CASEY'S GENERAL STORE

LEE'S SUMMIT, MO
NWC ARBORIDGE & HWY 150

General Project Notes

1. CODE COMPLIANCE: THE GENERAL CONTRACTOR, ALL SUBCONTRACTORS AND SUPPLIERS PERFORMING WORK OR SUPPLYING MATERIALS FOR CONSTRUCTION SHALL ENSURE THAT SUCH WORK AND MATERIAL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES AS ADOPTED AND OTHER APPLICABLE STANDARDS INCLUDING THE AMERICANS WITH DISABILITIES ACT.

2. PERMITS: THE GENERAL CONTRACTOR AND ANY SUBCONTRACTORS WITH WORK REQUIRING PERMITS SHALL OBTAIN AND POST AS REQUIRED BY THE CODE ENFORCEMENT AUTHORITY ALL SUCH PERMITS.
2.1 TEMPORARY PERMITS: THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY SPECIAL PERMITS THAT MAY BE REQUIRED TO CLOSE STREETS, WORK IN PUBLIC OR PRIVATE RIGHTS OF WAY OR OTHERWISE WORK ON PROPERTY NOT UNDER THE DIRECT CONTROL OF THE OWNER OR THEIR AGENTS.
2.2 INSPECTIONS: SCHEDULE AND CONDUCT ALL REQUIRED INSPECTIONS AND APPROVALS, PROVIDE ALL DOCUMENTATION REQUIRED TO OBTAIN A FINAL CERTIFICATE OF OCCUPANCY.

3. VERIFICATION OF CONDITIONS: FIELD VERIFY EXISTING SITE CONDITIONS, DIMENSIONS, ELEVATIONS, UTILITIES AND BECOME FULLY INFORMED AS TO THE SCOPE OF WORK. REPORT ANY DISCREPANCIES CONFLICTING WITH THE WORK TO THE ARCHITECT.
3.1 ADJACENT PROPERTIES: PROTECT ADJACENT PRIVATE PROPERTIES PUBLIC RIGHT-OF-WAY FROM DAMAGE DURING CONSTRUCTION AND ENSURE USE OF SUCH PROPERTY IS NOT ADVERSELY AFFECTED BY THE CONSTRUCTION PROJECT. ANY CONSTRUCTION WORK TO DISRUPT ADJACENT PROPERTIES THAN THE GENERAL CONTRACTOR SHALL SCHEDULE SUCH WORK WITH THE PROPERTY OWNER.
3.2 LIFE SAFETY SYSTEMS: ALL EXISTING LIFE SAFETY PROVISIONS SHALL BE MAINTAINED DURING CONSTRUCTION.
3.3 EROSION CONTROL: ANY SITE WORK SHALL MAKE USE OF APPROPRIATE EROSION CONTROL THAT IS COMPLIANT WITH STATE AND LOCAL REQUIREMENTS.
3.4 UTILITY COORDINATION: COORDINATE WORK AND UTILITY CONNECTIONS WITH LOCAL UTILITY PROVIDERS.
3.5 CLEANUP: MAINTAIN A CLEAN AND SAFE CONSTRUCTION SITE. ALL CONSTRUCTION WASTE SHALL BE REMOVED FROM THE WORK AREA IN A TIMELY MANNER. THE CONSTRUCTION AREA SHALL BE SWEPT ON A REGULAR BASIS TO MITIGATE DUST AND TRASH.

4. DRAWINGS AND SPECIFICATIONS: THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO GUIDE AND DIRECT THE WORK NECESSARY FOR COMPLETION OF THE BUILDING OR BUILDING IMPROVEMENTS DESCRIBED HEREIN. THE GENERAL CONTRACTOR AND SUBCONTRACTORS ARE TO PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE CONSTRUCTION PROJECT.
4.1 SCALING DRAWINGS: DO NOT SCALE ANY DRAWINGS, UNLESS INDICATED OTHERWISE ALL DIMENSIONS ARE TO THE FACE OF WALLS AND CENTERLINE OF STRUCTURAL GRIDS.
RELATIONSHIP BETWEEN DRAWINGS AND SPECIFICATIONS
4.2 IDENTIFY DISCREPANCIES: NOTIFY THE ARCHITECT OF ANY DISCREPANCIES FOUND IN THE DRAWINGS AND SPECIFICATIONS.
4.3 SHOP DRAWINGS: SUBMIT SHOP DRAWINGS, SAMPLES AND PRODUCT DATA TO THE ARCHITECT FOR REVIEW AND APPROVAL OF MATERIALS, FINISHES AND SYSTEMS.
4.4 SUBSTITUTIONS: MATERIAL OR EQUIPMENT SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED BY THE ARCHITECT.

5. MEANS AND METHODS: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, SEQUENCE OF CONSTRUCTION AND COORDINATION OF WORK; INCLUDING ANY INSTALLATION OF FIXTURES, FURNISHINGS AND EQUIPMENT BY OWNER'S VENDORS. SUBMIT PROPOSED CONSTRUCTION SCHEDULE AND ALL REVISIONS TO THE ARCHITECT AND OWNER.

6. AS-BUILT DRAWINGS: MAINTAIN UP-TO-DATE CONSTRUCTION DRAWINGS ON THE JOB SITE AT ALL TIMES, SUBMIT TWO (2) SETS OF MARKED-UP RECORD DRAWINGS TO THE ARCHITECT UPON COMPLETION OF THE WORK AND OCCUPANCY OF THE PROJECT.

Changes to Prototype

Roof Screening
Brick Dumpster Enclosure
4 Sided Architecture

Sheet Index (69 Sheets)

GENERAL (2 sheets)

G-001 COVER SHEET, INDEX, & CONTACT INFORMATION
G-011 PROJECT DATA, CODES, & ZONING INFORMATION

ARCHITECTURAL (22 sheets)

AL-201 GASOLINE ISLAND CANOPY ELEVATIONS
AL-401 DUMPSTER ENCLOSURE
AL-501 CANOPY COLUMN BASE DETAILS
AL-601 SIGNAGE SCHEDULE, PYLON SIGN ELEVATIONS/DETAILS

A-100 WALL BACKING PLAN
A-101 FLOOR PLAN
A-111 REFLECTED CEILING PLAN
A-121 ROOF EQUIPMENT PLAN
A-122 ROOF CURB PLAN
A-201 EXTERIOR ELEVATIONS
A-202 EXTERIOR ELEVATIONS
A-301 WALL SECTIONS
A-302 WALL SECTIONS
A-303 WALL SECTIONS
A-304 INTERIOR ELEVATIONS
A-402 INTERIOR ELEVATIONS
A-501 EXTERIOR SHELL DETAILS
A-502 MISCELLANEOUS DETAILS
A-601 DOOR, WINDOW & ROOM FINISH SCHEDULES
A-701 CERAMIC TILE FLOORING PLAN

AQ-101 EQUIPMENT PLAN
AQ-401 KITCHEN WALL INTERIOR ELEVATION

STRUCTURAL (8 sheets)

19367 S1.1 GASOLINE FRAMING & FOUNDATION PLAN
19367 S1.2 GASOLINE CANOPY ELEVATIONS
19367 S1.3 GASOLINE TYPICAL CONSTRUCTION DETAILS & NOTES

S-001 GENERAL STRUCTURAL NOTES & REQUIREMENTS
S-101 FOOTING AND FOUNDATION PLAN
S-102 ROOF TRUSS PLAN
S-201 FRONT WALL FRAMING & DETAILS
S-501 FOUNDATION & CONCRETE DETAILS

PLUMBING (5 sheets)

P-101 SANITARY PLUMBING PLAN
P-102 SUPPLY PLUMBING PLAN
P-501 PLUMBING DETAILS & SCHEDULE
P-601 SANITARY PLUMBING RISER DIAGRAM
P-701 SUPPLY PLUMBING RISER DIAGRAM

MECHANICAL (5 sheets)

M-101 MECHANICAL PLAN
M-401 EXHAUST HOOD DETAILS
M-402 EXHAUST HOOD DETAILS
M-403 EXHAUST HOOD DETAILS
M-601 MECHANICAL CONTROL WIRING

ELECTRICAL (12 sheets)

E-101 ELECTRICAL POWER PLAN
E-102 ELECTRICAL LIGHTING PLAN
E-103 UNDERGROUND CONDUIT PLAN
E-401 SALES COUNTER ENLARGED PLAN & DETAILS
E-501 ELECTRICAL PANEL DETAILS AND DIAGRAMS
E-502 ELECTRICAL EQUIPMENT DETAILS
E-601 PANEL SCHEDULES & SERVICE DETAILS
E-602 ELECTRICAL SCHEDULES & SCHEMATICS
E-700 MANUFACTURER EXTERIOR LIGHTING CUT SHEETS
E-701 MANUFACTURER INTERIOR LIGHTING CUT SHEETS
E-702 MANUFACTURER INTERIOR LIGHTING CUT SHEETS
E-703 MANUFACTURER CANOPY LIGHTING CUT SHEETS

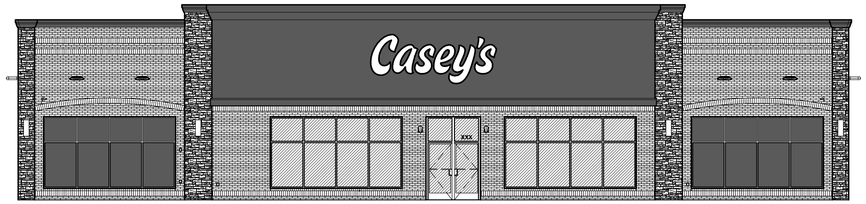
EQUIPMENT (11 sheets)

QR-101 REFRIGERATION EQUIPMENT PLAN
QR-401 REFRIGERATION WALK-INS INTERIOR ELEVATIONS
QR-501 REFRIGERATION DETAILS AND SCHEDULES
QR-601 REFRIGERATION WIRING SCHEMATIC
QR-602 REFRIGERATION WIRING SCHEMATIC

QF-101 CANOPY AND FUEL PIPING LAYOUT PLANS
QF-201 FUEL PUMP ISLAND DETAILS
QF-301 PETROLEUM TANK SECTIONS AND DETAILS
QF-601 PETROLEUM WIRING DIAGRAM
QF-602 PETROLEUM WIRING DIAGRAM
QF-603 PETROLEUM WIRING DIAGRAM

TELECOMMUNICATIONS (4 sheets)

T-101 SECURITY SYSTEM WIRING SCHEMATIC
T-102 COMMUNICATIONS WIRING SCHEMATIC & DETAILS
T-103 MUSIC PLAN
T-601 SECURITY WIRING SCHEMATIC & DETAILS



Project Team

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Legal Description

Lot 1, Arborwalk West Addition, a subdivision in Lee's Summit, Jackson County, Missouri.

Locator Map - Lee's Summit, MO



TRUE NORTH

NOTE:
Not all roads shown.

SHANE L. LARSEN
NUMBER A-2019032132
ARCHITECT
11/9/23

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

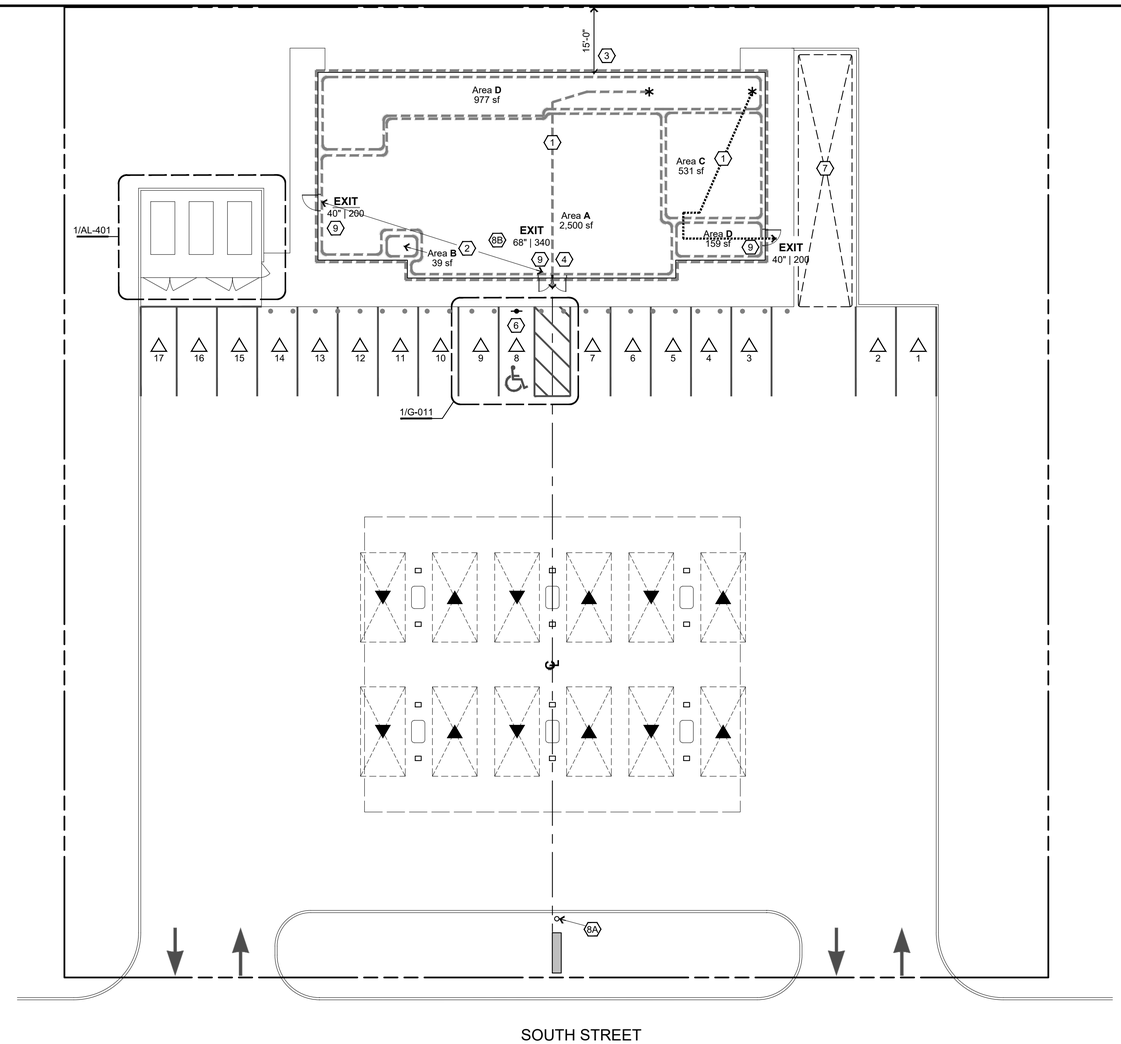
PUBLISHED: 10/18/2023
REVISED ON:

PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

DRAWING INFORMATION:
COVER
SHEET INDEX &
CONTACT INFO

G-001

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11/10/2023 3:18:45 PM Nelson, Justin



3 Diagramatic Code Plan & Site Layout

1/16"=1'-0"

Project Data

JURISDICTION:
LEE'S SUMMIT, MO
2018 International Building Code
2018 International Plumbing Code
2018 International Mechanical Code
2018 International Fuel Gas Code
2018 International Fire Code
2017 National Electrical Code
ICC/ANSI A117.1-2009, Accessible and Usable Buildings and Facilities

Zoning Information

OFF STREET PARKING AND LOADING

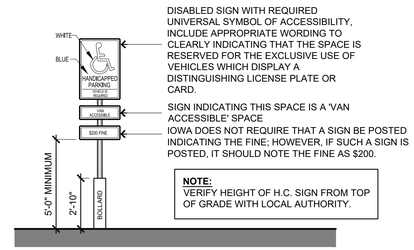
Marked General Parking	16
Unmarked Gas Pump Parking	10
TOTAL PARKING SPACES	**26**

REQUIRED HANDICAP PARKING [ADAAG]
1 : 25 Required Parking Spaces (Van Accessible)

PROVIDED HANDICAP PARKING =1 *(VAN ACCESSIBLE)*

LOADING BERTH
1 Provided (14'x54'), Subject to change

SIGNAGE REQUIREMENTS
See Sheet AL-601 For project signage schedule and drawings.



DISABLED SIGN WITH REQUIRED UNIVERSAL SYMBOL OF ACCESSIBILITY, INCLUDE APPROPRIATE WORDING TO CLEARLY INDICATING THAT THE SPACE IS RESERVED FOR THE EXCLUSIVE USE OF VEHICLES WHICH DISPLAY A DISTINGUISHING LICENSE PLATE OR CARD.

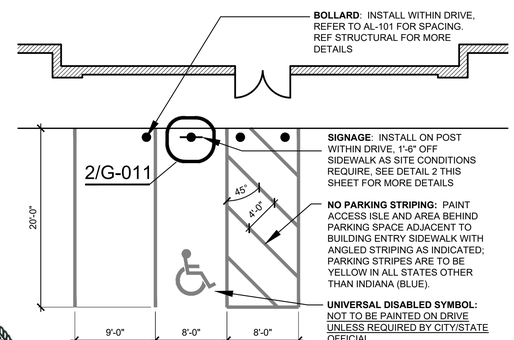
SIGN INDICATING THIS SPACE IS A 'VAN ACCESSIBLE' SPACE

IOWA DOES NOT REQUIRE THAT A SIGN BE POSTED INDICATING THE FINE; HOWEVER, IF SUCH A SIGN IS POSTED, IT SHOULD NOTE THE FINE AS $200.

NOTE:
VERIFY HEIGHT OF H.C. SIGN FROM TOP OF GRADE WITH LOCAL AUTHORITY.

2 Disabled Parking Signage

1/4 = 1' = 0"



1 Disabled Parking Layout

1/8" = 1' - 0"

Code Information

Occupancy Type (*Section 309*)

Group M - Mercantile — Retail Sales & Fuel Dispensing

Construction Type (*Section 602.5*)

Type V, B (Non-rated) — Construction in which the structural elements, exterior and interior walls are of any materials permitted by the code.

Building Height & Area (*Table 503*)
Based on above referenced occupancy type and construction type.

	ALLOWABLE	ACTUAL
Height (Stories / Feet):	1 / 40'	1 / 25'
Area (Group M):	9,000 sf	4,206 sf

Incidental Uses (*Section 508.2, Table 508.4*)
No incidental use areas are present within building as defined in Table 508.4 that require separation.

Fire Resistive Requirements (*Table 601*)

		Hrs
Structural Frame		0
Bearing Walls	Exterior	0
	Interior	0
Non-bearing Walls	Exterior	*Table 602*
	Interior	0
Floor Construction		0
Roof Construction		0

Exterior Walls (*Table 602*)
Where exterior wall fire separation distance to the property line is less than 10', but more than 5' 1-Hour rated construction is required. If Less than 5' 2-Hour rated construction is required. *All sides of building are more than 10' offset from property line. No rated construction required.* ***(Plan Note 3)***

Allowable Area of Openings (*Section 705.8/Table 705.8*)
The maximum area of openings allowed in rated exterior construction is determined as a percentage of total wall area (table 705.8). When an exterior wall is within 3' of property line no openings are allowed, from 3' to 5' only protected openings are allowed and from 5' to 10' both protected and unprotected openings are allowed. *No exterior walls require rated construction, therefore no limitations are imposed on openings.* ***(Plan Note 3)***

Occupant Load *(Chapter 10)*
The Occupant Load is determined by first sub-dividing the plan layout into different 'Function Types' (*per Table 1004.1.2*) then dividing each by the assigned SF/Occupant to obtain the Total Occupant Load for exiting. The Function Areas assigned in the table below are graphically represented in the Code Plan on this sheet. ***(See Code Plan)***

TABLE 1004.1.2	Criteria	Area	Load
Area A - Mercantile	30 gross	2,500 sf	75
Area B - Business (Office)	100 gross	39 sf	1
Area C - Kitchen	200 gross	531 sf	3
Area D - Accessory (Back house)	300 gross	1,136 sf	3
TOTALS		**4,206 sf**	**82**

Building Exits

Egress Width (*Section 1005*)
Non sprinkled buildings require 0.2" of egress width per occupant. *Egress width required, 12.4"* for occupant load of 62 persons. *Egress width provided, 148"* total at three (3) locations. ***(See Locations on Code Plan)***

Exit Doors (*Section 1015, Table 1015.1*)
Occupant load greater than 50 requires 2 exits separated by half the maximum diagonal distance of the building. *Maximum diagonal, 86'-7", Exit Separation, 52'-10".* ***(Plan Note 2)***

Exit Access Travel Distance (*Section 1016, Table 1016.2*)
In non sprinkled buildings the maximum travel distance from any point in the building to an exit is limited to 200'. *Maximum distance present 74', See plan this sheet.* ***(Plan Note 1)***

Plumbing Fixtures *(Chapter 29)*

As required for toilet room fixture calculations, the assumed occupancy loads for male and female are 50% of the total occupancy load for the building (*per Table 2902.1, IBC*).

	CRITERIA	REQUIRED	PROVIDED
MENS (31 Occupants)			
Water Closets	1 / 500	1	1
Lavatories	1 / 750	1	2
Urinal		0	1
WOMENS (31 Occupants)			
Water Closets	1 / 500	1	2
Lavatories	1 / 750	1	2
OTHER FIXTURES			
Drinking Fountain		1	0*
Service Sink		1	1

* Water is provided through a dispenser in the fountain drink system at no charge.

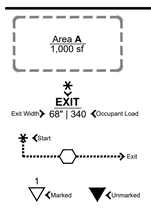
Fire Protection (IFC)

Portable Fire Extinguishers (*Section 906*)
Portable Fire Extinguishers shall be installed in accordance with NFPA 10 and meet the minimum coverage and travel distance requirements:

General: 4-A;80BC, 11,250sf Coverage / 75' Travel Distance (***Plan Note 4***)
Kitchen: Type 'K', within 30' of Hood (***Plan Note 5***)

Emergency Fuel Shutoff (*Section 2303.2*)
A fuel shutoff switch is located within 100' of the fuel pumps ***(Plan Note 8A)***; an additional shutoff switch is located within the building at the sales counter for the convenience of the attending staff ***(Plan Note 8B)***.

Code Plan Legend



USE FUNCTION: GRAPHIC REPRESENTATION OF FLOOR AREA FUNCTIONS; *SEE CODE ANALYSIS, THIS SHEET* FOR ADDITIONAL INFORMATION

BUILDING EXIT: IDENTIFICATION OF BUILDING EXITS, WITH ASSIGNED EXIT WIDTH AND OCCUPANT CAPACITY

TRAVEL PATH: GRAPHIC REPRESENTATION OF PATH OF TRAVEL AS REQUIRED BY CODES; *SEE KEYED PLAN NOTE*

PARKING: IDENTIFICATION OF AVAILABLE PARKING SPACES

PROPERTY LINE

Code Plan Keyed Notes

1. **MAXIMUM LENGTH OF TRAVEL TO EXITS:** 65' (200' ALLOWABLE).
2. **SEPARATION DISTANCE OF EXITS:** 52'-10" (BUILDING DIAGONAL, 86'-7")
3. **FIRE SEPARATION DISTANCE:** ALL PORTIONS OF EXTERIOR OF BUILDING ARE GREATER THAN 10' FROM PROPERTY LINE AND THEREFORE ARE NOT REQUIRED TO BE RATED CONSTRUCTION.
4. **FIRE EXTINGUISHER**: 4-A:80BC INSTALLED NEAR FRONT EXIT
5. **KITCHEN FIRE EXTINGUISHER**: TYPE 'K' LOCATED WITHIN 30' OF HOOD
6. **VAN ACCESSIBLE PARKING SPACE:** WITH POST SIGN AND NO-PARKING ACCESS AISLE, SURFACE SLOPES SHALL NOT EXCEED 1:50 (2%) IN ALL DIRECTIONS
7. **LOADING BERTH:** 14' x 54', SUBJECT TO CHANGE
8. **EMERGENCY FUEL SHUTOFF:** POST MOUNTED SHUTOFF BUTTON WITH SIGN STATING "EMERGENCY FUEL SHUTOFF" LOCATED ALONG CURB LINE (**8A**); A SECONDARY SHUTOFF LOCATED INSIDE AT THE SALES COUNTER FOR THE CONVENIENCE OF STAFF (**8B**)
9. **TACTILE SIGN:** @ 48" A.F.F. TO BRAILLE ON LATCH SIDE OF DOOR

Code Plan General Notes

1. **RELATED SHEETS**: FOR ADDITIONAL INFORMATION NOT DIRECTLY REFERENCED, SEE THE FOLLOWING SHEETS:

   G-001 FOR GENERAL PROJECT NOTES
   AL-101 FOR SITE WORK
   A-101 FOR BUILDING ADDITION AND REMODEL FLOOR PLAN
   AQ-101 FOR EQUIPMENT FLOOR PLAN LAYOUT

2. **DO NOT USE THIS SHEET FOR SITE LAYOUT**: THE SITE AND BUILDING PLAN REPRESENTED ON THIS SHEET IS INTENDED AS A DIAGRAMMATIC REPRESENTATION OF CODE AND ZONING RELATED ISSUES ONLY. ALL SPECIFIC LAYOUT AND CONSTRUCTION INFORMATION IS FOUND ON THE SITE PLAN AND BUILDING DRAWINGS



Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number
CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PUBLISHED: 10/13/2023
REVISED ON:

DRAWING INFORMATION:
GENERAL PROJECT DATA CODE DATA

PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: DJK

G-011

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VERIFY ALL SIGNAGE WITH SIGN PERMITS

Canopy										
					Dimensions					
Sign #	Sign	Type	Location	Illumination	Bottom	Top	Width	Height	Area Ft²	Quantity
5	House Logo	Surface	Canopy Side	Internal	17' 3-1/2"	21' 3-1/2"	5' 8-7/8"	4' 0"	17.49	2
5	House Logo	Surface	Canopy Front	Internal	17' 3-1/2"	21' 3-1/2"	5' 8-7/8"	4' 0"	17.49	1
4	Snap Frame	Advertising	Canopy Column	N/A	3' 0"	7' 0-1/2"	2' 4"	3' 8"	8.56	8
								Total	120.95	

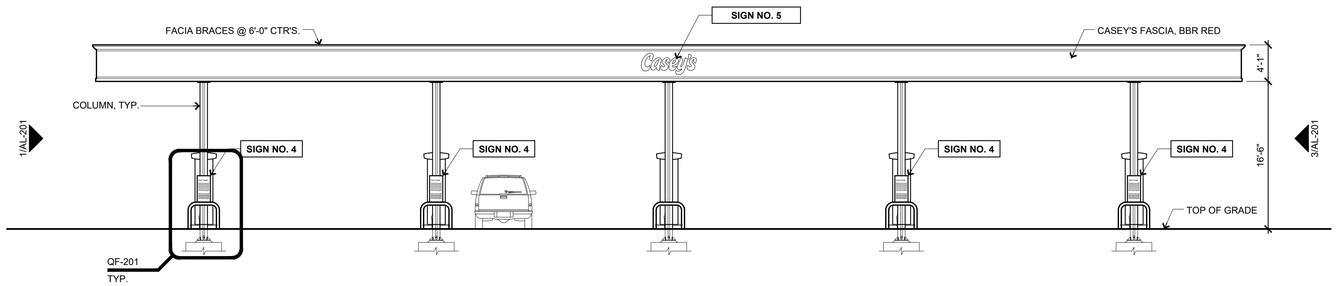
General Notes

1. **RELATED SHEETS**: FOR ADDITIONAL INFORMATION NOT DIRECTLY REFERENCED, SEE THE FOLLOWING SHEETS:

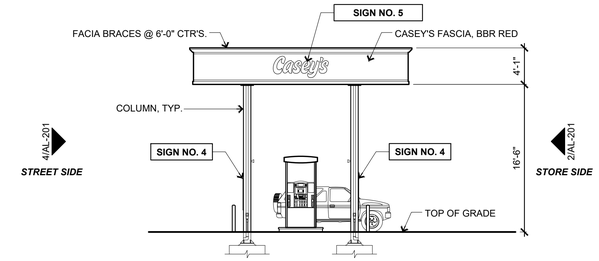
   G-001 FOR GENERAL PROJECT NOTES
   AL-101 FOR GENERAL SITE PLAN
   Sign Packet FOR SIGNAGE SCHEDULE AND NOTES
   QF-Series FOR DESIGN AND DETAILS RELATED TO FUELING FACILITY

2. **GASOLINE ISLAND CANOPY**: REVIEW SHOP DRAWINGS PROVIDED BY CANOPY SUPPLIER AND ADVISE CASEY'S CONSTRUCTION MANAGER OF ANY DISCREPANCIES

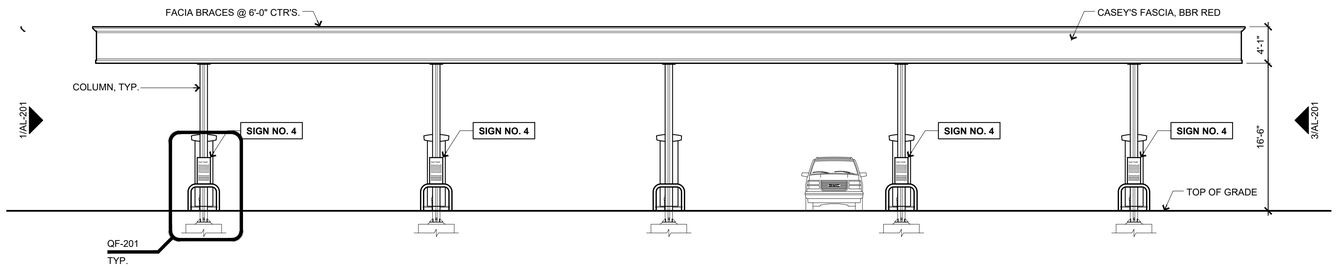
3. **EMERGENCY GAS SHUT OFFS:** REFER TO SHEETS A-201, AQ-101 & E-101 FOR EMERGENCY SHUT OFF LOCATIONS.



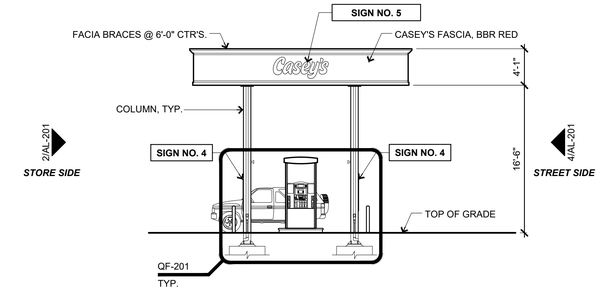
4 Pump Island Canopy - (Street Side)
1/8" = 1'-0"



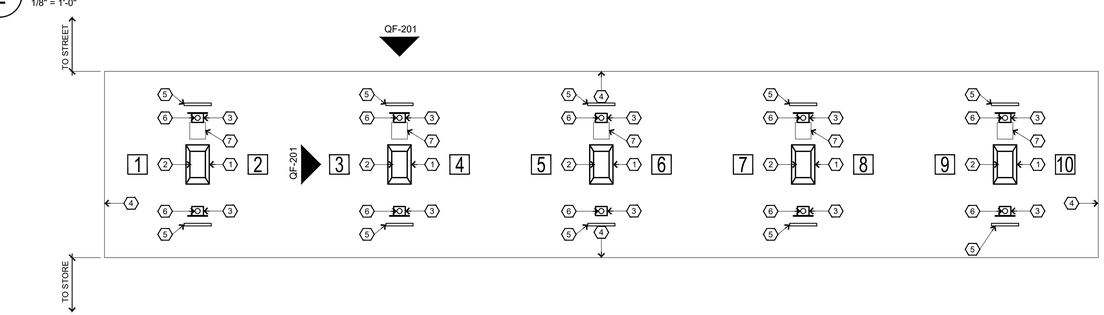
3 Pump Island Canopy - Right Side Elevation
1/8" = 1'-0"



2 Pump Island Canopy - (Store Side)
1/8" = 1'-0"



1 Pump Island Canopy - Left Side Elevation
1/8" = 1'-0"



5 Canopy Layout Plan
Not To Scale

Keyed Canopy Layout Plan Notes

1. **FUEL ISLANDS**
2. **FUEL DISPENSERS**: SUPPLIED BY OWNER
3. **CANOPY COLUMN**: SUPPLIED BY CANOPY MFG.
4. **EDGE OF CANOPY**: ABOVE
5. **STEEL GUARD PIPE**: SET INTO CONC SLAB AS INDICATED IN DETAIL ELEVATIONS (*2 PER ISLAND*)
6. **INTERNAL DOWNSPOUTS**: ROUTE THROUGH COLUMNS AND UNDERGROUND TO STORM SEWER OR DETENTION IF APPLICABLE
7. **TRASH CAN AND WASH BUCKETS**
- # **PUMP LABELS:** MOUNTED ON CANOPY COLUMNS

DRAWINGS & INFORMATION ON THIS SHEET ARE PROVIDED FOR INFORMATION ONLY AND HAVE NOT BEEN DESIGNED BY OR REVIEWED BY THE SCHEMMER ASSOCIATES.

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2021 "O6"- STYLE STORE (FLAT / BRICK & STONE)
PUBLISHED: 06/18/21
REVISED ON:
DRAWING INFORMATION: CONSTRUCTION DIVISION
DRAWN BY: JIM VILMAIN
CHECKED BY:
DRAWING INFORMATION: GASOLINE ISLAND CANOPY ELEVATIONS
AL-201

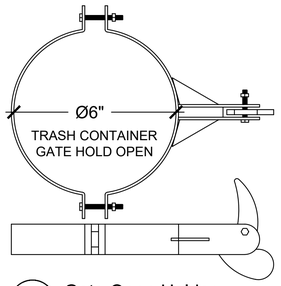
General Notes

1. **RELATED SHEETS**: FOR ADDITIONAL INFORMATION NOT DIRECTLY REFERENCED, SEE THE FOLLOWING SHEETS:

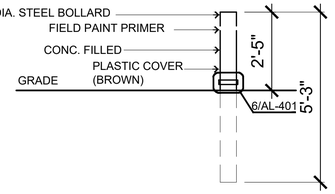
G-001	FOR GENERAL PROJECT NOTES
AL101	FOR GENERAL SITE PLAN

Construction Notes

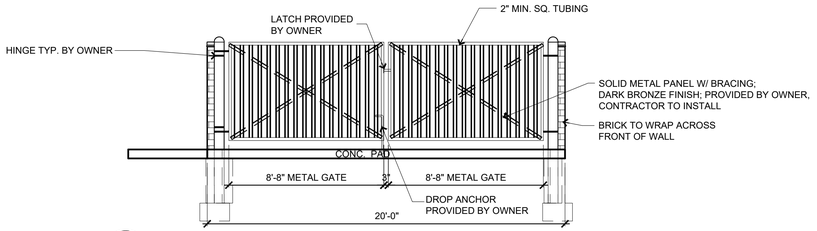
1) ALL DOMES ON FENCE POSTS ARE TO BE FASTENED SO THAT THEY CAN NOT BE REMOVED.
2) VERIFY SCREENING WITH LOCAL AUTHORITY.
3) CONTRACTOR TO PRIME ALL 6" BOLLARDS PRIOR TO FINISHED PAINT COAT.
4) DUMPSTER ENCLOSURE WALLS WILL BE 4" BLOCK PURCHASED BY CONTRACTOR



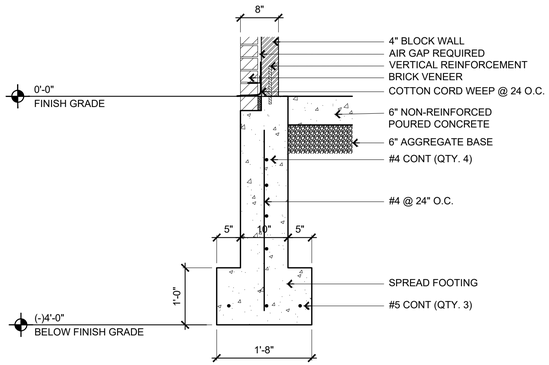
6 Gate Open Holder
No Scale



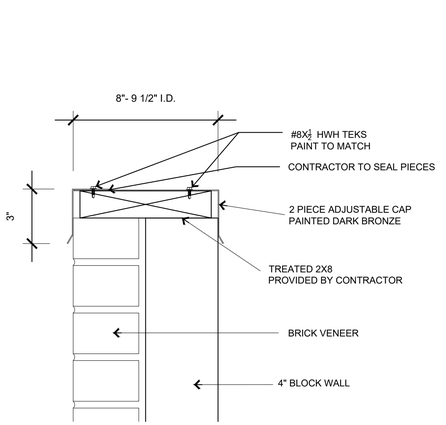
7 Bollard Detail
No Scale



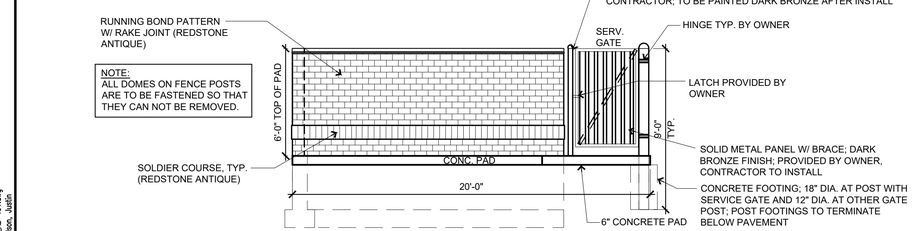
5 Dumpster Enclosure - Elevation
1/4" = 1'-0"



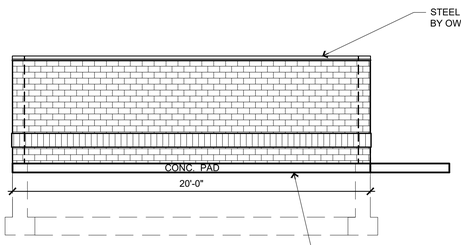
8 Spread Footing Detail
No Scale



9 Adjustable Dumpster Wall Cap
No Scale

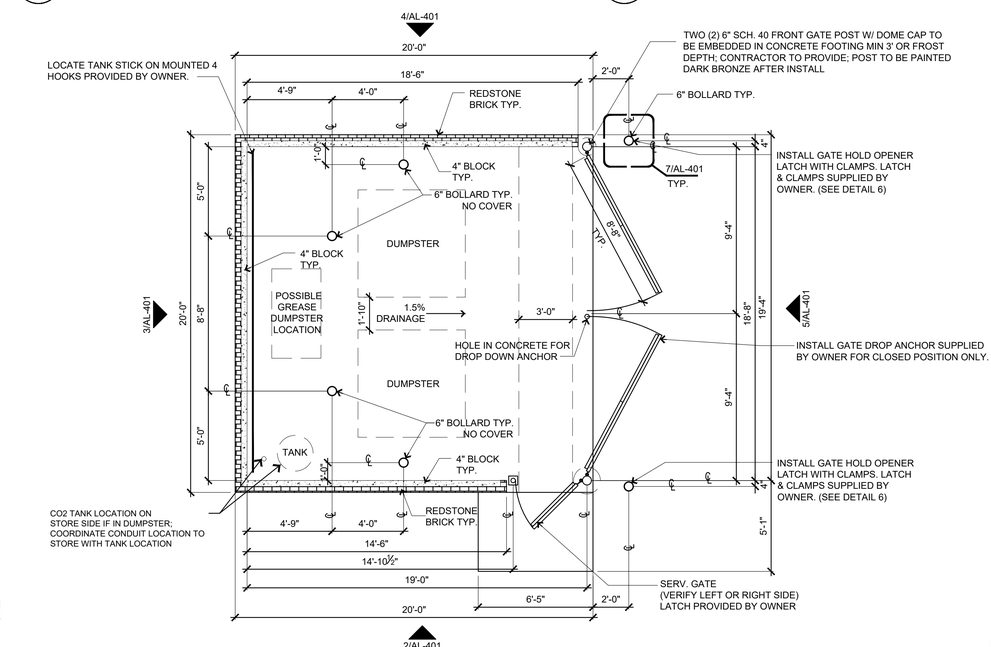


4 Dumpster Enclosure - Elevation
1/4" = 1'-0"



3 Dumpster Enclosure - Elevation
1/4" = 1'-0"

2 Dumpster Enclosure - Elevation
1/4" = 1'-0"



1 Dumpster Plan
1/4" = 1'-0"

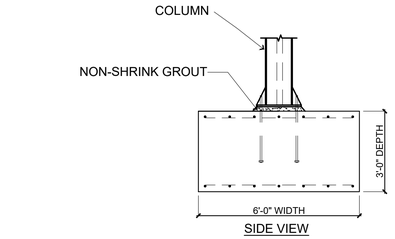
STATE OF MISSOURI
SHANE L. LARSEN
NUMBER A-2019032132
11/9/23
ARCHITECT

Casey's

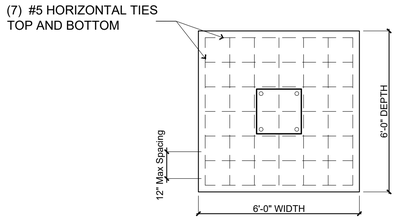
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Omaha, NE 68154
COA Number CA0666

PROJECT	CASEY'S GENERAL STORE MO-150 & ARBORIDGE DR LEE'S SUMMIT, MO 2023 - U4 - V.01
PUBLISHED	10/18/2023
REVISED ON	
PROJECT NUMBER	07164.057
DRAWN BY	JLN
CHECKED BY	SLL
DRAWING INFORMATION	DUMPSTER ENCLOSURE
	AL-401

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11/9/2023 3:35:54 PM Nelson, Justin

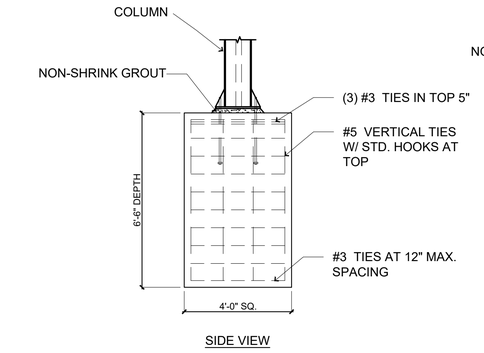


SIDE VIEW

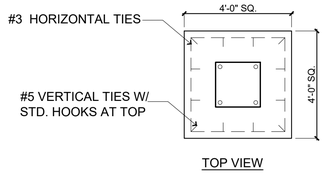


TOP VIEW

OPTION 1:
SPREAD FOOTING
(STANDARD OPTION)

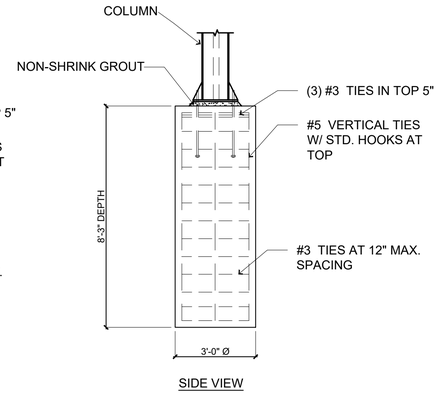


SIDE VIEW

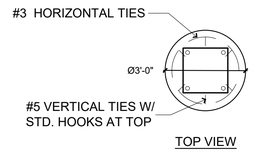


TOP VIEW

OPTION 2:
CUBE FOOTING



SIDE VIEW



TOP VIEW

OPTION 3:
CAISSON FOOTING

THIS DETAIL PROVIDED FOR BIDDING PURPOSES ONLY. REFER TO MANUFACTURER DRAWINGS FOR CONSTRUCTION DETAILS SPECIFIC TO THIS SITE.

1 Canopy Column Footing Options
No Scale

General Notes

1. **RELATED SHEETS:** FOR ADDITIONAL INFORMATION NOT DIRECTLY REFERENCED, SEE THE FOLLOWING SHEETS:

   G-001 FOR GENERAL PROJECT NOTES
   AL-101 FOR SITE IMPROVEMENTS
   A-101 FOR BUILDING PLAN

2. **DEMOLITION MATERIAL REMOVAL:** HAUL-OFF ALL CONSTRUCTION MATERIALS AND WASTE GENERATED BY SELECTED SITE DEMOLITION TO THE APPROPRIATE LANDFILLS AS APPROVED FOR CONSTRUCTION MATERIALS OR BRUSH

3. **UTILITY COORDINATION:** COORDINATE THE ABANDONMENT AND REMOVAL OF ALL UTILITY FEEDS WITH THE LOCAL UTILITY SERVICE PROVIDER

Construction Notes

1) FOOTING HEIGHT TO BE VERIFIED.

2) FOOTINGS TO BE IN ACCORDANCE W/LOCAL BUILDING CODES.

3) 1,500 P.S.F. MIN. SOIL BEARING CAPACITY.

4) GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING CANOPY FOOTINGS AS REQUIRED.

5) VERIFY FOOTING SIZES AND SPECIFICATIONS WITH CANOPY MANUFACTURERS PLAN.

6) CONTRACTOR TO ENSURE THAT BOLTS STAY VERTICAL.

7) VERIFY ELECTRICAL LOCATION W/CANOPY MANUFACTURER PLANS.

8) CLEAN AND GREASE EXPOSED THREADS ON BOLTS.

9) BOLT AREA TO BE GRAVEL & WATER FREE BEFORE CANOPY IS INSTALLED.

10) CANOPY FOOTING ELEVATION WORKSHEET REQUIRED. FORM IS TO BE COMPLETED BY THE GENERAL CONTRACTOR. REFER TO CANOPY MANUFACTURER PLANS, SEND TO CANOPY COMPANY.

DRAWINGS & INFORMATION ON THIS SHEET ARE PROVIDED FOR INFORMATION ONLY AND HAVE NOT BEEN DESIGNED BY OR REVIEWED BY THE SCHEMMER ASSOCIATES.

Casey's
CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT:
2022 "U4" STYLE STORE
REAR DOOR V.03
FLAT ROOF

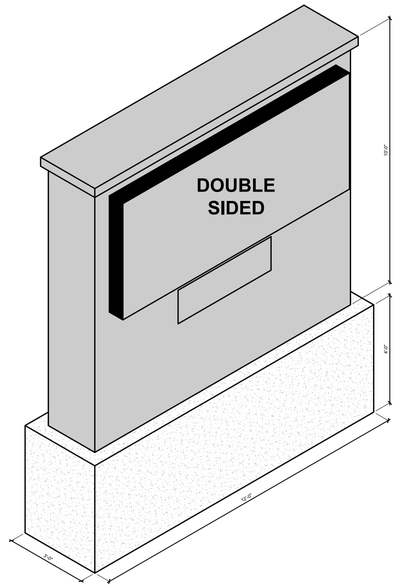
PUBLISHED: 06/18/21
REVISED ON: 12/21/22 (△0)

DRAWING INFORMATION:
CANOPY
COLUMN BASE
DETAILS

DRAWING INFORMATION:
CONSTRUCTION DIVISION

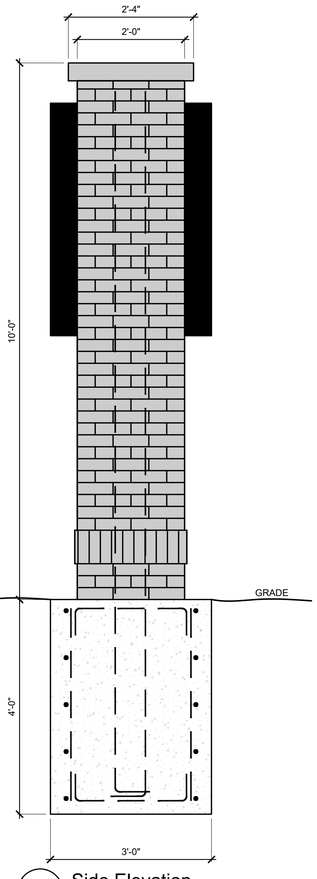
DRAWN BY: ARLON GOFORTH III
CHECKED BY:

AL-501

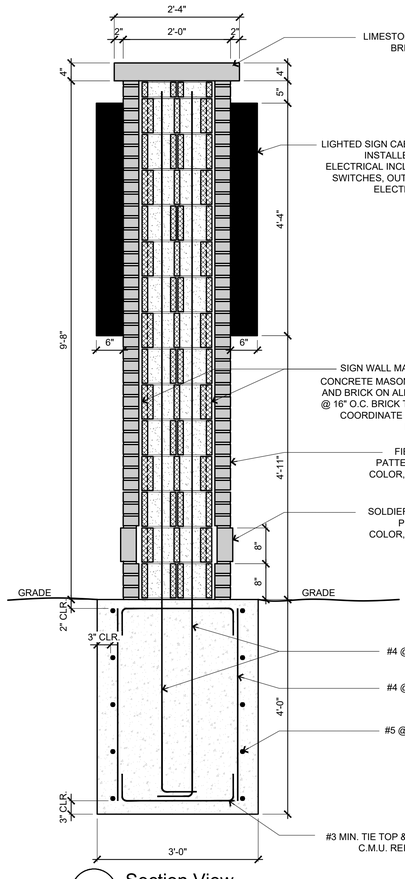


4 Isometric
3/8" = 1'-0"

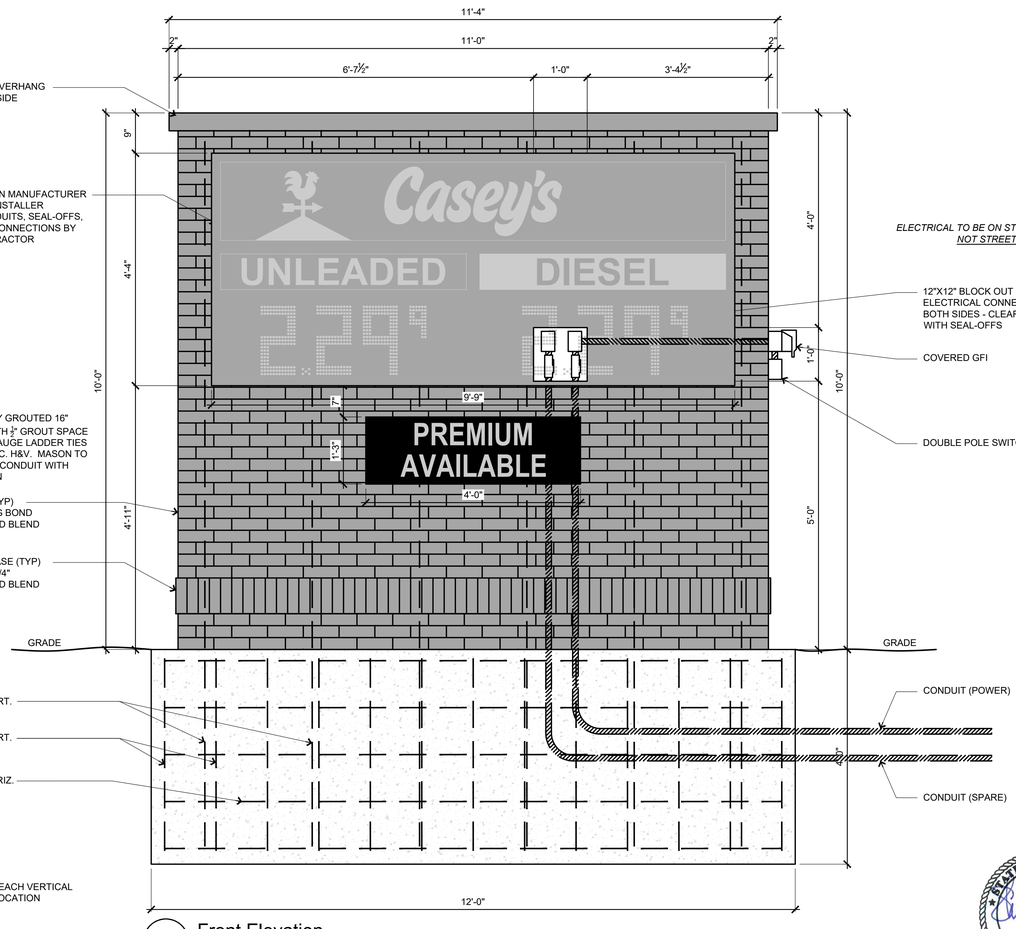
VERIFY ALL BUILDING, CANOPY, & STREET SIGNAGE WITH "SIGN PACKET"



3 Side Elevation
3/4" = 1'-0"



2 Section View
3/4" = 1'-0"



1 Front Elevation
3/4" = 1'-0"

General Notes

1 **RELATED SHEETS**: FOR ADDITIONAL INFORMATION NOT DIRECTLY REFERENCED, SEE THE FOLLOWING SHEETS:

G-001	FOR GENERAL PROJECT NOTES
AL101	FOR GENERAL SITE PLAN
CIVIL	FOR SIGN LOCATION

2 ALL SIGNAGE TO COMPLY WITH LOCAL CODES AND ADOPTED SIGN REGULATIONS

3 ****VERIFY ALL SIGN PERMITS****

Design Criteria

1. DESIGN IS BASED ON 115 MPH 3 SEC GUST DESIGN SPEED PER ASCE 7-10, EXPOSURE C, RISK CATEGORY 2.
2. FOUNDATION IS BASED ON CONSTANT BEARING CAPACITY OF 1,500 PSF AND TEMPORARY CAPACITY OF 2,000 PSF (PEAK WIND LOAD). WITH PASSIVE OF 300 PSF PER FT BELOW FROST DEPTH. ALLOWABLE BEARING PRESSURE SHOULD BE VERIFIED PRIOR TO PLACEMENT OF CONCRETE. DO NOT PLACE FOUNDATION IN FILL.
3. CONCRETE SHALL BE MIXED TO ATTAIN A MIN. COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS.
4. STEEL REINFORCING BARS SHALL BE ASTM A615, GRADE 60, DEFORMED BARS. WELDING OF REINFORCING BARS IS PROHIBITED.

Electrical Criteria

1 CASEY'S SQUARE CABINET SIGN 120 VOLT / 3.28 AMPS TOTAL

2 THREE PRODUCT DIGITAL PRICE SIGN 120 VOLT / 50 HZ / 4 AMPS TOTAL.

3 CUT OFF SWITCH LOCATED INSIDE OF SIGN CABINET.

4. CONDUIT TO MANGERS OFFICE FOR DIGITAL SIGN.

5. DIGITAL SIGN SWITCH TO BE ON W/ SALES AREA LIGHTS.

6. BELDON #1420 A 0601000 - FOR DIGITAL SIGN.

Monument Sign Installation

1. GENERAL CONTRACTOR - VERIFY SIGN PERMITS.
2. GENERAL CONTRACTOR - VERIFY LOCATION W/ SITE & CIVIL PLANS.
3. GENERAL CONTRACTOR - CAUTION! LOOK UP, POWER LINES SHOULD NOT BE OVER SIGN LOCATION.
4. GENERAL CONTRACTOR - VERIFY ANY UNDERGROUND UTILITIES.
5. GENERAL CONTRACTOR - EXCAVATE FOR FOOTING.
6. GENERAL CONTRACTOR - INSTALL REBAR, CONDUIT.
7. GENERAL CONTRACTOR - POUR CONCRETE SIGN BASE. ALLOW FOR PROPER CURE TIME BEFORE SETTING MASONRY.
8. GENERAL CONTRACTOR - COMPLETE FINISH MASONRY WORK INCLUDING LIMESTONE CAP.
9. SIGN CONTRACTOR - VERIFY SIGN PERMITS.
10. SIGN CONTRACTOR - HOIST SIGNS INTO POSITION AND CONNECT WITH PROPER HARDWARE.
11. SIGN CONTRACTOR - CONNECT TEMPORARY POWER TO TEST PRICE SIGN(S) AND HOUSE LOGO.
12. GENERAL CONTRACTOR - CONNECT FINAL ELECTRICAL CONNECTIONS AND TEST FOR CONTINUITY AND GROUND.
13. GENERAL CONTRACTOR - INSTALL LOCAL DISCONNECT SWITCH WITH WEATHER PROOF BOX FOR MONUMENT/PRICE SIGN. USE A WEATHER PROOF BELL BOX #270, OR RACO 5320-5 WEATHER PROOF DICAST ALUMINUM BOX W/NO. 5155 WEATHER PROOF SWITCH COVER, OR EQUAL.

General Construction Notes

1.) UNDERGROUND CONDUIT TRANSITION TO SCH 40 PVC INTERIOR OF STORE.

2.) UNDERGROUND CONDUIT TO BE SCH 80 PVC EXTERIOR WITH THE LAST 10' AT EACH END CONNECTION TO BE GALV. RIGID.

STATE OF MISSOURI
SHANE L. LARSEN
NUMBER A-2019032132
11/9/23
ARCHITECT

Casey's

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Omaha, NE 68154
COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER:
07164.057

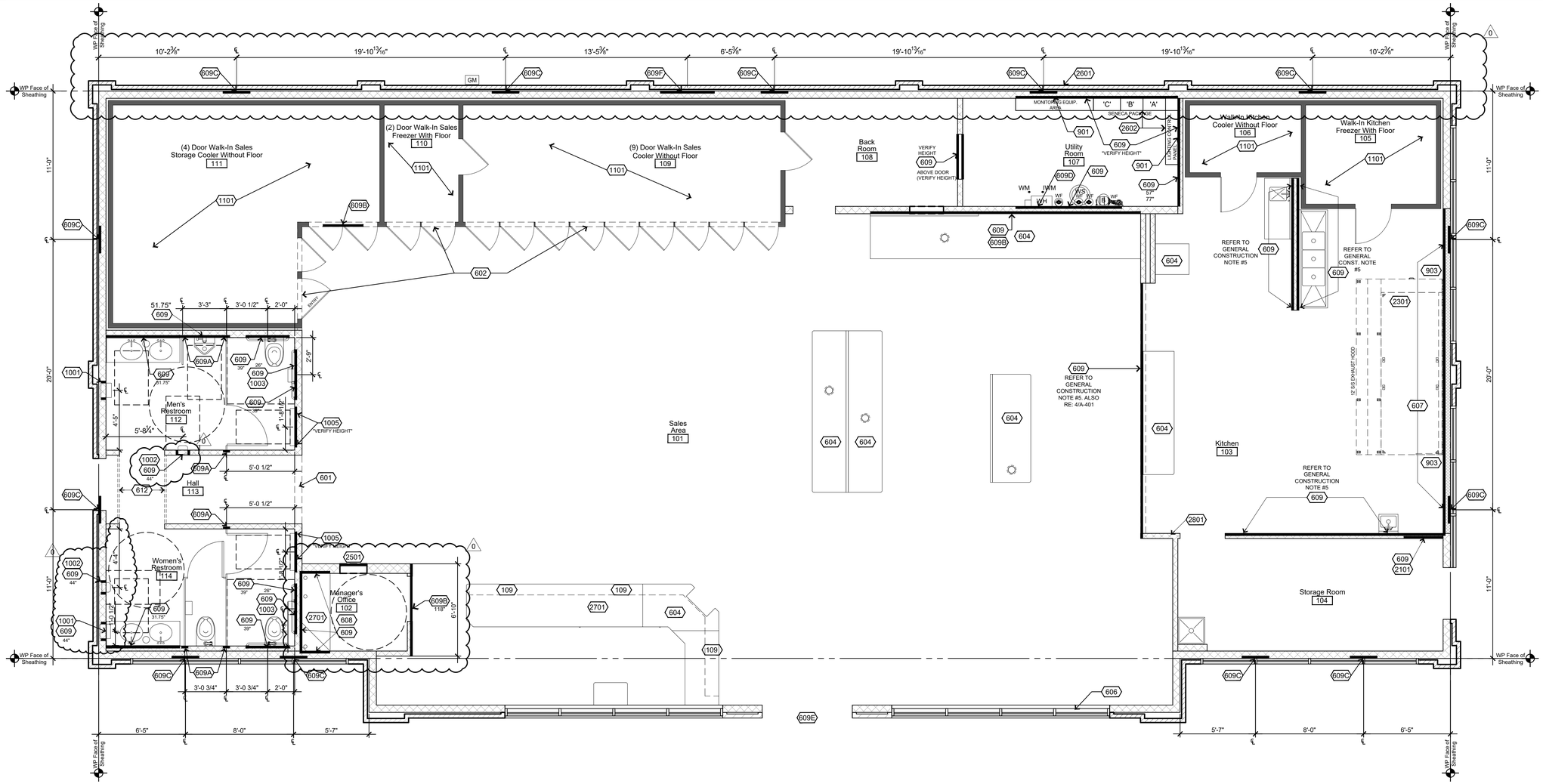
DRAWN BY: JLN
CHECKED BY: SLL

PUBLISHED: 10/13/2023
REVISED ON:

DRAWING INFORMATION:
SIGNAGE SCHEDULE
MONUMENT SIGN
ELEVATIONS/DETAILS

AL-601

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10/11/2023 2:48:45 PM Nelson, Justin



2 Wall Backing Plan for Installation of Equipment and Fixtures

1/4"=1'-0"

PLAN

General Notes

1. REFER TO ALL DETAIL PAGES REFERENCED ON THIS PLAN
2. REFER TO SHEET A-601 FOR:
   FINISH SCHEDULES
   DOOR SCHEDULES
   WINDOW SCHEDULES

   REFER TO SHEET A-101 FOR:
   WALL FRAMING INFORMATION

General Construction Notes

1. **FRAMING INSTRUCTIONS:**
   1.1 ALL PERIMETER FRAMED WALLS, 2x6 WD STUDS @ 16" OC, VERIFY HEIGHTS; INSULATED WITH 6"x16" WIDE FRICTION FIT INSULATION, *EXCEPT AS DIRECTED BY KEYED NOTES*.
   1.2 FRONT WALL SAME AS ABOVE, EXCEPT 2x6 WD STUDS, SEE STRUCTURAL DRAWINGS FOR FRAMING ELEVATION AND DETAILS.
   1.3 ALL INTERIOR FRAMED PARTITION WALLS, 2x4 WD STUDS @ 16" OC, VERIFY HEIGHTS; *EXCEPT AS DIRECTED BY KEYED NOTES*.
   1.4 ALL FRAMING MATERIAL: CONSTRUCTION GRADE OR BETTER.
   1.5 USE TREATED (WOLMANIZED) BOTTOM PLATE, WHEREVER MEETS CONCRETE, SEAL TO CONC FLOOR WITH CONSTRUCTION ADHESIVE.
   1.6 ALL BACKING/BLOCKING 2x6, FLUSH W/ ROUGH FRAMING; HEIGHTS INDICATED ON PLANS (BK @ xx") ARE FROM FLOOR (AFF) TO CENTER OF BLOCKING.
   1.7 EXTERIOR NON-COMBUSTIBLE WALL. 2x6, 18 GAGE STEEL STUDS. ENTIRE END WALL, USING STEEL TOP AND BOTTOM PLATES.
2. SEAL ALL CABINETS AND SALES COUNTER TO FLOOR.
3. DO NOT FRAME UP UTILITY ROOM WALLS UNTIL THE COMPRESSOR RACK HAS BEEN INSTALLED BY H.V.A.C.
4. H.V.A.C. EQUIPMENT INSTALLED BY CASEY'S PROVIDED INSTALLERS.
5. BACKING IN THESE AREAS WILL CONSIST OF 1/2" CDX PLYWOOD ENTIRE LENGTH OF WALL. PLYWOOD TO RUN FROM F.F. TO CEILING HEIGHT.

Keyed Construction Notes

DIVISION 1 - GENERAL INFORMATION

101 COORDINATE PARTITION AND HEADER CONSTRUCTION WITH COOLER / FREEZER PACKAGE.

109 RECESSED CASEWORK SLAT WALL

DIVISION 6 - WOOD, PLASTICS, COMPOSTIES

601 **OVERHEAD PARTITION HEADERS:** NOMINAL 2x4 FRAMING, ALIGN WITH ADJACENT PARTITIONS OR AS DIMENSIONED, U.N.O. 7'-5" A.F.F.
LAZER LEVEL ALL HEADER HEIGHTS

602 **WALL BRACES ON COOLER / FREEZER:** EXTEND ABOVE ADJACENT CEILING; ADD SUPPORT AS NEEDED, BRACE TO ROOF PURLINS AND GLUE TO ROOF PURLINS AND CABINET 'DO NOT' NAIL INTO CABINET. INSTALL KNEE WALL FRAMING FLUSH WITH FRONT EDGE OF COOLER/FREEZER BOXES.

DIVISION 6 - WOOD, PLASTICS, COMPOSTIES CONT.

604 **CASEWORK UNITS:** SUPPLIED BY CASEY'S, INSTALLED BY CONTRACTOR, SEAL TO FLOOR.

606 SEE STRUCTURAL DRAWINGS FOR FRAMING ELEVATION AND DETAILS, FRONT WALL ONLY

607 **NON-COMBUSTIBLE WALL:** WITHIN LIMITS INDICATED, 2x6 18 GAUGE STEEL STUDS @ 16" O.C.; INSTALL 16" FRICTION FIT INSULATION AND SUPPORT WITH 1/2" METAL BANDING HORIZONTAL @ 12" O.C. ON INTERIOR SIDE OF WALL; FINISH WITH STAINLESS STEEL PANELS. (REFER TO SHEET AQ-401 FOR BACKING LOCATION FOR STAINLESS STEEL PANELS)

608 OFFICE COUNTER AND WALL SHELF, GRAPHITE TWILL COLOR; SEE A-402, DETAIL 3.

609 ALL WOOD BLOCKING TO BE 2 x 6 INSTALLED HORIZONTALLY U.N.O., HEIGHT FROM FINISH FLOOR INDICATED NEXT TO NOTE. COORDINATE INSTALLATION OF BLOCKING WITH EQUIPMENT. FIRE RESISTANT BLOCKING TO BE USED IN KITCHEN HOOD AREA.

609A RESTROOM PARTITION BACKING. ENTIRE 16" STUD CAVITY IS TO BE SHEATHED WITH RECESSED BRACING & 1/2" PLYWOOD.

609B 3/4" PLYWOOD BACKING FOR MONITORS.

609C SECURITY LIGHT BRACKET (BACKING NOT REQUIRED). (INSTALL BRACKET TO SHEETING PRIOR TO APPLYING BRICK) REF: A-201 & A-202

609D ON-DEMAND GAS WATER HEATER BACKING. STUD CAVITIES TO BE SHEATHED WITH RECESSED BRACING & 1/2" PLYWOOD. (TOTAL OF 24" OUT FROM CORNER)

609E EXTERIOR SIGNAGE: PROVIDE 2x6 WOOD BLOCKING BEHIND SHEATHING FOR INSTALLATION OF ILLUMINATED SIGNAGE, COORDINATE WITH SIGNAGE SHOP DRAWINGS

609F LADDER BRACKET: PROVIDE 2X6 WOOD BLOCKING BEHIND SHEATHING FOR INSTALLATION OF LADDER BRACKET.

612 2X6 BRACING ON EDGE. LOCATE AT TOP OF WALL HEIGHT TO BRACE RESTROOM DOOR WALLS.

DIVISION 9 - FINISHES

901 WALL COVERING INSTALLED PRIOR TO ELECTRICAL PANEL

902 INSTALL FLOOR BASE IN UTILITY ROOM PRIOR TO INSTALLATION OF HVAC EQUIPMENT

903 CUT FRP WALL COVERINGS TO FIT TIGHT TO STAINLESS STEEL PANELS AT KITCHEN EXHAUST HOOD

DIVISION 10 - SPECIALTIES

1001 **RECESSED ELECTRONIC HANDS-FREE TOWEL DISPENSER:** SUPPLIED BY OWNER, ROUGH OPENING 10 5/8" W. x 15 1/8" H. x 4" D., SET 42" A.F.F.

1002 **HIGH SPEED TOUCH FREE SENSOR HAND DRYER**: RECESSED, SET 3'-8" A.F.F.

1003 **DOUBLE TOILET PAPER HOLDER:** SURFACE MOUNT.

1005 **BABY CHANGING STATION:** HORIZONTAL WALL-MOUNTED. MOUNT ACCORDING TO MANUFACTURER'S SPECIFICATIONS. PROVIDE SUPPORT BLOCKING IN WALL @ 3'-0" & 3'-9".

DIVISION 11 - EQUIPMENT

1101 COOLER / FREEZER UNITS: SUPPLIED AND INSTALLED BY OTHERS, DOORS INCLUDED. (SET 2" OFF FRAMING WALL)
GLASS DOORS AND FRAMES INSTALLED BY GENERAL CONTRACTORS

DIVISION 21 - FIRE SUPPRESSION

2101 EXHAUST HOOD FIRE SYSTEM @ 45" A.F.F.

DIVISION 23 - HEATING, VENTILATING & AIR-CONDITIONING

2301 12' STAINLESS STEEL KITCHEN EXHAUST HOOD, SEE MECHANICAL DRAWINGS.

2302 NOT USED

2303 **HANDRAILS:** WHERE REQUIRED BY CODE (MINNESOTA).

DIVISION 25 - INTEGRATED AUTOMATION

2501 RECESSED VEEDER ROOT TANK MONITOR SYSTEM.

DIVISION 26 - ELECTRICAL

2601 **ELECTRICAL SERVICE ENTRANCE:** COORDINATE ELECTRICAL DRAWINGS.

2602 **ELECTRICAL PANELS:** SEE ELECTRICAL DRAWINGS.

DIVISION 27 - COMMUNICATIONS

2701 **PHONE:** INSTALL PHONE JACK IN CASEWORK @ FRONT COUNTER AND IN WALL @ MANAGER'S OFFICE

DIVISION 28 - ELECTRONIC SAFETY & SECURITY

2801 **REMOTE PULL:** SEE DETAIL SHEET AQ-101

STATE OF MISSOURI
SHANE L. LARBER
NUMBER A-2019032132
11/9/23
ARCHITECT

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PROJECT:
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MO-150 & ARBORIDGE DR
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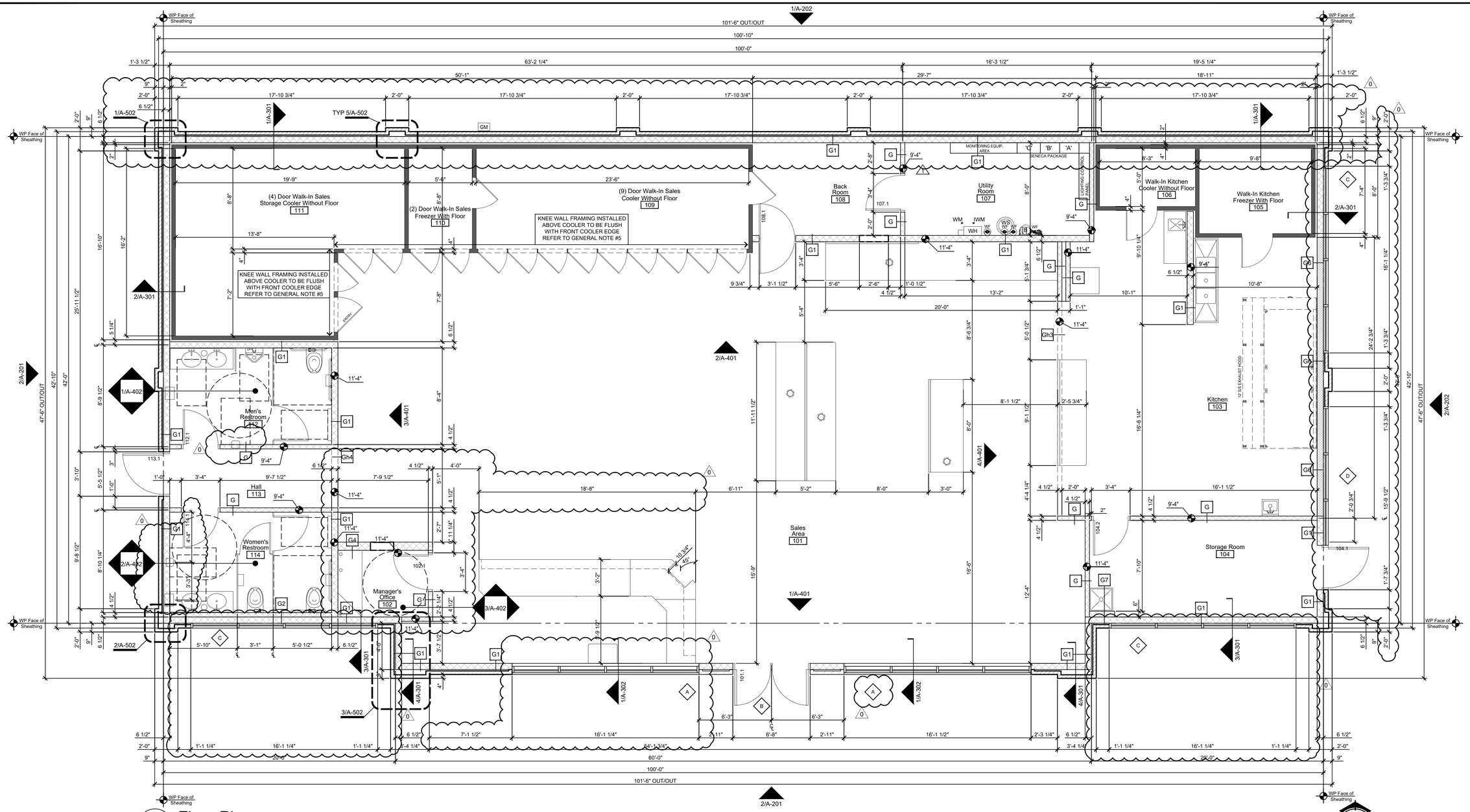
PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

PUBLISHED: 10/13/2023
REVISED ON: 0

DRAWING INFORMATION:
WALL BACKING PLAN

A-100

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10/11/2023 2:48:51 PM Nelson, Justin



1 Floor Plan

1/4"=1'-0"

General Notes

1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES
2. **RELATED DRAWING SHEETS**. REFER TO THE FOLLOWING:
   A-100: WALL BLOCKING PLAN AND NOTES
   A-601: DOOR, WINDOW & FINISH SCHEDULES AND NOTES
   A-701: FLOOR FINISH PLAN
   AQ-101: EQUIPMENT AND FIXTURE INSTALLATION PLAN AND SCHEDULE
   S-101: FOOTINGS AND FOUNDATIONS PLAN
   S-102: FIRST FLOOR BEARING WALL AND SHEAR WALL FRAMING
   P-101: COORDINATE WITH UNDER SLAB SANITARY WORK
   P-102: COORDINATE WITH UNDER SLAB PLUMBING WORK
3. **WORKING POINT**: THE WORKING POINT (*WP*) INDICATED ON THE DRAWINGS IS RELATIVE TO THE FACE OF SHEATHING ON THE EXTERIOR WALL AND IS A COMMON POINT OF REFERENCE WHERE EVER USED IN THESE DRAWINGS
4. INDICATES WALL AND HEADER HEIGHTS
5. KNEE WALL FRAMING ABOVE COOLER / FREEZER TO BE INSTALLED FLUSH WITH FRONT FACE OF COOLER / FREEZER.
6. WINDOW FRAME ELEVATIONS - REFER TO PLAN SHEET A-601, DETAIL 1
7. DOOR TYPES - REFER TO PLAN SHEET A-601, DETAIL 2

Framing Notes

1. **FRAMING INSTRUCTIONS:**
   1.1 ALL PERIMETER FRAMED WALLS, 2x6 WD STUDS @ 16" OC, VERIFY HEIGHTS; INSULATED WITH 6"x16" WIDE FRICTION FIT INSULATION, *EXCEPT AS DIRECTED BY KEYED NOTES*.
   1.2 FRONT WALL SAME AS ABOVE, EXCEPT 2x6 WD STUDS, SEE STRUCTURAL DRAWINGS FOR FRAMING ELEVATION AND DETAILS.
   1.3 ALL INTERIOR FRAMED PARTITION WALLS, 2x4 WD STUDS @ 16" OC, VERIFY HEIGHTS; *EXCEPT AS DIRECTED BY KEYED NOTES*.
   1.4 ALL FRAMING MATERIAL: CONSTRUCTION GRADE OR BETTER.
   1.5 USE TREATED (WOLMANIZED) BOTTOM PLATE, WHEREVER MEETS CONCRETE, SEAL TO CONC FLOOR WITH CONSTRUCTION ADHESIVE.
   1.6 ALL BACKING/BLOCKING 2x6, FLUSH W/ ROUGH FRAMING; HEIGHTS INDICATED ON PLANS (BK @ xx") ARE FROM FLOOR (AFF) CENTER OF BLOCKING.
   1.7 EXTERIOR NON-COMBUSTIBLE WALL. 2x6, 18 GAGE STEEL STUDS. ENTIRE END WALL, USING STEEL TOP AND BOTTOM PLATES.
2. SEAL ALL CABINETS AND SALES COUNTER TO FLOOR.
3. H.V.A.C. EQUIPMENT INSTALLED BY CASEY'S PROVIDED INSTALLERS.
4. ALL EXTERIOR WALLS ARE SUPPLIED BY OWNER
5. ALL INTERIOR WALL MATERIALS SUPPLIED WITH BUILDING PACKAGE TO BE BUILT BY CONTRACTOR ON-SITE.

Key - Wall Type

- G 3 1/2" WOOD STUD (TYPICAL UNLESS NOTED OTHERWISE). RE: A-601, FINISH SCHEDULE FOR WALL FINISH MATERIAL.
- G1 5 1/2" WOOD STUD. RE: A-601, FINISH SCHEDULE FOR WALL FINISH MATERIAL.
- G2 3 1/2" WOOD STUD FUR OUT OF EXTERIOR WALL FOR PLUMBING.
- G3 5 1/2" METAL STUD. RE: A-601, FINISH SCHEDULE FOR WALL FINISH MATERIAL.
- G4 7 1/4" WOOD STUD. RE: A-601, FINISH SCHEDULE FOR WALL FINISH MATERIAL.
- G5 3 1/2" METAL STUD HOOD WALL FRAMED TO BOTTOM OF TRUSS. RE; A-601, FINISH SCHEDULE FOR WALL FINISH MATERIALS.
- G6 5-1/2" NON-COMBUSTIBLE METAL STUD WALL FRAMED TO BOTTOM OF TRUSS. RE: A-601, FINISH SCHEDULE FOR WALL FINISH MATERIAL.
- G7 5 1/2" WOOD STUD. FUR OUT OF EXTERIOR WALL FOR PLUMBING.
- Gh1 5 1/2" WOOD STUD. FINISH HEIGHT = 5'-2" A.F.F. CORNER BEAD ALL OUTSIDE CORNERS. WOOD CAP AND COVE ON TOP OF WALL.
- Gh2 3 1/2" WOOD STUD SHEAR WALL. SHEET BOTH SIDES WITH 1/2" OSB.
- Gh3 4"x2" WOOD FLOOR TYPE TRUSS BEAM SUPPLIED BY STRUCTURAL COMPONENT SYSTEMS. CONTRACTOR TO SHEET SALES AREA SIDE WITH 3/4" PLYWOOD BEFORE FINISHING. RE: A-601, FINISH SCHEDULE FOR WALL FINISH MATERIAL. RE: A-401, DETAIL 4, INTERIOR ELEVATIONS.
- Gh4 3 1/2" WOOD STUD (FRAMING HEIGHT 7'-5") BULKHEAD BUILT ACROSS OPENINGS FOR GRAPHICS ATTACHMENT. FACE BOTH SIDES, REFER TO FINISH SCHEDULE (A-601) FOR FACE MATERIAL AND FINISH.

STATE OF MISSOURI
SHANE L. LARSEN
NUMBER A-2019032132
11/9/23
ARCHITECT

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COA Number CA0666

PROJECT: CASEY'S GENERAL STORE MO-150 & ARBORIDGE DR LEE'S SUMMIT, MO 2023 - U4 - V.01	0 PUBLISHED: 10/13/2023 REVISED ON:
PROJECT NUMBER: 07164.057	
DRAWN BY: JLN	CHECKED BY: SLL

DRAWING INFORMATION: FLOOR PLAN

A-101

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CEILING FINISHES SCHEDULE

ROOM	HEIGHT	2' x 2' CEILING PANELS W/1HR. FIRE RATED GRID (WHITE)		APPROVED	REMARKS AND COMMENTS	
SALES AREA, 101	10'-10"	U.S.G. NO. 2115 WHITE	(CLASS "A" FLAME SPREAD: 25, SMOKE DEVELOPED: 10)	———		X
MANAGERS OFFICE, 102	8'-6"	U.S.G. NO. 2115 WHITE	(CLASS "A" FLAME SPREAD: 25, SMOKE DEVELOPED: 10)	———		X
KITCHEN, 103	9'-2"	U.S.G. N0.3260 WHITE VINYL/WASHABLE (SHEETROCK LAY IN)	(CLASS "A" FLAME SPREAD: 25, SMOKE DEVELOPED: 5)	USDA		X
STORAGE, 104	9'-2"	U.S.G. N0.3260 WHITE VINYL/WASHABLE (SHEETROCK LAY IN)	(CLASS "A" FLAME SPREAD: 25, SMOKE DEVELOPED: 5)	USDA		X
WALK-IN FREEZER, 105					NO CEILING HEIGHT IN WALK-IN FREEZER	
WALK-IN COOLER, 106					NO CEILING HEIGHT IN WALK-IN COOLER	
UTILITY ROOM, 107	9'-2"	U.S.G. N0.3260 WHITE VINYL/WASHABLE (SHEETROCK LAY IN)				X
BACK ROOM, 108	9'-2"	U.S.G. N0.3260 WHITE VINYL/WASHABLE (SHEETROCK LAY IN)				X
SALES AREA COOLER, 109					NO CEILING HEIGHT IN WALK-IN FREEZER	
SALES AREA FREEZER, 110					NO CEILING HEIGHT IN WALK-IN FREEZER	
SALES STORAGE COOLER, 111					NO CEILING HEIGHT IN WALK-IN FREEZER	
MEN'S RESTROOM, 112	8'-6"	U.S.G. N0.3260 WHITE VINYL/WASHABLE (SHEETROCK LAY IN)	(CLASS "A" FLAME SPREAD: 25, SMOKE DEVELOPED: 5)	USDA		X
HALL, 113	8'-6"	U.S.G. NO. 2115 WHITE	(CLASS "A" FLAME SPREAD: 25, SMOKE DEVELOPED: 10)	———		X
WOMEN'S RESTROOM, 114	8'-6"	U.S.G. N0.3260 WHITE VINYL/WASHABLE (SHEETROCK LAY IN)	(CLASS "A" FLAME SPREAD: 25, SMOKE DEVELOPED: 5)	USDA		X

Schedule Notes

1. REFER TO SHEET E-102 FOR LIGHTING LAYOUT. ALL PANELS ARE 2' x 2'. NOTE: ALL MAIN RUNNER CEILING SUPPORTS TO BE INSTALLED PERPENDICULAR WITH THE ROOF TRUSS. MIN. 12 GAUGE WIRE FOR SUPPORTING CEILING. DO NOT INSTALL WIRE SUPPORT AT EQUIPMENT OR SERVICE DOOR AREA. INSTALL 3270 FULL 2'x4' TILE AT WALK-IN FREEZERS SERVICE DOOR AREA. (REFER TO THIS PAGE)
2. ONE HOUR GUARD SUSPENDED CEILING GRID INFORMATION: ARMSTRONG WHITE GRID SYSTEM. ALUMINUM GRID CAP, ENTIRE STORE.
   12' - MAIN - #5099 (OR EQUAL)
   4' - TEE - #5097
   2' - TEE - #5096
   WALL CHANNEL #5098
3. X = CONTRACTOR TO SUPPLY
4. NOTE THAT WASHABLE CEILING TILE IS TO BE USED ABOVE THE COFFEE BAR AND ANY FOOD PREP AREA AS WELL.

General Notes

1. CENTER CEILING GRID IN SPACES, UNO.
2. 1 EXTRA FULL BOX OF FLOOR TILE TO BE LEFT ONTOP OF COOLER NEXT TO THE HATCH DOOR.
3. SEE ELECTRICAL LIGHTING PLAN, E-102 FOR LIGHT FIXTURE SPECIFICATIONS.
4. SEE SECURITY PLAN, T-101 FOR SECURITY CAMERA LOCATIONS. COORDINATE WITH CEILING LAYOUT.

Construction Notes

DIVISION 06 - WOOD PLASTICS, AND COMPOSITES

601 PARTITION HEADER, SEE PLAN A-101 FOR LOCATION AND CONSTRUCTION INFORMATION.

DIVISION 09 - FINISHES

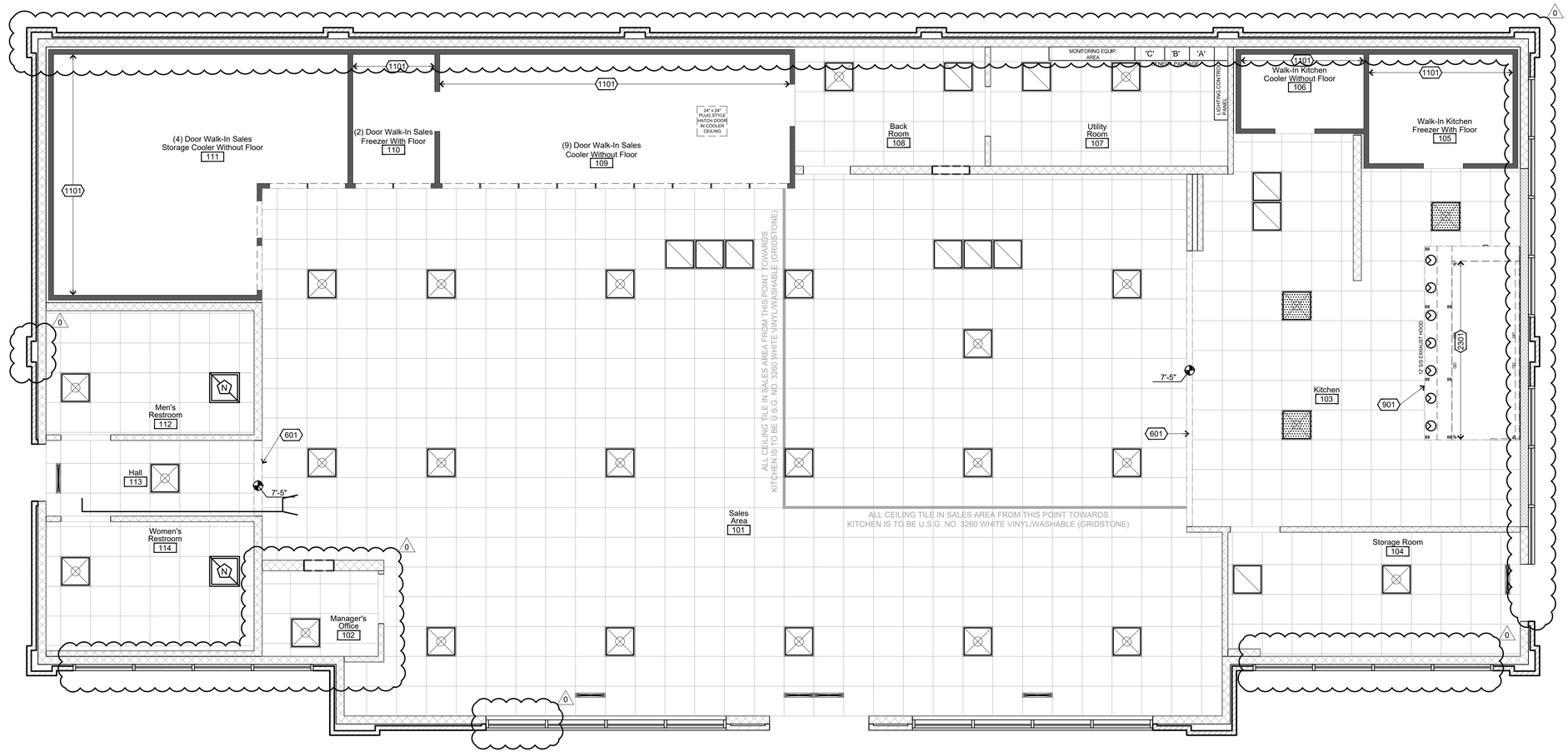
901 T-BAR GRID AROUND EXHAUST HOOD, DO NOT ATTACH TO HOOD

DIVISION 11 - EQUIPMENT

1101 COOLER / FREEZER PACKAGES.

DIVISION 23 - HEATING VENTILATING AND AIR CONDITIONING

2301 EXHAUST HOOD AT KITCHEN, SEE MECHANICAL DRAWINGS.



Symbols Legend

- 2'x2' DIFFUSER LOCATION TYP.
- 2'x2' PERFORATED DIFFUSER TYP.
- 2'x2' RETURN AIR DIFFUSER TYP.
- RESTROOM EXHAUST FAN
- 2'X2' DIFFUSER WITH DIVERTER INSTALLED
- 3-1/2" SLOTTED DIFFUSER TYP. 36" LONG AT FRONT DOOR, 48" LONG IN FRONT OF KITCHEN MENU MONITORS. (LEAVE 2-2' EXTRA CROSS TEE'S FOR SLOTTED DIFFUSERS)
- 2'x4' CREE, INC. LED LIGHTING FIXTURE (SALES AREA, KITCHEN, & RESTROOMS)
- 12"x48" CREE LED LIGHTING FIXTURE (SALES AREA, CUSTODIAN ROOM & BACK ROOM)
- 2'x2' CREE LIGHTING SOLUTIONS, INC. LED LIGHTING FIXTURE (MANAGER'S OFFICE & HALL WAY)
- ELECTRALED, INC. LED LIGHTING FIXTURE (SALES AREA & KITCHEN COOLERS/FREEZERS)
- COMPONENT HARDWARE LED LIGHTING FIXTURE (WALK-IN STORAGE COOLER)
- 7'-5" Finished Casing — OVERHEAD PARTITION BULKHEADS: NOMINAL 2x4 FRAMING, ALIGN WITH ADJACENT PARTITIONS OR AS DIMENSIONED, U.N.O.
- S — CEILING SPEAKER

1 Reflected Ceiling Plan

1/4"=1'-0"

PLAN NORTH

STATE OF MISSOURI
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LEE'S SUMMIT, MO
2023 - U4 - V.01

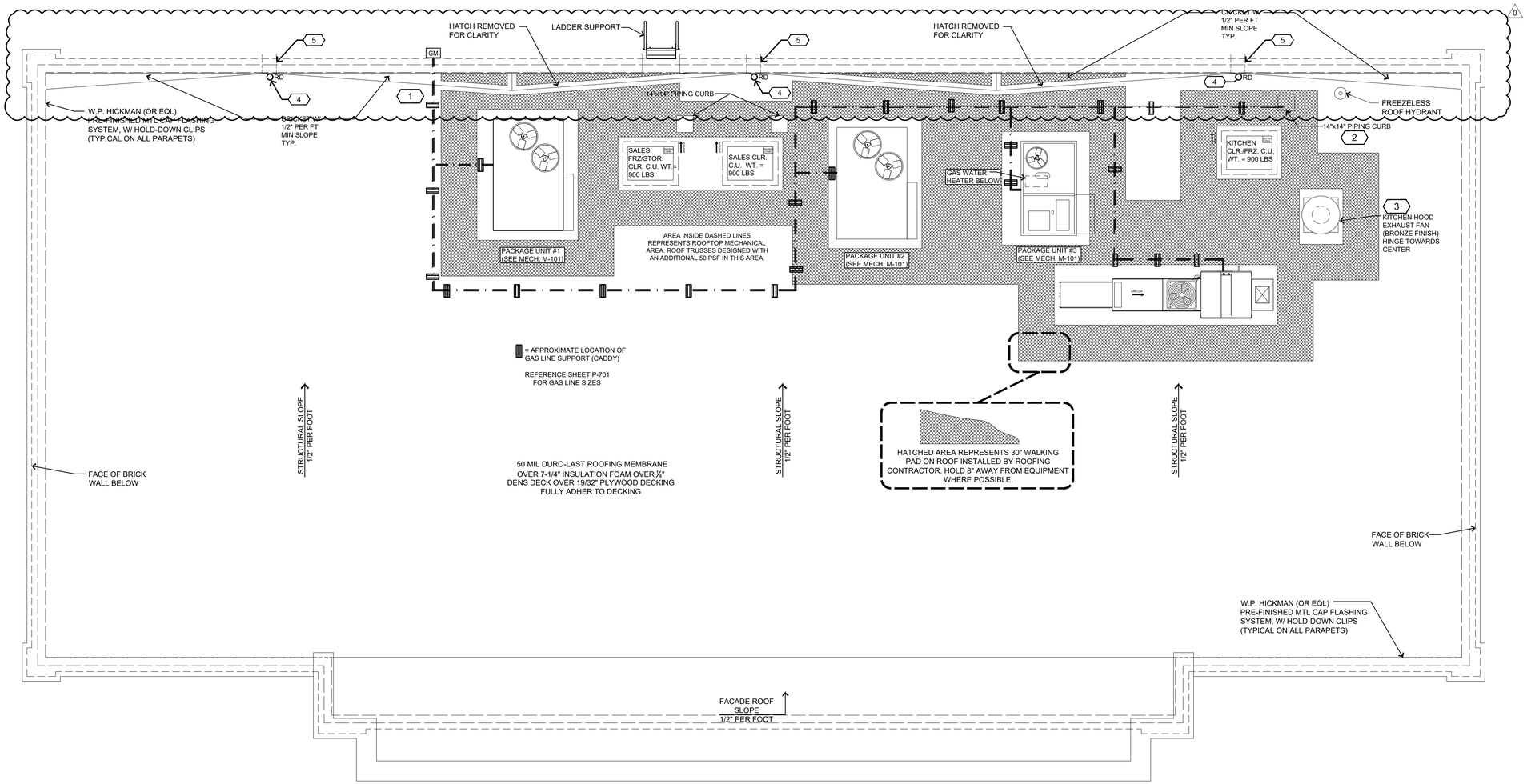
PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

0 PUBLISHED: 10/13/2023
REVISED ON:

DRAWING INFORMATION: REFLECTED CEILING PLAN

A-111

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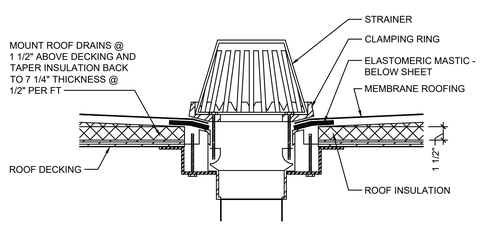


1 Roof Equipment Plan

1/4"=1'-0"

Keyed Construction Notes

1. **GAS SUPPLY LINE:** APPROXIMATE LOCATION OF NATURAL GAS SUPPLY LINE TO AIR HANDLER UNITS. CONNECT TO CADDIES AS SHOWN (REF. 3/P-701).
2. **ROOF PENETRATION LOCATION:** GAS LINE TO ENTER BUILDING THROUGH PENETRATION TO SUPPLY WATER HEATER.
3. INSTALL KITCHEN EXHAUST FAN UNIT WITH HINGES FOR SERVICE & CLEANING ACCESS ORIENTED SUCH THAT UNITS CAN BE PLACED AS SHOWN AND MAINTAIN ACCESS.
4. **ROOF DRAIN:** SEE DETAIL 2/A121. REFER: PLUMBING FOR PIPING.
5. **8"H x 16"L OVERFLOW SCUPPER:** PREFINISHED METAL WITH DRIP EDGE AT EXTERIOR. PROVIDED AND INSTALLED BY ROOFING SUB-CONTRACTOR.



NOTE:
DEPENDING ON ACTUAL DRAIN PROVIDED AT JOB, CONTRACTOR SHALL FLASH AND COUNTERFLASH THE DRAIN TO THE ROOF PER MFR RECOMMENDATIONS.

2 Roof Drain Detail

1/4"=1'-0"

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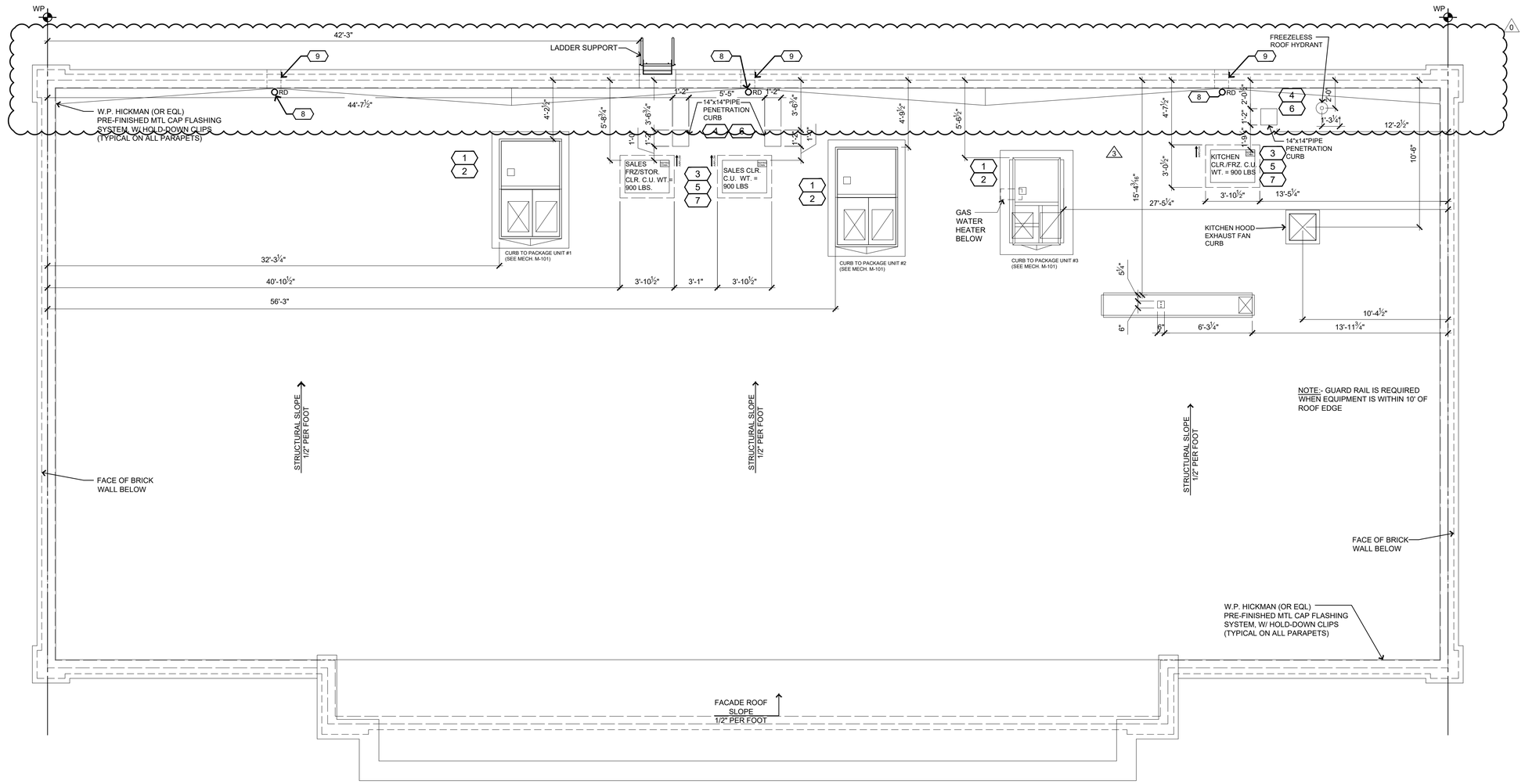
PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER: 07164.057
DRAWN BY: JLN
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0 PUBLISHED: 10/13/2023
REVISED ON:

DRAWING INFORMATION:
ROOF EQUIPMENT PLAN
A-121

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1 Roof Curb Plan

1/4"=1'-0"

Keyed Construction Notes

1. **CONDENSATION LINES**: HVAC CONTRACTOR TO SUPPLY & INSTALL 1" PVC DRAIN LINES TO DIVERT CONDENSATION FROM AIR HANDLER UNITS ACROSS FLAT ROOF WHERE THE WATER WILL IN TURN FLOW TO THE GUTTER SYSTEM.
2. **RTU CURB HEIGHT:** CURB HEIGHT TO BE A MINIMUM OF 8" FROM TOP OF THE RUBBER ROOF TO TOP OF THE CURB.
3. 46.5"x36.5"x24" H. REFRIGERATION CONDENSING STAND PROVIDED BY CASEY'S AND INSTALLED BY GENERAL CONTRACTOR. SHIM & LEVEL ON 2X12 RIBBON WITH MIN. (2) JOIST POSITIONED UNDER. SEE 3/A-122
4. COORDINATE 14"X14/24" PIPE PENETRATION CURB WITH JOIST
5. 2X12 RIBBON FOR REFRIGERATION CONDENSING UNIT MOUNTING. MOUNTING (INSTALL ON TOP OF SHEATHING, PRE-DRILL & LAG THROUGH INTO TRUSSES) (TYPICAL) (3/A-122)
6. REFRIGERATION/EXHAUST CURBS: WOOD STUD PARTITION PIPING CHASE WITH GYP. TO BE ROUTED TO BOTTOM OF JOIST
7. BOLT UNITS TO RACKS AND CONDENSER RAILS
8. **ROOF DRAIN:** SEE DETAIL 2/A121. REFER: PLUMBING FOR PIPING.
9. **8"H x 16"L OVERFLOW SCUPPER:** PREFINISHED METAL WITH DRIP EDGE AT EXTERIOR. PROVIDED AND INSTALLED BY ROOFING SUB-CONTRACTOR.

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PROJECT:
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LEE'S SUMMIT, MO
2023 - U4 - V.01

PUBLISHED: 10/13/2023
REVISED ON: 0

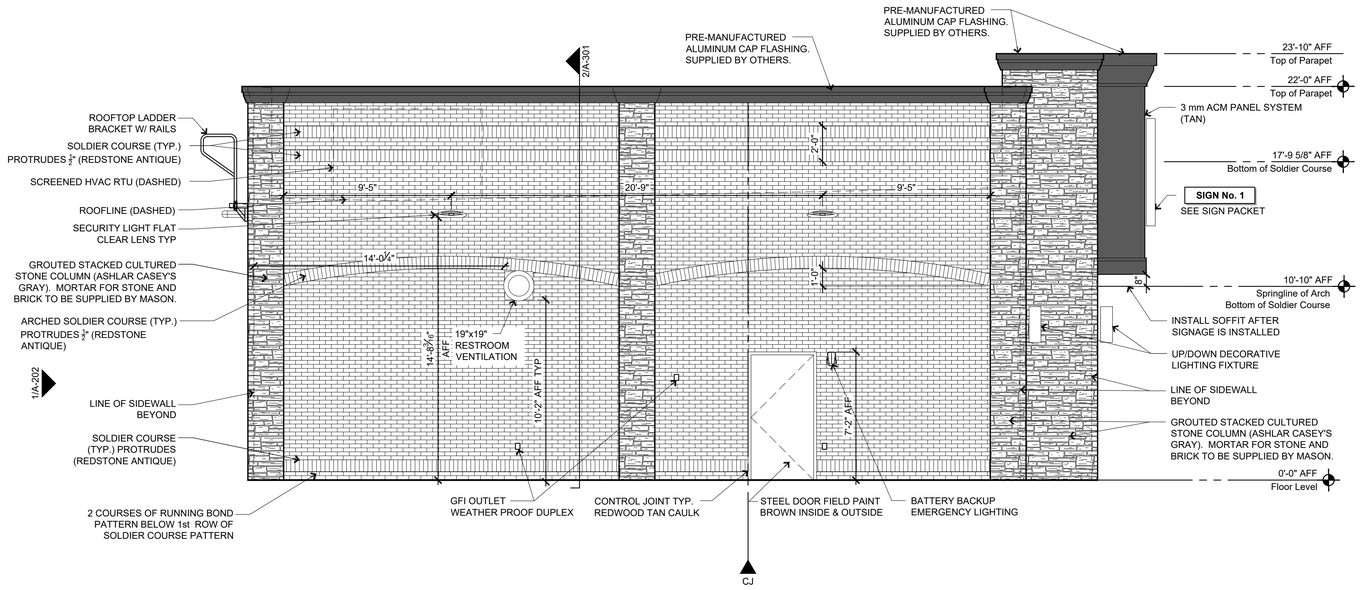
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ROOF CURB PLAN
A-122

PROJECT NUMBER: 07164.057
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CHECKED BY: SLL

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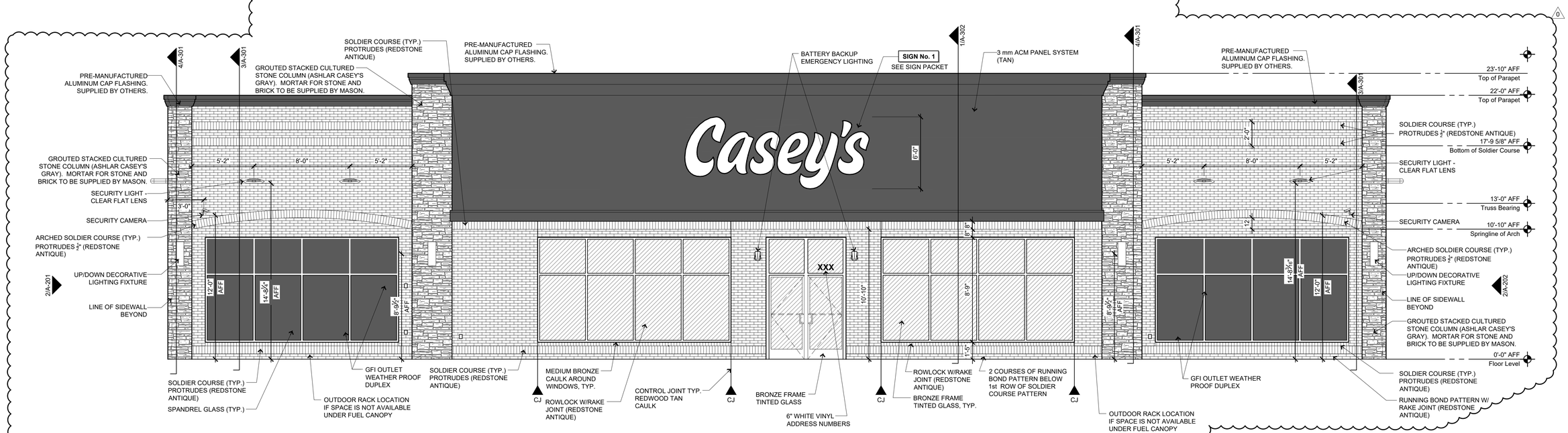
General Notes

1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES
2. **RELATED DRAWING SHEETS**: REFER TO THE FOLLOWING:
   AL-101: FOR BUILDING LOCATION ON SITE
   AL-601: FOR INFORMATION RELATING TO SIGNAGE
   A-101: PRIMARY FLOOR PLAN FOR CONSTRUCTION LAYOUT
   A-121: ROOF PLAN/ROOF TOP EQUIPMENT
   A-601: DOOR & WINDOW SCHEDULES AND NOTES
   S-101: FOOTINGS AND FOUNDATIONS
   S-102: ROOF TRUSSES
3. **WORKING POINT**: THE WORKING POINT (***WP***) INDICATED ON THE DRAWINGS IS RELATIVE TO THE FACE OF SHEATHING ON THE EXTERIOR WALL AND IS A COMMON POINT OF REFERENCE WHERE EVER USED IN THESE DRAWINGS
4. ALL VENT PENETRATIONS ON BACK OF BACKSIDE OF ROOF.



2 Exterior Elevation - Left Side of Building (Plan West)

1/4"=1'-0"



1 Exterior Elevation - Front of Building (Plan South)

1/4"=1'-0"

GLAZING & DOOR CALCULATION

TOTAL FACADE SQUARE FOOTAGE:	2,446.04 SF
25% GLAZING & DOOR REQUIREMENT:	611.51 SF
GLAZING & DOORS ON ELEVATION:	631.89 SF

STATE OF MISSOURI
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PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PUBLISHED: 10/18/2023
REVISED ON: 0

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DRAWN BY: JLN
CHECKED BY: SLL

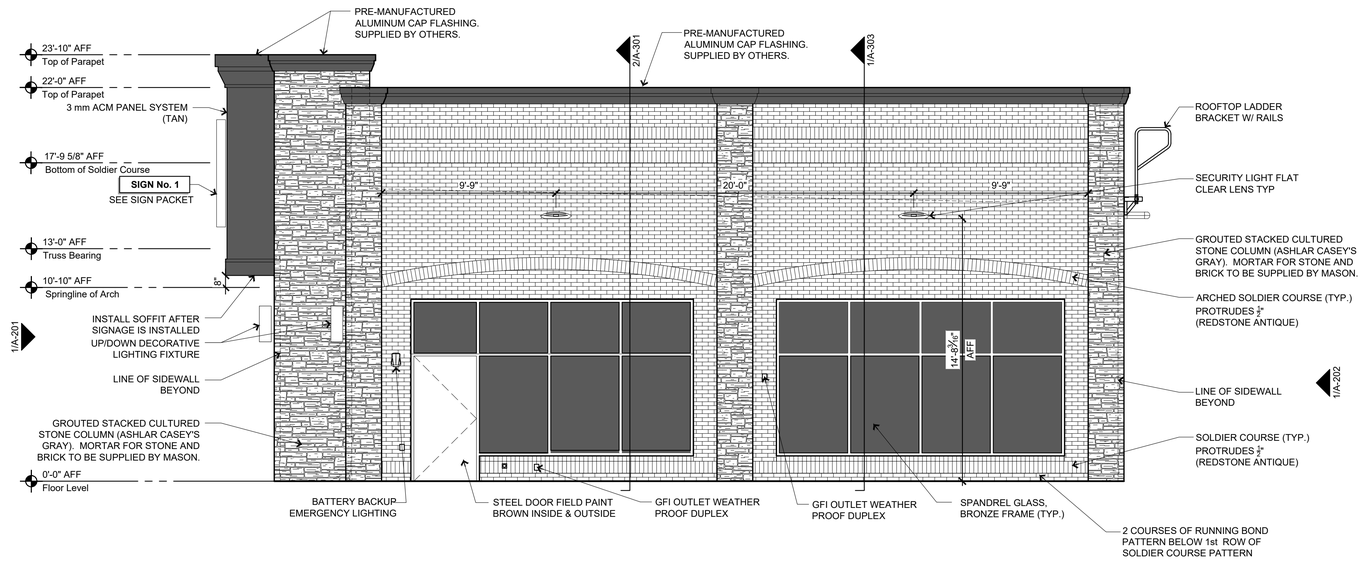
DRAWING INFORMATION:
EXTERIOR ELEVATIONS

A-201

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General Notes

1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES
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4. ALL VENT PENETRATIONS ON BACK OF BACKSIDE OF ROOF.

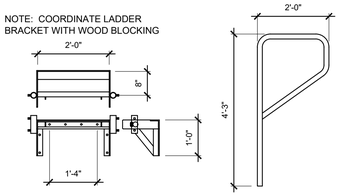


2 Exterior Elevation - Right Side of Building (Plan East)

1/4"=1'-0"

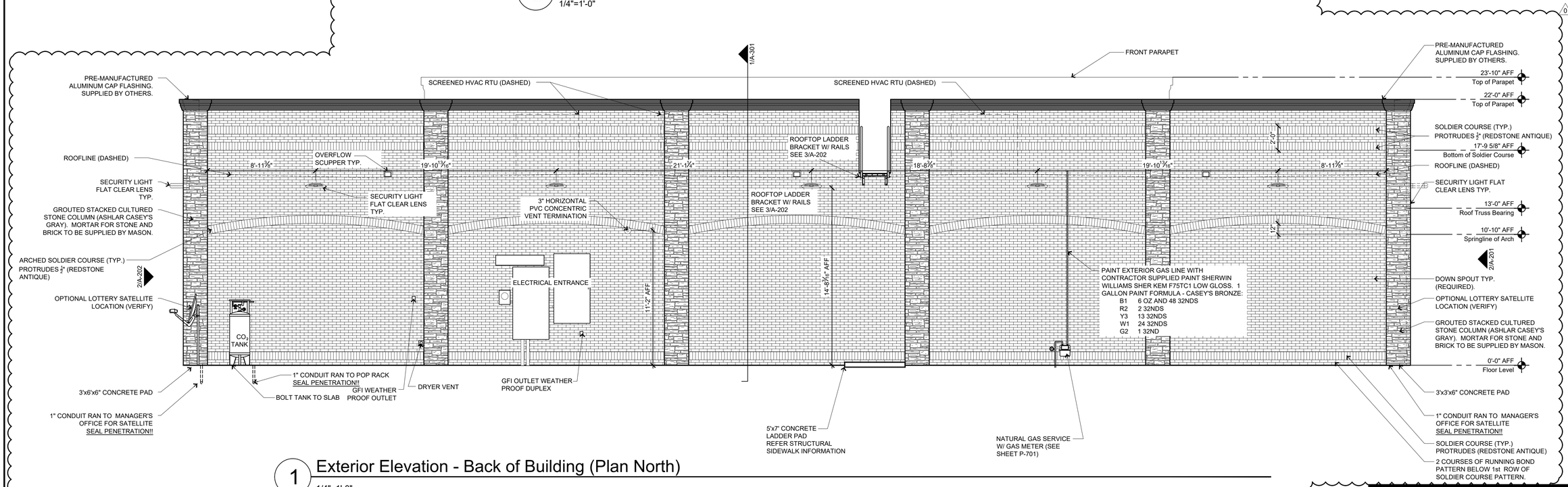
GLAZING & DOOR CALCULATION	
TOTAL FACADE SQUARE FOOTAGE:	1,103.49 SF
25% GLAZING & DOOR REQUIREMENT:	275.87 SF
GLAZING & DOORS ON ELEVATION:	284.68 SF

NOTE: COORDINATE LADDER BRACKET WITH WOOD BLOCKING



3 Ladder Bracket

1/2"=1'-0"



1 Exterior Elevation - Back of Building (Plan North)

1/4"=1'-0"

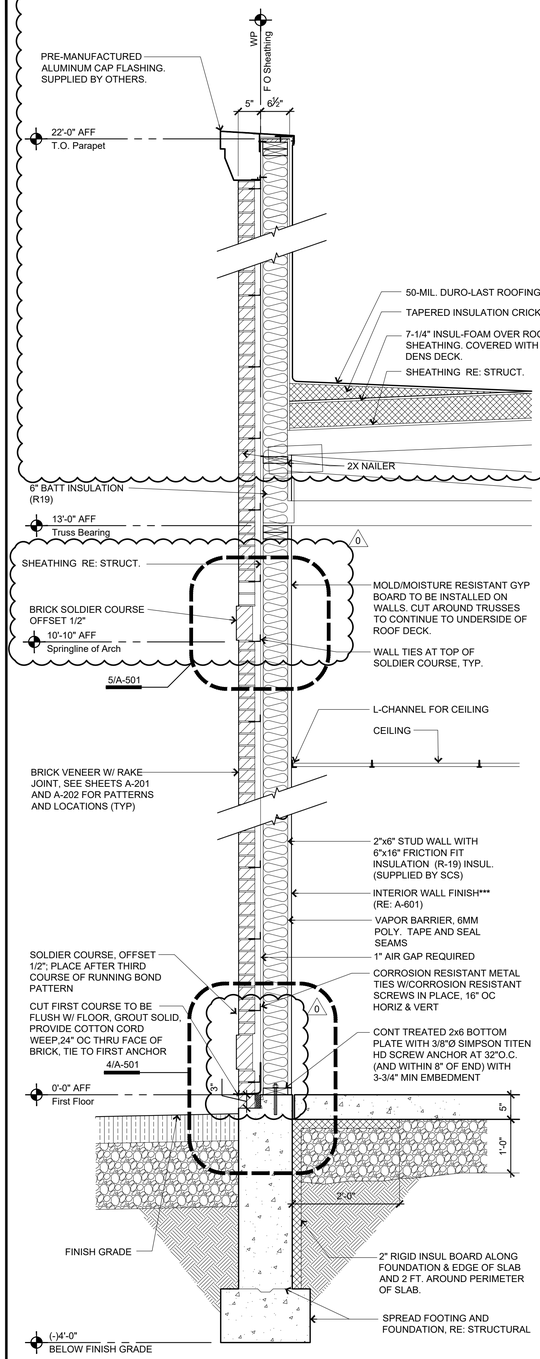
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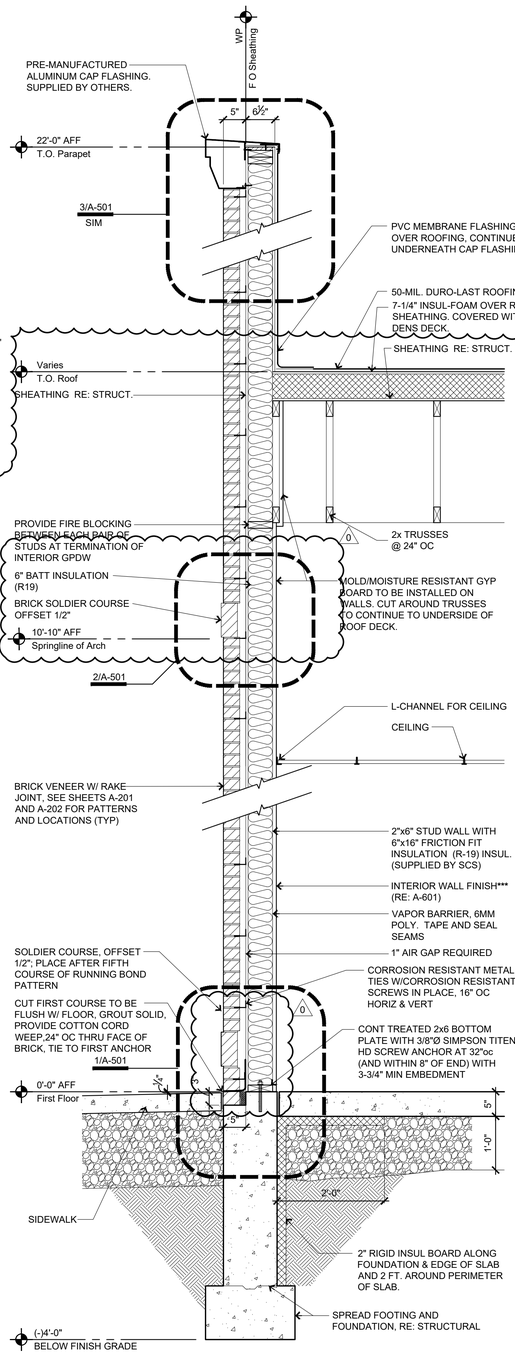
PROJECT:	CASEY'S GENERAL STORE MO-150 & ARBORIDGE DR LEE'S SUMMIT, MO 2023 - U4 - V.01
PROJECT NUMBER:	07164.057
DRAWN BY:	JLN
CHECKED BY:	SLL
0 PUBLISHED:	10/18/2023
REVISED ON:	
DRAWING INFORMATION:	EXTERIOR ELEVATIONS
	A-202

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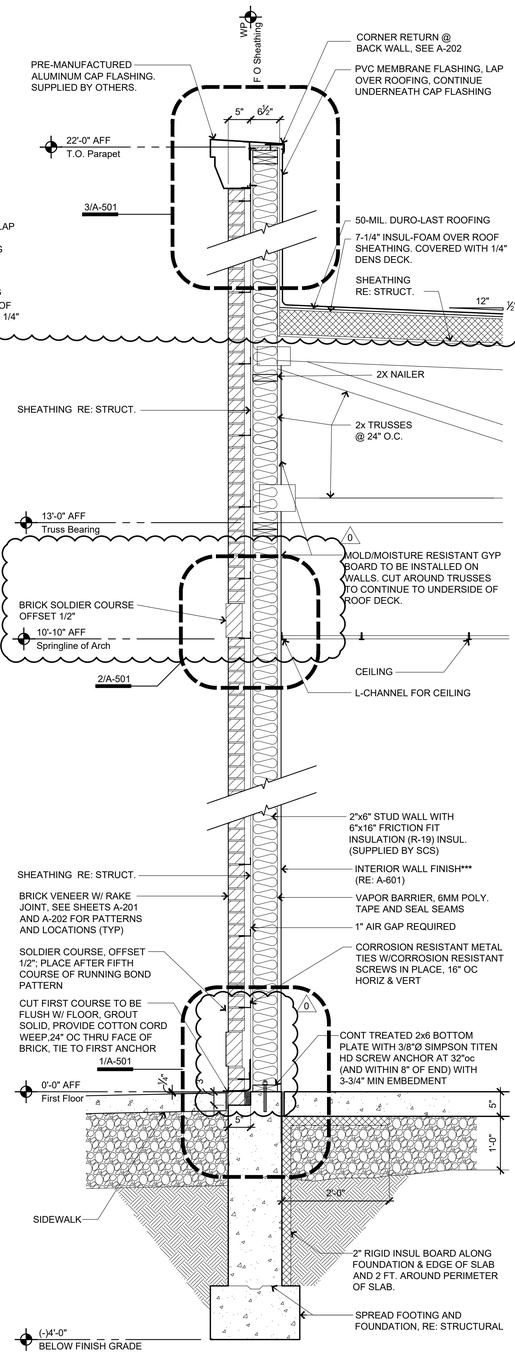
1 Rear Wall Section

3/4"=1'-0"



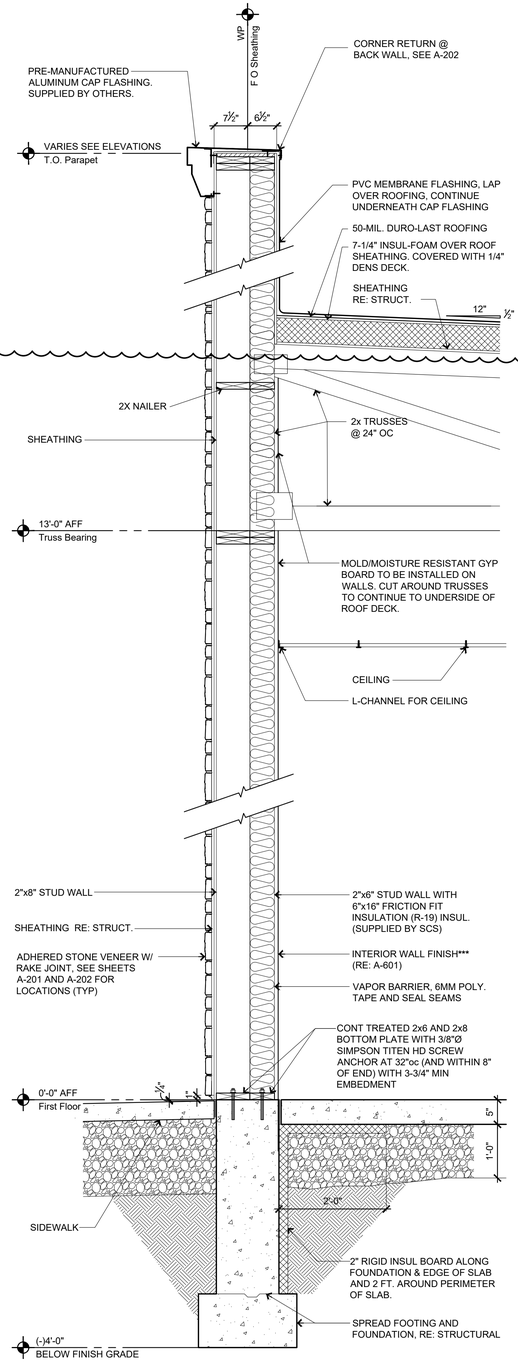
2 Side Wall Section

3/4"=1'-0"



3 Front Wall Section

3/4"=1'-0"



4 Front Wall Section

3/4"=1'-0"

***** WALL COVERINGS ON EXTERIOR WALLS WHERE 6MM POLY IS PRESENT OVER THE INSULATION:**

-WHERE A-601 CALLS OUT **GB-WET (AQUA-TOUGH)**, THAT PRODUCT CAN BE FASTENED DIRECTLY TO THE STUDS OVER THE 6MM POLY.

-WHERE A-601 CALLS OUT **FRP**, ¼" MOLD & MOISTURE RESISTANT GYPSUM BOARD NEEDS TO BE FASTENED DIRECTLY TO THE STUDS OVER THE 6MM POLY, THEN THE FRP IS TO BE GLUED TO THE GYPSUM BOARD.

-ON ALL EXTERIOR WALLS BEHIND COOLER/FREEZER BOXES, ½" MOLD/MOISTURE RESISTANT GYPSUM BOARD (AT A MINIMUM) NEEDS TO BE INSTALLED ON THE INSIDE FACE OF THE WALLS.

NOTE: FOLLOW STEEL BLDG. MANUFACTURES PLANS (SEPARATE DOCUMENTS) FOR INSTALLING FLASHING, TRIM AND TAPE MASTIC.

NOTE: SEE FLOORPLAN, A-101 FOR ALTERNATE CONSTRUCTION OF NON-COMBUSTIBLE WALL

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Omaha, NE 68154
COA Number CA0666

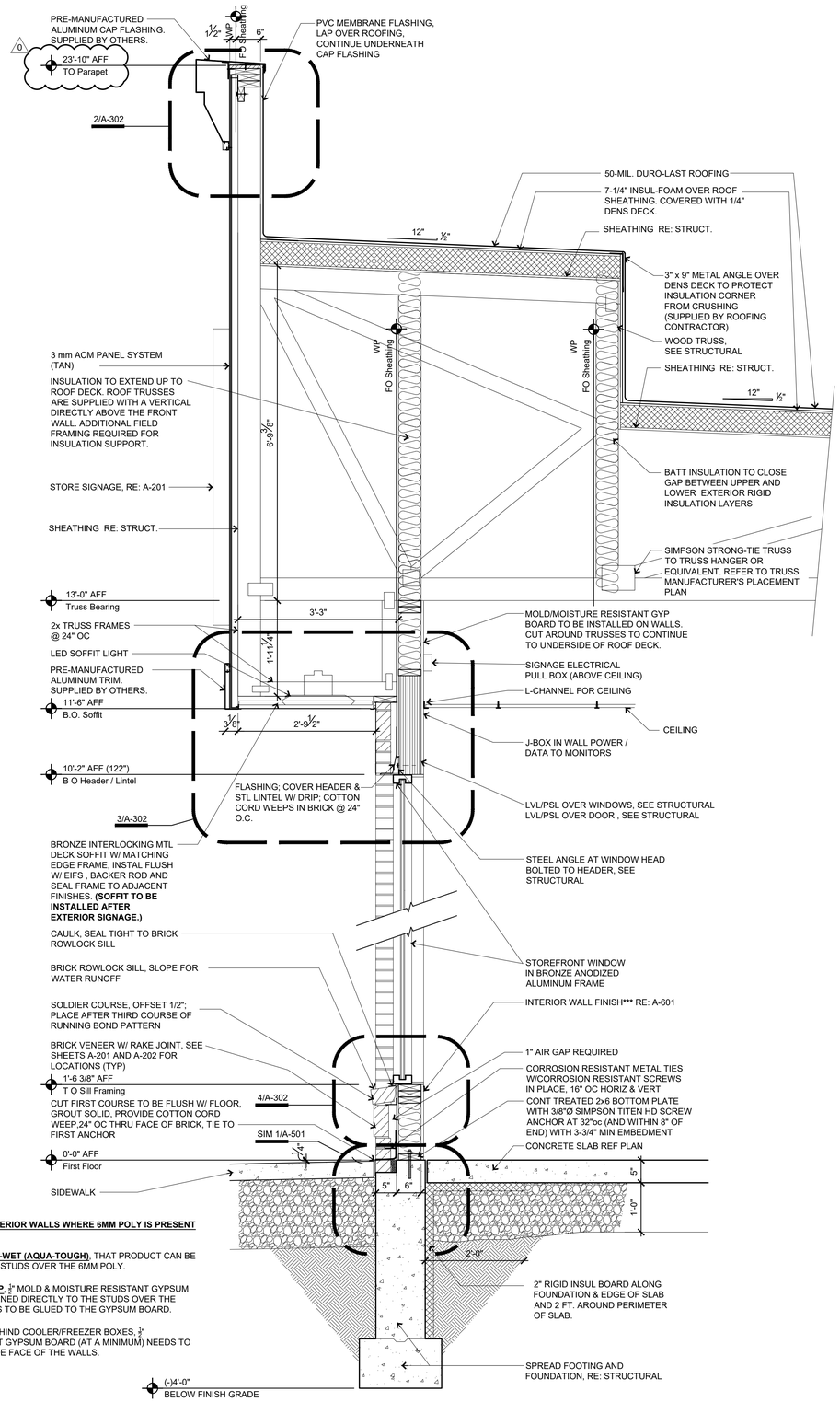
PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

0 10/13/2023

PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

DRAWING INFORMATION:
WALL SECTIONS
A-301

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***** WALL COVERINGS ON EXTERIOR WALLS WHERE 6MM POLY IS PRESENT OVER THE INSULATION:**

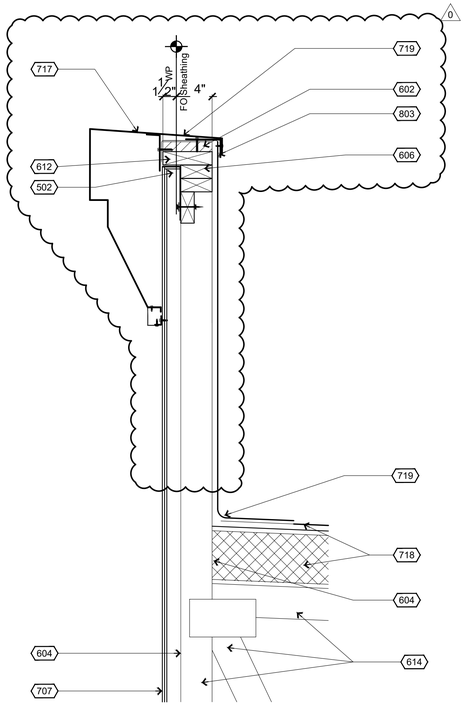
-WHERE A-601 CALLS OUT **GB-WET (AQUA-TOUGH)**, THAT PRODUCT CAN BE FASTENED DIRECTLY TO THE STUDS OVER THE 6MM POLY.

-WHERE A-601 CALLS OUT **FRP**, ¼" MOLD & MOISTURE RESISTANT GYPSUM BOARD NEEDS TO BE FASTENED DIRECTLY TO THE STUDS OVER THE 6MM POLY, THEN THE FRP IS TO BE GLUED TO THE GYPSUM BOARD.

-ON ALL EXTERIOR WALLS BEHIND COOLER/FREEZER BOXES, ¾" MOLD/MOISTURE RESISTANT GYPSUM BOARD (AT A MINIMUM) NEEDS TO BE INSTALLED ON THE INSIDE FACE OF THE WALLS.

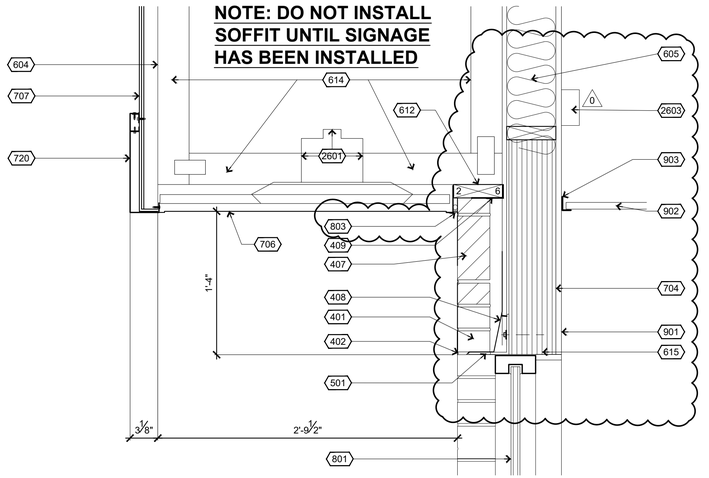
1 Front Wall Section

3/4"=1'-0"



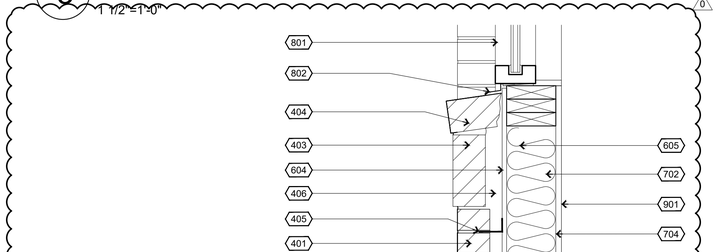
2 Front Parapet Detail

1 1/2"=1'-0"



3 Window Header Detail

1 1/2"=1'-0"



4 Window Sill Detail

1 1/2"=1'-0"

Keyed Construction Notes

DIVISION 4 - MASONRY

401 **FACE BRICK**: COLOR AS INDICATED ON ELEVATIONS, RUNNING BOND PATTERN (TYP) W/ RAKE JOINTS

402 **WEEP**: PROVIDE COTTON CORD WEEPS THROUGH MASONRY HEAD JOINTS IN BASE COURSE AND FIRST COURSE ABOVE ANY LINTEL OR RELIEF ANGLE; SET MIN 24" OC

403 **OFFSET SOLDIER COURSE**: 1/2"; PLACE AFTER FIFTH COURSE OF RUNNING BOND PATTERN W/ RAKE JOINTS

404 **ROWLOCK SILL**: WHERE INDICATED, SLOPE FOR WATER RUNOFF W/ RAKE JOINTS

405 CORROSION RESISTANT METAL MASONRY TIES, SCREWED IN PLACE WITH CORROSION RESISTANT SCREWS, 16" OC HORIZ & VERT, STAGGER EA VERTICAL ROW

406 MINIMUM 1" AIR GAP REQUIRED, KEEP BACK OF CAVITY FREE OF EXCESS MORTAR AND DEBRIS FOR PROPER PERFORMANCE

407 **SOLDIER COURSE**: FLUSH W/ FACE BRICK, CONTINUOUS ACROSS FRONT OF BUILDING OFFSET (SEE ELEVATIONS A-201)

408 **THRU WALL FLASHING**: "FLASH-VENT" BY YORK MFG OR EQUAL; ASPHALT FREE COPPER W/ NON-WOVEN FABRIC DRAINAGE MAT, 3 OZ, EXTEND BEYOND MASONRY FACE 1/2"

409 MASONRY ANCHORS (SEE NOTE 405) SET IN BED OF MORTAR ON TOP OF BRICK SOLDIER COURSE

DIVISION 5 - METALS

501 **LINTEL**: 4" x 4" x 1/4" STEEL LINTEL, FACTORY PRIMED; ANCHOR TO (3) LVL HEADER WITH 1/2"x4-1/2" LONG CORROSION RESISTANT LAG BOLTS @ 24" O.C.; PAINT FINISH TO MATCH DARK BRONZE WINDOW FRAME.

502 6"x6"x1/4"x12" STEEL ANGLE EVERY 3'. ANCHOR TO 2x BLOCKING AND THROUGH SHEATHING INTO 2x TOP PLATE

DIVISION 6 - WOOD, PLASTICS, COMPOSITES

602 PARAPET CAP FLASHING SUBSTRATE; 3/4" PLYWOOD

604 SHEATHING; RE: STRUCTURAL

605 WOOD STUD FRAMED WALL, 2X4 OR 2X6 AS INDICATED IN SECTIONS

606 DOUBLE 2X TOP PLATES

612 2X BLOCKING

614 **WOOD TRUSS**: NOM 2X TRUSS FRAMES @ 24" OC, DESIGNED BY MFG

615 **LVL/PSL HEADER**: SEE STRUCTURAL DRAWINGS

616 WOOD SILL & TRIM CASING, PROVIDED AND SPECIFIED BY CASEY'S

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

702 **BATT INSULATION**: FRICTION FIT INSULATION 6" R-19

704 **VAPOR BARRIER** (6 MILL): INSTALL VAPOR BARRIER BETWEEN STUDS AND INTERIOR WALL MATERIAL.

706 ALCOA/OR EQUAL ALUMINUM SOFFIT SYSTEM PROVIDE UNDER EAVE VENTS AS NECESSARY. DARK BRONZE IN COLOR. **INSTALL AFTER EXTERIOR SIGNAGE.**

707 3 mm ACM PANEL SYSTEM. (BTR RED)

717 PRE-MANUFACTURED ALUMINUM CAP FLASHING. SUPPLIED BY OTHERS.

718 MEMBRANE ROOFING: 50-MIL. DURO-LAST ROOFING OVER TOP OF 7-1/4" INSUL-FOAM, ON TOP OF SHEATHING (RE: STRUCT.) COVERED WITH 1/4" DENS DECK.

719 PARAPET FLASHING: COVER PARAPET NAILER WITH PVC MEMBRANE FLASHING, ROLL OVER BACK EDGE, CONTINUE DOWN VERTICAL FACE AND LAP OVER MEMBRANE ROOF PER MANUFACTURING INSTRUCTIONS, HEAT WELD ALL SEAMS.

720 PRE-MANUFACTURED ALUMINUM TRIM. SUPPLIED BY OTHERS.

DIVISION 8 - OPENINGS

801 STOREFRONT WINDOW IN BRONZE ANODIZED ALUMINUM FRAME

802 BRONZE SEALANT 0

803 BACKER ROD AND BRONZE SEALANT

DIVISION 9 - FINISHES

901 **WALL FINISH**: REFER TO FINISH SCHEDULE A-601 FOR FACE MATERIAL & FINISH

902 **LAY-IN CEILING PANELS**: REFER TO CEILING SCHEDULE A-111

903 L-CHANNEL CEILING EDGE

DIVISION 26 - ELECTRICAL

2601 LED SOFFIT LIGHT, SEE E-102, ELECTRICAL LIGHTING PLAN

2602 MONITOR AND MOUNTING BRACKET, ATTACH TO WALL. (CONTRACTOR TO INSTALL 4"x4" MOUNTING BRACKET)

2603 J-BOX ABOVE HEADER FOR POWER/DATA TO MONITORS, SEE TECHNOLOGY SHEETS

STATE OF MISSOURI
SHANE L. LARSEN
NUMBER A-2019032132
11/9/23
ARCHITECT

Casey's

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COA Number CA0666

PROJECT:
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LEE'S SUMMIT, MO
2023 – U4 – V.01

0 REVISED ON: 10/13/2023

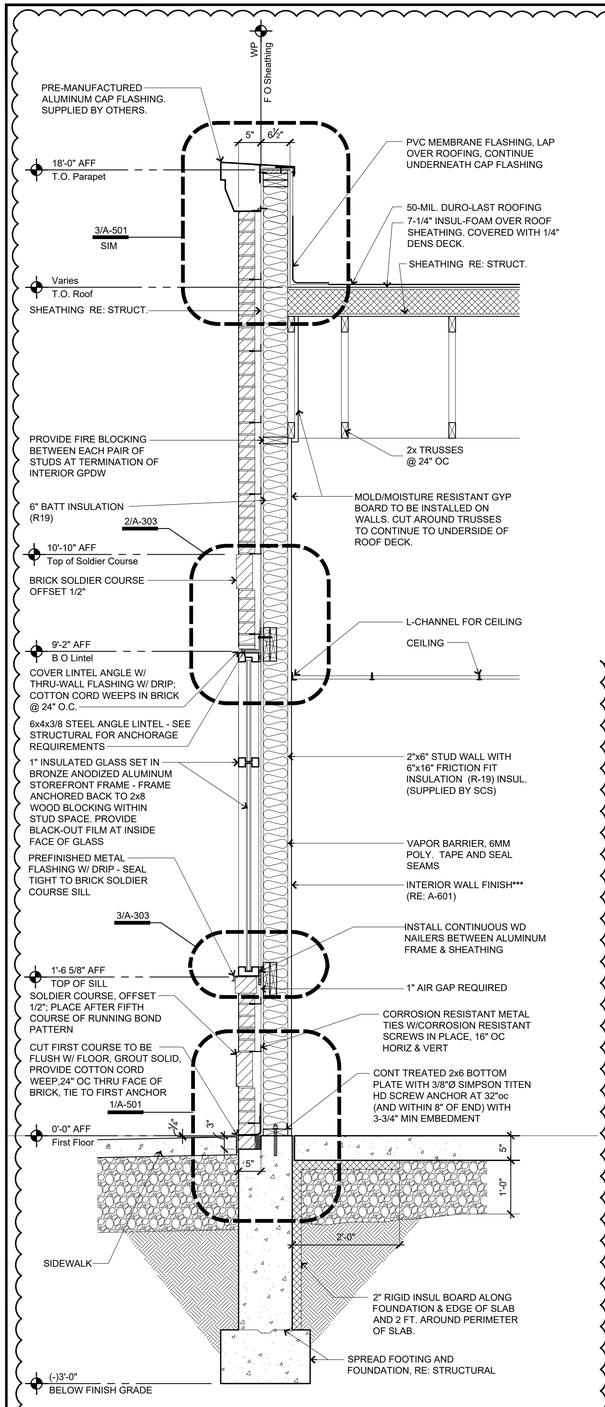
PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

PUBLISHED:
DRAWING INFORMATION:

WALL SECTIONS

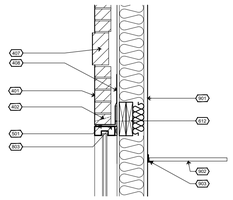
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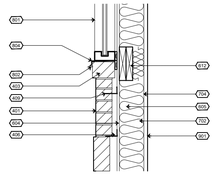
1 Side Wall Faux Window Section

3/4"=1'-0"



2 Faux Window Head Detail

3/4"=1'-0"



3 Faux Window Sill Detail

3/4"=1'-0"

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Keyed Construction Notes

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404 (NOT USED)

405 CORROSION RESISTANT METAL MASONRY TIES, SCREWED IN PLACE WITH CORROSION RESISTANT SCREWS, 16" OC HORIZ & VERT, STAGGER EA VERTICAL ROW

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409 MASONRY ANCHORS (SEE NOTE 405) SET IN BED OF MORTAR ON TOP OF BRICK SOLDIER COURSE

DIVISION 5 - METALS

501 **STEEL LINTEL**: ANCHOR BACK TO STRUCTURAL HEADER - SEE STRUCTURAL FOR ANCHORAGE & HEADER REQUIREMENTS; PRIME & PAINT TO MATCH DARK BRONZE WINDOW FRAME.

DIVISION 6 - WOOD, PLASTICS, COMPOSITES

602 PARAPET CAP FLASHING SUBSTRATE; 3/4" PLYWOOD

604 SHEATHING; RE: STRUCTURAL

605 WOOD STUD FRAMED WALL, 2X4 OR 2X6 AS INDICATED IN SECTIONS

606 TRIPLE 2X TOP PLATES

612 DBL 2x8 BLOCKING FOR FULL LENGTH OF WINDOW OPENING.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

702 **BATT INSULATION**: FRICTION FIT INSULATION 5 1/2" R-24

704 **VAPOR BARRIER** (6 MIL): INSTALL VAPOR BARRIER BETWEEN STUDS AND INTERIOR WALL MATERIAL.

717 PRE-MANUFACTURED ALUMINUM CAP FLASHING. SUPPLIED BY OTHERS.

719 **PARAPET FLASHING:** COVER PARAPET NAILER WITH PVC MEMBRANE FLASHING, ROLL OVER BACK EDGE, CONTINUE DOWN VERTICAL FACE AND LAP OVER MEMBRANE ROOF PER MANUFACTURING INSTRUCTIONS, HEAT WELD ALL SEAMS.

720 BACKER ROD & SEALANT.

DIVISION 8 - OPENINGS

801 ALUMINUM STOREFRONT FRAME - BRONZE ANODIZED FINISH.

802 BRONZE SEALANT INSTALLED BELOW DRIP EDGE.

803 ALUMINUM CLIP ANGLES BY WINDOW MFG. TO ANCHOR WINDOW FRAME BACK TO WOOD BLOCKING.

804 METAL FLASHING WITH DRIP EDGE.

DIVISION 9 - FINISHES

901 **WALL FINISH**: REFER TO FINISH SCHEDULE A-601 FOR FACE MATERIAL & FINISH

902 **LAY-IN CEILING PANELS**: REFER TO CEILING SCHEDULE A-111

903 L-CHANNEL CEILING EDGE

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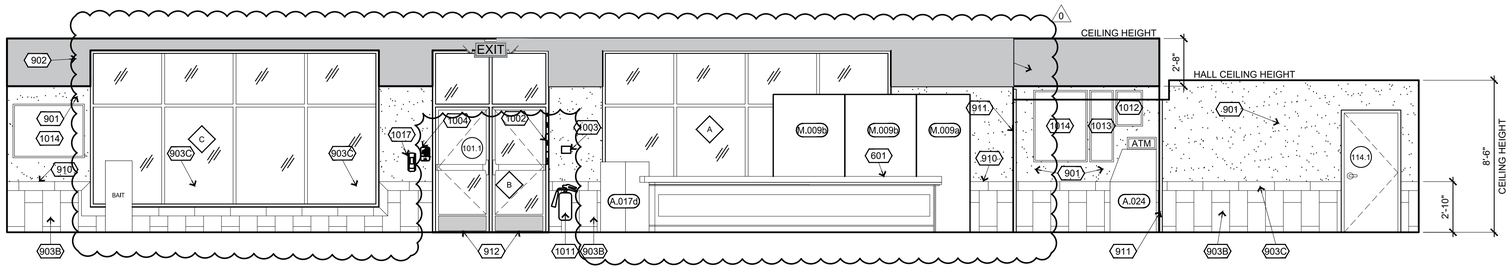
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REVISED ON: 0

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PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

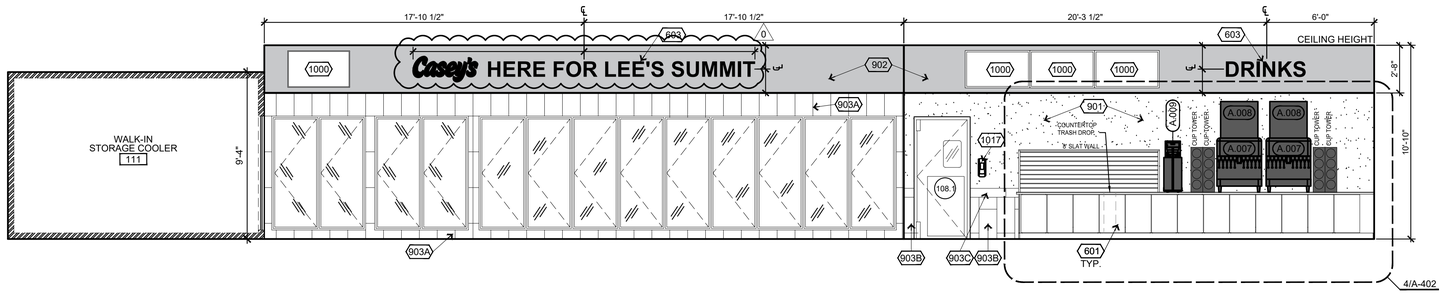
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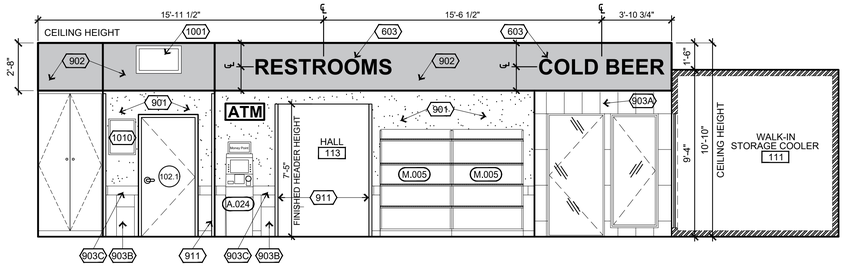
1 Retail Floor 101, Plan South

1/4" = 1'-0"



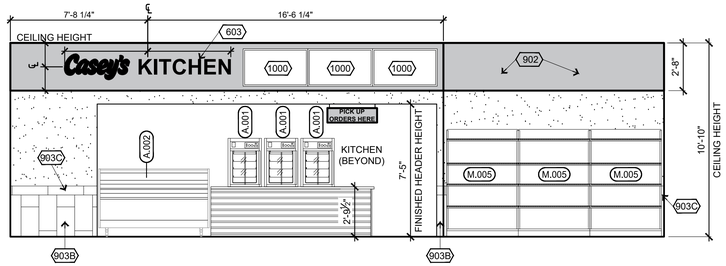
2 Retail Floor 101, Plan North

1/4" = 1'-0"



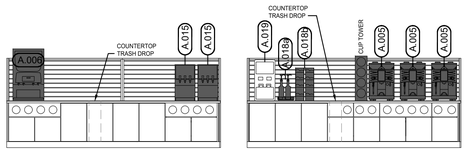
3 Retail Floor 101, Plan West

1/4" = 1'-0"



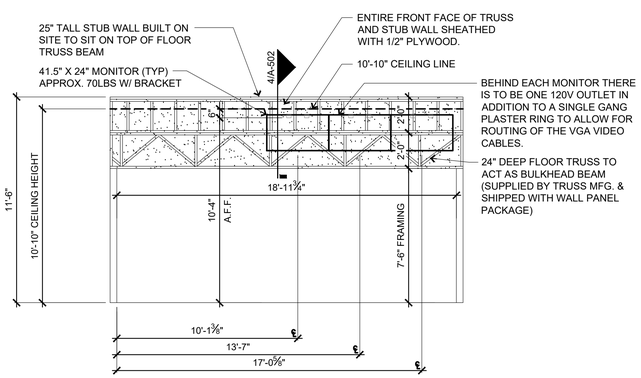
4 Retail Floor 101, Plan East

1/4" = 1'-0"



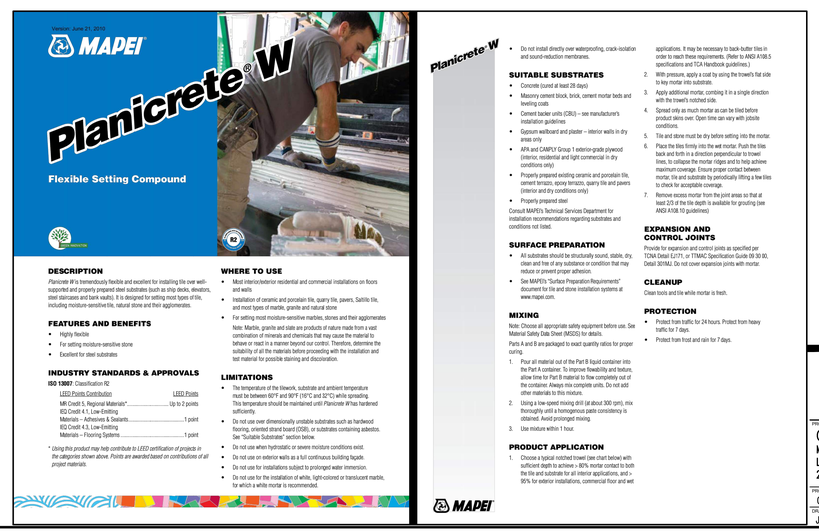
5 Retail Floor 101, Hot Beverage Island Elevs.

1/4" = 1'-0"



6 Retail Floor 101, Plan East - Floor Type Truss

1/4" = 1'-0"



General Notes

NOTE: REFER TO SHEET AQ-101 FOR ADDITIONAL EQUIPMENT INDENTIFICATION.

Keyed Construction Notes

DIVISION 6 - WOOD, PLASTICS, AND COMPOSITES

601 PRE-ASSEMBLED CASEWORK WITH 1-1/2" T. CORIAN SOLID SURFACE COUNTERTOP. SET LEVEL AND ANCHOR TO FLOOR.

602 1 1/2" T. CORIAN SOLID SURFACE WALL CAP.

603 10" TALL LETTERING. FONT: BRANDON TEXT-BLACK; 13mm WHITE EPVC. (CITY NAME CHANGES PER LOCATION)

DIVISION 9 - FINISHES

901 5/8" USG FIBEROCK MOISTURE AND MOLD RESISTANT WITH "CASEYS GREY" PAINT FINISH. SEE FINISH SCHEDULE, A-601 FOR PAINT INFORMATION.

902 5/8" USG FIBEROCK MOISTURE AND MOLD RESISTANT WITH "CASEYS NEW RED 2020" PAINT FINISH. SEE FINISH SCHEDULE, A-601 FOR PAINT INFORMATION

903
- A. CERAMIC TILE (KIMONA SILK P327 PANDA BLACK 12"x24" DALTILE PART# P32712241PK) VERTICAL BRICK SHALL BE SET WITH LIGHTWEIGHT MORTAR WITH 1/4" TROWEL. GROUT: #47 CHARCOAL. TILE SUPPLIED BY OWNER AND INSTALLED BY FLOORING CONTRACTOR.
- B. CERAMIC TILE (WAINSCOTTING - IRONCRAFT IC13 CHARCOAL GRAY 12"x24" PART# IC1312241PK) VERTICAL BRICK SHALL BE SET WITH LIGHTWEIGHT MORTAR WITH 1/4" TROWEL. GROUT: #47 CHARCOAL. TILE SUPPLIED BY OWNER AND INSTALLED BY FLOORING CONTRACTOR.
- C. CERAMIC TILE (KIMONA SILK P327 PANDA BLACK 6"x24" CUT FROM 12"x24" DALTILE PART# P32712241PK) VERTICAL BRICK SHALL BE SET WITH LIGHTWEIGHT MORTAR WITH 1/4" TROWEL. GROUT: #47 CHARCOAL. TILE SUPPLIED BY OWNER AND INSTALLED BY FLOORING CONTRACTOR.

910 TILE BULLNOSE SHALL BE SET WITH LIGHTWEIGHT MORTOR WITH 1/4" TROWEL. SCHLUTER TILE EDGE TO BE INSTALLED ON TOP OF BAND. TILE SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR.

911 2"x2"x8' PLASTIC OUTSIDE CORNERS TO BE SUPPLIED BY CASEYS & INSTALLED BY CONTRACTOR AFTER FINISHED WALL COVERINGS & PAINT IS COMPLETE. CUT TO FIT HEADER ON RESTROOM HALLWAY CORNERS. INSTALL FULL 8' PIECE ON CORNER BY THE DONUT CASE. INSTALL PRIOR TO WALL GRAPHICS BY THE DONUT CASE.

912 10" KICK PLATE

913 SCHLUTER TILE EDGE TO BE INSTALLED @ WALL OPENINGS.

DIVISION 10 - SPECIALTIES

1000 **49" DIGITAL MENU BOARDS:** MOUNT TO 3/4" PLYWOOD SHEETING. COORDINATE WIRING WITH ELECTRICAL.

1001 **SECURITY MONITOR:** MOUNT TO RECESSED BRACING IN WALL. COORDINATE WIRING WITH ELECTRICAL. REF. SHEET T-101 FOR MORE INFO.

1002 DOOR SECURITY CAMERA. REF. SHEET T-101 FOR MORE INFO.

1003 SECURITY KEYPAD. REF. SHEET T-101 FOR MORE INFO.

1004 TACTILE SIGN. REF. SHEET G-011 FOR MORE INFO.

1009 SQUARE TRASH RECEPTACLE (24"x24"x48")

1010 18"X24" VERTICAL BULLETIN BOARD MOUNT 55" TO BOTTOM A.F.F.

1011 10 LB. ABC 4-A-8BC FIRE EXTINGUISHER 32" TO HANDLE A.F.F.

1012 18"X24" VERTICAL BULLETIN BOARD MOUNT 85" TO BOTTOM A.F.F.

1013 16"X48" VERTICAL BULLETIN BOARD MOUNT 36" TO BOTTOM A.F.F.

1014 36"X48" VERTICAL BULLETIN BOARD MOUNTED 50" A.F.F.

1015 DRYWALL CONTROL JOINTS ABOVE COOLER DOORS.

1016 EMERGENCY PULL STATION MOUNT 48" TO CENTER OF OCTAGON BOX.

1017 WALL MOUNTED HAND SANITIZER. 48" TO CENTER A.F.F.

DIVISION 12 - FURNISHINGS

1201 OWNER SUPPLIED TABLE & CHAIRS.



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COA Number CA0066

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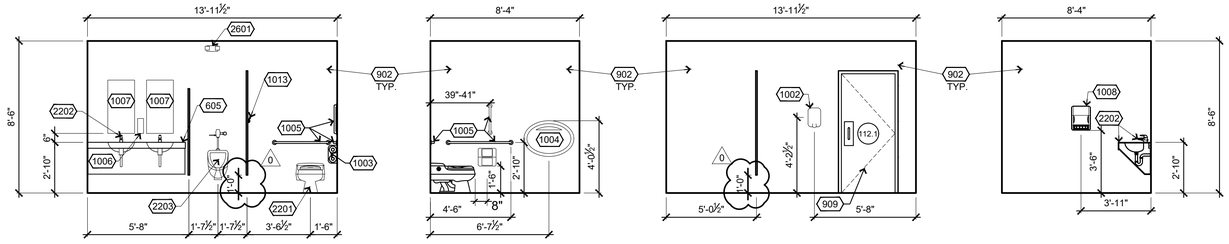
PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

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INTERIOR ELEVATIONS

A-401

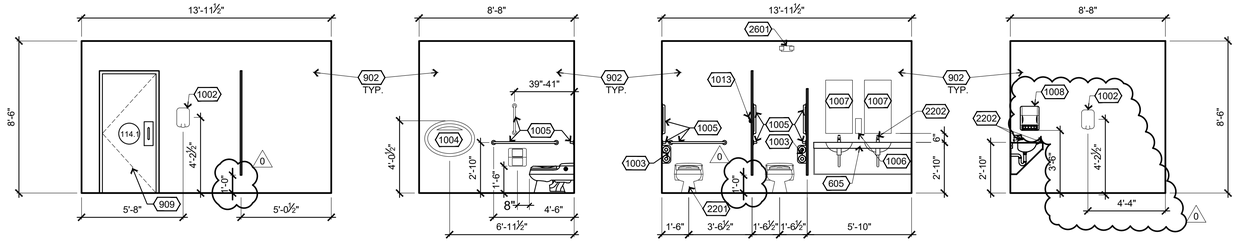
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1 Men's Restroom 112

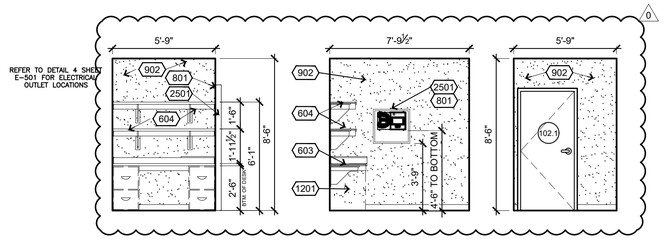
1/4" = 1'-0"

NOTE:
ADA REQUIRES CENTER OF TOILET PAPER DISPENSER TO BE BETWEEN 7" TO 9" IN FRONT OF THE FRONT EDGE OF THE WATER CLOSET..



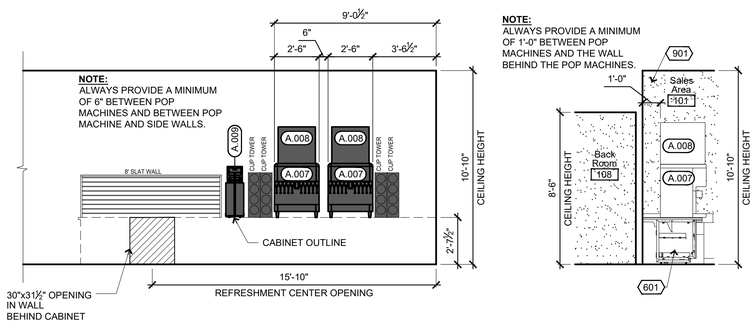
2 Women's Restroom 114

1/4" = 1'-0"



3 Manager's Office 102

1/4" = 1'-0"



4 Refreshment Center 101.1

1/4" = 1'-0"

General Notes

NOTE: REFER TO SHEET AQ-101 FOR ADDITIONAL EQUIPMENT INDENTIFICATION.

Keyed Construction Notes Cont.

DIVISION 6 - WOOD, PLASTICS, AND COMPOSITES

601 PRE-ASSEMBLIED CASEWORK WITH 1-1/2" T. CORIAN SOLID SURFACE COUNTERTOP. SET LEVEL AND ANCHOR TO FLOOR.

602 1 1/2" T. CORIAN SOLID SURFACE WALL CAP.

603 24" W. WOOD COUNTERTOP WITH PLAM FINISH AND ANCHORED WITH METAL WALL BRACKETS.

604 WOOD SHELF WITH PLAM FINISH.SUPPORTED ON 1x3 WOOD WALL CLIPS.

605 NEW SOLID SURFACE ONE PIECE COUNTERTOP WITH INTEGRAL BOWL. SUPPLIED BY OWNER. CTOP HEIGHT = 34" A.F.F..

DIVISION 8 - OPENINGS

801 **TLS/450 DOOR**: INSTALL OVER VEEDER ROOT. DOOR SUPPLIED BY CASEWORK INSTALLER.

DIVISION 9 - FINISHES

0 901 5/8" USG FIBEROCK MOISTURE AND MOLD RESISTANT WITH "CASEYS GREY" PAINT FINISH. SEE FINISH SCHEDULE, A-601 FOR PAINT INFORMATION.

902 FRP BOARD. SEE FINISH SCHEDULE, A-601 FOR MORE INFORMATION

905 PROVIDE GYP-BOARD (GREEN) INTERIOR PANELS FOR TILE BACKING & PAINT FINISH. SEE FINISH SCHEDULE, A-601 FOR MORE INFORMATION.

906 MIRROR TILE PATTERN AT INSIDE CORNER OF WALLS.

909 METAL DOOR FRAMES INSTALLED PRIOR TO TILE WORK. SEE SHT A-601 FOR DOOR SCHEDULE NOTES.

DIVISION 10 - SPECIALTIES

1002 **HIGH SPEED TOUCH FREE SENSOR HAND DRYER**: WALL MOUNTED SET 3'-8" A.F.F.

1003 **DOUBLE 9" TOILET PAPER HOLDER:** WALL MOUNTED 32" TO TOP, 8" IN FRONT OF WATER CLOSET TO CENTER OF DISPENSER.

1004 **BABY CHANGING STATION:** HORIZONTAL WALL-MOUNTED. COORDINATE MOUNTING HEIGHT WITH MANUFACTURERS SPECIFICATIONS.

1005 1-1/2"Ø STAINLESS STEEL (SATIN FINISH) GRAB BARS WITH CONCEALED ANCHORS TO WALL BLOCKING AND TOILET PARTITION PANELS. MOUNT CENTERLINE AT 34-1/2" A.F.F.. SIDE WALL GRAB BAR SHALL BE 42" LONG LOCATED 12" MAX. FROM REAR WALL AND EXTENDING 54 MIN. FROM THE REAR WALL. REAR WALL GRAB BAR SHALL BE 36" LONG AND EXTEND FROM THE CENTERLINE OF TOILET12" MIN. ON ONE SIDE AND 24" MIN. ON THE OTHER SIDE. VERTICAL GRAB BAR SHALL BE 18" TALL AND PLACED AS SHOWN IN ELEVATION.

1006 **SOAP DISPENSER:** SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR.

1007 INSTALL MIRROR INVERTED SO THAT THE SCREWS ARE TOWARDS THE TOP. BOTTOM EDGE OF VISIBLE PORTION OF MIRROR TO BE SET AT 40" A.F.F.

1008 RECESSED ELECTRONIC HANDS-FREE TOWEL DISPENSER: SUPPLIED BY OWNER, MOUNT BOTTOM OF DISPENSER 3'-6" A.F.F.

1013 COAT HOOK ON BATHROOM PARTITION DOOR. MOUNT 48" A.F.F.

DIVISION 12 - FURNISHINGS

1202 2-DRAWER METAL FILE CABINET SUPPLIED BY OWNER.

DIVISION 22 - PLUMBING

2201 FLOOR-MOUNTED WATER CLOSETS W/ AUTOMATIC FLUSH. REQUIRED 17" TO TOP OF RIM. APPLY SEALANT AROUND FIXTURE AT JOINT WITH FLOOR. SEE PLUMBING, SHEET P-501.

2202 INSTALL FAUCET IN SOLID SURFACE COUNTERTOP. INSTALL ADA APRON ENCLOSURE UNDER VANITY. SEE 2/ P-501 FOR DETAILS.

2203 WALL-MOUNT URINAL W/ AUTOMATIC FLUSH. REQUIRED 17" TO TOP OF RIM. APPLY SEALANT AROUND FIXTURE AT JOINT WITH WALL. SEE PLUMBING, SHEET P-501.

DIVISION 25 - INTEGRATED AUTOMATION

2501 RECESSED VEEDER ROOT TANK MONITOR SYSTEM. SPECIFICATIONS PROVIDED BY OWNER. REFER TO DETAIL, SHEET 5/E-501.

DIVISION 26 - ELECTRICAL

2601 EMERGENCY LIGHTING UNIT. SEE LIGHTING PLAN, SHEET E-102.



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PROJECT
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LEE'S SUMMIT, MO
2023 - U4 - V.01

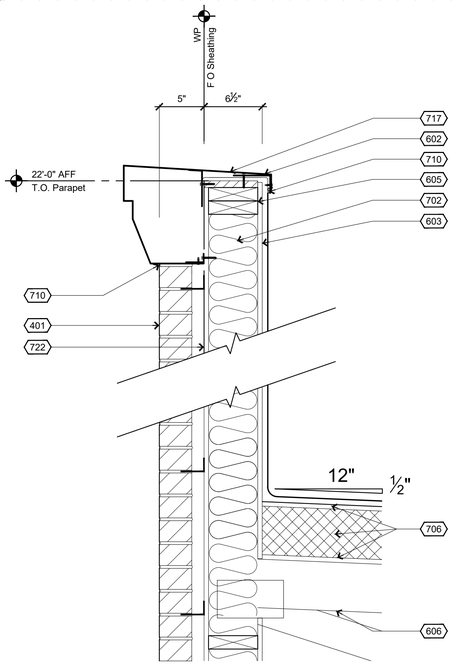
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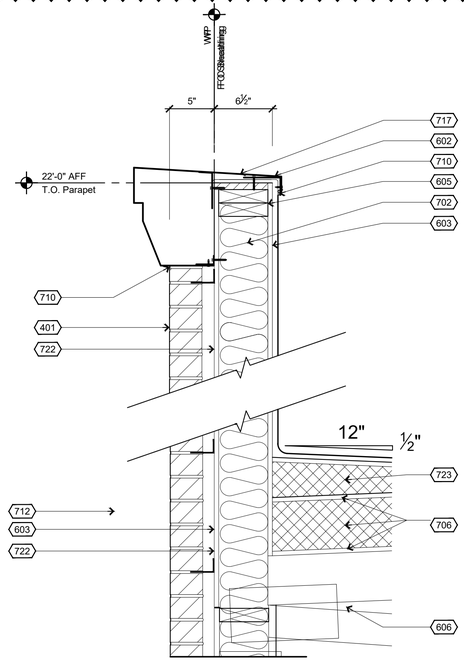
DRAWING INFORMATION
INTERIOR ELEVATIONS
A-402

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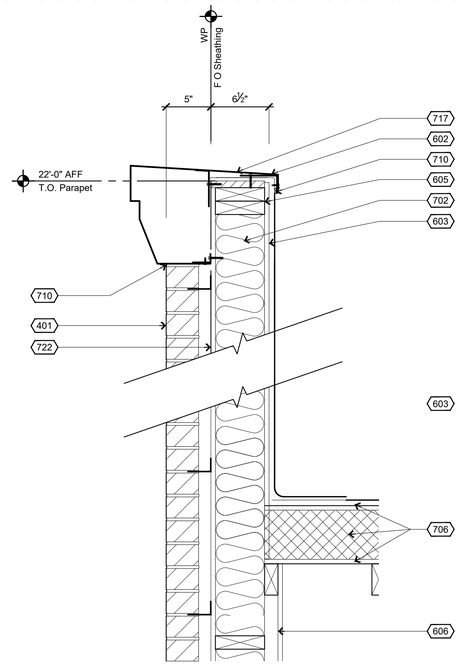
8 Top of Wall Detail (Front)

1 1/2"=1'-0"



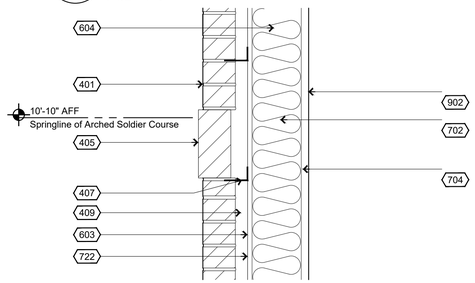
6 Top of Wall Detail (Rear)

1 1/2"=1'-0"



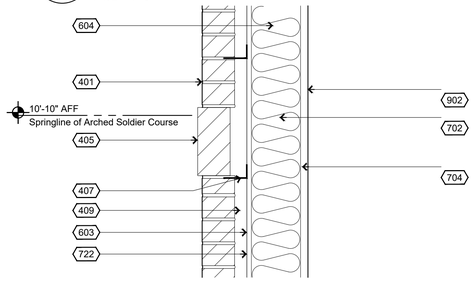
3 Top of Wall Detail (Side)

1 1/2"=1'-0"



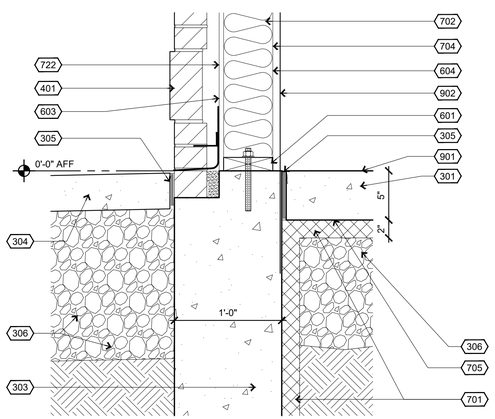
5 Wall Detail (Rear)

1 1/2"=1'-0"



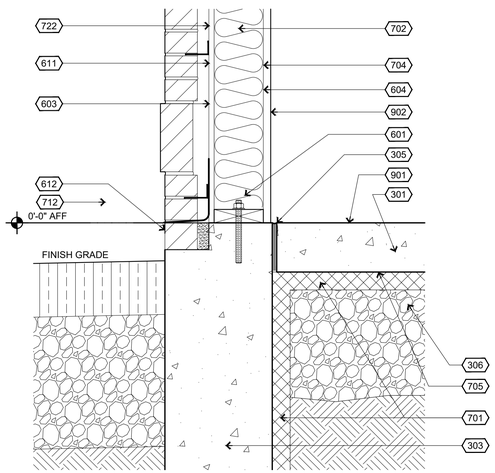
2 Wall Detail (Side)

1 1/2"=1'-0"



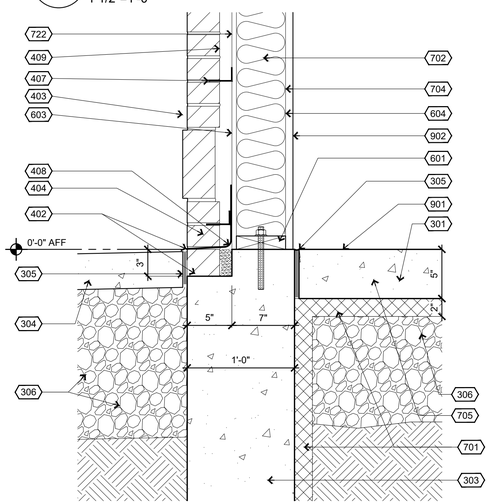
7 Wall Base Condition Detail

1 1/2"=1'-0"



4 Wall Base Condition Detail/Rear

1 1/2"=1'-0"



1 Wall Base Condition Detail

1 1/2"=1'-0"

Keyed Construction Notes

DIVISION 3 - CONCRETE

301 **CONCRETE SLAB**: SEE STRUCTURAL DRAWINGS (S-SERIES SHEETS) FOR ADDITIONAL INFORMATION INCLUDING REINFORCING AND CONC SPECS

302 BRICK LEDGE.

303 **FOUNDATION WALL**: SEE STRUCTURAL DRAWINGS (S-SERIES SHEETS) FOR ADDITIONAL INFORMATION INCLUDING REINFORCING AND CONC SPECS

304 SIDEWALK OR EXTERIOR EQUIPMENT PAD: SEE STRUCTURAL DRAWINGS (S-SERIES SHEETS) FOR ADDITIONAL INFORMATION INCLUDING REINFORCING AND CONC SPECS

305 COMPRESSIBLE FILLER STRIP, 1/2" OFFSET TO CONC SLAB, APPLY SEALANT

306 ROCK SUB-BASE, MIN 12", REFER TO STRUCTURAL DRAWINGS FOR EXACT THICKNESS AND SPECIFICATIONS AT EACH LOCATION

DIVISION 4 - MASONRY

401 **FACE BRICK**: COLOR AS INDICATED ON ELEVATIONS, RUNNING BOND PATTERN (TYP) W/ RAKE JOINTS

402 **STARTER COURSE**: PROVIDE THICKENED BED OF MORTAR TO ALLOW LEVELING TOP OF STARTER COURSE FLUSH W/ FINISHED CONC SLAB

403 **OFFSET SOLDIER COURSE**: 1/2"; PLACE AFTER FIFTH COURSE OF RUNNING BOND PATTERN W/ RAKE JOINTS

404 **WEEP & FLASHING**: PROVIDE COTTON CORD WEEPS THROUGH MASONRY HEAD JOINTS ON TOP OF FLASHING AT APPROXIMATELY 1" ABOVE SIDEWALK AND FIRST COURSE ABOVE ANY LINTEL OR RELIEF ANGLE; SET MIN 24" OC. FLASHING TO BE SELF ADHESIVE 18" VINYL FLASHING. INSTALL APPROXIMATELY 18" ABOVE BRICK LEDGE, AND FIRST COURSE ABOVE ANY LINTEL OR RELIEF ANGLE. FLASHING SHOULD BE INSTALLED UNDER TYVEK.

405 **OFFSET SOLDIER COURSE**: WHERE INDICATED W/ RAKE JOINTS

406 **ROWLOCK SILL**: WHERE INDICATED, SLOPE FOR WATER RUNOFF W/ RAKE JOINTS

407 CORROSION RESISTANT METAL MASONRY TIES, SCREWED IN PLACE USING CORROSION RESISTANT SCREWS, 16" OC HORIZ & VERT, STAGGER EACH VERTICAL ROW.

408 **THRU WALL FLASHING**: 'FLASH-VENT' BY YORK MFG OR EQUAL; ASPHALT FREE COPPER W/ NON-WOVEN FABRIC DRAINAGE MAT, 3 OZ, EXTEND BEYOND MASONRY FACE 1/2"

409 MINIMUM 1" AIR GAP REQUIRED, KEEP BACK OF CAVITY FREE OF EXCESS MORTAR AND DEBRIS FOR PROPER DRAINAGE PERFORMANCE

410 SYNTHETIC MORTAR DEFLECTION MAT, PLACE CONTINUOUSLY AT BASE OF CAVITY

411 **STACKED CULTURED STONE VENEER:** ADHERED CULTURED STONE VENEER ON VENEER MORTAR BED ON VENEER SCRATCH COAT ON LATH THAT IS TO BE CONT. MIN. 16" FROM EACH CORNER ON WEATHER RESISTANT BARRIER ON EXTERIOR GRADE SHEATHING. COLOR OF STONE VENEER AS INDICATED ON ELEVATION, PATTERN WILL WILL CONSIST OF MIXING FROM SEVERAL BOXES

DIVISION 5 - METALS

501 6"x6"x1/4"x12" STEEL ANGLE EVERY 3'. ANCHOR TO 2x BLOCKING AND THROUGH SHEATHING INTO 2x TOP PLATE

DIVISION 6 - WOOD, PLASTICS, COMPOSITES

601 **SILL PLATE**: TREATED (WOLMANIZED) WOOD PLATE ANCHORED WITH 3/8" SIMPSON TITEN HD SCREW ANCHOR AT 32" OC (AND WITHIN 8" OF END) WITH 3-3/4" MIN EMBEDMENT

602 PARAPET CAP FLASHING SUBSTRATE; 3/4" PLYWOOD (NOT TREATED)

603 **SHEATHING:** SUPPLIED BY SCS

604 WOOD STUD FRAMED WALL, 2x8 OR 2x6 AS INDICATED IN SECTIONS

605 DOUBLE 2x TOP PLATES (NOT TREATED)

606 WOOD TRUSS: NOMINAL 2x TRUSS FRAMES @ 24" O.C., DESIGNED BY MANUFACTURER ; RE: STRUCTURAL DRAWINGS FOR MORE INFORMATION

607 PROVIDE 1" x 10" FASCIA BOARD

608 2X BLOCKING (NOT TREATED)

609 **WALL FRAMING**: WOOD STUDS, 2x8 TYP, 2x6 FOR EXTERIOR WALL FRAMING.

610 4, STACKED 2x4's INSTALLED BY ROOFING CONTRACTOR.

611 1-1/2" STEEL SHEATING. ATTACHED TO 1/2" EXTERIOR O.S.B.

612 J-CHANEL FOR STEEL SHEETING.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

701 **PERIMETER INSULATION**: 2" RIGID INSULATION BOARD, PROVIDE CONTINUOUS INSULATION ON INSIDE VERT FACE OF FOUNDATION AND EXTEND HORIZ 24" AROUND PERIMETER OF CONC SLAB

702 **BATT INSULATION**: FRICTION FIT INSULATION 6" R-19

704 **VAPOR BARRIER** (6 MILL POLY - TAPE AND SEAL SEAMS): INSTALL VAPOR BARRIER BETWEEN STUDS AND INTERIOR WALL MATERIAL.

705 **VAPOR BARRIER (**MIN 15 MILL): INSTALL VAPOR BARRIER UNDERNEATH ENTIRE SLAB, SEAL ALL PENETRATIONS WITH COLLARS FROM SAME MATERIAL & MFG APPROVED TAPE

706 ROOF DECK AND INSULATION: INSTALL 7 1/4" POLYURETHANE STRUCTURAL INSULATED PANEL (SIP) (R-33) AS MANUFACTURED.

710 BACKER ROD & SEALANT: BRONZE.

711 **BOX GUTTER**: PRE-FINISHED METAL GUTTER WITH FASCIA BRACKET, INSTALL OVER ROOF MEMBRANE TERMINATED ON EACH FASCIA.

712 **DOWNSPOUT**: PRE-FINISHED METAL DOWNSPOUT. ANCHOR AS DIRECTED BY MFG, WITH STRAP BRACKET SUPPLIED BY MFGR.

713 **DRIP EDGE:** INSTALL PRE-FINISHED (DARK BRONZE) METAL DRIP OVER BASE COURSE TPO MEMBRANE ROOFING

714 FASCIA TRIM: INSTALL PRE-FINISHED (DARK BRONZE) METAL TRIM OVER FASCIA BOARD; PROVIDE DRIP ON BOTTOM EDGE, WRAP AROUND BACK AND TERMINATED BEHIND EIFS.

715 PRE-MANUFACTURED ALUMINUM CAP FLASHING. SUPPLIED BY OTHERS.

716 PARAPET FLASHING: COVER PARAPET NAILER WITH PVC MEMBRANE FLASHING, ROLL OVER BACK EDGE, CONTINUE DOWN VERTICAL FACE AND LAP OVER MEMBRANE ROOF PER MANUFACTURING INSTRUCTIONS, HEAT WELD ALL SEAMS.

717 TURN DOWN TPO MEMBRANE OVER FASCIA BOARD, LAP OVER METAL TRIM AND NAIL-OFF, APPLY CONTINUOUS BEAD OF SEALANT.

719 MEMBRANE EDGE FLASHING STRIP, LAP OVER METAL DRIP EDGE (NOTE 713) AND HEAT WELD TO PRIMARY ROOF MEMBRANE.

721 WEEP SCREED

722 WATER RESISTANT BARRIER (2 LAYERS) 0

723 TAPERED INSULATION, SLOPE TO ROOF DRAINS SEE A-121

DIVISION 9 - FINISHES

901 **FLOOR FINISH**: REFER TO FINISH SCHEDULE, A-601 FOR MATERIAL FACE AND FINISH REQUIREMENTS

902 **WALL FINISH**: REFER TO FINISH SCHEDULE A-601, (WALL FACING MATERIAL)

STATE OF MISSOURI
SHANE L. LARSEN
NUMBER A-2019032132
11/9/23
ARCHITECT

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COA Number C40666

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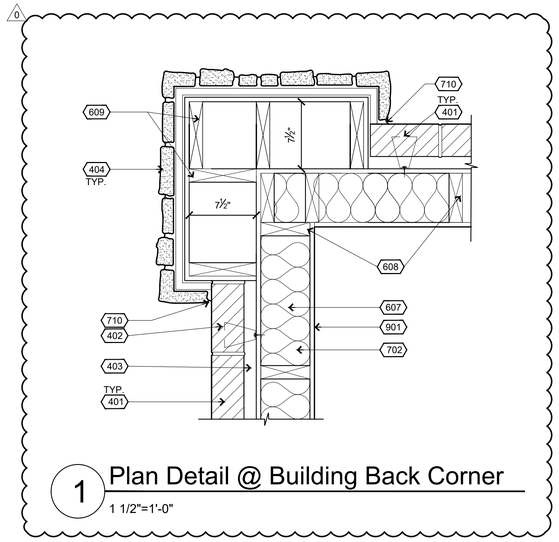
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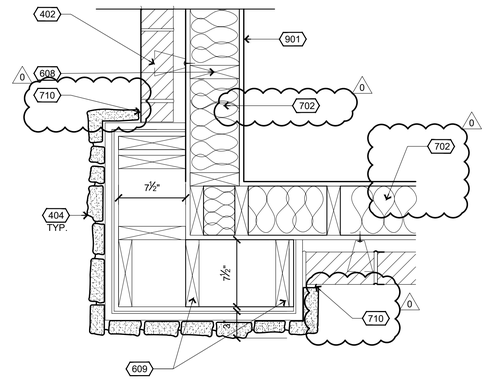
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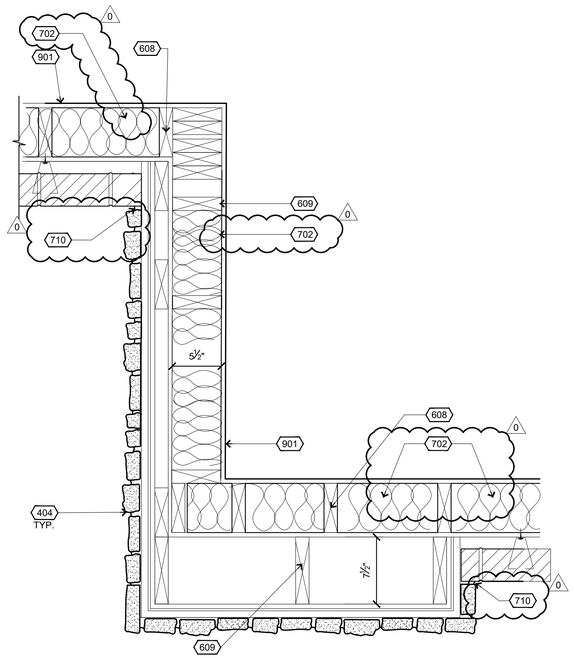
1 Plan Detail @ Building Back Corner

1 1/2"=1'-0"



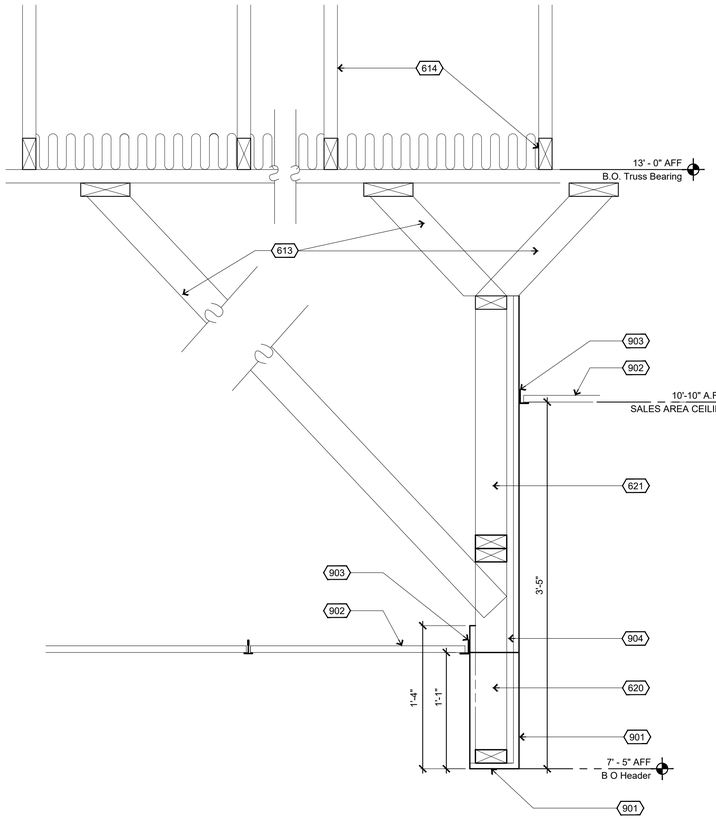
2 Plan Detail @ Building Corner

1 1/2"=1'-0"



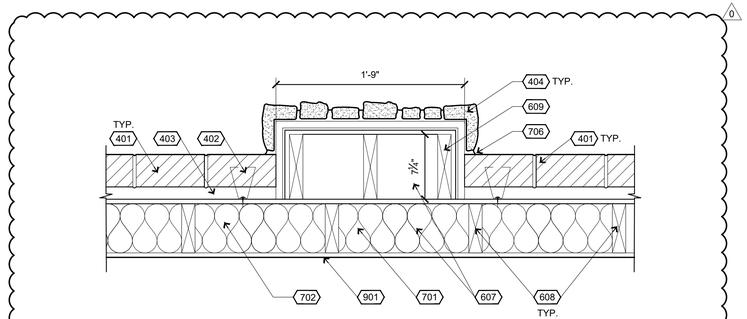
3 Plan Detail @ Building Bump Out

1 1/2"=1'-0"



4 Kitchen Bulkhead Detail

1 1/2"=1'-0"



5 Plan Detail @ Rear Wall Pilaster

1 1/2"=1'-0"

Keyed Construction Notes

DIVISION 4 - MASONRY

401 **FACE BRICK**: COLOR AS INDICATED ON ELEVATIONS, RUNNING BOND PATTERN (TYP) W/ RAKE JOINTS

402 CORROSION RESISTANT METAL MASONRY TIES, SCREWED IN PLACE, 16" OC HORIZ & VERT, STAGGER EA COLUMN

403 MINIMUM 1" AIR GAP REQUIRED, KEEP BACK OF CAVITY FREE OF EXCESS MORTAR AND DEBRIS FOR PROPER PERFORMANCE

404 **STACKED CULTURED STONE VENEER:** ADHERED CULTURED STONE VENEER ON VENEER MORTAR BED ON VENEER SCRATCH COAT ON LATH THAT IS TO BE CONT. MIN. 16" FROM EACH CORNER ON WEATHER RESISTANT BARRIER ON EXTERIOR GRADE SHEATHING. COLOR OF STONE VENEER AS INDICATED ON ELEVATION, PATTERN WILL WILL CONSIST OF MIXING FROM SEVERAL BOXES

DIVISION 6 - WOOD, PLASTICS, COMPOSITES

607 **SILL PLATE**: TREATED (WOLMANIZED) WOOD PLATE SHOT TO CONC SLAB W/ 2"X1/2" PIN, 24" OC; SIZE EITHER 2x4 OR 2x6 PER LOCATION, RE: PLANS & SECTIONS

608 **WALL FRAMING**: WOOD STUDS, 2x8 TYP, 2x6 FOR EXTERIOR WALL FRAMING.

609 PROVIDE 2x8 STUD WALL TO FRAME WALL BUMP ON ENDS OF FRONT WALL EXTENSION AND FRONT CORNERS.

613 **BRACING**: 2X4 WOOD FRAMING, PROVIDE KICKER BRACES TO KEEP TRUSS BEAM VERTICAL.

614 **WOOD TRUSS**: NOM 2X TRUSS FRAMES @ 24" OC, DESIGNED BY MFG

620 24" TALL 4X2 FLOOR TRUSS STYLE TRUSS BEAM TO SPAN FROM MANAGER'S OFFICE WALL ACROSS DELI AREA TO FRONT WALL OF CUSTODIAN ROOM.
PROVIDE 3 3/4" POCKETS @ 7'-5 3/4" A.F.F. IN BOTH WALLS FOR TRUSS TO BEAR ON.

621 2X4 STUD WALL FRAMED BY CONTRACTOR. SUPPORTED BY FLOOR TRUSS BEAM. FRAME 25" TALL.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

702 **BATT INSULATION**: FRICTION FIT INSULATION 6" R-19

710 BACKER ROD & SEALANT: BRONZE.

DIVISION 9 - FINISHES

901 **WALL FINISH**: REFER TO FINISH SCHEDULE A-601 FOR FACE MATERIAL & FINISH

902 **LAY-IN CEILING PANELS**: REFER TO CEILING SCHEDULE A-111

903 L-CHANNEL CEILING EDGE

904 3/4" PLYWOOD ON FACE OF TRUSS BEAM AND EXTENTION WALL (SALES AREA SIDE ONLY) USED AS BACKING FOR DIGITAL MENU BOARD BRACKETS. REFER TO DETAIL 4 ON A-401.

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PUBLISHED: 10/13/2023
REVISED ON:

DRAWING INFORMATION:
MISCELLANEOUS DETAILS

PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

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Door Schedule

No.		ROUGH OPENING	DOOR Size	Thick'	Type	Material	Finish	FRAME Type [W.]	Material	Finish	HARDWARE Components	Key Side	NOTES
101.1	(FRONT)	6'-8"	PR 3'-0" x 7'-0"		C	ALUMINUM	FACTORY	[4 1/2"]	ALUMINUM	FACTORY	OP, C, PH, S		5 7
102.1	(MANAGERS OFFICE)	3'-4"	3'-0" x 6'-8" (3068)	1 3/4"	A	SC WOOD	PLAM LH	1 [4 5/8"]	STEEL BREAK DOWN	FACTORY	SH, LS, WS, K		1 4 7 8
104.1	(EXTERIOR STORAGE ROOM)	3'-10"	3'-6" x 7'-0" (3670)	1 3/4"	B	STEEL	PAINT LH	1 [10 1/4"]	HOLLOW METAL	PAINT	H/BB, CL, K, MWS, LL		2 4 6 7 8
104.2	(STORAGE ROOM)	3'-4"	3'-0" x 6'-8" (3068)	1 3/4"	A	SC WOOD	PLAM RH	1 [4 1/2"]	STEEL BREAK DOWN	FACTORY	SH, LS, WS, K		1 4 7 8
107.1	(UTILITY ROOM)	3'-4"	3'-0" x 6'-8" (3068)	1 3/4"	A	SC WOOD	PLAM LH	1 [4 1/2"]	STEEL BREAK DOWN	FACTORY	SH, LS, WS, K		1 4 7 8
108.1	(BACK ROOM)	3'-4"	3'-0" x 6'-8" (3068)	1"	C	ABS PLASTIC	FACTORY	1 [6 1/2"]	STEEL BREAK DOWN	FACTORY	HARDWARE BY DOOR SUPPLIER		3 7 8
112.1	(MEN'S RESTROOM)	3'-4"	3'-0" x 6'-8" (3068)	1 3/4"	A	SC WOOD	PLAM LH	1 [4 3/4"]	STEEL BREAK DOWN	FACTORY	PP, CL, K, WS, FS		1 4 7 8
113.1	(END-EXTERIOR)	3'-10"	3'-6" x 7'-0" (3670)	1 3/4"	B	STEEL	PAINT RH	1 [10 1/4"]	HOLLOW METAL	PAINT	H/BB, CL, PB, K, MWS		2 4 6
114.1	(WOMEN'S RESTROOM)	3'-4"	3'-0" x 6'-8" (3068)	1 3/4"	A	SC WOOD	PLAM RH	1 [4 3/4"]	STEEL BREAK DOWN	FACTORY	PP, CL, K, WS, FS		1 4 7 8

Room Finish Schedule

NO.	NAME	FLOOR SV	CT1	VCT	SC	NONE	NOTES	BASE RB	CT2	NONE	NOTES	WALLS FINISH P	FRP	CT2	NONE	MATERIAL GB-WET	OSB	NOTES	GENERAL REMARKS
	● ALL WALLS																		
101	Sales Area		●					●				●		●		●			
102	Manager's Office		●					●					●			●	●	W3	
103	Kitchen			●				●					●			●	●	W3	1
104	Storage		●					●					●			●	●	W3	
105	Walk-In Freezer With Manufactured Floor						F2		●	B1					●				
106	Walk-In Cooler Without Manufactured Floor	●							●	B1					●				
107	Utility Room		●					●					●			●	●	W3	
108	Back Room		●					●					●			●	●	W3	
109	Walk-In Cooler Without Manufactured Floor	●							●	B1					●			W1	
110	Walk-In Freezer With Manufactured Floor						F2		●	B1					●			W1	
111	Walk-In Stor. Cooler Without Mnfctrd Floor	●							●	B1					●			W1	
112	Men's Restroom		●					●					●				●	W4	
113	Hall		●					●				●		●		●		W4	
114	Women's Restroom		●					●					●				●	W4	

General Notes

1. SEE SHEET A-101 FOR FLOOR PLAN.
2. SEE SHEET A-111 FOR REFLECTED CEILING PLAN AND CEILING HEIGHT DIMENSIONS AND CEILING MATERIAL LOCATIONS.
3. SEE MECHANICAL AND ELECTRICAL SHEETS FOR RELATED WORK
4. CONTRACTOR TO FURNISH ALL MATERIALS FOR INTERIOR PARTITION CONSTRUCTION

Finish Materials Legend

Floors

CT1 **CERAMIC TILE:** 12" x 24" DAL-TILE #SA07 (META DARK GRAY). THIN SET INSTALLATION, ON CRACK ISOLATION BARRIER, SEE SPECIFICATION ON SHEET A-701. 1/4" GROUT JOINTS. GROUT: #47 (CHARCOAL)

VCT **TILE AND GLUE SUPPLIED BY CASEY'S**

VINYL TILE: ARMSTRONG TILE.
PRODUCT CODE ARM 51908
PEWTER. 12"x12"

SC **SEALED CONCRETE**

SV **SHEET VINYL**: 'PROTECT-ALL' COMMERCIAL FLOORING SYSTEM

Base

RB **RUBBER BASE:** 4" H. x 1/8" BLACK W/ TOE

CT2 **CERAMIC WALL TILE:** SEE WALL FINISH BELOW

Walls

P PAINT: FINISH ALL WALL JOINTS AND PATCH ALL SURFACE IRREGULARITIES TO ACHEIVE A LEVEL-5 SURFACE FINISH; APPLY A PRIME COAT AND TWO [2] FINISH COATS, SMOOTH FINISH OR AS SPECIFIED BY CASEY'S.

CT2 **CERAMIC WALL TILE:** SEE WALL FINISH BELOW

COLOR: **CASEY'S GRAY**

SHERWIN WILLIAMS (CUSTOM COLOR FORMULA MATCH)
- INTERIOR
- EGGSHELL
- EXTRA WHITE TINT BASE
- 5 GALLON FORMULA

CCE	ColorCast Ecotoner	OZ	32	64	128
B1	Black	2	9	1	1
Y3	Deep Gold	0	6	0	1

COLOR: **CASEY'S NEW RED 2020**

SHERWIN-WILLIAMS (CUSTOM COLOR FORMULA MATCH)
- INTERIOR SEMI-GLOSS LATEX - DURATION ARCHITECTURAL LATEX
- 1 GALLON MIX - K33T00254
- ULTRADEEP - 650406333

	OZ	32	64	128
R4-NEW RED	14	--	--	--
Y1-YELLOW--	5	--	--	--

FRP **FIBERGLASS REINFORCED PLASTIC**: LAMINATED TO 1/2" ORIENTATED STRAND BOARD (OSB) MFG BY KEMLITE. NAIL TOP AND BOTTOM ONLY DURING INSTALLATION. NFS/USDA APPROVED. (VERIFY COLOR)

CT2 **CERAMIC WALL TILE:** {FRONT WALL} IRONCRAFT IC13 CHARCOAL GRAY 12"x24" W/ 1/3 OFFSET (DALTILE PART #IC1312241PK) - INSTALL: WAINSCOT W/ WAINSCOTING TOP BORDER KIMONA SILK P327 PANDA BLACK 6"x24" (DALTILE PART #P32712241PK), CUT FROM 12"x24", ON TOP W/ SCHLUTER. TOP OF TRIM HEIGHT 2'-10". GROUT: #47 CHARCOAL. {COOLER WALLS} KIMONA SILK P327 PANDA BLACK 12"x24" (DALTILE PART #P32712241PK) - INSTALL: STRAIGHT VERTICAL 8'-2" AFF GROUT: #47 CHARCOAL. {HALL WALLS} IRONCRAFT IC13 CHARCOAL GRAY 12"x24" W/ 1/3 OFFSET (DALTILE PART #IC1312241PK) - INSTALL: WAINSCOT W/ WAINSCOTING TOP BORDER KIMONA SILK P327 PANDA BLACK 6"x24" (DALTILE PART #P32712241PK), CUT FROM 12"x24", ON TOP W/ SCHLUTER. TOP OF TRIM HEIGHT 2'-10". GROUT: #47 CHARCOAL. INSTALL OVER GB-WET. SEE INTERIOR WALL ELEVATIONS SHEET A-401 FOR ADDITIONAL INFORMATION REGARDING LIMITS OF INSTALLATION. MAPCI EPOXY GROUT TO BE USED ON MEN'S RESTROOM FLOOR AND URINAL WALLS. MAPCI EPOXY KIT #9999623831

Wall Materials

GB-WET: USG GYP-BOARD (GREEN) INTERIOR PANEL, MOISTURE AND MOLD RESISTANT, 5/8" CORE THICKNESS, FOR USE AS BACKING FOR PAINT FINISH WALLS & CERAMIC TILE. FINISHED PAINTED WALL TEXTURE TO BE SMOOTH.
THROUGHOUT ALL EXTERIOR WALLS.

OSB: KEMLITE LAMINATED FRP TO 1/2" OSB SUBSTRATE (KEMPLY), INSTALL AND FINISH PER MANUFACTURERS WRITTEN INSTRUCTIONS; SEE FRP WALL FINISH FOR MORE INFORMATION.

General Door Schedule Notes

1. SEE SHEET A-101 FOR FLOOR PLAN AND DOOR LOCATIONS.
2. BRONZE CAULK APPLIED TO ALL EXTERIOR DOORS.
3. INSTALL DOUBLE WALL STUDS AT ALL DOOR JAMBS.

Door Schedule Notes

1. **PLASTIC LAMINATE COATING WOOD DOORS:** PREMIUM GRADE, 7-PLY SOLID PARTICLEBOARD CORE, SOLID WOOD EDGES, FOG GREY 961-58, LIFETIME WARRANTY.
2. **HOLLOW METAL DOORS**: 1 3/4" x 18 GA.. FULL FLUSH PANEL. PRIME PAINT COAT. FACTORY PAINTED, DARK BRONZE KAWNEER #40.
3. **HARD PLASTIC DOORS:** 1" x 18 GA. WITH SOLID WOOD CORE. MEDIUM TRAFFIC DOOR WITH DOUBLE-ACTING SWING. **9" x 14" WINDOW, DOOR 108.1 ONLY:**
4. **STEEL BREAKDOWN FRAMES:** 2" x 16 GA.. SNAP ON TRIM BOTH SIDES. PRIME PAINT COAT. TWO [2] FINISH PAINT COATS, DARK BRONZE KAWNEER #40.
5. **ALUMINUM/GLASS DOORS:** KAWNEER 190 NARROW STILE ENTRANCE WITH 451 TRANSOM FRAME. #40 DARK BRONZE ANODIZED FINISH WITH 1" BRONZE TINTED INSULATED GLASS. DOORS TO HAVE 10" KICK PLATE.
6. CONTRACTOR TO INSTALL, CLEAN, AND INSULATE FRAMES. [EXTERIOR & INTERIOR]
7. TOP HINGE TO BE ANCHORED INTO STUD WITH LONG SCREWS. SUPPLIED BY OWNER, IF APPLICABLE.
8. ADD 5/8" TO ROUGH OPENING FOR DOOR TO ALLOW FOR TILE FLOOR FINISH. HOLD JAMBS 5/8" OFF CONC. SUB-FLOOR AS REQ'D. FOR TILE INSTALLATION.

Hardware Key and Notes:

AG	ACOUSTIC GASKETS [HEAD/JAMB]
C	RIM CYLINDER
CL	CLOSER, SURFACE MOUNTED (VERIFY SIDE)
H/BB	MORTISE HINGES, 4-1/2 x 4-1/2, BALL BEARING, 2 PAIR PER DOOR
K	KICK PLATE
LS	LOCKSET, COMMERCIAL GRADE [SCHLAGE]
MWS	MAGNETIC WEATHER STRIPPING, SWEEP
OP	OFFSET PIVOTS
PB	PANIC BAR @ 38" AFF
PH	KAWNEER #C-09 PULL HANDLES
PL	PASSAGE LOCK
PP	PULL/PULL PLATE AND PUSH PLATE
S	REESE 967D-36" SWEEP
SH	SPRING HINGES
WS	WALL STOP
FS	FLOOR STOP
LL	LOCKSET - LEVER TYPE

HARDWARE FINISH: US3.
PROVIDE MASTER KEY FOR LOCKSETS AND COORDINATE KEYING WITH OWNER.
SUBMIT HARDWARE SCHEDULE AND PRODUCT DATA TO OWNER FOR REVIEW/APPROVAL.

General Finishes Notes

1 **FLOORING PREP:** GENERAL CONTRACTOR TO CHECK CONCRETE FLOOR SLAB FOR MOISTURE TWO WEEKS PRIOR TO FLOOR COVERINGS DATE.

1.1 **MOISTURE TESTING** - A MAT MOISTURE TEST IS AN EFFICIENT MOISTURE TESTING METHOD FOR CONCRETE SLAB. SIMPLY PLACE A 18"x18" HEAVY, CLEAR GAUGE POLYETHYLENE SHEETING ON THE FLOOR IN AN AREA THAT IS LIKELY TO BE WET (TEST LARGE SITES IN SEVERAL LOCATIONS). TAPE THE PERIMETER OF THE PIECE SECURELY SO THAT NO AIR CAN PENETRATE AND LEAVE IN PLACE FOR 24 HOURS. THEN REMOVE THE PIECE(S) AND EXAMINE THE FACE. IF WATER DROPS ARE PRESENT, EXCESSIVE MOISTURE EXISTS AND THE CONCRETE MUST DRY LONGER. MOISTURE TESTS SUCH AS OHMMETER RESISTANCE, CALCIUM CHLORIDE, ETC., ARE ALSO ACCEPTABLE.

1.2 **ALKALI TESTING** - AFTER MOISTURE TESTING, IT IS MANDATORY TO TEST FOR ALKALINITY, USE PH STRIPS W/DISTILLED WATER 5-9 SCALE ARE ACCEPTED. NOT TO BE UNDER 5 OR OVER 9. TO NEUTRALIZE, MOP THE SURFACE OF THE CONCRETE WITH A 10% MURACTIC ACID SOLUTION. ALLOW SOLUTION TO DRY COMPLETELY. DO NOT RINSE CONCRETE AFTER APPLYING THE SOLUTION.

1.3 BOTH THE GENERAL AND FLOORING CONTRACTOR TO COORDINATE THE CONDITION OF THE CONCRETE FLOOR SLAB TO DETERMINE IT'S SUITABILITY AS A SUBSTRATE FOR FLOOR MATERIAL TO BE INSTALLED.

1.4 FLOORING CONTRACTOR IS TO TAKE ALL APPROPRIATE TESTS BEFORE LAYING TILE. FLOOR IS TO BE DRY AND FREE FROM CONTAMINANTS. THE APPLIED ADHESIVE MUST DEVELOP "LEGS" OR TACK PRIOR TO APPLYING TILE.

1.5 48 - 72 HOURS BEFORE INSTALLATION, THE TEMPERATURE MUST BE 70° OR ABOVE UNTIL STORE OPENING.

2 **FLOOR CARE PROCEDURE**: AFTER THE FLOOR TILE IS LAID, ALLOW A MINIMUM OF 72 HOURS DRYING TIME FOR THE GLUE TO CURE. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO SEE NO ONE ENTERS THE STORE DURING THE 72 HOUR DRYING TIME.

2.1 DUST MOP CLEAN THE ENTIRE FLOOR.

2.2 AFTER 72 HOURS, CONTRACTOR IS TO COVER EVERY INCH OF ENTIRE FLOOR IN ALL ROOMS, EXCEPT UTILITY ROOM. COVER WITH ARMSTRONG PAPER AND TAPING THE SEAMS, DO NOT TAPE ANY EDGES! HIGH TRAFFIC AREAS SHOULD BE DOUBLE THICKNESS, WORN AREAS SHOULD BE REPAIRED AS NEEDED.

2.3 CONTRACTOR WILL CUT (BE CAREFUL) AND REMOVE PAPER TO INSTALL CABINETS, EQUIPMENT, AMCO WIRE SHEVLING, STAINLESS STEEL TABLES. NO PAPER SHOULD BE LEFT UNDER ANY SET EQUIPMENT.

2.4 CONTRACTOR SHALL HAVE A GARBAGE DUMPSTER AVAILABLE ACCORDING TO CASEY'S SPECIFICATIONS MANUAL "GENERAL REQUIREMENTS, PAGE 1-6, SECTION 5, ITEM "E".

2.5 CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING ALL REMAINING PAPER PRIOR TO CASEY'S STORE SET INSTALLING LOZIER SHELVING.

3 **MATERIAL SUPPLIED AND SHIPPED BY CASEY'S ON FIRST LOAD:**

3.1 5-ROLLS ARMSTRONG (S-153) SCRIBING FELT PAPER 36" x 50 YARDS EACH.

3.2 6-ROLLS NATURAL (CP083) CREPE MASKING TAPE 1-1/2" x 60 YARDS EACH.

4 **FIBERGLASS REINFORCED PLASTIC (FRP) CARE AND PROCEDURE:** CONTRACTOR TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS. FRP IS LAMINATED TO 1/2" ORIENTATED STRAND BOARD (OSB) AND IS NFS AND USDA APPROVED.

4.1 PANELS SHALL BE STORED ON A FLAT DRY SOLID SURFACE.

4.2 LAY HORIZONTAL AT LEAST 24 HOURS PRIOR TO INSTALLATION.

4.3 ACCLIMATE TO ROOM TEMPERATURE AND HUMIDITY.

4.4 ALLOW MINIMUM 1/8" EXPANSION GAP BETWEEN PANELS AND MOLDINGS.

4.5 VINYL MOLDINGS AVAILABLE; INSIDE CORNER, DIVIDER STRIPS, END CAPS, AND OUTSIDE CORNERS.

4.6 APPLY SILICONE SEALANT BETWEEN MOLDINGS AND PANEL.

4.7 PROPER ADHESIVE REQUIRED ON ALL SUB-SURFACES THAT PANELS APPLY TOO.

4.8 INSURE THAT ALL WALL SURFACES AND STUDS ARE CLEAN, DRY, SMOOTH, LEVEL, STRAIGHT AND PLUMB.

4.9 ALL SUB-SURFACES JOINTS TO BE STAGGERED JOINTS W/FRP COVERINGS.

4.10 NOTICE: DIVIDER MOLDINGS NEED TO BE TRIMMED 3 FT. ABOVE FLOOR IN KITCHEN ONLY AT THE 14 FT. EXHAUST HOOD AREA. TO ALLOW FOR THE 18"x7'x7'x18" S/S PANELS TO BE BOLTED AGAINST WALL.

4.11 ALL MOLDINGS NEED TO BE TRIMMED TO ALLOW CEILING CHANNEL, FLOOR BASE, SINKS, TRIM, BACK SPLASHED AND ANY OTHER ITEMS TO LAY FLAT AGAINST WALL PANEL.

5 **CEILING WIRE SUPPORTS:** DO NOT INSTALL CEILING WIRE SUPPORT AT AREAS OF EQUIPMENT OR SERVICE DOORS.

6 SEAL FLOOR AT WALK-INS PRIOR TO INSTALLING WALL BASE.

7 MOP FLOOR BASIN TO BE INSTALLED ON TOP OF TILE AND CAULKED.

8 CONTRACTOR IS TO SUPPLY & INSTALL TWO COATS OF OF CLEAR SEALER IN UTILITY ROOM (ONLY). (USE SOY SEAL MANUF. APPLICATION/INSTALLATION SPECIFICATIONS.)

9 CLASS "C" FIRE RATED, FLAME SPREAD 200 OR LESS, SMOKE DEVELOPED 450 OR LESS. GLASBORD-P.

10 SAW CUTS TO BE CLEANED AND READY FOR FILL.

Room Finish Schedule Notes

Floors

F2 **MANUFACTURED FLOOR:** INSULATED FLOORS SUPPLIED BY COOLER/FREEZER EQUIPMENT MANUFACTURER, NO OTHER FINISH REQUIRED THIS AREA

Base

B1 **WALL/FLOOR JUNCTION:** SEALANT (CAULK) BASE CONDITION INSIDE ASSEMBLED FREEZER/COOLER ALONG ENTIRE PERIMETER

Walls

W1 **COOLER/FREEZER FACE PANELS:** USE GYP-BOARD (GREEN) INTERIOR PANELS ON FACING OF COOLER/FREEZER IN SALES AREA.

W3 **COMPOSITE PANEL:** FRP WALL FINISH IS FACTORY LAMINATED TO 1/2" OSB WALL PANELS. CONTRACTOR TO FINISH ALL JOINTS AND MAKE ALL FIELD CUTS ACCORDING TO MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.

W4 PROVIDE GYP-BOARD (GREEN) INTERIOR PANELS FOR TILE BACKING & PAINT FINISH.

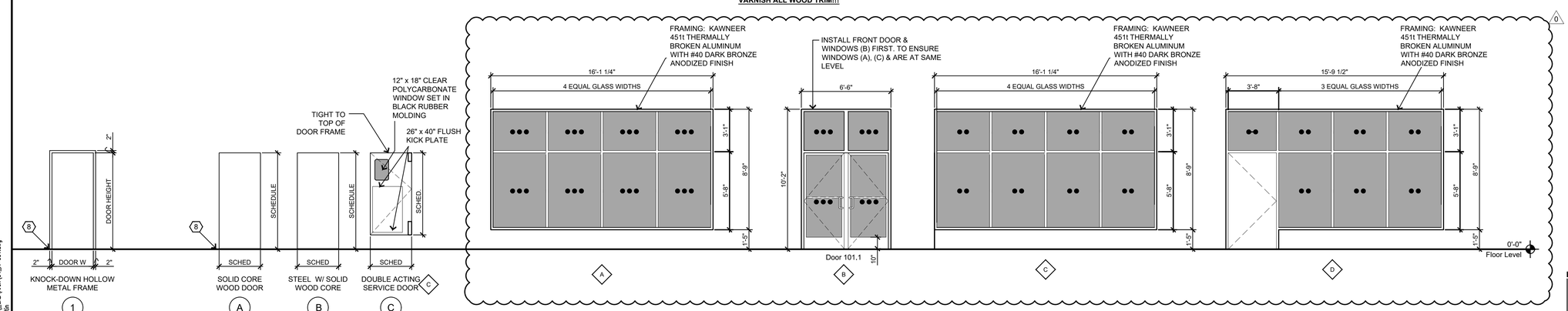
General Remarks

1 **NON-COMBUSTIBLE WALL:** INSTALL STEEL STUDS WITH 5/8" GYP-BOARD (GREEN) INTERIOR PANELS TO KITCHEN SIDE OF THE WALL. HEIGHT = 9'-0". ALL FRP COVERINGS WILL BE CUT TO FIT NEXT TO S/S PANELS AROUND KITCHEN HOOD AREA.

Crack Isolation Specification

SURFACE PREPARATION: MUST BE CLEANED OF ALL DUST & DEBRIS, AND STRIPPED OF ANY SEALERS, WAXES; OR OTHER BOND BREAKERS.

VARNISH ALL WOOD TRIM!!!



1 Frame Types — 1/4"=1'-0"

2 Door Types — 1/4"=1'-0"

3 Window Frame Elevations — 1/4"=1'-0"

Glazing Key - All Windows

●●● 1" BRONZE TINTED INSULATED TEMPERED GLASS WITH LOW-E COATING ON THE #3 SURFACE.

●● 1" BRONZE TINTED INSULATED TEMPERED SPANDREL GLASS WITH LOW-E COATING ON THE #3 SURFACE.

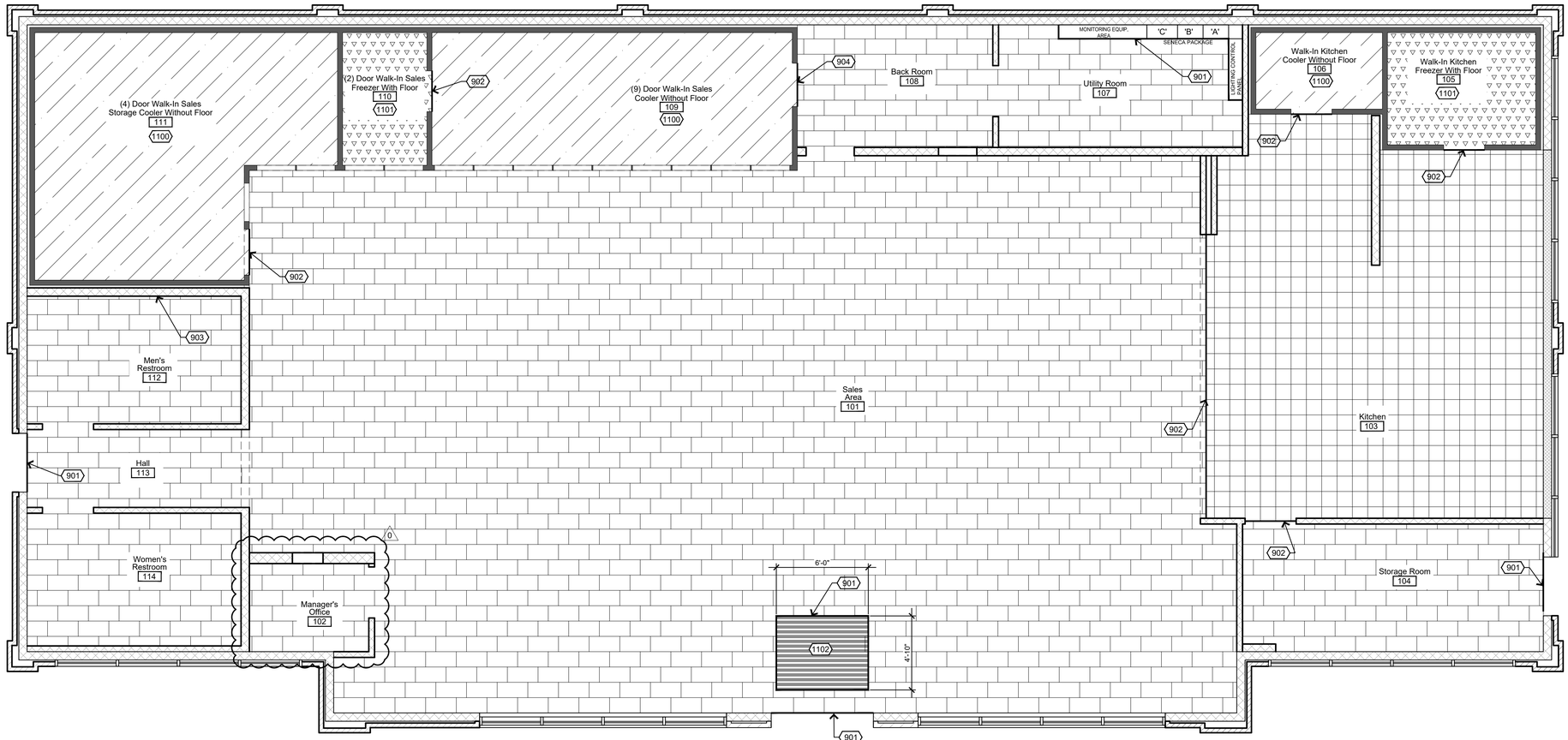
STATE OF MISSOURI — SHANE L. LARSEN — NUMBER A-2019032132 — 11/9/23 — ARCHITECT

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300, Omaha, NE 68154 — COA Number CA0666

PROJECT:	CASEY'S GENERAL STORE MO-150 & ARBORIDGE DR LEE'S SUMMIT, MO 2023 - U4 - V.01
PROJECT NUMBER:	07164.057
DRAWN BY:	JLN
CHECKED BY:	SLL
PUBLISHED:	10/13/2023
REVISED ON:	0
DRAWING INFORMATION:	DOOR, WINDOW & ROOM FINISH SCHEDULES
SHEET	A-601

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10/11/2023 2:50:16 PM Nelson, Justin



1 Ceramic Tile Flooring Plan

1/4"=1'-0"

N PLAN



DESCRIPTION

MAPEI's *Fiberglass Mesh* is a ready-to-use, thin, strong yet flexible alkali-resistant mesh for embedment with waterproofing and crack-isolation membranes, including MAPEI's *Mapelastic, Mapelastic 315, Mapelastic HPG* and *Mapelastic Smart* on residential and commercial floors, walls and ceilings.

Fiberglass Mesh reinforces and improves the performance of MAPEI's waterproofing membranes when applied over cracks, coves and corners and around drains on residential and commercial applications. *Fiberglass Mesh* can be cut to size with scissors or a razor knife, and has excellent compatibility with all MAPEI cement- or epoxy-based mortars.

FEATURES AND BENEFITS

- Compatible with MAPEI's *Mapelastic, Mapelastic 315, Mapelastic HPG* and *Mapelastic Smart* waterproofing membranes and *Mapeband™* accessories
- Fully compatible with MAPEI mortars and grouts for complete system protection
- Durable, flexible and lays flat, making it easy to embed
- Fast to install: ready to use, and easy to cut with scissors or razor knife

WHERE TO USE

See MAPEI's individual Technical Data Sheets (TDSs) for *Mapelastic, Mapelastic 315, Mapelastic HPG* and *Mapelastic Smart* for specific uses.

LIMITATIONS

See MAPEI's individual TDSs for *Mapelastic, Mapelastic 315, Mapelastic HPG* and *Mapelastic Smart* for specific limitations.

SUITABLE SUBSTRATES

See MAPEI's individual TDSs for *Mapelastic, Mapelastic 315, Mapelastic HPG* and *Mapelastic Smart* for specific substrates.

SURFACE PREPARATION

- All suitable substrates must be smooth, structurally sound and free of any substance that could prevent adhesion.
- Do not use chemical means (acid-etching or stripping) to prepare approved substrates. Use mechanical methods only.
- To remove any bond-inhibiting materials, concrete substrates should be mechanically cleaned and prepared by diamond-cup grinding or other engineer-approved methods to obtain the International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of #3. When concrete requires more mechanical preparation, the profile will typically increase. In such cases, the surface can be made smooth by applying coats of a MAPEI polymer-modified life-setting mortar.
- See TDSs of individual waterproofing products for other important surface preparation instructions. For other details, see MAPEI's "Surface Preparation Requirements" document for tile and stone installation systems at www.mapei.com or contact MAPEI Technical Services Department.

PRODUCT APPLICATION

See MAPEI's individual TDSs for *Mapelastic, Mapelastic 315, Mapelastic HPG* and *Mapelastic Smart* for specific application instructions.

Product Performance Properties at 73°F (23°C) and 50% relative humidity

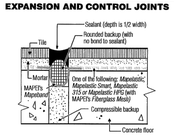
Laboratory Tests	Results
Color	White
Shelf life	2 years (when stored in original, unopened container)
Storage	Store in cool, dry place.
Application temperature range	See individual product Technical Data Sheets.
VOCs	0 g per L
Construction (warp) – ASTM D3775	6.4in. (25/10 cm)
Construction (weft) – ASTM D3775	5in. (20/10 cm)
Weight – ASTM D3776	2.1 U.S. oz. per sq. yd. (72 g per m²)
Thickness – ASTM D1777	0.012" (0,3 mm)
Weave	Leno
Nominal tensile (warp) – ASTM D5035	105 lbs. per in. (470 N per 2,54 cm)
Nominal tensile (weft) – ASTM D5035	105 lbs. per in. (470 N per 2,54 cm)

Packaging

Product code	Size*	Coverage
8043003	Roll: 1 x 150 ft. (0,3 x 45,7 m) – 12 rolls per box	150 sq. ft. (13,9 m²)
03291000	Roll: 39.4" x 15 ft. (1 m x 4,57 m) – 20 rolls per box	49.2 sq. ft. (4,57 m²)
03131000	Roll: 39.4" x 75 ft. (1 m x 22,9 m) – 8 rolls per box	246 sq. ft. (22,9 m²)
8043002	Roll: 39.4" x 328 ft. (1 m x 100 m) – 4 rolls per box	1,075.8 sq. ft. (100 m²)

** Rolls can be purchased by the full box or individually. Each roll is contained in a plastic bag.*

EXPANSION AND CONTROL JOINTS



1. Do not cover any substrate expansion joint or control joints with mortar or tiles. Provide for expansion and control joints where specified per Detail EJ-171 of the most current TCA handbook for ceramic tile installation, or Detail 301M.I of the TTMAC Tile Installation Manual.
2. If waterproofing integrity is required in expansion and control joints, provide per the above drawing. *Mapeband* cove roll can be bonded to both sides of the joint and filled with an appropriate joint sealant or an expansion molding system.
3. Protect tilework with metal strips (edge metal) along both edges of structural building expansion joints.
4. When necessary, cut tiles along both edges of the expansion joints. Do not allow tile and mortar to overlap the joints.
5. Install the specified compressible bead and sealant into all expansion and control joints.

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

RELATED DOCUMENTS

Reference Guide: Surface Preparation Requirements for tile and stone installation systems	RGTD909**

*** All www.mapei.com*

Refer to MAPEI's Material Safety Data Sheet (MSDS) for specific data related to VOCs, health and safety, and handling of product.

STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:

MAPEI Headquarters of the Americas
1144 East Newport Center Drive
Deerfield Beach, Florida 33442
Phone: 1-888-US-MAPEI
(1-888-876-2734)

Technical Services
1-800-992-0273 (U.S. and Puerto Rico)
1-800-361-3009 (Canada)

Customer Service
1-800-42-MAPEI (1-800-426-2734)

For the most current BEST-BACKED™ product data and warranty information, visit www.mapei.com.

Edition Date: March 21, 2011
PRISM-1SMC_51Fde 02-2011

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DESCRIPTION

Mapelastic HPG is a ready-to-use, highly flexible, liquid acrylic waterproofing membrane for installation under ceramic tile or stone on residential and light commercial interior floors and walls. Applied with a roller, trowel or brush, *Mapelastic HPG* has excellent compatibility with cement-based mortars. When installed with MAPEI's *Fiberglass Mesh*, *Mapelastic HPG* can also be used as a crack-isolation membrane and meets ANSI A118.10 standards for waterproofing. In addition, *Mapelastic HPG* is IAPMO-listed for use as a shower-pan liner.

FEATURES AND BENEFITS

- Dual protection: Provides waterproofing and crack isolation
- Prevents in-plane floor cracks from transmitting through tile or stone
- Compatible with MAPEI's *Fiberglass Mesh* and *Mapeband™* accessories
- Compatible with MAPEI mortars and grouts for complete system protection
- Durable and flexible; bonds to a wide range of surfaces
- Ready to use; easy to apply with roller, trowel or brush
- Install tile or stone after curing for 16 to 24 hours.
- Flood-test after 72-hour cure.

INDUSTRY STANDARDS AND APPROVALS

ANSI A118.10: Exceeds
ASTM C627 (Robinson): Extra heavy service rating

LEED (Version 3.0) Points Contribution — LEED Points
MR Credit 5, Regional Materials*..... Up to 2 points
IEQ Credit 4.2, Low-Emitting Materials – Paints & Coatings ..... 1 point

** Using this MAPEI product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.*

WHERE TO USE

- For interior waterproofing vertically and horizontally behind tile and stone installations in residential to light commercial bathrooms, restrooms, kitchens and laundry rooms
- As a crack-isolation membrane over existing in-plane cracks up to 1/8" (3 mm) (see "One-Coat System" instructions) and for handling up to an additional 1/8" (3 mm) in-plane movement (see "Two-Coat System" instructions) when applied at the appropriate application thickness and system (see section "Pre-treat existing in-plane cracks" below)

LIMITATIONS

- Do not use over any substrates containing asbestos.
- Do not apply directly over gypsum-based patching or leveling compounds (see "Suitable Substrates" section below), sheet vinyl, vinyl composition tile (VCT), self-stick tile, laminate surfaces, metal or fiberglass surfaces, or poured epoxy floors.
- Do not apply directly over substrates consisting of plank wood flooring, presswood, particleboard, chipboard, oriented strand board (OSB), pressure-treated plywood, oil-treated plywood, Luan plywood, Masonite

General Notes

1. MAPELASTIC/FIBERGLASS MESH FULL COVERAGE ON CRACKS AND SAWCUTS EXCEPT BACKROOM AND UTILITY ROOM. JUST TREAT SAW CUTS IN THESE AREAS.
2. ALL FLOOR TILE SET WITH MEDIUM BED THIN SET WITH 1/2" TROWEL
3. REFER TO PAGE A-601 FOR OTHER ROOM FINISH INFORMATION.
4. FILL SAW CUTS WITH SELF LEVELING CAULK BEFORE MAPELASTIC/FIBERGLASS MESH IS INSTALLED.
5. CERAMIC TILE. TILE SUPPLIED BY CASEY'S GENERAL STORES. ORDERED AND INSTALLED BY FLOORING CONTRACTOR. TILE SPECIFICATIONS SUPPLIED BY OWNER.
6. MAPCI EPOXY GROUT TO BE USED ON THE MEN'S RESTROOM FLOOR AND THE URINAL WALL. MAPCI EPOXY KIT #9999623831

Construction Notes

DIVISION 11 - EQUIPMENT

1100 COOLER PACKAGES WITH PROTECT-ALL VINYL FLOORING.

1101 FREEZER PACKAGES WITH MANUFACTURER METAL FLOOR.

1102 4'-10"x6'-0" RECESSED ENTRY WAY MAT TO BE INSTALLED 6" FROM THRESHOLD OF FRONT ENTRY DOORS. RECESSED INTO FLOOR TILE.

DIVISION 9 - FINISHES

901 USE SCHLUTER AE 100 FOR ALL EXTERIOR DOORS, ELECTRICAL ROOM AROUND CONDUIT CHASE AND THE ENTRY MAT.

902 USE SCHLUTER AEU 100 FOR ALL INTERIOR ENTRY WAYS. BUTT TIGHT AGAINST THRESHOLD TYP. SEALANT AS REQ'D.

903 MAPCI EPOXY GROUT TO BE USED ON THE MEN'S RESTROOM FLOOR AND THE URINAL WALL. MAPCI EPOXY KIT #9999623831

Finish Materials Legend

Floors

CERAMIC TILE: 12" x 24" DAL-TILE #SA07 (META DARK GRAY). THIN SET INSTALLATION, ON CRACK ISOLATION BARRIER, SEE SPECIFICATION. 1/4" GROUT JOINTS. GROUT: #47 (CHARCOAL)

VCT TILE AND GLUE SUPPLIED BY CASEY'S

VINYL TILE: ARMSTRONG TILE.
PRODUCT CODE ARM 51908
PEWTER. 12"x12"

Crack Isolation Specification

SURFACE PREPARATION: MUST BE CLEANED OF ALL DUST & DEBRIS, AND STRIPPED OF ANY SEALERS, WAXES; OR OTHER BOND BREAKERS.

Flooring Legend

CERAMIC TILE
12" x 24" TILE THIRD OFF-SET

PROTECT-ALL FLOORING

VCT TILE
12" x 12" QUARTER TURN

MANUFACTURED METAL FLOOR

STATE OF MISSOURI
SHANE L. LARSEN
NUMBER A-2019032132
11/9/23
ARCHITECT

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0066

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

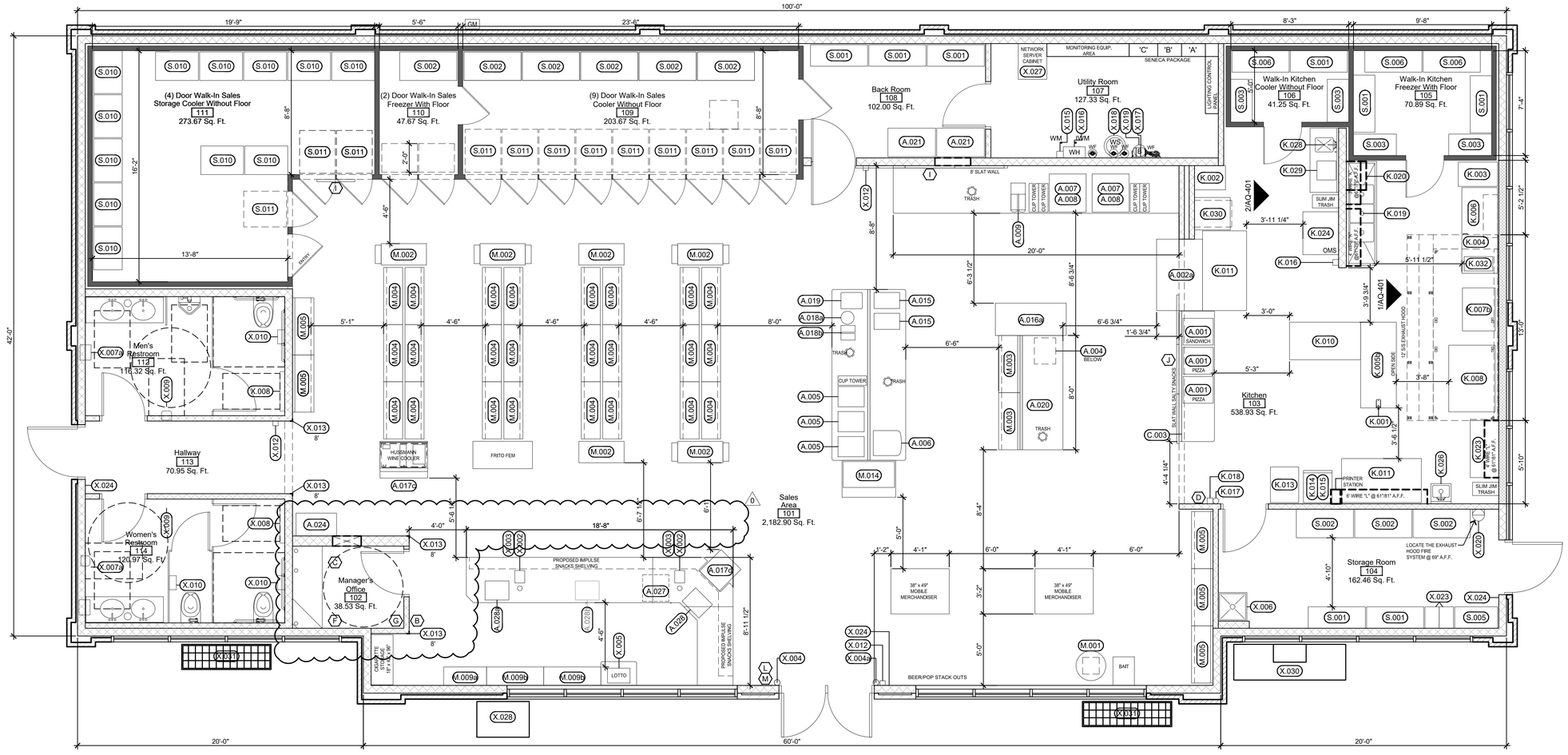
0 PUBLISHED 10/13/2023
REVISED ON:

DRAWING INFORMATION:
CERAMIC TILE FLOORING PLAN

A-701

PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

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2 Equipment and Fixture Floor Plan

1/4"=1'-0"

Equipment Schedule

Last Update 06-28-22

A - APPLIANCE

NOTE	DESCRIPTION	MANUFACTURE	MODEL NUMBER	CGS PART #
A.001	SELF-SERVE PIZZA WARMERS	HATCO	FSDT-2	800773
A.001a	SELF-SERVE SANDWICH WARMERS	HATCO	FSDT-2X	800774
A.002	SUB/PREP CASE	HUSSMAN	Q3-SP-6R	310293
A.002a	SUB/PREP CASE	PIPER	R-GNG-LPRO-5-B-BI	
A.003	DELI SANDWICH PREP TABLE	DELFIELD	4448N-12	801484
A.003a	SELF-SERVE CASE	STRUCTURAL		310267
A.004	MICROWAVE (BELOW COUNTER)	AMANA	RMS10D	520600
A.004a	MICROWAVE (BELOW COUNTER)	SHARP	R21LCFS	520160
A.005	BEAN-TO-CUP	SCHAERER	040381-00051EUS	530107
A.006	5 HEAD CAPPUCCINO	BUNN	37000-6000	510700
A.007	ENDURO 200 POP MACHINE W/10 DISP.	CORNELIUS	621053107	540800
A.007a	MIX DRINK DISP. FLAVOR/OVERLOAD	CORNELIUS	620158656	540816
A.008	CHUNKLET ICE MAKER / WCC-700-A	CORNELIUS	620158725	350799
A.009	DUAL ICE TEA BREWER	BUNN	ITB-DBC	510904
A.010	FROZEN CARBONATED BEV. FREEZER	ICEE	774	540705
A.011	FROZEN BEVERAGE DISPENSERS	ICEE	772	540706
A.012	FRESH BLENDER	MULTIPLEX	FB081TF-R-GEN1	540701
A.013	GOURMET ICEE	BUNN	ULTRA-2 BLK CFV	
A.014	COUNTERTOP ICE MACHINE/DISPENSER	FOLLETT	15CI100A-NW-NF-ST-00	360815
A.015	COLD BREW COFFEE	GOODWEST	GW3-BLK-PH	540215
A.016	4' ICE CREAM MERCHANDISER	EXCELLENCE	VB-5HC	310472
A.016a	5' ICE CREAM MERCHANDISER	EXCELLENCE	VB-6HC	310476
A.016b	GLASS DOOR FREEZER	EXCELLENCE	GDF-9M	310477
A.016c	3' ICE CREAM MERCHANDISER	EXCELLENCE	VB-3HC	310482
A.017	40"X40"X60" REF. SELF-SERV. END CAP	FEDERAL	ECSS40SC	310203
A.017a	60"X40"X60" REF. SELF-SERV. END CAP	FEDERAL	ECSS60R	310209
A.017b	84"X40"X60" REF. SELF-SERV. ISLAND	FEDERAL	IMSS84R-3	310207
A.017c	VERTICAL OPEN MERCHANDISER	HUSSMANN	GSVM-4072A	310269
A.017d	REDBULL DRINK COOLER	JIANGSU	VC213251	
A.018a	FLAVOR SHOTS	P&P MARKETING	LZ-6-750	
A.018b	COFFEE CONDIMENTS	P&P MARKETING	CR-PPM-22512	
A.019	REFRIGERATED CREAM DISPENSER	CREAMISER	210	540205
A.019a	REFRIGERATED CREAM DISPENSER	CREAMISER	400	540199
A.020	CONDIMENT AREA	KPI		500020
A.021	BAG-IN-BOX W/CARBONATOR	MCANN'S	43 SERIES / E SERIES	500201
A.022	3' MERCHANDISER REFRIGERATED G.N.G.	PIPER	R-GNG-LPRO-3	310262
A.022a	4' MERCHANDISER REFRIGERATED G.N.G.	PIPER	R-GNG-LPRO-4	310258
A.023	3' MERCHANDISER REFRIGERATED G.N.G.	PIPER	R-GNG-HPRO-3	310268
A.023a	4' MERCHANDISER REFRIGERATED G.N.G.	PIPER	R-GNG-HPRO-4	310257
A.024	ATM	TRANAX	X4000	
A.025	ELECTRIC WASHER UNIT	SPEED QUEEN	TR3000WN	600785
A.026	ELECTRIC DRYER UNIT	SPEED QUEEN	DR3000WG	600784
A.027	UNDER COUNTER SAFE	ARMOR SAFE	CACHSYSTEM 3400	610405
A.028	CASH REGISTER #1	NCR REALPOS	NCR 7403	
A.028a	CASH REGISTER #2	NCR REALPOS	NCR 7403	
A.028b	CASH REGISTER #3	NCR REALPOS	NCR 7403	
A.029	4 DOOR FREEZER	ZERO ZONE	RVZC30	
A.030	3 DOOR FREEZER	ZERO ZONE	RVZC30	
A.031	2 DOOR FREEZER	ZERO ZONE	RVZC30	

K - KITCHEN

NOTE	DESCRIPTION	MANUFACTURE	MODEL NUMBER	CGS PART #
K.001	MANUAL CAN OPENER	EDLUND	EDL1	801000
K.002	TRAY RACK / BREAD RACK	NEWAGE	6301	601703
K.003	30 QT FLOOR MIXER	UNIVEX	SRM30+	801111
K.004	KITCHEN HOOD CONTROL PANEL	CAPTIVEAIRE		
K.005	8' STAINLESS STEEL ISLAND TABLE	JOHN BOOS	CGS-IT1	640031
K.005a	7' STAINLESS STEEL ISLAND TABLE	JOHN BOOS	CGS-IT1-84C	640027
K.005b	6' STAINLESS STEEL ISLAND TABLE	JOHN BOOS	CGS-IT1-72	640026
K.005c	4' STAINLESS STEEL ISLAND TABLE	JOHN BOOS	CGS-IT1-48	640029
K.006	8' STAINLESS STEEL LH FRYER TABLE	JOHN BOOS	CGS--DA72-OS-DL	640700
K.006a	8' STAINLESS STEEL RH FRYER TABLE	JOHN BOOS	CGS-DA2-60	640703
K.006b	4' STAINLESS STEEL RH DONUT TABLE	JOHN BOOS	CGS-DA2-48	640348
K.006c	5' STAINLESS STEEL RH DONUT TABLE	JOHN BOOS	CGS-DA2-60	640016
K.006d	5'-6 STAINLESS STEEL RH DONUT TABLE	JOHN BOOS	CGS-DA2	640015
K.007	HEATED HOLDING PROOFING CABINET	HENNY PENNY	HHC990	801711
K.007a	HALF SIZE - HEATED HOLDING CABINET	HENNY PENNY	HHC993	801710
K.007b	BREAD OVEN AND PROOFER	NUVU	EUB-339	801700
K.008	PIZZA OVENS / 1100-006-U-K1836 SERIES	LINCOLN	15CI100A	801500
K.009	MULTI-COOK OVEN	ALTO-SHAMM	VMC-H4	801491
K.009a	MULTI-COOK OVEN	ALTO-SHAMM	VMC-H2H	
K.009b	TABLE STAND	ALTO-SHAMM	5028173	
K.010	5' REFRIGERATED WORK TOP	DELFIELD	18600BSTMP	801488
K.011	5'-7 REFRIGERATED PIZZA PEP TABLE	BEVERAGE AIR	DP67HC	801101
K.012	6' REFRIG. PIZZA PER TABLE 3 DOOR	BEVERAGE AIR	DP72HC	801401
K.013	2' STAINLESS STEEL TABLE	JOHN BOOS	CGS-DST1	640023
K.014	2' STAINLESS STEEL ROLLER TABLE	JOHN BOOS	CGS-DT1	640010
K.015	DOUGH ROLLER	SOMERSET	CDR-2000	801102
K.016	PIZZA PHONE JACKMOUNT 60" A.F.F.			
K.017	FIRE EXTINGUISHER/MOUNT 25" A.F.F.	AMERX	B453 / TYPE K	
K.018	EMERGENCY PULL STATION	CAPTIVEAIRE		
K.019	3-COMPRT. SINK/DUAL DRAIN BOARDS	JOHN BOOS	CGS3PB1620-2D18-2F	640401
K.019a	3-COMPRT. SINK,RIGHT DRAIN BRD. (R)	JOHN BOOS	CGS-SDT6-3PB5705BK	640722
K.020	SHELVING BELOW SINK/TOXIC SUPPLIES	AMCO	CP	640180
K.021	DISHWASHER/VENTLESS (R STORE)	JACKSON	HH-E-VER	640720
K.022	CLEAN DISH TABLE	JOHN BOOS	CGS-CDT4-S245BK-L	640721
K.023	4' STAINLESS STEEL WORK TABLE	JOHN BOOS	CGS-DA1	640348
K.024	3' STAINLESS STEEL DELIVERY TABLE	JOHN BOOS		640705
K.025	3' STAINLESS STEEL DELIVERY TABLE	JOHN BOOS	CGS-STR4R5-30365SW	640701
K.026	STAINLESS STEEL HAND SINK 17X17	JOHN BOOS	CGS-WHS18	640440
K.026a	STAINLESS STEEL HAND SINK 15X15	JOHN BOOS	CGS-DISNK151506	640044
K.026b	STAINLESS STEEL HAND SINK 19X12 (KS)	JOHN BOOS	CGS-DI10140SSLR	640040
K.027	RH VEGETABLE SINK 97X30X31	JOHN BOOS	CGS-VTS96-RH	640451
K.027a	LH VEGETABLE SINK 97X30X31	JOHN BOOS	CGS-VTS96-LH	640450
K.028	VEGETABLE SINK 54X24X31	JOHN BOOS	CGS-VTS54	640420
K.028a	VEGETABLE SINK 21X25.5X44 (ACQ.)	JOHN BOOS	CGS-WHS18	640440
K.029	MANUAL VEGETABLE SLICER	EDLUND	ARC-XL-30400	801645
K.030	BREAD HOLDING CABINET	LOCKWOOD	CA37-ES20-CD	801706
K.031	CLASSIC COUNTERTOP COOKER/WARMER	APW-WYOTT	W-43V	801630
K.032	TENDERLOIN FRYER	STAR	F15-CGS	830300
K.033	STAINLESS STEEL TENDR. FRYER CART	VOLRATH	97125	830505

M - MERCHANDISING

NOTE	DESCRIPTION	MANUFACTURE	MODEL NUMBER	CGS PART #
M.001	SUNGLASS SPINNER			
M.002	3' END CAP	LOZIER	EMP SERIES	
M.003	16"X48"X48" SHELVING	LOZIER		
M.004	16"X48"X66" SHELVING	LOZIER		
M.005	16"X48"X72" SHELVING	LOZIER		
M.006	16"X36"X66" SHELVING	LOZIER		
M.007	16"X36"X72" SHELVING	LOZIER		
M.008a	3'x63.5" CIGARETTE RACK			
M.008b	4'x63.5" CIGARETTE RACK			
M.009a	3'x92.5" CIGARETTE RACK			
M.009b	4'x92.5" CIGARETTE RACK			
M.010	SELF SERVE DONUT CASE 32X32.75X37.66			
M.011	SELF SERVE DONUT CASE 56X21.6X40.5			700805
M.012	SELF SERVE DONUT CASE 70X21.6X40.5			
M.013	COUNTERTOP DONUT CASE 44X32X67	STRUCT. CONCEPTS	CDS4540.5424	700400
M.014	FLOOR MODEL DONUT CASE 44X32X67	STRUCT. CONCEPTS	CDS4540.5423	700501

S - STORAGE

NOTE	DESCRIPTION	MANUFACTURE	MODEL NUMBER	CGS PART #
S.001	48"X18"X64" / MIN. 6" TO BOTTOM	AMCO	CP	310155
S.002	48"X24"X64" / MIN. 6" TO BOTTOM	AMCO	CP	310165
S.003	36"X18"X64" / MIN. 6" TO BOTTOM	AMCO	CP	310150
S.004	36"X24"X64" / MIN. 6" TO BOTTOM	AMCO	CP	310162
S.005	36"X18" COAT RACK			600101
S.006	48"X18"X8" PLATFORM	AMCO	CP	310145
S.007	48"X24"X8" PLATFORM	AMCO	CP	310164
S.010	36"X24"X64" BLACK / MIN. 6" TO BOTTOM	AMCO	BK	310178
	(4) BLACK POST PER SHELVING UNIT	AMCO	BK	310179
	(4) CHROME POST PER SHELVING UNIT	AMCO	CP	310175
	(4) 30" CHROME POST PER SHELVING	AMCO	CP	640085
S.011	COOLER ROLLER GLIDE SHELVING			640722
S.011a	COOLER ROLLER GLIDES 28"W X 24"D	FLEXROLLER		640720
S.011b	COOLER ROLLER GLIDES 28"W X 26"D	FLEXROLLER		640721
S.011c	COOLER ROLLER GLIDES 28"W X 36"D	FLEXROLLER		640705

C - CASEWORK

NOTE	DESCRIPTION	MANUFACTURE	MODEL NUMBER	CGS PART #
C.001	CONDIMENT/COFFEE CASEWORK	KPI		
C.002	FOUNTAIN DRINKS CASEWORK	KPI		
C.003	SELF-SERVE SANDWICH CASEWORK	KPI		
C.004	SALES COUNTER	KPI		
C.005	TABLE & CHAIRS			
C.006	TABLE & CHAIRS			
C.016	CASEWORK	KPI		
C.017	SLAT WALL	KPI		
C.018	COFFEE LID CASEWORK	KPI		
C.019	CAT SCALE & TRENDAR EQUIPMENT			

X - OTHER

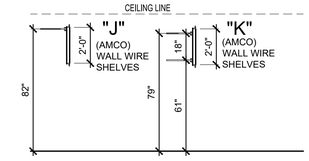
NOTE	DESCRIPTION	MANUFACTURE	MODEL NUMBER	CGS PART #
X.001	OUTSIDE TRASH RECEPTACLE	FYC Inc.		601734
X.002	MICROPHONE / INTERCOM	ESCO	TMK-3000	
X.003	CREDIT CARD MACHINE	EQUINOX	L5300	
X.004	FIRE EXTINGUISHER 32" A.F.F.	AMEREX	B453	
X.004a	FIRE EXTINGUISHER 32" A.F.F. (IL ONLY)	AMEREX	B453	
X.005	LOTTO	ALTURA	GT1200	
X.006	MOP BASIN / INSTALL BEFORE FLOORING	MUSTEE	63M	103080
X.007	PAPER TOWEL DISP. RECESSED TRASH RECP.	BOBRICK	B-3944	601706
X.007a	TOUCHLESS TOWEL DISPENSER / RECESSED	LOCOR	D68011-A	601736
X.007b	WASTE RECEPTACLE / RECESSED	BOBRICK	B-43644	601717
X.008	BABY CHANGING STATION/HORIZONTAL	SAFESTRAP	4300	600008
X.009	ELECTRIC HAND DRYER	COLUMBIA	HD-618-210	100117
X.009a	HIGH SPEED VERTICAL HAND DRYER	WORLD DRYER	V-SERIES	100118
X.010	DOUBLE TOILET PAPER HOLDER	SAN JAMAR	R4000	601262
X.011	H.C. R.R. SIGN / 60" TO CENTER / LATCH SIDE	AMERICAN	EP-2302/EP-2304	
X.012	HAND SANITIZER STATION / 48" TO CENTER	GOJO	ADX-12	104086
X.013	PLASTIC OUTSIDE CORNER	C.S.	VA SERIES	610129
X.015	TANKLESS WATER HEATER	RHEEM	RTGH-C95DVL	104304
X.016	RECIRCULATING PUMP	RHEEM	AP17920	104320
X.017	WATER FILTER SYSTEM	RHEEM	VZN-441V-T5	105110
X.018	WATER SOFTENER	CULLIGAN	2021 SERIES	
X.019	BRINE TANK			
X.020	EXHAUST HOOD FIRE SYSTEM	IOWA FIRE		
X.021	DMARK (PHONE BOX) 24"X24"			
X.022	WATER TANK / HEATER	RHEEM	PROPEX TO RHEEM ECO	104051
X.023	2-LOCKUP LOCKERS	GLOBAL	T9AB2132362	601364
X.024	TACTILE SIGN 48" MIN A.F.F. LATCH SIDE			620635
X.025	FOLDING DRESSING SEAT	BOBRICK	B-5181	105204
X.026	FOLDING SHOWER SEAT	BOBRICK	B-5191	105202
X.027	NETWORK SERVER			
X.028	PROPANE TANK CABINET			
X.029	PACKAGED ICE CABINET (SINGLE DOOR)			
X.030	PACKAGED ICE CABINET (DOUBLE DOOR)			
X.031	FIREWOOD RACK (21" FRONT OF BLDG)			
X.032	FIREWOOD RACK (32" UNDER CANOPY)			

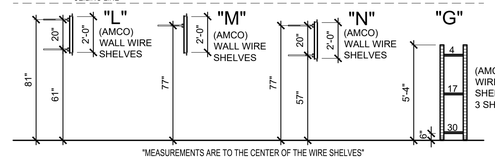
BULLETIN BOARD

NOTE	DESCRIPTION	DETAILS	LOCATION	CGS PART #
A	36" X 48" VERTICAL	BOTTOM 60" A.F.F.	BACK ROOM	601389
B	18"X24" GLASS ENCLOSED	PERMIT FRAMED	SALES AREA	601386
C	18"X24" VERTICAL	BOTTOM 70" A.F.F.	OFFICE	601387
D	18"X24" VERTICAL		KITCHEN	601387
F	12"X36" VERTICAL	BOTTOM 36" A.F.F.	OFFICE	
G	KEY RING SHELF	ABOVE LIGHT SWITCH	OFFICE	
I	48" MONITORS	SET TO GO CENTER/CENTER/CCC/LOUNGE	OFFICE	
J	48" MONITORS		DELI CASE	
L	SECURITY KEYPAD		FRONT DOOR	
M	DOOR CAMERA		FRONT DOOR	

NOTE:
CONTRACTOR TO ASSEMBLE SHELVES J, K, L & M & STORAGE SHELVING; MEASUREMENTS ARE TO THE CENTER OF THE WIRE SHELVES

CONTRACTOR TO ASSEMBLE STORAGE SHELVES; MINIMUM 6" OF CLEARANCE FROM BOTTOM SHELF TO FINISH FLOOR.



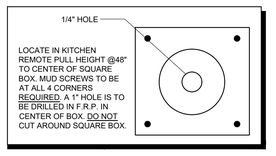


"MEASUREMENTS ARE TO THE CENTER OF THE WIRE SHELVES"

1 Shelving Components

1/4" = 1' - 0"

Remote Pull Detail (K.027)



SHANE L. LARSEN NUMBER A-2019032132 11/9/23 ARCHITECT STATE OF MISSOURI

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

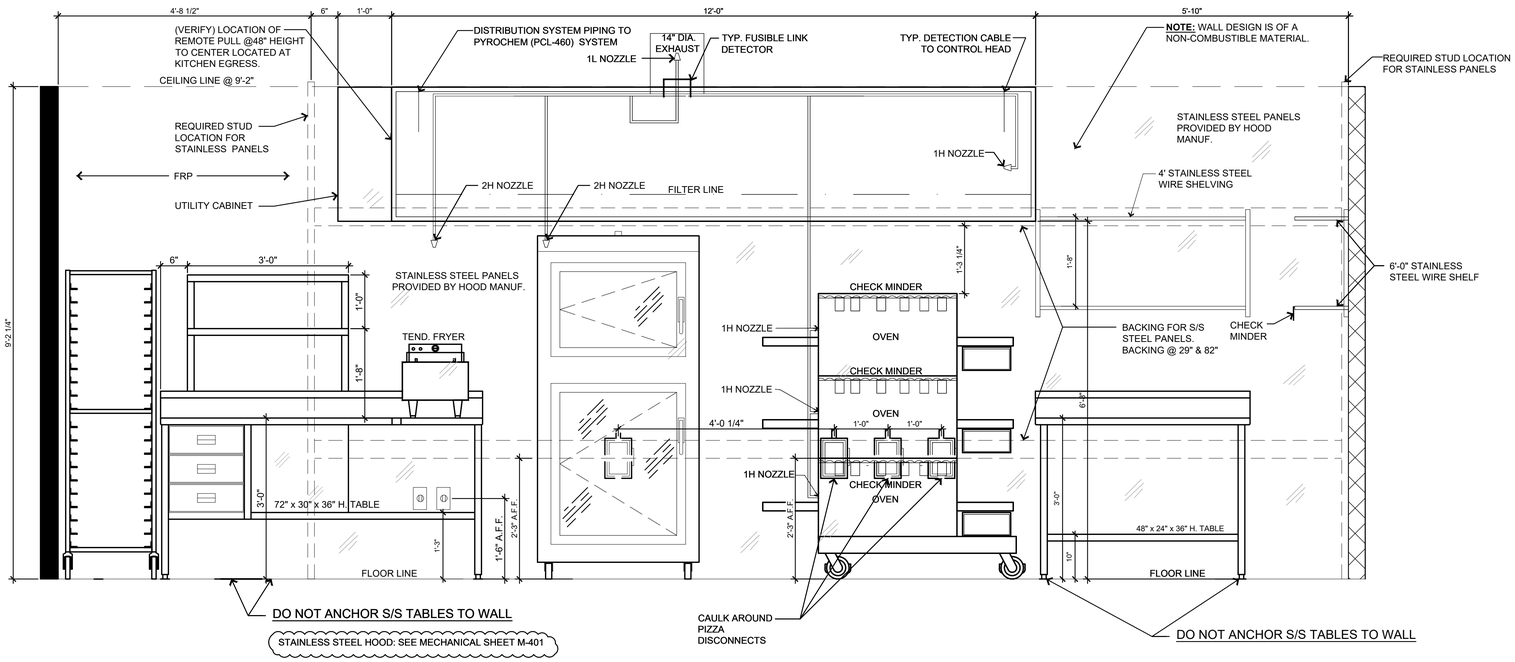
PUBLISHED: 10/13/2023
REVISED ON:

DRAWING INFORMATION:
EQUIPMENT PLAN

PROJECT NUMBER: 07164.057
DRAWN BY: JLN
CHECKED BY: SLL

AQ-101

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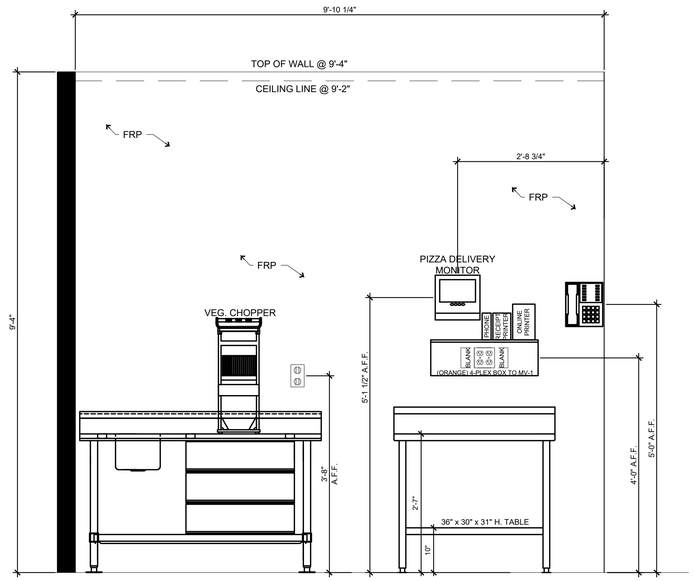
NOTE: ELECTRIC SHUTOFF IS INTEGRAL TO HOOD CONTROL PANEL
4.6 - GALLON EXHAUST FIRE SYSTEM COMPLIANT

1.) MICRO SWITCH PART NUMBER 551154 PROVIDED BY IOWA FIRE EQUIPMENT CO. FOR USE BY ELECTRICAL CONTRACTOR TO FACILITATE ELECTRIC SHUT DOWN OF ALL EQUIPMENT BENEATH THE HOOD ASSEMBLY PER N.F.P.A. 17-A 2017 EDITION. (EXCEPTION OF EXHAUST FANS)!
2.) ALL EXPOSED PIPING WITHIN THE HOOD ASSEMBLY TO BE CHROME SLEEVED WITH CHROME PLATED FITTINGS. ALL PENETRATIONS MADE IN THE HOOD TO BE FITTED WITH A LIQUID TIGHT SEAL OR QUICK SEAL ASSEMBLY.
3.) REMOTE MANUAL RELEASE ASSEMBLY TO BE MOUNTED @48" IN COMPLIANCE WITH N.F.P.A. 17-A 2017 EDITION. OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

CONTRACTOR NOTE:
ROLLER IN KITCHEN IS TO BE BOLTED TO S/S TABLE. SET ROLLER AS FAR BACK AS POSSIBLE AND ANCHOR UP THRU LEGS.

1 Kitchen Wall Elevation

3/4"=1'-0"



2 Kitchen Wall Elevation

3/4"=1'-0"

STATE OF MISSOURI
SHANE L. LARSEN
NUMBER A-2019032132
11/9/23
ARCHITECT

Casey's

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Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0666

PROJECT
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER
0764.057

DRAWN BY:

CHECKED BY:

PUBLISHED: 10/13/2023
REVISED ON:

DRAWING INFORMATION
KITCHEN WALL INTERIOR ELEVATION

AQ-401

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GENERAL STRUCTURAL NOTES

Governing Building Code: 2018 INTERNATIONAL BUILDING CODE

Design Loads:

Gravity:

Roof Live Load	20 psf
Ground Snow Load, Pg	20 psf
Roof Snow Load, Pf (Includes Rain on Snow)	25 psf
Exposure Factor, Ce	1.0
Importance Factor, Is	1.0
Thermal Factor, Ce	1.0

Wind:

Basic Wind Speed - Ultimate Strength Design Vult	109 mph
Basic Wind Speed - Allowable Strength Design Vasd	84 mph
Wind Importance Factor Iw	1.0
Building Category	II
Exposure Category	B
Internal Pressure Coefficient	+0.18, -0.18

Seismic:

Seismic Importance Factor	1.0
Mapped Spectral Response Acceleration, Ss	0.100
Mapped Spectral Response Acceleration, S1	0.068
Site Class	D
Spectral Response Coefficient, SDS	0.107
Spectral Response Coefficient, SD1	0.109
Seismic Design Category	B
Basic Seismic Force Resisting System	Wood Shear Walls
Response Modification Factor, R	6.5
Analysis Procedure	Equivalent Lateral Force

General:

1. Any conflict and/or contradiction of terms or requirements with these General Notes will be resolved by the Architect/Engineer in favor of the more stringent or superior quality requirement.
2. The General Contractor shall be responsible for verifying all dimensions and elevations shown on the plans and for coordinating all dimensions and elevations shown on the structural drawings with those shown on the architectural and mechanical drawings. If errors or discrepancies in the dimensions occur, it shall be the superintendent's responsibility to bring all discrepancies to the attention of the Architect before proceeding with the work. Field verify conditions of all adjacent existing construction prior to beginning work or ordering materials. Report any discrepancies with information contained in these documents immediately to Engineer.
3. The Contractor shall verify all architectural, mechanical, and electrical openings, sizes and locations, with the structural drawings.
4. Structural details shown on these drawings are general in nature and are valid for all similar areas and conditions, unless specifically shown or noted otherwise.
5. The Contractor shall provide all temporary bracing and shoring as required during construction to ensure the safety of all individuals involved.
6. Furnish all labor, materials and equipment necessary to complete the work shown or inferred by these drawings.
7. Tank spoils are not to be included in the bid.

Foundations:

1. Foundations for this project have been designed for an allowable bearing value of 2,000 psf based on the recommendations in geotechnical report number G20-22-107 dated September 19, 2022 prepared by Kansas City Testing & Engineering, LLC.
2. Anchor bolts shall be located by means of a template to assure proper alignment.
3. Grout below all column base plates and other bearing members shall be 7500 psi non-shrink grout, thoroughly compacted and installed as recommended by the grout manufacturer.

Concrete:

1. All concrete and reinforcing work shall conform to the latest edition of the American Concrete Institute's "Standard Building Code Requirements for Reinforced Concrete," (ACI 318) and "Specifications for Structural Concrete for Buildings," (ACI 301).
2. Proposed concrete mix design shall be submitted to the Owner for approval prior to construction. Concrete shall use type II cement. Concrete mix designs shall meet the following requirements:

	Minimum 28-Day Strength	Maximum Water/Cement Ratio	Slump	Air Entrainment
Footings	4,000 psi	0.55	4"±1"	2%
Exterior exposed concrete	4,000 psi	0.42	4"±1"	6%±1%
Interior Slabs	4,000 psi	0.51	4"±1"	2%
Foundation	4,000 psi	0.42	4"±1"	6%±1%

3. If Contractor desires to increase slump above allowable limits to facilitate placement or pumping, this shall be done utilizing an appropriate approved admixture - no water shall be added at the project site without the Engineer's permission. All admixtures shall be approved in writing by the Engineer.
4. The Contractor shall reject any concrete that exceeds the slump limits noted above or exceeds the total allowable mixing time (noted in the specification) of 90 minutes.
5. No aluminum shall be placed in or directly against concrete.
6. All concrete is reinforced unless specifically noted as Unreinforced. Reinforce all concrete not otherwise shown with the same reinforcing as in similar sections or areas.
7. During hot weather (80 degrees F and above), the Contractor shall comply with the recommendations ACI-305 "Hot Weather Concrete". During cold weather (40 degrees and below), the Contractor shall comply with the recommendations of ACI-306 "Cold Weather Concreting".
8. The concrete mix designs are to be submitted as a formal submittal to the Owner for review and acceptance.
9. Verify with local authorities the required thickness of poured concrete for approaches and parking lot.

Sub-Base:

1. Sub-base Course Under Exterior Concrete Paved Surfaces: Spread two lifts of aggregate over prepared subgrade to a total compacted minimum thickness of 6" (153mm), compact according to specifications.

Reinforcing Steel:

1. Materials shall comply with the following:
   a. Reinforcing steel, all bars, shall be ASTM A615, Grade 60.
2. Detail bars in accordance with the "Manual of Standard Practice for Detailing Reinforced Structures" ACI 315, and "Building Code Reinforced Concrete," ACI 318.
3. Accessories shall be as specified in the latest edition of "Concrete Reinforcing Steel Institute Handbook." Maximum spacing of accessories shall be 4'-0". All accessories to have galvanized or plastic coated feet.
4. Reinforcing shall be continuous and where splices are required they shall be lapped a minimum of 45 bar diameters for bars NOT considered top bars. Top bars, bars with more than 12 inches of concrete below, shall be lapped 56 bar diameters at splices unless noted otherwise on the drawings. Welded wire fabric shall be lapped a minimum of six inches.
5. Standard concrete cover of bars unless otherwise noted shall be:
   a. Where earth formed 3 inches
   b. Other 2 inches
   All coverage nominal bar diameter minimum.

Anchors:

1. Adhesive used to anchor rebar or threaded rods shall be Hilti HIT-RE500, Hilti HIT-HY 200, or Simpson SET-XP. Holes shall be drilled into concrete or masonry and not cored. If reinforcing is encountered during drilling the hole shall be moved to avoid damaging reinforcing. Unless noted otherwise bolt embedment shall be a minimum of 2" less than the length of the bolt. Follow all manufacturer recommendations including those for proper drill size and hole cleaning. When possible horizontal holes to receive rebar shall be slightly inclined to encourage flow of adhesive.

Masonry

1. All masonry construction shall conform to the following:
   a. Concrete Masonry Units: ASTM C90
   b. Masonry core fill and bond beam compressive strength of 3000 psi
   c. Type M or S mortar

Dimension Lumber and Sheathing:

1. All sawn lumber framing members shall be Hem-Fir 1800 MSR, or better. All manufactured beams shall be LVL grade 2.0e, or better. All manufactured columns shall be LVL grade 1.8e or PSL 1.8e, or better.
2. All wood framing members referenced as nominal sizes, dressed S4S. Provide actual sizes as required by PS20. Provide seasoned lumber with 19% maximum moisture content at time of dressing.
3. All wood structural panels shall be identified with the appropriate grade trademark of the American Plywood Association (APA) and shall meet the requirements of Product Standard PS-2.
4. All nailing not indicated on the drawings shall conform to the nailing schedule of the governing building code. Spacing, end distances and edge distances of nails and spikes shall be such as to avoid the unusual splitting of the wood.
5. All nails shall be common wire nails, unless noted otherwise.
6. All light gage metal framing accessories noted shall be as manufactured by "Simpson Strong Tie" or approved equal, attach framing accessories to wood framing accessories to wood framing in accordance with manufacturers recommendations.
7. Wood glue shall meet the requirements of ASTM D3498.
8. Wall sheathing shall be $\frac{7}{16}$" APA Rated OSB, Exposure 1, Wall - 16(W16).
9. Roof sheathing shall be $\frac{15}{32}$" APA Rated OSB, Exposure 1, 48/24.

Structural Steel:

1. All structural steel shall conform to the following:
   a. Miscellaneous Steel ASTM A36, Grade 36
   b. Steel Tubing ASTM A500, Grade B
2. Unless noted otherwise, all column anchor bolts shall have a minimum yield stress of 36 ksi.
3. All steel shall have one coat of red oxide primer. Field touch-up all unpainted areas and weld areas.
4. Welding shall conform to the latest publication of applicable codes set forth by the American Welding Society. Non-prequalified or unauthorized welds will not be accepted.
5. See architectural drawings for all miscellaneous steel, nailer holes, attachments, etc.
6. .All steel below grade shall be encased in concrete where possible: if not possible, steel shall be thoroughly coated with (2) coats of asphaltic paint.

Shop Drawing Review:

1. Prior to submittal of a shop drawing or related submittal the general contractor shall:
   a. Review each submission for compliance with the contract documents.
   b. Review each submission for conformance with the means, methods techniques, sequences, and operations of construction; and safety precautions and programs incidental thereto, all of which are the sole responsibility of the general contractor.
   c. Identify any variation from the contract documents.
   d. Review and approve each compliant submission. Non-compliant submissions shall be returned to the subcontractor and approved submissions shall be stamped thus.
2. The following is a list of required shop drawings and related submittals. The general contractor shall refer to the specifications for more information and a complete list of required submittals:
   a. Anchor bolt layout drawings.
   b. Concrete mix designs, tests and material certifications.
   c. Concrete reinforcing shop drawings, reinforcing material certifications.
   d. Structural steel shop drawings, material certifications, welder certifications, and connection calculations.
   e. Masonry reinforcing shop drawings.
   f. Masonry grout and mortar mix designs.
   g. Concrete block compression tests and material certifications.
   h. Light gage materials.

SYMBOLS LEGEND

ELEVATION DESCRIPTION — ELEVATION DESIGNATION

CUT SYMBOL

TYPE NO/SHEET — SECTION CUT

TYPE NO/SHEET — ELEVATION DETAIL

TYPE NO SHEET TYPE — BLOWUP DETAIL

GRID — GRID DESIGNATION

LOAD — POINT LOAD SYMBOL

1 — REVISION DESIGNATION

22 — PLAN NOTE SYMBOL

1 — SLAB JOINT DESIGNATION

100'-0" — SPOT ELEVATION

STRUCTURAL WOOD STUD WALL

STRUCTURAL CONCRETE WALL

BRICK OR STONE VENEER

PLAN: CONSTRUCTION JOINT 1

PLAN: CONTROL JOINT 2

PLAN: BELOW SLAB INSULATION

PLAN: RECESSED SLAB

ABBREVIATIONS LEGEND

AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AFF	ABOVE FINISH FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BFF	BELOW FINISH FLOOR
BFS	BOTTOM OF FOOTING STEP
BL	BLOCK LINTEL
BO	BOTTOM OF
BOS	BOTTOM OF STEEL
BRG	BEARING
CIP	CAST-IN-PLACE CONCRETE
CJ	CONTROL JOINT (WALL)
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
DIA	DIAMETER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL
EW	EACH WAY
FDN	FOUNDATION
FF	FINISH FLOOR
FS	FAR SIDE
FTG	FOOTING
GA	GAGE
GC	GENERAL CONTRACTOR
GYP BD	GYPSUM BOARD
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
INFO	INFORMATION
JST	JOIST
JT	JOINT
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
MAX	MAXIMUM
MCJ	MASONRY CONTROL JOINT
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
NIC	NOT IN CONTRACT
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OH	OPPOSITE HAND
PAF	POWDER ACTUATED FASTENERS
PCF	POUNDS PER CUBIC FEET
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
REV	REVERSE
RO	ROUGH OPENING
RTU	ROOF TOP UNIT
SDI	STEEL DECK INSTITUTE
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SPECS	SPECIFICATIONS
T&B	TOP AND BOTTOM
TFS	TOP OF FOOTING STEP
THK	THICK
TO	TOP OF
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOGB	TOP OF GRADE BEAM
TOM	TOP OF MASONRY
TOP	TOP OF PAVING
TOS	TOP OF STEEL
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WIDTH
WP	WORK POINT
WS	WALL STEP
WWF	WELDED WIRE FABRIC

SPECIAL INSPECTIONS

SCOPE OF WORK	INSPECTION TASK	INSPECTION FREQUENCY		BUILDING CODE REFERENCE
		CONTINUOUS	PERIODIC	
SOILS	VERIFY CAPACITY OF BEARING MAT'LS		X	TABLE 1704.7.1
	VERIFY EXCAV. PROPER DEPTH & ABLE TO REACH PROPER MAT'LS		X	TABLE 1704.7.2
	CLASSIFICATION & TESTING OF CONTROLLED FILL MAT'LS		X	TABLE 1704.7.3
	VERIFY USE OF PROPER MAT'LS DESITIES & LIFT THICKNESSES		X	TABLE 1704.7.4
	VERIFY PREP. OF SUBGRADE BEFORE CONTR. FILL PLACEMENT	X		TABLE 1704.7.5
CONCRETE	REINF STEEL & PLACEMENT; INSPECT FORMWORK		X	TABLE 1704.4.1; 1704.4.11
	BOLTS INSTALLED IN CONCRETE	X		TABLE 1704.4.3.
	VERIFICATION OF REQ'D MIX		X	TABLE 1704.4.4.
	CONCRETE SAMPLING	X		TABLE 1704.4.5.
	CONCRETE PLACEMENT	X		TABLE 1704.4.6.
	CURING TEMPERATURE & TECHNIQUES		X	TABLE 1704.4.7.

A QUALIFIED SPECIAL INSPECTOR WILL BE RETAINED BY THE OWNER TO COMPLETE SPECIAL INSPECTIONS PRIOR TO AND DURING CONSTRUCTION TO CONFORM WITH THE REQUIREMENTS OF THE BUILDING CODE AND THE LOCAL CODE AUTHORITIES. ITEMS REQUIRING SPECIAL INSPECTIONS ARE TABULATED ABOVE. REFER TO CODE CHAPTER 17 FOR SPECIFIC REQUIREMENTS FOR EACH INSPECTION TASK.

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JASON JOHN JOSEPH SCHEMMER
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PROFESSIONAL ENGINEER

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COA Number CA0066

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER:
07164.057

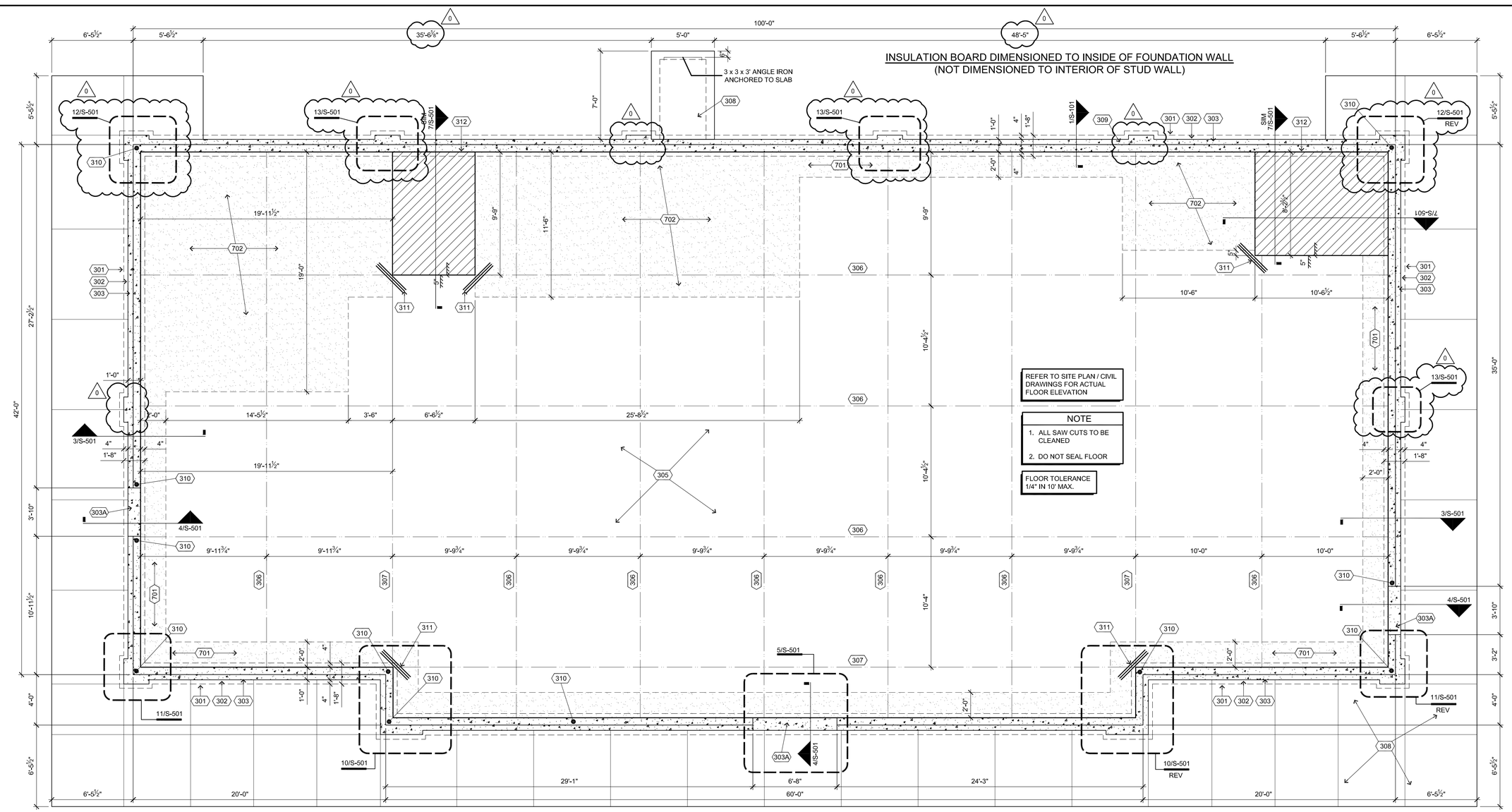
DRAWN BY: KMW CHECKED BY: JJH

PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
GENERAL STRUCTURAL NOTES & REQUIREMENTS

S-001

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Footing and Foundation Plan

1/4" = 1'-0"

N PLAN

General Notes

1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES.
2. **RELATED DRAWING SHEETS**: REFER TO THE FOLLOWING:
   A-101: FLOOR PLAN
   S-102: ROOF TRUSS PLAN
   P-101: SANITARY PLUMBING PLAN
   P-102: SUPPLY PLUMBING PLAN
   E-103: UNDERGROUND CONDUIT PLAN
3. **WORKING POINT**: THE WORKING POINT (***WP***) INDICATED ON THE DRAWINGS IS RELATIVE TO THE FACE OF SHEATHING ON THE EXTERIOR WALL AND IS A COMMON POINT OF REFERENCE WHERE EVER USED IN THESE DRAWINGS
4. USE WORKING POINTS (WP)TO COORDINATE DIMENSIONS WITH WALL SECTIONS AND DETAILS
5. ALL EXTERIOR WALL FOOTINGS SHALL BEAR A MINIMUM OF 4'-0" BELOW FINISH GRADE
6. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL RECESSED AND SLOPED FLOOR AREAS
7. REFERENCE S-501 FOR CONTROL JOINT REINFORCING DETAILS AND NOTES
8. PROVIDE 3 - #4x3'-0" LONG BARS AT INTERIOR SLAB CORNERS AND AT THE END OF CONTROL JOINT TERMINATIONS
9. TYPICAL AT ALL EXTERIOR DOORS, PROVIDE (2) #4x4'-6" LONG (2'-6" HORIZONTAL x 2'-0" VERTICAL) SLAB DOWELS @ 18" O.C. TURN (1) DOWEL INTO THE BUILDING FLOOR SLAB AND (1) DOWEL INTO THE EXTERIOR SIDEWALK
10. REFER TO ARCHITECTURAL PLAN DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN
11. ALL PENETRATIONS THROUGH FOUNDATION WALLS ARE TO BE SEALED PROPERLY. USE NP-1 OR VULKEM CAULK OR EQUAL. CAULKING MUST HOLD PROPERTIES BELOW GRADE
12. PROVIDE 1'x1' BOX-OUT FOR ALL ADJUSTABLE FLOOR DRAINS

Construction Notes

DIVISION 3 - CONCRETE

(301) **SPREAD FOOTING:** 1'-8" REINFORCED CONCRETE FOOTING (TYPICAL); SEE SHEET S-501 FOR ADDITIONAL INFORMATION.

(302) **FORMED FOUNDATIONS:** TYPICAL 12" W REINFORCED CAST CONCRETE; SEE DETAILS SHEET S-501 FOR DIMENSIONAL AND REINFORCING DETAILS.

(303) **BRICK LEDGE:** PROVIDE 5-1/2" W x 3" D BLOCK OUT ALONG FOUNDATION PERIMETER;
[303A] BREAK AT DOOR OPENINGS AS INDICATED BY DETAILS.

(304) **NOT USED**

(305) **CONCRETE SLAB:** 5" REINFORCED CONCRETE SLAB OVER 6" BED OF CRUSHED ROCK, POUR SLAB TO FOUNDATION EDGE AND LEVEL WITH TOP OF FOUNDATION, ALLOWABLE TOLERANCE 1/4" IN 10' MAX; **(CONTRACTOR WILL BE BACK BILLED FOR LABOR & MATERIAL IF 1/4" IN 10' MAX IS NOT ACHIEVED);**REINFORCE SLAB WITH 6x6-W2.1xW2.1 WELDED WIRE FABRIC (WWF) OR #4 BARS @ 24" OC; *DO NOT SEAL;* REFER TO STANDARD SLAB DETAILS ON SHEET S-501 AND DETAILS REFERENCED FOR REINFORCING CONNECTION TO FOUNDATION.

(306) **CONTROL JOINTS:** SAW CUT CONTROL JOINTS, ALL JOINTS TO BE CLEANED AND FREE OF DEBRIS.

(307) ALIGN SAW CUTS WITH INSIDE SLAB CORNERS AND CENTERLINE (EACH WAY) OF COLUMNS SET ON SLAB.

DIVISION 3 - CONCRETE (*Continued*)

(308) **SIDEWALK:** REINFORCED CONCRETE WALK WITH TURN-DOWN EDGES RETURNED TO BUILDING; CONNECT TO BUILDING FOUNDATION PER DETAILS WITH MAX. 2% CROSS SLOPE AWAY FROM BUILDING; SET TOP OF SIDEWALK EVEN WITH BRICK LEDGE AND RAISE AT ALL ENTRANCE AND EXIT DOORS, MAINTAIN LEVEL ACCESS AT ALL DOOR; PROVIDE TOOLED JOINTS USING BEST PRACTICES FOR CONCRETE FLAT WORK TO PREVENT/CONTROL CRACKING; *SEE DETAILS SHEET S-501*

(309) **GROUNDING ELECTRODE:** EMBED GROUNDING ELECTRODE IN FOUNDATION WALL, TIE TO REINFORCING BAR IN FOOTING, SEE DETAIL 1/S-101 FOR ADDITIONAL INFORMATION, COORDINATE EXACT LOCATION WITH ELECTRICAL SERVICE INSTALLATION.

(310) SIMPSON HDU4-SDS2.5 HOLDOWN WITH 5/8" THREADED ROD EPOXIED INTO FOUNDATION 16".

(311) **ADDITIONAL SLAB REINFORCING:** PROVIDE 3 - #4x3'-0" LONG BARS AT INTERIOR SLAB CORNERS AND AT THE END OF CONTROL JOINT TERMINATIONS

(312) **BLOCKOUT:** BLOCKOUT CONCRETE FOUNDATION WALL AT FREEZERS.

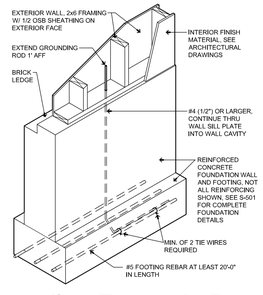
DIVISION 6 - WOOD, PLASTICS, AND COMPOSITES

(601) NOT USED.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

(701) **PERIMETER INSULATION:** PROVIDE 2" RIGID INSULATION BOARD UNDER SLAB WITHIN 24" OR FOUNDATION, RETURN INSULATION BOARD DOWN INSIDE FACE OF FOUNDATION WALL TO TOP OF FOOTING

(702) **UNDER SLAB INSULATION:** PROVIDE 2" RIGID INSULATION BOARD UNDER PORTIONS OF SLAB INDICATED (COOLERS w/o INSULATED FLOORS) VERIFY INSULATION EXTENDS 24" BEYOND COOLER EXTERIOR



Grounding Electrode Detail

No Scale

1

STATE OF MISSOURI
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PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

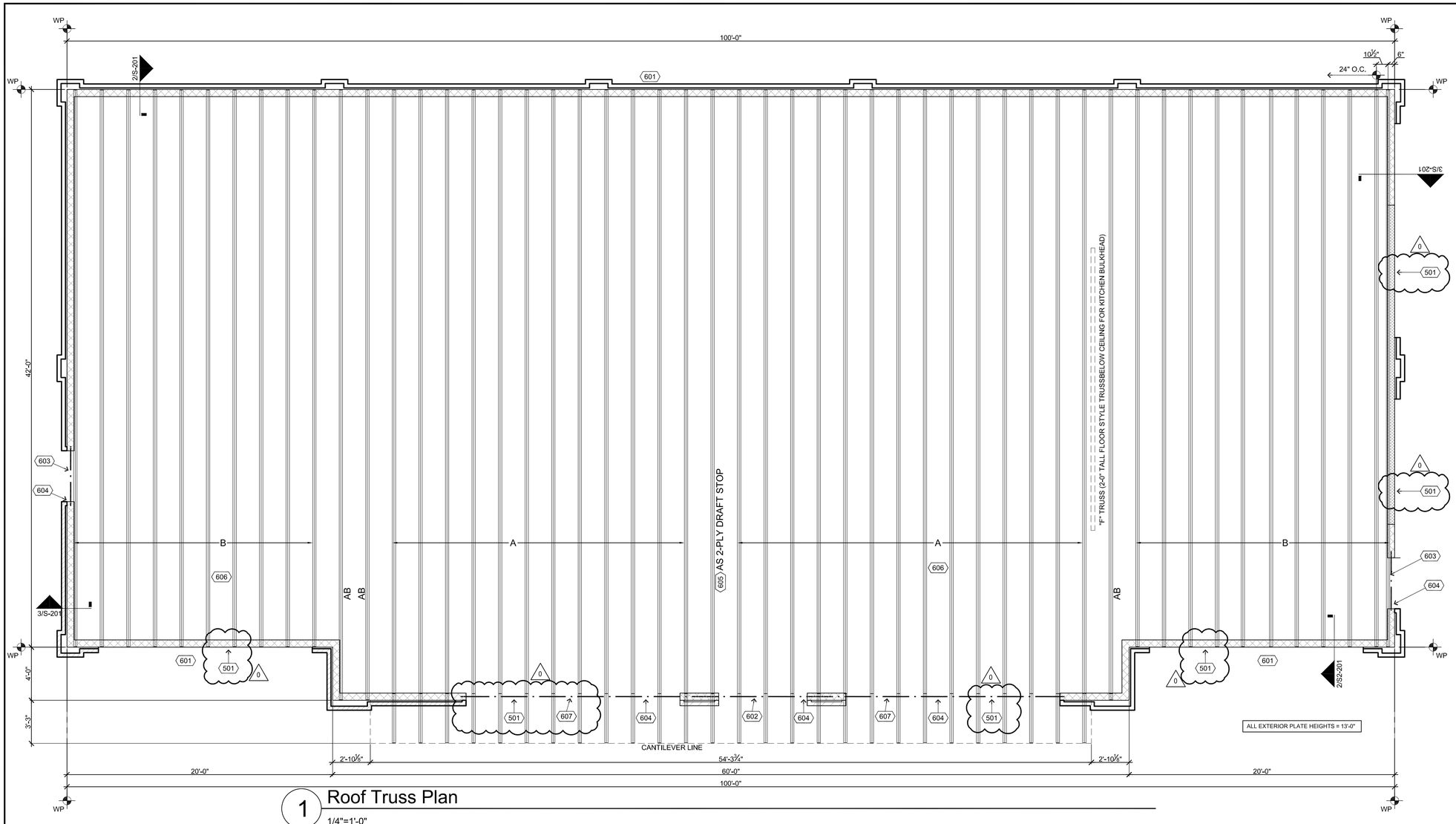
PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
FOOTING AND FOUNDATION PLAN

S-101

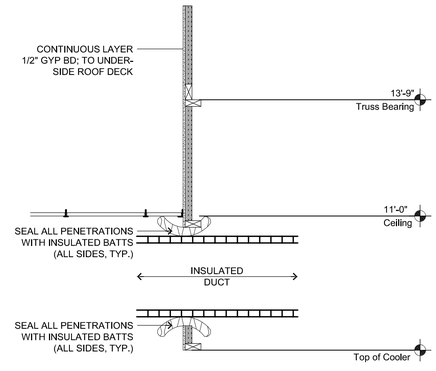
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DRAWN BY: KMW
CHECKED BY: JJH

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1 Roof Truss Plan

1/4"=1'-0"



2 Draftstop Section (Attic)

3/4"=1'-0"

General Notes

1. REVIEW AND COORDINATE WITH ALL DETAIL PAGES REFERENCED ON THIS PLAN, NOTIFY ARCHITECT AND OWNER OF DISCREPANCIES
2. **RELATED DRAWING SHEETS**: REFER TO THE FOLLOWING:
   A-101: ARCHITECTURAL FLOOR PLAN
   A-121: ROOF PLAN
   S-101: FOOTING AND FOUNDATION PLAN
   M-102: ROOF TOP EQUIPMENT PLAN
3. **WORKING POINT**: THE WORKING POINT (***WP***) INDICATED ON THE DRAWINGS IS RELATIVE TO THE FACE OF SHEATHING ON THE EXTERIOR WALL AND IS A COMMON POINT OF REFERENCE WHERE EVER USED IN THESE DRAWINGS, COORDINATE DIMENSIONS WITH WALL SECTIONS AND DETAILS
4. USE WORKING POINTS (WP)TO COORDINATE DIMENSIONS WITH WALL SECTIONS AND DETAILS
5. REFER TO ARCHITECTURAL PLAN DRAWINGS FOR ADDITIONAL DIMENSIONS NOT SHOWN
6. ***TRUSS LAYOUT FOR REFERENCE ONLY!!!!!***
   REFER TO TRUSS MANUFACTURER'S ROOF PLACEMENT PLAN, INDIVIDUAL TRUSS DRAWINGS, AND BRACING INFORMATION FOR ACTUAL ERECTION AND STABILIZATION OF ROOF TRUSSES.
7. TRUSS DESIGNER TO SPECIFY ALL NECESSARY TRUSS TO TRUSS CONNECTORS ALONG WITH TRUSS TO WALL CONNECTIONS
8. TRUSS DESIGNER TO INCLUDE ALL CONNECTION DETAILS RELATED TO SETTING THE TRUSSES AND ATTACHING ROOF DECKING,1/2" SHEATHING TYPICAL ON SLOPED ROOF SECTION, MINIMUM 5/8" RATED SHEATHING ON 'FLAT' MECHANICAL PLATFORM.
9. PROVIDE 1'x1' BOX-OUT FOR ALL ADJUSTABLE FLOOR DRAINS

Construction Notes

DIVISION 6 - WOOD, PLASTICS, AND COMPOSITES

601 **BEARING WALL**: 2x6 FRAME CONSTRUCTION, 16" OC WITH SINGLE PLATE SILL AND DOUBLE TOP PLATES (TYPICAL), REFER TO 2/S-201 FOR SHEATHING INFORMATION.

602 **HEADER**: PROVIDE 5 1/4"x14" LVL HEADER IN BEARING WALL FOR ALUMINUM FRAMED STOREFRONT WINDOWS AND ENTRANCE DOORS, SEE S-201 FOR ADDITIONAL INFORMATION

603 **DOOR HEADER**: PROVIDE TRIPLE (3) 1-3/4" x 11-7/8" LVL HEADERS IN BEARING WALL FOR EXTERIOR DOORS

604 **FRAMED OPENINGS:** TRUSS DESIGNER TO COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS TO ACCOMMODATE OPENINGS BETWEEN PAIRS OF TRUSSES OR FRAMED ACROSS MULTIPLE TRUSS:

605 **DRAFT STOP**: PROVIDE ONE MAIN ROOF TRUSS WITH VERTICAL 2x's @ 24" OC FOR HANGING GPDW DRAFT STOP (INDICATED BY DASHED LINE)

606 **GENERAL TRUSS LAYOUT**: 2x WOOD TRUSSES @ 24" OC OR AS INDICATED ON TRUSS MFG'S LAYOUT; THIS LAYOUT FOR REFERENCE ONLY, FINAL LAYOUT AS DETERMINED BY TRUSS MFG;

607 **HEADER**: PROVIDE 5-1/4" x 18" LVL/PSL 2.0E HEADER IN BEARING WALL FOR ALUMINUM FRAMED STOREFRONT WINDOW. SEE S-201 FOR ADDITIONAL INFORMATION

DIVISION 23 - HEATING VENTILATING AND AIR CONDITIONING

2301 **SUSPENDED EQUIPMENT LOAD:** TRUSS DESIGNER TO ALLOW FOR EQUIPMENT LOADS SUSPENDED FROM TRUSSES, CONTRACTOR TO COORDINATE INSTALLATION, RE: MECHANICAL DRAWINGS

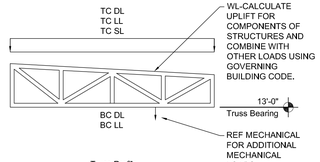
2302 **ROOFTOP EQUIPMENT LOADS:** TRUSS DESIGNER TO ALLOW FOR ROOF TOP LOADS FROM MECHANICAL EQUIPMENT SET ON ROOF, CONTRACTOR TO COORDINATE INSTALLATION, RE: MECHANICAL DRAWINGS

DIVISION 5 - METALS

501 **BRICK LINTEL:** PROVIDE L5X5X3/8 STEEL ANGLE LINTEL W/ 1/2" DIAMETER LAG SCREWS @ 16" O.C. - TYPICAL AT OPENINGS IN BRICK VENEER.

0

Notes:
1. TC = Top Chord, BC = Bottom Chord, LL = Live Load, SL = Snow Load, DL = Dead Load, WL = Wind Load. Dead loads do not include self-wheight or additional dead loads due to equipment.
2. Truss manufacturer shall be responsible for coordinating the equipment loads, penetrations, ducts and clearance requirements.
3. Space trusses at 24" O.C. Max.
4. Purlins are not required and shall not be installed to brace the top chord. Truss design shall be based on no purlin bracing.
5. The plywood roof sheathing is to be connected to the top chord as described in the sheathing notes.
6. Web layout is shown for information only, actual web layout to be determined by truss manufacturer.
7. The structural design is based on the installation of pre-fabricated (pressure-plated) wood trusses. Substituting the wood trusses for an alternative product will require additional design and detailing.



Truss Profile

DESIGN LOADS IN PSF	
TRUSSES	LOADS
TC LL	20
TC SL	25
TC DL	20
BC LL	0
BC DL	8

STATE OF MISSOURI
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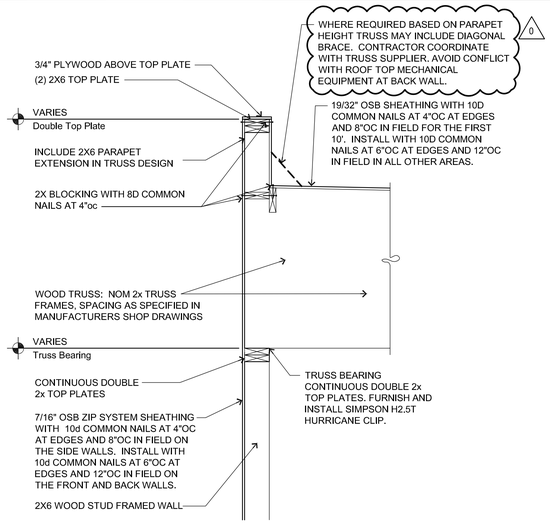
PUBLISHED: 10/18/2023
1 REVISED ON:

DRAWING INFORMATION:
ROOF TRUSS PLAN

PROJECT NUMBER: 0764.057
DRAWN BY: KMW
CHECKED BY: JJH

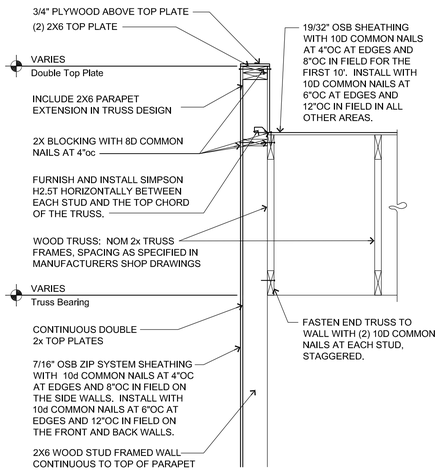
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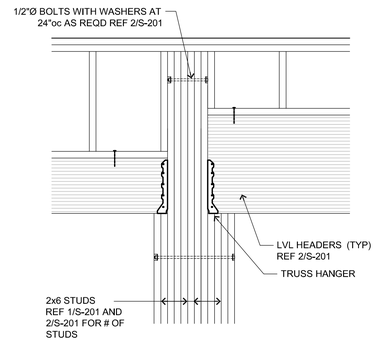
2 Truss Bearing On Wall

3/4" = 1'-0"



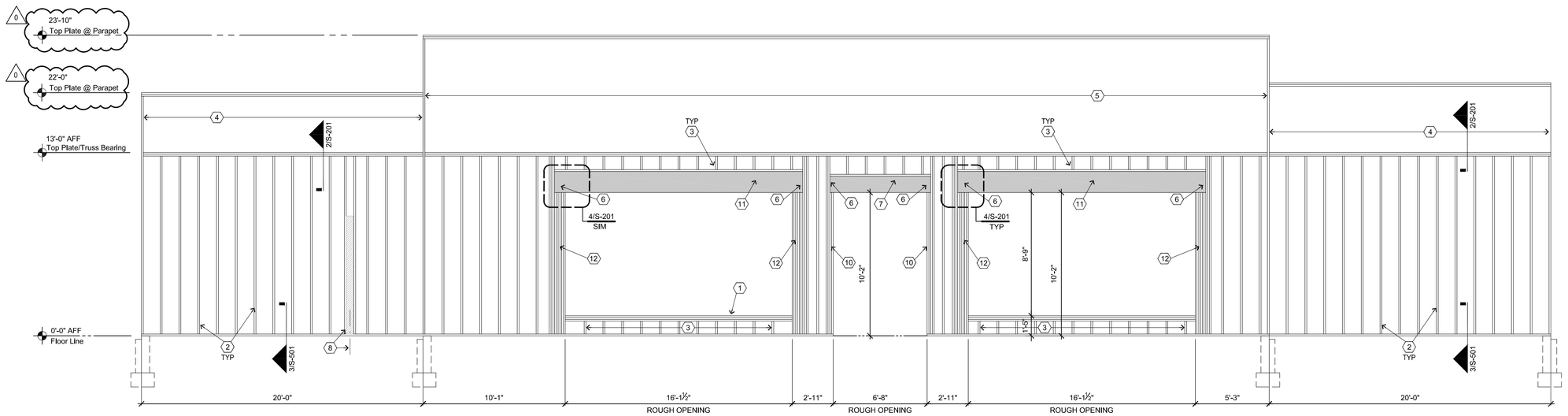
3 Truss to End Wall Connection

3/4" = 1'-0"



4 Beam to Stud Connection

3/4" = 1'-0"



1 Front Wall Framing Elevation

1/4" = 1' - 0"

Plan Notes

1. (3) 2X6 STUDS AT SILL OF WINDOW OPENINGS
2. 2X6 STUDS AT 16"OC WHERE STUDS ARE FULL HEIGHT OF WALL
3. 2X6 STUDS AT 16"OC MAX ABOVE AND BELOW OPENINGS
4. 2X WOOD TRUSSES DESIGNED BY OTHERS, CONTINUE WALL SHEATHING ON TRUSSES TO TOP OF PARAPET, REFER TO MANUFACTURERS SHOPS AND INSTALLATION INSTRUCTIONS
5. 2X WOOD TRUSSES DESIGNED BY OTHERS, TRUSSES HANG OVER FRONT WALL SHEATHING WITH DROP EXTENSION OVER ENTRANCE, REFER TO MANUFACTURERS SHOPS AND INSTALLATION INSTRUCTIONS
6. TIE HEADERS TO SUPPORTS WITH SIMPSON HUC612 AT EACH END. ATTACH HUC HANGER WITH MAXIMUM NAILING PER SIMPSON (22-16D INTO FACE, 8-16D INTO JOIST)
7. 5 1/4" x 14" LVL/PSL 2.0E HEADER.
8. CENTER LINE PARTITION WALL BEYOND. PROVIDE ADDITIONAL STUDS AS SHOWN RE. ARCH. DRAWINGS FOR LOCATIONS, TYPICAL AT ALL POINT DIMENSIONS.
9. (5) JACK STUDS AND (2) FULL HEIGHT STUDS
10. (2) JACK STUDS AND (2) FULL HEIGHT STUDS
11. 5-1/4" x 18" LVL/PSL 2.0E HEADER.
12. (6) JACK STUDS AND (3) FULL HEIGHT STUDS.

General Construction Notes

1. INSULATE PARTITION SPACES BEFORE ATTACHING EXTERIOR SUB-SIDING.
2. INSULATE CORNERS BEFORE APPLYING EXTERIOR SUB-SIDING.
3. FRONT EAVE STRUT TO BE INSULATED.
4. VERIFY ROUGH OPENING OF DOOR AND WINDOWS SHOWN ON ELEVATION 1/A-601.
5. CONTRACTOR TO SUPPLY AND INSTALL 30 MIL VINYL SEAL FLASHING AT ALL LINTELS. PAINT LINTELS PRIOR TO INSTALLATION.
6. CONTRACTOR TO SUPPLY AND INSTALL COTTON WEEP ROPE AT 24"OC TIED ON FIRST WALL TIE ABOVE ALL LINTELS.
7. NAILING NOT OTHERWISE NOTED SHALL BE PER TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE.

NOTE:
WALL FRAMING LUMBER SHALL BE DOUGLAS FIR-LARCH #2 OR BETTER WITH Fb=850 PSI AND E=1,600 KSI (UNLESS NOTED OTHERWISE)

STATE OF MISSOURI
JASON
SCHIMMER
NUMBER
2012026161
10/18/2023
PROFESSIONAL ENGINEER

Casey's

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1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number
CA0066

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER:
07164.057

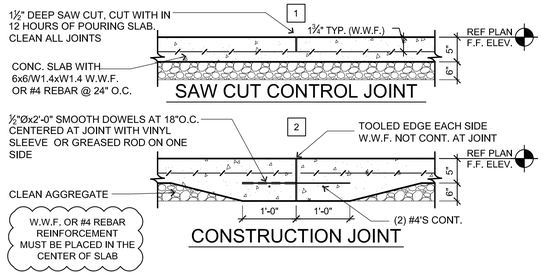
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CHECKED BY: JJH

PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
FRONT WALL FRAMING AND DETAILS

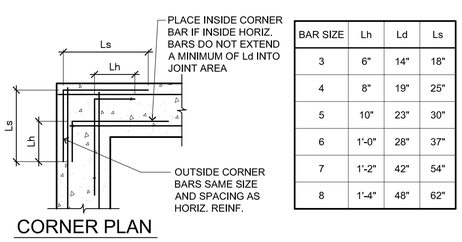
S-201

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1 Standard 5" Slab Details

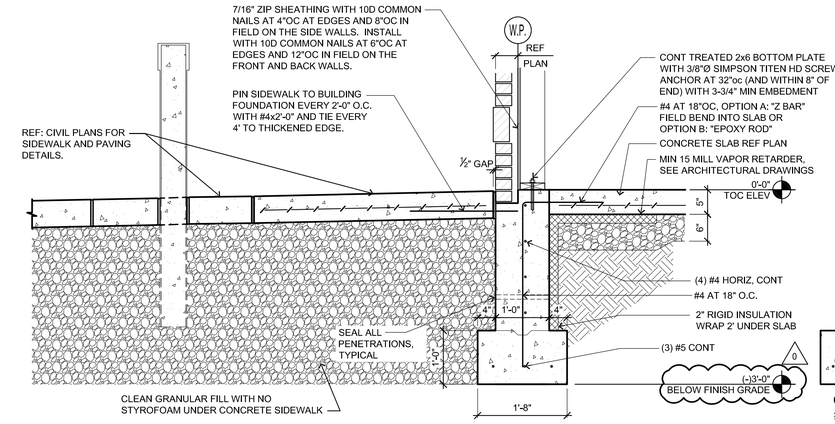
3/4" = 1' - 0"



BAR SIZE	Lh	Ld	Ls
3	6"	14"	18"
4	8"	19"	25"
5	10"	23"	30"
6	1'-0"	28"	37"
7	1'-2"	42"	54"
8	1'-4"	48"	62"

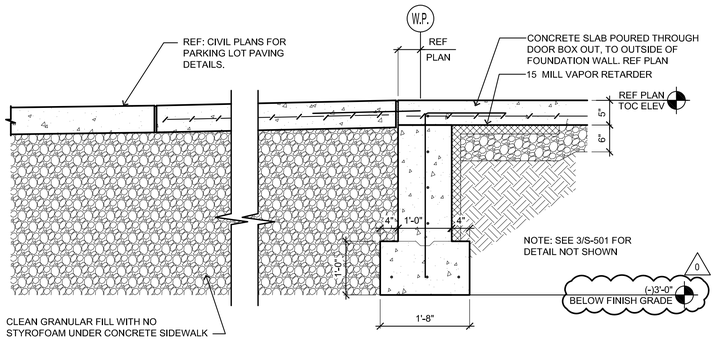
2 Typical Concrete Details

3/4" = 1' - 0"



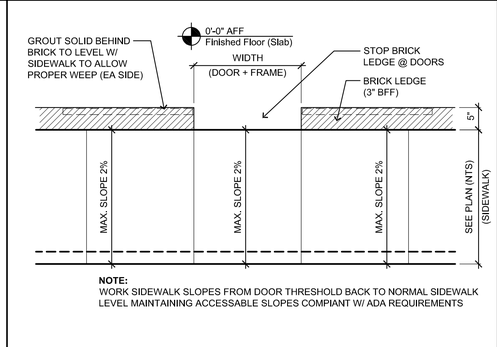
3 Typical Perimeter Footing & Sidewalk

3/4" = 1' - 0"



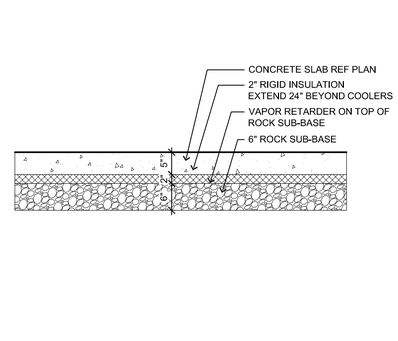
4 Footing @ Door Opening

3/4" = 1' - 0"



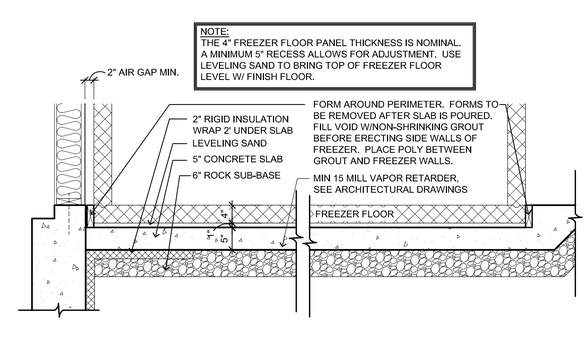
5 Slab Plan Detail @ Door

3/4" = 1' - 0"



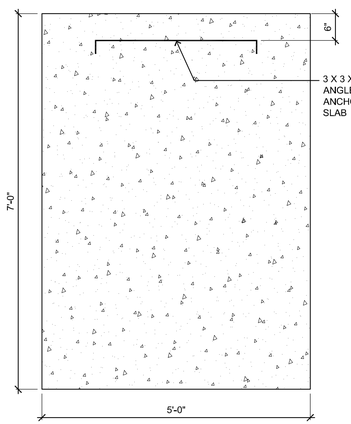
6 Cooler Floor Insulation Detail

3/4" = 1' - 0"



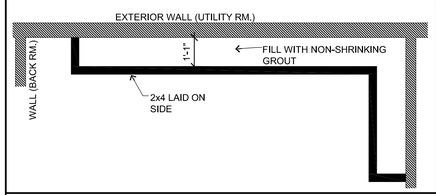
7 Recessed Freezer Floor Detail

3/4" = 1' - 0"



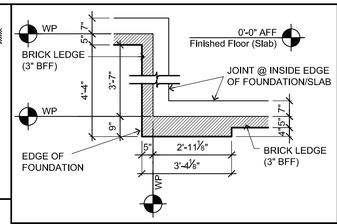
8 Ladder Landing Detail

3/4" = 1' - 0"



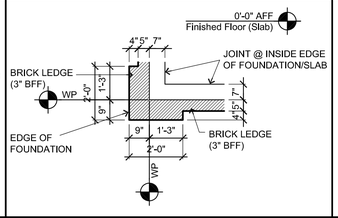
9 House Keeping Detail

3/8" = 1' - 0"



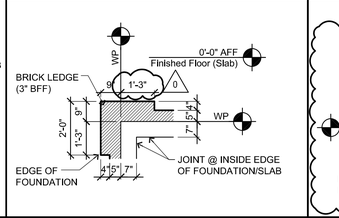
10 Slab Plan Detail

3/8" = 1' - 0"



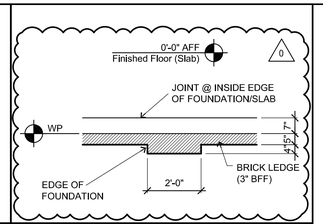
11 Slab Plan Detail

3/8" = 1' - 0"



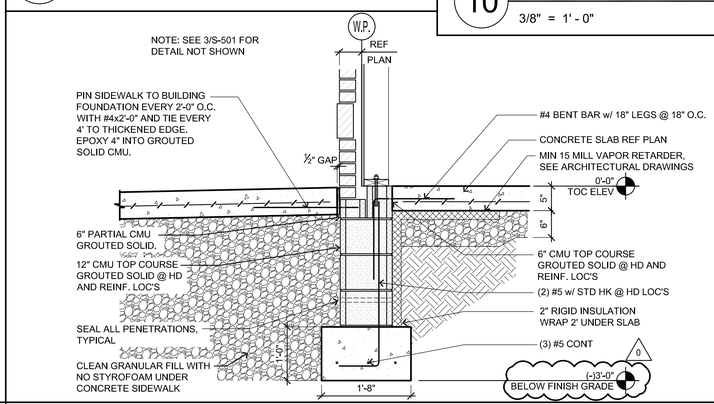
12 Slab Plan Detail

3/8" = 1' - 0"



13 Slab Plan Detail

3/8" = 1' - 0"



14 Typical Perimeter Footing & Sidewalk (CMU Option)

3/4" = 1' - 0"



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COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER:
07164.057

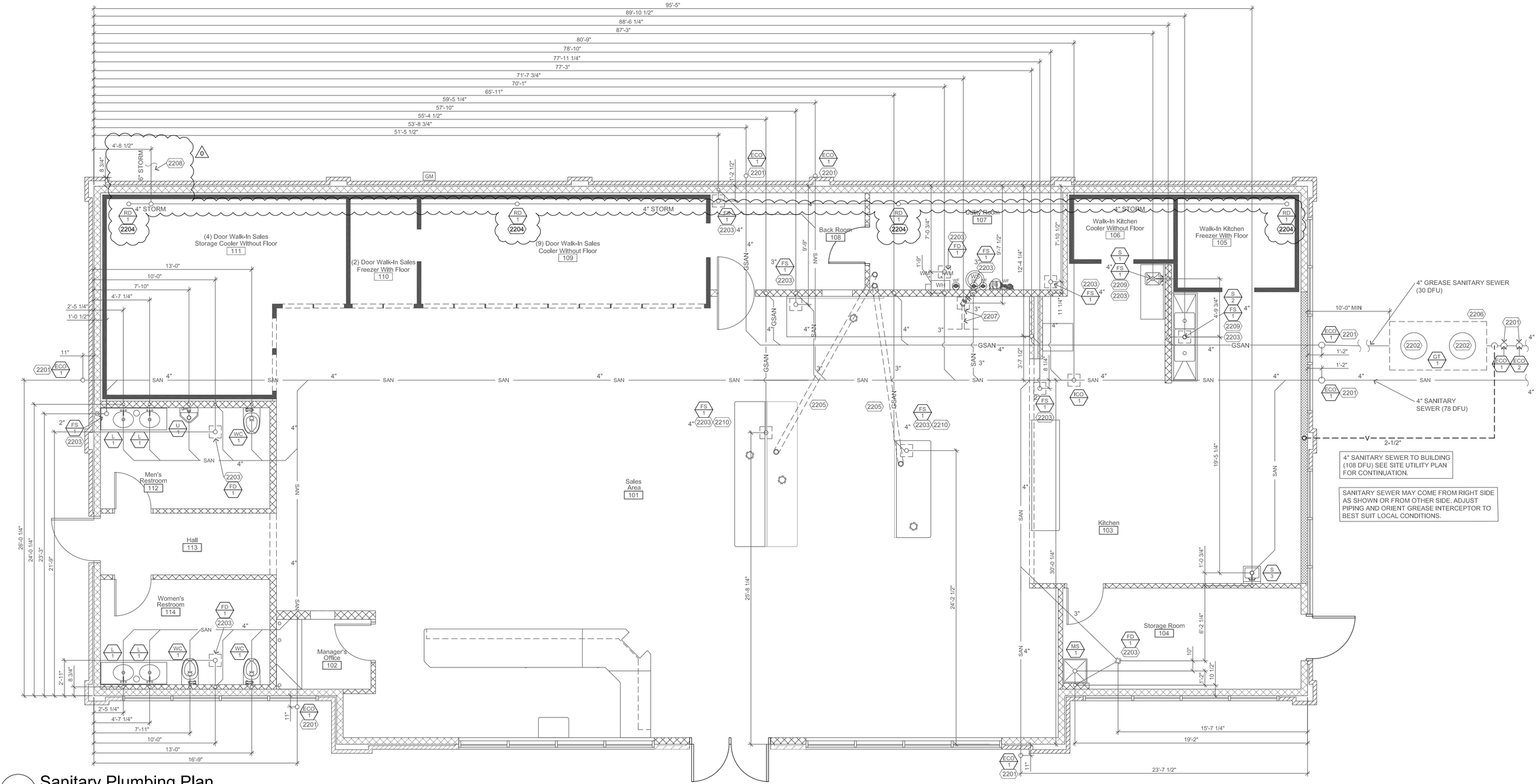
DRAWN BY: KMW
CHECKED BY: JJH

PUBLISHED: 10/18/2023
REVISED NO.
1

DRAWING INFORMATION:
FOUNDATION & CONCRETE DETAILS

S-501

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1 Sanitary Plumbing Plan

1/4"=1'-0"

Symbols

GSAN	GREASE SANITARY SEWER
SAN	SANITARY SEWER
V	PLUMBING VENT

General Notes

REFER TO THE FOLLOWING SHEETS FOR RELATED INFORMATION

A-101: FLOOR PLAN
S-101: FOOTING AND FOUNDATION PLAN
M-SERIES: MECHANICAL EQUIPMENT LOCATIONS
P-102: SUPPLY PLUMBING PLAN
P-501: PLUMBING DETAILS AND SCHEDULE

General Construction Notes

1. ALL PLUMBING MATERIALS AND INSTALLATION TO MEET STATE AND LOCAL CODES AND REGULATIONS
2. ALL DRAINS AND FIXTURES TO BE VENTED
3. FLOOR DRAINS AND FLOOR SINKS 1/2" BELOW FINISHED FLOOR WITH BRASS COVER. (ONLY WHERE REQUIRED)
4. CLEAN OUTS SHALL NOT BE INSTALLED IN SALES AREA
5. PLUMBING CONTRACTOR TO USE ONLY ROOFING MANUFACTURERS CAULKING ON ROOF PENETRATIONS.
6. INSTALL ADJUSTABLE FLOOR DRAINS IN ROOMS THAT HAVE CERAMIC FLOOR TILE.
7. ALL PENETRATIONS THROUGH FOUNDATION WALLS ARE TO BE SEALED.
8. INSTALL FLOOR (MOP) BASIN AFTER TILE FLOOR IS INSTALLED.
9. VERIFY W/ PLUMBING & HEALTH CODES IF SINK S/1 NEEDS TO HAVE INDIRECT PLUMBING.
10. ALL SANITARY LINES SHOULD SLOPE 1/4" PER FOOT.
11. RTU CONDENSATE LINES TO GUTTER TO BE INSTALLED BY PLUMBER - REFER TO SHEET A-121 FOR CONDENSATE LINE SIZES AND LOCATIONS SUPPORTS
12. CONDENSATION LINES: PLUMBER TO SUPPLY & INSTALL 3/4" PVC DRAIN LINES TO DIVERT CONDENSATION FROM ROOF TOP UNITS ACROSS FLAT ROOF. DRAIN WILL TERMINATE ON SHINGLED PORTION OF ROOF WHERE THE WATER WILL IN TURN FLOW TO THE GUTTER SYSTEM.

Keyed Construction Notes

DIVISION 22 - PLUMBING

2201 INSTALL CLEANOUTS LOCATED IN SIDEWALK, INTERIORS, OR PAVED AREAS FLUSH W/ FINAL FINISHED SURFACE, HEAVY CAST IRON BRASS CAP TYP.

2202 INSTALL MANHOLES FOR GREASE TRAP FLUSH WITH FINAL FINISH OF PAVING

2203 12" x 12" BOX OUT FOR ADJUSTABLE FLOOR DRAINS, FLOOR SINKS, FLOOR PIPES AND CLEANOUTS, FLOORING CONTRACTOR WILL SET PROPER HEIGHT.

0 2204 PVC STORM DRAIN PIPING INSTALLED AT 1/8" SLOPE. PIPING TO BE INSTALLED AS HIGH AS POSSIBLE ABOVE COOLERS.

2205 INSTALL 4" PVC UNDERGROUND TO BENEATH CABINET ISLAND LOCATIONS. PROVIDE TWO 45° ELBOWS OR LONG SWEEP 90°'S FOR TURN UP AT EACH END.

2206 GREASE TRAP TO BE PROCURED AND INSTALLED BY CONTRACTOR. GREASE TRAP TO BE PROCURED FROM SCHIER PRODUCTS, UTILIZE THE FOLLOWING URL: https://schierproducts.com/stocking-dealers
CONTACT SCHIER PRODUCTS WITH ANY QUESTIONS OR CASEY'S TEAM MEMBER IF THERE IS AN ISSUE.

2207 (2) 3/4" INSULATED DRAIN LINES (INSTALLED BY HVAC) RAN FROM FOUNTAIN DRINK MACHINES TO 4" PVC (SUPPLIED AND INSTALLED BY PLUMBER). SEE DETAIL ON SHEET P-501

2208 **STORM WATER CONNECTION:** COORDINATE DOWNSPOUT LOCATIONS, PRIOR TO PLACEMENT OF SIDEWALK ROUGH IN PORTIONS OF STORM WATER COLLECTION PIPING BELOW SIDEWALKS, TERMINATE STUB-UPS FOR DOWNSPOUTS LEVEL WITH FINISHED SIDEWALK

2209 SINKS S-1 AND S-2 SHALL DRAIN INDIRECTLY TO FLOOR SINK FS-1.

2210 COORDINATE FINAL FLOOR SINK LOCATION WITH CABINET LOCATION AND TROUGH DRAIN LINE(S).

STATE OF MISSOURI
JEFFREY E KULHANEK
NUMBER PE-2022017087
10/31/23
PROFESSIONAL ENGINEER

Casey's

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Omaha, NE 68154
COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

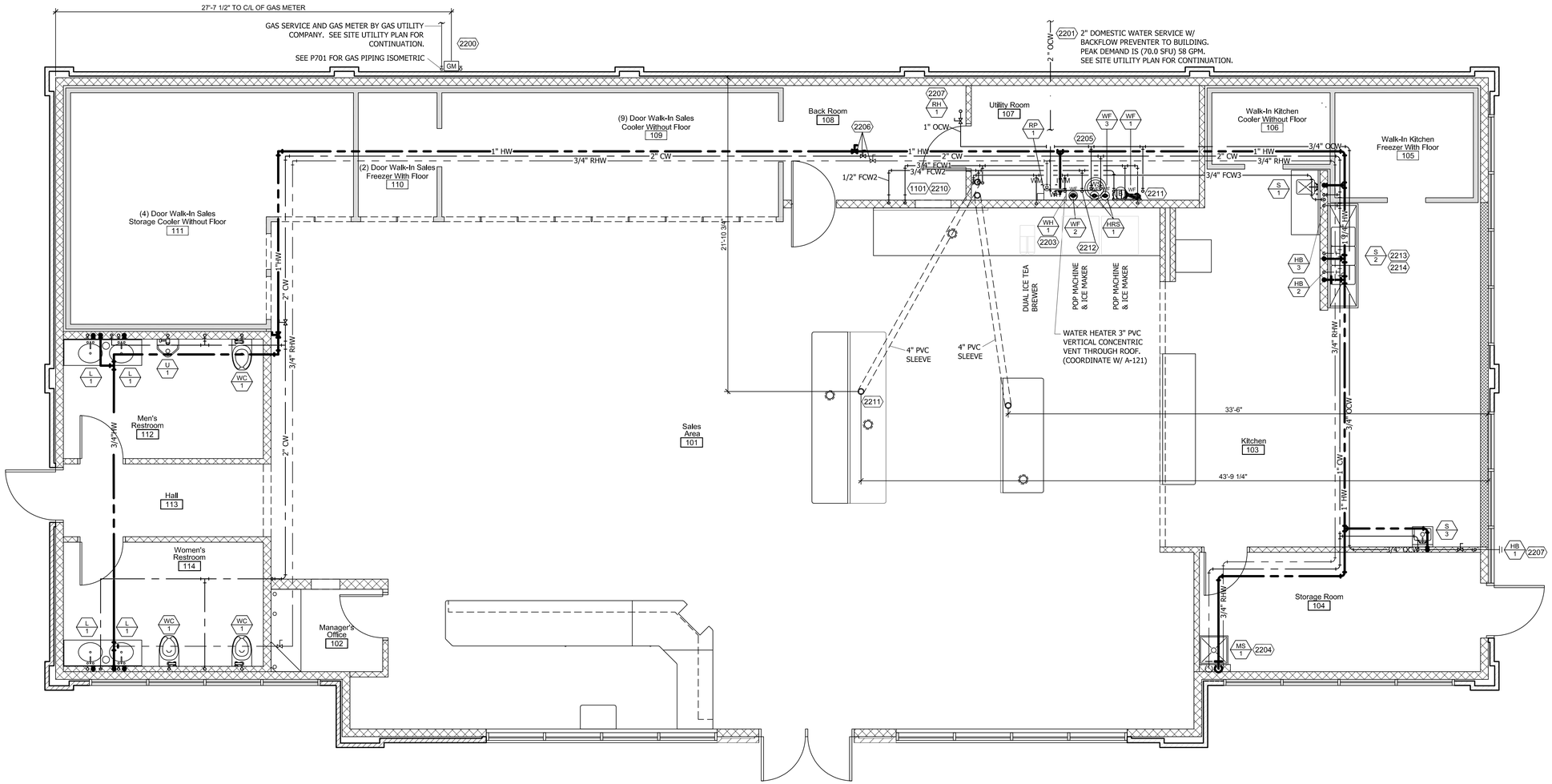
PUBLISHED: 10/18/2023
REVISED ON: 10/11/2023
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PROJECT NUMBER: 07164.057
DRAWN BY: ANK
CHECKED BY: JEK

DRAWING INFORMATION:
SANITARY PLUMBING PLAN

P-101

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1 Supply Plumbing Plan

1/4"=1'-0"

Symbols

G	NATURAL GAS LINE
CW	COLD WATER LINE
FCW1	POP & CARBONATOR
FCW2	FOLLETT & DRINKING FOUNTAIN
FCW3	HOT BEVERAGES & VEG. SINK (PEX)
OCW	OUTSIDE COLD WATER LINE
HW	HOT WATER LINE
RHW	RECIRCULATED HOT WATER LINE

General Notes

REFER TO THE FOLLOWING SHEETS FOR RELATED INFORMATION

A-101: ARCHITECTURAL PLAN
A-121: ROOF PLAN
S-101: FOOTINGS / FOUNDATION & SLAB
M-SERIES: MECHANICAL EQUIPMENT LOCATIONS
P-101: SANITARY PLAN
P-501: PLUMBING DETAIL AND SCHEDULE
P-601: SANITARY RISER DIAGRAM
P-701: SUPPLY RISER DIAGRAM

General Construction Notes

1. ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH STATE AND LOCAL CODE REQUIREMENTS.
2. WATER LINES TO FIXTURES OR EQUIPMENT TO HAVE VALVES AND CHROME ESCUTCHEONS.
3. INSULATE ALL WATER LINES ABOVE THE CEILING, COLD WATER LINES TO INCLUDE VAPOR BARRIER JACKET.
4. ALL WATER LINES TO BE LOCATED IN THE INTERIOR WALLS. EXTERIOR WALL WATER LINES REQUIRE INSULATION PROTECTION.
5. PLUMBING CONTRACTOR TO USE ONLY ROOFING MANUFACTURER'S CAULKING ON ROOF PENETRATIONS.
6. SNACK CENTER EQUIP. SUPPLY LINES REQUIRE BALL VALVE SHUT-OFFS. PLUMBER TO TERMINATE WATERLINES TO BEVERAGE EQUIPMENT.
7. PROVIDE BACKFLOW PREVENTERS AS REQUIRED BY CODE AUTHORITIES.
8. ALL SUPPLY LINES TO BE INSULATED ABOVE CEILING.
9. 3" PVC SLEEVE THROUGH FOUNDATION TO BE INSTALLED FOR IRRIGATION SYSTEM - VERIFY LOCATION WITH CASEY'S CONSTRUCTION SUPERVISOR.
10. IF LOW PRESSURE GAS IS NOT AVAILABLE, GENERAL CONTRACTOR TO NOTIFY CASEY'S HVAC SUPERVISOR IMMEDIATELY.
11. PLUMBER TO INSTALL REQUIRED VENTING FOR WATER HEATER.

Keyed Construction Notes

Division 11 - Equipment

1101 CARBONATOR: PER CASEY'S EQUIP SPEC, W/ BACK FLOW PREVENTER, INSTALLED ON TOP OF SYRUP RACK; NO COPPER PIPING BETWEEN CARBONATOR AND WATER STOP. 1-PER UNIT. WATTS NO. SD-3 OR EQUAL. MOUNT WATER VALVE ON RIGHT SIDE OF POP MACHINES, ON BACKSIDE OF REFRESHMENT CENTER WALL.

Division 22 - Plumbing

2200 GAS SERVICE MAIN 2.5" BLACK SCHEDULE 40 (THREADED & COUPLED)SCREWED PIPE AND 150# BLACK MALLEABLE IRON FITTINGS. VERIFY WITH LOCAL, STATE AUTHORITY.

2201 WATER SERVICE MAIN 2 " CTS, HDPE, SDR9, C5-200 WITH TRACER WIRE, INSULATED THRU CONCRETE WITH BALL VALVES ON BOTH SIDES OF METER. VERIFY WITH LOCAL, STATE AUTHORITY.

USE 2" TYPE 'K' COPPER LINE FOR MAIN WATER SERVICE AT CONTAMINATED BUILDING SITES. (VERIFY)

2202 WATER METER: TEST WATER SERVICE PRESSURE, IF EXCEEDS 80 PSI INSTALL REGULATOR AT SERVICE ENTRANCE.

2203 UNION AND VALVES REQUIRED ON BOTH INLET/OUTLET LINES OF WATER HEATER.

2204 FAUCET TO FLOOR BASIN (MS-1) REQUIRES ANTI-SIPHON. FAUCET TO BE @28" HEIGHT WITH 8" SPLIT NEXT TO WALL. REFER TO DETAIL ELEVATION ON SHEET P-501 AND MS-1 IN THE PLUMBING SCHEDULE.

2205 ALL PLUMBING AND PIPING IN UTILITY ROOM TO BE SURFACE MOUNTED.

2206 RESTROOM SUPPLY: ISOLATE COLD AND HOT WATER LINES TO RESTROOM AREA W/ BALL VALVES INSTALLED ABOVE CEILING.

2207 HOSE BIB: SUPPLY LINE AND FREEZE-LESS EXTERIOR HOSE BIB, PROVIDE ISOLATED SUPPLY LINE FOR EXTERIOR FAUCETS W/ MASTER BALL VALVE SHUT OFF ABOVE CEILING AND DRAIN BACK VALVE TO SINK TO CLEAR LINE OF WATER. REFER TO A-121 FOR ROOF HYDRANT LOCATION DIMENSIONS.

2210 **CARBONATOR SUPPLY:** RUN SUPPLY DOWN WALL CAVITY TO CARBONATOR ON SHELF.

2211 **COFFEE & REFRESHMENT SUPPLY LINES:** COFFEE MANIFOLD IN CABINET, REFRESHMENT MANIFOLD ON WALL BEHIND SODA MACHINES. MANIFOLDS TO BE SUPPLIED WITH FILTERED COLD WATER.

2212 **ICE MAKER SUPPLY LINES:** MANIFOLDS TO BE SUPPLIED WITH FILTERED COLD WATER.

2213 WATER SUPPLY LINES TO INCLUDE UNIONS AFTER BALL VALVE TO TRIPLE SINK FAUCET.

2214 NO PLUMBING ALLOWED UNDER TRIPLE SINK DRAIN BOARDS.

2217 NOT USED



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CA0666

PROJECT: CASEY'S GENERAL STORE MO-150 & ARBORIDGE DR LEE'S SUMMIT, MO 2023 - U4 - V.01	PUBLISHED: 10/18/2023 REVISED ON:
PROJECT NUMBER: 07164.057	DRAWING INFORMATION: SUPPLY PLUMBING PLAN
DRAWN BY: ANK CHECKED BY: JEK	P-102

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General Water Filter Notes

1. WATER FILTER SYSTEM WILL BE REQUIRED
2. INSTALL BOTH INLET & OUTLET VALVES WITH PIPE IN BETWEEN (AS SHOWN) SEE DETAIL P-501-4
3. USE CHROME ESCUTCHEONS (TYP)

Keyed Construction Notes

DIVISION 01 - GENERAL REQUIREMENTS

101 WOOD STUD WALL. SEE A-101, FOR WALL TYPE AND LAYOUT, A-601 FOR FINISH. PROVIDE BLOCKING FOR SINK.

DIVISION 06 - WOOD, PLASTICS AND COMPOSITES

601 SWANSTONE SOLID SURFACE COUNTERTOP WITH INTEGRAL BOWL, INCLUDE 4" H. BACKSPLASH AGAINST WALLS AND 7" APRON AND FRONT AND OPEN SIDE. COLOR SELECTED BY OWNER.

602 SWANSTONE SOLID SURFACE ANGLED BRACE ANCHORED TO CONCEALED BLOCKING IN WALL. COLOR SELECTED BY OWNER.

603 2X WOOD BLOCKING CONCEALED IN WALL.

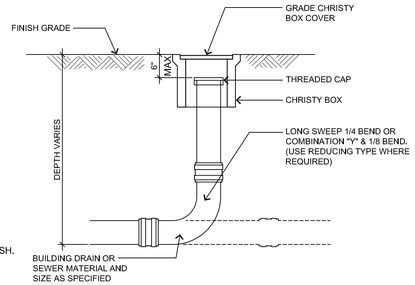
604 2X LEDGER AT WALLS, ANCHORED TO BLOCKING IN WALL.

605 SOLID SURFACE ADA COMPLIANT APRON (PIPE ENCLOSURE) ANCHORED TO ANGLED BRACE AS REQUIRED, MATCH COUNTERTOP FINISH.

DIVISION 22 - PLUMBING

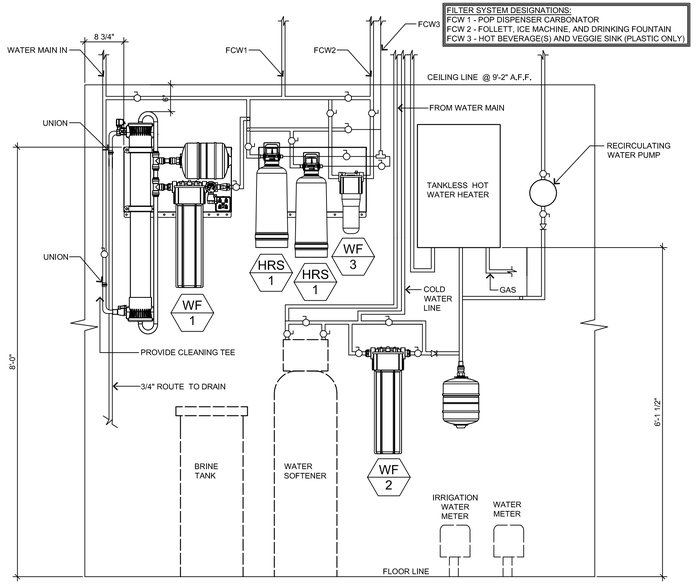
2201 FAUCET SUPPLIED BY OWNER, INSTALLED BY CONTRACTOR.

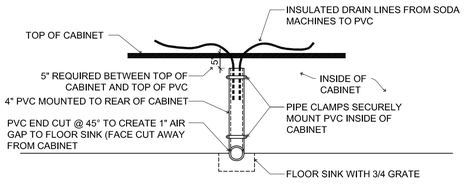
2202 COOLER CONDENSATE LINE. INDIRECT DRAIN TO BELL HUB W/AIR GAP LOCATED UNDER SINK.



6 Cleanout Detail

Not To Scale



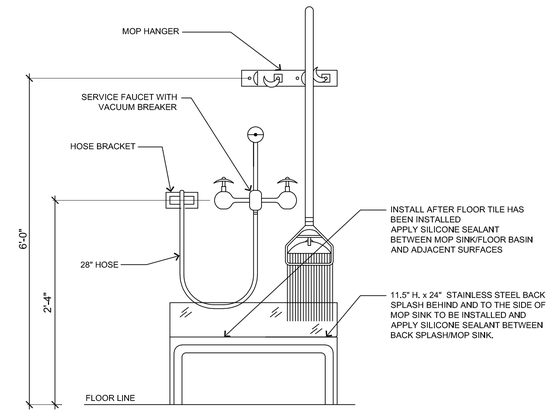


5 Soda Machine Drain Detail

Not To Scale

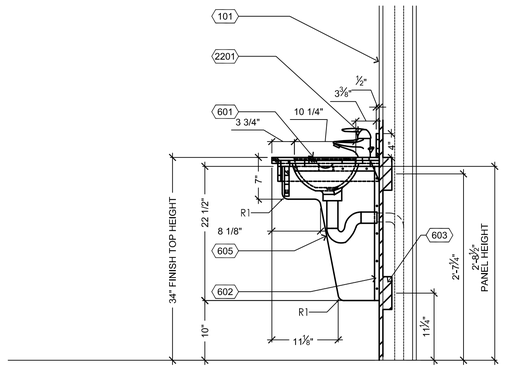
4 Water Filter System Detail

3/4" = 1'-0"



3 Mop Sink Detail

1/2" = 1'-0"



2 Sink Support Detail

1" = 1'-0"

1 Not Used

Not To Scale

PLUMBING FIXTURE SCHEDULE

ITEM	FIXTURE	SOIL OR WASTE	VENT	COLD WATER	HOT WATER	WASTE DFU	WATER HWSFU	WATER CWSFU	WATER SFU	DESCRIPTION
ECO 1	CLEANOUT	–	–	--	–	–	--	–	--	SIOUX CHIEF LIGHT COMMERCIAL CLEANOUT. SQUARE ADJUSTABLE TOP. PVC BODY. MODEL # 834-3PNQ.
ECO 2	CLEANOUT (SAMPLING PORT)	4"-6"	–	--	–	–	--	–	--	SIOUX CHIEF LIGHT COMMERCIAL CLEANOUT. SQUARE ADJUSTABLE TOP. PVC BODY. MODEL # 834-3PNQ.
FD 1	FLOOR DRAIN	2"	1 ½"	--	–	3	--	–	--	SIOUX CHIEF LIGHT COMMERCIAL FLOOR DRAIN WITH 6.5" NICKEL BRONZE SQUARE TOP. MODEL #832-36PNQ. DRAIN SHALL BE PVC BODY WITH PVC ADJUSTABLE SUMP AND NICKEL BRONZE SQUARE TOP. VERIFY IF FUNNEL TOP NEEDED.
FP 1	FLOOR PIPE	3"	2"	--	–	5	--	–	--	2" P-TRAP BELOW FLOOR WITH 2"x4" BELL. INSTALL BELL AFTER CABINET IS NET. (IN CABINETS)
FS 1	FLOOR SINK	2" 3" 4"	1 ½" 2" 2"	--	–	3 5 6	--	–	--	SIOUX CHIEF LIGHT COMMERCIAL FLOOR SINK WITH GRATE. MODEL #861-3PD. SINK SHALL BE PVC BODY WITH PVC ADJUSTABLE GRATE.
GT 1	GREASE TRAP	–	–	--	–	–	--	–	--	SCHIER GB-75 INTERCEPTOR, GREASE INTERCEPTOR TO BE PROCURED AND INSTALLED BY CONTRACTOR, UTILIZE THE FOLLOWING URL: https://schierproducts.com/stocking-dealers.CONTACT SCHIER PRODUCTS WITH ANY QUESTIONS OR CASEY'S TEAM MEMBER IF THERE IS AN ISSUE. GREASE INTERCEPTOR SHALL BE LOCATED OUTSIDE.
HB 1	HOSE BIBB	–	–	¾"	–	–	--	2.25	2.25	WOODFORD 65 OR STATE APPROVED EQUAL ROUGH-BRONZE WALL FAUCET FOR LIGHT COMMERCIAL APPLICATIONS, EXTERNAL 18" LENGTH, KEYED, VACUUM BREAKER WITH VALVE INSTALLED ON MAIN LINE FEEDING HOSE BIBB.
HB 2	INTERIOR HOSE BIBB/FAUCET	–	–	¾"	¾"	–	2.25	2.25	3	LOCATED WITHIN 2'-0" OF CHEMICALS ON LEFT SIDE OF SINK (S-2). BACK FLOW DEVICES FOR CHEMICAL DISPENSERS SHALL COMPLY WITH ASSE 1055 OR SHALL BE EQUIPPED WITH AN APPROVED BACK FLOW PREVENTOR.
HB 3	INTERIOR HOSE BIBB/FAUCET	–	–	¾"	–	–	--	2.25	2.25	LOCATED ON RIGHT SIDE OF SINK (S-2). BACK FLOW DEVICES FOR CHEMICAL DISPENSERS SHALL COMPLY WITH ASSE 1055 OR SHALL BE EQUIPPED WITH AN APPROVED BACK FLOW PREVENTOR.
HRS 1	WATER FILTER	–	–	¾"	–	–	--	–	--	HRS-200 W/ METER & HRS-200 HARDNESS REDUCTION SYSTEM. ALL PIPING & VALVES AFTER HRS FILTERS MUST BE NON-METALLIC.
ICO 1	INTERIOR CLEANOUT	–	–	--	–	–	--	–	--	WADE, 4" PVC ADJUSTABLE HOUSING. ROUND, FLUSH FITTING BRASS CAP.
L 1	LAVATORY	2"	2"	½"	½"	1	1.5	1.5	2	(HANDICAPPED); SWANSTONE 37" x 22" INTEGRAL BOWL, SUPPLIED BY OWNER, REFER TO INSTALLATION DETAIL 2/P-501. T&S FAUCET # EC-3104-VF05
MS 1	MOP SINK/ FLOOR BASIN	3"	2"	¾"	¾"	2	2.25	2.25	3	FIAT MSB-2424 MOLDED STONE MOP SINK/FLOOR BASIN W/ #302 COMBINATION DOME STRAINER & LINT BASKET, COLOR #219 - #830-AA CHROME PLATED SERVICE FAUCET W/ VACUUM BREAKER, T&S #B-0665-CR-BSTR, INTEGRAL STOPS, WALL BRACE, PAIL HOOK, AND 3/4" HOSE THREADED ON SPOUT. REFER TO DETAIL P-501 #3. INSTALL AFTER THE FLOOR TILE IS INSTALLED AND SEAL . PLUMBER TO INSTALL STAINLESS STEEL BACK SPLASH BY OWNER
RH 1	ROOF HYDRANT	–	–	¾"	–	–	--	2.25	2.25	FREEZELESS ROOF HYDRANT - WOODFORD MODEL # RHY2-MS
RD 1	ROOF DRAIN	4"	–	--	–	–	--	–	--	ZURN Z100 OR EQUAL. PROVIDE WITH CAST IRON DOME AND UNDERDECK CLAMP.
RP 1	RECIRC. PUMP	–	–	--	–	–	--	–	--	TACO 007-SF5 CARTRIDGE STYLE, IN-LINE, SINGLE STATE CIRCULATOR PUMP.
S 1	VEGETABLE SINK	2"	2"	¾"	¾"	3	3	3	4	EAGLE/METAL MASTERS 314-16-1-24L, LH DB, VEGETABLE SINK.. INCLUDE STANDARD FAUCET/ADDITIONAL FAUCET TO BE INCLUDED AS FILTER WATER FOR HEATED DISPLAY CABINETS, MANUFACTURE: T&S MODEL #CGS-1141-2V22CR: SINGLE PANTRY FAUCET, DECK MOUNTED, RIGID GOOSE NECK, STREAM REGULATOR #SO# 2981052
S 2	3 COMPARTMENT SINK	2"	2"	¾"	¾"	3	3	3	4	JOHN BOOS #CGS-3PB1620-2D18-2F THREE COMPARTMENT SINK WITH RIGHT HAND DRAIN BOARD. EACH COMPARTMENT SHALL HAVE A 16" X 20" BOWL SIZE. SINK SET AT 41½" HEIGHT. CONSTRUCTION SHALL BE WELDED 300 SERIES STAINLESS STEEL WITH ADJUSTABLE BULLET FEET FOR LEVELING. WITH T&S MODEL #B-0175-CRBJ-CGS; COMMERCIAL GRADE FAUCET MODEL # B-0665-BSTP-CVB, WALL-MOUNT, 8" CENTERS, 8" SWING SPOUT.
S 3	HAND SINK	2"	2"	½"	½"	1	1.5	1.5	2	JOHN BOOS HAND SINK. FAUCET MODEL T&S MODEL # CGS-1141-2V22CR
U 1	URINAL	2"	2"	¾"	–	4	--	5	5	(HANDICAPPED); TOTO UT447-03 "FLUSHOMETER" WALL MOUNT URINAL, VITREOUS CHINA, 1.0 GPF WASHOUT URINAL W/ ¾" TOP SPUD INLET, 2" I.P.S. INTEGRAL TRAP; TOTO ELECTRONIC "FLUSHOMETER", INSTALL TO MEET ADA REQUIREMENTS. WHITE
WC 1	WATER CLOSET	4"	2"	1"	–	4	--	10	10	(HANDICAPPED); TOTO CT 705L "FLUSHOMETER" VITREOUS CHINA FLOOR-MOUNTED ELONGATED FRONT TOILET W/ 18" HIGH BOWL, 1 1/2" SPUD, BOLT CAPS, 1.6 GAL. FLUSH, SIPHON JET FLUSH ACTION; TOTO ELECTRONIC "FLUSHOMETER" VALVE; OLSONITE MODEL: 10SSC ELONGATED, OPEN FRONT SEAT, LESS COVER, WHITE.
WCO 1	WALL CLEANOUT	–	–	--	–	–	--	–	--	WADE #W-8453-R6, WITH BRASS PLUG AND ROUND STAINLESS STEEL SECURED ACCESS COVER. (ALTERNATE JOSAM NO. 58713)
WF 1	WATER FILTER	–	–	¾"	–	–	--	–	--	VIZION VZN-441V-T5 WATER FILTER SYSTEM. PROVIDE MINIMUM OF 40" CLEARANCE BELOW FILTER SYSTEM FOR REQUIRED MAINTENANCE. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS. FILTER CARTRIDGE TO BE DATE LABELED. FLUSH FILTER PRIOR TO FINAL CONNECTIONS TO PLUMBING SYSTEM, ACCORDING TO INSTALLATION INSTRUCTIONS.
WF 2	WATER FILTER	–	–	¾"	–	–	--	–	--	H2FLOW #HTF WATER FILTER INSTALLED TO SERVICE TANKLESS WATER HEATER. PROVIDE MINIMUM OF 3" CLEARANCE BELOW FILTER SYSTEM FOR REQUIRED MAINTENANCE. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS. FILTER CARTRIDGE TO BE DATE LABELED.
WF 3	WATER FILTER	–	–	¾"	–	–	--	–	--	SI-LX SCALE INHIBITOR SYSTEM TO SERVICE ICE MACHINE.
WH 1	WATER HEATER	–	3	--	–	–	--	–	--	RHEEM COMMERCIAL TANKLESS WATER HEATER, NATURAL GAS POWERED, 11,000 - 199,000 BTU, MODEL RTGH-C95DVL. PLUMBER TO INSTALL 3" VERTICAL CONCENTRIC VENT, TO EXIT THROUGH ROOF. CONDENSATE TO BE PVC ONLY, NO COPPER.
–	–	–	–	½"	–	–	--	0.5	0.5	CAPPUCCINO, SELF SERVE FOUNTAIN DRINK MACHINE, COFFEE, ICE COFFEE, FROZEN CARBONATED BEVERAGE, ICE TEA BREWER, ICE FOLLET MACHINE.

STATE OF MISSOURI
JEFFREY J. KULHANEK
NUMBER PE-2022017087
10/31/23
PROFESSIONAL ENGINEER

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 – U4 – V.01

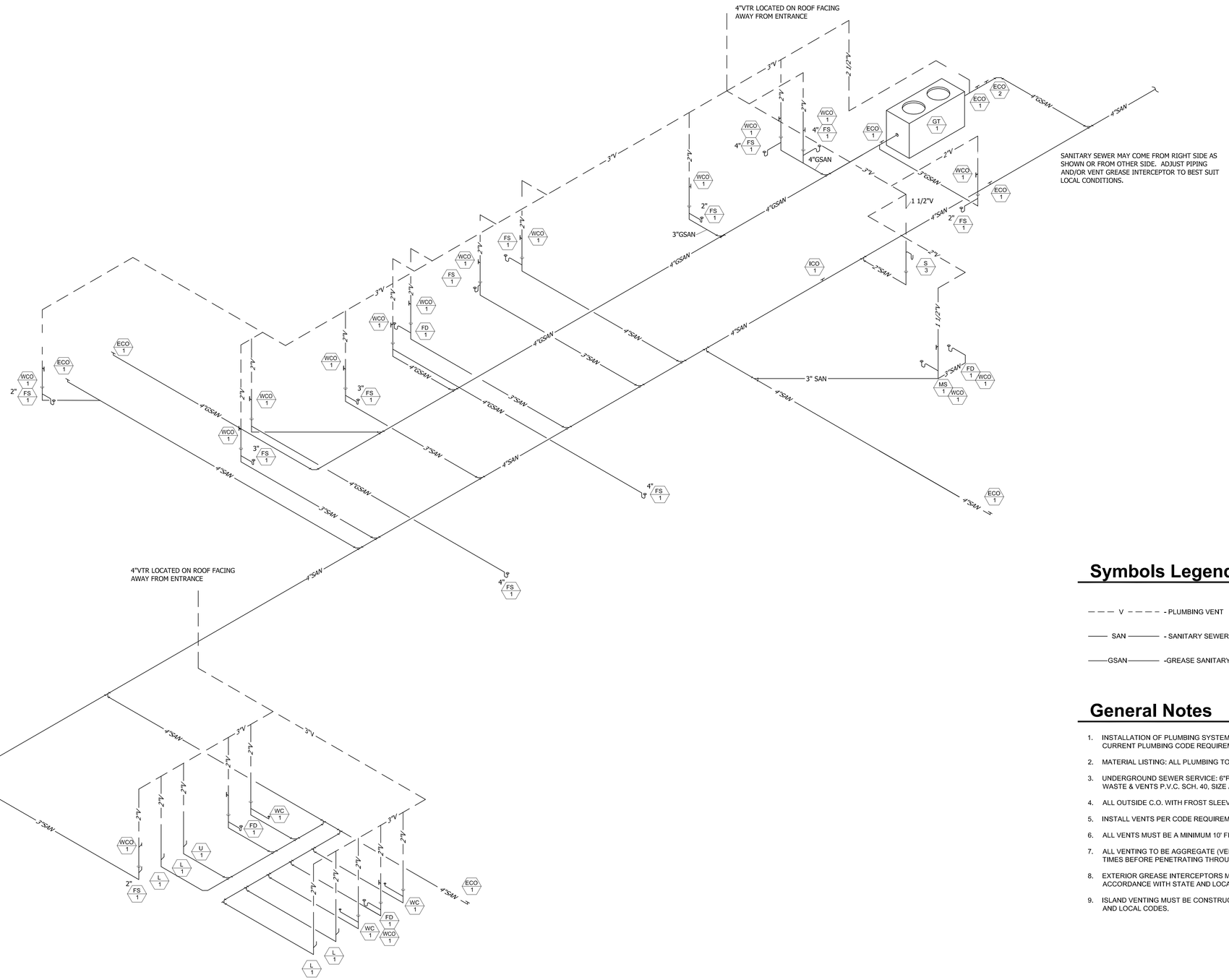
PUBLISHED: 10/18/2023
0 REVISED ON: 10/11/2023

DRAWING INFORMATION:
PLUMBING DETAILS & SCHEDULE

P-501

PROJECT NUMBER: 0764.057
DRAWN BY: ANK
CHECKED BY: JEK

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1 Sanitary Plumbing Riser Diagram

Not To Scale

Symbols Legend

— — — V — — — — - PLUMBING VENT

——— SAN ——— - SANITARY SEWER

———GSAN——— -GREASE SANITARY SEWER

General Notes

1. INSTALLATION OF PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH CURRENT PLUMBING CODE REQUIREMENTS.
2. MATERIAL LISTING: ALL PLUMBING TO MEET CURRENT PLUMBING CODE.
3. UNDERGROUND SEWER SERVICE: 6"P.V.C. SCH.40 ABOVE GROUND SEWER: WASTE & VENTS P.V.C. SCH. 40, SIZE AS SHOWN. (SUBJECT TO CHANGE)
4. ALL OUTSIDE C.O. WITH FROST SLEEVE.
5. INSTALL VENTS PER CODE REQUIREMENT.
6. ALL VENTS MUST BE A MINIMUM 10' FROM ROOF TOP ECONOMIZER UNITS.
7. ALL VENTING TO BE AGGREGATE (VENT PIPE TO INCREASE DIAMETER 1.5 TIMES BEFORE PENETRATING THROUGH ROOF.
8. EXTERIOR GREASE INTERCEPTORS MUST BE CONSTRUCTED IN ACCORDANCE WITH STATE AND LOCAL CODES.
9. ISLAND VENTING MUST BE CONSTRUCTED IN ACCORDANCE WITH STATE AND LOCAL CODES.

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COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER: 07164.057
DRAWN BY: ANK
CHECKED BY: JEK

PUBLISHED: 10/18/2023
REVISED ON:

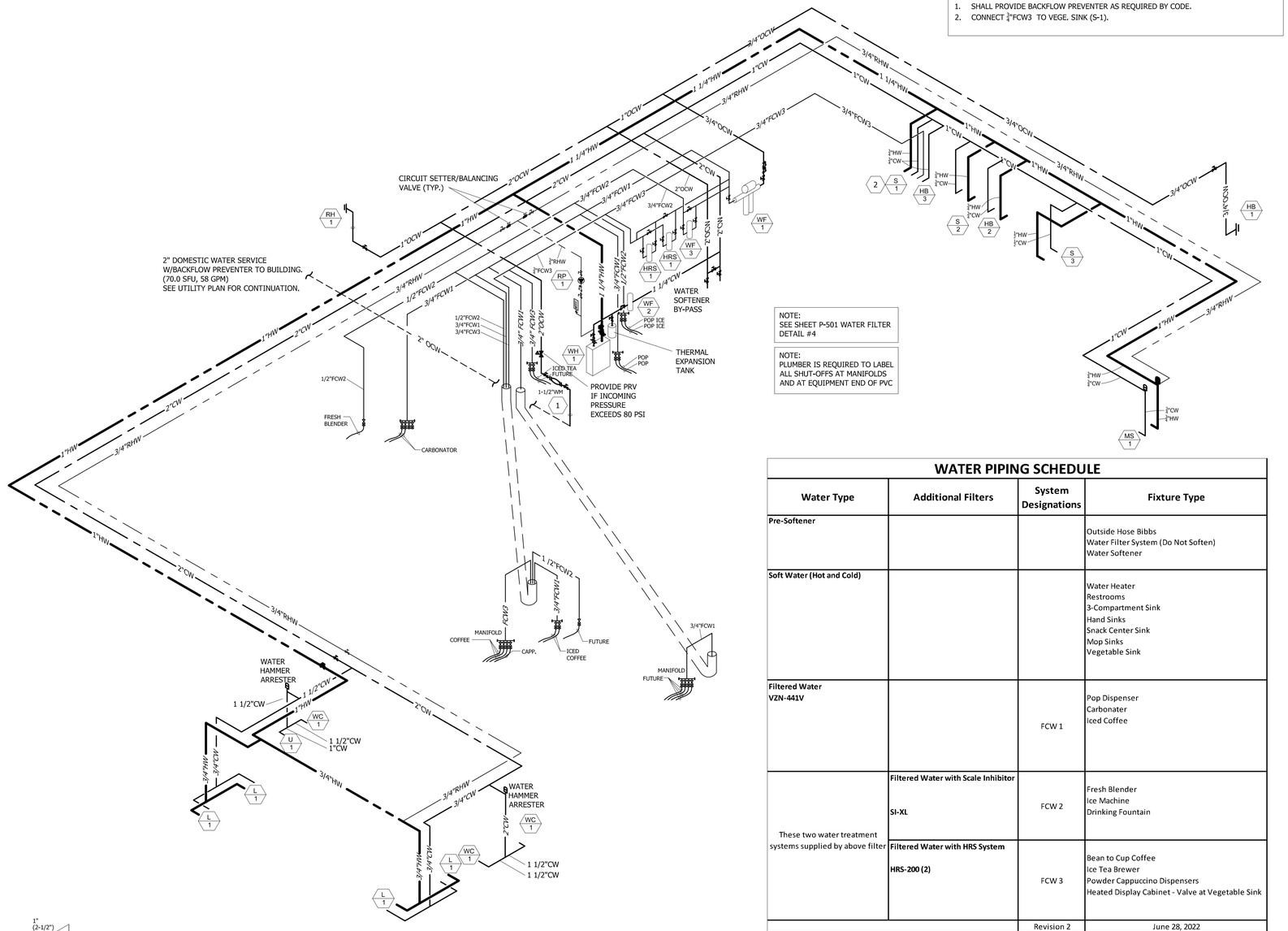
DRAWING INFORMATION:
SANITARY PLUMBING RISER DIAGRAM

P-601

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PLAN NOTES

1. SHALL PROVIDE BACKFLOW PREVENTER AS REQUIRED BY CODE.
2. CONNECT ¾"FCW3 TO VEGE. SINK (S-1).



NOTE:
SEE SHEET P-501 WATER FILTER DETAIL #4

NOTE:
PLUMBER IS REQUIRED TO LABEL ALL SHUT-OFFS AT MANIFOLDS AND AT EQUIPMENT END OF PVC

WATER PIPING SCHEDULE

Water Type	Additional Filters	System Designations	Fixture Type
Pre-Softener			Outside Hose Bibbs Water Filter System (Do Not Soften) Water Softener
Soft Water (Hot and Cold)			Water Heater Restrooms 3-Compartment Sink Hand Sinks Snack Center Sink Mop Sinks Vegetable Sink
Filtered Water **VZN-441V**		FCW 1	Pop Dispenser Carbonater Iced Coffee
These two water treatment systems supplied by above filter	**Filtered Water with Scale Inhibitor** **SI-XL**	FCW 2	Fresh Blender Ice Machine Drinking Fountain
	Filtered Water with HRS System **HRS-200 (2)**	FCW 3	Bean to Cup Coffee Ice Tea Brewer Powder Cappuccino Dispensers Heated Display Cabinet - Valve at Vegetable Sink
		Revision 2	June 28, 2022

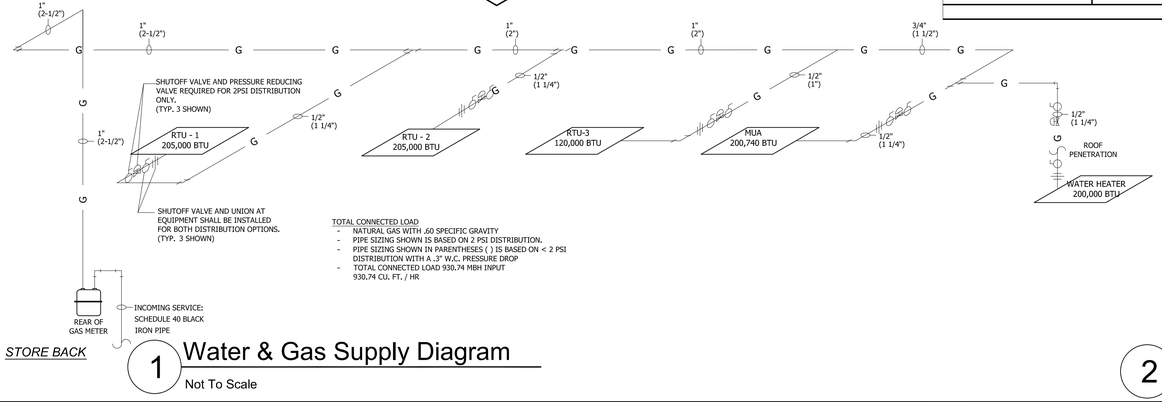
General Notes

1. ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL & STATE PLUMBING CODES.
2. MATERIAL LISTING: ALL PLUMBING TO MEET PLUMBING CODES.
3. UNDERGROUND WATER SERVICE: SIZE AS SHOWN, 2" CTS, HDPE, SDR9, C5-200 PSI WITH TRACER WIRE. VERIFY WITH LOCAL AUTHORITY. (SUBJECT TO CHANGE)

   USE TYPE 'K' COPPER LINE FOR MAIN WATER SERVICE AT CONTAMINATED SITES. (VERIFY)
4. ABOVE GROUND WATER SUPPLY TO BE L TYPE COPPER.
5. INSTALL VENTS PER CODE.
6. INSTALL BACKFLOW PREVENTORS AS REQUIRED BY LOCAL CODE AUTHORITIES.
7. GAS SERVICE AND GAS METER BY GAS UTILITY COMPANY.
8. ALL GAS LINES TO BE SCH. 40 BLACK IRON.
9. ALL GAS FITTINGS TO BE 150# BLACK MALLEABLE IRON - NO FLEX FITTINGS.
10. GAS PIPING SHALL NOT BE LOCATED WITHIN ANY WALL - SURFACE MOUNTING OF PIPING IS REQUIRED.
11. GAS APPLIANCES SHALL HAVE A DRIP LEG.

Symbols Legend

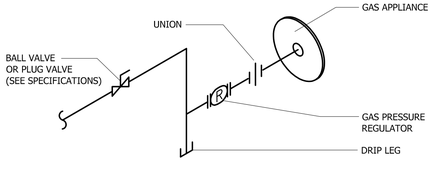
- SCHEDULE 40 GAS LINE ELBOW
- SCHEDULE 40 GAS LINE TEE
- SCHEDULE 40 GAS UNION
- GAS VALVE
- WATER VALVE
- CHECK VALVE
- G — NATURAL GAS LINE
- CW — COLD WATER LINE
- FCW1 — POP & CARBONATOR
- FCW2 — FOLLETT & DRINKING FOUNTAIN
- FCW3 — HOT BEVERAGES & VEG. SINK (PEX)
- OCW — OUTSIDE COLD WATER LINE
- HW — HOT WATER LINE
- RHW — RECIRCULATED HOT WATER LINE



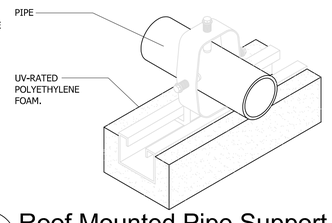
TOTAL CONNECTED LOAD
- NATURAL GAS WITH .60 SPECIFIC GRAVITY
- PIPE SIZING SHOWN IS BASED ON 2 PSI DISTRIBUTION.
- PIPE SIZING SHOWN IN PARENTHESES ( ) IS BASED ON < 2 PSI DISTRIBUTION WITH A .3" W.C. PRESSURE DROP
- TOTAL CONNECTED LOAD 930.74 MBH INPUT
  930.74 CU. FT. / HR

STORE BACK

1 Water & Gas Supply Diagram
Not To Scale

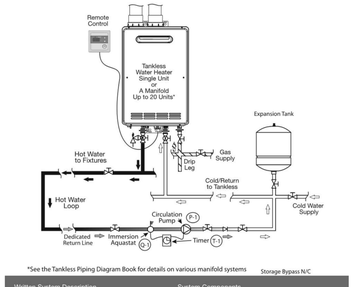


2 Gas Pipe Connection Detail
Not To Scale



3 Roof Mounted Pipe Support
Not To Scale

Direct Return Recirculation



*See the Tankless Piping Diagram Book for details on various manifold systems

Storage Bypass N/C

Written System Description

Direct Return Circulation:
A single or multi-unit manifold of tankless water heaters shall be installed to supply hot water to the building. A dedicated hot water loop around the building will return connected to the water main cold water supply feeding the tankless. The hot water loop shall be supplied by a pump that is controlled by a timer and aquastat. The aquastat must have a set point that is 10°F lower than the domestical setting of the tankless. The timer shall be set so the pump only runs during periods of required demand.

This drawing is provided as a guide only. It is not to be used as an erection or a construction drawing. Contractor shall review this drawing with all applicable plumbing codes. Installation may vary, depending on installation location, and must be done in accordance with all local building codes. Consult with local building officials prior to installation.

System Components

P-1 Circulation Pump
- Sized to meet a flow of 5 GPM @ 25ft of Head pressure, plus building head.

T-1 24-Hour Programmable timer
- Set to turn off the pump in off peak periods

Q-1 Immersion Aquastat
- Set point at 10°F below tankless set temperature.

Legend

Drawing No TKPD121211 6/12

Hot Water Supplier Circ Assembly
Hot Water Supplier Pump Assembly
Pressure Relief Valve
Circulation Pump
Shut-off Valve
Check Valve
Union
Gas Pipe
Cold Water Pipe
Hot Water Pipe
Return Circulation Line

TANKLESS HOT WATER HEATER/DIRECT RETURN RECIRCULATION

vizion

VZN Residential Series

VIZION systems provide better-tasting, scale-reducing, filtered water throughout the entire home. By providing water that is virtually contaminate free, getting a drink, preparing food, and taking a shower is a worry-free experience. Our complete line of water filtration products ensure we have the system to meet your specific needs.

- Maximum Operating Pressure: 100 psig (690 kPa)
- Maximum Operating Temperature: 104°F (40°C)
- Nominal Pore Size: .015 microns
- pH Range: 6.5 to 8.5
- MWCO: 100 to 150 kD
- Volts: 100 to 240
- Watts: 10
- Amps: .08
- Hertz: 50/60
- Includes plug adaptors for US, Europe, Australia, and UK

Model & Mfg. No.	Operating Dimensions Width	Depth	Height	Weight	Shipping Dimensions Length	Width	Height	Weight	Plumbing Connections Inlet	Outlet	Drain	Flows	Capacities Peak Capacity Per Min.	Carbon Lifespan	UF Lifespan
Recirculating System with Carbon Cartridge															
Recirculating System with UF Cartridge															
Recirculating System with new T&C-1 and new Carbon Cartridge															
Vertical System (with new T&C-1 and new Carbon Cartridge)	VZN-441VS-NSFAS	32 3/4" (84 cm)	13 1/4" (34 cm)	49 5/16" (125 cm)	38 lbs (14 kg)	52" (134 cm)	17" (44 cm)	37" (94 cm)	74 lbs (34 kg)	1" BSPT	1" BSPT	3/8" FNPT	3/8" FNPT	11 gal** (37 liters)	1 year	40" (102 cm)

* ASF certified at 1.5 gpm. **UDF certified at 1.5 gpm.

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P/N 102088 Rev. B 01/12

SEE WHAT BETTER WATER CAN DO.

VIZION WATER FILTER UNIT

STATE OF MISSOURI
JEFFREY E. KULHANEK
NUMBER PE-2022017087
10/31/23
PROFESSIONAL ENGINEER

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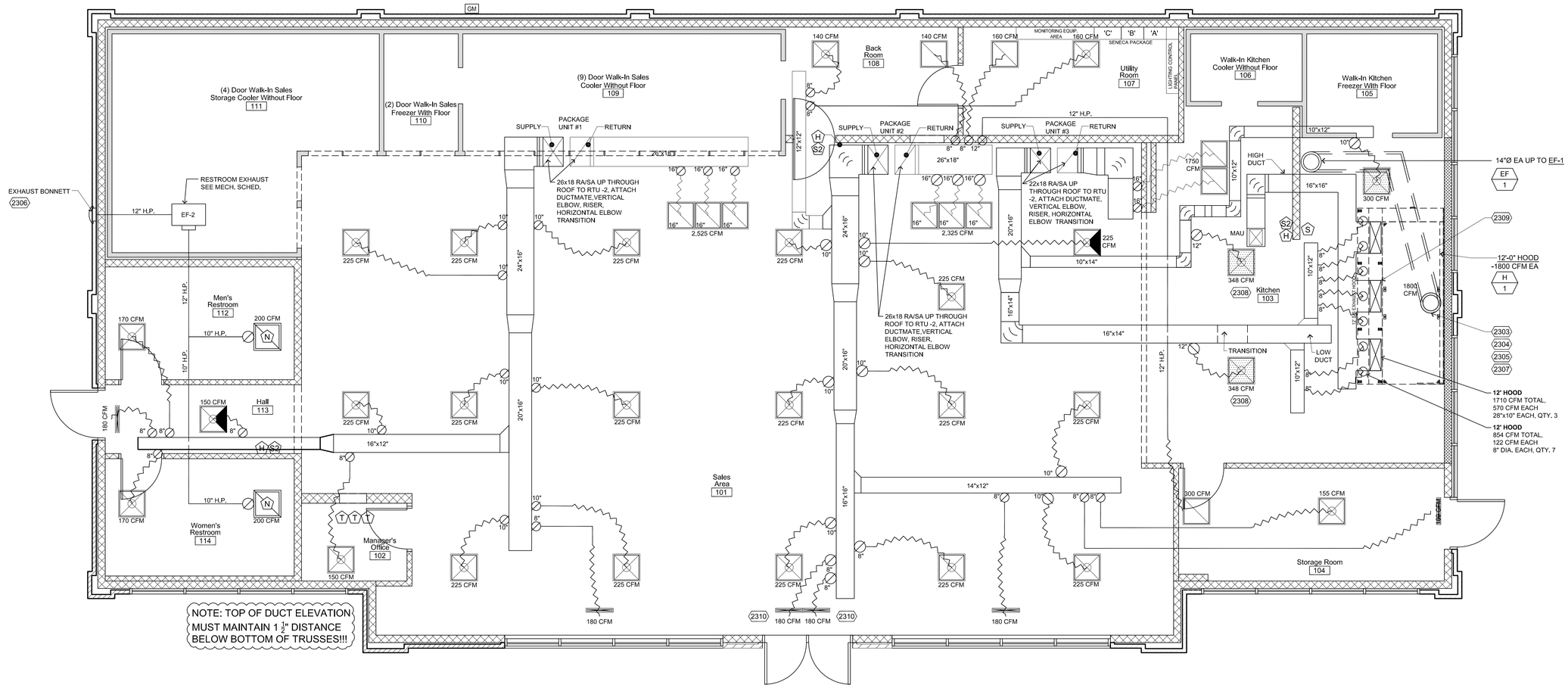
PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
SUPPLY PLUMBING RISER DIAGRAM
P-701

PROJECT NUMBER: 07164.057
DRAWN BY: ANK
CHECKED BY: JEK

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1 HVAC Equipment and Duct Plan

1/4"=1'-0"

General Construction Notes

1. COORDINATE ALL SUPPLY AND RETURN AIR GRILLES W/ ELECTRICAL AND OTHER CEILING MOUNTED DEVICES, SEE REFLECTED CEILING PLAN
2. ALL DIFFUSER RUNS TO BE INSULATED FLEX DUCT. SIZE AS NOTED. SEE NOTE 12 BELOW.
3. ALL ELECTRICAL BY OTHERS
4. HANG ALL DUCT WORK & EQUIPMENT PER IMC CODE.
5. WALK-IN COOLER AND FREEZER WALK-IN TO BE ASSEMBLED AS PER MANUFACTURERS SPECS. (NOT INCLUDED IN THESE PLANS)
6. CEILING DIFFUSERS TO BE LOCATED IN ONE TILE AREA. RE: REFLECTED CEILING PLAN A-111 FOR LOCATIONS.
7. ALL DRAIN LINES TO BE 7/8" ACR COPPER.
8. ALL DUCT WORK TO MEET SMACNA STANDARDS AND NOT LIGHTER THAN 24 GA. METAL.
9. REFERENCE SHEETS QR-602 FOR HVAC CONTROL WIRING.
10. ALL DUCT WORK TO BE INSULATED ON EXTERIOR R-8 OR GREATER .
11. NO FLEX OVER 6' IN LENGTH.
12. HVAC TO COORDINATE & PROVIDE PENETRATIONS TO HOOD SYSTEM AS REQUIRED.
13. ALL FRESH AIR INTAKES SHALL BE A MINIMUM OF 10' AWAY OR 3' BELOW ANY EXHAUST OUTLET OR PLUMBING VENT
14. THIRD PARTY SHALL BALANCE AIR FLOW AS SHOWN ON CONSTRUCTION DOCUMENTS. FIELD REPORTS SHALL INDICATE DEFICIENCIES PREVENTING PROPER TESTING, ADJUSTING AND BALANCING OF SYSTEM AND EQUIPMENT TO ACHIEVE SPECIFIED PERFORMANCE. FURNISH REPORTS TO CASEY'S HVAC/R SUPERVISOR AND ENGINEERING IN APPROVED FORMAT.

Kitchen Exhaust Hood Notes

MANUFACTURER: CAPTIVEAIRE: TYPE 1, UL APPROVED 12' EXHAUST HOOD.

Keyed Construction Notes

DIVISION 23 - HEATING, VENTILATING AND AIR CONDITIONING

2303 HOOD LIGHTING TO BE CONNECTED INTO APPROPRIATE WALL SWITCH.

2304 EXHAUST HOODS: 12 FT HOOD SECTIONS S/S 16 GAUGE. HOODS PROVIDED UNDER NATIONAL ACCOUNT

2305 EXHAUST FAN THRU ROOF SEE M-401 FOR SCHEDULE.

2306 EXHAUST FAN THRU EXTERIOR WALL SEE M-401 FOR SCHEDULE

2307 EXHAUST DUCT PROVIDED BY HOOD MANUFACTURER

2308 ALL DIFFUSERS WITHIN 10'-0" OF AN EXHAUST HOOD SHALL BE A PERFORATED STYLE DIFFUSER.

2309 MAU DUCT TO HOOD MUST ENTER HOOD ABOVE SUPPLY AIR TO HOOD

2310 2' SLOT LINEAR DIFFUSER WITH LOUVER POINTED DOWN

Symbols Legend

- 2'x2' DIFFUSER LOCATION TYP.
- 2'X2' PERFORATED DIFFUSER TYP.
- 2'x2' RETURN AIR DIFFUSER TYP.
- RESTROOM EXHAUST FAN / 10" HARD PIPE
- SLOTTED DIFFUSER TYP. (LEAVE 2-2' EXTRA CROSS TEE'S FOR SLOTTED DIFFUSERS)
- 2'x2' DIFFUSER WITH DIVERTER INSTALLED
- DAMPER (ALL SUPPLY AND RETURN LINES TO HAVE DAMPERS)
- TURNING VANES
- HARD PIPE DUCT
- FLEX DUCT
- HVAC THERMOSTAT - 72" A.F.F.
- DRYER EXHAUST
- VENTILATION EXHAUST
- HVAC DOAS COMBO STAT - 60" A.F.F.
- HVAC HUMIDISTAT - 60" A.F.F.
- SENSOR -60" A.F.F.

*ALL HEIGHTS LISTED ARE FROM BOTTOM OF UNITS U.N.O.

- HOOD
- RHEEM - 72" A.F.F.

U4 (2021) GAS - HVAC PACKAGE UNIT SCHEDULE

Unit Name	Manufacturer and Model Number	Equipment Notes	Unit CFM	OSA CFM	ESP	Blower HP	Blower BHP or Watts	Blower RPM	EER	SEER [1] / IEER [2]	Cooling Capacity Nominal Tons	Cooling Capacity MBH	Heating Capacity Heat Source	Heating Capacity Input MBH	Heating Capacity Input KW	Heating Capacity Output MBH	Heating Capacity Output KW	Electrical Volts	Electrical Phase	Electrical FLA/RLA Amps	Electrical MCA Amps	Electrical MOP Amps	Operating Weight LBS (less curbs)
													Gas or Electric										
Package Unit # 1	Rheem - RGEDZT090ACG20BDALK3	Sales Area	2800		0.7	3.0	1280.100	786	11	14.6 [2]	7.5	98.5	Natural	205		166.1		208-230	3Ø		44	60	1185
Package Unit # 2	Rheem - RGEDZT090ACG20BDALK3	Sales Area	3200		0.7	3.0	1280.100	786	11	14.6 [2]	7.5	98.5	Natural	205		166.1		208-230	3Ø		44	60	1185
Package Unit # 3	Rheem - RGECZR060ACU12BDALH3	Kitchen Area	1850		0.8	1.0	1105.700	1063	11.2	14 [1]	5	63.5	Natural	120		97.2		208-230	3Ø		34	45	583
MAU	CaptiveAire - A1-D.250-15D-MPU A/C Condensing Unit	One Unit	1710		0.4	3.0	1.060	1939		14 [1]	3	36.0	Natural	200.74		184.7		208-230	3Ø		22.8	30	1256

U4 (2021) GAS - AIR BALANCE SCHEDULE

Unit Name	Unit Description	Manufacturer and Model Number	Supply Air CFM	Return Air CFM	Outside Air CFM	Exhaust Air CFM Morning *	Exhaust Air CFM Typical	Air Balance CFM Morning *	Air Balance CFM Typical
Package Unit # 1	Sales Area HVAC Unit	HVAC Package Unit Schedule	2800	2525	275				
Package Unit # 2	Sales Area HVAC Unit	HVAC Package Unit Schedule	3200	2925	275				
Package Unit # 3	Kitchen Area HVAC Unit	HVAC Package Unit Schedule	1850	1750	100				
MAU	Kitchen Hood Make-up Air Unit	HVAC Package Unit Schedule	1710		1710				
EF - 1	12 Foot Hood Fan	CaptiveAire - DU85HFA				1800	1800		
EF - 2	Restroom Exhaust Fan**	CaptiveAire - SIF11DD				400	400		
Totals			9560	7200	2360	2200	2200	160	160

EXHAUST HOOD OPERATION SUMMARY

Equipment Name	Equipment Description	Cooking Equipment Status: Off CFM	Off Percent	Warm-up and Cool-down CFM	Warm-up and Cool-down Percent	Normal Operation CFM	Normal Operation Percent
Exhaust Hood 1	12 Foot Hood	0	0	360	20	1440 to 1800	80 to 100
Make-up Air Unit	MAU	0	0	0	0	1370 to 1710	80 to 100

STATE OF MISSOURI
JEFFREY E. KULHANEK
NUMBER PE-2022017087
PROFESSIONAL ENGINEER
10/31/23

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300, Omaha, NE 68154
COA Number CA0066

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER: 07164.057
DRAWN BY: ANK
CHECKED BY: JEK

PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
MECHANICAL PLAN
M-101

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10/31/2023 12:23:38 PM Khalil, Ahmed

HOOD INFORMATION – JOB#4678410

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP				END TO END	ROW
1	H-1	5430 ND-2-ACPSP-F	CAPTIVEAIRE	12'-0"	450 DEG	I	MEDIUM	150	1800			4"	14"	1800	1684	-0.311"	1710	854	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

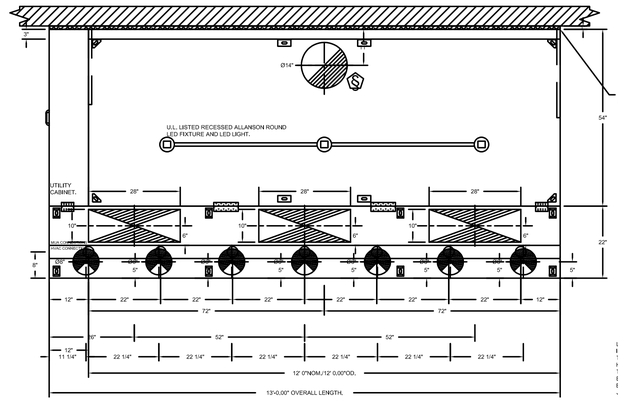
HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)					FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL	SWITCHES	
												TYPE	SIZE	MODEL #	QUANTITY	
1	H-1	SS BAFFLE WITH HANDLES	9	20"	16"	30%	3	RECESSED	NO	LEFT	12"x54"x30"			DCV-1111-SPAREFIRE-C	1 LIGHT 1 FAN	NO	896 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	H-1	BACKSPLASH 111.50" HIGH X 204.00" LONG X 1.00" WIDE INSULATED 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		STRUCTURAL FRONT PANEL.
		RISER SENSOR INSTALL 3IN DBL
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1	H-1	Front	156"	22"	6"	MUA	10"	28"		570	0.151"
						MUA	10"	28"		570	0.151"
						MUA	10"	28"		570	0.151"
						AC			8"	122	0.047"
						AC			8"	122	0.047"
						AC			8"	122	0.047"
						AC			8"	122	0.047"
						AC			8"	122	0.047"
						AC			8"	122	0.047"
						AC			8"	122	0.047"

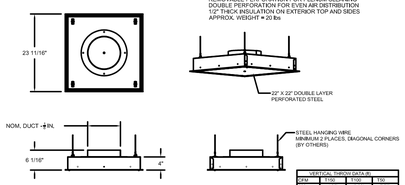


LIGHTING FOR ACPSP JOB # 4678410 - HOOD #1
INPUT: 120V AC, 1 PHASE, 50/60HZ, 3.5 WATTS PER LIGHT.
TO CONTROL LIGHTS WITH HOOD LIGHT SWITCH, WIRE PER HOOD ELECTRICAL CONTROL PANEL SCHEMATIC.
TO CONTROL LIGHTS WITH BUILDING LIGHT SWITCH, WIRE BLACK AND WHITE WIRE TO A 120VAC SERVICE.
END TO END ACPSPS REQUIRE 120VAC FIELD WIRING FROM J-BOX TO J-BOX. REPLACE LIGHTS WITH LED LIGHTS ONLY.

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

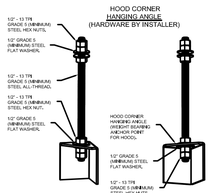
ACPSP SHIPS LOOSE FOR FIELD INSTALLATION

QTY 3-DROP-IN PERFORATED SUPPLY PLENUM DIFFUSER (DI-PSP)



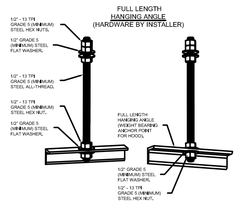
INSTALLATION NOTES:
INTENDED FOR INSTALLATION IN LAY IN (DROP) CEILINGS
INSTALL SLIDING RADIAL DAMPER ON TOP SIDE OF COLLAR

VERTICAL THROW DATA (ft)			
CFM	1100	1100	150
500	5.50	2.50	5.50
600	5.50	2.50	6.25
700	—	3.25	6.50
800	—	—	6.75
900	—	—	7.00



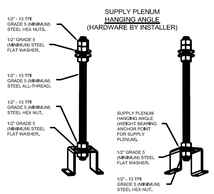
ASSEMBLY INSTRUCTIONS

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



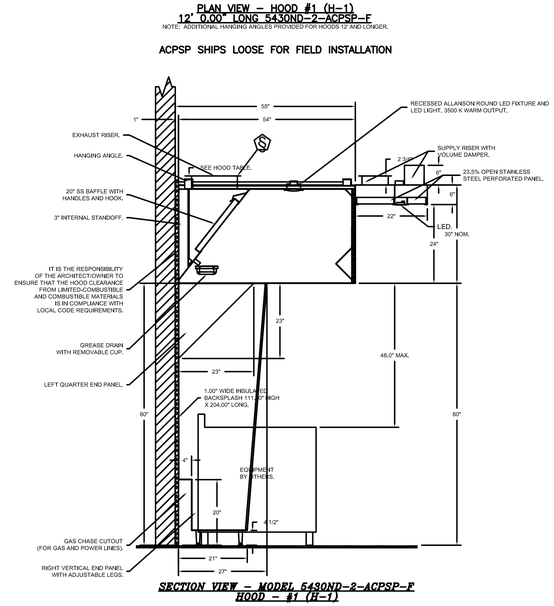
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ASSEMBLY INSTRUCTIONS

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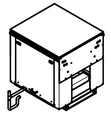


SECTION VIEW – MODEL 5430ND-2-ACPSP-F HOOD – #1 (H-1)

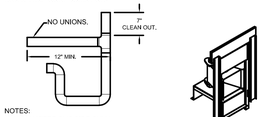
FAN #3 A1-D.250-16Z-MPU + HEATER (MAU)
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 16" DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TPI120S ACTUATOR INCLUDED.
5. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
7. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE.
8. EXTENDED DROP FOR COMMERCIAL HEATERS AND SUPPLY FANS. EXTENDS THE POWER AND REMOTE PANEL CONNECTIONS TO THE UNIT TO 20' OF TOTAL LENGTH.
9. 3 TON, SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 OF/H MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER-DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING, (1,100 TO 1,800 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION, DRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE, ANY OTHER OPTIONS SHALL REQUIRE CUL CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 22/12/0/1R.
10. DOWNTURN PLENUM FOR SIZE 1 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS.
11. SINGLE POINT MPU CONNECTION, 1 CONDENSER.
12. FREEZESTAT WITH 15' SENSOR, FACTORY SET AT 35°F AND 10 MINUTES.
13. CLOGGED FILTER SWITCH WITH NOTIFICATION ON H&R.
14. CASLINK BUILDING MONITORING SYSTEM COMMUNICATIONS MODULE, REQUIRES INTERNET & FIELD WIRED ETHERNET CONNECTION OR 3G CELLULAR SERVICE. INCLUDES REV 3 COMM MODULE, RJ45 TO MODBUS CONVERTER, 3 FT CAT5 CABLE, AND 1 FT OF SHIELDED TWISTED PAIR.
15. GFCI 15 AMP CONVENIENCE OUTLET FOR HEATER ENCLOSURE, POWER SUPPLY BY OTHERS - INCLUDES RECEPTACLE AND J BOX.
16. ECM WIRING PACKAGE FOR ZIEHL SUPPLY MOTORS WITH PWM SIGNAL FROM ECP/MSI PREWIRE.
17. TOTAL CFM MONITORING FOR MUA UNITS. USES +/- 15 PRESSURE TRANSDUCER, RIVET NUTS, 1/4" AIRFLOW TUBING AND PUSH TO CONNECT FITTINGS.
18. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER/MPU SECTION).
19. 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".

TYPICAL DRAIN TRAP INSTALL



RECOMMENDED COOLING COIL DRAIN TRAP CONFIGURATION.



NOTES:
1) 1" DIAMETER PVC PIPE ONLY.
2) USE ONLY LOW PROFILE COUPLINGS.
3) ADD CLEAN OUT AS SHOWN.

DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

SUPPLY SIDE HEATER INFORMATION:

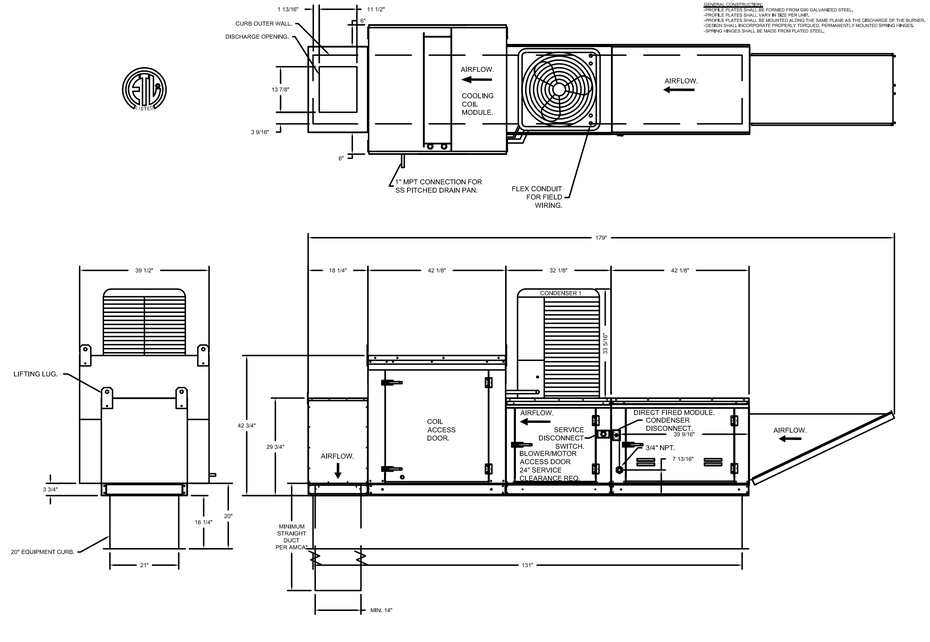
WINTER TEMPERATURE = 0°F, TEMP. RISE = 80°F,
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 144795.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 157386.
OUTPUT BTUs AT ALTITUDE OF 902 FT. = 140137.
INPUT BTUs AT ALTITUDE OF 902 FT. = 152323.

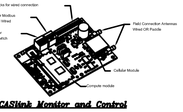
DIRECT FIRED PROFILE PLATE SPECIFICATION:
MODULATING
-PROFILE PLATE BURNERS SHALL HAVE PATENTED (US PATENT NO.) US6635232(B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND SUPPLY OF NITROGEN OXIDES (NOX). DIRECT FIRED -PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER, THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
MODULATING GAS 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 ENCLOSED IN THE DF UNITS STL 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).

CASING 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.





CASlink Monitor and Control

- Each control panel to support communications to cloud-based Building Management System.
- Each unit shall be wired to other cloud-based Building Management System to monitor and send parameters outlined in MONITORING AND CONTROL POINTS LIST.
- Each Control Panel to allow cloud-based Building Management System to control parameters listed as CONTROL in the points list.
- Each Control Panel to allow cloud-based Building Management System to implement OPTIMUM STARTSTOP control strategies for fully integrated Building Management.

MONITORING AND CONTROL POINTS LIST

RTU Packages	**Function**
Room Temperature(s)	**MONITOR**
Duct Temperature(s)	**MONITOR**
MUA Discharge Temperature	**MONITOR**
Ziehl-Abegg 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**
Gas Faults	**MONITOR**
Filter Dirty Percentages	**MONITOR**
Fan Conditions	**MONITOR**
Gas Fire System	**MONITOR**
Building Pressure	**MONITOR**
Prep Time Button	**MONITOR & CONTROL**
Zone Button	**MONITOR & CONTROL**
Lights Button	**MONITOR & CONTROL**
Wash Button	**MONITOR & CONTROL**

RF Packages	**Function**
Room Temperature(s)	**MONITOR**
Duct Temperature(s)	**MONITOR**
MUA Discharge Temperature	**MONITOR**
Ziehl-Abegg RTU Discharge Temperature	**MONITOR**
Controller Faults	**MONITOR**
Fan Faults	**MONITOR**
Fan Status	**MONITOR**
VFD Faults	**MONITOR**
VFD Filter Dirty Percentages	**MONITOR**
Fan Conditions	**MONITOR**
CO2 Fire System	**MONITOR**
Building Pressure	**MONITOR**
Zone Button(s)	**MONITOR & CONTROL**
Lights Button(s)	**MONITOR & CONTROL**
Wash Button	**MONITOR & CONTROL**

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.

STATE OF MISSOURI
JEFFREY J. KULHANEK
NUMBER PE-2022017087
PROFESSIONAL ENGINEER
10/31/23

Casey's
SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0666

PROJECT: CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER: 07164.057
DRAWN BY: ANK
CHECKED BY: JEK

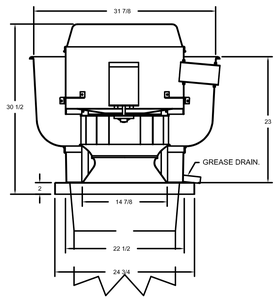
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REVISED ON:

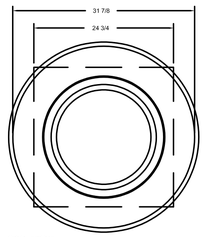
DRAWING INFORMATION: EXHAUST HOOD DETAILS

M-401

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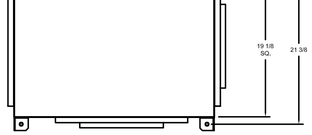
FAN #1 DU85HFA - EXHAUST FAN (EF-1)





TOP VIEW

FAN #2 SIF11DD - EXHAUST FAN (EF-2)



TOP VIEW



UNIVERSAL MOUNTING BRACKET

1/2" DIA. THREADED ROD ONLY
.560" DIA. MOUNTING HOLES.
USED WITH CEILING VIBRATION ISOLATORS.
USED WITH FLOOR VIBRATION ISOLATORS.
CAN BE RELOCATED IN THE FIELD AS NEEDED.

FEATURES:

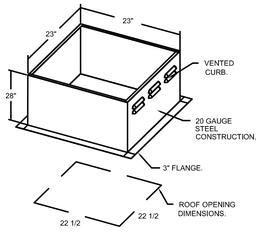
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT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

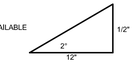
OPTIONS

GREASE BOX.
UPBLAST FAN WHEEL ACCESS PORT.
FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCO), CCW ROTATION.
2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

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

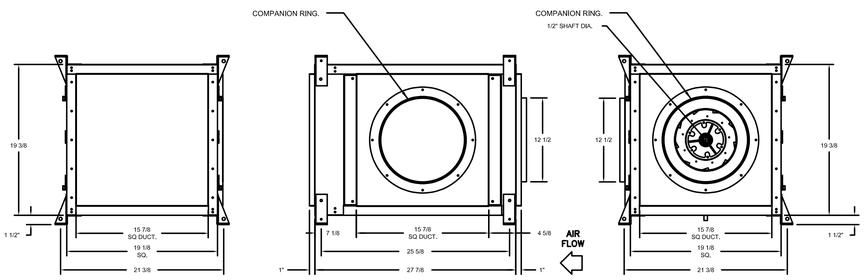


FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- TWO ACCESS DOORS FOR EASY ACCESS.
- BACKWARD INCLINED NON-OVERLOADING WHEELS.
- UL705 LISTING.
- AMCA AIR & SOUND CERTIFIED.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).

OPTIONS

SIF - HORIZONTAL OVERHEAD MOUNT - PRE-INSTALLED MOUNTS (11-36).
HANGING SPRING VIBRATION ISOLATORS (SET OF 4), FOR INDOOR OR OUTDOOR USE WITH SQUARE INLINE FANS. (HSA125).
SIF11 - INLET RING DUCT CONNECTION.
ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL (TELCO MOTOR), CCW ROTATION.
SIF11 - SIDE DISCHARGE DOOR FOR SIF 11. LEFT SIDE FROM INLET. OUTLET RING DUCT CONNECTION.
2 YEAR PARTS WARRANTY.



NOTES:
- COMPANION RINGS USED WHEN ROUND DUCT BY OTHER.
- COMPANION RINGS ARE INSTALLED ON THE INTAKE AND/OR DISCHARGE SIDES.
- WHEN COMPANION RINGS ARE USED TOTAL LENGTH INCREASES BY 1/2" FRONT, 1 1/2" REAR OR 2" TOTAL.

EXHAUST FAN INFORMATION – JOB#4678410

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	EF-1	1	DU85HFA	CAPTIVEAIRE	1800	1.000	1341	TEAO-ECM	0.750	0.4670	1	208	5.2	570 FPM	99	15.3
2	EF-2	1	SIF11DD	CAPTIVEAIRE	400	0.500	1114	TEAO-ECM	0.500	0.1170	1	115	5.6		148	5.9

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
3	MAU	A1-D.250-16Z-MPU	1	3	208-230	3 PHASE	60 HZ	14.5 AMPS	11.9 AMPS	20 AMPS	14 AWG	14

Nominal Values Only

MUA FAN INFORMATION – JOB#4678410

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
3	MAU	1	A1-D.250-16Z-MPU	16Z-1-MOD	A1-D.250	1100	1710	0.400	1959	ODP-ECM	2.500	0.8940	3	208	5.7	21.8A	30A	1052	19.5

COILS – JOB#4678410

FAN UNIT NO	TAG	COIL TYPE	DESIGN CFM	COOLING										HEATING								
				ENTERING DB TEMP	ENTERING WB TEMP	LEAVING DB TEMP	LEAVING WB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	TOTAL CAPACITY	SENSIBLE CAPACITY	LATENT CAPACITY	ENTERING DB TEMP	LEAVING DB TEMP	ENTERING FLUID TEMP	LEAVING FLUID TEMP	FLUID FLOW RATE	PERCENT GLYCOL	STEAM PRESSURE	TOTAL CAPACITY	SENSIBLE CAPACITY
3	MAU	DX	1710	91.0°F	74.0°F	77.8°F	68.6°F	---	---	---	---	33.9 MBH	23.1 MBH	10.8 MBH	---	---	---	---	---	---	---	---	---

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT MBTUs	OUTPUT MBTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
3	MAU	110-200	100-185	55-100°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	EF-1	1	GREASE BOX.
		1	UPBLAST FAN WHEEL ACCESS PORT.
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS.
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCO), CCW ROTATION.
		1	2 YEAR PARTS WARRANTY.
2	EF-2	1	SIF - HORIZONTAL OVERHEAD MOUNT - PRE-INSTALLED MOUNTS (11-36).
		1	HANGING SPRING VIBRATION ISOLATORS (SET OF 4), FOR INDOOR OR OUTDOOR USE WITH SQUARE INLINE FANS. (HSA125).
		1	SIF11 - INLET RING DUCT CONNECTION.
		1	ECM WIRING PACKAGE - MANUAL OR 0-10VDC REFERENCE SPEED CONTROL (TELCO MOTOR), CCW ROTATION.
		1	SIF 11 - SIDE DISCHARGE DOOR FOR SIF 11. LEFT SIDE FROM INLET. OUTLET RING DUCT CONNECTION.
		1	2 YEAR PARTS WARRANTY.
3	MAU	1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING. MEETS AMCA CLASS 1A RATING.
		1	LOW FIRE START.
		1	INLET PRESSURE GAUGE, 0-35".
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC.
		1	EXTENDED POWER DROP.
		1	3 TON SINGLE CIRCUIT MODULAR PACKAGED COOLING OPTION FOR SIZE 1 DF/EH MUA (1,100 TO 1,800 CFM), 208V/230V, 3 PHASE. COOLING THERMOSTAT OR PROGRAMMABLE STAT REQUIRED FOR PROPER OPERATION.
		1	DOWNTURN PLENUM FOR SIZE 1 DX COIL MODULE.
		1	SINGLE POINT MPU CONNECTION, 1 CONDENSER.
		1	FREEZESTAT (10).
		1	CLOGGED FILTER SWITCH WITH NOTIFICATION ON HMI.
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
		1	CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE AND J BOX.
		1	ECM WIRING PACKAGE-SUPPLY - PWM SIGNAL FROM ECPMO3 PREWIRE (3 - PHASE ZIEHL MOTOR).
		1	TOTAL CFM MONITORING FOR MUA UNITS.
		1	2 YEAR PARTS WARRANTY.

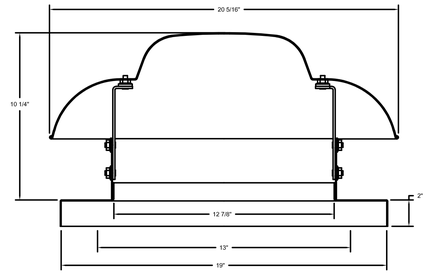
FAN ACCESSORIES

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

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	EF-1	45 LBS	CURB	23.000"W X 23.000"L X 28.000"H 0.500:12.000 PITCH VENTED.
3	# 3	MAU	178 LBS	CURB	21.000"W X 131.000"L X 20.000"H 0.500:12.000 PITCH ALONG WIDTH, RIGHT INSULATED 16 GAUGE.

GRAVITY VENT #1 - GV12 - EXHAUST



FEATURES:

- ROOF/WALL MOUNT GRAVITY VENT
- STANDARD BIRD SCREEN



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1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number
CA0066

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
EXHAUST HOOD DETAILS

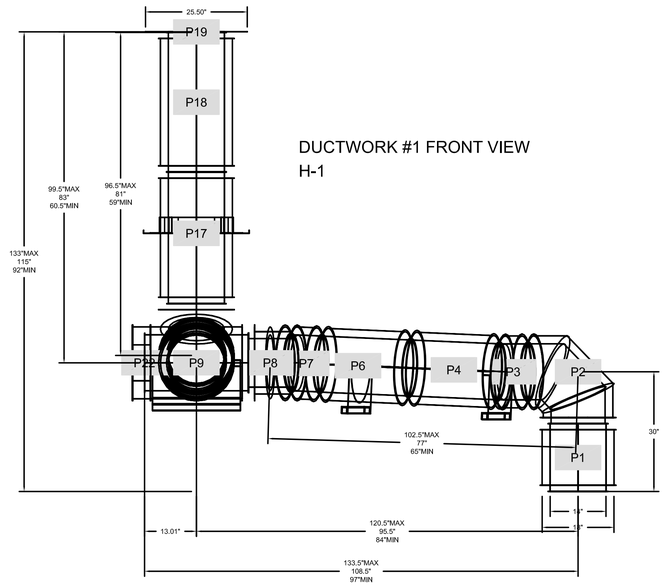
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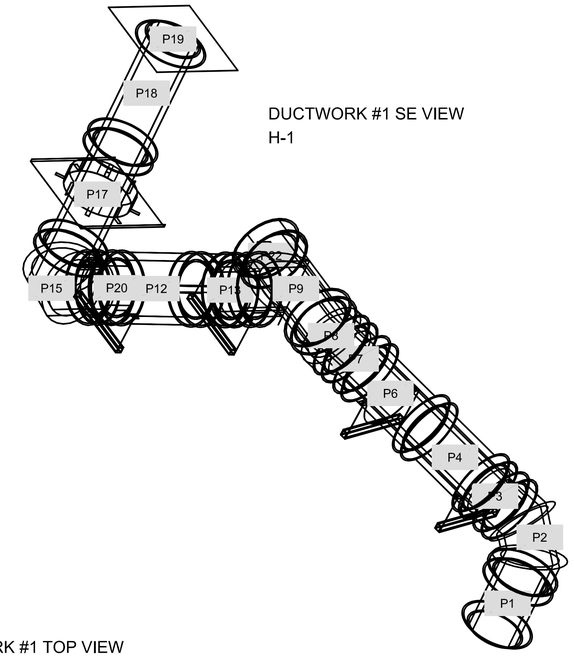
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DUCTWORK #1 PARTS – JOB#44678410 DOUBLE WALL H-1

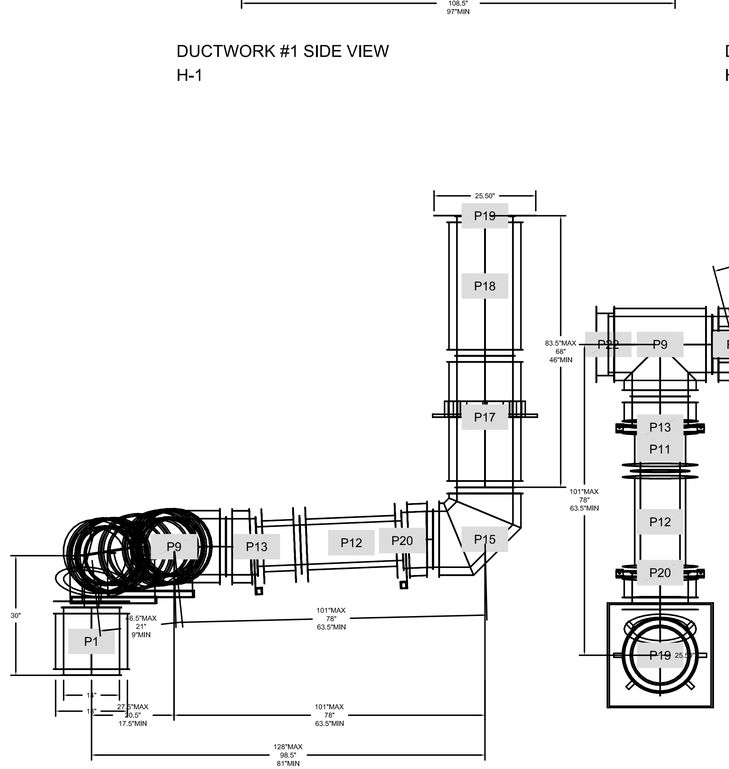
TAG	PART #	CFM	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1417DWLT-2R-S	1800	-0.007	22.79	1683.79	1	DOUBLE WALL DUCT - 14" INNER DUCT, 17" LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P2	DW1490DWASY-2R-S	1800	-0.1215	33.30	1683.79	1	DOUBLE WALL DUCT - 14" INNER 90 DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P3	DW1402DWOFFSETASY-2R-S	1800	-0.003	12.99	1683.79	1	DOUBLE WALL DUCT - 14" INNER DUCT RISER & 2 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P4	DW1423DWLT-2R-S	1800	-0.0095	30.75	1683.79	1	DOUBLE WALL DUCT - 14" INNER DUCT, 23" LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P5	DW1447DWAJD-2R-S	1800	-0.0095	93.18	1683.79	1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P6	DW1822SADKIT			7.25		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 18" OD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1822SAD, & HARDWARE BAG 4.
P7	DW1402DWOFFSETASY-2R-S	1800	-0.003	12.99	1683.79	1	DOUBLE WALL DUCT - 14" INNER DUCT RISER & 2 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P8	DW1415DWASY-2R-S	1800	-0.0414	15.00	1683.79	1	DOUBLE WALL DUCT - 14" INNER 15 DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P9	DW14DWTEASY-2R-S		-0.0158	41.37		1	DOUBLE WALL DUCT - 14" INNER TEE DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P10	DW1402DWOFFSETASY-2R-S			12.99		1	DOUBLE WALL DUCT - 14" INNER DUCT RISER & 2 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P11	DW1411DWLT-2R-S			14.89		1	DOUBLE WALL DUCT - 14" INNER DUCT, 11" LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P12	DW1447DWAJD-2R-S			93.18		1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P13	DW1822SADKIT			7.25		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 18" OD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1822SAD, & HARDWARE BAG 4.
P14	DW1402DWOFFSETASY-2R-S			12.99		1	DOUBLE WALL DUCT - 14" INNER DUCT RISER & 2 DEGREE OFFSET - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P15	DW1490DWASY-2R-S			33.30		1	DOUBLE WALL DUCT - 14" INNER 90 DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
P16	DW1447DWAJD-2R-S			93.18		1	DOUBLE WALL ADJUSTABLE DUCT - 14" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11" / MAX LENGTH = 48.5" / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P17	10318FLOSUPASY			20.38		1	DUCT - VENT - CHIMNEY - 18" SHELL - SUPPORT PLATE ASSEMBLY - 26.250" SQUARE USED ON 22.250" THROUGH PENETRATIONS - HORIZONTAL AND VERTICAL - INCLUDES HARDWARE.
P18 ASSEMBLED W/P19	DW1435DWLTTP-2R-S			48.06		1	DOUBLE WALL DUCT - 14" INNER DUCT, 35" LONG - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P19 ASSEMBLED W/P18	DW2314TP			8.49		1	DUCT TO CURB TRANSITION, 23" CURB TO 14" DUCT, 16 GA ALUMINIZED. USED ON BDU15, DU75 & 85.
P20	DW1822SADKIT			7.25		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 18" OD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1822SAD, & HARDWARE BAG 4.
P21	DW1822SADKIT			7.25		1	DUCT - HORIZONTAL SADDLE SUPPORT KIT, USED WITH 18" OD - INCLUDES UNI-STRUT CUT TO LENGTH, DW1822SAD, & HARDWARE BAG 4.
P22	DW14DWACCDOORCOV-2R-S			22.25		1	DOUBLE WALL DUCT - 14" INNER ACCESS DOOR & 18" ACCESS DOOR COVER WITH CLAMPS - 2 LAYERS REDUCED CLEARANCE - 18" STAINLESS STEEL OUTER SHELL.
	3M-2000PLUS			0.80		5	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW14DWCLASY-2R-S			7.21		9	DUCT - 14" DUCT - 18" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT				719.97			



DUCTWORK #1 FRONT VIEW
H-1



DUCTWORK #1 SE VIEW
H-1



DUCTWORK #1 SIDE VIEW
H-1

DUCTWORK #1 TOP VIEW
H-1

DOUBLE WALL FACTORY BUILT DUCTWORK

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

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5"	7'
6"	7'
7"	7'
8"	7'
10"	7'
12"	7'
14"	7'
16"	7'
18"	5'
20"	5'
22"	5'
24"	5'
26"	5'
28"	5'
30"	5'
32"	5'
34"	5'
36"	5'

VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
2R & 2R HT (5"-16")	20'	24'	24'
2R (18")	18'	24'	24'
3R & 3Z (5"-24")	10'	24'	24'
3Z (26" -36")	10'	20'	20'

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

STATE OF MISSOURI
JEFFREY J. KULHANEK
NUMBER PE-2022017087
10/31/23
PROFESSIONAL ENGINEER

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COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 – U4 – V.01

PROJECT NUMBER:
07164.057

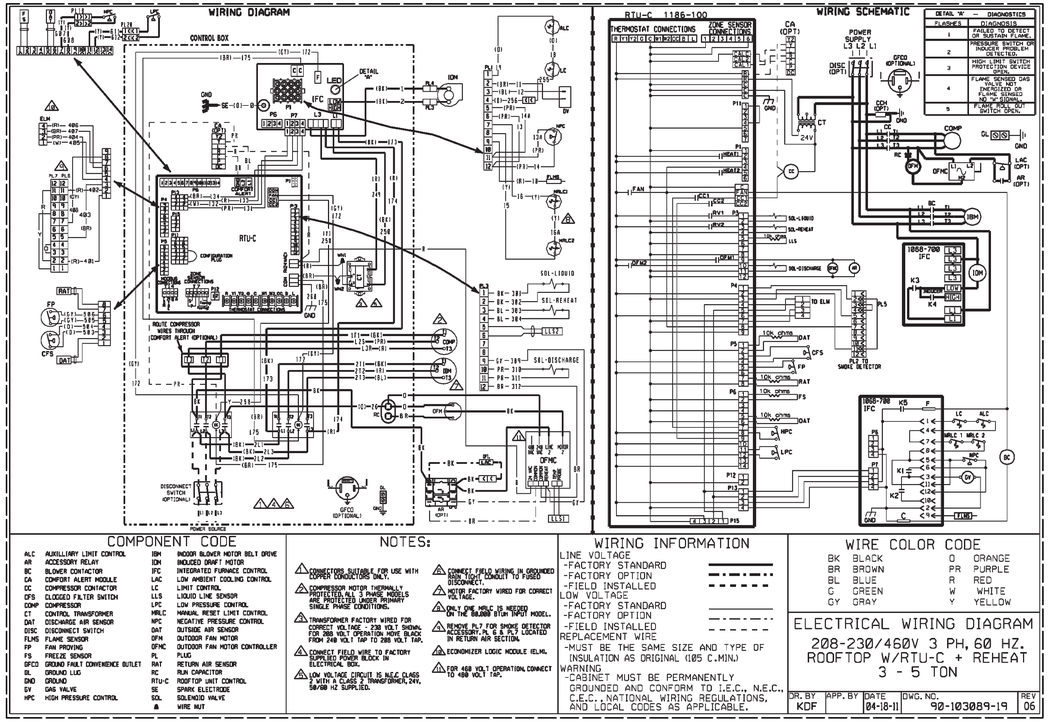
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PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
EXHAUST DUCT DETAILS

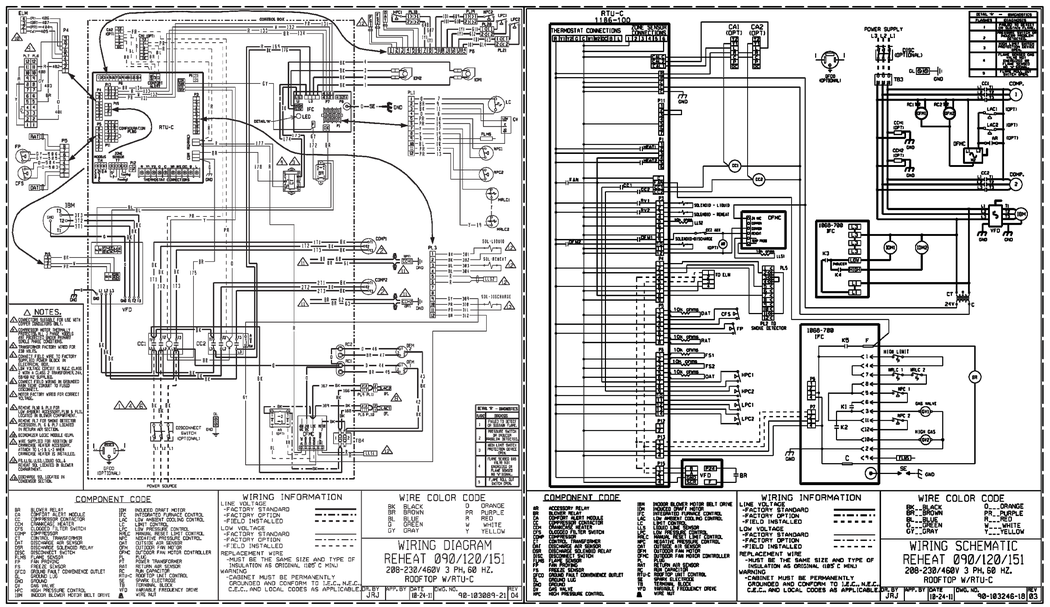
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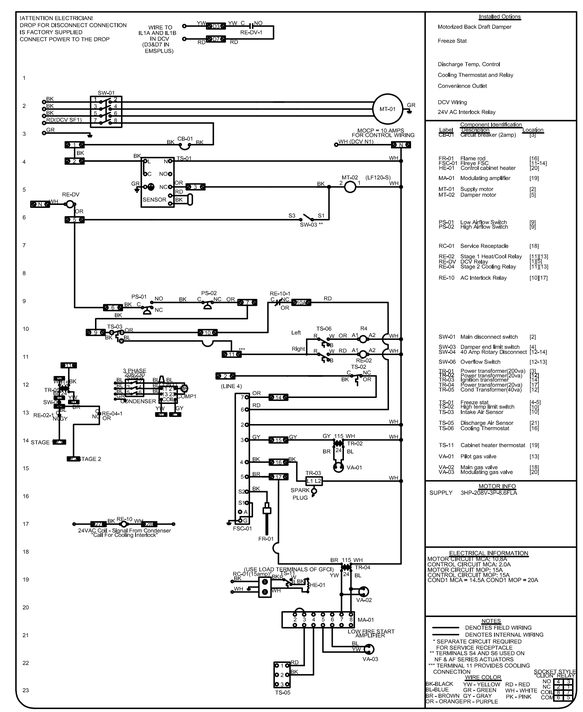
1 RTU Wiring Diaram 5 Ton

Not To Scale



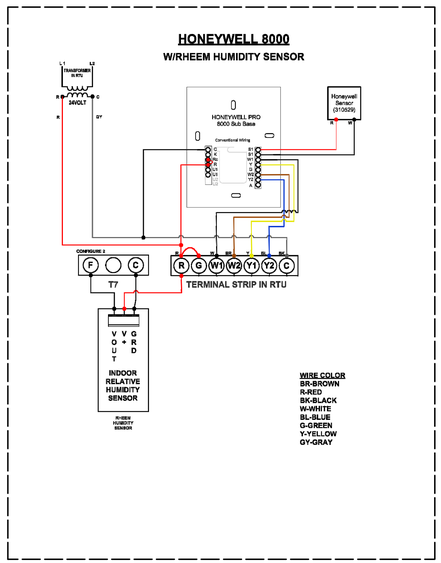
2 RTU Wiring Diaram 7 1/2 Ton

Not To Scale



3 MAU Kitchen Wiring Diagram

Not To Scale



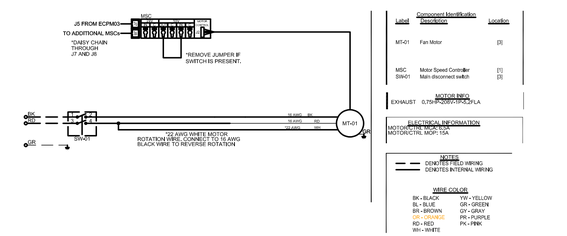
4 RTU-1 Sales Area Humidistat Wiring Diagram

Not To Scale

EXHAUST FAN SCHEDULES

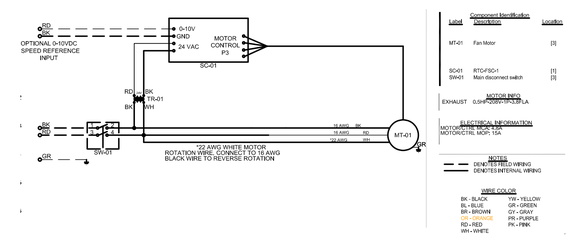
EXHAUST FAN INFORMATION

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	WEIGHT (LBS.)	SONES
1	EF-1	DU85HFA	1800	1.000	1341	0.750	0.4670	1	208	5.2	98	15.3
2	EF-2	SIF11DD	400	0.500	1114	0.500	0.1170	1	115	5.6	144	5.9



5 12' Hood Exhaust Fan Wiring

Not To Scale



6 Restroom Exhaust Fan Wiring

Not To Scale

STATE OF MISSOURI
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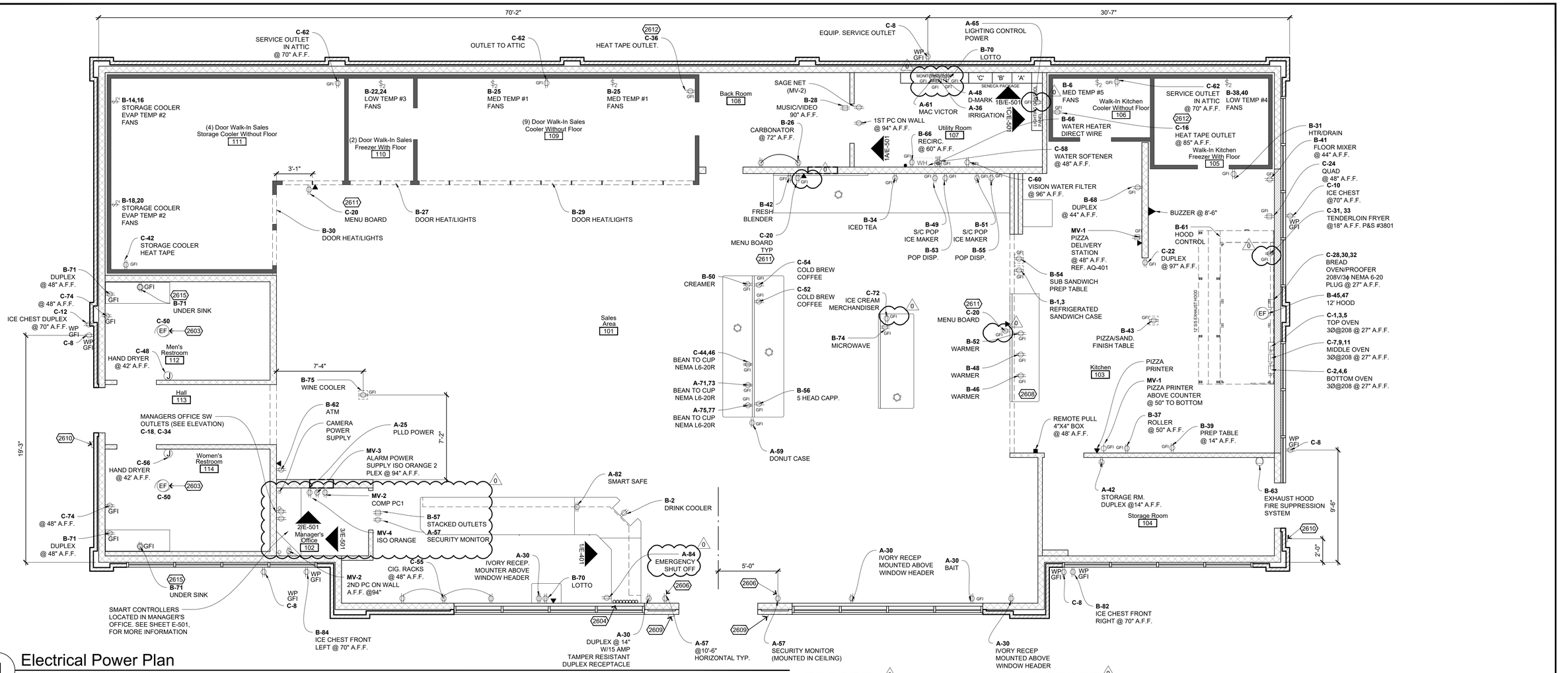
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CHECKED BY: JEK

PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
COMFORT COOLING WIRING

M-601

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1 Electrical Power Plan

1/4"=1'-0"

General Notes

1. REFER TO ALL DETAIL PAGES REFERENCED ON THIS PLAN
2. REFER TO SHEET A-601, A-402, AQ-101,AQ-401, M-101 & E-103 FOR:
   FINISH SCHEDULES
   DOOR SCHEDULES
   WINDOW SCHEDULES
   EQUIPMENT PLANS
   MECHANICAL PLAN (THERMOSTAT SENSOR LOCATIONS)
   UNDERGROUND CONDUIT
3. LOW VOLTAGE WIRE TO BE RUN BY THE ELECTRICIAN.
4. ALL DIMENSIONS ARE FROM CONCRETE TO BOTTOM OF ELECTRICAL BOX

Notes

DIVISION 26 - ELECTRICAL

2601 NOT USED

2602 NOT USED

2603 EXHAUST FAN FOR BOTH RESTROOMS LOCATED IN CEILING, FAN TIED INTO LIGHT CIRCUIT W/ OCCUPANCY SENSOR. REFER TO SHEET M-101

2604 UNDERGROUND CONDUIT FROM PANEL TO SALES COUNTER. SEE SHEET E-501, DETAIL 1 FOR MORE INFORMATION.

0 2605 NOT USED

2606 ISOLATED RECEPTACLE FOR SECURITY MONITOR MOUNTED IN CEILING.

2607 NOT USED

2608 RUN CONDUIT UNDER AND INSIDE CABINETS AS REQUIRED TO INSTALL RECEPTACLES FOR DELI COUNTER / TABLE.

2609 JUNCTION BOX @ 8'-4" TO CENTER A.F.F. FOR EXTERIOR BATTERY BACKUP LIGHTS. VERIFY FINAL HEIGHT WITH ARCHITECTURAL ELEVATIONS.

2610 JUNCTION BOX @ 6'-6" TO CENTER A.F.F. FOR EXTERIOR BATTERY BACKUP LIGHT. VERIFY FINAL HEIGHT WITH ARCHITECTURAL ELEVATIONS.

2611 HOLE DRILLED FOR VGA CABLE FOR DIGITAL MENU MONITORS @124" A.F.F. SEE DETAIL 4 & 6 ON SHEET A-401.

0 2612 WEATHER PROOF BELL BOX W/ COVER AT HEAT TAPE CIRCUIT

0 2613 NOT USED

2614 NOT USED

0 2615 MOUNT UNDER COUNTER FOR TOUCHLESS FAUCETS.

0 2616 PROVIDE DUCT DETECTOR, SHUTDOWN RELAY, AND ACCESSORIES AS REQUIRED TO SHUT DOWN HVAC EQUIPMENT 2000 CFM OR HIGHER PER NFPA AND AHJ. PROVIDE AUDIO/VISUAL DEVICE IN APPROVED LOCATION PER NFPA AND AHJ. ACTUATION OF HVAC SHUTDOWN RELAY SHALL INITIATE SIGNAL. TIE INTO SECURITY PANEL PER OWNER'S REQUIREMENTS.

Symbols Legend

NOTE: UNLESS NOTED OTHERWISE, INSTALL ALL OUTLETS AT **14" AFF**

- SINGLE OUTLET
- DUPLEX OUTLET
- 220 OUTLET
- QUADPLEX OUTLET
- HEAVY DUTY OUTLET (220v OR AS INDICATED)
- FLOOR BOX
- CEILING BOX

SPECIAL INDICATORS:

- GFI GROUND FAULT INTERRUPT
- WP WEATHERPROOF
- +36" NON-STANDARD MOUNTING HEIGHTS (INSTALL ABOVE COUNTER IF NO HEIGHT SPECIFIED)
- FLOOR OUTLET
- 2 POLE SWITCH
- DISCONNECT
- DOUBLE DISCONNECT
- J JUNCTION BOX
- ELECTRICAL PANEL
- EF ELECTRICAL FAN
- A-00 CIRCUIT INDICATOR (PANEL-CIRCUIT, SEE PANEL SCHEDULE)
- H DEHUMIDISTAT (MIN 18GA WIRE CONTROL INSTALLED BY HVAC CONTRACTOR)
- S SENSOR-T-STAT (ELECTRICIAN TO WIRE)
- T WATTMASTER SYSTEM MANAGER
- CAT-6e
- BUZZER

STATE OF MISSOURI
JOSEPH C. BINGE
NUMBER PE-2014012014
10/17/2023
PROFESSIONAL ENGINEER

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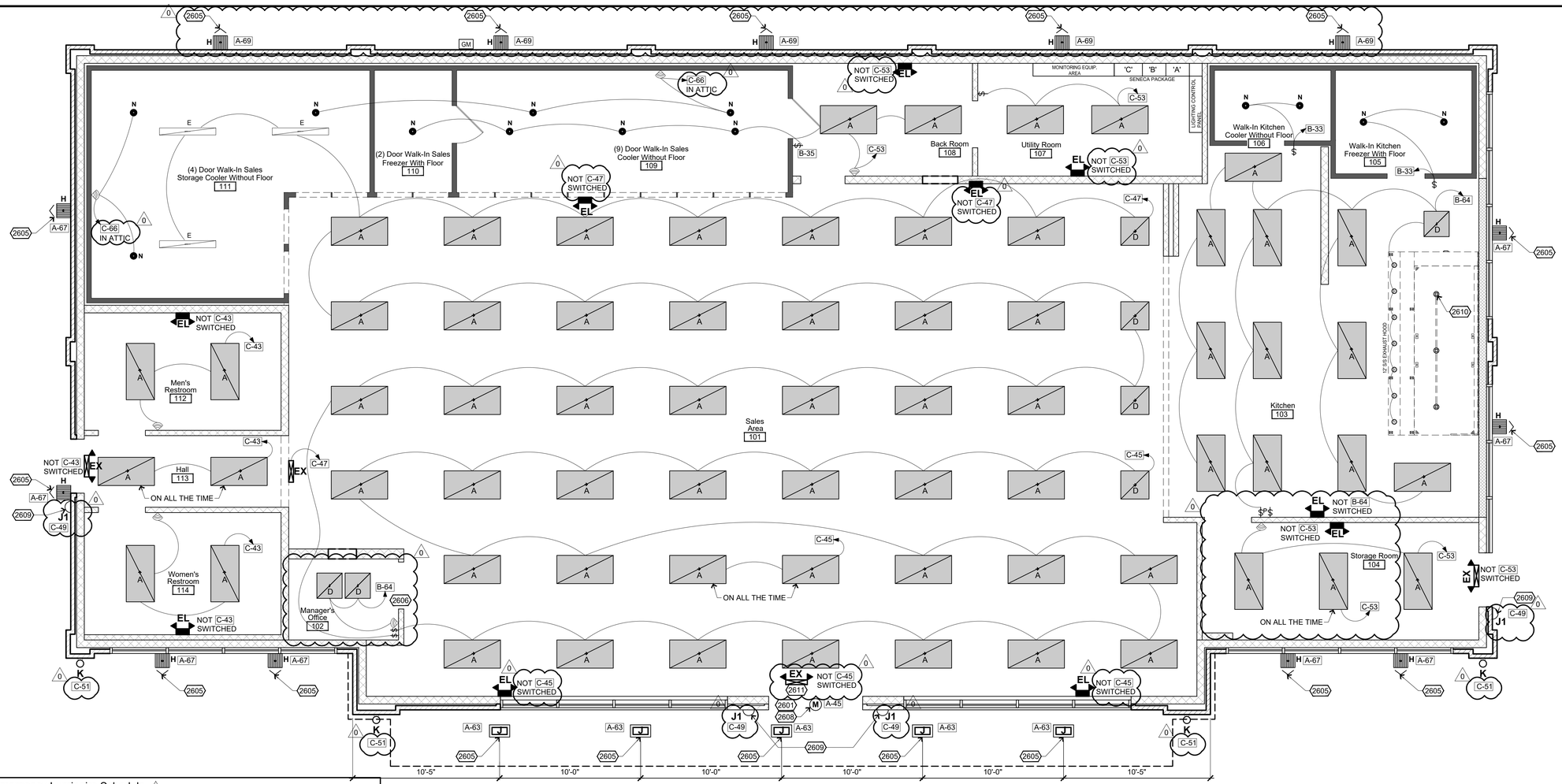
PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

	PUBLISHED	DRAWING INFORMATION:
0	10/18/2023	ELECTRICAL POWER PLAN
	REVISED ON:	

PROJECT NUMBER: 07164.057
DRAWN BY: DJL
CHECKED BY: JMM

E-101

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1 Electrical Lighting Plan

1/4"=1'-0"

Lighting Code Requirements

PER SECTION 1204.3, 2018 IBC:
LIGHTING SHALL BE PROVIDED THAT IS ADEQUATE TO PROVIDE LIGHT LEVELS AS INDICATED IN THE LATEST ILLUMINATING ENGINEERING SOCIETY (IES) STANDARD OR AT A MINIMUM ILLUMINATION OF 10 FOOT CANDLES AT 30 INCHES ABOVE THE FLOOR LEVEL.

PER SECTION 1008.2 AND 1008.3, 2018 IBC:
THE MEANS OF EMERGENCY EGRESS LIGHTING SHALL NOT BE LESS THAN 1 FOOT CANDLE AT THE FLOOR LEVEL ALONG THE EGRESS PATHWAY. EMERGENCY EGRESS LIGHT SHALL EXTEND TO THE EXTERIOR OF THE BUILDING AND SHALL OPERATE FOR A MINIMUM OF 90 MINUTES WITH BATTERY BACKUP.

PER SECTION 505.5.2, 2009 IEEC:
TOTAL INTERIOR POWER FOR LIGHTING SHALL BE LIMITED TO 1.5 W/SF FOR RETAIL ESTABLISHMENTS.
ALLOWED WATTS = 5,994
PROPOSED WATTS = 4,774

General Construction Notes

1. ALL LINE VOLTAGE WIRING MUST BE IN CONDUIT
2. ELECTRICAL TO MEET STATE & LOCAL CODE
3. ALL ELECTRICAL CONDUIT PENETRATIONS THROUGH THE WALK-IN COOLER/FREEZER CABINET ARE TO BE SEALED WITH ALUMINUM SILICONE
4. WIRING IN CONDUITS AND JUNCTION BOXES ARE TO BE SEALED BOTH INSIDE WITH THUMB GUM OR EQUAL SEALANT. FOR AIR AND WATER TIGHT CONNECTIONS
5. SEE SHEETS E-700-702 FOR SPECIFIC ELECTRICAL FIXTURE DETAILS.
6. EXIT SIGNS CONNECT TO LOCAL LIGHT CIRCUIT THAT'S AVAILABLE.
7. CEILING REFLECTANCES = 80%
   WALL REFLECTANCES = 50%
   FLOOR REFLECTANCES = 20%
   CALCULATIONS TAKEN AT WORKPLANE (2.5' A.F.F.)

Symbols Legend

- $ — SWITCH
- $P — PILOT SWITCH SUPPLIED BY ELECTRICIAN
- MOTION SENSOR, MANAGERS OFFICE, BACK ROOM,RESTROOMS, AND STORAGE ROOM..

Keyed Construction Notes

DIVISION 16 - ELECTRICAL

2601 SIGNAGE PULL BOX: ELECTRICIAN TO SUPPLY PULL BOX ON FRONT BUMP OUT WALL ABOVE FINISHED CEILING ALONG W/ PULL WIRES TO EXTERIOR SIGN LOCATION AND ELECTRICAL WIRING BACK TO CORRECT CIRCUITS ON ELECTRICAL PANEL. LABEL WHICH TRANSFORMER CONTROLS WHICH CHANNEL LETTER. FINAL CONNECTION BY ELECTRICIAN

2602 NOT USED

2603 NOT USED

2605 EXTERIOR WALL MOUNTED SECURITY LIGHTING. REFERENCE ELEVATION PAGES.

2606 LIGHT SWITCHING DETAIL LOCATED IN MANAGER'S OFFICE. REF. E-501.

2607 NOT USED

2608 WALL MOUNTED CHANNEL LETTERS (CASEY'S GENERAL STORE)

2609 WALL MOUNTED SECURITY LIGHT, EXTERIOR [LIGHT FIXTURE W/BATTERY BACKUP FOR EGRESS LIGHTING]

2610 SEE SHEET M-401 FOR SPECIFIC ELECTRICAL FIXTURE DETAILS

2611 CEILING MOUNTED EXIT SIGN, CENTERED IN CEILING TILE. USE NECESSARY MOUNTING HARDWARE AS REQUIRED.

Emergency Luminaire Schedule

Symbol	Qty	Manufacturer	Description	Notes
EX	1	Lightalarms	QLX	2
EX	3	Cree	LCAC-2SQLED	2
EL	10	Lightalarms	LCAB-2SQLED	3
N	13	PUCK BASE FIXTURE w/LED ABOVE CEILING		1

NOTES:
EMERGENCY LIGHT

1. ALL ABOVE CEILING LIGHTS TO BE PLACED ON MASTER LIGHTED PILOT SWITCH LOCATED NEAR ELECTRICAL PANELS
2. INSTALL JUNCTION BOX ABOVE CEILING WHERE EXIT SIGNS ARE LOCATED. EMERGENCY EXIT SIGN TO BE INSTALLED AT 91" A.F.F. TO BOTTOM OF SIGN.
3. JUNCTION BOX CENTER AT RESTROOM 8'- 2" A.F.F . & SALES AREA JUNCTION BOX CENTER 10'-4" A.F.F.

Luminaire Schedule

Symbol	Label	Qty	Arrangement	Lumens	LLF	Total Watts	Manufacturer	Description
	A	66	SINGLE	4000	1.000	2640	CREE, INC.	ZR24MT-40L-40K-S 2'x4' LED TROFFER (INTERIOR)
	B	0	SINGLE	4000	1.000	0	CREE, INC.	ZR14MT-40L-40K-S 1'x4' LED TROFFER (INTERIOR)
	C5	0	SINGLE	2090	1.000	0	KASON	11808000000 LED COOLER/FREEZER LIGHTIING FIXTURE
	E	3	SINGLE	3000	1.000	117	KASON	1810LX 48" LED FIXTURE (INTERIOR - COOLER)
	D	7	SINGLE	3279	1.000	224	CREE, INC.	ZR22MT-32L-40K 2'x2' LED TROFFER (INTERIOR)
	H	14	SINGLE	7519	1.040	1428	BETALED, A DIVISION OF RUUD LIGHTING	SEC-EDG-3M-WM LED WALL MOUNTED SECURITY LIGHT (EXTERIOR)
	J	5	SINGLE	3755	1.040	365	BETALED, A DIVISION OF RUUD LIGHTING	CAN-227-SL-RM-03 LED RECESSED SOFFIT LIGHT (EXTERIOR)
	J1	4					CREE, INC.	LED WALL MOUNTED LIGHT [LIGHT FIXTURES W/BATTERY BACKUP FOR EGRESS LIGHTING] CSNDBCT
	K	4					FC LIGHTING	6" ROUND UP/DOWN WALL MOUNTED DIE-CAST ALUMINUM CYLINDER
	M	1					PERSONA, INC.	CHANNEL LETTERS (CASEY'S GENERAL STORE) (WALL MOUNTED)

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10/17/2023

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CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 → V.01

PUBLISHED: 10/18/2023
REVISED ON:

DRAWING INFORMATION:
ELECTRICAL LIGHTING PLAN

PROJECT NUMBER: 07164.057
DRAWN BY: DJL
CHECKED BY: JMM

E-102

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General Construction Notes

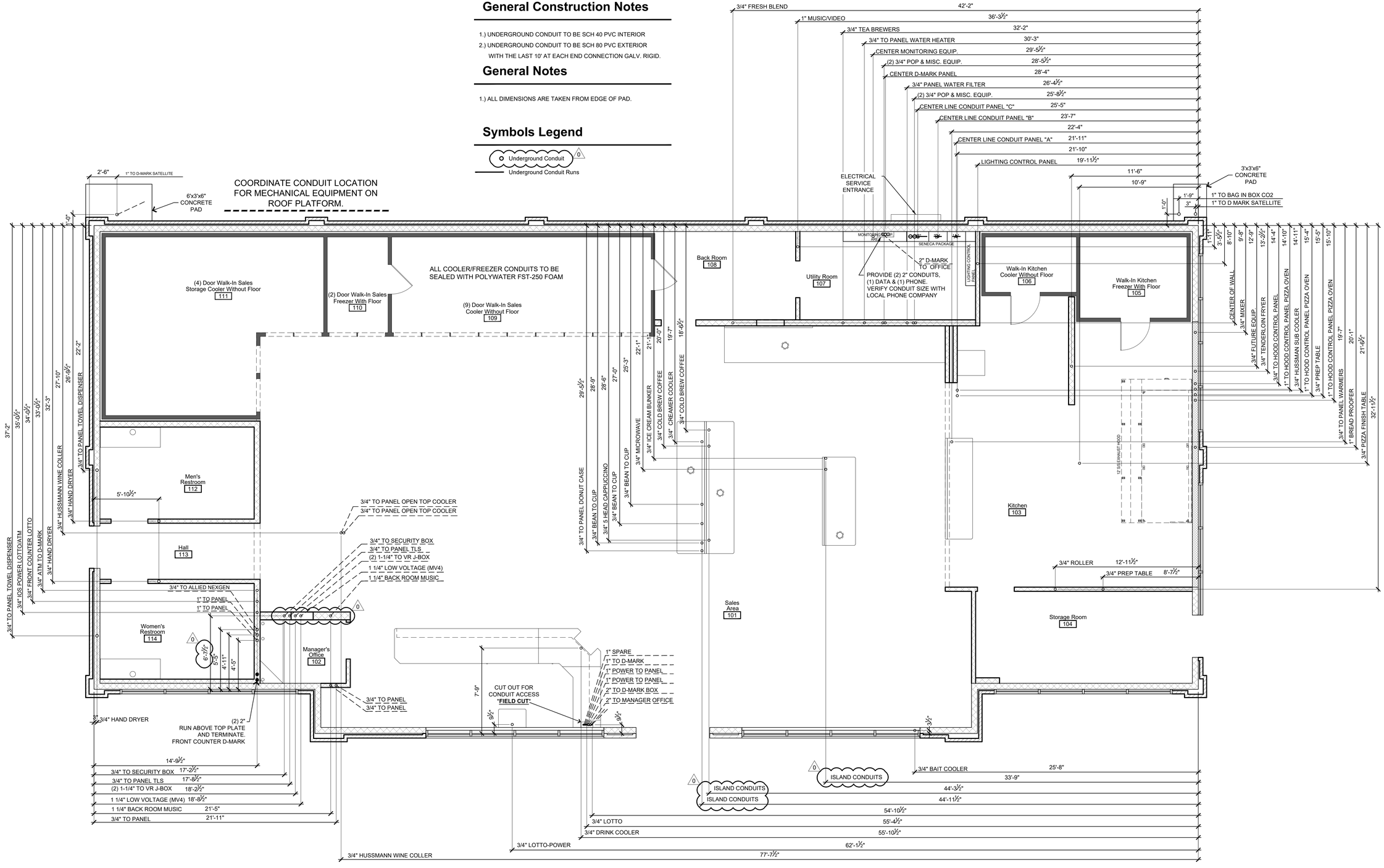
1.) UNDERGROUND CONDUIT TO BE SCH 40 PVC INTERIOR
2.) UNDERGROUND CONDUIT TO BE SCH 80 PVC EXTERIOR
WITH THE LAST 10' AT EACH END CONNECTION GALV. RIGID.

General Notes

1.) ALL DIMENSIONS ARE TAKEN FROM EDGE OF PAD.

Symbols Legend

Underground Conduit 0
Underground Conduit Runs



1 Underground Conduit Plan

1/4"=1'-0"

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LEE'S SUMMIT, MO
2023 - U4 - V.01

PUBLISHED: 10/18/2023
REVISED ON: 0

PROJECT NUMBER: 07164.057
DRAWN BY: DJL
CHECKED BY: JMM

DRAWING INFORMATION:
UNDERGROUND CONDUIT PLAN

E-103

STATE OF MISSOURI
JOSEPH C. BINGE
NUMBER PE-2014012014
10/17/2023
PROFESSIONAL ENGINEER

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UNDERGROUND ROUGH IN MEASUREMENTS ARE FROM INSIDE SHEETING/BRICK LEDGE (PAD SIZE) UNLESS NOTED.

NOTE: ALL SPARE/FUTURE CONDUITS ARE TO BE LABELED TO WHERE THEY GO BOTH ENDS.

NOTE: ARMAFLEX ALL CONDUITS UP THRU FLOOR ALL ARE REQUIRED TO BE SEALED AROUND THE CONDUIT AT THE FLOOR LINE.

UNDERGROUND TELEPHONE SERVICE ENTRANCE AT D-MARK BOX

1-2"-VERIFY SIZE WITH TELEPHONE COMPANY

1-2" CONDUIT FROM D-MARK BOX TO FRONT COUNTER (LOTTO PHONE LINE)

A 3-WIRE SEPARATE CIRCUIT TO PROVIDE 117 (110-124 VOLTS AND A CURRENT UP TO A MAXIMUM OF 15 amp. IS REQUIRED. THE CIRCUIT MUST GO DIRECTLY TO THE AC DISTRIBUTION PANEL (FUSE BOX) AND HAVE ITS OWN SEPARATE CIRCUIT BREAKER OR FUSE. THREE SEPARATE WIRES (HOT, NEUTRAL, AND GROUND) MUST RUN THROUGH THE CONDUIT BETWEEN THE DUPLEX OUTLET AND THE TERMINAL AND FUSE BOX. IT IS NOT SUFFICIENT TO USE A METAL CONDUIT AS THE THIRD WIRE! THE DUPLEX OUTLET PROVIDES ONLY TWO OUTLETS FOR CONNECTING THE EQUIPMENT. ◊

MANAGER'S OFFICE AREA: (TANK MONITORING EQUIPMENT)

(SEE SHEET 5/E-501)

2 - 1 1/4" TO VR S-BOX

2 - 3/4" ONE TO PANEL & ONE TO SENECA BOX

MAIN ELECTRICAL PANEL ROOM:

(SEE SHEETS 4/E-501, 5/E-501)

1 - 1" CONDUIT W/SEAL-OFF (PER) DISPENSER
1 - 3/4" CONDUIT W/SEAL-OFF (PER) SUBMERSIBLE PUMP (POWER)
2 - 1" CONDUIT W/SEAL-OFF FOR CANOPY (VERIFY CIRCUITS REQUIRED)
2 - 1" CONDUIT TO FRONT COUNTER FOR MISC. EQUIP.
1 - 3/4" CONDUIT TO FRONT COUNTER FOR INTERCOM.
1 - 2" CONDUIT FOR TELEPHONE (U.G.) STUBBED OUT
1 - 1" CONDUIT FOR SIGN
2 - 3/4" CONDUIT TO FRONT WALL FOR POWER OUTLET UNDER THE WINDOWS
1 - 1" CONDUIT W/SEAL OFF FROM SECURITY PANEL TO TOP OF CANOPY (LOW VOLTAGE) [WIRE TO BE 20 GAUGE - 2 CONDUCTOR - SHEILDED]
1 - 1" W.SEAL OFF (PER) SUBMERSIBLE (PROBE, INTERSTICAL, FLOAT AND PLLD) (LOW VOLTAGE)

"USE STRANDED WIRE ONLY"

NOTES:

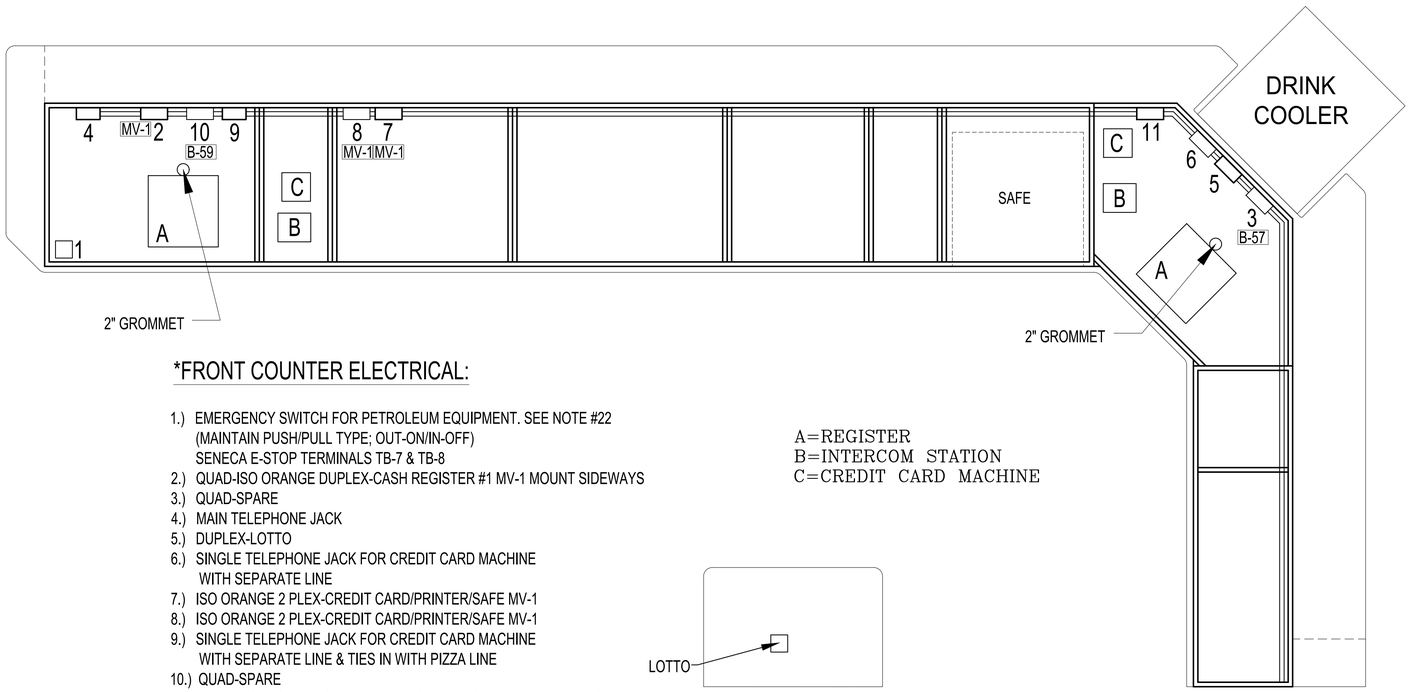
1.) ALL BLDG. & CANOPY WIRING MUST BE IN EMT ELECTRICAL CONDUIT
2.) PAGE QR-602, QR-603 & QR-604 FOR REFRIGERATION AND HAVAC WIRING
3.) REFRIGERATION COMPRESSORS LOCATED ON RACK SUSPENDED ABOVE SALES COOLER.
4.) HEIGHTS OF DUPLEXS TO BOTTOM.
5.) KITCHEN FREEZER COMPRESSOR LOCATED ON RACK SUSPENDED ABOVE SALES COOLER.
6.) ALL WIRING TO & FROM CLASSIFIED AREAS SHALL BE INSTALLED IN ACCORDANCE WITH THE N.E.C.
7.) EXHAUST HOOD TO BE ON WALL SWITCHES WITH APPROPRIATE HOOD LIGHTS FIXTURES. SWITCHES TO BE LIGHTED PILOT TYPE AND LABELED.
8.) ALL KITCHEN OUTLETS TO BE WHITE WITH STAINLESS STEEL COVERS. MATCH OUTLETS & COVERS PER ROOM WALL FINISHES. USE WHITE OUTLETS WITH WHITE COVERS ON WHITE FRP.
9.) THE REMOTE PULL REQUIRES TO BE RECESSED IN WALL WITH A 4 x 4 SQUARE BOX @48" TO CENTER A.F.F. SEE DETAIL ON AQ-101 FOR SCREWS POSITION.
10.) MEASUREMENTS FROM STUD WALLS.
11.) ALL UNDERGROUND MEASUREMENTS FROM INSIDE SHEETING LEDGE.
12.) ALL RIGID CONDUIT TO BE GALVANIZED STEEL.
13.) ALL ELECTRICAL CONDUIT PENETRATIONS THROUGH THE WALK-IN COOLER/FREEZER CABINET ARE TO BE SEALED WITH DUCT SEAL POLYWATER FST FOAM 250. WIRING IN CONDUITS AND INTERIOR JUNCTION BOXES ARE TO BE SEALED WITH QUICK SEAL OR EQUAL SEALANT. FOR AIR AND WATER TIGHT CONNECTIONS.
14.) WIRING FOR CANOPY IS TO BE IN EMT ELECTRICAL CONDUIT, INSTALL A GFI OUTLET W/WEATHER PROOF COVER ON TOP OF CANOPY.
15.) ALL CONDENSING UNITS AND COMPRESSOR RACK REQUIRE A DISCONNECT.
16.) INTERCOM SPEAKERS TO BE NUMBERED SAME AS THE ISLAND NUMBERS.
17.) HAVACR EQUIPMENT REQUIRE DISCONNECTS WITHIN 6' OF THE UNITS
18.) ALL NEUTRALS WIRES ARE TO BE WHITE COLOR.
19.) ELECTRICAL CONTRACTOR IS TO MAKE ALL FINAL CONNECTIONS TO D-MARK BOX.
20.) TELEPHONE JACKS ARE TO BE SUPPLIED BY ELECTRICAL CONTRACTOR.
21.) EMERGENCY SWITCH FOR PETROLEUM EQUIPMENT DISCONNECTS ALL FUELING RELATED SYSTEMS USING SENECA PANEL CONTROLS WHICH INCLUDES SHUTDOWN OF ALL SUBMERSIBLE PUMPS & ALL DISPENSERS(BOTH HOT & NEUTRAL CONDUCTORS) & PLLD FUNCTIONS OF THE VEEDER ROOT TLS-450. EMERGENCY SWITCH ALSO DISCONNECTS THE DATA DISTRIBUTION BOX & ALLIED NEX GEN BOX (BOTH HOT & NEUTRAL CONDUCTORS) THROUGH THE ISO ORANGE OUTLETS ON MAC VICTOR BOX.

"NO FLEX CONDUIT IN WALLS"

"NO! CORE CLAD WIRE ALLOWED"

SCH-40 PVC, INTERIOR UNDER SLAB
SCH-80 PVC, EXTERIOR UNDER SLAB
WITH LAST 10' @ EACH END
CONNECTION GALV. RIGID

MC ONLY ALLOWED FOR LIGHTS
6' MAX WHIPS (STRANDED WIRE)

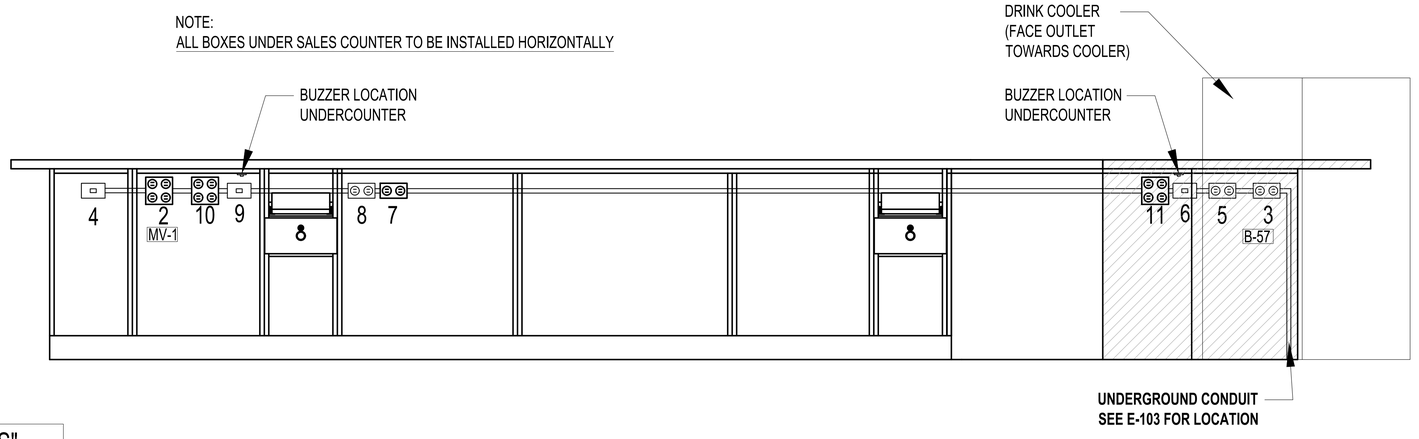


*FRONT COUNTER ELECTRICAL:

1.) EMERGENCY SWITCH FOR PETROLEUM EQUIPMENT. SEE NOTE #22 (MAINTAIN PUSH/PULL TYPE; OUT-ON/IN-OFF) SENECA E-STOP TERMINALS TB-7 & TB-8
2.) QUAD-ISO ORANGE DUPLEX-CASH REGISTER #1 MV-1 MOUNT SIDEWAYS
3.) QUAD-SPARE
4.) MAIN TELEPHONE JACK
5.) DUPLEX-LOTTO
6.) SINGLE TELEPHONE JACK FOR CREDIT CARD MACHINE WITH SEPARATE LINE
7.) ISO ORANGE 2 PLEX-CREDIT CARD/PRINTER/SAFE MV-1
8.) ISO ORANGE 2 PLEX-CREDIT CARD/PRINTER/SAFE MV-1
9.) SINGLE TELEPHONE JACK FOR CREDIT CARD MACHINE WITH SEPARATE LINE & TIES IN WITH PIZZA LINE
10.) QUAD-SPARE
11.) QUAD-ISO ORANGE DUPELX-CASH REGISTER #2 MV-1 MOUNT SIDEWAYS

A=REGISTER
B=INTERCOM STATION
C=CREDIT CARD MACHINE

NOTE:
ALL BOXES UNDER SALES COUNTER TO BE INSTALLED HORIZONTALLY



Front Counter Electrical Detail

Scale: 1"=1'

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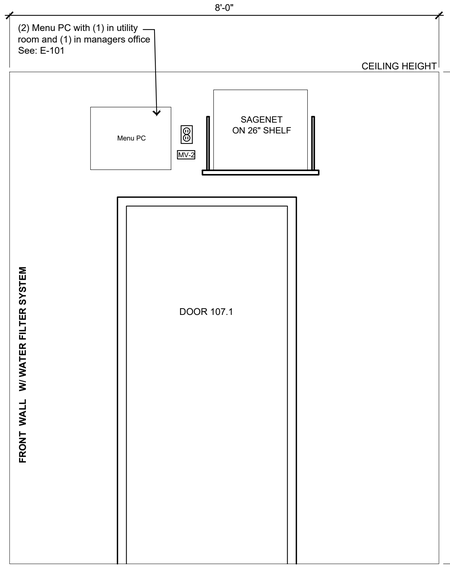
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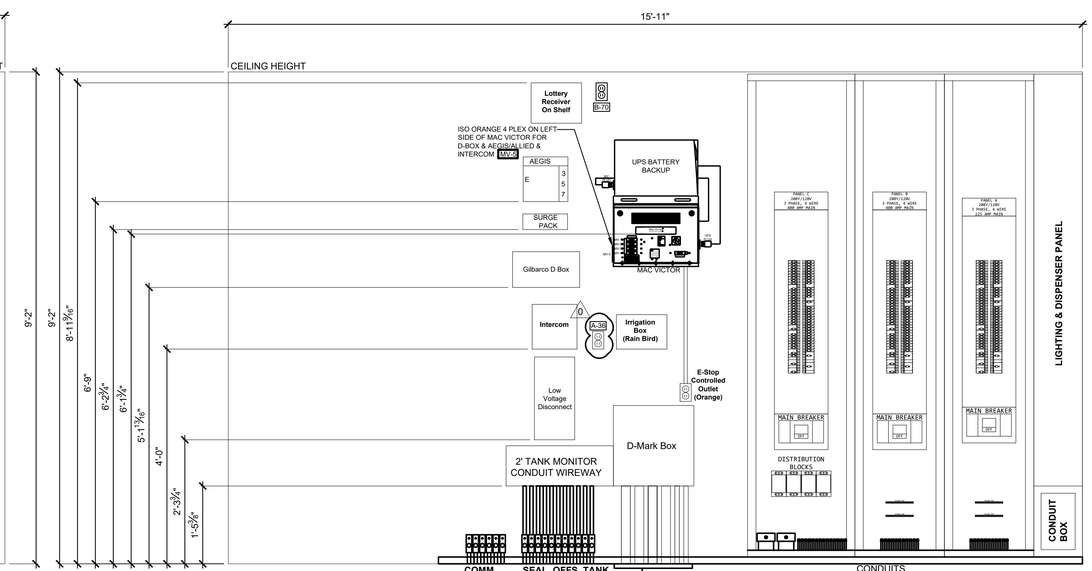
DRAWING INFORMATION:
SALES COUNTER ENLARGED PLAN & DETAILS

E-401

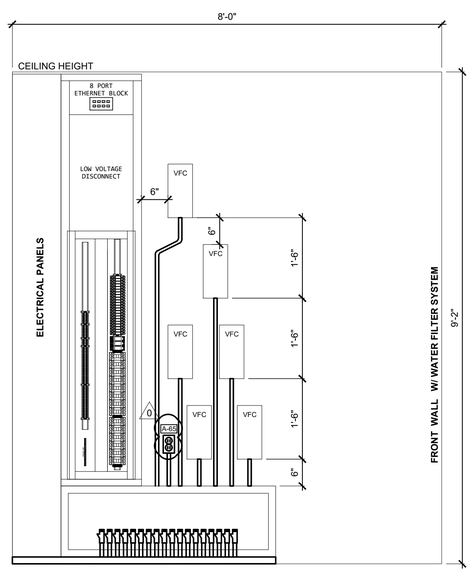
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A



B



C

NOTE:

1.) INSTALL WALL COVERING BEFORE APPLYING ANY ELECTRICAL PANELS OR PETROLEUM MONITORING EQUIPMENT IN THIS AREA!

2.) ALL WIRING TO AND FROM CLASSIFIED AREAS SHALL BE INSTALLED IN ACCORDANCE WITH THE N.E.C.

3.) ALL UNDERGROUND CONDUIT TO OUTSIDE EQUIPMENT TO BE SCHEDULE 80 PVC (SCH 80) WITH LAST 10 FEET TO BE GALVANIZED RIGID STEEL (GRS) ON EACH END IF SERVING EQUIPMENT IN A CLASSIFIED AREA.

4.) SEALOFFS TYPICAL TO ALL CLASSIFIED AREAS.

5.) GROUNDING PER MANUFACTURE, POWER COMPANY OR N.E.C.

6.) ALL UNDERFLOOR CONDUIT TO INSIDE STORE EQUIPMENT TO BE SCHEDULE 40 PVC (SCH 40) CONDUIT.

7.) 2 CAT 5 CABLE MUST BE INSTALLED BETWEEN THE ALLIED BOX AND MWS (MANAGER'S WORK STATION)

8.) A SINGLE CAT 5 CABLE MUST BE INSTALLED BETWEEN THE D-MARK BOX AND THE SATELLITE BOX

9.) ALL SPARE CONDUITS ARE TO BE LABELED TO WHERE THEY GO.

10.) CAT6 CABLE FROM DISPENSERS TO LOW VOLTAGE DISCONNECT TO THE CAT6 FROM LOW VOLTAGE DISCONNECT TO SAGENET.

PANEL MV (2kVA)

CKT#	TRIP	SERVERS
MV-1	20	Frt Cntr/POS/CC/Safe/Pizza Del PC
MV-2	20	Mgr Workstation/Sage Net/Menu PC
MV-3	20	Office Securtiy/DVR/Monitor/Camera
MV-4	20	Veeder Root TLS-450 Main Power
MV-5	20	AEGIS/D-Box/Fueling EM Shutdown/Low Voltage Disconnect

GENERAL CONSTRUCTION NOTES:

ALL UNDERGROUND CONDUITS:

- ARE TO PROTRUDE THROUGH THE CONCRETE FLOOR
- ARE TO BE ARMAFLEXED 1/2" BELOW CONCRETE FLOOR AND THEN TO BE COVERED WITH SELF-LEVELING CAULK OR EQUAL TO. INSTALL ALUMINUM EDGING AROUND PERIMETER OF CONDUITS AS NEEDED

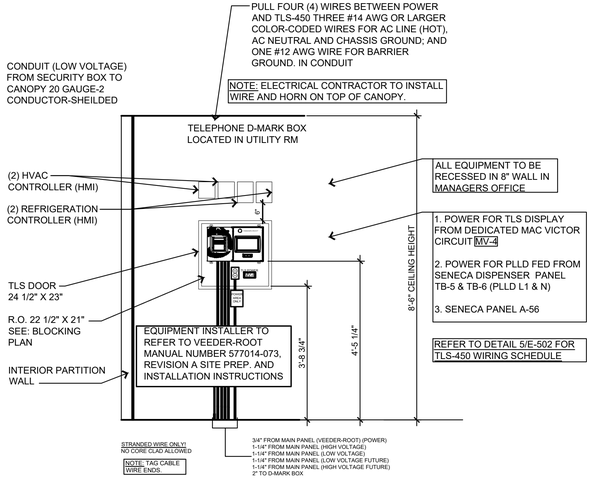
1.) ALL PENETRATIONS THROUGH FOUNDATION WALLS ARE TO BE SEALED.

2.) ALL ELECTRICAL TO MEET STATE, LOCAL & NEC.

3.) REFER TO ALL MANUFACTURERS MANUALS FOR SPECIFIC WIRING REQUIREMENTS.

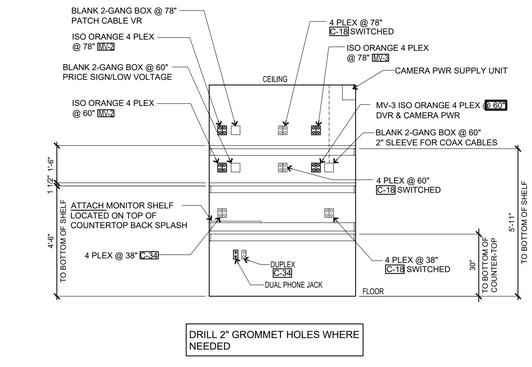
1 Utility Room Elevation Details

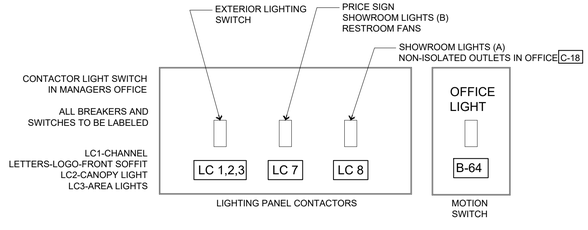
3/4" = 1'-0"



2 Tank Monitoring Detail

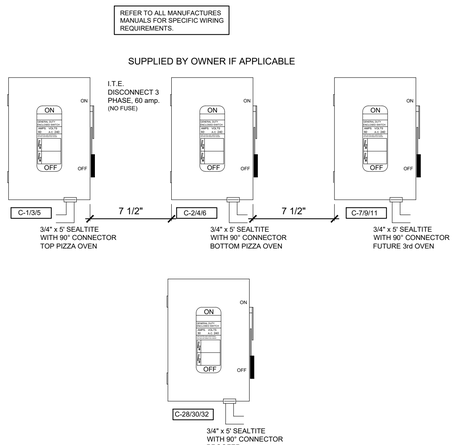
1/2" = 1'-0"





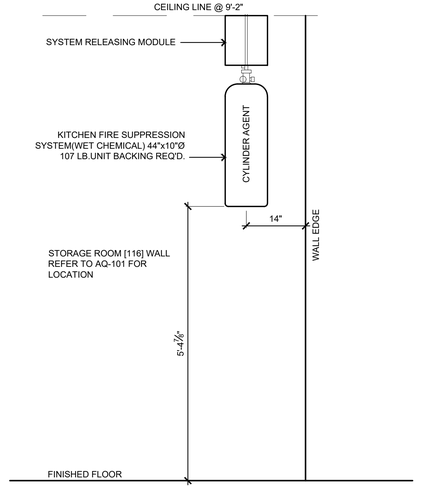
3 Managers Office Desk Switch Detail

Not To Scale



4 Disconnect Detail

NO SCALE



5 Amerex KP System Detail

No To Scale

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Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

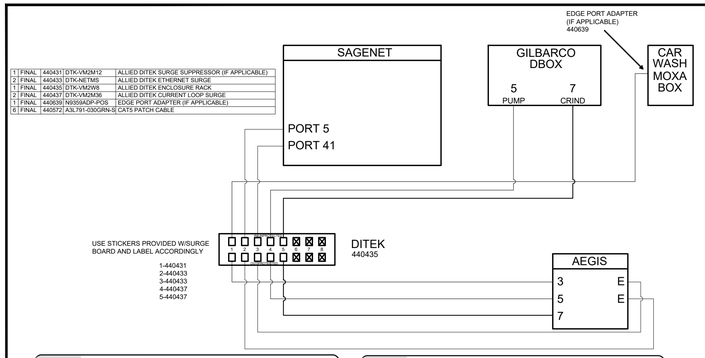
PUBLISHED: 10/18/2023
REVISED ON:
DRAWING INFORMATION:
ELECTRICAL PANEL DETAILS AND DIAGRAMS

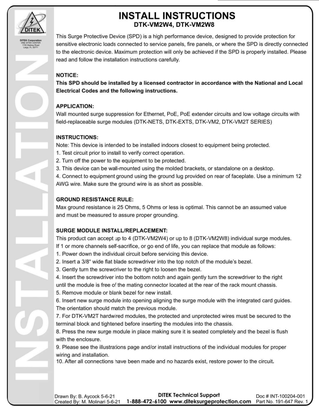
PROJECT NUMBER: 07164.057
DRAWN BY: DJL
CHECKED BY: JMM

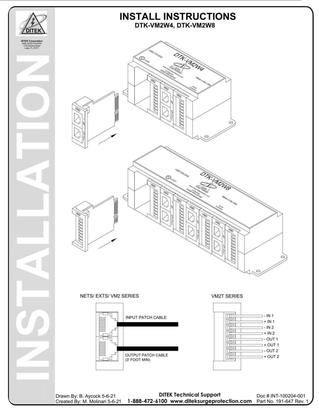
E-501

P:\07164057_CAD\Exe\09_E-501.dwg
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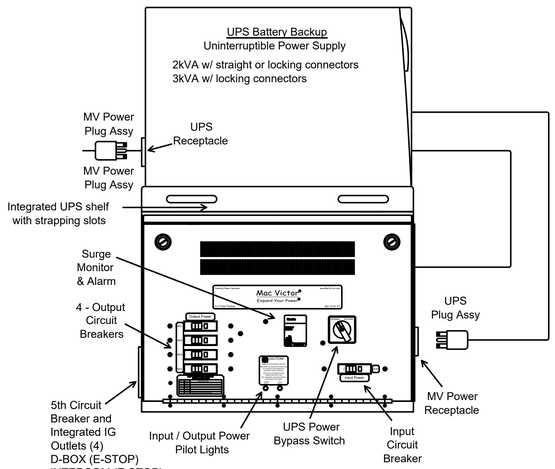
1	FINAL	440431	DTK-VM2M12	ALLIED DITEK SURGE SUPPRESSOR (IF APPLICABLE)
2	FINAL	440433	DTK-NETMS	ALLIED DITEK ETHERNET SURGE
1	FINAL	440435	DTK-VM2W8	ALLIED DITEK ENCLOSURE RACK
2	FINAL	440437	DTK-VM2MX36	ALLIED DITEK CURRENT LOOP SURGE
1	FINAL	440639	N6559ADP-POS	EDGE PORT ADAPTER (IF APPLICABLE)
6	FINAL	440572	A3L791-030GRN-S	CAT5 PATCH CABLE



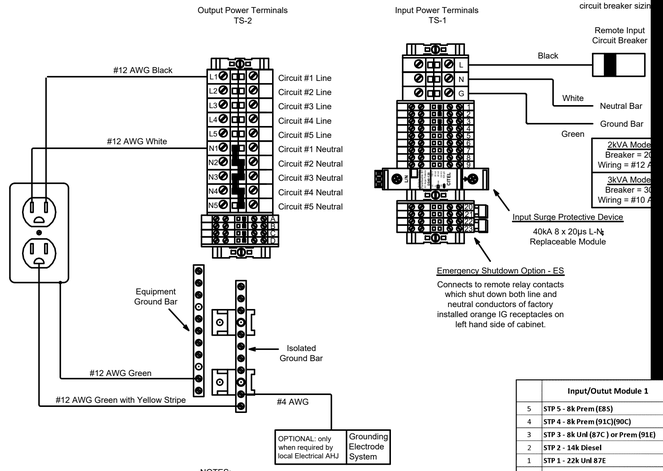




1 Allied Surge Kit
SCALED TO FIT



2 Mac Victor Component/Wiring Diagram & Schedule
1-1/2" = 1'-0"



NOTES:

- WARNING: RISK OF ELECTRICAL SHOCK AND PERSONAL INJURY.
- Dashed lines indicate field wiring
- Remote Input Circuit Breaker wiring must be run in separate conduit from all output wiring
- All output wiring must be run in dedicated conduit or MC cable and not routed with any other equipment wiring to avoid induced voltages.
- Replace the Input SPD module if the front panel surge monitor goes into alarm condition

Mac Victor - Panel MV (2kVA)

Casey's General Store

Panel: MV	
Voltage: 120Vac, 1PH, 3W	
Main Bus: 20A	
Main Circuit Breaker: 20A	
Subfeed from: Breaker A-67 (20A)	
Branch Circuit: #12L, #12N, #12G	

Equipment Ground Bus:	Y
Isolated Ground Bus:	Y
Poles:	5
Mounting:	surface
Maximum capacity:	2000VA
UPS Input Connector:	5-20P
UPS Output Connector:	5-20R

			Circuit Breaker		
Ckt #	Serves	Load VA	P	Trip	Branch Circuit
MV-1	Front Counter Registers (2)	480	1	20	#12L, #12N, #12G, #12IG / IG outlets
	Credit Card reader / Safe				
	Pizza Delivery PC				
MV-2	Manager Work Station PC's	840	1	20	#12L, #12N, #12G, #12IG / IG outlets
	Office Monitor / Sage Net				
	Menu Board PC driver				
MV-3	Security Box / DVR / Monitor	360	1	20	#12L, #12N, #12G, #12IG / IG outlets
	Camera Box				
MV-4	Tank Monitor (TLS-450)	120	1	20	#12L, #12N, #12G, #12IG
					hard wired through disconnect switch
MV-5	AEGIS	120	1	20	Factory wired IG outlets / left hand side
	D-Box & Intercom				Wired to emergency shutdown circuit

Total Calculated Load : 1920 VA

NOTES: Part Numbers: Mac Victor 2.0 = MVP-2KL-IG-ES / 2kVA UPS = MV-GT-2000T

- All branch circuit receptacles must be Isolated Ground (IG) type and orange colored to identify critical circuit..
- All branch circuits are 4 wire home runs (Line, Neutral, Ground, Isolated Ground) with #12AWG conductors.
- All branch circuit wiring must be dedicated, isolated circuits which are not shared with other equipment wiring.
- Do not share Neutral conductors with other circuits that are not on Panel MV.
- The daisy chain wiring configuration for multiple IG receptacles on a single branch circuit is acceptable.

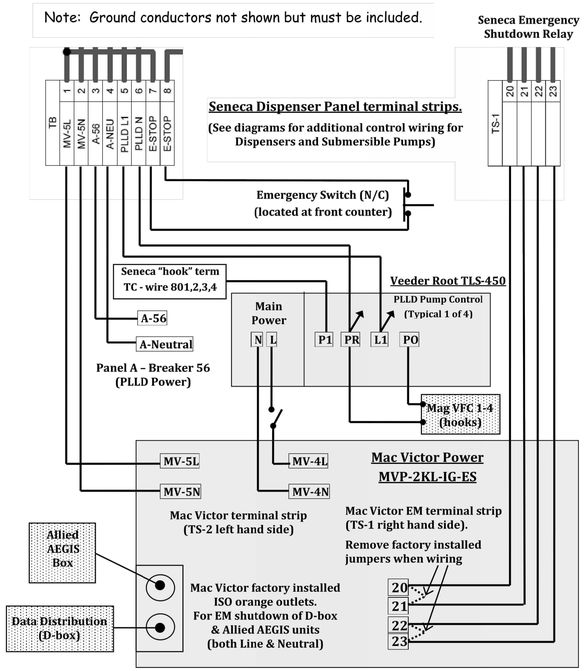
	Input/Outut Module 1		Input/Outut Module 2		Sensor Modules		Sensor Modules
5	**STP 5 - 8k Prem (E85)**	5	Spare Truck Stop DEF	16	Spare	16	**Dispenser Sump 8**
4	**STP 4 - 8k Prem (91C)(90C)**	4	Spare Truck Stop DEF/Diesel Tank	15	Spare	15	**Dispenser Sump 7**
3	**STP 3 - 8k Unl (87C) or Prem (91E)**	3	Spare Truck Stop Large Diesel Tank	14	Spare	14	**Dispenser Sump 6**
2	**STP 2 - 14k Diesel**	2	Spare Truck Stop Large Diesel Tank	13	Spare	13	**Dispenser Sump 5**
1	**STP 1 - 22k Unl 87E**	1	**STP - 22k Unl 87E**	12	Spare	12	**Dispenser Sump 4**
				11	**DLLD 6 - 22k Unl 87E**	11	**Dispenser Sump 3**
				10	**DLLD 5 - 8k Prem (E85)**	10	**Dispenser Sump 2**
				9	**DLLD 4 - 8k Prem (91C)**	9	**Dispenser Sump 1**
				8	**DLLD 3 - 8k Unl (87C) or Prem (91E)**	8	**Tank Sump 6 - If Applicable**
				7	**DLLD 2 - 14k Diesel**	7	**Tank Sump 5**
				6	**DLLD 1 - 22k Unl 87E**	6	**Tank Sump 4**
				5	**Probe 5 - 8k Prem (E85)**	5	**Tank Sump 3**
				4	**Probe 4 - 8k Prem (91C)**	4	**Tank Sump 2**
				3	**Probe 3 - 8k Unl (87C) or Prem (91E)**	3	**Tank Sump 1**
				2	**Probe 2 - 14k Diesel**	2	**14k / 8k / 8k Interstitial**
				1	**Probe 1 - 22k Unl 87E**	1	**22k / 8k Interstitial**

ExpansionBox Required when more than 32 sensors are used - Truck Stop Situation

Schedule in TLS is required to be filled out by the Contractor (ELEC OR PETRO) that Terminates is Responsible
Contact Construction Supervisor for Questions if different wiring conditions are required.

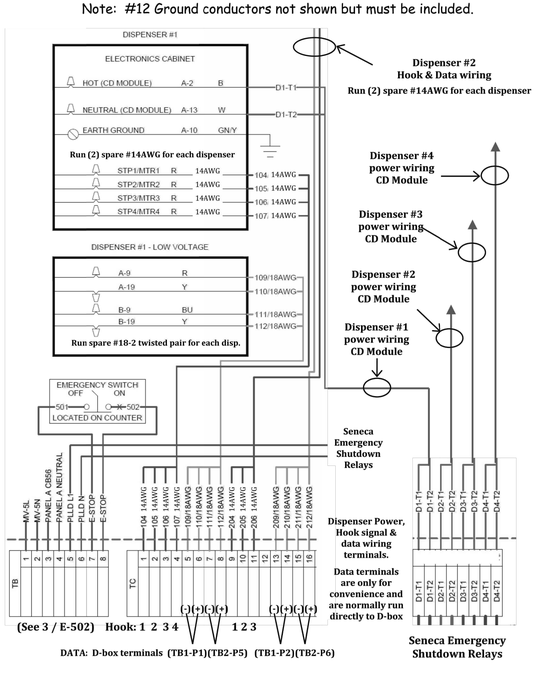
5 TLS-450 Wiring Schedule
NO SCALE

Seneca Pump Controls to Mac Victor Power to Veeder Root field wiring (3 / E-502)

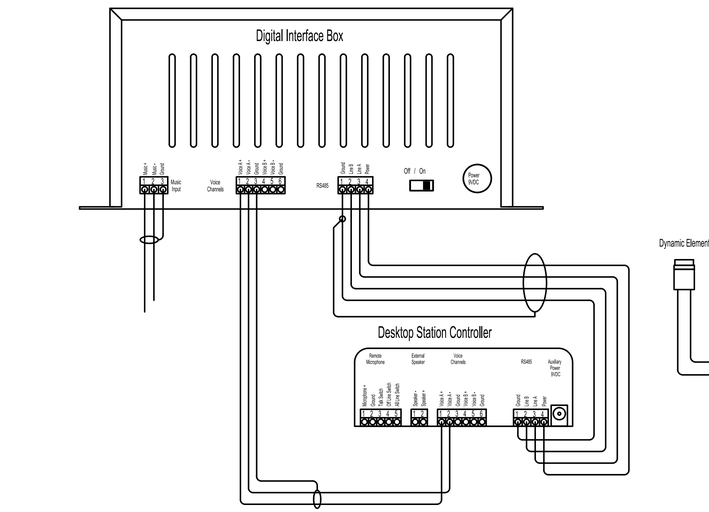


3 Input Power/EM Shutdown Wiring
NO SCALE

Seneca Pump Controls to Dispenser Power & Hook signals & Data (3A / E-502)



3A Seneca Pump Controls to Dispenser Power
NO SCALE



Note: Wire only "Voice Channel A" when using one station selector.
Wire both "Voice Channels A & B" when using multiple station selectors.

Depending on distance use twisted pair, 14-22 AWG audio cable.

4 ESCO Intercom System Wiring Detail
NO SCALE

GENERAL CONSTRUCTION NOTES:

ALL UNERGROUND CONDUITS ARE THAT PROTUDE THROUGH THE CONCRETE FLOOR ARE TO BE ARMAFLEXED TRIM ARMAFLEXED 1/2" BELOW CONCRETE FLOOR AND THEN TO BE COVERED WITH SELF-LEVELING CAULK OR EQUAL TO. INSTALL ALUMINUM EDGING AROUND PERIMETER OF CONDUITS AS NEEDED

1.) ALL PENTRATIONS THROUGH FOUNDATION WALLS ARE TO BE SEALED.

2.) ALL ELECTRICAL TO MEET STATE, LOCAL & NEC

3.) REFER TO ALL MANUFACTURES MANUALS FOR SPECIFIC WIRING REQUIREMENTS

DRAWINGS & INFORMATION ON THIS SHEET ARE PROVIDED FOR INFORMATION ONLY AND HAVE NOT BEEN DESIGNED BY OR REVIEWED BY THE SCHEMMER ASSOCIATES.

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2023 "U4" STYLE STORE V.01 FLAT ROOF	PUBLISHED: 03/15/23	DRAWING INFORMATION: ELECTRICAL EQUIPMENT DETAILS
	REVISED ON:	
DRAWING INFORMATION: 2023 - U4 - V.01		E-502
DRAWN BY: Arlon Goforth III	CHECKED BY:	

ELECTRICAL: PANEL A

VOLTAGE: 208Y120 | 225 AMP MAIN CIRCUIT BREAKER | FEED: SEE SCHEDULE
PHASE: 3Ø | WIRE: 4 | (SERIES RATED 65,000 A.I.C.) | MOUNTING: SURFACE

DESCRIPTION	WIRE SIZE	NOTES	LTG	VA A	VA B	VA C	BRKR AMP	BRKR P	CKT NO.	BUSS CONN	CKT NO.	BRKR P	BRKR AMP	VA A	VA B	VA C	NOTES	LTG	WIRE SIZE	DESCRIPTION
				804					1		2			804						
SUBMERSIBLE PUMP #1	#12				804		20	3	3		4	3	20		804				#12	SUBMERSIBLE PUMP #5
						804			5		6					804				
				804					7		8			804						
SUBMERSIBLE PUMP #2	#12				804		20	3	9		10	3	20		804				#12	SUBMERSIBLE PUMP #6
						804			11		12					804				
				804					13		14			416						
SUBMERSIBLE PUMP #3	#12				804		20	3	15		16	2	20		416				#12	CANOPY LIGHTS
						804			17		18					416				
				804					19		20			416						
SUBMERSIBLE PUMP #4	#12				804		20	3	21		22	2	20		416				#12	CANOPY LIGHTS
						804			23		24					416				
PLLD POWER	#12			180			20	1	25		26	1	15	840					#14	DISPENSER 6 (IF USED)
PYLON & CANOPY RECEP	#12				360		20	1	27		28	1								BLANK-DISP 6 SW NEUTRAL
BLANK-DISP 1 SW NEUTRAL								1	29		30	1	20			1620			#12	GENERAL POWER REC FRNT WALL
DISPENSER 1	#14			840			15	1	31		32	1	15	840					#14	DISPENSER 7 (IF USED)
PYLON SIGN	#12				1080		20	1	33		34	1								BLANK-DISP 7 SW NEUTRAL
BLANK-DISP 2 SW NEUTRAL								1	35		36	1	20			360			#12	IRRIGATION
DISPENSER 2	#14			840			15	1	37		38	1	15	840					#14	DISPENSER 8 (IF USED)
DIGITAL PRICE SIGN	#12				240		20	1	39		40	1								BLANK-DISP 8 SW NEUTRAL
BLANK-DISP 3 SW NEUTRAL								1	41		42	1	20			360				CUSTODIAN ROOM OULET
DISPENSER 3	#14			840			15	1	43		44	1	15	840					#14	DISPENSER 9 (IF USED)
CHANNEL LETTERS / LOGO	#12				1020		20	1	45		46	1								BLANK-DISP 9 SW NEUTRAL
BLANK-DISP 4 SW NEUTRAL								1	47		48	1	20			360			#12	D-MARK TELEPHONE BOX
DISPENSER 4	#14			840			15	1	49		50	1	15	840					#14	DISPENSER 10 (IF USED)
SPACE									51		52	1								BLANK-DISP 10 SW NEUTRAL
BLANK-DISP 5 SW NEUTRAL								1	53		54	2	20			312			#12	AREA LIGHTS
DISPENSER 5	#14			840			15	1	55		56			312						
FRONT WALL MONITORS	#12				360		20	1	57		58	2	20		312				#12	AREA LIGHTS
SHOW ROOM/DONUT CASE REC	#12					1620	20	1	59		60					312				
MAC VICTOR UPS	#10			1920			30	1	61		62	2	20	312					#12	AREA LIGHTS
SOFFITT LIGHTS	#12				630		20	1	63		64				312					
LIGHTING CONTROL POWER	#12					180	15	1	65		66	2	20			312			#12	AREA LIGHTS
SECURITY LIGHTS #1	#12			696			20	1	67		68			312						
SECURITY LIGHTS #2	#12				696		20	1	69		70									SPACE
						1760			71		72									SPACE
BEAN TO CUP COFFEE	#12			1760			20	2	73		74									SPACE
					1760				75		76									SPACE
BEAN TO CUP COFFEE	#12					1760	20	2	77		78									SPACE
				4078					79		80									SPACE
RTU-3 KITCHEN	#6				4078		45	3	81		82	1	15		360				#12	SMART SAFE
						4078			83		84	1	15			180			#14	E STOP
					16050	13440	12614			VA TOTAL				7576	3424	6256				

WATTS: BUS A: 23626
BUS B: 16864
BUS C: 18870

TOTAL VA: 59360 | AMPS = 165 | REVISION NO. | 2022-U4-V.02 - MAY 10, 2022

PANEL A	
NQ MB PANEL (INT, BOX, FRT)	
NQ PANELBOARD	
CONSISTING OF	
208Y/120 VAC 3PH 4W 60 HZ	SCCR:22K
MAIN: 225A LA BREAKER	
INCOMING CONDUCTOR(S):	(1) 3/0 - 350 kcmil
BUS: COPPER	SILVER/TIN PLATING
GROUND BAR	
TYPE 1	62"H X 20"W X 5.75"D
INCOMING: TOP	SURFACE HINGED
BOX CAT#: MH62BE	FRONT CAT #: NC62SHR
REF. DRAWING: PBA 707HR	
BRANCHES:	

ELECTRICAL: PANEL B

VOLTAGE: 208Y120 | 400 AMP MAIN CIRCUIT BREAKER | FEED: SEE SCHEDULE
PHASE: 3Ø | WIRE: 4 | (SERIES RATED 65,000 A.I.C.) | MOUNTING: SURFACE

DESCRIPTION	WIRE SIZE	NOTES	LTG	VA A	VA B	VA C	BRKR AMP	BRKR P	CKT NO.	BUSS CONN	CKT NO.	BRKR P	BRKR AMP	VA A	VA B	VA C	NOTES	LTG	WIRE SIZE	DESCRIPTION
REFRIGERATED SANDWICH CASE	#12			1650			20	2	1		2	1	20	360					#12	DRINK COOLER
					1650				3		4									SPACE
SPACE									5		6	1	20			216			#12	KITCHEN COOLER EVAP. FANS
				2064					7		8				2088					
STORAGE COOLER CU	#10				2064		30	3	9		10	3	30			2088			#10	SALES COOLER CU
						2064			11		12					2088				
				5280					13		14			1581						
SALES RTU #2	#4				5280		60	3	15		16	2	20		1581				#12	STORAGE COOLER EVAPORATOR
						5280			17		18					1581				
SPACE									19		20	2	20	1581					#12	STORAGE COOLER EVAPORATOR
SPACE									21		22					1581				
SPACE									23		24					1581			#12	SALES FREEZER EVAPORATOR
SALES COOLER EVAP FANS	#12			648			20	1	25		26	1	20	780					#12	CARBONATOR
SALES FRZ DOOR HEAT&LIGHTS	#12				480		20	1	27		28	1	20		1080				#12	MUSIC & VIDEO
SALES COOLER DOOR LIGHTS	#12					684	20	1	29		30	1	20			550			#12	STOR. COOLER DOOR LIGHT & HEAT
KITCHEN FRZ DR HTR & DRAIN	#12			690			20	1	31		32									SPACE
KIT FRZ/COOLER SERV LIGHTS	#12				480		20	1	33		34	1	20		1788				#12	ICED TEA GFI
SALES COOL/FRZR. SVL LIGHTS	#12					480	20	1	35		36									SPACE
DOUGH ROLLER	#12			1056			20	1	37		38	2	20	1581					#12	KITCHEN FREEZER EVAPORATOR
PIZZA PREP TABLE GFI	#12				1020		20	1	39		40				1581					
FLOOR MIXER	#12					1680	20	1	41		42	1	20			1840			#12	FRESH BLENDER
PIZZA FINISH TABLE GFI	#12			350			15	1	43		44									SPACE
12 FT HOOD	#12				600		20	2	45		46	1	20		1440				#12	WARMERS GFI
						600			47		48	1	20			1440			#12	WARMERS GFI
S/C POP ICE MAKER	#12			1840			20	1	49		50	1	20	336					#12	CREAMER GFI
S/C POP ICE MAKER	#12				1840		20	1	51		52	1	20		1440				#12	WARMERS GFI
GFI POP DISP DPLX	#12					420	20	1	53		54	1	20			1020			#12	SUB SANDWICH PREP TABLE GFI
GFI POP DISP DPLX	#12			420			20	1	55		56	1	20	1800					#12	CAPPUCCINO #1 GFI
FRONT COUNTER 4 PLEX #1	#12				900		20	1	57		58									SPACE
FRONT COUNTER 4 PLEX #2	#12					900	20	1	59		60									SPACE
EX HOOD CONTROL	#12			180			20	1	61		62	1	20	720					#12	ATM ISO RECEPTACLE
HOOD EXTINGUISHER	#14				180		15	1	63		64	1	20		480				#12	KITCHEN/OFFICE LIGHTS
SPACE									65		66	1	20			120			#12	WATER HEATER
SPACE									67		68	1	20	1800					#12	KITCHEN DUPLEX/TABLE TOP MIXER
SPACE									69		70	1	20		180				#12	LOTTO PWR ISOLATED DPLX
RESTROOM GFCI REC	#12					360	20	1	71		72	1	20			540			#12	MAU/RTU SERV. RECEPT
SPACE								1	73		74	1	20	1500					#12	MICROWAVE GFI
WINE CASE (HUSSMANN GSVM)	#12				1035		15	1	75		76									SPACE
HOOD EXHAUST SERV REC	#12					180	20	1	77		78									SPACE
				2735					79		80									SPACE
MAU UNIT	#10				2735		30	3	81		82	1	20		720				#12	OUTSIDE ICE CHEST FRONT RIGHT
						3735			83		84	1	20			720			#12	OUTSIDE ICE CHEST FRONT LEFT
					16913	18264	16383			VA TOTAL				14127	13959	11696				

WATTS: BUS A: 31040
BUS B: 32223
BUS C: 28079

TOTAL VA: 91342 | AMPS = 254 | REVISION NO. 1 | 2022-U4-V.02 - JUNE 29, 2022

PANEL B	
NQ MB PANEL (INT, BOX, FRT)	
NQ PANELBOARD	
CONSISTING OF	
208Y/120 VAC 3PH 4W 60 HZ	SCCR:22K
MAIN: 400A LA CIRCUIT BREAKER	ULSE SERIES RATED
INCOMING CONDUCTOR(S):	(1) #1-600 kcmil or (2)#1-250 kcmil
BUS: COPPER	SILVER/TIN PLATING
GROUND BAR	
TYPE 1	80"H X 20"W X 5.75"D
INCOMING: TOP	SURFACE HINGED
BOX CAT#: MH80	FRONT CAT #: NC80VSHR
REF. DRAWING: PBA 710HR	
BRANCHES:	

ELECTRICAL: PANEL C

VOLTAGE: 208Y120 | 400 AMP MAIN CIRCUIT BREAKER | FEED: SEE SCHEDULE
PHASE: 3Ø | WIRE: 4 | (SERIES RATED 65,000 A.I.C.) | MOUNTING: SURFACE

DESCRIPTION	WIRE SIZE	NOTES	LTG	VA A	VA B	VA C	BRKR AMP	BRKR P	CKT NO.	BUSS CONN	CKT NO.	BRKR P	BRKR AMP	VA A	VA B	VA C	NOTES	LTG	WIRE SIZE	DESCRIPTION
				3600					1		2			3600						
TOP PIZZA OVEN	#8				3600		40	3	3		4	3	40		3600				#8	BOTTOM PIZZA OVEN
						3600			5		6					3800				
				3600					7		8	1	20	720					#12	OUTSIDE BLDG RECEPT
MIDDLE PIZZA OVEN	#8				3600		40	3	9		10	1	20		720				#12	OUTSIDE ICE CHEST RIGHT
						3600			11		12	1	20			720			#12	OUTSIDE ICE CHEST LEFT
				5280					13		14									SPACE
SALES RTU #1	#4				5280		60	3	15		16	1	20		360				#12	KIT FREEZER HEAT/OUTLET
						5280			17		18	1	20			720			#12	MNGR OFFICE SW OUTLETS
SPACE									19		20	1	20	1080					#12	DIGITAL MENU MONITORS
SPACE									21		22	1	20		360				#12	DUPLEX KITCHEN (PEST)
SPACE									23		24	1	20			525			#12	KITCHEN QUAD OUTLET GFI
SPACE									25		26									SPACE
SPACE									27		28					2400				
SPACE									29		30	3	30			2400			#10	BREAD OVEN/PROOFER
TENDERLOIN FRYER GFI	#10			1730			30	2	31		32			2400						
					1730				33		34	1	20		720				#12	DUPLEX MANAGER'S OFFICE
SPACE									35		36	1	20			720			#12	HEAT TAPE OUTLET SALES FRZ
SPACE									37		38									SPACE
SPACE									39		40									SPACE
SPACE									41		42	1	20			468			#12	STORAGE COOLER HEAT TAPE
BATH RM.BACK RM LIGHTS	#12			240			20	1	43		44	2	20	1760					#12	BEAN TO CUP
CEILING LIGHTS 1 & 2	#12				720		20	1	45		46				1760					
CEILING LIGHTS 3 & 4	#12					720	20	1	47		48	1	20			1596			#12	MENS HAND DRYER
EXTERIOR LIGHTS	#12			500			20	1	49		50	1	20	468					#12	BATH EXHAUST FAN
EXTERIOR LIGHTS	#12				500		20	1	51		52	1	20		1800				#12	COLD BREW COFFEE #1
CUSTODIAN LIGHTS	#12					225	20	1	53		54	1	20			1800			#12	COLD BREW COFFEE #2
CIGARETTE RACK	#12			720			20	1	55		56	1	20	1596					#12	WOMENS HAND DRYER
AIR COMPRESSOR	#12				468		20	1	57		58	1	20		720				#12	WATER SOFTNER
SPACE									59		60	1	20			900			#12	WATER FILTER/GP OUTLET
SPACE									61		62	1	20	230					#12	ATTIC OUTLET
SPACE									63		64									SPACE
						3603			65		66	1	20			230			#12	ATTIC LIGHTS
SALES FREEZER CU	#10			3603			30	3	67		68									SPACE
					3603				69		70	1								SPACE
						3490			71		72	1				449			#12	ICE CREAM MERCHANDISER
KITCHEN FREEZER CU	#10			3490			20	3	73		74	1	20	360					#12	PAPER TOWEL DISPENSERS
					3490				75		76									SPACE
						1802			77		78									SPACE
KITCHEN COOLER CU	#12			1802			15	3	79		80									SPACE
					1802				81		82									SPACE
SPACE									83		84									SPACE
					24565	24793	22320			VA TOTAL				12214	12440	14128				

WATTS: BUS A: 36779
BUS B: 37233
BUS C: 36448

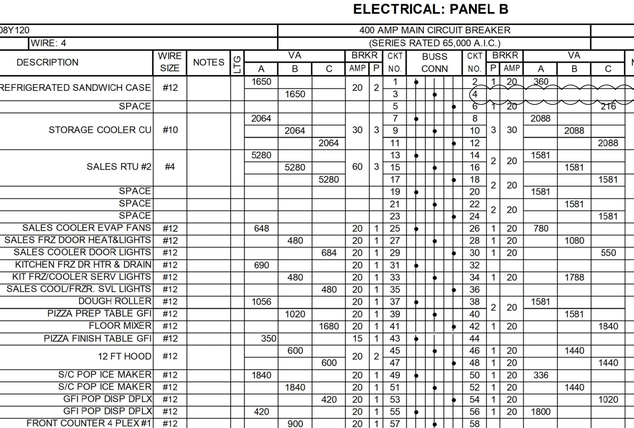
TOTAL VA: 110460 | AMPS = 307 | REVISION NO. | 2022-U4-V.02 - MAY 10, 2022

PANEL C	
NQ MB PANEL (INT, BOX, FRT)	
NQ PANELBOARD	
CONSISTING OF	
208Y/120 VAC 3PH 4W 60 HZ	SCCR:22K
MAIN: 400A LA CIRCUIT BREAKER	ULSE SERIES RATED
INCOMING CONDUCTOR(S):	(1) #1-600 kcmil or (2)#1-250 kcmil
BUS: COPPER	SILVER/TIN PLATING
GROUND BAR	
TYPE 1	80"H X 20"W X 5.75"D
INCOMING: TOP	SURFACE HINGED
BOX CAT#: MH80	FRONT CAT #: NC80VSHR
REF. DRAWING: PBA 710HR	
BRANCHES:	

2 Electrical Panel Schedules

Not To Scale

ELECTRICAL LOAD CALCULATIONS		NEC REFERENCE
BUILDING NAME: CASEY'S GENERAL		
LIGHTING: INTERIOR	7,347 VA	TABLE 220.12
LIGHTING: EXTERIOR	8,192 VA	TABLE 220.14 (f)
RECEPTACLES: TOTAL	21,220 VA	220.14 (f) & TABLE 220.44
FOOD SERVICE EQUIPMENT	96,726 VA	TABLE 220.56
HVAC SYSTEMS	48,720 VA	NAMEPLATE DATA
FUEL EQUIPMENT (PUMPS, ETC.)	20,508 VA	NAMEPLATE DATA
REFRIGERATION SYSTEMS	41,560 VA	NAMEPLATE DATA
FUTURE	10,800 VA	
TOTAL BUILDING LOAD		
265,806 VA/360 V = 738 A	255,073 VA	
800 AMPS AT 120/208 VOLTS 3 PHASE, 4-WIRE		



NOTE:
Electrician to verify available fault current at all electrical equipment, label properly, and ensure it is capable to interrupt it.

Electrician to calculate arc flash hazard and appropriately label electrical equipment per

1 Electrical System & Grounding Detail

Not To Scale

General Notes

2601 Contractor shall verify if service is to be overhead or underground.

2602 48" X 48" hinged door NEMA 3R cabinet with power distribution blocks

2603 IF REQUIRED
Heavy duty fused NEMA 3R safety switch 800 Amp 120/208 Volt 3 phase. **If required by NEC or the Local Utility**.

2604 Pre-assembled and UL listed Panel Package

1 (2) 4" Conduit (4) 600 KCMIL CU/conduit

2 (2) 4" Conduit (4) 600 KCMIL CU/Conduit
(1) 1/0 CU Ground/Conduit

3 Connect 2604 to ground reference bar with appropriate sized conductor and ensure panels N-G are bonded.

4 Connect 2604 to ground reference bar with appropriate sized conductor and ensure disconnect N-G are bonded.

STATE OF MISSOURI
JOSEPH C. BINGE
NUMBER PE-2014012014
10/17/2023
PROFESSIONAL ENGINEER

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300, Omaha, NE 68154
COA Number CA0666

PROJECT: CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

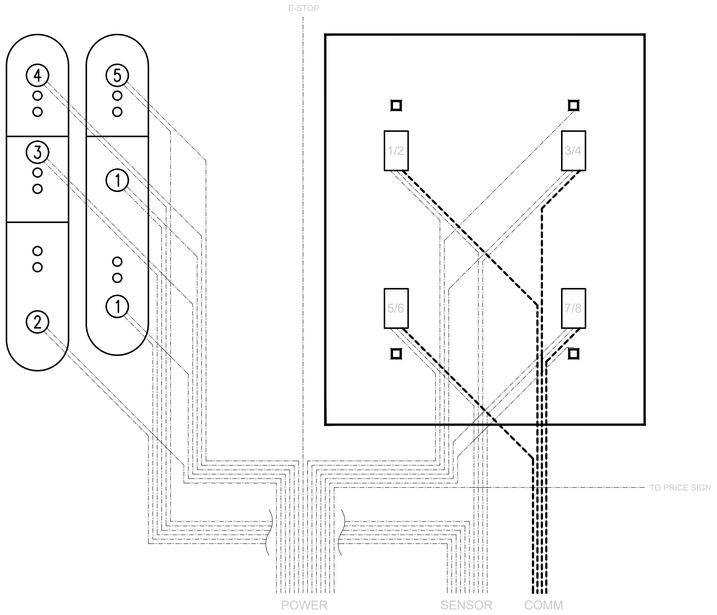
PUBLISHED: 10/18/2023
REVISED ON: 0

PROJECT NUMBER: 07164.057
DRAWN BY: DJL
CHECKED BY: JMM

DRAWING INFORMATION: PANEL SCHEDULES & SERVICE DETAILS

E-601

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10/17/2023 11:45:46 AM Langhofdt, Dawson



2 Gas Pump Island Conduit Schematic

Not To Scale

TANK SUMP:
- CONDUIT TO ENTER PERPENDICULAR TO SUMP
- 1" SENSOR CONDUIT
  *TANK PROBE, SUMP SENSOR, PLLD AND INTERSTITIAL
- 3/4" POWER CONDUIT

DISPENSER:
- 3/4" SENSOR CONDUIT
  * OPTIONAL - CONNECT 2 DISPENSERS PER 1 CONDUIT
  * CONTINUATION TO 2ND DISPENSER WITHIN JUNCTION BOX
- 1" POWER CONDUIT
- 3/4" CAT6 / INTERCOM CONDUIT

CANOPY:
- 1" POWER CONDUIT
  *COLUMN FARTHEST FROM TANKS, CLOSEST TO STORE
- 1" SECURITY LOW VOLTAGE CONDUIT
- 1" CANOPY GROUND

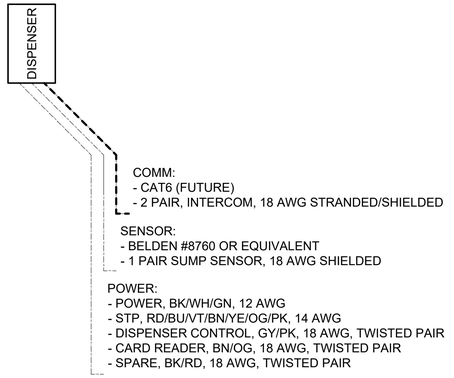
PRICE SIGN:
- 1" POWER CONDUIT

AREA LIGHTING:
- 3/4" POWER CONDUIT AS NEEDED

EMERGENCY STOP:
-3/4" POWER CONDUIT AS NEEDED

NOTES:
- LOCATION AND QUANTITY OF EQUIPMENT MAY VARY PER SITE.
- INTERCOM NUMBERING TO MATCH DISPENSER NUMBERING.
- TANK SUMP WIRING: USE ONLY OWNER SUPPLIED KILLARK JUNCTION BOX AND HUBBELL CONNECTORS. ADDITIONAL 18" WIRE COILED AND ROLLED IN JUNCTION BOX.
- COORDINATE ELECTRICAL CONDUIT SO THAT CANOPY COLUMNS CONTAINING VENT LINES ARE NOT ALSO USED FOR CONDUIT.
- REFER TO SHEETS QF-101, QF-201 AND QF-301 FOR MORE INFORMATION
- CAT6 CABLE FROM DISPENSERS TO LOW VOLTAGE DISCONNECT TO THE CAT6 FROM LOW VOLTAGE DISCONNECT TO SAGENET.

TYPICAL DISPENSER WIRING



TYPICAL STP SUMP WIRING

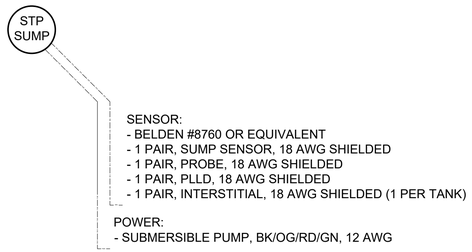
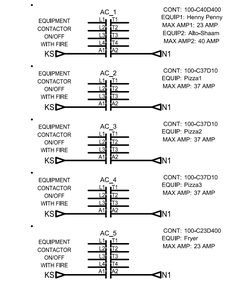
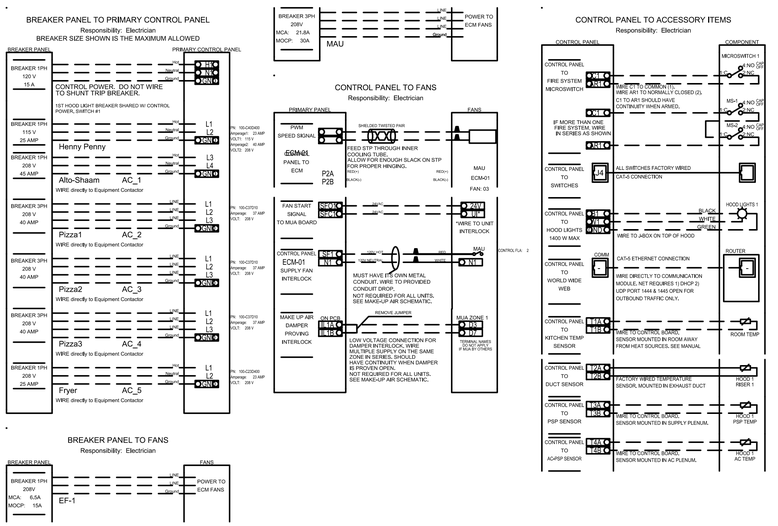
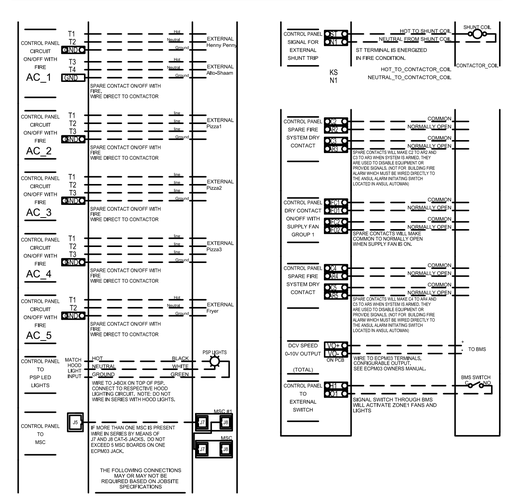


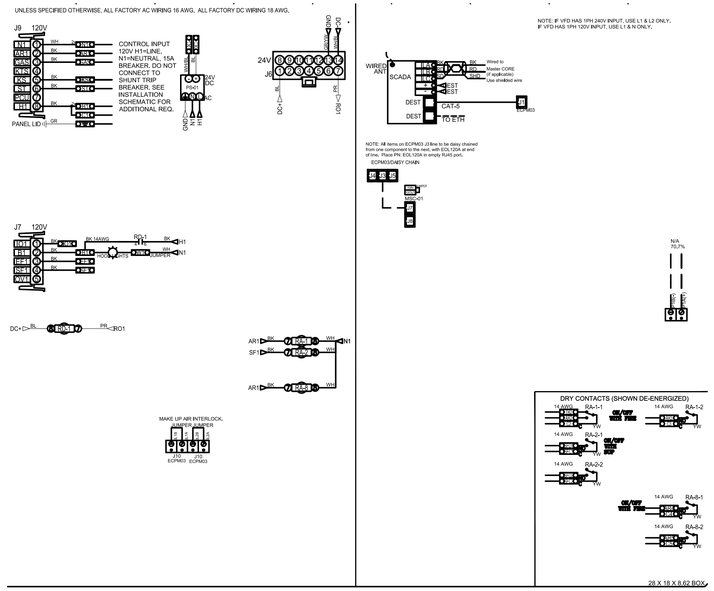
DIAGRAM FOR FIELD WIRING REQUIREMENTS.

APPLIANCE CONTACTOR CIRCUITS. SEE INSTALLATION DIAGRAM FOR FIELD WIRING REQUIREMENTS.



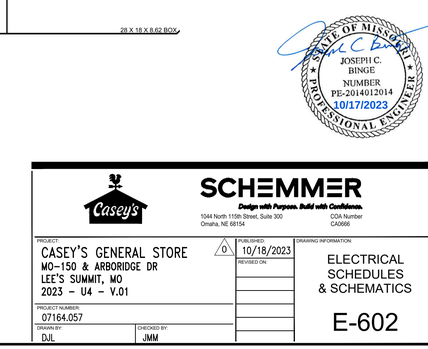






1 Captiveaire Control Panel Diagram - Hood Extinguisher Contactor / HVAC Control Schematic

Not To Scale



Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0996

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

PROJECT NUMBER: 07164.057
DRAWN BY: DJL
CHECKED BY: JMM

0	PUBLISHED: 10/18/2023
	REVISED ON:

DRAWING INFORMATION:
ELECTRICAL SCHEDULES & SCHEMATICS

E-602

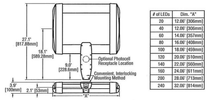
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10/17/2023 11:26:34 AM Longhofer, Dawson

ARE-EDG-4M-DA — THE EDGE® LED Area Light – Type IV Medium

Rev. Date: 8/23/11

BetaLED Catalog #: ARE - EDGO - - DA - - D - - - - - -

Notes:



# of LEDs	Dim. "A"
20	13.88" [350mm]
40	17.97" [350mm]
60	13.93" [350mm]
80	15.93" [404mm]
100	17.93" [455mm]
120	19.93" [505mm]

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Drive Current Not Field Adjustable	Factory-Installed Options Please type additional options in manually on the lines provided above.
ARE	EDG	☐ 28F° ☐ 38MF°	DA*	☐ 02 ☐ 04 ☐ 06 ☐ 08 ☐ 10 ☐ 12 ☐ 14 ☐ 16 ☐ 20 ☐ 24	D	☐ UL Universal 120-277V ☐ UH Universal 347-480V ☐ 34 347V	☐ SV Silver ☐ BK Black ☐ BZ Bronze ☐ PB Platinum Bronze ☐ WH White	☐ 350 350mA ☐ 525* 525mA ☐ 700* 700mA	☐ 40K 4000K Color Temperature# ☐ DIM 0–10V Dimming†,‡,§ ☐ F Fuse†,‖,¶ ☐ P Photocell†,#,** ☐ R NEMA Photocell Receptacle†,#,**,†† ☐ WL Multi-Level (7/5/25)††

Footnotes

1. 8134A Type IV Medium distribution
2. 8134A Type IV Medium distribution w/ backlight control
3. Direct-mounting wire for use with 2-#16-18AWG square or round pole
4. Available on fixtures with 20–160 LEDs
5. Available on fixtures with 20–60 LEDs
6. Color temperature per fixture; 6000K standard; minimum 70 CRI
7. Control by others
8. Refer to dimming spec sheet for availability and additional information
9. Not available when DR voltage is selected
10. When code dictates fusing use time delay fuse
11. Not available with all multi-level options. Refer to multi-level spec sheet for availability and additional information
12. Must specify voltage other than UL or UH
13. Intended for horizontal mounting
14. Photocell by others

LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Type IV Medium @ 5000K	B	U	Initial Delivered Lumens – Type IV Medium @ 4000K with Backlight Control @ 5700K	B	U	G	Initial Delivered Lumens – Type IV Medium @ 4000K	B	U	G	Initial Delivered Lumens – Type VS @ 4000K with Backlight Control @ 4000K	B	U	G	System Watts 120–480V	Total Current @ 120V	Total Current @ 240V	Total Current @ 277V	Total Current @ 347V	Total Current @ 480V	Total Current @ 277V	L70(hours) @ 25° C (77° F)	50K Hours Lumen Maintenance Factor @ 10° C (50° F)
Rating*				Rating*				Rating*				Rating*												
20	2,810 (20)	1	1	2,810 (20)	1	1	1	2,810 (20)	1	1	1	2,810 (20)	1	1	1	21	0.18	0.09	0.08	0.06	0.04	0.08	>100,000	93%
40	5,620 (40)	2	1	5,620 (40)	2	1	1	5,620 (40)	2	1	1	5,620 (40)	2	1	1	42	0.35	0.18	0.15	0.12	0.09	0.15	>100,000	
60	8,430 (60)	2	1	8,430 (60)	2	1	1	8,430 (60)	2	1	1	8,430 (60)	2	1	1	63	0.53	0.27	0.23	0.18	0.13	0.23	>100,000	
80	11,240 (80)	3	1	11,240 (80)	3	1	1	11,240 (80)	3	1	1	11,240 (80)	3	1	1	84	0.70	0.35	0.30	0.24	0.18	0.30	>100,000	
100	14,050 (100)	3	1	14,050 (100)	3	1	1	14,050 (100)	3	1	1	14,050 (100)	3	1	1	105	0.88	0.44	0.38	0.30	0.22	0.38	>100,000	
120	16,860 (120)	3	1	16,860 (120)	3	1	1	16,860 (120)	3	1	1	16,860 (120)	3	1	1	126	1.05	0.53	0.45	0.36	0.26	0.45	>100,000	
160	22,480 (160)	4	1	22,480 (160)	4	1	1	22,480 (160)	4	1	1	22,480 (160)	4	1	1	168	1.40	0.70	0.60	0.48	0.35	0.60	>100,000	
200	28,100 (200)	4	1	28,100 (200)	4	1	1	28,100 (200)	4	1	1	28,100 (200)	4	1	1	210	1.75	0.88	0.75	0.60	0.44	0.75	>100,000	
240	33,720 (240)	4	1	33,720 (240)	4	1	1	33,720 (240)	4	1	1	33,720 (240)	4	1	1	252	2.10	1.05	0.90	0.72	0.53	0.90	>100,000	
280	39,340 (280)	4	1	39,340 (280)	4	1	1	39,340 (280)	4	1	1	39,340 (280)	4	1	1	294	2.45	1.23	1.05	0.84	0.62	1.05	>100,000	
320	44,960 (320)	5	1	44,960 (320)	5	1	1	44,960 (320)	5	1	1	44,960 (320)	5	1	1	336	2.80	1.40	1.20	0.96	0.71	1.20	>100,000	
40	4,752 (40)	2	1	4,436 (40)	2	1	1	4,752 (40)	2	1	1	4,752 (40)	2	1	1	42	0.35	0.18	0.15	0.12	0.09	0.15	>100,000	92%
60	7,128 (60)	2	1	6,654 (60)	2	1	1	7,128 (60)	2	1	1	7,128 (60)	2	1	1	63	0.53	0.27	0.23	0.18	0.13	0.23	>100,000	
80	9,504 (80)	3	1	8,872 (80)	3	1	1	9,504 (80)	3	1	1	9,504 (80)	3	1	1	84	0.70	0.35	0.30	0.24	0.18	0.30	>100,000	
100	11,880 (100)	3	1	11,090 (100)	3	1	1	11,880 (100)	3	1	1	11,880 (100)	3	1	1	105	0.88	0.44	0.38	0.30	0.22	0.38	>100,000	
120	14,256 (120)	3	1	13,308 (120)	3	1	1	14,256 (120)	3	1	1	14,256 (120)	3	1	1	126	1.05	0.53	0.45	0.36	0.26	0.45	>100,000	
160	19,008 (160)	4	1	17,744 (160)	4	1	1	19,008 (160)	4	1	1	19,008 (160)	4	1	1	168	1.40	0.70	0.60	0.48	0.35	0.60	>100,000	
200	23,760 (200)	4	1	22,180 (200)	4	1	1	23,760 (200)	4	1	1	23,760 (200)	4	1	1	210	1.75	0.88	0.75	0.60	0.44	0.75	>100,000	
240	28,512 (240)	4	1	26,616 (240)	4	1	1	28,512 (240)	4	1	1	28,512 (240)	4	1	1	252	2.10	1.05	0.90	0.72	0.53	0.90	>100,000	
280	33,264 (280)	4	1	31,052 (280)	4	1	1	33,264 (280)	4	1	1	33,264 (280)	4	1	1	294	2.45	1.23	1.05	0.84	0.62	1.05	>100,000	
320	38,016 (320)	5	1	35,488 (320)	5	1	1	38,016 (320)	5	1	1	38,016 (320)	5	1	1	336	2.80	1.40	1.20	0.96	0.71	1.20	>100,000	
40	4,320 (40)	2	1	4,320 (40)	2	1	1	4,320 (40)	2	1	1	4,320 (40)	2	1	1	42	0.35	0.18	0.15	0.12	0.09	0.15	>100,000	90%
60	6,480 (60)	2	1	6,480 (60)	2	1	1	6,480 (60)	2	1	1	6,480 (60)	2	1	1	63	0.53	0.27	0.23	0.18	0.13	0.23	>100,000	
80	8,640 (80)	3	1	8,640 (80)	3	1	1	8,640 (80)	3	1	1	8,640 (80)	3	1	1	84	0.70	0.35	0.30	0.24	0.18	0.30	>100,000	
100	10,800 (100)	3	1	10,800 (100)	3	1	1	10,800 (100)	3	1	1	10,800 (100)	3	1	1	105	0.88	0.44	0.38	0.30	0.22	0.38	>100,000	
120	12,960 (120)	3	1	12,960 (120)	3	1	1	12,960 (120)	3	1	1	12,960 (120)	3	1	1	126	1.05	0.53	0.45	0.36	0.26	0.45	>100,000	
160	17,280 (160)	4	1	17,280 (160)	4	1	1	17,280 (160)	4	1	1	17,280 (160)	4	1	1	168	1.40	0.70	0.60	0.48	0.35	0.60	>100,000	
200	21,600 (200)	4	1	21,600 (200)	4	1	1	21,600 (200)	4	1	1	21,600 (200)	4	1	1	210	1.75	0.88	0.75	0.60	0.44	0.75	>100,000	
240	25,920 (240)	4	1	25,920 (240)	4	1	1	25,920 (240)	4	1	1	25,920 (240)	4	1	1	252	2.10	1.05	0.90	0.72	0.53	0.90	>100,000	
280	30,240 (280)	4	1	30,240 (280)	4	1	1	30,240 (280)	4	1	1	30,240 (280)	4	1	1	294	2.45	1.23	1.05	0.84	0.62	1.05	>100,000	
320	34,560 (320)	5	1	34,560 (320)	5	1	1	34,560 (320)	5	1	1	34,560 (320)	5	1	1	336	2.80	1.40	1.20	0.96	0.71	1.20	>100,000	

* For recommended lumen maintenance factor data see TM-19

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.lsens.org/PDF/Articles/TM-15-07RuffingRatingAddendum.pdf

NOTE: All data subject to change without notice.

© 2011 BetaLED®, a division of Ruud Lighting • 1200 92nd Street • Sturtevant, WI 53177 • 800-236-6800 • www.betaLED.com

Made in the U.S.A. of U.S. and imported parts.
Meets Buy American requirements within the ARRA.

Beta LED Area Light

Not To Scale

General Description

Slim, low profile design minimizes wind load requirements. Fixture sides are rugged cast aluminum with integral, weather-tight LED driver compartments and high performance aluminum heatsinks. Convenient, interlocking mounting method. Mounting housing is rugged die-cast aluminum and mounts to 3–6" (76–152mm) square or round pole. Fixture is secured by two (2) 5/16-18 UNC bolts spaced on 3" (51mm) centers. Includes leaf/debris guard. Five year limited warranty on fixture.

Electrical

Modular design accommodates varied lighting output from high power, white, 6700K (+/- 500K per full fixture), minimum 70 CRI, long life LED sources. Optional 4000K (+/- 300K per full fixture) also available. 120–277V 50/60 Hz, Class 1 LED drivers are standard. 347–480V 50/60 Hz driver is optional. LED drivers have power factor >90% and THD <20% at full load. Units provided with integral 10kV surge suppression protection standard. Integral weather-tight electrical box with terminal strips (12Ga - 20Ga) for easy power hook-up. Surge protection tested in accordance with IEEE/ANSI C62.41.2.

Testing & Compliance

UL listed in the U.S. and Canada for wet locations and enclosure rated IP66 per IEC 60529. Consult factory for CE Certified products. Dark Sky Friendly. ISA Approved. RoHS Compliant.

Product qualified on the Design Lights Consortium ("DLC") Qualified Products List ("QPL") when ordered without backlight control shield.

Finish

Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable silver powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Bronze, black, white and platinum bronze powder topcoats are also available. The finish is covered by our 10 year limited warranty.

Fixture and finish are endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117.

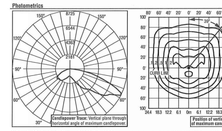
Patents

U.S. and international patents granted and pending. BetaLED is a division of Ruud Lighting, Inc. For a listing of Ruud Lighting, Inc. patents, visit www.ruudlx.com.

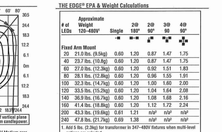
Field-Installed Accessories

Mod Spikes
DAA-BRDSPK

Photometrics



Independent Testing Laboratories certified test. Report No. IT5.050926. Candlepower trace of 4000K, 120 LED Type IV Medium area luminaire with 14,930 initial delivered lumens operating at 525mA. Initial FC at grade. All published luminaire photometric testing performed to IESNA LM-79-08 standards.



Isofootcandle plot of 4000K, 120 LED Type IV Medium area luminaire at 25' (7.6 m) A.F.G. Luminaire with 14,930 initial delivered lumens operating at 525mA. Initial FC at grade.

THE EDGE® EPA & Weight Calculations

# of LEDs	Approximate Weight 120–480V*	Single	2@ 180°	2@ 90°	3@ 90°	4@ 90°
		■	■■	┣	┣┫	✚
Fixed Arm Mount						
20	21.0 lbs. (9.5kg)	0.60	1.20	0.87	1.47	1.75
40	23.7 lbs. (10.8kg)	0.60	1.20	0.87	1.47	1.75
60	27.0 lbs. (12.3kg)	0.60	1.20	0.92	1.51	1.83
80	28.1 lbs. (12.8kg)	0.60	1.20	0.96	1.55	1.91
100	32.3 lbs. (14.7kg)	0.65	1.30	1.05	1.60	2.00
120	33.5 lbs. (15.2kg)	0.60	1.20	1.04	1.64	2.08
140	36.8 lbs. (16.7kg)	0.65	1.30	1.06	1.66	2.16
160	41.4 lbs. (18.8kg)	0.60	1.20	1.12	1.72	2.24
200	43.3 lbs. (19.6kg)	0.61	1.21	n/a*	n/a*	n/a*
240	47.2 lbs. (21.4kg)	0.69	1.38	n/a*	n/a*	n/a*

1. Add 5 lbs. (2.3kg) for transformer in 347–480V fixtures when multi-level option is specified.
2. For applications requiring 200 or more LEDs at 90 degrees refer to the SL mount version of our spec sheet.

Ordering Information

Example: CAN-228-SL-MM-03-E-UL-WH-525

CAN-228				E					
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options	
CAN-228	SM Type V Medium SL Sparkle Petroleum Spun Petroleum Symmetric	SM Recessed	03 – Available with SL optic only 06 09	E	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	350 350mA - Available with 90 LEDs only 525 525mA 700* 700mA	DIM 0–10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current PWC Photocell Receptacle - Refer to PWL spec sheet for details 40K 4000K Color Temperature - Color temperature per luminaire - Minimum 70 CRI	

* 80 LED luminaires with 700mA require marked spacing: 48" x 24" x 6" (1,219mm x 610mm x 152mm), 48" (1,219mm) center-to-center of adjacent luminaires, 24" (610mm) luminaire center-to-side building member, 6" (150mm) top of luminaire to overhead building member

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Made in the U.S.A. of U.S. and imported parts.
Meets Buy American requirements within the ARRA.

SEC-EDG-3M-WM — THE EDGE® LED Wall Pack

Rev. Date: 2/21/12

BetaLED Catalog #: SEC - EDG - - WM - - D - - - - - -

Notes:

# of LEDs	Dim. "A"
20	11.97" [304mm]
40	13.97" [355mm]
60	15.93" [404mm]
80	17.93" [455mm]
100	19.93" [506mm]

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Drive Current Not Field Adjustable	Factory-Installed Options Please type additional options in manually on the lines provided above.
SEC	EDG	☐ 28F° ☐ 38MF°	WM*	☐ 02 ☐ 04 ☐ 06 ☐ 08 ☐ 10 ☐ 12 ☐ 14 ☐ 16 ☐ 20 ☐ 24	D	☐ UL Universal 120–277V ☐ UH Universal 347–480V ☐ 12 120V ☐ 24 240V ☐ 27 277V ☐ 34 347V	☐ SV Silver (Standard) ☐ BK Black ☐ BZ Bronze ☐ PB Platinum Bronze ☐ WH White	☐ 350 350mA ☐ 525* 525mA ☐ 700* 700mA	☐ 40K 4000K Color Temperature# ☐ DIM 0–10V Dimming†,‡,§ ☐ F Fuse†,‖,¶ ☐ P Photocell†,#,** ☐ WL Multi-Level (7/5/25)††

Footnotes

1. 8134A Type IV Medium distribution
2. 8134A Type IV Medium distribution w/ backlight control
3. Direct-mounting wire for use with 2-#16-18AWG square or round pole
4. Available on fixtures with 20–80 LEDs
5. Available on fixtures with 20–60 LEDs
6. Color temperature per fixture; 6000K standard; minimum 70 CRI
7. Control by others
8. Refer to dimming spec sheet for availability and additional information
9. Not available when DR voltage is selected
10. When code dictates fusing use time delay fuse
11. Not available with all multi-level options. Refer to multi-level spec sheet for availability and additional information
12. Must specify voltage other than UL or UH
13. Intended for horizontal mounting
14. Photocell by others

LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Type IV Medium @ 5700K	B	U	Initial Delivered Lumens – Type IV Medium @ 4000K with Backlight Control @ 5700K	B	U	G	Initial Delivered Lumens – Type IV Medium @ 4000K	B	U	G	Initial Delivered Lumens – Type VS @ 4000K with Backlight Control @ 4000K	B	U	G	System Watts 120–480V	Total Current @ 120V	Total Current @ 240V	Total Current @ 277V	Total Current @ 347V	Total Current @ 480V	Total Current @ 277V	L70(hours) @ 25° C (77° F)	50K Hours Lumen Maintenance Factor @ 10° C (50° F)
	Rating*			Rating*				Rating*				Rating*												
20	2,810 (20)	1	1	2,810 (20)	1	1	1	2,810 (20)	1	1	1	2,810 (20)	1	1	1	21	0.18	0.09	0.08	0.06	0.04	0.08	>100,000	93%
40	5,620 (40)	2	1	5,620 (40)	2	1	1	5,620 (40)	2	1	1	5,620 (40)	2	1	1	42	0.35	0.18	0.15	0.12	0.09	0.15	>100,000	
60	8,430 (60)	2	1	8,430 (60)	2	1	1	8,430 (60)	2	1	1	8,430 (60)	2	1	1	63	0.53	0.27	0.23	0.18	0.13	0.23	>100,000	
80	11,240 (80)	3	1	11,240 (80)	3	1	1	11,240 (80)	3	1	1	11,240 (80)	3	1	1	84	0.70	0.35	0.30	0.24	0.18	0.30	>100,000	
100	14,050 (100)	3	1	14,050 (100)	3	1	1	14,050 (100)	3	1	1	14,050 (100)	3	1	1	105	0.88	0.44	0.38	0.30	0.22	0.38	>100,000	
120	16,860 (120)	3	1	16,860 (120)	3	1	1	16,860 (120)	3	1	1	16,860 (120)	3	1	1	126	1.05	0.53	0.45	0.36	0.26	0.45	>100,000	
160	22,480 (160)	4	1	22,480 (160)	4	1	1	22,480 (160)	4	1	1	22,480 (160)	4	1	1	168	1.40	0.70	0.60	0.48	0.35	0.60	>100,000	
200	28,100 (200)	4	1	28,100 (200)	4	1	1	28,100 (200)	4	1	1	28,100 (200)	4	1	1	210	1.75	0.88	0.75	0.60	0.44	0.75	>100,000	
240	33,720 (240)	4	1	33,720 (240)	4	1	1	33,720 (240)	4	1	1	33,720 (240)	4	1	1	252	2.10	1.05	0.90	0.72	0.53	0.90	>100,000	
280	39,340 (280)	4	1	39,340 (280)	4	1	1	39,340 (280)	4	1	1	39,340 (280)	4	1	1	294	2.45	1.23	1.05	0.84	0.62	1.05	>100,000	
320	44,960 (320)	5	1	44,960 (320)	5	1	1	44,960 (320)	5	1	1	44,960 (320)	5	1	1	336	2.80	1.40	1.20	0.96	0.71	1.20	>100,000	
40	4,752 (40)	2	1	4,436 (40)	2	1	1	4,752 (40)	2	1	1	4,752 (40)	2	1	1	42	0.35	0.18	0.15	0.12	0.09	0.15	>100,000	92%
60	7,128 (60)	2	1	6,654 (60)	2	1	1	7,128 (60)	2	1	1	7,128 (60)	2	1	1	63	0.53	0.27	0.23	0.18	0.13	0.23	>100,000	
80	9,504 (80)	3	1	8,872 (80)	3	1	1	9,504 (80)	3	1	1	9,504 (80)	3	1	1	84	0.70	0.35	0.30	0.24	0.18	0.30	>100,000	
100	11,880 (100)	3	1	11,090 (100)	3	1	1	11,880 (100)	3	1	1	11,880 (100)	3	1	1	105	0.88	0.44	0.38	0.30	0.22	0.38	>100,000	
120	14,256 (120)	3	1	13,308 (120)	3	1	1	14,256 (120)	3	1	1	14,256 (120)	3	1	1	126	1.05	0.53	0.45	0.36	0.26	0.45	>100,000	
160	19,008 (160)	4	1	17,744 (160)	4	1	1	19,008 (160)	4	1	1	19,008 (160)	4	1	1	168	1.40	0.70	0.60	0.48	0.35	0.60	>100,000	
200	23,760 (200)	4	1	22,180 (200)	4	1	1	23,760 (200)	4	1	1	23,760 (200)	4	1	1	210	1.75	0.88	0.75	0.60	0.44	0.75	>100,000	
240	28,512 (240)	4	1	26,616 (240)	4	1	1	28,512 (240)	4	1	1	28,512 (240)	4	1	1	252	2.10	1.05	0.90	0.72	0.53	0.90	>100,000	
280	33,264 (280)	4	1	31,052 (280)	4	1	1	33,264 (280)	4	1	1	33,264 (280)	4	1	1	294	2.45	1.23	1.05	0.84	0.62	1.05	>100,000	
320	38,016 (320)	5	1	35,488 (320)	5	1	1	38,016 (320)	5	1	1	38,016 (320)	5	1	1	336	2.80	1.40	1.20	0.96	0.71	1.20	>100,000	
40	4,320 (40)	2	1	4,320 (40)	2	1	1	4,320 (40)	2	1	1	4,320 (40)	2	1	1	42	0.35	0.18	0.15	0.12	0.09	0.15	>100,000	90%
60	6,480 (60)	2	1	6,480 (60)	2	1	1	6,480 (60)	2	1	1	6,480 (60)	2	1	1	63	0.53	0.27	0.23	0.18	0.13	0.23	>100,000	
80	8,640 (80)	3	1	8,640 (80)	3	1	1	8,640 (80)	3	1	1	8,640 (80)	3	1	1	84	0.70	0.35	0.30	0.24	0.18	0.30	>100,000	
100	10,800 (100)	3	1	10,800 (100)	3	1	1	10,800 (100)	3	1	1	10,800 (100)	3	1	1	105	0.88	0.44	0.38	0.30	0.22	0.38	>100,000	
120	12,960 (120)	3	1	12,960 (120)	3	1	1	12,960 (120)	3	1	1	12,960 (120)	3	1	1	126	1.05	0.53	0.45	0.36	0.26	0.45	>100,000	
160	17,280 (160)	4	1	17,280 (160)	4	1	1	17,280 (160)	4	1	1	17,280 (160)	4	1	1	168	1.40	0.70	0.60	0.48	0.35	0.60	>100,000	
200	21,600 (200)	4	1	21,600 (200)	4	1	1	21,600 (200)	4	1	1	21,600 (200)	4	1	1	210	1.75	0.88	0.75	0.60	0.44	0.75	>100,000	
240	25,920 (240)	4	1	25,920 (240)	4	1	1	25,920 (240)	4	1	1	25,920 (240)	4	1	1	252	2.10	1.05	0.90	0.72	0.53	0.90	>100,000	
280	30,240 (280)	4	1	30,240 (280)	4	1	1	30,240 (280)	4	1	1	30,240 (280)	4	1	1	294	2.45	1.23	1.05	0.84	0.62	1.05	>100,000	
320	34,560 (320)	5	1	34,560 (320)	5	1	1	34,560 (320)	5	1	1	34,560 (320)	5	1	1	336	2.80	1.40	1.20	0.96	0.71	1.20	>100,000	

* For recommended lumen maintenance factor data see TM-19

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.lsens.org/PDF/Articles/TM-15-07RuffingRatingAddendum.pdf

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Made in the U.S.A. of U.S. and imported parts.
Meets Buy American requirements within the ARRA.

General Description

Slim, low profile design minimizes wind load requirements. Fixture sides are rugged cast aluminum with integral, weather-tight LED driver compartments and high performance aluminum heatsinks specifically designed for LED applications. Housing is rugged aluminum. Furnished with low copper, lightweight mounting box designed for installation over standard and oval ring single gang J boxes. Secures to wall with four (4) 3/16" (4.8mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard. Five year limited warranty on fixture.

Electrical

Modular design accommodates varied lighting output from high power, white, 5700K (+/- 500K per full fixture), minimum 70 CRI, long life LED sources. Optional 4000K (+/- 300K per full fixture) also available. 120–277V 50/60 Hz, Class 1 LED drivers are standard. 347–480V 50/60 Hz driver is optional. LED drivers have power factor >90% and THD <20% at full load. Integral weather-tight J-box with leads (wire nuts) for easy power hook-up. Units provided with integral 10kV surge suppression protection standard. Surge protection tested in accordance with IEEE/ANSI C62.41.2.

Testing & Compliance

UL listed in the U.S. and Canada for wet locations and enclosure rated IP66 per IEC 60529. Consult factory for CE Certified products. Dark Sky Friendly. ISA Approved. RoHS compliant.

Product qualified on the Design Lights Consortium ("DLC") Qualified Products List ("QPL") when ordered without backlight control shield.

Finish

Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable silver powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Bronze, black, white and platinum bronze powder topcoats are also available. The finish is covered by our 10 year limited warranty.

Fixture and finish are endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117.

Patents

U.S. and international patents granted and pending. BetaLED is a division of Ruud Lighting, Inc. For a listing of Ruud Lighting, Inc. patents, visit www.ruudlx.com.

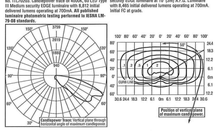
Field-Installed Accessories

Mod Spikes
DAA-BRDSPK

Photometrics

Independent Testing Laboratories certified test. Report No. IT5.050926. Candlepower trace of 4000K, 60 LED Type III Medium area luminaire with 5,830 initial delivered lumens operating at 350mA. Initial FC at grade. All published luminaire photometric testing performed to IESNA LM-79-08 standards.

Isofootcandle plot of 4000K, 60 LED Type III Medium area luminaire at 25' (7.6 m) A.F.G. Luminaire with 5,830 initial delivered lumens operating at 350mA. Initial FC at grade.



Independent Testing Laboratories certified test. Report No. IT5.080326. Candlepower trace of 4000K, 40 LED Type IV Medium w/ backlight control area luminaire with 3,812 initial delivered lumens operating at 525mA. All published luminaire photometric testing performed to IESNA LM-79-08 standards.

100° 80° 60° 40° 20° 0° 20° 40° 60° 80°

ZR-MT TrueWhite® Series with Cree SmartCast® Technology

ZR14™ 1' x 4' TrueWhite® Series LED Troffer with Matte Finish

Product Description

The ZR-MT TrueWhite® Series LED troffer delivers up to 5000 lumens of superior 90+ CRI light quality and is perfect for both new construction and renovation. Powered by Cree TrueWhite® Technology, the slim and lightweight ZR-MT LED troffer boasts an efficacy of up to 114 LPW performance along with 0-10V dimming to meet local energy codes. The ZR14™ LED troffer embodies a breakthrough in balancing energy savings, visual comfort and initial cost.

Performance Summary

Utilizes Cree TrueWhite® Technology

Efficacy: 100-114 LPW

Initial Delivered Lumens: 4,000 or 5,000 lumens

Input Power: 40-44 watts

CRI: 90+ CRI

CCT: 3000K, 3500K, 4000K, 5000K

Input Voltage: 120-277 VAC or 347 VAC

Limited Warranty: *10 years on luminaire

Limited Warranty Emergency Back Up (EBI) Battery: 1 Year on Battery Back Up. Test regularly in accordance with local codes

Controls: Cree SmartCast® Technology

Mounting: Recessed*



* See http://lighting.cree.com/warranty for warranty terms
** Not intended for use with 9/16" T-Bar grids unless used with a 9/16" accessory clip like "Armorvog" LFC- Fixture Clip" which can be purchased through distributor. Consult factory for non-standard grid applications.

Accessories

Field-Installed	
Drywall Grid Adapter SMA14-WHT **6' Flexible Power Whip** PW-18G-06-FCSG **Cree SmartCast® Technology Configuration Tool** CCT-CNFG-1 - One required per project when CMA control is selected	**Cree SmartCast® Technology Face Plates†** CFPI-1-WH - Matching Cree face plate, 1-gang, white CFPI-2-WH - Matching Cree face plate, 2-gang, white CFPI-3-WH - Matching Cree face plate, 3-gang, white **Cree SmartCast® Technology Wireless Dimmer*** CWD-CNKT-WH **Cree SmartCast® Technology Wireless Switch*** CWS-CNKT-WH

* Refer to the Wireless Dimmer SmartCast Control spec sheet for more details.
† Not compatible with SMK surface mount kits

Ordering Information

Example: ZR14MT-40L-30K-CMA-FL

ZR14MT				CMA		FL	
Product	**Initial Delivered Lumens**	**CCT**	**Voltage**	**Control**	**Options**	**Lens**	
ZR14MT	**40L** 4,000 Lumens **50L** 5,000 Lumens	**30K** 3000K **35K** 3500K **40K** 4000K **50K** 5000K	**Blank** 120-277 Volt **347** 347 Volt	**CMA Cree SmartCast® Technology** - Integral motion and ambient sensors and wireless communication	**EB14 Emergency Backup** - 1,400 Lumens - Provides 90 minutes of emergency operation	**FL Fixed Lens**	

Rev. Date: V2 03/28/2019

CREE SMARTCAST TECHNOLOGY

US: lighting.cree.com T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

ZR14™ 1' x 4' TrueWhite® Series LED Troffer with Cree SmartCast® Technology Matte Finish

Product Specifications

CREE SMARTCAST® TECHNOLOGY
Cree SmartCast® Technology is the most intuitive and easiest to install intelligent light solution on the market. SmartCast Technology delivers up to 70% energy savings at up to half the cost of other solutions. Luminaires combine best-in-class light with onboard sensors and intelligence to deliver a better light experience. Extreme energy productivity, code compliance and a better light experience without any extra design, installation or setup work.

CREE TRUEWHITE® TECHNOLOGY
A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS
- Durable 22 ga. cold rolled steel housing provides strength and uniformity
- Ultra-thin 3.9" (99mm) luminaire height and lightweight design effectively target a broad range of plenum spaces and allow for easy installations
- Luminaire is pre-painted for enhanced matte finish
- Includes 1-bar clips and holes for mounting support wires (by others)
- Luminaire sides and ends are hemmed in for safe, easy handling
- Includes lens gasket to prevent ingress of insects
- Not for installation within 3" (76mm) of insulation
- Removable lens for easy maintenance and cleaning
- Magnetic lens to prevent dust and bug intrusion
- **Weight:** Standard – 11 lbs. (7.7kg); EB14 – 22 lbs. (10kg)

OPTICAL SYSTEM
- Unique luminaire design creates perfect balance of both horizontal and vertical illumination
- Optimized smooth acrylic lens eliminates pixelation and delivers a low-glare, diffused light distribution

ELECTRICAL SYSTEM
- Cree born components including highly efficacious Cree® LED chips along with an integral high-efficiency Cree® driver
- **Power Factor:** > 0.9 nominal
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V, 60Hz
- **Operating Temperature Range:** 0°C° – + 35°C (32°F° – + 95°F)
- **Total Harmonic Distortion:** < 20% for standard fixtures; < 25% for EB option
- **Dimming:** 3%–100%

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed
- Suitable for damp locations
- Designed for indoor use only
- UL924 (EB option). Maximum mounting height: 15.0' (4.6m)
- RoHS compliant. Consult factory for additional details
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- DLC qualified. Please refer to www.designlights.org/QPL for most current information
- ⚠ **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

US: lighting.cree.com T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

Cree SmartCast® Technology

INTEGRAL MOTION SENSOR
- Passive infrared (PIR)
- **Coverage area:** 100 sq. ft. (30.5m²) at 10 ft. (3.0m) mounting height
- Not intended to be mounted higher than 12 ft. (3.7m)
- **Operation:**
  - Grouped with a wall control: Luminaire will operate in vacancy mode (manual-on/auto-off)
  - Not grouped with a wall control: Luminaire will operate in occupancy mode (auto-on/auto-off)
- Luminaires operate at full intensity until OmBoutton™ Setup is initiated by the Cree Configuration Tool

AMBIENT LIGHT SENSOR
- Sensor response matches response of human eye
- Not intended to be mounted higher than 12 ft. (3.7m)
- Luminaires operate at full intensity until OmBoutton™ Setup is initiated by the Cree Configuration Tool
- Daylight harvesting calibration performed automatically during OmBoutton™ Setup

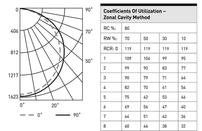
INTEGRAL WIRELESS COMMUNICATION
- 2.4GHz wireless mesh technology with AES 128-bit encryption
- Self assigns to quietest channel during OmBoutton™ Setup
- **Range:**
  - 30 ft. (9.1m) in typical commercial applications
  - 300 ft. (91.4m) open air without obstructions
- **Network:** 250 devices max.
- **Spaces:** 100 devices max. per group
- FCC certified
- IC certified

LUMINAIRE
- Luminaires operate at full intensity until OmBoutton™ Setup is initiated by the Cree Configuration Tool
- 10 year power fail memory of settings

DEPLOYMENT
- Please refer to the SmartCast® Deployment Guide at https://www.creelink.com/eLink.asp?2361356AOHBE44U079710d8

Photometry

ZR14MT-50L-30K-10V BASED ON DTC REPORT TEST #: PL13432-001A
Luminaire photometry has been conducted in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Coefficients Of Utilization – Zonal Cavity Method

RC %:	80				
RW %:	70	50	30	10	
RCR: 0	119	119	119	119	
1	109	104	99	95	
2	99	90	83	77	
3	90	79	71	64	
4	82	70	61	54	
5	75	62	53	46	
6	69	56	47	40	
7	64	51	42	36	
8	60	46	38	32	
9	56	42	34	28	
10	52	39	31	26	

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)

Vertical Angle	Horizontal Angle 0°	45°	90°
45°	9,794	10,440	10,864
55°	9,371	10,264	10,957
65°	8,756	10,133	10,564
75°	7,441	9,439	8,798
85°	5,239	5,642	4,418

Zonal Lumen Summary

Zone	Lumens	% Lamp	Luminaire
0-30	1,269	N/A	26.5%
0-40	2,052	N/A	42.8%
0-60	3,648	N/A	77.9%
0-90	4,708	N/A	100%
0-180	4,708	N/A	100%

Reference http://lighting.cree.com/products/indoor/troffers/zr-series for detailed photometric data

Electrical Data*

Initial Delivered Lumens	System Watts 120-277V	Total Current (A) 120V	208V	240V	277V
40L	40	0.32	0.19	0.17	0.15
40L w/EB14 Option	44	0.36	0.21	0.19	0.17
50L	44	0.36	0.21	0.19	0.16
50L w/EB14 Option	48	0.39	0.23	0.20	0.18

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%

ZR-MT Series Ambient Adjusted Lumen Maintenance†

Ambient	Initial LMF	25K hr Projected‡ LMF	50K hr Projected‡ LMF	75K hr Calculated‡ LMF	100K hr Calculated‡ LMF
0°C (32°F)	1.04	1.04	1.04	1.04	1.04
5°C (41°F)	1.03	1.03	1.03	1.03	1.03
10°C (50°F)	1.02	1.02	1.02	1.02	1.02
15°C (59°F)	1.02	1.02	1.02	1.02	1.02
20°C (68°F)	1.01	1.01	1.01	1.01	1.01
25°C (77°F)	1.00	1.00	1.00	1.00	1.00
30°C (86°F)	0.99	0.99	0.99	0.99	0.99
35°C (95°F)	0.98	0.98	0.98	0.98	0.98

† Luminaire maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
‡ In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within one times (x1) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.
‡‡ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (x6) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

Application Reference

Open Space

Spacing	Initial Delivered Lumens	Lumens	Wattage	LPW	w/ft²	Average fc
8 x 8	40L	4,000	40	100	0.6	57
	50L	5,000	44	114	0.7	71
8 x 10	40L	4,000	40	100	0.5	47
	50L	5,000	44	114	0.6	59
10 x 10	40L	4,000	40	100	0.4	38
	50L	5,000	44	114	0.4	48
10 x 12	40L	4,000	40	100	0.3	30
	50L	5,000	44	114	0.4	38

10' ceiling; 80/50/20 reflectances; 2.5' workplane, open room; LLF: 1.0 Initial; Open Space: 50' x 60' x 10'

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US: lighting.cree.com T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

ZR-MT TrueWhite® Series

ZR22™ 2' x 2' TrueWhite® Series LED Troffer with Matte Finish

Rev. Date: V3 01/09/2020

Product Description

The ZR-MT TrueWhite® LED troffer delivers 3200 lumens of superior 90+ CRI light quality and is perfect for both new construction and renovation. Powered by Cree TrueWhite® Technology, the slim and lightweight ZR-MT LED troffer boasts an efficacies 100 LPW along with 0-10V dimming to meet local energy codes. The ZR22™ LED troffer embodies a breakthrough in balancing energy savings, visual comfort and initial cost.

Performance Summary

Utilizes Cree TrueWhite® Technology

Efficacy: 100 LPW

Initial Delivered Lumens: 3,200 lumens

Input Power: 32 watts

CRI: 90+ CRI

CCT: 3000K, 3500K, 4000K, 5000K

Input Voltage: 120-277 VAC or 347 VAC

Limited Warranty*: 10 years on luminaire

Limited Warranty Emergency Back Up (EBI) Battery: 1 Year on Battery Back Up. Test regularly in accordance with local codes

Controls: 0-10V dimming to 5%

Mounting: Recessed*

Room-side accessible snap and lock removable lens



* See http://lighting.cree.com/warranty for warranty terms
** Not intended for use with 9/16" T-Bar grids unless used with a 9/16" accessory clip like "Armorvog" LFC- Fixture Clip" which can be purchased through distributor. Consult factory for non-standard grid applications.

Accessories

Field-Installed	
Drywall Grid Adapter SMA22-WHT **Surface Mount Kit** SMK-2X2A - Not for use with EB14 or SmartCast® Technology **6' Flexible Power Whip** PW-18G-06-FCSG - For use in non-dimming applications only	**Wireless 0-10V Dimming/Switching Interface with Cree SmartCast® Technology** WIR-10N-CMC-SMSB - For use with luminaires with 10N controls when integral SmartCast isn't available **Cree SmartCast® Technology Configuration Tool** CCT-CNFG-1 - One required per project when CIF-10N is selected

Ordering Information

Example: ZR22MT-32L-30K-10V

ZR22MT	32L			10V	
Product	**Initial Delivered Lumens**	**CCT**	**Voltage**	**Control**	**Options**
ZR22MT	**32L** 32W, 3,200 Lumens	**30K** 3000K **35K** 3500K **40K** 4000K **50K** 5000K	**Blank** 120-277 Volt **34** 347 Volt	**10V** 0-10V dimming to 5%	**CP Chicago Plenum Rated** - Not available with 347V or EB14 options or with SMK-2X2L or CIF-10N-CMC-SMSB enclosure **EB14 Emergency Backup** - 1,400 Lumens - Not available with 347 Volt - Provides 90 minutes of emergency operation

US: cree-ledlighting.com (800) 236-6800

Canada: cree-ledlighting-canada.com (800) 473-1234

ZR22™ 2' x 2' TrueWhite® Series LED Troffer with Matte Finish

Electrical Data*

Initial Delivered Lumens	System Watts 120-347V	Total Current (A) 120V	208V	240V	277V	347V
32L	32	0.26	0.14	0.13	0.12	0.10
32L w/EB14 Option	35	0.29	0.19	0.16	0.14	N/A

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-347V +/- 10%

ZR-MT Series Ambient Adjusted Lumen Maintenance†

Ambient	Initial LMF	25K hr Reported‡ LMF	50K hr Reported‡ LMF	75K hr Estimated‡ LMF	100K hr Estimated‡ LMF
0°C (32°F)	1.04	1.04	1.04	1.04	1.04
5°C (41°F)	1.03	1.03	1.03	1.03	1.03
10°C (50°F)	1.02	1.02	1.02	1.02	1.02
15°C (59°F)	1.02	1.02	1.02	1.02	1.02
20°C (68°F)	1.01	1.01	1.01	1.01	1.01
25°C (77°F)	1.00	1.00	1.00	1.00	1.00
30°C (86°F)	0.99	0.99	0.99	0.99	0.99
35°C (95°F)	0.98	0.98	0.98	0.98	0.98

† Luminaire maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
‡ In accordance with IESNA TM-21-11, Reported Values represent time durations that exceed six times (x6) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

Application Reference

Open Space

Spacing	Initial Delivered Lumens	Lumens	Wattage	LPW	w/ft²	Average fc
6 x 6	3,200	3,200	32	100	0.48	45
8 x 10					0.40	38
10 x 10					0.32	30
10 x 12					0.26	24

10' ceiling; 80/50/20 reflectances; 2.5' workplane, open room; LLF: 1.0 Initial Open Space: 30' x 40' x 10'

ZR22™ 2' x 2' TrueWhite® Series LED Troffer with Matte Finish

Product Specifications

CREE TRUEWHITE® TECHNOLOGY
A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS
- Durable 22 ga. cold rolled steel housing provides strength and uniformity
- Ultra-thin 3.9" (99mm) luminaire height and lightweight design effectively target a broad range of plenum spaces and allow for easy installations
- Luminaire is pre-painted for enhanced matte finish
- Includes 1-bar clips and holes for mounting support wires (by others)
- Luminaire sides and ends are hemmed in for safe, easy handling
- Includes lens gasket to prevent ingress of insects
- Not for installation within 3" (76mm) of insulation
- Removable lens for easy maintenance and cleaning
- Magnetic lens to prevent dust and bug intrusion
- **Weight:** Standard – 10 lbs. (4.5kg); EB14 – 12 lbs. (5.4kg)

OPTICAL SYSTEM
- Unique luminaire design creates perfect balance of both horizontal and vertical illumination
- Optimized smooth acrylic lens eliminates pixelation and delivers a low-glare, diffused light distribution

ELECTRICAL SYSTEM
- Cree born components including highly efficacious Cree® LED chips along with an integral high-efficiency Cree® driver
- **Power Factor:** > 0.9 nominal for 120-277V
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V or 347V, 60Hz
- **Operating Temperature Range:** 0°C° – + 35°C (32°F° – + 95°F)
- **Total Harmonic Distortion:** < 20% for standard fixtures; < 25% for EB option

CONTROLS
- Continuous dimming to 5% with 0-10V DC control protocol
- **10V Source Current:** 0.25mA
- For use with Class 2 dimming systems only
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Reference www.creelink.com/eLink.asp?3709821402ZSR83d26209h3 for recommended dimming controls and wiring diagrams

REGULATORY & VOLUNTARY QUALIFICATIONS
- cULus Listed
- Suitable for damp locations
- Designed for indoor use only
- UL924 (EB option). Maximum mounting height: 15.0' (4.6m)
- RoHS compliant. Consult factory for additional details
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- DLC qualified versions available. Please refer to https://www.design-lights.org/search/ for most current information
- ⚠ **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Photometry

ZR22MT-32L-30K-10V BASED ON DTC REPORT TEST #: PL13427-001A
Luminaire photometry has been conducted in accordance with IES LM-79-08. IES LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.

Coefficients Of Utilization – Zonal Cavity Method

RC %:	80				
RW %:	70	50	30	10	
RCR: 0	119	119	119	119	
1	108	102	97	93	
2	97	88	81	75	
3	88	77	68	61	
4	80	68	59	51	
5	74	60	51	44	
6	68	54	45	38	
7	63	49	40	34	
8	59	45	36	30	
9	55	41	33	27	
10	51	38	30	24	

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary

Zone	Lumens	% Lamp	Luminaire
0-30	811	N/A	25.0%
0-40	1,331	N/A	41.0%
0-60	2,391	N/A	73.6%
0-90	3,249	N/A	100%
0-180	3,249	N/A	100%

Average Luminance Table (cd/m²)

Vertical Angle	Horizontal Angle 0°	45°	90°
45°	13,760	14,789	14,070
55°	12,630	14,804	17,055
65°	11,348	15,473	17,421
75°	9,186	14,887	23,198
85°	5,422	15,106	23,124

Reference http://lighting.cree.com/products/indoor/troffers/zr-series for detailed photometric data

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US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

A COMPANY OF IDEAL INDUSTRIES, INC.

1 Beta CREE 1x4 LED Recessed Troffer

Not To Scale

2 Beta CREE 2x2 LED Recessed Troffer

Not To Scale

3 Beta CREE 2x4 LED Recessed Troffer

Not To Scale

STATE OF MISSOURI
JOSEPH C. BINGE
NUMBER PE-2014012014
10/17/2023
PROFESSIONAL ENGINEER

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0066

PROJECT:	PUBLISHED:	DRAWING INFORMATION:
CASEY'S GENERAL STORE MO-150 & ARBORIDGE DR LEE'S SUMMIT, MO 2023 - U4 - V.01	0 10/18/2023 REVISED ON	MANUFACTURER INTERIOR LIGHTING CUT SHEETS
PROJECT NUMBER: 07164.057		E-701
DRAWN BY: DJL	CHECKED BY: JMM	

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10/17/2023 11:38:48 AM Longhold, Dawson

REFRIGERATION LIGHTING



1808 LED FIXTURE

- Low profile high impact Lexan globe with anti-glare technology.
- Preferred fixture for replacing inefficient lighting.
- Designed to reduce electrical usage by 85%.
- Minimal heat generation will lower utility cost.
- Exceeds Federal Energy Act Requirements
- Rated for 50,000+ hours life.
- 4000K color temperature.
- Designed for damp/wet/cooler/freezer environments.
- 5 year limited warranty on the light engine.
- LM-79 Tested.

SPECIFICATIONS

MATERIAL:
Lexan lens. Aluminum housing.

ELECTRICAL:
1160 Total Lumens
90-305 VAC, 50/60 Hz.
86 Lumens/Watt
.12 Amps
Watts: 13.5 W
Power factor: 0.9
CRI 85

MOUNTING:
Surface mount.

SAFETY STANDARDS:
RoHS
UL listed US and Canada,
File No. E333932
NSF Listed
IP-65
Energy Star Certified
Patent Applied

TEMPERATURE RATINGS:
Operating temperature:
-40°F [-40°C] to 104°F [40°C].

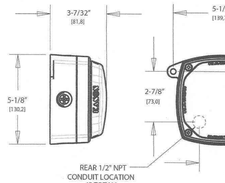
Model No.	Description	Weight
11808000000	14 Watt, VP, 90-305 V, LED Fixture	1.7 lbs./unit
11808CE0000	14 Watt, VP, 90-305 V, LED Fixture	1.7 lbs./unit

ITEM # 1808 LED FIXTURE

GreenGuard BY KASON INDUSTRIES

APPROVED CERTIFICATIONS

PENDING CERTIFICATIONS



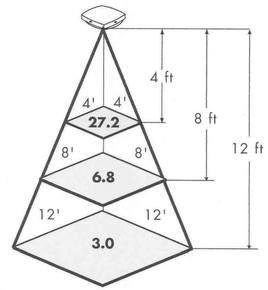
Kason Industries, Inc. 57 Amlajack Blvd, Newnan, GA 30265
www.kasonind.com greenguard@kasonind.com 1.800.935.3550

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10.21.2013

REFRIGERATION LIGHTING

1808 LED LIGHT DISTRIBUTION



LIGHT DISTRIBUTION FOR 1808 LED

Height in Feet	Average FC for Single Fixture Over Indicated Area	
	8' x 8'	12' x 12'
5	9.3	5.1
8	6.8	4.0
9	-	3.7
12	-	3.0

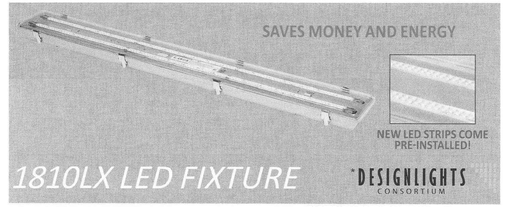
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www.kasonind.com greenguard@kasonind.com 1.800.935.3550

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10.21.2013

1 Kason 1808 LED Fixture

Not To Scale



1810LX LED FIXTURE

DESIGNLIGHTS CONSORTIUM

HIGH OUTPUT THAT HELPS YOU SAVE High output LED technology with best-in-class efficiency at 96 lumens per watt. Designed for high ceilings and larger work rooms with greater foot candle requirements; you get the same output from fewer fixtures.

SUSTAINABLE LED technology assures sustainable energy savings over the life of the fixture. Four-foot, vaporproof fixture is supplied complete with low energy LEDs.

FAST RETURN Payback in as little as six (6) months. Reduced lighting wattage and heat generation lower utility cost. LED fixtures are rated 50,000+ hr/life. Find your specific savings using the Kason Payback Calculator.

WET & COLD APPLICATIONS Specifically designed for wet and low temperature environments. Operating temperature range from -40° F to 104° F (-40° C to 40° C). Luminaire meets IP-65 for wet and cold applications and is LM-79 tested.

INSTANT ON Reach full light level immediately even in lowest temperatures. No more waiting for freezer lights to warm up.

FAST RETROFIT Easily replaces less energy-efficient lighting.

Model No.	Description
1810LX4000	Fixture, 48" (1219.2mm)

*Rebates may apply through local utility companies.

ELECTRICAL SPECIFICATIONS

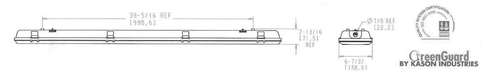
- Unbreakable polycarbonate enclosure
- Pre-Installed Surface Mount LED Strips mean no more tubes
- 39W total, 0.33 amps, 100-277VAC (universal input)
- System Luminance: 3770 lumens
- 96 lumens/watt - exceeds Federal Energy Act requirement
- Luminaire Rating IP-65 for wet and cold environments
- No ultraviolet emission: Does not attract insects
- Constant Current LED
- 4500K color temperatures
- Rated 50,000+ hr life
- 5 year limited warranty
- RoHS compliant and mercury free
- Fixture: UL Listed for US & Canada
- Class 2 Power Supply is a ANSI/UL-CSA recognized component and bears the RoHS and CE marks
- LM-79 & LM-80 Tested

LIGHT DISTRIBUTION FOR 1810LX

Height in Feet	Average FC for Single Fixture Over Indicated Area			
	8' x 8'	12' x 12'	16' x16'	20' x 20'
5	30.9	17	10.7	7.4
8	22.5	13.2	8.7	6.2
9	-	12.2	8.2	5.9
12	-	10.0	6.9	5.1
13	-	-	6.5	4.8
16	-	-	5.6	4.2
17	-	-	-	4.0
20	-	-	-	3.6

PENDING CERTIFICATIONS

APPROVED CERTIFICATIONS



GreenGuard BY KASON INDUSTRIES

Kason Industries Inc. 57 Amlajack Blvd. Newnan, GA. 30265 Tollfree 1-800.935.2766 www.kasonind.com

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07.26.2013

2 Kason 1810LX LED Fixture

Not To Scale

EXIT SIGNS

Square Head LED LCAC-2SQLED Series

LED Exit and heads thermoplastic combination unit



Construction
- Frame, faceplate, backplate and canopy are made of thermoplastic
- 6 inch exit lettering legend, available in red or green

Mounting
- Surface mount
- Universal model includes (2) faceplates, (1) backplate and (1) canopy
- Canopy included for ceiling mount applications / end mount
- Backplate features universal knockouts for a standard 4 inch junction box used in wall mount applications

Finishes
Finished in mist-white

Chevrons
Faceplate includes two field-selectable, snap-in/out chevron indicators

Exit legend LEDs
Red or green long-life Light Emitting Diodes (LED) illumination

Remote Capacity/combination units
LCAC-2SQLEDR and LCAC-2SQLEDRID feature a 3.6V Ni-Cd battery with two 1W LED heads attached as well as 3W of remote capacity for ELF612D/LED or LCARDSQLED

Lamp head source
- 3.6V-1W LED head
- Lamp heads are fully adjustable to top or side with no tools required
- Total 200 lumens, LED CCT 6000K

Self-Diagnostics
Combination models available with or without Improved Diagnostics

Approvals
- Listed to UL 924 Standards
- UL listed for Damp location 50°F to 104°F (10°C to 40°C)
- Meets NFPA101 (Life Safety Code), NFPA 70 NEC

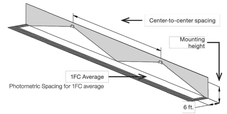
Warranty (subject to proper installation and maintenance)
Three-year full warranty
Detailed warranty terms located on **page 182 or online at: www.lightalarms.com**

Power consumption chart

AC input
120/277VAC, 60Hz, 0.048A

Photometric performance

	Spacing center-to-center (feet)
7 feet mounting height	15 feet mounting height
13'	4'



Accessories (Order as a separate item)

Description	Product code
Wire Guard (heads in any position) wall mount	WG10-L
Replacement battery LCAC	022434-L
Replacement battery LCAC-2SQLEDR & LCAC-2SQLEDRD	022435-L

EXIT SIGNS

Quick™ QLX & QLXN Series

Economical, thermoplastic LED exit signs



Construction
- UV stabilized thermoplastic body
- 6 inch EXIT lettering legend, available in red or green
- Field selectable chevrons

Mounting
- Surface mount
- Canopy included for end or ceiling mount applications
- Universal J-Box mounting

Finishes
Mist white

Electronics
- Optional Improved Diagnostics
- 120/277 60Hz

Approvals
- UL 924 listed
- Damp location 50°F to 104°F (10°C to 40°C)
- UL 94, 5VA flame rated

Warranty (subject to proper installation and maintenance)
Three-year full warranty
Detailed warranty terms located on **page 182 or online at: www.lightalarms.com**

BATTERY UNITS

LCAB-2SQLED Series

1W LED heads, thermoplastic 3.6V Nickel-Cadmium battery unit



Housing
- UV stabilized thermoplastic body
- Two fully adjustable glare-free square lighting heads
- White finish

Mounting
- Ceiling or wall mount
- Universal J-box mounting

Lamp Type
Two 3.6V-1W LED heads total 200 lumens, CCT 6000K

Options
Remote capacity for ELF612 or LCARDSQLED available with optional Improved Diagnostics

Electronics
- Pulse plus charger
- Low voltage disconnect
- Automatic brownout protection
- Battery lock-out
- Fused output circuit
- Optional: Improved Diagnostics
- 120/277 60Hz

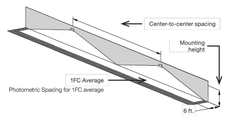
Battery type
- 3.6V maintenance free rechargeable Nickel-Cadmium battery

Approvals
- UL 924 listed
- Damp location 50°F to 104°F (10°C to 40°C)
- UL 94, 5VA flame rated

Warranty (subject to proper installation and maintenance)
Three-year full warranty
Detailed warranty terms located on **page 182 or online at: www.lightalarms.com**

Photometric performance

	Spacing center-to-center (feet)	
Lamp	7 feet mounting height	15 feet mounting height
LCAB	13'	4'
LCAR	13'	4'
ELF612	13'	4'



Power consumption chart

		DC Specs	AC Specs
Series	Battery	Battery	Units dual voltage[3]
LCAB-2SQLED		3.6V	120/277, 60Hz, 0.024A
LCAB-2SQLEDR	Nickel-cadmium	3.6V	120/277, 60Hz, 0.028A
LCAB-2SQLEDRID		3.6V	120/277, 60Hz, 0.028A

[1] National Electrical Code Specification
[3] All units 120/277 dual voltage, information based on wiring to specific voltage type

3 Exit Sign & Emergency Lighting

Not To Scale

STATE OF MISSOURI
JOSEPH C. BINGE
NUMBER PE-2014012014
10/17/2023
PROFESSIONAL ENGINEER

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300 Omaha, NE 68154
COA Number CA0066

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 - U4 - V.01

0 PUBLISHED 10/18/2023
REVISED ON:

DRAWING INFORMATION:
MANUFACTURER INTERIOR LIGHTING CUT SHEETS

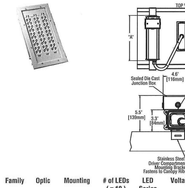
E-702

PROJECT NUMBER: 07164.057
DRAWN BY: DJL
CHECKED BY: JMM

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10/17/2023 11:36:57 AM Langhoelt, Dawson

CAN-227-SL-RM — BetaLED® Recessed Canopy Luminaires — Rev. Date: 11/11/11

BetaLED Catalog #: CAN - 227 - SL - RM - - D - - - - -



Fixture	DIM "B"	DIM "C"
30 LED	11.6" (295mm)	10.6 (270mm)
60 LED	16.7" (409mm)	15.1 (384mm)

Driver Housing	DIM "A"
350, 525, 700 mA	12.8" (325mm)
HL option	21.8" (495mm)

Notes:

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Drive Current	Factory-Installed Options
CAN	227	SL[1]	RM[2]	☐ 03 ☐ 06	D	☐ UL Universal 120–277V ☐ UH Universal 347–480V	☐ SV Silver ☐ BZ Bronze ☐ BK Black ☐ WH White (Standard) ☐ PB Platinum Bronze	☐ 700[7] 700mA (Standard) ☐ 525 525mA ☐ 350 350mA	Please type additional options in manually on the lines provided above. ☐ 40K 4000K Color temperature[4] ☐ F Fuse[5,6,7] ☐ HL HiLo'ow (175/350/525, dual circuit input)[8,9] ☐ DIM 0-10V Dimming[10,11,12]

Footnotes

1. Sparkle Petroleum distribution
2. Recessed canopy mount
3. Requires marked spacings 48" (1219mm) x 48" (1219mm) x 12" (305mm) (48" [1219mm] luminaire center line to luminaire center line, 24" [610mm] luminaire to side wall, 12" [305mm] above luminaire)
4. Color temperature per fixture; 5700K standard; minimum 70 CRI
5. Not available when UH voltage is selected
6. When code dictates fusing use time delay fuse
7. Not available with all multi-level options. Refer to multi-level spec sheet for availability and additional information
8. Refer to multi level spec sheet for availability and additional information
9. Sensor not included
10. Refer to the dimming spec sheet for availability and additional information.*
11. Control by others
12. Can't exceed specified drive current. Consult factory if exceeding drive current is necessary

LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Sparkle Petroleum @ 5700K	B	U	G	Rating***	Initial Delivered Lumens – Sparkle Petroleum @ 4000K	B	U	G	Rating***	System Watts 120–480V	Total Current @ 120V	Total Current @ 208V	Total Current @ 240V	Total Current @ 277V	Total Current @ 347V	Total Current @ 480V	L_{70} Hours* @ 25° C (77° F)	50K Hours Lumen Maintenance Factor @ 15° C (59° F)
350mA Fixture Operating at 25° C (77° F)																			
30	3,447 (03)	2	0	1		3,177 (03)	2	0	1		37	0.30	0.19	0.17	0.17	0.12	0.10	>150,000	92%
60	6,808 (06)	3	0	1		6,275 (06)	3	0	1		69	0.57	0.34	0.30	0.27	0.21	0.16	>150,000	
525mA Fixture Operating at 25° C (77° F)																			
30	4,826 (03)	2	0	1		4,448 (03)	2	0	1		53	0.44	0.26	0.24	0.21	0.17	0.13	>150,000	90%
60	9,532 (06)	3	0	1		8,785 (06)	3	0	1		104	0.87	0.51	0.46	0.39	0.31	0.23	143,000	
700mA (Standard) Fixture Operating at 25° C (77° F)																			
30	5,861 (03)	3	0	1		5,401 (03)	3	0	1		73	0.61	0.36	0.31	0.28	0.22	0.16	131,000	89%
60	11,574 (06)	3	0	2		10,667 (06)	3	0	2		140	1.17	0.68	0.60	0.52	0.41	0.30	123,000	

*For recommended lumen maintenance data see TD-19.
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.lesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

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Meets Buy American requirements within the ARRA.

CAN-227-SL-RM — BetaLED® Recessed Canopy Luminaires — Rev. Date: 11/11/11

General Description
Slim, low profile, easy mounting from below or above the deck. Luminaire sides are rugged cast aluminum with high performance extruded aluminum heatsink specifically designed for LED. Luminaire mounts directly to the canopy deck and is secured in place with extruded aluminum trim frame. This product is not intended for installation in combustible structures. Luminaire housing is provided with factory applied foam gasket and provides for a watertight seal between luminaire housing and canopy deck. Suitable for use in single or double skin canopies with 12" (305 mm) or 16" (406 mm) wide panels. Designed for canopies of 19 – 22 gauge (maximum 0.040" [1 mm] thickness).

Watertight driver compartment is constructed of anodized extruded aluminum with stainless steel end panels for exceptional corrosion resistance and thermal performance. Driver is factory wired to the luminaire housing via weather resistant flexible power conduit. Driver compartment is secured to the canopy ribs of the canopy deck with #14 Tek-screws (by others).

Five year limited warranty on luminaire.

Electrical
Modular design accommodates varied lighting output from high power, white, 5700K (+/- 500k per full fixture), minimum 70 CRI, long life LED sources. Optional 4000K (+/- 300K per full fixture) also available. 120–277V 50/60 Hz, Class 1 LED drivers are standard. 347–480V 50/60 Hz driver is optional. LED drivers have power factor >90% and THD <20% at full load. Units provided with integral 10kV surge suppression protection standard. Surge protection tested in accordance with IEEE/ANSI C62.41.2.

Testing & Compliance
UL listed in the U.S. and Canada for wet locations and enclosure rated IP66 per IEC 60529. Dark Sky Friendly. IDA Approved. RoHS compliant.

Product with petroleum symmetric optic and 6000K CCT qualified on the DesignLights Consortium (DLC) Qualified Products List ("QPL").

Finish
Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra durable white powder topcoat, providing excellent resistance to corrosion ultraviolet degradation and abrasion. Bronze, black, silver, and platinum bronze are also available. Clear anodized finish on extruded aluminum heat sink with white powder finish on all cast aluminum components is standard. Bronze, black, silver and platinum bronze powder topcoats are also available. The finish is covered by our 10 year warranty.

Fixture and finish are endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117.

Patents
U.S. and international patents granted and pending. BetaLED is a division of Ruud Lighting, Inc. For a listing of Ruud Lighting, Inc. patents, visit www.uspto.gov.

Field-Installed Accessories

Retrofit Plate Kit
Used when replacing recessed HID luminaires in existing open canopies with up to 12" (305mm) round or square, or 12" (305mm) x 16" (406mm) rectangular deck opening
☐ XA-CRRP30WH (for 30 LED fixtures)
☐ XA-CRRP60WH (for 60 LED fixture)

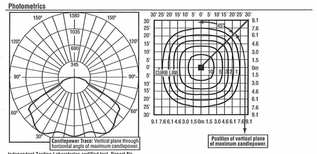
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Retrofit Plate Kit – Plastic
24" (610mm) x 24" (600mm) plate used when replacing surface mounted HID luminaires. Factory cut to match luminaire opening.
☐ XA-CRSP30 (for 30 LED fixtures)
☐ XA-CRSP60 (for 60 LED fixtures)
For use on 12" (305mm) wide deck panels. Includes metal backer plate.
☐ XA-CRSP30 (for 30 LED fixtures)
☐ XA-CRSP60 (for 60 LED fixtures)
For use on 16" (406mm) wide deck panels. Includes metal backer plate.
☐ XA-CRSP30 (for 30 LED fixtures)
☐ XA-CRSP60 (for 60 LED fixtures)
For use on 12" (305mm) – 16" (406mm) deck panels. Does not include backer plate.

NO PHOTO AVAILABLE

Retrofit Plate Kit – Metal
Metal plate used when replacing surface mounted HID luminaires. Painted DeltaGuard white. Must be field cut to match luminaire opening.
☐ XA-CTP26X32WT
Spans two 16" (406mm) deck panels.
☐ XA-CTP26X24WT
Spans two 12" (305mm) deck panels.

Photometrics



Independent Testing Laboratories certified test. Report No. ITL61723. Candlepower trace of 6500K, 60 LED recessed canopy luminaire with sparkle petroleum optic. Luminaire with 12,234 initial delivered lumens operating at 700mA. **All published luminaire photometric testing performed to IESNA LM-79-08 standards.**

Isofootcandle plot of 5700K, 60 LED recessed canopy luminaire with sparkle petroleum optic mounted at 15' A.F.G. Luminaire with 11,574 initial delivered lumens operating at 700mA, initial FC at grade.

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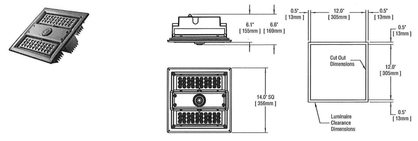
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Meets Buy American requirements within the ARRA.

1 Recessed Beta LED Canopy Fixture 207

Not To Scale

CAN-304-SL-RS — 304 Series LED Recessed Canopy Luminaires — Rev. Date: 6/30/11

BetaLED Catalog #: CAN - 304 - SL - RS - - D - UL - - - -



Notes:

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Drive Current	Factory-Installed Options
CAN	304	SL[1]	RS[2]	☐ 04 ☐ 06	D	U Universal 120–277V	☐ SV Silver ☐ BZ Bronze ☐ BK Black ☐ WH White ☐ PB Platinum Bronze	☐ 700[3] 700mA (Standard) ☐ 525 525mA ☐ 350 350mA	Please type additional options in manually on the lines provided above. ☐ 40K 4000K Color Temperature[4] ☐ DIM 0–10V Dimming[5,6,7] ☐ F Fuse[8] ☐ ML Multi-Level (75/525)[9]

Footnotes

1. Sparkle Petroleum distribution
2. Recessed mount for single skin canopies
3. Requires marked spacing 48" x 24" x 3" (48" luminaire to luminaire, 24" luminaireto side wall, 6" above luminaire
4. Color temperature per fixture; minimum 70 CRI
5. Control by others
6. Refer to the 304 series dimming spec sheet for availability and additional information
7. Can't exceed specified drive current. Consult factory if exceeding drive current is necessary.
8. When code dictates fusing use time delay fuse
9. Refer to the 304 Series Multi-Level spec sheet for availability and additional information.

LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Sparkle Petroleum @ 6000K	B	U	G	Initial Delivered Lumens – Sparkle Petroleum @ 4300K	B	U	G	System Watts 120–480V	Total Current @ 120V	Total Current @ 230V	Total Current @ 277V	Total Current @ 347V	Total Current @ 480V	L_{70} Hours* @ 25° C (77° F)	50K Hours Lumen Maintenance Factor @ 15° C (59° F)
		Rating**				Rating**										
350mA Fixture Operating at 25° C (77° F)																
40	4,593 (04)	2	1	1	4,192 (04)	2	1	1	47	0.39	0.23	0.19	0.15	0.11	>150,000	94%
60	6,711 (06)	2	1	1	6,204 (06)	2	1	1	68	0.59	0.33	0.27	0.20	0.15	>150,000	
525mA Fixture Operating at 25° C (77° F)																
40	6,361 (04)	2	1	1	5,869 (04)	2	1	1	68	0.58	0.33	0.27	0.21	0.16	>150,000	93%
60	9,380(06)	3	1	1	8,685 (06)	3	1	1	105	0.91	0.48	0.40	0.33	0.22	144,000	
700mA (Standard) Fixture Operating at 25° C (77° F)																
40	7,724 (04)	2	1	1	7,127 (04)	2	1	1	94	0.81	0.44	0.36	0.28	0.20	131,000	91%
60	11,409 (06)	3	1	1	10,546 (06)	3	1	1	141	1.26	0.66	0.54	0.39	0.28	121,000	

* For recommended lumen depreciation data see TD-19.
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.lesna.org/PDF/Erratas/TM-15-07BugRatingsAddendum.pdf

NOTE: All data subject to change without notice.

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Meets Buy American requirements within the ARRA.

CAN-304-SL-RS — 304 Series LED Recessed Canopy Luminaires — Rev. Date: 6/30/11

General Description
Slim, low profile design. Fixture is constructed from rugged die-cast and extruded aluminum components. LED driver is mounted in a sealed weather-tight center chamber that allows for access from below the fixture. High performance heatsinks specifically designed for LED canopy application. Luminaire mounts directly to the canopy deck and is secured in place with die-cast aluminum trim frame. Luminaire housing is provided with factory applied foam gasket and provides for a watertight seal between luminaire housing and canopy deck. Suitable for use in single skin canopies with 16" (406 mm) wide panels. See 227 Series for canopies using 12" deck sections. Designed for canopies of 19 – 22 gauge (maximum 0.040" [1 mm] thickness).

Five year limited warranty on luminaire.

Electrical
Modular design accommodates varied lighting output from high power, white, 6000K (+/- 500k per full fixture), minimum 70 CRI, long life LED sources. Optional 4300K (+/-300K per full fixture) also available. 120–277V 50/60 Hz, Class 1 LED drivers are standard. LED drivers have power factor >90% and THD <20% at full load. Units provided with integral 10kV surge suppression protection standard. Surge protection tested in accordance with IEEE C62.41.2 and ANSI standard 62.41.2.

Testing & Compliance
UL listed in the US and Canada for wet locations and enclosure classified IP66 per IEC 529. Consult factory for CE certified product. Dark Sky Friendly. IDA Approved. RoHS Compliant.

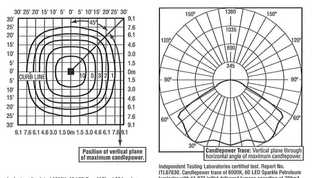
Product with petroleum symmetric optic and sparkle petroleum optics qualified on the Design Lights Consortium ("DLC") Qualified Products List ("QPL").

Finish
Exclusive Colorfast DeltaGuard® finish on all cast aluminum components, features an E-Coat epoxy primer with an ultra-durable white powder topcoat. Provides excellent resistance to corrosion, ultraviolet degradation and abrasion. Clear anodized finish on extruded aluminum heat sink with white powder finish on all cast aluminum components is standard. Bronze, black, silver and platinum bronze powder topcoats are also available. The finish is covered by our 10 year warranty.

Fixture and finish are endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117.

Patents
U.S. and international patents granted and pending. BetaLED is a division of Ruud Lighting, Inc. For a listing of Ruud Lighting, Inc. patents, visit www.uspto.gov.

Photometrics



Isofootcandle plot of 6000K, 60 LED Type V Short 304 series canopy luminaire at 15' A.F.G. Luminaire with 11,409 initial delivered lumens operating at 700mA, initial FC at grade.

Independent Testing Laboratories certified test. Report No. ITL61723. Candlepower trace of 6000K, 60 LED Sparkle Petroleum luminaire with 11,303 initial delivered lumens operating at 700mA. **All published luminaire photometric testing performed to IESNA LM-79-08 standards.**

Field-Installed Accessories
Retrofit kits available. Please consult factory for details.

NOTE: All data subject to change without notice.

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2 Recessed Beta LED Canopy Fixture 304

Not To Scale

STATE OF MISSOURI
JOSEPH C. BINGE
NUMBER PE-2014012014
10/17/2023
PROFESSIONAL ENGINEER

Casey's

SCHEMMER
Design with Purpose. Build with Confidence.
1044 North 115th Street, Suite 300
Omaha, NE 68154
COA Number CA0666

PROJECT:
CASEY'S GENERAL STORE
MO-150 & ARBORIDGE DR
LEE'S SUMMIT, MO
2023 – U4 – V.01

PROJECT NUMBER:
0764.057

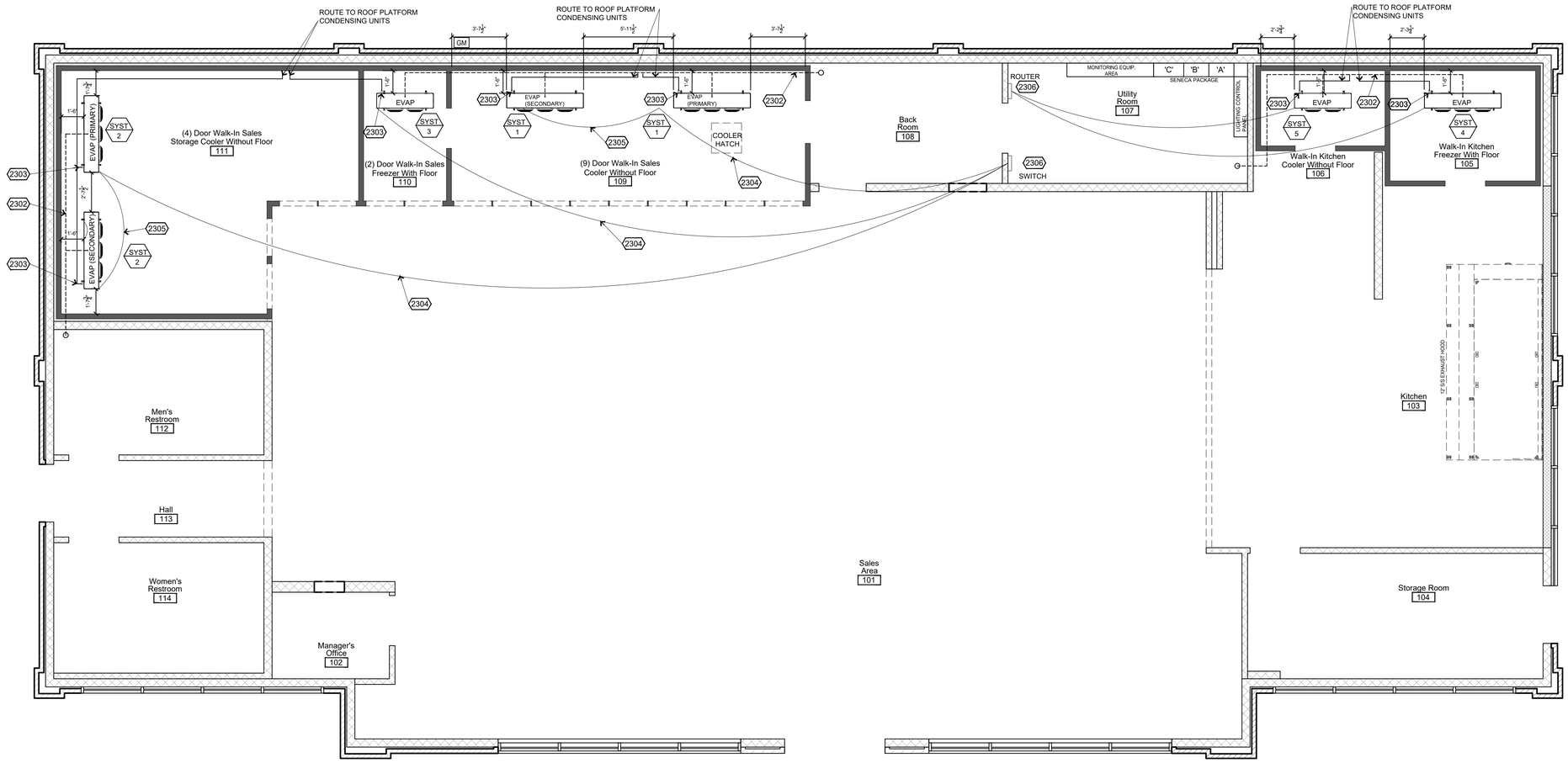
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	REVISED ON:

DRAWING INFORMATION:
MANUFACTURER CANOPY LIGHTING CUT SHEETS

E-703

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10/17/2023 11:37:02 AM Langholdt, Dawson



1 Refrigeration Equipment Plan

1/4"=1'-0"

General Construction Notes

1. COOLER EVAPORATOR COILS TO BE 18" FROM BACK WALL & CENTERED IN COOLER. SALES FREEZER EVAPORATOR COILS TO BE 18" FROM BACK WALL & CENTERED IN FREEZER.
2. ALL SUCTION LINE RISERS REQUIRE OIL TRAP BEFORE VERTICAL RISE.
3. ALL PENETRATIONS THRU COOLER/FREEZERS BOXES TO BE SEALED INSIDE/OUTSIDE AND AIR TIGHT. INSIDE OF CONDUITS TO BE SEALED WITH POLYWATER FST-250 FOAM SEALANT.
4. ALL EVAPORATOR DRAINS TO HAVE TRAP OUTSIDE OF WALK-IN.
5. ALL SUCTION LINES TO BE FULLY INSULATED FROM EVAPORATOR TO COMPRESSOR.
6. DRAIN LINES IN WALLS TO BE INSULATED (NO TRAPS INSIDE INTERIOR WALLS)
7. ALL COPPER PIPING TO BE SECURED BY PROVIDED CLAMP OR HANGER AT EVERY 4'.
8. BRASS UNIONS TO BE WITH-IN 6" OF EVAPORATOR PAN
9. PIPING CURBS TO BE SEALED WATER TIGHT
10. ALL PENETRATIONS THRU PIPING CURBS TO BE SEALED WATER TIGHT
11. ALL CONDENSATION DRAIN LINES TO BE 7/8" ACR PIPE OR EQUAL
12. TECHNICIANS SHOULD BE FAMILIAR WITH ALL INFORMATION INCLUDED IN THE HEATCRAFT BEACON II SMART CONTROLLER I&O MANUAL AND THE HEATCRAFT QUICK RESPONSE CONTROLLER I&O MANUAL.
13. All FREEZER/COOLER WALK-INS WITH SINGLE EVAPORATOR TO BE CENTERED.
14. WALK-INS EVAPORATOR DIMENSIONS ARE FOR ROUGH-IN PURPOSES. MIN. CHANGE AS FIELD CONDITIONS REQUIRE
15. DO NOT OPERATE COOLER/FREEZER GLASS DOOR LIGHTS UNTIL THE REFRIGERATION SYSTEM HAS GONE THROUGH START-UP
16. CONDENSING UNIT ARE TO BE PROPERLY SECURED TO CONDENSING UNIT STAND
17. CONTROL WIRING (FIELD WIRING) TO BE SHIELDED CABLE. GROUND CABLE ONE END.

Keyed Construction Notes

2301 CONDENSING UNITS LOCATED ON ROOF. COMPRESSOR RACK LOCATED UNDER ROOF TRUSSES.

2302 ROUTE CONDENSATE LINES TO FLOOR DRAINS, RE: PLUMBING DRAWINGS

2303 OIL TRAP ON ALL SUCTION RISERS

2304 RUN ELECTRICAL WIRING (SHIELDED CABLE) BETWEEN SWITH BOX AND EVAPORATORS. CAT 5 CABLE

2305 18-2 SHIELDED CABLE

2306 ROUTER & SWITCH BOX TO BE LOCATED IN UTILITY ROOM

REFRIGERATION EQUIPMENT SCHEDULE - CONDENSING UNITS- R-449A (7-2020 REGULATIONS)

2022-U4-V.02-Refrigeration Schedule

Original Design Date: May 12, 2022 | **By: ldm** | **Revision Number: 0** | **Revision Date: N/A** | **By: N/A**

System Number	Equipment Location	Box Temperature	Box Area I.D.	Doors Glass + Pass Thru	Box Load	Equipment Type	Equipment Model Number	Unit Style	Quantity	Fan Qty		Compressor Data			Refrigerant		Oil Charge		Line Sizes						Volts	Phase	Cycle	Electrical Data (each)								Total		Dimensions			Weight
							Climate Control	Cabinet	Number of Units	Each	HP	Copeland S - Scroll H - Hermetic	SST Coil Temp. - 2° Line Loss	Capacity BTUH 100 °F Amb.	Type	Weight pounds	Type	Amount ounces	Liquid Main	Liquid Branch	Suction Main	Suction Branch	Suction Riser Main	Suction Riser Branch				Condensing Unit Comp. RLA	Condensing Unit Fans FLA	Evaporator Fans FLA/RLA	Evaporator Fans Total FLA	Evaporator Defrost Type	Evaporator Heaters - (Electric Defrost) FLA	Evaporator Heaters - (Electric Defrost) Total FLA	Evaporator Heaters - (Electric Defrost) Watts	MCA	MOP	Width inches	Depth inches	Height inches	Net Weight pounds
System # 1	Sales Cooler	34° F				Condensing Unit - (CU)	CCH003MCACZ	C3	1	1	3.5	ZS26K4AE - (S)	22°F	31,370	R-449A	20	POE		1/2	1/2	1 1/8	7/8	1 1/8	7/8	208-230	3	60	13.9	3.5							21	30	43 7/8	30 1/2	29 1/4	300
System # 2	Storage Cooler	31° F				Condensing Unit - (CU)	CCH003MCACZ	C3	1	1	3.0	ZS21K4AE - (S)	19°F	24,110	R-449A	20	POE		1/2	1/2	1 1/8	7/8	1 1/8	7/8	208-230	3	60	13.7	3.5							21	30	43 7/8	30 1/4	29 1/4	297
System # 3	Sales Freezer	-12° F				Condensing Unit - (CU)	CCH003SLCACZ	C2	1	2	3.5	ZF13K4E - (S)	-24°F	10,900	R-449A	14	POE		3/8		7/8		7/8		208-230	3	60	12.2	2							20	25	39 1/8	28 5/16	19 3/4	232
System # 4	Kitchen Freezer	0° F				Condensing Unit - (CU)	CCH003SLCACZ	C2	1	2	3.5	ZF13K4E - (S)	-12°F	13,610	R-449A	14	POE		3/8		7/8		7/8		208-230	3	60	12.2	2							20	25	39 1/8	28 5/16	19 3/4	232
System # 5	Kitchen Cooler	36° F				Condensing Unit - (CU)	CCH0010MCACZ	C1	1	1	1.0	ZS09K4AE - (S)	24°F	9,350	R-449A	14	POE		3/8		7/8		5/8		208-230	3	60	7.2	0.5							15	15	25 1/8	28 1/2	19 3/4	179
System # 1	Sales Cooler	34° F	204	9	24,400	Evaporator	CEL015SAS6AMA		2	3					R-449A										115	1	60			2.7	5.4	Air				61	1/2	15 3/8	17 11/16	67
System # 2	Storage Cooler	31° F	274	3 + 1	19,500	Evaporator	CEL013OB56EMA		2	3					R-449A										208-230	1	60			1.5	3	E	13.7	15.2	3150			61	1/2	15 3/8	17 11/16	71
System # 3	Sales Freezer	-12° F	48	2	9,700	Evaporator	CEL010OB56EEA		1	2					R-449A										208-230	1	60			1.1	1.1	E	9.1		2100			45	1/2	15 3/8	17 11/16	59
System # 4	Kitchen Freezer	0° F	71		11,000	Evaporator	CEL015SB56EEA		1	3					R-449A										208-230	1	60			1.5	1.5	E	13.7		3150			61	1/2	15 3/8	17 11/16	78
System # 5	Kitchen Cooler	36° F	42		8,900	Evaporator	CEL009SAS6AMA		1	2					R-449A										115	1	60			1.8	1.8	Air				45	1/2	15 3/8	17 11/16	51

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Casey's

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT:
2021 "O6"- STYLE STORE
(FLAT / BRICK & STONE)

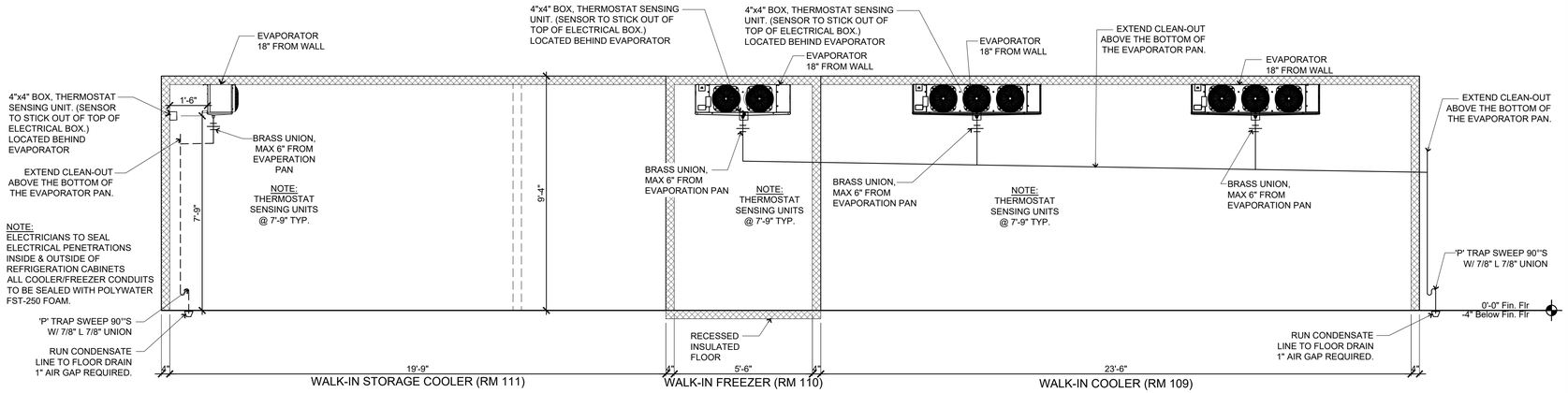
PUBLISHED: 06/18/21
REVISED ON:

DRAWING INFORMATION:
REFRIGERATION EQUIPMENT PLAN

DRAWING INFORMATION:
CONSTRUCTION DIVISION

DRAWN BY: JIM VILMAIN
CHECKED BY:

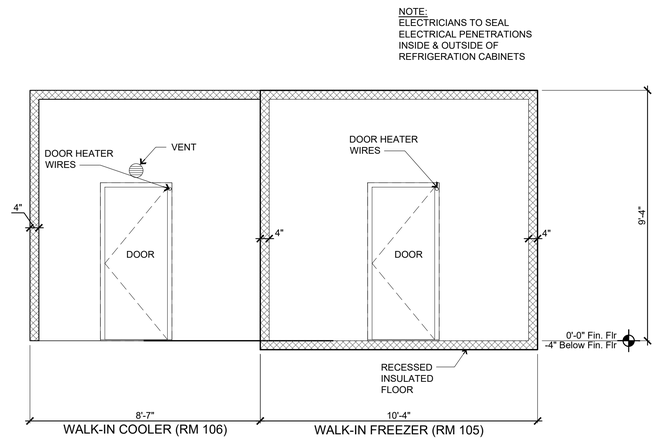
QR-101



1 QR-401

INTERIOR ELEVATION @ WALK-IN SALES COOLER/FREEZER

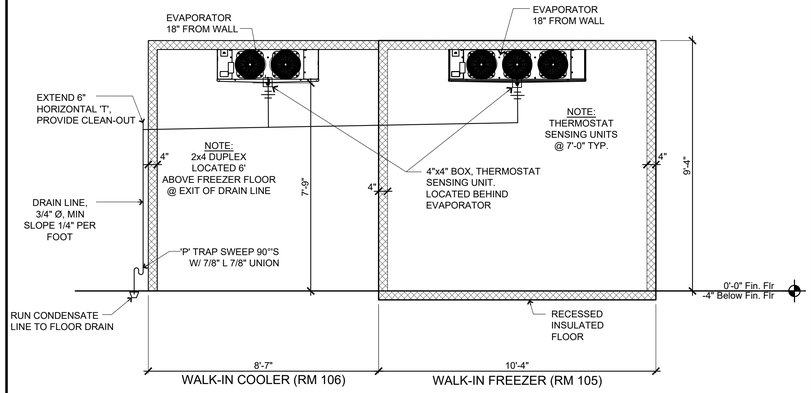
Scale: 3/8" = 1'-0"



2 QR-401

END ELEVATION KITCHEN & FREEZER

Scale: 3/8" = 1'-0"



3 QR-401

INTERIOR ELEVATION @ KITCHEN FREEZER/COOLER

Scale: 3/8" = 1'-0"

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CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2021 "O6"- STYLE STORE (FLAT / BRICK & STONE)

PUBLISHED: 06/18/21

REVISED ON:

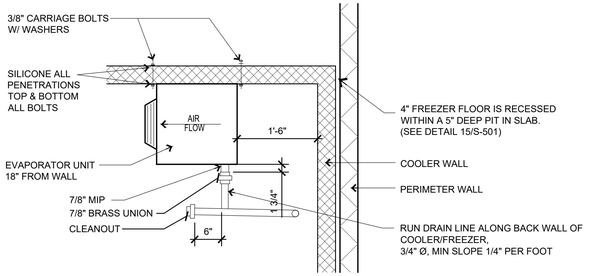
DRAWING INFORMATION: REFRIGERATION WALK-INS INTERIOR ELEVATIONS

DRAWING INFORMATION: CONSTRUCTION DIVISION

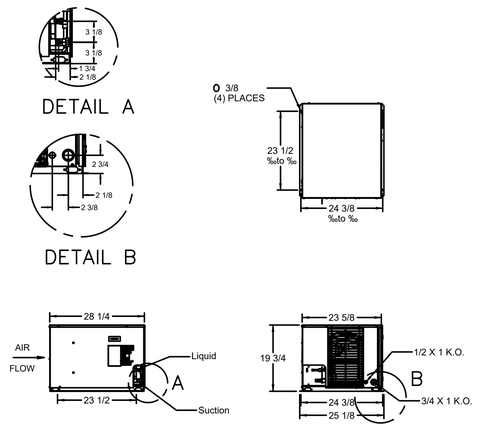
DRAWN BY: JIM VILMAIN

CHECKED BY:

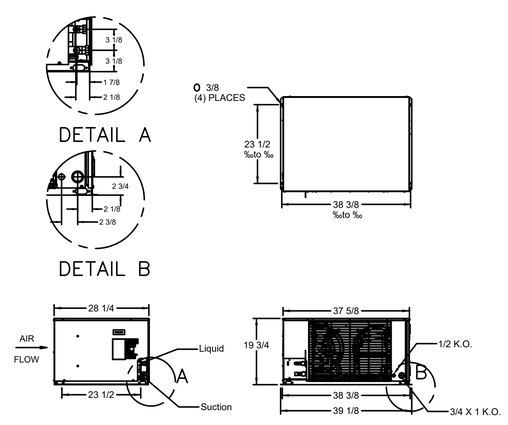
QR-401



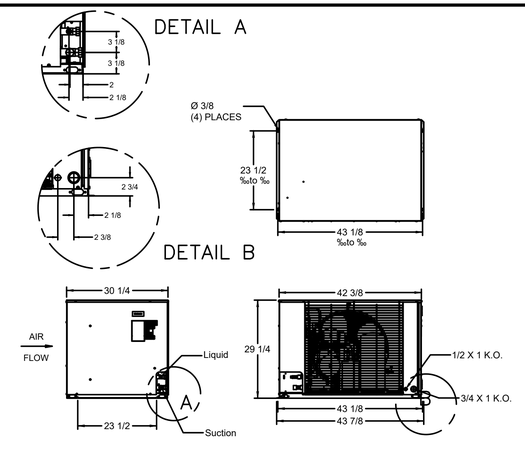
1 QR-501 **EVAPORATOR DETAIL**
Scale: 3/8" = 1'-0"



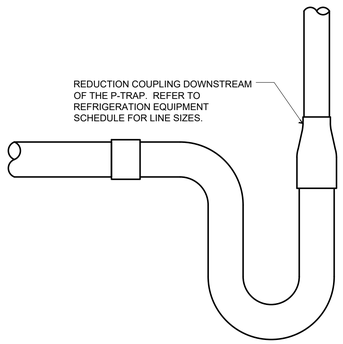
2 QR-501 **CU CABINET STYLE DIAGRAM-C1**
Scale: NTS



3 QR-501 **CU CABINET STYLE DIAGRAM-C2**
Scale: NTS



4 QR-501 **CU CABINET STYLE DIAGRAM-C3**
Scale: NTS



5 QR-501 **P-TRAP - REDUCED RISER DETAIL**
Scale: NTS

IntelliGen Refrigeration Controller

PROGRAMMING

PARAMETER	CODE	SALES COOLER	STORAGE COOLER	SALES FREEZER	KITCHEN FREEZER	KITCHEN COOLER
DEFROST TYPE	DEFTP	AIR	ELE	ELE	ELE	AIR
REFRIGERANT	REFTYP	449	449	449	449	449
BOX TEMP	BOXTMP	34°	31°	-12°	0°	36°
SUPERHEAT	SUPRHT	12°	12°	12°	12°	12°
SMART DEFROST	SMTDEF	OFF	OFF	OFF	OFF	OFF
DEFROST START TIMES	DEF ST	6/12/6/12	LEAVE FACTORY FACTORY RESET 8 DEFROST PERIODS 12/3/6/9/12/3/6/9	LEAVE FACTORY	LEAVE FACTORY	6/12/6/12
DEFROST FAIL SAFE TIME	DEF SAF	60 MIN	60 MIN	LEAVE FACTORY FACTORY RESET TO 60 MIN	LEAVE FACTORY	60 MIN
DEFROST END TEMP	DEFTMP	45°	55°	55°	55°	45°
ALARM HIGH TEMP	ALR HI	45°	45°	5°	10°	45°
ALARM LOW TEMP	ALR LO	30°	27°	-16°	-4°	30°
ALARM TIME	ALRMIN	45 MIN	45 MIN	45 MIN	45 MIN	45 MIN
TEMP UNITS	°F/°C	°F	°F	°F	°F	°F
CLOCK SETTING	12/24H	12H	12H	12H	12H	12H
TEST MODE	TEST	OFF	OFF	OFF	OFF	OFF
SERVICE MODE	SERVIC	OFF	OFF	OFF	OFF	OFF

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CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT:
2021 "O6"- STYLE STORE
(FLAT / BRICK & STONE)

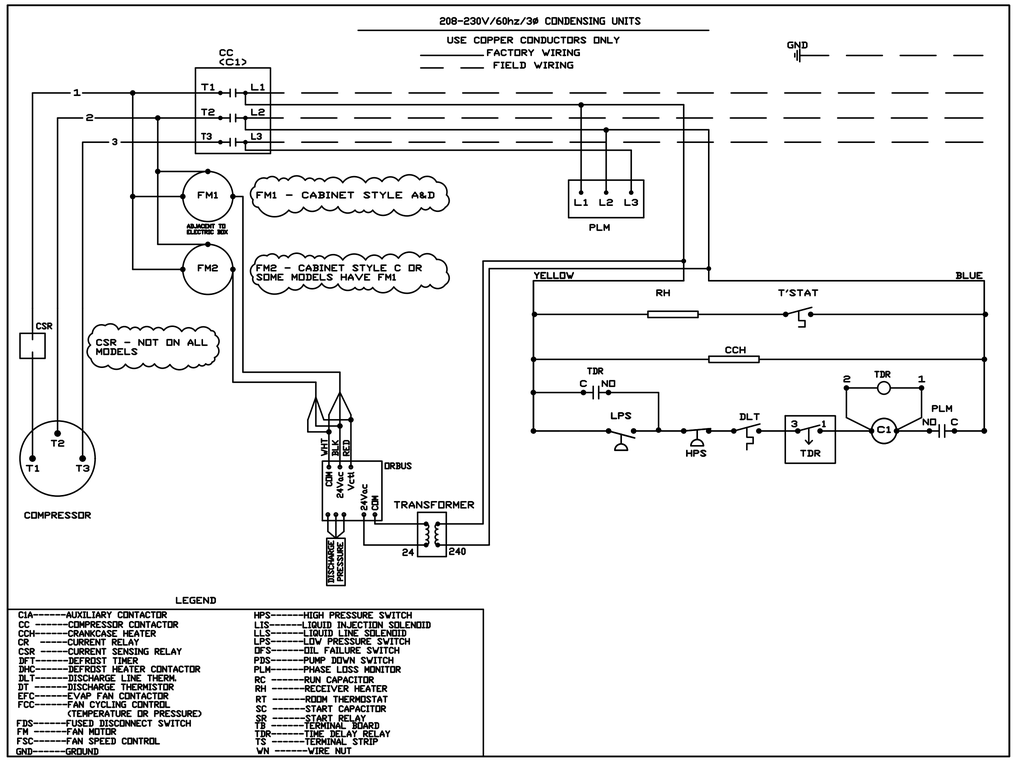
PUBLISHED: 06/18/21
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DRAWING INFORMATION:
CONSTRUCTION DIVISION

DRAWN BY: JIM VILMAIN
CHECKED BY:

DRAWING INFORMATION:
REFRIGERATION
DETAILS AND
SCHEDULES

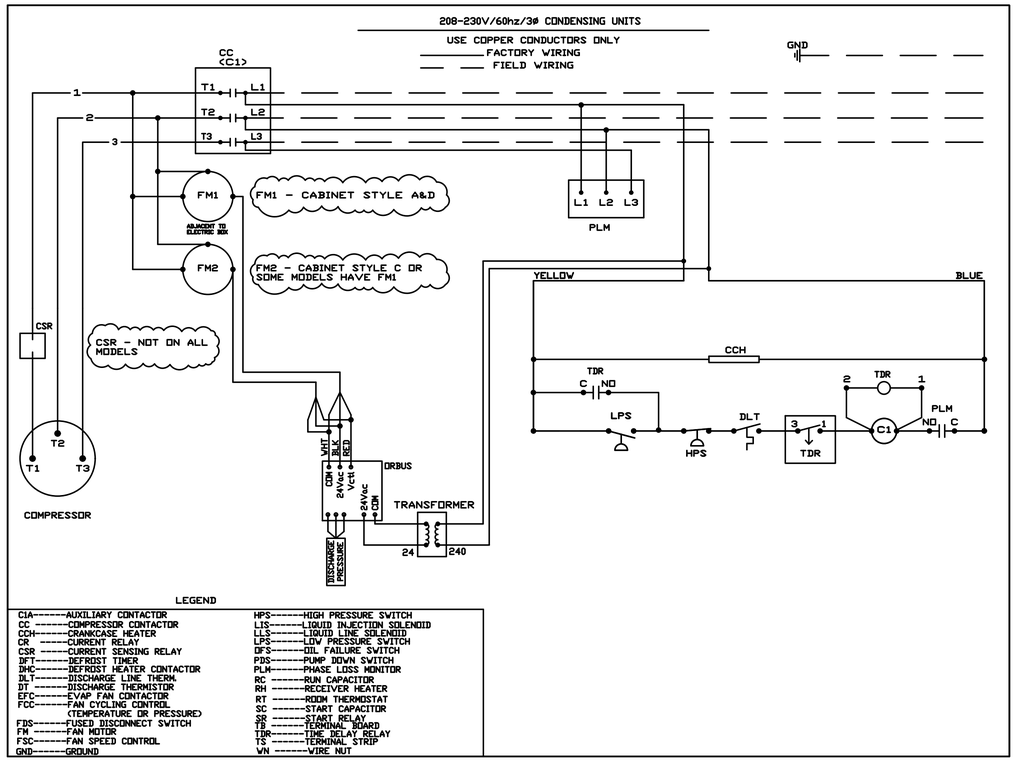
QR-501



LEGEND

C1A------AUXILIARY CONTACTOR	HPS------HIGH PRESSURE SWITCH
CC -------COMPRESSOR CONTACTOR	LIS------LIQUID INJECTION SOLENOID
CCH------CRANKCASE HEATER	LLS------LIQUID LINE SOLENOID
CR -----CURRENT RELAY	LPS------LOW PRESSURE SWITCH
CSR -----CURRENT SENSING RELAY	OFS------OIL FAILURE SWITCH
DFT------DEFROST TIMER	PBS------PUMP DOWN SWITCH
DHC------DEFROST HEATER CONTACTOR	PLM------PHASE LOSS MONITOR
DLT------DISCHARGE LINE THERM.	RC ------RUN CAPACITOR
DT -----DISCHARGE THERMISTOR	RH ------RECEIVER HEATER
EFC------EVAP FAN CONTACTOR	RT ------ROOM THERMOSTAT
FCC------FAN CYCLING CONTROL (TEMPERATURE OR PRESSURE)	SC ------START CAPACITOR
	SR ------START RELAY
FDS------FUSED DISCONNECT SWITCH	TB ------TERMINAL BOARD
FM -----FAN MOTOR	TDR------TIME DELAY RELAY
FSC------FAN SPEED CONTROL	TS ------TERMINAL STRIP
GND------GROUND	WN ------WIRE NUT

1 QR-601 CU WIRING DIAGRAM - HEATCRAFT - LOW AMBIENT
Scale: NTS



LEGEND

C1A------AUXILIARY CONTACTOR	HPS------HIGH PRESSURE SWITCH
CC -------COMPRESSOR CONTACTOR	LIS------LIQUID INJECTION SOLENOID
CCH------CRANKCASE HEATER	LLS------LIQUID LINE SOLENOID
CR -----CURRENT RELAY	LPS------LOW PRESSURE SWITCH
CSR -----CURRENT SENSING RELAY	OFS------OIL FAILURE SWITCH
DFT------DEFROST TIMER	PBS------PUMP DOWN SWITCH
DHC------DEFROST HEATER CONTACTOR	PLM------PHASE LOSS MONITOR
DLT------DISCHARGE LINE THERM.	RC ------RUN CAPACITOR
DT -----DISCHARGE THERMISTOR	RH ------RECEIVER HEATER
EFC------EVAP FAN CONTACTOR	RT ------ROOM THERMOSTAT
FCC------FAN CYCLING CONTROL (TEMPERATURE OR PRESSURE)	SC ------START CAPACITOR
	SR ------START RELAY
FDS------FUSED DISCONNECT SWITCH	TB ------TERMINAL BOARD
FM -----FAN MOTOR	TDR------TIME DELAY RELAY
FSC------FAN SPEED CONTROL	TS ------TERMINAL STRIP
GND------GROUND	WN ------WIRE NUT

2 QR-601 CU WIRING DIAGRAM - HEATCRAFT - STANDARD
Scale: NTS

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One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT:
2021 "O6"- STYLE STORE
(FLAT / BRICK & STONE)

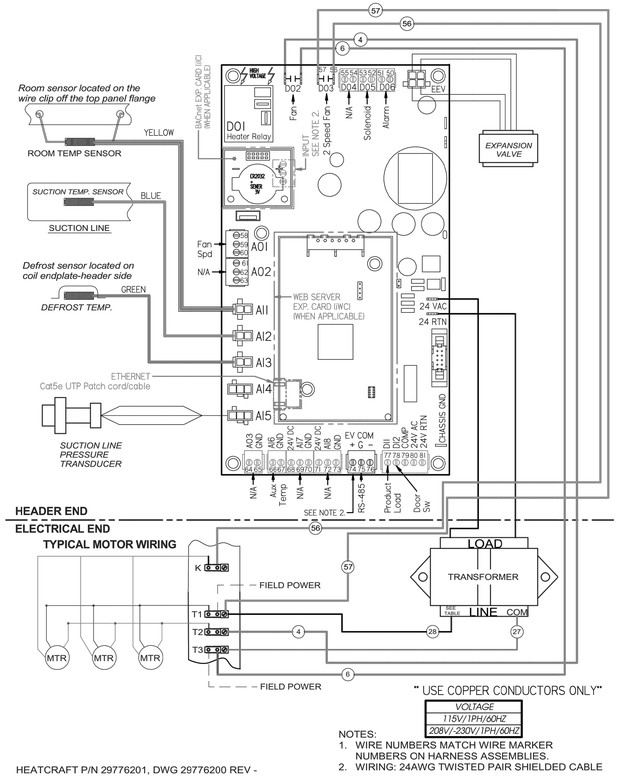
PUBLISHED: 06/18/21
REVISED ON:

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CONSTRUCTION DIVISION

DRAWN BY: JIM VILMAIN
CHECKED BY:

DRAWING INFORMATION:
REFRIGERATION WIRING SCHEMATIC

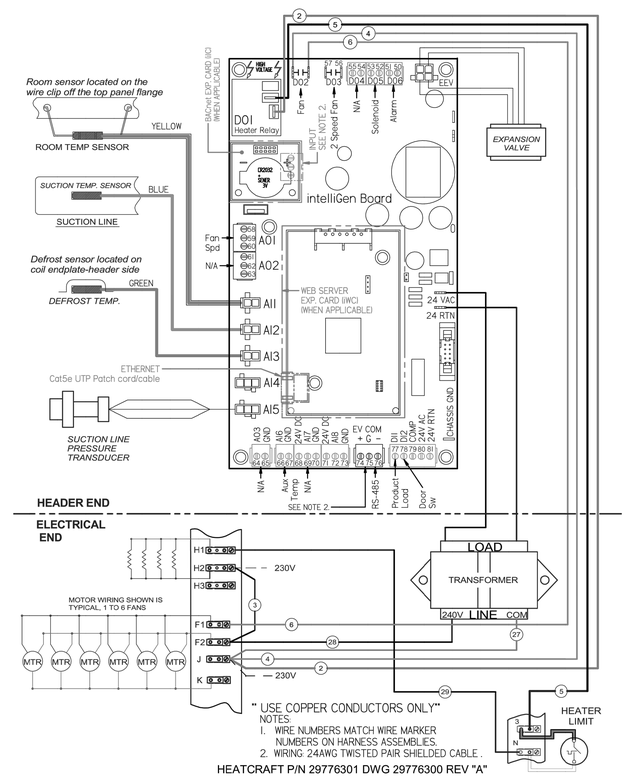
QR-601



HEATCRAFT P/N 29776201, DWG 29776200 REV -

CEL LOW PROFILE - INTELLIGEN AIR DEFROST 2 SPEED

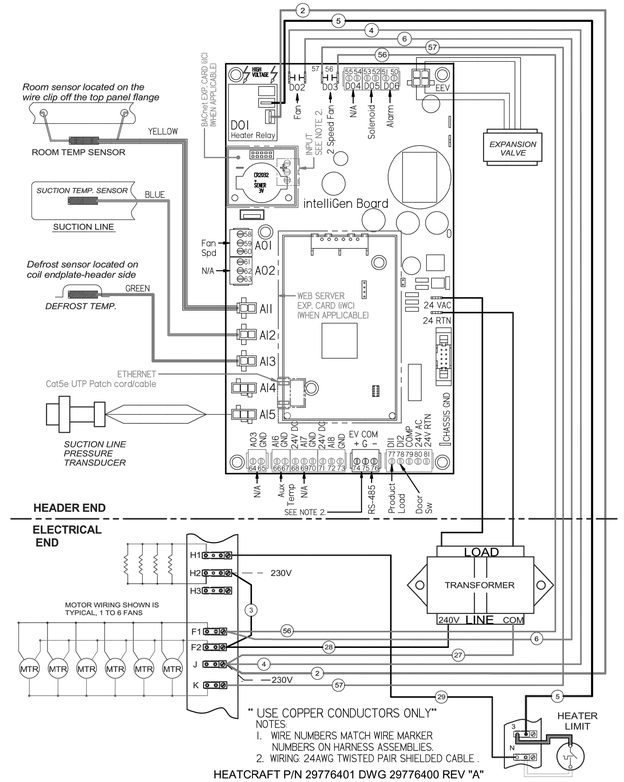
1 QR-602 SALES COOLER & KITCHEN COOLER
Scale: NTS



HEATCRAFT P/N 29776301 DWG 29776300 REV "A"

CEL LOW PROFILE - INTELLIGEN ELECTRIC DEFROST 2 SPEED

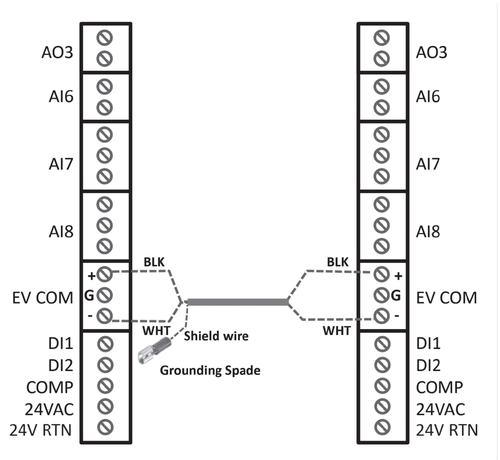
2 QR-602 STORAGE COOLER
Scale: NTS



HEATCRAFT P/N 29776401 DWG 29776400 REV "A"

CEL LOW PROFILE - INTELLIGEN AIR DEFROST 1 SPEED

3 QR-602 SALES FREEZER & KITCHEN FREEZER
Scale: NTS



4 QR-602 TWO EVAPORATORS ON A SINGLE SYSTEM
Scale: NTS

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CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2021 "O6"- STYLE STORE (FLAT / BRICK & STONE)

PUBLISHED: 06/18/21

REVISED ON:

DRAWING INFORMATION: REFRIGERATION WIRING SCHEMATIC

DRAWING INFORMATION: CONSTRUCTION DIVISION

DRAWN BY: JIM VILMAIN

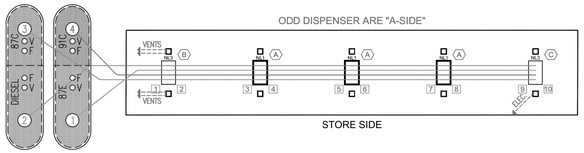
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QR-602

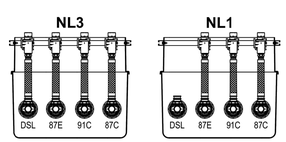
STATES: **AR, IA, KS, NE, ND, SD, WI**

CARRY A LOW OCTANE STRAIGHT PRODUCT

REVISED 11-06-2023



NO.	SIZE	FUEL
1	14K	87E
2	14K	DIESEL
3	8K	87C
4	8K	91C



07 - 5 In-A-Row HI	QTY	Casey's Item #	Description	Manufacturer Item #
4 Product		DIRECT SHIP	DIRECT SHIPPED FROM SUPPLIER TO JOBSITE	
	4	230348	2 HP Sub Pump	ISTR2-15
	4	260639	3/4" Rigid Flat Entry Boot	REB-C-0075
	4	260640	1-3/4" Rigid Flat Tank Sump Entry Boot	REB-175-SC
	4	260641	1" Rigid Flat Entry Boot	REB-C-0100
A	3	260507	4 Tee - 1 Cap	4T1CS
B	1	260698	4 Tees	4TS
C	1	260094	4 Elbows	4ES
+ 2ND DSL	4	260758	42" Flexing Composite Manhole	14F-4215 (w/15" skirt)
+ 2ND DSL	4	260963	Tank Sump - 48"	FFS 6024029O1
	3	290313	NL1- Dispenser	ENC7005NL1
	2	290317	NL3- Dispenser	ENC7005NL3
	5	290407	Encore Dispenser Canopy	ENS5010GA1054
		BRASS LOAD	SUPPLIED BY CASEY'S- SHIPPED ON OUR TRUCK	
	1	210127	Cap - Black	OPW 116-7085
	4	240130	4" Top Seal Fill Cap	634TT-7085-EVR
	4	240215	4"x2" Extractor Tee OPW	233V-4420
	4	240216	Extractor Tent Plug OPW	233VP-6046
	4	240267	2" Ball Valve	T100-708
	4	240902	4" OPV Drop Tube f/Gas & Diesel	708593902
	6	250395	Probe Cap (1/Probe - 1/Tank)	305XPA-6200AK
	6	250610	Wthrproof Conn. 3/8"	(1 per probe cap/int)
	21	250615	Wthrproof Conn. 3/4"	(4 / Tank Sump + 1 / Disp)
	21	250620	Wthrproof Washer 3/4"	(4 / Tank Sump + 1 / Disp)
	13	250630	Wthrproof Jct. Box	(2 / Tank Sump + 1 / Disp)
	7	260077	5 Gal Grade Level Cont Well, No Drain	7055450021-GXT
KENTUCKY		260078	5 Gal Dbl Wall Grade Level Cont Well, No Drain	7055551021-GXT
KANSAS ADD		260308	8" Bolt Down Monitor Manhole	104AOW-0800
	1	260335	18" Manway	EBW 783418-18
	1	260354	2" Diesel Updraft Vent Cap	354-0200AV
	4	260415	3"x36" Yellow Jacket Pipe Wrap (1/Vent)	YJH503
	8	260649	2"x18'x2"w/Swivel Flex Hose (2/Vent)	FC21825
	10	260700	42" U-Shaped Crash Post	4ZU
	3	260713	Vapor Recovery Swivel Adapter	61VSA-3220-EVR
	3	260722	Orange Vapor Recovery Cap	17117-708S-EVR
KANSAS ADD		260724	4-1/2" Aluminum Locking Well Cap	ROYER 4 1/2" LKWC
ILLINOIS +1	1	260726	10-3/4" Aluminum Locking Well Cap	ROYER 10 3/4" LKWC
	3	260728	2" Gas P/V Vent Cap	4885
	4	260780	Epoxy Coating (2 part)	SPCOATING-GT
+4 FOR 30K TANK	32	260818	Turn Buckle-18" (14/BK - 14/BK)	93900421
WHEN REQUIRED		260905	Island Form	3' x 5' x 13"
ILLINOIS +1	1	260940	18"Bolt Down Monitor Manhole	104AOW-1800
	4	260964	Top Seal Swivel Adapter f/FBI	SWF-100-SS
	10	290420	Side Entry Conduit Elbow (2/Disp)	M07838X001
		1ST LOAD	SUPPLIED BY CASEY'S- SHIPPED ON OUR TRUCK	
IOWA		230250	TLS-350/450 EBS/DEF 10'6" Probe	846397-410
IOWA		230252	TLS-350/450 EBS/DEF Float Kit	846400-004
	2	230255	Interstitial Sensor-UG5T-10' Dia	794380-345
	1	230271	TLS-350/450 Diesel Float Kit	846400-001
	4	230292	Sump Sensor Mnt Bracket (1 per Tank Sump)	
	5	230293	Sump Sensor Mnt Bracket (1per Disp Sump)	
	9	230297	Sump Sensor - EBS (1/Sump - 1/Disp)	794380-323
	4	230306	TLS-350/450 10'6" Probe (Gas or Diesel)	846396-110
	3	230318	TLS-350/450 Gas Float Kit	886100-000
	4	230349	Var Freq Controller f/Sub Pump	MAGVFC
	1	230400	TLS-450 Monitor Console	860091
	4	230420	TLS-450 Digital PLLD Kit (1/Pump)	859080-001
WISCONSIN		230460	TLS-450 Overfill Alarm	790091-001
WISCONSIN		230461	TLS-450 Acknowledgement Switch	790095-001
WISCONSIN		230462	Sign - Overfill Alarm	U-MS-203
	1	400074	Low Voltage Disconnect (B Disp)	DDS-EKBD
		FINAL LOAD	SUPPLIED BY CASEY'S- SHIPPED ON OUR TRUCK	
IOWA		260660	CIM-TEK 400BHA-05 EBS Filter	70898
	5	260671	CIM-TEK 450-30 Diesel Filter	70027
	20	280455	Gas - Hanging Hardware Kit	Husky Gas Kit
	4	280460	Diesel - Hanging Hardware Kit	Husky DSL Kit
IOWA		280485	EBS - Hanging Hardware Kit	Husky 015989
NEBRASKA		280488	E15 - Hanging Hardware Kit	Husky 015991
	15	290697	CIM-TEK 450-10 Gas Filter	70034

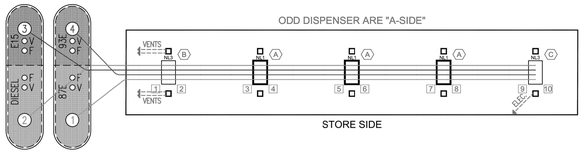
1 Fuel Piping Layout Plan (Low States)

NTS

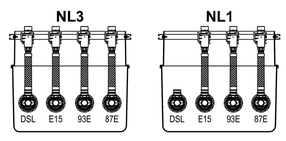
STATES: **IL, IN, KY, OH, TN**

ALL ETHANOL: **SELECT AREAS OF MO, WI**

REVISED 11-06-2023



NO.	SIZE	FUEL
1	14K	87E
2	14K	DIESEL
3	8K	E15
4	8K	93E



07 - 5 In-A-Row HI	QTY	Casey's Item #	Description	Manufacturer Item #
4 Product		DIRECT SHIP	DIRECT SHIPPED FROM SUPPLIER TO JOBSITE	
	4	230348	2 HP Sub Pump	ISTR2-15
	4	260639	3/4" Rigid Flat Entry Boot	REB-C-0075
	4	260640	1-3/4" Rigid Flat Tank Sump Entry Boot	REB-175-SC
	4	260641	1" Rigid Flat Entry Boot	REB-C-0100
A	3	260507	4 Tee - 1 Cap	4T1CS
B	1	260698	4 Tees	4TS
C	1	260094	4 Elbows	4ES
+ 2ND DSL	4	260758	42" Flexing Composite Manhole	14F-4215 (w/15" skirt)
+ 2ND DSL	4	260963	Tank Sump - 48"	FFS 6024029O1
	3	290313	NL1- Dispenser	ENC7005NL1
	2	290317	NL3- Dispenser	ENC7005NL3
	5	290407	Encore Dispenser Canopy	ENS5010GA1054
		BRASS LOAD	SUPPLIED BY CASEY'S- SHIPPED ON OUR TRUCK	
	1	210127	Cap - Black	OPW 116-7085
	4	240130	4" Top Seal Fill Cap	634TT-7085-EVR
	4	240215	4"x2" Extractor Tee OPW	233V-4420
	4	240216	Extractor Tent Plug OPW	233VP-6046
	4	240267	2" Ball Valve	T100-708
	4	240902	4" OPV Drop Tube f/Gas & Diesel	708593902
	6	250395	Probe Cap (1/Probe - 1/Tank)	305XPA-6200AK
	6	250610	Wthrproof Conn. 3/8"	(1 per probe cap/int)
	21	250615	Wthrproof Conn. 3/4"	(4 / Tank Sump + 1 / Disp)
	21	250620	Wthrproof Washer 3/4"	(4 / Tank Sump + 1 / Disp)
	13	250630	Wthrproof Jct. Box	(2 / Tank Sump + 1 / Disp)
	7	260077	5 Gal Grade Level Cont Well, No Drain	7055450021-GXT
KENTUCKY		260078	5 Gal Dbl Wall Grade Level Cont Well, No Drain	7055551021-GXT
KANSAS ADD		260308	8" Bolt Down Monitor Manhole	104AOW-0800
	1	260335	18" Manway	EBW 783418-18
	1	260354	2" Diesel Updraft Vent Cap	354-0200AV
	4	260415	3"x36" Yellow Jacket Pipe Wrap (1/Vent)	YJH503
	8	260649	2"x18'x2"w/Swivel Flex Hose (2/Vent)	FC21825
	10	260700	42" U-Shaped Crash Post	4ZU
	3	260713	Vapor Recovery Swivel Adapter	61VSA-3220-EVR
	3	260722	Orange Vapor Recovery Cap	17117-708S-EVR
KANSAS ADD		260724	4-1/2" Aluminum Locking Well Cap	ROYER 4 1/2" LKWC
ILLINOIS +1	1	260726	10-3/4" Aluminum Locking Well Cap	ROYER 10 3/4" LKWC
	3	260728	2" Gas P/V Vent Cap	4885
	4	260780	Epoxy Coating (2 part)	SPCOATING-GT
+4 FOR 30K TANK	32	260818	Turn Buckle-18" (14/BK - 14/BK)	93900421
WHEN REQUIRED		260905	Island Form	3' x 5' x 13"
ILLINOIS +1	1	260940	18"Bolt Down Monitor Manhole	104AOW-1800
	4	260964	Top Seal Swivel Adapter f/FBI	SWF-100-SS
	10	290420	Side Entry Conduit Elbow (2/Disp)	M07838X001
		1ST LOAD	SUPPLIED BY CASEY'S- SHIPPED ON OUR TRUCK	
IOWA		230250	TLS-350/450 EBS/DEF 10'6" Probe	846397-410
IOWA		230252	TLS-350/450 EBS/DEF Float Kit	846400-004
	2	230255	Interstitial Sensor-UG5T-10' Dia	794380-345
	1	230271	TLS-350/450 Diesel Float Kit	846400-001
	4	230292	Sump Sensor Mnt Bracket (1 per Tank Sump)	
	5	230293	Sump Sensor Mnt Bracket (1per Disp Sump)	
	9	230297	Sump Sensor - EBS (1/Sump - 1/Disp)	794380-323
	4	230306	TLS-350/450 10'6" Probe (Gas or Diesel)	846396-110
	3	230318	TLS-350/450 Gas Float Kit	886100-000
	4	230349	Var Freq Controller f/Sub Pump	MAGVFC
	1	230400	TLS-450 Monitor Console	860091
	4	230420	TLS-450 Digital PLLD Kit (1/Pump)	859080-001
WISCONSIN		230460	TLS-450 Overfill Alarm	790091-001
WISCONSIN		230461	TLS-450 Acknowledgement Switch	790095-001
WISCONSIN		230462	Sign - Overfill Alarm	U-MS-203
	1	400074	Low Voltage Disconnect (B Disp)	DDS-EKBD
		FINAL LOAD	SUPPLIED BY CASEY'S- SHIPPED ON OUR TRUCK	
IOWA		260660	CIM-TEK 400BHA-05 EBS Filter	70898
	5	260671	CIM-TEK 450-30 Diesel Filter	70027
	20	280455	Gas - Hanging Hardware Kit	Husky Gas Kit
	4	280460	Diesel - Hanging Hardware Kit	Husky DSL Kit
IOWA		280485	EBS - Hanging Hardware Kit	Husky 015989
NEBRASKA		280488	E15 - Hanging Hardware Kit	Husky 015991
	15	290697	CIM-TEK 450-10 Gas Filter	70034

2 Fuel Piping Layout Plan (All Ethanol States)

NTS

Equipment Note

DUE TO EQUIPMENT SHORTAGES, THE FOLLOWING ALTERNATE ITEMS MAY BE SUBSTITUTED FOR TYPICAL PARTS:

#240902 DROP TUBE
ALT #240410 OPW 71SO-410CT

#24092 DROP TUBE
ALT #240412 OPW 71SOM-412CT-E85

#260075 SPILL BUCKET
ALT #260882 OPW 1C3101D

General Notes

1. REFER TO ALL DETAIL PAGES REFERENCED ON THIS PLAN
2. FOR RELATED INFORMATION SEE THE FOLLOWING SHEETS:
   C-SHEETS FOR SITE CIVIL INFORMATION
   AL-SHEETS SITE LAYOUT AND LOCATION OF DISPENSERS / TANKS
3. THIS PLAN LAYOUT PROVIDES GENERAL REFERENCE AND RELATIONAL INFORMATION PERTAINING TO THE FUEL DISPENSER ISLANDS AND CANOPY
4. FOR LOCATING THESE FACILITIES ON THE SITE REFER TO THE SITE PLAN DRAWINGS CONTAINED IN THIS SET OF DOCUMENTS
5. FOR EXACT DESIGN AND LAYOUT OF CANOPY REFER TO SHOP DRAWINGS PROVIDED BY CANOPY MANUFACTURER
6. FOR ADDITIONAL SPECIFICATION INFORMATION REGARDING ACCESSORY ELEMENTS REFER TO THE CASEY'S SPECIFICATION MANUAL
7. PETROLEUM CONTRACTOR TO SUPPLY ALL APT, FIBERGLASS, BLACK, GALVANIZED AND STAINLESS STEEL PIPING AND FITTINGS

DRAWINGS & INFORMATION ON THIS SHEET ARE PROVIDED FOR INFORMATION ONLY AND HAVE NOT BEEN DESIGNED BY OR REVIEWED BY THE SCHEMMER ASSOCIATES.

Casey's

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT:
2023 "U4" STYLE STORE V.01
FLAT ROOF

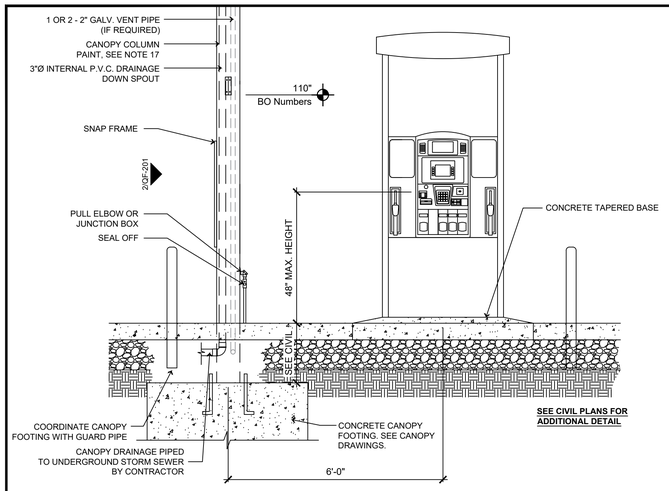
PUBLISHED: 03/15/23
REVISED ON:

DRAWING INFORMATION:
CANOPY AND FUEL PIPING LAYOUT PLANS

DRAWING INFORMATION:
2023 - U4 - V.01

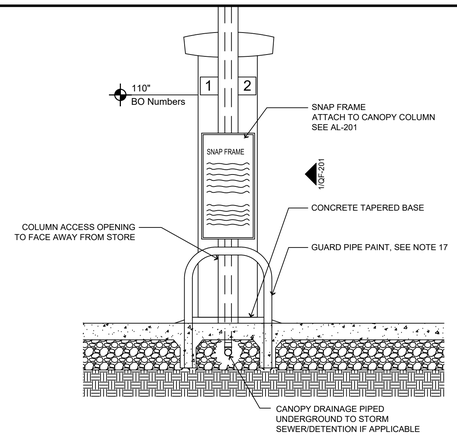
DRAWN BY: Arlon Goforth III
CHECKED BY:

QF-101



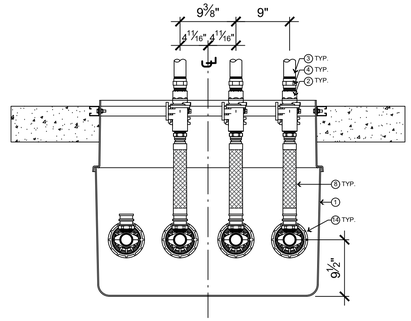
1 Gas Tapered Island - Front

1/2" = 1'-0"



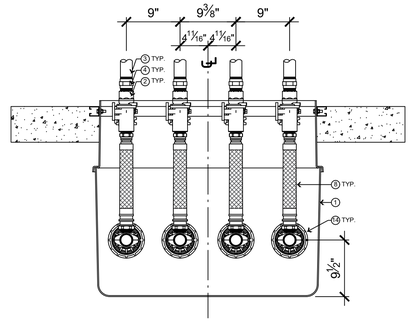
2 Gas Tapered Island - End

1/2" = 1'-0"



7 NL1 - Containment Sump Details

1" = 1'-0"



8 NL3 - Containment Sump Details

1" = 1'-0"

General Notes

1. REFER TO ALL DETAIL PAGES REFERENCED ON THIS PLAN

2. FOR RELATED INFORMATION SEE THE FOLLOWING SHEETS:
   C-SHEETS FOR SITE CIVIL INFORMATION
   AL-SHEETS FOR SITE LAYOUT AND LOCATION OF DISPENSERS / TANKS

3. CONTRACTOR IS TO REFER TO THE ARNING CANOPY PLANS FOR MORE INFORMATION.

4. VERIFY QUANTITY OF ITEMS PER SITE.

5. AIR & SOAP TEST TANKS PER MANUFACTURER'S SPECIFICATIONS BEFORE INSTALLATION.

6. 18" MIN. BURIAL BETWEEN PIPING AND FINISHED SURFACE.

7. SLOPE ALL PIPING BACK TO TANK 1/8" PER FOOT MIN.

8. AIR & SOAP TEST ALL PRIMARY PRODUCT PIPING, MIN. 12 HR. AFTER INSTALLATION HAS BEEN COMPLETED AT 60 P.S.I. (RECOMMEND LEAVING SOME PRESSURE ON DURING CONST.)

9. 2" GALVANIZED VENT PIPES W/90° GALVANIZED ELBOW AND FLEX AT BASE, ATTACHED TO STRUT RACK AND PROTECTED WITH BOLLARDS. EXTENDING 12' ABOVE GRADE. (IF REQUIRED, ROUTE VENT PIPES INSIDE OF CANOPY COLUMNS EXTENDING 5' ABOVE CANOPY DECK. MAXIMUM 2 PER COLUMN.)

10. AIR & SOAP TEST ALL VENT PIPING, MIN. 12 HR. AFTER INSTALLATION HAS BEEN COMPLETED AT 5 P.S.I. (PRECAUTION IF NOT ISOLATING LINE FROM TANK.)

11. PETROLEUM CONTRACTOR TO SUPPLY ALL APT, FIBERGLASS, BLACK, GALVANIZED AND STAINLESS STEEL PIPING AND FITTINGS.

12. PIPE THREAD SEALANT TO BE GASOILA E-SEAL OR EQUIVALENT.

13. SHEAR POINT OF EBW 662 EMERGENCY VALVES TO BE FLUSH W/TOP OF FINISHED ISLAND.

General Notes Continued

14. 250# LB. UNIONS REQUIRED AT DISPENSERS AND SUBMERSIBLES. (CONTRACTOR SUPPLIED)

15. APPLY SIKAGARD 62 PROTECTIVE COATING ON ALL EXPOSED METAL IN CONJUNCTION W/PETROLEUM, (TANKS, PIPING, RISER PIPES, DISPENSER SUMPS, ETC.) UNDERGROUND.

16. TAPERED CONCRETE ISLAND IS DEFAULT CHOICE. METAL ISLAND FORMS TO BE USED ONLY WHEN REQUIRED BY LOCAL JURISDICTION.

17. CONTRACTOR TO CLEAN & PAINT 2 COATS (BRONZE) ON ISLAND FORMS, GUARD PIPES, DOWN SPOUTS AND CANOPY COLUMNS. CONTRACTOR SUPPLIED PAINT TO BE SHERWIN WILLIAMS SHER KEM F75TC1 LOW GLOSS. 1 GALLON PAINT FORMULA - CASEY'S BRONZE:

B1	6 OZ AND 48 32NDS
R2	2 32NDS
Y3	13 32NDS
W1	24 32NDS
G2	1 32ND

18. HYDROSTATIC LIQUID TESTING REQUIRED ON DISPENSER SUMPS AND TANK SUMPS.

19. FINAL TIGHTNESS TESTING REQUIRED ON TANKS & PIPING (PERFORMED BY 3RD PARTY).

20. SUMP SENSOR TO BE INSTALLED SITTING ON THE BOTTOM OF THE SUMP INSIDE 2" FIBERGLASS PIPE (CONTRACTOR SUPPLIED) ATTACHED TO THE SUMP WITH A 2" CHANNEL PIPE CLAMP. FIBERGLASS PIPE INSTALLED ½" ABOVE BOTTOM OF SUMP.

21. CONTRACTOR TO INSTALL PETROLEUM HANGING HARDWARE IN THE FOLLOWING ORDER: DISPENSER, SHORT (WHIP) HOSE, BREAKAWAY, LONG HOSE, SWIVEL, NOZZLE.

22. TANK SUMPS & DISPENSER SUMPS TO BE CLEANED & DRIED PRIOR TO FINAL INSPECTION.

23. TANKS CONTAINING PRODUCT TO HAVE MONITORING AND LOGGING OF LEVELS THROUGHOUT CONSTRUCTION.

24. SNAP FRAME BRACKET KITS WILL BE SUPPLIED BY OWNER (IF APPLICABLE).

25. FOLLOW ALL MANUFACTURER SPECIFICATIONS.

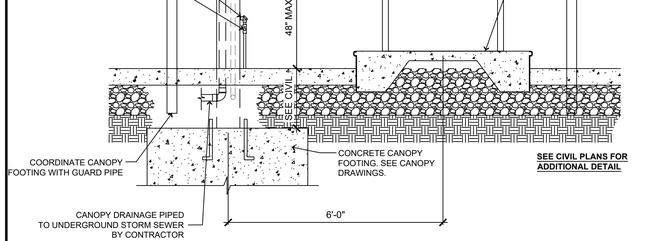
26. INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 30, NFPA 30A, NFPA 70, STATE AND LOCAL REGULATIONS

Keyed Construction Notes

1 DISPENSER CONTAINMENT SUMP	12 REMOVABLE APT SECONDARY TEST BOOT
2 1-1/2" EBW 662 EMERGENCY VALVE	13 1-3/4" APT FLEXIBLE DOUBLEWALL PIPE
3 11" RISER PIPE	14 APT 1-3/4" RIGID ENTRY BOOT
4 1-1/2" UNION 250#	15 VR SUMP SENSOR
5 STABILIZER BAR	16 2" FIBERGLASS PIPE
6 MOUNTING PLATE	17 1" RIGID CONDUIT
7 DISPENSER ANCHOR BOLT	18 1" SEAL-OFF
8 FLEX CONNECTOR	19 3/4" RIGID CONDUIT
9 2" S/S 90° ELBOW	20 3/4" SEAL-OFF
10 2" S/S TEE	21 3/4" EXPLOSION PROOF JUNCTION BOX
11 APT MALE SWIVEL FITTING	22 2" STRUT PIPE CLAMP

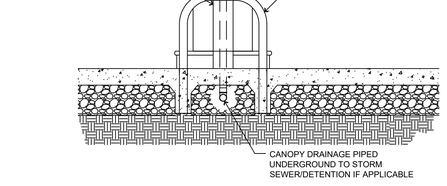
Sump Notes

1. ALL A-SIDES ARE TOWARDS THE STORE. TANK #1 PIPING IS ALWAYS TO THE RIGHT.
2. FOLLOW MANUFACTURERS INSTRUCTIONS, SPECIFICATIONS.
3. PIPE ALL PRODUCTS THROUGH ALL SUMPS. PLUG TEES AT SUMPS THAT DO NOT USE ALL PRODUCTS
4. RIGID CONDUITS TO BE RUN ON OUTSIDE OF PUMP BOX. DO NOT PENETRATE PUMP BOX WITH CONDUIT
5. CONTRACTOR TO NOTE PIPING LINE LENGTH FOR VEEDER-ROOT PROGRAMMING.



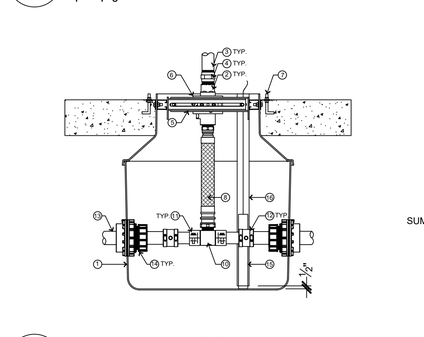
3 Gas Metal Form Island - Front

1/2" = 1'-0"



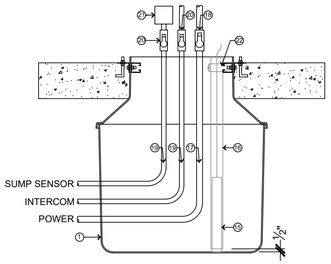
4 Gas Metal Form Island - End

1/2" = 1'-0"



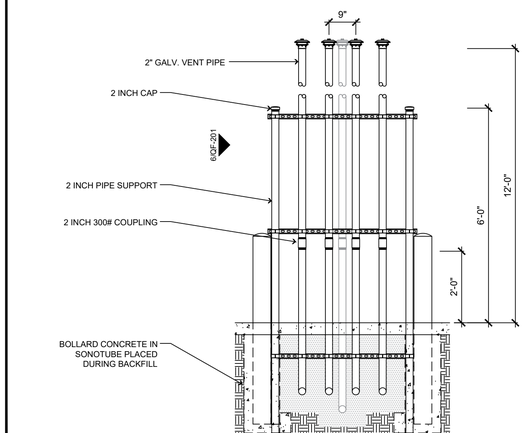
9 Side View (Mid)

1" = 1'-0"



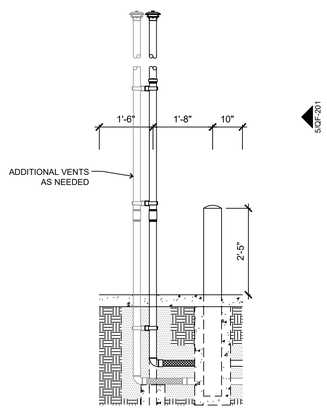
10 Sump Electrical Detail

1" = 1'-0"



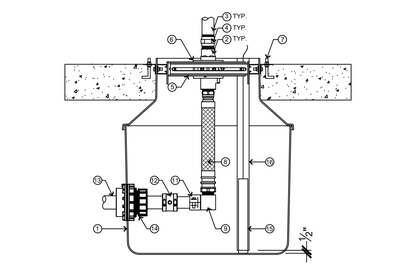
5 Tank Vent Detail - Front

1/2" = 1'-0"



6 Tank Vent Detail - End

1/2" = 1'-0"



11 Side View (End)

1" = 1'-0"

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CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2023 "U4" STYLE STORE V.01 FLAT ROOF

PUBLISHED: 03/15/23
REVISED ON:

DRAWING INFORMATION: PETROLEUM DETAILS

DRAWING INFORMATION: 2023 - U4 - V.01

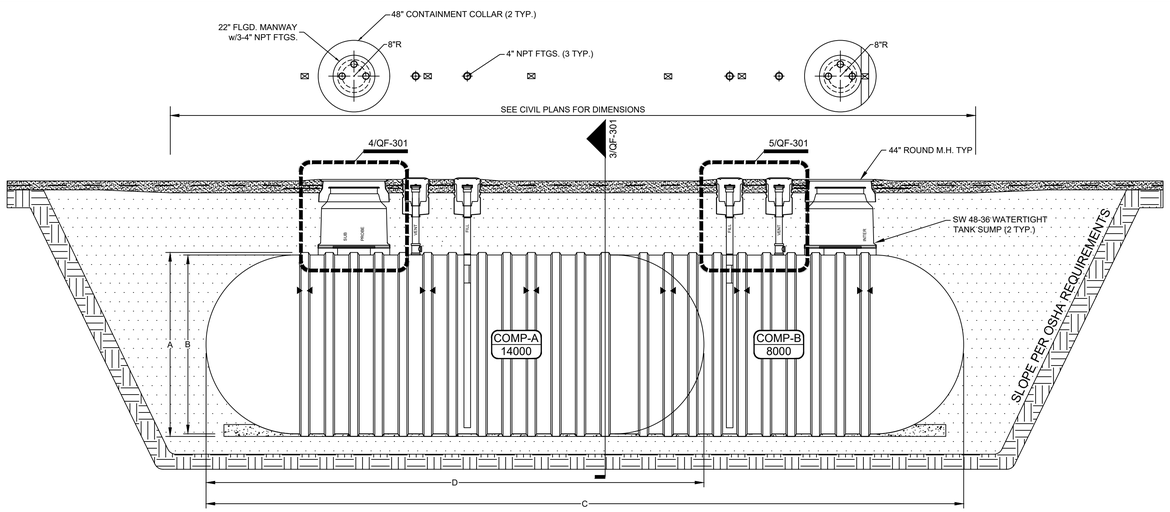
DRAWN BY: Arlon Goforth III
CHECKED BY:

QF-201

Fuel Fill Identification

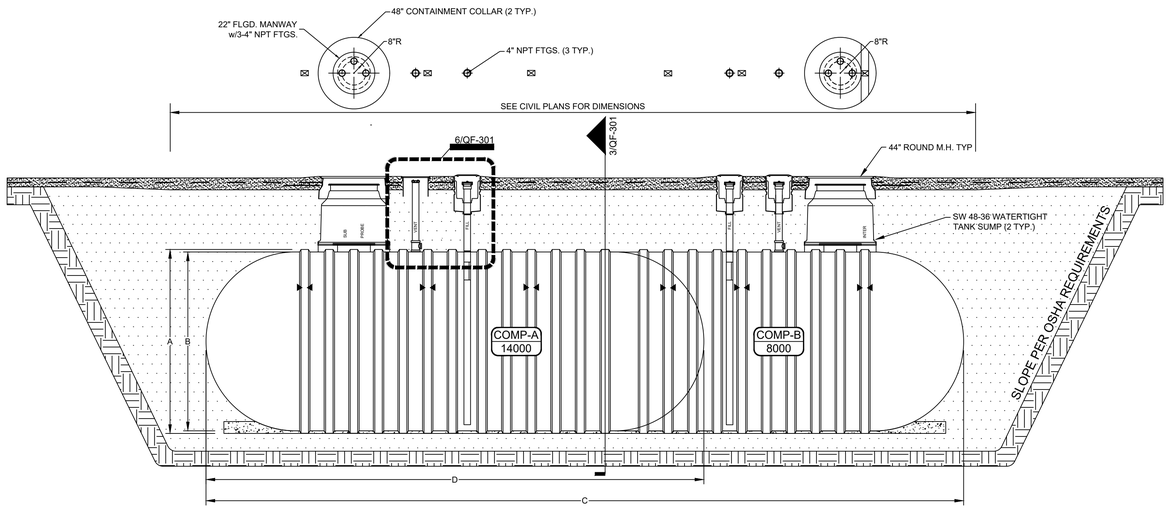
- WHITE 0 WHITE — REGULAR E0 GASOLINE (ALL WHITE, BLACK "0")
- BLUE 0 BLUE — MIDGRADE E0 GASOLINE (ALL BLUE, BLACK "0")
- RED 0 RED — PREMIUM E0 GASOLINE (ALL RED, BLACK "0")
- WHITE — REGULAR E10 GASOLINE (ALL WHITE)
- BLUE — MIDGRADE E10 GASOLINE (ALL BLUE)
- RED — PREMIUM E10 GASOLINE (ALL RED)
- COPPER E15 COPPER — E15 (ALL COPPER, BLACK "E15")
- COPPER E85 COPPER — E85 (ALL COPPER, BLACK "E85")
- YELLOW — ON-ROAD DIESEL < 5% BIO (ALL YELLOW)
- YELLOW BXX YELLOW — ON-ROAD DIESEL > 5% BIO (ALL YELLOW, BLACK "BXX") (XX=% BIOMASS)
- ORANGE — VAPOR RECOVERY (ALL ORANGE)
- BLACK — VENT ACCESS (FACTORY BLACK)

*PAINT TO EXTEND PAST LID ON TO CONCRETE
*CONTACT CONSTRUCTION SUPERVISOR FOR IDENTIFICATION OF ADDITIONAL PRODUCTS



1 Double Wall Tanks - Longitudinal Section

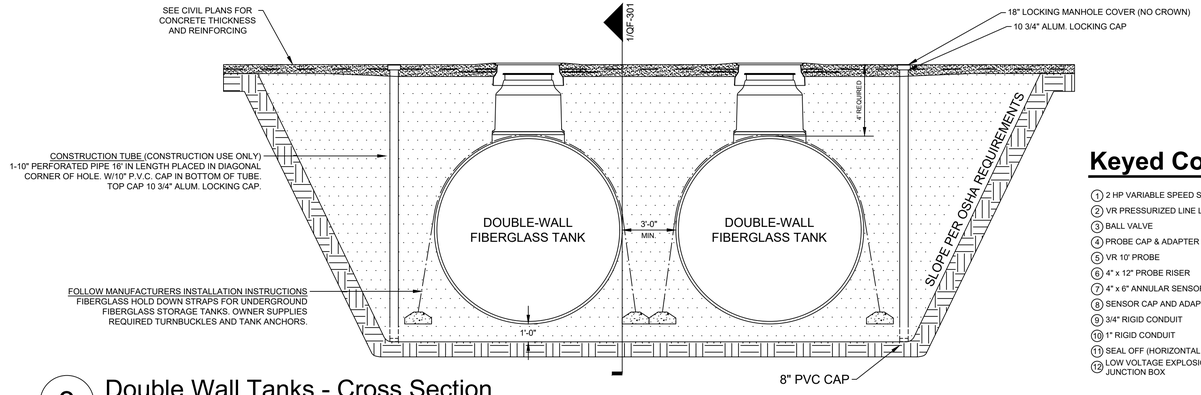
1/4" = 1'-0"



2 Double Wall Tanks - Longitudinal Section

1/4" = 1'-0"

Tank Dimensions	CSI	XERXES	ZCL
A	10' - 6"	10' - 4"	10' - 5 3/4"
B	10' - 0"	10' - 0"	10' - 1"
C	42' - 4 3/4"	40' - 8 3/4"	39' - 9 5/8"
D	27' - 10"	26' - 11 3/4"	26' - 1"



3 Double Wall Tanks - Cross Section

1/4" = 1'-0"

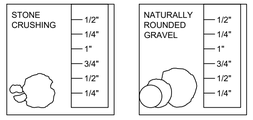
General Notes

1. REFER TO ALL DETAIL PAGES REFERENCED ON THIS PLAN
2. FOR RELATED INFO. SEE THE FOLLOWING SHEETS: C-SHEETS FOR SITE CIVIL INFORMATION AL-SHEETS FOR SITE LAYOUT AND LOCATION OF DISPENSERS / TANKS
3. REQUIRED - ISOPROPYLENE TO BE USED FOR REMOVAL OF WATER AFTER TANK INSTALL
4. PETROLEUM CONTRACTOR TO SUPPLY ALL APT, FIBERGLASS, BLACK, GALVANIZED AND STAINLESS STEEL PIPING AND FITTINGS
5. FIBERGLASS VENT PIPING TO HAVE FLEX CONNECTORS AT EACH END, TO BE WRAPPED W/ FRANKLIN YELLOW JACKETS
6. SUMP SENSORS AND INTERSTITIAL SENSORS REQUIRED
7. HYDROSTATIC TESTING IS REQUIRED ON ALL CONTAINMENT SUMPS
8. CONTRACTOR SHALL COMPLY WITH APPLICABLE OSHA REGULATIONS
9. ALL ELECTRICAL CONNECTIONS AND COMPONENTS ARE TO BE CLASS 1-DIVISION 1, WATER-TIGHT, AND FOLLOWING ALL MANUFACTURER SPECIFICATIONS
10. TANK TAGS ARE TO PROVIDE: TANK SIZE, PRODUCT & OCTANE

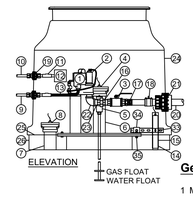
Soil & Fill Material

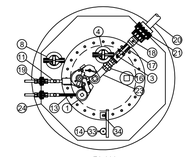
CRUSHINGS: TO BE WASHED STONE OR GRAVEL W/ANGULAR PARTICLE SIZE NOT LESS THAN 1/8" OR MORE THAN 1/2" IS REQUIRED

GRAVEL: A CLEAN NATURALLY ROUNDED AGGREGATE W/ A MIX OF PARTICLE SIZES NOT LESS THAN 1/8" OR MORE THAN 3/4" IS REQUIRED



NOTE: ALL BACKFILL MATERIALS MUST MEET ASTM C-33 PARAGRAPH 91 FOR QUALITY & SOUNDNESS. BACKFILL SHOULD HAVE PARTICLE SIZES WITH NO MORE THAN 5% PASSING THROUGH A #8 SIEVE.





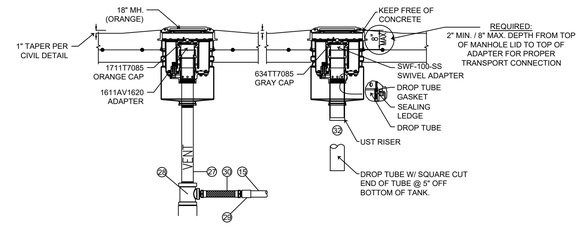
General Notes:

1 MIN. 18" ADDITIONAL WIRE COILED & ROLLED IN JUNCTION BOX, DO NOT CUT PROBE WIRE MARK EACH END FROM EACH TANK

2 SUMP SENSOR TO BE MOUNTED AT LOWEST AREA OF SUMP

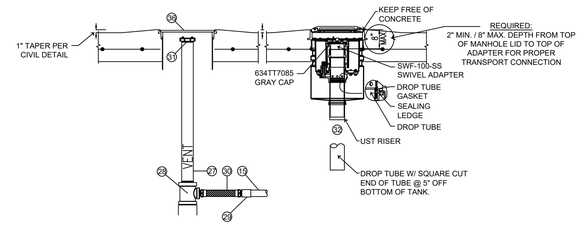
4 Petroleum UGST Detail

1/2" = 1'-0"



5 Gasoline Fill Containment Detail

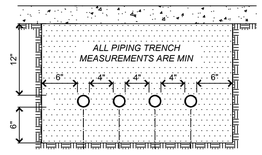
1/2" = 1'-0"



6 Diesel Fill Containment Detail

1/2" = 1'-0"

Tank Dimensions	CSI	XERXES	ZCL
A	10' - 6"	10' - 4"	10' - 5 3/4"
B	10' - 0"	10' - 0"	10' - 1"
C	42' - 4 3/4"	40' - 8 3/4"	39' - 9 5/8"
D	27' - 10"	26' - 11 3/4"	26' - 1"



PIPING NOTES:
FOLLOW ALL MANUFACTURES SPECIFICATIONS FOR PRODUCT PIPING (A.P.T. ADVANCED POLYMER TECHNOLOGY) AND VENT PIPING (N.O.V. FIBERGLASS)

ALL ARTIFICIAL PIPING SUPPORTS TO BE REMOVED BEFORE FINAL BACKFILL

7 Petroleum Pipe Trench Detail

1" = 1'-0"

Keyed Construction Notes

1. 2 HP VARIABLE SPEED STP
2. VR PRESSURIZED LINE LEAK DETECTOR
3. BALL VALVE
4. PROBE CAP & ADAPTER
5. VR 10' PROBE
6. 4" x 12" PROBE RISER
7. 4" x 6" ANNULAR SENSOR RISER
8. SENSOR CAP AND ADAPTER
9. 3/4" RIGID CONDUIT
10. 1" RIGID CONDUIT
11. SEAL OFF (HORIZONTAL REQUIRED)
12. LOW VOLTAGE EXPLOSION PROOF JUNCTION BOX
13. 3/4" EXPLOSION PROOF FLEX ECF 224
14. VR SUMP SENSOR
15. 2" FIBERGLASS PIPE
16. 2" UNION 250#
17. APT MALE SWIVEL FITTING MS-XP
18. APT SECONDARY TEST BOOT
19. APT 3/4" RIGID ENTRY BOOT
20. 1 3/4" APT FLEXIBLE DOUBLEWALL PIPE
21. APT 1 3/4" RIGID ENTRY BOOT
22. 2" GALVANIZED 90° ELBOW
23. 2"x2 1/2" GALVANIZED NIPPLE
24. 48" TURBINE ENCLOSURE
25. FIELD BONDED JOINT
26. 48" COLLAR MANUFACTURER INSTALLED
27. 4" x 32" VENT RISER
28. 4" X 2" VENT EXTRACTOR TEE
29. 2" NPT BELL FEMALE
30. 2" x 18" FLEX
31. OPW 116 CAP - BLACK
32. EBW DEFENDER OPV & DROP TUBE
33. 2" STRUT PIPE CLAMP
34. 2 HOLE STRUT 90 BRACKET
35. 1/2" X 3" BOLT W/FENDER WASHER
36. 18" MANWAY

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Casey's

CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2021 "O6"- STYLE STORE (FLAT / BRICK & STONE)

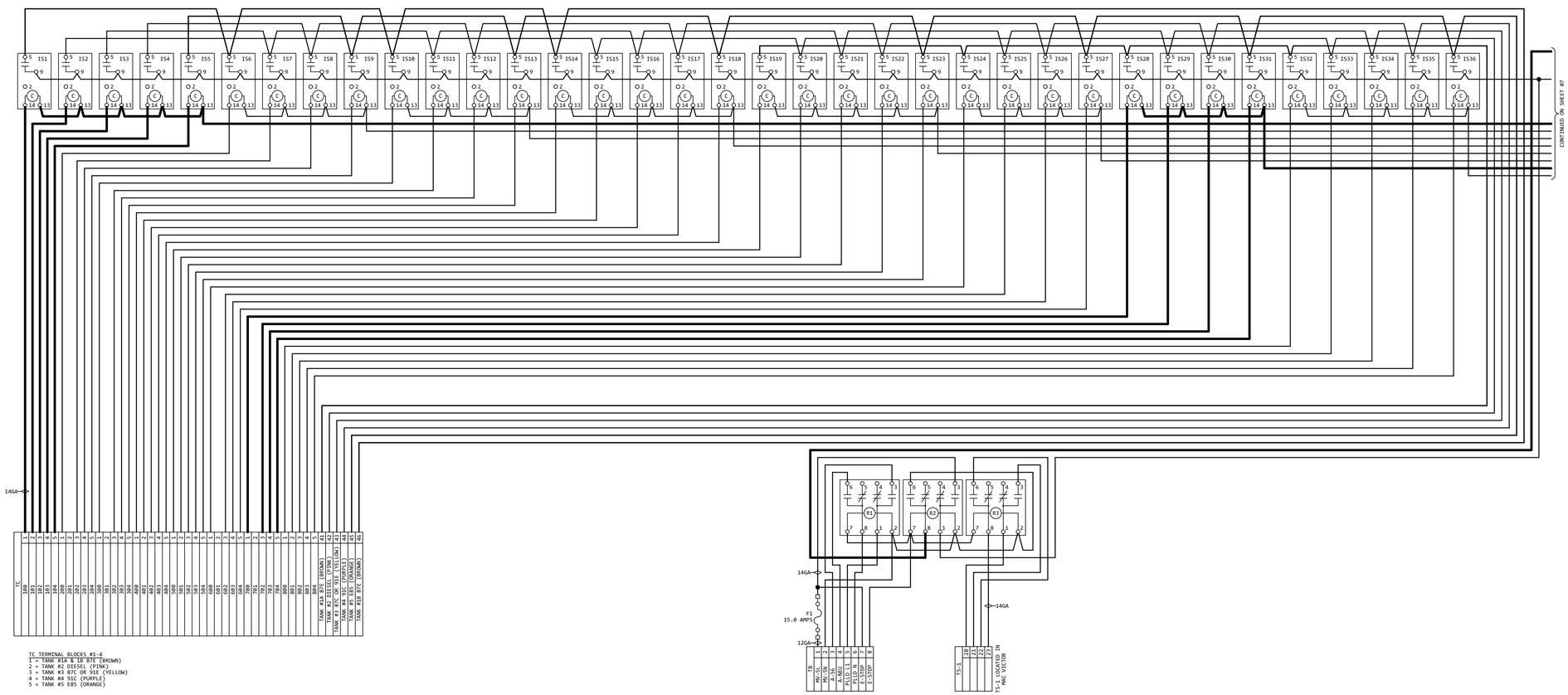
PUBLISHED: 06/18/21
REVISED ON:

DRAWING INFORMATION: PETROLEUM TANK SECTIONS & DETAILS

DRAWING INFORMATION: CONSTRUCTION DIVISION

DRAWN BY: JIM VILMAIN
CHECKED BY:

QF-301



1 Lighting & Pump Control Panel Wiring

No Scale

General Notes

1 REFER TO ALL DETAIL PAGES REFERENCED ON THIS PLAN

2 FOR RELATED INFORMATION SEE THE FOLLOWING SHEETS:
C-SHEETS FOR SITE CIVIL INFORMATION
AL-SHEETS FOR LAYOUT AND LOCATION OF DISPENSERS / TANKS
E-SHEETS FOR ELECTRICAL INFORMATION

3 PULL TWO EXTRA WIRES TO PUMP JUNCTION BOX AS SHOWN

4 ONLY FIELD WIRING CONNECTIONS ARE SHOWN IN THE JUNCTION BOXES. CAP ALL UNUSED WIRES

5 INSTALL GROUND WIRE AS SHOWN

6 SEPARATE BREAKER PER SUBMERSIBLE PUMP

7 PROVIDE BARRIER OR ADEQUATE SPACE BETWEEN COMMUNICATION WIRING AND POWER WIRING WHEREVER BOTH ARE PRESENT

8 "NOTICE" COMMUNICATION WIRING REQUIREMENTS : ALL DATA WIRING REQUIRED TO BE 2 WIRE TWISTED PAIR (UTP) WITH 10-12 TWIST PER FOOT, SHIELDED WIRE MUST NOT BE USED.
WIRING IS STANDARD ANNEALED COPPER TINNED WITH 18 AWG MINIMUM REQUIRED FOR RUNS UP TO 1000 FEET OR 14 AWG MINIMUM FOR RUNS OVER 1000 FEET TO 2600 FEET. DO NOT DAISY CHAIN COMMUNICATION WIRING. INSULATION SPEC IS 300V, PVC INSULATION, TYPE TFFN OR MTW, UL APPROVED GASOLINE AND OIL RESISTANT

9 CAT 6 WIRE FROM DISPENSER TO LOW VOLTAGE DISCONNECT.
"NOTICE" CAT 6 REQUIREMENTS: 23 AWG CAT 6 UTP, PLENUM RATED, SUNLIGHT, OIL AND GAS RESISTANT, SUITABLE FOR WET LOCATIONS, GAS/VAPOR TIGHT FEP JACKET

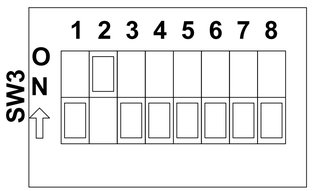
USE STRANDED WIRE AND COLORS AS SHOWN ONLY !!

WARNING !

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2 USE ONLY FACTORY SUPPLIED KNOCK OUTS ON VEEDER-ROOT MONITOR ***DO NOT " FIELD DRILL "***

Mag VFC



THE DIESEL APPLICATION ALL SWITCHES ARE OFF.
THE GASOLINE APPLICATION SWITCH #2 IS ON, ALL OTHERS ARE OFF.

Fueling Controls overview and Emergency Shutdown sequence of operation

Seneca Dispenser Panel – provides dispenser power & hook isolation protection, dispenser & submersible pump maintenance isolation switches, and emergency shutdown for all dispensers, submersible pumps, and the Veeder Root PLLD (pressurized line leak detection) power. See E-502 (3 & 3A) and Seneca shop drawings for site specific wiring terminations.

Mac Victor Power – provides battery backup and power protection for Veeder Root electronics for continuous monitoring even during power failures. Provides battery backup and power protection for Gilbarco D-box and Allied NexGen devices during normal operation and also disconnects both of these data devices during emergency shutdown events. Provides battery backup for Seneca emergency shutdown relays to prevent utility power failure disturbances from shutting down critical devices unnecessarily. See E-502 (2 & 3) for specific Mac Victor wiring terminations.

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CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2021 "O6"- STYLE STORE (FLAT / BRICK & STONE)

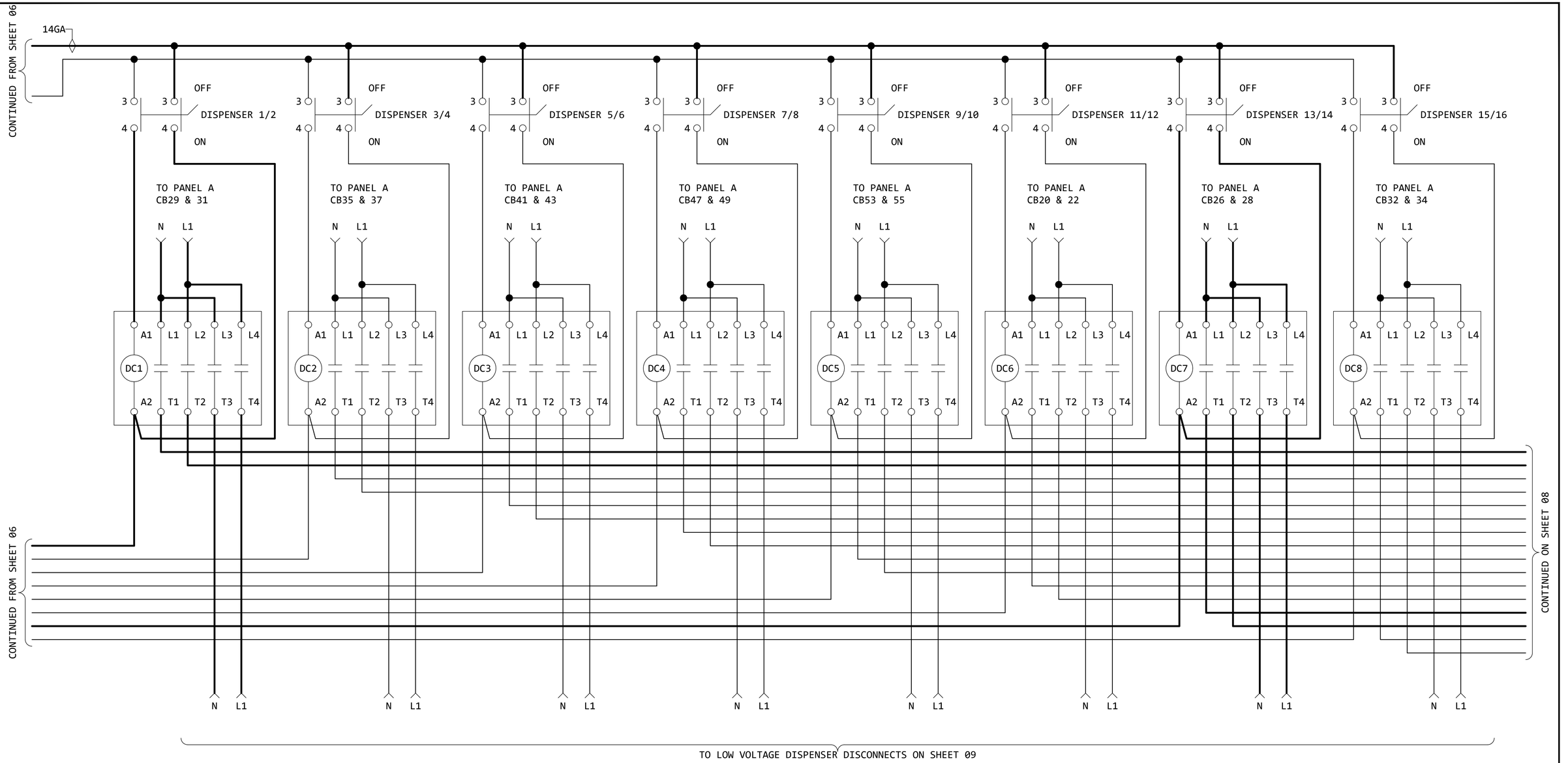
PUBLISHED: 06/18/21
REVISED ON:

DRAWING INFORMATION: CONSTRUCTION DIVISION

DRAWN BY: JIM VILMAIN
CHECKED BY:

DRAWING INFORMATION: PETROLEUM SYSTEM WIRING DIAGRAM

QF-601



NOTE:
DRAWING MAY CHANGE DEPENDING ON THE NUMBER OF PUMPS AND DISPENSERS AT THE STORE.
SEE SENECA SITE SPECIFIC DRAWINGS WHICH WILL BE INCLUDED WITHIN THE SENECA CONTROL PANEL.

1 Lighting & Pump Control Panel Wiring

No Scale

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General Notes

1 REFER TO ALL DETAIL PAGES REFERENCED ON THIS PLAN

2 FOR RELATED INFORMATION SEE THE FOLLOWING SHEETS:
C-SHEETS FOR SITE CIVIL INFORMATION
AL-SHEETS FOR LAYOUT AND LOCATION OF DISPENSERS / TANKS
E-SHEETS FOR ELECTRICAL INFORMATION

3 PULL TWO EXTRA WIRES TO PUMP JUNCTION BOX AS SHOWN

4 ONLY FIELD WIRING CONNECTIONS ARE SHOWN IN THE JUNCTION BOXES. CAP ALL UNUSED WIRES

5 INSTALL GROUND WIRE AS SHOWN

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USE STRANDED WIRE AND COLORS AS SHOWN ONLY !!

WARNING !

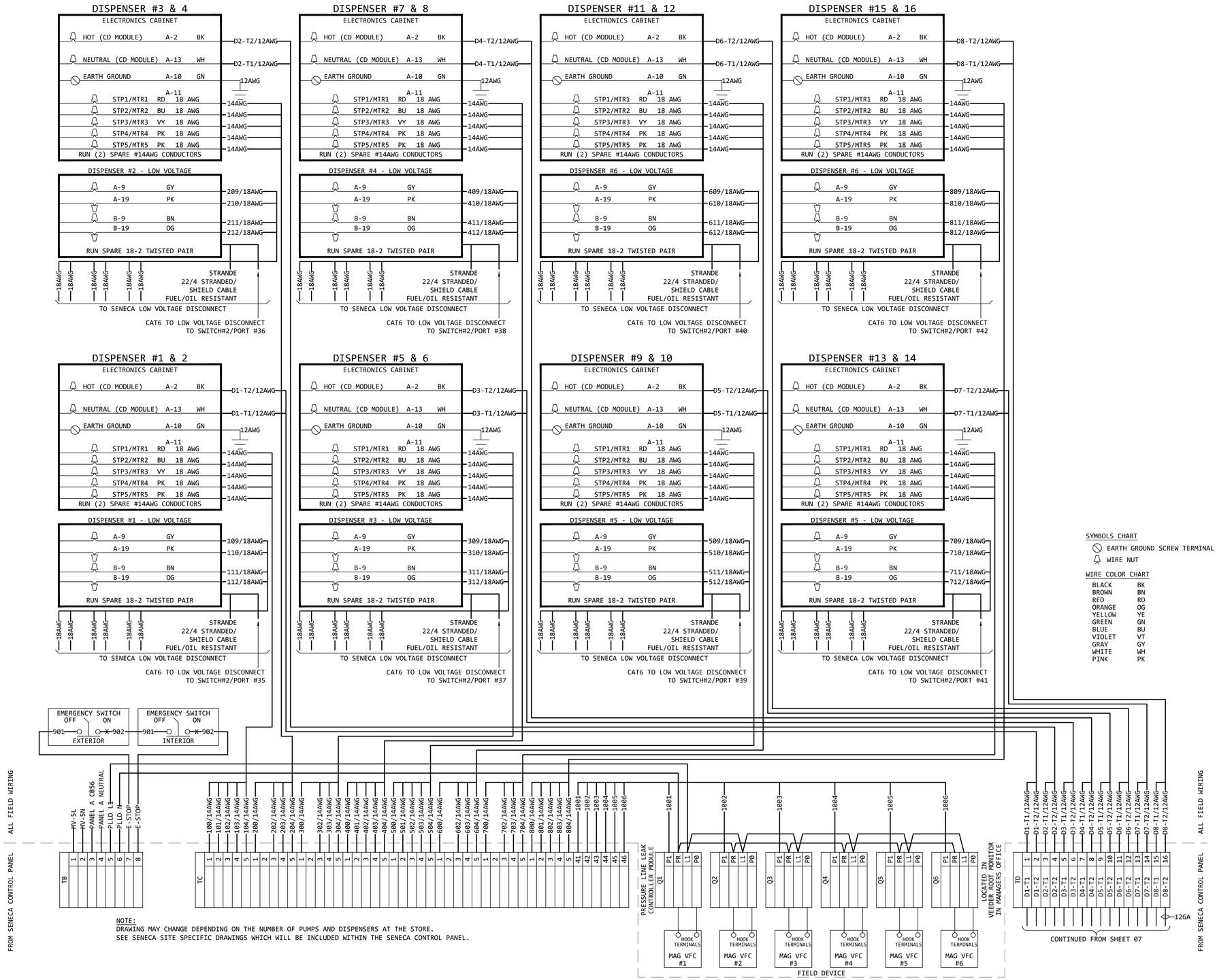
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Casey's
CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2021 "O6"- STYLE STORE (FLAT / BRICK & STONE)
PUBLISHED: 06/18/21
REVISED ON:
DRAWING INFORMATION: PETROLEUM SYSTEM WIRING DIAGRAM
DRAWING INFORMATION: CONSTRUCTION DIVISION
DRAWN BY: JIM VILMAIN
CHECKED BY:
QF-602



1 Lighting & Pump Control Panel Wiring

No Scale

USE STRANDED WIRE AND COLORS AS SHOWN ONLY !!

WARNING !

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10 CAT 6 WIRE FROM LOW VOLTAGE DISCONNECT TO ETHERNET SWITCH #2 PORTS# 35-48 AS NEEDED

SYMBOLS CHART

EARTH GROUND SCREW TERMINAL
WIRE NUT

WIRE COLOR CHART

BLACK	BK
BROWN	BN
RED	RD
ORANGE	OG
YELLOW	YE
GREEN	GN
BLUE	BU
VIOLET	VT
GRAY	GY
WHITE	WH
PINK	PK

Fueling Controls overview and Emergency Shutdown sequence of operation

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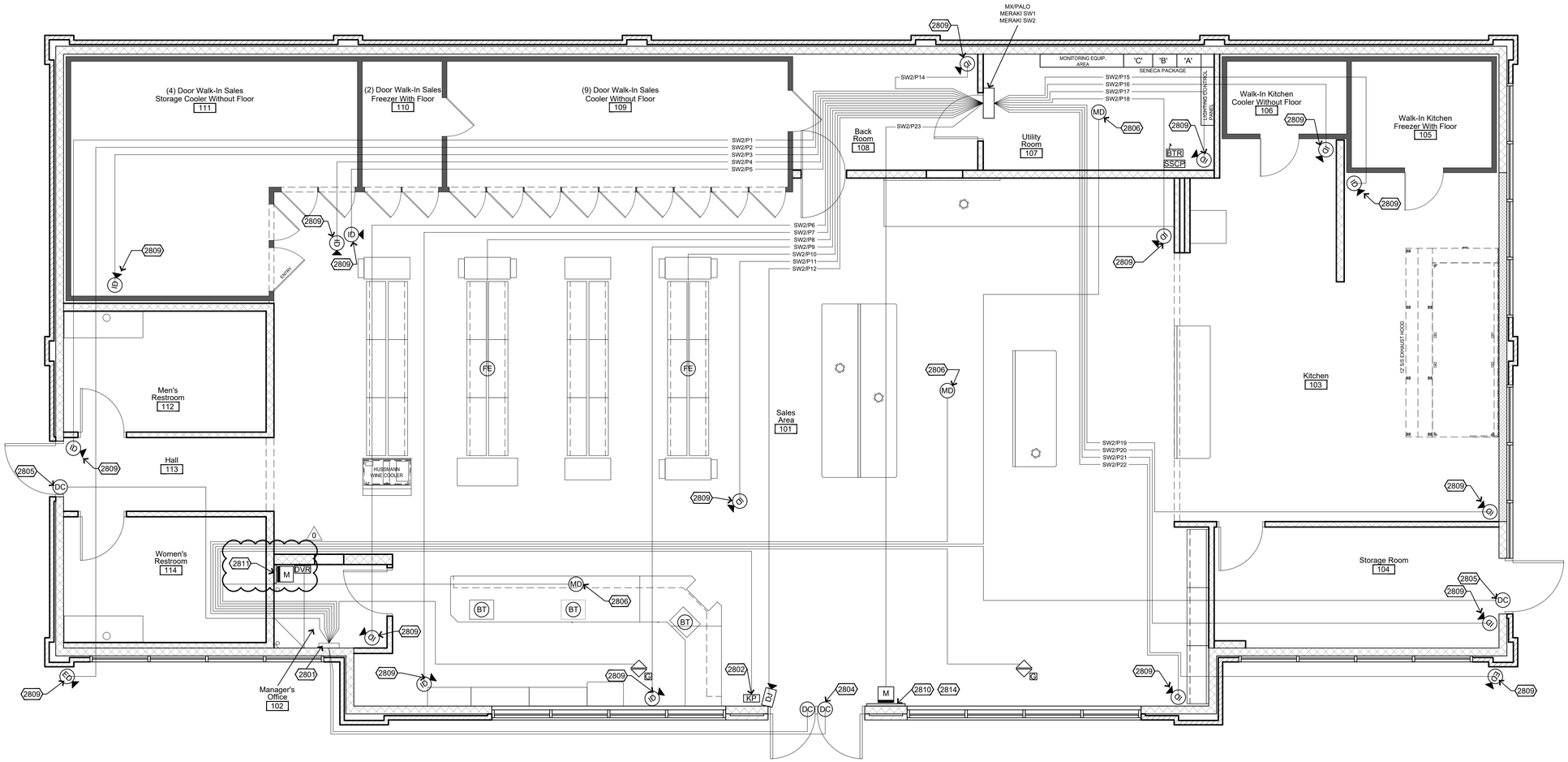
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Casey's
CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2021 "O6"- STYLE STORE (FLAT / BRICK & STONE)
PUBLISHED: 06/18/21
REVISED ON:
DRAWING INFORMATION: CONSTRUCTION DIVISION
DRAWN BY: JIM VILMAIN
CHECKED BY:
DRAWING INFORMATION: PETROLEUM SYSTEM WIRING DIAGRAM
QF-603



1 Wiring Schematic Plan - Security System

1/4"=1'-0"

Equipment Schedule

CAMERA & SECURITY EQUIPMENT LIST: [SUPPLIED BY CASEY'S]
ONLY WHEN REQUIRED

DESCRIPTION:	MODEL No.:	PART No.:	QUANITY:
DVR	CBE-2HD1610-36TB-8IP	450194	1 EACH
FISHEYE CAMERAS	VX-6M-360-IAW	450188	2 EACH
DOOR JAMB CAMERA MOUNTED ON MULLION OF DOOR FACING INSIDE THE STORE @ 5'-0" HIGH	XNB-H6461D	450185	1 EACH
IP CAMERA	CBE-28OVD-5MP	450183	18 EACH
OUTDOOR WALL MOUNT	CBE-OVD-WM-CAP	450181	2 EACH
SECURITY BATTERY		450105	1 EACH
BOSCH ALARM PANEL KIT	B4512-C-921C	450357	1 EACH
BOSCH MOTION	DS9360	450356	3 EACH
BILL TRAP	EN1249-INOVONICS	450179	3 EACH
BILL TRAP RECEIVER	EN4204R-INOVONICS	450178	1 EACH
CONTACT (DOOR)	SM-216Q1BR	450130	4 EACH
GLASS BREAK	FG-1625	450150	2 EACH
A DEMCO LARGE SIREN		402500	1 EACH
MONITOR BRACKET-22"		450216	1 EACH
MONITOR-24" HDMI		450225	1 EACH
32" MONITOR		450233	1 EACH
32" MONITOR BRACKET		450423	1 EACH

General Construction Notes

1 ALARM WIRING TO BE 22/4 AWG STRANDED & SHIELDED, CLASS A WIRING WITH RESISTORS IN PANEL
2 DO NOT RUN WIRE CLOSE TO LIGHTS. (*MIN OF 5' AWAY*)
3 MOTION, KEYPAD, BILL TRAP RECEIVER, DOOR CONTACTS, AND GLASS BREAKS ARE 22/4 AWG STRANDED AND SHIELDED (RED, BLACK, GREEN, AND WHITE).
4 CUT EACH YELLOW CAT6 WIRE AT FLOOR LEVEL. SERVICE LOOP ABOVE CEILING FOR CBE.

Symbol Legend

DVR VIDEO RECORDER
FE FISH EYE CAMERA
DJ DOOR JAMB CAMERA
ID IP CAMERA
ED IP CAMERA & OUTDOOR WALL MOUNT
SSCP BOSCH ALARM PANEL
KP BOSCH KEYPAD - 22/4 AWG STRANDED AND SHIELDED
BT BILL TRAP - WIRELESS TRANSMITTER
BTR BILL TRAP RECIEVER - 22/4 AWG STRANDED AND SHIELDED
DC DOOR CONTACTS - 22/4 AWG STRANDED AND SHIELDED
MD MOTION DETECTOR - 22/4 AWG STRANDED AND SHIELDED
GLASS BREAKS - 22/4 AWG STRANDED AND SHIELDED
M MONITOR 32" & 22"

Specifications

1 **WIRE**: 22 GAUGE, 4 CONDUCTOR, STRANDED & SHIELDED COPPER WIRE
2 **P.I.R. & GLASS BREAK SENSORS**: 2-WIRES POWER 2-WIRES CONTACTS
3 **DOOR CONTACTS**: 4-WIRE CLASS "A" LOOP WITH RESISTORS AT THE PANEL
4 YELLOW CAT 6 PLENUM WIRE TO ALL CAMERAS WITH A 10'-0" SERVICE LOOP TO ALL CAMERA LOCATIONS.

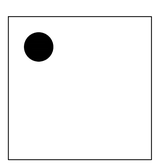
ALARM ZONE LAYOUT WITH TERMINAL #:

ZONE #1 BILL TRAP 8+9
ZONE #2 GLASS BREAK SENSORS 10+11
ZONE #3 FRONT DOOR (ENTRANCE) 12+13
ZONE #4 BACK DOOR (EXIT) 13+14
ZONE #5 MOTION 15+16
ZONE #6 16+17 BACKROOM MOTION
ZONE #7 SIDE DOOR (EXIT) 18+19
ZONE #8 SPARE ZONE 19+20 (OPEN-NOT BEING USED)

Keyed Construction Notes

Division 28 - Electronic Safety and Security

2801 BOSCH B4512 PANEL : MOUNT IN OFFICE @ 76" AFF ABOVE CEILING
2802 TYP. 6128 KEYPAD INSIDE OF BLDG. @56" HEIGHT AND 10" FROM ROUGH OPENING OF DOOR
2803 TYP. ASC25 GLASS BREAK SENSOR, MOUNT TO TILE. 4 WIRE, USE RED, GREEN, BLACK & WHITE
2804 TYP. DOOR CONTACT, MOUNTED 4" OVER FROM CENTER JAMB 2-1/2" IN FROM DOOR GLASS & 1-1/2" IN FROM DOOR TO BLOCK ON FRAME. TWO WIRE, USE GREEN & WHITE
2805 TYP. DOOR CONTACT, MOUNT FLUSH WITH INSIDE OF DOOR & HEADER FRAME, PLACE A SPACER BEHIND MAGNET. TWO WIRE, USE GREEN AND WHITE. DO NOT CUT MAGNETIC WEATHER STRIP. SEE DETAIL THIS PAGE
2806 TYP. BOSCH 360° MOTION DETECTOR, CEILING MOUNTED. 4 WIRE, USE RED, GREEN, BLACK & WHITE
2809 SECURITY CAMERA, MOUNTED BELOW CEILING LINE. CAMERA NUMBER AS NOTED. COORDINATE WITH OWNERS. (CONTRACTOR TO MOUNT 4"x4" BRACKET @ 12' A.F.F.)
2810 32" SECURITY MONITOR
2811 CAMERA SYSTEM LOCATED IN MANAGER OFFICE DVR, 16 CHANNEL RECORDER CAMERA #1 TO PORT #1; CAMERA 2 TO PORT #2 AND 22" MONITOR MOUNTED ON WALL. DVR LOCATED ON MIDDLE SHELF IN MANAGERS OFFICE, BOTH CAMERA CABLES NEED TO HAVE 5 FEET EXTENSION.
2812 TYP. DOOR CONTACT, MOUNTED ON OPPOSITE SIDE FROM HINGE. TWO WIRE, USE GREEN & WHITE
2813 OPTIONAL DIESEL CAMERA. VERIFY DIESEL OPTION WITH AL-101 SITE PLAN.
2814 OPTIONAL DIESEL MONITOR. VERIFY DIESEL OPTION WITH AL-101 SITE PLAN.



PLACE ALL CAMERAS IN CORNERS OF CEILING TILE, NOT IN THE CENTER

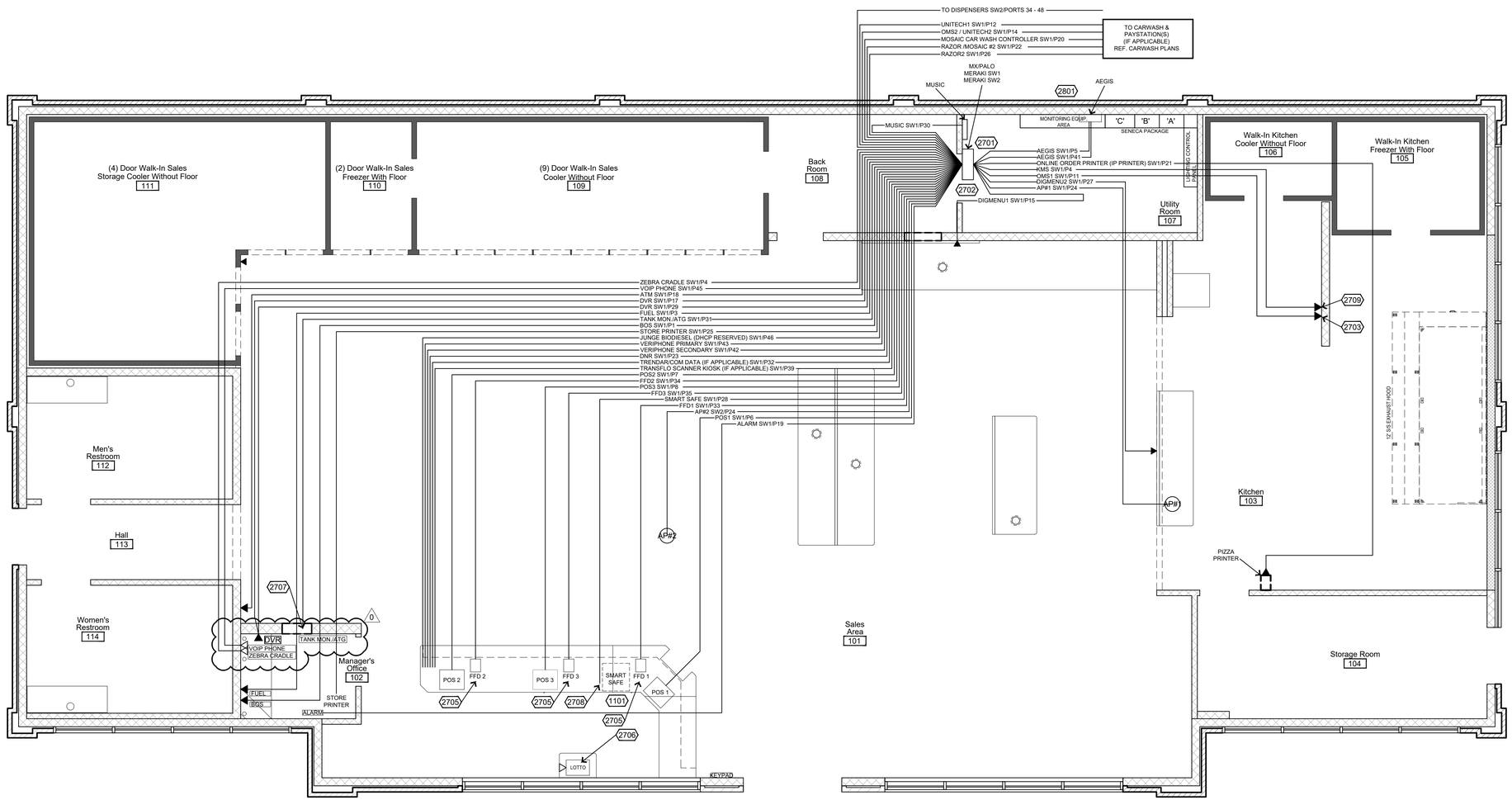
NOTE:

*ELECTRICAL CONTRACTOR TO RUN ALL POWER AND VIDEO WIRING
*ELECTRICAL CONTRACTOR TO TERMINATE ALL POWER WIRING AND ALL ALARM DEVICES.
*CBE INSTALLS ALL CAMERAS.
*CBE WILL TERMINATE ALL VIDEO CAT 6e WIRING.

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CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2023 "U4" STYLE STORE V.01 FLAT ROOF
PUBLISHED: 03/15/23
REVISED ON:
DRAWING INFORMATION: SECURITY SYSTEM WIRING SCHEMATIC
DRAWING INFORMATION: 2023 - U4 - V.01
DRAWN BY: Arlon Goforth III
CHECKED BY:
T-101



2 Wiring Schematice Plan - Phone/Data

1/4"=1'-0"

Keyed Construction Notes

Division 11 - Specialties

1101 UNDERCOUNTER SAFE

Division 27- Communications

2701 ELECTRICIAN TO PROVIDE KEYSTONE

2702 SAGENET TO PULL ALL CABLING

2703 PIZZA DELIVERY STATION: MOUNT PHONE JACK @ 60"AFF. SECOND & THIRD JACKS FOR CREDIT CARD & CORDLESS PHONE. CAT 6e WIRE. SEE SHEETS E-101 & AQ-401.

2705 CREDIT CARD MACHINE: PULL WIRE THRU PVC CONDUIT BENEATH SLAB FROM SAGENET

2706 LOTTO MACHINE: SERVICE SET UP BY CASEY'S SCHEDULE

2707 TANK MONITOR/ATG WIRING TO DROP INTO WALL CAVITY TO BENEATH VEEDER ROOT

2708 INSTALL JACK FOR SMARTSAFE WIRING ONTO CABINET PARTITION

2709 KMS CABLING TO HAVE 20'-0" COIL TO BE LEFT ABOVE CEILING

Keyed Construction Notes

Division 28 - Electronic Safety and Security

2801 COORDINATE SERVICE ENTRANCE UNDERGROUND INSTALLATION.

Phone Line Notes

 # OF PHONE LINE PER STORE:

STORES NOT OFFERING PIZZA DELIVERY - 2 LINES
STORES OFFERING PIZZA DELIVERY - 3 LINES (ALL NEED OUTLETS)

PHONE 1 PHONE BASE - MANAGER'S OFFICE

PHONE 2 PIZZA - PIZZA CARRYOUT NUMBER. LOCATED ON END OF KITCHEN DIVIDER WALL. LOCATE @ 60"A.F.F. IN STORES WITH DELIVERY.

PHONE 3 OUTLET ONLY - PIZZA WALL JACK (HUNTLINE NUMBER) DELIVERY ONLY.

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One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2023 "U4" STYLE STORE V.01 FLAT ROOF

DRAWING INFORMATION: 2023 - U4 - V.01

DRAWN BY: Arlon Goforth III

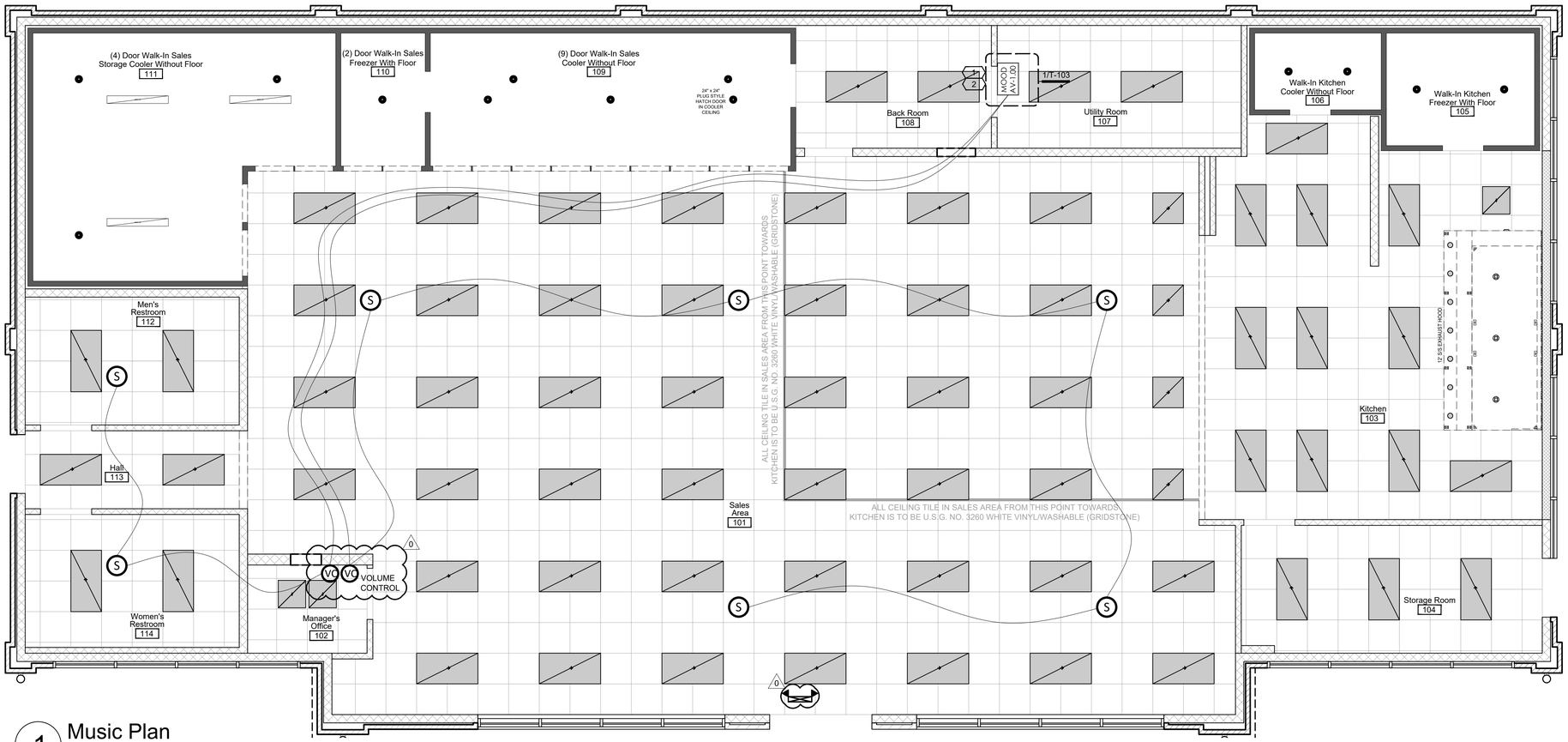
CHECKED BY:

ISSUED ON: 03/15/23

REVISED ON:

DRAWING INFORMATION: COMMUNICATIONS WIRING SCHEMATIC & DETAILS

T-102



1 Music Plan

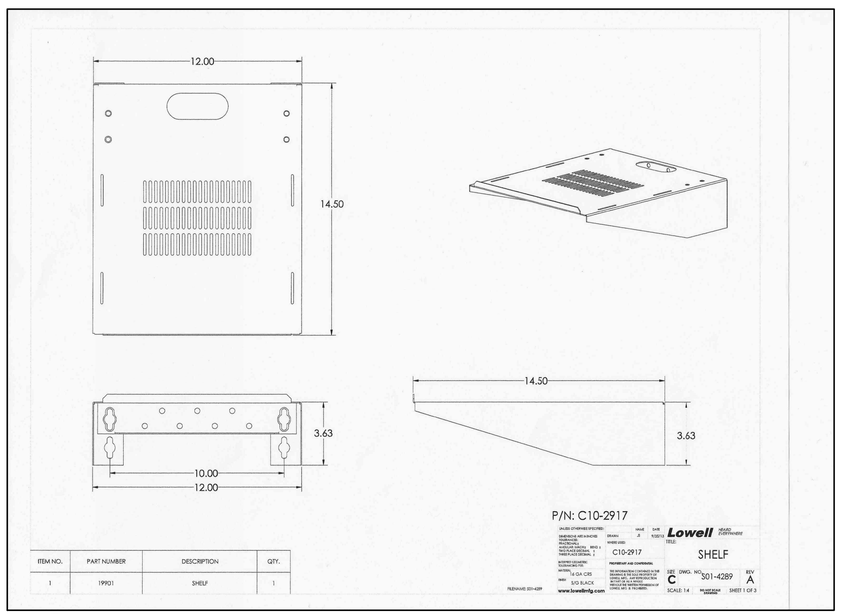
1/4"=1'-0"

Notes

1. (1) DUPLEX 110V/15a "CLEAN" POWER CIRCUIT AND NETWORK ACCESS AT HEADEND/AMPLIFIER LOCATION.
2. (1) 1" CONDUIT STUB-UP WITH PULL STRING TO OPEN CEILING ABOVE FROM HEADEND/AMPLIFIER LOCATION FOR 18/2 SPEAKER WIRE RUNS FROM VOLUME CONTROLS/SPEAKERS TO AMP.
3. (2) SINGLE GANG JUNCTION BOXES FOR THE (2) VOLUME CONTROLS. EACH SINGLE GANG JUNCTION BOX SHALL REQUIRES A 3/4" CONDUIT STUB-UP WITH PULL STRING FOR EACH VC FOR 18/2 SPEAKER WIRE FROM THE AMPLIFIER AND OUT TO THE SPEAKERS.
   - IF A SMALL INTERCONNECTION BETWEEN THE SINGLE GANG JUNCTION BOXES CAN BE PROVIDED, THEN ONLY (1) 3/4" CONDUIT WITH PULL STRING SHALL BE REQUIRED.

AUDIO AND VIDEO EQUIPMENT LEGEND

SYMBOL	DESCRIPTION	NOTES: PROVIDED BY OWNER	NOTES:	TAP SETTING
S	MOOD KDS21TWH CEILING SPEAKER		SPEAKER.	5 WATTS
VC	LOWELL VOLUME CONTROL 60° AFF			
MOOD AV-1.00	MOOD AUDIO HEADEND LOCATION CASEYS	OWNER'S ELECTRICAL CONTRACTOR TO PROVIDE (1) 15A/120v POWER DEDICATED DUPLEX OUTLETS.		



2 Shelf Detail

Scale: N/A

MOOD SYSTEMS

MOOD SPEAKERS & SUB WOOFER

The Mood XD Series flush-mount speakers are tuned to deliver optimum low and high frequencies for a truly precise and balanced soundstage. The XD design ensures extended yet accurate bass response, smooth mid-range response and extended high-frequency response to create a lifelike musical experience.

FEATURES

- .04" drawn steel enclosure
- Bass reflex
- ABS baffle
- Paintable grille
- Easy installation, new and retrofit
- 70/100 volt transformer
- 8 Ohms Thru
- Tile Support Included
- UL1480 and 2043 listed for following models: XDA521T, and XD6202T



Mood XDA521T speakers are 9.25" in diameter.



XD6202T/F-6.5" (165mm) polypropylene cone woofer, 1" silk dome tweeter



XDB201T-SUB -8" polypropylene cone woofer, 1.5" coil on Nomex former

SPECIFICATIONS	XDA521T	XD6202T/F	XD8021T-SUB
FREQUENCY RESPONSE	80 Hz-18 kHz	65 Hz-25kHz	40 Hz-200 kHz
POWER HANDLING	20 watts RMS	140 watts continuous 70 watts continuous pink noise	200 watts continuous 100 watts continuous pink noise
SENSITIVITY	88 dB	89 dB SPL 1W 1m	92 dB SPL 1W 1m
NOMINAL IMPEDANCE	8 ohms	8 omhs	8 omhs
NOMINAL COVERAGE	110˚	110˚	180˚
70 VOLT WATTAGE TAPS	.625,1.25,2.5,5,10	60W, 30W, 15W, 7.5W, 3.8W 8 ohms direct	60W, 30W, 15W, 7.5W, 3.8W, 1.9W 8 ohms direct
100 VOLT WATTAGE TAPS	1.25,2.5,5,10	60W, 30W, 15W, 7.5W, 3.8W 8 ohms direct	60W, 30W, 15W, 7.5W, 3.8W, 1.9W 8 ohms direct
LF DRIVER	5.25" PP cone, butyl rubber surround		
HF DRIVER	.5" sealed ferrofluid soft dome, NeFeB magnet		
DIMENSIONS	9.25" diameter x 7" deep	10.2" Diameter x 8" Deep	15" Diameter x 12" Deep
WEIGHT	5.21 lbs.	9.8 lbs.	15.5 lbs.
COLORS	White and Black	White and Black	White Only
CUTOUT SIZE	8.11 in	8.8 in	13.4 in

3 Speakers & Sub Woofer Specifications

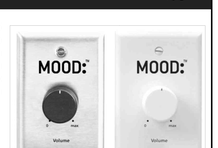
Scale: N/A

LOWELL Manufacturing Company

Models: C70-3014, C70-3015

SPEC NO. C70
08.18.14, pg. 1/1

Mood Media Model No's. C70-3014 (stainless steel) and C70-3015 (white) are ETL Listed, compact, easy-to-install controls that provide precise level adjustment of single or multiple speaker lines. Each control mounts within a single gang E.O. box with minimum depth requirement of 2.125 inches and includes easy-connect, phoenix style, plug-in screw termination strips for prewire convenience with wire capacity up to 14-gauge. Attenuation is 3dB per step.



No. C70-3014

No. C70-3015

Features

- 25W rating
- 3dB per step attenuation
- Standard (one piece) wall plate in stainless steel or white plastic.
- 2.125 in. depth fits standard E.O. boxes

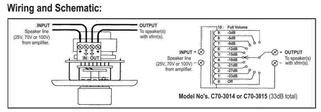
A & E Specifications

The volume control shall be Mood Model No. _____ by Lowell Manufacturing Co. with a power rating of 25 watts and attenuation of 3dB per step. It shall be ETL Listed and shall mount in an E.O. box with minimum inside dimensions of 1.875 in.W x 2.688 in.H x 2.125 in.D. It shall include a standard style wall plate with _____ (stainless steel, white) finish.



Compact enough to mount in E.O. boxes with minimum depth of 2.125 in.

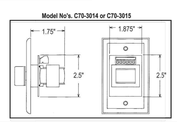
Wiring and Schematic:



Mounts all E.O. boxes noted:

(minimum opening size 1.875 in.W x 2.688 in.H x 2.125 in.D)

- 4"Sq. x 2.125"D with raised mud ring (RACO 232, 235 or equiv.)
- 1-gang handy box 2.125"D (RACO 670, 671, 678 or equiv.)
- Lowell P1X surface box



Model No.	Power Rating	Type	Switch Type	Switch Positions	Attenuation Step / Total	Plate Style	Plate Finish	Plate Width	Plate Height
C70-3014	25W	Auto-trans	Rotary	10-off	3dB / 33dB***	Standard	Stainless steel	2.75"	4.5"
C70-3015	25W	Auto-trans	Rotary	10-off	3dB / 33dB***	Standard	White	2.75"	4.5"

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4 Volume Control Specifications

Scale: N/A

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Casey's
CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT:
2023 "U4" STYLE STORE V.01
FLAT ROOF

PUBLISHED: 03/15/23
REVISED ON:

DRAWING INFORMATION:
2023 - U4 - V.01

DRAWN BY: Arlon Goforth III
CHECKED BY:

DRAWING INFORMATION:
MUSIC PLAN

T-103

General Construction Notes

1. USE 4300 TRANSFORMER INTERFACE IN PLACE OF 1321 WHEN POWER LINE CARRIER DEVICES ARE BEING USED (SEE INSTRUCTIONS FOR CONNECTIONS)

2. USE 22 GUAGE WIRE [STRANDED & SHIELDED] WITH THESE COLORS BELOW
   REQUIRED
   USE GREEN WIRE FOR LOW
   USE WHITE WIRE FOR HI
   USE RED WIRE HOT WIRE WHEN NEEDED
   USE BLACK WIRE FOR GROUND
   DO NOT USE THE GROUND CABLE IN WIRE

3. MAXIMUM LOOP RESISTANCE: (EACH ZONE) 300 OHMS
   (PLUS EOLR) RESPONSE, ZONES 1-8: 10, 350, OR 700 MSEC (PROGRAMMABLE)

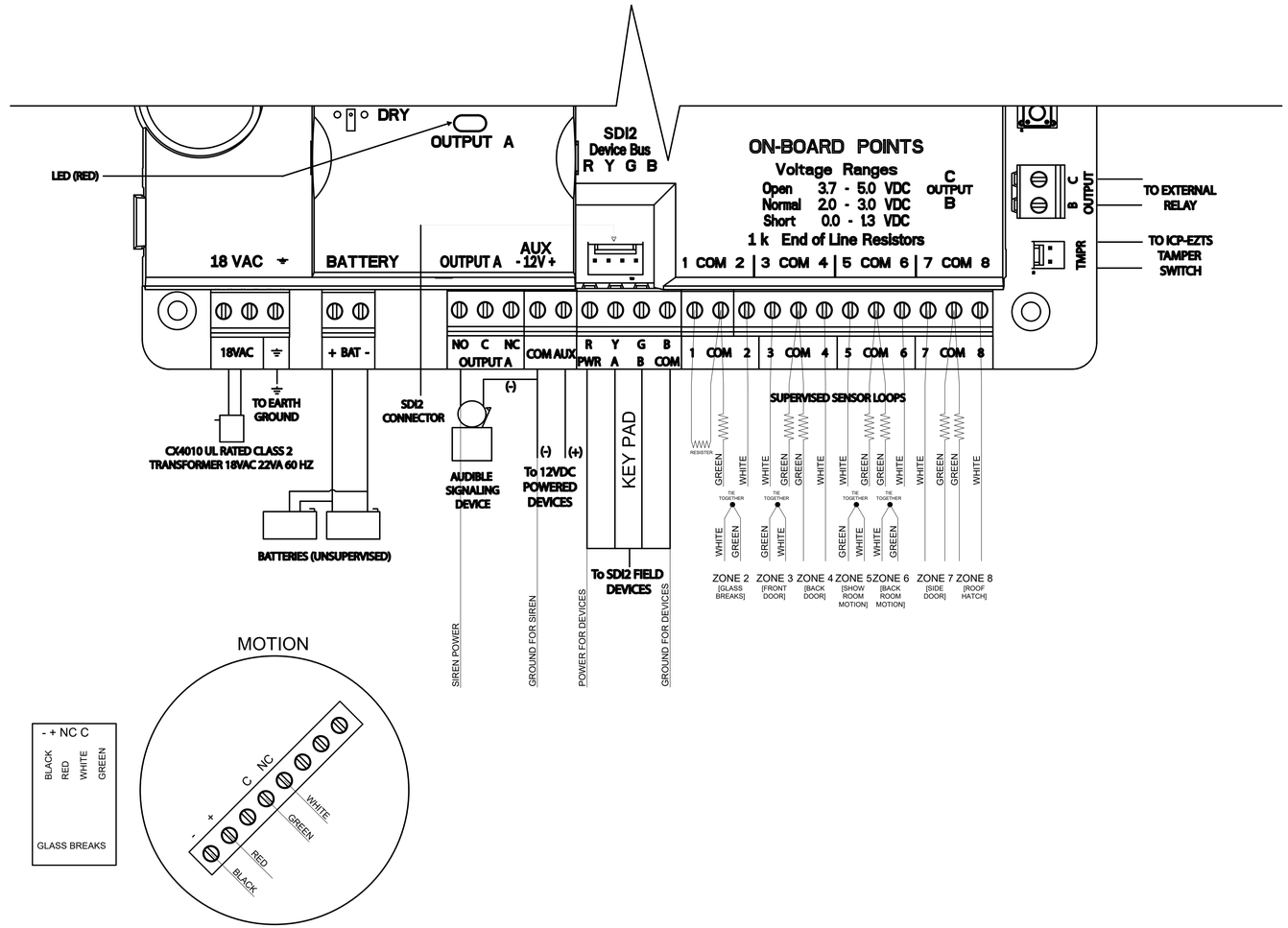
4. THIS DEVICE COMPLIES WITH PART 15 OF FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEIVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

5. COMPLIES WITH FCC RULES, PART 68. FCC REGISTRATION NO. AC398U-68192-AL-E RINGER EQUIVALENCE: 0.7B.

6. FOR COMPLETE INFORMATION SEE INSTRUCTIONS N7526V4

7. THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 74 (NATIONAL FIRE PROTECTION ASSOC., BATTERYMARCH PARK, QUINCY, MA 02269). PRINTED INFORMATION DESCRIBING PROPER INSTALLATION, OPERATION, TESTING, MAINTENANCE, EVACUTION PLANNING AND REPAIR SERVICE IS TO BE PROVIDED WITH THIS EQUIPMENT.

8. GROUND PANEL ONLY
   DO NOT USE GROUND WIRES FOR DEVICES IN PANEL



1 Security Wiring Schematic and Details

Diagram - Not To Scale

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CASEY'S CONSTRUCTION DIVISION
One Convenience Blvd., P.O. Box 3001, Ankeny, Ia. 50021 515-965-6100

PROJECT: 2023 "U4" STYLE STORE V.01 FLAT ROOF

PUBLISHED: 03/15/23

REVISED ON:

DRAWING INFORMATION: 2023 - U4 - V.01

DRAWN BY: Arlon Goforth III

CHECKED BY:

DRAWING INFORMATION: SECURITY WIRING SCHEMATIC & DETAILS

T-601