# ADDITION / ALTERATION
# CIRCLE K
## STORE # 2709831
## NWC I-75 & W. US HWY 90
## LAKE CITY, FL 32055
### A PROJECT FOR:
### CIRCLE K

Columbia County Building Department — Plans Reviewed for Code Compliance — State of Florida

## ABBREVIATIONS

& = AND
L = ANGLE
@ = AT
℄ = CENTERLINE
ø = DIAMETER OF ROUND
# = POUND OR NUMBER
(E) = EXISTING
(R) = RELOCATED
(N) = NEW

A.B. = ANCHOR BOLT
A.F.F. = ABOVE FINISH FLOOR
AGGR. = AGGREGATE
AL. = ALUMINUM
APPROX. = APPROXIMATE
ARCH. = ARCHITECTURAL
ASPH. = ASPHALT

BD. = BOARD
BITUM. = BITUMINOUS
BLDG. = BUILDING
BLKG. = BLOCKING
BM. = BEAM
BOT. = BOTTOM
BW = BACK OF WALK

CAB. = CABINET
CEM. = CEMENT
CER. = CERAMIC
C.I. = CAST IRON
C.J. = CONTROL JOINT
CLG. = CEILING
CLR./CL. = CLEAR
COL. = COLUMN
CONC. = CONCRETE
CONSTR. = CONSTRUCTION
CONT. = CONTINUOUS
CTSK. = COUNTERSUNK
CNTR. = COUNTER
CTR. = CENTER

DEPT. = DEPARTMENT
DET. = DETAIL
DIA. = DIAMETER
DIM. = DIMENSION
DISP. = DISPENSER
DN. = DOWN
DR. = DOOR
D.S. = DOWNSPOUT
DWG. = DRAWING

E = EAST
EA. = EACH
EL. = ELEVATION
ELEC. = ELECTRICAL
EQ. = EQUAL
EXP. = EXPANSION
EXT. = EXTERIOR

F.F. = FLOOR FINISH
FDN. = FOUNDATION
FG = FINISH GRADE
FIN. = FINISH
FL. = FLOOR
FLASH'G = FLASHING
FLUOR. = FLUORESCENT
F.O.C. = FACE OF CONCRETE
F.O.F. = FACE OF FINISH
F.O.P. = FACE OF PANEL
F.R.P. = FIBERGLASS REINFORCED PANEL
F.S. = FLOOR SINK
FT. = FOOT OR FEET
FTG. = FOOTING
FURR. = FURRING
FUT. = FUTURE

G.A. = GAUGE
GALV. = GALVANIZED
GL. = GLASS
GR. = GRADE
GB = GRADE BREAK
GSM = GALVANIZED SHEET METAL
GYP. = GYPSUM
GYP.BD. = GYPSUM BOARD

H.B. = HOSE BIBB
HDWE. = HARDWARE
H.M. = HOLLOW METAL
HORIZ. = HORIZONTAL
HR. = HOUR
HGT. = HEIGHT

IE = INVERT ELEVATION
I.D. = INSIDE DIAMETER
INSUL. = INSULATION
INT. = INTERIOR

JT. = JOINT

LAM. = LAMINATE
LAV. = LAVATORY
LIP = EDGE OF SWALE OR GUTTER

MAX. = MAXIMUM
MECH. = MECHANICAL
MEMB. = MEMBRANE
MFR. = MANUFACTURER
MIN. = MINIMUM
MISC. = MISCELLANEOUS
M.O. = MASONRY OPENING
MTD. = MOUNTED
MUL. = MULLION

N. = NORTH
N.I.C. = NOT IN CONTRACT
NO. OR # = NUMBER
NOM. = NOMINAL
N.T.S. = NOT TO SCALE

O.C. = ON CENTER
O.D. = OUTSIDE DIAMETER
OPNG. = OPENING
OPP. = OPPOSITE

PB = LEVEL PAVEMENT AT DISPENSER PIT BOX
PL. = PLATE
P.LAM. = PLASTIC LAMINATE
PLYWD. = PLYWOOD
P.O.C. = POINT OF CURVATURE
P.O.S. = POINT OF SALE

R OR RAD. = RADIUS
R.D. = ROOF DRAIN
REF. = REFERENCE
REINF. = REINFORCED
REQ'D = REQUIRED
RM. = ROOM
R.O. = ROUGH OPENING
R.O.W. = RIGHT OF WAY

SCHED. = SCHEDULE
SECT. = SECTION
SHT. = SHEET
SIM. = SIMILAR
SPEC. = SPECIFICATION
SQ. = SQUARE
S.ST. = STAINLESS STEEL
STD. = STANDARD
STL. = STEEL
STOR. = STORAGE
STRL. = STRUCTURAL
SYM. = SYMMETRICAL

T.C. = TOP OF CURB
TG = TOP OF GRATE
T.& G. = TONGUE & GROOVE
THK. = THICK
TI = TOP OF ISLAND
T.O. = TOP OF
TOW = TOP OF WALL
TP = TOP OF PAVEMENT
TS = TOP OF SLAB
TW = TOP OF WALK
TYP. = TYPICAL

UNF. = UNFINISHED
U.O.N. = UNLESS OTHERWISE NOTED

VERT = VERTICAL
V.I.F. = VERIFY IN FIELD

W. = WEST
W/ = WITH
W.C. = WATER CLOSET
WD. = WOOD
W/O = WITHOUT
WP. = WATERPROOF
WSCT. = WAINSCOT
WT. = WEIGHT

## SYMBOL LEGEND

ROOM NUMBER IDENTIFICATION — ROOM NAME / XXX
DOOR NUMBER IDENTIFICATION — 000
WINDOW NUMBER IDENTIFICATION — XX / XX
DETAIL MARK — # / Sheet
INTERIOR PARTITION TYPE — X
REVISION MARK — #
WALL SECTION — # / Sheet
ELEVATION INDICATOR
CEILING HEIGHT — X' X"
KEYED NOTE — X

## PROJECT DATA

PROJECT ADDRESS: NWC I-75 & W. US HWY 90, LAKE CITY, FL 32055

PROJECT NAME: CIRCLE K CONVENIENCE STORE & FUEL PUMPS

PROJECT DESCRIPTION: PROPOSAL FOR ADDITION TO EXISTING STORE WITH ASSOCIATED FUEL SALES CONSISTING OF A 969 S.F. CONVENIENCE STORE AND A 4,608 S.F. DIESEL CANOPY WITH 7 FUEL PUMPS.

PARCEL NUMBER: 35-3S-16-02524-001, 35-3S-16-02524-102 & 35-3S-16-02524-111

PARCEL/SITE AREA: 3.46 AC. (150,717 S.F.)

EXISTING ZONING: AG & RR-1 (TO BE REZONED AS C-2)
GENERAL PLAN LAND USE DESIGNATION: LOW INTENSITY COMMERCIAL

MAX. BUILD. HEIGHT: 23'-10" PROVIDED (40' ALLOWED)

MAX. CANOPY HEIGHT: 20'-6" PROVIDED (55' ALLOWED)

| | |
|---|---|
| GROSS C-STORE AREA (EXISTING = 5327 S.F. / ADDITION = 1,000 S.F.: | 6,327 S.F. |
| GROSS FUEL CANOPY: | 4,608 S.F. |
| TOTAL GROSS BUILDING AREA (C-STORE + FUEL CANOPY) | 10,935 S.F. |

GROSS LOT COVERAGE

| | | |
|---|---|---|
| C-STORE BLDG. AREA/SITE AREA= | 6,327 S.F. / ±150,717 S.F. = 4.20 % | |
| ALLOWABLE AREA (BUILDING) | | 9,000 S.F. (COMPLIES) |
| ALLOWABLE AREA (FUEL CANOPY) | | 12,500 S.F. (COMPLIES) |
| CONSTRUCTION TYPE (BUILDING): | V-B | NON-SPRINKLERED |
| CONSTRUCTION TYPE (FUEL CANOPY): | II-B | NON-SPRINKLERED |
| OCCUPANCY: | M (MERCANTILE) | BUILDING + CANOPY |

PARKING REQUIRED: 6,327 SF/350 = 19 PARKING STALLS (INCLUDING 2 REQ'D ACCESSIBLE STALLS)

PARKING PROVIDED: 25 STALLS (INCLUDING 2 REQ'D ACCESSIBLE STALLS)

BICYCLE PROVIDED: 1 BICYCLE RACKS PROVIDED

CONVENIENCE STORE BUILDING AREA:

| | | |
|---|---|---|
| 1. ACCESSORY STORAGE AREA, MECHANICAL EQUIPMENT ROOM: | | |
| A. AREA OF BACKROOM & MANAGER (EXISTING TO REMAIN): | = | 514 S.F. |
| B. AREA OF EQUIPMENT ROOM (EXISTING TO REMAIN): | = | 161 S.F. |
| C. AREA OF WALK-IN COOLER, FREEZER, & COLD VAULT (EXISTING TO REMAIN): | = | 848 S.F. |
| D. CASHIER & PREP AREA (EXISTING TO REMAIN): | = | 557 S.F. |
| | = | 2,080 S.F. |
| 2. SALES AREA (EXISTING TO REMAIN): | = | 2,379 S.F. |
| 3. AUXILIARY AREAS (HALLWAY, RESTROOMS): | | |
| A. EXISTING TO REMAIN: | = | 462 S.F. |
| B. NEW ADDITION: | = | 969 S.F. |
| TOTAL BUILDING AREA | = | 5,890 S.F. |

EXITING:

| | | | |
|---|---|---|---|
| 1. ACCESSORY STORAGE AREA, MECHANICAL EQUIPMENT ROOM: | 2,080 S.F./300 | = | 7 OCC. |
| 2. SALES AREA: | 2,379 S.F./30 | = | 80 OCC. |
| 3. AUXILIARY AREAS (HALLWAY, RESTROOMS) | 1,431 S.F./60 | = | 24 OCC. |
| TOTAL OCCUPANT LOAD | | = | 111 OCCUPANTS |

| | |
|---|---|
| EXITS REQUIRED: | 2 |
| EXITS PROVIDED: | 2 |
| EGRESS WIDTH REQUIRED: | 111 x 0.2 = 22.2" |
| EGRESS WIDTH PROVIDED: | 34"x3 = 102" |

CODES USED:
2020 FBC / 2018 IBC W/ AMENDMENTS
2020 FBCM/ 2018 IMC W/ AMENDMENTS
2020 FBCP / 2018 IPC W/ AMENDMENTS
2017 NEC
2020 FBC FG/ 2018 IFGC W/ AMENDMENTS
2020 FFPC/ 2018 IFC W/ AMENDMENTS / NFPA 101 LSC 2018 /NFPA 1 FC 2018
2020 FLORIDA ACCESSIBILITY CODE
2020 FBC EC/ 2018 IECC

PLUMBING FIXTURE COUNT: BASED ON FBC (TABLE 403.1+ IBC & TABLE A (50% MALE & 50% FEMALE)
111 OCCUPANTS = 56M & 55F

| | WATERCLOSETS 1/500 — M & F | | LAVATORIES 1/750 — M & F | | URINAL | SERVICE SINK |
|---|---|---|---|---|---|---|
| | MALE | FEMALE | MALE | FEMALE | MALE | |
| REQUIRED | 1 | 1 | 1 | 1 | 0 | 1 |
| PROVIDED | 3 | 4 | 3 | 4 | 4 | 1 |

## VICINITY MAP

NORTH

## PROJECT TEAM

OWNER
CIRCLE K
2SW CEDAR ST. SUITE M
PENSACOLA, FL 32502
ATTN: CHRIS ROICK
E-MAIL: CROICK@CIRCLEK.COM
TEL: (904) 923-0024

ARCHITECT
RDC
11921 FREEDOM DRIVE #1110
RESTON, VA 20190
AOR: RALPH WATSON
ATTN: RASHMI MEHADIA
E-MAIL: rashmi.mehadia@rdcollaborative.com
TEL: (216) 233-6093

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC
189 S. ORANGE AVE, SUITE 100
TALLAHASSEE, FL 32308
ATTN: JAROD C. STUBBS, P.E.
E-MAIL: jarod.stubbs@kimley-horn.com
TEL: (850) 999-4241

STRUCTURAL ENGINEER
JOHNSTON BURKHOLDER ASSOCIATES
930 CENTRAL STREET
KANSAS CITY, MO 64105
ATTN: JOSEPH N. FLANAGAN
E-MAIL: flanagan@jbaengr.com
TEL: (816) 214-4550

MECHANICAL/PLUMBING ENGINEER
BENCHMARK GROUP
1805 N. 2ND ST. SUITE 5274
ROGERS, AR 72756
ATTN: JASON M. SCATES P.E.
E-MAIL: jms@teamofchoice.com
TEL: (479) 636-5004

ELECTRICAL ENGINEER
BENCHMARK GROUP
1805 N. 2ND ST.
ROGERS, AR 72756
ATTN: RANDALL C. HAASE P.E.
E-MAIL: rch@teamofchoice.com
TEL: (479) 631-5566

FUEL CANOPY STRUCTURAL ENGINEER
McGEE CORPORATION
12701 EAST INDEPENDENCE BLVD
P.O. BOX 1375
MATTHEWS, NC 28106-1375
E-MAIL: tom.haggood@mcgeecorp.com
TEL: (704) 882-1500
ATTN: TOM HAGOOD

FUEL GAS ENGINEER
MDM SERVICES, INC.
1055 KATHLEEN ROAD
LAKELAND, FL 33805
ATTN: DAMIAN D. LESLIE, P.E.
TEL: (863) 646-9130

## BUILDING ENVELOPE REQUIREMENTS

GENERAL (PRESCRIPTIVE) – C402.1.3 AND C402.4
CLIMATE ZONE 2A
ROOF INSULATION – R25ci; PROVIDED R25ci
EXTERIOR MASS WALL INSULATION – R5.7ci ; PROVIDED R5.7ci.
METAL FRAMED WALLS – R13 + R5ci
UNHEATED SLABS – NOT REQUIRED
U-FACTOR– STOREFRONT – U 0.5 PROVIDED U 0.27
ENTRANCE DOOR – U 0.83 PROVIDED U 0.27

## FLORIDA PRODUCT APPROVALS/ NOA

| CATEGORY | DESCRIPTION | MFR | MODEL # | FL #/ NOA # |
|---|---|---|---|---|
| STOREFRONT | ALUM. STOREFRONT L.M.I. | KAWNEER | TRIFAB 1T | FL14287.1 |
| DOOR | SERVICE DOOR | CURRIES, DIV. OF AADG, INC. | 747 SINGLE FLUSH DOOR | FL8394.7 |
| ROOF | ROOFING SYSTEM | FIRESTONE | FIRESTONE ULTRAPLY TPO SINGLE PLY ROOF SYSTEM | FL10264.1 |

## SOIL TREATMENT

CONTRACTOR TO PROVIDE AN EPA-REGISTERED TERMITICIDE COMPLYING WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, IN AN AQUEOUS SOLUTION FORMULATED TO PREVENT TERMITE INFESTATION. PROVIDE QUANTITY REQUIRED FOR APPLICATION AT THE LABEL VOLUME AND RATE FOR THE MAXIMUM TERMITICIDE CONCENTRATION ALLOWED FOR EACH SPECIFIC USE, ACCORDING TO PRODUCT'S EPA-REGISTERED LABEL.

## DEFERRED SUBMITTALS

DEFERRED SUBMITTALS: (PER 2020 FBC)

DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WHO SHALL REVIEW THEM. G.C. WILL FORWARD DESIGN PROFESSIONAL'S APPROVED DEFERRED SUBMITTAL TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO INSTALLATION. A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING SHALL BE MADE ON THE DEFERRED SUBMITTAL. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

DEFERRED SUBMITTAL ITEMS:
SIGNAGE

## CIRCLE K GENERAL NOTE

UNDER NO CIRCUMSTANCES WILL CIRCLE K ALLOW A CHANGE OF SUPERINTENDENTS DURING THE PROJECT(S).

## GENERAL NOTES

1. COORDINATE ALL EQUIPMENT PLACEMENTS, SUPPORTS, AND CONNECTIONS WITH EQUIPMENT SUPPLIERS.
2. COMPLY WITH ALL LOCAL BUILDING CODES, ORDINANCES, AND CONSTRUCTION STANDARDS.
3. FOR COMPLETE MECHANICAL SYSTEM LOCATIONS AND SIZES OF SUPPLY, RETURN, AND DUCTWORK, SEE MECHANICAL PLANS.
4. FOR COMPLETE ELECTRICAL SYSTEM LOCATIONS AND SIZES OF LIGHTING, OUTLETS, PHONES, AND ELECTRICAL PANELS, SEE ELECTRICAL PLANS.
5. FOR COMPLETE PLUMBING LOCATIONS, SIZES, AND FIXTURE TYPES, SEE PLUMBING PLANS.
6. ALL NEW WALLS SHALL BE TAPED, TEXTURED, AND PAINTED PER OWNERS COLOR SELECTION / SPECIFICATIONS.
7. MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED.
8. ONE SET OF STAMPED, APPROVED DRAWINGS MUST BE MAINTAINED ON-SITE AND MADE AVAILABLE TO CITY INSPECTORS ON DEMAND.
9. ALL WORK SHALL BE FURNISHED AND INSTALLED IN COMPLIANCE WITH APPLICABLE BUILDING CODES AND THE HIGHEST PROFESSIONAL WORKMANSHIP OF THE BUILDING TRADES PERFORMING UNDER THIS CONTRACT.
10. ALL REQUIRED CONTROLLED INSPECTIONS SHALL COMPLY WITH THE LOCAL BUILDING CODES.
11. ALL DIMENSIONS SHALL BE FIELD CHECKED, CHECKED IN SHOP, AND VERIFIED PRIOR TO THE PERFORMANCE OF ANY WORK, AND THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF AN DISCREPANCIES IN WRITING BEFORE PERFORMANCE OF THE WORK.
12. GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES AND SHALL BE RESPONSIBLE FOR THE SCHEDULING OF THE WORK.
13. ELECTRICAL SYSTEMS SHALL BE INSTALLED PER N.E.C. AND IN ACCORDANCE WITH ALL APPLICABLE UTILITY COMPANY SPECIFICATIONS AND MUNICIPAL JURISDICTIONAL CODES.
14. ALL PLUMBING AND ELECTRICAL PIPING CONDUIT SHALL BE CONCEALED EXCEPT AS OTHERWISE SPECIFIED.
15. ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN ENGINEER REGISTERED IN FLORIDA AND SUBMITTED TO THE ARCHITECT.
16. COORDINATION OF PLANS AND SPECIFICATIONS: THE GENERAL CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY APPARENT ERROR OR OMISSION. HE SHALL IMMEDIATELY NOTIFY THE ARCHITECT, THE ARCHITECT WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS MAY BE DEEMED NECESSARY FOR FULFILLING THE INTENT OF THE PLANS AND SPECIFICATIONS.
17. PROVIDE METAL ACCESS DOORS TO DUCTS AND OTHER MECHANICAL/ELECTRICAL EQUIPMENT THROUGH SPACES, OR CEILINGS AS REQUIRED BY MECHANICAL/ELECTRICAL DRAWINGS AND THE APPLICABLE REQUIREMENTS OF THE BUILDING CODES (BUILDING, MECHANICAL, ELECTRICAL).
18. PROPER STANDARDS OF CONSTRUCTION SHALL BE USED AS RECOMMENDED AS ACCEPTABLE STANDARDS IN THE INDUSTRY FOR ALL CONSTRUCTION EVEN IF NOT SPECIFIED IN DETAIL.
19. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
20. PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR THE CORRECTNESS OF ALL DIMENSIONS.
21. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE LOCATE AND CONFIRM ALL UNDERGROUND/ OVERHEAD PLUMBING AND ELECTRICAL STUB UPS.
22. GENERAL CONTRACTOR TO CAULK AND SEAL ALL EXPANSION JOINTS AT ALL INTERIOR CONCRETE PRIOR TO FLOORING.
23. ALL EXPOSED UNFINISHED METAL AND WOOD SHALL BE PAINTED AS PER SPECIFICATION, PAINT TO MATCH ADJACENT COLOR.
24. GENERAL CONTRACTOR SHALL ENCLOSE, SEAL, AND COVER ALL PIPE, CONDUIT, DUCT, AND STRUCTURAL PENETRATIONS IN ALL WALLS.
25. UNLESS OTHERWISE NOTED, DIMENSIONS ARE TO THE FACE OF MASONRY, FACE OF CONC. AND THE FACE OF SHEATHING.
26. IN THE EVENT OF DISCREPANCIES BETWEEN ANY DRAWINGS AND/OR SPECIFICATIONS, THE MORE RESTRICTIVE CONDITION SHALL BE DEEMED AS THE CONTRACT REQUIREMENT, UNLESS OTHERWISE STATED.
27. GENERAL CONTRACTOR TO MAINTAIN ROAD CLEANLINESS DURING CONSTRUCTION.

## GENERAL BIDDING NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION AND SUBMITTALS TO UTILITY COMPANIES FOR THIS PROJECT.
2. CONTRACTOR SHALL PROVIDE UNIT PRICING TO OWNER ON ALL PHONE, GAS, TELECOMMUNICATION, AND POWER COST FOR THIS PROJECT INCLUDING BUT NOT LIMITED TO TRENCHING, CONDUIT, LINE PULLS, CONNECTION, ETC.
3. CONTRACTOR SHALL BID THIS PROJECT COMPLETELY WITH NO EXCEPTIONS UNLESS INSTRUCTED BY OWNER. CONTRACTOR SHALL PROVIDE ALLOWANCES ON ANY ITEM THAT CAN NOT BE RESOLVED DURING THE BID PROCESS.
4. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL UTILITY CONNECTIONS, EXISTING PLUMBING TAPS, ELECTRICAL PANEL LOCATIONS, GAS METERS AND MECHANICAL EQUIPMENT AGAINST THE PLANS AND REPORT ANY DISCREPANCIES DURING THE BID PROCESS
5. CONTRACTOR SHALL BE RESPONSIBLE FOR CLARIFICATION OF DOCUMENTS. SHOULD A BIDDER FIND DISCREPANCIES IN OR OMISSIONS FROM THE DRAWINGS OR DOCUMENTS, OR SHOULD HE BE IN DOUBT AS TO THEIR MEANING, HE SHALL NOTIFY THE ARCHITECT FIVE DAYS OR MORE BEFORE DATE SET TO RECEIVE BIDS, WHO WILL SEND, AFTER CONSIDERATION, IDENTICAL INSTRUCTIONS TO ALL BIDDERS. IN THE EVENT CLARIFICATION IS DEEMED NECESSARY, NEITHER OWNER NOR ARCHITECT WILL BE RESPONSIBLE FOR ORAL INSTRUCTIONS.
6. GENERAL CONTRACTOR SHALL VERIFY GOVERNING REQUIREMENTS PRIOR TO BID AND ALL REQUIREMENTS FOR A COMPLETE FIRE SPRINKLER SYSTEM ARE TO BE INCLUDED IN BID IF APPLICABLE.
7. THE ARCHITECT ASSUMES THE GENERAL CONTRACTOR HAS INCLUDED IN HIS BID/PRICING THE HIGHEST QUALITY AND GREATEST QUANTITY FOR THE PURPOSE OF RESOLVING ANY CONFLICTS IN THE CONSTRUCTION DOCUMENTS WHICH ARE IMPLIED OR UNDEFINED.
8. ALL BID NUMBERS SHOULD INCLUDE BREAKDOWN OF UNIT PRICE.
9. CONTRACTOR TO BASE BID ON PROVIDING 3 FIRE EXTINGUISHERS.

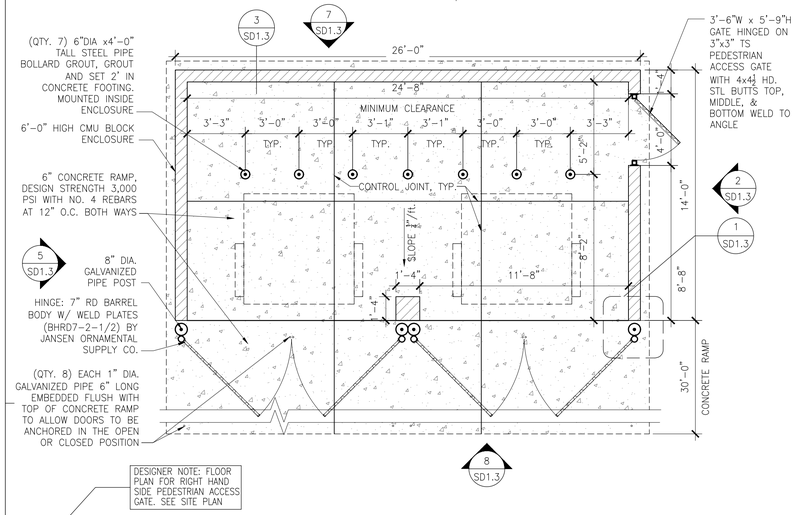
## HEALTH DEPT. GENERAL NOTES TO GC

1. WALK-IN UNIT WALLS, CEILING, AND FLOOR/WALL JUNCTURES SHALL BE METAL OR EQUAL AND PROPERLY COVED.
2. FLASH, TRIM, OR CAULK SPACES BETWEEN WALK-IN UNIT AND ADJACENT WALLS.
3. WALK-IN UNITS OR OTHER LARGE EQUIPMENT/SURFACES WITH SPACES 30 INCHES OR LESS IN HEIGHT BETWEEN THE TOP SURFACES AND THE CEILING REQUIRE FLASHING OR CLOSING OFF IN A CLEAN, TIGHT VERMIN PROOF MANNER.
4. ALL WOOD SHELVING OR WOODWORK SHALL BE SANDED SMOOTH, FREE OF OPEN JOINTS AND SEALED OR PAINTED TO A SMOOTH, FINAL FINISH.
5. PROVIDE AN APPROVED SMOOTH, COVE BASE (3/8" RADIUS OR GREATER) AT WALL AND FLOOR JUNCTURES AND EQUIPMENT BASES THROUGHOUT THE ESTABLISHMENT.
6. PROVIDE AN ADDITIONAL WATER LINE AT THE MOP SINK/UTILITY AREA TO SUPPLY CHEMICAL DISPENSERS. DO NOT USE THE MOP SINK FAUCET. Y-VALVES AND DOWNSTREAM SHUT-OFF DEVICES ARE NOT PERMITTED ON SINK FAUCETS OR CHEMICAL DISPENSERS.
7. ALL CONSTRUCTION SHALL MEET CURRENT COUNTY HEALTH CODE REQUIREMENTS.

## SHEET INDEX

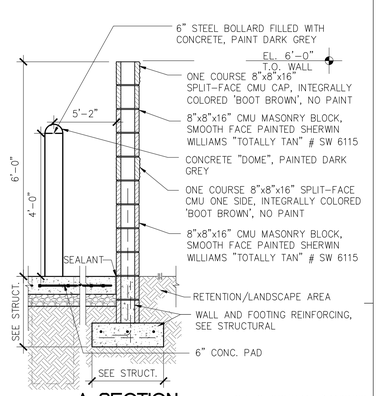
LEGEND
● SHEET ISSUED
○ SHEET ISSUED FOR REFERENCE AND COORDINATION ONLY

| | SHT.NO. | TITLE | DATE: 08/15/22 PERMIT & BID SET |
|---|---|---|---|
| GENERAL | G1.0 | COVER SHEET AND PROJECT INFORMATION | ● |
| SITE PLAN | SD1.3 | SITE DETAILS | ● |
| CIVIL | C0.0 | COVER SHEET | ● |
| | C1.0 | GENERAL NOTES | ● |
| | C1.1 | GENERAL NOTES | ● |
| | C2.0 | STORMWATER POLLUTION PREVENTION PLAN | ● |
| | C3.0 | EXISTING CONDITIONS & DEMOLITION PLAN | ● |
| | C3.1 | EXISTING CONDITIONS & DEMOLITION PLAN | ● |
| | C4.0 | OVERALL SITE PLAN | ● |
| | C4.1 | SITE PLAN | ● |
| | C4.2 | INTERSECTION MODIFICATION PLAN | ● |
| | C4.3 | TRUCK TURNING MOVEMENTS | ● |
| | C4.4 | TRUCK TURNING MOVEMENTS | ● |
| | C4.5 | TRUCK TURNING MOVEMENTS | ● |
| | C5.0 | PAVING, GRADING AND DRAINAGE PLAN | ● |
| | C6.0 | UTILITY PLAN | ● |
| | C7.0 | GENERAL CONSTRUCTION DETAILS | ● |
| | C7.1 | GENERAL CONSTRUCTION DETAILS | ● |
| | L1.00 | LANDSCAPE PLAN | ● |
| | L1.50 | LANDSCAPE DETAILS | ● |
| | L1.51 | LANDSCAPE SPECIFICATIONS | ● |
| | L2.00 | SCHEMATIC IRRIGATION PLAN | ● |
| | L2.50 | IRRIGATION DETAILS | ● |
| | L2.51 | IRRIGATION NOTES | ● |
| ARCHITECTURAL | A1.0 | EGRESS ACCESSIBILITY FLOOR PLAN | ● |
| | A1.1 | ACCESSIBILITY STANDARD, NOTES & DETAILS | ● |
| | AD1.2 | DEMOLITION FLOOR PLAN | ● |
| | A1.2 | FLOOR PLAN & ROOM FINISH SCHEDULE | ● |
| | A1.3 | DIMENSIONED FLOOR PLAN, WALL TYPES AND ENLARGED RESTROOM | ● |
| | A1.4 | EQUIPMENT PLAN & LIST | ● |
| | A1.6 | REFLECTED CEILING PLAN | ● |
| | A1.7 | ROOF PLAN AND DETAILS | ● |
| | A1.10 | FLOOR TILE PLAN | ● |
| | A2.1 | EXTERIOR ELEVATIONS | ● |
| | A3.1 | INTERIOR ELEVATIONS | ● |
| | A3.2 | INTERIOR ELEVATIONS | ● |
| | A4.0 | BUILDING SECTIONS | ● |
| | A5.1 | WALL SECTIONS | ● |
| | A5.2 | WALL SECTIONS | ● |
| | A6.0 | ROOM KEY PLAN, DOOR/WINDOW SCHEDULE & TYPES AND NOTES | ● |
| | A8.1 | EXTERIOR ARCHITECTURAL DETAILS | ● |
| | A8.2 | EXTERIOR ARCHITECTURAL DETAILS | ● |
| | A8.3 | EXTERIOR ARCHITECTURAL DETAILS | ● |
| | A9.1 | INTERIOR ARCHITECTURAL DETAILS | ● |
| | A9.2 | INTERIOR ARCHITECTURAL DETAILS | ● |
| | CA-4 | DIESEL CANOPY PLANS & ELEVATIONS | ● |
| STRUCTURAL | S0.1 | GENERAL NOTES | ● |
| | S0.2 | DIAGRAMS AND SCHEDULES | ● |
| | S0.3 | TABLE OF SPECIAL INSPECTION | ● |
| | S1.0 | FOUNDATION & FRAMING PLANS | ● |
| | S2.0 | FOUNDATION DETAILS | ● |
| | S2.1 | FOUNDATION DETAILS | ● |
| | S3.0 | ROOF FRAMING DETAILS | ● |
| | S4.0 | EXTERIOR WALL DETAILS | ● |
| MECHANICAL | M1.1 | MECHANICAL FLOOR PLAN | ● |
| | M1.1.1 | MECHANICAL ROOF PLAN AND DETAILS | ● |
| | M1.2 | MECHANICAL DETAILS (1 OF 2) | ● |
| | M1.2.3 | MECHANICAL NOTES | ● |
| | M1.3 | MECHANICAL SPECIFICATIONS | ● |
| PLUMBING | P1.1.1 | PLUMBING FLOOR PLAN | ● |
| | P1.2 | PLUMBING SPECIFICATIONS | ● |
| ELECTRICAL | E0.0 | ELECTRICAL COVER SHEET AND LEGEND | ● |
| | E0.1 | ELECTRICAL SPECIFICATIONS | ● |
| | E1.0 | ELECTRICAL SITE PLAN | ● |
| | E1.1 | ELECTRICAL SITE PLAN DETAILS | ● |
| | E2.0 | ELECTRICAL FLOOR PLAN | ● |
| | E5.0 | ELECTRICAL LIGHTING PLAN | ● |
| | E5.1 | IECC COMPLIANCE REPORT | ● |
| | E6.0 | ELECTRICAL CALCULATIONS & SCHEMATICS | ● |
| | E7.0 | ELECTRICAL PANEL SCHEDULES | ● |
| FUEL CANOPY | CS1 | CANOPY FOUNDATION SECTION AND DETAILS | ● |
| | CS2 | CANOPY ROOF PLAN & DETAILS | ● |
| | CS3 | CANOPY MISC. DETAILS | ● |
| FUEL PLAN | TK001 | COVER SHEET | ● |
| | TK002 | GENERAL NOTES | ● |
| | TK006 | EQUIPMENT LIST | ● |
| | TK007 | EQUIPMENT LIST | ● |
| | TK100 | FUEL PIPING PLAN | ● |
| | TK101 | TANK & PIPING DETAILS | ● |
| | TK102 | SCHEMATIC WIRING, PIPING & DETAILS | ● |
| | TK201 | STANDARD TANKS | ● |
| | TK301 | TYPICAL UST PLAN AND SECTIONS | ● |
| | TK500 | TANK SUMP DETAILS | ● |
| | TK501 | TANK SUMP DETAILS | ● |
| | TK502 | TANK TOP HARDWARE DETAILS | ● |
| | TK503.1 | DISPENSER SUMP DETAILS | ● |
| | TK504 | FUEL SYSTEM DETAILS | ● |
| | TK505 | DISPENSER DETAILS (HI FLOW DIESEL) | ● |
| | TK506 | HSD DETAILS | ● |
| | TK507 | TANK TOP HARDWARE DETAILS | ● |
| | TK508 | HAZARD ZONES | ● |
| | SE1.0 | FUEL ISL




## 9 TRASH ENCLOSURE (PLAN)

1/4"=1'-0"

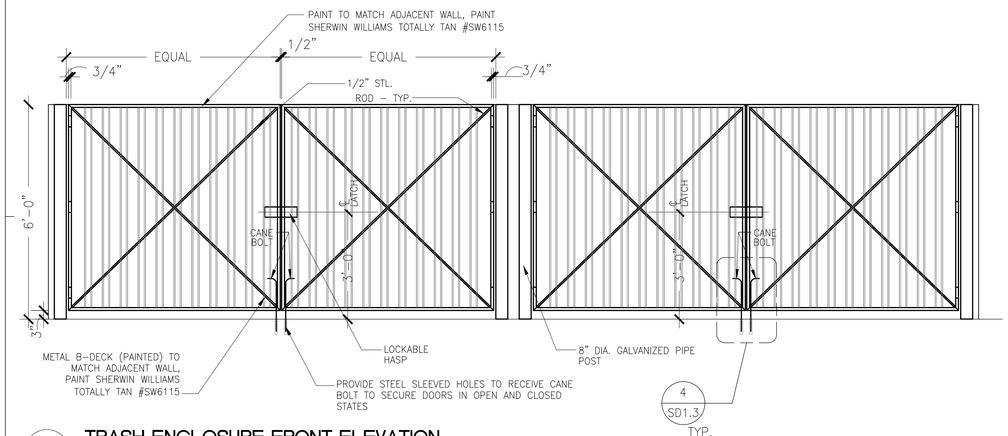



A-SECTION

SEE STRUCTURAL DRAWINGS

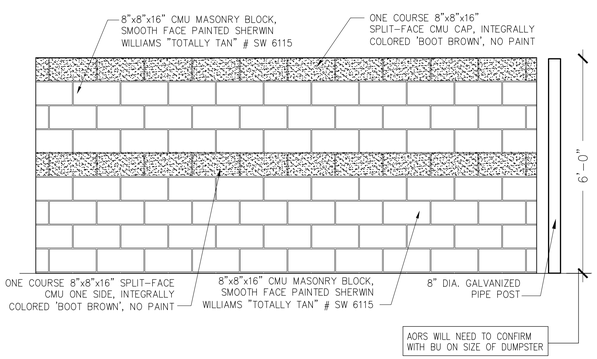
## 3 6'-0" TRASH ENCLOSURE

1/2"=1'-0"



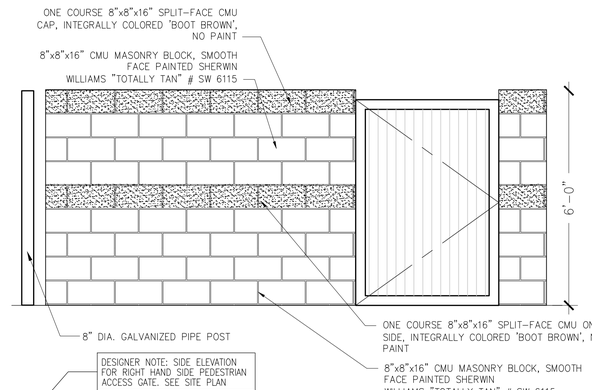

## 8 TRASH ENCLOSURE FRONT ELEVATION

1/2"=1'-0"



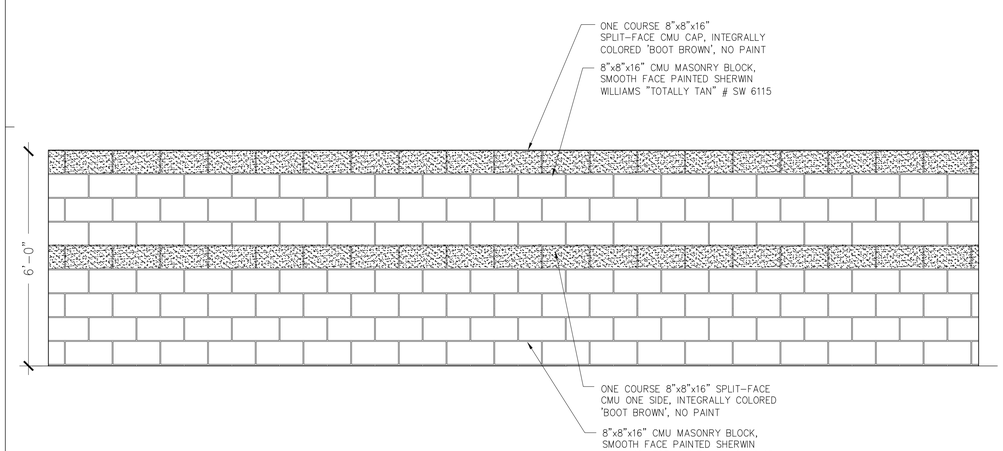

## 5 TRASH ENCLOSURE SIDE ELEVATION

1/2"=1'-0"



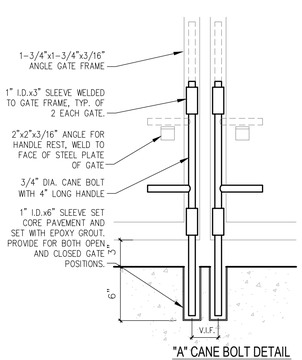

## 2 TRASH ENCLOSURE SIDE ELEVATION

1/2"=1'-0"

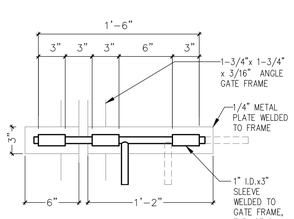



## 7 TRASH ENCLOSURE REAR ELEVATION

1/2"=1'-0"



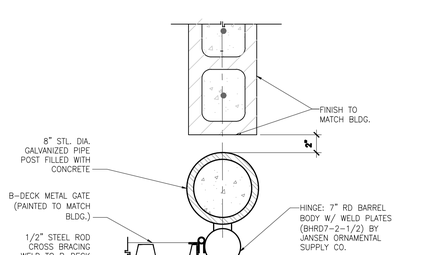

"A" CANE BOLT DETAIL




"B" GATE LATCH DETAIL

## 4 CANE BOLT DETAIL

1 1/2"=1'-0"




## 1 ENCLOSURE GATE HINGE

1 1/2"=1'-0"

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STATE OF FLORIDA · RALPH WATSON · REGISTERED ARCHITECT
AR100937
8.18.22
Ralph Watson

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

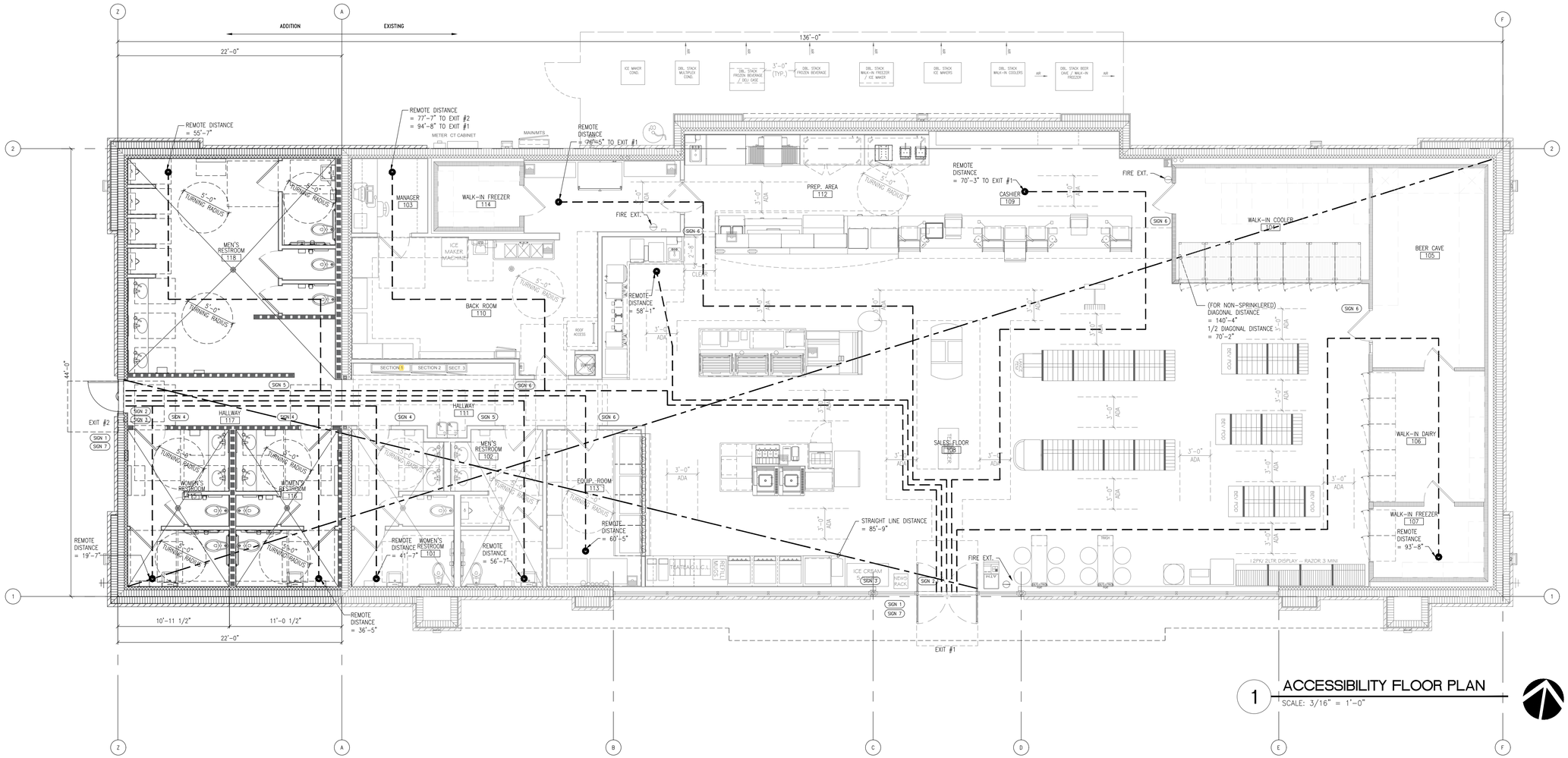
## SITE DETAILS

**SHEET NUMBER**

# SD1.3

Drawing Name: G:\2022\2204_Circle K - Lake City, FL\Documentation\ARCH_SD1.3_Site Details2.dwg Last Modified: Aug 18, 2022 - 1:12pm Plotted on: Aug 18, 2022 - 12:52pm by katelyn.arpolis

4625 NATIONAL PROTOTYPE - R1




## EXIT REQUIREMENTS: (NUMBER AND ARRANGEMENT OF EXITS)

| TRAVEL DISTANCE | COMMON PATH OF TRAVEL | |
|---|---|---|
| ALLOWABLE TRAVEL DISTANCE WITHOUT SPRINKLER | COMMON PATH PER 2014 FBC, 5TH EDITION TABLE 1014.3 OF TRAVEL DISTANCE WITHOUT SPRINKLER | ACTUAL COMMON PATH OF TRAVEL DISTANCE |
| 200 FT PER 2014 FBC, 5TH EDITION TABLE 1016.2 | 75 FT<br>30 FT IN SALES AREA | 30 FT. |
| **MINIMUM NO. OF EXITS** | **ARRANGEMENT MEANS OF EGRESS:** | |
| REQUIRED 2 | REQUIRED DISTANCE BETWEEN EXIT DOORS<br>WHERE TWO EXITS OR EXIT ACCESS DOORWAYS ARE REQUIRED FROM ANY PORTION OF THE EXIT ACCESS, THE EXIT DOORS OR EXIT ACCESS DOORWAYS SHALL BE PLACED A DISTANCE APART EQUAL TO NOT LESS THAN ONE-HALF OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING OR AREA TO BE SERVED MEASURED IN A STRAIGHT LINE BETWEEN EXIT DOORS OR EXIT ACCESS DOORWAYS. INTERLOCKING OR SCISSOR STAIRS SHALL BE COUNTED AS ONE EXIT STAIRWAY PER SECTION 1015.2.1 – 2014 FBC, 5TH EDITION | ACTUAL STRAIGHT LINE DISTANCE BETWEEN EXITS<br>EXIT #1 TO #2 = 85'-9" |
| PROVIDED 2 | | ACTUAL STRAIGHT LINE ACROSS PUBLIC AREA:<br>DIAGONAL AT PUBLIC AREA = 140'-4"<br>1/2 DIAGONAL = 70'-2" |

### LIFE SAFETY DATA:

CONSTRUCTION TYPE: VB (NON SPRINKLERED)

OCCUPANY CLASSIFICATION: M (MERCHANTILE)

MAXIMUM ALLOWABLE AREA: 9000 SF

ACTUAL BUILDING AREA: 4,921 SF EXISTING + 969 S.F. ADDITION = 5890 S.F.

ACTUAL BUILDING HEIGHT: 23'-10"

SALES AREA 2,379 SF / 30 SF PER PERSON = 80

AUXILARY AREA 1,430 SF (462 S.F. EXISTING & 969 S.F. ADDITION) / 60 SF PER PERSON = 24

ACCESS STOR. MECH EQUP RM AREA 2,080 SF / 300 PER PERSON = 7

TOTAL CALCULATED OCCUPANCY: 111
EXITS REQUIRED: 1-500 = 2

EXISTS PROVIDED: 2

MAXIMUM ALLOWABLE TRAVEL DISTANCE: 200 FT.

ACTUAL MAXIMUM TRAVEL DISTANCE: 94 FT.

CONCLUSION =

= 85'-9" IS GREATER THAN 70'-2" (MEETS CODE FOR NON-SPRINKLERED BUILDING)

## GENERAL NOTES

1. MEANS OF EGRESS SHALL BE ILLUMINATED WITH AT LEAST ONE-FOOT CANDLE AT THE FLOOR LEVEL (WALKING SURFACE). REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION

## LEGEND

= ROUTE FROM THE REMOTEST ROOM OR SPACE TO NEAREST EXIT.

= DIAGONAL DISTANCE OF THE BUILDING OR AREA

= STRAIGHT LINE DISTANCE BETWEEN EXITS

= MOST REMOTE POINT WITHIN THIS AREA

= EXIT TACTILE SIGN

= ILLUMINATED EXIT SIGN

= EMERGENCY LIGHT

= 2X4 LAY-IN FIXTURE W/ EMERGENCY BALLAST

= FIRE EXTINGUISHERS SHALL BE LOCATED PER THE REQUIREMENTS OF NFPA10. THE SIZE SHALL BE A MINIMUM OF 2-A-10-BC (MIN. OF 2) AND INSTALLED AT 48" MAX. A.F.F.

## ACCESSIBILITY SIGNS

SIGN 1 INTERNATIONAL SYMBOL OF ACCESSIBILITY

SIGN 2 "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS" LETTER MIN. 1" HIGH. SIGN MOUNTED ABOVE DOOR.

SIGN 3 TACTILE EXIT SIGN SHALL COMPLY SECTION 703.3, ICC / ANSI A117.1 2009

SIGN 4 MEN RESTROOM

SIGN 5 WOMEN RESTROOM

SIGN 6 EMPLOYEES ONLY

SIGN 7 FIRE FIGHTER'S NOTICE/WARNING SIGN FOR LIGHT-FRAME CONSTRUCTION, PER FLORIDA STATUTE NO. 633.027

NOTES:

INSPECTOR MAY REQUIRE ADDITIONAL EXIT SIGNS AT THE TIME OF FINAL INSPECTION.

SIGNAGE COMPANY AND GC TO BOTH MAKE SURE ALL UTILITY LINES HAVE BEEN LOCATED PRIOR TO DIGGING FOOTING.

GC RESPONSIBLE TO CALL AND HAVE UTILITIES LOCATED.

SIGNAGE COMPANY RESPONSIBLE TO CONFIRM THIS HAS BEEN DONE.

## ACCESSSIBILITY NOTES

1. ACCESS TO THESE FACILITIES SHALL BE PROVIDED AT PRIMARY ENTRANCES.
2. THE SLOPE OF PUBLIC WALKS SHALL NOT EXCEED MAX. – GROSS SLOPE 2%.
3. WALKING SURFACE SLOPING GREATER THAN 2% SHALL BE SLIP RESISTANT.
4. PROVIDE A 60"x60" MIN. LANDING ON STRIKE SIDE OF DOOR W/ 44" MIN. WIDTH IN DIRECTION OF TRAVEL.
5. WALKS SHALL EXTEND 24" TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARD THE WALK.
6. THE SLOPE OF RAMPS SHALL NOT EXCEED 1'-0" IN 15'-0" U.N.O.
7. RAMPS SHALL HAVE A NON-SLIP SURFACE.
8. RAMPS SHALL BE 48" WIDE MIN.
9. EVERY REQUIRED EXIT DOORWAY SHALL BE SIZED FOR A DOOR NOT LESS THAN 3 FT. WIDE BY NOT LESS THAN 6'-8" HIGH CAPABLE OF OPENING 90° AND MOUNTED SO THAT THE CLEAR WIDTH OF THE EXIT WAY IS 32" MIN.
10. THRESHOLD TO BE A MAX. 1/2" ABOVE ADJACENT FINISH FLOOR.
11. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS.
12. THE BOTTOM 10" OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
13. PROVIDE LEVER TYPE HARDWARE, PANIC BARS, PUSH – PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. (30" TO 44" A.F.F.)
14. EVERY EXIT DOOR SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT, FLUSH OR SURFACE BOLTS SHALL BE AUTOMATIC TYPE. LOCKABLE DOORS SHALL BE PROVIDED WITH A SIGN STATING "THESE DOORS TO REMAIN UNLOCKED DURING BUSINESS HOURS" IN MIN. 1" HIGH LETTERS.
15. EXIT SIGNS WHERE NOTED OR REQUIRED SHALL BE WORDED "EXIT" IN AND LETTERS HAVING THE PRINCIPAL STROKE OF NOT LESS THAN 3/4" WIDE AND 6" HIGH AND SHALL CONFORM TO ALL APPLICABLE CODES.
16. PROVIDE ILLUMINATED EXIT SIGNS AND EMERGENCY LIGHTING AT ALL EXIT CORRIDORS AS REQUIRED BY CODE. EMERGENCY LIGHTING SHALL PROVIDE ILLUMINATION OF ONE FOOT CANDLE AT FLOOR LEVEL.
17. DOORS TO ACCESSIBLE SANITARY FACILITIES SHALL BE IDENTIFIED BY 1/4" THICK GEOMETRIC SYMBOLS OF CONTRASTING COLOR, CENTERED ON THE DOOR AT A HEIGHT OF 60" AFF (12" EQUILATERAL TRIANGLE FOR MEN AND 12" DIAMETER CIRCLE FOR WOMEN). 12. POST INTERNATIONAL SYMBOL OF ACCESSIBILITY ON OR ADJACENT TO ALL ACCESSIBLE BUILDING ENTRANCES. LOCATION AS INDICATED BY OWNER.
18. THE MAXIMUM EFFORT REQUIRED TO OPERATE FIRE-RATED DOORS IS 15 LBS., EXIT DOORS IS 8.5 LBS. FOR EXTERIORS, AND 5 LBS. FOR INTERIOR DOORS.

1 ACCESSIBILITY FLOOR PLAN
SCALE: 3/16" = 1'-0"

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**PROFESSIONAL SEAL**

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Ralph Watson
Digitally signed by Ralph Watson
DN: cn=Ralph Watson, o=rdc, ou=rdcollaborative.com, email=ralph.watson@rdcollaborative.com, c=US
Date: 2022.08.29 09:58:58 -04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## EGRESS/ ACCESSIBILITY FLOOR PLAN

**SHEET NUMBER**

# A1.0

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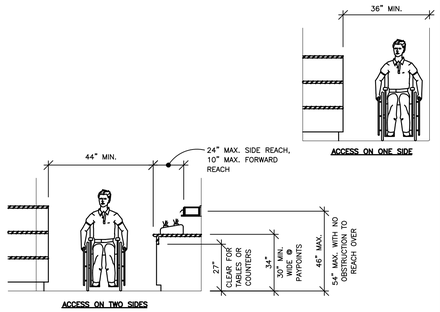
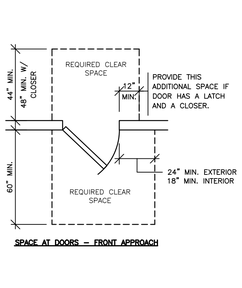
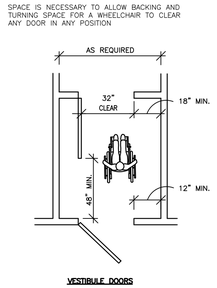
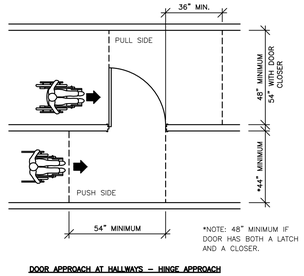
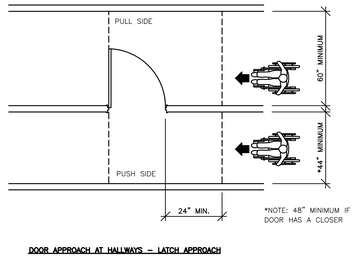
4625 NATIONAL PROTOTYPE - R1

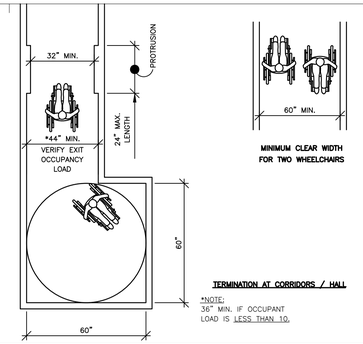


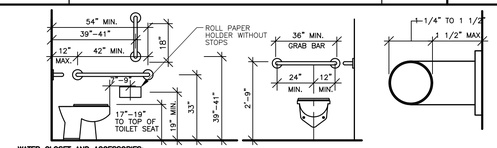




## K1 AISLES

NO SCALE

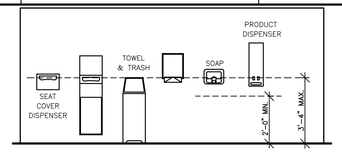
## K3 DOOR OPENINGS AT CORRIDORS / HALLS

NO SCALE










**WATER CLOSET AND ACCESSORIES:**

1. THE HEIGHT OF ACCESSIBLE WATER CLOSETS SHALL BE A MINIMUM OF 17" AND A MAXIMUM OF 19" MEASURED TO THE TOP OF A MAXIMUM 2" HIGH TOILET SEAT, EXCEPT THAT 3" SEATS SHALL BE PERMITTED ONLY IN ALTERATIONS WHERE THE EXISTING FIXTURE IS LESS THAN 15" HIGH.
2. THE CONTROLS FOR WATER CLOSET FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET AREAS. AUTOMATIC SPRING TO LIFTED POSITION SEATS ARE NOT ALLOWED.
3. THE FORCE REQUIRED TO ACTIVATE WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING MECHANISM CONTROLS, SHALL BE NO GREATER THAN 5 LBF. ELECTRONIC OR AUTOMATIC FLUSHING CONTROLS ARE ACCEPTABLE AND PREFERABLE.
4. WHERE TOWEL, SANITARY NAPKINS, WASTE RECEPTACLES, DISPENSERS, OR OTHER EQUIPMENT AND CONTROLS ARE PROVIDED, PROVIDE AT LEAST ONE OF EACH TYPE SHALL BE ON AN ACCESSIBLE ROUTE, WITH ALL OPERABLE PARTS, INCLUDING COIN SLOTS, WITHIN 40" FROM THE FINISHED FLOOR.
5. THE TOILET TISSUE DISPENSERS SHALL BE LOCATED ON THE WALL WITHIN 12" OF THE FRONT EDGE OF THE TOILET SEAT, MOUNTED BELOW THE GRAB BAR AT A MINIMUM HEIGHT OF 19", AND 36" MAXIMUM TO THE FAR EDGE FROM THE REAR WALL. DISPENSERS THAT CONTROL DELIVERY OR THAT DOES NOT PERMIT CONTINUOUS PAPER FLOW SHALL NOT BE USED.

**GRAB BARS:**

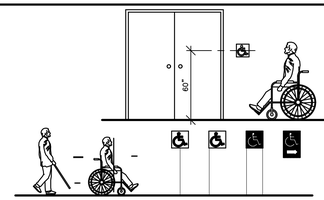
1. THE REAR GRAB BARS SHALL BE 36" LONG MINIMUM AND EXTEND FROM THE CENTERLINE OF THE WATER CLOSET 12" MINIMUM ON ONE SIDE AND 24" MINIMUM ON THE OTHER SIDE. THE REAR GRAB BAR SHALL BE SECURELY ATTACHED AND CENTERED 33" ABOVE AND PARALLEL TO THE FLOOR, EXCEPT THAT WHERE A TANK–TYPE TOILET IS USED, WHICH OBSTRUCTS PLACEMENT AT 33", THE BAR MAY BE AS HIGH AS 36", WITH A 1–1/2" MINIMUM BETWEEN THE BAR AND TOP OF THE TANK.
2. THE DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A GRAB BAR SHALL BE 1–1/4" TO 1–1/2" NOMINAL, OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. IF GRAB BARS ARE MOUNTED ADJACENT TO A WALL, THE SPACE BETWEEN THE WALL AND THE GRAB BARS SHALL BE 1–1/2".
3. THE STRUCTURAL STRENGTH OF THE GRAB BARS, FASTENERS, AND MOUNTING DEVICES SHALL MEET THE FOLLOWING SPECIFICATIONS:
   A) BENDING STRESS IN A GRAB BAR OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF A 250–LB POINT LOAD SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT.
   B) SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY THE APPLICATION OF A 250–LB POINT LOAD SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR OR SEAT, AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESS SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
   C) SHEAR FORCE INDUCED IN FASTENER OR MOUNTING DEVICES FROM THE APPLICATION OF A 250–LB POINT LOAD SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER HAS THE SMALLER ALLOWABLE LOAD.
   D) TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF A 250–LB POINT LOAD, PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF A 250–LB POINT LOAD, SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND SUPPORTING STRUCTURE.
   E) GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
4. THE GRAB BARS AND ANY WALL OR OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8"

## GENERAL NOTES

1. ACCESSIBILITY STANDARDS MAY VARY SLIGHTLY FROM THOSE SHOWN HERE ACCORDING TO THE REFERENCED STANDARDS OF THE APPLICABLE CODES, (ANSI A117.1 (U.B.C.)), THE YEAR OF THE CODE ADOPTED AT THE TIME OF THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, THE LOCAL JURISDICTION REQUIREMENTS, THE CODE ITSELF AS STATED (TITLE 24 OF THE C.B.C., B.O.C.A. OR THE I.B.C.), THE REQUIREMENTS OF AN ADOPTED STATE LAW OR A PRECEDENT PREVIOUSLY SET FOR COMPLIANCE BY THE JUSTICE DEPARTMENT (A.D.A.).
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE ARCHITECT AND/OR THE CIVIL ENGINEER OF ANY DISCREPANCIES, SUBTLE OR OTHERWISE, FROM WHAT IS SHOWN HERE AND THE APPLICABLE CODE/LAW/ORDINANCE.
3. THESE DIAGRAMS ILLUSTRATE THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND ARE INTENDED ONLY AS AID FOR BUILDING AND CONSTRUCTION.

## D1 WATER CLOSET AND TOILET ACCESSORIES NOTES AND INFORMATION

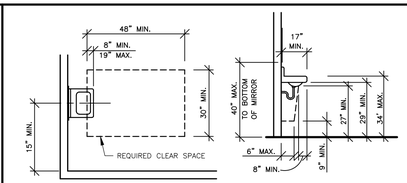
1/4" = 1'–0"




1. AT EVERY PRIMARY PUBLIC ENTRANCE AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO AN ACCESSIBLE ROUTE OF TRAVEL, THERE SHALL BE A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL INDICATE THE DIRECTION TO ACCESSIBLE BUILDING ENTRANCES AND FACILITIES.
2. WHEN A BUILDING CONTAINS AN ENTRANCE OTHER THAN THE MAIN ENTRANCE WHICH IS RAMPED OR LEVEL FOR USE BY DISABLED PERSONS, A SIGN SHOWING ITS LOCATION IS REQUIRED TO BE POSTED AT OR NEAR THE MAIN ENTRANCE.
3. PROVIDE SIGNS WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY INDICATING LOCATION OF EACH ACCESSIBLE ENTRY. PROVIDE ADDITIONAL DIRECTIONAL SIGNS AS REQUIRED.
4. MAT CARPETING MUST BE SECURELY ANCHORED TO FLOOR OR RECESSED INTO DOOR LANDING.

## G5 ENTRY AND DIRECTIONAL SIGNS

NO SCALE

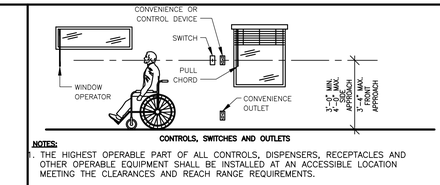



**LAVATORY NOTES:**

1. PROVIDE A CLEAR SPACE 30"x48" MIN. IN FRONT OF THE LAVATORY. THE CLEAR SPACE MAY EXTEND INTO KNEE AND TOE SPACE UNDER LAVATORY.
2. INSULATE OR CONFIGURE HOT WATER SUPPLY AND DRAIN PIPING UNDER LAVATORIES TO PREVENT CONTACT.
3. NO SHARP OR ABRASIVE ELEMENTS ARE ALLOWED UNDER LAVATORIES.
4. FAUCET CONTROLS AND OPERATING MECHANISMS ARE REQUIRED TO BE OPERABLE WITH ONE HAND AND CANNOT REQUIRE GRASPING, PINCHING, OR TWISTING OF WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS IS NOT TO EXCEED 5 LBF. LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGN.
5. SELF CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

## G7 LAVATORIES

NO SCALE



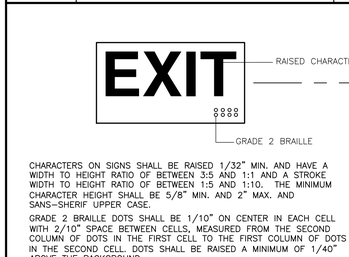

**CONTROLS, SWITCHES AND OUTLETS**

**NOTES:**

1. THE HIGHEST OPERABLE PART OF ALL CONTROLS, DISPENSERS, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION MEETING THE CLEARANCES AND REACH RANGE REQUIREMENTS.
2. CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM.
3. ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLAT–FORM.
4. EXISTING BUILDING MUST MEET SAME REQUIREMENTS AS NEW CONSTRUCTION UNLESS AN UNREASONABLE HARDSHIP IS GRANTED BY THE ENFORCING AGENCY.

## G13 CONTROLS AND OPERATING MECHANISMS

1/4" = 1'–0"



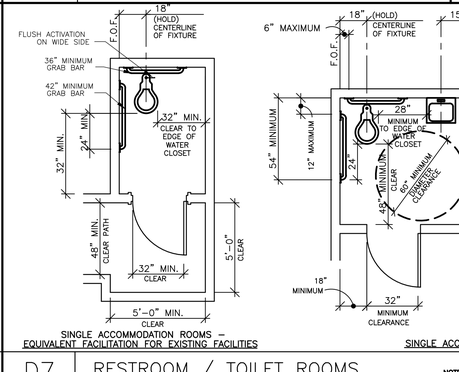

CHARACTERS ON SIGNS SHALL BE RAISED 1/32" MIN. AND HAVE A WIDTH TO HEIGHT RATIO OF BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH TO HEIGHT RATIO OF BETWEEN 1:5 AND 1:10. THE MINIMUM CHARACTER HEIGHT SHALL BE 5/8" MIN. AND 2" MAX. AND SANS–SHERIF UPPER CASE.

GRADE 2 BRAILLE DOTS SHALL BE 1/10" ON CENTER IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE RAISED A MINIMUM OF 1/40" ABOVE THE BACKGROUND.

SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH OUTSIDE THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY TO THE RIGHT.

## D5 EXIT TACTILE SIGN

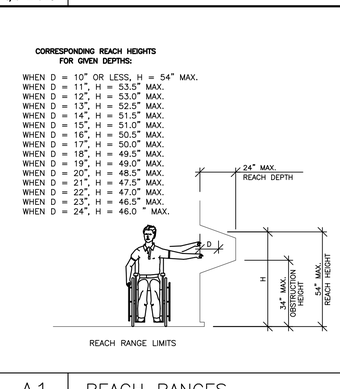
1 1/2"=1'–0"




## D7 RESTROOM / TOILET ROOMS

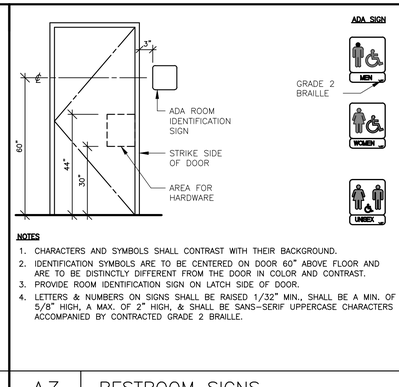
1/4" = 1'–0"

**NOTE:** SIDE TRANSFER MAY VARY DEPENDING ON STATE REQUIREMENTS.




## A1 REACH RANGES

NO SCALE

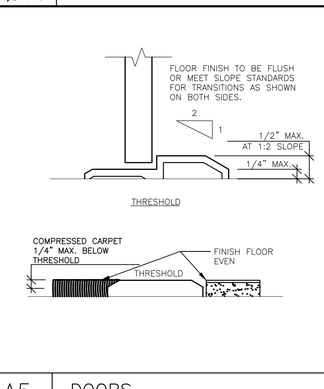



**NOTES**

1. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND.
2. IDENTIFICATION SYMBOLS ARE TO BE CENTERED ON DOOR 60" ABOVE FLOOR AND ARE TO BE DISTINCTLY DIFFERENT FROM THE DOOR IN COLOR AND CONTRAST.
3. PROVIDE ROOM IDENTIFICATION SIGN ON LATCH SIDE OF DOOR.
4. LETTERS & NUMBERS ON SIGNS SHALL BE RAISED 1/32" MIN., SHALL BE A MIN. OF 5/8" HIGH, A MAX. OF 2" HIGH, & SHALL BE SANS–SERIF UPPERCASE CHARACTERS ACCOMPANIED BY CONTRACTED GRADE 2 BRAILLE.

## A3 RESTROOM SIGNS

NO SCALE




**DOOR NOTES:**

1. WHEN INSTALLED, DOORWAYS SHALL HAVE A MINIMUM CLEAR OPENING OF 32 INCHES WITH THE DOOR OPEN 90 DEGREES.
2. FOR HINGED DOORS, THE OPENING WIDTH SHALL BE MEASURED WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
3. WHERE A PAIR OF DOORS IS UTILIZED, AT LEAST ONE OF THE DOORS SHALL PROVIDE A CLEAR, UNOBSTRUCTED OPENING WIDTH OF 32 INCHES WITH THE LEAF POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
4. THERE SHALL BE A LEVEL AND CLEAR FLOOR OR LANDING ON EACH SIDE OF A DOOR. THE LEVEL AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60 INCHES AND THE LENGTH OPPOSITE THE DIRECTION OF THE DOOR SWING OF 48 INCHES AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN THE CLOSED POSITION. WHERE THE PLANE OF THE DOORWAY IS OFFSET OR LOCATED IN AN ALCOVE A DISTANCE MORE THAN 8 INCHES MEASURED FROM THE PLANE OF THE DOORWAY TO THE FACE OF THE WALL, THE DOOR SHALL BE PROVIDED WITH 60 INCHES MANEUVERING CLEARANCE FOR FRONT APPROACH.
5. THE WIDTH OF THE LEVEL AREA ON THE SIDE TO WHICH THE DOOR SWINGS SHALL EXTEND 24 INCHES PAST THE STRIKE EDGE OF THE DOOR FOR EXTERIOR DOORS AND 18 INCHES PAST THE STRIKE EDGE FOR INTERIOR DOORS. WHERE THE PLANE OF THE DOORWAY IS OFFSET 8 OR MORE INCHES FROM ANY OBSTRUCTION WITHIN 18 INCHES MEASURED LATERALLY ON THE LATCH SIDE, THE DOOR SHALL BE PROVIDED WITH MANEUVERING CLEARANCE FOR FRONT APPROACH.
6. PROVIDE CLEAR SPACE OF 12 INCHES PAST STRIKE EDGE OF THE DOOR ON THE OPPOSITE SIDE TO WHICH THE DOOR SWINGS IF THE DOOR IS EQUIPPED WITH BOTH A LATCH AND A CLOSER.
7. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOORWAY.
8. THE BOTTOM 10 INCHES OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. WHERE NARROW FRAME DOORS ARE USED, A 10 INCH HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.

**DOOR HARDWARE NOTES:**

1. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE. MANUALLY OPERATED BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. THE UNLATCHING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION.
2. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, BY PANIC BARS, PUSH–PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.
3. HAND–ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30 INCHES AND 44 INCHES ABOVE THE FLOOR.
4. WHEN AN AUTOMATIC OR POWER ASSISTED DOOR OPERATOR IS UTILIZED TO OPERATE A PAIR OF DOORS, AT LEAST ONE OF THE DOORS SHALL BE CLEAR, UNOBSTRUCTED OPENING WIDTH OF 32 INCHES WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION. AUTOMATIC DOORS SHALL COMPLY WITH BHMA A156.10 OR BHMA A156.19.

**EFFORT TO OPERATE DOORS:**

1. THE MAXIMUM FORCE REQUIRED TO PUSH OR PULL OPEN A DOOR SHALL COMPLY WITH THE FOLLOWING:
   A. PUSH OR PULL FORCE FOR A HINGED DOOR SHALL BE MEASURED PERPENDICULAR TO THE DOOR FACE AT THE DOOR OPENING HARDWARE OR 30 INCHES FROM THE HINGED SIDE, WHICHEVER IS FARTHER FROM THE HINGE.
   B. PUSH OR PULL FORCE FOR A SLIDING DOOR OR FOLDING DOOR SHALL BE MEASURED PARALLEL TO THE DOOR AT THE DOOR PULL OR LATCH.
   C. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS COMPLYING WITH SECTION 11339.2.3.2 MAY BE USED TO MEET THE MAXIMUM FORCE LIMITS:
      1) REQUIRED FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 LBF.
      2) OTHER THAN REQUIRED FIRE DOORS, INTERIOR DOORS SHALL HAVE A MAXIMUM OPENING FORCE OF 5 LBF.
      3) OTHER THAN REQUIRED FIRE DOORS, EXTERIOR DOORS SHALL HAVE A MAXIMUM OPENING FORCE OF 5 LBF.

## A5 DOORS

NO SCALE

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**REVISION**

| ISSUE | |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

STATE OF FLORIDA · RALPH WATSON · REGISTERED ARCHITECT · AR100937

Ralph Watson

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

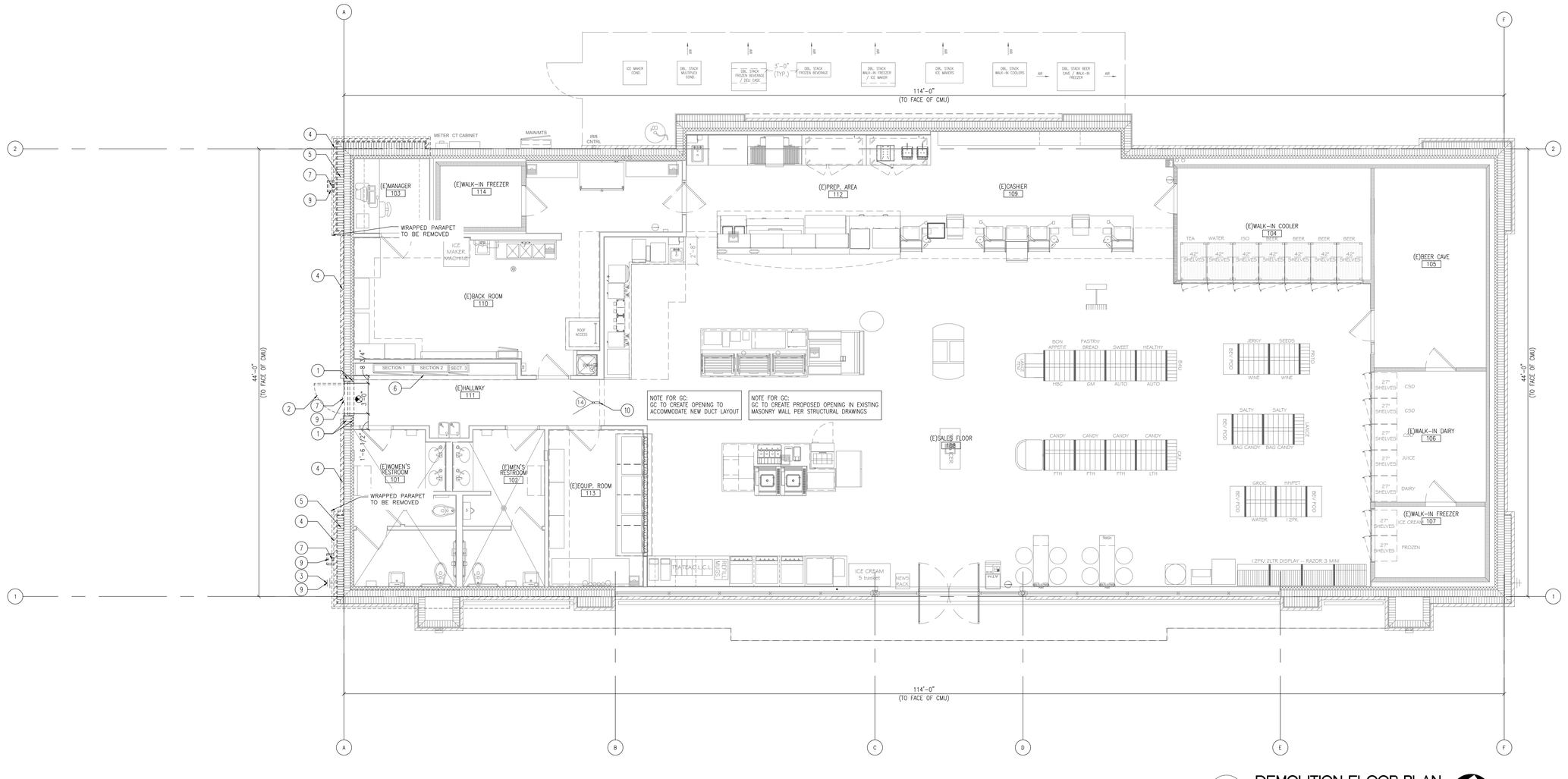
## ACCESSIBILITY STANDARDS NOTES/DETAILS

**SHEET NUMBER**

# A1.1

Drawing Name: S:\2022\22036.Circle K - Lake City, FL\Documentation\ARCH\A1.1 Accessibility Stds.dwg Last Modified: Aug 16, 2022 - 9:24am Plotted on: Aug 16, 2022 - 12:25pm by katielle.reynolds

4625 NATIONAL PROTOTYPE – R1




## 1 DEMOLITION FLOOR PLAN

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

## KEY NOTES (X)

1. (E) WALL TO BE REMOVED
2. (E) STOREFRONT TO BE REMOVED. FIELD VERIFY DIMENSIONS AND COORDINATE ANY DISCREPANCIES WITH ARCHITECT.
3. (E) FOUNTAIN BIB TO BE RELOCATED, REFER TO MEP DRAWINGS FOR NEW LOCATION
4. (E) STONE VENEER TO BE REMOVED. PATCH WALL AS REQUIRED TO ALIGN AND MATCH EXISTING ADJACENT WALL FINISH
5. (E) CMU WALL TO BE REMOVED. PATCH WALL AS REQUIRED TO ALIGN AND MATCH EXISTING ADJACENT WALL FINISH
6. (E) ELECTRICAL PANELS TO REMAIN
7. (E) EXTERIOR LIGHT TO BE RELOCATED, REFER TO A1.2 FOR NEW LOCATION
8. REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING FOR ADDITIONAL DEMOLITION SCOPE.
9. GENERAL CONTRACTOR TO COORDINATE WITH CIRCLE K CONSTRUCTION MANAGER FOR CONSTRUCTION SEQUENCING, ANY ITEMS TO REMAIN THAT WILL NEED TO BE STORED AND PROTECTED FOR FUTURE INSTALLATION.
10. EXIT SECURITY CAMERA TO BE RELOCATED IN PROPOSED LOCATION

## LEGEND

**EXISTING:**

- 8" STD. CMU WALL W/ FOAM CORE INSULATION. SEE STRUCTURAL SHEETS
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R-11 BATT INSULATION SEE SHEET A1.3 FOR WALL TYPES
- 6" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK SEE SHEET A1.3 FOR WALL TYPES
- CMU WAINSCOT/STONE VENEER PILASTER
- PRE-MANUFACTURED FREEZER/COOLER WALL, EXISTING
- F.R.P. PANELING, EXISTING
- 3/4" PLYWOOD W/F.R.P. PANELING, EXISTING

**DEMOLITION:**

- 8" STD. CMU WALL W/ FOAM CORE INSULATION.
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R-11 BATT INSULATION
- CMU WAINSCOT/STONE VENEER PILASTER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| PERMIT SET | 08/15/22 |
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**PROFESSIONAL SEAL**

STATE OF FLORIDA · RALPH WATSON · AR100937 · REGISTERED ARCHITECT

Ralph Watson 9.19.22

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

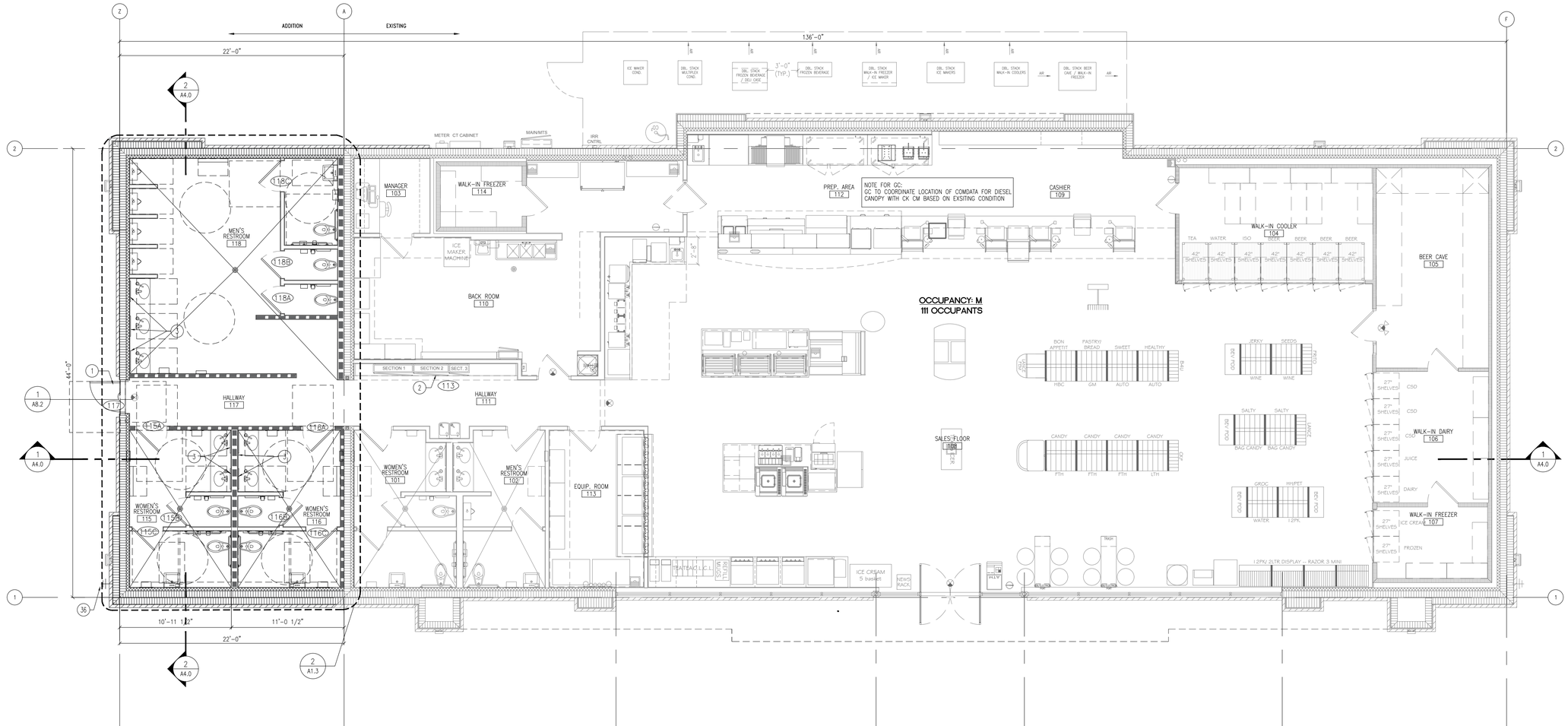
## DEMOLITION FLOOR PLAN

**SHEET NUMBER**

# AD1.2


Drawing Name: G:\2022\22036_Circle K - Lake City, FL\Documentation\ARCH\D-1_Demolition Floor Plan.dwg Last Modified: Aug 18, 2022 - 11:14am Plotted on: Aug 18, 2022 - 12:52pm by katelyn.reynolds

4625 NATIONAL PROTOTYPE - R1




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

## INTERIOR FINISHES

| MARK | DESCRIPTION |
|---|---|
| B3 | PORCELAIN TILE: COTTO AMERICANO BLACK 6"x12" (SANITARY)<br>GROUT: CHARCOAL BLACK |
| B4 | 6" HIGH PORCELAIN TILE: FLORIDA TILE 6"x12" 23835 GILD<br>GROUT: #60 CHARCOAL SANDED W/ 1/8" WIDE JOINTS |
| C1 | 5/8" GYPSUM CEILING BOARD – PAINTED SW6105 (SHERWIN WILLIAMS) |
| C4 | SUSPENDED 2'x4' T-BAR GRID WITH WASHABLE LAY-IN VINYL-CLAD SHEETROCK CEILING TILES |
| F2 | PORCELAIN TILE: FLORIDA TILE – 12"X24" 23835 GILD<br>GROUT: #60 CHARCOAL SANDED W/ 1/8" WIDE JOINTS |
| F3 | PORCELAIN TILE: CROSSVILLE – 12"x12" COTTO AMERICANO BLACK<br>GROUT: #60 CHARCOAL SANDED W/ 1/8" WIDE JOINTS |
| W1 | 5/8" GYPSUM WALL BOARD – PRIMED, READY FOR PAINT<br>INTERIOR WALL – PAINTED SW6113 INTERACTIVE CREAM (SHERWIN WILLIAMS) |
| W3 | WALL TILE: CROSSVILLE–COTTO AMERICANO BEIGE 12"X12" (11¾" X 11¾" )<br>GROUT: #10 ANTIQUE WHITE SANDED W/ 1/8" WIDE JOINTS. INSTALL WITH RONDEC IV/RO100ATG SCHLUTER OUTSIDE CORNERS |
| W4 | PORCELAIN TILE: DAL–TILE TERRA ANTICA ORO TA01 12" X 12"<br>GROUT: CHARCOAL BLACK. INSTALL WITH RONDEC IV/RO100ATG SCHLUTER OUTSIDE CORNERS |

## ROOM FINISH SCHEDULE

| MARK | ROOM | FLOOR | | BASE | | INTERIOR WALLS | | | | | | | | | | | | CEILING | | | NOTES: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A-REAR / D-LEFT / RM. / B-RIGHT / C-FRONT | | | | | REAR | | | | RIGHT | | | | FRONT | | | | LEFT | | | |
| NO. | REFERENCE ORIENTATION | F2 PORCELAIN TILE | F3 PORCELAIN TILE | B3 6" HIGH COVED PORCELAIN TILE | B4 6" HIGH x 12" PORCELAIN TILE | W1 5/8" GYPSUM WALL BOARD | W3 WALL TILE/GROUT | W4 WALL TILE/GROUT | | W1 5/8" GYPSUM WALL BOARD | W3 WALL TILE/GROUT | W4 WALL TILE/GROUT | | W1 5/8" GYPSUM WALL BOARD | W3 WALL TILE/GROUT | W4 WALL TILE/GROUT | | W1 5/8" GYPSUM WALL BOARD | W3 WALL TILE/GROUT | W4 WALL TILE/GROUT | | C1 5/8" GYP CLG BD – PAINTED | C4 SUSPENDED 2'x4' – 1/2" THICK (WASHABLE TILE) | |
| 101 | WOMEN'S | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 102 | MEN'S | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 103 | MANAGER | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 104 | WALK–IN COOLER | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 105 | BEER CAVE | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 106 | WALK–IN DAIRY | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 107 | WALK–IN FREEZER | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 108 | SALES FLOOR | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 109 | CASHIER | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 110 | BACK ROOM | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 111 | HALLWAY | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 112 | PREP. AREA | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 113 | EQUIP. ROOM | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 114 | WALK–IN COOLER | | | | | | | | | | | | | | | | | | | | EXISTING TO REMAIN |
| 115 | WOMEN'S | | X | | X | | | X | | | X | | | | X | | | | X | | X | | SEE SHTS. A3.1 FOR MORE INFORMATION |
| 116 | WOMEN'S | | X | | X | | | X | | | X | | | | X | | | | X | | X | | SEE SHTS. A3.1 FOR MORE INFORMATION |
| 117 | HALLWAY | X | | | | X | X | | X | X | | X | X | | | X | X | | | X | | | X | |
| 118 | MEN'S | | X | | X | | | X | | | X | | | | X | | | | X | | X | | SEE SHTS. A3.1 FOR MORE INFORMATION |

## LEGEND

ADDITION:

- 8" STD. CMU WALL W/ FOAM CORE INSULATION. SEE STRUCTURAL SHEETS
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R–11 BATT INSULATION SEE SHEET A1.3 FOR WALL TYPES
- 6" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- CMU WAINSCOT/STONE VENEER PILASTER
- (X) WINDOW TYPE: SEE WINDOWS SCHEDULE SHEET A6.0
- (X) DOOR TYPE: SEE DOOR SCHEDULE SHEET A6.0

EXISTING:

- 8" STD. CMU WALL W/ FOAM CORE INSULATION. SEE STRUCTURAL SHEETS
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R–11 BATT INSULATION SEE SHEET A1.3 FOR WALL TYPES
- 6" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK SEE SHEET A1.3 FOR WALL TYPES
- CMU WAINSCOT/STONE VENEER PILASTER
- PRE–MANUFACTURED FREEZER/COOLER WALL, EXISTING
- F.R.P. PANELING, EXISTING
- 3/4" PLYWOOD W/F.R.P. PANELING, EXISTING

DEMOLITION:

- 8" STD. CMU WALL W/ FOAM CORE INSULATION.
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R–11 BATT INSULATION
- CMU WAINSCOT/STONE VENEER PILASTER

## GENERAL NOTES

1. DIMENSIONS SHOWN ARE TO INTERIOR WALL FINISH, UNLESS OTHERWISE NOTED.
2. SEE SHEET A1.4 FOR EQUIPMENT
3. INSTALL FULL THICKNESS BATT INSULATION CONTINUOUS TO ROOF DECK IN ALL WALL SEPARATING REST ROOMS FROM ADJACENT CONVENIENCE STORE AREAS. INSULATION TO BE NON–COMBUSTIBLE, BEARING THE U.L. CLASSIFICATION MARKING
4. BRACE STUDS ABOVE CEILING AS REQUIRED TO PROVIDE RIGID WALLS THROUGHOUT, SEE STRUCTURAL DRAWINGS
5. GENERAL CONTRACTOR SHALL COORDINATE WITH THE EQUIPMENT AND DRYWALL INSTALLERS TO ENSURE THAT ALL ELECTRICAL WIRING, WATER LINES AND REFRIGERATION LINES HAVE BEEN INSTALLED PROPERLY ON ALL EQUIPMENT PRIOR TO THE HANGING OF ANY DRYWALL. SEE THE CIRCLE K PROJECT MANAGER FOR ANY EQUIPMENT LOCATION CLARIFICATIONS.
6. PROVIDE 5/8" MOISTURE–RESISTANT GYPSUM WALLBOARD THROUGHOUT WHERE REQUIRED.

## KEY NOTES (X)

1. INSULATED METAL DOOR IN HOLLOW METAL FRAME, SEE DOOR SCHEDULES SHEET A6.0
2. LOCATION OF ELECTRICAL PANELS, SEE ELECTRICAL DRAWINGS FOR SPECIFIC INFORMATION
3. PROVIDE SIGN ABOVE HAND SINK "EMPLOYEE MUST WASH HANDS BEFORE RETURNING TO WORK".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**PROFESSIONAL SEAL**

STATE OF FLORIDA · RALPH WATSON · REGISTERED ARCHITECT · AR100937

Ralph Watson
2022.08.24 09:56:07 -04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

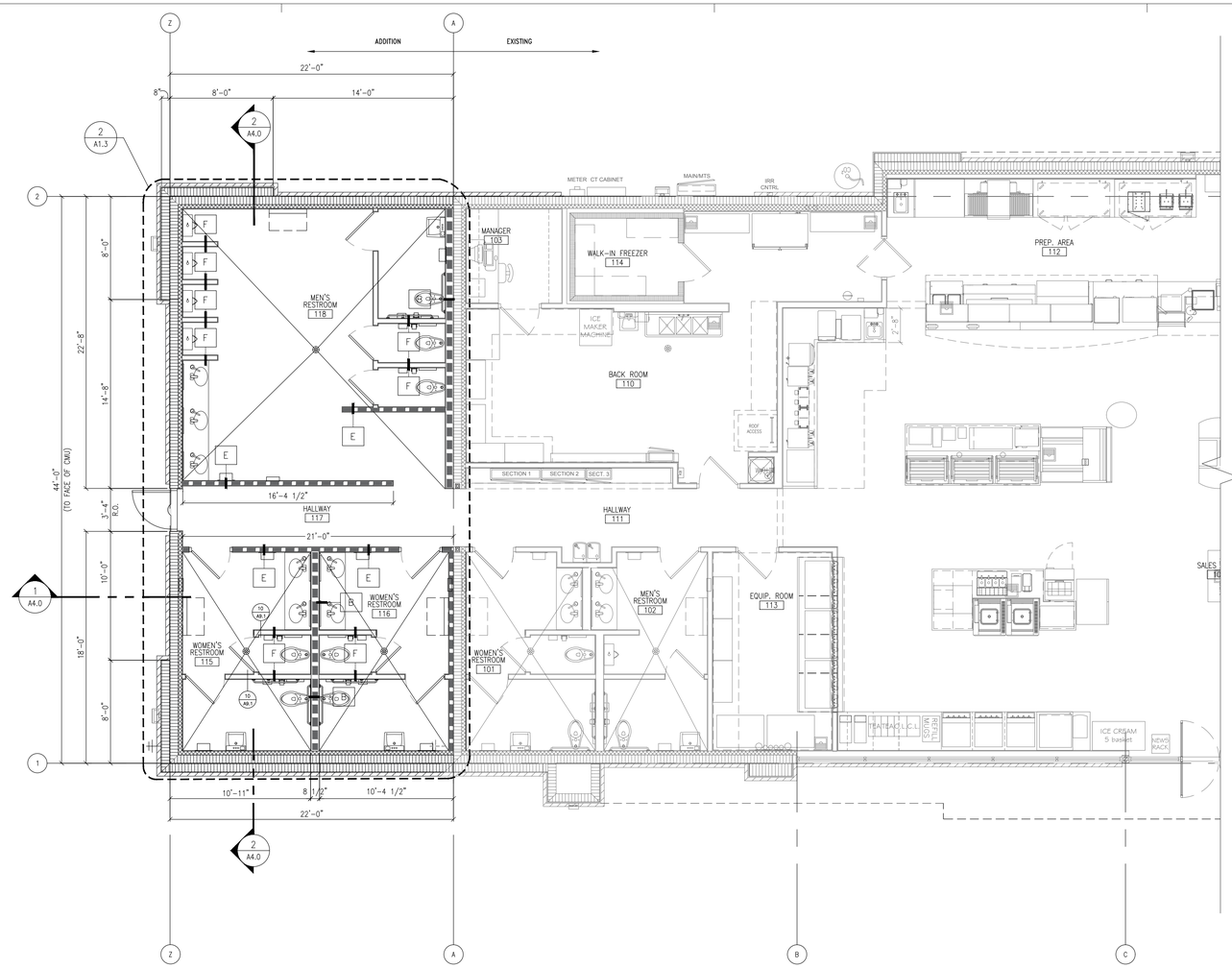
## FLOOR PLAN AND ROOM FINISH SCHEDULE

**SHEET NUMBER**

# A1.2


Drawing Name: G:\2022\22036_Circle K – Lake City, FL\Documentation\ARCH\1-2_Floor Plan and Room Finish Schedule.dwg Last Modified: Aug 17, 2022 – 4:48pm Plotted on: Aug 18, 2022 – 12:52pm by kdelanyrunolls

4625 NATIONAL PROTOTYPE – R1




# 1 FINISH DIMENSION FLOOR PLAN

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

NOTES:
A. SEE ROOM FINISH SCHEDULE ON SHEET A1.2.
B. SEE EQUIPMENT SCHEDULE ON SHEET A1.4.
C. SEE DETAIL 5/A3.1 FOR RESTROOM WALL TILE PATTERN.
D. SEE SHEETS A3.1 AND A3.2 FOR RESTROOM ELEVATIONS AND DETAILS.

## LEGEND

**ADDITION:**

- 8" STD. CMU WALL W/ FOAM CORE INSULATION. SEE STRUCTURAL SHEETS
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R-11 BATT INSULATION SEE SHEET A1.3 FOR WALL TYPES
- 6" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- CMU WAINSCOT/STONE VENEER PILASTER
- (X) WINDOW TYPE: SEE WINDOWS SCHEDULE SHEET A6.0
- (X) DOOR TYPE: SEE DOOR SCHEDULE SHEET A6.0

**EXISTING:**

- 8" STD. CMU WALL W/ FOAM CORE INSULATION. SEE STRUCTURAL SHEETS
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R-11 BATT INSULATION SEE SHEET A1.3 FOR WALL TYPES
- 6" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. SEE SHEET A1.3 FOR WALL TYPES
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK SEE SHEET A1.3 FOR WALL TYPES
- CMU WAINSCOT/STONE VENEER PILASTER
- PRE-MANUFACTURED FREEZER/COOLER WALL, EXISTING
- F.R.P. PANELING, EXISTING
- 3/4" PLYWOOD W/F.R.P. PANELING, EXISTING

**DEMOLITION:**

- 8" STD. CMU WALL W/ FOAM CORE INSULATION.
- 3 5/8" 20ga. METAL STUD AT 24" O.C. TO DECK WITH R-11 BATT INSULATION
- CMU WAINSCOT/STONE VENEER PILASTER

## WALL TYPES (X)

B. WALL TYPE, SEE 4/A9.1
E. WALL TYPE, SEE 8/A9.1
F. WALL TYPE, SEE 10/A9.1 & 11/A9.1

## GENERAL NOTES

1. DIMENSIONS SHOWN ARE TO INTERIOR WALL FINISH, UNLESS OTHERWISE NOTED.
2. SEE SHEETS A1.4 AND A1.5 FOR EQUIPMENT.
3. COORDINATE ALL DIMENSIONS IN AREAS OF WALK-IN COOLERS WITH EQUIPMENT INSTALLERS.
4. INSTALL FULL THICKNESS BATT INSULATION CONTINUOUS TO ROOF DECK IN ALL WALL SEPARATING REST ROOMS FROM ADJACENT CONVENIENCE STORE AREAS. INSULATION TO BE NON-COMBUSTIBLE, BEARING THE U.L. CLASSIFICATION MARKING.
5. BRACE STUDS ABOVE CEILING AS REQUIRED TO PROVIDE RIGID WALLS THROUGHOUT, SEE STRUCTURAL DRAWINGS.
6. ALL CABINETS IN FAST-FOOD AREA, INCLUDING COFFEE BAR AND SALES COUNTER, TO HAVE SOLID TOP WITH METAL SIDES PAINTED AND KICK PLATE BASE PAINTED "BLACK".
7. USE FDA APPROVED FOOD GRADE CLEAR CAULKING BETWEEN COUNTERTOPS AND WALLS AND WHERE REQUIRED PER LOCAL AND COUNTY HEALTH DEPARTMENT REQUIREMENTS.
8. GENERAL CONTRACTOR SHALL COORDINATE WITH THE EQUIPMENT AND DRYWALL INSTALLERS TO ENSURE THAT ALL ELECTRICAL WIRING, WATER LINES AND REFRIGERATION LINES HAVE BEEN INSTALLED PROPERLY ON ALL EQUIPMENT PRIOR TO THE HANGING OF ANY DRYWALL, SEE THE CIRCLE K PROJECT MANAGER FOR ANY EQUIPMENT LOCATION CLARIFICATIONS.
9. ALL INSULATION SHALL NOT BE EXPOSED TO VIEW FROM INSIDE SALES FLOOR AREA.
10. PROVIDE 5/8" MOISTURE-RESISTANT GYPSUM WALLBOARD THROUGHOUT WHERE REQUIRED.
11. SEE SHEET A1.2 FOR ROOM FINISH SCHEDULE.
12. SEE SHEETS A3.1, A3.2, AND A3.3 FOR INTERIOR ELEVATIONS.

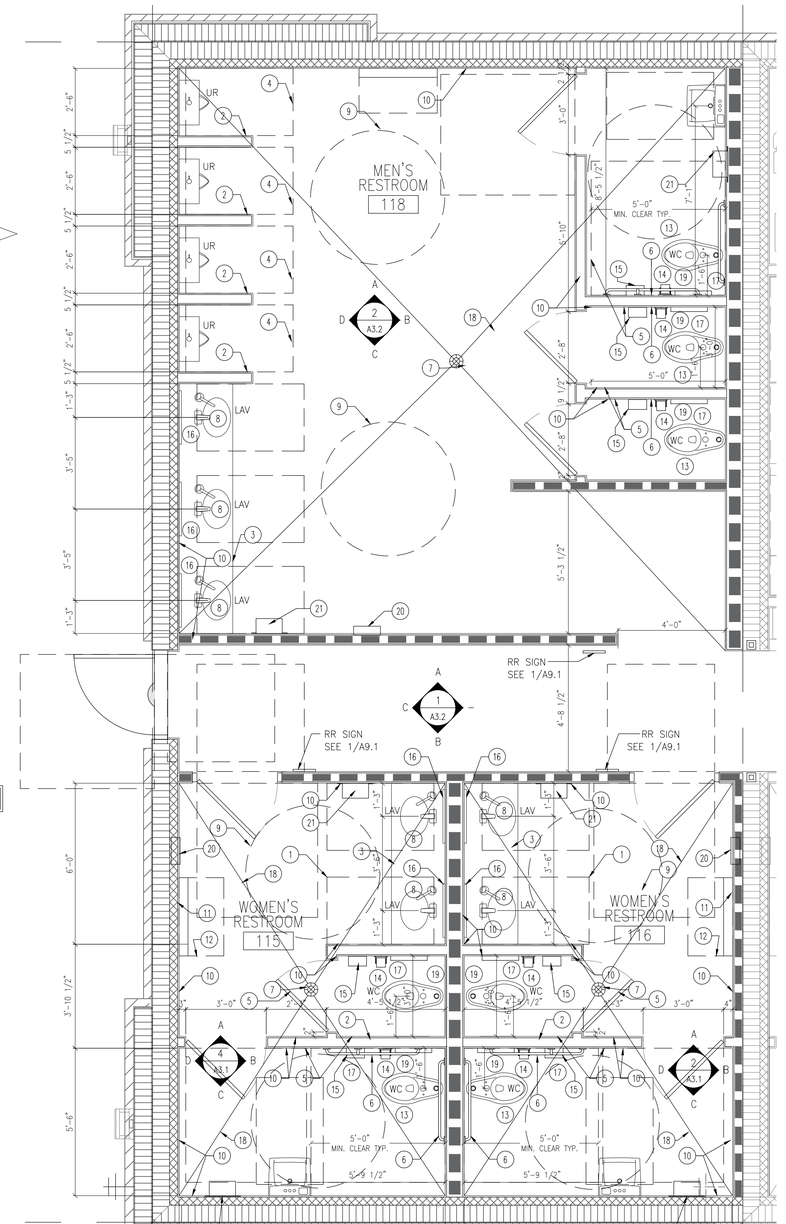
## RESTROOM KEY NOTES (X)

1. 30X48 ADA ACCESSIBLE SPACE AT LAV.
2. PARTITION
3. COUNTER - SEE INTERIOR ELEVS PLANS
4. 30X48 ADA ACCESSIBLE SPACE AT URINAL
5. CONVENIENCE HOOKS
6. GRAB BAR 1-1/4" - 1-1/2" DIAMETER, PROVIDE ADEQUATE BLOCKING
7. FLOOR DRAIN, SEE PLUMBING DWGS.
8. INSULATED WATER AND DRAIN PIPES
9. 60" DIA. MIN. CLEAR FOR WHEELCHAIR
10. CERAMIC TILE WALLS
11. INSTALL BLOCKING FOR CHANGING TABLE
12. CHANGING TABLE TO BE INSTALLED BY G.C.
13. TOILET FLUSH VALVES TO BE ON THE WIDE SIDE OF STALL
14. TOILET PAPER DISPENSER
15. SANITARY NAPKIN DISPOSAL
16. MIRROR
17. SOLID BLOCKING AT WALL FOR ALL MOUNTED EQUIPMENT
18. FLOOR SHALL SLOPE TO DRAIN
19. TOILET SEAT COVER DISPENSER
20. TRASH RECEPTACLE
21. HAND DRYER

RESTROOM SIGN NOTE:

SIGNS DENOTING THE RESTROOMS SHALL INCLUDE LETTERS AND NUMERALS THAT ARE RAISED 1/32", UPPER CASE, SANS SERIF OR SIMPLE SANS SERIF AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE.

MOUNTING HEIGHTS FOR THE SIGNS DENOTING THE RESTROOMS SHALL BE BE LOCATED 48 INCHES MINIMUM ABOVE THE FINISH FLOOR, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER. MOUNTING LOCATION FOR THE SIGN SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3 INCHES OF THE SIGN WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF THE DOOR.




# 2 ENLARGED RESTROOM PLAN

SCALE: 3/8" = 1'-0"

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Ralph Watson
Date: 2022.08.15 10:54:24 -04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

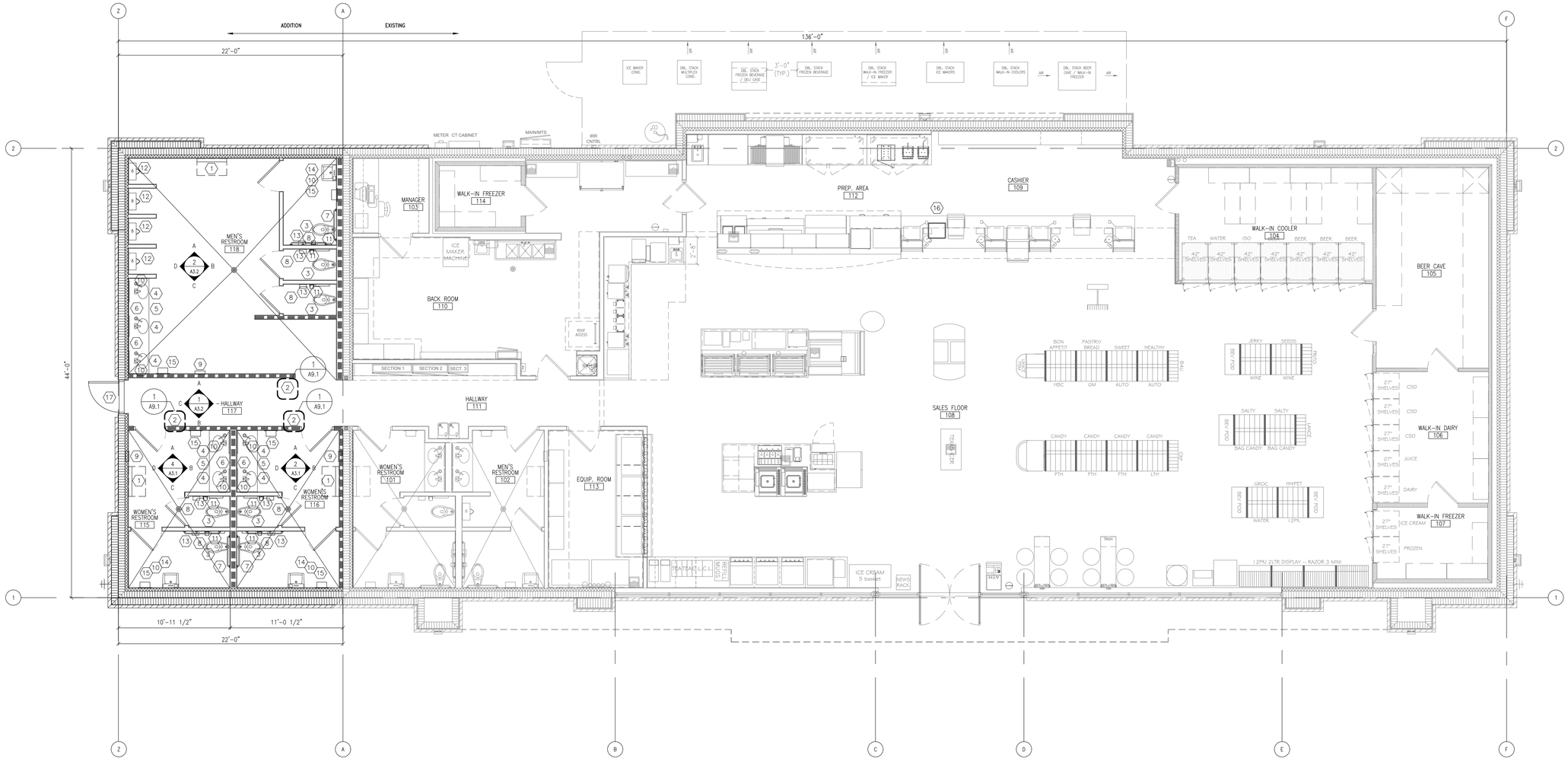
**FINISH DIMENSION FLOOR PLAN, WALL TYPES AND ENLARGED RESTROOM**

**SHEET NUMBER**

**A1.3**

Drawing Name: G:\2022\22036_Circle K - Lake City, FL\Documentation\CAD\A1.3_Finish Dimension Floor Plan.dwg Last Modified: Aug 15, 2022 - 11:05am Plotted on: Aug 15, 2022 - 11:05am by kelleymarcella

4825 NATIONAL PROTOTYPE - R1




## EQUIPMENT LIST

| No. | ITEM | PART NO. / DESCRIP. | SUPPLIER | QTY | PURCHASED BY | INSTALLED BY | UTILITY REQUIREMENTS | DIMENSIONS/SPECIFICATIONS/NOTES |
|---|---|---|---|---|---|---|---|---|
| 1 | CHANGING TABLE | KB110-SSWM | KOALA KARE | 3 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | NOT APPLICABLE | PROVIDE ADEQUATE BACKING |
| 2 | RESTROOM SIGNS | ADA SQUARE MEN/WOMEN SIGNS | COUCH PHILLIPI | 2 WOMEN'S 1 MEN'S | GENERAL CONTRACTOR | GENERAL CONTRACTOR | NOT APPLICABLE | SEE DET. 1/A9.1 FOR SIGNAGE |
| 3 | WATER CLOSET | 2234.015 2305.100 | AMERICAN STANDARD | 7 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | 1.6 GALLONS PER FLUSH | SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION |
| 4 | LAVATORY | 0476.028 | AMERICAN STANDARD | 7 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION |
| 5 | FLOATING COUNTER TOP | SAHARA | CORIAN | 3 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | INSTALLED WITH HAMMAM HIDDEN VANITY SUPPORT BRACKETS 39834,(MIN. OF 4) MFG BY FEDERAL BRACE OR EQUAL |
| 6 | MIRROR | B-290 2436 | BOBRICK | 10 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | PROVIDE ADEQUATE BACKING |
| 7 | GRAB BAR | B-5806 | BOBRICK | 3-18" (VERT.) 3-36"(HORIZ.) 3-42" (HORIZ.) | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | 1-1/4" – 1-1/2" DIAMETER, PROVIDE ADEQUATE BACKING |
| 8 | TOILET PAPER DISPENSER | B-2890 | – | 7 | CIRCLE K | GENERAL CONTRACTOR | – | PROVIDE ADEQUATE BACKING |
| 9 | RECESSED TRASH RECEPTACLE | B-43644 | BOBRICK | 3 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | PROVIDE ADEQUATE BACKING |
| 10 | SOAP DISPENSER | B-4112 | – | 9 | CIRCLE K | GENERAL CONTRACTOR | – | PROVIDE ADEQUATE BACKING |
| 11 | TOILET SEAT COVER DISPENSER | B-4221 | – | 7 | CIRCLE K | GENERAL CONTRACTOR | – | PROVIDE ADEQUATE BACKING |
| 12 | URINAL | K-5016-ET | KOHLER | 4 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION |
| 13 | SANITARY NAPKIN DISPOSAL | B-270 | BOBRICK | 7 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | PROVIDE ADEQUATE BACKING |
| 14 | HANDICAP LAVATORY | 0321026-020 | AMERICAN STANDARD | 3 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | SEE PLUMBING PLANS FOR ADDITIONAL INFORMATION |
| 15 | SS HAND DRYER W/ WALL GAURD | XL-SB 220V W/ 89S | XLERATOR | 4 | CIRCLE K | GENERAL CONTRACTOR | ELECTRICAL REQUIREMENTS BY GC. | G.C. TO PROVIDE REQUIRED ELECTRICAL |
| 16 | COMDATA UNIT | SMARTDESQ | CIRCLE K | 1 | CIRCLE K | VENDOR | ELECTRICAL REQUIREMENTS BY GC. | G.C. TO PROVIDE REQUIRED ELECTRICAL |
| 17 | CO2 SIGNS | – | – | 1 | GENERAL CONTRACTOR | GENERAL CONTRACTOR | – | SEE DET. 2/A9.1 FOR SIGNAGE |

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

## GENERAL NOTES

1. EQUIPMENT SYMBOL (x)
2. VERIFY EQUIPMENT LAYOUT WITH CIRCLE K
3. SEE SHEETS A3.1 AND A3.2 FOR INTERIOR ELEVATIONS.

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**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**
# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

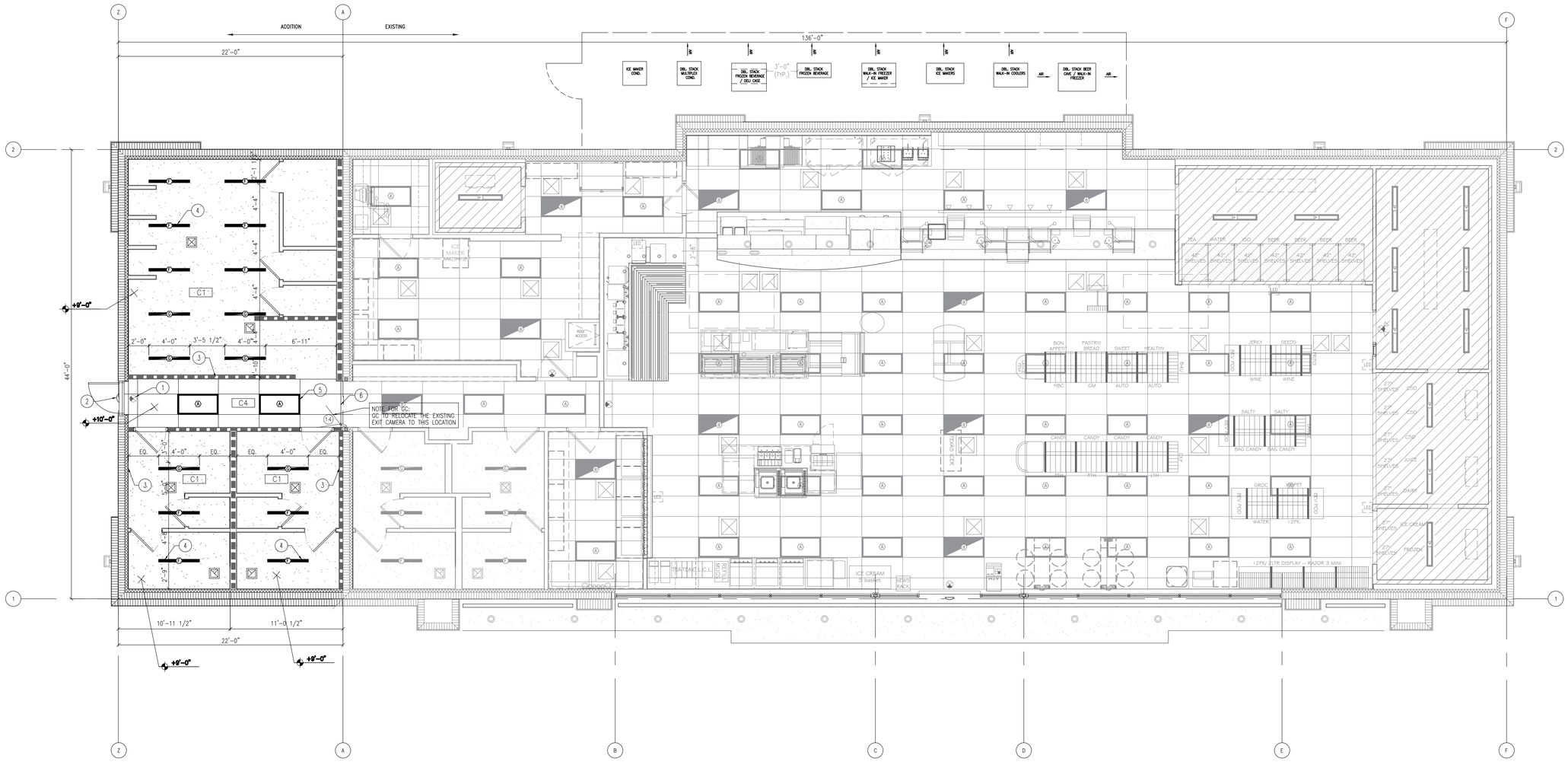
**PROJECT NUMBER**
22036

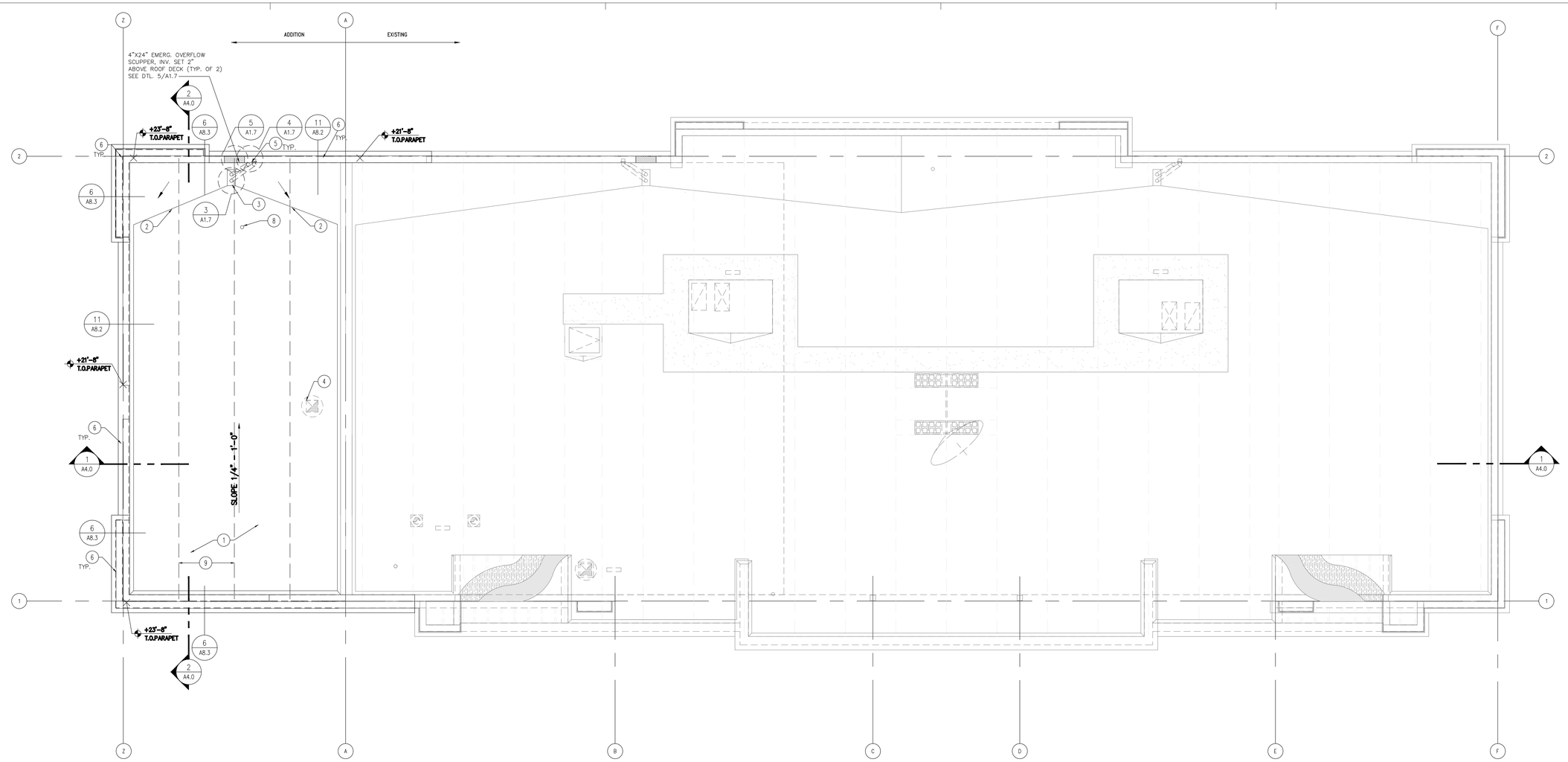
**SHEET TITLE**
## EQUIPMENT PLAN & LIST

**SHEET NUMBER**
# A1.4

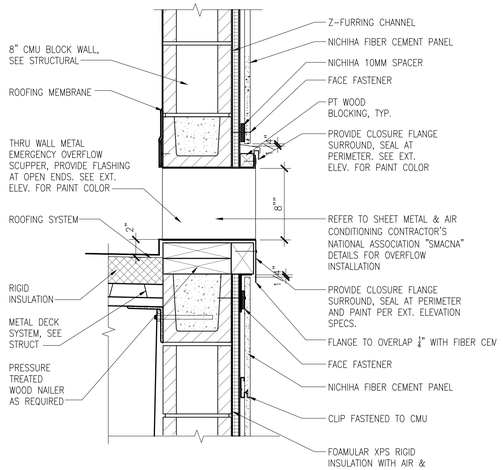
Drawing Name: G:\2022\22036_Circle K - Lake City, FL\Documentation\CAD\A1.4_Equipment Plan.dwg Last Modified: Aug 16, 2022 - 10:33am Plotted on: Aug 16, 2022 - 12:43pm by ashleymyrands

4625 NATIONAL PROTOTYPE - R1

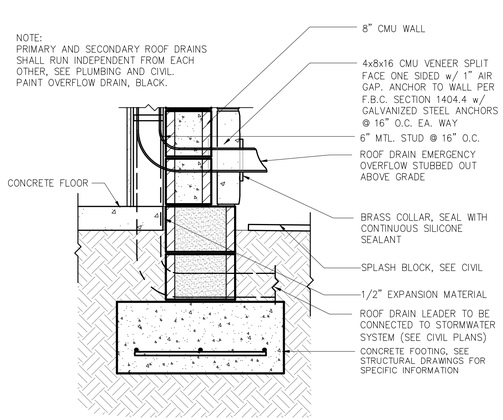

ADDITION
EXISTING
136'-0"
22'-0"
44'-0"
ICE MAKER COND.
DBL. STACK MULTIPLEX COND.
DBL. STACK FROZEN BEVERAGE / DELI CASE
3'-0" (TYP.)
DBL. STACK FROZEN BEVERAGE
DBL. STACK WALK-IN FREEZER / ICE MAKER
DBL. STACK ICE MAKERS
DBL. STACK WALK-IN COOLERS
AIR
DBL. STACK BEER CAVE / WALK-IN FREEZER
AIR
+9'-0"
+10'-0"
C1
C4
NOTE FOR GC:
GC TO RELOCATE THE EXISTING EXIT CAMERA TO THIS LOCATION
EQ.
10'-11 1/2"
11'-0 1/2"
22'-0"
+9'-0"
+9'-0"
TEA
WATER
ISO
SODA
BEER
SODA
BEER
42" SHELVES
BON APPETIT
PASTRY/ BREAD
SWEET
HEALTHY
HBC
GM
AUTO
AUTO
JERKY
SEEDS
WINE
WINE
CANDY
CANDY
CANDY
CANDY
SALTY
SALTY
BAG CANDY
BAG CANDY
GROC
CHEESE
WATER
12PK
12PK DISPLAY - RAZOR 3 MINI
ICE CREAM
FROZEN
ICE CREAM
FREEZER
NEWS RACK
TRAFFIC O.C.L.
RETURN
LED
ICE MAKER MACHINE
800# ACCESS
DISPLAY CASE
DISPLAY CASE
DISPLAY CASE



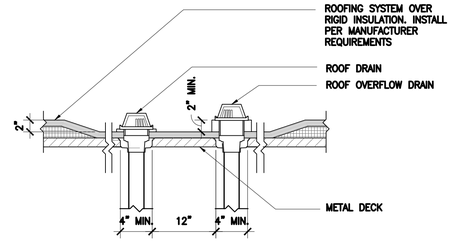

1 ROOF PLAN
SCALE: 3/16" = 1'-0"




5 OVERFLOW SCUPPER DETAIL
SCALE: 1 1/2" = 1'-0"




4 ROOF DRAIN LEADER
1"=1'-0"




3 ROOF AND OVERFLOW DRAIN
1"=1'-0"

## KEY NOTES (X)

1. 80 MIL TPO ROOFING SYSTEM OVER RIGID INSULATION. WALKWAYS AS REQUIRED BY ROOFING MANUFACTURER. ROOF SYSTEM TO BE FLOOD TESTED AFTER INSTALLATION TO ENSURE NO LEAKS.
2. TAPERED INSULATION DRAINAGE CRICKET, MINIMUM SLOPE 1/4" PER. FOOT. SEE DETAIL 5 THIS SHEET & 3/A8.1
3. COMBINATION ROOF DRAIN / OVERFLOW DRAIN. SEE DETAIL 3/A1.7 & 4/A.17
4. EXHAUST FAN UNITS, REFER TO MECHANICAL DRAWINGS FOR ALL ROOF SPECIFICATIONS.
5. EMERGENCY OVERFLOW ROOF DRAIN TAIL PIECE. EXTEND 4" BEYOND FINISH SURFACE. SEE DETAIL 4/A1.7.
6. PARAPET CORNICE, SEE EXTERIOR ELEVATIONS AND DETAIL 11/A8.2
7. CONDUIT, REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL ROOF SPECIFICATIONS.
8. VTR LOCATION, REFER TO PLUMBING DRAWINGS FOR ALL ROOF SPECIFICATIONS.
9. STEEL WIDE FLANGE BEAMS, REFER TO STRUCTURAL DRAWINGS FOR ALL ROOF SPECIFICATIONS.

## GENERAL NOTES

1. SEE DETAIL 5/A8.1 FOR FLASHING AT PIPE PENETRATIONS.
2. SEE BUILDING ELEVATIONS FOR PARAPET HEIGHTS.
3. IF POLYISO CAN NOT BE PROCURED, CONTRACTOR MAY USE ONE OF THE FOLLOWING SOLUTIONS:
   - EPS: MOST COST EFFECTIVE SOLUTION; HOWEVER, ADDITIONAL MATERIAL IS REQUIRED DUE TO LOWER R-VALUE OF 3.6-4.2 PER INCH COMPARED TO 6-6.5 PER INCH.
   - XPS: EXTRUDED POLYSTYRENE, GRADED BETWEEN EPS AND POLYISO.
4. CM TO VERIFY METHOD OF ATTACHMENT GC WILL USE AND COORDINATE WITH MFR TO ENSURE WARRANTY IS NOT AFFECTED:
   - PROVIDE COVER BOARD AS REQUIRED BY TPO-MFR REQUIREMENTS FOR FULLY ADHERED SYSTEM AS THE PREFERRED INSTALLATION METHOD.
   - PROVIDE COVER BOARD AS REQUIRED BY TPO-MFR REQUIREMENTS FOR MECHANICALLY FASTENED SYSTEM AS AN ALTERNATE.

## SINGLE PLY ROOFING SPECIFICATION

SINGLE PLY ROOFING SPECIFICATION
FIRESTONE
TPO-60MIL (THERMOPLASTIC POLYOLEFIN MEMBRANE) FULLY ADHERED TPO WHITE ASTM D6878
CLASSIFICATION: UL CLASS: A FM CLASS: 1
-45 PSF DESIGN
MAX. SLOPE 1"
DECK: NON-COMBUSTIBLES
INSULATION: POLYISOCYANURATE INSULATION BOARD ASTM C1289 LTTR = R-15. INSTALLED IN TWO LAYERS WITH STAGGERED JOINTS

TAPERED INSULATION: FACTORY TAPERED BOARDS FABRICATED TO PRODUCE SLOPE OF 1/4" PER FOOT. SLOPE TOWARDS DRAIN.

CRICKETS: PROVIDE CRICKETS TAPERED. EDGE STRIPS WHERE INDICATED.

AUXILIARY MATERIALS
SHEET FLASHING: SAME SHEET AS FIELD SHEET

BONDING ADHESIVE: MANUFACTURERS STANDARD BONDING ADHESIVE

METAL TERMINATION BARS: PRE-DRILLED STAINLESS STEEL OR ALUMINUM BARS

FASTENERS: FACTORY-COATED STEEL FASTENERS AND METAL PLATES MEETING CORROSION-RESISTANCE PROVISIONS OF FMG 4470

MISCELLANEOUS: PROVIDE POURABLE SEALER, PREFORMED CONES, PREFORMED INSIDE AND OUTSIDE CORNER FLASHING, T-JOINT COVERS, TERMINATION REGLETS, AND COVER STRIPS.

WALK-WAY PADS: FACTORY FORMED, NON-POUROUS, HEAVY-DUTY SLIP RESISTANT PADS OR ROLLS ACCEPTABLE TO MEMBRANE ROOFING SYSTEM MANUFACTURER.

ROOF ASSEMBLY SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.

PROVIDE PATCH OVER ALL 'T'-LAP JOINTS IN THE ROOF.

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STATE OF FLORIDA · RALPH WATSON · AR100937 · REGISTERED ARCHITECT
8.18.22
Ralph Watson
Digitally signed by Ralph Watson
DN: cn=Ralph Watson, o=rdcollaborative.com, ou=Principal, email=rwatson@rdcollaborative.com, c=US
Date: 2022.08.29 08:50:35-04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**
# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

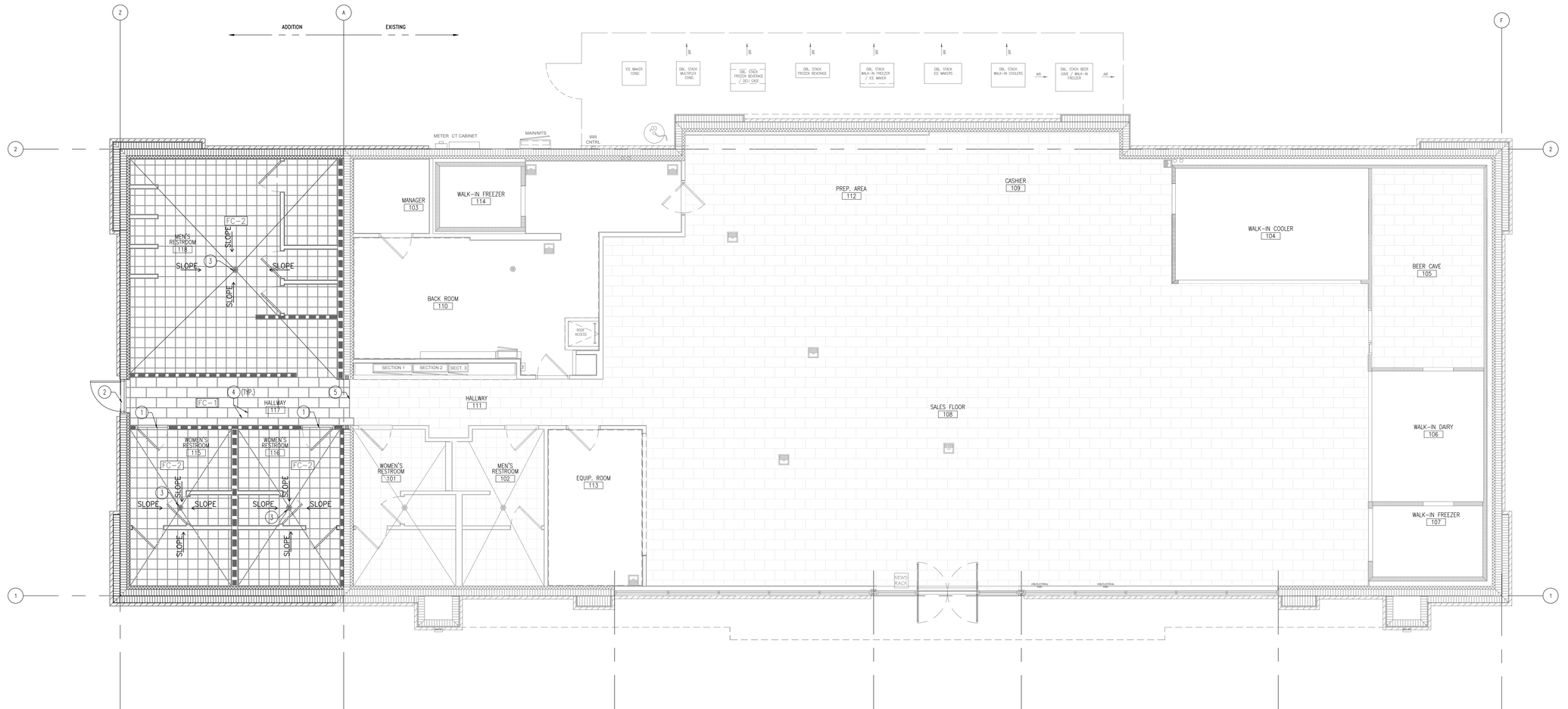
**PROJECT NUMBER**
22036

**SHEET TITLE**
## ROOF PLAN AND DETAILS

**SHEET NUMBER**
# A1.7

Drawing Name: G:\2022\22036_Circle K - Lake City, FL\Documentation\CAD\A1.7_Roof Plan and Details.dwg Last Modified: Aug 18, 2022 - 11:33am Plotted on: Aug 18, 2022 - 1:05pm by kelleymarcella

4625 NATIONAL PROTOTYPE - R1




1 FLOOR TILE PLAN
SCALE: 3/16" = 1'-0"

## GENERAL NOTES:

A. TRANSITIONS FROM ONE ROOM TO ANOTHER SHALL BE DONE UNDER CENTER OF DOORS WHERE POSSIBLE.

## KEYED NOTES:

1. START POINT OF FULL TILE.
2. THRESHOLD AT EXTERIOR DOORS TO BE HALF-SADDLE, ABUTTING FLOOR TILE, AND THRESHOLD TO COMPLY WITH LOCAL ACCESSIBILITY REQUIREMENTS.
3. FLOOR DRAINS, REFER TO PLUMBING SHEETS.
4. GROUT LINES TO BE 1/8" WIDE
5. GC TO ALIGN NEW GROUT LINE WITH EXISTING

**FLOOR FINISH:**

FC-1 FLORIDA TILE - 12"X24" 23835 GILD
SUPPLIED BY CIRCLE K - INSTALLED BY GC
TILE IN SALES, BEER CAVE, STORAGE AREA AND WALK-IN FREEZER.
TILE IS TO BE SLIP RESISTANCE AT STORAGE AREA.

GROUT BY G.C.: CHARCOAL #60 - BY CUSTOM BUILDING PRODUCTS (800.272.8766). GROUT LINES SHALL BE 1/8" WIDE

FC-2 CROSSVILLE - 12"x12" COTTO AMERICANO BLACK W/ MATCHING 6x12 SANITARY COVE BASE
SUPPLIED BY CIRCLE K - INSTALLED BY GC

GROUT BY G.C.: # 60 CHARCOAL SANDED - BY CUSTOM BUILDING PRODUCTS (800.272.8766). GROUT LINES SHALL BE 1/8" WIDE

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Date: 2022.08.15 09:48:46-04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
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**DRAWN BY**
KR

**PROJECT NAME**
# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

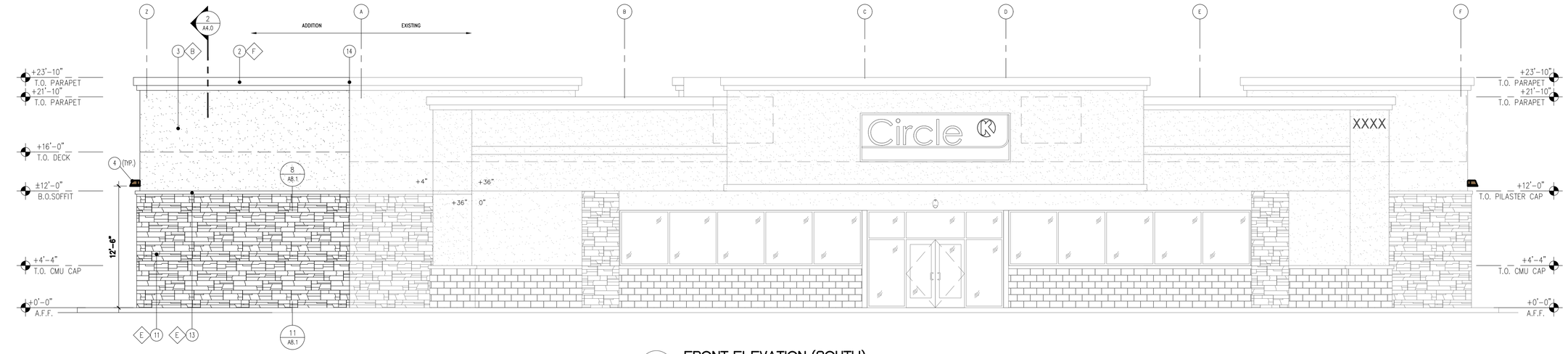
**PROJECT NUMBER**
22036

**SHEET TITLE**
## FLOOR TILE PLAN

**SHEET NUMBER**
# A1.10

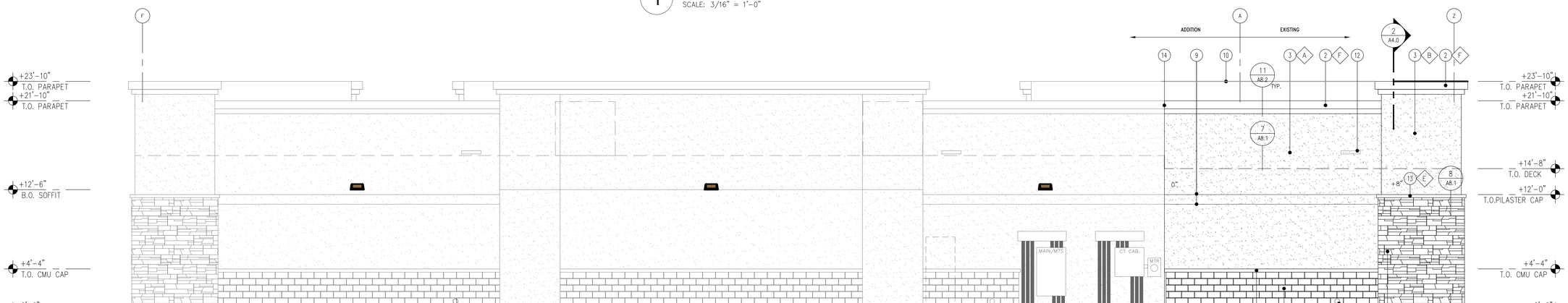
Drawing Name: 03.20003.22036_Circle K - Lake City, FL\Documentation\CAD\A1.10_Floor tile plan.dwg Last Modified: Aug 15, 2022 - 1:43pm Plotted on: Aug 15, 2022 - 1:43pm by kshelly-reynolds

4625 NATIONAL PROTOTYPE - R1



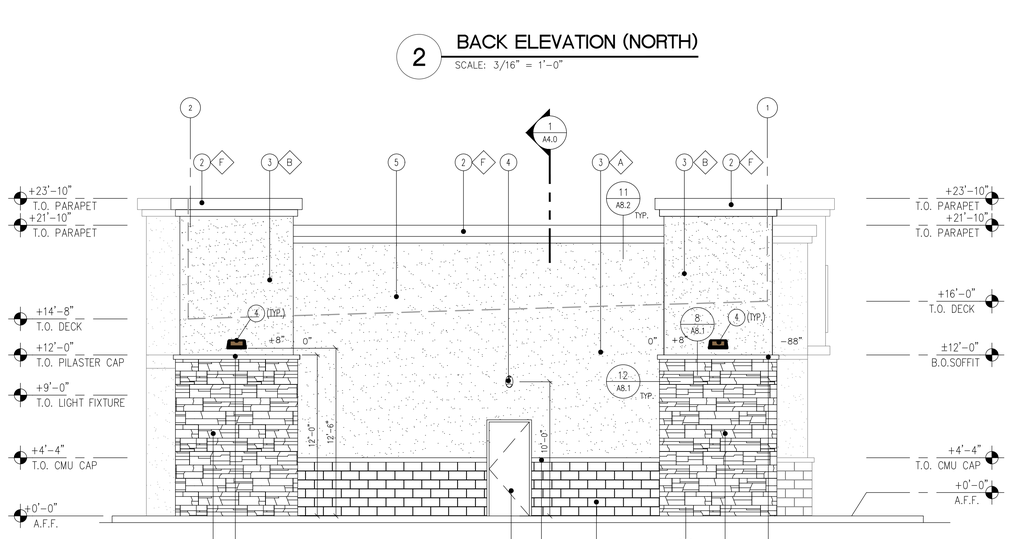

1 FRONT ELEVATION (SOUTH)

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




2 BACK ELEVATION (NORTH)

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




3 SIDE ELEVATION (WEST)

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

## KEY NOTES (X)

1. SERVICE DOOR, PAINT TO MATCH SURROUNDING WALL
2. FIRESTONE ANCHORGARD FASCIA
3. STUCCO SYSTEM WITH ACRYLIC FINISH, APPLIED PER MFG. SPECS. MIN. ¾" DIRECT APPLIED OVER CMU & MIN. ⅞" W/ WIRE LATH OVER METAL STUDS.
4. WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL PLAN
5. ROOF LINE AND HVAC UNITS
6. ROOF DRAIN EMERGENCY OVERFLOW TO DISCHARGE ABOVE GRADE
7. 4x8x16 CMU VENEER, SPLIT FACE, GROUTED TO MATCH CMU COLOR
8. 4x4x8 SOLID CMU CAP INSTALL PER MFR. SPECS.
9. STUCCO SCORE LINE WITH FRY REGLET. SEE DETAILS 7/A8.1
10. PARAPET WALL BEYOND
11. STONE VENEER, INSTALL PER MFR. SPECS. INSTALL GROUTED. GROUT TO MATCH STONE COLOR
12. OVERFLOW ROOF SCUPPER. SEE DETAIL 5/A1.7
13. STONE VENEER CAP, INSTALL PER MFR. SPECS
14. CONTROL JOINT

## FINISH SCHEDULE (X)

- A – *SHERWIN WILLIAMS #SW 6095 – TOASTY
- B – *SHERWIN WILLIAMS #SW 6115 – TOTALLY TAN
- C – *SHERWIN WILLIAMS HI-SOLIDS POLYURETHANE – SAFETY RED – CIRCLE K RED
- D – A1 BLOCK SPLITFACE CMU OR EQUAL – "S-104"
- E – CULTURED STONE CSV 20006 – CHARDONNAY COUNTRY LEDGESTONE BY OWENS CORNING/BORAL
- F – *SHERWIN WILLIAMS #SW 6090 – JAVA

*USE SHERWIN WILLIAMS MANUFACTURER ONLY.

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8/15/22

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

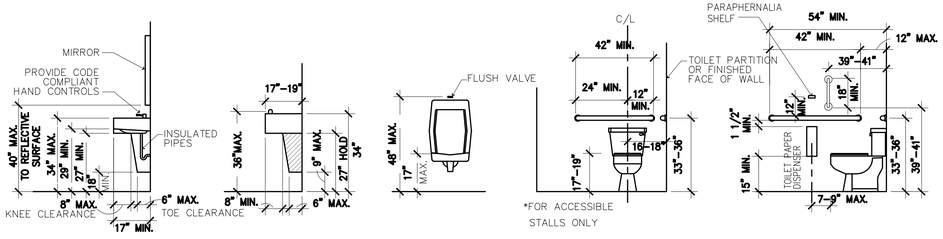
## EXTERIOR ELEVATIONS

**SHEET NUMBER**

# A2.1

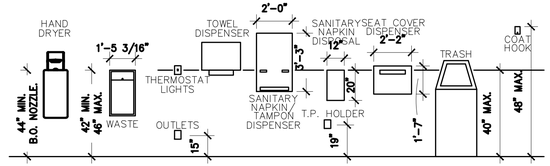
Drawing Name: G:\2022\22036_Circle K - Lake City, FL\Documents\Cad\A2.1_Exterior Elevations.dwg Last Modified: Aug 15, 2022 - 11:56am Plotted on: Aug 15, 2022 - 12:57pm by kdelacruzpineda

4625 NATIONAL PROTOTYPE – R1

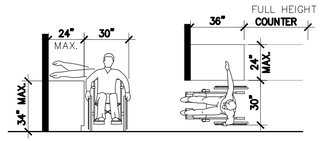



1 FIXTURE MOUNTING DETAILS

SCALE: N.T.S.




MISC. FIXTURES




SALES AND SERVICE COUNTERS FBCA 904.4

NOTE:
FBCA, 5th EDITION SPECIFIES ACCESSIBLE COUNTER HEIGHTS UP TO 34" (902.3).

## GENERAL NOTES

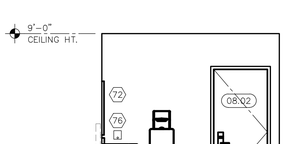
1. SEE SHEET A1.5 FOR EQUIPMENT SCHEDULE. (X)
2. CLEAR ACCESS A MIN. OF 44" IN WIDTH THROUGHOUT SANITARY FACILITY TO REACH THE HANDICAPPED COMPARTMENT. (48" CLEAR @ HINGE SIDE APPROACH TO COMPARTMENT).
3. A CLEAR SPACE OF SUFFICIENT SIZE TO INSCRIBE A 60" DIA.. CIRCLE WITHIN THE SANITARY FACILITY ROOM AT A HEIGHT OF 27" A.F.F. DOORS OTHER THAN THE TOILET COMPARTMENT DOOR MAY NOT ENCROACH MORE THAN 12".

HANDICAPPED COMPARTMENT DOOR:

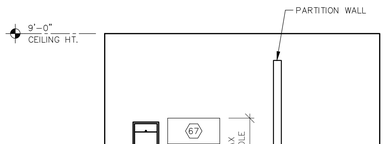
1. EQUIPPED WITH AN AUTOMATIC CLOSING DEVICE (3 SECOND MINIMUM SWEEP TIME FROM OPEN POSITION OF 70 DEGREES TO A POINT 3" FROM THE LATCH).
2. CLEAR OPENING WIDTH OF 32" IF LOCATED AT THE END. 34" IF LOCATED AT SIDE OF COMPARTMENT.
3. COMPARTMENT DOOR PROVIDES MINIMUM 9" CLEARANCE FOR TOE CLEARANCE FOOTRESTS UNDERNEATH DOOR.
4. INSIDE AND OUTSIDE OF THE COMPARTMENT DOOR IS EQUIPPED WITH A LOOP OR U-SHAPED HANDLE IMMEDIATELY BELOW THE LATCH. THE LATCH IS A FLIP-OVER STYLE, SLIDING, OR OTHER HARDWARE NOT REQUIRING TIGHT GRASPING OR TWISTING.
5. OPENING HARDWARE IS CENTERED BETWEEN 30" AND 44" ABOVE FINISH FLOOR.

INTERIOR COMPARTMENT:

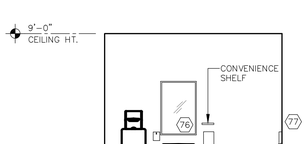
1. FLUSH VALVE IS ON WIDE SIDE OF TOILET AREA.
2. MAXIMUM HEIGHT FROM FLOOR TO FLUSH VALVE TO COMPLY SECTION 308 (ICC/ANSI 117.1).
3. 5 lb. MAXIMUM FORCE TO OPERATE VALVE.
4. SEE TOILET ACCESSORY MOUNTING HEIGHTS DETAIL FOR HEIGHTS OF GRAB BARS AND ACCESSORIES.
5. VERTICAL GRAB BARS REQUIRED AT ALL ACCESSIBLE TOILETS.
6. A PARAPHERNALIA SHELF, SHALL BE PROVIDED AT ALL ACCESSIBLE TOILETS. IT SHALL BE LOCATED ADJACENT TO OR INTEGRAL WITH THE TOILET PAPER DISPENSER . THE SELF SHALL BE LOCATED A MINIMUM OF 15 INCHES ABOVE THE FINISH FLOOR WITH A MINIMUM CLEARANCE OF 6 INCHES BELOW THE GRAB BAR. IT SHALL BE A MINIMUM 8 INCHES WIDE A MINIMUM 5 INCHES DEEP. IF ADJACENT TO THE TOILET PAPER DISPENSER , IT SHALL BE LOCATED ON THE SIDE OF THE DISPENSER CLOSET TO THE TOILET.
7. PROVIDE 30X48 ADA ACCESSIBLE SPACE AT LAV.
8. PROVIDE 30X48 ADA ACCESSIBLE SPACE AT URINAL
9. INSULATE WATER AND DRAIN PIPES
10. INSTALL BACKING FOR CHANGING TABLE
11. CHANGING TABLE TO BE INSTALLED BY G.C.
12. NOT USED
13. PROVIDE SOLID BLOCKING AT WALL FOR SHELVING



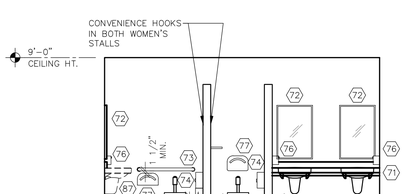

ELEVATION A
(FRONT ELEVATION)




ELEVATION B
(RIGHT ELEVATION)



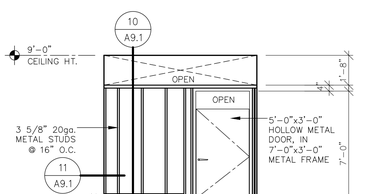

ELEVATION C
(REAR ELEVATION)




ELEVATION D
(LEFT ELEVATION)

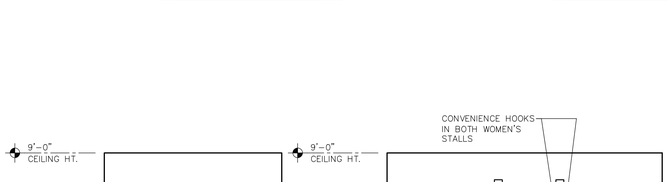
2 ELEVATIONS AT WOMEN'S RESTROOM (116)

SCALE: 1/4" = 1'–0"



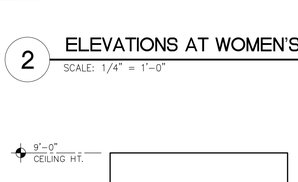

3 RESTROOM PARTITION WALL FRAMING

SCALE: 1/4" = 1'–0"

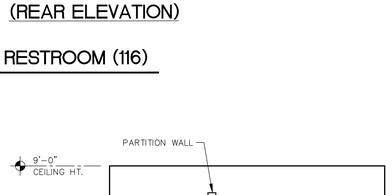



ELEVATION A
(FRONT ELEVATION)

ELEVATION B
(RIGHT ELEVATION)




ELEVATION C
(REAR ELEVATION)




ELEVATION D
(LEFT ELEVATION)

4 ELEVATIONS AT WOMEN'S RESTROOM (115)

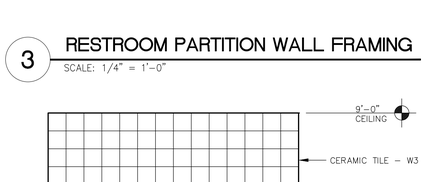
SCALE: 1/4" = 1'–0"

Scale: N.T.S.

NOTE:
ALL TILED WALLS SHALL UTILIZE A SCHLUTER RONDEC-E FINISH STRIP TO FINISH ALL OUTSIDE TILED CORNERS

TILE FINISH DETAIL

SCALE: NONE OUTSIDE CORNER




NOTE:
THIS IS A GENERIC WALL ELEVATION FOR TILE PATTERN ONLY.

* DECO STRIP: CROSSVILLE GLASS BLOX 2"X4" STAGGERED "BLACK MAGIC GLASS" SUPPLIED BY CIRCLE K – INSTALLED BY G.C.

NOTE: IT IS SOLD IN 12X12 SHEETS. THE SHEET CONTAINS 6 ROWS OF GLASS. THE BAND IS TO BE TWO ROWS WIDE.

GROUT BY G.C.: CUSTOM BUILDING PRODUCTS #60 CHARCOAL NON-SANDED (800.272.8766). SUPPLIED AND APPLIED BY G.C.

5 RESTROOM WALL TILE PATTERN

SCALE: 1/4" = 1'–0"

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STATE OF FLORIDA · RALPH WATSON · AR100937 · REGISTERED ARCHITECT

Ralph Watson
8.18.22

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

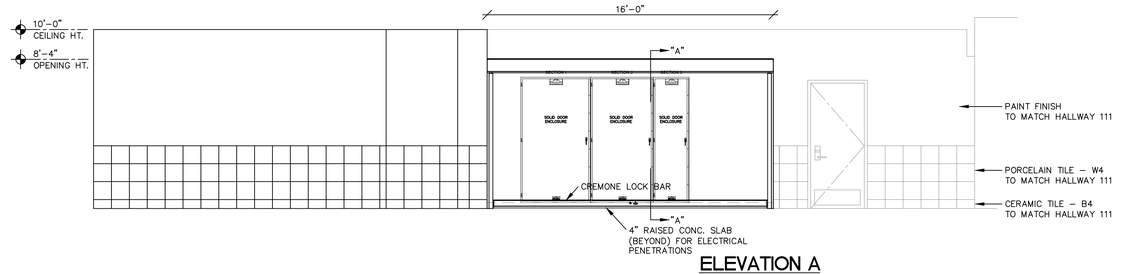
**SHEET TITLE**

**INTERIOR ELEVATIONS**

**SHEET NUMBER**
**A3.1**

Drawing Name: 01.00003.22036_Circle K – Lake City, FL\Documents\Arch\A3.1_Interior Elevations.dwg Last Modified: Aug 18, 2022 - 10:45am Plotted on: Aug 18, 2022 - 12:57pm by kelley.reynolds

4625 NATIONAL PROTOTYPE – R1



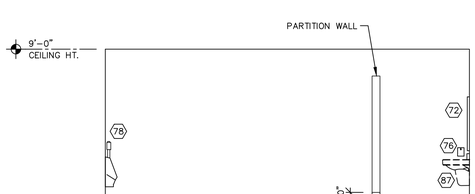

ELEVATION A
(FRONT ELEVATION)

ELEVATION B
(REAR ELEVATION)

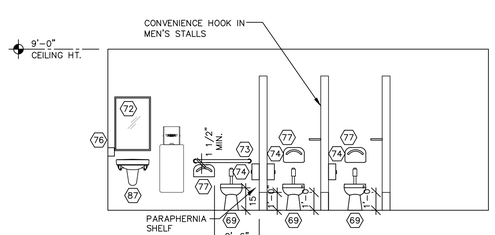
ELEVATION C
(LEFT ELEVATION)

## 1 ELEVATIONS AT HALLWAY (117)

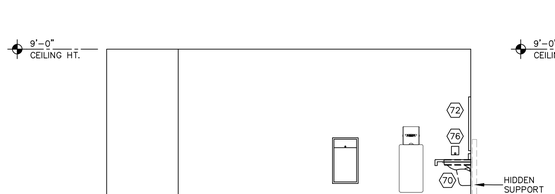
SCALE: 1/4" = 1'-0"



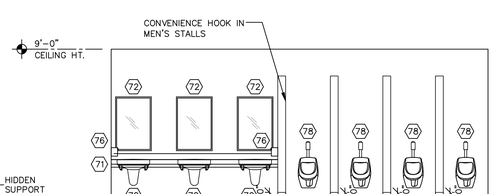

ELEVATION A
(FRONT ELEVATION)




ELEVATION B
(RIGHT ELEVATION)




ELEVATION C
(REAR ELEVATION)




ELEVATION D
(LEFT ELEVATION)

## 2 ELEVATIONS AT MEN'S RESTROOM (118)

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

## GENERAL NOTES

1. SEE SHEET A1.5 FOR EQUIPMENT SCHEDULE. (X)
2. CLEAR ACCESS A MIN. OF 44" IN WIDTH THROUGHOUT SANITARY FACILITY TO REACH THE HANDICAPPED COMPARTMENT. (48" CLEAR @ HINGE SIDE APPROACH TO COMPARTMENT).
3. A CLEAR SPACE OF SUFFICIENT SIZE TO INSCRIBE A 60" DIA.. CIRCLE WITHIN THE SANITARY FACILITY ROOM AT A HEIGHT OF 27" A.F.F. DOORS OTHER THAN THE TOILET COMPARTMENT DOOR MAY NOT ENCROACH MORE THAN 12".

HANDICAPPED COMPARTMENT DOOR:

1. EQUIPPED WITH AN AUTOMATIC CLOSING DEVICE (3 SECOND MINIMUM SWEEP TIME FROM OPEN POSITION OF 70 DEGREES TO A POINT 3" FROM THE LATCH).
2. CLEAR OPENING WIDTH OF 32" IF LOCATED AT THE END. 34" IF LOCATED AT SIDE OF COMPARTMENT.
3. COMPARTMENT DOOR PROVIDES MINIMUM 9" CLEARANCE FOR TOE CLEARANCE FOOTRESTS UNDERNEATH DOOR.
4. INSIDE AND OUTSIDE OF THE COMPARTMENT DOOR IS EQUIPPED WITH A LOOP OR U-SHAPED HANDLE IMMEDIATELY BELOW THE LATCH. THE LATCH IS A FLIP-OVER STYLE, SLIDING, OR OTHER HARDWARE NOT REQUIRING TIGHT GRASPING OR TWISTING.
5. OPENING HARDWARE IS CENTERED BETWEEN 30" AND 44" ABOVE FINISH FLOOR.

INTERIOR COMPARTMENT:

1. FLUSH VALVE IS ON WIDE SIDE OF TOILET AREA.
2. MAXIMUM HEIGHT FROM FLOOR TO FLUSH VALVE TO COMPLY SECTION 308 (ICC/ANSI 117.1).
3. 5 lb. MAXIMUM FORCE TO OPERATE VALVE.
4. SEE TOILET ACCESSORY MOUNTING HEIGHTS DETAIL FOR HEIGHTS OF GRAB BARS AND ACCESSORIES.
5. VERTICAL GRAB BARS REQUIRED AT ALL ACCESSIBLE TOILETS.
6. A PARAPHERNALIA SHELF, SHALL BE PROVIDED AT ALL ACCESSIBLE TOILETS. IT SHALL BE LOCATED ADJACENT TO OR INTEGRAL WITH THE TOILET PAPER DISPENSER . THE SELF SHALL BE LOCATED A MINIMUM OF 15 INCHES ABOVE THE FINISH FLOOR WITH A MINIMUM CLEARANCE OF 6 INCHES BELOW THE GRAB BAR. IT SHALL BE A MINIMUM 8 INCHES WIDE A MINIMUM 5 INCHES DEEP. IF ADJACENT TO THE TOILET PAPER DISPENSER , IT SHALL BE LOCATED ON THE SIDE OF THE DISPENSER CLOSET TO THE TOILET.
7. PROVIDE 30X48 ADA ACCESSIBLE SPACE AT LAV.
8. PROVIDE 30X48 ADA ACCESSIBLE SPACE AT URINAL
9. INSULATE WATER AND DRAIN PIPES
10. INSTALL BACKING FOR CHANGING TABLE
11. CHANGING TABLE TO BE INSTALLED BY G.C.
12. NOT USED
13. PROVIDE SOLID BLOCKING AT WALL FOR SHELVING

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**PROFESSIONAL SEAL**

STATE OF FLORIDA · RALPH WATSON · AR100937 · REGISTERED ARCHITECT
8.18.22
Ralph Watson
Ralph Watson
rdcollaborative.com,
I am the author of this document
AR100937
2022.08.29 09:46:54-04'00'

**PROFESSIONAL IN CHARGE**
RW
**PROJECT MANAGER**
RM
**QUALITY CONTROL**
RW
**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

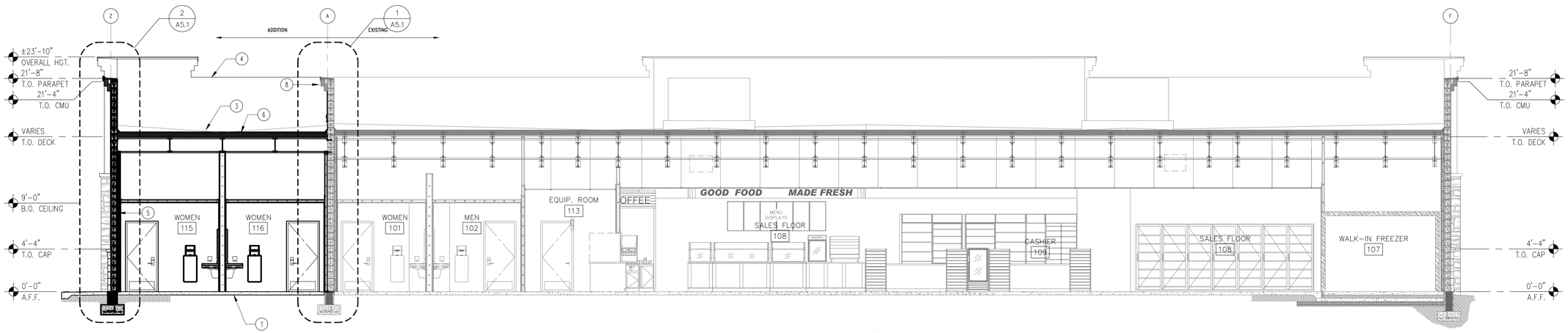
## INTERIOR ELEVATIONS

**SHEET NUMBER**

# A3.2

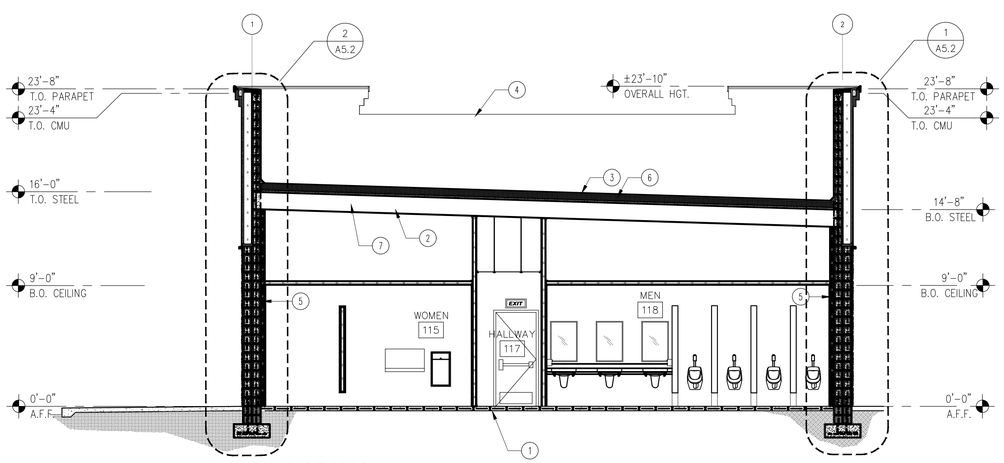
4625 NATIONAL PROTOTYPE – R1

Drawing Name: G:\2022\22036_Circle K – Lake City, FL\Documents\CAD\A3.3_Interior Elevations.dwg Last Modified: Aug 18, 2022 – 10:21am Plotted on: Aug 18, 2022 – 2:57pm by katelyn.reynolds




1 BUILDING SECTION

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




2 BUILDING SECTION

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

## KEY NOTES (X)

1. CONCRETE SLAB, SEE STRUCTURAL FOR REINFORCING.
2. ROOF BEAMS, SEE STRUCTURAL DRAWINGS FOR SPECIFIC INFORMATION.
3. ROOFING SYSTEM RIGID INSULATION. WALKWAYS AS REQUIRED BY ROOFING MANUFACTURER. ROOF SYSTEM TO BE FLOOD TESTED AFTER INSTALLATION TO ENSURE NO LEAKS.
4. PARAPET BEYOND
5. R-11 BATT INSULATION
6. R-38 RIGID INSULATION
7. ALL DUCT WORK TO GO BETWEEN/THROUGH BEAMS – SEE MECH
8. WRAPPED PARAPET & FINISH TO BE REMOVED.

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AR100937
REGISTERED ARCHITECT
8.18.22
Ralph Watson

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

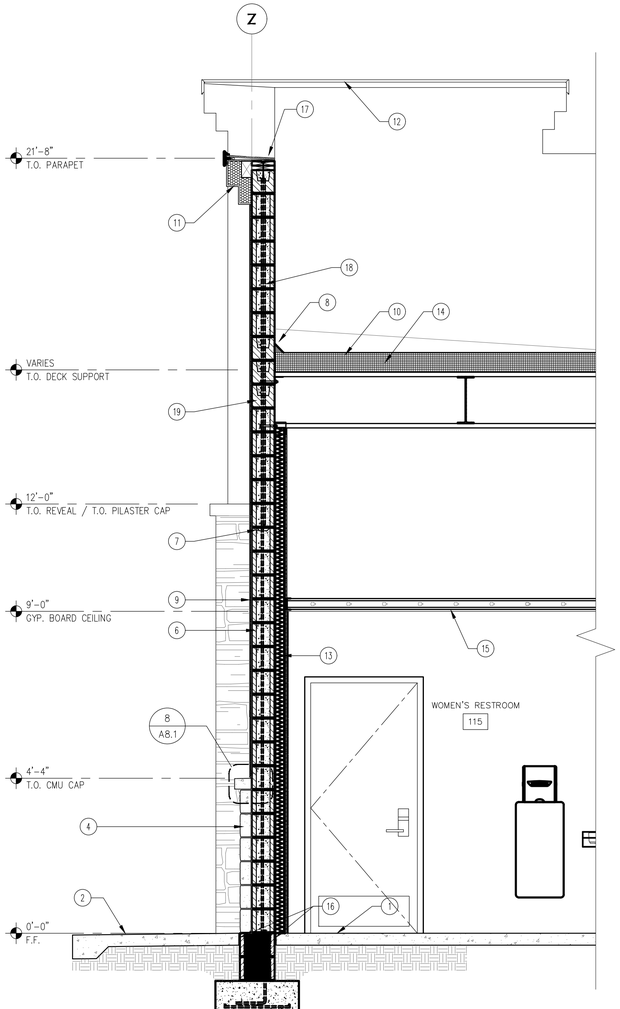
## BUILDING SECTIONS

**SHEET NUMBER**

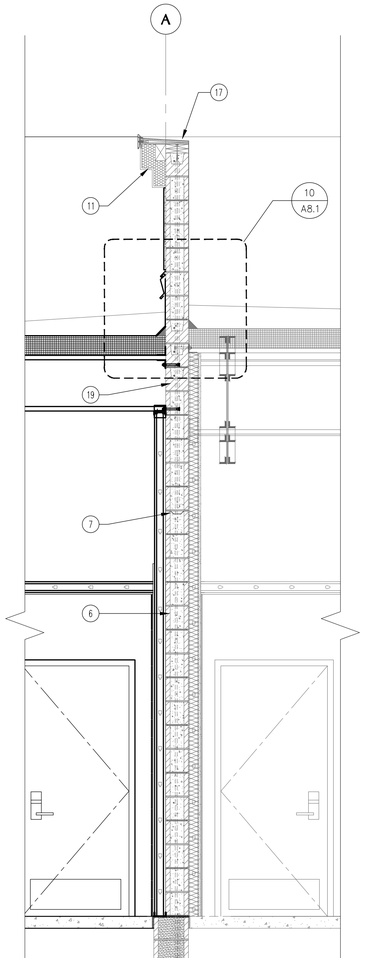
# A4.0

Drawing Name: G:\2022\22036_Circle K – Lake City, FL\Documentation\CAD\A4.0_Building Sections.dwg Last Modified: Aug 18, 2022 – 10:54am Plotted on: Aug 18, 2022 – 1:35pm by kelleymyrdds

4625 NATIONAL PROTOTYPE – R1




2 WALL SECTION
SCALE: 1/2" = 1'-0"




1 WALL SECTION
SCALE: 1/2" = 1'-0"

## KEY NOTES (X)

1. 4" CONC. SLAB, SEE STRUCTURAL, SEE FINISH SCHEDULE FOR FINISH SHEET A1.2
2. CONCRETE WALK, BROOM FINISH., SEE SITE PLAN/CIVIL PLANS
3. CONCRETE FOOTING, SEE STRUCTURAL DRAWINGS FOR SPECIFIC INFORMATION
4. 4X8X16 CMU VENEER, ANCHOR TO WALL PER FBC SECTION 14004.4 WITH GALVANIZED STEEL ANCHORS AT 16" O.C. EACH WAY.
5. STEEL BAR JOIST, SEE STRUCTURAL DRAWINGS FOR SPECIFIC INFORMATION.
6. 8" CMU WALL, SEE STRUCTURAL
7. CAVITY CAP @ 48" O.C. @ PARAPET REINFORCING
8. 4" CONTINUOS CANT. STRIP
9. STUCCO SYSTEM PER ESR-1607 WITH ACRYLIC FINISH
10. ROOFING SYSTEM. WALKWAYS AS REQUIRED BY ROOFING MANUFACTURER. ROOF SYSTEM TO BE FLOOD TESTED AFTER INSTALLATION TO ENSURE NO LEAKS
11. STUCCO OVER MOLDING SECURED TO PARAPET, SEE DETAIL 11/A8.2
12. PARAPET BEYOND
13. 5/8" GYP. BD. OVER 3 5/8" MTL. STUDS @ 16" O.C. W/ R-11 BATT INSULATION
14. R-38 RIGID INSULATION
15. GYPSUM BOARD CEILING
16. 1/2" EXPANSION JOINT MATERIAL
17. GALV. METAL COPING OVER 1/2" PLYWOOD
18. PARAPET REINFORCING W/ #5 REBAR @ 48" O.C. IN CONC.FILLED CELLS TO 5' BELOW DECK SUPPORT
19. CONCRETE BOND BEAM, SEE STRUCTURAL
20. GALV. METAL COPING OVER 1/2" PLYWOOD
21. STEEL BEARING PLATE, SEE STRUCTURAL
22. CONCRETE BOND BEAM, SEE STRUCTURAL

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**PROFESSIONAL SEAL**

STATE OF FLORIDA
RALPH WATSON
AR100937
REGISTERED ARCHITECT
8.18.22
Ralph Watson
Digitally signed by Ralph Watson
DN: cn=Ralph Watson, o=rdcollaborative.com, ou=Ralph, email=RWatson@RDC-32233, INC., c=US
2022.08.18 09:46:23-04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

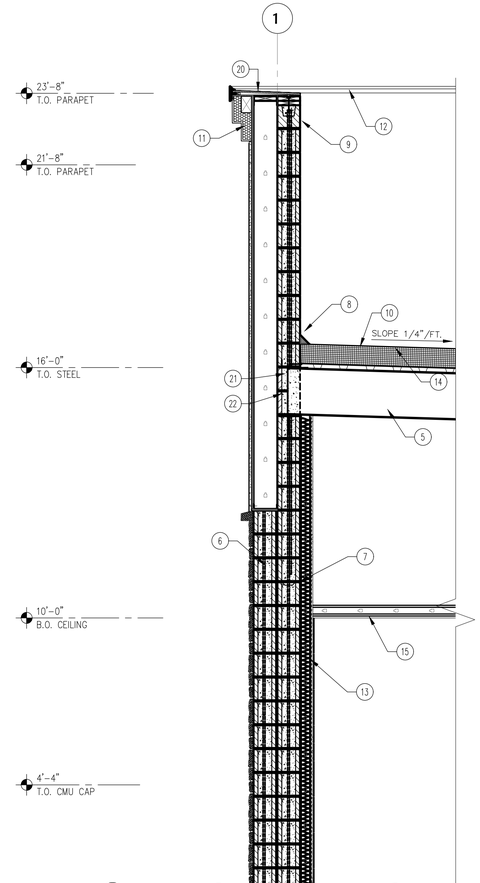
## WALL SECTIONS

**SHEET NUMBER**

# A5.1

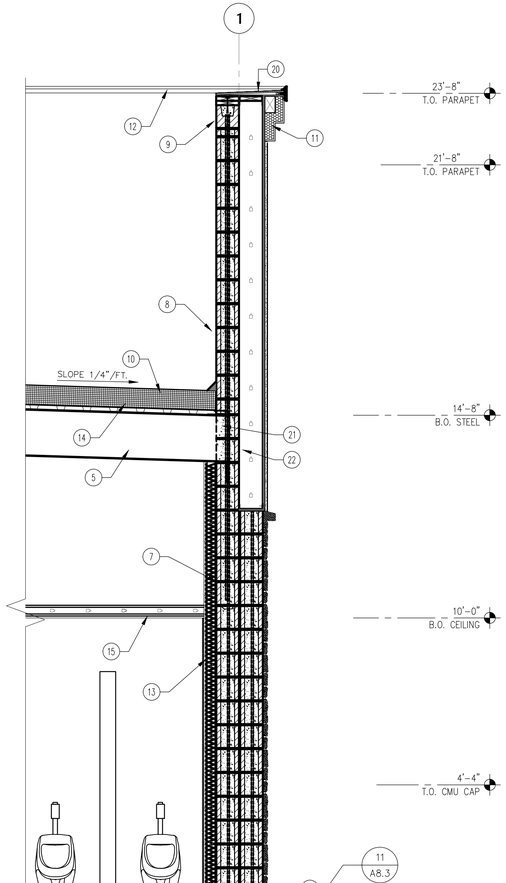
Drawing Name: G:\2022\22036_Circle K - Lake City, FL\Documentation\CAD\A5_Retail Sections.dwg Last Modified: Aug 18, 2022 - 3:57pm Plotted on: Aug 18, 2022 - 12:29pm by kshirley-reynolds

4625 NATIONAL PROTOTYPE - R1




2 WALL SECTION

SCALE: 1/2" = 1'-0"




1 WALL SECTION

SCALE: 1/2" = 1'-0"

## KEY NOTES (X)

1. 4" CONC. SLAB, SEE STRUCTURAL, SEE FINISH SCHEDULE FOR FINISH SHEET A1.2
2. CONCRETE WALK, BROOM FINISH., SEE SITE PLAN/CIVIL PLANS
3. CONCRETE FOOTING, SEE STRUCTURAL DRAWINGS FOR SPECIFIC INFORMATION
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19. CONCRETE BOND BEAM, SEE STRUCTURAL
20. GALV. METAL COPING OVER 1/2" PLYWOOD
21. STEEL BEARING PLATE, SEE STRUCTURAL
22. CONCRETE BOND BEAM, SEE STRUCTURAL


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STATE OF FLORIDA
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AR100937
REGISTERED ARCHITECT
8.18.22
Ralph Watson
rwatson@rdcollaborative.com, C=US, O=RDC, OU=RDC-5122, 1=C:
2022.08.18 09:38:44 -04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## WALL SECTIONS

**SHEET NUMBER**

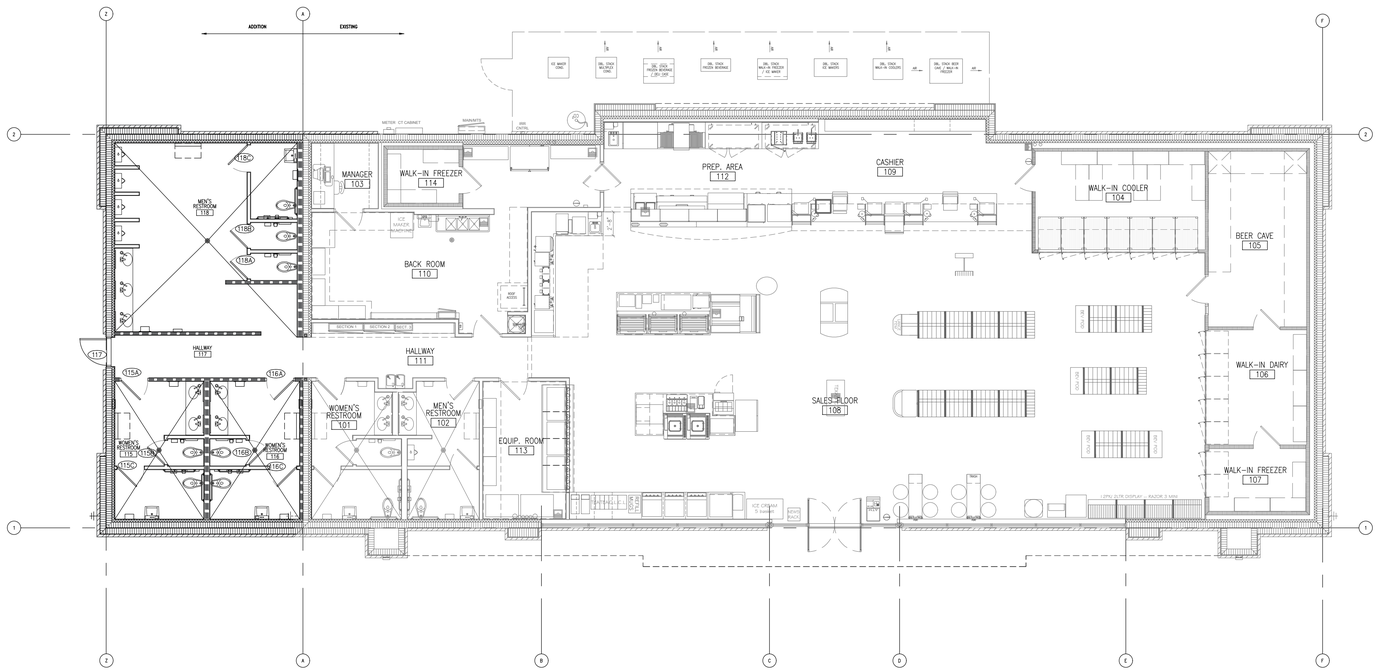
# A5.2


Drawing Name: 01.20022.22036_Circle K - Lake City, FL\Documents\CAD\A5.3_Wall Sections.dwg Last Modified: Aug 18, 2022 - 12:52pm Plotted on: Aug 18, 2022 - 12:52pm by kristen.reynolds

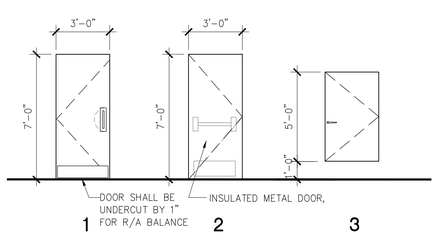
## DOOR SCHEDULE

| MARK | ROOM NO. | DOOR SIZE WIDTH | DOOR SIZE HEIGHT | DOOR SIZE THKN. | TYPE | MATERIAL | FINISH | FRAME MATERIAL | FRAME FINISH | FRAME TYPE | HDW. SET NO. | DETAILS HEAD | DETAILS JAMB | DETAILS SILL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 115A | RESTROOM DOOR | 3'-0" | 7'-0" | – | 1 | H.M. | PAINT | H.M. | PAINT | B | 4 | 1/A9.2 | 1/A9.2 | 4/A9.2 | ADA SIGNAGE BY G.C., SEE DTL 1/A9.1 |
| 115B | RESTROOM PART. | 2'-4" | 5'-0" | – | 3 | H.M. | PAINT | H.M. | PAINT | C | 5 | – | 1/A9.2 | – | |
| 115C | RESTROOM PART. | 3'-0" | 5'-0" | – | 3 | H.M. | PAINT | H.M. | PAINT | C | 5 | – | 1/A9.2 | – | |
| 116A | RESTROOM DOOR | 3'-0" | 7'-0" | – | 1 | H.M. | PAINT | H.M. | PAINT | B | 4 | 1/A9.2 | 1/A9.2 | 4/A9.2 | ADA SIGNAGE BY G.C., SEE DTL 1/A9.1 |
| 116B | RESTROOM PART. | 3'-0" | 5'-0" | – | 3 | H.M. | PAINT | H.M. | PAINT | C | 5 | – | 1/A9.2 | – | |
| 116C | RESTROOM PART. | 3'-0" | 5'-0" | – | 3 | H.M. | PAINT | H.M. | PAINT | C | 5 | – | 1/A9.2 | – | |
| 117 | HALLWAY | 3'-0" | 7'-0" | – | 2 | INSUL. MTL. | PAINT | H.M. | PAINT | A | 3 | 2/A8.2 | 2/A8.2 | 1/A8.2 | – |
| 118A | RESTROOM PART. | 3'-0" | 5'-0" | – | 3 | H.M. | PAINT | H.M. | PAINT | C | 5 | – | 1/A9.2 | – | |
| 118B | RESTROOM PART. | 3'-0" | 5'-0" | – | 3 | H.M. | PAINT | H.M. | PAINT | C | 5 | – | 1/A9.2 | – | |
| 118C | RESTROOM PART. | 3'-0" | 5'-0" | – | 3 | H.M. | PAINT | H.M. | PAINT | C | 5 | – | 1/A9.2 | – | |

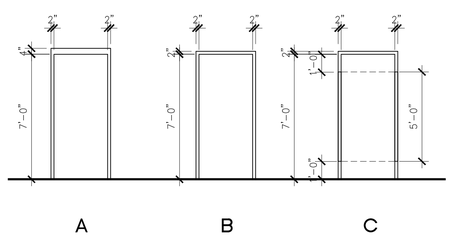
## DOOR / WINDOWS/ ROOM KEY PLAN




## DOOR TYPES:




## FRAME TYPES:




## HARDWARE SCHEDULE

SET No. 1
6 – DOUBLE ACTUATING RECESSED HINGES
2 – PULL TYPE HANDLES (8" LONG x 4" DEEP)
2 – CYLINDER 985 x 9899 FALCON
1 – PLASTIC SIGN: "THESE DOORS TO REMAIN UNLOCKED DURING BUSINESS HOURS.
BALANCE OF HARDWARE BY STORE FRONT SUPPLIER.
– DOUBLE SWING

SET No. 2
3 – HINGES BY PRE–HUNG DOOR SUPPLIER.
1 – PRIVACY SET S300HG x 2–3/8" BS FALCON.
1 – KEYED LOCK
1 – WALL STOP 4275 BALDWIN
1 – 12" KICKPLATE
1 – CLOSER P1208–SBL/SNB
1 – 16 GA WELDED HOLLOW METAL FRAME PROVIDE JAMB REINFORCEMENT AT EACH HINGE
(VERIFY WITH CIRCLE K PRIOR TO INSTALLATION)

SET No. 3
3 – HINGES 1279 4 1/2"x4 1/2" x NRP HAGER
1 – ALARM PANIC, SAFEGARD 70 x 313 ALARM LOCK.
1 – RIM CYLINDER 951 FALCON
1 – LIMIT CHAIN 15F2C
1 – THRESHOLD 170A PEMKO
1 – DOOR SWEEP 307AV PEMKO
1 – WEATHERSTRIP 292 DV PEMKO
2 – PULL HANDLES PEMKO
1 – CLOSER P1208–SBL/SNB
1 – 12" KICKPLATE
1 – **16 GA. HOLLOW METAL WELDED FRAME, GRIND EDGES SMOOTH. PROVIDE JAMB REINFORCEMENT AT EACH HINGE. HOLLOW METAL FRAME TO BE FILLED W/ GROUT**
NOT ALLOWED ANY DEAD BOLTS, MUST BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

SET No. 4
3 – 4 1/2" X 4 1/2" N.R.P FBB179
1 – PULL PLATE HAGER MODEL # H33E
1 – PUSH PLATE HAGER MODEL # 110S
1 – OVERHEAD DOOR CLOSER MODEL 1461T
1 – DOOR STOP MODEL # 255S
2 – KICKPLATES MODEL # 190S
1 – 16 GA WELDED HOLLOW METAL FRAME PROVIDE JAMB REINFORCEMENT AT EACH HINGE

SET No. 5
3 – HINGES BY PRE–HUNG DOOR SUPPLIER. (BRUSHED ALUM.)
1 – PRIVACY LOCKSET W301 QUANTUM (FALCON) 626
1 – PURSE HOOK

SET No. 6
3 – HINGES BY PRE–HUNG DOOR SUPPLIER.
1 – KEYED LOCK SET
1 – WALL STOP 4275 BALDWIN
1 – 12" KICKPLATE
1 – CLOSER P1208–SBL/SNB
1 – 16 GA WELDED HOLLOW METAL FRAME PROVIDE JAMB REINFORCEMENT AT EACH HINGE

SET No. 7
OVERHEAD DOOR MODEL# ALLURE SHUTTER 653 BETWEEN JAMB MOUNTED MANUAL PUSH W/ CREMONE LOCK BAR
INSTALL PER MFR'S SPECIFICATION
COLOR: STD. SILVER
CONTACT: (800) 929–3667
WEBSITE: www.overheaddoor.com

SET No. 8
ELIASON DOOR MODEL# PE–500 WITH ELIASON FLUSH HOLLOW METAL FRAME, IMPACT PLATES AND MOLDED SPRING BUMPERS.
INSTALL PER MFR'S SPECIFICATION
COLOR: BLACK
CONTACT: (800) 828–3655
WEBSITE: www.eliasoncorp.com

## HARDWARE NOTES

1. ALL EXITS TO BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE.
2. MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED.
3. ALL DOOR HARDWARE IS TO BE DISABLED ACCESSIBLE.

## DOOR SIGNAGE NOTES:

1. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH TO HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND STROKE WIDTH TO HEIGHT RATIO BETWEEN 1:5 AND 1:10.
2. CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER CASE X. LOWER CASE CHARACTERS ARE PERMITTED (3" MIN.)
3. LETTERS AND NUMERALS SHALL BE RAISED 1/32 IN. UPPER CASE, SANS SERIF OR SIMPLE TYPE AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8" (16mm) HIGH, BUT NO HIGHER THAN 2 IN. (50mm). PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERVAL DESCRIPTIONS PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6 IN. (152mm) MINIMUM IN HEIGHT.
4. THE CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL MATTE OR OTHER NON GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.
5. WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHT SHALL BE 48" MINIMUM MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER OR 60" MAXIMUM MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3 IN (76mm) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

## ACCESSIBILITY NOTES:

1. ACCESS TO THESE FACILITIES SHALL BE PROVIDED AT PRIMARY ENTRANCES.
2. PROVIDE A 60"x60" MIN. LANDING ON STRIKE SIDE OF DOOR W/ 44" MIN. WIDTH IN DIRECTION OF TRAVEL.
3. EVERY REQUIRED EXIT DOORWAY SHALL BE SIZED FOR A DOOR NOT LESS THAN 3 FT. WIDE BY NOT LESS THAN 6"–8" HIGH CAPABLE OF OPENING 90°, SO THAT THE CLEAR WIDTH OF THE EXITWAY IS 32" MIN. THRESHOLD TO BE A MAX. 1/4" ABOVE ADJACENT FINISH FLOOR.
4. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS.
5. THE BOTTOM 12" OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
6. PROVIDE LEVER TYPE HARDWARE, PANIC BARS, PUSH – PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. (30" TO 44" A.F.F.)


rdc.

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**REVISION**

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**PROFESSIONAL SEAL**

STATE OF FLORIDA · RALPH WATSON · REGISTERED ARCHITECT · AR100937

Digitally signed by Ralph Watson
DN: c=US, o=rdc collaborative, cn=Ralph Watson, email=rwatson@rdcollaborative.com, ou=FL REG# AR100937
Date: 2022.08.08 10:52:54 -04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

**ROOM KEY PLAN, DOOR/ WINDOW SCHEDULE & TYPES, AND NOTES**

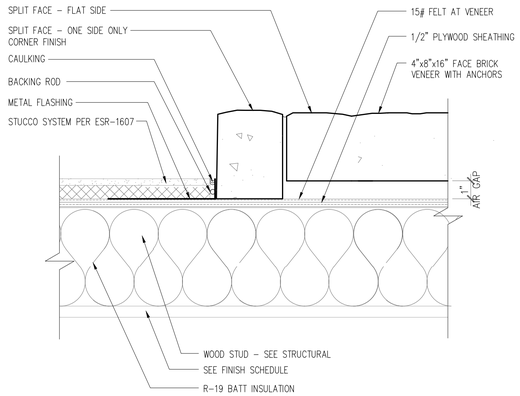
**SHEET NUMBER**

# A6.0


4625 NATIONAL PROTOTYPE – R1

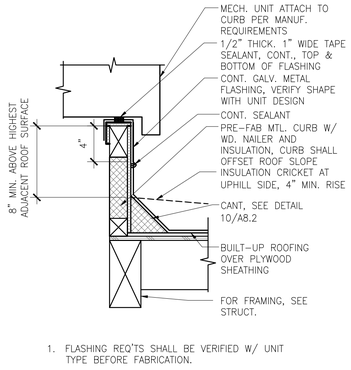


Drawing Name: G:\2022\22036_Circle K – Lake City, FL\Documentation\ARCH\A3_Door and Window Types Sheets.dwg Last Modified: Aug 15, 2022 – 10:06am Plotted on: Aug 15, 2022 – 12:58pm by kristy.reynolds




## 12 TRANSITION - SPLIT FACE TO STUCCO (PLAN)

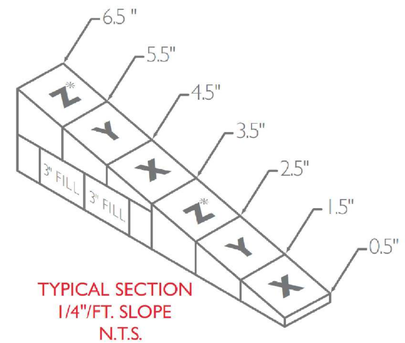
3"=1'-0"




1. FLASHING REQ'TS SHALL BE VERIFIED W/ UNIT TYPE BEFORE FABRICATION.

## 9 ROOF CURB DETAIL

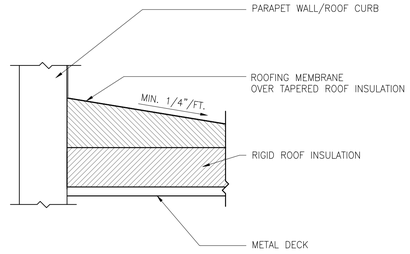
1 1/2"=1'-0"




TYPICAL SECTION
1/4"/FT. SLOPE
N.T.S.

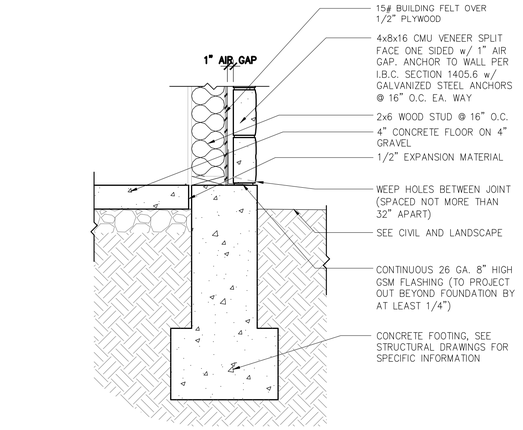
## 6 TAPERED INSULATION DETAIL

N.T.S. USED TO CONSTRUCT ROOF CRICKETS



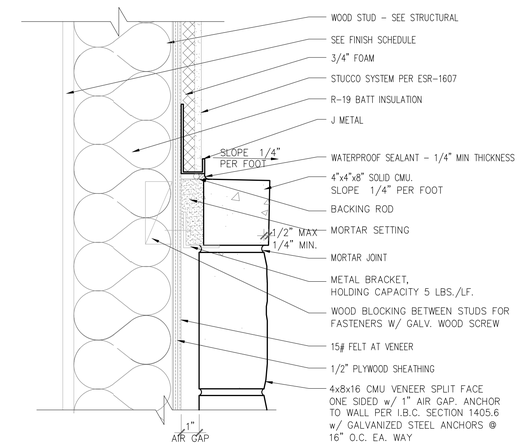

## 3 CRICKET DETAIL

1"=1'-0"



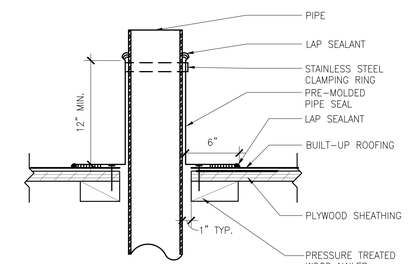

## 11 EXTERIOR WALL SECTION

1"=1'-0"



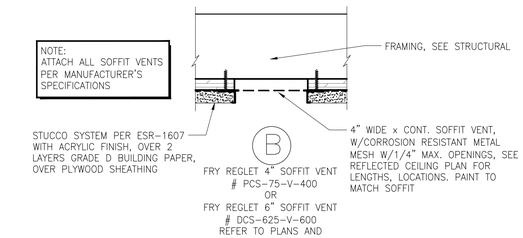

## 8 TRANSITION - BLOCK VENEER TO STUCCO

3"=1'-0" EXTRACT FROM DETAIL 8/A8.1



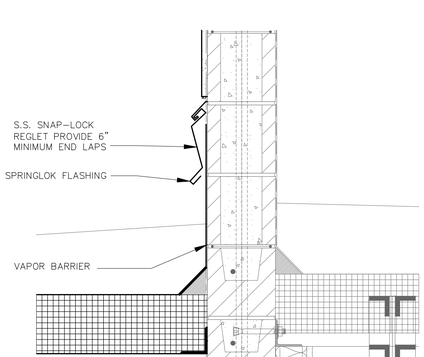

## 5 SMALL PIPE PENETRATION

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



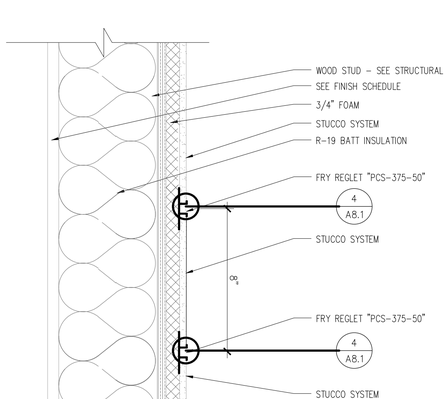

## 2 4" SOFFIT VENT

3"=1'-0"



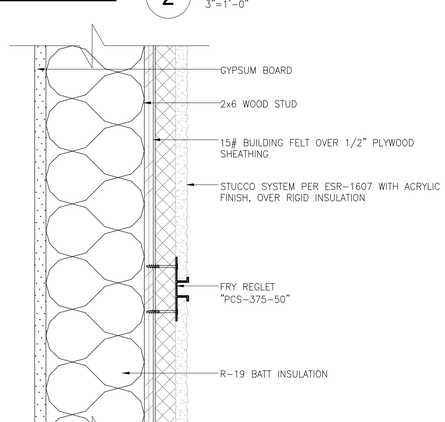

## 10 NOT USED

N.T.S.




## 7a STUCCO BAND DETAIL

3"=1'-0" 7b




## 4a STUCCO EXPANSION JOINT

3"=1'-0" 4b

rdc.
11921 Freedom Drive #1110
Reston, Va 20190
t 703.668.0086
rdcollaborative.com

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**REVISION**

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| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

STATE OF FLORIDA · RALPH WATSON · REGISTERED ARCHITECT · AR100937

Ralph Watson
rdc collaborative, inc.
11921 Freedom Drive #1110
Reston, VA 20190
t 703.668.0086
rdcollaborative.com
Ralph Watson
2022.08.15 09:28:43 -04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

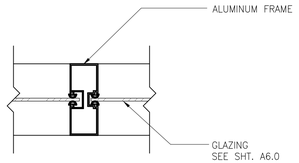
## EXTERIOR ARCHITECTURAL DETAILS

**SHEET NUMBER**

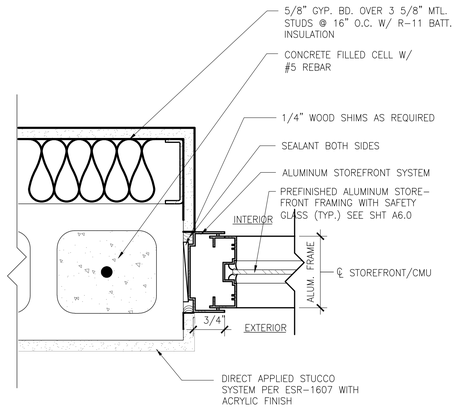
# A8.1

Drawing Name: C:\2022\22036_Circle K - Lake City, FL\Documentation\ARCH\A1_Exterior Architectural Details.dwg Last Modified: Aug 15, 2022 - 1:52pm Plotted on: Aug 16, 2022 - 1:00pm by kelley.reynolds

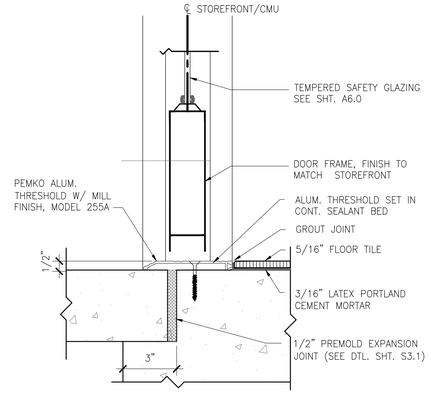
4825 NATIONAL PROTOTYPE - R1



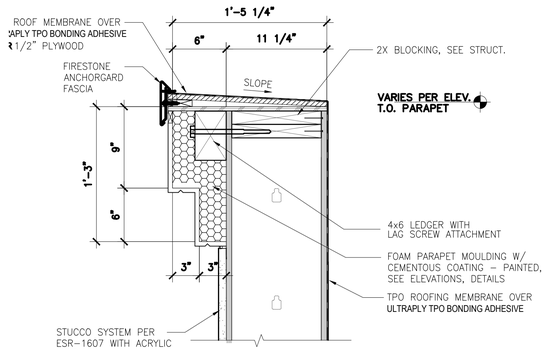

## 9 INTERMEDIATE MULLION
3"=1'-0"



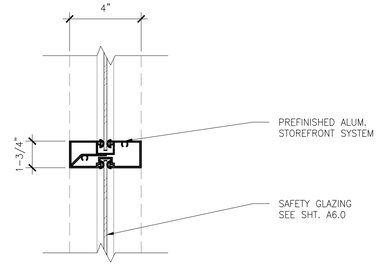

## 6 ALUMINUM WINDOW JAMB (HEAD SIM.)
3"=1'-0"



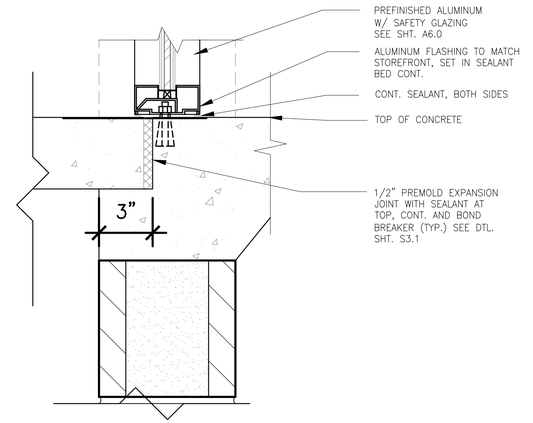

## 3 THRESHOLD AT STOREFRONT DOOR
3" = 1'-0"



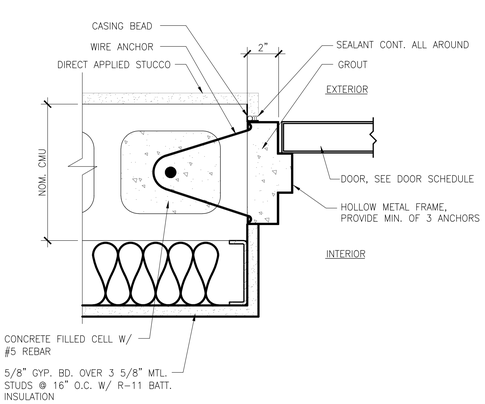

## 11 FOAM PARAPET
1 1/2" - 1'-0"



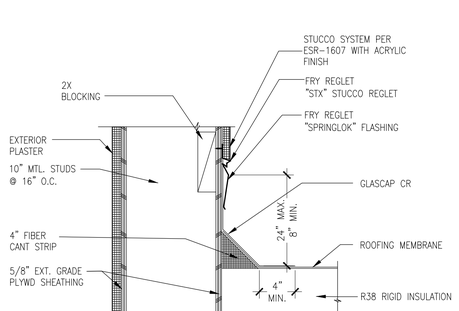

## 8 HORIZONTAL MULLION
3"=1'-0"



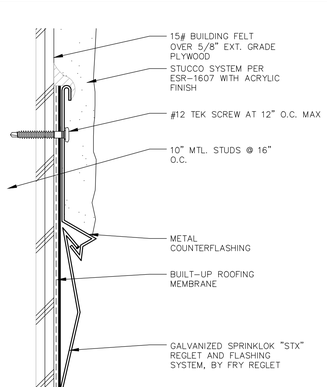

## 5 STOREFRONT WINDOW SILL AT SLAB
3" =1'-0"



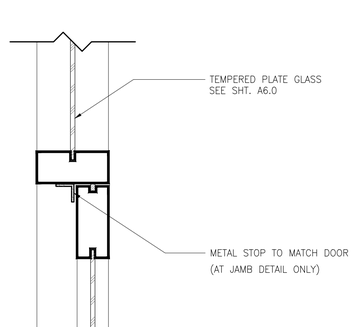

## 2 JAMB AT H.M. DOOR (HEAD SIM.)
3"=1'-0"



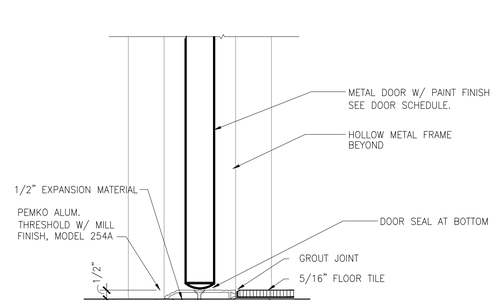

## 10 CANT STRIP DETAIL
**1 1/2"=1'-0"** SIMILAR DETAIL @ CMU PARAPET WALL




## 7 SINGLE-PLY ROOFING AT STUCCO
**6"=1'-0"** SIMILAR DETAIL AT CMU PARAPET WALL




## 4 HEAD AT STOREFRONT (JAMB SIM.)
3"=1'-0"




## 1 THRESHOLD AT EXTERIOR DOOR
3"=1'-0"

rdc.
11921 Freedom Drive #1110
Reston, Va 20190
t 703.668.0086
rdcollaborative.com

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**REVISION**

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| PERMIT SET | 08/15/22 |
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**PROFESSIONAL SEAL**
STATE OF FLORIDA · RALPH WATSON · AR100937 · REGISTERED ARCHITECT
8.18.22
Ralph Watson
Digitally signed by Ralph Watson
DN: cn=Ralph Watson, o=rdcollaborative.com, ou=Reston, l=Virginia, st=VA, c=US
Date: 2022.08.29 09:41:56-04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**
# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

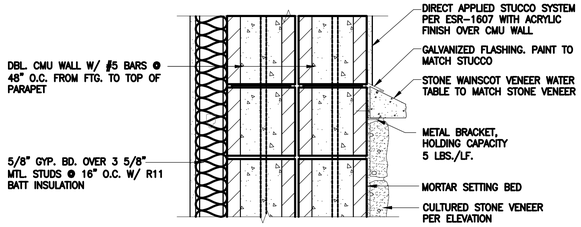
**PROJECT NUMBER**
22036

**SHEET TITLE**
## EXTERIOR ARCHITECTURAL DETAILS

**SHEET NUMBER**
# A8.2

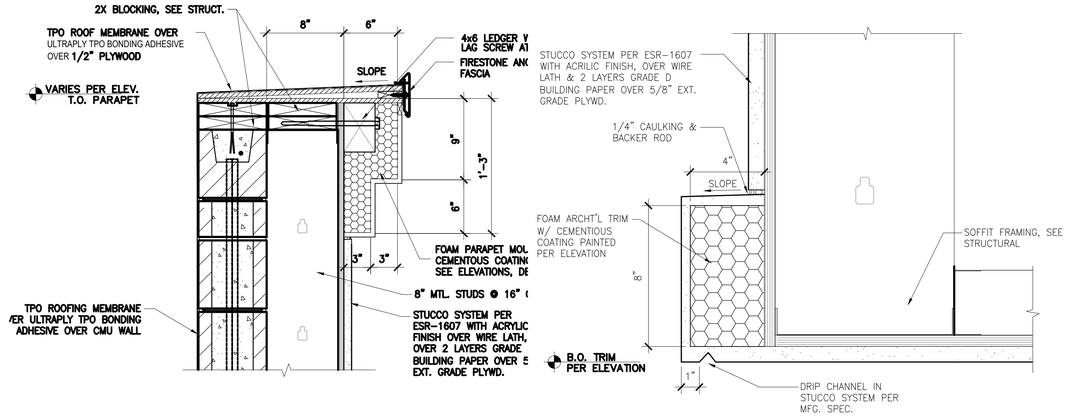
Drawing Name: S:\2022\22036_Circle K - Lake City, FL\Documents\Arch\A8.2_Exterior Architectural Details.dwg Last Modified: Aug 17, 2022 - 4:37pm Plotted on: Aug 18, 2022 - 1:09pm by ralphwatson

4625 NATIONAL PROTOTYPE - R1



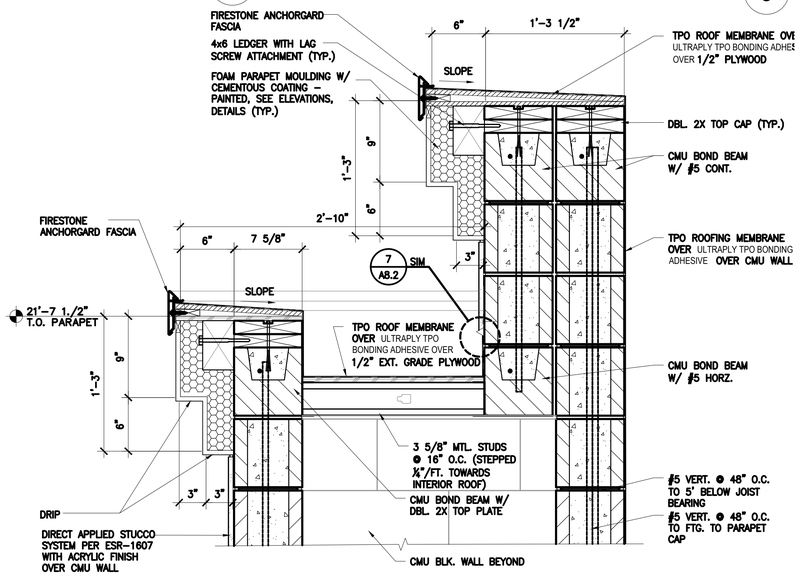

12 STONE VENEER WAINSCOT DETAIL
1 1/2" = 1'-0"

9 NOT USED
N.T.S.



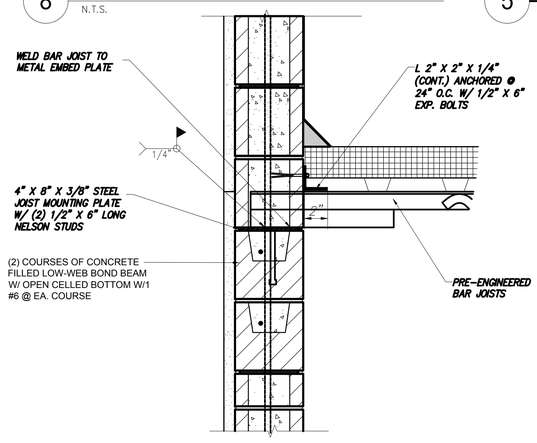

6 FOAM PARAPET
1 1/2" = 1'-0"

3 TRIM / DRIP SCREED DETAIL
3"=1'-0"



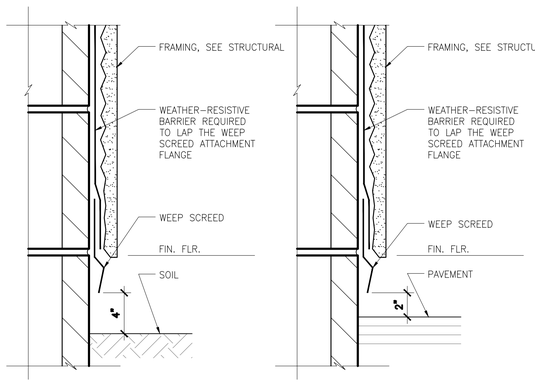

11 STONE VENEER SILL DETAIL
1 1/2" = 1'-0"

8 NOT USED
N.T.S.




5 FOAM PARAPET
1 1/2" = 1'-0"

2 NOT USED
N.T.S.




10 NOT USED
N.T.S.

7 TYP. JOIST @ CMU CONNECTION DETAIL
1" = 1'-0"

4 WEEP SCREED
3"=1'-0"

1 NOT USED
N.T.S.

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STATE OF FLORIDA RALPH WATSON AR100937 8.18.22 REGISTERED ARCHITECT
Ralph Watson
Digitally signed by Ralph Watson
DN: cn=Ralph Watson, o=RDC Collaborative, Inc., ou=FL#AR100937, email=rwatson@rdcollaborative.com, c=US
Date: 2022.08.29 09:39:53-04'00'

PROFESSIONAL IN CHARGE
RW
PROJECT MANAGER
RM
QUALITY CONTROL
RW
DRAWN BY
KR

PROJECT NAME
**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

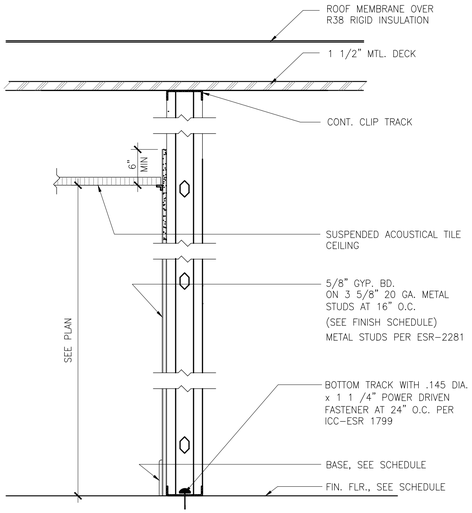
PROJECT NUMBER
22036

SHEET TITLE
**EXTERIOR ARCHITECTURAL DETAILS**

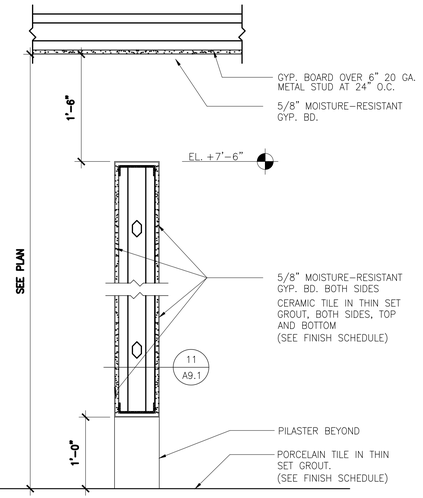
SHEET NUMBER
**A8.3**

Drawing Name: G:\2022\22036_Circle K - Lake City, FL\Documentation\CAD\A8.3_Exterior Architectural Details.dwg Last Modified: Aug 17, 2022 - 2:49pm Plotted on: Aug 18, 2022 - 1:00pm by kstaley-reynolds

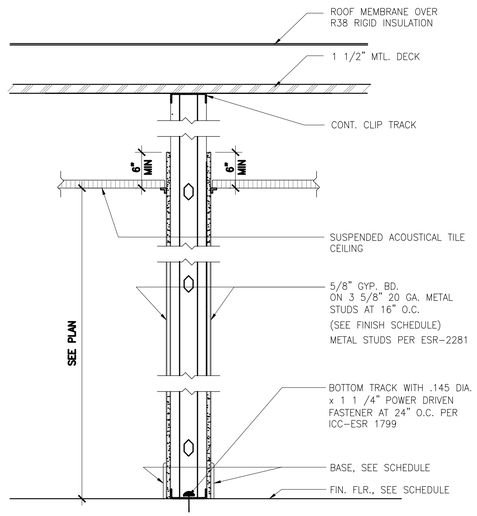
4625 NATIONAL PROTOTYPE - R1



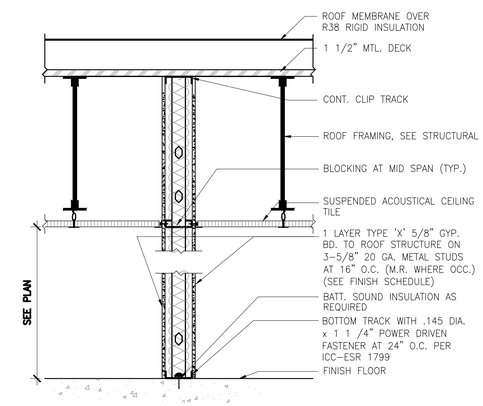

12 SECTION AT WALL TYPE C
1"=1'-0"



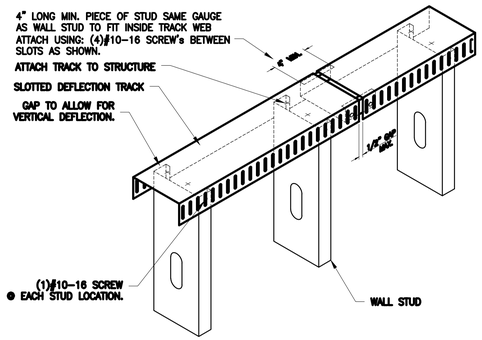

10 SECTION AT WALL - TYPE F (PARTITION WALL)
1"=1'-0"



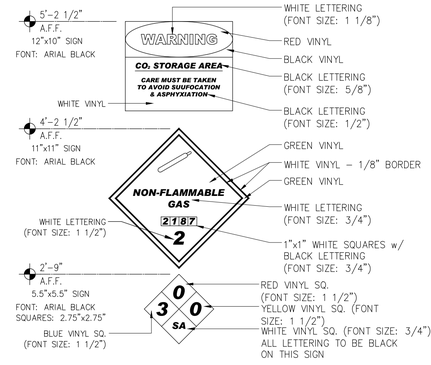

6 SECTION AT WALL - TYPE D
1"=1'-0"



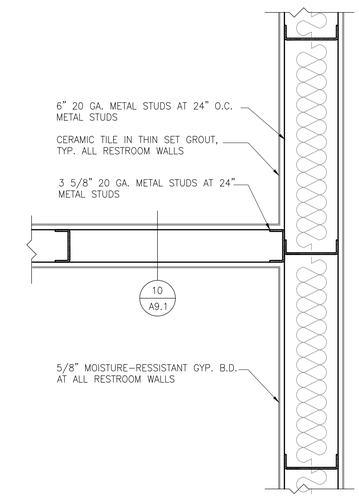

3 DEMISING WALL - TYPE A
3/4"=1'-0"



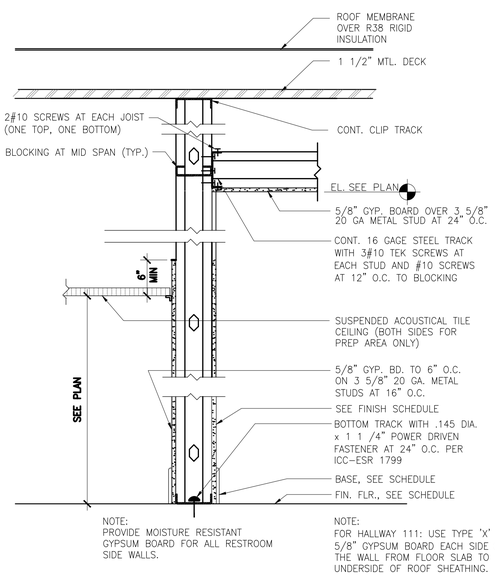

5 TYP. CLIP TRACK (DEFELCTION TRACK) DETAIL
NTS



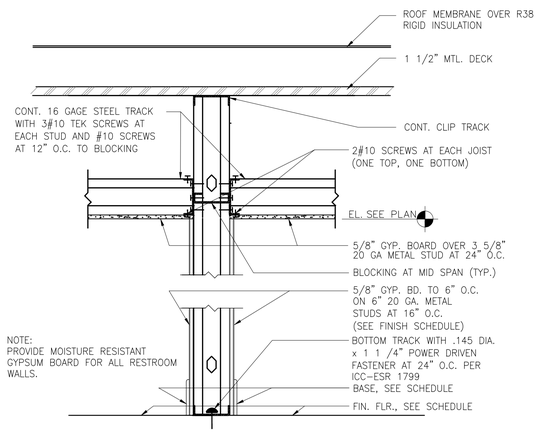

2 CO2 SIGNS
1-1/2"=1'-0"



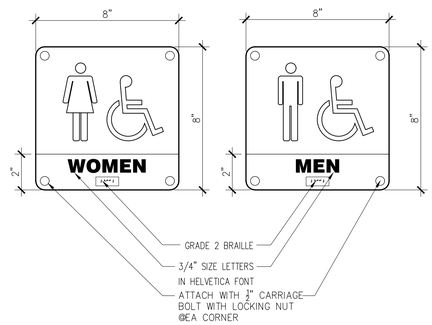

11 RESTROOM PARTITION WALL (PLAN VIEW)
1 1/2"=1'-0"




8 SECTION AT WALL - TYPE 'E'
1"=1'-0"




4 SECTION AT WALL - TYPE B
1"=1'-0"




1 RESTROOMS SIGNS
3"=1'-0"

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11921 Freedom Drive #1110
Reston, Va 20190
t 703.668.0086
rdcollaborative.com

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**PROFESSIONAL SEAL**

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

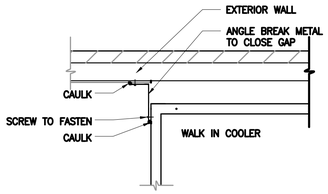
## INTERIOR ARCHITECTURAL DETAILS

**SHEET NUMBER**

# A9.1

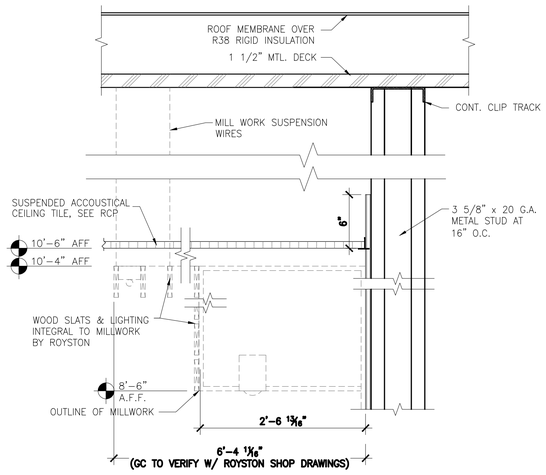
Drawing Name: S:\2022\22036_Circle K - Lake City, FL\Documentation\CAD\AR_Lawrence Architectural Details.dwg Last Modified: Aug 17, 2022 - 4:55pm Plotted on: Aug 18, 2022 - 1:06pm by kristyn.reynolds

4625 NATIONAL PROTOTYPE - R1



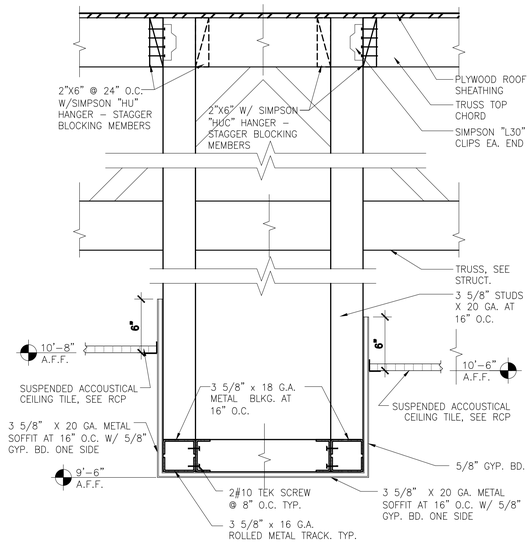

## 12 BREAK METAL AT COOLER

N.T.S.



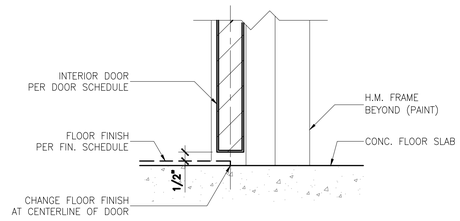

## 9 SOFFIT DETAIL @ COFFEE AREA

1 1/2"=1'-0"



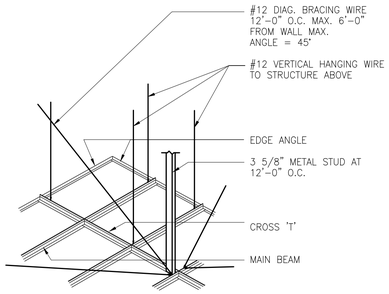

## 8 SOFFIT DETAIL @ CHECK OUT AREA

1 1/2"=1'-0"



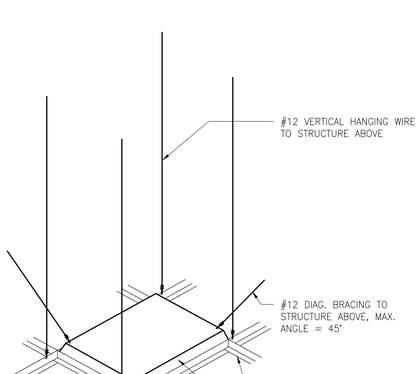

## 4 INTERIOR DOOR THRESHOLD

3"=1'-0"



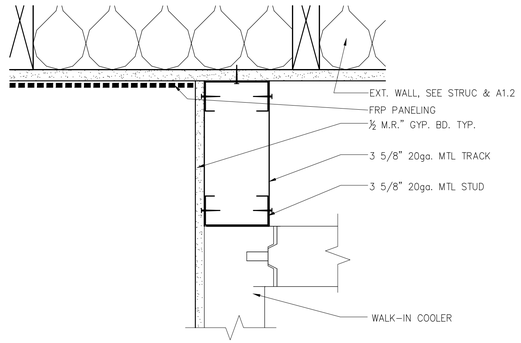

## 11 SUSPENDED CEILING DETAIL

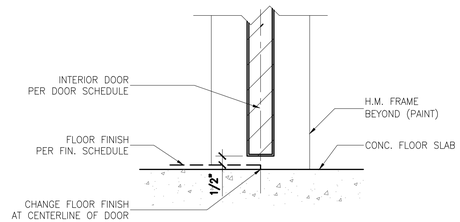
N.T.S.




## 10 LIGHT FIXTURE SUPPORT

N.T.S.

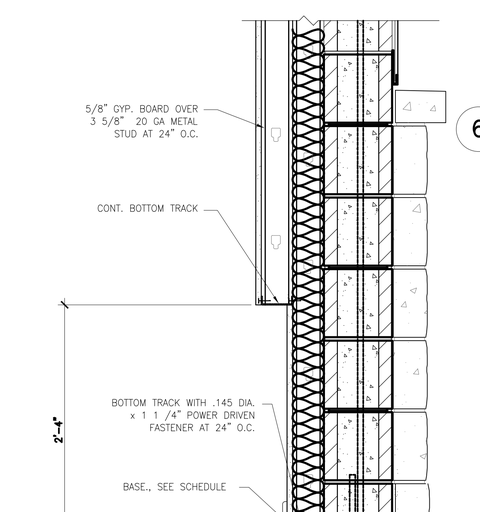



(DOUBLE SWING)

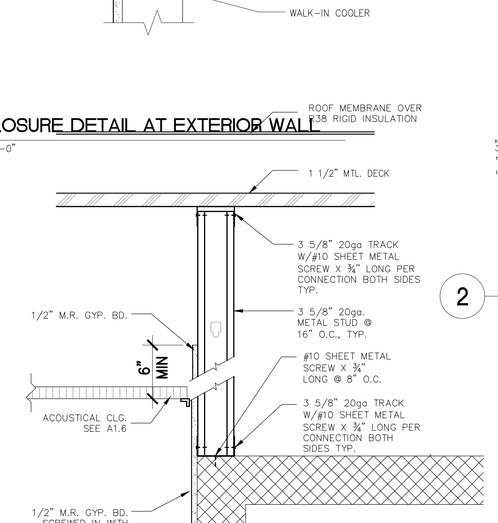
## 3 INTERIOR DOOR THRESHOLD

3"=1'-0"



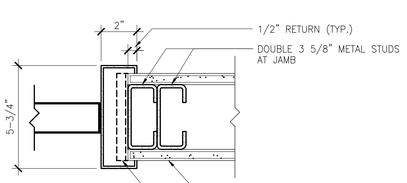

## 7 DBL. WALL @ PREP AREA

1 1/2"=1'-0"




## 6 CLOSURE DETAIL AT EXTERIOR WALL

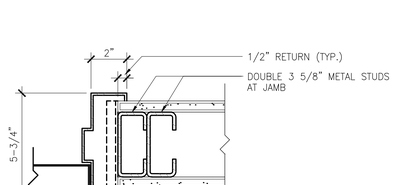
3"=1'-0"




(DOUBLE SWING)

## 2 INTERIOR DOOR JAMB (HEAD SIM.)

3"=1'-0"




## 5 VALANCE AT WALK-IN EQUIPMENT

1 1/2"=1'-0"

## 1 INTERIOR DOOR JAMB (HEAD SIM.)

3"=1'-0"

rdc.
11921 Freedom Drive #1110
Reston, Va 20190
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**REVISION**

| ISSUE | |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

STATE OF FLORIDA · RALPH WATSON · AR100937 · REGISTERED ARCHITECT
8.18.22
Ralph Watson
Digitally signed by Ralph Watson
DN: cn=Ralph Watson, o=RDC Collaborative, ou=Architect, email=rwatson@rdcollaborative.com, c=US
Date: 2022.08.29 09:38:01 -04'00'

**PROFESSIONAL IN CHARGE**
RW

**PROJECT MANAGER**
RM

**QUALITY CONTROL**
RW

**DRAWN BY**
KR

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## INTERIOR ARCHITECTURAL DETAILS

**SHEET NUMBER**

# A9.2

Drawing Name: G:\2022\22036_Circle K – Lake City, FL\2Documents\CAD\A3_Interior Architectural Details.dwg Last Modified: Aug 29, 2022 – 11:29am Plotted on: Aug 18, 2022 – 1:09pm by kelleyreynolds

4625 NATIONAL PROTOTYPE – R1

# GENERAL NOTES

1. GENERAL:
   A. APPLICABLE STRUCTURAL CODE: FLORIDA BUILDING CODE - 2020 EDITION. IN CONJUNCTION WITH ASCE 7-16 AND LOCAL AMENDMENTS.
   B. THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. EXCEPT WHERE NOTED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS).
   C. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE REFERENCED EDITION AND/OR ADDENDA. ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.
   D. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPENCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.
   E. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE SPRINKLER, AND ELECTRICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL REQUIREMENTS INTO THE SHOP DRAWINGS AND CONSTRUCTION.
   F. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
   G. CONNECTIONS OF ALL ITEMS SUPPORTED BY THE STRUCTURE ARE THE RESPONSIBILITY OF THE DISCIPLINES WHO ARE MAKING THESE ATTACHMENTS. THESE ATTACHMENTS SHALL BE DESIGNED TO RESIST ALL GRAVITY, WIND, WIND UPLIFT, THERMAL LOADS, ETC.
   H. WHERE A DETAIL, TYPICAL DETAIL, SECTION, TYPICAL SECTION OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
   I. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS & FIELD CONDITIONS. BUILDING DIMENSIONS AND ELEVATIONS, WHERE SHOWN, WERE PROVIDED BY THE ARCHITECT AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND COORDINATE ALL DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK. ANY DISCREPANCIES SHALL BE RESOLVED THROUGH THE ARCHITECT. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL ITEMS WITH THE APPROPRIATE TRADE DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
   J. ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. DOES NOT RELIEVE THE CONTRACTOR FROM MEETING THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY SPECIFIC DEVIATIONS AND OBTAIN ENGINEER'S WRITTEN APPROVAL FOR THE SPECIFIC DEVIATION.
   K. UNLESS NOTED, SUBMIT SHOP DRAWINGS OF ALL FABRICATED MATERIALS FOR REVIEW. DESIGN DRAWINGS SHALL NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS. SHOP DRAWINGS WILL NOT BE REVIEWED UNLESS THEY WERE CHECKED, BEAR THE INITIAL OF THE CHECKER AND ARE STAMPED "APPROVED" BY THE GENERAL CONTRACTOR.
   L. ALL REQUIRED TESTING REPORTS SHALL BE AVAILABLE AT THE JOB SITE.
   M. NO SUPPORT PROVISIONS HAVE BEEN MADE FOR EQUIPMENT OVER 300 POUNDS OR PIPES OVER 4" DIAMETER EXCEPT AS SHOWN. UNLESS NOTED, EQUIPMENT SHALL BE SUPPORTED BY TWO (2) BEAMS OR JOISTS WHERE EACH SUPPORTS HALF OF THE EQUIPMENT WEIGHT. ANY ADDITIONAL REQUIREMENTS SHOULD BE APPROVED BY THE ENGINEER. EQUIPMENT AND PIPES SHALL BE BRACED LATERALLY BY THE INSTALLER TO RESIST SEISMIC FORCES.
   N. EQUIPMENT WEIGHTS SHOWN ON THE STRUCTURAL DRAWINGS ARE MAXIMUM OPERATING WEIGHTS INCLUDING CURBS AND MISCELLANEOUS ITEMS. THE CONTRACTOR SHALL VERIFY AND BRING TO THE ATTENTION OF THE ENGINEER ANY DEVIATIONS.
   O. WHERE ROOF DRAINS ARE USED FOR ROOF DRAINAGE, AN EMERGENCY DRAINAGE SYSTEM SHALL BE PROVIDED TO MINIMIZE WATER ACCUMULATION (REF ARCHITECTURAL DRAWINGS).
   P. JOHNSTON BURKHOLDER ASSOCIATES, LLC, ITS EMPLOYEES, AND REPRESENTATIVES SHALL NOT BE RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS AND METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH CONSTRUCTION; NOR WILL THEY BE RESPONSIBLE FOR ANY FAILURE BY THE CONTRACTOR TO PERFORM OR COMPLETE CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. JOBSITE VISITS BY JOHNSTON BURKHOLDER ASSOCIATES, LLC SHALL NOT CONSTITUTE APPROVAL, AWARENESS OR LIABILITY FOR ANY HAZARDOUS CONDITIONS.

2. DESIGN CRITERIA:
   A. DEAD LOADS
      - REF FRAMING PLAN
   B. LIVE LOADS
      - 20 PSF
   C. RISK CATEGORY = II
   D. SNOW LOADS
      1. GROUND SNOW LOAD = 0 PSF
      2. FLAT-ROOF SNOW LOAD = 0 PSF
      3. SNOW EXPOSURE FACTOR, Ce = 1.0
      4. THERMAL FACTOR, Ct = 1.0 (MAIN BUILDING)
      5. SNOW LOAD IMPORTANCE FACTOR, I = 1.0
      6. ALL APPLICABLE EFFECTS DUE TO SNOW DRIFTING
   E. WIND LOADS
      1. CODE MINIMUM ULTIMATE WIND SPEED = 118 MPH
      2. DESIGN ULTIMATE WIND SPEED = 118 MPH
      3. WIND LOAD IMPORTANCE FACTOR = 1.0
      4. WIND EXPOSURE CATEGORY = C FOR MAIN WIND FORCE-RESISTING SYSTEM
      5. WIND EXPOSURE CATEGORY = C FOR COMPONENTS AND CLADDING
   F. SEISMIC LOADS
      1. SEISMIC IMPORTANCE FACTOR, I = 1.0
      2. MAPPED SPECTRAL RESPONSE ACCELERATIONS
      - Ss = 0.085
      - S1 = 0.050
      3. SITE CLASS = D
      4. DESIGN SPECTRAL RESPONSE PARAMETERS
      - Sds = 0.091
      - Sd1 = 0.081
      5. SEISMIC DESIGN CATEGORY = B
      6. BASIC SEISMIC-FORCE-RESISTING SYSTEM = INTERMEDIATE MASONRY SHEAR WALLS
      7. DESIGN BASE SHEAR, V = Cs*W
      8. SEISMIC RESPONSE COEFFICIENT, Cs = 0.026
      9. RESPONSE MODIFICATION FACTOR, R = 3.5
      10. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE ANALYSIS
   G. DESIGN LOAD COMBINATIONS (ASD)
      1. D
      2. D + (Lr OR S)
      3. D + (0.6W OR 0.7E)
      4. D + 0.75(Lr OR S) + 0.75(0.6W OR 0.7E)
      5. 0.6D + 0.6W
      6. 0.6D + 0.7E
      STRESS INCREASES: INCREASES IN ALLOWABLE STRESSES SPECIFIED IN THE APPROPRIATE MATERIAL CHAPTER OR THE REFERENCED STANDARDS SHALL NOT BE USED WITH THE LOAD COMBINATIONS, EXCEPT THAT A DURATION OF LOAD INCREASE SHALL BE PERMITTED IN ACCORDANCE WITH CHAPTER 23.

3. SHALLOW FOUNDATIONS AND BUILDING PAD:
   A. THE FOUNDATION HAS BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS MADE IN THE GEOTECHNICAL REPORT PREPARED BY UNIVERSAL ENGINEERING SCIENCES, DATED OCTOBER 8, 2021.
   B. CONTINUOUS FOOTINGS AND SPREAD FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 2500 PSF AT A DEPTH OF 12 INCHES.
   C. MAXIMUM TOTAL FOUNDATION AND SLAB SETTLEMENT 1" AND DIFFERENTIAL SETTLEMENT 1/2" OVER A DISTANCE OF 50 FEET. MINIMUM SUBGRADE MODULUS 100 PCI. PARAMETERS SHALL BE VERIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPORT ADVERSE CONDITIONS.
   D. CONTRACTOR TO PREPARE SUBGRADE FOR BUILDING PAD AND PAVING AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. THE SITE SHALL BE PREPARED UNIFORMLY IN ACCORDANCE WITH CIVIL DRAWINGS.
   E. WHERE FILL IS REQUIRED IT SHALL BE PLACED IN ACCORDANCE WITH RECOMMENDATIONS AND UNDER THE OBSERVATION OF A QUALIFIED GEOTECHNICAL ENGINEER.
   F. ALL EXCAVATIONS AND BUILDING PADS SHALL BE OBSERVED BY A QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THE DESIGN CRITERIA AND REPORT ADVERSE CONDITIONS. (GEOTECHNICAL ENGINEER TO BE HIRED AND PAID BY THE OWNER) CERTIFICATION OF EXCAVATION SHALL BE PROVIDED TO BUILDING OFFICIAL. IN CASE OF CONFLICT BETWEEN THE GEOTECHNICAL REPORT, SPECIFICATIONS AND DRAWINGS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
   G. FOOTING ELEVATIONS GIVEN ARE FOR PURPOSE OF CONTRACT AND SHALL BE ADJUSTED (LOWERED) AT TIME OF EXCAVATION TO MEET SOIL CONDITIONS. ENGINEER SHOULD BE CONSULTED.
   H. GRANULAR BASE BELOW SLAB-ON-GRADE AND SPREAD FOOTINGS SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS AND UNDER THE OBSERVATION OF A QUALIFIED GEOTECHNICAL ENGINEER.
   I. BACKFILL AGAINST WALLS SHALL BE DEPOSITED EVENLY AGAINST BOTH SIDES OF THE WALLS UNTIL THE LOWER GRADE IS REACHED.
   J. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ARCHITECT THE LOCATION OF EXISTING UTILITIES AND PROCEED WITH THE WORK ONLY AFTER WRITTEN APPROVAL FROM THE ARCHITECT.
   K. EXCAVATIONS FOR CONTINUOUS FOOTINGS SHALL BE MADE TRUE TO LINE AND GRADE. THE SIDES OF THE FOOTINGS SHALL BE FORMED, EXCEPT WHERE SOIL CONDITIONS ARE SUCH THAT THE SIDES OF THE EXCAVATION STAND FIRM AND SQUARE. EXCAVATIONS SHALL BE MADE TO FIRM, CLEAN BEARING SOIL.
   L. EXCAVATIONS FOR FOOTINGS AND FOUNDATIONS, WHICH ARE TO SERVE AS FORMS, SHALL BE THOROUGHLY WET PRIOR TO PLACING CONCRETE.

4. CONCRETE:
   A. CONCRETE SHALL CONFORM WITH ACI BUILDING CODE (ACI-318) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH, AND DENSITY, AND WATER/CEMENT IN ACCORDANCE WITH THE FOLLOWING:

| LOCATION | STRENGTH, PSI | DENSITY, PCF | MAX W/C RATIO |
|---|---|---|---|
| INTERIOR SLABS | 3000 | 145 | 0.50 |
| FOUNDATIONS | 3000 | 145 | 0.50 |
| ALL OTHER CONCRETE (UNO) | 3000 | 145 | 0.50 |

   NOTE: DESIGN BASED ON 2,500 PSI CONCRETE
   B. UNLESS NOTED, CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II. AGGREGATES SHALL BE NORMAL WEIGHT CONFORMING TO ASTM C33. ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED.
   C. CONCRETE EXPOSED TO WEATHER (I.E., EXPOSED EXTERIOR SLABS, CONCRETE WALLS, RETAINING WALLS, ETC.) SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318-14 REQUIREMENTS.
   D. UNLESS NOTED, MAXIMUM SLUMP FOR CONCRETE SHALL BE 4 INCHES (PLUS OR MINUS ONE INCH) AT POINT OF PLACEMENT. WHERE APPROVED BY THE ENGINEER OF RECORD, LARGER SLUMP IS PERMITTED WITH THE ADDITION OF HIGH RANGE WATER REDUCING ADMIXTURE.
   E. CONCRETE CURING SHALL COMPLY WITH ACI 308. CURING PROCESS SHALL START IMMEDIATELY FOLLOWING INITIAL SET. CONCRETE SHALL BE MAINTAINED IN MOIST CONDITION FOR AT LEAST 7 DAYS AFTER PLACEMENT UNLESS CODE PROVISIONS ARE FOLLOWED.
   F. HOT WEATHER CONCRETING: SPECIAL PRECAUTIONS RECOMMENDED BY ACI 305 SHALL BE TAKEN WHEN THE AMBIENT TEMPERATURE IS ABOVE 80 DEGREES FAHRENHEIT OR WHEN MAXIMUM RATE OF EVAPORATION IN THE CONCRETE EXCEEDS 0.2 LB/SF/HR. THIS RATE IS AFFECTED BY AIR TEMPERATURE, RELATIVE HUMIDITY, CONCRETE TEMPERATURE AND WIND VELOCITY (REF ACI 305). AFTER FINISHING CONCRETE, USE LIGHT FOG SPRAY UNTIL CURING COMPOUND IS USED, OR WET CURING METHOD IS IMPLEMENTED.
   G. COLD WEATHER CONCRETING: WHEN, FOR MORE THAN THREE (3) CONSECUTIVE DAYS, THE MEAN DAILY TEMPERATURE DROPS BELOW 40 DEGREES FAHRENHEIT, SPECIAL MATERIALS AND PROCEDURES SHALL BE PROVIDED DURING PLACING AND CURING OF CONCRETE PER ACI 306.

5. REINFORCING STEEL:
   A. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 (U.N.) AND GRADE 40 FOR #3 AND SMALLER BARS. GRADE 60 REINFORCING MAY NOT BE RE-BENT OR FIELD BENT WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.
   B. WELDED WIRE REINFORCING SHALL CONFORM TO ASTM A-185, MINIMUM LAP SHALL BE 8" U.N.O.
   C. REINFORCING THAT IS WELDED SHALL BE WELDABLE TYPE, ASTM A-706.
   D. NO TACK WELDING OF REINFORCING IN THE FIELD WILL BE PERMITTED.
   E. ALL DETAILING, FABRICATION AND PLACING OR REINFORCING BARS, UNLESS OTHERWISE NOTED, SHALL CONFORM TO ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST ACI MANUAL OF STANDARD PRACTICE FOR DETAIL REINFORCED CONCRETE STRUCTURES".
   F. MINIMUM LAP SPLICE AND TENSION DEVELOPMENT DIMENSION TABLE BASED ON 3000 PSI NORMAL WEIGHT CONCRETE, Fy = 60 KSI, NON-COATED BARS, LAP CLASS B, WITH 3" MIN CLR:

| BAR | TOP BAR SPLICE | DEVELOPMENT | BAR | OTHER BAR SPLICE | DEVELOPMENT |
|---|---|---|---|---|---|
| #3 | 21" | 16" | #3 | 16" | 12" |
| #4 | 23" | 18" | #4 | 18" | 14" |
| #5 | 28" | 22" | #5 | 22" | 17" |
| #6 | 34" | 26" | #6 | 26" | 20" |
| #7 | 49" | 38" | #7 | 38" | 29" |

   WHEN LAPPING TWO DIFFERENT SIZE BARS, USE THE LAP DIMENSION OF THE SMALLER BAR OR THE ANCHORAGE DIMENSION OF THE LARGER BAR. USE WHICHEVER DIMENSION IS LARGER.
   G. MINIMUM CONCRETE COVER FOR REINFORCING
   CONCRETE REINFORCING SHALL BE PLACED PER THE TOLERANCES OF ACI 117 AND ACI 318

| LOCATION | MINIMUM COVER |
|---|---|
| FOOTINGS, GRADE BEAMS AND SLABS | |
| CAST AGAINST & PERMANENTLY EXPOSED TO EARTH | 3" |
| SLABS ON GRADE | 1/3 SLAB THICKNESS FROM TOP OF SLAB |
| INTERIOR SLABS AND STAIRS | 1" |
| EXTERIOR SLABS AND STAIRS #5 AND SMALLER | 1 1/2" |
| EXTERIOR SLABS AND STAIRS #6 AND LARGER | 2" |
| WALLS INTERIOR FACE | 1" |
| WALLS INTERIOR FACE #5 AND SMALLER | 1 1/2" |
| WALLS INTERIOR FACE #6 AND LARGER | 2" |

   *VERIFY W/ ENVIRONMENTAL CONDITIONS PER ACI 318, CHAPTER 19.

6. SLABS:
   A. MAXIMUM SLUMP WITHOUT A PLASTICIZER AT POINT OF PLACEMENT SHALL BE 5 INCHES. MIX DESIGNS SHALL TAKE CARE TO PROVIDE THE LARGEST POSSIBLE SIZE OF COARSE AGGREGATE WHILE MAINTAINING CONCRETE WORKABILITY. NOMINAL MAXIMUM AGGREGATE SIZE SHALL NOT BE LESS THAN 3/4 INCH NOR MORE THAN 1/3 THE DEPTH OF THE SLAB.
   B. FOR INTERIOR SLABS ON GRADE, PROVIDE CONCRETE WITH AN ULTIMATE SHRINKAGE LES THAN 0.05% AT 28 DAYS. LABORATORY TEST RESULTS SHALL BE SUBMITTED INDICATING THAT THE CONCRETE SLAB ON GRADE MIX DESIGN (OR COMPARABLE) MEETS THE ULTIMATE SHRINKAGE REQUIREMENTS. SHRINKAGE VALUES FOR CONCRETE SPECIMENS SHALL BE TESTED PER ASTM C157 AND THE PROCEDURES IN ACI 209R TO PREDICT THE ULTIMATE DRYING SHRINKAGE.
   C. CONCRETE SHALL BE MIXED, PLACED, FINISHED AND CURED PER REFERENCED EDITION OF ACI 302.1 FOR THE APPROPRIATE FLOOR CLASS TYPE. CURING COMPOUND SHALL BE COMPATIBLE WITH ARCHITECTURAL FLOOR FINISH. SLABS SHALL BE PLACED ON A FLAT, SMOOTH, FIRM, COMPACTED SUBGRADE.
   D. FOR SUBGRADE AND SUBBASE PREPARATION, SEE GEOTECHNICAL REPORT AND SPECIFICATIONS.
   E. IMMEDIATELY PRIOR TO POURING EACH SLAB, A QUALIFIED GEOTECHNICAL ENGINEER (TO BE PAID BY OWNER) SHALL INSPECT THE PAD AND PROVIDE A CERTIFICATE STATING THAT THE PAD MEETS THE PROJECT DESIGN REQUIREMENTS. IF WEATHER CONDITIONS CHANGE, RE-CERTIFICATION WILL BE REQUIRED.
   F. SLAB-ON-GRADE REINFORCING SHALL BE SUPPORTED ON CHAIRS 2" BELOW TOP OF SLAB WITH SAND PLATES OR PRECAST CONCRETE SUPPORTS (PRECAST CONCRETE SUPPORTS SHOULD BE AT LEAST 4" SQUARE AT THE BASE W/MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI) OF SUFFICIENT HEIGHT TO INSURE THAT REINFORCING IS AT THE PROPER HEIGHT WITH MAXIMUM SPACING OF 3'-0" EACH WAY FOR WELDED WIRE FABRIC. PLACEMENT OF REINFORCING USING THE PULL- UP METHOD IS NOT PERMITTED.
   G. VAPOR BARRIER, IF NOT SPECIFIED BY ARCHITECTURAL SPECIFICATION OR SOILS REPORT SHALL CONSIST OF A MINIMUM 15 MIL ASTM E1745 CLASS A MATERIAL LAPPED A MINIMUM OF 6" AND TAPED PER MANUFACTURER RECOMMENDATIONS. THE BARRIER SHALL BE PLACED ON TOP OF A SMOOTH AND COMPACTED SUBGRADE SURFACE. THE FLOOR SLAB SHALL BE PLACED OVER A 4" LAYER OF COMPACTED AGGREGATE BASE COURSE ON TOP OF THE VAPOR BARRIER. ANY DAMAGE TO VAPOR BARRIER SHALL BE REPAIRED PRIOR TO AGGREGATE COURSE PLACEMENT. CARE SHALL BE TAKEN TO KEEP MOISTURE AWAY FROM THE COMPACTED SUBBASE. SUBGRADE MUST BE ALLOWED TO DRY AFTER RAINS PRIOR TO SLAB PLACEMENT. FLOOD CURING IS NOT ALLOWED. SAND IS NOT AN ALTERNATIVE FOR THE SUB-BASE COURSE.
   H. WHERE POSSIBLE, PLACE CONSTRUCTION JOINTS AT COLUMN LINES. MAXIMUM POUR WIDTH OF SLAB-ON-GRADE SHALL BE ONE COLUMN BAY AND THREE (3) COLUMN BAYS IN THE OTHER DIRECTION. UNLESS NOTED, ALLOW MINIMUM 48 HOURS BETWEEN ADJACENT POURS.
   I. UNLESS NOTED, FLOOR CONTRACTION JOINTS FOR SLAB-ON-GRADE SHALL BE SPACED EQUALLY. CONTRACTION JOINTS SPACING SHALL BE REDUCED AT HOT AND/OR DRY CLIMATE. SAW CUT SLAB (1/8" WIDE X SLAB THICKNESS/4 U.N.O.) AS SOON AS THE SURFACE IS FIRM ENOUGH SO THAT IT WILL NOT BE DAMAGED BY THE BLADE. JOINT FILLER SHALL BE PLACED IN CLEAN JOINTS, OVERFILLED AND SHAVED FLUSH. THE OPTIMUM TIME TO CUT THE SLAB WILL BE THE CONTRACTOR'S RESPONSIBILITY. SLABS WITH CRACKS AND/OR SLAB WHICH EXHIBIT "SLAB CURLING" WILL NOT BE ACCEPTED. SLAB REPLACEMENT SHALL BE AT OPTION OF THE OWNER AT CONTRACTOR'S EXPENSE.
   J. REF ARCHITECTURAL AND CIVIL DRAWINGS FOR SIDEWALKS, EXTERIOR SLABS, INTERIOR SLABS, SLAB DEPRESSIONS, AND ELEVATIONS.
   K. SLAB-ON-GRADE DIMENSIONS OF OPENINGS, CUT OUTS AND PENETRATIONS SHALL BE REINFORCED WITH 2-#4 (3'-0" LONG).
   L. AT SLAB-ON-GRADE, SEAL COLUMN BOX-OUTS, CONSTRUCTION JOINTS AND CONTRACTION JOINTS TO PREVENT WATER PENETRATION UNDER SLAB DURING & AFTER CONSTRUCTION TO PREVENT SOILS FROM EXPANDING.
   M. PIPES, DUCTS, CONDUITS, ETC. SHALL NOT BE PLACED IN SLABS UNLESS APPROVED BY THE STRUCTURAL ENGINEER (PLACE A MINIMUM 4" BELOW SLAB).
   N. THE GENERAL CONTRACTOR, INCLUDING SUB CONTRACTORS AND SUPPLIERS SHALL NOT DRIVE OR PARK HEAVY EQUIPMENT ON THE CONCRETE SLAB. ANY DAMAGE TO SLAB DUE TO HEAVY EQUIPMENT SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
   O. COMBUSTION HEATERS SHALL NOT BE USED DURING CONCRETE PLACEMENT UNLESS PRECAUTIONS ARE TAKEN TO PREVENT EXPOSURE OF THE CONCRETE TO EXHAUST GASES.
   P. REF ARCH SPECIFICATIONS FOR ALL FLOOR SLAB FINISHES.
   Q. PROVIDE NEW TROWEL BLADES FOR CONCRETE FINISHING OF FLOOR SLABS.

7. STRUCTURAL STEEL:
   A. CONFORM TO AISC MANUAL OF STEEL CONSTRUCTION, 15TH EDITION.
   B. MATERIALS:
      ASTM A36, FY=36 KSI UNLESS NOTED.
      ASTM A992, FY=50 KSI FOR WIDE FLANGE MEMBER UN AND WHERE NOTED ON THE DRAWINGS. ANY REINFORCING OF MEMBER MUST BE WITH FY=50 KSI STEEL.
      ASTM A500, GRADE B, FY=46 KSI FOR SQUARE AND RECTANGULAR HSS.
      ASTM A53, TYPE S, GRADE B, FY=36 KSI FOR PIPES.
      ASTM A325 FOR HIGH STRENGTH BOLTS.
      ASTM A307, GRADE A, FOR HOOKED ANCHOR BOLTS.
      ASTM A36 FOR THREADED ROD ANCHORS.
      ASTM F1554 GR.36 FOR THREADED ROD ANCHORS NOTED IN COLUMN SCHEDULE
      ASTM A108 & A.W.S D1.1 FOR SHEAR STUDS.
   C. THE CONNECTIONS FOR ANY PORTION OF THE STRUCTURE NOT INDICATED ON THE DRAWINGS SHALL BE DESIGNED BY THE FABRICATOR. STANDARD CONNECTIONS SHALL BE USED WHERE POSSIBLE. ALL SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED. FIELD CONNECTIONS SHALL BE HIGH STRENGTH BOLTED WHERE POSSIBLE. UNLESS NOTED, USE 3/4" DIAMETER ASTM A-325N BOLTS INSTALLED IN ACCORDANCE WITH AISC. ALL SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE FABRICATOR'S ENGINEER WITH THE ENGINEERS SEAL FOR THE STATE WHERE THE STRUCTURE IS LOCATED. ENGINEER'S SEAL MAY BE QUALIFIED "FOR DESIGN OF CONNECTIONS ONLY."
   D. STEEL MEMBERS SUPPORTING STEEL DECK AT THE PERIMETER OF THE BUILDING SHALL BE CONTINUOUS.
   E. STRUCTURAL STEEL WITHOUT FIRE PROOFING SHALL RECEIVE ONE (1) SHOP COAT OF GRAY RUST INHIBITIVE PRIMER. ALL FIRE PROOFED STRUCTURAL STEEL DOES NOT RECEIVE SHOP COAT. REF ARCH FOR FIRE PROOFING REQUIREMENTS. STEEL SHALL BE GALVANIZED WHERE NOTED ON STRUCTURAL OR ARCHITECTURAL PLANS.
   F. NON-SHRINK GROUT UNDER BASE PLATES AND BEARING PLATES SHALL BE SIKAGROUT 212 AS MANUFACTURED BY SIKA CORPORATION OR SET GROUT BY MASTER BUILDERS WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
   G. STEEL COLUMNS AND BASE PLATES SHALL HAVE MINIMUM 3" CONCRETE COVER PROTECTION.
   H. FOR ALL EXPOSED STRUCTURAL HSS CONNECTIONS, THERE SHALL BE NO MORE THAN A 1/8" GAP BETWEEN THE MEMBERS. ALL EXPOSED ENDS OF HSS MEMBERS SHALL BE CAPPED WITH A 1/4" STEEL PLATE WITH GROUND SMOOTH WELDS.
   I. AFTER WELDS HAVE BEEN INSPECTED, APPLY EXTERIOR QUALITY PAINT TO CONNECTIONS.

8. NOT USED.

9. WELDING:
   A. ALL STRUCTURAL STEEL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STANDARD D1.1, LATEST EDITION.
   B. REINFORCING STEEL WELDING SHALL CONFORM TO AWS D1.4. REINFORCING SHALL CONFORM TO ASTM A-706.
   C. ALL STRUCTURAL STEEL AND REINFORCING STEEL WELDING ELECTRODES SHALL CONFORM TO AWS A5.1 OR A5.5 E-70XX.
   D. FIELD WELDING SHALL BE SHOWN ON ERECTION DRAWINGS.
   E. ALL FIELD PARTIAL AND FULL PENETRATION WELDS SHALL BE INSPECTED AND TESTED BY A TESTING AGENCY TO BE PAID BY THE CONTRACTOR.
   F. ALL EXPOSED WELDED CONNECTIONS SHALL BE GROUND SMOOTH AND SUBJECT TO ARCHITECT APPROVAL. THE CONTRACTOR SHALL SUBMIT WRITTEN PROCEDURE AND DETAILS TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCING THE WORK.
   G. PAINT ALL WELDS WITH RUST INHIBITIVE PAINT.
   H. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.

10. STEEL ROOF DECK (U.N.):
   A. STEEL ROOF DECK SHALL CONFORM TO STEEL DECK INSTITUTE DESIGN MANUAL, LATEST EDITION, AND BE APPROVED BY FACTORY MUTUAL, LATEST EDITION.
   B. UNLESS NOTED, ROOF DECK MENTIONED ON DRAWINGS SHALL BE 36" WIDE, 1-1/2" DEEP WIDE RIB GALVANIZED,(REF ROOF PLAN FOR GAGE) MINIMUM YIELD STRENGTH 33,000 PSI.
   C. STEEL ROOF DECK AND CONNECTORS SHALL CONFORM TO FACTORY MUTUAL PUBLICATION I-28, CLASS I-120 WINDSTORM RESISTANCE. INSTALLATION SHALL BE BY AN OSHA CERTIFIED OPERATOR IN INITIAL FASTENING UNDER THE SUPERVISION OF THE MANUFACTURER'S REPRESENTATIVE.
      STEEL ROOF DECK SHALL BE ATTACHED AS FOLLOWS:
      1. AT SUPPORTS: 5/8" DIAMETER PUDDLE WELDS.
      2. AT SIDE LAPS: BUILDEX TRAXX #10-16 STANDARD HEX WASHER HEAD SCREWS.
   D. SPACING OF CONNECTIONS SHALL BE AS FOLLOWS UNLESS NOTED:
      1. INTERIOR STEEL SUPPORTS: REF SCHEDULE, 12" O.C. MAXIMUM (SIDE LAPS MUST BE CONNECTED AT EACH SUPPORT).
      2. INTERIOR STEEL SUPPORTS AT 12'-0" U.N. EDGE STRIP AROUND THE PERIMETER WALL: 6" MAXIMUM.
      3. INTERIOR STEEL SUPPORTS AT CORNERS: TWO (2) ATTACHMENTS (ONE AT EACH SIDE OF WEB OF STEEL SUPPORT) AT 6" O.C. MAXIMUM.
      4. AT LEDGER AT THE PERIMETER OF THE BUILDING: 6" O.C. MAXIMUM - UNLESS NOTED, AND TWO (2) ATTACHMENTS AT 6" O.C. AT CORNERS.
      5. SIDE LAPS: REF SCHEDULE.
      6. SPACING OF CONNECTORS TO FRAMED OPENING SHALL BE SAME AS FOR INTERIOR STEEL SUPPORT.
   E. MINIMUM END DISTANCE TO CONNECTOR SHALL BE 1". MINIMUM END LAP SHALL BE 2".
   F. DECK SHALL BE PLACED AT THE PERIMETER WITH A COMPLETE RIB BEARING ON THE STEEL SUPPORT.
   G. MINIMUM FINAL ROOF SLOPE SHALL BE 1/4 INCH PER 1 FOOT. WHERE SLOPE IS NOT ACHIEVED BY STEEL STRUCTURE, CREATE IT WITH INSULATION ABOVE THE DECK. (REF ARCHITECTURAL DRAWINGS).
   H. WHERE ROOF SURFACE WARPS DUE TO ROOF SLOPE OR ANGLE FRAMING AT OPENING, ADD ADDITIONAL SPLICES AS REQUIRED TO ACHIEVE PROPER BEARING ON THE SUPPORT WITHOUT FORCING THE DECK TO BEAR ON THE SUPPORT.
   I. AFTER DECK INSTALLATION, THE WELDS SHALL BE PAINTED WITH RUST INHIBITIVE PAINTED.
   J. NO SUPPORT OF CONCENTRATED LOADS BY METAL DECK IS ALLOWED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

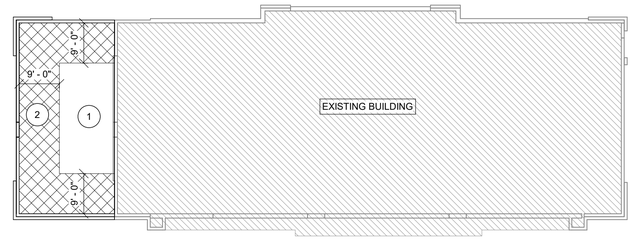
11. POST-INSTALLED ANCHORING SYSTEM:
   A. UNLESS NOTED, ALL ANCHORS IN CONCRETE (AND GROUTED MASONRY WALLS) SHALL BE CARBON STEEL HILTI KWIK HUS-EZ SCREW ANCHORS PER ICC ESR-3056 OR APPROVED ICC EQUIVALENT.
   B. WHERE NOTED OUT ON THE DRAWINGS, USE HILTI HIT HY-100 THREADED ROD ADHESIVE ANCHORING SYSTEM (ICC ESR-3574) OR APPROVED ICC EQUIVALENT. UNLESS NOTED, ANCHOR EMBEDMENT SHALL BE AS FOLLOWS: 3/8" DIA. - 3 3/8", 1/2" DIA. - 4 1/2", 5/8" DIA. - 5 5/8", 3/4" DIA. - 6 3/4".
   C. UNLESS NOTED, ANCHOR SPACING (AS) AND ANCHOR EDGE DISTANCE (ED) SHALL BE AS PUBLISHED BY THE MOST CURRENT APPROVED HILTI REPORT IN ORDER TO DEVELOP MAXIMUM WORKING LOAD.
   D. MASONRY WALLS RECEIVING ANCHORS SHALL BE GROUTED AND SHALL HAVE ATTAINED ADEQUATE STRENGTH PRIOR TO ANCHORING. PROVIDE MINIMUM EDGE DISTANCE THAT IS REQUIRED TO DEVELOP THE MAXIMUM WORKING LOAD PUBLISHED BY HILTI REPORT.
   E. ALL ANCHORS SHALL BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS AND UNDER MANUFACTURER'S S

| DECK ZONE | 3/4" VISIBILE DIAMETER PUDDLE WELDS TO STL SUPPORTS (36" WIDE DECK PATTERN) | #10 SIDELAP SCREWS BETWEEN STL SUPPORTS | FACTORED DECK SHEAR CAPACITY |
|---|---|---|---|
| 1 | 36/7 | 7 | 719 PLF |

NOTES:
1. THE CONTRACTOR SHALL PROPERLY INSTALL SIDELAPS SCREWS PER MANUFACTURER'S SPECIFICATIONS SO THE SCREWS DEVELOP SHEAR AS LISTED IN STEEL DECK INSTITUTE DESIGN MANUAL.
2. REF GENERAL NOTES FOR WELD AND SCREW SIZES AND WELDS AT PERIMETER DECK LEDGER ANGLE.
3. REF GENERAL NOTES ON S0.1 FOR WELD PAINTING REQUIREMENTS.

ROOF DIAPHRAGM CONNECTION DIAGRAM & SCHEDULE | 2

NTS




COMPONENT AND CLADDING WIND PRESSURE DIAGRAM - ROOF

COMPONENT AND CLADDING WIND PRESSURE DIAGRAM - WALLS

| | C&C ZONE | EFFECTIVE WIND AREA (SF) | POSITIVE PRESSURE (PSF) | NEGATIVE PRESSURE (PSF) |
|---|---|---|---|---|
| ROOF | 1 | 10 | +10.0 | -29.1 |
| | | 20 | +10.0 | -27.2 |
| | | 50 | +10.0 | -24.7 |
| | | 100 | +10.0 | -22.8 |
| | 2 | 10 | +16.7 | -38.4 |
| | | 20 | +16.0 | -36.0 |
| | | 50 | +15.0 | -32.7 |
| | | 100 | +14.3 | -30.2 |
| | 3 | 10 | NOT USED | |
| | | 20 | NOT USED | |
| | | 50 | NOT USED | |
| | | 100 | NOT USED | |
| WALLS | 4 | 10 | +16.7 | -18.1 |
| | | 20 | +16.0 | -17.4 |
| | | 50 | +15.0 | -16.4 |
| | | 100 | +14.3 | -15.7 |
| | 5 | 10 | +16.7 | -22.3 |
| | | 20 | +16.0 | -20.8 |
| | | 50 | +15.0 | -18.9 |
| | | 100 | +14.3 | -17.4 |
| | 6 | 10 | +54.0 | -36.5 |
| | | 20 | +50.5 | -34.0 |
| | | 50 | +45.9 | -30.8 |
| | | 100 | +42.4 | -28.4 |

**NOTES:**
1. THE VALUES PROVIDED HEREIN ARE ALLOWABLE STRESS DESIGN LOADS AND ARE INTENDED FOR SERVICEABILITY LIMITS. THESE VALUES DO NOT REFLECT THE ULTIMATE LOADING THAT MAY BE EXPERIENCED BY THE BUILDING.
2. THE ROOFING SYSTEM SHALL BE BASED ON EN EFFECTIVE WIND AREA OF 10 SF.

COMPONENT AND CLADDING WIND PRESSURE SCHEDULE (118 MPH)

COMPONENTS & CLADDING WIND PRESSURE | 1

NTS

# ABBREVIATIONS

| | |
|---|---|
| AB | ANCHOR BOLT |
| ACI | AMERICAN CONCRETE INSTITUTE |
| AFF | ABOVE FINISHED 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 FINISHED FLOOR |
| BL | BLOCK LINTEL |
| BM | BEAM |
| BO | BOTTOM OF |
| BOS | BOTTOM OF STEEL |
| BRG | BEARING |
| CJ | CONTRACTION JOINT |
| CL | CENTER LINE |
| CLR | CLEAR |
| CMU | CONCRETE MASONRY UNIT |
| COL | COLUMN |
| CONC | CONCRETE |
| COND | CONDENSER UNIT |
| CONST | CONSTRUCTION |
| CONT | CONTINUOUS |
| DBA | DEFORMED BAR ANCHOR |
| DIA | DIAMETER |
| EF | EXHAUST FAN |
| EIFS | EXTERIOR INSULATION AND FINISH SYSTEM |
| EJ | EXPANSION JOINT |
| EL | ELEVATION |
| ELEC | ELECTRICAL |
| EQ | EQUAL |
| EW | EACH WAY |
| FDN | FOUNDATION |
| FF | FINISHED FLOOR |
| FS | FAR SIDE |
| FTG | FOOTING |
| FV | FIELD VERIFY |
| GA | GAUGE |
| GC | GENERAL CONTRACTOR |
| GYP | GYPSUM BOARD |
| H | HEIGHT |
| HORIZ | HORIZONTAL |
| HSA | HEADED STUD ANCHOR |
| HSS | HOLLOW STRUCTURAL SHAPE |
| INFO | INFORMATION |
| ISO | ISOLATION |
| JBE | JOIST BEARING ELEVATION |
| JST | JOIST |
| JT | JOINT |
| KSI | KIPS PER SQUARE INCH |
| L | LENGTH |
| LB | POUNDS |
| LLH | LONG LEG HORIZONTAL |
| LLV | LONG LEG VERTICAL |
| LONG | LONGITUDINAL |
| MAX | MAXIMUM |
| MECH | MECHANICAL |
| MFR | MANUFACTURER |
| MIN | MINIMUM |
| MISC | MISCELLANOUS |
| MO | MASONRY OPENING |
| MTL | METAL |
| NIC | NOT IN CONTRACT |
| NO | NUMBER |
| NS | NEAR SIDE |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER |
| OH | OPPOSITE HAND |
| OSL | OUTSTANDING LEG |
| PAF | POWER ACTUATED FASTENER |
| PC | PRECAST |
| PCF | POUNDS PER CUBIC FOOT |
| PL | PLATE |
| PLF | POUNDS PER LINEAR FOOT |
| PLUMB | PLUMBING |
| PMEJ | PREMOLDED EXPANSION JOINT |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| QTY | QUANITY |
| RCU | REFRIGERATION CONDENSING UNIT |
| REF | REFER TO |
| REINF | REINFORCING |
| REQD | REQUIRED |
| REV | REVERSE |
| RLL | ROOF LIVE LOAD |
| RO | ROUGH OPENING |
| ROT | ROTATE |
| RTU | ROOF TOP UNIT |
| SCHED | SCHEDULE |
| SDI | STEEL DECK INSTITUTE |
| SIM | SIMILAR |
| SJI | STEEL JOIST INSTITUTE |
| SPCS | SPACES |
| SPECS | SPECIFICATIONS |
| STRUC | STRUCTURAL |
| T&B | TOP AND BOTTOM |
| THK | THICKNESS |
| TL | TOTAL LOAD |
| TO | TOP OF |
| TOC | TOP OF CONCRETE |
| TOF | TOP OF FOOTING |
| TOGB | TOP OF GRADE BEAM |
| TOS | TOP OF STEEL |
| TOW | TOP OF WALL |
| TRANS | TRANSVERSE |
| TYP | TYPICAL |
| UNO | UNLESS NOTED OTHERWISE |
| VERT | VERTICAL |
| W | WIDTH |
| WP | WORK POINT |
| WWR | WELDED WIRE REINFORCEMENT |

# LEGEND

ROOF TOP UNIT (RTU)

FX FOOTING MARK; REF SCHED

CMU CONTROL JOINT

rdc.

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JBA PROJECT #22201

**REVISIONS**

| △ ISSUE | DATE |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

BART J. HARVERSON LICENSE No. 75746 STATE OF FLORIDA PROFESSIONAL ENGINEER

08/12/22

**PROFESSIONAL IN CHARGE**
BJH

**PROJECT MANAGER**
SMK

**QUALITY CONTROL**
JNF

**DRAWN BY**
SMK

**PROJECT NAME**

## CIRCLE K STORES INC.

## LAKE CITY, FL

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## DIAGRAMS AND SCHEDULES

**SHEET NUMBER**

# S0.2

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# STRUCTURAL SPECIAL INSPECTIONS

| STEEL CONSTRUCTION (AISC 360-16) | | | |
|---|---|---|---|
| **VERIFICATION AND INSPECTION** | | **FREQUENCY (QA)** | **REFERENCED STANDARD** |
| 1. PRIOR TO THE START OF WELDING, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS | PERIODIC | AISC 360, TABLE N5.4-1 |
| | B. WELDING PROCEDURE SPECIFICATIONS (WPS) IS AVAILABLE | CONTINUOUS | AISC 360, TABLE N5.4-1 |
| | C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES IS AVAILABLE | CONTINUOUS | AISC 360, TABLE N5.4-1 |
| | D. MATERIAL IDENTIFICATION (TYPE/GRADE) | PERIODIC | AISC 360, TABLE N5.4-1 |
| | E. WELDER IDENTIFICATION SYSTEM | PERIODIC | AISC 360, TABLE N5.4-1 |
| | F. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) | PERIODIC | AISC 360, TABLE N5.4-1 |
| | G. FIT-UP OF CJP WELDS OF HSS T-, Y-, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) | PERIODIC | AISC 360, TABLE N5.4-1 |
| | H. CONFIGURATION AND FINISH OF ACCESS HOLES | PERIODIC | AISC 360, TABLE N5.4-1 |
| | I. FIT-UP OF FILLET WELDS | PERIODIC | AISC 360, TABLE N5.4-1 |
| 2. DURING STEEL WELDING, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. CONTROL AND HANDLING OF WELDING CONSUMABLES | PERIODIC | AISC 360, TABLE N5.4-2 |
| | B. NO WELDING OVER CRACKED TACK WELDS | PERIODIC | AISC 360, TABLE N5.4-2 |
| | C. ENVIRONMENTAL CONDITIONS | PERIODIC | AISC 360, TABLE N5.4-2 |
| | D. WPS FOLLOWED | PERIODIC | AISC 360, TABLE N5.4-2 |
| | E. WELDING TECHNIQUES | PERIODIC | AISC 360, TABLE N5.4-2 |
| | F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS | CONTINUOUS | AISC 360, TABLE N5.4-2 |
| 3. AFTER STEEL WELDING, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. WELDS CLEANED | PERIODIC | AISC 360, TABLE N5.4-3 |
| | B. SIZE, LENGTH AND LOCATION OF WELDS | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | C. WELDS MEET VISUAL ACCEPTANCE CRITERIA | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | D. ARC STRIKES | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | E. k-AREA | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED) | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | H. REPAIR ACTIVITIES | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER | CONTINUOUS | AISC 360, TABLE N5.4-3 |
| | J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR | PERIODIC | AISC 360, TABLE N5.4-3 |
| 4. PRIOR TO STEEL BOLTING, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. MANUFACTURERS' CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS | CONTINUOUS | AISC 360, TABLE N5.6-1 |
| | B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS | PERIODIC | AISC 360, TABLE N5.6-1 |
| | C. CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE) | PERIODIC | AISC 360, TABLE N5.6-1 |
| | D. CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL | PERIODIC | AISC 360, TABLE N5.6-1 |
| | E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS | PERIODIC | AISC 360, TABLE N5.6-1 |
| | F. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED | PERIODIC | AISC 360, TABLE N5.6-1 |
| | G. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS | PERIODIC | AISC 360, TABLE N5.6-1 |
| 5. DURING STEEL BOLTING, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED | PERIODIC | AISC 360, TABLE N5.6-2 |
| | B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION | PERIODIC | AISC 360, TABLE N5.6-2 |
| | C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING | PERIODIC | AISC 360, TABLE N5.6-2 |
| | D. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES | PERIODIC | AISC 360, TABLE N5.6-2 |
| 6. AFTER STEEL BOLTING, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS | CONTINUOUS | AISC 360, TABLE N5.6-3 |
| 7. OTHER STEEL INSPECTION TASKS: | | | |
| | A. INSPECT PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL IN ACCORDANCE WITH SECTION 1705.3 OR 1705.4. | - | IBC 1705.3, 1705.4 |
| | B. INSPECT THE ERECTED STEEL FRAMING INCLUDING BRACES, STIFFENERS, MEMBER LOCATIONS, AND THE CORRECT APPLICATION OF JOINT DETAILS TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS | PERIODIC | AISC 360, Sec N.8 |
| REFER TO CHAPTER N OF THE AISC 360 SPECIFICATIONS FOR ADDITIONAL INFORMATION AND DESCRIPTIONS. | | | |

| INSPECTION OF FABRICATOR(S): |
|---|
| 1. WHERE FABRICATION OF STEEL STRUCTURAL, LOAD-BEARING, OR LATERAL LOAD RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION, EXCEPT WHERE THE FABRICATOR HAS BEEN APPROVED TO PERFORM WORK WITHOUT SPECIAL INSPECTIONS. |
| A. SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. |
| B. UPON COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO OWNER OR OWNER'S AUTHORIZED AGENT FOR SUBMITTAL TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. |
| 2. APPLICABLE ELEMENTS: (FABRICATOR CERTIFICATION REQUIREMENTS) |
| A. STRUCTURAL STEEL (AISC CERTIFIED FOR CONVENTIONAL STEEL BUILDING)<br>B. STEEL JOISTS (SJI MEMBER)<br>C. STEEL DECK (SDI MEMBER) |

| COLD-FORMED METAL DECK (SDI QA/QC-2017) | | | |
|---|---|---|---|
| **VERIFICATION AND INSPECTION** | | **FREQUENCY (QA)** | **REFERENCED STANDARD** |
| 1. PRIOR TO DECK PLACEMENT, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS | CONTINUOUS | APPENDIX 1, TABLE 1.1 |
| | B. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES | CONTINUOUS | APPENDIX 1, TABLE 1.1 |
| 2. DURING DECK PLACEMENT, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS | CONTINUOUS | APPENDIX 1, TABLE 1.2 |
| | B. VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS | CONTINUOUS | APPENDIX 1, TABLE 1.2 |
| | C. DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES | CONTINUOUS | APPENDIX 1, TABLE 1.2 |
| 3. AFTER METAL DECK PLACEMENT, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. WELDING PROCEDURE SPECIFICATION (WPS) AVAILABLE | PERIODIC | APPENDIX 1, TABLE 1.3 |
| | B. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE | PERIODIC | APPENDIX 1, TABLE 1.3 |
| | C. MATERIAL IDENTIFICATION (TYPE/GRADE) | PERIODIC | APPENDIX 1, TABLE 1.3 |
| | D. CHECK WELDING EQUIPMENT | PERIODIC | APPENDIX 1, TABLE 1.3 |
| 4. DURING WELDING OF METAL DECK, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. USE OF QUALIFIED WELDERS | PERIODIC | APPENDIX 1, TABLE 1.4 |
| | B. CONTROL AND HANDLING OF WELDING CONSUMABLES | PERIODIC | APPENDIX 1, TABLE 1.4 |
| | C. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE) | PERIODIC | APPENDIX 1, TABLE 1.4 |
| | D. WPS FOLLOWED | PERIODIC | APPENDIX 1, TABLE 1.4 |
| 5. AFTER WELDING OF METAL DECK, THE FOLLOWING INSPECTION TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS | CONTINUOUS | APPENDIX 1, TABLE 1.5 |
| | B. WELDS MEET VISUAL ACCEPTANCE CRITERIA | CONTINUOUS | APPENDIX 1, TABLE 1.5 |
| | C. VERIFY REPAIR ACTIVITIES | CONTINUOUS | APPENDIX 1, TABLE 1.5 |
| | D. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS | CONTINUOUS | APPENDIX 1, TABLE 1.5 |
| 6. BEFORE MECH FASTENING OF METAL DECK, THE FOLLOWING TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS | PERIODIC | APPENDIX 1, TABLE 1.6 |
| | B. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION | PERIODIC | APPENDIX 1, TABLE 1.6 |
| | C. PROPER STORAGE FOR MECHANICAL FASTENERS | PERIODIC | APPENDIX 1, TABLE 1.6 |
| 7. DURING MECH FASTENING OF METAL DECK, THE FOLLOWING TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. FASTENERS ARE POSITIONED AS REQUIRED | PERIODIC | APPENDIX 1, TABLE 1.7 |
| | B. FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS | PERIODIC | APPENDIX 1, TABLE 1.7 |
| 8. AFTER MECH FASTENING OF METAL DECK, THE FOLLOWING TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS | CONTINUOUS | APPENDIX 1, TABLE 1.8 |
| | B. CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS | CONTINUOUS | APPENDIX 1, TABLE 1.8 |
| | C. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS ) | CONTINUOUS | APPENDIX 1, TABLE 1.8 |
| | D. VERIFY REPAIR ACTIVITIES | CONTINUOUS | APPENDIX 1, TABLE 1.8 |
| | E. DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS | CONTINUOUS | APPENDIX 1, TABLE 1.8 |

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

| CONCRETE CONSTRUCTION (ACI 318-14) | | |
|---|---|---|
| **VERIFICATION AND INSPECTION** | **FREQUENCY** | **REFERENCED STANDARD** |
| 1. INSPECTION OF REINFORCING STEEL AND PLACEMENT | PERIODIC | ACI 318: Ch 20, 25.2, 25.3, 26.6.1-26.6.3 |
| 2. NOT USED. | - | - |
| 3. INSPECTION OF ANCHORS CAST IN CONCRETE INCLUDING, SIZE, LENGTH, PROJECTION, AND LOCATION. | PERIODIC | ACI 318: 17.8.2 |
| 4A. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS - ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. INSPECTIONS SHALL INCLUDE HOLE SIZE AND DEPTH, CLEANING PROCEDURE, MATERIALS, AND LOCATION. | CONTINUOUS | ACI 318: 17.8.2.4 |
| 4B. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS - MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 3A.INSPECTIONS SHALL INCLUDE HOLE SIZE AND DEPTH, CLEANING PROCEDURE, MATERIALS, AND LOCATION. | PERIODIC | ACI 318: 17.8.2 |
| 5. INSPECTION TO VERIFY USE OF REQUIRED DESIGN MIX. | PERIODIC | ACI 318: CH. 19, 26.4.3, 26.4.4 |
| 6. INSPECTION PRIOR TO CONCRETE PLACEMENT, AND AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS, FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. REF TO GENERAL NOTES, CAST-IN-PLACE CONCRETE EXECUTION FOR TESTING REQUIREMENTS. | CONTINUOUS | ASTM C172, ASTM C31; ACI 318: 26.5, 26.12 |
| 7. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES. | CONTINUOUS | ACI 318: 26.5 |
| 8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. | PERIODIC | ACI 318: 26.5.3-26.5.5 |
| 9. NOT USED. | - | - |
| 10. INSPECT ERECTION OF PRECAST (OR SITE CAST) CONCRETE MEMBERS. | PERIODIC | ACI 318: CH. 26.9 |
| 11. NOT USED. | - | - |
| 12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED. | PERIODIC | ACI 318: 26.11.1.2(b) |
| **EXCEPTIONS TO CONCRETE SPECIAL INSPECTION:**<br>1. INSPECTION IS NOT REQUIRED FOR PLACEMENT OF SLAB-ON-GRADE CONCRETE. INSPECTION OF SLAB-ON-GRADE REINFORCEMENT IS REQUIRED PRIOR TO PLACEMENT OF CONCRETE. | | |

| MASONRY CONSTRUCTION (TMS 402/602-16): | | | |
|---|---|---|---|
| **VERIFICATION AND INSPECTION (LEVEL 2)** | | **FREQUENCY** | **REFERENCED STANDARD** |
| 1. PRIOR TO MASONRY CONSTRUCTION, THE FOLLOWING TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE:: | | | |
| | A. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED. | - | TMS 602: ART. 1.5 |
| | B. VERIFICATION OF $f'_m$ PRIOR TO CONSTRUCTION EXCEPT WHERE SPECIFICALLY EXEMPTED BY THE IBC. | - | TMS 602: ART. 1.4B |
| | C. PROPORTIONS OF SITE-PREPARED MORTAR. | PERIODIC | TMS 602: ART. 2.1, 2.6A, 2.6C |
| | D. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHORS. | PERIODIC | TMS 602: ART. 3.4, 3.6A |
| | E. SAMPLE PANEL CONSTRUCTION. | PERIODIC | TMS 602: ART. 1.6D |
| 2. PRIOR TO GROUTING, THE FOLLOWING TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. GROUT SPACE. | PERIODIC | TMS 602: ART. 3.2D, 3.2F |
| | B. PLACEMENT OF VERTICAL AND HORIZONTAL REINFORCEMENT SHALL BE OBSERVED PRIOR TO GROUT POUR AT LEAST ONCE FOR EVERY 1,250 SQUARE FEET OF WALL CONSTRUCTED. | PERIODIC | TMS 402: SEC. 6.1, 6.3.1, 6.3.6, 6.3.7<br>TMS 602: ART. 3.2E, 3.4 |
| | C. PROPORTIONS OF SITE-PREPARED GROUT. | PERIODIC | TMS 602: ART. 2.6B, 2.4G.1.b |
| 3. DURING MASONRY CONSTRUCTION, THE FOLLOWING TASKS SHALL BE VERIFIED TO ENSURE COMPLIANCE: | | | |
| | A. VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT. | - | TMS 602: ART. 1.5 & 1.6.3 |
| | B. MATERIAL AND PROCEDURES WITH THE APPROVED SUBMITTALS. | PERIODIC | TMS 602: ART. 1.5 |
| | C. PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION. | PERIODIC | TMS 602: ART. 3.3B |
| | D. SIZE AND LOCATION OF STRUCTURAL MEMBERS. | PERIODIC | TMS 602: ART. 3.3F |
| | E. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION SHALL BE OBSERVED AT LEAST ONCE FOR EVERY 1,250 SQUARE FEET OF WALL CONSTRUCTED. | PERIODIC | TMS 402:<br>SEC.1.2.1(e), 6.2.1, 6.3.1 |
| | F. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F). | PERIODIC | TMS 602: ART. 1.8C, 1.8D |
| | G. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE. | CONTINUOUS | TMS 602, ART. 3.5, 3.6C |
| | H. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED. | PERIODIC | TMS 602:<br>ART. 1.4B.2.a.3, 1.4B.2.b.3, 1.4B.2.c.3,1.4B.3, 1.4B.4 |


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JBA PROJECT #22201


**REVISIONS**

| △ ISSUE | DATE |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

**PROFESSIONAL IN CHARGE**
BJH

**PROJECT MANAGER**
SMK

**QUALITY CONTROL**
JNF

**DRAWN BY**
SMK

**PROJECT NAME**

**CIRCLE K STORES INC.**

**LAKE CITY, FL**

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

**TABLE OF SPECIAL INSPECTIONS**

**SHEET NUMBER**

S0.3


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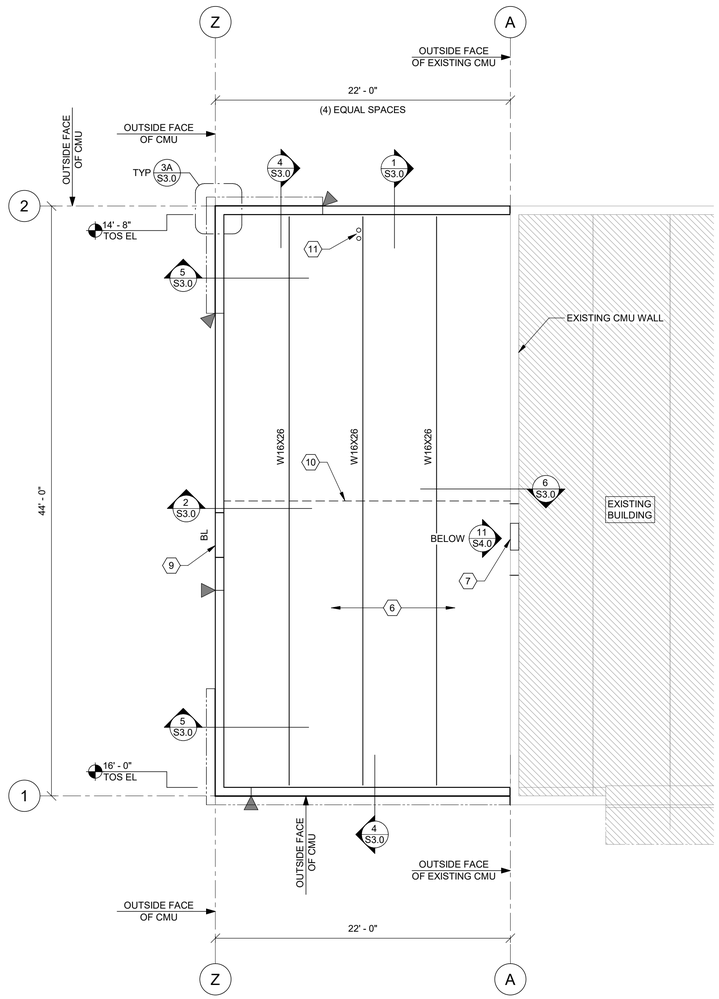
## ROOF FRAMING PLAN NOTES

| NUMBER | PLAN NOTE |
|---|---|
| GENERAL PLAN NOTES | |
| 1. | REF SHEET S0.1, S0.2 AND S0.3 FOR GENERAL NOTES, ROOF DECK DIAGRAM AND SPECIAL INSPECTIONS REQUIREMENTS. |
| 2. | REF ARCH DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS. |
| 3. | REF FOUNDATION PLAN FOR CMU WALL SIZE, REINFORCING, AND CONTROL JOINT LOCATIONS. |
| 4. | NOT USED. |
| 5. | NOT USED. |
| REFERENCED PLAN NOTES | |
| 6 | METAL ROOF DECK SHALL BE 36" WIDE, 1 1/2" DEEP, 22 GAGE (GALV) TYPE "B" WIDE RIB ROOF DECK. REF DIAGRAM AND SCHEDULE ON DETAIL 2-S0.2 FOR DIAPHRAGM FASTENING TO FRAMING MEMBERS AND DECK SIDELAP ATTACHMENT. |
| 7 | REF 11-S4.0 FOR SUPPORT FRAMING AT NEW PENETRATION IN EXISTING CMU WALL. |
| 8 | NOT USED. |
| 9 | REF DETAIL 4-S4.0 FOR CMU WALL OPENING REINFORCEMENT BELOW. |
| 10 | L2x2x1/4 HORIZONTAL BRIDGING AT MIDSPAN OF STEEL BEAMS. REF DETAILS 2-S3.0 AND 6-S3.0 FOR ATTACHMENT TO BEAMS AND CMU WALL. |
| 11 | REF ARCH FOR EXACT LOCATION OF ROOF DRAINS. REF 9-S3.0 FOR DECK SUPPORT FRAMING AT OPENING (IF REQUIRED PER DETAIL). |

## ROOF DEAD LOADS

DEAD LOADS

| | | |
|---|---|---|
| MEMBRANE (UNBALASTED) | = | 1.0 PSF |
| INSULATION | = | 2.0 PSF |
| METAL DECK | = | 2.0 PSF |
| BEAMS | = | 5.0 PSF |
| MECH/ELEC/FIRE SPRINK | = | 3.0 PSF |
| MISC | = | 4.0 PSF |
| TOTAL | = | 17.0 PSF |



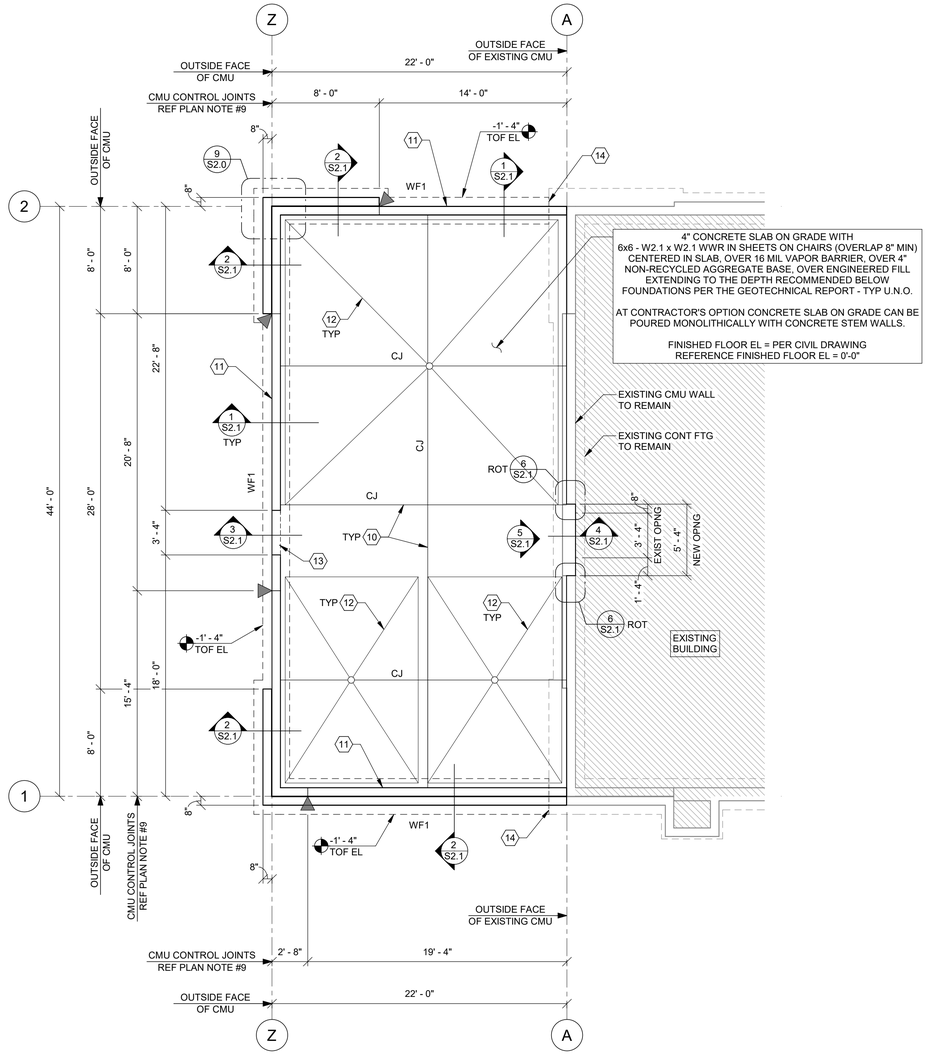

ROOF FRAMING PLAN | 2
3/16" = 1'-0"

## FOUNDATION PLAN NOTES

| NUMBER | PLAN NOTE |
|---|---|
| GENERAL PLAN NOTES | |
| 1. | REF SHEET S0.1, S0.2 AND S0.3 FOR GENERAL NOTES, LEGEND AND SPECIAL INSPECTIONS REQUIREMENTS. |
| 2. | ALL ELEVATIONS REFERENCED FROM FINISH FLOOR ELEVATION OF 0'-0" (AT BLDG SLAB) FOR REFERENCE ONLY. |
| 3. | TOP OF FOOTING ELEVATION SHALL BE ASSUMED TO BE CONSTANT BETWEEN ELEVATIONS SHOWN ON PLAN U.N.O. (FOUNDATION REQUIREMENTS ENSCRIBED ON S0.1 PER GEOTECHNICAL ENGINEER RECOMMENDATIONS SHALL BE FOLLOWED AS GRADING CONDITIONS VARY, REF CIVIL). |
| 4. | FOR TYPICAL REINFORCING BAR BEND DETAILS, REF 4-S2.0. |
| 5. | FOR PIPING RUNNING PARALLEL AND PERPENDICULAR TO THE FOUNDATION REF 6-S2.0 & 7-S2.0. |
| 6. | THE GENERAL CONTRACTOR, INCLUDING SUBCONTRACTORS AND SUPPLIERS, SHALL NOT ALLOW ANY VEHICULAR TRAFFIC ON THE BUILDING PAD AFTER THE PAD CERTIFICATION OR THE CONCRETE SLAB ONCE PLACED. ANY DAMAGE TO THE PAD DUE TO THE VEHICULAR TRAFFIC SHALL BE REPAIRED/REPLACED AT THE EXPENSE OF THE CONTRACTOR |
| 7. | REF SHEET S4.0 FOR TYPICAL MASONRY WALL REINFORCING DETAILS & SPLICING. |
| 8. | FOR ALL EXTERIOR CMU WALLS SHOWN, WALL REINFORCING SHALL BE DOWELED INTO FOOTING AND SHALL EXTEND INTO THE BOND BEAM TO TOP OF WALL. REF PLAN FOR REFERENCE SECTIONS. THE VERTICAL CMU WALL REINFORCING SHALL BE LOCATED AT THE MASONRY WALL CENTER LINE, U.N.O. |
| REFERENCED PLAN NOTES | |
| 9 | FOR CMU WALL CONTROL JOINT CRITERIA REFER TO GENERAL NOTES ON SHEET S0.1 AND INFORMATION ON SHEET S4.0. |
| 10 | FOR TYPICAL FLOOR CONSTRUCTION JOINT, REF 1-S2.0; FOR TYPICAL FLOOR CONTRACTION JOINT, REF 2-S2.0. |
| 11 | 8" CMU WALL WITH #6 DOWELS AND VERTS AT 24" OC. |
| 12 | COORDINATE SLAB SLOPES AT DRAIN LOCATIONS WITH THE ARCH DRAWINGS. |
| 13 | VERIFY ALL WALL OPENING SIZES AND LOCATIONS WITH THE ARCH DRAWINGS. PROVIDE ADDITIONAL WALL REINFORCING AT JAMBS FOR LINTELS SUPPORTING MASONRY WALL OPENINGS AS PER SECTIONS 4-S4.0 THRU 8-S4.0. |
| 14 | STEP BOTTOM OF FOOTING IF NECESSARY TO MATCH BOTTOM OF EXISTING FOOTING AND PROVIDE (3) #5 x 2'-0" DOWELS, TYP; DRILL AND EMBED 6" INTO EXISTING CONC FTG WITH HILTI HIT-HY 200 ADHESIVE. |

## WALL FOOTING SCHEDULE

| MARK | WIDTH | THICKNESS | REINF (TRANS) | REINF (LONG) | REINF LOCATION |
|---|---|---|---|---|---|
| WF1 | 2' - 0" | 1' - 0" | #4 AT 24" OC | (3) #5 | BOT |




FOUNDATION PLAN | 1
3/16" = 1'-0"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JBA PROJECT #22201

**REVISIONS**

| △ ISSUE | DATE |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

BART J. PATTERSON · LICENSE No. 75746 · STATE OF FLORIDA · PROFESSIONAL ENGINEER
08/17/22

**PROFESSIONAL IN CHARGE**
BJH

**PROJECT MANAGER**
SMK

**QUALITY CONTROL**
JNF

**DRAWN BY**
SMK

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY, FL

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## FOUNDATION AND FRAMING PLANS

**SHEET NUMBER**

# S1.0


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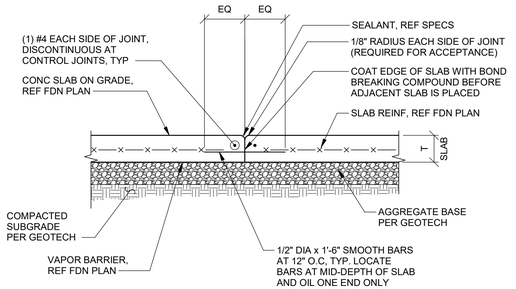
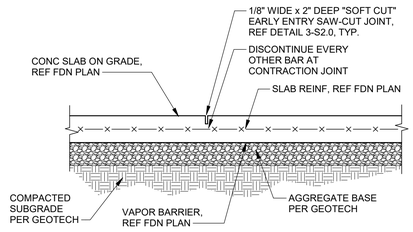


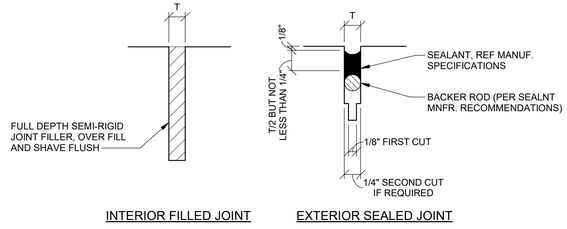

**NOTE:**
1. SMOOTH BARS SHALL BE INSTALLED HORIZONTALLY.

## TYPICAL CONSTRUCTION JOINT | 1
3/4" = 1'-0"

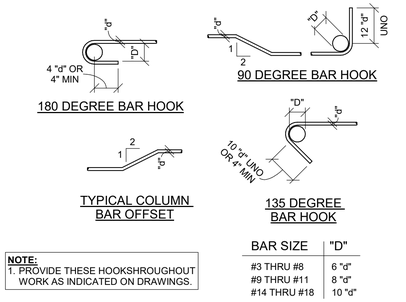



**NOTE:**
1. SPACE CONTROL JOINTS AT 15'-0" OC MAX.
2. PERFORM SLAB CUTTING AS SOON AS POSSIBLE AFTER FINISHING; WITHIN 1 HOUR IN HOT WEATHER, WITHIN 4 HOURS IN COLD WEATHER.
3. JOINT FILLER SHALL BE PLACED IN CLEAN JOINTS, OVER FILLED, AND SHAVED FLUSH.

## TYPICAL CONTRACTION JOINT | 2
3/4" = 1'-0"




## TYPICAL CONCRETE SLAB JOINT DETAIL | 3
3/4" = 1'-0"




**NOTE:**
1. PROVIDE THESE HOOKSHROUGHOUT WORK AS INDICATED ON DRAWINGS.

| BAR SIZE | "D" |
|---|---|
| #3 THRU #8 | 6 "d" |
| #9 THRU #11 | 8 "d" |
| #14 THRU #18 | 10 "d" |

## TYPICAL REINFORCING BARS BENDS DETAIL | 4
3/4" = 1'-0"




## TYPICAL REINFORCEMENT AT SLAB OPENING | 5
3/4" = 1'-0"




## UTILITY LINE PARALLEL TO FDN | 6
3/4" = 1'-0"

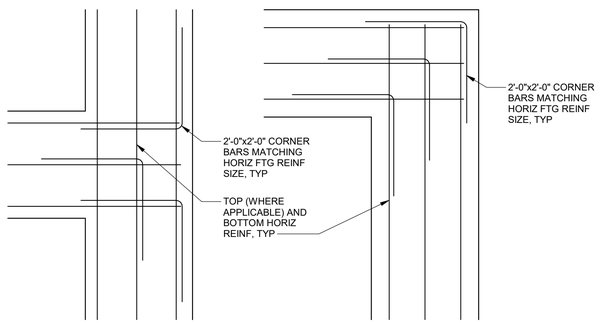



**NOTE:**
1. NO PIPES TO PENETRATE THRU FOOTING.
2. WHERE PIPES DO OCCUR AT FOOTING ELEVATION, STEP FOOTING DOWN SO PIPES PASS THROUGH FOOTING WALL. REF DETAIL 8-S2.0 FOR FTG STEP DETAIL.
3. MAX PIPE DIAMETER SHALL BE 6 INCHES.

## UTILITY LINE PERPENDICULAR TO FDN | 7
3/4" = 1'-0"




## DETAIL AT STEPPED FOOTING | 8
3/4" = 1'-0"




## CONCRETE FOOTING CORNER BAR REINFORCEMENT | 9
1" = 1'-0"

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JBA PROJECT #22201

**REVISIONS**

| △ ISSUE | DATE |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**
BART J. HALVERSON LICENSE No. 75746 STATE OF FLORIDA PROFESSIONAL ENGINEER
08/12/22

**PROFESSIONAL IN CHARGE**
BJH

**PROJECT MANAGER**
SMK

**QUALITY CONTROL**
JNF

**DRAWN BY**
SMK

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY, FL

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## FOUNDATION DETAILS

**SHEET NUMBER**

# S2.0

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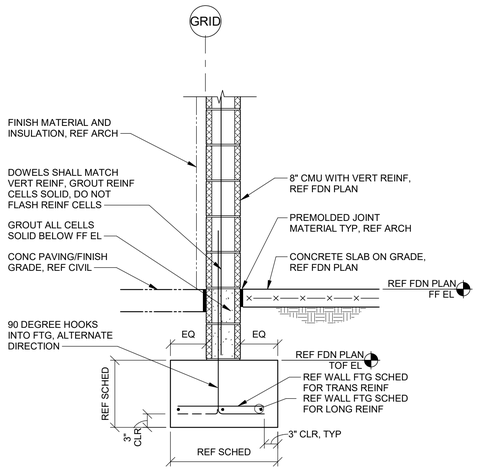
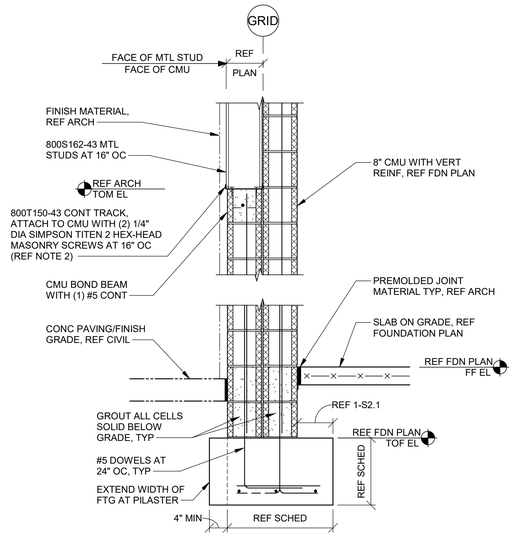


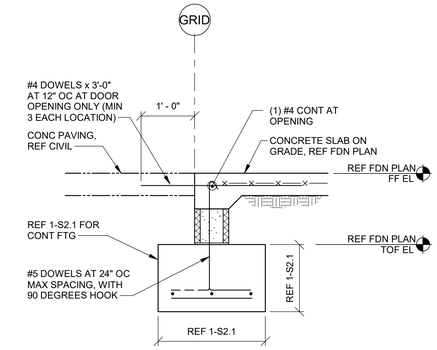

**NOTE:**
1. BOTTOM OF FOUNDATION SHALL BE PLACED PER GEOTECHNICAL RECOMMENDATIONS. FOR ADDITIONAL INFO, REF GENERAL NOTES ON SHEET S0.1. FOOTING DEPTH SHALL BE COORDINATED TO ALIGN TOP OF BLOCK WITH FINISH FLOOR.

## TYPICAL CMU WALL SECTION | 1
3/4" = 1'-0"




**NOTE:**
1. FOR ADDITIONAL INFORMATION NOT SHOWN, REFER TO DETAIL 1-S2.1 AND WALL FOOTING SCHEDULE.
2. AT CONTRACTORS OPTION: (2) 0.157" DIA HILTI X-U PDF'S AT 16" OC MAY BE USED IN LIEU OF SIMPSON TITEN 2 MASONRY SCREWS.

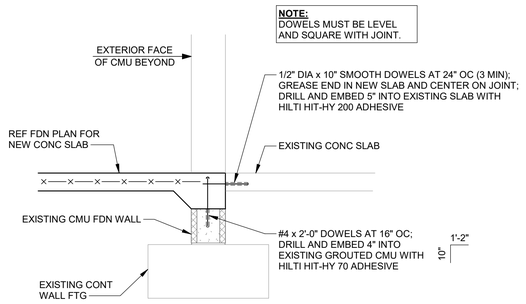
## WALL SECTION AT TYPICAL PILASTER | 2
3/4" = 1'-0"



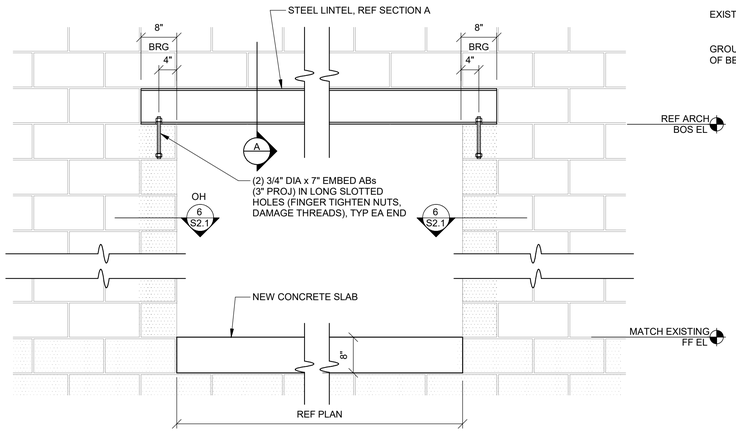

**NOTE:**
1. FOR ADDITIONAL INFORMATION NOT SHOWN, REFER TO DETAIL 1-S2.1.

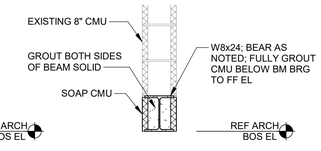
## CONCRETE SLAB AT OPENING | 3
3/4" = 1'-0"

NOTE:
REF 11-S4.0 FOR NEW HVAC PENETRATION IN EXISTING CMU WALL (ABOVE)



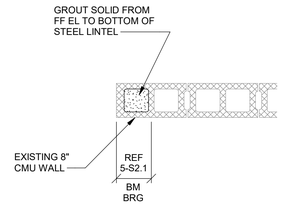

## SLAB INFILL AT NEW OPNG | 4
3/4" = 1'-0"




SECTION A

## STEEL LINTEL AT CMU OPENING IN EXISTING WALL | 5
3/4" = 1'-0"




## BM BEARING AT EXISTING CMU WALL | 6
3/4" = 1'-0"

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JBA PROJECT #22201

**REVISIONS**

| △ ISSUE | DATE |
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| PERMIT SET | 08/15/22 |
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**PROFESSIONAL SEAL**
BARRY J. HALVERSON · LICENSE · No. 75746 · STATE OF · PROFESSIONAL ENGINEER
08/17/22

**PROFESSIONAL IN CHARGE**
BJH

**PROJECT MANAGER**
SMK

**QUALITY CONTROL**
JNF

**DRAWN BY**
SMK

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY, FL

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## FOUNDATION DETAILS

**SHEET NUMBER**

# S2.1

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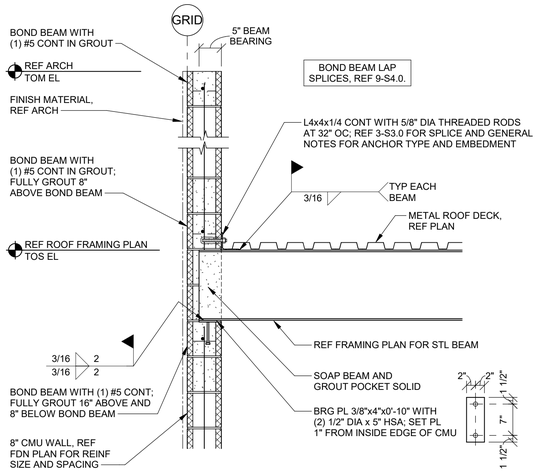
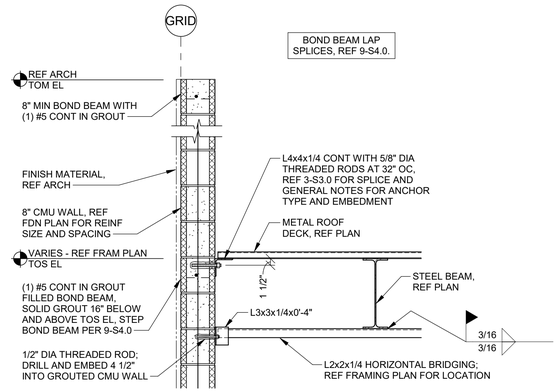


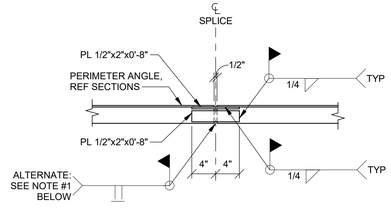

**NOTE:**
1. THREADED RODS SHALL BE POST-INSTALLED WITH HILTI-HY 270 ADHESIVE SYSTEM WITH MIN 8" GROUT AROUND ANCHORS.
2. AT CONTRACTOR OPTION, PROVIDE CAST IN PLACE ANCHORS. REF GENERAL NOTES AND DETAIL 10-S4.0 FOR ADDITIONAL INFORMATION.
3. LOCATE VERTICAL CMU WALL REINFORCING IN ADJACENT CELL WHEN INTERRUPTED BY BEAM. PROVIDE LAP SPLICE PER LAP SCHEDULE ABOVE AND BELOW BEAM.

## BEAM PERPENDICULAR TO WALL | 1
3/4" = 1'-0"



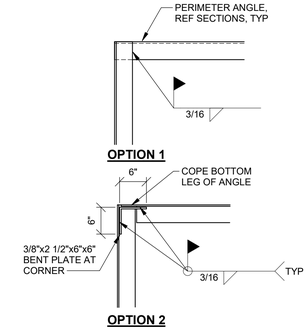

**NOTE:**
1. THREADED RODS SHALL BE POST-INSTALLED WITH HILTI-HY 270 ADHESIVE SYSTEM WITH MIN 8" GROUT AROUND ANCHORS.
2. AT CONTRACTOR OPTION, PROVIDE CAST IN PLACE ANCHORS. REF GENERAL NOTES AND DETAIL 10-S4.0 FOR ADDITIONAL INFORMATION.

## BEAM PARALLEL TO WALL | 2
3/4" = 1'-0"




**NOTE:**
1. AS AN ALTERNATE, CONTINUOUS COMPETE PENETRATION BUTT WELD SHALL BE USED.

## PERIMETER ANGLE SPLICE | 3
3/4" = 1'-0"



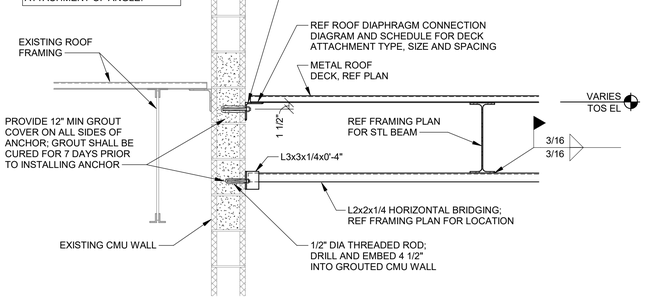

## PERIMETER ANGLE AT CORNER | 3A
3/4" = 1'-0"



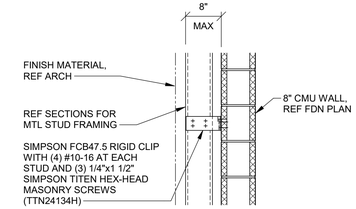

## WALL SECTION AT PILASTER | 4
3/4" = 1'-0"




## WALL SECTION AT PILASTER | 5
3/4" = 1'-0"

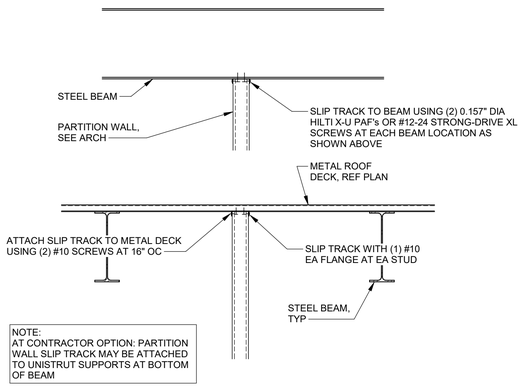



## WALL SECTION AT EXISTING BLDG | 6
3/4" = 1'-0"



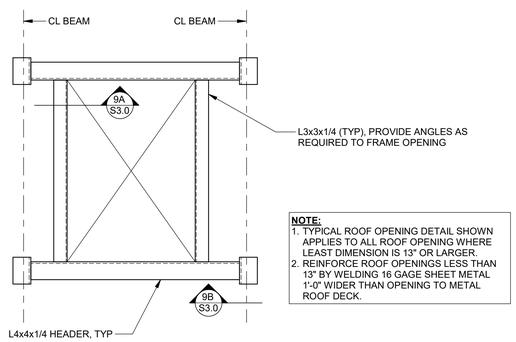

**NOTE:**
1. AT CONTRACTOR OPTIONS, 0.157" DIA PAFS MAY BE USED IN LIEU OF MASONRY SCREWS FOR ATTACHMENT TO CMU WALL. (MIN EMBED = 1 1/2")

## METAL STUD CLIP AT CMU WALL | 7
3/4" = 1'-0"

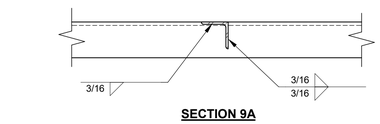



NOTE:
AT CONTRACTOR OPTION: PARTITION WALL SLIP TRACK MAY BE ATTACHED TO UNISTRUT SUPPORTS AT BOTTOM OF BEAM

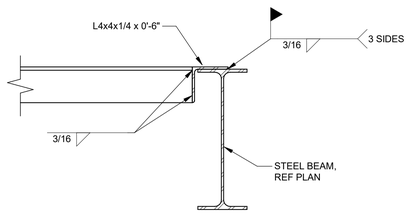
## INTERIOR WALL CONNECTION DETAILS | 8
NTS




**NOTE:**
1. TYPICAL ROOF OPENING DETAIL SHOWN APPLIES TO ALL ROOF OPENING WHERE LEAST DIMENSION IS 13" OR LARGER.
2. REINFORCE ROOF OPENINGS LESS THAN 13" BY WELDING 16 GAGE SHEET METAL 1'-0" WIDER THAN OPENING TO METAL ROOF DECK.




**SECTION 9A**




**SECTION 9B**

## TYPICAL ROOF OPENING DETAIL | 9
NTS

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JBA PROJECT #22201

**REVISIONS**

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| | PERMIT SET | 08/15/22 |
| | BID SET | 08/15/22 |

**PROFESSIONAL SEAL**
BART JOHNSTON PERSON LICENSE No. 75746 STATE OF FLORIDA PROFESSIONAL ENGINEER
08/12/22

**PROFESSIONAL IN CHARGE**
BJH
**PROJECT MANAGER**
SMK
**QUALITY CONTROL**
JNF
**DRAWN BY**
SMK

**PROJECT NAME**
# CIRCLE K STORES INC.
## LAKE CITY, FL
NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036
**SHEET TITLE**
## ROOF FRAMING DETAILS
**SHEET NUMBER**
# S3.0

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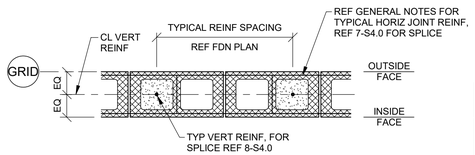
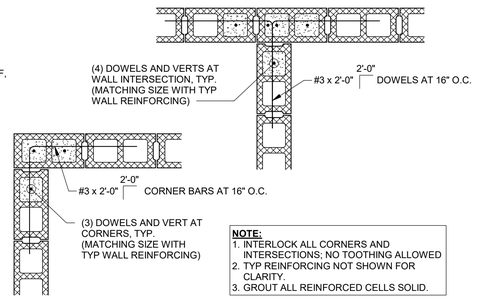


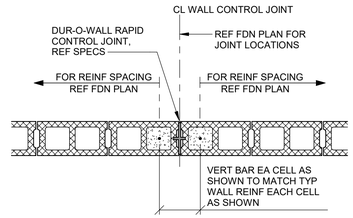

**NOTE:**
1. GROUT ALL REINFORCED CELLS SOLID.
2. REINFORCEMENT SHALL BE SUPPORTED AND FASTENED TOGETHER TO PREVENT DISPLACEMENTS BEYOND THE TOLERANCES ALLOWED BY 3.4 OF ACI 530.1 PRIOR TO GROUTING. SECURE REINFORCEMENT AT 200d MAX SPACING.
3. CONCAVE JOINTS, TYPICAL U.N.O.
4. FOR TYPICAL WALL REINF, REF FOUNDATION PLAN.

## TYPICAL CMU WALL REINFORCING | 1
1" = 1'-0"



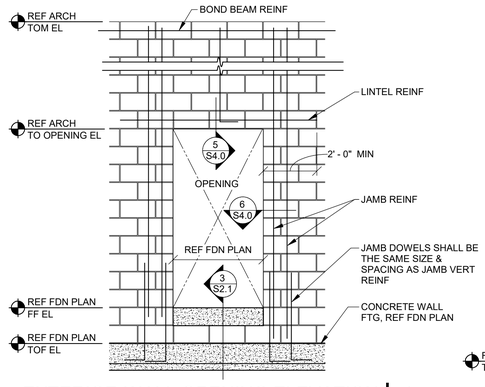

**NOTE:**
1. INTERLOCK ALL CORNERS AND INTERSECTIONS; NO TOOTHING ALLOWED
2. TYP REINFORCING NOT SHOWN FOR CLARITY.
3. GROUT ALL REINFORCED CELLS SOLID.

## CMU WALL REINFORCING AT CORNER | 2
3/4" = 1'-0"



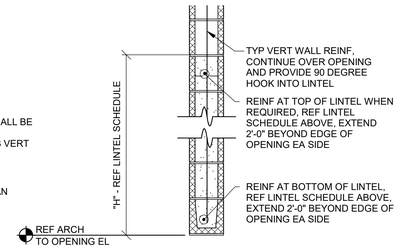

**NOTE:**
1. JOINT SHALL BE CONTINUOUS WITHOUT INTERRUPTION FROM FOUNDATION TO TOP OF WALL
2. HORIZONTAL REINFORCING AND BOND BEAMS SHALL BE DISCONTINUOUS AT WALL JOINT.
3. NO CONTROL JOINT WITHIN 2'-8" MIN. OF OPENINGS, PIERS OR EMBEDS.
4. SPACE JOINTS AT MAXIMUM DISTANCE EQUAL TO WALL HEIGHT x 1.5 OR 32'-0" O.C. MAX.
5. COORDINATE LOCATION OF JOINTS WITH ARCH DRAWINGS.
6. PROVIDE 3/8" JOINT BETWEEN NEW AND EXISTING CMU WALL. REF ARCH FOR ADDITIONAL DETAILS.

## TYPICAL CMU WALL CONTROL JOINT | 3
3/4" = 1'-0"



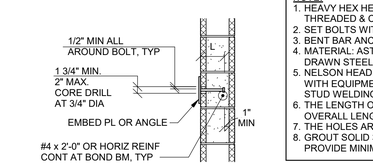

## EXTERIOR WALL OPENING ELEVATION | 4
3/8" = 1'-0"

| CONCRETE MASONRY LINTEL SCHEDULE | | |
|---|---|---|
| **CLEAR SPAN** | **LINTEL DEPTH "H"** | **LINTEL REINF** |
| UP TO 3' - 4" | 16" | (1) #6 BOT |

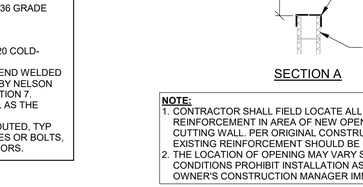



## TYPICAL EXTERIOR CMU LINTEL | 5
3/4" = 1'-0"

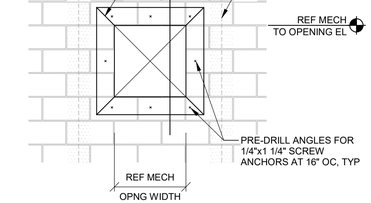
| CONCRETE MASONRY JAMB SCHEDULE | | |
|---|---|---|
| **OPENING WIDTH** | **JAMB WIDTH "L"** | **JAMB REINF** |
| UP TO 3'-4" | 8" | (1) #6 |




## TYP CMU WALL JAMB | 6
3/4" = 1'-0"




## CMU WALL HORIZ JOINT REINF LAP SPLICE | 7
3/4" = 1'-0"

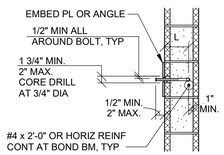



| CONCRETE MASONRY LAP SPLICE SCHEDULE | | |
|---|---|---|
| **REINF SIZE** | **SINGLE LAYER** | **DOUBLE LAYER** |
| #4 | 20" | 25" |
| #5 | 32" | 40" |
| #6 | 48" | 54" |
| #7 | 64" | 64" |

## CMU WALL VERT REINF LAP SPLICE | 8
3/4" = 1'-0"




## CMU BOND BEAM LAP SPLICE | 9
1/2" = 1'-0"




HEADED BOLT
RE: NOTES 1 THRU 3

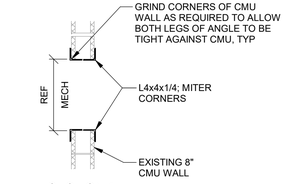



HEADED STUD
RE: NOTES 4 THRU 6

| CMU WALL | BOLT OR STUD SIZE | EFFECTIVE EMBEDMENT "L" | MIN. SPACING |
|---|---|---|---|
| 6" | 1/2" DIA | 4" | 4" |
| 8" | 5/8" DIA | 5" | 5" |
| 8" | 3/4" DIA | 5" | 6" |
| 10" | 7/8" DIA | 6" | 7" |
| 12" | 1" DIA | 7" | 8" |

**NOTE:**
1. HEAVY HEX HEADED ANCHOR BOLTS SHALL BE ASTM A36 GRADE THREADED & CONFORM TO ACI 530.1-13 SEC. 2.4D.
2. SET BOLTS WITH TEMPLATE, TYP.
3. BENT BAR ANCHORS ARE NOT PERMITTED.
4. MATERIAL: ASTM A108, GRADES C-1010 THROUGH C-1020 COLD-DRAWN STEEL, ESR-2614.
5. NELSON HEADED STUDS SHOULD BE AUTOMATICALLY END WELDED WITH EQUIPMENT AND PROCEDURES RECOMMENDED BY NELSON STUD WELDING, INC. AND COMPLY WITH AWS D1.1 SECTION 7.
6. THE LENGTH OF STUDS HAS BEEN SPECIFIED IN DETAIL AS THE OVERALL LENGTH OF STUD BEFORE WELD.
7. THE HOLES AROUND ANCHORS SHOULD BE FULLY GROUTED, TYP
8. GROUT SOLID 3 CELLS MINIMUM AROUND EMBED PLATES OR BOLTS, PROVIDE MINIMUM 8" OF GROUT COVER FOR ALL ANCHORS.

## CMU WALL CAST-IN-PLACE ANCHOR OPTIONS | 10
3/4" = 1'-0"




SECTION A

**NOTE:**
1. CONTRACTOR SHALL FIELD LOCATE ALL VERTICAL WALL REINFORCEMENT IN AREA OF NEW OPENING(S) PRIOR TO CUTTING WALL. PER ORIGINAL CONSTRUCTION DOCUMENTS EXISTING REINFORCEMENT SHOULD BE (1) #6 BAR AT 48" OC.
2. THE LOCATION OF OPENING MAY VARY SLIGHTLY. IF FIELD CONDITIONS PROHIBIT INSTALLATION AS SHOWN, CONTACT OWNER'S CONSTRUCTION MANAGER IMMEDIATELY.




## NEW PENETRATION IN EXISTING CMU WALL | 11
1/2" = 1'-0"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JBA PROJECT #22201

**REVISIONS**

| △ ISSUE | DATE |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**
BART J. MATTHEWS LICENSE No. 75746 STATE OF MISSOURI PROFESSIONAL ENGINEER
08/12/22

**PROFESSIONAL IN CHARGE**
BJH

**PROJECT MANAGER**
SMK

**QUALITY CONTROL**
JNF

**DRAWN BY**
SMK

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY, FL

NWC I-75 & W. US HWY 90
LAKE CITY, FL 32055

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## EXTERIOR WALL DETAILS

**SHEET NUMBER**

# S4.0


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## LIGHTING FIXTURE SCHEDULE

ALL LIGHTING FIXTURES ARE SUPPLIED BY CIRCLE K, INSTALLED BY THE ELECTRICAL CONTRACTOR.

| TYPE | MANUFACTURER CATALOG NO. | LAMP QTY. & TYPE | FIXTURE WATTAGE | VOLTS | DESCRIPTION | QUANTITY / REMARKS |
|---|---|---|---|---|---|---|
| A | CREE<br>RLA-ZR24-40L-40K-10V | LED | 41.9 | 120 | 2 X 4 LED TROFFER | QTY 2<br>-<br>- |
| F | CREE<br>LS4-40L-40K | LED | 50 | 120 | LED SURFACE MOUNT LIGHT FIXTURE | QTY 10<br>-<br>- |
| G | CREE<br>LS4-4000L-4000K | LED | 50 | 120 | LED SURFACE MOUNT LIGHT FIXTURE/ BATTERY BACK UP | QTY 6<br>-<br>- |
| A4B | CREE<br>XSPLG-D-HT-4ME-24L-57K7UL-XX-N + XA-SP2BLS | LED | 184 | 120 | MEDIUM EXTERIOR POLE FIXTURE | QTY 6<br>-<br>- |
| CAN | CREE<br>CPY250-C-8L-57K7-F-UL-DM-XX | LED | 53 | 208 | CANOPY LED LIGHT<br>NO-DIRECTIONAL, VERIFY COLOR AND FINISH WITH ARCHITECT/OWNER | QTY 12<br>-<br>- |
| P1 | GETC<br>PL-OP2-PD3-P/BW-SINGLE-XX | LED | 1.32 | 120 | CANOPY LED EYEBROW LIGHT | QTY 10<br>-<br>- |
| P118 | GETC<br>PL-OP2-PD3-P/BW-118XX | LED | 1.32 | 120 | CANOPY LED EYEBROW LIGHT | QTY 14<br>-<br>- |
| WP | CREE INC<br>XSPW-B-WM-3ME-4L-40K-UL-XX | LED | 31 | 120 | EXTERIOR WALL PACK<br>VERIFY COLOR AND FINISH WITH ARCHITECT/OWNER | QTY 1<br>-<br>- |

## ELECTRICAL SYMBOLS LIST (CONT)

- STANDARD 20A, 120/277V-1ø SPST TOGGLE SWITCH MOUNTED AT +48" A.F.F.-U.O.N.
  - a,b - DENOTES TWO SWITCHES AND THEIR RESPECTIVE CONTROL IDENTIFICATION.
  - 3 – DENOTES 3-WAY SWITCH
  - D – DENOTES - 120V. - 1ø (AS NOTED) SLIDING TYPE DIMMER SWITCH. - LUTRON "NOVA-T" SERIES OR APPROVED EQUAL, PROVIDE SEPARATE NEUTRAL FOR EACH DIMMER AND DIMMER RACK CIRCUIT.
- WALL MOUNTED INFRA-RED OCCUPANCY SENSOR. USE WATTSTOPPER "WI 200" FOR SINGLE SWITCH AND "WI 300" FOR "ab" SWITCHING OR EQUAL.
- CEILING MOUNTED INFRA-RED OCCUPANCY SENSOR. USE LEVITON "ODC0S-I1W" WITH POWER PACK OR EQUAL.
- CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR. USE LEVITON "ODC0S-I1W" WITH POWER PACK OR EQUAL.
- (PE) CEILING MOUNTED LINE VOLTAGE PHOTOCELL SENSOR. USE LEVITON "PCOSD-W".

## REFERENCES & ABBREVIATIONS

| | | | |
|---|---|---|---|
| (A) | LIGHTING FIXTURE DESIGNATION | (ER) | EXISTING TO BE REMOVED |
| (E1) | DETAIL REFERENCE | FLA | FULL LOAD AMPS |
| (1) | KEYNOTE REFERENCE | G | GROUND |
| (123) | KITCHEN EQUIPMENT DESIGNATION | GFCI/GFI | GROUND FAULT CIRCUIT INTERRUPTER |
| A | AMPS | MCB | MAIN CIRCUIT BREAKER |
| AC | ABOVE COUNTER | MLO | MAIN LUGS ONLY |
| AFF | ABOVE FINISH FLOOR | NL | NIGHT LIGHT |
| C | CONDUIT | OC | ON CENTER |
| CO | CONDUIT ONLY W/PULL ROPE | TMB | TELEPHONE MOUNTING BOARD |
| CU | COPPER | UON | UNLESS OTHERWISE NOTED |
| (E) | EXISTING TO REMAIN | V | VOLTS |
| EM | EMERGENCY | VL | VERIFY LOCATION |
| FCP | FIRE CONTROL PANEL | WP | WEATHER PROOF |
| | | FSA | FIRE ANNUNCIATOR PANEL |

## ELECTRICAL SYMBOLS LIST (CONT)

- VIDEO OUTLET WITH "F" TYPE CONNECTOR MOUNTED AT +18" A.F.F.. PROVIDE 3/4" CONDUIT STUBBED TO ACCESSIBLE CEILING SPACE ABOVE.
- VIDEO OUTLET MOUNTED FLUSH IN FLOOR. PROVIDE 3/4" C.O. TO NEAREST WALL AND STUB INTO ACCESSIBLE CEILING SPACE.
- AV AUDIO VIDEO FLOOR BOX WIRE-MOLD - FS 880 OMNI-BOX ; RS RFB2 (OR EQUAL)
- C CAMERA OUTLET.
- CONDUIT CONCEALED WITHIN BUILDING WALLS OR CEILING SPACE. TICK MARKS INDICATE QUANTITY OF #12 THHN / THWN CONDUCTORS - U.O.N.. CONDUIT SHOWN WITH NO TICK MARKS INDICATE 2 #12 THHN / THWN CONDUCTORS - U.O.N.. CONDUIT SHALL BE 3/4" MINIMUM - U.O.N. - **INCLUDE CODE SIZED COPPER GROUND BOND CONDUCTOR (NOT SHOWN ON PLAN) IN ALL CONDUIT RUNS.**
- CONDUIT ROUTED BELOW FINISHED GRADE AND / OR CONCRETE SLAB. TICK MARKS INDICATE QUANTITY OF #12 THHN / THWN CONDUCTORS - U.O.N.. CONDUITS SHOWN WITH NO TICK MARKS INDICATE 2 #12 THHN / THWN CONDUCTORS - U.O.N.. CONDUIT SHALL BE 3/4" MINIMUM - U.O.N.. **INCLUDE CODE SIZED COPPER BOND CONDUCTOR (NOT SHOWN ON PLAN) IN ALL CONDUIT RUNS.**
- INDICATES GREEN CODE SIZE EQUIPMENT GROUNDING CONDUCTOR. **ALTHOUGH AN EQUIPMENT GROUNDING CONDUCTOR IS NOT INDICATED ON ALL BRANCH CIRCUITING, INCLUDE A GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC TABLE 250.122 WITH ALL BRANCH WIRING 50V AND GREATER.**
- HOMERUN TO DESTINATION AS INDICATED. REFER TO CONDUIT SYMBOL ABOVE.
- INDICATES CONDUIT DROP WITHIN BUILDING WALL. REFER TO CONDUIT SYMBOL ABOVE.
- INDICATES CONDUIT RISER WITHIN BUILDING WALL. REFER TO CONDUIT SYMBOL ABOVE.
- FLEXIBLE CONDUIT CONNECTION FROM JUNCTION BOX.
- NL SURFACE MOUNTED LED WRAPAROUND TYPE LIGHTING FIXTURE. "EM" AND/OR SHADED CONNECTION POINT INDICATES FIXTURE WITH EMERGENCY BATTERY PACK (MINIMUM 1100 LUMEN OUTPUT). "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- NL RECESSED LED LIGHTING FIXTURE. "EM" AND/OR SHADED CONNECTION POINT INDICATES FIXTURE WITH EMERGENCY BATTERY PACK (MINIMUM 1100 LUMEN OUTPUT). "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- RECESSED OR SURFACED MOUNTED DOWN LIGHTING FIXTURE. "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- RECESSED WALLWASHER LIGHTING FIXTURE.
- WALL MOUNTED LIGHTING FIXTURE.
- RECESSED STEP LIGHTING FIXTURE.
- BOLLARD TYPE LIGHTING FIXTURE. PROVIDE CONCRETE FOOTING PER MFGRS. REQUIREMENTS.
- SINGLE OR TWO CKT. LIGHTING TRACK AS SPECD IN LTG. FIXTURE SCHEDULE.
- LANDSCAPE FLOOD LIGHTING FIXTURE.
- POLE MOUNTED H.I.D. LIGHTING FIXTURE.
- ILLUMINATED EXIT SIGN WITH NUMBER OF FACES AND DIRECTION OF EGRESS ARROWS AS INDICATED.
- LOW LEVEL EXIT SIGN AS SPECIFIED ON LIGHTING FIXTURE SCHEDULE.
- EGRESS EMERGENCY BATTERY PACK LIGHT FIXTURE (BUGEYE).
- INVERTER EMERGENCY POWER INVERTER

## ELECTRICAL SYMBOLS LIST

- STANDARD 20A, 120V-1ø GROUNDING TYPE SIMPLEX RECEPTACLE MOUNTED AT +18" A.F.F. - U.O.N.
- STANDARD 20A, 120V-1ø GROUNDING TYPE DUPLEX RECEPTACLE MOUNTED AT +18" A.F.F. - U.O.N.
- STANDARD 20A, 120V-1ø GROUNDING TYPE DUPLEX RECEPTACLE HALF SWITCHED MOUNTED AT +18" A.F.F. - U.O.N.
- STANDARD 20A, 120V-1ø GROUNDING TYPE FOUR-PLEX RECEPTACLE MOUNTED AT +18" A.F.F. - U.O.N.
- STANDARD 20A, 120V-1ø GROUNDING TYPE "GROUND FAULT INTERRUPTER" (G.F.I.) RECEPTACLE MOUNTED AT +18" A.F.F. - U.O.N.
- STANDARD 20A, 120V-1ø ISOLATED GROUND TYPE DUPLEX RECEPTACLE, ORANGE IN COLOR, MOUNTED AT +18" A.F.F. - U.O.N.
- STANDARD 20A, 120V-1ø GROUNDING TYPE DUPLEX RECEPTACLE MOUNTED WITHIN FLUSH FLOOR OUTLET BOX.
- STANDARD 20A, 120V-1ø GROUNDING TYPE FOUR-PLEX RECEPTACLE MOUNTED WITHIN FLUSH FLOOR OUTLET BOX.
- SPECIAL RECEPTACLE MOUNTED AT +18" A.F.F. - U.O.N.. AMPS - VOLTS & PHASE AS INDICATED ON PLANS. VERIFY NEMA CONFIGURATION WITH INSTALLED EQUIPMENT SUPPLIER PRIOR TO PLACING ORDER.
- STANDARD 20A, 120V-1ø ISOLATED GROUND TYPE FOUR-PLEX RECEPTACLE, ORANGE IN COLOR, MOUNTED AT +18" A.F.F. - U.O.N.
- HOSPITAL GRADE 20A, 120V-1ø GROUNDING TYPE DUPLEX RECEPTACLE, RED IN COLOR, ON EMERGENCY CIRCUIT MOUNTED AT +18" A.F.F. - U.O.N.
- SWITCHED OR DIMMED (AS NOTED) SIMPLEX 120V RECEPTACLE MOUNTED AT +18" A.F.F. - U.O.N.
- STANDARD 15A, 120V-1ø SIMPLEX CLOCK RECEPTACLE.
- J JUNCTION BOX. SIZED BY THE CONTRACTOR PER ACTUAL NUMBER OF CONDUITS AND/OR CONDUCTORS PASSING THRU.
- J FLOOR MOUNTED JUNCTION BOX. SIZED BY THE CONTRACTOR PER ACTUAL NUMBER OF CONDUITS AND/OR CONDUCTORS PASSING THRU.
- COMBINATION FLOOR BOX WIRE-MOLD - FS 880 OMNIBOX ; RS RFB2 OR RF34 (OR EQUAL)
- SHOW WINDOW RECEPT. MOUNTED FLUSH ON CEILING. -U.O.N.
- STANDARD 20A, 120V-1ø GROUNDING TYPE DUPLEX RECEPTACLE CEILING MOUNTED.
- F FUSED DISCONNECT SWITCH. AMPS, POLES AND FUSE SIZE AS INDICATED.
  - OPEN - INDICATES NON-FUSED
  - W.P. - INDICATES NEMA 3R ENCLOSURE
- MAGNETIC MOTOR STARTER. POLES AND NEMA SIZE AS INDICATED. PROVIDE COMPLETE WITH THERMAL OVERLOAD PROTECTION PER MOTOR NAMEPLATE DATA, 120V CONTROL COIL - U.O.N., AND H.O.A. (HAND-OFF-AUTO) SWITCH.
  - W.P. - INDICATES NEMA 3R ENCLOSURE
- COMBINATION DISCONNECT SWITCH/MAGNETIC MOTOR STARTER. AMPS, POLES, FUSE SIZE, AND NEMA SIZE AS INDICATED. PROVIDE COMPLETE WITH THERMAL OVERLOAD PROTECTION PER MOTOR NAMEPLATE DATA, 120V CONTROL COIL - U.O.N., AND H.O.A. (HAND-OFF-AUTO) SWITCH.
  - W.P. - INDICATES NEMA 3R ENCLOSURE
- M MANUAL MOTOR STARTER SWITCH. HORSEPOWER RATED-120V - 1ø -U.O.N. PROVIDE COMPLETE WITH THERMAL OVERLOAD PROTECTION.
- MOTOR OUTLET. H.P. OR F.L.A. - VOLTS & PHASE AS INDICATED. VERIFY ELECTRICAL CHARACTERISTICS AND CONNECTION REQUIREMENTS WITH INSTALLED EQUIPMENT MFG. PRIOR TO ANY ROUGH-IN WORK.
- SERVICE ENTRANCE OR DISTRIBUTION EQUIPMENT AS SPECIFIED.
- BRANCH CIRCUIT PANELBOARD. FLUSH OR SURFACE MTD. AS INDICATED.
- T TRANSFORMER AS SPECIFIED.
- TELEPHONE PLYWOOD BACKBOARD.
- T THERMOSTAT FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE J-BOX AT +48" A.F.F. - U.O.N. PROVIDE 1/2" C.O. TO ASSOCIATED HVAC UNIT OR ACCESSIBLE CEILING SPACE.
- V VOLUME CONTROL MOUNTED AT +48" AFF. PROVIDE SINGLE GANG BACK BOX WITH 3/4" RISER TO ACCESSIBLE CEILING SPACE ABOVE OR AS OTHERWISE INDICATED.
- TELEPHONE OUTLET MOUNTED AT +18" A.F.F. WITH (2) RJ45 PORTS - U.O.N.. PROVIDE 3/4" C.O. TO POINT ABOVE ACCESSIBLE CEILING SPACE OR AS OTHERWISE INDICATED. W - DENOTES WALL MOUNTED @ +48" A.F.F. U.O.N.
- DATA OUTLET MOUNTED AT +18" A.F.F. WITH (2) RJ45 PORTS - U.O.N.. PROVIDE 3/4" C.O. TO POINT ABOVE ACCESSIBLE CEILING SPACE OR AS OTHERWISE INDICATED. W - DENOTES WALL MOUNTED @ +48" A.F.F. U.O.N.
- COMBINATION TELE/DATA OUTLET MOUNTED AT +18" A.F.F. WITH (4) RJ45 - U.O.N.. PROVIDE (2) 3/4" C.O. TO POINT ABOVE ACCESSIBLE CEILING SPACE OR AS OTHERWISE INDICATED. W - DENOTES WALL MOUNTED @ +48" A.F.F. U.O.N.
- DATA OUTLET MOUNTED FLUSH IN FLOOR. PROVIDE 3/4" C.O. TO NEAREST WALL AND STUB INTO ACCESSIBLE CEILING SPACE.
- COMBINATION TELE/DATA OUTLET MOUNTED FLUSH IN FLOOR. PROVIDE 3/4" C.O. TO NEAREST WALL AND STUB INTO ACCESSIBLE CEILING SPACE.
- COMBINATION TELE/DATA OUTLET MOUNTED FLUSH IN CEILING. PROVIDE 3/4" C.O. TO NEAREST WALL AND STUB INTO ACCESSIBLE CEILING SPACE.

## CODE COMPLIANCE INFORMATION

2017 NATIONAL ELECTRICAL CODE
2020 INTERNATIONAL BUILDING CODE
2020 INTERNATIONAL FUEL GAS CODE
2020 INTERNATIONAL FIRE CODE
2020 INTERNATIONAL ENERGY CONSERVATION CODE

Jason C. Adams

Digitally signed by Jason C. Adams
DN: Erica@teamofchoice.com, CN=Jason C. Adams, C=US
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JASON C. ADAMS LICENSED No. 75948 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jason C. Adams State of Florida, Professional Engineer, License No. 75948

This item has been electronically signed and sealed by Jason C. Adams, PE on Aug 16, 2022 using a Digital Signature.

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**REVISION**

| ISSUE | |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

**PROFESSIONAL IN CHARGE**
JCA

**PROJECT MANAGER**
SAG

**QUALITY CONTROL**
SAG

**DRAWN BY**
ROA

**PROJECT NAME**

**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

**ELECTRICAL COVER SHEET AND LEGEND**

**SHEET NUMBER**

**E0.0**

1. SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS

A. THE WORK OF EACH OF THE ELECTRICAL SECTIONS INCLUDES FURNISHING AND INSTALLING THE MATERIAL, EQUIPMENT, AND SYSTEMS COMPLETE AS SPECIFIED AND/OR INDICATED ON THE DRAWINGS. THE ELECTRICAL INSTALLATIONS, WHEN FINISHED, SHALL BE COMPLETE AND COORDINATED, READY FOR SATISFACTORY SERVICE.

THE WORK UNDER THIS CONTRACT SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE MUNICIPAL, STATE AND OTHER LOCAL CODES, THE 2017 EDITION OF THE NATIONAL ELECTRICAL CODE AND THE 2010 ADA STANDARDS .

B. THE CONTRACTOR SHALL MAKE APPLICATION AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS AS REQUIRED UNDER THE ABOVE CODES.

C. THE GENERAL ARRANGEMENT OF CONDUIT, WIRING AND EQUIPMENT SHALL BE AS IDENTIFIED ON THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE SITE, STRUCTURAL, AND FINISH CONDITIONS AFFECTING HIS WORK AND SHALL ARRANGE SUCH WORK ACCORDINGLY, PROVIDING SUCH FITTINGS AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS.

D. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND SERVICES NECESSARY FOR AND REASONABLY INCIDENTAL TO THE COMPLETE INSTALLATION OF THE ELECTRICAL WORK AND RELATED SYSTEMS AS INDICATED ON THE DRAWINGS OR AS NECESSARY TO PROVIDE A COMPLETE SYSTEM.

E. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY WIRING, LIGHTING AND CONSTRUCTION POWER FOR ALL TRADES AS REQUIRED TO COMPLETE THE PROJECT.

F. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND COMPLETED IN A FIRST CLASS WORKMANLIKE MANNER. ALL MATERIALS SHALL BE NEW AND THE BEST OF THEIR RESPECTIVE KINDS. ALL EQUIPMENT AND SYSTEMS SHALL BE APPROVED BY UL OR SIMILAR NATIONALLY ACCEPTED TESTING AGENCY SUCH AS ETL TESTING LABORATORIES.

G. THE CONTRACTOR SHALL VISIT THE SITE AND OBSERVE THE CONDITIONS UNDER WHICH THE WORK SHALL BE COMPLETED. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THIS CONTRACT FOR ANY ERROR OR NEGLIGENCE IN THE CONTRACTOR'S PART.

H. THE CONTRACTOR SHALL SUBMIT DETAILED DIMENSIONED SHOP DRAWINGS, TOGETHER WITH WIRING DIAGRAMS, SPECIFICATIONS, OPERATING DATA, AND/OR CATALOG CUTS FOR ALL EQUIPMENT.

I. A THOROUGH TEST SHALL BE MADE PRIOR TO ENERGIZING THE SYSTEM TO DEMONSTRATE THAT THE SYSTEM IS ENTIRELY FREE FROM GROUND FAULTS, SHORT CIRCUITS, AND OPEN CIRCUITS; THAT THE RESISTANCE TO GROUND OF ALL NON-GROUNDED CIRCUITS, BEFORE AND AFTER CONNECTION OF EQUIPMENT MEETS THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND IEEE STANDARDS/RECOMMENDATIONS.

J. IDENTIFY ALL MOTOR STARTERS, SWITCHES, CONTROLS, PANELBOARDS, SWITCHBOARDS, TERMINAL BOARDS, CONTROL CENTERS AND OTHER EQUIPMENT. IDENTIFICATION PLATES SHALL BE LAMINATED PLASTIC, BLACK AND WHITE ENGRAVED LETTERS. LETTERING FOR CONTROL CENTERS, CONTROL PANELS, METERING AND INSTRUMENT PANELS SHALL BE 3/8" HIGH.

K. THE MATERIAL AND WORKMANSHIP OF ALL PARTS OF THE ELECTRICAL INSTALLATION SPECIFIED HEREIN SHALL BE GUARANTEED UNCONDITIONALLY FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE OF OCCUPANCY OR GRAND OPENING, WHICH EVER COMES FIRST.

L. UPON COMPLETION OF THE ELECTRICAL INSTALLATION, THE CONTRACTOR SHALL DELIVER TO THE OWNER ONE SET OF SCANNED DIGITAL PRINTS OF ELECTRICAL CONTRACT DRAWINGS WHICH SHALL BE LEGIBLY MARKED IN RED TO SHOW ALL ADDITIONS, CHANGES AND DEPARTURES OF THE INSTALLATION AS COMPARED WITH THE ORIGINAL DESIGN. THEY SHALL BE SUITABLE FOR USE IN PREPARATION OF RECORD DRAWINGS.

M. THE CONTRACTOR SHALL PREPARE A RECORD AND INFORMATION MANUAL. THE MANUAL SHALL BE SCANNED INTO A DIGITAL FORMAT AND FORWARDED TO CIRCLE K CONSTRUCTION.
PROVIDE THE FOLLOWING DATA IN THE RECORD AND INFORMATION MANUAL:
1) CUT SHEETS OF ALL EQUIPMENT WITH TECHNICAL SPECIFICATIONS.
2) OPERATION AND MAINTENANCE PROCEDURES.
3) SERVICING INSTRUCTIONS.
4) COPIES OF PANELBOARD DIRECTORIES.
5) COPIES OF WARRANTIES.
6) LIST OF LAMPS SHOWING QUANTITY, TYPE, WATTAGE, MANUFACTURER, CATALOG NUMBER, ETC., FOR EACH FIXTURE TYPE.
7) COPIES OF TEST REPORTS.

O. EXACT LOCATIONS OF OUTLETS SHALL BE COORDINATED WITH DOOR SWINGS AND VARIOUS PROTRUSIONS. MOUNTING HEIGHTS OF THE VARIOUS ELECTRICAL DEVICES SHALL BE AS FOLLOWS:

| | |
|---|---|
| SWITCHES | 46" AFF TO CENTER OF BOX |
| RECEPTACLES | 20" AFF TO CENTER OF BOX |
| TELEPHONE OUTLETS | 20" AFF TO CENTER OF BOX |
| EXIT LIGHTS | CENTERED BETWEEN CEILING AND TOP OF DOOR (UP TO 1'-0" ABOVE DOOR), SURFACE OR CEILING MOUNTED AS SHOWN. |
| DISCONNECTING SWITCHES | 52" AFF TO CENTER OF SWITCH |

P. PROVIDE A DISCONNECT SWITCH FOR EACH MOTOR AS SHOWN ON THE DRAWINGS SIZED AS REQUIRED TO MEET THE NEC AND PROVIDE ALL WIRING CONNECTIONS FROM SOURCE. PROVIDE REQUIRED VOLTAGE.

Q. SEAL ALL CONDUIT PENETRATIONS THRU RATED WALLS AND FLOORS TO MAINTAIN FIRE INTEGRITY. REFER TO ARCHITECTURAL DRAWING FOR FIRE WALL LOCATIONS.

R. ELECTRICAL CONTRACTOR SHALL VERIFY ALL VOLTAGES OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

2. SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

A. INSTALL ALL WIRING CONDUIT EXCEPT AS OTHERWISE INDICATED. MINIMUM CONDUIT SIZE SHALL BE 3/4". ALL CONDUIT EMBEDDED IN CONCRETE SHALL BE 3/4" MINIMUM. INSTALL ALL CONDUIT CONCEALED UNLESS ON UNFINISHED WALLS, ON UNFURRED CEILINGS OR MECHANICAL EQUIPMENT SPACES. PROVIDE CONDUIT AS FOLLOWS:

1) RIGID STEEL CONDUIT FOR WORK EXPOSED TO WEATHER OR EMBEDDED IN CONCRETE OR MASONRY.

2) GALVANIZED ELECTRICAL METALLIC TUBING (EMT) FOR INTERIOR EXPOSED WORK, CONCEALED WORK ABOVE SUSPENDED CEILINGS, AND WITHIN INTERIOR PARTITIONS OR NON-MASONRY WALLS.

3) FLEXIBLE METAL CONDUIT IN SHORT LENGTHS (6' MAXIMUM) FOR THE CONNECTION OF RECESSED LIGHTING FIXTURES AND MOTORS.

4) LIQUID TIGHT FLEXIBLE METAL CONDUIT WHEREVER MOISTURE MAY BE PRESENT AND MOTORS IN MECHANICAL EQUIPMENT SPACES.

5) POLYVINYLCHLORIDE (PVC) SCHEDULE 40 AND 80 CONDUIT WITH GROUND CONDUCTOR FOR UNDERGROUND OUTSIDE OF BUILDING (SITE) INSTALLATION AS PERMITED BY 2008 NEC ARTICLE 352 .

B. INSTALL CONDUITS PARALLEL AND PERPENDICULAR TO WALLS AND INTERIOR SURFACES. CLEAN AND PLUG AND PROVIDE A PULL LINE IN EACH CONDUIT LEFT EMPTY. USE MANUFACTURED ELBOWS AND SCREW JOINTED CONDUIT FITTINGS. USE CAPPED BUSHINGS OR "PUSH PENNY" PLUGS. ALL FITTINGS SHALL BE STEEL OR MALLEABLE IRON. ALL EMT FITTINGS SHALL BE COMPRESSION TYPE.

C. ALL OUTLET, SWITCH AND JUNCTION BOXES, SHALL BE STAINLESS STEEL BY STEEL CITY, RACO, APPLETON, VALEN, OR EQUIVALENT. OUTLET BOXES IN CONCRETE CONSTRUCTION SHALL BE OCTAGONAL. NO "THRU-WALL" BOXES SHALL BE USED IN PARTITIONS. ALL BOXES SHALL BE FURNISHED WITH APPROPRIATE COVERS.

D. JUNCTION AND PULL BOXES SHALL BE FURNISHED AND INSTALLED AS INDICATED OR WHERE REQUIRED TO FACILITATE PULLING OF WIRES OR CABLES. BOXES FOR EXTERIOR WORK SHALL BE CAST ALUMINUM OR GALVANIZED CAST IRON TYPE WITH THREADED HUBS, UNLESS OTHERWISE DIRECTED. GASKETED COVER PLATES SHALL BE FURNISHED FOR OUTDOOR INSTALLATIONS.

E. BUILDING WIRE, UNLESS OTHERWISE INDICATED, SHALL BE COPPER, 600 VOLT, TYPE THWN/THHN INSULATION, #12 AWG MINIMUM, FOR INTERIOR AND EXTERIOR USE. FOR BRANCH CIRCUITS TYPE MC (METAL CLAD) CABLE MAY BE USED WHERE PERMITTED BY THE NEC AND LOCAL CODES. NO ROMEX OR AC (BX) CABLE WILL BE ALLOWED ON THE PROJECT.

F. MINIMUM WIRE SIZE SHALL BE NUMBER TWELVE (12) AWG. NO SPLICES SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES. WIRES NUMBER EIGHT (8) AWG AND LARGER SHALL BE STRANDED. WIRES AND CABLES SHALL BE MANUFACTURED BY PIRELLI, ROYAL, TRIANGLE OR EQUIVALENT.

G. THE COLOR CODING SYSTEM LISTED BELOW SHALL BE USED THROUGHOUT THE BUILDING:

| SYSTEM | PHASE A | PHASE B | PHASE C | NEUTRAL | GROUND | ISOLATED GROUND |
|---|---|---|---|---|---|---|
| 120/208V | BLACK | RED | BLUE | WHITE | GREEN | GREEN/YELLOW |
| 277/480V | BROWN | ORANGE | YELLOW | GRAY | GREEN | GREEN/YELLOW |

H. THE WIRE SIZE INDICATED IN THE HOMERUN SHALL BE USED THROUGH THE CIRCUIT.

I. PROVIDE DISCONNECT SWITCHES WHERE INDICATED AND AS REQUIRED. SWITCHES SHALL BE OF SIZE, NUMBER OF POLES AND FUSED OR NONFUSED, AS REQUIRED FOR JOB CONDITIONS AND THE NATIONAL ELECTRICAL CODE. ALL SAFETY SWITCHES SHALL BE NEMA I ENCLOSURE "HD" WITH INTERLOCKING COVER AND HANDLE, MANUFACTURED BY SQUARE "D" OR APPROVED EQUAL. PROVIDE NEMA 3R ENCLOSURES WHERE REQUIRED.

J. PROVIDE STARTERS AND CONTROL WIRING AS INDICATED ON THE DRAWINGS, OR SPECIFIED HEREIN. ALL TEMPERATURE CONTROL WIRING AND COMPONENTS SHALL BE UNDER DIVISION 15.

K. PROVIDE THERMAL MANUAL MOTOR STARTING SWITCHES FOR FRACTIONAL HORSEPOWER, SINGLE PHASE MOTORS. THE STARTERS SHALL BE SQUARE D COMPANY, CLASS 2510, ALLEN BRADLEY BULLETIN 600, OR APPROVED EQUAL FOR SINGLE SPEED MOTORS. ENCLOSURES SHALL BE NEMA I FOR INTERIOR USE AND NEMA 3R FOR EXTERIOR USE.

L. THREE PHASE MOTOR STARTERS SHALL BE 3 POLE, FULL-VOLTAGE, MAGNETIC TYPE. ENCLOSURES SHALL BE NEMA I FOR INTERIOR USE AND NEMA 3R FOR EXTERIOR USE. PROVIDE HOA SWITCH WHEN AUTOMATICALLY CONTROLLED, PILOT INDICATING LIGHT, CONTROL TRANSFORMER, AND NO/NC AUXILIARY CONTACTS. STARTERS SHALL BE SQUARE D COMPANY, CLASS 8536 AND CLASS 8538 COMBINATION TYPE OR APPROVED EQUAL.

M. WIRING DEVICES SHALL BE ARROW HART, GENERAL ELECTRIC, P & S LEVITON OR HUBBELL:

1) WALL SWITCHES: ARROW HART 1991. THREE AND FOUR-WAY SWITCHES SHALL BE OF THE SAME MANUFACTURER AND GRADE.

2) RECEPTACLES: ARROW HART 5362 FOR 20 AMPERES. GFCI SHALL BE #GFCS20 RATED 20 AMPERE, 120 VOLT. PROVIDE TAMPER RESISTANT AND MOISTURE RESISTANT TYPE WHERE REQUIRED BY 2008 NEC.

3) DIMMERS: 600/1000/1500/2000 WATTS AS REQUIRED BY JOB CONDITIONS. LUTRON 'NOVA' SERIES OR EQUAL.

4) DEVICE PLATES: ARROW HART SWITCH PLATES SI-S6 SERIES. ARROW HART RECEPTACLE PLATES S8. ARROW HART TELEPHONE BLANK PLATES S14.

N. MOUNT WEATHERPROOF DEVICES IN CAST METAL BOXES WITH GASKETED, SPRING-HINGED LID-TYPE LOCKING COVERS HAVING CORROSION-RESISTANT FINISH.

O. THE ENTIRE ELECTRICAL SYSTEM SHALL BE SOLIDLY GROUNDED INCLUDING MAIN SERVICE EQUIPMENT, DISCONNECT SWITCHES, WIRING TROUGHS AND PULL BOXES, CONDUIT SYSTEM, OUTLET BOXES, MOTORS, ELECTRIC HEATING EQUIPMENT, LIGHTING FIXTURES, TRANSFORMERS, EMERGENCY SYSTEMS, UPS SYSTEMS, AND FIRE ALARM SYSTEMS.

P. PROVIDE EQUIPMENT GROUNDING CONDUCTORS IN ALL BRANCH CIRCUITS AND FEEDERS SIZED IN ACCORDANCE WITH THE NEC TABLE 250.112.

Q. ALL BRANCH CIRCUITS SHALL BE RUN CONCEALED IN EXISTING AND NEW WALLS. CUT AND PATCH EXISTING WALLS AND SURFACES AS REQUIRED.

R. ALL D.C. WIRING SHALL BE #10 AWG MINIMUM.

S. GROUND, PHASE AND NEUTRAL CONDUCTORS SHALL BE PIG-TAILED IN OUTLET BOXES OR MULTI-OUTLET ASSEMBLY FOR RECEPTACLES SO THAT GROUND AND ELECTRICAL SERVICE WILL NOT BE DISRUPTED TO OTHER RECEPTACLES ON THE SAME MULTI-WIRE CIRCUIT IF RECEPTACLE IS REMOVED.

3. SECTION 16400 - SERVICE AND DISTRIBUTION

A. COORDINATE ALL SERVICE ENTRANCE WORK WITH THE ELECTRIC UTILITY.

B. DISTRIBUTE POWER AT 120/208V, 3 PHASE, 4 WIRE, LED LIGHTING, AIR CONDITIONING, ELECTRIC HEATING, MOTOR CIRCUITS, AND 120/208V FOR RECEPTACLES, INCANDESCENT LIGHTS AND SMALL MOTORS.

C. PANELBOARDS SHALL BE 120/208 VOLTS, THREE PHASE EMPLOYING BREAKERS MINIMUM 10,000 SYMMETRICAL A.I.C. AT 120 VOLTS. FURNISH PANELBOARDS AS INDICATED ON DRAWINGS E6.0 AND E7.0.

D. PANELBOARDS SHALL BE FACTORY ASSEMBLED WITH BOLT-ON TYPE CIRCUIT BREAKERS. BUSS SHALL BE ALUMINUM. PROVIDE 50% GROUND BUS BAR. PANELS CONNECTED TO K-RATED TRANSFORMERS SHALL HAVE 200% RATED NEUTRAL BUS BARS.

E. PROVIDE THREE (3) 3/4 INCH SPARE CONDUITS FROM EACH RECESSED PANEL TO THE CEILING SPACE.

F. FUSES FOR SERVICE ENTRANCE EQUIPMENT SHALL BE U.L. LISTED CLASS L, J, OR RKI. FUSES FOR FEEDER CIRCUITS AND PANELBOARDS SHALL BE U.L. CLASS RKI FAST-ACTING TYPE. FUSES FOR MOTOR OVERCURRENT, MOTOR CONTROLLER, AND TRANSFORMER PROTECTION SHALL BE DUAL-ELEMENT, U.L. CLASS RKI TIME-DELAY TYPE.

G. PROVIDE ENERGY EFFICIENT, NEMA TP-1, SELF-COOLED, DRY TYPE TRANSFORMERS OF KVA, PHASE, "K" AND VOLTAGE RATINGS AS INDICATED. TRANSFORMERS 15 KVA AND LESS SHALL HAVE A CLASS F INSULATION, 115 DEGREES C RISE. TRANSFORMERS ABOVE 15 KVA SHALL HAVE CLASS H INSULATION, 115 DEGREE C RISE. PROVIDE FOUR 2-1/2 TAPS BELOW TWO 2-1/2 TAPS ABOVE RATED PRIMARY VOLTAGE. TRANSFORMERS OF 150 KVA AND LESS SHALL BE RATED 45 DB, LARGER TRANSFORMERS SHALL BE RATED 55 DB. NEUTRALS AND NEUTRAL CONNECTIONS OF ALL "K" RATED DRY TYPE TRANSFORMERS SHALL BE 200% OF THE PHASE CONDUCTOR SIZE. TRANSFORMER SHALL BE HEVI-DUTY ELECTRIC COMPANY, GENERAL ELECTRIC, SORGEL, ACME OR HOWARD INDUSTRIES.

4. SECTION 16500 - LIGHTING

A. PROVIDE A COMPLETE LIGHTING FIXTURE AT EACH LOCATION INDICATED ON THE DRAWINGS. FIXTURES SHALL BE SPECIFIED ON THE LIGHTING FIXTURE SCHEDULE ON THE DRAWINGS.

B. ALL PLASTIC DIFFUSERS SHALL BE 100 PERCENT VIRGIN ACRYLIC (NOMINAL .125 INCH THICK) AND ALL LEXAN DIFFUSERS SHALL BE LEXAN TYPE MR-4000, OR EQUAL.

C. 8-FOOT TANDEM UNITS MAY BE USED IN LIEU OF 4 FOOT UNITS IN CONTINUOUS ROWS.

D. THE CONTRACTOR SHALL CONSULT THE CEILING CONTRACTOR AND ARCHITECT'S DRAWINGS FOR APPROVED REFLECTED CEILING PLANS BEFORE ORDERING FIXTURES TO INSURE THAT ALL ARE COMPATIBLE WITH THE CEILING SYSTEM AND PROPERLY LOCATED. VERIFY THAT ADEQUATE CLEARANCE FOR INSTALLATION, MAINTENANCE, AND HEAT DISSIPATION IS AVAILABLE.

E. PROVIDE A MINIMUM OF TWO (2) GALVANIZED STEEL #12 GAUGE HANGER WIRES (ALTERNATE CORNERS) ON ALL RECESSED FIXTURES.

F. CONTRACTOR SHALL PROVIDE ADDITIONAL EXIT LIGHTS AND EMERGENCY BATTERY PACK WITH DUAL HEADS AS NEEDED TO MEET FIRE MARSHAL'S WALK-THROUGH AND ACCEPTANCE.

G. CONNECT EXIT LIGHTS, EMERGENCY BATTERY UNITS AND NIGHT LIGHTS (NL) TO UNSWITCHED PORTION OF LIGHTING CIRCUIT SERVING RESPECTIVE AREA.

5. SECTION 16700 - COMMUNICATION SYSTEMS

A. TELEPHONE SERVICE SHALL BE INSTALLED BY THE TELEPHONE COMPANY.

B. PROVIDE WALL OUTLETS IN 4" SQUARE 2-1/8" DEEP BOX WITH RAISED SINGLE GANG COVERS EQUIPPED WITH BLANK STAINLESS STEEL DEVICE PLATES. EXTEND 3/4" EMPTY CONDUIT FROM EACH OUTLET TO THE CEILING SPACE AND TERMINATE WITH INSULATED BUSHINGS. PROVIDE NYLON PULL WIRE IN ALL CONDUITS LEFT EMPTY.

Jason C. Adams

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PROJECT NAME
**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

PROJECT NUMBER
22036

SHEET TITLE
**ELECTRICAL SPECIFICATIONS**

SHEET NUMBER
**E0.1**

JASON C. ADAMS
LICENSED
No. 75948
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Jason C. Adams State of Florida, Professional Engineer, License No. 75948

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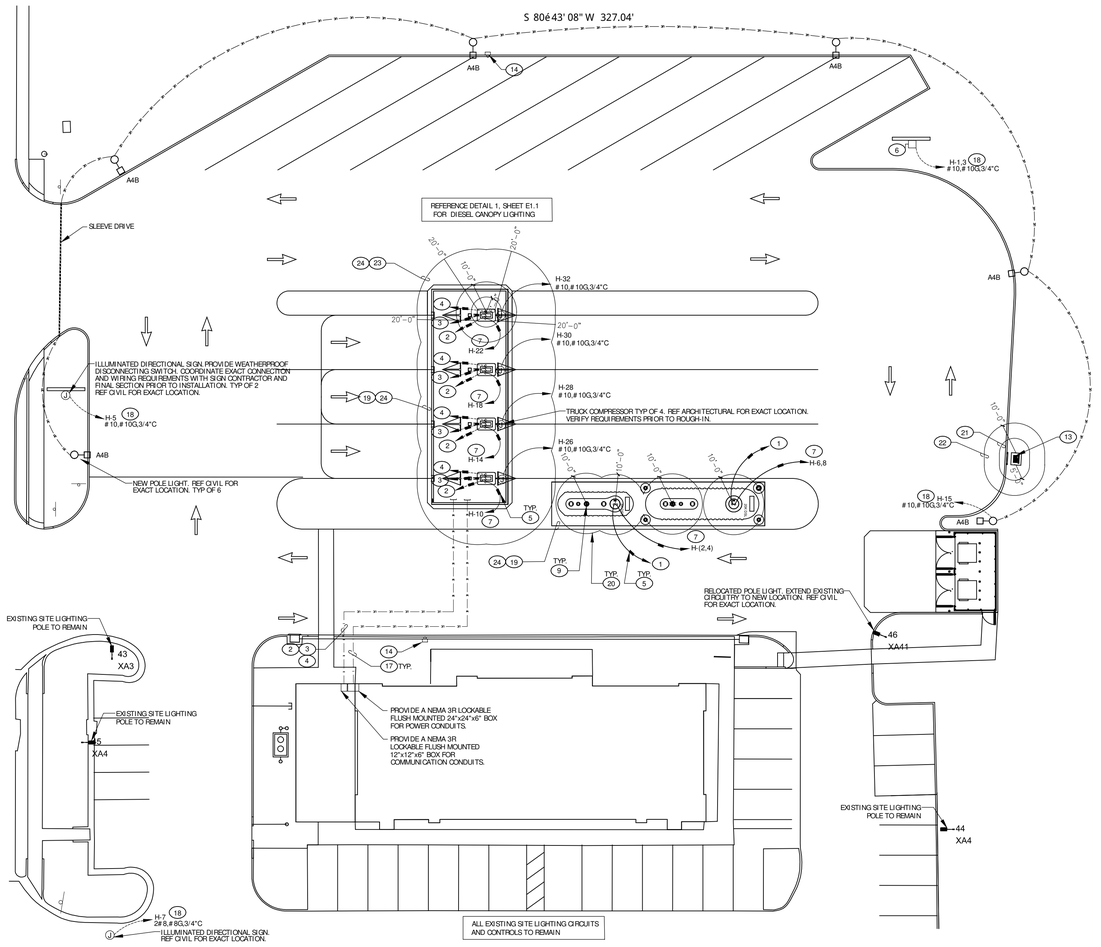


1 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

Jason C. Adams

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## GENERAL NOTES

1. ALL EXTERIOR DEVICES TO BE WEATHERPROOF.
2. ALL FUEL ISLAND CONDUITS SHALL BE ROUTED TO THE RESPECTIVE PANELS AND/OR TO THE FUEL CONTROL PANELS LOCATED IN THE MANAGERS OFFICE/STORAGE ROOM.
3. PROVIDE ALL EMPTY CONDUITS WITH PULL STRING. ELECTRICAL CONTRACTOR SHALL CONTACT POWER COMPANY REGARDING EXACT LOCATION OF ALL PRIMARY SERVICE EQUIPMENT, TRENCH LOCATIONS, TRANSFORMER LOCATION, METER LOCATION, ETC.
4. ELECTRICAL CONTRACTOR SHALL PROVIDE NECESSARY SECONDARY CONDUITS, POWER TRENCHING, BACKFILL, CONCRETE PADS FOR TRANSFORMERS AND SERVICE EQUIPMENT AND CONDUIT STUBS INTO TRENCH AS REQUIRED BY POWER COMPANY AND TO THEIR SPECIFICATIONS.
5. ELECTRICAL CONTRACTOR SHALL CONTACT TELEPHONE COMPANY REGARDING EXACT LOCATION OF ALL PRIMARY SERVICE EQUIPMENT, SERVICE EQUIPMENT, TRENCH LOCATIONS, ETC.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TELEPHONE TRENCHING, BACKFILL, AND CONDUIT STUBS INTO TRENCH AS REQUIRED BY TELEPHONE COMPANY AND TO THEIR SPECIFICATIONS.
7. ALL WIRING OUTSIDE SHALL BE A MINIMUM OF #10 COPPER WITH TYPE "XHHW-2" INSULATION. FOR UNDERGROUND CIRCUITS RUN IN P.V.C., PROVIDE A #10 COPPER BOND IN ADDITION TO CIRCUIT CONDUCTORS.
8. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND COMPLIANCE WITH THE UTILITY COMPANY'S REQUIREMENTS. WITH-IN TWO WEEKS AFTER AWARD OF CONTRACT, SUBMIT (2) COMPLETE SETS OF PLANS, INCLUDING PLOT OF SURVEY, TO UTILITY COMPANY FOR COORDINATION. ROUTING OF INCOMING POWER AND TELEPHONE SERVICE SHOWN ARE FOR ESTIMATING PURPOSES ONLY. ACTUAL ROUTING, CONDUIT, TRENCH, AND PAD REQUIREMENTS SHALL BE AS SPECIFIED BY THE UTILITY COMPANY. CONFIRM ALL REQUIREMENTS WITH UTILITIES PRIOR TO INSTALLATION.
9. ALL UNDERGROUND CABLE, PIPE, AND CONDUITS SHALL BE DETECTIBLE (METALLIC) OR HAVE A DETECTABLE UNDERGROUND DEVICE INSTALLED PER AZ STATUTE 40-360.22.M.

## KEY NOTES

1. 3/4" CONDUIT FOR TANK MOTION SENSORS. PROVIDE AND INSTALL BELDEN 88760 SENSOR WIRE FOR ALL SUMP AND INTERSTITIAL SENSORS AT TANKS.
2. 3/4" CONDUIT FOR DISPENSER SUMP SENSORS. PROVIDE AND INSTALL BELDEN 88760 OR EQUIV. SENSOR WIRE FOR ALL DISPENSER SUMP SENSORS.
3. 3/4" CONDUIT TO LOW VOLTAGE PANEL FOR INTERCOM. PROVIDE AND INSTALL (2) 18 GA. 4 CONDUCTOR SHIELDED CABLES PER DISPENSER.
4. 3/4" CONDUIT FOR 18 GA. TWISTED PAIRS FOR CRIND/EMV/APPLAUSE AND PUMP DATA. TWISTED PAIR COLORING SHOULD BE BLUE/WHITE FOR CRIND & YELLOW/PURPLE FOR PUMP DATA. PETROLEUM ELECTRICIAN TO WIRE TO BRDM2 PER CK STANDARD.
5. PROVIDE SEAL-OFF FITTINGS AT EACH END OF CONDUIT IN CONJUNCTION WITH G.V.R. DISPENSER MANUAL. REFER TO DETAIL 4/E1.1
6. PROVIDE WEATHERPROOF DISCONNECT SWITCH. COORDINATE EXACT CONNECTION AND WIRING REQUIREMENTS WITH SIGN CONTRACTOR AND FINAL SECTION PRIOR TO INSTALLATION. PROVIDE (2) 1" CONDUITS 1 FOR POWER AND 1 FOR PHONE AND COMMUNICATION.
7. 3/4" CONDUIT TO POWER HOMERUN.
8. NOT USED.
9. TANK FILL STATION.
10. NOT USED.
11. NOT USED.
12. NOT USED.
13. VENT RISER FROM TANKS.
14. "EMERGENCY POWER OFF" SWITCH PER NEC 2011. NEC ART 514.11. PROVIDE SIGNAGE PER IFC SECTION 2204, 2205. (VERIFY EXACT LOCATION WITH CIRCLE 'K').
15. NOT USED.
16. NOT USED.
17. TWO 3/4"C CONDUITS FROM ELECTRICAL ROOM/MECHANICAL ROOM, TO CLOSEST CANOPY COLUMN. ROUTE FIRST UP TO CANOPY DECK FOR SPEAKER CONNECTION. ROUTE SECOND UP TO CANOPY DECK WITH PULLSTRING AS A SPARE.
18. LIGHTING CIRCUITS SHALL BE ROUTED VIA 20A 4 POLE ELECTRICALLY HELD LIGHTING CONTACTOR CONTROLLED BY THE 'EPO' SWITCH LOCATED ON THE GAS CANOPY. SEE DETAIL 2 SHEET E6.0.
19. CLASS 1 DIVISION 1 HAZARDOUS AREA: UNDERGROUND TANK: INSIDE TANK - ENTIRE INSIDE VOLUME. FILL OPENING - ENTIRE SPACE WITHIN ANY PIT OR BOX BELOW GRADE LEVEL. PER NEC TABLE 514.3 (B)(1)
20. CLASS 1 DIVISION 2 HAZARDOUS AREA: UNDERGROUND TANK FILL OPENING: UP TO 18" ABOVE GRADE LEVEL, EXTENDING 5 FT. HORIZONTALLY IN ALL DIRECTIONS FROM ANY TIGHT-FILL CONNECTION AND EXTENDING 10 FT. HORIZONTALLY IN ALL DIRECTIONS FROM ANY LOOSE-FILL CONNECTION. PER NEC TABLE 514.3 (B)(1)
21. CLASS 1 DIVISION 1 HAZARDOUS AREA: UNDERGROUND TANK VENT: WITHIN 5 FT. OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS. PER NEC TABLE 514.3(B)(1)
22. CLASS 1 DIVISION 2 HAZARDOUS AREA: UNDERGROUND TANK VENT: BETWEEN 5FT. AND 10FT. OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS. PER NEC TABLE 514.3(B)(1)
23. CLASS 1 DIVISION 2 HAZARDOUS AREA: OUTDOOR DISPENSING DEVICE: UP TO 18" OF DISPENSER ENCLOSURE, EXTENDING 20 FT. HORIZONTALLY IN ALL DIRECTIONS FROM DISPENSER ENCLOSURE. PER NEC TABLE 514.3 (B)(1)
24. ALL WIRING IN THIS AREA INCLUDING BELOW GRADE SHALL BE INSTALLED IN RIGID CONDUIT PER NEC ARTICLE 514.8. HOWEVER, PER NEC 514.8 EXCEPTION 2, NONMETALLIC RIGID CONDUIT (PVC) HAVING A MINIMUM OF 24" OF GROUND COVER IS ALLOWED. IN ADDITION, THREADED RIGID METAL CONDUIT OR THREADED STEEL INTERMEDIATE METAL CONDUIT SHALL BE USED FOR THE LAST 2 FEET OF THE UNDERGROUND RUN TO EMERGENCE OR TO THE POINT OF CONNECTION TO THE ABOVEGROUND RACEWAY, AND AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INCLUDED. PROVIDE ALL EXPLOSION PROOF FITTINGS AND SEALS NECESSARY TO COMPLETE CONDUIT SYSTEMS. NO SUBSTITUTIONS SHALL BE MADE UNLESS APPROVED BY THE AUTHORITY HAVING JURISDICTION. PROVIDE EXPLOSION PROOF J-BOXES (CROUSE HINDS) MODEL GUP215 WITH 0302 'O' RING OR OWNER APPROVED EQUAL.
25. NOT USED.
26. PROVIDE AND INSTALL W.P. J-BOXES IN CANOPY FOR WHITE SPEAKERS. MAKE CONNECTIONS TO CONDUITS PROVIDED IN CANOPY COLUMN.
27. CANOPY EYEBROW LED STRIP LIGHTS. ONE DOUBLE KWIK BOX POWER CONNECTION PER EACH GROUP OF FOUR 9'-10" SECTIONS.

JASON C. ADAMS
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PROFESSIONAL ENGINEER

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PROJECT NAME
**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

PROJECT NUMBER
22036

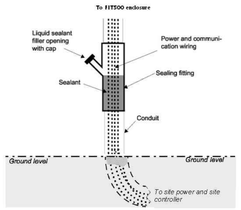
SHEET TITLE
**ELECTRICAL SITE PLAN**

SHEET NUMBER
**E1.0**

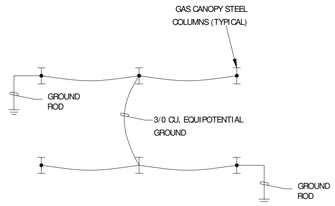
## KEY NOTES

1. PROVIDE SEAL-OFF FITTINGS AT EACH END OF CONDUIT IN CONJUNCTION WITH G.V.R. DISPENSER MANUAL. REFER TO DETAIL 4/E1.1
2. CANOPY EYEBROW LED STRIP LIGHTS. ONE DOUBLE KWIK BOX POWER CONNECTION PER EACH GROUP OF FOUR 9'-10" SECTIONS.
3. LIGHTING CIRCUITS SHALL BE ROUTED VIA 20A 4 POLE ELECTRICALLY HELD LIGHTING CONTACTOR CONTROLLED BY THE 'EPO' SWITCH LOCATED ON THE GAS CANOPY. SEE DETAIL 2 SHEET E6.0.
4. PROVIDE AND INSTALL W.P. J-BOXES IN CANOPY FOR WHITE SPEAKERS. MAKE CONNECTIONS TO CONDUITS PROVIDED IN CANOPY COLUMN.

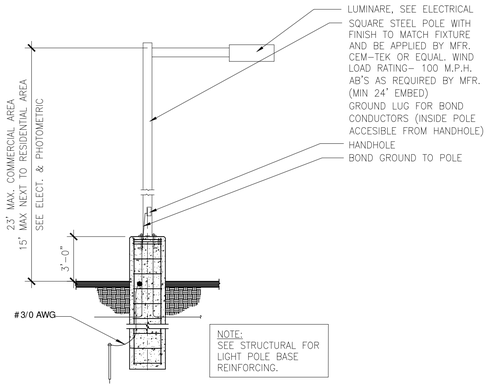
Conduit entering the hazardous area must have a seal-off installed 18 inches above grade to prevent liquid or fumes from entering the area.



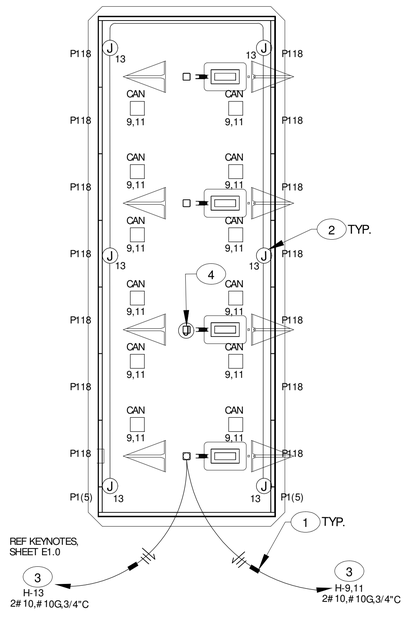

4 SEAL OFF DETAIL
SCALE: NTS




3 CANOPY GROUNDING DETAIL
NOT TO SCALE




2 LIGHT POLE BASE
SCALE: NTS




1 CANOPY LIGHTING PLAN
SCALE: 1" = 15'-0"

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**QUALITY CONTROL**
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**DRAWN BY**
ROA

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## ELECTRICAL SITE PLAN DETAILS

**SHEET NUMBER**

# E1.1

Jason C. Adams State of Florida, Professional Engineer, License No. 75948

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## GENERAL NOTES

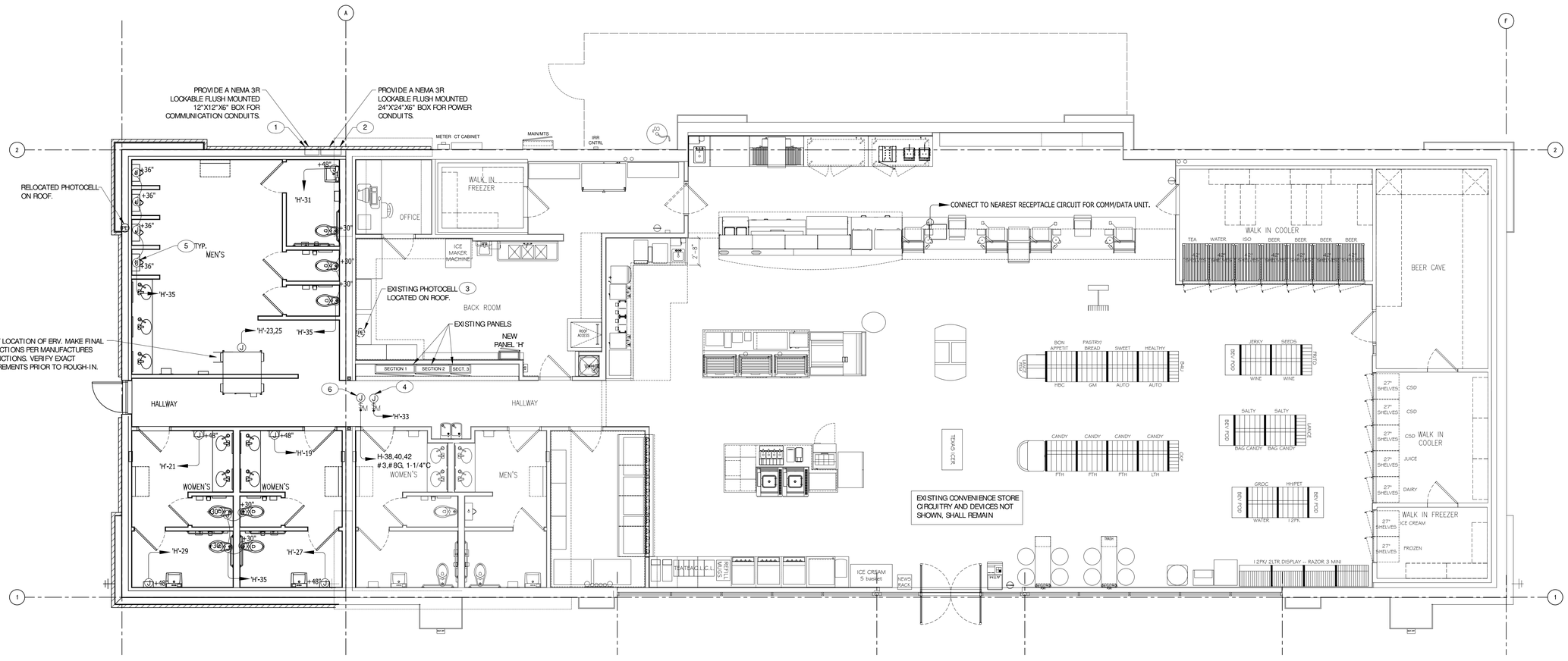
1. ALL EXTERIOR DEVICES SHALL BE WEATHERPROOF.
2. ALL 125V, 15A OR 20A RECEPTACLES LOCATED AT FOOD PREPARATION, FOOD SERVICE OR BEVERAGE COUNTERS SHALL BE PROTECTED BY A READILY ACCESSIBLE GFCI DEVICE PER NEC 210.8(B)(2). GFCI DEVICE MAY BE LOCATED EITHER IN A RECEPTACLE OR CIRCUIT BREAKER. FACE PLATE OF RECEPTACLE CONTROLLED BY GFCI DEVICE SHALL BE MARKED WITH GFCI PROTECTED SYMBOL.
3. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL STRINGS.
4. REFER TO DRAWING A1.5 FOR EQUIPMENT SCHEDULE. REFER TO ARCHITECTURAL DRAWINGS FOR ISLAND DETAILS.
5. ALL EQUIPMENT WITH REMOTE CONDENSERS MOUNTED ON THE ROOF SHALL HAVE 1/2" EMPTY CONDUIT (SEE GENERAL NOTE 3) BETWEEN THE EQUIPMENT AND THE REMOTE CONDENSER FOR CONTROL CIRCUITS.
6. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT CONNECTIONS, MOUNTING HEIGHTS AND CORD REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. ALL EQUIPMENT SHALL BE LISTED FOR ITS INTENDED USE PER N.E.C. ART. #400.7.
7. PROVIDE HEAT TAPE FOR ALL EXPOSE PIPING. HEAT TAPE FROM THE SAME CIRCUIT SERVING EQUIPMENT. SEE MECHANICAL FOR DETAILS.
8. ELECTRICAL CONVEYANCES FROM BREAKERS TO OUTLET OR FIXTURE SHALL BE ENCLOSED WITHIN CEILING SPACE, FINISHED WALLS OR CABINETRY AND NOT BE EXPOSED. CODE 6-201.12
9. PROVIDE POWER TO SMOKE DAMPER WITH DISCONNECT. COORDINATE WITH MECHANICAL INSTALLER FOR LOCATION. CIRCUIT A-39

## KEY NOTES

1. EACH FUEL ISLAND WILL HAVE THE FOLLOWING CONDUITS WITH PULL STRINGS RUN TO IT:
   (1) 1" CONDUIT - INTERCOM (4 WIRE SHIELDED CABLE WITH SHIELD)
   (1) 1" CONDUIT - UDC
   (1) 1" CONDUIT - SPARE
2. (1) 1" CONDUIT - POWER/ DATA
3. PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAINTAIN EXISTING PHOTOCELL. PHOTOCELL AND CONTROLS, UNTIL PHOTOCELL CAN BE RE-INSTALLED.
4. PROVIDE J-BOX FOR HARD WIRE CONNECTION TO RE-CIRC PUMP AND AQUA-STAT TIMER. PROVIDE MOTOR RATED SWITCH PER 422.31(C). VERIFY EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.
5. JUNCTION BOX FOR AUTOMATIC FLUSH SENSOR. COORDINATE EXACT MOUNTING HEIGHT WITH MANUFACTURER INSTRUCTIONS AND PLUMBING CONTRACTOR.
6. WATER HEATER AT 208V 3PH. PROVIDE 100A 250V 3P+ E.G., NON-FUSIBLE DISCONNECT SWITCH AND HAVE THE DEVICE INSTALLED IN A READILY ACCESSIBLE LOCATION.

NOTE:

PLEASE REFER TO SHEETS A1.4 AND A1.5 FOR ADDITIONAL ELECTRICAL INFORMATION.




1 ELECTRICAL FLOOR PLAN
SCALE: 3/16" = 1'-0"

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SUITE 5268 479-636-5004
1805 N 2ND ST JOB NO.: 28764
ROGERS, AR 72756 DESIGNED BY: ROA


**REVISION**

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| PERMIT SET | 08/15/22 |
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**PROFESSIONAL IN CHARGE**
JCA
**PROJECT MANAGER**
SAG
**QUALITY CONTROL**
SAG
**DRAWN BY**
ROA

**PROJECT NAME**
**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**
**ELECTRICAL FLOOR PLAN**

**SHEET NUMBER**
**E2.0**

JASON C. ADAMS — LICENSED — No. 75948 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

Jason C. Adams State of Florida, Professional Engineer, License No. 75948

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## KEY NOTES

(1) PROVIDE WITH EMERGENCY BATTERY BACK-UP BALLAST BODINE B50.

## GENERAL NOTES

A. COORDINATE ALL WORK WITH OTHER TRADES AND THE PROJECT MANAGER.

B. VERIFY LOCATION AND MOUNTING HEIGHT OF ALL LIGHT FIXTURES WITH THE ARCHITECT/OWNER PRIOR TO ROUGH-IN.

C. THE EXIT, EMERGENCY AND NIGHT LIGHT FIXTURES SHALL NOT BE SWITCHED.

D. RGS CONDUIT SHALL BE USED IN ALL EXTERIOR LOCATIONS.

E. MINIMUM CONDUIT SIZE SHALL BE 1/2".

F. MINIMUM WIRE SIZE SHALL BE #12 THHN/THWN CU.

G. ALL EXTERIOR LIGHT FIXTURES SHALL BE CONTROLLED VIA PHOTOCELL.

H. REFER TO THE PANEL SCHEDULE ON DRAWING E7.0 FOR LOAD DESIGNATIONS. THERE SHALL BE NO SHARED NEUTRALS.

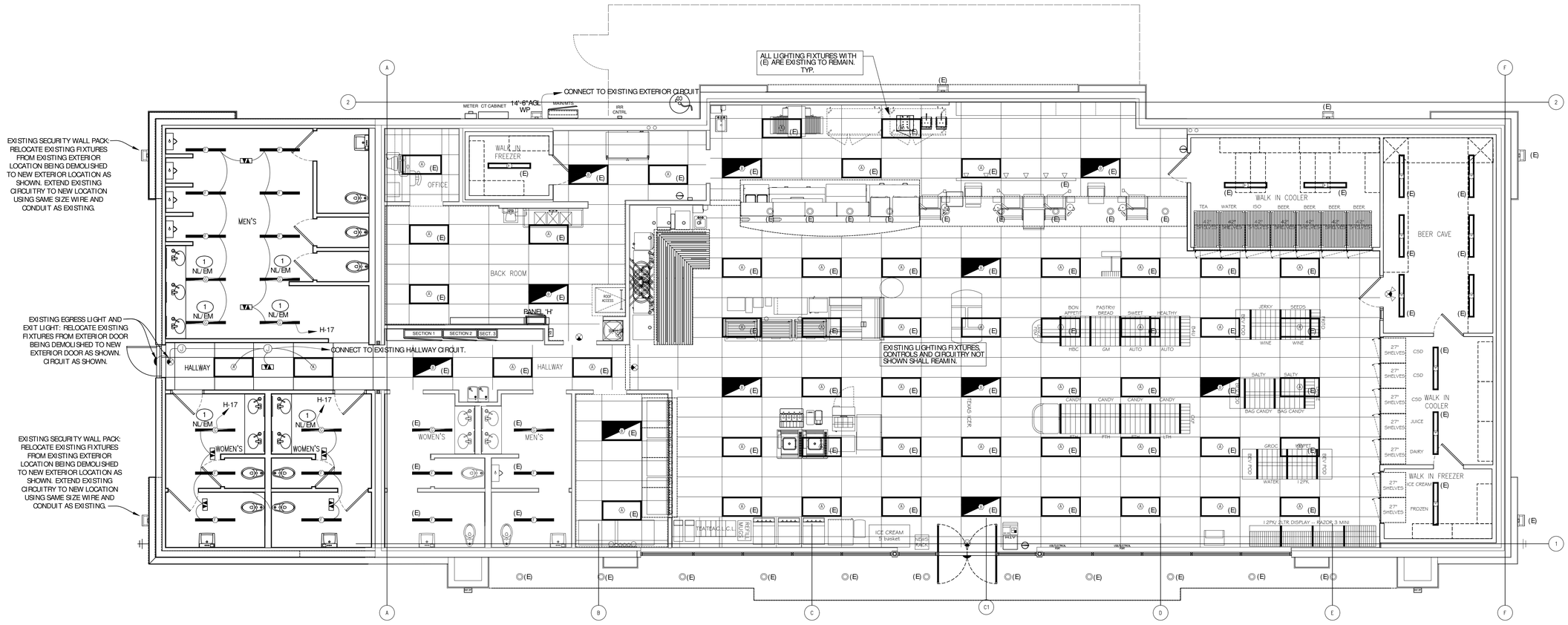
I. CONDUIT(S) SHALL NOT BE ROUTED EXPOSED ON ANY EXTERIOR WALL.

J. ALL EXTERIOR DEVICES SHALL BE WEATHERPROOF RATED.

K. REFER TO DRAWING E0.0 FOR THE LIGHT FIXTURE SCHEDULE.

L. PROVIDE STAINLESS STEEL SWITCH COVER PLATES FOR ALL CUSTOMER ACCESSIBLE AREAS. (RESTROOMS, HALLWAY, COOLER, SALES AREA).

M. ALL EMERGENCY EQUIPMENT SHALL BE LISTED TO UL 924 AND BE INSTALLED PER NEC 700.




## 1 ELECTRICAL LIGHTING PLAN

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

Jason C. Adams

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DN: E=jca@teamofchoice.com, CN=Jason C. Adams, C=US
Date: 2022.08.17 14:09:29-05'00'

JASON C. ADAMS — "LICENSED" — No. 75948 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

Jason C. Adams State of Florida, Professional Engineer, License No. 75948

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JCA

**PROJECT MANAGER**
SAG

**QUALITY CONTROL**
SAG

**DRAWN BY**
ROA

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## LIGHTING PLAN

**SHEET NUMBER**

# E5.0

## COMcheck Software Version COMcheckWeb

# Interior Lighting Compliance Certificate

### Project Information

Energy Code: 2020 Florida Building Code, Energy Conservation
Project Title: Circle K Lake City FL addition
Project Type: Addition

Construction Site:
143 NW Centurion Ct
Lake City, Arkansas 32055

Owner/Agent:
Arkansas

Designer/Contractor:
Jason C. Adams P.E.
Benchmark Group
1805 N 2nd Street
Rogers, Arkansas 72756
479-636-5004
JCA@teamofchoice.com

### Allowed Interior Lighting Power

| A Area Category | B Floor Area (ft2) | C Allowed Watts / ft2 | D Allowed Watts |
|---|---|---|---|
| 1-Retail | 842 | 1.06 | 893 |
| | | Total Allowed Watts = | 893 |

### Proposed Interior Lighting Power

| A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B Lamps/ Fixture | C # of Fixture | D Fixture Watt. | E (C X D) |
|---|---|---|---|---|
| 1-Retail | | | | |
| LED: LED Other Fixture Unit 60W: | 1 | 16 | 50 | 800 |
| LED: LED Panel 41W: | 1 | 2 | 42 | 84 |
| | | | Total Proposed Watts = | 884 |

**Interior Lighting PASSES: Design 1% better than code**

### Interior Lighting Compliance Statement

*Compliance Statement:* The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2020 Florida Building Code, Energy Conservation requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____



## COMcheck Software Version COMcheckWeb

# Exterior Lighting Compliance Certificate

### Project Information

Energy Code: 2020 Florida Building Code, Energy Conservation
Project Title: Circle K Lake City FL addition
Project Type: Addition
Exterior Lighting Zone 2 (Neighborhood business district (LZ2))

Construction Site:
143 NW Centurion Ct
Lake City, Arkansas 32055

Owner/Agent:
Arkansas

Designer/Contractor:
Jason C. Adams P.E.
Benchmark Group
1805 N 2nd Street
Rogers, Arkansas 72756
479-636-5004
JCA@teamofchoice.com

### Allowed Exterior Lighting Power

| A Area/Surface Category | B Quantity | C Allowed Watts / | D Tradable Wattage | E Allowed Watts (B X C) |
|---|---|---|---|---|
| Net added drive and parking (Driveway) | 37075 ft2 | 0.04 | Yes | 1483 |
| Diesel Sales Canopy (Free standing/attached sales canopy) | 1679 ft2 | 0.4 | Yes | 672 |
| Illuminated area of facade wall or surface | 220 ft2 | 0.07 | No | 16 |
| | | | Total Tradable Watts (a) = | 2155 |
| | | | Total Allowed Watts = | 2171 |
| | | | Total Allowed Supplemental Watts (b) = | 400 |

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

### Proposed Exterior Lighting Power

| A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B Lamps/ Fixture | C # of Fixture | D Fixture Watt. | E (C X D) |
|---|---|---|---|---|
| Net added drive and parking (Driveway, 37075 ft2): Tradable Wattage | | | | |
| LED: A4B: LED Roadway-Parking Unit 42W: | 1 | 6 | 184 | 1104 |
| Diesel Sales Canopy (Free standing/attached sales canopy, 1679 ft2): Tradable Wattage | | | | |
| LED: CAN: LED Canopy Lights: LED Panel 54W: | 1 | 12 | 53 | 636 |
| LED: P1: LED Linear 8W: | 1 | 10 | 1 | 13 |
| LED: P118: Other: | 1 | 14 | 1 | 18 |
| Illuminated area of facade wall or surface (220 ft2): Non-tradable Wattage | | | | |
| LED: LED Other Fixture Unit 28W: | 1 | 1 | 31 | 31 |
| | | | Total Tradable Proposed Watts = | 1771 |



**Exterior Lighting PASSES: Design 30% better than code**

### Exterior Lighting Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2020 Florida Building Code, Energy Conservation requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____



Jason C. Adams

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**PROFESSIONAL IN CHARGE** JCA
**PROJECT MANAGER** SAG
**QUALITY CONTROL** SAG
**DRAWN BY** ROA

**PROJECT NAME**

**CIRCLE K STORES INC.**

**LAKE CITY FLORIDA**

**NWC I-75 & W. US HWY 90 LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER** 22036

**SHEET TITLE**

**IECC COMPLIANCE REPORT**

JASON C. ADAMS LICENSED No. 75948 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jason C. Adams State of Florida, Professional Engineer, License No. 75948

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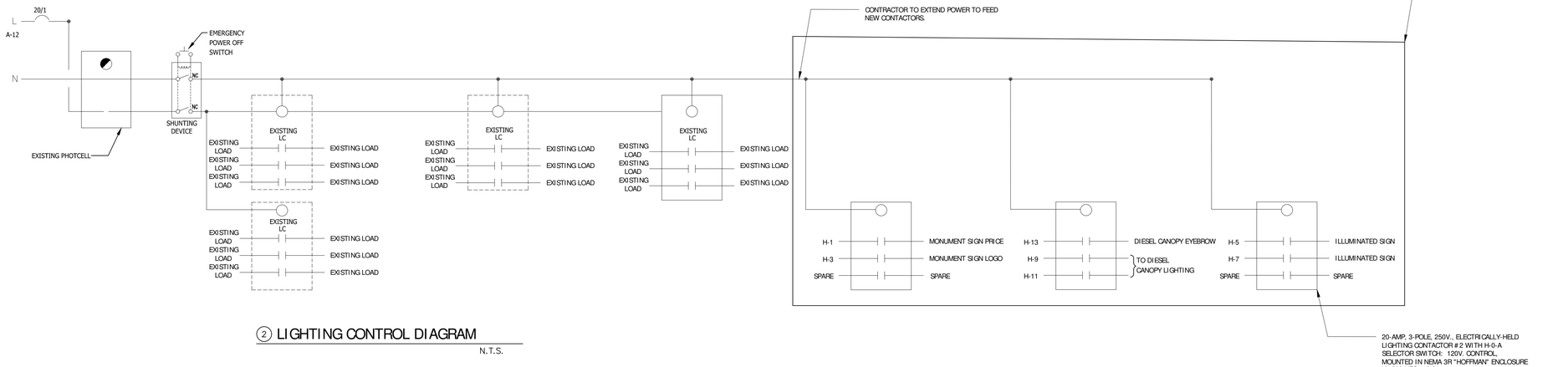
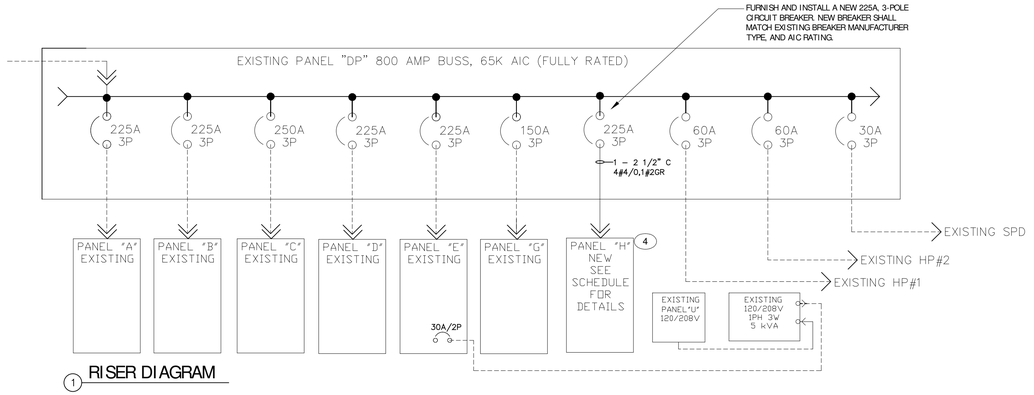
**SHEET NUMBER**

**E5.1**




## (2) LIGHTING CONTROL DIAGRAM

N.T.S.




## (1) RISER DIAGRAM

## SERIES RATING KEY NOTES

(1) THIS SERVICE IS A SERIES RATED SYSTEM: 2-TIER 65/10. ALL S.E.S. SYSTEM COMPONENTS SHALL BE RATED 65K, WITH SERIES RATED DOWNSTREAM.

(2) NOT USED.

(3) CONTRACTOR SHALL LABEL PANEL(S) "CAUTION" - SERIES RATED SYSTEM ("X"). "X" AMPS AVAILABLE IDENTIFIED REPLACEMENT COMPONENT REQUIRED." IN ACCORDANCE WITH NEC 110-22. (REFER TO SHORT CIRCUIT CALCULATIONS FOR ACTUAL AMPS TO BE LABELED).

(4) CIRCUIT BREAKERS SHALL BE A BOLT-ON TYPE, U.L.-LISTED SERIES-RATED COMBINATION WITH THE BREAKERS AT DISTRIBUTION PANEL "DP".

PER 2017 NEC 110.24 SERVICE EQUIPMENT LEGIBLY MARKED IN THE FIELD WITH MAXIMUM AVAILABLE FAULT CURRENT AND INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED ON EQUIPMENT.

NOTE:
CONTRACTOR SHALL FURNISH INSTALLATION MANUAL FOR EACH EQUIPMENT SUCH AS PANELBOARD, CONTROL EQUIPMENT, ETC..

Jason C. Adams

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Jason C. Adams State of Florida, Professional Engineer, License No. 75948

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JCA

**PROJECT MANAGER**
SAG

**QUALITY CONTROL**
SAG

**DRAWN BY**
ROA

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## CALCULATIONS AND SCHEMATICS

**SHEET NUMBER**

# E6.0

PANELBOARD A | BUS RATING = 225A | VOLTAGE = 208/120V | SYSTEM = 3P, 4W | MOUNTING = CABINET | TRIM = DOOR-IN-DOOR | NEMA RATING= 1 | MAIN RATING UPSTREAM = 225A | MAIN TYPE = M.L.O. | AIC RATING= 65/70K | FULLY/SERIES = SERIES | BRANCH BREAKER TYPE = BOLT-ON | FEED TYPE = BOTTOM | TERMINATIONS = 75°C CU | BUS MATERIAL = CU | GROUND BUS (COPPER) = YES | NEUTRAL BUS (COPPER) = 100% | IG GROUND BUS (COPPER) = NO | SKIRT TYPE = NONE | SECTION # = 1

STATUS = EXIST | MANUFACTURER = CPI | PHASE SERIES = | FEED THRU LUGS = NO

| CCT NO. | LOAD CODE | LOAD DESCRIPTION | BKR SIZE | LOAD (KVA) | PHASE A | PHASE B | PHASE C | LOAD (KVA) | BRK SIZE | LOAD DESCRIPTION | LOAD CODE | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | rec-water dispenser-33 | 20 | 0.18 | 0.80 | | | 0.62 | | | 2 | 2 |
| 3 | 1 | rec-water dispenser-33 | 20 | 0.18 | | 0.80 | | 0.62 | 20/3 | ltg-future canopy it fascia | 2 | 4 |
| 5 | 1 | red box-110 | 20 | 0.18 | | | 0.80 | 0.62 | | | 2 | 6 |
| 7 | 1 | rec-rear receptacle | 20 | 0.18 | 0.80 | | | 0.62 | | | 2 | 8 |
| 9 | 1 | misc-irrigation controls | 20/2 | 0.24 | | 0.86 | | 0.62 | 20/3 | ltg-future canopy it fascia | 2 | 10 |
| 11 | 1 | | | 0.84 | | | 1.46 | 0.62 | | | 2 | 12 |
| 13 | 1 | glacier water | 20 | 1.13 | 1.66 | | | 0.53 | | | 2 | 14 |
| 15 | 1 | existing load | 20 | 1.60 | | 2.13 | | 0.53 | 20/3 | ltg-canopy signs | 2 | 16 |
| 17 | 1 | existing load | 20 | 1.60 | | | 2.13 | 0.53 | | | 2 | 18 |
| 19 | 4 | | | 6.00 | 6.75 | | | 0.75 | 20/2 | ltg-canopy lights | 2 | 20 |
| 21 | 4 | existing load | 50/3 | 6.00 | | 6.75 | | 0.75 | | | 2 | 22 |
| 23 | 4 | | | 6.00 | | | 6.75 | 0.75 | 20/2 | ltg-canopy lights | 2 | 24 |
| 25 | 3 | sand case | 20 | 1.60 | 2.35 | | | 0.75 | | | 2 | 26 |
| 27 | 3 | sand case | 20 | 1.60 | | 2.22 | | 0.62 | | | 2 | 28 |
| 29 | 2 | ltg-exterior bldg lights | 20 | 0.64 | | | 1.26 | 0.62 | 20/3 | ltg-future canopy it fascia | 2 | 30 |
| 31 | 2 | ltg-exterior bldg lights | 20 | 0.64 | 1.26 | | | 0.62 | | | 2 | 32 |
| 33 | 2 | ltg-exterior bldg lights | 20 | 0.54 | | 2.62 | | 2.08 | 20/2 | existing load | 2 | 34 |
| 35 | 2 | ltg-exterior parking poles | 20/2 | 0.53 | | | 2.61 | 2.08 | | | 2 | 36 |
| 37 | 2 | ltg-exterior parking poles | | 0.53 | 3.65 | | | 3.12 | 30/2 | existing load | 2 | 38 |
| 39 | 2 | ltg-exterior parking poles | 20/2 | 0.53 | | 3.65 | | 3.12 | | | 1 | 40 |
| 41 | 2 | | | 0.53 | | | 2.33 | 1.80 | 20 | existing load | 1 | 42 |
| | | | | | 17.27 | 19.03 | 17.34 | Phase Total | | | | |
| | | | | | 53.63 | | 149 | Connected Amps | | | | |
| | | | | | 57.89 | | 161 | Demand Amps | | | | |

DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF DEMAND FACTORS

CIRCUIT NUMBERING BY POLE POSITION
CIRCUIT BREAKERS FEEDING A/C EQUIPMENT SHALL BE "HACR" RATED

| Load Codes | Load Summaries | Connected kVA | Factor | Demand kVA |
|---|---|---|---|---|
| 0 | Lighting – Non-Continuous | 0.00 | 1.00 | 0.00 |
| 1 | Lighting – Continuous | 11.05 | 1.25 | 13.82 |
| 2 | Receptacles | 21.36 | 1.00 | 21.36 |
| 3 | Special Loads | 3.20 | 1.00 | 3.20 |
| 4 | Motors | 18.01 | 1.00 | 18.01 |
| 5 | Kitchen (Commercial) | 0.00 | 0.65 | 0.00 |
| 6 | Heating | 0.00 | 1.00 | 0.00 |
| 7 | Cooling | 0.00 | 1.00 | 0.00 |
| 9 | Computer Outlets | 0.00 | 1.00 | 0.00 |
| 10 | Exterior Lighting | 0.00 | 1.25 | 0.00 |
| 11 | Miscellaneous – Continuous | 0.00 | 1.25 | 0.00 |
| 12 | Modular Furniture Outlets | 0.00 | 1.00 | 0.00 |
| | Subtotals | 53.63 | | 56.39 |
| | Highest Motor | | 6.00 0.25 | 1.50 |
| | Total kVA | 53.63 | | 57.89 |

Per Table 220.56
Larger of the two loads per NEC 220-60
Larger of the two loads per NEC 220-60

Phase Amps

| | |
|---|---|
| Phase (A) | 143.89 |
| Phase (B) | 158.56 |
| Phase (C) | 144.47 |

Spare Capacity (Amps) 64
Spare Capacity Load (%) 29 %

PANELBOARD B | BUS RATING = 225A | VOLTAGE = 208/120V | SYSTEM = 3P, 4W | MOUNTING = CABINET | TRIM = DOOR-IN-DOOR | NEMA RATING = 1 | MAIN RATING UPSTREAM = 225A | MAIN TYPE = M.L.O. | AIC RATING= 65/70K | FULLY/SERIES = SERIES | BRANCH BREAKER TYPE = BOLT-ON | FEED TYPE = BOTTOM | TERMINATIONS = 75°C CU | BUS MATERIAL = CU | GROUND BUS (COPPER) = YES | NEUTRAL BUS (COPPER) = 100% | IG GROUND BUS (COPPER) = NO | SKIRT TYPE = NONE | SECTION # = 1

STATUS = EXIST | MANUFACTURER = CPI | PHASE SERIES = | FEED THRU LUGS = NO

| CCT NO. | LOAD CODE | LOAD DESCRIPTION | BKR SIZE | LOAD (KVA) | PHASE A | PHASE B | PHASE C | LOAD (KVA) | BRK SIZE | LOAD DESCRIPTION | LOAD CODE | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3 | rec. – fountain drink & ice maker* | 20 | 0.62 | 1.35 | | | 0.73 | 20 | f-rest freezer* | 3 | 2 |
| 3 | 3 | rec. – fountain drink & ice maker* | 20 | 0.62 | | 0.92 | | 0.30 | 20 | blender- 35# | 3 | 4 |
| 5 | 2 | ltg.– led | 20 | 0.25 | | | 0.98 | 0.73 | 20 | ice cream case* | 3 | 6 |
| 7 | 1 | back counter equipment* | 20 | 0.60 | 1.80 | | | 1.20 | 20 | food service order screen – 86 | 1 | 8 |
| 9 | 3 | back counter ig receptacle* | 20 | 0.36 | | 0.54 | | 0.18 | 20 | monitor | 3 | 10 |
| 11 | 3 | back counter uc trig* | 20 | 0.82 | | | 2.04 | 1.22 | 20 | rec. – fountain drink & ice maker* | 3 | 12 |
| 13 | 1 | existing load | 20/2 | 1.80 | 3.69 | | | 3.33 | 20/2 | rec. equip. 29 – coffee brewer | 3 | 14 |
| 15 | 1 | | | 1.80 | | 1.36 | | 3.33 | | | 3 | 16 |
| 17 | 3 | mech. wic –evap. Cooler | 20 | 0.30 | | | 0.40 | 0.10 | 20 | rec. equip. 89 stm | 1 | 18 |
| 19 | 1 | misc. – recirc. pump/aqua stat* | 20 | 1.00 | 1.82 | | | 0.82 | 20 | back counter equipment* | 3 | 20 |
| 21 | 3 | convey or oven | 50/2 | 5.88 | | 11.76 | | 5.88 | 50/2 | convey or oven | 3 | 22 |
| 23 | 3 | | | 5.88 | | | 14.76 | 5.88 | | | 3 | 24 |
| 25 | 1 | existing load | 20/2 | 3.30 | 3.48 | | | 0.18 | 20 | roof receptacle* | 1 | 26 |
| 27 | 3 | | | 3.30 | | 4.08 | | 0.78 | 20 | panni press* | 3 | 28 |
| 29 | 3 | drinking fountain optional | 20 | 0.50 | | | 1.28 | 0.78 | 20 | panni press* | 3 | 30 |
| 31 | 2 | ltg.– sales area | 20 | 0.90 | 1.62 | | | 0.72 | 20 | window ceiling receptacle | 2 | 32 |
| 33 | 1 | rec.– front wall | 20 | 0.60 | | 1.32 | | 0.72 | 20 | window ceiling receptacle | 2 | 34 |
| 35 | 2 | display neon sign | 20 | 0.60 | | | 1.24 | 0.74 | 20 | ltg. restroom/kickroom | 2 | 36 |
| 37 | 2 | ltg.– counter/storefront | 20 | 1.45 | 2.44 | | | 0.99 | 20 | back counter uc freezer* | 3 | 38 |
| 39 | 2 | ltg.– sales area | 20 | 0.90 | | 1.35 | | 0.45 | 20 | ltg. cooler/freezer | 2 | 40 |
| 41 | 2 | led sign 1x | 20 | 0.15 | | | 1.05 | 0.90 | 20 | ltg. Sales area | 2 | 42 |
| | | | | | 16.20 | 21.33 | 21.75 | Phase Total | | | | |
| | | | | | 59.28 | | 165 | Connected Amps | | | | |
| | | | | | 60.23 | | 167 | Demand Amps | | | | |

DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF DEMAND FACTORS

CIRCUIT NUMBERING BY POLE POSITION
CIRCUIT BREAKERS FEEDING A/C EQUIPMENT SHALL BE "HACR" RATED

| Load Codes | Load Summaries | Connected kVA | Factor | Demand kVA |
|---|---|---|---|---|
| 0 | Lighting – Non-Continuous | 0.00 | 1.00 | 0.00 |
| 1 | Lighting – Continuous | 3.80 | 1.25 | 4.75 |
| 2 | Receptacles | 7.68 | 1.00 | 7.68 |
| 3 | Special Loads | 47.80 | 1.00 | 47.80 |
| 4 | Motors | 0.00 | 1.00 | 0.00 |
| 5 | Kitchen (Commercial) | 0.00 | 0.65 | 0.00 |
| 6 | Heating | 0.00 | 1.00 | 0.00 |
| 7 | Cooling | 0.00 | 1.00 | 0.00 |
| 9 | Computer Outlets | 0.00 | 1.00 | 0.00 |
| 10 | Exterior Lighting | 0.00 | 1.25 | 0.00 |
| 11 | Miscellaneous – Continuous | 0.00 | 1.25 | 0.00 |
| 12 | Modular Furniture Outlets | 0.00 | 1.00 | 0.00 |
| | Subtotals | 59.28 | | 60.23 |
| | Highest Motor | | 0.00 0.25 | 0.00 |
| | Total kVA | 59.28 | | 60.23 |

Per Table 220.56
Larger of the two loads per NEC 220-60
Larger of the two loads per NEC 220-60

Phase Amps

| | |
|---|---|
| Phase (A) | 135.00 |
| Phase (B) | 177.75 |
| Phase (C) | 181.25 |

Spare Capacity (Amps) 58
Spare Capacity Load (%) 26 %

PANELBOARD C | BUS RATING = 250A | VOLTAGE = 208/120V | SYSTEM = 3P, 4W | MOUNTING = CABINET | TRIM = DOOR-IN-DOOR | EMA RATING = 1 | MAIN RATING UPSTREAM = 250A | MAIN TYPE = M.L.O. | AIC RATING= 65/70K | FULLY/SERIES = SERIES | BRANCH BREAKER TYPE = BOLT-ON | FEED TYPE = BOTTOM | TERMINATIONS = 75°C CU | BUS MATERIAL = CU | GROUND BUS (COPPER) = YES | NEUTRAL BUS (COPPER) = 100% | IG GROUND BUS (COPPER) = NO | SKIRT TYPE = NONE | SECTION # = 1

STATUS = EXIST | MANUFACTURER = CPI | PHASE SERIES = | FEED THRU LUGS = NO

| CCT NO. | LOAD CODE | LOAD DESCRIPTION | BKR SIZE | LOAD (KVA) | PHASE A | PHASE B | PHASE C | LOAD (KVA) | BRK SIZE | LOAD DESCRIPTION | LOAD CODE | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | ltg–dairy cooler | 20 | 0.60 | 1.83 | | | 1.23 | | | 1 | 2 |
| 3 | 2 | ltg–dairy cooler | 20 | 0.60 | | 1.83 | | 1.23 | 30 | sand case cond | 1 | 4 |
| 5 | 2 | ltg/heater–dairy cooler | 20 | 0.60 | | | 1.83 | 1.23 | | | 1 | 6 |
| 7 | 2 | ltg/heater–dairy cooler | 20 | 0.60 | 1.31 | | | 0.71 | 20 | coffee warmer | 3 | 8 |
| 9 | 1 | front counter ig receptacle | 20 | 0.36 | | 1.07 | | 0.71 | 20 | coffee warmer | 3 | 10 |
| 11 | 1 | ltg/heater–dairy cooler | 20 | 0.60 | | | 2.04 | 1.44 | 20 | hatco hot food display* | 3 | 12 |
| 13 | 1 | | | 1.80 | 3.44 | | | 1.44 | 20 | hatco hot food display* | 3 | 14 |
| 15 | 1 | mech. 5 –door dairy cond. | 35/3 | 2.00 | | 2.74 | | 0.74 | 20 | front counter uc unit* | 3 | 16 |
| 17 | 3 | | | 2.00 | | | 2.74 | 0.74 | 20 | front counter uc unit* | 3 | 18 |
| 19 | 3 | | | 2.70 | 3.30 | | | 0.60 | 20 | front counter receptacle | 1 | 20 |
| 21 | 3 | multiplex chiller #1 equip. 105 | 35/3 | 2.70 | | 3.35 | | 0.65 | 20 | mech-3 dr. dairy evap cooler | 3 | 22 |
| 23 | 3 | | | 2.70 | | | 3.92 | 1.22 | 20/2 | hot well | 3 | 24 |
| 25 | 1 | | | 2.00 | 3.22 | | | 1.22 | | | 3 | 26 |
| 27 | 1 | mech. 7 door dairy cond. | 50/3 | 3.94 | | 2.25 | | 0.25 | 20 | sales area freezer heat tape* | 3 | 28 |
| 29 | 1 | | | 2.00 | | | 2.25 | 0.25 | 20 | back room freezer heat tape* | 1 | 30 |
| 31 | 1 | | | 3.94 | 5.94 | | | 2.00 | | | 1 | 32 |
| 33 | 1 | mech.– beer case cond. | 50/3 | 3.94 | | 5.94 | | 2.00 | 25/3 | mech.– bathroom freezer | 1 | 34 |
| 35 | 1 | | | 3.94 | | | 5.94 | 2.00 | | | 1 | 36 |
| 37 | 3 | | | 2.70 | 3.78 | | | 1.08 | 20 | front counter uc unit* | 1 | 38 |
| 39 | 3 | multiplex chiller #2 equip. 105 | 40/3 | 2.70 | | 3.64 | | 0.94 | 20/2 | existing load | 3 | 40 |
| 41 | 3 | | | 2.70 | | | 3.64 | 0.94 | | | 3 | 42 |
| | | | | | 22.82 | 20.82 | 22.36 | Phase Total | | | | |
| | | | | | 66.00 | | 193 | Connected Amps | | | | |
| | | | | | 75.01 | | 208 | Demand Amps | | | | |

DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF DEMAND FACTORS

CIRCUIT NUMBERING BY POLE POSITION
CIRCUIT BREAKERS FEEDING A/C EQUIPMENT SHALL BE "HACR" RATED
ALL BREAKERS BE FULLY RATED

| Load Codes | Load Summaries | Connected kVA | Factor | Demand kVA |
|---|---|---|---|---|
| 0 | Lighting – Non-Continuous | 0.60 | 1.00 | 0.60 |
| 1 | Lighting – Continuous | 36.04 | 1.25 | 45.05 |
| 2 | Receptacles | 2.40 | 1.00 | 2.40 |
| 3 | Special Loads | 26.96 | 1.00 | 26.96 |
| 4 | Motors | 0.00 | 1.00 | 0.00 |
| 5 | Kitchen (Commercial) | 0.00 | 0.65 | 0.00 |
| 6 | Heating | 0.00 | 1.00 | 0.00 |
| 7 | Cooling | 0.00 | 1.00 | 0.00 |
| 9 | Computer Outlets | 0.00 | 1.00 | 0.00 |
| 10 | Exterior Lighting | 0.00 | 1.25 | 0.00 |
| 11 | Miscellaneous – Continuous | 0.00 | 1.25 | 0.00 |
| 12 | Modular Furniture Outlets | 0.00 | 1.00 | 0.00 |
| | Subtotals | 66.00 | | 75.01 |
| | Highest Motor | | 0.00 0.25 | 0.00 |
| | Total kVA | 66.00 | | 75.01 |

Per Table 220.56
Larger of the two loads per NEC 220-60
Larger of the two loads per NEC 220-60

Phase Amps

| | |
|---|---|
| Phase (A) | 190.17 |
| Phase (B) | 173.47 |
| Phase (C) | 186.33 |

Spare Capacity (Amps) 17
Spare Capacity Load (%) 7 %

PANELBOARD D | BUS RATING = 225A | VOLTAGE = 208/120V | SYSTEM = 3P, 4W | MOUNTING = CABINET | TRIM = DOOR-IN-DOOR | NEMA RATING = 1 | MAIN RATING UPSTREAM = 225A | MAIN TYPE = M.L.O. | AIC RATING= 65/70K | FULLY/SERIES = SERIES | BRANCH BREAKER TYPE = BOLT-ON | FEED TYPE = BOTTOM | TERMINATIONS = 75°C CU | BUS MATERIAL = CU | GROUND BUS (COPPER) = YES | NEUTRAL BUS (COPPER) = 100% | IG GROUND BUS (COPPER) = NO | SKIRT TYPE = NONE | SECTION # = 1

STATUS = EXIST | MANUFACTURER = CPI | PHASE SERIES = | FEED THRU LUGS = NO

| CCT NO. | LOAD CODE | LOAD DESCRIPTION | BKR SIZE | LOAD (KVA) | PHASE A | PHASE B | PHASE C | LOAD (KVA) | BRK SIZE | LOAD DESCRIPTION | LOAD CODE | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3 | refrigerated merch–94* | 20 | 0.58 | 1.78 | | | 1.20 | 20 | rec–equip. 92–pastry case* | 3 | 2 |
| 3 | 1 | cashier counter | 20 | 0.12 | | 1.54 | | 1.44 | 20 | front counter receptacle* | 3 | 4 |
| 5 | 2 | cashier counter | 20 | 0.18 | | | 1.39 | 1.21 | 20/2 | men's hand dryer | 1 | 6 |
| 7 | 1 | front counter receptacle* | 20 | 0.18 | 1.39 | | | 1.21 | | | 1 | 8 |
| 9 | 3 | jetwave microwave | 20/2 | 1.60 | | 2.90 | | 1.30 | 20 | rec–equip. 30 cappuccino | 3 | 10 |
| 11 | 3 | | | 1.60 | | | 1.62 | 0.02 | 20 | creamiser | 3 | 12 |
| 13 | 3 | jetwave microwave | 20/2 | 1.60 | 2.86 | | | 1.26 | 20/2 | froyo dispenser | 3 | 14 |
| 15 | 3 | | | 1.60 | | 2.86 | | 1.26 | | | 3 | 16 |
| 17 | 1 | gondola | 20 | 0.18 | 1.44 | | | 1.26 | 20/2 | froyo dispenser | 3 | 18 |
| 19 | 3 | oven convection | 30/2 | 2.27 | 3.53 | | | 1.26 | | | 3 | 20 |
| 21 | 3 | | | 2.27 | | 3.48 | | 1.21 | 20/2 | womens hand dryer | 1 | 22 |
| 23 | 3 | existing load | 20 | 1.60 | | | 2.81 | 1.21 | | | 1 | 24 |
| 25 | 3 | cts | | 0.01 | 0.31 | | | 0.30 | 20 | liquor display & cig bookbar | 1 | 26 |
| 27 | 3 | | 20/3 | 0.01 | | 0.19 | | 0.18 | 20 | gondola | 1 | 28 |
| 29 | 3 | | | 0.01 | | | 0.35 | 0.34 | 20 | rec | 3 | 30 |
| 31 | 1 | existing load | 20 | 1.60 | 2.81 | | | 1.21 | 20/2 | womens hand dryer | 1 | 32 |
| 33 | 3 | water heater | 30/2 | 2.23 | | 3.44 | | 1.21 | | | 1 | 34 |
| 35 | 3 | | | 2.23 | | | 5.53 | 3.30 | 40/2 | rec–equip. 29–coffee | 3 | 36 |
| 37 | 1 | existing load | 20 | 1.60 | 4.90 | | | 3.30 | | | 3 | 38 |
| 39 | 1 | existing load | 20 | 1.60 | | 2.81 | | 1.21 | 20/2 | womens hand dryer | 1 | 40 |
| 41 | 1 | existing load | 20 | 1.60 | | | 2.81 | 1.21 | | | 1 | 42 |
| | | | | | 17.58 | 17.21 | 15.95 | Phase Total | | | | |
| | | | | | 50.74 | | 141 | Connected Amps | | | | |
| | | | | | 55.04 | | 153 | Demand Amps | | | | |

DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF DEMAND FACTORS

CIRCUIT NUMBERING BY POLE POSITION
CIRCUIT BREAKERS FEEDING A/C EQUIPMENT SHALL BE "HACR" RATED

| Load Codes | Load Summaries | Connected kVA | Factor | Demand kVA |
|---|---|---|---|---|
| 0 | Lighting – Non-Continuous | 0.00 | 1.00 | 0.00 |
| 1 | Lighting – Continuous | 17.20 | 1.25 | 21.50 |
| 2 | Receptacles | 0.00 | 1.00 | 0.00 |
| 3 | Special Loads | 33.54 | 1.00 | 33.54 |
| 4 | Motors | 0.00 | 1.00 | 0.00 |
| 5 | Kitchen (Commercial) | 0.00 | 0.65 | 0.00 |
| 6 | Heating | 0.00 | 1.00 | 0.00 |
| 7 | Cooling | 0.00 | 1.00 | 0.00 |
| 9 | Computer Outlets | 0.00 | 1.00 | 0.00 |
| 10 | Exterior Lighting | 0.00 | 1.25 | 0.00 |
| 11 | Miscellaneous – Continuous | 0.00 | 1.25 | 0.00 |
| 12 | Modular Furniture Outlets | 0.00 | 1.00 | 0.00 |
| | Subtotals | 50.74 | | 55.04 |
| | Highest Motor | | 0.00 0.25 | 0.00 |
| | Total kVA | 50.74 | | 55.04 |

Per Table 220.56
Larger of the two loads per NEC 220-60
Larger of the two loads per NEC 220-60

Phase Amps

| | |
|---|---|
| Phase (A) | 146.48 |
| Phase (B) | 143.44 |
| Phase (C) | 132.88 |

Spare Capacity (Amps) 72
Spare Capacity Load (%) 32 %

PANEL 'J' | MAIN SIZE & TYPE: 100A M.L.O. | VOLTS /PHASE / WIRE: FED FROM: 240Y/120V, 1P, 3W | DIST. PANEL 'D' | MANUFACTURER: SQUARE D | LOCATION: UTILITY AREA | MOUNTING: CABINET | MIN. A.I.C. 65/70K SERIES RATED

| CKT NO. | AREA SERVED | COND | PH. | NEUT | GND | BKR | PHASE LOAD (KVA) A | PHASE LOAD (KVA) B | BKR | GND | NEUT | PH. | COND | AREA SERVED | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | cashier pos #1 & #2 | 1/2" | #12 | #12 | #12 | 20/1 | 0.18 | | 20/1 | #12 | #12 | #12 | #12 | veeder root | 2 |
| | | | | | | | 0.18 | | | | | | | | |
| 3 | cashier pos #3 & #4 | 1/2" | #12 | #12 | #12 | 20/1 | | 0.18 | 20/1 | #12 | #12 | #12 | #12 | dispenser data box | 4 |
| | | | | | | | | 0.18 | | | | | | | |
| 5 | safe | 1/2" | #12 | #12 | #12 | 20/1 | 0.18 | | 20/1 | #12 | #12 | #12 | #12 | intercom | 6 |
| | | | | | | | 0.18 | | | | | | | | |
| 7 | lato | 1/2" | #12 | #12 | #12 | 20/1 | | 0.18 | 20/1 | #12 | #12 | #12 | #12 | ems | 8 |
| | | | | | | | | 0.18 | | | | | | | |
| 9 | load | 1/2" | #12 | #12 | #12 | 20/1 | 0.72 | | 20/1 | #12 | #12 | #12 | #12 | frame relay | 10 |
| | | | | | | | 0.18 | | | | | | | | |
| 11 | space | 1/2" | #12 | #12 | #12 | 20/1 | | 0.00 | 20/1 | #12 | #12 | #12 | #12 | office computer | 12 |
| | | | | | | | | 0.18 | | | | | | | |
| 13 | space | 1/2" | #12 | #12 | #12 | 20/1 | 0.00 | | 20/1 | #12 | #12 | #12 | #12 | image vault | 14 |
| | | | | | | | 0.18 | | | | | | | | |
| 15 | back feed main | 1/2" | #12 | #12 | #12 | 20/2 | | 0.00 | 20/1 | #12 | #12 | #12 | #12 | cpi control power | 16 |
| | | | | | | | | 0.18 | | | | | | | |
| 17 | | | | | | | 0.00 | | 20/1 | #12 | #12 | #12 | #12 | alarm panel & paging | 18 |
| | | | | | | | 0.18 | | | | | | | | |
| NON-CONTINUOUS LOAD | | | | | | | 1.26 | 0.72 | | | | | | | |

PANELBOARD E | BUS RATING = 225A | VOLTAGE = 208/120V | SYSTEM = 3P, 4W | MOUNTING = CABINET | TRIM = DOOR-IN-DOOR | NEMA RATING = 1 | MAIN RATING UPSTREAM = 225A | MAIN TYPE = M.L.O. | AIC RATING= 65/22K SERIES | FULLY/SERIES = SERIES | BRANCH BREAKER TYPE = BOLT-ON | FEED TYPE = BOTTOM | TERMINATIONS = 75°C CU | BUS MATERIAL = CU | GROUND BUS (COPPER) = YES | NEUTRAL BUS (COPPER) = 100% | IG GROUND BUS (COPPER) = NO | SKIRT TYPE = NONE | SECTION # = 1

STATUS = EXISTING | MANUFACTURER = CPI | FEED THRU LUGS = NO

| CCT NO. | LOAD CODE | LOAD DESCRIPTION | BKR SIZE | LOAD (KVA) | PHASE A | PHASE B | PHASE C | LOAD (KVA) | BRK SIZE | LOAD DESCRIPTION | LOAD CODE | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3 | rec–equip. 18–hot dog roller* | 20 | 1.54 | 1.54 | | | 0.00 | filler | space | | 2 |
| 3 | 3 | rec–equip. 18–hot dog roller* | 20 | 1.54 | | 2.14 | | 0.60 | 20 | starbucks* | 3 | 4 |
| 5 | 3 | rec–equip. 18–hot dog roller* | 20 | 1.54 | | | 1.74 | 0.20 | 20 | rece–equip. 28–chili/chees disp* | 3 | 6 |
| 7 | 3 | hot dog island receptacle* | 20 | 0.18 | 0.78 | | | 0.60 | 20 | creamiser loed cofe–66* | 3 | 8 |
| 9 | 3 | soft serve island receptacle* | 20 | 0.18 | | 0.60 | | 0.42 | 20 | backroom receptacle* | 3 | 10 |
| 11 | 3 | soft serve island receptacle* | 20 | 0.18 | | | 1.19 | 1.01 | 20 | rec–equip cooler–33* | 3 | 12 |
| 13 | 1 | panel receptacle | 20/2 | 0.90 | 1.32 | | | 0.42 | 20 | backroom receptacle* | 3 | 14 |
| 15 | 1 | | | 0.90 | | 1.61 | | 0.71 | 20/2 | frozen beverage cond.@1 | 3 | 16 |
| 17 | 1 | pizza cart | 20 | 0.18 | | | 0.89 | 0.71 | | | 3 | 18 |
| 19 | 3 | vitamin water* | 20 | 0.42 | 0.60 | | | 0.18 | 30 | rec–equip. 20 microwave | 1 | 20 |
| 21 | 3 | ice tea counter* | 20 | 0.42 | | 0.60 | | 0.18 | 30 | rece–equip 20 microwave | 1 | 22 |
| 23 | 3 | ice tea counter* | 20 | 0.42 | | | 1.13 | 0.71 | 20/2 | frozen beverage cond.@2 | 3 | 24 |
| 25 | 3 | equip. 17–frozen beverage #1 | 20/2 | 0.96 | 1.67 | | | 0.71 | | | 3 | 26 |
| 27 | 3 | | | 2.04 | | 2.75 | | 0.71 | 20/2 | frozen beverage cond.@3 | 3 | 28 |
| 29 | 3 | equip. 17–frozen beverage #2 | 20/2 | 2.04 | | | 2.75 | 0.71 | | | 3 | 30 |
| 31 | 3 | | | 1.32 | 2.55 | | | 1.23 | 30/2 | ice maker #1 | 3 | 32 |
| 33 | 3 | equip. 17–frozen beverage #3 | 20/2 | 1.32 | | 2.55 | | 1.23 | | | 3 | 34 |
| 35 | 3 | | | 1.32 | | | 1.94 | 0.62 | 30/2 | ice maker #2 | 3 | 36 |
| 37 | 3 | | | 3.00 | 3.62 | | | 0.62 | | | 3 | 38 |
| 39 | 3 | existing load | 25/3 | 3.00 | | 3.62 | | 0.62 | 30/2 | ice maker #3 | 3 | 40 |
| 41 | 3 | | | 3.00 | | | 3.62 | 0.62 | | | 3 | 42 |
| | | | | | 12.08 | 13.87 | 13.26 | Phase Total | | | | |
| | | | | | 39.21 | | 109 | Connected Amps | | | | |
| | | | | | 39.80 | | 111 | Demand Amps | | | | |

DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF DEMAND FACTORS

CIRCUIT NUMBERING BY POLE POSITION
CIRCUIT BREAKERS FEEDING A/C EQUIPMENT SHALL BE "HACR" RATED
ALL BREAKERS BE FULLY RATED

| Load Codes | Load Summaries | Connected kVA | Factor | Demand kVA |
|---|---|---|---|---|
| 0 | Lighting – Non-Continuous | 0.00 | 1.00 | 0.00 |
| 1 | Lighting – Continuous | 2.34 | 1.25 | 2.93 |
| 2 | Receptacles | 0.00 | 1.00 | 0.00 |
| 3 | Special Loads | 36.87 | 1.00 | 36.87 |
| 4 | Motors | 0.00 | 1.00 | 0.00 |
| 5 | Kitchen (Commercial) | 0.00 | 0.65 | 0.00 |
| 6 | Heating | 0.00 | 1.00 | 0.00 |
| 7 | Cooling | 0.00 | 1.00 | 0.00 |
| 9 | Computer Outlets | 0.00 | 1.00 | 0.00 |
| 10 | Exterior Lighting | 0.00 | 1.25 | 0.00 |
| 11 | Miscellaneous – Continuous | 0.00 | 1.25 | 0.00 |
| 12 | Modular Furniture Outlets | 0.00 | 1.00 | 0.00 |
| | Subtotals | 39.21 | | 39.80 |
| | Highest Motor | | 0.00 0.25 | 0.00 |
| | Total kVA | 39.21 | | 39.80 |

Per Table 220.56
Larger of the two loads per NEC 220-60
Larger of the two loads per NEC 220-60

Phase Amps

| | |
|---|---|
| Phase (A) | 100.68 |
| Phase (B) | 115.58 |
| Phase (C) | 110.49 |

Spare Capacity (Amps) 114
Spare Capacity Load (%) 51 %

PANELBOARD G | BUS RATING = 150A | VOLTAGE = 208/120V | SYSTEM = 3P TO 1P, MIXED | MOUNTING = CABINET | TRIM = DOOR-IN-DOOR | NEMA RATING = 1 | MAIN RATING UPSTREAM = 150A | MAIN TYPE = M.L.O. | AIC RATING= 65/70K | FULLY/SERIES = SERIES | BRANCH BREAKER TYPE = BOLT-ON | FEED TYPE = BOTTOM | TERMINATIONS = 75°C CU | BUS MATERIAL = CU | GROUND BUS (COPPER) = YES | NEUTRAL BUS (COPPER) = 100% | IG GROUND BUS (COPPER) = NO | SKIRT TYPE = NONE | SECTION # = 1

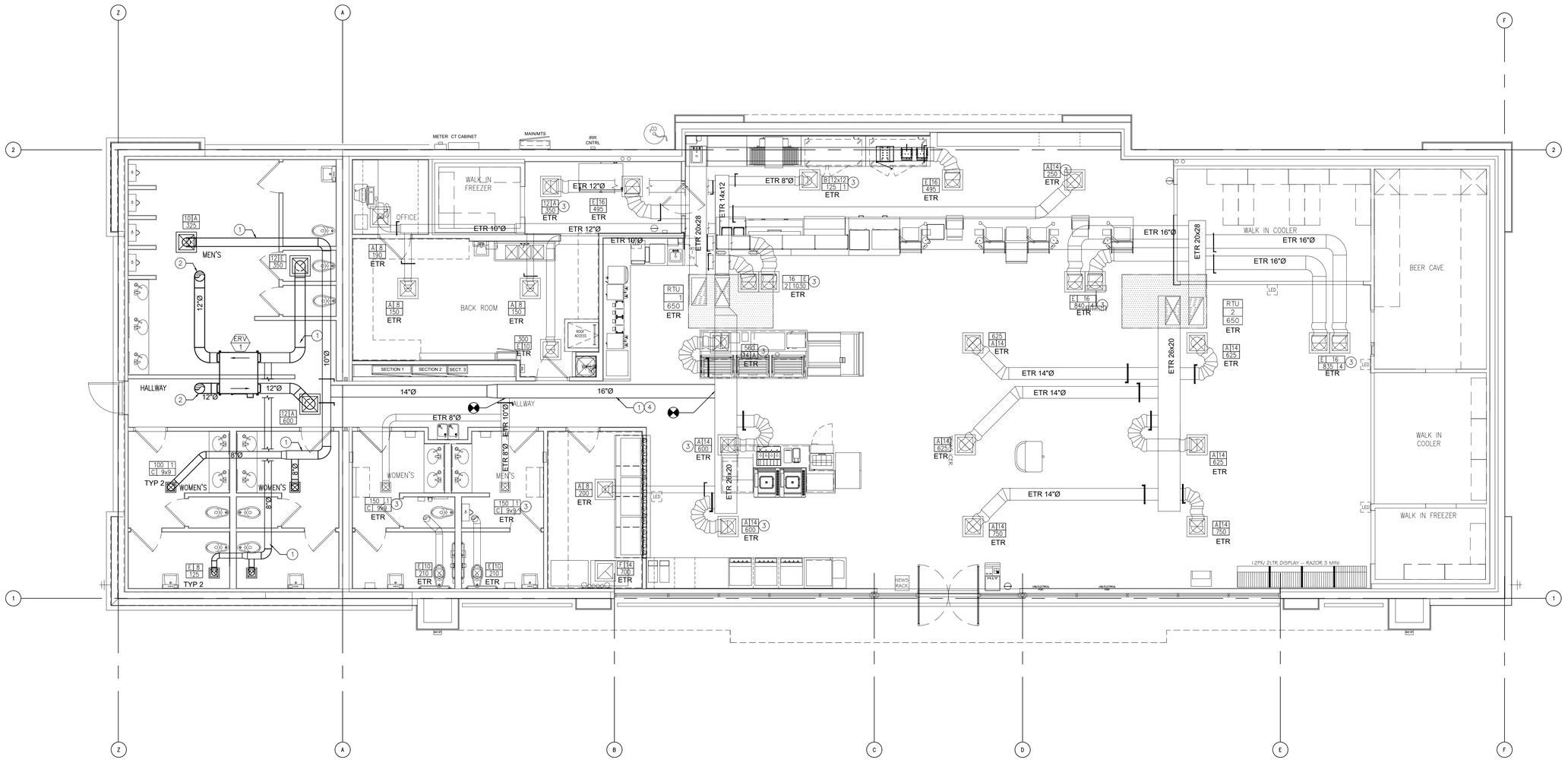
STATUS = EXIST | MANUFACTURER = CPI | PHASE SERIES = | FEED THRU LUGS = NO

| CCT NO. | LOAD CODE | LOAD DESCRIPTION | BKR SIZE | LOAD (KVA) | PHASE A | PHASE B | PHASE C | LOAD (KVA) | BRK SIZE | LOAD DESCRIPTION | LOAD CODE | CCT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4 | | | 0.00 | 1.62 | | | 1.62 | | | | |
| 3 | 4 | dispenser 1/2 | 20/2 | 0.00 | | 1.88 | | 1.62 | 20/2 | stp regular | 4 | 2 |
| 5 | 4 | | | 0.26 | | | 1.62 | 1.62 | | | 4 | 4 |
| 7 | 4 | dispenser 3/4 | 20/2 | 0.00 | | | | | 20/2 | stp premium | 4 | 6 |
| 9 | 4 | | | 0.26 | 1.88 | | | 1.62 | | | 4 | 8 |
| 11 | 4 | dispenser 5/8 | 20/2 | 0.00 | | 1.62 | | 1.62 | 20/2 | stp diesel | 4 | 10 |
| 13 | 4 | | | 0.26 | | | 1.88 | 1.62 | | | 4 | 12 |
| 15 | 4 | dispenser 7/8 | 20/2 | 0.00 | | 1.62 | | 1.62 | 20/2 | stp diesel #2 | 4 | 14 |
| 17 | 4 | | | 0.26 | | | 1.88 | 1.62 | | | 4 | 16 |
| 19 | 4 | dispenser 9/10 | 20/2 | 0.00 | | 1.62 | | 1.62 | 20/2 | stp alternate | 4 | 18 |
| 21 | 4 | | | 0.26 | | | 1.88 | 1.62 | | | 4 | 20 |
| 23 | 4 | dispenser 11/2 | 20/2 | 0.00 | | 1.60 | | 1.60 | 20 | existing load | 4 | 22 |
| | | | | 0.26 | | | 1.86 | 1.60 | 20 | existing load | 4 | 24 |
| 25 | | switched neutral | – | 0.00 | 1.60 | | | 1.60 | 20 | existing load | 4 | 26 |
| 27 | 4 | dispenser 13/14 | 20 | 0.26 | | 0.52 | | 0.26 | – | dispenser 27/22 | 4 | 28 |
| 29 | | switched neutral | – | 0.00 | 0.00 | | | 0.00 | 20 | switched neutral | 4 | 30 |
| 31 | 4 | dispenser 15/16 | 20 | 0.26 | | | 0.52 | 0.26 | – | dispenser 23/24 | 4 | 32 |
| 33 | | switched neutral | – | 0.00 | | 0.00 | | 0.00 | 20 | switched neutral | 4 | 34 |
| 35 | 4 | dispenser 17/18 | 20 | 0.26 | | | 0.52 | 0.26 | – | dispenser 25/26 | 4 | 36 |
| 37 | | switched neutral | – | 0.00 | 0.00 | | | 0.00 | 20 | switched neutral | 4 | 38 |
| 39 | 4 | dispenser 19/20 | 20 | 0.26 | | 0.52 | | 0.26 | – | dispenser 27/28 | 4 | 40 |
| 41 | | space | filler | 0.00 | 0.00 | | | 0.00 | – | switched neutral | 4 | 42 |
| | | | | | 3.10 | 10.42 | 9.12 | Phase Total | | | | |
| | | | | | 24.64 | | 118 | Connected Amps | | | | |
| | | | | | 24.64 | | 118 | Demand Amps | | | | |

DEMAND LOADS MAY VARY FROM CONNECTED LOADS BECAUSE OF DEMAND FACTORS

CIRCUIT NUMBERING BY POLE POSITION
CIRCUIT BREAKERS FEEDING A/C EQUIPMENT SHALL BE "HACR" RATED
ALL BREAKERS BE FULLY RATED

| Load




## KEYED NOTES

1. ROUTE ALL DUCTWORK WITHIN THE JOISTS UNLESS OTHERWISE SPECIFIED (TYPICAL).
2. 12" DUCT UP ROOF AND TERMINATE WITH ROOF VENT CAP WITH INSECT SCREEN.
3. REBALANCE EXISTING DIFFUSER AS SHOWN
4. REMOVE EXISTING 10" DUCT AND REPLACE WITH DUCT AS SHOWN

## GENERAL NOTES

A. EQUIPMENT SHALL COMPLY WITH ASHRAE STANDARDS.

B. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS, AND AUTHORITIES HAVING JURISDICTION.

C. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE INDUSTRY STANDARD OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.

D. ALL WORK SHALL BE LOCATED TO PROVIDE ADEQUATE CLEARANCE FOR ARCHITECTURAL DESIGN AND PROPER OPERATION AND SERVICE OF EQUIPMENT.

E. FIRE SPRINKLERS AND LIGHTS TAKE PRECEDENCE OVER DIFFUSERS. CONTRACTOR TO VERIFY LOCATIONS WITH ARCHITECT.

F. ALL WORK SHALL BE LOCATED TO AVOID CONFLICTS WITH OTHER TRADES. CLOSELY COORDINATES ALL WORK WITH ALL OTHER TRADES. FAILURE OF THE CONTRACTOR TOO COORDINATE WITH ALL OTHER TRADES SHALL RELIEVE THE OWNER/ENGINEER FROM ANY ADDED COSTS.

G. DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR SHALL MAKE ANY MINOR MODIFICATIONS, INCLUDING ALL OFFSETS, TURNS, AND REROUTING REQUIRED TO COMPLETE THE INSTALLATION.

H. COORDINATE LOCATION OF ALL GRILLES, DIFFUSERS, DUCTS, ETC. WITH CEILING, LIGHTS, FIRE PROTECTION AND ARCHITECTURAL MATERIALS.

## 1 MECHANICAL FLOOR PLAN

3/16" = 1'-0"

## ENERGY RECOVERY VENTILATION SCHEDULE

| MARK | AREA SERVED | MANUFACTURER | MODEL | CFM | E.S.P. ("W.C.) | MOTOR | | | WEIGHT (LB) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | MCA | MOCP | V-PH | |
| ERV-1 | EXPANSION AREA | LOSSNAY | LGH-F600RVX2-E | 600 | 0.86" | 5.2 | 15 | 208-1 | 123 |

NOTES:

1. CONNECT TO LINE VOLTAGE, RUN CONTINUOUSLY
2. INTAKE AND EXHAUST CFM SHALL MATCH.

Roy R. Payne, Jr. State of Florida, Professional Engineer, License No. 61494

This item has been electronically signed and sealed by Roy R. Payne, Jr., PE on Aug 18, 2022 using a Digital Signature.

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**PROFESSIONAL IN CHARGE**
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**PROJECT MANAGER**
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SHF

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

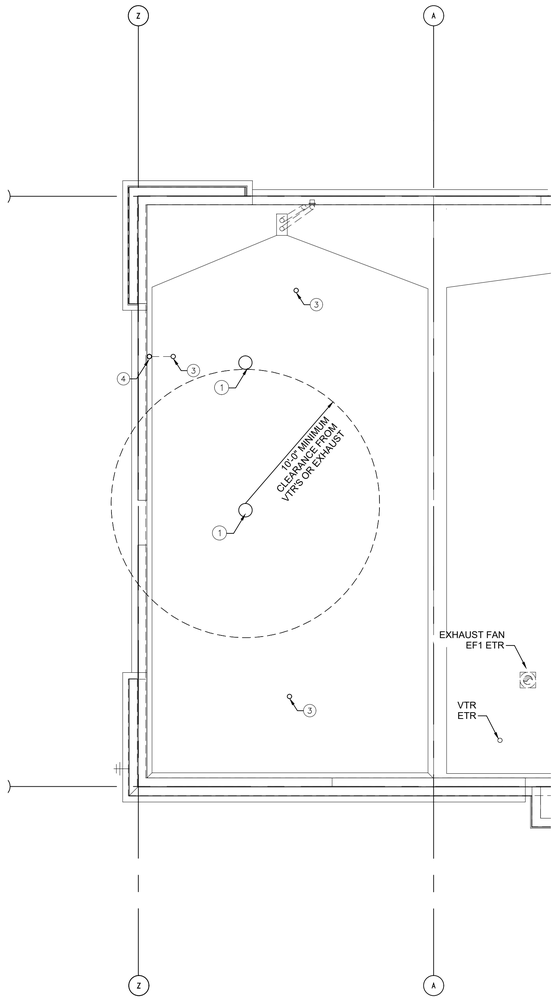
**SHEET TITLE**

## MECHANICAL-FLOOR PLAN

**SHEET NUMBER**

# M1.1


Drawing Name: \\rdc\Projects\2022\4625\Dgn\Sheets\M1.1 Mechanical - Floor Plan.dwg Last Modified: Aug 18, 2022 - 3:20pm Plotted on: Aug 18, 2022 - 3:20pm by SHF




1 MECHANICAL ROOF PLAN
3/16" = 1'-0"

## GENERAL NOTES

A. EQUIPMENT SHALL COMPLY WITH ASHRAE STANDARDS.

B. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS, AND AUTHORITIES HAVING JURISDICTION.

C. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE INDUSTRY STANDARD OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.

D. ALL WORK SHALL BE LOCATED TO PROVIDE ADEQUATE CLEARANCE FOR ARCHITECTURAL DESIGN AND PROPER OPERATION AND SERVICE OF EQUIPMENT.

E. ALL WORK SHALL BE LOCATED TO AVOID CONFLICTS WITH OTHER TRADES. CLOSELY COORDINATES ALL WORK WITH ALL OTHER TRADES. FAILURE OF THE CONTRACTOR TOO COORDINATE WITH ALL OTHER TRADES SHALL RELIEVE THE OWNER/ENGINEER FROM ANY ADDED COSTS.

## KEYED NOTES

(X)

1. 12" DUCT UP ROOF AND TERMINATE WITH ROOF VENT CAP WITH INSECT SCREEN.
2. PROVIDE MINIMUM 10'-0" SEPARATION FROM OUTSIDE AIR INTAKES ON SUPPLY AIR FLUE.
3. VTR'S SHOWN FOR REFERENCE ONLY, REFER TO PLUMBING DRAWINGS FOR MORE INFORMATION. PROVIDE MINIMUM 10'-0" SEPARATION FROM OUTSIDE AIR INTAKES ON HVAC UNITS.
4. 3" GREASE TRAP VENT DOWN IN WALL AND CONNECT TO GREASE TRAP.

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**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## MECHANICAL-ROOF PLAN AND DETAILS

**SHEET NUMBER**

# M1.1.1

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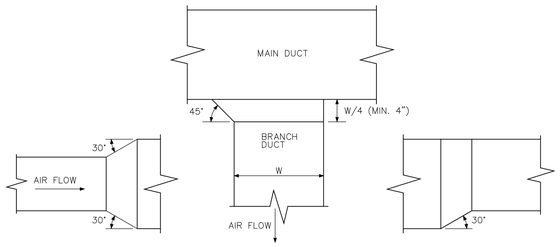
4625 NATIONAL PROTOTYPE – R1

Drawing Name: I:\rdc\Projects\20\28764\Dgn\Sheets\M1.1.1 Mechanical – Roof Plan.dwg Last Modified: Aug 18, 2022 – 2:56pm Plotted on: Aug 18, 2022 – 3:00pm by SHF

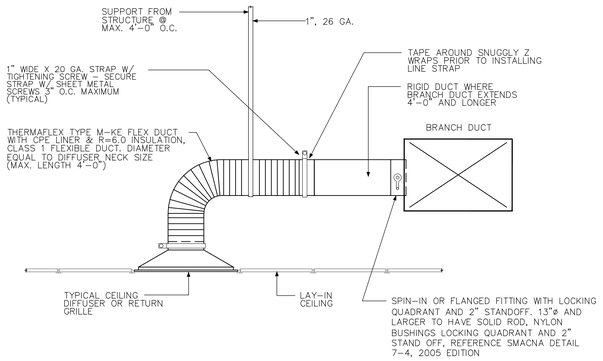



NOTE:

FABRICATE PER SMACNA DUCT CONSTRUCTION STANDARDS FIGURE #2-8.

DO NOT USE EXTRACTORS IN BRANCH DUCTWORK.

## DUCT CONNECTION 4




## DIFFUSER/GRILLE CONNECTION DETAIL 1

## GRILLE, REGISTER, AND DIFFUSER SCHEDULE

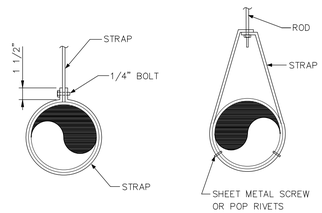
| MARK | DESCRIPTION | MANUFACTURER | MODEL | MATERIAL | MODULE | FRAME | FRONT BLADES | DAMPER |
|---|---|---|---|---|---|---|---|---|
| A | CEILING DIFFUSER | TITUS | TMSA | STEEL | 24X24 | LAY-IN | 4-WAY | YES |
| B | CEILING DIFFUSER | TITUS | TMSA | STEEL | 12X12 | SURFACE MOUNT | 4-WAY | YES |
| C | CEILING DIFFUSER | TITUS | TDC | STEEL | - | SURFACE MOUNT | 4-WAY | YES |
| D | CEILING DIFFUSER | TITUS | TDX | STEEL | 24X24 | SURFACE MOUNT | 3-WAY | YES |
| E | RETURN DIFFUSER | TITUS | 23R | STEEL | - | SURFACE MOUNT | LONG | YES |
| F | RETURN DIFFUSER | TITUS | 23R | STEEL | 24X24 | LAY-IN | LONG | YES |
| G | TRANSFER DIFFUSER | TITUS | TMSA | STEEL | 24X24 | SURFACE MOUNT | 4-WAY | YES |
| H | TRANSFER DIFFUSER | TITUS | TDX | STEEL | 24X24 | SURFACE MOUNT | 3-WAY | YES |

NOTE:

FIELD PAINT ALL DIFFUSERS AND GRILLES - COLOR WHITE

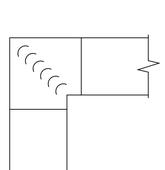
## AIR BALANCE SCHEDULE

| UNIT | O.A. | R.A. | S.A. | E.A. | PRESSURE |
|---|---|---|---|---|---|
| RTU-1 | 650 | 3350 | 4000 | - | +650 |
| RTU-2 | 650 | 3350 | 4000 | - | +650 |
| | | | | | |
| EF-1 | - | - | - | 210 | -210 |
| EF-2 | - | - | - | 210 | -210 |
| EF-3 | - | - | - | 700 | -700 |
| ERV-1 | 550 | - | - | 550 | - |
| TOTALS | 1,850 | 6700 | 8000 | 1670 | 180 |

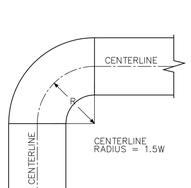



REFER TO SMACNA HVAC DUCT CONSTRUCTION STANDARDS TABLE 4-2 FOR "MINIMUM HANGER SIZES FOR ROUND DUCT".

## ROUND DUCT HANGER DETAIL 3



MITERED ELBOW WITH TURNING VANES




RADIUS ELBOW

NOTE:

RADIUS ELBOWS WITH MITERED THROAT ARE NOT ALLOWED

## DUCT ELBOW DETAILS 2

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**PROFESSIONAL IN CHARGE**
RRP

**PROJECT MANAGER**
SAG

**QUALITY CONTROL**
RRP

**DRAWN BY**
SHF

**PROJECT NAME**

**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

**MECHANICAL-DETAILS AND SCHEDULES**

**SHEET NUMBER**

**M1.2**

Drawing Name: I:\rdc\Projects\2022\22036\Dgn\Sheets\22036 M1.2 Mechanical Details And Schedules.dwg Last Modified: Aug 18, 2022 - 5:53pm Plotted on: Aug 18, 2022 - 3:09pm by SHF

4625 NATIONAL PROTOTYPE - R1

# ABBREVIATIONS

| ABBREVIATION | DESCRIPTION |
|---|---|
| AC | AIR CONDITIONING UNIT |
| AD | ACCESS DOOR |
| AFF | ABOVE FINISHED FLOOR |
| AL | ACOUSTICAL LINING |
| AMP | AMPERE (AMPS) |
| AP | ACCESS PANEL |
| BF | BELOW FLOOR |
| BHP | BRAKE HORSE POWER |
| BOD | BOTTOM OF DUCT |
| BOP | BOTTOM OF PIPE |
| BTU | BRITISH THERMAL UNIT |
| BTUH | BTU PER HOUR |
| BD | BACKDRAFT DAMPER |
| C | CELSIUS |
| CI | CAST IRON |
| CFM | CUBIC FEET PER MINUTE |
| CO | CLEANOUT |
| CONT. | CONTINUATION |
| D | DRAIN |
| Db | DECIBEL |
| DB | DRY BULB |
| DBT | DRY BULB TEMPERATURE |
| DIA. | DIAMETER |
| DX | DIRECT EXPANSION |
| EFF | EFFICIENCY |
| ENT | ENTERING |
| EXH | EXHAUST |
| EMCS | ENERGY MANAGEMENT CONTROL SYSTEM |
| °F | DEGREES FAHRENHEIT |
| FB | FLAT BOTTOM |
| FCO | FLOOR CLEANOUT |
| FCU | FAN COIL UNIT |
| FD | FLOOR DRAIN |
| FD | FIRE DAMPER |
| F.G. | FILTER GAUGE |
| FLEX | FLEXIBLE |
| FPM | FEET PER MINUTE |
| FPS | FEET PER SECOND |
| FS | FLOOR SINK |
| FT | FLAT TOP |
| FT. | FEET |
| FSD | FIRE/SMOKE DAMPER |
| GA | GAUGE |
| GAL | GALLONS |
| GPM | GALLONS PER MINUTE |
| GPH | GALLONS PER HOUR |
| HB | HOSE BIBB |
| HD | HAND DAMPER (VOLUME DAMPER) |
| HORZ | HORIZONTAL |
| HP | HORSEPOWER |
| HR | HOUR(S) |
| IN | INCHES |
| KVA | KILOVOLT-AMPERE |
| KW | KILOWATT |
| KWH | KILOWATT HOUR |
| LBS | POUNDS |
| MAX | MAXIMUM |
| MA | MAIN AIR (CONTROLS) |
| MCC | MOTOR CONTROL CENTER |
| MIN | MINIMUM |
| N/A | NOT APPLICABLE |
| NC. | NOISE CRITERIA |
| NIC | NOT IN CONTRACT |
| #,NO. | NUMBER (QUANTITY) |
| NO | NORMALLY OPEN |
| NC | NORMALLY CLOSED |
| NTS | NOT TO SCALE |
| OA | OUTSIDE AIR |
| OBD | OPPOSED BLADE DAMPER |
| PRV | PRESSURE REDUCING VALVE |
| PSI | POUNDS PER SQUARE INCH |
| PSIG | POUNDS PER SQUARE INCH GAUGE |
| PD | PRESSURE DROP |
| QTY | QUANTITY |
| QUAD | QUADRANT |
| RA | RETURN AIR |
| REQ | REQUIRED |
| RH | RELATIVE HUMIDITY |
| RM | ROOM |
| RPM | REVOLUTIONS PER MINUTE |
| SA | SUPPLY AIR |
| SCD | SMOKE CONTROL DAMPER |
| S.DPR. | SMOKE DAMPER |
| SP | STATIC PRESSURE (INCHES OF WATER) |
| SPEC | SPECIFICATION |
| SQ | SQUARE |
| SDVV | SINGLE DUCT VARIABLE VOLUME |
| ST | SOUND TRAP |
| TEMP | TEMPERATURE |
| TSTAT | THERMOSTAT |
| TP | TOTAL PRESSURE (INCHES OF WATER) |
| TYP | TYPICAL |
| UC | UNDERCUT |
| V | VOLTS |
| VAC | VOLTS, ALTERNATING CURRENT |
| VAV | VARIABLE AIR VOLUME |
| VEL | VELOCITY |
| VERT | VERTICAL |
| VTR | VENT THRU ROOF |
| WB | WET BULB |
| WCO | WALL CLEANOUT |
| WH | WALL HYDRANT |
| Z | ZONE |

# PIPING FLOWSTREAM ID

| SYMBOL | DESCRIPTION |
|---|---|
| — D — | DRAIN LINE |
| — CD — | CONDENSATE DRAIN |
| — SCD — | SECONDARY CONDENSATE DRAIN |

# PIPE FITTING SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| | ANCHOR |
| | ANCHOR, WALL |
| | BLIND FLANGE |
| | DROP AT END |
| | DROP AT MID |
| | TOP CONNECTION, 45° OR 90° |
| | BOTTOM CONNECTION, 45° OR 90° |
| | TEE CONNECTION |
| | CAPPED OUTLET |
| | PIPE CAP |
| | RISE IN PIPE |
| | PIPE GUIDES |
| | PIPE PLUG |
| | FLEX CONNECTION |
| | FLEX PIPE |
| | PRESSURE GAGE W/O COCK |
| | PRESSURE GAUGE W/ COCK |
| | REDUCER OR INCREASER |
| | ECCENTRIC REDUCER |
| | STRAINER |
| | STRAINER, FLANGED |
| | SWITCH, FLOW |
| | SWITCH, PRESSURE |
| | SWITCH, TEMPERATURE |
| | TEST & PRESSURE (T&P) FITTING |
| | THERMOMETER |
| | UNION |
| | ORIFICE UNION |
| | FLANGED UNION |
| DOWN | SLOPE IN DIRECTION SHOWN (DOWN) |
| | DIRECTION OF FLOW |
| | NEW PIPING |
| | EXISTING PIPING TO REMAIN |
| | EXISTING PIPING TO BE REMOVED |
| | NEW PIPE CONNECTION TO EXISTING PIPING |
| | POINT OF NEW CONNECTION TO EXISTING |

# ANNOTATION SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| X | KEYED NOTE |
| XXX | ROOM NUMBER |
| * / * / * | SYMBOL INDICATES NEW EQUIPMENT<br>NUMBER REFERS TO SPECIFIC EQUIPMENT<br>OUTSIDE AIR CFM REQUIRED |
| XX / XX | HEX SYMBOL INDICATES NEW EQUIPMENT<br>NUMBER REFERS TO SPECIFIC EQUIPMENT<br>IDENTIFIED IN EQUIPMENT SCHEDULE |
| X | REVISION TRIANGLE<br>REVISION NUMBER |
| XXX / XX | DETAIL NUMBER<br>DETAIL SYMBOL<br>DRAWING WHERE DETAIL APPEARS |
| X | SECTION LETTER<br>SECTION CUT SYMBOL |
| X / XXX | SECTION LETTER<br>SECTION CUT SYMBOL<br>DRAWING WHERE SECTION APPEARS |
| | NORTH ARROW |
| | POINT OF NEW CONNECTION TO EXISTING |
| | FLOW ARROWS |
| V12 | OVAL SYMBOL INDICATES A CONTROL VALVE<br>V-NUMBER REFERS TO A SPECIFIC VALVE<br>IDENTIFIED IN THE CONTROL VALVE SCHEDULE |

# DUCTWORK SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| 12x8 | RECTANGULAR DUCT, WIDTH x DEPTH (INCHES) |
| 12" | ROUND DUCT (INCHES) |
| 12x8? | OVAL DUCT (INCHES) |
| | FLEXIBLE DUCT |
| 12x8 W/1"AL | ACOUSTICAL DUCT LINING |
| | FLEXIBLE CONNECTION |
| | SUPPLY DUCT – SECTION/ END VIEW |
| | RETURN DUCT – SECTION/ END VIEW |
| | EXHAUST DUCT – SECTION/ END VIEW |
| | CROSS SECTION THROUGH ROUND DUCT |
| | VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EXCEPT TRANSFER AIR SOUND ELBOW) |
| | LARGE RADIUS ELBOW |
| | SMALL RADIUS ELBOW |
| | RETURN AIR CEILING GRILLE AND RETURN AIR CEILING GRILLE WITH SOUND BOOT |
| | CEILING DIFFUSERS (ARROWS DENOTE THROW PATTERN IF THROW IS SOMETHING OTHER THAN 4-WAY) |
| | EXHAUST CEILING REGISTER OR GRILLE |
| | LINEAR DIFFUSER |
| | ROUND DIFFUSER |
| | SIDEWALL EXHAUST OR RETURN AIR GRILLE |
| | SIDEWALL SUPPLY REGISTER |
| | DIFFUSER UNDER DUCT |
| | POINT OF NEW CONNECTION TO EXISTING |
| T | ROOM THERMOSTAT |
| S | ROOM TEMPERATURE SENSOR |
| | DUCT SMOKE DETECTOR (DSD) |
| | ACCESS DOOR |
| | MANUAL VOLUME DAMPER (VD) |
| | FIRE DAMPER (FD) THROUGH WALL/ FLOOR |
| | FIRE/SMOKE DAMPER (FSD) THROUGH WALL/ FLOOR |
| | MOTOR OPERATED DAMPER |
| | CONNECT NEW DUCT TO EXISTING DUCT |
| | EXISTING DUCT |
| | EXISTING DUCT TO BE REMOVED |
| | 30" RISE(R)/DROP(D) IN DUCTWORK IN DIRECTION OF ARROW |
| | CONCENTRIC DUCT REDUCER |
| | ECCENTRIC DUCT REDUCER |
| | DUCT TRANSITION FROM RECTANGULAR TO ROUND |
| | CONICAL TAP FITTING |
| | SHOE TAP FITTING |
| | DUCT OVER/UNDER ANOTHER DUCT |

# SINGLE LINE DUCTWORK

| SYMBOL | DESCRIPTION |
|---|---|
| N | NEW |
| E | EXISTING |
| R | RELOCATED |
| | NEW/RELOCATED SUPPLY DIFFUSER, NECK SIZE, AND BALANCE AIR AS INDICATED (MATCH EXISTING) |
| | NEW/RELOCATED RETURN GRILLE WITH BOOT (MATCH EXISTING) |
| | EXISTING SUPPLY DIFFUSER |
| | EXISTING RETURN GRILLE WITH BOOT |
| | RELOCATED EXISTING GRILLE OR DIFFUSER |
| TR | RELOCATED ROOM THERMOSTAT, ELECTRIC |
| TE | EXISTING ROOM THERMOSTAT, ELECTRIC |
| | 1-1/2 X BRANCH DUCT FROM SIDE OF MAIN |
| | SQUARE ELBOW WITH TURNING VANES |
| | RADIUS TYPE 90° ELBOW |
| | DUCT TRANSITION |
| | ACCESS PANEL (AP) |
| | EXISTING DUCTWORK |
| | EXISTING DUCT TO BE REMOVED |
| | FLEXIBLE DUCT |

# DIFFUSER,REGISTER & GRILLE SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| X XXXX / XXX X | SYMBOL (AS SHOWN ON SCHEDULE)<br>NECK SIZE (SQUARE, RECTANGULAR OR ROUND)<br>NO. OF TYPICAL<br>CFM |
| X XX / XXX | SYMBOL (AS SHOWN ON SCHEDULE)<br>NECK SIZE (DIA.)<br>CFM |

# GENERAL NOTES

A. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASES OR SUSPENDED CEILINGS, UNLESS OTHERWISE NOTED.

B. PROVIDE ACCESS PANELS OR DOORS IN UNACCESSIBLE CEILINGS AND/OR CHASES FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, COILS, FANS, CONTROLS, ETC. ACCESS DOOR RATING SHALL MATCH CLASSIFICATION OF WALL AND CEILING FIRE RATING.

C. COORDINATE THE LOCATION OF ALL DIFFUSERS, GRILLES, REGISTERS, ACCESS DOORS, ETC., WITH THE ARCHITECTURAL REFLECTED CEILING PLAN(S).

D. ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE THE SAME NOMINAL SIZE AS THE SCHEDULED DIFFUSER NECK SIZE.

E. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. ALL DUCT SIZES SHOWN ON DRAWINGS ARE NET INSIDE DIMENSIONS.

F. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS. EXCEPT TRANSFER AIR SOUND ELBOWS.

G. THE CFM OF EACH DIFFUSER, REGISTER, ETC., IS INDICATED IN THE SYMBOL DESIGNATION ON THE DRAWINGS.

H. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FIRE RATED AND/OR SMOKE RATED WALLS AND ASSEMBLIES. PROVIDE APPROVED FIRE AND FIRE/SMOKE DAMPERS IN ALL REQUIRED PENETRATIONS FOR DUCTWORK, GRILLES, REGISTERS AND DIFFUSERS. ALL PIPE AND DUCTWORK PENETRATIONS OF FIRE, SMOKE AND FULL HEIGHT WALLS SHALL BE CAULKED AIRTIGHT TO THE ADJACENT STRUCTURE BY MEANS OF U.L. APPROVED FIRE PROOF CAULKING MATERIAL.

I. CONTRACTOR SHALL COORDINATE ALL DUCTWORK, PIPING, PLUMBING AND FIRE PROTECTION PIPING WITH STRUCTURAL AND ELECTRICAL SYSTEMS AND SHALL PROVIDE NECESSARY OFFSETS TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.

J. CONTRACTOR SHALL FURNISH ALL NECESSARY STRUCTURES, INSERTS, SLEEVES, AND HANGING DEVICES FOR INSTALLATION OF MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK AND PIPING, ETC. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND ALL BUILDING TRADES TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.

K. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY MISCELLANEOUS ANGLES, CHANNELS, UNISTRUT, ETC., AS MAY BE REQUIRED TO ADEQUATELY SUPPORT THE MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT IN A MANNER APPROVED BY THE ARCHITECT WHICH WILL NOT OVERLOAD THE BUILDING STRUCTURAL SYSTEM.

L. CONTRACTOR SHALL PROVIDE RETURN AIR OR TRANSFER AIR OPENINGS IN FULL HEIGHT WALLS SIZED AT 500 FPM (UNLESS OTHERWISE SPECIFICALLY SHOWN ON THE DRAWINGS) TO CREATE AND/OR MAINTAIN A RETURN AIR PATH AS REQUIRED. FIRE DAMPERS AND/OR SMOKE DAMPERS SHALL BE PROVIDED IN SUCH OPENINGS WHERE REQUIRED BY NOTE "H".

M. SEAL ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, DUCT WALL PENETRATIONS AND FITTING CONNECTIONS ON ALL DUCT SYSTEMS.

# CODE INFORMATION

A. 2020 FLORIDA BUILDING CODE(FBC), 2020 FLORIDA MECHANICAL CODE (FMC), 2020 FLORIDA ENERGY CODE (FLEC) AND 2020 FLORIDA PLUMBING CODE (FPC).

ALL SYSTEMS SHALL BE IN COMPLIANCE WITH THE ABOVE CODES AS ADOPTED BY HAINES CITY, FL.

B. OUTDOOR AIR VENTILATION PROVIDED AND BASED ON CHAPTER 4, SECTION 403.2 AND TABLE 403.3.

1. SEE SHEET M1.2.2 FOR VENTILATION CALCULATIONS.

C. ALL ROOFTOP EQUIPMENT SHALL BE PERMANENTLY IDENTIFIED AS TO THE AREA SERVED WITH A RUST-PROOF METAL NAMEPLATE PER 2020 FMC.

D. DUCT SMOKE DETECTORS REQUIRED BY 2020 FMC SECTION 606 SHALL BE INSTALLED IN THE SUPPLY DUCTWORK AS SHOWN ON THE PLANS PER FMC 606.2.1, 606.2.2, 606.3, AND NFPA 72. IF A FIRE ALARM SYSTEM IS AVAILABLE, THAT THE DUCT SMOKE DETECTOR(S) SHALL BE CONNECTED TO THE FIRE ALARM SYSTEM (FMC 606.4.1) AND IF A FIRE ALARM SYSTEM IS NOT AVAILABLE, PROVIDE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT A CONSTANTLY SUPERVISED LOCATION TRIGGERED BY THE ACTIVATION OF A DUCT SMOKE DETECTOR. INCLUDE THE AIR DUCT DETECTOR TROUBLE INDICATOR (LED AT THE CEILING BELOW THE DUCT DETECTOR) AS REQUIRED BY FMC 606.4.1, EXCEPTION 2.

E. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING, THE MANUFACTURERS INSTALLATION INSTRUCTIONS AND THIS CODE. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION PER FMC SECTION 304.1.

F. ACCESS TO ROOF MOUNTED EQUIPMENT COMPLIES WITH 2020 FMC. SEE ARCHITECTURAL DRAWINGS FOR ROOF ACCESS DETAILS.

# SYMBOLS LIST NOTES

1. SYMBOLS LISTS, NOTES, ABBREVIATIONS, ETC. ARE FOR GENERAL REFERENCE ONLY. THE PRESENCE OF SYMBOLS, NOTES, ABBREVIATIONS, ETC. DOES NOT IMPLY ITS USE ON THIS PROJECT. REFER TO DRAWINGS FOR SPECIFIC SYMBOLS, NOTES, ABBREVIATIONS, ETC. USED.

# DUCT SMOKE DETECTOR TESTING

TESTING AND INSPECTION OF SMOKE CONTROL DEVICES

A. PRIOR TO TESTING SMOKE CONTROL DEVICES:

1. VERIFY PROPER OPERATION OF EACH EXISTING SMOKE DETECTOR. ACTIVATION TESTING SHALL BE PERFORMED USING "CANNED SMOKE" ACCEPTABLE TO THE AUTHORITIES HAVING JURISDICTION.
2. VERIFY ACTIVATION OF THE EXISTING SMOKE DETECTOR SHUTS DOWN THE APPROPRIATE AIR-MOVING SYSTEM(S). VERIFY ACTIVATION OF THE SMOKE DETECTOR IS SHOWN BY THE FIRE ALARM SYSTEM WHERE MONITORING IS REQUIRED.

B. INSPECTION & TESTING OF SMOKE CONTROL DEVICES:

1. TESTING OF FIRE/SMOKE DAMPERS AND SMOKE DETECTORS SHALL BE ACCOMPANIED BY THE ELECTRICIAN AND/OR THE CONTROLS SYSTEM SUPPLIER. IF THE BUILDING HAS A FIRE ALARM SYSTEM, A REPRESENTATIVE OF THE MANUFACTURER MUST BE PRESENT DURING THE TESTING.

# VENTILATION VERIFICATION

AN AIR BALANCE REPORT SHOWING FRESH AIR COMPLIANCE IS REQUIRED BY THE MECHANICAL INSPECTOR FOR FINAL INSPECTION APPROVAL. VENTILATION SYSTEMS SHALL BE BALANCED BY AN APPROVED METHOD. A BALANCE REPORT SHALL VERIFY THAT THE VENTILATION SYSTEM IS CAPABLE OF SUPPLYING AIRFLOW RATES REQUIRED BY SECTION 403 (2020 FMC SECTION 403.3).


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| OTP | 08/03/22 |

**PROFESSIONAL SEAL**

**PROFESSIONAL IN CHARGE**
RRP

**PROJECT MANAGER**
SAG

**QUALITY CONTROL**
RRP

**DRAWN BY**
SHF

**PROJECT NAME**

## CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## MECHANICAL-NOTES

**SHEET NUMBER**

# M1.2.3

Roy R. Payne, Jr. State of Florida, Professional Engineer, License No. 61494
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ROY R. PAYNE JR. LICENSED PROFESSIONAL ENGINEER No 61494 STATE OF FLORIDA

Roy Payne


Drawing Name: T:\rdc\Projects\28764\Dwg\Sheets\M 1.2.3 Mechanical Notes.dwg Last Modified: Aug 19, 2022 - 8:03pm Plotted on: Aug 19, 2022 - 8:03pm by SHF

| SECTION | MECHANICAL SPECIFICATIONS |
|---|---|
| 15010<br><br>BASIC MECHANICAL REQUIREMENTS | 1. ALL WORK TO BE DONE AND MATERIALS FURNISHED COMPLYING WITH APPLICABLE LAWS, AND RESOLUTIONS, INCLUDING THE CURRENTLY ENFORCED VERSIONS OF THE FLORIDA MECHANICAL CODE (F.MC.), FLORIDA PLUMBING CODE (F.P.C.), FLORIDA BUILDING CODE (F.B.C), AND LOCAL, STATE, AND FEDERAL FIRE SAFETY CODES (NFPA).<br>2. ALL MATERIALS USED SHALL BE NEW AND UNDAMAGED.<br>3. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH CURRENT CONSTRUCTION INDUSTRY STANDARDS AND WORKMANSHIP.<br>4. PRIOR TO SUBMITTING A PROPOSAL, THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY INSPECT ALL EXISTING CONDITIONS TO ENSURE THAT THE WORK REPRESENTED ON THE DRAWINGS AND THESE SPECIFICATIONS CAN BE INSTALLED AS INDICATED.<br>5. AT SUBSTANTIAL COMPLETION OF THE CONSTRUCTION, FURNISH AS–BUILT PLANS TO ARCH/ENGINEER FOR APPROVAL BEFORE THEY ARE TURNED OVER TO OWNER<br>6. ALL MANUFACTURED EQUIPMENT, ACCESSORIES AND MATERIALS SHALL BE USED AS INTENDED BY THE MANUFACTURER, IN STRICT ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS.<br>7. THE MECHANICAL CONTRACTOR SHALL PROVIDE, IN ADDITION TO ANY OTHER WARRANTIES SPECIFIED, A ONE(1) YEAR FULL LABOR AND MATERIAL WARRANTY ON ALL WORKMANSHIP, MATERIAL AND EQUIPMENT FURNISHED FOR THIS PROJECT. THE CONTRACTOR SHALL REPLACE ALL DEFECTIVE WORKMANSHIP, EQUIPMENT, AND MATERIALS WITHOUT ADDITIONAL CHARGES, INCLUDING ALL REFRIGERANT CAUSED TO BE LOST BY REPAIR OF DEFECTIVE WORK OR MATERIALS.<br>8. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR INSTRUCTING THE OWNER IN PROPER OPERATION AND MAINTENANCE OF THE EQUIPMENT. A WIRING DIAGRAM WITH INSTRUCTIONS FOR THE OPERATION, INSTALLER'S NAME, PHONE NUMBER, MODEL, AND MAKE OF EQUIPMENT PROVIDED, ETC., SHALL BE FURNISHED TO OWNER. AT A TIME DESIGNATED, PROVIDE AN ENGINEER OR MECHANIC TO GO OVER SYSTEM WITH OWNER'S REPRESENTATIVE TO THOROUGHLY FAMILIARIZE HIM WITH THE OPERATION AND MAINTENANCE OF THE SYSTEM.<br>9. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL OPENINGS AND REQUIRED LINTELS NEEDED FOR GENERAL CONTRACTOR FOR THE INSTALLATION OF MECHANICAL EQUIPMENT.<br>10. SAWCUTS, LINTELS, HEADERS, AND STRUCTURAL MODIFICATIONS TO THE BUILDING STRUCTURE NEEDED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT SHALL BE APPROVED BY THE GENERAL CONTRACTOR, BEFORE INSTALLATION.<br>11. IN GENERAL, OPENINGS AND REQUIRED LINTELS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILS AND TEMPLATES OF ALL OPENINGS NECESSARY FOR MECHANICAL EQUIPMENT INSTALLATION INCLUDING: HOUSING, ACCESS DOORS, INSPECTION DOORS, AND PASSAGE WAYS FOR MECHANICAL EQUIPMENT. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR SEALING CRACKS AND FINISHING ROUGH EDGES LEFT FOLLOWING MECHANICAL INSTALLATION.<br>12. THE USE OF THE MECHANICAL EQUIPMENT FOR HEATING, COOLING, OR DRYING DURING CONSTRUCTION IS PROHIBITED, UNLESS APPROVED BY WRITTEN DOCUMENTATION BY THE OWNER.<br>13. ALL OTHER MANUFACTURERS BESIDES THE SPECIFIED PRODUCT MUST BE PRE–APPROVED PRIOR TO BIDDING. SUBMIT DETAILED EQUIPMENT CUT–SHEETS AND CLEARLY IDENTIFY ANY DIFFERENCES FROM THE SPECIFIED PRODUCT. ANY EQUIPMENT SUBMITTED DURING THE REGULAR SUBMITTAL PROCESS THAT WAS NOT PRE–APPROVED WILL BE AUTOMATICALLY BE REJECTED.<br>14. PERMITS AND INSPECTIONS: MECHANICAL CONTRACTOR IS RESPONSIBLE TO OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES. PRIOR TO FINAL APPROVAL, FURNISH THE ARCHITECT/OWNER WITH CERTIFICATES OF INSPECTION AND APPROVALS BY LOCAL AUTHORITIES.<br>15. PRIOR TO SUBMITTING BID, THE MECHANICAL CONTRACTOR SHALL CAREFULLY EXAMINE THE PLANS FOR THE PROPER FITTING OF THE MATERIAL AND APPARATUSES INTO THE BUILDING. ARRANGE WORK SCHEDULE FOR MINIMUM INTERFERENCE WITH THE WORK OF OTHER TRADES. SHOULD THE PARTICULAR EQUIPMENT PROPOSED FOR INSTALLATION REQUIRE OTHER ARCHITECTURAL, STRUCTURAL, PLUMBING, OR ELECTRICAL CONDITIONS THAT THOSE SHOWN, ARRANGE FOR SUCH SPACE BEFORE SUBMITTING BID. ALL CHANGES NECESSITATED BY THE FAILURE TO COMPLY WITH THIS CLAUSE, SHALL BE MADE AT NO ADDED EXPENSE TO THE OWNER.<br>16. WITHIN 10 DAYS AFTER AWARD OF CONTRACT, SUBMIT (4) COPIES OF A COMPLETE WRITTEN LIST OF ALL MAJOR ITEMS OF EQUIPMENT AND MATERIALS AS WELL AS ADDITIONAL COPIES, THAT THE CONTRACTOR MAY NEED RETURNED. THE SUBMITTAL SHALL DEFINITELY AND CLEARLY STATE WHERE SUBMITTED EQUIPMENT DOES NOT AGREE WITH THE CONTRACT DOCUMENTS, AND LIST DEVIATIONS IN COLOR OTHER THAN RED. SUBMIT ALL ITEMS AT ONE TIME AND IN A NEAT AND ORDERLY MANNER. PARTIAL LISTS WILL NOT BE ACCEPTABLE. SUBMITTALS SHALL INCLUDE MANUFACTURER'S SPECIFICATIONS, PHYSICAL DIMENSIONS AND RATINGS OF ALL EQUIPMENT SUBMITTED. SUBMITTALS SHALL BE INDEXED, SEPARATED BY DIVIDERS, AND BOUND IN LOOSE LEAF RING BINDERS. |
| 15140<br><br>SUPPORTS AND ANCHORS | 1. FURNISH PIPE AND DUCT HANGERS, WHERE REQUIRED, FIRMLY SUPPORTED FROM BUILDING STEEL, CONCRETE OR MASONRY STRUCTURE.<br>2. SUPPORT PIPING SYSTEMS SECURELY WHILE ALLOWING FOR PIPE AND BUILDING EXPANSION AND CONTRACTION. PROVIDE COPPER PLATED HANGERS FOR COPPER PIPE. USE ADJUSTABLE STEEL BAND HANGERS. MAXIMUM SPACING SHALL BE 5' FOR 1/2" PIPING, 7' FOR 3/4" TO 1–1/4" PIPING, AND 9' FOR 1–1/2" PIPING.<br>3. FURNISH MECHANICAL EQUIPMENT SUPPORTS AS DETAILED OR AS REQUIRED TO SAFELY AND PERMANENTLY CARRY THE WEIGHT OF THE EQUIPMENT. |
| 15250<br><br>MECHANICAL INSULATION | 1. INSULATE ALL METAL SUPPLY AND RETURN DUCTWORK WITH 2" FOIL BACKED FIBERGLASS INSULATION. IN UNHEATED ATTICS OR IN AREAS LOCATED ABOVE THE LINE OF BUILDING INSULATION, INSULATE ALL DUCTWORK, INCLUDING RETURN AIR AND EXHAUST AIR DUCTWORK, WITH 3" FOIL–BACKED INSULATION, AND REQUEST THAT GENERAL CONTRACTOR BLOW ATTIC INSULATION OVER THE TOP OF THE INSULATED DUCTWORK, EXPOSED SPIRAL DUCTWORK, OR DUCTWORK LOCATED WITHIN A HEATED SPACE DOES NOT REQUIRE INSULATION.<br>2. LINE ALL SUPPLY AND RETURN DUCTWORK WITHIN FIFTEEN (15) FEET OF SUPPLY FAN WITH 1/2" DUCT LINER TO REDUCE SOUND.<br>3. ALL INSULATION MATERIALS TO HAVE A FLAME SPREAD RATING OF 25 OR LESS AND SMOKE DEVELOPMENT RATING OF 50 OR LESS AS TESTED BY ASTM E–84, UL–723, NFPA 90A–90–B. |

| SECTION | MECHANICAL SPECIFICATIONS |
|---|---|
| 15853<br><br>POWERED VENTILATORS | 1. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL VENTILATOR(S) AND/OR EXHAUST FAN(S) AS SHOWN AND SCHEDULED. THE UNIT(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, AND SHALL PERFORM AT THE CONDITIONS SCHEDULED.<br>2. INSTALL VENTILATOR(S) AND/OR EXHAUST FAN(S) WITH CLEARANCES FOR SERVICE AND MAINTENANCE.<br>3. THE MECHANICAL CONTRACTOR SHALL PROVIDE ONE (1) BACKDRAFT DAMPER FOR EACH VENTILATOR AND/OR EXHAUST FAN, OR SHALL VERIFY A BACKDRAFT DAMPER HAS BEEN FACTORY INSTALLED.<br>4. THE MECHANICAL CONTRACTOR SHALL ADJUST DAMPER LINKAGES FOR PROPER OPERATION. |
| 15891<br><br>METAL DUCTWORK SYSTEMS | 1. ALL DUCTWORK SHALL BE CONSTRUCTED FROM HOT NEW DIPPED GALVANIZED SHEET IRON OR STEEL, ASTM A–120, IN COMPLIANCE WITH 2020 F.M.C. CHAPTER 6, AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS FOR GAGE AND REINFORCEMENT. ALL DUCTWORK SHALL BE SEALED AND INSULATED IN ACCORDANCE WITH ASHRAE 90.1 2007.<br>2. ALL LOW VELOCITY AIR CONDITIONING SUPPLY AIR AND RETURN AIR DUCTWORK SHALL BE 2–INCH DUCT CONSTRUCTION. CONSTRUCT AND ERECT DUCTWORK IN ACCORDANCE WITH THE CURRENT ISSUES OF THE IMC, SMACNA STANDARDS AND ASHRAE HANDBOOKS. DUCTS SHALL CONFORM TO DIMENSIONS ON THE DRAWINGS UNLESS LOCATION OF STRUCTURAL MEMBERS PROHIBITS. IN CASE OF CHANGE IN DIMENSIONS, CROSS SECTIONAL AREAS SHALL BE MAINTAINED.<br>3. ROUND FLEX DUCT SHALL BE USED FOR DIFFUSER–GRILL CONNECTIONS ABOVE LAY–IN CEILINGS. FLEXDUCT MAY BE USED IN OTHER AREAS WHERE THE DUCT AND GRILLE ARE PERMANENTLY AND REASONABLY ACCESSIBLE. MAXIMUM FLEX DUCT LENGTH IS 5'–0" AND THE DUCTWORK SHALL BE PRE–LINED WITH 1" INSULATION. PERFORMANCE OF FLEXIBLE DUCT SHALL MEET OR EXCEED THE RIGID DUCTWORK.<br>4. FLEXIBLE DUCTS SHALL BE THERMAFLEX II TYPE M–KE, FACTORY FABRICATED ASSEMBLY, SPIRAL CONSTRUCTION, FIBERGLASS BLANKET INSULATION (R=6.0), AND MYLAR SHEATH. FLEXIBLE DUCTS UL LISTED FOR CLASS 0 DUCT AND COMPLY WITH NFPA–90A.<br>5. PAINT ALL DUCTWORK, TURNING VANES, INSULATION ECT., THAT IS VISIBLE THROUGH GRILLES, REGISTERS, OR CEILING DIFFUSERS FLAT BLACK.<br>6. TAPE ALL JOINTS IN SHEET METAL DUCTWORK WITH ARABOL AND CANVAS OR EQUAL ADHESIVE.<br>7. FLEXIBLE CONNECTIONS SHALL BE 30 OUNCE, CLOSELY WOVEN, NEOPRENE COATED GLASS FABRIC THAT IS FIRE RETARDENT, WEATHERPROOF AND AIRTIGHT, A MINIMUM OF 6" WIDTH.<br>8. FABRICATE ALL SHEET METAL DUCTS OF PRIME GRADE, LOCKING FORMING QUALITY GALVANIZED STEEL SHEETS USING GAUGES OF METAL AND REINFORCING BETWEEN JOINTS AS FOLLOWS<br>8.1. 12" AND SMALLER (LONGEST SIDE)–24 GAUGE<br>8.2. 13"–18" (LONGEST SIDE) – 24 GAUGE.<br>8.3. 19"–30" (LONGEST SIDE) – 24 GAUGE, WITH 1"x1"x1/8" ANGLES AT 5 FT. ON CENTER<br>8.4. 31"–42" (LONGEST SIDE) – 22 GAUGE, WITH 1"x1"x1/8" ANGLES AT 5 FT. ON CENTER<br>9. DUCT LINER SHALL HAVE A FLAME SPREAD AND SMOKE DEVELOPMENT 25 OR LESS AND 50 OR LESS WHEN TESTED BY ASTM E–84 (NFPA 255) METHOD.<br>10. INSULATE THE FIRST 10 FEET OF ALL RECTANGULAR SUPPLY AIR AND ALL RECTANGULAR RETURN AIR SHEET METAL DUCTWORK INTERNALLY WITH JOHNS–MANVILLE LINACOUSTIC RC FIBERGLASS DUCT LINER WITH REINFORCED COATING SYSTEM, THICKNESS 1" (R=6.0) AND DENSITY 1–1/2 PCF. ALL OTHER RECTANGULAR SUPPLY AIR AND RIGID ROUND DUCTWORK SHALL BE INSULATED WITH 2" THICK (R=6.0) JOHNS–MANVILLE MICROLITE DUCT WRAP WITH FSK VAPOR BARRIER. |
| 15910<br><br>DUCT ACCESSORIES | 1. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING VOLUME DAMPERS, TURNING VANES, ACCESS DOORS, VIBRATION ISOLATORS, ETC.<br>2. THE ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS. |
| 15990<br><br>TESTING, ADJUSTING, AND BALANCING | 1. THE MECHANICAL CONTRACTOR SHALL SUBCONTRACT AN AIR BALANCER TO BALANCE THE SYSTEMS DESCRIBED BELOW.<br>2. THE BALANCING SHALL BE COMPLETED BY AN INDEPENDENT AIR BALANCER WHO IS NOT AN EMPLOYEE OF THE MECHANICAL CONTRACTOR.<br>3. THE BALANCING SHALL BE DONE BY A QUALIFIED AIR BALANCER THAT HAS AT LEAST (3) YEARS OF DOCUMENTED AIR BALANCING EXPERIENCE.<br>4. PER COMPLIANCE WITH ASHRAE 90.1–2007, THE BALANCER SHALL SUBMIT AN AIR BALANCE REPORT TO THE ENGINEER AND CITY INSPECTOR.<br>5. THE BALANCE REPORT SHALL SHOW PROOF THAT THE SYSTEM HAS BEEN BALANCED TO +/– 10% OF THE DESIGNED AIRFLOW. IT IS THE MECHANICAL CONTRACTOR AND AIR BALANCER'S DUTY TO PROVIDE ACCURATE DATA, SO AREAS OF INCORRECT FLOW MAY BE DISCLOSED TO THE ENGINEER, INSPECTOR, AND OWNER.<br>6. ALL AIRSIDE SYSTEMS, COMPONENTS, ETC. INCLUDING SUPPLY, RETURN, OUTDOOR, AND EXHAUST AIR SYSTEMS SHALL BE BALANCED. THE BALANCER SHALL PROVIDE SHEAVES AND BELTS AS NEEDED TO PROPERLY BALANCE EQUIPMENT TO +/– 10% OF THE DESIGNED AIRFLOWS. ALL DIFFUSERS, REGISTERS, GRILLES, AND LOUVERS SHALL BE INDIVIDUALLY BALANCED AND LISTED IN THE BALANCE REPORT. ALL AIRSIDE EQUIPMENT, SUPPLY, RETURN, AND OUTDOOR AIR FLOWRATES SHALL BE LISTED IN THE BALANCE REPORT. |


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| OTP | 08/03/22 |

**PROFESSIONAL SEAL**

**PROFESSIONAL IN CHARGE**
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**PROJECT MANAGER**
SAG
**QUALITY CONTROL**
RRP
**DRAWN BY**
SHF

**PROJECT NAME**

# CIRCLE K STORES INC.

## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## MECHANICAL-SPECIFICATIONS

**SHEET NUMBER**

# M1.3

Roy R. Payne, Jr. State of Florida, Professional Engineer, License No. 61494
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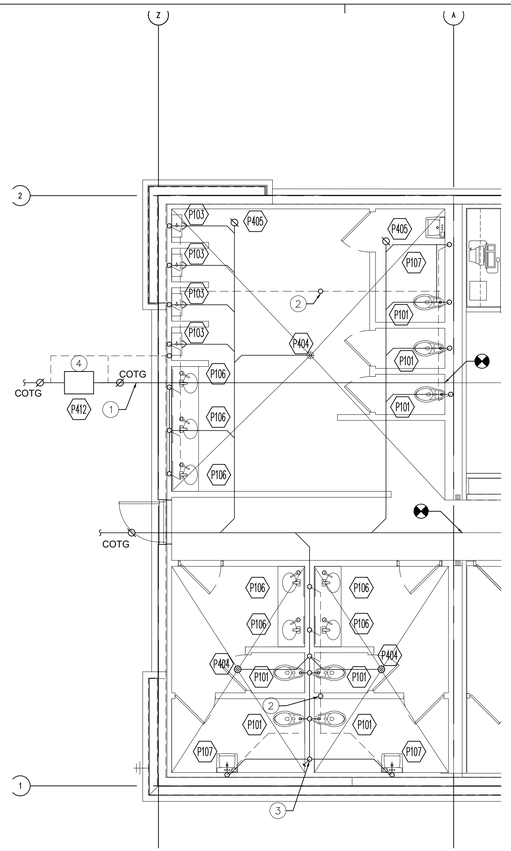
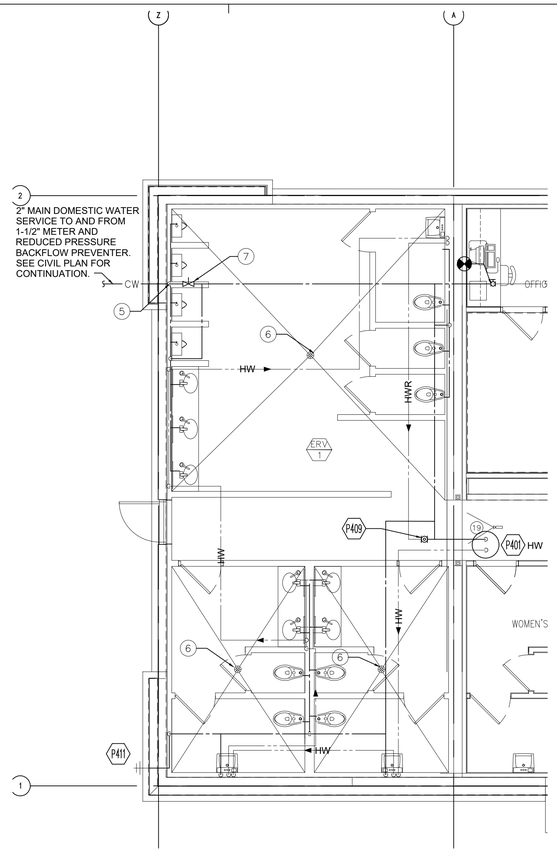
ROY R. PAYNE, JR. LICENSE No 61494 STATE OF FLORIDA PROFESSIONAL ENGINEER


Drawing Name: J:\rdc\Projects\20\22036\CAD\Dwg\Drawings\01 M1.3 Mechanical Specifications.dwg Last Modified: Aug 14, 2022 – 6:10pm Plotted on: Aug 18, 2022 – 3:32pm by SHF

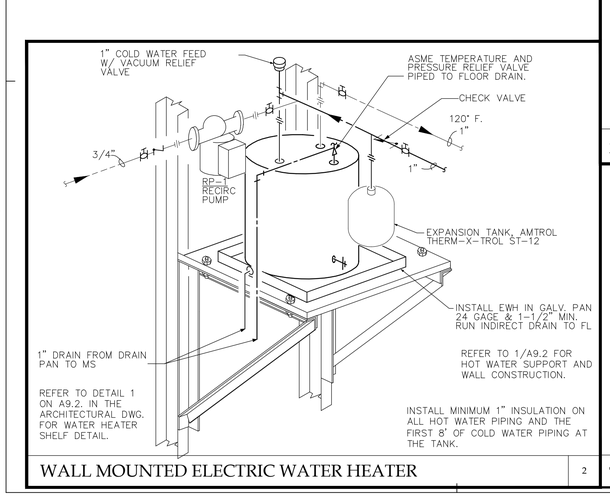
4625 NATIONAL PROTOTYPE – R1



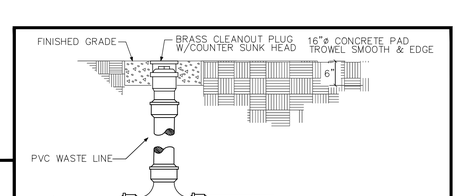




5 WASTE & VENT
3/16" = 1'-0"

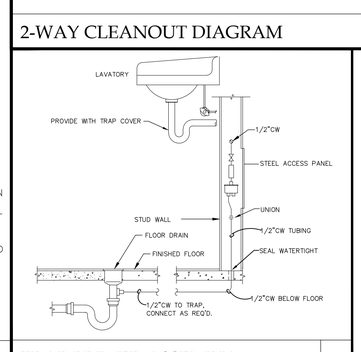
4 HOT & COLD WATER
3/16" = 1'-0"




WALL MOUNTED ELECTRIC WATER HEATER | 2




2-WAY CLEANOUT DIAGRAM | 3




TRAP PRIMER ASSEMBLY | 1

## PLUMBING SYMBOL LIST

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---|---|---|---|
| — — — — | VENT LINE (V) | —⋈— | SHUT OFF VALVE (GATE) |
| — · — | COLD WATER (C.W.) | —⊣— | CHECK VALVE |
| — ·· — | HOT WATER (H.W.) | ——⊣ | HOSE BIBB (H.B.) |
| — ··· — | HOT WATER RETURN | Ø C.O.T.G. | CLEANOUT TO GRADE |
| — G — | GAS LINE | Ø F.C.O. | FLOOR CLEANOUT |
| ⊘ | FLOOR DRAIN (F.D.) | —H | WALL CLEANOUT |

PSYM-1

NOTE: ONLY THOSE SYMBOLS SHOWN ON THE DRAWING APPLY

## PLUMBING ABBREVIATIONS

| SYMBOL | DESCRIPTION |
|---|---|
| SAN | SANITARY WASTE |
| GW | GREASE WASTE |
| HW | HOT WATER |
| CW | COLD WATER |
| HWR | HOT WATER RETURN |

## KITCHEN EQUIPMENT LIST (XXXX)

- (P101) TOILET
- (P103) URINAL
- (P106) WALL MOUNTED LAVATORY
- (P107) WALL MOUNTED LAVATORY
- (P401) ELECTRIC WATER HEATER
- (P404) FLOOR DRAIN W/TRAP PRIMER
- (P405) FLOOR CLEANOUT
- (P411) HOSE BIB
- (P412) RELOCATED RECESSED GREASE TRAP

## KEYED NOTES (X)

1. CONTRACTOR TO COORDINATE UNDERGROUND SEWER LINE TO AVOID COLUMN FOOTING.
2. 3" VTR. MAINTAIN 10'-0" FROM ALL OUTDOOR AIR INTAKES.
3. PROVIDE WALL CLEANOUT. REFER TO SHEET P1.2
4. EVERY DRY VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN 6 INCHES ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST TRAP OR TRAPPED FIXTURE BEING VENTED BEFORE CONNECTING TO ANOTHER VENT. PROVIDE CLEANOUTS ON UNDERSLAB VENTS.
5. MAIN WATER SUPPLY LINE UP WALL TO ABOVE CEILING, COORDINATE EXACT LOCATION.
6. PROVIDE TRAP PRIMER FOR FLOOR DRAIN, CONNECT WITH NEAREST COLD WATER LINE.
7. SHUT-OFF (BALL VALVE) ABOVE CEILING. PROVIDE ACCESS (TYPICAL).

Roy R. Payne, Jr. State of Florida, Professional Engineer, License No. 61494

This item has been electronically signed and sealed by Roy R. Payne, Jr., PE on Aug 18, 2022 using a Digital Signature.

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**PROFESSIONAL SEAL**

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**PROJECT NAME**

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## LAKE CITY
## FLORIDA

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER**
22036

**SHEET TITLE**

## PLUMBING FLOOR PLAN AND DETAILS

**SHEET NUMBER**

# P1.1.1

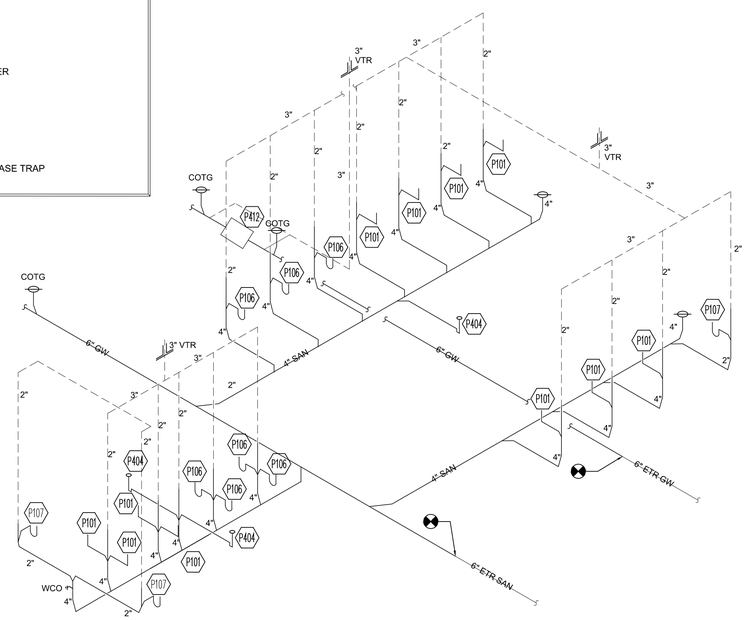

4625 NATIONAL PROTOTYPE - R1



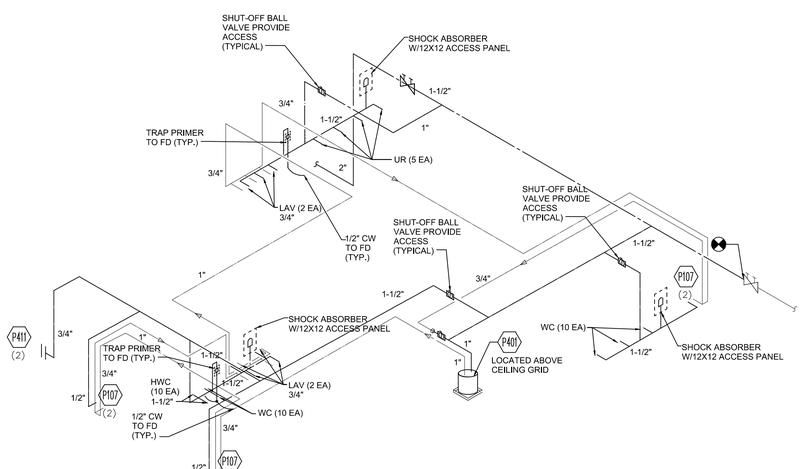
Drawing Name: \\rdc\Projects\2021\2104\Cad\Sheets\P1.1 Plumbing Floor Plan And Details.dwg Last Modified: Aug 18, 2022 - 3:03pm Plotted on: Aug 18, 2022 - 3:01pm by SHF

## PLUMBING EQUIPMENT LIST

| | |
|---|---|
| P101 | TOILET |
| P103 | URINAL |
| P106 | UNDERMOUNT LAVATORY |
| P107 | WALL MOUNTED LAVATORY |
| P401 | ELECTRIC WATER HEATER |
| P404 | FLOOR DRAIN W/TRAP PRIMER |
| P405 | FLOOR CLEANOUT |
| P409 | CIRCULATION PUMP |
| P411 | HOSE BIB |
| P412 | RELOCATED RECESSED GREASE TRAP |




## WASTE & VENT SCHEMATIC




## HOT & COLD WATER SCHEMATIC

## PLUMBING FIXTURE SCHEDULE

| TAG | DESCRIPTION | MFG. | MODEL | ROUGH-IN SIZE CW | HW | FW | SAN | QTY. OF FIXTURES | TRIM | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| P101 | TOILET | AMERICAN STANDARD | 3043.001 | 1" | – | – | 4" | 7 | OPEN FRONT SEAT, OLSONITE #10CC | WATER CONSERVATION 1.28 GALLONS PER FLUSH. |
| P102 | TOILET FLUSH VALVE | SLOAN | 111-ESS-1.28-TMO-HW | | | | | 7 | AUTOMATIC, HARDWIRED. | |
| P103 | URINAL | AMERICAN STANDARD | 6590.001 | 3/4" | – | – | 2" | 4 | WATER CONSERVATION 0.5 GALLONS PER FLUSH. | WALL BRACKET SUPPORT SET AT ELEV. TO MEET ADA |
| P104 | URINAL FLUSH VALVE | SLOAN | 186-ESS-0.5-TMO-HW | | | | | 4 | AUTOMATIC, HARDWIRED. | |
| P106 | RESTROOM UNDERMOUNT LAVATORY BOWL | ROYSTON | INTERGRATED | 3/8" | 3/8" | – | 1-1/4" | 7 | ZURN #Z6915-XL. PROVIDE WITH F FLOW CONTROL. PROVIDE WITH TRAP COVER – TRUEBRO MODEL# 100 E-Z OR EQUAL | CHROME STOPS 1/4 TURN, SUPPLIES INSUL SUPPLIES & TRAP PER ADA. ASSE 1070 CERTIFIED MIXING VALVE SET TO 110°F. |
| P107 | RESTROOM WALL MOUNTEDLAVATORY BOWL | AMERICAN STANDARD | 9047.044 | 3/8" | 3/8" | – | 1-1/4" | 3 | | CHROME STOPS 1/4 TURN, SUPPLIES INSUL SUPPLIES & TRAP PER ADA ASSE 1070 CERTIFIED MIXING VALVE SET TO 110°F. |
| P401 | ELECTRIC WATER HEATER | BRADFORD WHITE | LE230LN3-3 | 3/4" | 3/4" | – | – | 1 | 3/4" P & T RELIEF VALVE | 26 GAL STORAGE. ELECTRICAL, 25 KW, 208V, 3PH. |
| P404 | FLOOR DRAIN WITH TRAP PRIMER | WADE | 1002STD6.1 | – | – | – | – | 3 | SATIN STRAINER | – |
| P405 | FLOOR CLEANOUT | J.R. SMITH | 4100 SERIES | – | – | – | 4" | 2 | NICKEL BRONZE TOP | TWST TO FLOOR ADJUSTMENT |
| P409 | RECIR. PUMP | TACO | T003-BC4 | – | – | – | – | 1 | BRONZE CONTRUCTION | 120V/1-PH, 1/40 HP, PROVIDE AQUASTAT W/TIMER |
| P411 | HOSE BIBB | MIFAB | MHY-35 | 3/4" | – | – | – | 1 | ANTI-SIPHON VACUUM BREAKER PROTECTED | VANDAL RESISTANT VACUUM BREAKER |

(1) TRAP PRIMER WITH THREADED CONNECTIONS EQUAL TO PRECISION PLUMBING PRODUCTS OREGON #1 PO-500 SINGLE.

(2) LAVATORY CARRIER CONCEALED ARMS, EQUAL TO WADE 520. (3) VERIFY VOLTAGE/PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.

## PLUMBING PROJECT NOTES

A. FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, FEES, PERMITS, CERTIFICATE OF INSPECTION, ETC. NECESSARY OR REASONABLE, REQUIRED FOR THE COMPLETE INSTALLATION OF ALL PLUMBING WORK.

B. WORK SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES, LAWS, ACTS, ORDINANCES, REGULATIONS AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

C. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL THE APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE, SAFETY, AND THE MANUFACTURERS STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.

D. THESE DRAWINGS ARE DIAGRAMMATIC ONLY. CONTRACTOR SHALL MAKE MODIFICATIONS INCLUDING OFFSETS, TURNS, AND RE-ROUTING REQUIRED TO COMPLETE THE INSTALLATION. DO NOT SCALE LOCATION OF EQUIPMENT OR PIPING.

E. COORDINATE ALL PLUMBING WORK, INCLUDING EQUIPMENT AND PIPING, WITH OTHER TRADES PRIOR TO WORK.

F. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING EQUIPMENT SO THAT NO INTERFERENCES ARE ENCOUNTERED WITH OTHER EQUIPMENT OR WITH STRUCTURAL ELEMENTS.

G. ALL PLUMBING WORK IS TO RUN IN A NEAT AND PROFESSIONAL MANNER, WITH THE AESTHETICS OF THE FACILITY OF PARAMOUNT IMPORTANCE. ALL ROUGH-IN WORK TO BE HIDDEN WITHIN WALLS AND ABOVE CEILING UNLESS OTHERWISE NOTED.

H. ALL WORK SHALL BE LOCATED TO AVOID CONFLICTS WITH OTHER TRADES. CLOSELY COORDINATE ALL WORK WITH ALL OTHER TRADES. FAILURE OF THE CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES SHALL RELIEVE THE OWNER FROM ANY ADDED COSTS.

I. THE CONTRACTOR SHALL DO ALL NECESSARY CUTTING OF WALLS AND CEILING. PATCH AROUND ALL OPENINGS TO MATCH EXISTING CONSTRUCTION. NO STRUCTURAL MEMBER SHALL BE CUT WITHOUT PERMISSION FROM THE ENGINEER.

J. THESE DRAWINGS ARE DIAGRAMMATIC ONLY. DO NOT SCALE LOCATIONS OF FIXTURES, EQUIPMENT, LINES, ETC. COORDINATE ALL DOCUMENTS AS TO PROPER LOCATIONS OF ALL EQUIPMENT AND MATERIALS.

K. EXACT LOCATION OF PLUMBING FIXTURES SHALL BE DETERMINED FROM ARCHITECTURAL DRAWINGS.

L. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW WASTE LINES ARE TO BE CONNECTED BEFORE MAKING UP OR INSTALLATION OF NEW WASTE SYSTEM.

M. NO PIPING OR EQUIPMENT SHALL BE INSTALLED ABOVE ELECTRICAL EQUIPMENT OR INSTALLED IN ELECTRICAL ROOMS.

N. WASTE AND SOIL PIPING SHALL BE SLOPED AT 1/8" PER FOOT UNLESS OTHERWISE NOTED ON PLANS.

O. DO NOT SUSPEND ANY PIPING, ACCESSORIES, OR ANY OTHER ITEMS FROM 2X JOIST IN PANELIZED ROOF SYSTEM OR THE STEEL ROOF DECK ITSELF. ALL SUPPORTS SHALL CONFORM TO TRUSS MANUFACTURERS RECOMMENDATIONS.

P. SUBMIT ACCURATE "AS-BUILT" DRAWINGS TO OWNER UPON PROJECT COMPLETION.

Q. PROVIDE A READY-TO-USE SYSTEM WITH ALL WORK GUARANTEED IN WRITING AGAINST DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR MINIMUM FROM OWNER OCCUPANCY UNLESS ARCHITECT SPECIFIES A LONGER WARRANTY TERM.

R. FINISHED SURFACES ARE TO BE PATCHED AND FINISHED TO MATCH EXISTING SURFACES WHEN ROUGH-IN PIPING AND FIXTURES ARE REMOVED AND/OR RELOCATED.

S. AVOID COLUMN AND WALL FOOTING FOUNDATION.

## PLUMBING SPECIFICATIONS

| SECTION | |
|---|---|
| 15010 BASIC MECHANICAL REQUIREMENTS | 1. ALL WORK TO BE DONE AND MATERIALS FURNISHED COMPLYING WITH APPLICABLE LAWS AND REGULATIONS, INCLUDING THE 2020 STATE OF FLORIDA MECHANICAL, PLUMBING AND FIRE SAFETY CODES. OBTAIN AND PAY FOR REQUIRED PERMITS AND FEES.<br>2. ALL MATERIALS USED SHALL BE NEW AND UNDAMAGED.<br>3. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH CURRENT CONSTRUCTION INDUSTRY STANDARDS AND WORKMANSHIP.<br>4. FURNISH SHOP DRAWINGS TO ARCH/ENGINEER FOR APPROVAL PRIOR TO PLACING DELIVERY ORDERS. PROVIDE SHOP DRAWINGS OF ALL MANUFACTURED EQUIPMENT AND MATERIALS EXCEPT PIPE, PIPE FITTINGS AND GALVANIZED DUCTWORK.<br>5. FURNISH ACCESS DOORS (RATED OR NON-RATED AS REQUIRED) WHERE VALVES OR EQUIPMENT ARE CONCEALED BEHIND A NON ACCESSIBLE CEILING OR WALL. FURNISH ACCESS DOORS TO GENERAL CONTRACTOR FOR INSTALLATION.<br>6. FURNISH STEEL PIPE SLEEVES WHERE PIPES PENETRATE RATED WALLS. PROVIDE FIRESTOPPING MATERIALS AND SYSTEM TO MAINTAIN THE REQUIRED RATING OF THE WALL PENETRATED. PROVIDE SHOP DRAWINGS SHOWING LISTING AND RATING OF FIRESTOPPING MATERIALS.<br>7. ALL MANUFACTURED EQUIPMENT, ACCESSORIES AND MATERIALS SHALL BE USED AS INTENDED BY THE MANUFACTURER IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS.<br>8. CONTRACTOR SHALL PROVIDE IN ADDITION TO ANY OTHER WARRANTIES SPECIFIED, A ONE YEAR FULL LABOR AND MATERIAL WARRANTY ON ALL WORKMANSHIP, MATERIAL AND EQUIPMENT FURNISHED FOR THIS PROJECT.<br>9. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL OPENINGS AND REQUIRED LINTELS NEEDED FOR THE GENERAL CONTRACTOR FOR THE INSTALLATION OF MECHANICAL EQUIPMENT.<br>10. SAWCUTS, LINTELS, HEADERS, AND STRUCTURAL MODIFICATIONS TO THE BUILDING STRUCTURE NEEDED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT SHALL BE APPROVED BY THE GENERAL CONTRACTOR, BEFORE INSTALLATION.<br>11. IN GENERAL, OPENINGS AND REQUIRED LINTELS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILS AND TEMPLATES OF ALL OPENINGS NECESSARY FOR MECHANICAL EQUIPMENT INSTALLATION INCLUDING: HOUSING, ACCESS DOORS, INSPECTION DOORS, AND PASSAGEWAYS FOR MECHANICAL EQUIPMENT. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR SEALING CRACKS AND FINISHING ROUGH EDGES LEFT FOLLOWING MECHANICAL INSTALLATION.<br>12. APPROVAL EQUALS: PLUMBING ITEMS MANUFACTURED BY A COMPANY OTHER THAN THAT WHICH WAS SPECIFIED IN THE SCHEDULE MAY BE SUBSTITUDED BY APPROVED SHOP DRAWINGS CONTIGENT UPON MEETING THE DESIGN, APPEARANCE, AND FUNCTIONAL STANDARDS ESTABLISHED BY THE ORIGINALLY SPECIFIED ITEM(S). THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING DIMENSIONS, CLEARANCES, ASSEMBLY, FIT, ETC. OF THE APPROVED EQUAL(S), AND THEIR AFFECT ON OTHER EQUIPMENT FIT AND OPERATION. THE CONTRACTOR IS LIABLE FOR ANY ADDED COSTS TO HIMSELF OR OTHERS CAUSED BY THE APPROVED EQUALS. |

## PLUMBING SPECIFICATIONS

| SECTION | |
|---|---|
| 15100 VALVES | 1. BALL VALVES SHALL BE CLASS 125 FOR WATER WITH ENDS AND MATERIALS TO MATCH PIPING SYSTEMS.<br>2. BALL VALVES 2" AND SMALLER SHALL HAVE BRONZE BODY, STAINLESS STEEL BALL, TEFLON SEATS, AND STUFFING BOX RING, LEVER HANDLE AND BALANCING STOPS, ENDS TO MATCH PIPING SYSTEM. |
| 15140 SUPPORTS & ANCHORS | 1. FURNISH PIPE AND DUCT HANGERS, WHERE REQUIRED, FIRMLY SUPPORTED FORM BUILDING STEEL, CONCRETE OR MASONRY STRUCTURE. SUPPORT PIPING SYSTEMES SECURELY WHILE ALLOWING FOR PIPE AND BUILDING EXPANSION AND CONTRACTION. PROVIDE COPPER PLATED HANGERS, FOR COPPER PIPE. USE ADJUSTABLE CLEVIS HANGERS OR ADJUSTABLE STEEL BAND HANGERS. MAXIMUM SPACING SHALL BE 5' FOR 1/2" PIPING, 7' FOR 3/4" TO 1/4" PIPING, 9' FOR 1-1/2" TO 2" PIPING. FURNISH PLUMBING EQUIPMENT SUPPORTS AS DETAILED OR AS REQUIRED TO SAFELY AND PERMANENTLY CARRY THE WEIGHT OF THE EQUIPMENT. |
| 15250 PLUMBING INSULATION | 1. INSULATE ABOVE FLOOR WATER PIPING WITH ELASTOMERIC PLACTIC PERFORMED PIPE INSULATION WITHOUT JACKETING. ALL INSULATING MATERIALS TO HAVE FLAME SPREAD RATING OF 25 OR LESS AND SMOKE DEVELOPMENT RATING OF 50 OR LESS AS TESTED BY ANSI/ASTM E 84 (NFPA 233) METHOD. INSULATE ALL PIPING WITH SURFACE TEMPERATURES BELOW 75 DEGREE F WITH 1/2" INSULATION. INSULATE ALL PIPING WITH SURFACE TEMPERATURES 75 DEGREES F AND HIGHER WITH 1" THICK INSULATION. INSTALL MINIMUM 1" INSULATION ON ALL HOT WATER PIPING AND THE FIRST 8' OF COLD WATER PIPING AT THE TANK. JOINTS IN INSULATION SHALL BE GLUED, NOT TAPED. WHERE PIPES ARE EXPOSED AND LESS THAN 8' ABOVE FLOOR, PROVIDE HEAVY DUTY METAL JACKETING OVER INSULATION. INSULATE ABOVE FLOOR HORIZONTAL STORM PIPING WITH 1" FIBERGLASS PERFORMED PIPE INSULATION WITH FACTORY APPLIED ALL PURPOSE COVER. |
| 15411 WATER DISTRIBUTION SYSTEM | 1. ABOVE GRADE, WATER PIPING SHALL BE TYPE L COPPER ASTM B 75, ASTM B 88, ASTM 251, ASTM B 447 WITH WROUGHT COPPER SOLDER-JOINT FITTINGS ASME B 16.<br>2. BELOW GRADE: WATER PIPING SHALL BE TYPE K COPPER WITH WROUGHT COPPER SOLDER-JOINT FITTINGS. SOLDER SHALL BE 9596-396 TIN-ANTIMONY ANSI/ASTM B 32 FOR HEATING SYSTEM PIPING. THOROUGHLY FLUSH AND CLEAN ALL NEW AND EXISTING WATER PIPING SYSTEMS. TEST ALL PIPING SYSTEMS PER REGULATIONS IN ITEM NO.1 OR AT 225 PSI FOR A MINIMUM OF 2 HOURS WITH NO PRESSURE DROP INDICATED PRIOR TO INSULATING.<br>3. STERILIZE ALL DOMESTIC WATER PIPING PRE REQUIREMENTS OF LOCAL HEALTH DEPARTMENT. |
| 15420 DRAINAGE & VENT SYSTEMS | 1. WITHIN BUILDING, SCHEDULE 40 PVC, DWV TYPE PIPE AND SOLVENT WELDED PIPE FITTINGS, SCHEDULE 30 PVC PIPE MAY BE USED FOR VENT PIPING WHERE PERMITTED BY CODE. HORIZONTAL PIPE SHALL BE SUPPORTED BY ADJUSTABLE RING HANGERS EQUAL TO ITT-GRINNEL FIG. 97. VERTICAL PIPING SHALL BE SUPPORTED AT EACH FLOOR OR ATTIC LEVEL BY RISER. |
| 15440 PLUMBING FIXTURES | 1. PROVIDE AIR CHAMBERS AT EACH FIXTURE CONNECTION. AIR CHAMBERS SHALL BE ONE SIZE LARGER THAN SUPPLY PIPE AND SHALL BE 12" LONG. WHERE REQUIRED BY PLUMBING CODE, FURNISH AND INSTALL MANUFACTURED WATER HAMMER ARRESTORS.<br>2. PLUMBING FIXTURES SHALL BE INSTALLED WHERE SHOWN ON THE ARCHITECTURAL DRAWINGS. INSTALL FIXTURES LEVEL AND PLUMB. FURNISH TRAPS WHERE REQUIRED. FIXTURES SHALL BE EASILY REMOVABLE FOR SERVICE AND CLEANING.<br>3. PROVIDE CHROME PLATED RIGID OR FLEXIBLE SUPPLIES TO FIXTURES WITH STOP VALVES, CHROME PLATED 17 GAUGE BRASS TRAPS WITH CHROME PLATED ESCUTCHEONS.<br>4. SEAL ALL FIXTURES TO WALL AND FLOOR USING SILICONE SEALANT. MATCH SEALANT COLOR TO FIXTURE COLOR.<br>5. FIXTURES DESIGNATED BARRIER FREE SHALL BE INSTALLED IN COMPLIANCE WITH AMERICAN'S WITH DISABILITIES ACT.<br>6. ALL CLEANOUT COVERS TO BE STAINLESS STEEL. |

Roy R. Payne, Jr. State of Florida, Professional Engineer, License No. 61494
This item has been electronically signed and sealed by Roy R. Payne, Jr., PE on Aug 18, 2022 using a Digital Signature.
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ROY R. PAYNE JR. LICENSE No 61494 STATE OF FLORIDA PROFESSIONAL ENGINEER


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11921 Freedom Drive #1110
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1805 N 2ND ST JOB NO.: 28764
ROGERS, AR 72756 DESIGNED BY: SHF


**REVISION**

| ISSUE | |
|---|---|
| PERMIT SET | 08/15/22 |
| BID SET | 08/15/22 |

**PROFESSIONAL SEAL**

**PROFESSIONAL IN CHARGE** RRP
**PROJECT MANAGER** SAG
**QUALITY CONTROL** RRP
**DRAWN BY** SHF

**PROJECT NAME**
**CIRCLE K STORES INC.**

**LAKE CITY**
**FLORIDA**

**NWC I-75 & W. US HWY 90**
**LAKE CITY, FL 32055**

CIRCLE K STORES INC.

**PROJECT NUMBER** 22036

**SHEET TITLE**
**PLUMBING-SCHEMATICS**

**SHEET NUMBER**
**P1.2**


Drafting Name: \\rdc\Projects\2022\2036\Drawings\Arch\P1.2 Plumbing - Schematics And Specifications.dwg Last Modified: Aug 18, 2022 - 12:43pm Plotted on: Aug 18, 2022 - 3:01pm by SHF
4625 NATIONAL PROTOTYPE - R1

JOHNSTON BURKHOLDER ASSOCIATES
consulting structural engineers

**STRUCTURAL CALCULATIONS**

**FOR**

# Circle K expansion

# Lake City, FL

**08/15/22**

930 CENTRAL • KANSAS CITY, MO 64105
(816) 421-4200 • WWW.JBAENGR.COM

**Johnston Burkholder Associates**
930 Central St
Kansas City, MO 64105
816-421-4200

| | | | |
|---|---|---|---|
| **JOB TITLE** | Circle K expansion | | |
| | Lake City, FL | | |
| **JOB NO.** | 22201 | **SHEET NO.** | |
| **CALCULATED BY** | SMK | **DATE** | |
| **CHECKED BY** | | **DATE** | |

www.struware.com

# Code Search

**Code:** Florida Building Code 2020

## Occupancy:

Occupancy Group = M Mercantile

## Risk Category & Importance Factors:

| | |
|---|---|
| Risk Category = | II |
| Wind factor = | 1.00 |
| Snow factor = | 1.00 |
| Seismic factor = | 1.00 |

## Type of Construction:

Fire Rating:

| | |
|---|---|
| Roof = | 0.0 hr |
| Floor = | 0.0 hr |

## Building Geometry:

| | | |
|---|---|---|
| Roof angle (θ) | 0.25 / 12 | 1.2 deg |
| Building length | 44.0 ft | |
| Least width | 22.0 ft | |
| Mean Roof Ht (h) | 15.3 ft | |
| Parapet ht above grd | 23.0 ft | |
| Minimum parapet ht | 4.0 ft | |

## Live Loads:

**Roof**
0 to 200 sf: 20 psf
200 to 600 sf: 24 - 0.02Area, but not less than 12 psf
over 600 sf: 12 psf

Roofs used for roof gardens 100 psf

**Floor:**

| | |
|---|---|
| Typical Floor | 50 psf |
| Partitions | 15 psf |
| Corridors above first floor | 80 psf |
| Lobbies & first floor corridors | 100 psf |
| Stairs and exit ways | 100 psf |

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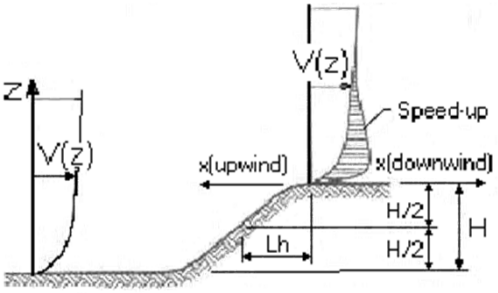
## Wind Loads : ASCE 7 - 16

| | |
|---|---|
| Ultimate Wind Speed | 118 mph |
| Nominal Wind Speed | 91.4 mph |
| Risk Category | II |
| Exposure Category | C |
| Enclosure Classif. | Enclosed Building |
| Internal pressure | +/-0.18 |
| Directionality (Kd) | 0.85 |
| Kh case 1 | 0.853 |
| Kh case 2 | 0.853 |
| Type of roof | Monoslope |

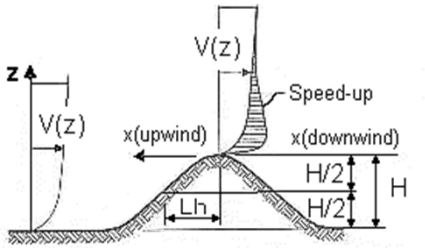
Topographic Factor (Kzt)

| | | |
|---|---|---|
| Topography | | Flat |
| Hill Height | (H) | 0.0 ft |
| Half Hill Length (Lh) | | 0.0 ft |
| Actual H/Lh | = | 0.00 |
| Use H/Lh | = | 0.00 |
| Modified Lh | = | 0.0 ft |
| From top of crest: x = | | 0.0 ft |
| Bldg up/down wind? | | downwind |

H< 15ft;exp C
∴ Kzt=1.0




**ESCARPMENT**




**2D RIDGE or 3D AXISYMMETRICAL HILL**

H/Lh= 0.00 $K_1$ = 0.000
x/Lh = 0.00 $K_2$ = 0.000
z/Lh = 0.00 $K_3$ = 1.000

At Mean Roof Ht:
Kzt = $(1+K_1K_2K_3)^2$ = 1.00

## Gust Effect Factor

| | |
|---|---|
| h = | 15.3 ft |
| B = | 22.0 ft |
| /z (0.6h) = | 15.0 ft |

Flexible structure if natural frequency < 1 Hz (T > 1 second).
If building h/B>4 then may be flexible and should be investigated.
h/B = 0.70 Rigid structure (low rise bldg)

**G = 0.85** Using rigid structure formula

**Rigid Structure**

| | |
|---|---|
| $\bar{e}$ = | 0.20 |
| $\ell$ = | 500 ft |
| $z_{min}$ = | 15 ft |
| c = | 0.20 |
| $g_Q$, $g_v$ = | 3.4 |
| $L_z$ = | 427.1 ft |
| Q = | 0.94 |
| $I_z$ = | 0.23 |
| G = | **0.89** use G = 0.85 |

**Flexible or Dynamically Sensitive Structure**

| | | | | | |
|---|---|---|---|---|---|
| Natural Frequency ($\eta_1$) = | 0.0 Hz | | | | |
| Damping ratio ($\beta$) = | 0 | | | | |
| /b = | 0.65 | | | | |
| /$\alpha$ = | 0.15 | | | | |
| Vz = | 99.6 | | | | |
| $N_1$ = | 0.00 | | | | |
| $R_n$ = | 0.000 | | | | |
| $R_h$ = | 28.282 | $\eta$ = | 0.000 | h = | 15.3 ft |
| $R_B$ = | 28.282 | $\eta$ = | 0.000 | | |
| $R_L$ = | 28.282 | $\eta$ = | 0.000 | | |
| $g_R$ = | 0.000 | | | | |
| R = | 0.000 | | | | |
| Gf = | 0.000 | | | | |

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## Enclosure Classification

**Test for Enclosed Building:** Ao < 0.01Ag or 4 sf, whichever is smaller

**Test for Open Building:** All walls are at least 80% open.
Ao ≥ 0.8Ag

**Test for Partially Enclosed Building:** Predominately open on one side only

| | Input | | | Test | |
|---|---|---|---|---|---|
| Ao | 500.0 | sf | Ao ≥ 1.1Aoi | NO | |
| Ag | 600.0 | sf | Ao > 4' or 0.01Ag | YES | |
| Aoi | 1000.0 | sf | Aoi / Agi ≤ 0.20 | YES | Building is NOT |
| Agi | 10000.0 | sf | | | Partially Enclosed |

Conditions to qualify as Partially Enclosed Building. Must satisfy all of the following:
Ao ≥ 1.1Aoi
Ao > smaller of 4' or 0.01 Ag
Aoi / Agi ≤ 0.20
Where:
Ao = the total area of openings in a wall that receives positive external pressure.
Ag = the gross area of that wall in which Ao is identified.
Aoi = the sum of the areas of openings in the building envelope (walls and roof) not including Ao.
Agi = the sum of the gross surface areas of the building envelope (walls and roof) not including Ag.

**Test for Partially Open Building:** A building that does not qualify as open, enclosed or partially enclosed.
(This type building will have same wind pressures as an enclosed building.

## Reduction Factor for large volume partially enclosed buildings (Ri) :

If the partially enclosed building contains a single room that is unpartitioned , the internal pressure coefficient may be multiplied by the reduction factor Ri.

Total area of all wall & roof openings (Aog): 0 sf
Unpartitioned internal volume (Vi) : 0 cf
Ri = 1.00

## Ground Elevation Factor (Ke)

Grd level above sea level = 0.0 ft Ke = 1.0000
Constant = 0.00256 Adj Constant = 0.00256

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## Wind Loads - MWFRS h≤60' (Low-rise Buildings) except for open buildings

Kz = Kh (case 1) = 0.85
Base pressure (qh) = **25.8 psf**
GCpi = +/-0.18

Edge Strip (a) = 3.0 ft
End Zone (2a) = 6.0 ft
Zone 2 length = 11.0 ft

### Wind Pressure Coefficients

| | CASE A | | | | CASE B | | |
|---|---|---|---|---|---|---|---|
| | | θ = 1.2 deg | | | | | |
| Surface | GCpf | w/-GCpi | w/+GCpi | | GCpf | w/-GCpi | w/+GCpi |
| 1 | 0.40 | 0.58 | 0.22 | | -0.45 | -0.27 | -0.63 |
| 2 | -0.69 | -0.51 | -0.87 | | -0.69 | -0.51 | -0.87 |
| 3 | -0.37 | -0.19 | -0.55 | | -0.37 | -0.19 | -0.55 |
| 4 | -0.29 | -0.11 | -0.47 | | -0.45 | -0.27 | -0.63 |
| 5 | | | | | 0.40 | 0.58 | 0.22 |
| 6 | | | | | -0.29 | -0.11 | -0.47 |
| 1E | 0.61 | 0.79 | 0.43 | | -0.48 | -0.30 | -0.66 |
| 2E | -1.07 | -0.89 | -1.25 | | -1.07 | -0.89 | -1.25 |
| 3E | -0.53 | -0.35 | -0.71 | | -0.53 | -0.35 | -0.71 |
| 4E | -0.43 | -0.25 | -0.61 | | -0.48 | -0.30 | -0.66 |
| 5E | | | | | 0.61 | 0.79 | 0.43 |
| 6E | | | | | -0.43 | -0.25 | -0.61 |

### Ultimate Wind Surface Pressures (psf)

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | | 15.0 | 5.7 | | -7.0 | -16.3 |
| 2 | | -13.2 | -22.5 | | -13.2 | -22.5 |
| 3 | | -4.9 | -14.2 | | -4.9 | -14.2 |
| 4 | | -2.8 | -12.1 | | -7.0 | -16.3 |
| 5 | | | | | 15.0 | 5.7 |
| 6 | | | | | -2.8 | -12.1 |
| 1E | | 20.4 | 11.1 | | -7.8 | -17.1 |
| 2E | | -23.0 | -32.3 | | -23.0 | -32.3 |
| 3E | | -9.0 | -18.3 | | -9.0 | -18.3 |
| 4E | | -6.5 | -15.8 | | -7.8 | -17.1 |
| 5E | | | | | 20.4 | 11.1 |
| 6E | | | | | -6.5 | -15.8 |

### Parapet

Windward parapet = 42.2 psf (GCpn = +1.5)
Leeward parapet = -28.1 psf (GCpn = -1.0)

Windward roof overhangs = 18.1 psf (upward) add to windward roof pressure

**Horizontal MWFRS Simple Diaphragm Pressures (psf)**

**Transverse direction (normal to L)**

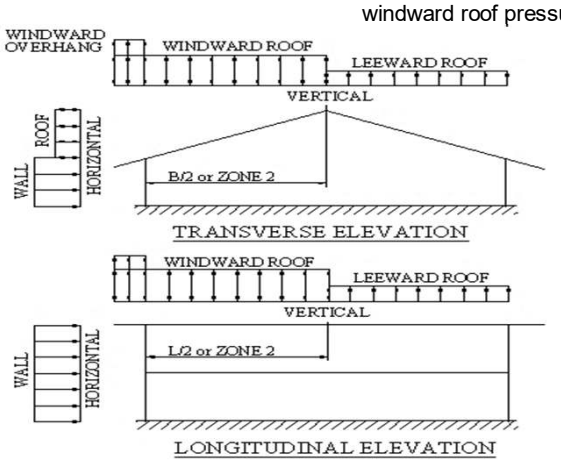
Interior Zone: Wall 17.8 psf
Roof -8.3 psf **
End Zone: Wall 26.9 psf
Roof -14.0 psf **

**Longitudinal direction (parallel to L)**

Interior Zone: Wall 17.8 psf
End Zone: Wall 26.9 psf

** NOTE: Total horiz force shall not be less than that determined by neglecting roof forces (except for MWFRS moment frames).

The code requires the MWFRS be designed for a min ultimate force of 16 psf multiplied by the wall area plus an 8 psf force applied to the vertical projection of the roof.



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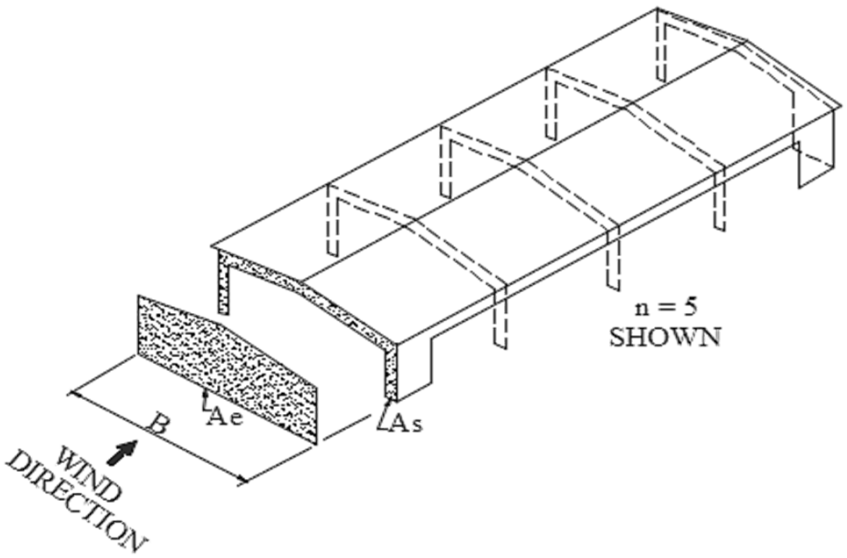
## Wind Loads - h≤60' Longitudinal Direction MWFRS On Open or Partially Enclosed Buildings with Transverse Frames and Pitched Roofs

**ASCE 7-16 procedure**

Base pressure (qh) = **25.8 psf**
GCpi = +/-0.18 Enclosed bldg, procdure doesn't apply
Roof Angle (θ) = 1.2 deg




| | | |
|---|---|---|
| B= | 22.0 | ft |
| # of frames (n) = | 5 | |
| Solid are of end wall including fascia (As) = | 1,500.0 | sf |
| Roof ridge height = | 15.6 | ft |
| Roof eave height = | 15.3 | ft |
| Total end wall area if soild (Ae) = | 339.8 | sf |

Longidinal Directional Force (F) = pAe
p= qh [(GCpf)windward -(GCpf)leeward] $K_B$ $K_S$

| | | |
|---|---|---|
| Solidarity ratio (Φ) = | 4.414 | |
| n = | 5 | |
| KB = | 1.58 | |
| KS = | 18.841 | |
| Zones 5 & 6 area = | 294 | sf |
| 5E & 6E area = | 46 | sf |
| (GCpf) windward - (GCpf) leeward] = | 0.738 | |
| p = | 567.3 | psf |

Total force to be resisted by MWFRS (F) = **192.8 kips** applied at the centroid of the end wall area Ae

Note: The longidudinal force acts in combination with roof loads calculated elsewhere for an open or partially enclosed building.

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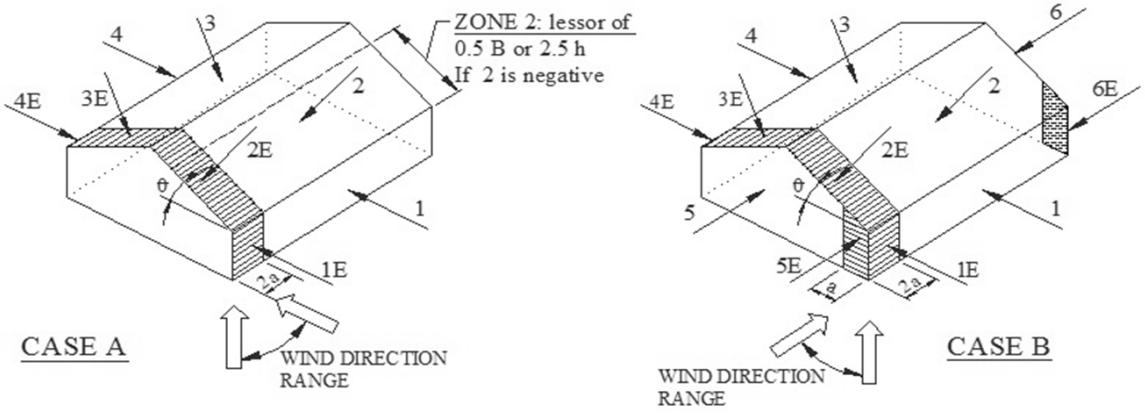
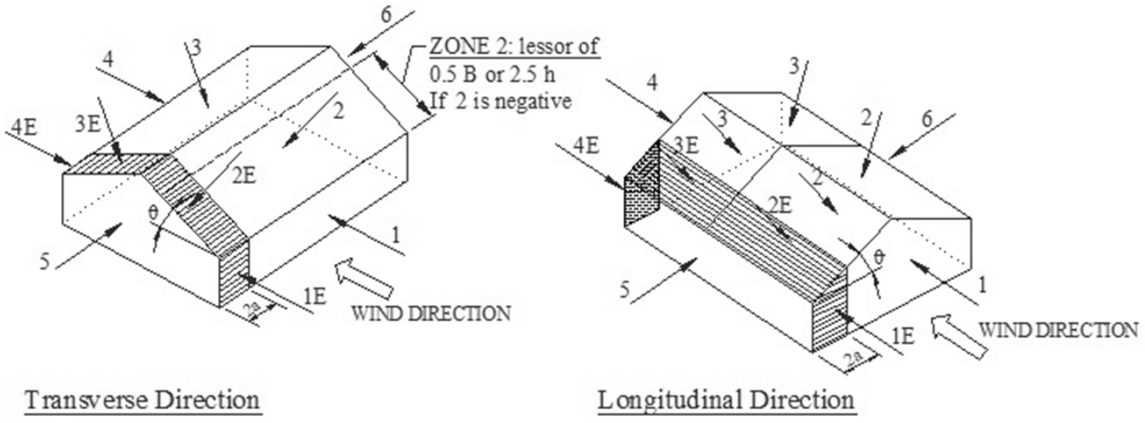



NOTE: Torsional loads are 25% of zones 1 - 6. See code for loading diagram.
Exception: One story buildings h<30' and 1 to 2 storybuildings framed with light-frame construction or with flexible diaphragms need not be designed for the torsional load case.

## ASCE 7-98 & ASCE 7-10 (& later) - MWFRS wind pressure zones




NOTE: Torsional loads are 25% of zones 1 - 4. See code for loading diagram.
Exception: One story buildings h<30' and 1 to 2 storybuildings framed with light-frame construction or with flexible diaphragms need not be designed for the torsional load case.

## ASCE 7-02 and ASCE 7-05 - MWFRS wind pressure zones

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Ultimate Wind Pressures

## Wind Loads - Components & Cladding : h ≤ 60'

| | | | | |
|---|---|---|---|---|
| Kh (case 2) = | 0.85 | h = | 15.3 ft | 0.2h = 3.1 ft |
| Base pressure (qh) = | **25.8 psf** | 0.6h = | 9.2 ft | |
| Minimum parapet ht = | 4.0 ft | GCpi = | +/-0.18 | |
| Roof Angle (θ) = | 1.2 deg | qi = qh = | 25.8 psf | |
| Type of roof = | Monoslope | | | |

### Roof

| | Surface Pressure (psf) | | | | | | | | User input | |
|---|---|---|---|---|---|---|---|---|---|---|
| Area | 10 sf | 20 sf | 50 sf | 100 sf | 200 sf | 350 sf | 500 sf | 1000 sf | 75 sf | 150 sf |
| Negative Zone 1 | -48.6 | -45.4 | -41.1 | -37.9 | -34.7 | -32.1 | -30.5 | -30.5 | -39.3 | -36.1 |
| Negative Zone 1' | -27.9 | -27.9 | -27.9 | -27.9 | -24.0 | -20.9 | -18.9 | -16.0 | -27.9 | -25.6 |
| Negative Zone 2 | -64.1 | -60 | -54.5 | -50.4 | -46.3 | -42.9 | -40.8 | -40.8 | -52.1 | -48.0 |
| Negative Zone 3 | -64.1 | -60 | -54.5 | -50.4 | -46.3 | -42.9 | -40.8 | -40.8 | -52.1 | -48.0 |
| Positive Zone 1 & 1' | 16 | 16 | 16 | 16 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 | 16.0 |
| Positive Zones 2 & 3 | 27.9 | 26.7 | 25 | 23.8 | 22.6 | 21.6 | 20.9 | 19.7 | 24.3 | 23.1 |
| Overhang Zone 1&1' | -43.9 | -43.1 | -42.1 | -41.3 | -34.7 | -29.3 | -25.8 | -25.8 | -41.7 | -37.4 |
| Overhang Zone 2 | -59.4 | -53.9 | -46.7 | -41.2 | -35.7 | -31.3 | -28.4 | -28.4 | -43.5 | -38.0 |
| Overhang Zone 3 | -59.4 | -53.9 | -46.7 | -41.2 | -35.7 | -31.3 | -28.4 | -28.4 | -43.5 | -38.0 |

Negative zone 3 = zone 2, since parapet >= 3ft.

Overhang pressures in the table above assume an internal pressure coefficient (Gcpi) of 0.0
Overhang soffit pressure equals adj wall pressure (which includes internal pressure of 4.7 psf)

### Parapet

qp = 28.1 psf

| | | Surface Pressure (psf) | | | | | | User input |
|---|---|---|---|---|---|---|---|---|
| Solid Parapet Pressure | | 10 sf | 20 sf | 50 sf | 100 sf | 200 sf | 500 sf | 50 sf |
| CASE A: | Zone 2 : | 90.1 | 84.2 | 76.5 | 70.7 | 64.8 | 57.1 | 76.5 |
| | Zone 3 : | 90.1 | 84.2 | 76.5 | 70.7 | 64.8 | 57.1 | 76.5 |
| CASE B : | Interior zone : | -53.2 | -50.5 | -46.9 | -44.2 | -41.5 | -38.0 | -46.9 |
| | Corner zone : | -60.8 | -56.7 | -51.4 | -47.4 | -43.3 | -38.0 | -51.4 |

wall a = 3.0 ft

### Walls

| | GCp +/- GCpi | | | | Surface Pressure at h | | | | User input | |
|---|---|---|---|---|---|---|---|---|---|---|
| Area | 10 sf | 100 sf | 200 sf | 500 sf | 10 sf | 100 sf | 200 sf | 500 sf | 20 sf | 50 sf |
| Negative Zone 4 | -1.17 | -1.01 | -0.96 | -0.90 | -30.2 | -26.1 | -24.9 | -23.3 | -29.0 | -27.4 |
| Negative Zone 5 | -1.44 | -1.12 | -1.03 | -0.90 | -37.2 | -29.0 | -26.5 | -23.3 | -34.7 | -31.5 |
| Positive Zone 4 & 5 | 1.08 | 0.92 | 0.87 | 0.81 | 27.9 | 23.8 | 22.6 | 20.9 | 26.7 | 25.0 |

Note: GCp reduced by 10% due to roof angle <= 10 deg.

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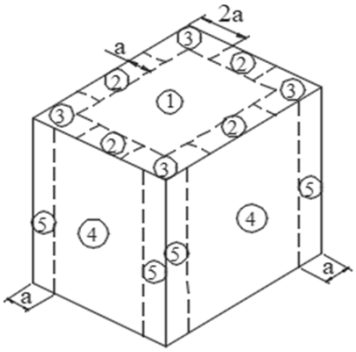
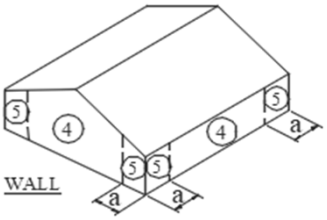
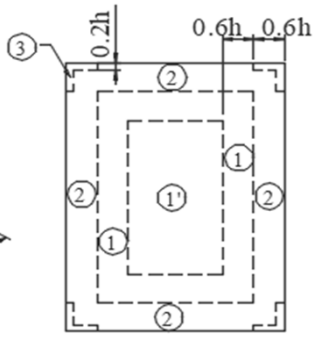
# Location of C&C Wind Pressure Zones - ASCE 7-16



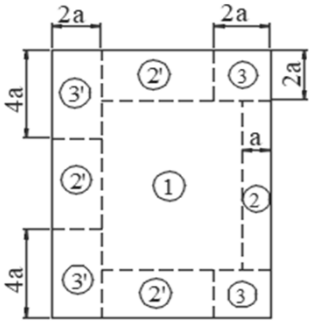

Roofs w/ θ ≤ 10°
and all walls
**h > 60'**



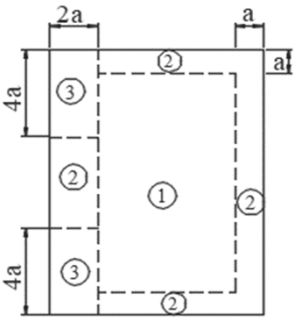

**Walls h ≤ 60'**
**& alt design h<90'**



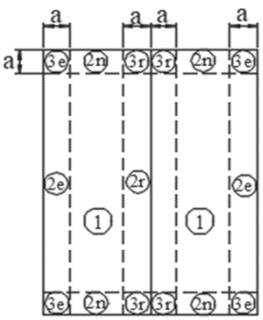

Gable, Sawtooth and
Multispan Gable θ ≤ 7 degrees &
Monoslope ≤ 3 degrees
**h ≤ 60' & alt design h<90'**



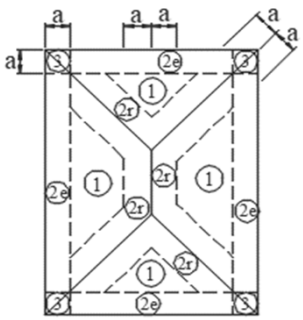

Monoslope roofs
3° < θ ≤ 10°
**h ≤ 60' & alt design h<90'**



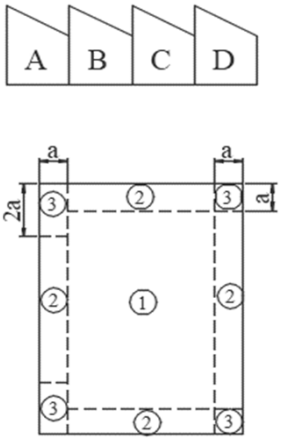

Monoslope roofs
10° < θ ≤ 30°
**h ≤ 60' & alt design h<90'**



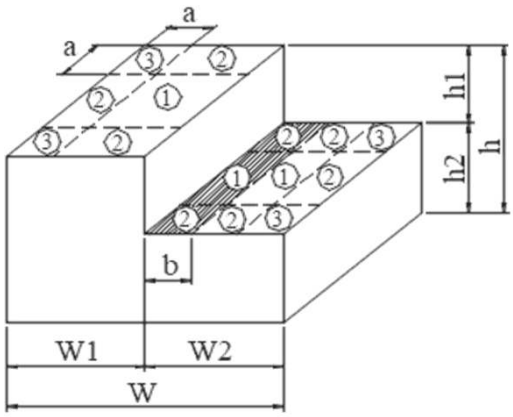
Multispan Gable &
Gable 7° < θ ≤ 45°

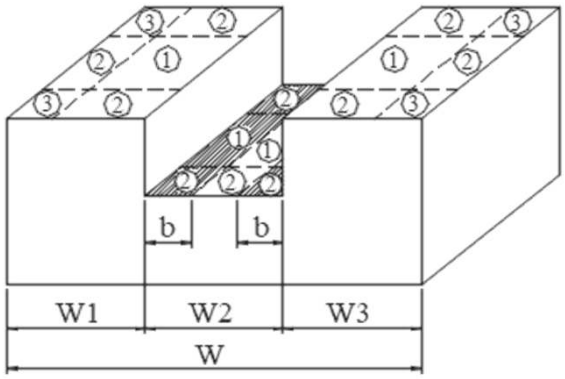


Hip 7° < θ ≤ 27°




Sawtooth 10° < θ ≤ 45°
**h ≤ 60' & alt design h<90'**




Stepped roofs θ ≤ 3°
**h ≤ 60' & alt design h<90'**

Note: The stepped roof zones above are as shown in ASCE 7-16 (except the upper roof zones 1 and 2 are shown at the inside edge per the notes). Prior editions didn't show zones, but the notes sent you to the low slope gable figure. The note in ASCE 7-16 still sends you to the low slope gable figure, but for some reasons the zones shown are per editions prior to ASCE 7-16. Therefore, the above zones may be a code mistake and the correct zone locations may be per the low slope gable roof shown at the top of this page.

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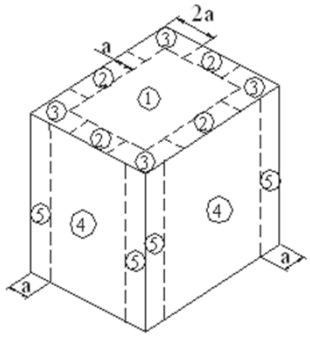
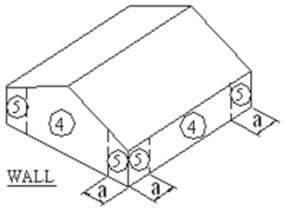
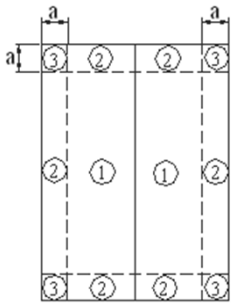
# Location of C&C Wind Pressure Zones - ASCE 7-10 & earlier



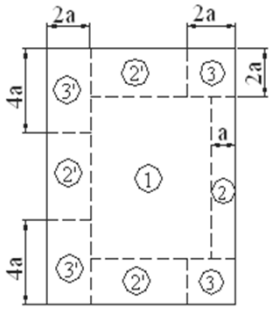

Roofs w/ θ ≤ 10°
and all walls
**h > 60'**



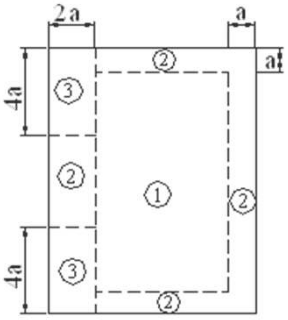

**Walls h ≤ 60'**
**& alt design h<90'**



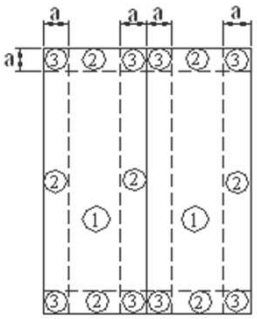

Gable, Sawtooth and
Multispan Gable θ ≤ 7 degrees &
Monoslope ≤ 3 degrees
**h ≤ 60' & alt design h<90'**



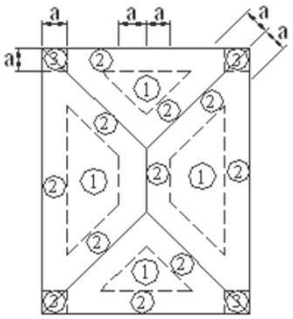

Monoslope roofs
3° < θ ≤ 10°
**h ≤ 60' & alt design h<90'**



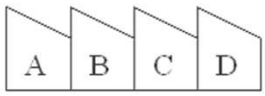

Monoslope roofs
10° < θ ≤ 30°
**h ≤ 60' & alt design h<90'**

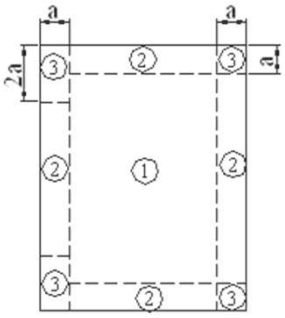



Multispan Gable &
Gable 7° < θ ≤ 45°

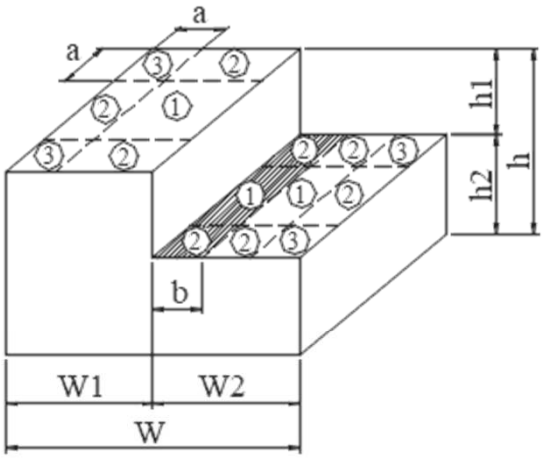


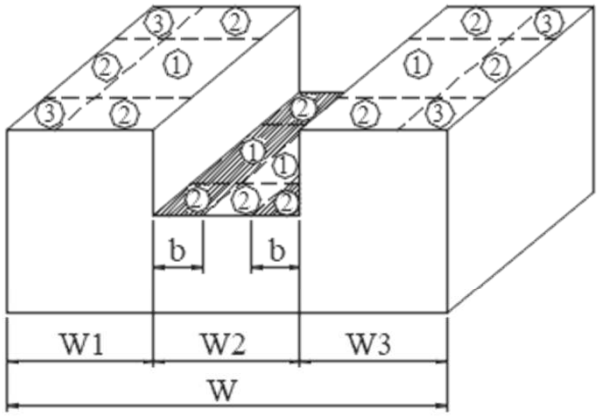

Hip 7° < θ ≤ 27°




Sawtooth 10° < θ ≤ 45°
**h ≤ 60' & alt design h<90'**




Stepped roofs θ ≤ 3°
**h ≤ 60' & alt design h<90'**

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NOTE: Per Section 101.2 of the FBC, snow loading shall not be utilized or enforced because Florida has no snow threat.

## Snow Loads : ASCE 7-16

Nominal Snow Forces

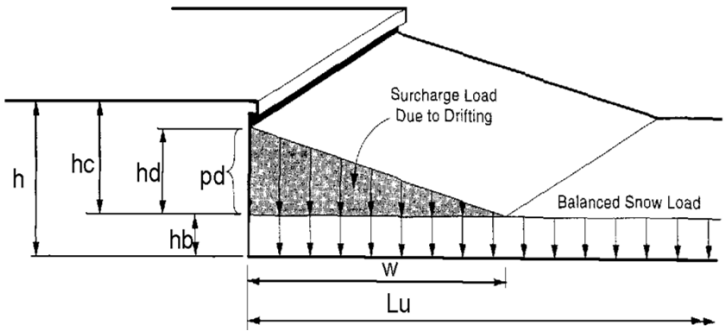
| | | | |
|---|---|---|---|
| Roof slope | | = | 1.2 deg |
| Horiz. eave to ridge dist (W) | | = | 22.0 ft |
| Roof length parallel to ridge (L) | | = | 44.0 ft |
| Type of Roof | | | Monoslope |
| Ground Snow Load | Pg | = | 0.0 psf |
| Risk Category | | = | II |
| Importance Factor | I | = | 1.0 |
| Thermal Factor | Ct | = | 1.00 |
| Exposure Factor | Ce | = | 1.0 |
| Pf = 0.7*Ce*Ct*I*Pg | | = | 0.0 psf |
| Unobstructed Slippery Surface | | | no |
| Sloped-roof Factor | Cs | = | 1.00 |
| Balanced Snow Load | | **=** | **0.0 psf** |
| Rain on Snow Surcharge Angle | | | 0.44 deg |
| Code Maximum Rain Surcharge | | | 5.0 psf |
| Rain on Snow Surcharge | | = | 0.0 psf |
| Ps plus rain surcharge | | = | 0.0 psf |
| Minimum Snow Load | Pm | = | 0.0 psf |
| Uniform Roof Design Snow Load | | = | **0.0 psf** |

Near ground level surface balanced snow load = **0.0 psf**

NOTE: Alternate spans of continuous beams shall be loaded with half the design roof snow load so as to produce the greatest possible effect - see code for loading diagrams and exceptions for gable roofs..

### Windward Snow Drifts 1 - Against walls, parapets, etc

| | | | |
|---|---|---|---|
| Up or downwind fetch | lu | = | 220.0 ft |
| Projection height | h | = | 5.2 ft |
| Projection width/length | lp | = | 10.0 ft |
| Snow density | g | = | 14.0 pcf |
| Balanced snow height | hb | = | 0.00 ft |
| | hd | = | 2.34 ft |
| | hc | = | 5.20 ft |
| #DIV/0! #DIV/0! | **lp <15', drift not req'd** | | |
| Drift height (hd) | | = | #DIV/0! |
| Drift width | w | = | #DIV/0! |
| Surcharge load: | pd = γ*hd | = | **#DIV/0!** |
| Balanced Snow load: | | = | 0.0 psf |
| | | | #DIV/0! |




Note: If bottom of projection is at least 2 feet above hb then snow drift is not required.

### Windward Snow Drifts 2 - Against walls, parapets, etc

| | | | |
|---|---|---|---|
| Up or downwind fetch | lu | = | 160.0 ft |
| Projection height | h | = | 4.0 ft |
| Projection width/length | lp | = | 20.0 ft |
| Snow density | g | = | 14.0 pcf |
| Balanced snow height | hb | = | 0.00 ft |
| | hd | = | 1.99 ft |
| | hc | = | 4.00 ft |
| #DIV/0! #DIV/0! | **#DIV/0!** | | |
| Drift height (hd) | | = | #DIV/0! |
| Drift width | w | = | #DIV/0! |
| Surcharge load: | pd = γ*hd | = | **#DIV/0!** |
| Balanced Snow load: | | = | 0.0 psf |
| | | | #DIV/0! |

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| | |
|---|---|
| **JOB TITLE** | Circle K expansion |
| | Lake City, FL |
| **JOB NO.** | 22201 |
| **SHEET NO.** | |
| **CALCULATED BY** | SMK |
| **DATE** | |
| **CHECKED BY** | |
| **DATE** | |

NOTE: Per Section 101.2 of the FBC, siesmic loading shall not be utilized or enforced because Florida has no seismic threat.

## Seismic Loads: IBC 2018 Strength Level Forces

Risk Category : II
Importance Factor (Ie) : 1.00
Site Class : D

Ss (0.2 sec) = 8.50 %g
S1 (1.0 sec) = 5.04 %g

Site specific ground motion analysis performed:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Fa = | 1.600 | Sms = | 0.136 | $S_{DS}$ = | 0.091 | Design Category = | A |
| Fv = | 2.400 | Sm1 = | 0.121 | $S_{D1}$ = | 0.081 | Design Category = | B |

Seismic Design Category = **B**
Redundancy Coefficient ρ = 1.00
Number of Stories: 1
Structure Type: All other building systems
Horizontal Struct Irregularities: No plan Irregularity
Vertical Structural Irregularities: No vertical Irregularity
Flexible Diaphragms: No
Building System: **Bearing Wall Systems**
Seismic resisting system: **Intermediate reinforced masonry shear walls**
System Structural Height Limit: **Height not limited**
Actual Structural Height (hn) = 15.3 ft

## DESIGN COEFFICIENTS AND FACTORS

Response Modification Coefficient (R) = 3.5
Over-Strength Factor (Ωo) = 2.5
Deflection Amplification Factor (Cd) = 2.25
$S_{DS}$ = 0.091
$S_{D1}$ = 0.081

Seismic Load Effect (E) = Eh +/-Ev = $\rho Q_E$ +/- $0.2S_{DS}D$ = Qe +/- 0.000D  $Q_E$ = horizontal seismic force
Special Seismic Load Effect (Em) = Emh +/- Ev = $\Omega o\, Q_E$ +/- $0.2S_{DS}D$ = 2.5Qe +/ 0.018D  D = dead load

## PERMITTED ANALYTICAL PROCEDURES

**Simplified Analysis** - Use Equivalent Lateral Force Analysis

**Equivalent Lateral-Force Analysis** - Permitted

| | | | |
|---|---|---|---|
| Building period coef. ($C_T$) = | 0.020 | | Cu = 1.70 |
| Approx fundamental period (Ta) = | $C_T h_n^{\wedge}$ = | 0.155 sec x= 0.75 | Tmax = CuTa = 0.263 sec |
| User calculated fundamental period = | | | T = 0.155 sec |
| Long Period Transition Period (TL) = | ASCE7 map = | 8 sec | |
| Seismic response coef. (Cs) = | SdsI/R = | 0.026 | |
| need not exceed Cs = | Sd1 I /RT = | 0.149 | |
| but not less than Cs = | | 0.010 | |
| USE Cs = | | 0.026 | |

**Design Base Shear V = 0.026W**

**Model & Seismic Response Analysis** - Permitted (see code for procedure)

## ALLOWABLE STORY DRIFT

Structure Type: All other structures

Allowable story drift Δa = 0.020hsx where hsx is the story height below level x

| | | | | | |
|---|---|---|---|---|---|
| Total Stories = | 1 | Floor Dead Load = | 40.0 psf | Roof Dead Load = | 20.0 psf |
| Building length L = | 44.0 ft | Floor LL to include = | 0.0 psf | Roof Snow Load = | 0.0 psf |
| Building width W = | 22.0 ft | Floor Equip wt = | 0.0 kips | Roof Equip wt = | 0.0 kips |
| hn = | 15.3 ft | Partition weight = | 10.0 psf | Parapet weight = | 0.0 psf |
| k = | 1.000 | Ext Wall Weight = | 0.0 psf | Parapet height = | 0.0 ft |
| V = | 0.026W | | | | |

Bottom Floor is a slab on grade

Diaphragm shall be designed for level force Fx, but not less than Fpx = (Σ Fi / Σ wi) wpx, but :
Fpx min = $0.2S_{DS}$ Ie wpx = 0.018 wpx
Fpx max = $0.4S_{DS}$ Ie wpx = 0.036 wpx

**Seismic Forces Normal to Building Length**

V = 0.5k

| Level (x) | EL above Seismic Base hx (ft) | Level Weight Wx (kips) | Wx $hx^k$ (ft-kips) | Cvx = $\frac{Wx\ hx^k}{\Sigma\ Wi\ hi^k}$ | Base Shear Distribution Fx=CvxV | Σ Fx (k) | Story M | Diaphragm Force Fpx Σ Wi (k) | Fpx | Design Fpx |
|---|---|---|---|---|---|---|---|---|---|---|
| Roof | 15.00 | 19 | 290 | 1.000 | 0.50 | 0.5 | 0 | 19 | 0.5 | 0.5 |
| 1 | 2.00 | 0 | 0 | 0.000 | 0.00 | 0.0 | 0 | 0 | 0.0 | 0.0 |
| Base | | 19 | | 1.000 | | 0.5 | 8 | | | |
| | | | | | | | 8 = Base M | | | |

**Seismic Forces Parallel to Building Length**

V = 0.5k

| Level (x) | hx (ft) | Wx (kips) | Wx $hx^k$ | Cvx = | Base Shear Distribution Fx=CvxV | Σ Fx (k) | Story M | Diaphragm Force Fpx Σ Wi (k) | Fpx | Design Fpx |
|---|---|---|---|---|---|---|---|---|---|---|
| Roof | 15.00 | 19 | 290 | 1.000 | 0.50 | 0.5 | 0 | 19 | 0.5 | 0.5 |
| 1 | 2.00 | 0 | 0 | 0.000 | 0.00 | 0.0 | 0 | 0 | 0.0 | 0.0 |
| Base | 0.00 | 19 | | 1.000 | | 0.5 | 8 | | | |
| | | | | | | | 8 = Base M | | | |

| Prototype | 190 |
|---|---|

| Project No. | Sheet No: | Project Name: | Made By: | Date: |
|---|---|---|---|---|
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# CMU WALL DESIGN WORKSHEET

2020 FBC (ACI 530-14)

**Version 2.0**



## Wall Lateral Forces

| Wall Location | Wind | | Seismic | |
|---|---|---|---|---|
| Main Wall | Wall WL, Service = | 14.3 psf | OOP Wall(serv.) 0.7*EQ = | 0.001 |
| Parapet Only | Parapet WL, Service = | 42.4 psf | Parapet(serv.) 0.7*EQ = | 0.001 |
| DL= | 15 psf | RoofLL= 20 psf | SL= 0 psf | |

## Wall Properties

CMU Density= 135 pcf

| | | | |
|---|---|---|---|
| Masonry Inspection = | Y | Steel Mod. Of Elasticity, $E_s$= | 29,000 ksi |
| Masonry, $f'_m$ = | 2,000 psi | Fm = | 900 psi |
| Rebar yield strength, $F_y$= | 60,000 psi | Fs = | 32000 psi |
| Masonry Mod. Of Elasticity, $E_m$ = | 1,800 ksi | n = $E_s/E_m$ = | 16.11 |

| General Wall Information | | | | | | | | | | | | Seismic Loads | | Roof Uniform Loads | | | Wall Properties | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wall Location | Bearing Wall | Wind Girt Location | Top of Wall Elev. | TOS Elev. | Roof Elev. h | Depth to T.O. Ftg $h_f$ | Nominal Wall Thk. t | Rebar Location | Face Shell Thick. $t_f$ | Depth to Rebar d | Wall Weight Wt | Wall $EQ_w$ | Parapet $EQ_p$ | DL wd | RLL wl | SL ws | Steel Ratio p | Radius of Gyration r | Eff. Wall Area $A_w$ | $k_1$ | $k_1$*d | $j_1$ | $k_2$ | $k_2$*d | $j_2$ |
| | Y / N | Y / N | (ft) | (ft) | (ft) | (ft) | (in) | c/e/comp | (in) | (in) | (psf) | (psf) | (psf) | (plf) | (plf) | (plf) | | (in) | ($in^2$) | | (in) | | | (in) | |
| Grid 1 (front wall) | Y | N | 23.333 | 16.00 | 16.13 | 1.33 | 8 | Center | 1.25 | 3.813 | 63.25 | 0.06 | 0.06 | 447 | 995 | | 0.004808 | 2.523585 | 102.5888 | 0.323695 | 1.23425 | 0.892102 | 0.323716 | 1.23433 | 0.847071 |
| | | | | | | 1.33 | 8 | Center | 1.25 | 3.813 | 63.25 | 0.06 | 0.06 | 447 | 995 | | 0.004808 | 2.523585 | 102.5888 | 0.323695 | 1.23425 | 0.892102 | 0.323716 | 1.23433 | 0.847071 |
| Grid Z (side wall) | N | N | 23.333 | 15.33 | 15.46 | 1.33 | 8 | Center | 1.25 | 3.813 | 63.25 | 0.06 | 0.06 | 270 | 360 | | 0.004808 | 2.523585 | 102.5888 | 0.323695 | 1.23425 | 0.892102 | 0.323716 | 1.23433 | 0.847071 |
| | | | | | | 1.33 | 8 | Center | 1.25 | 3.813 | 63.25 | 0.06 | 0.06 | 445 | 594 | | 0.004808 | 2.523585 | 102.5888 | 0.323695 | 1.23425 | 0.892102 | 0.323716 | 1.23433 | 0.847071 |
| Grid 2 (rear wall) | Y | N | 23.333 | 14.67 | 14.80 | 1.33 | 8 | Center | 1.25 | 3.813 | 63.25 | 0.06 | 0.06 | 330 | 840 | | 0.004808 | 2.523585 | 102.5888 | 0.323695 | 1.23425 | 0.892102 | 0.323716 | 1.23433 | 0.847071 |
| | | | | | | 1.33 | 8 | Center | 1.25 | 3.813 | 63.25 | 0.06 | 0.06 | 330 | 840 | | 0.004808 | 2.523585 | 102.5888 | 0.323695 | 1.23425 | 0.892102 | 0.323716 | 1.23433 | 0.847071 |

| Project No. | Sheet No: | Project Name: | Made By: | Date: |
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## CMU WALL DESIGN WORKSHEET



| Wall Location | Bending Forces | | | | | | | | | | | | Rectangular Section Stresses | | | | T-Beam Section Stresses | | | | Applied Axial Stresses | | | Allow. Axial Stress | Axial Check |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wind | | | | Seismic | | | | | Roof Loads + Self Wt. | | | CMU Comp. Str. | | Steel Stress | | CMU Comp. Str. | | Steel Stress | | Roof Loads + Self Wt. | | | | |
| | $M_{span}$ | $M_{parapet}$ | $M_{max}$ | hm | $M_{span}$ | $M_{parapet}$ | $M_{max}$ | hm | eccent. e | DL $M_{roof}$ | RLL $M_{roof}$ | SL $M_{roof}$ | Wind fb1 | EQ fb1eq | Wind fs1 | EQ fs1eq | Wind fb2 | EQ fb2eq | Wind fs2 | EQ fs2eq | DL fadl | RLL fall | SL fasl | Fa | |
| | lb-ft | lb-ft | lb-ft | ft | lb-ft | lb-ft | lb-ft | ft | in. | lb-ft | lb-ft | lb-ft | psi | psi | psi | psi | psi | psi | psi | psi | psi | psi | psi | psi | |
| Grid 1 (front wall) | 735 | 2203 | 2203 | 7.21 | 3 | 3 | 3 | 17.42 | 2 | 149 | 332 | 0 | 525 | 1 | 17662 | 27 | 553 | 1 | 18601 | 28 | 30 | 19 | 0 | 324 | O.K. |
| 0 | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0.67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 19 | 0 | 499 | O.K. |
| Grid Z (side wall) | 598 | 2629 | 2629 | 8 | 3 | 4 | 4 | 8 | 0 | 0 | 0 | 0 | 626 | 1 | 21082 | 31 | 660 | 1 | 22203 | 33 | 15 | 7 | 0 | 337 | O.K. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 12 | 0 | 499 | O.K. |
| Grid 2 (rear wall) | 465 | 3091 | 3091 | 9 | 2 | 5 | 5 | 9 | 2 | 110 | 280 | 0 | 736 | 1 | 24781 | 37 | 775 | 1 | 26099 | 39 | 17 | 16 | 0 | 350 | O.K. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 16 | 0 | 499 | O.K. |

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|---|---|---|---|---|
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## CMU WALL DESIGN WORKSHEET



| Wall Location | Masonry Combined Stress Ratios Due to Axial & Bending | | | | | | Steel Combined Stress Ratios Due to Axial Eccentric & Bending | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DL+RLL | DL+SL | DL+WL | DL+EQ | DL+ 0.75WL+ .75(LorS) | DL+ 0.75EQ+ .75(LorS) | DL+RLL | DL+SL | DL+WL | DL+EQ | DL+ 0.75WL+ .75(LorS) | DL+ 0.75EQ+ .75(LorS) |
| Grid 1 (front wall) | 0.182 | 0.073 | 0.656 | 0.074 | 0.592 | 0.156 | 0.120 | 0.037 | 0.589 | 0.038 | 0.514 | 0.100 |
| 0 | 0.032 | 0.011 | 0.011 | 0.011 | 0.027 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Grid Z (side wall) | 0.024 | 0.017 | 0.713 | 0.018 | 0.544 | 0.023 | 0.000 | 0.000 | 0.659 | 0.001 | 0.494 | 0.001 |
| 0 | 0.023 | 0.011 | 0.011 | 0.011 | 0.020 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Grid 2 (rear wall) | 0.140 | 0.048 | 0.866 | 0.049 | 0.731 | 0.118 | 0.098 | 0.028 | 0.802 | 0.029 | 0.661 | 0.081 |
| 0 | 0.026 | 0.008 | 0.008 | 0.008 | 0.022 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

### Design Summary

| Wall Location | Bar Spacing Sb (in) | Bar Size | Bar Area Ab ($in^2$) | Max CMU Stress Ratio | Max Steel Stress Ratio | Check | Does Parapet or Wall Control? |
|---|---|---|---|---|---|---|---|
| Grid 1 (front wall) | 24 | 6 | 0.44 | 0.66 | 0.59 | O.K. | Parapet |
| 0 | 24 | 6 | 0.44 | 0.06 | 0.00 | O.K. | Wall |
| Grid Z (side wall) | 24 | 6 | 0.44 | 0.71 | 0.66 | O.K. | Parapet |
| 0 | 24 | 6 | 0.44 | 0.04 | 0.00 | O.K. | Wall |
| Grid 2 (rear wall) | 24 | 6 | 0.44 | 0.87 | **0.80** | **Check** | Parapet |
| 0 | 24 | 6 | 0.44 | 0.05 | 0.00 | O.K. | Wall |

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# JAMB DESIGN

| | | CMU Wall Details | | | | | | | | Low Roof Loads | | | Jamb Details | | | | | | | Jamb Design Values | | | Final Design Check | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calc # | | Girt | CMU Wall Thick. | Rebar Size | Bar Spacing | CMU Wall Weight | Top of Wall El. | Roof El. | Top of Ftg El below FF | Low Roof Trib Width | Low Roof Drift Only | Add'l Wall Weight | Jamb Type | Jamb Reinf Location | 1st Opening Width | 2nd Opening Width | Top of Opening El. | Lintel End Brg. | Pier or End Jamb Width | # of Cells Grouted | # of Tension Bars | Jamb Rebar Size | Grout, Reinf, and Stress Design Check | Max CMU Stress Ratio | Max Steel Stress Ratio |
| | Wall Location | Y/N | in | # | in | psf | (ft) | (ft) | (ft.) | (ft) | (plf) | (plf) | | | (ft) | (ft) | (ft) | (in) | (ft) | $n_c$ | $n_b$ | # | | | |
| 1 | Grid Z (side wall) | N | 8 | 6 | 24 | 63.25 | 23.33 | 15.46 | 1.33 | | | | Jamb | Center | 3.33 | | 7.33 | | | 1 | 1 | 6 | OK | 0.71 | 0.66 |
| 2 | | 0 | 0 | 6 | 24 | 0 | 0.00 | 0.13 | 0.00 | | | | Jamb | Edge | | | | | | 1 | 1 | 6 | | | |

Note: Parapet lateral trib is taken as the spacing of the wall reinforcement plus the spacing of the jamb bars, unless the height of the opening exceeds 75% of the height o the roof, in which case the lateral trib becomes half the spacing of the wall reinforcement plus the spacing of the jamb bars plus half the width of the opening

Note: Wall wind is used on the parapet when checking the wall moment, parapet wind is used o the parapet when checking the parapet moment

User Notes:
1. Number of Reinforced Cells should only include full height reinforcement.
2. Number of Grouted Cells should include grout below steel lintel bearing.
3. Pier or End Length should be the full width of masonry jamb and include any steel lintel bearing length (refer to diagrams below)
4. Jamb design assumes a uniform lateral trib on the jamb trib width.

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# JAMB DESIGN

| | Uniform Load | | | | | | | | | | | Wind Moment | | | | | | | Seismic Moment | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Roof Loads | | | Wind | | | | Seismic | | | | Moment | | | | Applied Location | | | Moment | | | | Applied Location | | |
| | DL | RLL | SL | w Jamb wall | w Jamb parapet | Rf | w Jamb parapet | eq Jamb wall | eq Jamb parapet | Rf | eq Jamb parapet | Opening Mopen | Span Mspan | Parapet Mparapet | Mwall Design | Xspan | Xpara | Xwall | Opening Mopen | Span Mspan | Parapet Mparapet | Mwall Design | Xspan | Xpara | Xwall |
| Location | (plf) | (plf) | (plf) | plf | plf | lb | plf | plf | plf | lb | plf | lb-ft | lb-ft | lb-ft | lb-ft | ft | ft | ft | lb-ft | lb-ft | lb-ft | lb-ft | ft | ft | ft |
| Grid Z (side wall) | 270 | 360 | 0 | 42.90 | 28.60 | 252 | 84.80 | 0.19 | 0.13 | 1 | 0.13 | 1034 | 1079 | 2629 | 2629 | 7.22 | 16.79 | 16.79 | 5 | 5 | 4 | 5 | 7.16 | 16.79 | 7.16 |
| | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | |

**Notes:**

1. Girt uses a simple span condition with a reduced wall span (TOF to Roof) factor of 0.75.

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## JAMB DESIGN

| | CMU Jamb Dimensions | | | Eff. Beam Width | | Jamb Design Parameters | | | | Area Calcs | | | CMU Wall Parameters | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Block Thickness $t_s$ | Faceshell Thickness $t_f$ | Depth to Rebar d | At Opening $b_o$ | Above Opening $b_w$ | Trib Width at Opening Sw | Trib Width Above Roof Sp | X open | Jamb Width b | Wall Area Below $A_o$ | Wall Area Above $A_w$ | Steel Area $A_s$ | Axial Jamb Width $S_w$ | Wall Height above X $h_m$ | Axial Load Below | Axial Load Above | Moment of Inertia $I_{solid}$ | Moment of Inertia $I_{hollow}$ | Wall Area Grouted $A_{solid}$ | Wall Area Hollow $A_{hollow}$ | Radius of Gyration | | |
| | | | | | | | | | | | | | | | | | | | | | $I_{net}$ | $A_{net}$ | Final r |
| Location | in | in | in | in | in | ft | ft | ft | ft | $in^2$ | $in^2$ | $in^2$ | ft | ft | plf | plf | $in^4$ | $in^4$ | $in^2$ | $in^2$ | $in^4$ | $in^2$ | in |
| Grid Z (side wall) | 7.625 | 1.25 | 3.813 | 16 | 24 | 3.00 | 2.00 | 8.66 | 2.00 | 81 | 101 | 0.44 | 2.000 | 7.875 | 1282.0 | 768.1 | 443.3 | 334 | 91.5 | 41.5 | 6218 | 1064 | 2.42 |
| | | | | | | | | | | | | | | | | | | | | | | | |

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## JAMB DESIGN

| | Applied Axial Stresses | | | | | | Allowable Axial Stress | | | Bending Stress Parameters | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Opening | | | Wall | | | | | | % Jamb reinf | Wall | | Opening | | Above Op. % Jamb Reinf | Below Op. % Jamb Reinf |
| | DL $fa\text{-}dl_o$ | RLL $fa\text{-}ll_o$ | SL $fa\text{-}sl_o$ | DL $fa\text{-}dl_w$ | RLL $fa\text{-}ll_w$ | SL $fa\text{-}sl_w$ | $Fa_1$ | $Fa_2$ | Fa | r | $k_{1w}$ | $k_{1w}*d$ | $k_{1o}$ | $k_{1o}*d$ | $r_w$ | $r_o$ |
| Location | psi | psi | psi | psi | psi | psi | psi | psi | psi | %/100 | | in | | in | %/100 | %/100 |
| Grid Z (side wall) | 47.48 | 13.33 | 0.00 | 15.21 | 7.13 | 0.00 | 323 | 353 | 323 | 0.0048 | 0.3237 | 1.23 | 0.3797 | 1.45 | 0.0048 | 0.0072 |
| | | | | | | | | | | | | | | | | |

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## JAMB DESIGN

| | Bending Stress - If $k_1d < t_f$ | | | | | | | | | | Bending Stress - If $k_1d >= t_f$ (T-Beam Condition) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Wind | | | | Seismic | | | | | | | | | | Wind | | | | Seismic | | | |
| | Wall | Opening | CMU Comp. | | Steel Stress | | CMU Comp. Stress | | Steel Stress | | Wall | | | Opening | | | CMU Comp Stress | | Steel Stress | | CMU Comp Stress | | Steel Stress | |
| | $j_{1w}$ | $j_{1o}$ | $fb1_w$ | $fb1_o$ | $fs1_w$ | $fs1_o$ | $fb1_w$ | $fb1_o$ | $fs1_w$ | $fs1_o$ | $k_{2w}$ | $k_{2w} * d$ | $j_{2w}$ | $k_{2o}$ | $k_{2o} * d$ | $j_{2o}$ | $fb_{2w}$ | $fb_{2o}$ | $fs_{2w}$ | $fs_{2o}$ | $fb_{2w}$ | $fb_{2o}$ | $fs_{2w}$ | $fs_{2o}$ |
| Location | | | psi | psi | psi | psi | psi | psi | psi | psi | | in | | | in | | psi | psi | psi | psi | psi | psi | psi | psi |
| Grid Z (side wall) | 0.892 | 0.873 | 626 | 322 | 21082 | 8465 | 1 | 2 | 39 | 40 | 0.324 | 1.234 | 0.847 | 0.383 | 1.459 | 0.847 | 660 | 336 | 22203 | 8727 | 1 | 2 | 41 | 41 |
| | | | | | | | | | | | | | | | | | | | | | | | | |

| Project No. | Project Name: | Project Name: | Made By: | Sheet No: |
|---|---|---|---|---|
| 22201 | | Lake City, FL | SMK | 6 |

## JAMB RESULTS

| | Applied Bending Stresses | | | | | | | | Final Design Stress Ratios | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wind | | | | Seismic | | | | Axial Stress Ratio | Masonry Combined Stress Ratios Due to Axial and Bending Loads | | | | | | | | | | | | | Steel Stress Ratios | | | | |
| | CMU Comp Stress | | Steel Stress | | CMU Comp Stress | | Steel Stress | | DL+RLL/SL | LOAD CASE 1 | | LOAD CASE 2 | | LOAD CASE 3 | | LOAD CASE 4 | | LOAD CASE 5 | | LOAD CASE 6 | | Wind | | EQ | | Stress Design Check |
| | $fb_w$ | $fb_o$ | fsw | fso | $fb_w$ | $fb_o$ | fsw | fso | | | | | | | | | | | | | | | | | | |
| Location | psi | psi | psi | psi | psi | psi | psi | psi | WALL | OPEN. | WALL | OPEN. | WALL | OPEN. | WALL | OPEN. | WALL | OPEN. | WALL | OPEN. | WALL | OPEN. | WALL | OPEN. | WALL | OPEN | |
| Grid Z (side wall) | 626 | 336 | 21082 | 8727 | 1 | 2 | 39 | 41 | 0.069 | 0.188 | 0.025 | 0.068 | 0.017 | 0.053 | 0.713 | 0.426 | 0.018 | 0.055 | 0.545 | 0.344 | 0.011 | 0.033 | 0.659 | 0.273 | 0.001 | 0.001 | OK |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Project No. | Project Name: | Made By: | Sheet No: |
|---|---|---|---|
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# JAMB SUPPORT DATA & DETAILS

**Applied Loads**

| | | |
|---|---|---|
| Roof DL = | 15.00 | psf |
| Roof LL = | 20.00 | psf |
| Roof SL = | 0.00 | psf |

**Wall Lateral Forces**

| | | |
|---|---|---|
| Wall WL, Service = | 14.3 | psf |
| Parapet WL, Service = | 42.4 | psf |
| OOP Wall(serv.) 0.7*EQ = | 0.001 | *weight |
| Parapet(serv.) 0.7*EQ = | 0.001 | *weight |

**Wall Properties**

| | | |
|---|---|---|
| Masonry Inspection = | Y | y/n |
| Masonry, $f'_m$ = | 2,000 | psi |
| Rebar yield strength, $F_y$= | 60,000 | psi |
| Masonry Mod. Of Elasticity, $E_m$ = | 1,800 | ksi |
| Steel Mod. Of Elasticity, $E_s$= | 29,000 | ksi |

| | | |
|---|---|---|
| Fm = | 900 | psi |
| Fs = | 32000 | psi |
| n = $E_s/E_m$ = | 16.11 | |

**Reinforcing Bar Properties**

| size | area |
|---|---|
| 4 | 0.20 in^2 |
| 5 | 0.31 in^2 |
| 6 | 0.44 in^2 |
| 7 | 0.60 in^2 |
| 8 | 0.79 in^2 |

**Wall Thickness Properties**

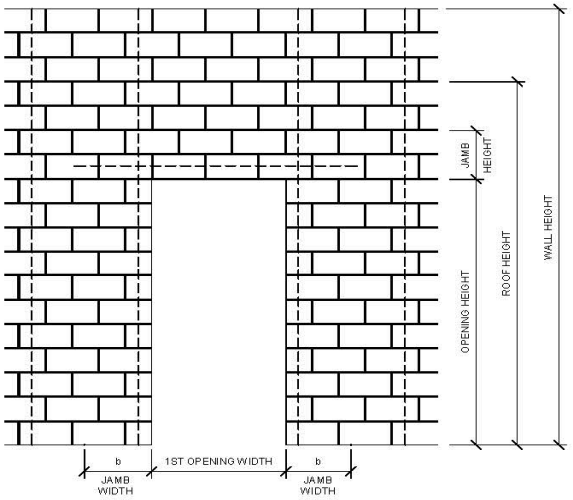
| Unit | tf | d(edge) | d(center) | Isolid | Ihollow | Asolid | Ahollow | ta |
|---|---|---|---|---|---|---|---|---|
| 6 | 1.00 | 2.875 | 2.813 | 178 | 139.3 | 67.5 | 32.2 | 5.625 |
| 8 | 1.25 | 4.875 | 3.813 | 443.3 | 334 | 91.5 | 41.5 | 7.625 |
| 10 | 1.25 | 6.875 | 4.813 | 891.7 | 606.3 | 115.5 | 48 | 9.625 |
| 12 | 1.25 | 8.875 | 5.813 | 1571 | 971.5 | 139.5 | 53.1 | 11.625 |

**Jamb Schedule - Double Bars**

| Wall Thick. | Opening Width | Jamb Width |
|---|---|---|
| 8 in | 3.33 ft | 8 in |
| 8 in | 3.33 ft | 16 in |
| 8 in | 3.33 ft | 24 in |
| 12 in | 0.00 ft | 8 in |
| 12 in | 0.00 ft | 16 in |
| 12 in | 0.00 ft | 24 in |

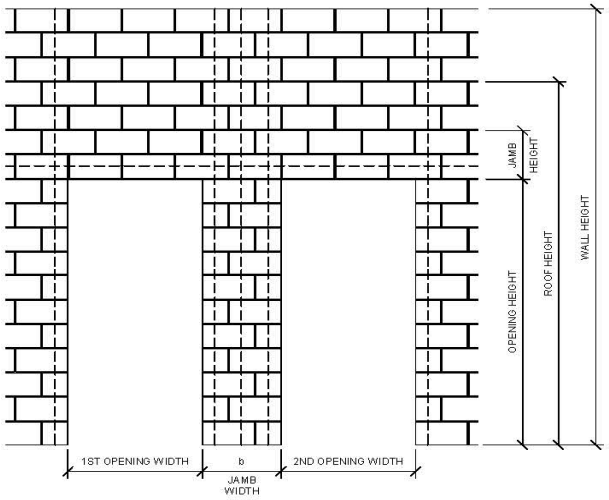
**Load Combinations**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | DL | 1.00 | RLL | 0.00 | SL | 0.00 | WL | 0.00 | EQ |
| 2 | 1.00 | DL | 0.00 | RLL | 1.00 | SL | 0.00 | WL | 0.00 | EQ |
| 3 | 1.00 | DL | 0.00 | RLL | 0.00 | SL | 1.00 | WL | 0.00 | EQ |
| 4 | 1.00 | DL | 0.00 | RLL | 0.00 | SL | 0.00 | WL | 1.00 | EQ |
| 5 | 1.00 | DL | 0.75 | RLL | 0.75 | SL | 0.75 | WL | 0.00 | EQ |
| 6 | 0.60 | DL | 0.00 | RLL | 0.00 | SL | 0.00 | WL | 1.00 | EQ |



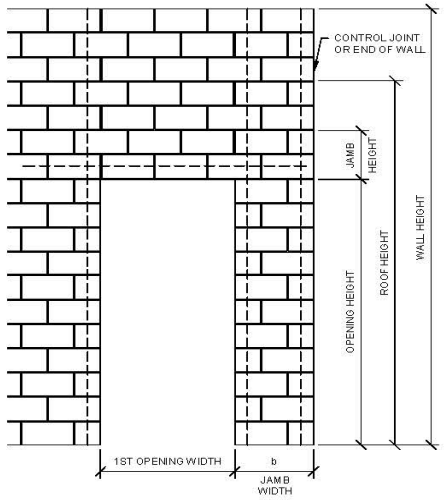

**JAMB**

(TYPICAL WALL JAMB CONDITION AWAY FROM CONTROL JOINTS OR END OF WALL)




**PIER**

(WALL JAMB CONDITION WITH OPENINGS ON BOTH SIDE)




**END**

(WALL JAMB CONDITION WITH CONTROL JOINT OR END OF WALL AT ONE SIDE)

| Project No. | Project Name: | Made By: | Sheet No: |
|---|---|---|---|
| 22201 | Lake City, FL | SMK | 1 |

# LINTEL DESIGN

| | CMU Wall Details | | | | | Low Roof Loads | | | Jamb Details | | | | Lintel Details | | | | | | | | | | Final Design Check | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Girt | CMU Wall Thick. | CMU Wall Weight | Top of Wall El. | Roof El. | Low Roof Trib Width | Low Roof Drift Only | Add'l Wall Weight | 1st Opening Width | 2nd Opening Width | Top of Opening El. | Lintel End Brg. | Lintel Type | Lintel Depth | Horiz Reinf Size | # of Bottom Reinf Bars | # of Top Reinf Bars | Bottom Reinf Bar Clearance | Arching Action Eligible | Include Arching Action | Check Lateral Loads | Defl. Limit Vert | Defl. Limit Horiz | CMU | Steel | Shear | Steel Deflect | Design Check |
| Wall Location | Y/N | in | psf | ft | ft | ft | plf | plf | ft | ft | ft | in | | in | # | | | in | Yes/No | Yes/No | Yes/No | L/x | L/x | | | | | |
| Grid Z (side wall) | N | 8 | 63.25 | 23.33 | 15.46 | 0.00 | 0 | 0 | 3.33 | 0.00 | 7.333 | 0.00 | CMU | 16.00 | 6 | 1 | 0 | 3.50 | Yes | Yes | Yes | | | 0.11 | 0.09 | 0.16 | | OK |
| | | | | | | | | | | | | | CMU | 16.00 | 6 | 1 | 0 | 3.50 | | Yes | Yes | | | | | | | |

**Notes:**
1. Girt uses a simple span condition equal to the wall span (TOF to Roof) multipled by a factor of 0.75.
2. Lintel lateral trib assumes 1/2 height of wall trib (TOF to Roof) trib to lintel in lateral direction.
3. Steel lintels are assumed to be braced at the mid-span for design.

**Notes:**
4. Deflection is only checked for steel lintels.
5. Shear is only checked for Masonry Lintels
6. Refer to page 7 for load combinations.

| Project No. | Project Name: | Made By: | Sheet No: |
|---|---|---|---|
| 22201 | Lake City, FL | SMK | 2 |

## LINTEL LOAD ANALYSIS

| | Lintel Dead Load | | | Lintel Uniform Load | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High & Low Roof Loads | | | Vertical Dead Load | | | Vertical Live/Snow Load | | | Horizontal Wind Load | | | Horizontal Seismic Load | | |
| | Effective Span | Lintel Weight DL | Wall Weight DL | DL | RLL | SL | DL Vert | DL Mspan | DL Vspan | LL/SL Vert | LL/SL Mspan | LL/SL Vspan | WL Horiz | WL Mspan | WL Vspan | EQ Horiz | EQ Mspan | EQ Vspan |
| Location | ft | plf | plf | plf | plf | plf | plf | lb-ft | lb | plf | lb-ft | lb | plf | lb-ft | lb | plf | lb-ft | lb |
| Grid Z (side wall) | 4.00 | 112 | 126 | 270 | 360 | 0 | 238 | 393 | 350 | 0 | 0 | 0 | 111 | 221 | 221 | 0 | 1 | 1 |
| | | | | | | | | | | | | | | | | | | |

| Project No. | Project Name: | Made By: | Sheet No: |
|---|---|---|---|
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## MASONRY LINTEL DESIGN

| | Masonry Bending | | | | | | | | | | | | Masonry Stress | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Vertical Bending | | | | | | Horizontal Bending | | | | | | Vertical Dead Load | | | Vertical Live Load | | | Horizontal - Wind | | | Horizontal - Seismic | | |
| | As | b | d | ρ | k | j | As | b | d | ρ | k | j | fb | fs | fv | fb | fs | fv | fb | fs | fv | fb | fs | fv |
| Location | $in^2$ | in | in | | | | $in^2$ | in | in | | | | psi | psi | psi | psi | psi | psi | psi | psi | psi | psi | psi | psi |
| Grid Z (side wall) | 0.440 | 7.625 | 12.500 | 0.0046 | 0.3184 | 0.8939 | 0.440 | 16.000 | 3.813 | 0.0072 | 0.3797 | 0.8734 | 27.8 | 958.3 | 3.7 | 0.0 | 0.0 | 0.0 | 68.8 | 1810.1 | 3.6 | 0.3 | 8.0 | 0.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | |

| Project No. | Project Name: | Made By: | Sheet No: |
|---|---|---|---|
| 22201 | Lake City, FL | SMK | 4 |

# STEEL LINTEL DESIGN

| | Steel Beam Bending | | | | | | | | | | | | | | | | | | | | | | | | | | Steel Deflection | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Unbraced Length & Flange Compactness | | | | | | Steel Section Properties | | | | | | | | | | | | | Moment Capacities (Cb = 1.3) | | | | | | | | | | Deflection | | | | | |
| | $L_b$ | Lp | Lr | λ | λpf | λft | bf | tf | $Z_{xx}$ | $S_{xx}$ | $I_{xx}$ | $Z_{yy}$ | $S_{yy}$ | $I_{yy}$ | $r_y$ | rts | h0 | Jc | Cw | Fcr xx | Mn/Ω (F2-1) | Mn/Ω (F2-2) | Mn/Ω (F2-3) | Mn/Ω (F3-1) | Mn/Ω (F6-1) | Mn/Ω (F6-2) | Mnx allow | Mny allow | $D_{x\ Max}$ | $D_{y\ Max}$ | DL Vert Δ | LL/SL Vert Δ | WL Vert Δ | EQ Vert Δ |
| Location | in | in | in | | | | in | in | $in^3$ | $in^3$ | $in^4$ | $in^3$ | $in^3$ | $in^4$ | in | in | in | $in^4$ | $in^6$ | ksi | kip-ft | kip-ft | kip-ft | kip-ft | kip-ft | kip-ft | kip-ft | kip-ft | in | in | in | in | in | in |
| Grid Z (side wall) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Project No. | Project Name: | Made By: | Sheet No: |
|---|---|---|---|
| 22201 | Lake City, FL | SMK | 5 |

## LINTEL DESIGN RESULTS

| | Final Design | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Combined Stress Ratios with Load Combinations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LOAD COMBINDATION 1 | | | | | LOAD COMBINDATION 2 | | | | | LOAD COMBINDATION 3 | | | | | LOAD COMBINDATION 4 | | | | | LOAD COMBINDATION 5 | | | | | LOAD COMBINDATION 6 | | | | |
| Location | CMU | Steel | Shear | Vert Δ | Horiz Δ | CMU | Steel | Shear | Vert Δ | Horiz Δ | CMU | Steel | Shear | Vert Δ | Horiz Δ | CMU | Steel | Shear | Vert Δ | Horiz Δ | CMU | Steel | Shear | Vert Δ | Horiz Δ | CMU | Steel | Shear | Vert Δ | Horiz Δ |
| Grid Z (side wall) | 0.03 | 0.03 | 0.08 | | | 0.03 | 0.03 | 0.08 | | | 0.09 | 0.07 | 0.14 | | | 0.11 | 0.09 | 0.16 | | | 0.03 | 0.03 | 0.08 | | | 0.02 | 0.02 | 0.05 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Project No. | Project Name: | Made By: | Sheet No: |
|---|---|---|---|
| 22201 | Lake City, FL | SMK | 6 |

# LINTEL SUPPORT DATA & DETAILS

**Applied Loads**

| | | |
|---|---|---|
| Roof DL = | 15.00 | psf |
| Roof LL = | 20.00 | psf |
| Roof SL = | 0.00 | psf |

**Wall Lateral Forces**

| | | |
|---|---|---|
| Wall WL, Service = | 14.3 | psf |
| Parapet WL, Service = | 42.4 | psf |
| OOP Wall(serv.) 0.7*EQ = | 0.001 | *weight |
| Parapet(serv.) 0.7*EQ = | 0.001 | *weight |

**Wall Properties**

| | | |
|---|---|---|
| Masonry Inspection = | Y | y/n |
| Masonry, $f'_m$ = | 2,000 | psi |
| Rebar yield strength, $F_y$= | 60,000 | psi |
| Masonry Mod. Of Elasticity, $E_m$ = | 1,800 | ksi |
| Steel Mod. Of Elasticity, $E_s$= | 29,000 | ksi |

| | | |
|---|---|---|
| Fm = | 900 | psi |
| Fs = | 32000 | psi |
| Fv = | 44.7 | psi |
| n = $E_s/E_m$ = | 16.11 | |

**Reinforcing Bar Properties**

| size | area |
|---|---|
| 4 | 0.20 in^2 |
| 5 | 0.31 in^2 |
| 6 | 0.44 in^2 |
| 7 | 0.60 in^2 |
| 8 | 0.79 in^2 |

**Wall Thickness Properties**

| Unit | tf | d(edge) | d(center) | Isolid | Ihollow | Asolid | Ahollow | ta | Wsolid |
|---|---|---|---|---|---|---|---|---|---|
| | in | in | in | in^4 | in^4 | in^2 | in^2 | in | psf |
| 6 | 1.00 | 2.875 | 2.813 | 178 | 139.3 | 67.5 | 32.2 | 5.625 | 63 |
| 8 | 1.25 | 4.875 | 3.813 | 443.3 | 334 | 91.5 | 41.5 | 7.625 | 84 |
| 10 | 1.25 | 6.875 | 4.813 | 891.7 | 606.3 | 115.5 | 48 | 9.625 | 104 |
| 12 | 1.25 | 8.875 | 5.813 | 1571 | 971.5 | 139.5 | 53.1 | 11.625 | 133 |

**Steel Design Properties**

| | | |
|---|---|---|
| $F_y$ = | 50.00 | ksi |
| $C_b$ = | 1.00 | |

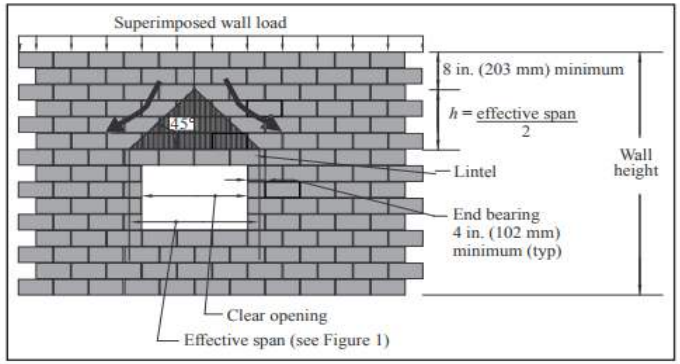
**Load Combinations**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.00 | DL | 0.00 | RLL/SL | 0.00 | WL | 0.00 | EQ |
| 2 | 1.00 | DL | 1.00 | RLL/SL | 0.00 | WL | 0.00 | EQ |
| 3 | 1.00 | DL | 0.75 | RLL/SL | 0.75 | WL | 0.00 | EQ |
| 4 | 1.00 | DL | 0.00 | RLL/SL | 1.00 | WL | 0.00 | EQ |
| 5 | 1.00 | DL | 0.00 | RLL/SL | 0.00 | WL | 1.00 | EQ |
| 6 | 0.60 | DL | 0.00 | RLL/SL | 0.00 | WL | 1.00 | EQ |

**Lintel Schedule**

| Wall Thick. | Opening Width | Lintel Depth | Bottom Reinf | Top Reinf |
|---|---|---|---|---|
| 8 in | 3.33 ft | 16 in | (1) #6 | (0) #6 |
| 8 in | 3.33 ft | 32 in | (1) #6 | (0) #6 |
| 12 in | 0.00 ft | 16 in | (0) #6 | (0) #6 |
| 12 in | 0.00 ft | 32 in | (0) #6 | (0) #6 |
| | 0.00 ft | | (0) #6 | (0) #6 |
| | 0.00 ft | | (0) #6 | (0) #6 |

**Masonry Lintel Arching Diagram**




This program uses the roof height for the wall height when checking arching. When arching is selected roof loads are neglected.

Project Title:
Engineer:
Project ID:
Project Descr:

# Steel Beam

Project File: CK Lake City, FL.ec6

LIC# : KW-06015958, Build:20.22.7.25 JOHNSTON - BURKHOLDER (c) ENERCALC INC 1983-2022

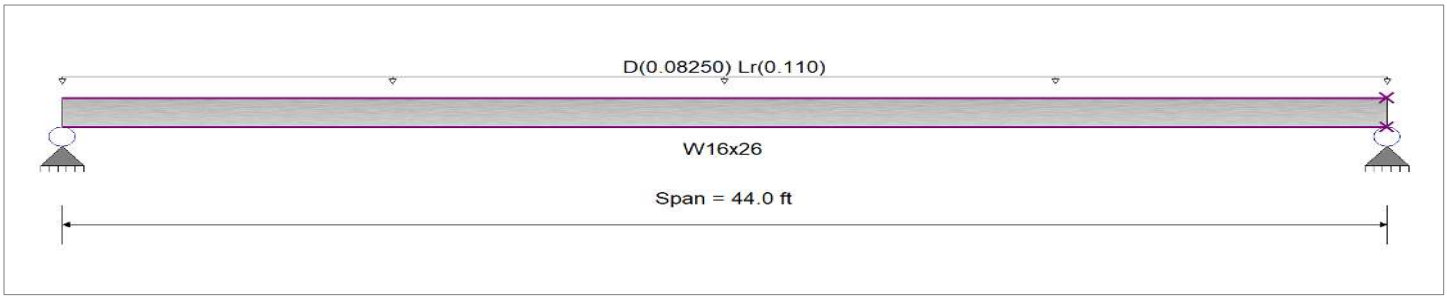
**DESCRIPTION:** Typical roof beam

## CODE REFERENCES

Calculations per AISC 360-16, IBC 2018, CBC 2019, ASCE 7-16
Load Combination Set : ASCE 7-16

## Material Properties

| | | | |
|---|---|---|---|
| Analysis Method : | Allowable Strength Design | Fy : Steel Yield : | 50.0 ksi |
| Beam Bracing : | Beam is Fully Braced against lateral-torsional buckling | E: Modulus : | 29,000.0 ksi |
| Bending Axis : | Major Axis Bending | | |




## Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.0150, Lr = 0.020 ksf, Tributary Width = 5.50 ft, (Roof DL + LL)

## DESIGN SUMMARY

**Design OK**

| | | | |
|---|---|---|---|
| Maximum Bending Stress Ratio = | 0.479 : 1 | Maximum Shear Stress Ratio = | 0.068 : 1 |
| Section used for this span | W16x26 | Section used for this span | W16x26 |
| Ma : Applied | 52.877 k-ft | Va : Applied | 4.807 k |
| Mn / Omega : Allowable | 110.279 k-ft | Vn/Omega : Allowable | 70.509 k |
| Load Combination | +D+Lr | Load Combination | +D+Lr |
| | | Location of maximum on span | 0.000 ft |
| Span # where maximum occurs | Span # 1 | Span # where maximum occurs | Span # 1 |

### Maximum Deflection

| | | | | | |
|---|---|---|---|---|---|
| Max Downward Transient Deflection | 1.067 in | Ratio = | 494 | >=360 | |
| Max Upward Transient Deflection | 0.000 in | Ratio = | 0 | <360 | Span: 1 : Lr Only |
| Max Downward Total Deflection | 2.121 in | Ratio = | 249 | >=180 | Span: 1 : +D+Lr |
| Max Upward Total Deflection | 0.000 in | Ratio = | 0 | <180 | |

## Maximum Forces & Stresses for Load Combinations

| Load Combination / Segment Length | Span # | Max Stress Ratios M | V | Summary of Moment Values Mmax + | Mmax - | Ma Max | Mnx | Mnx/Omega | Cb | Rm | Summary of Shear Values Va Max | VnxVnx/Omega |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D Only | | | | | | | | | | | | |
| Dsgn. L = 44.00 ft | 1 | 0.238 | 0.034 | 26.26 | | 26.26 | 184.17 | 110.28 | 1.00 | 1.00 | 2.39 | 117.75 70.51 |
| +D+Lr | | | | | | | | | | | | |
| Dsgn. L = 44.00 ft | 1 | 0.479 | 0.068 | 52.88 | | 52.88 | 184.17 | 110.28 | 1.00 | 1.00 | 4.81 | 117.75 70.51 |
| +D+0.750Lr | | | | | | | | | | | | |
| Dsgn. L = 44.00 ft | 1 | 0.419 | 0.060 | 46.22 | | 46.22 | 184.17 | 110.28 | 1.00 | 1.00 | 4.20 | 117.75 70.51 |
| +0.60D | | | | | | | | | | | | |
| Dsgn. L = 44.00 ft | 1 | 0.143 | 0.020 | 15.75 | | 15.75 | 184.17 | 110.28 | 1.00 | 1.00 | 1.43 | 117.75 70.51 |

## Overall Maximum Deflections

| Load Combination | Span | Max. "-" Defl | Location in Span | Load Combination | Max. "+" Defl | Location in Span |
|---|---|---|---|---|---|---|
| +D+Lr | 1 | 2.1206 | 22.126 | | 0.0000 | 0.000 |

## Vertical Reactions

Support notation : Far left is #1 Values in KIPS

| Load Combination | Support 1 | Support 2 |
|---|---|---|
| Overall MAXimum | 4.807 | 4.807 |
| Overall MINimum | 1.432 | 1.432 |
| D Only | 2.387 | 2.387 |
| +D+Lr | 4.807 | 4.807 |
| +D+0.750Lr | 4.202 | 4.202 |
| +0.60D | 1.432 | 1.432 |
| Lr Only | 2.420 | 2.420 |

Project Title:
Engineer:
Project ID:
Project Descr:

# Steel Beam

Project File: CK Lake City, FL.ec6

LIC# : KW-06015958, Build:20.22.7.25 JOHNSTON - BURKHOLDER (c) ENERCALC INC 1983-2022

**DESCRIPTION:** Typical roof beam - UPLIFT

## CODE REFERENCES

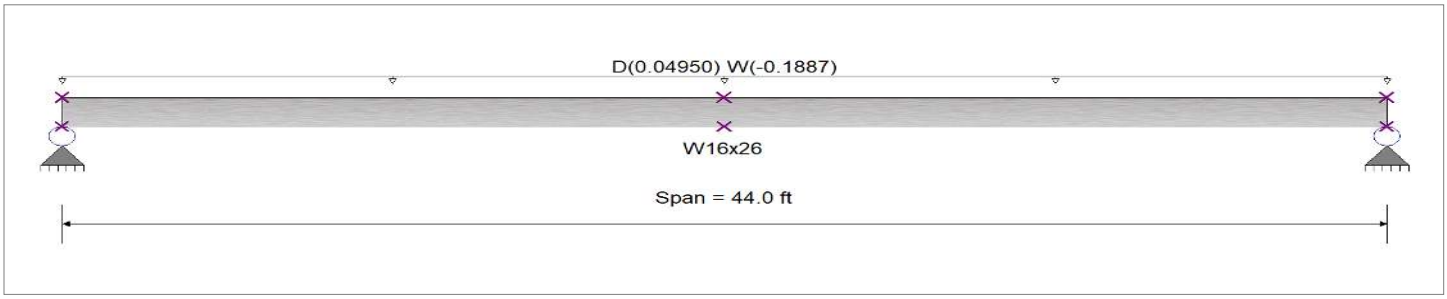
Calculations per AISC 360-16, IBC 2018, CBC 2019, ASCE 7-16
Load Combination Set : ASCE 7-16

## Material Properties

| | | | |
|---|---|---|---|
| Analysis Method : | Allowable Strength Design | Fy : Steel Yield : | 50.0 ksi |
| Beam Bracing : | Beam bracing is defined as a set spacing over all spans | E: Modulus : | 29,000.0 ksi |
| Bending Axis : | Major Axis Bending | | |

## Unbraced Lengths

First Brace starts at 22.0 ft from Left-Most support
Regular spacing of lateral supports on length of beam = 22.0 ft




## Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Uniform Load : D = 0.0090, W = -0.03430 ksf, Tributary Width = 5.50 ft, (Roof DL + LL)

## DESIGN SUMMARY

**Design OK**

| | | | |
|---|---|---|---|
| Maximum Bending Stress Ratio = | 0.891 : 1 | Maximum Shear Stress Ratio = | 0.026 : 1 |
| Section used for this span | W16x26 | Section used for this span | W16x26 |
| Ma : Applied | 20.205 k-ft | Va : Applied | 1.837 k |
| Mn / Omega : Allowable | 22.677 k-ft | Vn/Omega : Allowable | 70.509 k |
| Load Combination | +0.60D+0.60W | Load Combination | +0.60D+0.60W |
| | | Location of maximum on span | 0.000 ft |
| Span # where maximum occurs | Span # 1 | Span # where maximum occurs | Span # 1 |

**Maximum Deflection**

| | | | | | |
|---|---|---|---|---|---|
| Max Downward Transient Deflection | 0.000 in | Ratio = | 0 | <240.0 | Span: 1 : W Only |
| Max Upward Transient Deflection | -1.828 in | Ratio = | 288 | >=240. | |
| Max Downward Total Deflection | 0.480 in | Ratio = | 1099 | >=180 | Span: 1 : D Only |
| Max Upward Total Deflection | -0.810 in | Ratio = | 652 | >=180 | Span: 1 : +0.60D+0.60W |

## Maximum Forces & Stresses for Load Combinations

| Load Combination / Segment Length | Span # | Max Stress Ratios M | V | Summary of Moment Values Mmax + | Mmax - | Ma Max | Mnx | Mnx/Omega | Cb | Rm | Summary of Shear Values Va Max | VnxVnx/Omega |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D Only | | | | | | | | | | | | |
| Dsgn. L = 22.00 ft | 1 | 0.405 | 0.015 | 11.98 | | 11.98 | 49.35 | 29.55 | 1.30 | 1.00 | 1.09 | 117.75 70.51 |
| Dsgn. L = 22.00 ft | 1 | 0.408 | 0.015 | 11.98 | | 11.98 | 49.04 | 29.37 | 1.30 | 1.00 | 1.09 | 117.75 70.51 |
| +D+0.60W | | | | | | | | | | | | |
| Dsgn. L = 22.00 ft | 1 | 0.680 | 0.020 | | -15.41 | 15.41 | 37.87 | 22.68 | 1.00 | 1.00 | 1.40 | 117.75 70.51 |
| Dsgn. L = 22.00 ft | 1 | 0.680 | 0.020 | | -15.41 | 15.41 | 37.87 | 22.68 | 1.00 | 1.00 | 1.40 | 117.75 70.51 |
| +D+0.450W | | | | | | | | | | | | |
| Dsgn. L = 22.00 ft | 1 | 0.378 | 0.011 | | -8.56 | 8.56 | 37.87 | 22.68 | 1.00 | 1.00 | 0.78 | 117.75 70.51 |
| Dsgn. L = 22.00 ft | 1 | 0.378 | 0.011 | | -8.56 | 8.56 | 37.87 | 22.68 | 1.00 | 1.00 | 0.78 | 117.75 70.51 |
| +0.60D+0.60W | | | | | | | | | | | | |
| Dsgn. L = 22.00 ft | 1 | 0.891 | 0.026 | | -20.20 | 20.20 | 37.87 | 22.68 | 1.00 | 1.00 | 1.84 | 117.75 70.51 |
| Dsgn. L = 22.00 ft | 1 | 0.891 | 0.026 | | -20.20 | 20.20 | 37.87 | 22.68 | 1.00 | 1.00 | 1.84 | 117.75 70.51 |
| +0.60D | | | | | | | | | | | | |
| Dsgn. L = 22.00 ft | 1 | 0.243 | 0.009 | 7.19 | | 7.19 | 49.35 | 29.55 | 1.30 | 1.00 | 0.65 | 117.75 70.51 |
| Dsgn. L = 22.00 ft | 1 | 0.245 | 0.009 | 7.19 | | 7.19 | 49.04 | 29.37 | 1.30 | 1.00 | 0.65 | 117.75 70.51 |

## Overall Maximum Deflections

| Load Combination | Span | Max. "-" Defl | Location in Span | Load Combination | Max. "+" Defl | Location in Span |
|---|---|---|---|---|---|---|
| | 1 | 0.0000 | 0.000 | W Only | -1.8309 | 22.126 |

Project Title:
Engineer:
Project ID:
Project Descr:

# Steel Beam

Project File: CK Lake City, FL.ec6

LIC# : KW-06015958, Build:20.22.7.25 JOHNSTON - BURKHOLDER (c) ENERCALC INC 1983-2022

**DESCRIPTION:** Typical roof beam - UPLIFT

## Vertical Reactions

Support notation : Far left is #1 Values in KIPS

| Load Combination | Support 1 | Support 2 |
|---|---|---|
| Overall MAXimum | -4.150 | -4.150 |
| Overall MINimum | 0.653 | 0.653 |
| D Only | 1.089 | 1.089 |
| +D+0.60W | -1.401 | -1.401 |
| +D+0.450W | -0.779 | -0.779 |
| +0.60D+0.60W | -1.837 | -1.837 |
| +0.60D | 0.653 | 0.653 |
| W Only | -4.150 | -4.150 |

# COMcheck Software Version COMcheckWeb

# Envelope Compliance Certificate

## Project Information

| | |
|---|---|
| Energy Code: | 2020 Florida Building Code, Energy Conservation |
| Project Title: | Circle K Lake City FL addition |
| Location: | Alachua, Florida |
| Climate Zone: | 2a |
| Project Type: | Addition |

Construction Site:
143 NW Centurion Ct
Lake City, Florida 32055

Owner/Agent:

Designer/Contractor:
rdc
11921 Freedom Drive # 1110
Reston, Virginia 20190
703.668.0086

| Building Area | Floor Area |
|---|---|
| 1-Retail : Nonresidential | 965 |

## Envelope Assemblies

| Assembly | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | Proposed U-Factor | Budget U-Factor(a) |
|---|---|---|---|---|---|
| Floor: Unheated Slab-On-Grade, [Bldg. Use 1 - Retail] (b) | 88 | --- | --- | 0.730 | 0.730 |
| Roof: Insulation Entirely Above Deck, 3-Year-Aged Solar Reflectance Index = 55.00, Thermal Emittance = 0.75 (d), [Bldg. Use 1 - Retail] | 965 | --- | 38.0 | 0.026 | 0.039 |
| NORTH | | | | | |
| Ext. Wall: Concrete Block, 8in., Partially Grouted, Cells Ins., Normal Density, Furring: None (c), [Bldg. Use 1 - Retail] | 295 | --- | 7.6 | 0.068 | 0.151 |
| SOUTH | | | | | |
| Ext. Wall: Concrete Block, 6in., Partially Grouted, Cells Empty, Normal Density, Furring: None, [Bldg. Use 1 - Retail] | 313 | --- | 7.6 | 0.103 | 0.151 |
| WEST | | | | | |
| Ext. Wall: Concrete Block, 8in., Partially Grouted, Cells Empty, Normal Density, Furring: None, [Bldg. Use 1 - Retail] | 668 | --- | 7.6 | 0.101 | 0.151 |
| Door: Insulated Metal, Swinging, [Bldg. Use 1 - Retail] | 21 | --- | --- | 0.610 | 0.610 |

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.
(c) CMU insulated cells must be filled with a material having a maximum thermal conductivity of 0.44 Btu in./h-ft2-degrees F. Perlite, vermiculite, polystyrene beads, or spray foam as defined in ASHRAE 2009 Handbook of Fundamentals meet this requirement. Other materials require documentation of thermal conductivity.
(d) High albedo roof requirement options: 1) 3-year aged solar reflectance index >= 55.0 thermal emittance >= 0.75, 2) 3-year aged solar reflectance index >= 64.0, 3) Initial year aged solar reflectance >= 0.70 thermal emittance >= 0.75, 4) Initial year aged solar reflectance index >= 82.0.

**Envelope PASSES: Design 28% better than code**

## Envelope Compliance Statement

*Compliance Statement:* The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2020 Florida Building Code, Energy Conservation requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

| Name - Title | Signature | Date |
|---|---|---|

# COM*check* Software Version COMcheckWeb

# Inspection Checklist

Energy Code: 2020 Florida Building Code, Energy Conservation

Requirements: 0.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID | Plan Review | Complies? | Comments/Assumptions |
|---|---|---|---|
| C103.2 [PR1][1] | Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C402.4.1 [PR10][1] | The vertical fenestration area <= 30 percent of the gross above-grade wall area. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C402.4.1 [PR11][1] | The skylight area <= 3 percent of the gross roof area. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C402.4.2 [PR14][1] | In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent or <= 0.66 using Tubular Daylighting Device's VT rating. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C406 [PR9][1] | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

| Section # & Req.ID | Footing / Foundation Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C303.2 [FO4][2] | Slab edge insulation installed per manufacturer's instructions. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C303.2.1 [FO6][1] | Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C104 [FO3][2] | Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Envelope Assemblies table for values.* |
| C402.2.5 [FO7][2] | Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or >= 10 inches of soil. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Envelope Assemblies table for values.* |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

| Section # & Req.ID | Framing / Rough-In Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C303.1.3 [FR12][2] | Fenestration products rated in accordance with NFRC. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C303.1.3 [FR13][1] | Fenestration products are certified as to performance labels or certificates provided. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C402.4.3 [FR10][1] | Vertical fenestration SHGC value. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Envelope Assemblies table for values.* |
| C402.4.3, C402.4.3.4 [FR8][1] | Installed vertical fenestration U-factor and SHGC consistent with label specifications and as reported in plans and COMcheck reports. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Envelope Assemblies table for values.* |
| C402.5.1 [FR16][1] | The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

| Section # & Req.ID | Mechanical Rough-In Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C402.5.5, C403.2.4.3 [ME3][3] | Stair and elevator shaft vents have motorized dampers that automatically close. Refernece section C403.2.4.3 for operational details. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| Section # & Req.ID | Rough-In Electrical Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C405.6 [EL26][2] | Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.7 [EL27][2] | Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist). | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.8.2, C405.8.2.1 [EL28][2] | Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.5.3 [EL29][2] | Total voltage drop across the combination of feeders and branch circuits <= 5%. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| Section # & Req.ID | Insulation Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C402.2.1.1 [IN20][1] | Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roor/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C303.2 [IN10][2] | Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C303.2 [IN7][1] | Above-grade wall insulation installed per manufacturer's instructions. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C303.2.1 [IN14][2] | Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C104 [IN6][1] | Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Envelope Assemblies table for values.* |
| C402.2.4 [IN8][2] | Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Envelope Assemblies table for values.* |
| C402.2.6 [IN18][3] | Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C402.3 [IN5][3] | High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance >= 0.55 and thermal emittance >= 0.75 or 3-year-aged solar reflectance index >= 64.0. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C104 [IN2][1] | Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Envelope Assemblies table for values.* |
| C402.5.1.1 [IN1][1] | All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

| Section # & Req.ID | Final Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C402.5.6 [FI37][1] | Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C402.5.8 [FI26][3] | Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C408.1.1 [FI57][1] | Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, recommendations, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated. Regular maintenance actions shall be clearly stated on accessible label. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

# COM*check* Software Version COMcheckWeb

# Interior Lighting Compliance Certificate

Jason C. Adams State of Florida, Professional Engineer, License No. 75948
This item has been electronically signed and sealed by Jason C. Adams, PE on Aug 16, 2022 using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

## Project Information

| | |
|---|---|
| Energy Code: | 2020 Florida Building Code, Energy Conservation |
| Project Title: | Circle K Lake City FL addition |
| Project Type: | Addition |

Construction Site:
143 NW Centurion Ct
Lake City, Arkansas 32055

Owner/Agent:
Arkansas

Designer/Contractor:
Jason C. Adams P.E.
Benchmark Group
1805 N 2nd Street
Rogers, Arkansas 72756
479-636-5004
JCA@teamofchoice.com

JASON C. ADAMS LICENSE No. 75948 STATE OF FLORIDA PROFESSIONAL ENGINEER

## Allowed Interior Lighting Power

| A<br>Area Category | B<br>Floor Area (ft2) | C<br>Allowed Watts / ft2 | D<br>Allowed Watts |
|---|---|---|---|
| 1-Retail | 842 | 1.06 | 893 |
| | | Total Allowed Watts = | 893 |

## Proposed Interior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/ Fixture | C<br># of Fixture | D<br>Fixture Watt. | E<br>(C X D) |
|---|---|---|---|---|
| 1-Retail | | | | |
| LED: LED Other Fixture Unit 60W: | 1 | 16 | 50 | 800 |
| LED: LED Panel 41W: | 1 | 2 | 42 | 84 |
| | | | Total Proposed Watts = | 884 |

**Interior Lighting PASSES: Design 1% better than code**

## Interior Lighting Compliance Statement

*Compliance Statement:* The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2020 Florida Building Code, Energy Conservation requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jason C. Adams P. E. — Name - Title

Signature

08/16/22 — Date

# COM*check* Software Version COMcheckWeb

# Exterior Lighting Compliance Certificate

## Project Information

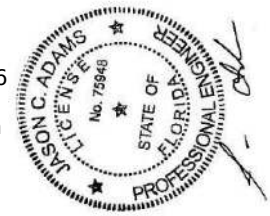
| | |
|---|---|
| Energy Code: | 2020 Florida Building Code, Energy Conservation |
| Project Title: | Circle K Lake City FL addition |
| Project Type: | Addition |
| Exterior Lighting Zone | 2 (Neighborhood business district (LZ2)) |

Jason C. Adams State of Florida, Professional Engineer, License No. 75948
This item has been electronically signed and sealed by Jason C. Adams, PE on Aug 16, 2022 using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Construction Site:
143 NW Centurion Ct
Lake City, Arkansas 32055

Owner/Agent:
Arkansas

Designer/Contractor:
Jason C. Adams P.E.
Benchmark Group
1805 N 2nd Street
Rogers, Arkansas 72756
479-636-5004
JCA@teamofchoice.com




## Allowed Exterior Lighting Power

| A<br>Area/Surface Category | B<br>Quantity | C<br>Allowed Watts / | D<br>Tradable Wattage | E<br>Allowed Watts (B X C) |
|---|---|---|---|---|
| Net added drive and parking (Driveway) | 37075 ft2 | 0.04 | Yes | 1483 |
| Diesel Sales Canopy (Free standing/attached sales canopy) | 1679 ft2 | 0.4 | Yes | 672 |
| Illuminated area of facade wall or surface | 220 ft2 | 0.07 | No | 16 |
| | | | Total Tradable Watts (a) = | 2155 |
| | | | Total Allowed Watts = | 2171 |
| | | | Total Allowed Supplemental Watts (b) = | 400 |

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

## Proposed Exterior Lighting Power

| A<br>Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B<br>Lamps/ Fixture | C<br># of Fixture | D<br>Fixture Watt. | E<br>(C X D) |
|---|---|---|---|---|
| Net added drive and parking (Driveway, 37075 ft2): Tradable Wattage | | | | |
| LED: A4B: LED Roadway-Parking Unit 42W: | 1 | 6 | 184 | 1104 |
| Diesel Sales Canopy (Free standing/attached sales canopy, 1679 ft2): Tradable Wattage | | | | |
| LED: CAN: LED Canopy Lights: LED Panel 54W: | 1 | 12 | 53 | 636 |
| LED: P1: LED Linear 8W: | 1 | 10 | 1 | 13 |
| LED: P118: Other: | 1 | 14 | 1 | 18 |
| Illuminated area of facade wall or surface (220 ft2): Non-tradable Wattage | | | | |
| LED: LED Other Fixture Unit 28W: | 1 | 1 | 31 | 31 |
| | | | Total Tradable Proposed Watts = | 1771 |

**Exterior Lighting PASSES: Design 30% better than code**

## Exterior Lighting Compliance Statement

*Compliance Statement:* The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2020 Florida Building Code, Energy Conservation requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

| Jason C. Adams P. E. | | 08/16/22 |
|---|---|---|
| Name - Title | Signature | Date |

# Inspection Checklist

Energy Code: 2020 Florida Building Code, Energy Conservation

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID | Plan Review | Complies? | Comments/Assumptions |
|---|---|---|---|
| C103.2 [PR4][1] | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C103.2 [PR8][1] | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C406 [PR9][1] | Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

| Section # & Req.ID | Rough-In Electrical Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C405.2.2.2 [EL22][1] | Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.2.1, C405.2.1.1 [EL18][1] | Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.2.1.2 [EL19][1] | Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.2.1.3 [EL20][1] | Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.2.2, C405.2.2.1, C405.2.2.2 [EL21][2] | Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

| Section # & Req.ID | Rough-In Electrical Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C405.2.3, C405.2.3.1, C405.2.3.2 [EL23][2] | Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.2.4 [EL26][1] | Separate lighting control devices for specific uses installed per approved lighting plans. 1. Display and accent lighting, lighting in display cases, supplemental task lighting and lighting equipment for sale shall have occupancy sensor control. 2) Sleeping units shall have auto off controls. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.2.5 [EL28][3] | Manual lighting controls are in a location with ready access and where controlled lights are visible. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.2.6 [EL30][3] | Exterior lighting systems provided with controls complying with C405.2.6.1 through C405.2.6.4 for daylight shutoff and decorative lighting shutoff. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.6 [EL26][2] | Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.7 [EL27][2] | Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist). | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.8.2, C405.8.2.1 [EL28][2] | Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.5.3 [EL29][2] | Total voltage drop across the combination of feeders and branch circuits <= 5%. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|---|---|---|---|---|

| Section # & Req.ID | Final Inspection | Complies? | Comments/Assumptions |
|---|---|---|---|
| C408.2.5.2 [FI17][3] | Furnished O&M instructions for systems and equipment to the building owner or designated representative. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C405.3.2 [FI18][1] | Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Interior Lighting fixture schedule for values.* |
| C405.4.2 [FI19][1] | Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | *See the Exterior Lighting fixture schedule for values.* |
| C408.1.1 [FI57][1] | Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, recommendations, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated. Regular maintenance actions shall be clearly stated on accessible label. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |
| C408.3 [FI33][1] | Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation. | ☐Complies<br>☐Does Not<br>☐Not Observable<br>☐Not Applicable | |

**Additional Comments/Assumptions:**

| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
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