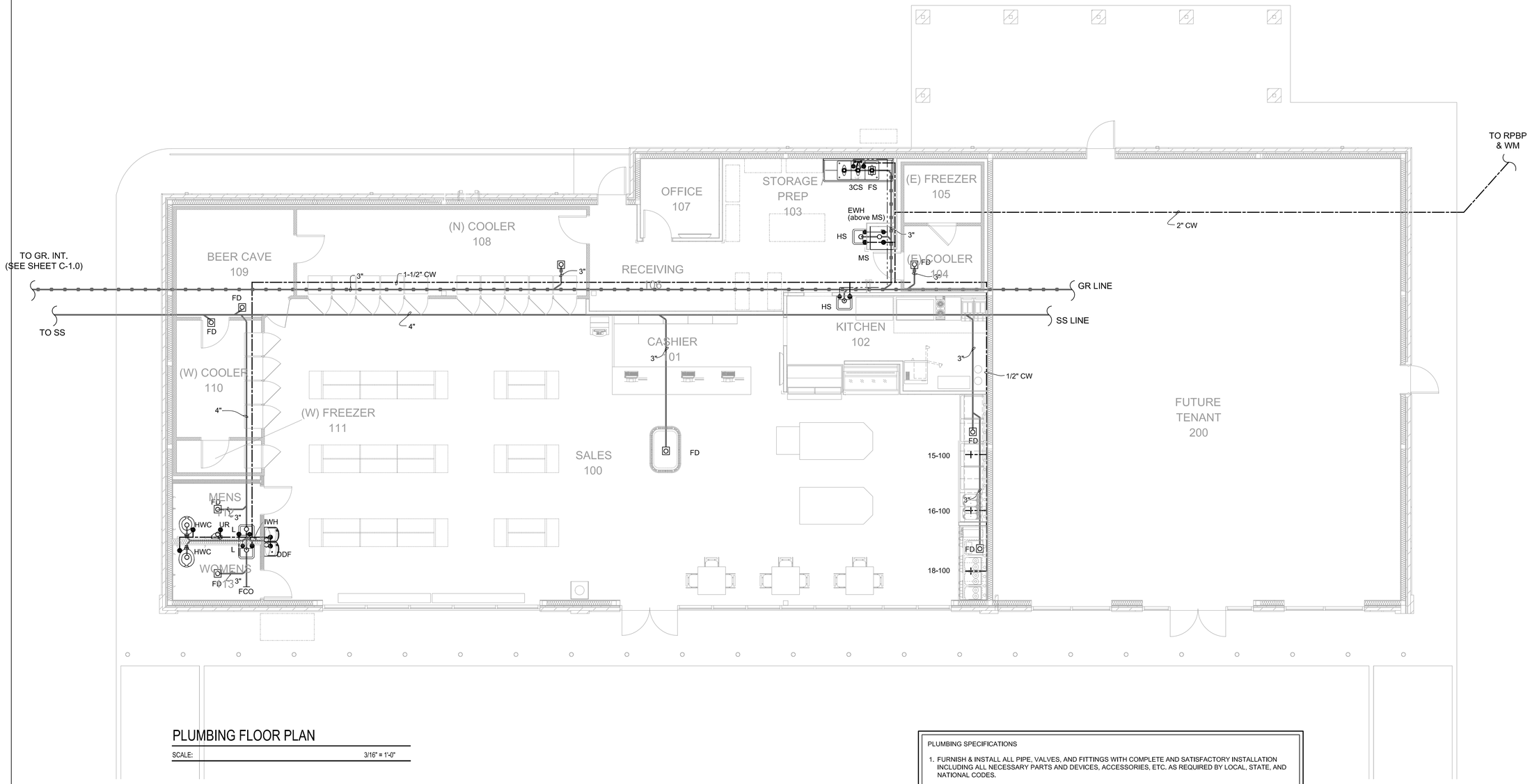

PLUMBING FLOOR PLAN

SCALE: 3/16" = 1'-0"

HOT WATER	
COLD WATER	
SEWER	
SEWER GR INT.	
VENT	

PLUMBING FIXTURES SPECIFICATION

ALL PLUMBING FIXTURES SELECTED BY OWNER

PLUMBING SPECIFICATIONS

1. FURNISH & INSTALL ALL PIPE, VALVES, AND FITTINGS WITH COMPLETE AND SATISFACTORY INSTALLATION INCLUDING ALL NECESSARY PARTS AND DEVICES, ACCESSORIES, ETC. AS REQUIRED BY LOCAL, STATE, AND NATIONAL CODES.
2. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL CODES AND ORDINANCES.
3. THE FOLLOWING ITEMS SHALL REQUIRE SUBMITTALS: PIPE & FIXTURES; PLUMBING FIXTURES; VALVES; WATER HEATERS.
4. WASTE AND VENT PIPING AND FITTINGS SHALL BE SOLVENT CEMENT JOINT SCHEDULE 40 PVC.
5. ALL WATER PIPING SHALL BE COPPER TUBE ASTM-88. WATER PIPING BELOW GRADE SHALL BE TYPE K SOFT ANNEALED. WATER PIPING ABOVE GRADE SHALL BE TYPE L HARD DRAW. FITTINGS SHALL BE WROUGHT WITH LEAD FREE SOLDER.*
6. ALL WATER PIPING ABOVE SLAB SHALL BE INSULATED WITH FIBERGLASS INSULATION WITH AN ALL SERVICE JACKET. INSULATION THICKNESS: PIPE 1" AND SMALLER: ½" THICK; PIPE 1 1/4" AND LARGER: 1" THICK.
7. ALL WATER PIPING BELOW SLAB SHALL BE INSULATED WITH FOAM CELL INSULATION 1" THICK.
8. ALL RELATED MATERIALS INCLUDING INSULATION CLOTHS, CEMENTS, JACKETS, FACINGS, ADHESIVES, TAPES, ETC. SHALL HAVE A COMPOSITE FIRE AND SMOKE HAZARD RATING NOT TO EXCEED A FLAME SPREAD RATING OF 25 AND DEVELOPED SMOKE RATING OF 50.
9. PROVIDE DIELECTRIC UNIONS WHEN JOINING DISSIMILAR METALS.
10. APPROVED STANDARD WEIGHT VALVES SUITABLE FOR A WORKING PRESSURE MINIMUM OF 125 PSIG.
11. GATE VALVES SHALL BE BRASS WITH OPERATING WHEELS, PACKING GLANDS, AND RISING STEMS.
12. VACUUM BREAKERS SHALL BE INSTALLED ON ALL FIXTURES WHERE REQUIRED BY CODES.
13. MAKE ALL WATER AND AIR TESTS OF THE PLUMBING SYSTEMS IN THE PRESENCE OF AND TO THE SATISFACTION OF THE ARCHITECT OR HIS DESIGNATED REPRESENTATIVE. ALL TESTS SHALL BE CONDUCTED PRIOR TO THEM BEING COVERED AND SEALED.
14. THE PIPING SYSTEM SHALL BE STERILIZED AND COMPLY WITH ALL THE GOVERNING REGULATIONS AND WITH THE STERILIZATION PROCEDURES AS RECOMMENDED BY THE AMERICAN WATER ASSOCIATION.

* PEX TUBING MAY BE USED IN LIEU OF COPPER IF APPROVED BY CODES.

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Phone: 615-891-4565 | Fax: 615-250-0580
Project #04321

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PLUMBING PLAN

P-101

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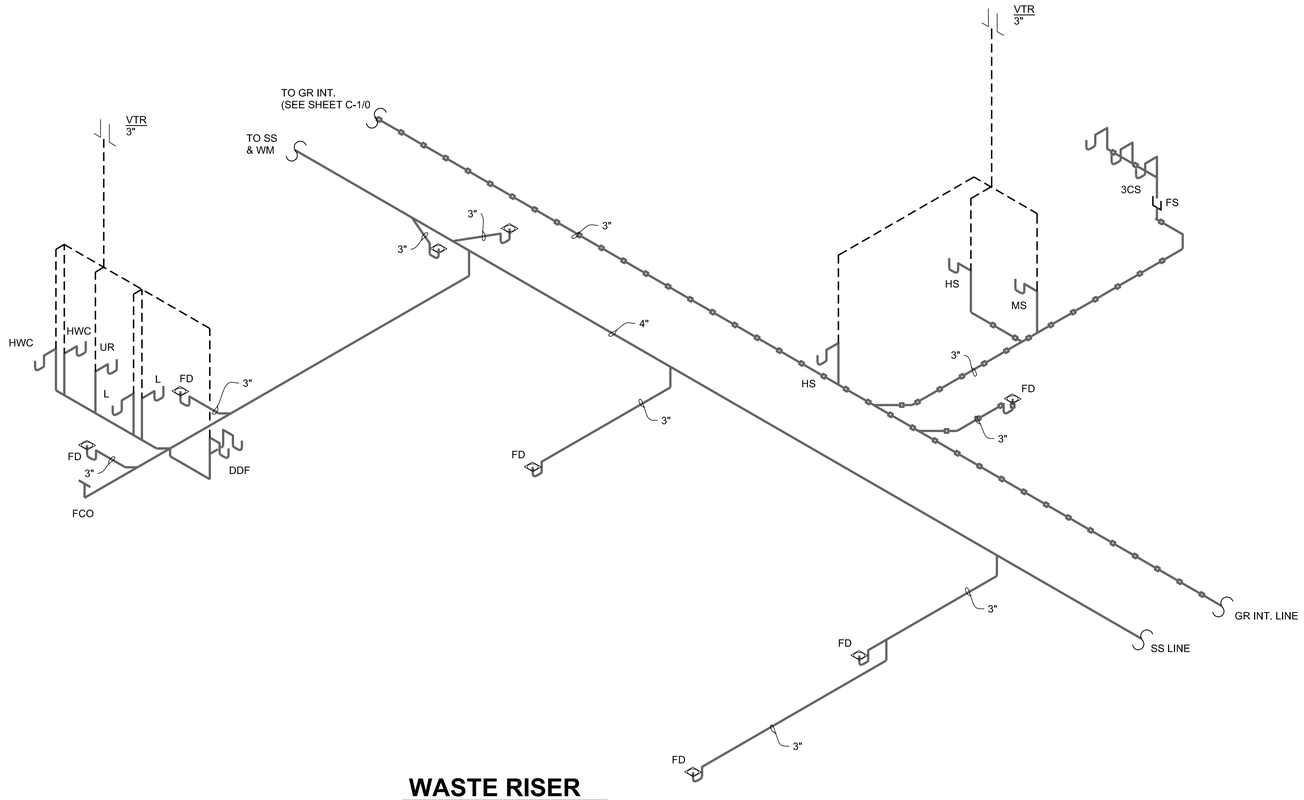
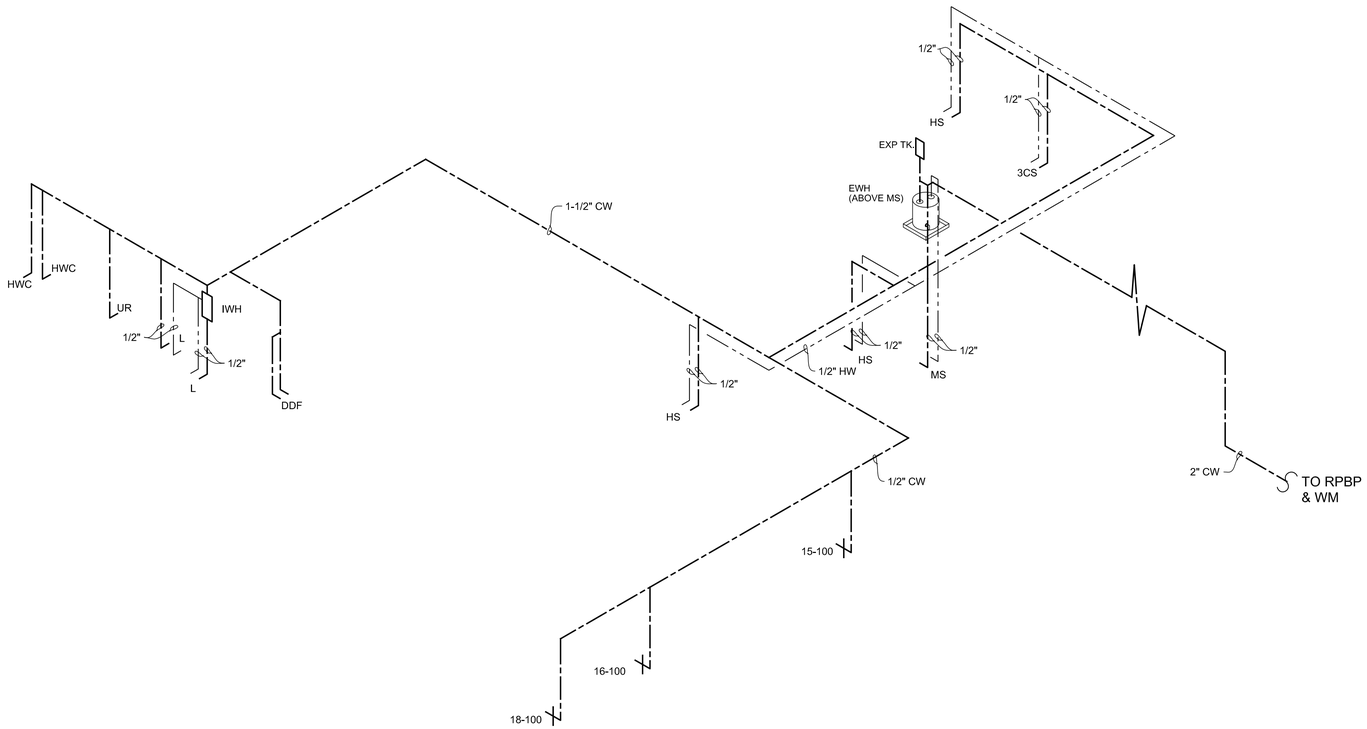


WASTE RISER

SCALE: NTS



SUPPLY RISER

SCALE: NTS

HOT WATER	
COLD WATER	
SEWER	
SEWER GR INT.	
VENT	

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12. VACUUM BREAKERS SHALL BE INSTALLED ON ALL FIXTURES WHERE REQUIRED BY CODES.
13. MAKE ALL WATER AND AIR TESTS OF THE PLUMBING SYSTEMS IN THE PRESENCE OF AND TO THE SATISFACTION OF THE ARCHITECT OR HIS DESIGNATED REPRESENTATIVE. ALL TESTS SHALL BE CONDUCTED PRIOR TO THEM BEING COVERED AND SEALED.
14. THE PIPING SYSTEM SHALL BE STERILIZED AND COMPLY WITH ALL THE GOVERNING REGULATIONS AND WITH THE STERILIZATION PROCEDURES AS RECOMMENDED BY THE AMERICAN WATER ASSOCIATION.

* PEX TUBING MAY BE USED IN LIEU OF COPPER IF APPROVED BY CODES.

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PLUMBING RISER PLAN

P-102

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GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE.
2. ALL SINGLE PHASE BRANCH CIRCUITS (RECEPTACLES, LIGHTING, ETC.) ARE 3/4" CONDUIT OR EMT WITH (3)#12 BLACK/WHITE/GREEN, THHN, 90 DEGREES C WIRING. ALL OTHER CONDUIT AND WIRING SHALL BE AS INDICATED ON THE PLANS. ACTUAL ROUTING AND HOMERUN GROUPINGS ARE TO BE DETERMINED IN THE FIELD. ALL WIRING SHALL BE COPPER.
3. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC EXCEPT FOR DETAILS AND ELEVATIONS. DO NOT SCALE FROM DIAGRAMMATIC DRAWINGS. EXACT LOCATIONS OF DEVICES AND PANELS ARE TO BE DETERMINED AND ROUGHED-IN DURING CONSTRUCTION TO AVOID INTERFERENCE, TO MEET USER REQUIREMENTS, TO PROVIDE ADEQUATE MOUNTING, AND TO MEET NEC LINEAR ACCESS AND CLEARANCE REQUIREMENTS.
4. VERIFY EXACT LOCATIONS OF MOTORS AND EQUIPMENT BEFORE ROUGHING IN. VERIFY ALL NEW RECEPTACLE LOCATIONS AND RECEPTACLE TYPES WITH OWNER PRIOR TO CONSTRUCTION.
5. FINAL CONNECTIONS TO ALL AIR-HANDLERS, CONDENSING UNITS, EXHAUST FANS, AND OTHER EQUIPMENT DEVICES WHICH VIBRATE, SHALL BE MADE WITH FLEXIBLE SEALTITE AND APPROPRIATE WIRING.
6. IN ADDITION TO THE NEC REQUIREMENTS FOR GFCI RATED RECEPTACLES, THE FOLLOWING RECEPTACLES SHALL ALSO BE GFCI RATED: (1) ALL RECEPTACLES LOCATED WITHIN 6 FEET OF A SINK, (2) ALL RECEPTACLES WHICH ARE PROVIDED FOR CONVENIENCE IN SERVICING HVAC EQUIPMENT REGARDLESS OF LOCATION. PROVIDE INDIVIDUAL GFCI DEVICES ONLY. GFCI CIRCUIT BREAKERS ARE NOT ACCEPTABLE.
7. PROVIDE A LAMICOID NAMEPLATE (WHITE LETTERS ON BLACK BACKGROUND) ON EACH PANELBOARD, MOTOR STARTER, CONTACTOR, TRANSFORMER, ETC. LETTERS SHALL BE 0.75 INCH MINIMUM.
8. CIRCUIT BREAKERS FOR HVAC EQUIPMENT SHALL BE HACR RATED.
9. MINIMUM HORIZONTAL SEPARATION BETWEEN BOXES ON OPPOSITE WALLS OF FIRE RATED WALL SHALL BE 24 INCHES.
10. VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL BEFORE ROUGHING IN LIGHT SWITCHES.
11. TRADE NAMES ARE GIVEN TO CLARIFY TYPE OF PRODUCT AND QUALITY DESIRED.
12. CONTRACTOR SHALL CUT AS REQUIRED TO INSTALL ELECTRICAL EQUIPMENT. REPAIR OF FLOOR OR WALLS SHALL BE COORDINATED WITH GENERAL CONTRACTOR. CONTRACTOR SHALL ALSO REPAIR ALL OPENINGS LEFT DUE TO EQUIPMENT REMOVAL.
13. CONDUCTORS ARE AWG#12 COPPER UNLESS OTHERWISE SHOWN. ALL CONDUCTORS LARGER THAN #10 SHALL BE STRANDED. BRANCH CIRCUIT RUNS IN EXCESS OF 100 FEET (ONE WAY) SHALL BE SIZED PER THE NATIONAL ELECTRICAL CODE MAXIMUM 3% VOLTAGE DROP. SEE SCHEDULE, THIS SHEET. FEEDER CIRCUIT RUNS IN EXCESS OF 100 FEET (ONE WAY) SHALL BE SIZED PER THE NATIONAL ELECTRICAL CODE MAXIMUM 2% VOLTAGE DROP.
14. PANELBOARDS SHALL CONTAIN A TYPEWRITTEN DIRECTORY WITH A PLASTIC COVER AFFIXED TO THE INSIDE OF THE DOOR. UPDATE EXISTING PANELBOARD DIRECTORIES WHERE MODIFICATIONS ARE BEING MADE.
15. ALL FIXTURES, DEVICES, CONDUIT, AND EQUIPMENT SHALL BE SECURED WITH APPROVED HANGERS AND ANCHORS AND IN ACCORDANCE WITH APPROVED STANDARDS OF INSTALLATION.
16. ALL BREAKERS SHOWN IN THE PANELBOARD SCHEDULE SHALL BE RATED AS SHOWN FOR BOTH CIRCUIT CAPACITY AND FAULT CURRENT INTERRUPTING CAPACITY.
17. CONDUIT FOR TELEPHONE OUTLETS SHALL BE 3/4" EMT. PROVIDE PULL STRING TO TELEPHONE BACKBOARD VIA CONDUITS AND CABLE TRAY WHERE FEASIBLE.
18. ALL PANELBOARDS, DISCONNECT SWITCHES, MOTOR STARTERS, AND CONTACTORS SHALL BE NEMA 1 UNLESS OTHERWISE NOTED.
19. THESE DRAWINGS HAVE BEEN DEVELOPED FROM THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING JOB SITE CONDITIONS. CARE SHALL BE TAKEN DURING DEMOLITION TO AVOID DAMAGE TO ADJACENT AREA.
20. WHERE DISCREPANCIES EXIST BETWEEN DRAWINGS AND SPECIFICATIONS, DRAWINGS SHALL OVERRIDE SPECIFICATIONS.
21. ALL OCCUPANCY SENSORS SHALL BE DUAL TECHNOLOGY.
22. VERIFY FUNCTIONALITY AND CONDITION OF ALL ELECTRICAL CONDUIT, WIRING, AND DEVICES AFFECTED BY THIS PROJECT THAT SHALL REMAIN OR BE REUSED.
23. MAINTAIN ELECTRICAL PANEL CONNECTIONS TO EXISTING AREAS AND EMERGENCY GENERATOR IF APPLICABLE.
24. MAINTAIN CIRCUITRY OF ALL EXISTING EQUIPMENT NOT SHOWN AS CHANGING OR NOT IN THE SCOPE OF THIS PROJECT. UTILITIES SERVING OTHER AREAS BUT PASSING THROUGH CONSTRUCTION AREA SHALL REMAIN BUT MAY REQUIRE REWORK TO ACHIEVE THE REQUIREMENTS OF THIS PROJECT.

ABBREVIATIONS

ABBREVIATION	MEANING
A	AMPS
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
C	CEILING
EL	EXISTING TO BE RELOCATED
ER	EXISTING TO BE REMOVED
EX	EXISTING TO REMAIN
FBO	FURNISHED BY OTHERS
FPMR	FUSE PER MANUFACTURER'S RECOMMENDATIONS
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
MTD	MOUNTED
NA	NOT APPLICABLE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NL	NIGHTLIGHT - PROVIDE UNSWITCHED HOT TO LIGHTING FIXTURE
RL	RELOCATE/RELOCATED
S	SAFETY TYPE RECEPTACLE
TV	TELEVISION CONNECTION - MOUNTING HT @ 84" AFF U.N.O.
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLT-AMPS
W	WATTS
WP	WEATHER PROOF
WR	WEATHER RESISTANT
XFMR	TRANSFORMER

MAXIMUM BRANCH CIRCUIT LENGTH FOR SINGLE-PHASE LOADS (IN FEET)

MAXIMUM ALLOWABLE VOLTAGE DROP	3%					
BRANCH CIRCUIT VOLTAGE	120V		208V		277V	
	BRANCH CIRCUIT BREAKER		BRANCH CIRCUIT BREAKER		BRANCH CIRCUIT BREAKER	
CONDUCTOR WIRE SIZE (AWG)	20A/1P	30A/1P	20A/1P	30A/1P	20A/1P	30A/1P
#12	60	N/A	105	N/A	140	N/A
#10	95	65	170	110	225	150
#8	150	95	260	170	345	230
#6	235	150	410	270	545	360
#4	365	245	635	425	850	565
#3	465	310	810	540	1,080	720
#2	560	375	975	650	1,295	865
#1	700	465	1,215	810	1,620	1,080

NOTES:
1. CALCULATIONS BASED ON LOAD 80% OF BRANCH BREAKER SIZE.
2. VOLTAGE DROP BASED ON 0.95 POWER FACTOR.
3. BRANCH CIRCUIT LENGTH VALUES INDICATED ARE WIRE DISTANCE FROM PANELBOARD TO LOAD

ALL BRANCH CIRCUITS TO MAINTAIN A MAXIMUM VOLTAGE DROP OF 3%. ADJUST BRANCH CIRCUIT WIRE SIZE PER MAXIMUM BRANCH CIRCUIT LENGTH.

ALL FEEDER CIRCUITS TO MAINTAIN A MAXIMUM VOLTAGE DROP OF 2%. ADJUST FEEDER CIRCUIT WIRE SIZE PER MAXIMUM FEEDER CIRCUIT LENGTH.

FIRE ALARM LEGEND & NOTES

SYMBOL	DESCRIPTION	MTG. HT.
F	FIRE ALARM MANUAL PULL STATION	3'-10" AFF
F	FIRE ALARM VISUAL STATION - STROBE LIGHT ONLY	6'-8" AFF
F	FIRE ALARM HORN WITH STROBE LIGHT	6'-8" AFF
D	SMOKE DETECTOR - CEILING MOUNTED (W INDICATES WALL-MOUNTED)	CEILING
H	HEAT DETECTOR - CEILING MOUNTED (W INDICATES WALL-MOUNTED)	CEILING
SD$_S$	DUCT SMOKE DETECTOR - SUPPLY	CEILING
SD$_R$	DUCT SMOKE DETECTOR - RETURN	———
FACP	FIRE ALARM CONTROL PANEL	———
FAA	FIRE ALARM ANNUCIATOR	3'-10" AFF
FS	FIRE ALARM FLOW SWITCH	SPRINKLER RISER
TS	FIRE ALARM TAMPER SWITCH	

NOTES:
1. VERIFY LOCATION OF ALL DEVICES AND PANEL WITH FIRE MARSHALL AND CITY REPRESENTATIVE.
2. FOR INTERFACE WITH EXISTING FIRE ALARM SYSTEMS, ENSURE DEVICES ARE COMPATIBLE WITH EXISTING INSTALLATION. EXPAND/REPLACE EXISTING PANEL AS NEEDED.
3. TROUBLE AND ALARM INITIATIONS TO TRANSMIT SEPARATE AND DISTINCT SIGNALS TO MONITORING STATIONS.
4. INCOMING "FIRE" ALARM INITIATIONS SHALL OVERRIDE "TROUBLE" INITIATIONS.
5. SEPARATE "TROUBLE" AND "ALARM" SIGNALS SHALL BE ANNUNCIATED AT CONTROL PANEL.
6. SUBMIT SHOP DRAWINGS TO FIRE MARSHALL FOR APPROVAL PRIOR TO ROUGH-IN.
7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH NEC AND ALL STATE & LOCAL CODES.
8. USE TW/SH #18 WIRE FOR ADDRESSABLE CKT. USE #14 THHN FOR OTHER CIRCUITS. ALL FIRE ALARM TO BE IN CONDUIT.
9. ALARM SYSTEM SHOWN HERE IS DIAGRAMMATIC ONLY.
10. PROVIDE & INSTALL ALL "FIRE MARSHALL APPROVED" SIGNAL TRANSMISSION EQUIP. FOR MUNICIPAL TIE-IN. COORDINATE WITH FIRE DEPARTMENT.
11. COORDINATE DEVICE TEMPERATURE REQUIREMENTS WITH SPRINKLER SYSTEM ALL DEVICES IN TOP AND BOTTOM OF ELEVATOR SHAFT.
12. PROVIDE BATTERY WITH 4 HOUR STANDBY AND 10 MINUTE ALARM.
13. PROVIDE SURGE SUPPRESSORS ON DACT LINES.
14. PROVIDE SURGE SUPPRESSORS ON 120VAC.
15. THE FIRE ALARM CONTRACTOR MUST BE CERTIFIED IN ACCORDANCE WITH TENNESSEE ALARM CONTRACTORS LICENSING ACT OF 1991, TCA TITLE 62, CHAPTER 32.
16. THE FIRE ALARM CONTROL PANEL CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT". THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM UNIT.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MTG. HT.
	CONCEALED CONDUIT & CIRCUITRY (20 UON)	NA
	CONCEALED CONDUIT & CIRCUITRY HOMERUN TO PANELBOARD AND BREAKER NUMBER AS INDICATED	NA
	CONDUIT BELOW GRADE ON SITE	NA
	EXPOSED CONDUIT ON WALL OR CEILING	NA
A A	SURFACE OR RECESSED FIXTURE (LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE)	AS INDICATED
A A	SURFACE OR RECESSED FIXTURE W/ BATTERY PACK (LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE)	AS INDICATED
A A	SURFACE OR RECESSED FIXTURE (LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE)	AS INDICATED
A A	SURFACE OR RECESSED FIXTURE W/ BATTERY PACK (LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE)	AS INDICATED
A A	WALL MOUNTED FIXTURE (LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE)	AS INDICATED
A A	WALL MOUNTED FIXTURE W/ BATTERY PACK (LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE)	AS INDICATED
A	SURFACE OR PENDANT MOUNTED LIGHT FIXTURE (LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE)	AS INDICATED
	EXIT LIGHT, UNIVERSAL MOUNTING, W/ INTEGRAL BATTERY PACK SHADING INDICATES FACE	AS INDICATED
	BATTERY PACK FIXTURE	AS INDICATED
A	TRACK LIGHTING - LETTER DENOTES TYPE, REFER TO LIGHT FIXTURE SCHEDULE	
A	ALL FIXTURES IN THIS SPACE SHALL BE SAME TYPE INDICATED	NA
2	NOTE REFERENCE - REFER TO NOTE INDICATED	NA
S	SINGLE POLE SWITCH - TOGGLE	3'-10" AFF
S_3	THREE-WAY SWITCH - TOGGLE	3'-10" AFF
S_4	FOUR-WAY SWITCH - TOGGLE	3'-10" AFF
S_D	DIMMER SWITCH	3'-10" AFF
S_{OC}	OCCUPANCY SENSOR SWITCH	3'-10" AFF
OS	CEILING MOUNTED OCCUPANCY SENSOR SWITCH	NA
OS	WALL MOUNTED OCCUPANCY SENSOR SWITCH	8'-0" AFF
S_{LV}	LOW VOLTAGE SWITCH - OVER-RIDE FOR LIGHTING CONTROL SYSTEM	3'-10" AFF
S_{LV3}	LOW VOLTAGE SWITCH - NUMBER INDICATES NO. OF LIGHTING LEVELS	3'-10" AFF
PC	PHOTOCELL	
TC	ASTRONOMICAL TIME CLOCK	5'-6" AFF
	RECEPTACLES	
	120V. DUPLEX RECEPTACLE (C=CEILING, G=GFCI, WP=WEATHERPROOF, WR=WEATHER RESISTANT, T=TAMPER RESISTANT)	1'-6" AFF UON
	120V. DUPLEX RECEPTACLE - SPECIAL MOUNTING HEIGHT	3'-10" AFF
	120V. QUADPLEX RECEPTACLE UNDER SINGLE COVERPLATE	1'-6" AFF
30A	SINGLE SPECIAL PURPOSE RECEPTACLE - VOLTAGE, AMP, & NEMA CONFIGURATION AS NOTED.	1'-6" AFF UON
	120V. QUADPLEX RECEPTACLE - SPECIAL MOUNTING HEIGHT	3'-10" AFF
PP	POWER POLE	POLE
(2)	DUPLEX FLOOR RECEPTACLE (2 INDICATES 2 DUPLEXES IN 2-GANG BOX)	FLOOR
J	JUNCTION BOX	SEE SPEC'S
S_M	MANUAL MOTOR RATED SWITCH, 120V FRACTIONAL HP NEMA 1 UON	
	NON-FUSED DISCONNECT - VOLT/POLE/AMP/NEMA RATING AS INDICATED (NEMA 1 UON)	
	FUSED DISCONNECT - VOLT/POLE/AMP/NEMA RATING AS INDICATED FUSED PER MANUFACTURER REQUIREMENTS (NEMA 1 UON)	
	COMBINATION ACROSS THE LINE MOTOR STARTER (NEMA 1 UON)	
	COMMUNICATIONS	
	TELEPHONE/DATA 2 GANG OUTLET WITH SINGLE COVER PLASTER RING WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING	1-6" AFF
	TELEPHONE/DATA 2 GANG OUTLET WITH SINGLE COVER PLASTER RING WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING	3-10" AFF
S	TELEPHONE/DATA OUTLET MOUNTED FLUSH IN FLOOR WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING (S INDICATES SURFACE TYPE)	FLOOR
TV	TELEVISION OUTLET WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING	1'-6" AFF
SS	SOUND SYSTEM OUTLET WITH 1"C TO ABOVE ACCESSIBLE CEILING	
TTB	TELEPHONE TERMINAL BACKBOARD - PROVIDE 3/4" EXTERIOR GRADE PLYWOOD WITH TWO COATS OF INSULATING VARNISH. SIZE AS INDICATED ON DRAWING. INSTALL A SEPARATE GROUNDING ELECTRODE AND BOND TO ELECTRICAL SERVICE GROUND PER NFPA 800-11C. STUB OU 2" CONDUIT FROM UTILITY SERVICE AT BACKBOARD.	
MP	SURFACE MOUNTED PANELBOARD WITH DESIGNATION - SEE SCHEDULE	
MP	FLUSH MOUNTED PANELBOARD WITH DESIGNATION - SEE SCHEDULE	
M	ELECTRIC MOTOR	
	EXHAUST FAN	

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ELECTRICAL LEGENDS & SCHEDULES

E-001

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Panel	METER CENTER					OC Type	CKT BRKR					Voltage L-L	208
Device	MOLDED CASE					Enclosure	NEMA 1					Voltage L-N	120
Mounting	UNI-STRUT					Comments	M.L.O.					Amperage	1000

Ckt No.	Description	Type	Load	Remarks	CB	Pole	PH
1	PANEL 'MP'	6	43858	-	600	3	A
-----	-----	6	44930	-	--	--	B
-----	-----	6	43369	-	--	--	C
2	PANEL 'DP'	6	1742	-	400	3	A
-----	-----	6	442	-	--	--	B
-----	-----	6	1830	-	--	--	C

Phase A	45600 VA	NOTE:		
Phase B	45372 VA		PANEL SHALL BE SERVICE ENTRANCE RATED	
Phase C	45199 VA		SEE RISER FOR FEEDER SIZES	
Total kVa=	136.2 Demand kVa	115.7		
Total Amps	378.0 Demand Amps	321.3	A.I.C. RATING:	VERIFY WITH LOCAL UTILITY

Panel	MP					OC Type	CKT BRKR					Voltage L-L	208
Device	MOLDED CASE					Enclosure	NEMA 1					Voltage L-N	120
Mounting	SURFACE					Comments	M.L.O.					Amperage	600

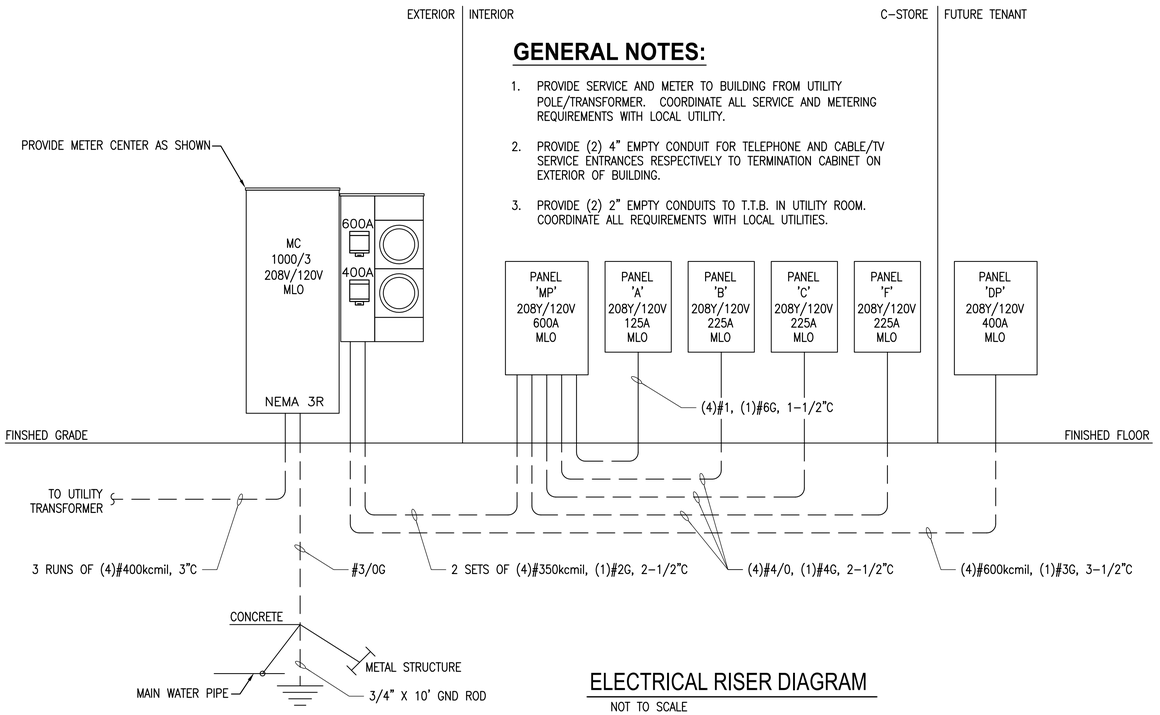
Ckt No.	Description	Type	Load	Remarks	CB	Pole	PH	PH	Pole	CB	Remarks	Load	Type	Description	Ckt No.
1	PANEL 'A'	6	3640	-	125	3	A	A	3	225	-	17045	6	PANEL 'B'	2
-----	-----	6	4821	-	--	--	B	B	--	--	-	16732	6	-----	-----
-----	-----	6	4541	-	--	--	C	C	--	--	-	16420	6	-----	-----
3	PANEL 'C'	6	21847	-	225	3	A	A	3	225	-	1326	6	PANEL 'F'	4
-----	-----	6	22627	-	--	--	B	B	--	--	-	750	6	-----	-----
-----	-----	6	21942	-	--	--	C	C	--	--	-	466	6	-----	-----
5	SPACE	-	-	-	225	3	A	A	3	225	-	-	-	SPACE	6
-----	-----	-	-	-	--	--	B	B	--	--	-	-	-	-----	-----
-----	-----	-	-	-	--	--	C	C	--	--	-	-	-	-----	-----

Phase A	43858 VA	NOTE:		
Phase B	44930 VA			
Phase C	43369 VA			
Total kVa=	132.2 Demand kVa	112.3		
Total Amps	366.8 Demand Amps	311.8	A.I.C. RATING:	VERIFY WITH LOCAL UTILITY

Panel	A					OC Type	CKT BRKR					Voltage L-L	208
Device	MOLDED CASE					Enclosure	NEMA 1					Voltage L-N	120
Mounting	SURFACE					Comments	M.L.O					Amperage	125

Ckt No.	Description	Type	Load	Remarks	CB	Pole	PH	PH	Pole	CB	Remarks	Load	Type	Description	Ckt No.
1	P.O.S. RECEPTACLES	3	360	-	20	1	A	A	1	20	-	500	5	LCP & PC	2
3	P.O.S. RECEPTACLES	3	360	-	20	1	B	B	1	20	-	1581	2	LIGHTS	4
5	P.O.S. RECEPTACLES	3	360	-	20	1	C	C	1	20	-	1661	2	LIGHTS	6
7	DISPLAY RECEPT.	3	900	-	20	1	A	A	1	20	-	500	5	F.A.C.P.	8
9	DISPLAY RECEPT.	3	1080	-	20	1	B	B	1	20	-	360	3	T.T.B. RECEPTACLE	10
11	DISPLAY RECEPT.	3	1080	-	20	1	C	C	1	20	-	360	3	R.R. RECEPTACLES	12
13	RECEPTACLES	3	1080	-	20	1	A	A	1	20	-	300	2	HOOD LIGHTS	14
15	RECEPTACLES	3	1080	-	20	1	B	B	1	20	-	360	3	DRINKING FOUNTAIN	16
17	RECEPTACLES	3	720	-	20	1	C	C	1	20	-	360	3	ATM RECEPTACLE	18
19	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	20
21	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	22
23	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	24
25	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	26
27	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	28
29	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	30

Phase A	3640 VA	NOTE:		
Phase B	4821 VA			
Phase C	4541 VA			
Total kVa=	13.0 Demand kVa	6.7		
Total Amps	36.1 Demand Amps	18.6	A.I.C. RATING:	VERIFY WITH LOCAL UTILITY



ELECTRICAL RISER DIAGRAM

NOT TO SCALE

Panel	B					OC Type	CKT BRKR					Voltage L-L	208
Device	MOLDED CASE					Enclosure	NEMA 1					Voltage L-N	120
Mounting	SURFACE					Comments	M.L.O.					Amperage	225

Ckt No.	Description	Type	Load	Remarks	CB	Pole	PH	PH	Pole	CB	Remarks	Load	Type	Description	Ckt No.
1	59-E3 OVEN	6	4197	-	45	3	A	A	2	20	-	1000	6	COFFEE MACHINE	2
3	-	6	4197	-	-	-	B	B	-	-	-	1000	6	-	4
5	-	6	4197	-	-	-	C	C	2	20	-	1000	6	COFFEE MACHINE	6
7	PFB-1 PROOFER BASE	6	1548	-	20	1	A	A	-	-	-	1000	6	-	8
9	ISLAND MERCHAND	6	1040	-	20	2	B	B	2	20	-	1000	6	COFFEE MACHINE	10
11	-	6	1040	-	-	-	C	C	-	-	-	1000	6	-	12
13	FLAVOR SELECT	6	805	-	20	1	A	A	2	20	-	1000	6	COFFEE MACHINE	14
15	FLAVOR SELECT	6	805	-	20	1	B	B	-	-	-	1000	6	-	16
17	FLAVOR SELECT	6	805	-	20	1	C	C	1	20	-	1800	6	CAPPUCCINO MACHINE	18
19	FLAVOR SELECT	6	805	-	20	1	A	A	1	20	-	1440	6	SLUSHIE MACHINE	20
21	COUNTER TOP DISPL.	6	1500	-	20	1	B	B	1	20	-	1440	6	SLUSHIE MACHINE	22
23	SELF-SERVE DISPL	6	1750	-	20	1	C	C	1	20	-	828	6	ICE STORAGE BIN	24
25	ISLAND CIRCUIT	6	1500	-	20	1	A	A	1	20	-	1500	6	ISLAND CIRCUIT	26
27	ISLAND CIRCUIT	6	1500	-	20	1	B	B	1	20	-	1500	6	ISLAND CIRCUIT	28
29	EWH	4	2250	-	30	2	C	C	1	20	-	-	-	SPARE	30
31	-	4	2250	-	-	-	A	A	1	20	-	-	-	SPACE ONLY	32
33	IWH	4	1750	-	20	2	B	B	1	20	-	-	-	SPACE ONLY	34
35	-	4	1750	-	-	-	C	C	1	20	-	-	-	SPACE ONLY	36
37	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	38
39	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	40
41	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	42

Phase A	17045 VA			
Phase B	16732 VA	NOTE:		
Phase C	16420 VA			
Total kVa=	50.2 Demand kVa	34.2		
Total Amps	139.3 Demand Amps	95.0	A.I.C. RATING:	VERIFY WITH LOCAL UTILITY

Panel	C					OC Type	CKT BRKR					Voltage L-L	208
Device	MOLDED CASE					Enclosure	NEMA 1					Voltage L-N	120
Mounting	SURFACE					Comments	M.L.O.					Amperage	225

Ckt No.	Description	Type	Load	Remarks	CB	Pole	PH	PH	Pole	CB	Remarks	Load	Type	Description	Ckt No.
1	CU - 1	10	2808	-	45	2	A	A	3	20	-	2362	8	COOLER CU	2
3	-	10	2808	-	-	-	B	B	-	-	-	2362	8	-	4
5	CU - 2	8	2808	-	45	2	C	C	-	-	-	2362	8	-	6
7	-	8	2808	-	-	-	A	A	3	20	-	2362	8	BEER CAVE CU	8
9	CU - 3	8	2808	-	45	2	B	B	-	-	-	2362	8	-	10
11	-	8	2808	-	-	-	C	C	-	-	-	2362	8	-	12
13	W.I.F. CU	8	2704	-	20	2	A	A	3	20	-	2362	8	COOLER CU	14
15	-	8	2704	-	-	-	B	B	-	-	-	2362	8	-	16
17	W.I.C. CU	8	2049	-	20	2	C	C	-	-	-	2362	8	-	18
19	-	8	2049	-	-	-	A	A	3	15	-	791	9	KEF - 1	20
21	W.I.F. CU	8	2704	-	20	2	B	B	-	-	-	791	9	-	22
23	-	8	2704	-	-	-	C	C	-	-	-	791	9	-	24
25	AHU - 1	9	1622	-	20	1	A	A	3	15	-	660	9	MAU - 1	26
27	AHU - 2	9	1622	-	20	1	B	B	-	-	-	660	9	-	28
29	AHU - 3	9	1622	-	20	1	C	C	-	-	-	660	9	-	30
31	W.I.F. EVAPORATOR	9	510	-	15	2	A	A	1	20	-	184	9	COOLER EVAPORAT'R	32
33	-	9	510	-	-	-	B	B	1	20	-	184	9	COOLER EVAPORAT'R	34
35	W.I.F. EVAPORATOR	9	510	-	20	1	C	C	1	20	-	184	9	COOLER EVAPORAT'R	36
37	-	9	510	-	20	1	A	A	1	20	-	115	9	COOLER EVAPORAT'R	38
39	COOLER DOOR LIGHTS	1	750	-	20	1	B	B	1	20	-	-	-	SPARE	40
41	ROOFTOP RECEPT.	3	720	-	20	1	C	C	1	20	-	-	-	SPARE	42

Phase A	21847 VA			
Phase B	22627 VA	NOTE:		
Phase C	21942 VA			
Total kVa=	66.4 Demand kVa	57.3		
Total Amps	184.4 Demand Amps	159.2	A.I.C. RATING:	VERIFY WITH LOCAL UTILITY

Panel	F					OC Type	CKT BRKR					Voltage L-L	208
Device	MOLDED CASE					Enclosure	NEMA 1					Voltage L-N	120
Mounting	SURFACE					Comments	M.L.O.					Amperage	225

Ckt No.	Description	Type	Load	Remarks	CB	Pole	PH	PH	Pole	CB	Remarks	Load	Type	Description	Ckt No.
1	BUILDING SIGNAGE	1	750	-	20	1	A	A	1	20	-	-	-	SPARE	2
3	BUILDING SIGNAGE	1	750	-	20	1	B	B	1	20	-	-	-	SPARE	4
5	BUILDING LIGHTS	1	466	-	20	1	C	C	1	20	-	-	-	SPARE	6
7	BOLLARD LIGHTS	1	576	-	20	1	A	A	1	20	-	-	-	SPARE	8
9	SPARE	-	-	-	20	1	B	B	1	20	-	-	-	SPARE	10
11	SPARE	-	-	-	20	1	C	C	1	20	-	-	-	SPARE	12
13	SPARE	-	-	-	20	1	A	A	1	20	-	-	-	SPARE	14
15	SPARE	-	-	-	20	1	B	B	1	20	-	-	-	SPARE	16
17	SPARE	-	-	-	20	1	C	C	1	20	-	-	-	SPARE	18
19	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	20
21	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	22
23	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	24
25	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	26
27	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	28
29	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	30
31	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	32
33	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	34
35	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	36
37	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	38
39	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	40
41	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	42

Phase A	1326 VA			
Phase B	750 VA	NOTE:		
Phase C	466 VA			
Total kVa=	2.5 Demand kVa	3.2		
Total Amps	7.1 Demand Amps	8.8	A.I.C. RATING:	VERIFY WITH LOCAL UTILITY

Panel	DP					OC Type	CKT BRKR					Voltage L-L	208
Device	MOLDED CASE					Enclosure	NEMA 1					Voltage L-N	120
Mounting	SURFACE					Comments	M.L.O.					Amperage	400

Ckt No.	Description	Type	Load	Remarks	CB	Pole	PH	PH	Pole	CB	Remarks	Load	Type	Description	Ckt No.
1	LIGHTS	2	120	-	20	1	A	A	1	20	-	1622	9	AHU -4	2
3	EXTERIOR LIGHTS	2	82	-	20	1	B	B	1	20	-	360	3	RECEPTACLES	4
5	BUILDING SIGNAGE	1	750	-	20	1	C	C	1	20	-	1080	3	EXTERIOR RECEPT.	6
7	SPARE	-	-	-	20	1	A	A	1	20	-	-	-	SPARE	8
9	SPARE	-	-	-	20	1	B	B	1	20	-	-	-	SPARE	10
11	SPARE	-	-	-	20	1	C	C	1	20	-	-	-	SPARE	12
13	SPARE	-	-	-	20	1	A	A	1	20	-	-	-	SPARE	14
15	SPARE	-	-	-	20	1	B	B	1	20	-	-	-	SPARE	16
17	SPARE	-	-	-	20	1	C	C	1	20	-	-	-	SPARE	18
19	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	20
21	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	22
23	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	24
25	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	26
27	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	28
29	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	30
31	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	32
33	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	34
35	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	36
37	SPACE ONLY	-	-	-	20	1	A	A	1	20	-	-	-	SPACE ONLY	38
39	SPACE ONLY	-	-	-	20	1	B	B	1	20	-	-	-	SPACE ONLY	40
41	SPACE ONLY	-	-	-	20	1	C	C	1	20	-	-	-	SPACE ONLY	42

Phase A	1742 VA			
Phase B	442 VA	NOTE:		
Phase C	1830 VA			
Total kVa=	4.0 Demand kVa	3.1		
Total Amps	11.1 Demand Amps	8.7	A.I.C. RATING:	VERIFY WITH LOCAL UTILITY

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LORI A. WALTERS — REGISTERED ENGINEER — AGRICULTURE — COMMERCE AND UTILITIES — STATE OF TENNESSEE
10/20/21

REVISIONS:

DELTA	DESCRIPTION	DATE

DATE OF ISSUE:	10.20.2021
MA PROJECT NO:	0214-21
PROJECT PHASE:	CD
DRAWN BY:	WIN

ELECTRICAL
PANEL SCHEDULES
RISER DIAGRAM

E-002

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LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER MODEL	VOLTAGE	LAMPS	MOUNTING	NOTES
A	2X4 L.E.D. FLAT PANEL TROFFER LIGHT FIXTURE	LITHONIA LIGHTING EPANL 2X4 4000LM 80CRI 35K MIN10 MVOLT	120	39W L.E.D.	RECESSED	
B	4' L.E.D. LINEAR PENDANT LIGHT FIXTURE	MARK ARCHITECTURAL LIGHTING S4LDP CPP 4FT 80CRI 35K 800LM MIN1 MVOLT WHT ZT F2/72A RDCY BLKCY CCRD	120	31.9W L.E.D.	SUSPENDED	
C	4' L.E.D. STRIP LIGHT FIXTURE	LITHONIA LIGHTING ZL1D L48 3000LM FST MVOLT 35K 80CRI WH	120	30W L.E.D.	SURFACE/SUSPENDED	
D	6" DOWNLIGHT LIGHT FIXTURE	LITHONIA LIGHTING LDN6 35/15 L06AR LSS MVOLT GZ10	120	17.52W L.E.D.	RECESSED	
E	4" DOWNLIGHT LIGHT FIXTURE	LITHONIA LIGHTING WF4 LED 27K30K35K MVOLT 90CRI MW	120	10.68W L.E.D.	RECESSED	
F	DECORATIVE L.E.D. PENDANT LIGHT FIXTURE	BASELITE CORPORATION D614-44-LWHC-12W-35K-LDM0-10	120	12W L.E.D.	PENDANT	
G	4' L.E.D. STRIP GASKETED LIGHT FIXTURE	PROVIDED BY MANUFACTURER OR LITHONIA LIGHTING CSVT L48 4000LM MVOLT 35K 80CRI	120	34W L.E.D.	SURFACE	
H	L.E.D. BOLLARD EXTERIOR LIGHT FIXTURE	ABOVE ALL LIGHTING LDB42H24401-V	120	24W L.E.D.	GROUND	
J	L.E.D. CYLINDER DOWNLIGHT EXTERIOR LIGHT FIXTURE	GOTHAM LIGHTING EV04SC 40/15 AR MD LSS MVOLT GZ10 JBX WL DBL	120	13.7W L.E.D.	SURFACE	
K	L.E.D. WALL PACK EXTERIOR LIGHT FIXTURE WITH EMERGENCY BATTERY	LITHONIA LIGHTING WDGE3 LED P3 40K 70CRI R3 MVOLT SRM E15WH DDBXD	120	45.7W L.E.D.	WALL, 10' - 0" A.F.F.	
X1	L.E.D. EXIT/EMERGENCY COMBO LIGHT FIXTURE EMERGENCY BATTERY	LITHONIA LIGHTING - QUANTUM LHQM LED R	120	L.E.D.	UNIVERSAL	
X2	L.E.D. EXIT LIGHT FIXTURE EMERGENCY BATTERY	LITHONIA LIGHTING - QUANTUM LHQM LED R RO	120	L.E.D.	UNIVERSAL	
X3	L.E.D. EMERGENCY LIGHT FIXTURE EMERGENCY BATTERY	LITHONIA LIGHTING - QUANTUM ELA B QWP LO304	120	L.E.D.	UNIVERSAL	
X4	L.E.D. EMERGENCY REMOTE EXTERIOR LIGHT FIXTURE EMERGENCY BATTERY	LITHONIA LIGHTING - QUANTUM ELMRW LP220L DWHXD SGL	120	L.E.D.	UNIVERSAL	

NOTES: 1. CONTRACTOR IS RESPONSIBLE FOR ORDERING ALL ACCESSORIES NECESSARY TO PROVIDE A COMPLETE INSTALLATION OF FIXTURE.

COMcheck Software Version 4.1.1.0

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Ashland City C-Store
Project Type: New Construction

Construction Site:
Ashland City, TN

Owner/Agent:

Designer/Contractor:
Lori Walters
Win Engineering
2 International Plaza
Suite 410
37217, TN

Additional Efficiency Package(s)

High efficiency HVAC. Systems that do not meet the performance requirement will be identified in the mechanical requirements checklist report.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Sales (Retail:Sales Area)	2323	1.22	2834
3-Restrooms (Common Space Types:Restrooms)	129	0.85	110
4-Prep/Kitchen (Common Space Types:Food Preparation)	604	1.06	640
5-Office (Common Space Types:Office - Open Plan)	81	0.91	66
2-Cooler/Freezer (Common Space Types:Storage >=50 - <=1000 sq.ft.)	815	0.46	375
6-Future Tenant Space (Retail:Sales Area)	2106	1.22	2569
		Total Allowed Watts =	6594

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Sales (Retail:Sales Area)				
LED 2: B: 4' LINEAR: LED Linear 33W:	1	18	32	574
LED 4: D: 6" DOWNLIGHT: LED Panel 19W:	1	12	18	210
LED 5: E: 4" DOWNLIGHT: LED Panel 19W:	1	6	11	64
LED 6: F: PENDANT: LED Panel 19W:	1	13	12	156
3-Restrooms (Common Space Types:Restrooms)				
LED 4: D: 6" DOWNLIGHT: LED Panel 19W:	1	4	18	70
4-Prep/Kitchen (Common Space Types:Food Preparation)				
LED 1: A: 2X4 TROFFER: LED Panel 40W:	1	6	39	234
LED 3: C: 4' STRIP: LED Linear 33W:	1	5	30	150
LED 4: D: 6" DOWNLIGHT: LED Panel 19W:	1	8	18	140
5-Office (Common Space Types:Office - Open Plan)				
LED 4: D: 6" DOWNLIGHT: LED Panel 19W:	1	4	18	70
2-Cooler/Freezer (Common Space Types:Storage >=50 - <=1000 sq.ft.)				
LED 7: G: 4' GASKETED STRIP: LED Linear 33W:	1	17	34	578

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
6-Future Tenant Space (Retail:Sales Area)				
LED 3: C: 4' STRIP: LED Linear 33W:	1	4	30	120
			Total Proposed Watts =	2367

Interior Lighting PASSES: Design 64% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COM*check* Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Lori A. Walters, P.E.
Name - Title

Lori A. Walters
Signature

10-20-2021
Date

ASHLAND CITY C-STORE

DHAVAL PATEL
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LORI A. WALTERS
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LIVING
STATE OF TENNESSEE
10/20/21

REVISIONS:

DELTA	DESCRIPTION	DATE

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ELECTRICAL LIGHT FIXTURE SCHUDLE IECC REPORT

E-003

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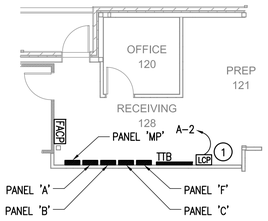
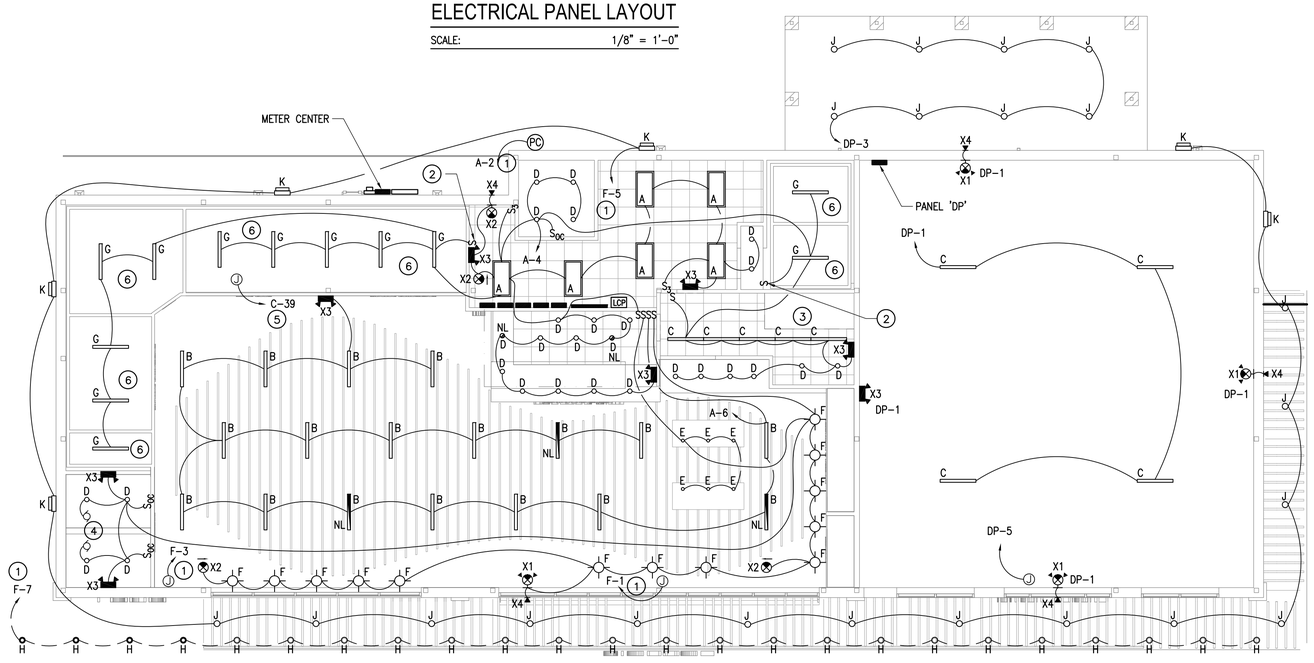
Project #04321



ELECTRICAL PANEL LAYOUT

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



ELECTRICAL LIGHTING FLOOR PLAN

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

IMPORTANT NOTE

THESE CONSTRUCTION DOCUMENTS DO NOT INCLUDE THE DESIGN OF THE GAS PUMPS, CANOPY LIGHTING, SITE LIGHTING OR ANY EQUIPMENT OUTSIDE OF THE BUILDING ENVELOPE. ELECTRICAL PANEL 'F' HAS BEEN PROVIDED FOR THESE ADDITIONAL ELECTRICAL LOADS.

KEYNOTES

1. PROVIDE 8 RELAY LIGHTING CONTROL PANEL WITH ASTRONOMICAL TIME CLOCK AND COMPATIBLE ELECTRONIC PHOTO CELL, CIRCUIT A-2 TO CONTROL THE FOLLOWING:
   - (A) BUILDING LIGHTS
   - (B) BOLLARD LIGHTS
   - (C) BUILDING SIGNAGE
   - (D) BUILDING SIGNAGE
   - (E) CANOPY LIGHTS (BY OTHERS)
   - (F) POLE LIGHTS (BY OTHERS)
   - (G) MONUMENT SIGNAGE (BY OTHERS)
   - (H) SPARE
2. PROVIDE LIGHT SWITCH/THERMOMETER IF NOT SUPPLIED WITH MANUFACTURER. COORDINATE REQUIREMENTS WITH MANUFACTURER PRIOR TO CONSTRUCTION.
3. PROVIDE REPLACEMENT L.E.D. LAMPS FOR HOOD LIGHTS, CIRCUIT (A-14) NOT SHOWN.
4. SWITCH RESTROOM EXHAUST FANS WITH THE LIGHTS AS SHOWN.
5. PROVIDE CONNECTION TO COOLER DOOR LIGHTS (C-39) NOT SHOWN.
6. LIGHT FIXTURES ARE SHOWN FOR COOLER AND FREEZER LOCATIONS. PRIOR TO CONSTRUCTION, VERIFY WITH MANUFACTURER IF LIGHT FIXTURES ARE PROVIDED WITH COOLER AND FREEZER UNITS. REMOVE TYPE 'G' LIGHT FIXTURES AS NEEDED.

ASHLAND CITY C-STORE

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NO. 110191
STATE OF TENNESSEE
10/20/21

REVISIONS:

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ELECTRICAL LIGHTING FLOOR PLAN

E-101

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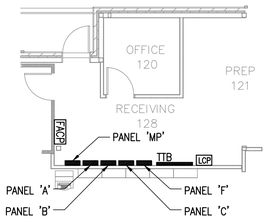
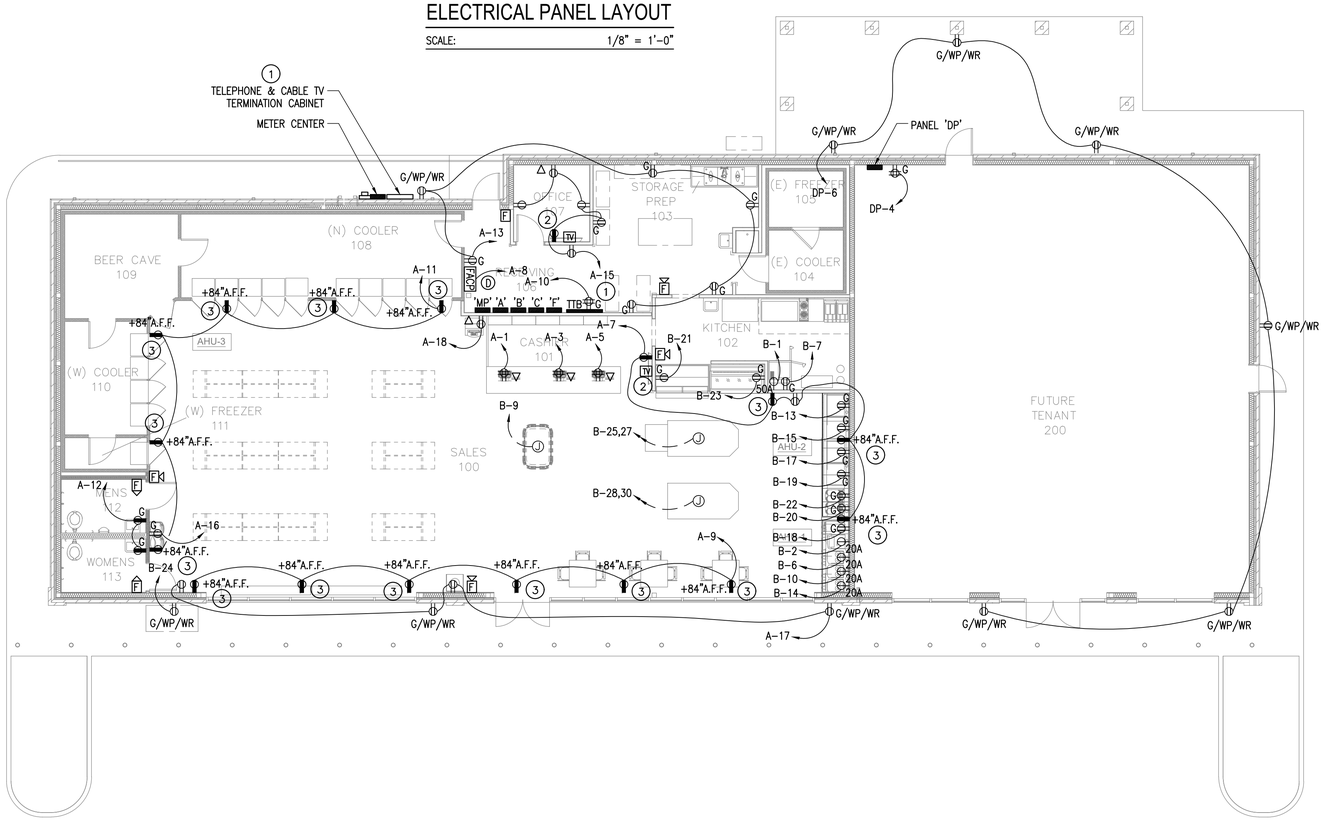


ELECTRICAL PANEL LAYOUT

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



ELECTRICAL POWER FLOOR PLAN

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

IMPORTANT NOTE

THESE CONSTRUCTION DOCUMENTS DO NOT INCLUDE THE DESIGN OF THE GAS PUMPS, CANOPY LIGHTING, SITE LIGHTING OR ANY EQUIPMENT OUTSIDE OF THE BUILDING ENVELOPE. ELECTRICAL PANEL 'F' HAS BEEN PROVIDED FOR THESE ADDITIONAL ELECTRICAL LOADS.

KITCHEN EQUIPMENT NOTE

VERIFY ALL KITCHEN EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO CONSTRUCTION. ADJUST PANEL SCHEDULE, CIRCUIT BREAKERS, WIRING, ETC. AS REQUIRED.

KEYNOTES

1. PROVIDE 2" EMPTY CONDUIT WITH PULL WIRE STUBBED UP IN TENANT SPACE FROM BUILDINGS TELEPHONE/CABLE TV TERMINATION CABINET.
2. VERIFY LOCATION OF TV MONITOR AND ADJACENT RECEPTACLE WITH OWNER PRIOR TO CONSTRUCTION.
3. PROVIDE RECEPTACLE FOR VENDOR DISPLAY SIGNS AT OR ABOVE CEILING. VERIFY RECEPTACLE LOCATIONS WITH OWNER PRIOR TO CONSTRUCTION.

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LORI A. WALTERS — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — NO. 110192 — STATE OF TENNESSEE — 10/20/2021

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ELECTRICAL POWER FLOOR PLAN

E-102

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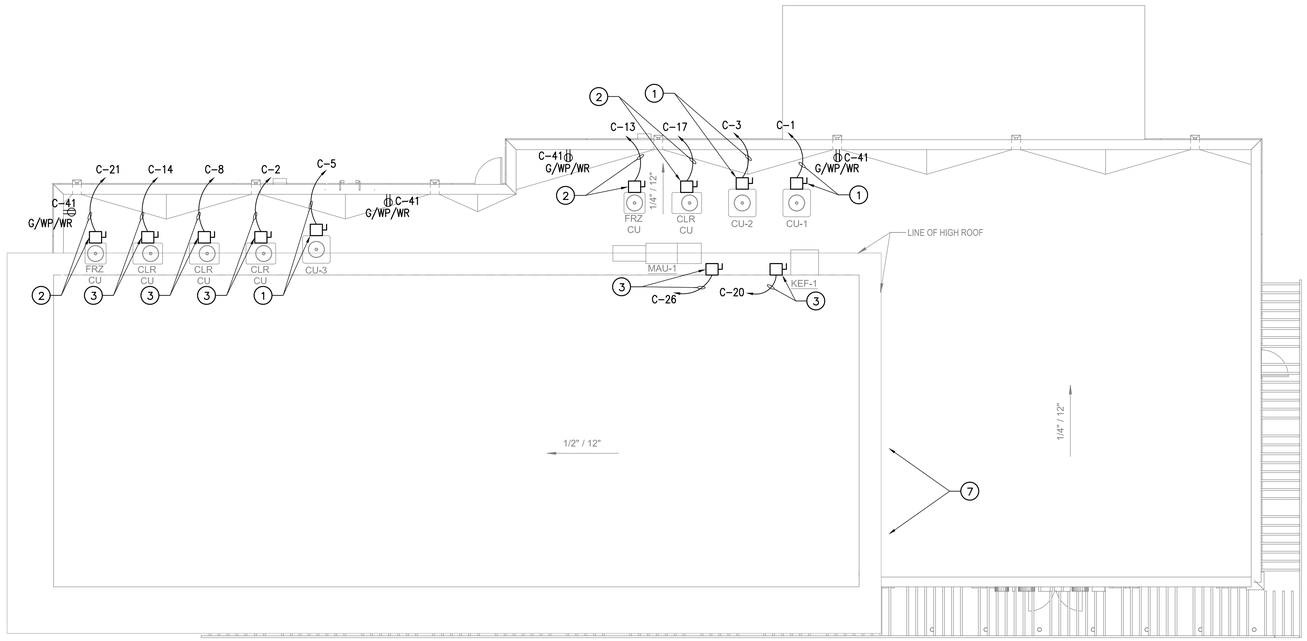
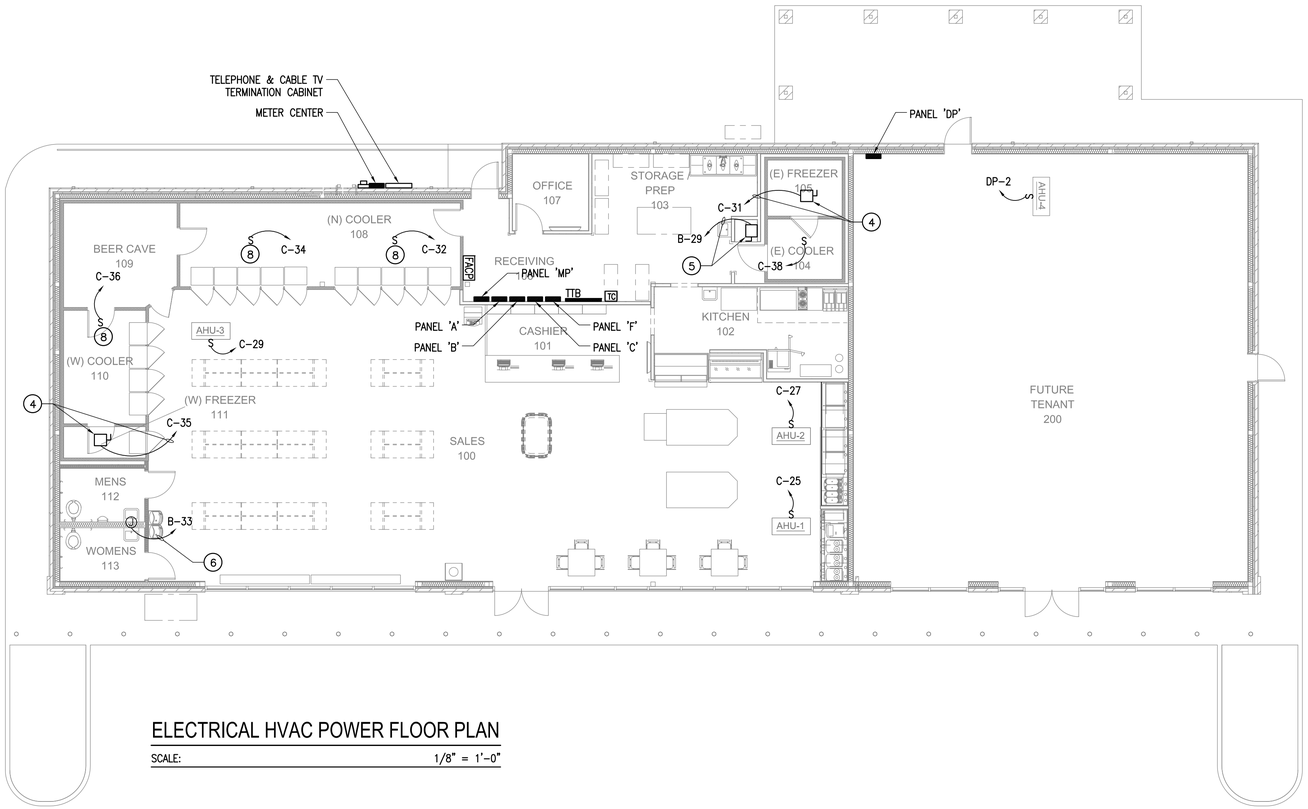


ELECTRICAL HVAC POWER ROOF PLAN

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



ELECTRICAL HVAC POWER FLOOR PLAN

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

KEYNOTES

1. PROVIDE 240V/2P/60A/3R DISCONNECT SWITCH WITH (2)#8, (1)#10G, 3/4"C.
2. PROVIDE 240V/2P/30A/3R DISCONNECT SWITCH WITH (2)#12, (1)#12G, 3/4"C.
3. PROVIDE 240V/3P/30A/3R DISCONNECT SWITCH WITH (3)#12, (1)#12G, 3/4"C.
4. PROVIDE 240V/2P/30A DISCONNECT SWITCH WITH (2)#12, (1)#12G, 3/4"C.

   PROVIDE 240V/2P/30A DISCONNECT SWITCH WITH (2)#10, (1)#10G, 3/4"C.
6. PROVIDE (2)#12, (1)#12G, 3/4"C FOR IWH.
7. PROVIDE OPTIONAL LINEAR LUMINAIRE (LED LINEAR – ADONIS IP67), UNDER OVERHANG. CONNECT (F-7) AND TO BUILDINGS EXTERIOR LIGHTING CONTROLS. VERIFY LENGTH OF RUN WITH OWNER & G.C. PRIOR TO CONSTRUCTION.
8. COOLER EVAPORATORS ARE NOT SHOWN, PROVIDE 120V, 20A SWITCHES WITH NEMA 3R ENCLOSURE.

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REGISTERED ARCHITECT
AGRICULTURE
COMMERCE
INDUSTRIAL
STATE OF TENNESSEE
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ELECTRICAL HVAC POWER ROOF & FLOOR PLANS

E-103

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ELECTRICAL SPECIFICATIONS

26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

PART 1 GENERAL

1. FURNISH ALL MATERIALS, LABOR, TOOLS, TRANSPORTATION AND INCIDENTALS TO COMPLETE IN EVERY DETAIL AND LEAVE IN WORKING ORDER ITEMS SHOWN ON THE CONTRACT.
2. INSTALL AND COORDINATE ALL WORK WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE AND MAKE MINOR ADJUSTMENTS IN INSTALLATION IN THE EVENT OF CONFLICTS.
3. LAYOUT SHOWN IN DRAWINGS IS BASED ON A PARTICULAR MODEL OF EQUIPMENT. CONTRACTOR SHALL PROVIDE SIX SUBMITTAL SETS OF INDICATED PRODUCTS SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING WORK. SWITCHBOARDS SHALL BE REJECTED WITHOUT DIMENSIONED LAYOUT OF E LECTRICAL ROOM(S). IF ANOTHER MODEL OF EQUIPMENT IS DESIRED, THESE SUBMITTALS SHALL ALSO SHOW ALL REQUIRED MODIFICATIONS AND CHANGES. CONTRACTOR MUST RECEIVE APPROVED SUBMITTAL COPY, SIGNED BY ENGINEER, BEFORE PROCEEDING WITH ANY MODIFICATIONS WORK INSTALLED USING UNAPPROVED SUBSTITUTIONS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL VISIT THE SITE AND FULLY INFORM HIMSELF CONCERNING ALL CONDITIONS AFFECTING SCOPE OF WORK. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF ANY RESPONSIBILITY IN THE PERFORMANCE OF HIS WORK. ALL WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADE BY CRAFTSMEN SKILLED IN HIS PARTICULAR WORK. IMMEDIATELY INFORM EH ENGINEER OF ANY FIELD CONDITIONS THAT MAY PREVENT INSTALLATION OF EQUIPMENT AND DEVICES IN ACCORDANCE WITH CONTRACT DOCUMENTS.
5. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCE, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF THE FOLLOWING:
   - A. INTERNATIONAL BUILDING CODE
   - B. NFPA 70: NATIONAL ELECTRICAL CODE
   - C. NFPA 101: LIFE SAFETY CODE
   - D. NFPA 72: NATIONAL FIRE ALARM AND SIGNALING CODE
   - E. NFPA 99: HEALTH CARE FACILITIES CODE
6. CONTRACTOR SHALL COORDINATE WITH MONTGOMERY COUNTY PARKS DEPARTMENT WHO IS RESPONSIBLE FOR UTILITY PAYMENT DURING CONSTRUCTION.
7. OBTAIN PERMITS AND CERTIFICATES OF APPROVAL FROM ALL AUTHORITIES HAVING JURISDICTION OVER THE INSTALLATION AND PAY ALL FEES REQUIRED. CONTRACTOR SHALL COORDINATE WITH ALL LOCAL UTILITIES AND OBTAIN ALL REQUIRED FEE AMOUNTS AND INCLUDE THESE FEES IN THE BID PRICE.
8. CONTRACTOR SHALL SUBMIT LOAD SUMMARY TO THE LOCAL UTILITY AND COORDINATE THE INSTALLATION OF NEW SERVICE TO THE BUILDINGS(S) BEING SERVED. CONTRACTOR SHALL COORDINATE WITH ALL LOCAL ELECTRIC, CATV, AND TELEPHONE UTILITIES AND PROVIDE AND INSTALL ANY ADDITIONAL REQUIRED EQUIPMENT (CONDUIT, UTILITY PADS, WIRING, METER BASES, ETC.) IN ACCORDANCE WITH UTILITY STANDARDS. THE ADDITION OR REPLACEMENT OF EQUIPMENT THAT DOES NOT MEET UTILITY STANDARDS RESULTING FROM POOR COORDINATION WITH LOCAL UTILITIES SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR.

PART 2 EXECUTION

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED. CONTRACTOR SHALL HONOR FACTORY WARRANTIES ON ALL EQUIPMENT PROVIDED.
2. UPON COMPLETION OF PROJECT, ALL EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITIONS WITH ALL DAMAGE RESTORED TO ACCEPTABLE CONDITION. ALL EQUIPMENT SHALL BE INSPECTED AND THOROUGHLY CLEANED, READY FOR USE. AT COMPLETIONS OF JOB, ALL MISCELLANEOUS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED BY CONTRACTOR.
3. WHERE CONDUITS ARE TO PASS THROUGH WALLS, FLOORS, ETC. SLEEVES SHALL BE PROVIDED PRIOR TO WALL CONSTRUCTION. SLEEVES SHALL BE OF RIGID METAL. WHERE SLEEVES PENETRATE EXTERIOR SURFACES, VOIDS SHALL BE SEALED WATER TIGHT. WHERE SLEEVES PASS THROUGH RATED PARTITIONS, SLEEVE PACKING SHALL BE OF U.L. LISTED FIRE SAFE TYPE.
4. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF INSTRUCTION BOOKS, INCLUDING INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS, PAMPHLETS OR PROCEDURES AND ALL EQUIPMENT WARRANTIES OBTAINED FROM EACH MANUFACTURER OF EQUIPMENT.
5. CONTRACTOR SHALL MAINTAIN ONE (1) SET OF BLUE LIENS AT THE CONSTRUCTION SITE. THESE BLUE LINES SHALL BE MARKED FOR CHANGED AND SHALL BE USED FOR AS-BUILT DRAWINGS. TURN DRAWINGS OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT.
6. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED FOR EXACT SIZES OR LOCATIONS.

26 05 19 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLE

1. PRODUCTS AND EXECUTION
   - A. PROVIDE A COMPLETE SYSTEM OF CONDUCTORS LIGHTING AND POWER SYSTEMS THROUGHOUT THE PROJECT.
   - B. ALL CONDUCTORS SHALL BE 98 PERCENT CONDUCTIVITY COPPER WITH 600 VOLT MINIMUM INSULATION. 75° C INSULATION MINIMUM.
   - C. ALL CONDUCTORS NO. 10 AND SMALLER SHALL HAVE TYPE THW OR THWN INSULATION AND SHALL EB SOLID UNLESS NOTED OTHERWISE ON PLANS.
   - D. ALL CONDUCTORS NO. 8 AND LARGER SHALL HAVE TYPE THW OR THWN INSULATION AND SHALL BE STRANDED UNLESS NOTED OTHERWISE ON PLANS.
   - E. CONDUCTORS SHALL BE AS MANUFACTURED BY ANACONDA, GENERAL CABLE, HABIRSHAW, OKONITE, ROME, TRIANGLE OR SOUTHWIRE UNLESS OTHERWISE NOTED.
   - F. MAKE ALL SPLICES OR CONNECTIONS ONLY AT OUTLET OR JUNCTION BOXES.
   - G. USE ONLY APPROVED (SOAPSTONE) OR OTHER LUBRICANT WHERE REQUIRED.

26 05 33.13 CONDUIT FOR ELECTRICAL SYSTEMS

1. PRODUCTS AND EXECUTION
   - A. PROVIDE A COMPLETE CONDUIT SYSTEM WITH ASSOCIATED COUPLINGS, CONNECTORS AND FITTINGS.
   - B. CONDUIT SHALL BE AS MANUFACTURED BY ALLIED, WHEATLAND OR REPUBLIC FOR GALVANIZED RIGID/EMT AND ANACONDA, ALFLEX OR INTERNATIONAL FOR FLEXIBLE STEEL CONDUIT.
   - C. FOR EMT, PROVIDE STEEL SET SCREW TYPE COUPLINGS, CONNECTORS, AND FITTINGS WITH NYLON INSULATED THROATS AND CASE HARDENED LOCKNUTS.
   - D. RIGID NONMETALLIC (PVC) CONDUIT: CARLON SCHEDULE 40, HEAVY WALL OR APPROVED EQUAL.
   - E. RUN CONCEALED CONDUITS IN AS DIRECT LINE AS POSSIBLE BETWEEN OUTLETS. RUN EXPOSED CONDUITS AT RIGHT ANGLES WITH BUILDING STRUCTURE.
   - F. MAINTAIN INTEGRITY OF FIRE PARTITIONS AND FLOOR SLABS WHERE CONDUITS PASS THROUGH SLEEVES FROM ONE AREA TO ANOTHER WITH U.L. LISTED THREE-HOUR FIRE AND SMOKE STOP FITTINGS. USE “3M FIRE BARRIER” FOR 4-HOUR SEPARATION WALL PENETRATIONS.
   - G. COMPLETE ALL CONDUIT SYSTEMS BEFORE INSTALLING CONDUCTORS. INSTALL COPPER, GROUND WIRE IN ALL FLEXIBLE CONDUIT.
   - H. ALLOW SUFFICIENT SLACK IN FLEXIBLE CONDUIT TO REDUCE VIBRATION EFFECT.
   - I. SUPPORT CONDUIT WITH APPROVED STRAPS AND HANGERS AT INTERVALS REQUIRED BY N.E.C.
   - J. USE ELECTRICAL METALLIC TUBING WHERE DRAWINGS CALL FOR CONDUIT TO BE CONCEALED IN WALLS OR ABOVE CEILINGS.
   - K. USE GALVANIZED RIGID WHERE CONDUITS ARE RUN EXPOSED ABOVE FINISHED FLOOR OR GRADE.
   - L. USE PVC SCHEDULE 40 WHERE RAN IN SLAB (ON FIRST FLOOR ONLY) AND BELOW GRADE WITH TRANSITION BEING MADE TO GALVANIZED RIGID BEFORE TURNING UP OUT OF SLAB OR GRADE.
   - M. MINIMUM CONDUIT SIZE SHALL BE 3/4”
   - H. USE APPROVED SCOTCHLOCK OR T&B CONNECTORS FOR INTENDED APPLICATION WHERE CONNECTORS ARE REQUIRED.
   - I. CONDUCTORS ARE TO BE COLOR CODED WITH A DIFFERENT COLOR OR EACH PHASE, NEUTRAL, AND GROUND AS FOLLOWS:
     - 277/480 VOLT CIRCUITS:
       - PHASE A: BROWN
       - PHASE B: ORANGE
       - PHASE C: YELLOW
     - 120/208 VOLT CIRCUITS:
       - PHASE A: BLACK
       - PHASE B: RED
       - PHASE C: BLUE
     - 120/240 VOLT CIRCUITS:
       - PHASE A: BLACK
       - PHASE B: RED
     - NEUTRAL: WHITE FOR 120/208V & 120/240V, GREY FOR 277/480V
     - GROUND: GREEN
     - APPROVED COLOR TAPE IS ACCEPTABLE FOR FEEDERS.
     - PROVIDE COLOR CODED WIRE FOR CONTROL CIRCUITS.
   - J. PROVIDE NO. 10 WIRE IN LIEU OF NO. 12 WIRE FOR ANY BRANCH CIRCUIT IN EXCESS OF 100' LINEAR LENGTH TO PREVENT EXCESSIVE VOLTAGE DROP.
   - K. CONDUCTOR SIZES INDICATED ON DRAWINGS ARE BASED ON COPPER WIRE (75 DEGREES C) IN CONDUIT. IF NON-METALLIC CABLING 'NM' (A.K.A. 'ROMEX') OR METAL CLAD CABLING (A.K.A. 'MC'CABLE) IS USED, CONTRACTOR IS RESPONSIBLE FOR SIZING CIRCUITS ACCOUNTING FOR DEVIATION FROM DESIGN AND FOR ANY REQUIRED DERATING FOR INSTALLATION IN ACCORDANCE WITH THE N.E.C. NM OR MC CABLE SHALL NOT BE USED UNLESS INDICATED ON DRAWINGS OR WRITTEN PERMISSION IS OBTAINED FROM ENGINEER OF RECORD.

26 05 33.16 BOXES FOR ELECTRICAL SYSTEMS

1. PRODUCTS AND EXECUTION
   - A. PROVIDE EACH FIXTURE SWITCH, RECEPTACLE, AND OTHER DEVICE WITH A GALVANIZED STEEL OUTLET BOX OF APPROPRIATE SIZE AND DEPTH FOR TIS PARTICULAR LOCATION AND PROVIDE PULL AND JUNCTION BOXES WHERE REQUIRED.
   - B. CEILING OUTLET BOXES SHALL BE 4” OCTAGON AND WALL BOXES TO BE 4” SQUARE WITH RAISED PLASTER RINGS OR DEVICE RINGS. PROVIDE FIXTURES STUDS IN CENTER OF BOXES USED FOR SUPPORT OF FIXTURES.
   - C. OUTLET AND JUNCTION BOXES IN ALL CIRCUITS OR FEEDERS OVER 100' LONG.
   - D. INSTALL PULL BOXES IN ALL CIRCUITS OR FEEDERS OVER 100' LONG.
   - E. OUTLET BOXES SHALL BE SECURELY ANCHORED, SET TRUE AND PLUMB AND NO PART OF BOX OR COVER SHALL EXTEND BEYOND FINISHED WALL OR CEILING. FLUSH MOUNTED BOXES SHALL BE SET TO WITHIN 1/8” IF FINISHED WALL AND A PLASTER RING USED TO MAKE COVER FLUSH WITH WALL.
   - F. OUTLET BOXES SHALL NOT BE LOCATED ON OPPOSITE SIDES OF THE SAME FIRE OR SMOKE RATED WALL WITHIN THE SAME STUD COMPARTMENT. BOXES SHALL BE OFFSET AS REQUIRED TO PREVENT THIS AND TO MAINTAIN WALL RATINGS.

26 21 16 LOW-VOLTAGE UNDERGROUND ELECTRICAL SERVICE ENTRANCE

1. PRODUCTS AND EXECUTION
   - A. THE ENTIRE INSTALLATION SHALL BE GROUNDED IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE, ARTICLE 250.
   - B. ALL CURRENT CONSUMING DEVICES SHALL HAVE A GROUND WIRE INSTALLED IN THE SAME CONDUIT AS THE PHASE CONDUCTORS FROM THE PANEL TO THE DEVICE. THIS APPLIES TO RECEPTACLES, MOTORS, ETC.
   - C. SERVICE ENTRANCE RACEWAYS, CONDUCTORS, TRENCHING, BACKFILL, ETC. SHALL BE INSTALLED AS INDICATED ON DRAWINGS AND PER NEC AND LOCAL CODE REQUIREMENTS INCLUDING LOCAL UTILITY COMPANY INSTALLATION SPECIFICATIONS.
   - D. ALL GROUND WIRE SHALL BE COPPER WITH A GREEN INSULATION OR IF A GREEN INSULATION IS NOT AVAILABLE, THEN GREEN IDENTIFYING TAPE WILL BE INSTALLED AT BOTH TERMINATION POINTS.
   - E. ALL MATERIALS SHALL BE AS SPECIFIED ON DRAWINGS OR AS SPECIFIED BY LOCAL UTILITY COMPANY FOR SERVICE EQUIPMENT INSTALLATIONS.
   - F. PROVIDE GROUND WIRES THROUGHOUT DISTRIBUTION SYSTEM AND TO ALL UTILIZATION EQUIPMENT, SUCH AS RECEPTACLES, MOTORS AND OTHER REQUIREMENTS LOCATIONS PER NATIONAL ELECTRICAL CODE AND ARTICLE 250.
   - G. PROVIDE SERVICE INSTALLATION PER DRAWINGS. CONTRACTOR SHALL FIELD COORDINATE EXACT LOCATION AND POINT OF SERVICE INSTALLATION WITH UTILITY COMPANY, INCLUDING PROVIDING FINAL BROKEN-DOWN LIST OF LOADS FOR UTILITY COMPANY TO USE IN DETERMINING SERVICE EQUIPMENT SIZES AND TYPES.

26 24 16 PANELBOARDS

1. PRODUCTS AND EXECUTION
   - A. PROVIDE SUBMITTALS SHOWING CIRCUIT BREAKER SIZES, AIC RATINGS, BUS AND NEUTRAL SIZES. PROVIDE ROOM DIMENSIONS IF APPLICABLE.
   - B. PANELBOARDS SHALL BE OF THE CIRCUIT BREAKER TYPE AS MANUFACTURED BY SQUARE 'D', SIEMENS, GENERAL ELECTRIC, CUTLER-HAMMER OR APPROVED EQUAL.
   - C. PANELBOARDS SHALL BE RATED AS INDICATED ON SCHEDULE.
   - D. ALL PANELBOARDS SHALL HAVE ISOLATED NEUTRAL BUS.
   - E. ALL PANELS SHALL HAVE SEPARATE GROUND BUS CONNECTED WITH A GREEN GROUNDING CONDUCTOR BACK TO THE SOURCE OF ITS PARTICULAR FEED.
   - F. ALL PANELBOARDS SHALL HAVE TYPED DIRECTORY CARDS EXCEPT THAT POWER PANELS WILL BE ENGRAVED PHENOLIC NAMEPLATES ATTACHED TO THE INDIVIDUAL BREAKERS INDICATED THE PANELBOARD OR DEVICE BEING SERVED.
   - G. INSTALL FLUSH MOUNTED PANELBOARDS WHERE INDICATED SO THAT THE PANEL BOX WILL BE FLUSH WITH THE WALL SURFACE AND THE PANELBOARD FROM WILL BE IN FULL CONTACT WITH THE WALL. STUB OUT INTO CEILING SPACE A MINIMUM OF ONE 3-4” EMPTY CONDUIT PER EACH 3 POLES OF SPARES OR SPACES.
   - H. SURFACE MOUNTED PANELBOARDS SHALL BE FIRMLY ATTACHED TO THE WALL ON WHICH IT IS BEING MOUNTED.
   - I. ALL PANELBOARDS SHALL HAVE A COPPER BUS.

26 27 26 WIRING DEVICES

1. PRODUCTS AND EXECUTION
   - A. PROVIDE SWITCHES, RECEPTACLES, AND OTHER WIRING DEVICES AS INDICATED ON DRAWINGS.
   - B. COORDINATE FACEPLATE COLORS WITH ARCHITECT PRIOR TO ORDERING.
   - C. MISCELLANEOUS DEVICES:
     - MANUAL MOTOR STARTER:
       - BRYANT: NO. 30002
       - SQUARE 'D': CLASS 2150
     - OVEN:
       - HUBBELL NO. HBL7962 W/SS PLATE S723
     - DRYER:
       - HUBBELL NO. HBL9350 W/SS PLATE S723
   - D. MOUNT ALL SWITCHES 46” ABOVE FINISHED FLOOR TO THE CENTER OF THE SWITCH WITH ON IN THE UP POSITION UNLESS OTHERWISE NOTED.
   - E. MOUNT ALL RECEPTACLES 18” ABOVE FINISHED FLOOR WITH GROUNDING PIN IN THE UP POSITION UNLESS OTHERWISE NOTED OR OTHERWISE REQUIRED TO MATCH EXISTING DEVICES IN SAME ROOM.
   - F. CHECK ARCHITECTURAL DRAWINGS FOR SPECIAL MOUNTING CONDITIONS FOR CASEWORK AND IN SPECIAL AREAS (SUCH AS BENEATH CHALK OR TACK BOARDS).
   - G. INSTALL DEVICE PLATES IN FULL CONTACT WITH WALL.
   - H. RECEPTACLES - COMMERCIAL GRADE (LEVITON P&S, LUTRON AND HUBBELL ARE ACCEPTABLE MANUFACTURERS)
     - 15 AMP, 125 VOLT, AC:
       - HUBBELL: BR15* - DUPLEX TYPE
       - HUBBELL: GFRST15* - GFCI TYPE
       - HUBBELL: 5262*WR - WEATHER RESISTANT DUPLEX TYPE
       - HUBBELL: BR15*TR - TAMPER RESISTANT DUPLEX TYPE
       - HUBBELL: HBL8200* - HOSPITAL GRADE DUPLEX TYPE
     - 20 AMP, 125 VOLT, AC:
       - HUBBELL: BR20* - DUPLEX TYPE
       - HUBBELL: GFRST20* - GFCI TYPE
       - HUBBELL: 5362*WR - WEATHER RESISTANT DUPLEX TYPE
       - HUBBELL: BR20*TR - TAMPER RESISTANT DUPLEX TYPE
       - HUBBELL: HBL8300* - HOSPITAL GRADE DUPLEX TYPE
   - I. SWITCHES - COMMERICAL SPECIFICATION GRADE (LEVITON, P&S, LUTRON, EATON, ACUITY, AND HUBBELL ARE ACCEPTABLE MANUFACTURERS)
     - 15 AMP, 120/277 VOLT:
       - LEVITON: 54501-2* SINGLE POLE
       - LEVITON: 54501-LH* SINGLE POLE W/PILOT LIGHT
       - LEVITON: 54502-2* TWO POLE
       - LEVITON: 54503-2 THREE WAY
       - LEVITON: 54504-2* FOUR WAY
     - 20 AMP, 120/277 VOLT:
       - LEVITON: 54521-2* SINGLE POLE
       - LEVITON: 54522-2* TWO POLE
       - LEVITON: 54523-2 THREE WAY
       - LEVITON: 54524-2* FOUR WAY
     - DIMMERS, 120/277V:
       - LUTRON: LUMEA OR SKYLARK SERIES - RATED FOR LOAD TYPE AND SIZE
     - OCCUPANCY SENSORS, 120/277V:
       - LUTRON: MAESTRO SERIES - PASSIVE INFRARED IN WALL WITH 0-10V DIMMING CAPABILITY
       - LUTRON: LOS C SERIES - DUAL TECHNOLOGY CEILING MOUNT
     - ASTERISK (*) INDICATES COLOR. COORDINATE WITH ARCHITECTURAL REQUIREMENTS.

26 27 13 ELECTRICITY METERING

1. PRODUCTS AND EXECUTION
   - A. METERING EQUIPMENT SHALL BE AS INDICATED ON DRAWINGS AND PHASE BALANCED METER SECTIONS USING METER SOCKETS OR EQUAL BY SIEMENS, ALLIS, ITE OR WESTINGHOUSE. ALL COMPONENTS SHALL HAVE BEEN TESTED UNDERWRITERS LABORATORIES LISTED FOR USE AS AN INTEGRAL PART OF THE MUTLI-METERING SYSTEM. INSTALLATION SHALL BE MADE AS HEREIN SPECIFIED AND SHOWN ON THE ASSOCIATED ELECTRICAL DRAWINGS. ALL COMPONENTS SHALL BE FACTORY ASSEMBLED AND ALL CURRENT CARRYING PARTS SHALL BE PLATED BUS BARS.
   - B. ENCLOSURES SHALL BE NEMA 3R AND SHALL BE CONSTRUCTED OF FORMED AND WELDED CODE GAUGE STEEL. NO DEVICE DISASSEMBLY IS TO BE REQUIRED BEFORE MOUNTING. MOOTING SHALL BE ACCOMPLISHED BY USING A SEPARATE MOUNTING CHANNEL IN CONJUNCTION WITH ENCLOSURE FOR VERTICAL SUPPORT. FINAL MOUNTING FEET FOR ATTACHING TO WALLS. ALL DEVICES MUST BE BONDED TOGETHER WITH BOLTED CONNECTIONS. METER UNITS SHALL BE PROVIDED WITH INDIVIDUAL, REMOVABLE COVERS FOR EACH METER POSITION. ALL COMPARTMENTS CONTAINING UNMETERED CIRCUITS SHALL BE PROVIDED WITH A SEALING MEANS.
   - C. METER SOCKETS SHALL BE JAW TYPE OR AS REQUIRED BY LOCAL UTILITY COMPANY. SOCKETS SHALL BE RATED AS INDICATED ON DRAWINGS. METER SOCKET JAWS MUST BE SPRING REINFORCED AND FRONT REMOVABLE.
   - D. BRANCH CIRCUIT BREAKERS FOR AMPERE DEVICES AS INDICATED ON DRAWINGS SHAL BE PLU-ON TYPE.
   - E. THE METER CENTER SHALL BE UL LISTED WITH A SHORT CIRCUIT CURRENT RATING EQUAL TO OR GREATER THAN THE AVAILABLE CURRENT AT THAT METER CENTER. METER CENTERS SHALL BE PHASE BALANCED AS A SINGLE ASSEMBLY.

26 28 16.16 ENCLOSED SWITCHES

1. PRODUCTS AND EXECUTION
   - A. ALL SAFETY SWITCHES SHALL BE FUSIBLE UNLESS OTHERWISE NOTED. PROVIDE AND INSTALL FUSED SIZED PER THE MANUFACTURER'S RECOMMENDATION FOR THE EQUIPMENT BEING SERVED.
   - B. SAFETY SWITCHES SHALL BE AS MANUFACTURED BY SQUARE 'D', SIEMENS, GENERAL ELECTRIC, CUTLER-HAMMER OR APPROVED EQUAL.
   - C. SAFETY SWITCHES SHALL BE OF THE GENERAL DUTY TYPE WITH ARC SHIELDS AND GROUND LUG AND SHALL BE RATED FOR THE VOLTAGE OF THE SYSTEM TO WHICH IS BEING USED.
   - D. PROVIDED NEMA 1 ENCLOSURES FOR INTERIOR APPLICATIONS AND NEMA 3R FOR EXTERIOR APPLICATIONS OR IN WET LOCATIONS.
   - E. FUSES FOR SAFETY SWITCHES SHALL BE AS MANUFACTURED BY BUSSMAN OR LITTLEFUSE AND SHALL BE DUAL ELEMENT FUSETRONS FOR MOTORS AND “LOW PEAK” FOR OTHER LOADS.

26 50 00 LIGHTING

1. PRODUCTS AND EXECUTION
   - A. PROVIDE SUBMITTALS FOR ALL SPECIFIED FIXTURES & CONTROLS.
   - B. PROVIDE LIGHTING FIXTURES AS INDICATED ON LIGHTING FIXTURE SCHEDULE ON DRAWINGS. EQUAL TO BE BY LITHONIA, BEMJAMIN-DAYBRITE, H.E. WILLIAMS, COLUMBIA, PRESCOLITE, METALUX OR LIGHTOLIER.
   - C. FLUORESCENT BALLASTS SHALL BE ELECTRONIC INSTANT START AS MANUFACTURED BY PHILIPS, ADVANCE, SYLVANIA, OR G.E.
   - D. FLUORESCENT LAMPS SHALL BE T5 OR T8 COOL WHITE (4100K) UNLESS NOTED OTHERWISE.
   - E. LED LUMINAIRES:
     - COMPONENTS: UL 8750 RECOGNIZED OR LISTED AS APPLICABLE.
     - TESTED IN ACCORDANCE WITH IES LM-79 AND IES LM-80.
     - LED ESTIMATED USEFUL LIFE: MINIMUM OF 50,000 HOURS AT 70 PERCENT LUMEN MAINTENANCE, CALCULATED BASED ON IES LM-80 TEST DATA.
   - F. DRIVERS
     - DRIVERS - GENERAL REQUIREMENTS:
       - ELECTRONIC DRIVERS: INRUSH CURRENTS NOT EXCEEDING PEAK CURRENTS SPECIFIED IN NEMA 410.
     - DIMMABLE LED DRIVERS:
       - DIMMING RANGE: CONTINUOUS DIMMING FROM 100 PERCENT TO 5 PERCENT RELATIVE LIGHT OUTPUT UNLESS DIMMING CAPABILITY TO LOWER LEVEL IS INDICATED, WITHOUT FLICKER.
     - CONTROL COMPATIBILITY: FULLY COMPATIBLE WITH THE DIMMING CONTROLS TO BE INSTALLED.
   - G. TIME SWITCHES OR PHOTOCELLS SHALL BE TORK, INTERMATIC OR PARAGON OF TYPES SHOWN ON DRAWINGS.
   - H. JOINTS AND FIXTURE WIRING SHALL BE MADE USING WIRE NUTS, PRE-INSULATED SCOTCH LOCKS OR OTHER APPROVED MECHANICAL MEANS OF CONNECTIONS.
   - I. RECESS FIXTURES ON LAY-IN TYPE GRID CEILINGS SHALL BE SUITABLE FOR INSTALLATION ON THIS TYPE CEILING. SURFACE FIXTURES SHAL BE SUPPORTED FROM STRUCTURE USING U.L. LISTED SUPPORTS AND HANGERS AS REQUIRED FOR PROPER INSTALLATION AND AS REQUIRED BY N.E.C.
   - J. COORDINATE FIXTURE LOCATIONS TO CLEAR DIFFUSERS, DUCTWORK, PIPING, ETC.
   - K. COORDINATE FIXTURE TYPES WITH CEILING TYPES BEING INSTALLED.
   - L. ADJUST FIXTURES TO LIGHT INTENDED AREA WHERE ADJUSTABLE.
   - M. EMERGENCY BALLAST SHALL BE BY BODINE OR IOTA.
   - N. PROVIDE SLOPED CEILING ADAPTERS IN LOCATIONS WHERE LIGHTING FIXTURES ARE INSTALLED IN SLOPED CEILINGS.

27 05 33 CONDUITS AND BACKBOXES FOR COMMUNICATIONS SYSTEMS

1. PRODUCTS AND EXECUTION
   - A. PROVIDE CONDUIT STUB UP AS INDICATED ON THE DRAWINGS AT EACH DEVICE.
   - B. TERMINATE CONDUITS ABOVE DROPPED CEILING USING NYLON INSULATED BUSHINGS.
   - C. OUTLET BOXES SHALL BE 4” SQUARE BOXES WITH PLASTER RING AND COVER AS REQUIRED BY TELEPHONE VENDOR.
   - D. PROVIDE SERVICE CONDUITS, OUTLETS CONDUITS, BACK BOXES, COVER PLATES, JUNCTION BOXES, AND TERMINAL BOARDS OR CABINETS AS REQUIRED BY DRAWINGS AND TELEPHONE/DATA VENDOR.
   - E. LEAVE NYLON PULL STRING IN ALL EMPTY CONDUITS.
   - F. PROVIDE METALLIC CONDUIT SLEEVES WHEREVER CABLES PASS THROUGH FIRE OR SMOKE RATED WALL ASSEMBLIES.
   - G. OWNER'S VENDOR TO PROVIDE CABLE, PULL CABLE AND MAKE TERMINATIONS.
   - H. SERVICE ENTRANCE CONDUITS AND FIREPROOF 8' X 4' X 3/4” TERMINAL BOARDS PAINTED BLACK OR CABINETS SHALL BE FURNISHED AS SHOWN ON DRAWINGS. CONTRACTOR SHALL FIELD COORDINATE ACTUAL LOCATION OF SERVICE TERMINATION WITH THE LOCAL UTILITY COMPANY PRIOR TO ROUGH-IN.

28 46 00 FIRE DETECTION AND ALARM

1. PRODUCTS AND EXECUTION
   - A. PROVIDE ALL LABOR, MATERIALS, TOOLS, AND SERVICE FOR A COMPLETE FIRE ALARM INSTALLATION AS SPECIFIED AND SHOWN ON DRAWINGS. INSTALLATION SHALL COMPLY WITH NFPA 70, NFPA 72, AND CONTRACT DOCUMENTS.
   - B. ACTUATION OF EITHER NONCODED STATION, HEAT DETECTOR, SPRINKLER WATERFLOW SWITCH OR SMOKE DETECTOR SHALL CAUSE AUDIBLE ALARM SIGNALS TO SOUND, VISUAL ALARM SIGNALS TO FLASH, MAGNETIC DOOR HOLDERS TO RELEASE AND ANNUNCIATOR LIGHT TO OPERATE INDICATING THE ALARM INITIATING ZONE.
   - C. IN THE EVENT OF EITHER AN OPERATING POWER FAILURE, AN OPEN CIRCUIT, GROUND IN SYSTEM OR ACTUATION OF SPRINKLER VALVE TAMPER SWITCH, TROUBLE SIGNAL AND TROUBLE LAMP SHALL ACTUATE UNTIL SYSTEM IS RESTORED TO NORMAL. TROUBLE SIGNAL SHALL BE SILENCED BY MEANS OF SYSTEM TO NORMAL, TROUBLE SIGNAL SHALL AGAIN SOUND UNTIL THE SWITCH IS RETURNED TO NORMAL POSITION.
   - D. APPROVED MANUFACTURERS FOR FIRE ALARM EQUIPMENT & DEVICES ARE EDWARDS, SIMPLEX, HONEYWELL, & SYSTEM SENSOR.
   - E. PROVIDE SYSTEM COMPLETE, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, INCLUDING CONDUIT, BOXES, WIRING AND ACCESSORIES. INSTALL AL WIRING IN EMT, METALLIC CONDUITS. TAG WIRES AR JUNCTION POINTS.
   - F. PROVIDE ON PREMISES MAINTENANCE DURING NORMAL WORKING HOURS AT NO COST FOR A PERIOD OF TWELVE MONTHS FROM DATE OF COMPLETION.
   - G. SUPPLIER SHALL HAVE BEEN IN BUSINESS FOR A MINIMUM OF FIVE YEARS.
   - H. SUBMIT COMPLETE CONDUIT AND WIRING LAYOUT AND POINT TO POINT WIRING DIAGRAMS FOR APPROVAL.
   - I. SUBMIT SHOP DRAWINGS OF FIRE ALARM ANNUNCIATOR LAYOUT PER SCHEDULE ON DRAWINGS.
   - J. PROVIDE OWNER'S MAINTENANCE PERSONNEL A MINIMUM OF TWO DAYS INSTRUCTIONS FOR OPERATION AND MAINTENANCE OF SYSTEMS.
   - K. PROVIDE 195 DEGREES F FIXED TEMPERATURE HEAT DETECTORS IN MECHANICAL ROOM AND 135 DEGREES F FIXED TEMPERATURE AND RATE OF RISE HEAT DETECTORS IN ALL OTHER AREAS WHERE HEAT DETECTORS ARE SHOWN ON DRAWINGS.
   - L. INITIATION DEVICES SHAL BE WIRED USING CLASS “B”, TWO WIRE, FULLY SUPERVISED CIRCUITS TO END OF LINE DEVICE LOCATED AFTER LAST DEVICE IN EACH CIRCUIT. ANNUNCIATION SHALL BE FROM ANNUNCIATION CONTACTS ON INITIATION MODULE IN CONTROL PANEL.
   - M. FLASHING LIGHTS SHALL BE WIRED SEPARATELY FROM AUDIBLE DEVICES. WHEN A GENERAL ALARM SIGNAL IS SILENCED AT THE CONTROL PANEL, THE LIGHTS SHALL CONTINUE TO FLASH UNTIL ALARM CONDITION IS CORRECTED.
   - N. PROVIDE A SEPARATE DISTINCT SIGNALING DEVICE AT THE CONTROL PANEL AND REMOTE ANNUNCIATOR FOR SUPERVISORY SIGNAL NOTIFICATION WHEN SPRINKLER TAMPER SWITCHES ARE ACTUATED. SPRINKLER TAMPER SWITCHES SHALL NOT INITIATE A GENERAL ALARM.
   - O. INSTALL THE WIRING SYSTEM COMPLETELY IN CONDUIT.
   - P. SYSTEM SHALL FOLLOW THE SEQUENCE OF OPERATION AS INDICATED ON THE CONTRACT DOCUMENTS DETAILS.
   - Q. MOUNTING HEIGHTS FOR FIRE ALARM DEVICES ARE AS FOLLOWS:
     - AUDIBLE APPLIANCES - 90” A.F.F.
     - VISUAL APPLIANCES - 80” A.F.F.
     - TELEPHONE APPLIANCE - 66” A.F.F.
     - MANUAL PULL STATIONS - 46” A.F.F. CENTER OF PULL
   - R. CONTROL PANEL SHALL BE EDWARDS AND SHALL CONSIST OF THE FOLLOWING, BUT NOT LIMITED TO MODULES HOUSED IN A COMMON CABINET BEARING UL LABEL: 120 VOLT RED CONTROL PANEL.
   - S. OPTIONS (IF REQUIRED BY DRAWINGS)
     - DIGITAL ALARM COMMUNICATION TRANSMITTER
     - MICROPHONE TYPE ANNUNCIATOR WITH BATTERY BACKUP
     - REMOTE CONTROL AND LED ANNUNCIATOR
     - SINGLE ACTION STATION (PULL)
     - TRIM PLATE
     - DUCT DETECTOR HOUSINGS WITH PHOTOELECTRIC S/D WITH SAMPLING TUBE AS RECOMMENDED BY MANUFACTURER
     - REMOTE TEST STATION
     - HEAT DETECTOR 136 DEGREE SMOKE DETECTOR WITH BASE
     - WALL STROBE ONLY RED WITH WHITE LETTERS
     - WALL STROBE AND HORN RED WITH WHITE LETTERS
     - DOOR HOLDERS/CLOSER
     - WALL STROBE AND SPEAKER (FOR ANNUNCIATOR UNITS)
   - T. THE FIRE ALARM CONTRACTOR MUST BE CERTIFIED IN ACCORDANCE WITH THE TENNESSEE ALARM CONTRACTORS LICENSING ACT OF 1991, TCA TITLE 62, AND CHAPTER 32.
   - U. THE FIRE ALARM CONTROL PANEL CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING. SHALL BE ASSESSABLE ONLY TO AUTHORIZED PERSONNEL AND SHALL BE IDENTIFIED AS “FIRE ALARM CIRCUIT”. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM UNIT.
   - V. PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH NFPA 72 AND REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION. PROVIDE ALL NECESSARY TOOLS, SUPPLIES, ETC. TO ACCOMPLISH INSPECTION AND TESTING. CORRECT DEFECTIVE WORK, ADJUST FOR PROPER OPERATION, AND RETEST UNTIL ENTIRE SYSTEM COMPLIES WITH CONTRACT DOCUMENTS.

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