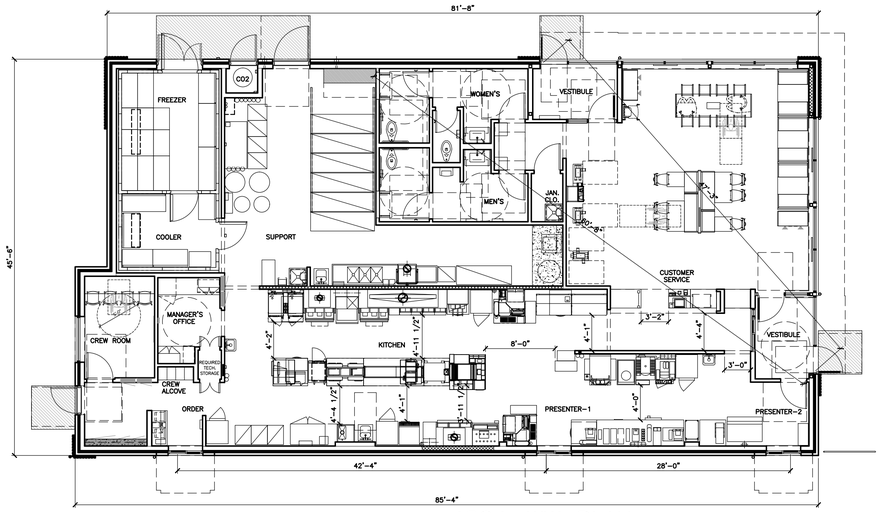


4584-WW PLAN

32 SEATS (2 ACCESSIBLE SEATS)

THIS DRAWING IS FOR SEATING REFERENCE ONLY
(SEATING LAYOUT NOT FOR CONSTRUCTION)

SEATING LAYOUT IS SCHEMATIC, THE FINAL SEATING LAYOUT TO BE PROVIDED BY DECOR, UNDER SEPARATE COVER BY OTHERS

NORTH

OCCUPANCY ALLOWANCE:

2018 INTERNATIONAL BUILDING CODE

TABLE 1004.5

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	ALLOWANCE	AREA	OCCUPANTS
ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 GROSS	588 SF	2
ASSEMBLY WITH FIXED SEATS	SEE PLAN	–	32
ASSEMBLY W/OUT FIXED SEATS, STANDING SPACE	5 NET	110 SF	22
BUSINESS AREAS	150 GROSS	64 SF	1
KITCHENS, COMMERCIAL (BASED ON FULL KITCHEN STAFF)	200 GROSS	–	14
TOTAL OCCUPANCY ALLOWANCE			71

SYMBOL LEGEND:

- 6 / A4.0 — SECTION TAG
- 6 / A4.0 — DETAIL TAG
- 5 / A6.0 — DETAIL TAG
- T/ SLAB ELEV. 0'-0" — ELEVATION TAG
- 6 / A4.0 DETAIL 1 1/2"=1'-0" DETAIL NUMBER — DRAWING TITLE
- 7 — DOOR TAG
- DINING ROOM 103 — ROOM NAME & NUMBER
- A — PARTITION TAG

DESIGNER OF RECORD

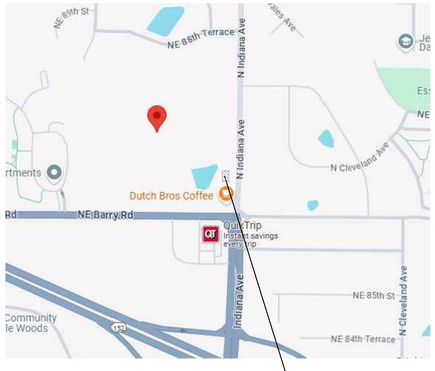
DISCIPLINE:	NAME:	ADDRESS:	LICENSE #
ARCHITECT:	Reprise Design Corey Allan Englund (952) 252-4042	12400 Portland Avenue Burnsville, MN 55337 Suite #100	A-2023032608
STRUCTURAL:	Voigt & Associates Paul W. Voigt (651) 686-7727	4635 Nicols Road Eagan, MN 55122	PE-2008007656
MECHANICAL:	Emanuelson-Podas, Inc Michael A. Webert (952) 930-0050	7705 Bush Lake Road Edina, MN 55439	2004000077
PLUMBING:	Emanuelson-Podas, Inc Michael A. Webert (952) 930-0050	7705 Bush Lake Road Edina, MN 55439	2004000077
ELECTRICAL:	Emanuelson-Podas, Inc Matthew W. Fults (952) 930-0050	7705 Bush Lake Road Edina, MN 55439	2004005366

McDONALD'S CONSTRUCTION PROJECT MANAGER

MANAGER:	NAME:	EMAIL:	PHONE #
	Todd Wright	todd.wright@us.mcd.com	(773) 805-7114

IF YOU HAVE ANY QUESTIONS REGARDING THESE PLANS, PLEASE CONTACT THE ARCHITECTURAL PROJECT MANAGER:

Kristi Donahue
PHONE: 763-244-4752
EMAIL: kdonahue@reprisedesign.com



VICINITY MAP:

2024 4584-WW BLDG-BB20
DENVER FIELD OFFICE

BUILDING INFORMATION:

ADDRESS:

STATE SITE CODE:	024-1306
STREET ADDRESS:	8712 N. INDIANA AVENUE
CITY:	KANSAS CITY
COUNTY:	CLAY
STATE:	MISSOURI

STRUCTURE:

WOOD LOAD BEARING WALLS, WOOD ROOF FRAMING

UTILITIES:

ELECTRIC GRILLS & ELECTRIC FRYERS
GAS HVAC & GAS WATER HEATER

BUILDING CODE:

BUILDING CODE EDITION:	2018 INTERNATIONAL BUILDING CODE
MECHANICAL CODE EDITION:	2018 INTERNATIONAL MECHANICAL CODE
ELECTRICAL CODE EDITION:	2017 NATIONAL ELECTRICAL CODE
PLUMBING CODE EDITION:	2018 UNIFORM PLUMBING CODE
ENERGY CODE EDITION:	2021 INTERNATIONAL ENERGY CONSERVATION CODE
FIRE/LIFE SAFETY CODE EDITION:	2018 IFC & NFPA 101 LIFE SAFETY CODE
FUEL/GAS CODE EDITION:	2018 INTERNATIONAL FUEL GAS CODE
HEALTH CODE EDITION:	MISSOURI FOOD CODE
ACCESSIBILITY CODE EDITION:	2009 ICC A117.1

BUILDING DATA:

OCCUPANCY:	USE GROUP A2
CONSTRUCTION TYPE:	VB
NUMBER OF STORIES:	1
BUILDING HEIGHT:	18'-9 1/2" (MAIN BLDG. PARAPET)
GROSS BUILDING AREA:	3,795 S.F.
FLOOR AREA, GROSS:	3,521 S.F.

DESIGN LOADS:

SEE GENERAL STRUCTURAL NOTES ON S4.0

LIFE SAFETY SYSTEM:

EMERGENCY LIGHTING:	X	YES		NO
EXIT SIGNS:	X	YES		NO
FIRE ALARM:		YES	X	NO
DUCT SMOKE DETECTORS W/ AUDIBULE/VISIBLE DEVICE:	X	YES		NO
FIRE SPRINKLERS:		YES	X	NO
SPRINKLER FLOW/TAMPER SWITCH W/ AUDIBLE/VISIBLE DEVICE:		YES	X	NO
CO2 DETECTION SYSTEM W/ AUDIBLE/VISIBLE DEVICE:	X	YES		NO
PANIC HARDWARE:	X	YES		NO

REVISIONS

DRAWING INDEX

T1.0 Cover Sheet
GN1.0 General Notes

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DT1.0 Drive-Thru Plan & Details

REFERENCE
R1.0 Exiting Plan

TRASH CORRAL
TC1.0 TRASH CORRAL

CIVIL (FOR REFERENCE ONLY)
SEE CIVIL FOR SPECIFIC SHEETS

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A1.2 Reflected Ceiling Plan & Details
A1.3 Roof Plan & Details
A2.0 Exterior Elevations
A2.1 Exterior Elevations & Details
A3.1 Service Area Plan & Details
A4.0 Enlarged Restroom Plan & Details
A4.1 Enlarged Plan Details
A5.0 Wall Sections & Details
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A5.2 Wall Sections & Details
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A6.0 Door & Hardware Schedules & Details
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S1.2 Roof Framing Plan
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S3.1 Steel Details
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MECHANICAL
M1.0 Mechanical Roof Plan
M1.2 Ductwork Plan
M1.4 Refrigerant & Gas Piping Plan
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M4.1 Mechanical Schedules

PLUMBING
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P1.2 Waste, Vent & Storm Piping Plan
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P1.4 Underground Rough-in Plan
P1.5 Underground Rough-in Plan
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E1.1 Rough-In Floor Plan
E2.0 Lighting Plan & Schedule
E2.2 Electrical Roof Plan
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E3.1 Electrical & Lighting Notes and Details
E3.2 Interlock Wiring Diagrams
E4.0 Wiring Details
E4.1 Lighting Controls
E4.2 Split Utility Distribution

KITCHEN EQUIPMENT
K1.0 Kitchen Cover Sheet
K2.0 Kitchen Equipment Plan
K2.1 Kitchen Equipment Schedule

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

reprise DESIGN
Architecture, Inc.
12400 Portland Avenue South
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PREPARED BY:

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
ROJ#	24247

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 4.30.16

SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

L/C: 024-1306

SHEET NO.
024-1306.00.0
T1.0
COVER

GENERAL NOTES

1. ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES, REGULATIONS, ORDINANCES AND STANDARDS INCLUDING ADA AND OR OTHER HANDICAP ACCESSIBILITY CODES.
2. GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE OWNER'S VENDORS REGARDING SCHEDULING ON SITE DURING CONSTRUCTION AND SEQUENCING OF THE WORK.
3. THE CONSTRUCTION NOTES AND DRAWINGS ARE SUPPLIED TO ILLUSTRATE THE DESIGN INTENT AND GENERAL TYPE OF CONSTRUCTION DESIRED AND ARE INTENDED TO IMPLY THE FINEST QUALITY OF CONSTRUCTION, MATERIAL AND WORKMANSHIP THROUGHOUT.
4. THE DRAWINGS ARE NOT TO BE SCALED. FOR INFORMATION CONCERNING EXISTING CONDITIONS, ETC., VERIFICATION MUST BE DONE IN THE FIELD. LARGE SCALE DRAWINGS HAVE PRECEDENCE OVER SMALL SCALE DRAWINGS.
5. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF ALL EXISTING ABOVE AND BELOW GRADE, UTILITIES, INCLUDING SANITARY SEWER, STORM SEWER, WATER, GAS, ELECTRICAL, TELEPHONE, ETC. ANY DISCREPANCIES IN UTILITY LOCATIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
6. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL BUILDING DIMENSIONS PRIOR TO BEGINNING CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY VARIANCE OR DISCREPANCY AFFECTING NEW CONSTRUCTION PRIOR TO PROCEEDING WITH WORK.
7. CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING IN WALLS FOR SUPPORT OF ALL EQUIPMENT, SHELVING, ACCESSORIES, SIGNAGE, AND OTHER DEVICES REQUIRED.
8. ALL PENETRATIONS SHALL RECEIVE CAULKING TO SEAL ANY TYPE OF ENERGY LOSS.
9. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL APPLICABLE DIMENSIONS OF FIXTURES AND EQUIPMENT SUPPLIED AND/OR INSTALLED BY OTHERS.
10. UPON COMPLETION OF PROJECT, G.C. TO OBTAIN ALL FINAL INSPECTIONS AS REQUIRED BY LOCAL JURISDICTIONS AND FURNISH OWNER WITH EVIDENCE OF ALL SUCH INSPECTIONS AND CERTIFICATES OF OCCUPANCY.
11. SIGNS, UNLESS NOTED OTHERWISE, ARE PROVIDED BY OWNER'S SIGN CONTRACTOR. OWNER'S SIGN VENDOR WILL PROVIDE MONUMENT SIGN BASE (CONCRETE, STONE, BRICK, ETC.) IF PROJECT REQUIRES DECORATIVE BASE. SEE SHEET L-1 TO VERIFY IF REQUIRED. GENERAL CONTRACTOR TO PROVIDE ROUGH-IN & FINAL CONNECTION AND BRAILLE EXIT SIGN.
12. GENERAL CONTRACTOR TO PROVIDE FOUR (4) 30 YARD DUMPSTERS DURING McDONALD'S RETAIL MOVE-IN.
13. GENERAL CONTRACTOR SHALL PROVIDE ONE SKILLED LABORER FOR ONE WEEK DURING McDONALD'S RETAIL MOVE-IN. (40 HOURS)
14. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SET-UP AND COORDINATION OF ALL THE UTILITY SERVICES FOR THE PROJECT.
15. ALL EXTERIOR FLOOR PLAN DIMENSIONS ARE TO COLUMN REFERENCE LINES AND EXTERIOR FACE OF FINISH UNLESS OTHERWISE NOTED. ALL INTERIOR FLOOR PLAN DIMENSIONS ARE TO FACE OF 1/2" INTERIOR WALL BOARD UNLESS OTHERWISE NOTED.
16. FINAL KEYING TO BE COORDINATED WITH McDONALD'S FACILITY MANAGER AND PAID FOR BY McDONALD'S.
17. REFER TO "PROJECT MANUAL" FOR ALL OTHER INSTRUCTIONS & DIRECTIVES NOT SHOWN IN DRAWINGS. IF THERE IS A CONFLICT BETWEEN THE DRAWINGS AND PROJECT MANUAL, NOTIFY THE AREA CONSTRUCTION MANAGER FOR RESOLUTION.

ABBREVIATIONS

GENERAL ABBREVIATIONS

A	ANNEALED
AC	AIR CONDITIONING
ACT	ACOUSTIC CEILING TILE
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
ASPH	ASPHALT
BLK'G	BLOCKING
B	BOTTOM
CJ	CONTROL JOINT
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CP	CONCRETE PAD
CT	CERAMIC TILE
CL	CENTERLINE
DBL	DOUBLE
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DN	DOWN
DO	DOWNSPOUT
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQPM	EQUIPMENT
EXIST	EXISTING
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FR	FIRE RATED
FRP	FIBERGLASS REINFORCED PLASTIC
FRM	FRAME
GALV	GALVANIZED
GYP BD	GYPSUM BOARD
HC	HANDICAP
HDW	HARDWARE
HM	HOLLOW METAL
HT	HEIGHT
H	HIGH
HVAC	HEATING, VENTILATION, AIR CONDITIONING
INSUL	INSULATION
JC	JANITOR'S CLOSET
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MTL	METAL
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE
OPT	OPTIONAL
PAR	PARTIAL
PF	PRE-FABRICATED
PLYWD	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
PTD	PAINTED
QT	QUARRY TILE
R	RADIUS
REBAR	REINFORCING BAR
REF	REFERENCE
REQD.	REQUIRED
RO	ROUGH OPENING
SB	SPLASHBLOCK
SIM	SIMILAR
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STL	STEEL
STOR	STORAGE
SUSP	SUSPENDED
T	TOP
TEMP	TEMPERED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VWC	VINYL WALL COVERING
VERT	VERTICAL
WD	WOOD
WP	WATERPROOF
WDW	WINDOW
WWF	WELDED WIRE FABRIC

McDONALD'S ABBREVIATIONS

AP	APOLIC MENTAL PANEL
BM	BRAKE METAL
C	ALUMINUM CANOPY
COMP	COMPUTER
COR	CORIAN
CG	CORNER GUARD
CT	CERAMIC TILE
DE	DECOR ELEMENT
DF	DECOR FINISH
DEVICE	
DMB	DIGITAL MENU BOARD
DS	DROP SOFFIT
D/T	DRIVE-THRU
FB	FILL BOX
F/C	FREEZER/COOLER
GC	GENERAL CONTRACTOR
HP	HIGH POINT
IWS	INTERIOR WAYFINDING SIGNAGE
KIOSK	
L	LIGHT FIXTURE
LAM	LAMINATE
LE	ACCENT LIGHTING
LP	LOW POINT
LL	LEVEL LANDING
LW	LATE-NIGHT WINDOW
MACHINE	
MGR'S	MANAGER'S
MF	METAL FASCIA
MP	METAL INFILL PANEL
MS	MOP SINK
PB	PIPE BILLARD
PT	RMHC COIN COLLECTOR
RL	ROOF LADDER
ROOM	
S	McDONALD'S SIGNAGE
SCH	SHLUTER
SSBB	SELF SERVE BEVERAGE BAR
UN	ALUMINUM CANOPY UNDERSCORE
WF	WALL FINISH

REV	DATE	DESCRIPTION	BY
.	02/26/25	BID SET	AL
.	12/06/24	BID SET	AL

PREPARED BY:
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12400 Portland Avenue South
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PREPARED FOR:
McDonald's USA, LLC

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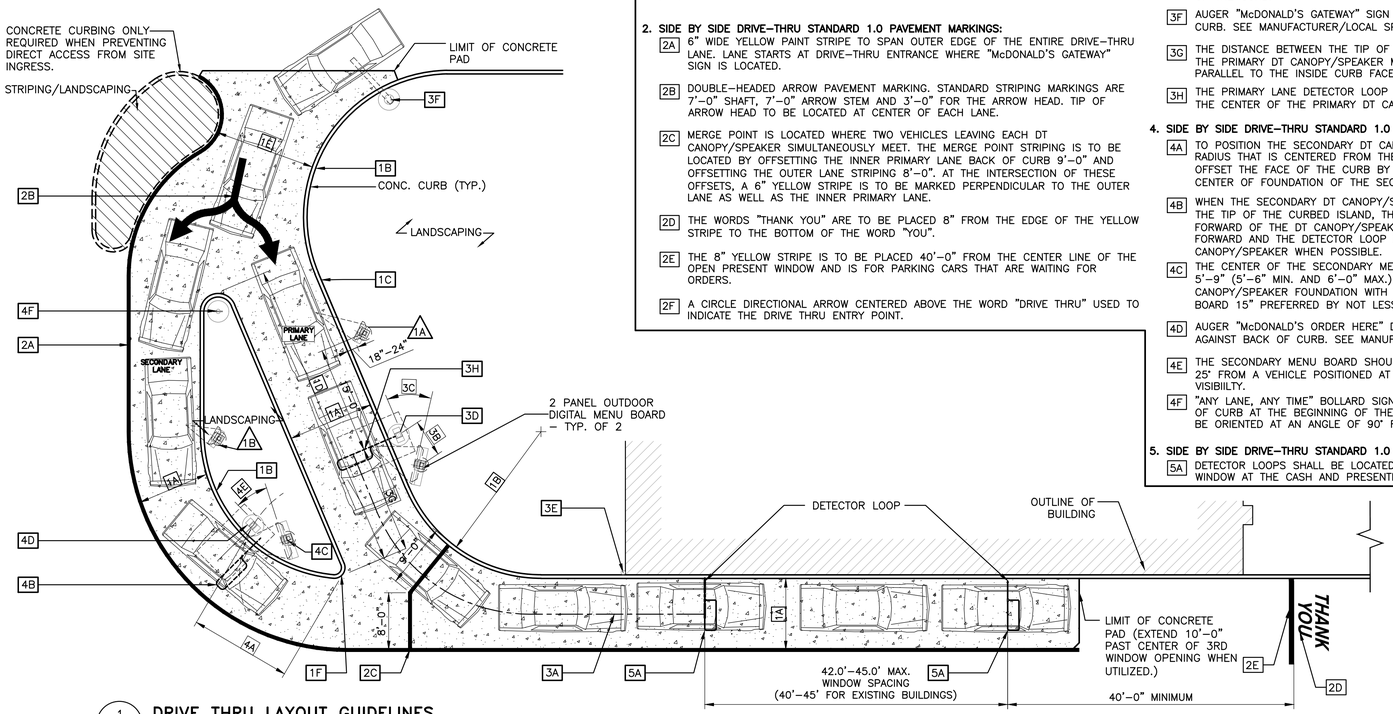
DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
RQ#	24247

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
	WOOD TRUSS ROOF FRAMING
	E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
NSN: 43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024-1306	

SHEET NO.: GN1.0
024-1306.00.0
GENERAL NOTES

THE LAYOUT OF THE DRIVE–THRU LANES SHOWN IN THIS DETAIL ILLUSTRATES DRIVE–THRU DESIGN PRINCIPLES.



1 DT1.0 **DRIVE THRU LAYOUT GUIDELINES**
1" = 10'–0"

SIDE BY SIDE DRIVE–THRU STANDARD 1.0

1. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 CURBING DETAILS:

1A DRIVE–THRU LANES BOUND BY CURB ON BOTH SIDES ARE TO BE 12'–0". LANES BOUND BY CURB ON ONE SIDE AND PAINTED STRIPING ON THE OTHER SIDE ARE TO BE A MIN. OF 10'–0".

1B THE MIN. RADIUS FOR ALL INSIDE/DRIVER'S SIDE DRIVE–THRU CURBING IS 20'–0".

1C PRIMARY LANE CURBING SHOULD BE AS STRAIGHT AS POSSIBLE. (LESS CURVING, THE BETTER).

1D THE OVERALL LENGTH OF THE CURBED ISLAND SHOULD BE 35'–45'. THE LENGTH OF THE ISLAND FROM THE DT CANOPY/SPEAKER ALLOWS FOR THREE CARS IN THE SECONDARY LANE, TWO IN THE PRIMARY LANE AND ONE AT THE COMMITMENT POINT.

1E ENTRANCE LANE ENTERING THE SIDE BY SIDE DRIVE–THRU IS TO BE 14'–0" MIN.

1F THE RADIUS FOR THE ISLAND TIP SHALL BE 1'–6".

2. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 PAVEMENT MARKINGS:

2A 6" WIDE YELLOW PAINT STRIPE TO SPAN OUTER EDGE OF THE ENTIRE DRIVE–THRU LANE. LANE STARTS AT DRIVE–THRU ENTRANCE WHERE "McDONALD'S GATEWAY" SIGN IS LOCATED.

2B DOUBLE–HEADED ARROW PAVEMENT MARKING. STANDARD STRIPING MARKINGS ARE 7'–0" SHAFT, 7'–0" ARROW STEM AND 3'–0" FOR THE ARROW HEAD. TIP OF ARROW HEAD TO BE LOCATED AT CENTER OF EACH LANE.

2C MERGE POINT IS LOCATED WHERE TWO VEHICLES LEAVING EACH DT CANOPY/SPEAKER SIMULTANEOUSLY MEET. THE MERGE POINT STRIPING IS TO BE LOCATED BY OFFSETTING THE INNER PRIMARY LANE BACK OF CURB 9'–0" AND OFFSETTING THE OUTER LANE STRIPING 8'–0". AT THE INTERSECTION OF THESE OFFSETS, A 6" YELLOW STRIPE IS TO BE MARKED PERPENDICULAR TO THE OUTER LANE AS WELL AS THE INNER PRIMARY LANE.

2D THE WORDS "THANK YOU" ARE TO BE PLACED 8" FROM THE EDGE OF THE YELLOW STRIPE TO THE BOTTOM OF THE WORD "YOU".

2E THE 8" YELLOW STRIPE IS TO BE PLACED 40'–0" FROM THE CENTER LINE OF THE OPEN PRESENT WINDOW AND IS FOR PARKING CARS THAT ARE WAITING FOR ORDERS.

2F A CIRCLE DIRECTIONAL ARROW CENTERED ABOVE THE WORD "DRIVE THRU" USED TO INDICATE THE DRIVE THRU ENTRY POINT.

3. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 EQUIPMENT POSITIONING FOR <u>PRIMARY LANE</u>:

3A MIN. 60'–0" (+5', 60'–65') LINEAR DISTANCE BETWEEN THE CENTER LINE OF THE DT CANOPY/SPEAKER FACE AND THE CENTER LINE OF THE OPEN ORDER BOOTH WINDOW AS MEASURED ALONG THE CENTER LINE OF THE LANE. THIS MAY ONLY BE INCREASED IN 20'–0" INCREMENTS (±5' FOR 80', 100', AND 120') TO A MAX OF 120'. 100'–0" IS OPTIMAL.

3B THE CENTER OF THE PRIMARY MENU BOARD FOUNDATION IS TO BE 5'–9" (5'–6" MIN. AND 6'–0" MAX.) FROM THE CENTER OF THE DT CANOPY/SPEAKER FOUNDATION WITH THE END CAP OF THE PRIMARY MENU BOARD 15" PREFERRED BUT NOT LESS THAN 12" FROM THE FACE OF CURB.

3C THE PRIMARY MENU BOARD SHOULD BE AT AN ANGLE OF APPROXIMATELY 25° TO 35° ANGLE (35° PREFERRED) FROM A CAR POSITIONED AT THE DT CANOPY/SPEAKER AND WITH 100% VISIBILITY.

3D AUGER "McDONALD'S ORDER HERE CANOPY" CANOPY FOUNDATION TIGHT AGAINST BACK OF CURB. SEE MANUFACTURER/LOCAL SPECIFICATIONS FOR DETAILS.

3E A SINGLE BOLLARD SHOULD BE POSITIONED AT THE CORNER OF THE BUILDING ON THE DRIVE–THRU SIDE. IT SHOULD BE FLUSH AGAINST THE BUILDING AND FACE OF THE BOLLARD SHOULD BE TIGHT AGAINST THE BACK OF THE CURB.

3F AUGER "McDONALD'S GATEWAY" SIGN FOUNDATION TIGHT AGAINST BACK OF CURB. SEE MANUFACTURER/LOCAL SPECIFICATIONS FOR DETAILS.

3G THE DISTANCE BETWEEN THE TIP OF THE CURBED ISLAND AND THE CENTER LINE OF THE PRIMARY DT CANOPY/SPEAKER MUST BE 15'–0". THIS MEASUREMENT IS TAKEN PARALLEL TO THE INSIDE CURB FACE OF THE PRIMARY LANE.

3H THE PRIMARY LANE DETECTOR LOOP SHOULD BE PERPENDICULAR TO THE CENTER OF THE PRIMARY DT CANOPY/SPEAKER.

4. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 EQUIPMENT POSITIONING FOR <u>SECONDARY LANE</u>:

4A TO POSITION THE SECONDARY DT CANOPY/SPEAKER, DRAW AN ARC WITH A 14' RADIUS THAT IS CENTERED FROM THE MIDPOINT OF THE ISLAND TIP. THEN OFFSET THE FACE OF THE CURB BY 24" TO DETERMINE THE LOCATION OF CENTER OF FOUNDATION OF THE SECONDARY DT CANOPY/SPEAKER.

4B WHEN THE SECONDARY DT CANOPY/SPEAKER IS LOCATED AT 14'–0" FROM THE TIP OF THE CURBED ISLAND, THE LOOP DETECTOR IS TO BE 2'–0" FORWARD OF THE DT CANOPY/SPEAKER CENTER LINE WITH THE LOOP FACING FORWARD AND THE DETECTOR LOOP PERPENDICULAR TO THE SECONDARY DT CANOPY/SPEAKER WHEN POSSIBLE.

4C THE CENTER OF THE SECONDARY MENU BOARD FOUNDATION SHALL BE 5'–9" (5'–6" MIN. AND 6'–0" MAX.) FROM CENTER OF THE DT CANOPY/SPEAKER FOUNDATION WITH THE END CAP OF THE SECONDARY MENU BOARD 15" PREFERRED BY NOT LESS THAN 12" FROM FACE OF CURB.

4D AUGER "McDONALD'S ORDER HERE" DT CANOPY/SPEAKER FOUNDATION TIGHT AGAINST BACK OF CURB. SEE MANUFACTURER/LOCAL SPECIFICATIONS FOR DETAILS.

4E THE SECONDARY MENU BOARD SHOULD BE AT AN ANGLE OF APPROXIMATELY 25° FROM A VEHICLE POSITIONED AT THE DT CANOPY/SPEAKER AND WITH 100% VISIBIILTY.

4F "ANY LANE, ANY TIME" BOLLARD SIGN MUST BE A MIN. OF 1'–6" FROM FACE OF CURB AT THE BEGINNING OF THE LANDSCAPE ISLAND. BOLLARD SIGN IS TO BE ORIENTED AT AN ANGLE OF 90° FROM THE CURB.

5. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 DETECTOR LOOP:

5A DETECTOR LOOPS SHALL BE LOCATED AT THE CENTER OF THE OPENING WINDOW AT THE CASH AND PRESENTER BOOTHS.

SIDE BY SIDE DRIVE–THRU STANDARD 1.0 FEATURES:

1. SIDE BY SIDE DRIVE–THRU STANDARD 1.0 EQUIPMENT:

1A PRE–BROWSE BOARD MUST BE 18"–24" FROM FACE OF CURB. THE DISTANCE BETWEEN THE PRIMARY DT CANOPY/SPEAKER AND PRE–BROWSE BOARD IS TO BE 15' AS MEASURED ALONG THE FACE OF CURB. THIS IS MEASURED FROM THE CENTER OF THE PRE–BROWSE BOARD FOUNDATION TO THE CENTER OF THE DT CANOPY/SPEAKER FOUNDATION. THE ANGLE (APPROXIMATELY 50°) OF THE PRE–BROWSE BOARD SHOULD MAXIMIZE VISIBILITY TO THE SECOND CAR FROM DT CANOPY/SPEAKER.

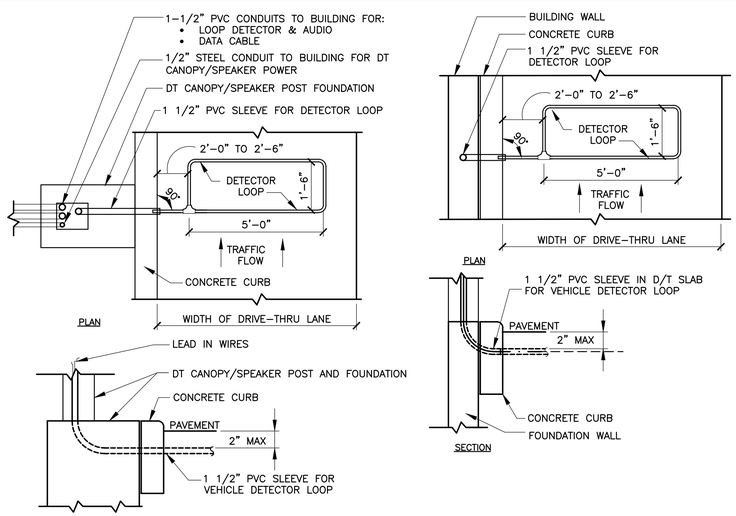
1B PRE–BROWSE BOARD MUST BE MIN. 12" FROM FACE OF CURB. THE DISTANCE BETWEEN THE SECONDARY DT CANOPY/SPEAKER AND PRE–BROWSE BOARD IS TO BE 15' AS MEASURED ALONG FACE OF THE CURB. THIS IS MEASURED FROM THE POINT PERPENDICULAR TO THE CENTER OF THE PRE–BROWSE BOARD FOUNDATION TO THE POINT PERPENDICULAR TO THE CENTER OF THE DT CANOPY/SPEAKER FOUNDATION. THE ANGLE OF THE PRE–BROWSE BOARD SHOULD MAXIMIZE VISIBILITY TO THE SECOND CAR FROM DT CANOPY/SPEAKER (PREFERRED 35°).

GENERAL NOTES

1. <u>DRIVE–THRU ELEMENTS:</u>
   DT CANOPY/SPEAKER DRIVE–THRU PYLON/CLEARANCE POLE AND BOLLARD SIGN SHALL BE CONSISTENT WITH THE STANDARD BUILDING DESIGN DRIVE–THRU ELEMENTS.
   <u>OTHER DESIGNS MAY NOT BE USED.</u>
2. CONTRACTOR SHALL COORDINATE WITH APPLICABLE PLANS, McDONALD'S AREA CONSTRUCTION MANAGER, CONTENT SUPPLIER AND SIGNAGE SUPPLIER TO DETERMINE EXACT LOCATION, ORIENTATION, MOUNTING HEIGHTS, AND NUMBER OF BOARDS AND OTHER DRIVE–THRU ELEMENTS TO BE INSTALLED AT THIS SITE. ALL WORK TO BE COORDINATED WITH OTHER TRADES.
3. CONTACT McDONALD'S AREA CONSTRUCTION MANAGER FOR DRIVE–THRU ELEMENT FOOTING AND WIRING REQUIREMENTS NOT SHOWN. (INFORMATION ALSO AVAILABLE THROUGH VENDOR WEBSITES) SIGNAGE MANUFACTURER TO PROVIDE FOOTING ANCHORS & TEMPLATES TO G.C. PRIOR TO FOUNDATION POURING.
4. SEE DETAIL 2/DT1.0 FOR DETECTOR LOOP INFORMATION, ELECTRICAL SHEETS FOR LOW VOLTAGE CONDUIT DIAGRAM AND FOR DRIVE THRU POWER DIAGRAM; VENDOR'S SPECIFICATIONS SHALL GOVERN UPON ANY DISCREPANCIES.
5. CONTRACTOR TO COORDINATE THE RESPONSIBILITIES OF THE ELECTRICAL CONTRACTOR, CONTENT SUPPLIER AND THE SIGN SUPPLIER.
6. CONTRACTOR TO INSTALL PRE–FORMED, PRE–WIRED VEHICLE DETECTOR LOOP.
7. CONTRACTOR SHALL VERIFY CONDUIT SIZES REQUIRED BY VEHICLE LOOP DETECTOR SUPPLIER.

NOTES

1. VERIFY CONDUIT SIZES AND LAYOUT WITH DETECTOR LOOP MANUFACTURER.
2. CENTER VEHICLE DETECTOR LOOP IN DRIVE THRU LANE. INSTALL PER MFR. RECOMMENDATIONS.
3. NO STEEL (REBAR OR ELECTRICAL WIRE) SHALL BE USED WITHIN 2' OF LOOP.
4. <u>DETECTOR LOOP MANUFACTURERS:</u>
   DETECTOR LOOPS MAY BE BY ONE OF THE FOLLOWINGS COMPANIES OR EQUAL.
   3M: 1–800–328–0033
   HME: 1–800–848–4468
5. <u>DETECTOR LOOP MATERIAL:</u>
   PVC TUBING 1/2" I.D. 100 PSI LOOP MADE FROM ONE LENGTH OF THIN FOURTEEN GAUGE STRANDED WIRE. LEAD–IN IS PRE–TWISTED AT FACTORY.
6. <u>DETECTOR LOOP CONSTRUCTION:</u>
   FORMED WITH ONE CONTINUOUS LENGTH OF PVC WITH NO SHARP CORNERS AS DETAILED. WIRE LOOPED, FORMED, & PIGTAILED AS DETAILED.



2 DT1.0 **DETECTOR LOOP DETAILS**
NOT TO SCALE

A – DT CANOPY/SPEAKER DETECTOR LOOP

B – DT WINDOW DETECTOR LOOP

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

PREPARED BY:
Enterprise DESIGN
Architecture, Inc.
12400 Portland Avenue South
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4042
Fax: (952) 252-4043

PREPARED FOR:
McDonald's USA, LLC

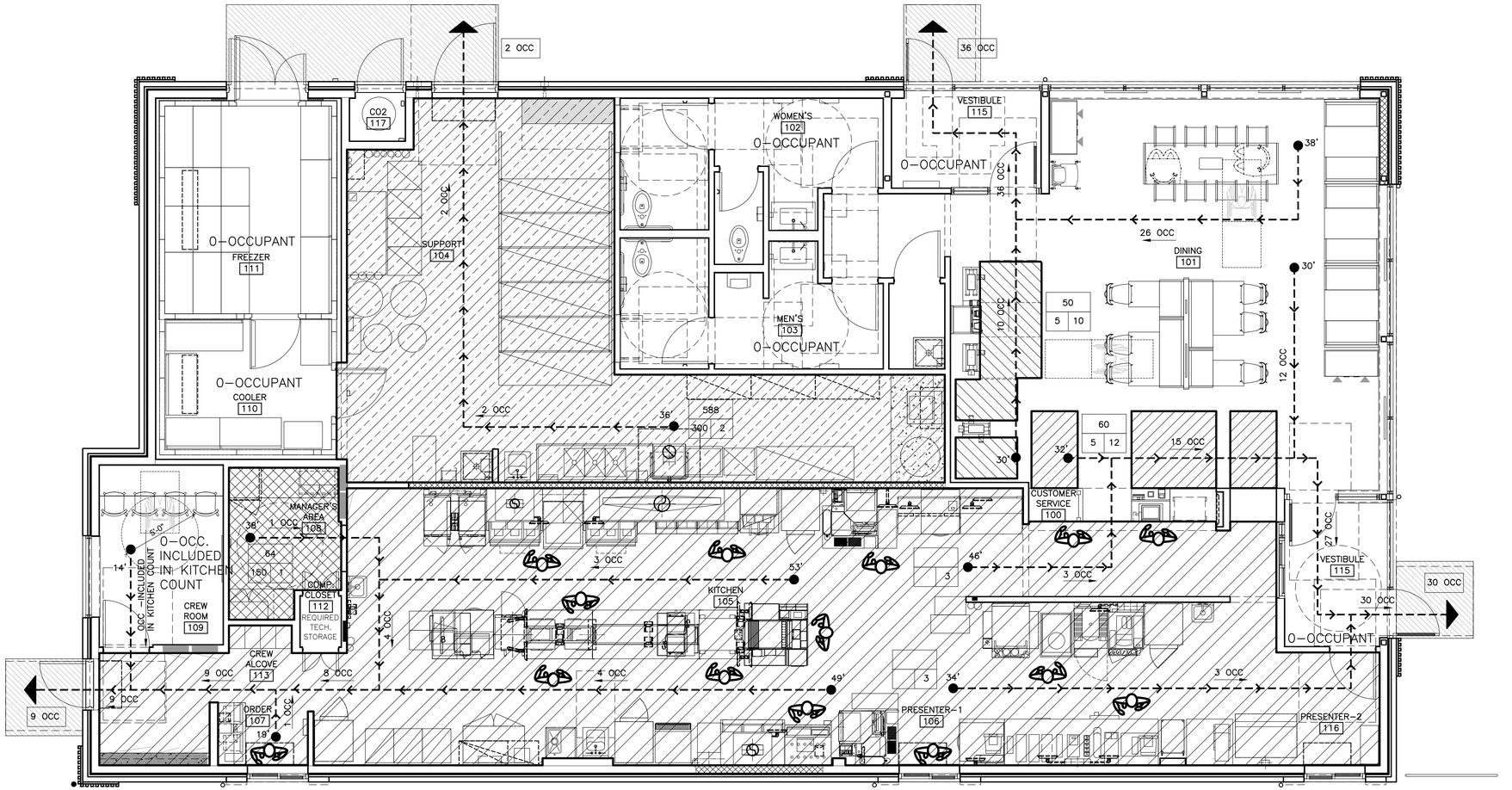
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DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
RG#	24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
	WOOD TRUSS ROOF FRAMING
	E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
MSN: 43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306	

SHEET NO.: 024–1306.00.0
DT1.0
DRIVE–THRU DETAILS



1 R1.0 **EXITING PLAN**
1/4"=1'–0"

NORTH

OCCUPANCY COUNT LEGEND:

FUNCTION OF SPACE	
ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	
ASSEMBLY WITH FIXED SEATS	SEE PLAN
ASSEMBLY W/OUT FIXED SEATS STANDING SPACE	
BUSINESS AREAS	
KITCHENS, COMMERCIAL	

5. SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1704 OF THE INTERNATIONAL BUILDING CODE:

a. List of applicable types of work which require Special Inspection per KCBRC Section 18–22, IBC Section 1704, and Chapter Two of the CPD Special Inspections Manual:

[X] Placement of Reinforced Concrete
[X] Testing of Reinforced Concrete
[X] Placement Reinforcing Steel
[ ] Prestressing Concrete
[X] Bolts installed in Concrete
[X] Verification of Soils
[X] Excavation and Filling
[ ] Drilled Piers or Piles
[ ] Aggregate Piers
[ ] Earth Retaining Structure
[ ] Detention Basin
[ ] Inspection of Precast Fabricator
[ ] Firestopping
[ ] Mastic and Intumescent Fire Resistive Coatings
[ ] Erection of Precast Concrete
[X] Structural Welding
[X] High Strength Bolting
[X] Steel Frame Inspection
[X] Inspection of Structural Steel AISC Certified Fabricator
[ ] Inspection of Metal Building Fabricator
[ ] Sprayed Fire Resistant Materials
[X] Structural Masonry
[ ] Temporary Shoring
[ ] EIFS Insulation/Finish System
[ ] Smoke Control System
[ ] Seismic Resistance
[X] Post–Installed Anchors
[ ] Other_____

b. Submit a letter from the Special Inspection Agency hired by the owner accepting responsibility for each applicable item.
c. List approved fabricators (if any) for specific types of work.
d. For smoke control systems, submit system documentation including the design requirements (IBC 909.2), rational analysis (IBC 909.4), and acceptance testing procedures and methods (IBC 909.3, 909.18).

Kansas City, Missouri
City Planning & Devlopment
Commercial Construction Permit Checklist Information bulletin no. 110 – Part C

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

PREPARED BY: reprise DESIGN
Architecture, Inc.
12490 Portland Avenue South
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4042
Fax: (952) 252-4043

PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	STD. ISSUE	DATE
AL	2024	05

REVIEWED BY	DATE ISSUED
KD	02 26 2025

RD# 24247

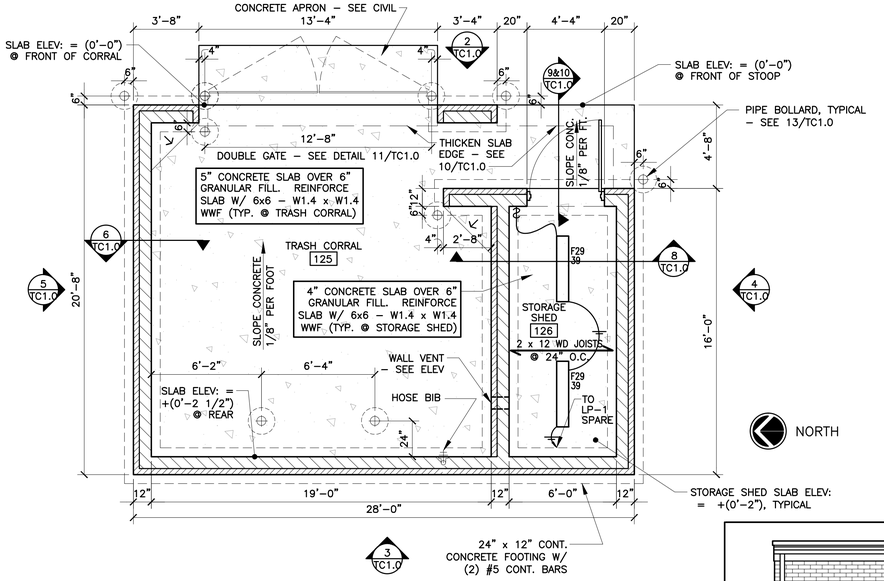
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

MSN: 43016
L/C: 024–1306

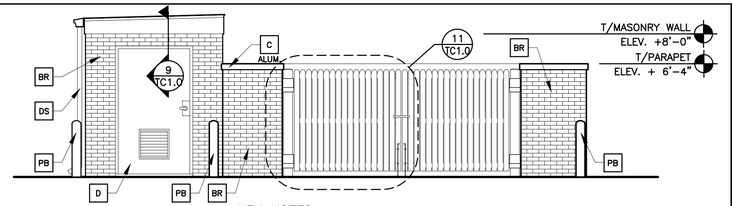
SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.
024–1306.00.0
R1.0
EXITING PLAN



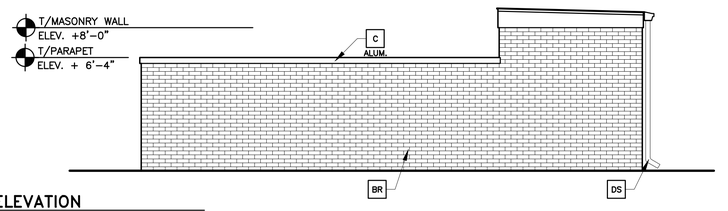
NOTE:
1. HOLLOW METAL DOOR SHALL BE 4'–0"x7'–0"x 1 3/4" WITH FRAME, THRESHOLD, CONTINUOUS HINGE, LEVER HANDLE AND STOREROOM LOCKSET
2. LED INDUSTRIAL STRIP LIGHT FIXTURE SHALL BE FURNISHED. WIRE GUARD, 25 WATT LAMP, AND SURFACE MOUNT. COLUMBIA – LCL4–40LW–EDU

1 TC1.0 TRASH CORRAL PLAN W/ SHED
1/4"=1'–0"

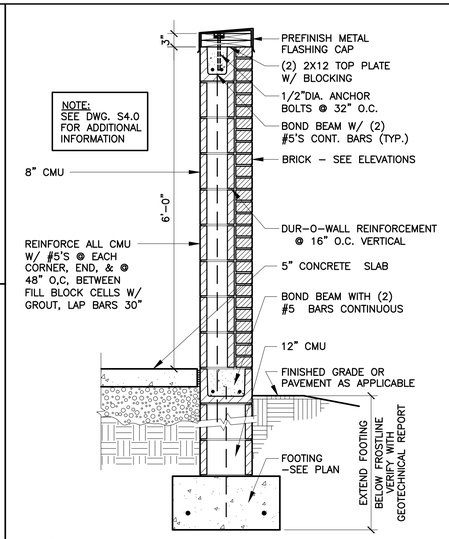


KEY NOTES:
- CMU – SMOOTH FACED CMU
- BR – BRICK TO MATCH STORE BRICK
- C ALUM – METAL COPING – UNA–CLAD BY FIRESTONE ANNODIZED ALUMINUM (CLEAR COIL) OR EQUAL
- D – HOLLOW METAL DOOR – PAINT TO MATCH STORE DOORS
- DS – PREFINISHED DOWNSPOUT – COLOR TO MATCH SHED DOOR
- PB – PIPE BOLLARD – PAINTED YELLOW

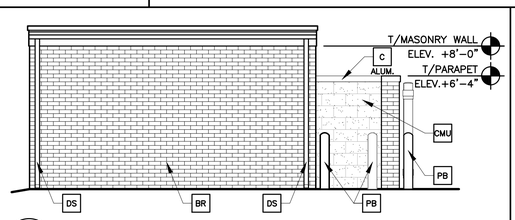
2 TC1.0 FRONT ELEVATION
1/4"=1'–0"



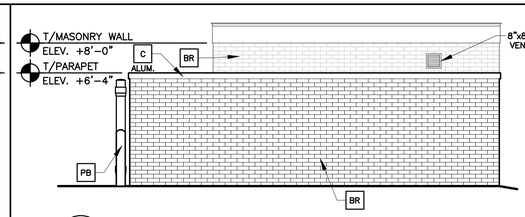
3 TC1.0 REAR ELEVATION
1/4"=1'–0"



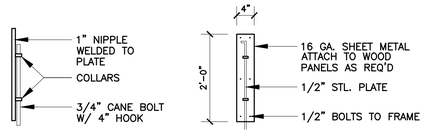
6 TC1.0 TYPICAL WALL SECTION
3/4"= 1'–0"



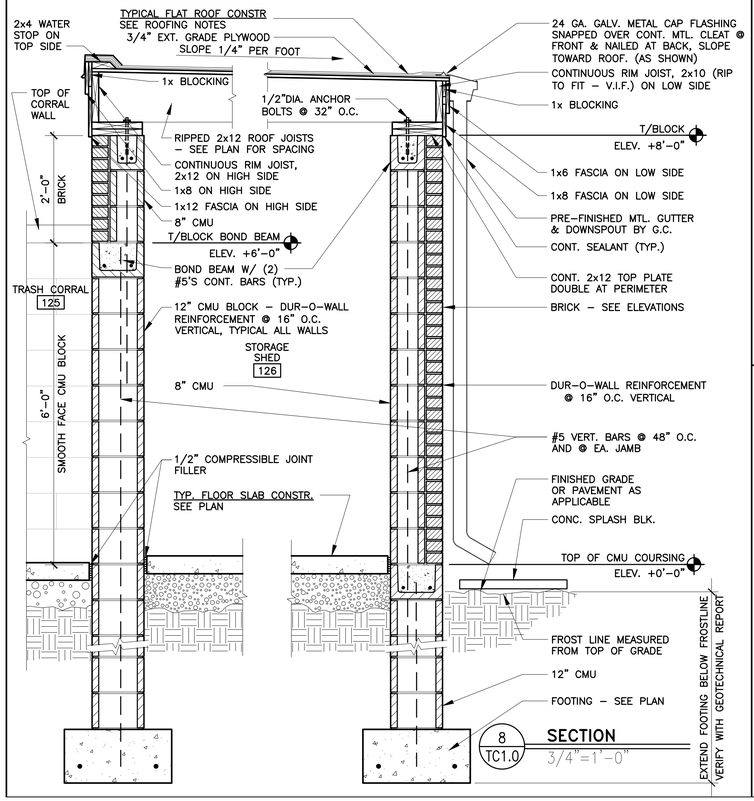
4 TC1.0 LEFT SIDE ELEVATION
1/4"=1'–0"



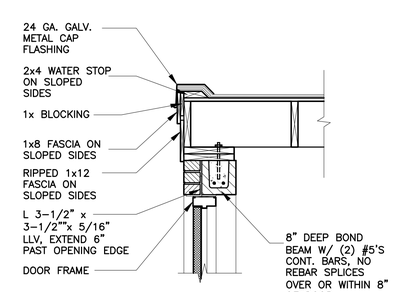
5 TC1.0 RIGHT SIDE ELEVATION
1/4"=1'–0"



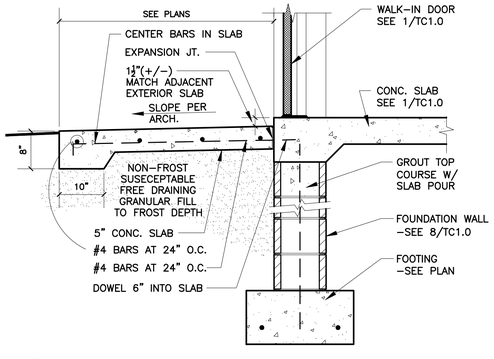
7 TC1.0 BOLT DETAILS
NOT TO SCALE



8 TC1.0 SECTION
3/4"=1'–0"

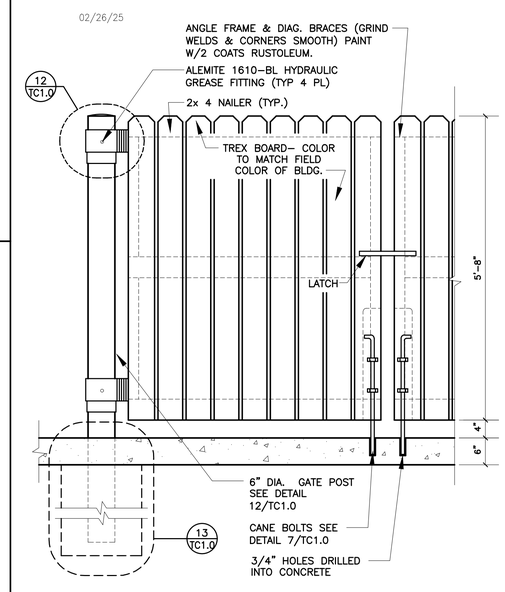


9 TC1.0 DOOR HEADER
3/4"=1'–0"

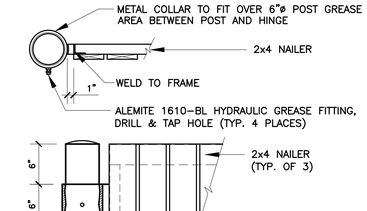


10 TC1.0 SECTION AT TRASH CORRAL STOOP
N.T.S.

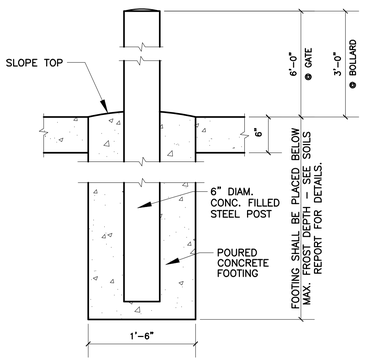
02/26/25



11 TC1.0 TYP. GATE DETAIL
1/2"=1'–0"



12 TC1.0 HINGE DETAILS
NOT TO SCALE



13 TC1.0 TYP. GATE POST/BOLLARD DETAIL
1"=1'–0"

NO.	DESCRIPTION	DATE
.	.	REV
.	BID SET	12/06/24
.	BID SET	02/26/25
AL	AL	BY

PREPARED BY: Enprise Design
Enprise Architecture, Inc.
12490 Portland Avenue South
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4642
Fax: (952) 252-4643

PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
RDA	24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
	WOOD TRUSS ROOF FRAMING
	E.I.F.S./PATTERN/BRICK EXTERIOR FINISH
MSN: 43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
I/C: 024–1306	

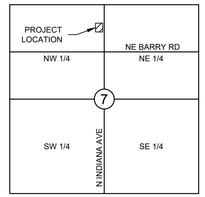
SHEET NO. TC1.0
024–1306.00.0
TRASH CORRAL

SITE DEVELOPMENT PLANS
FOR
McDONALD'S RESTAURANT
STALEY CORNERS WEST THIRD PLAT
LOT 2

SECTION 7, TOWNSHIP 51 NORTH, RANGE 32 WEST

N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, CLAY COUNTY, MISSOURI



VICINITY MAP
SEC. 7-51-32
(NOT TO SCALE)

PROJECT TEAM & UTILITY CONTACT LIST	
OWNER STALEY CORNERS, LLC PO BOX 901471 KANSAS CITY, MO 64190 CONTACT: JAMES OWENS PHONE: 816-935-4016 EMAIL: jamesk@owensbuilt.com	UTILITY SERVICE NUMBERS NAME: KCMO PUBLIC WORKS PHONE: 816-513-2552 NAME: KCMO WATER SERVICES DEPARTMENT PHONE: 816-513-2139 NAME: SPIRE (MGE) PHONE: 816-472-3434 NAME: AT&T PHONE: 918-231-1834 NAME: EVERGY PHONE: 816-652-1654
DEVELOPER McDONALD'S USA, INC. 110 N. CARPENTER STREET CHICAGO, IL 60607 CONTACT: TODD WRIGHT PHONE: 773-805-7114 EMAIL: todd.wright@us.mcd.com	
ENGINEER OLSSON, INC. 302 S. 4TH STREET, SUITE 110 MANHATTAN, KS 66502 CONTACT: ANDY KRUSE PHONE: 785.320.7855 EMAIL: akruse@olsson.com	
LANDSCAPE ARCHITECT OLSSON, INC. 302 S. 4TH STREET, SUITE 110 MANHATTAN, KS 66502 CONTACT: KRYSTAL McCLAIN PHONE: 785.320.7855 EMAIL: kmcclain@olsson.com	
ARCHITECT REPRISE DESIGN 12400 PORTLAND AVENUE SOUTH, SUITE 100, PORTLAND CORPORATE CENTER BURNSVILLE, MN 55337 CONTACT: KRISTI DONAHUE PHONE: 763.244.4752 EMAIL: kdonahue@reprisedesign.com	



LEGAL DESCRIPTION

LOT 1, GREEN HILLS PLAZA FOURTH PLAT, A SUBDIVISION IN KANSAS CITY, PLATTE COUNTY, MISSOURI

Sheet List Table	
Sheet #	Sheet Title
C100	COVER SHEET
C101	GENERAL NOTES
C102	EXISTING CONDITIONS
C103	PROPERTY BOUNDARY PLAN
C200	SITE PLAN
C201	LAYOUT PLAN
C202	DRIVE THRU LAYOUT PLAN
C300	GRADING PLAN
C301	GRADING PLAN
C400	UTILITY PLAN
C401	STORM SEWER PLAN & PROFILE
C402	DRAINAGE AREA MAP & HYDRAULICS TABLE
C500	DETAILS
C501	DETAILS
C502	DETAILS
C503	DETAILS
C504	DETAILS
C505	DETAILS
C506	DETAILS
L100	LANDSCAPE PLAN
L101	LANDSCAPE DETAILS
L102	IRRIGATION SPECIFICATIONS
AGI	PHOTOMETRIC PLAN

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

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT- OF-WAY DO SO ONLY AFTER GIVING NOTICE TO. & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: COVER SHEET

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

SHEET NO.: 024-1306.00.0
C100

F:\2023\06501-07000\023-06570\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_TTL01_02306570.dwg
DATE: Feb 26, 2025 10:40am USER: akruse

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.

3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.

7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.

8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.

10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MO, AT THE CONTRACTOR'S EXPENSE.

11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.

12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.ACTUAL SITE SIGNAGE LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER PER ARCHITECTURAL PLANS.

13. THE CONTRACTOR SHALL PROVIDE AN "AS-BUILT" PLAN WITH ALL MODIFICATIONS/CHANGES NOTED/SHOWN ON THE FINAL DRAWING SET.

14. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

REFERENCES

1. ARCHITECTURAL AND STRUCTURAL ELEMENTS SHOWN IN THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTORS AND SURVEYORS SHALL REFERENCE THEIR RESPECTIVE PLANS FOR DESIGN INFORMATION.

2. THE CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AS PROVIDED BY THE GEOTECHNICAL ENGINEER INCLUDING ALL CURRENT ADDENDUMS. THE STANDARDS AND SPECIFICATIONS OF KANSAS CITY, MO SHALL ALSO APPLY AND TAKE PRECEDENCE WHEN STRICTER THAN THE GEOTECHNICAL REPORT OR WHEN NO GEOTECHNICAL REPORT IS GIVEN.

3. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY;
   - A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF KANSAS CITY, MO.
   - B. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
   - C. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES..
   - D. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF KANSAS CITY, MO AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT BY OLSSON DATED AUGUST 5, 2024.

SHOP DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION . CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
   - A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
   - B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
   - C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
   - D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
   - E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.

2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:
   - A. ALL STORM SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
   - B. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
   - C. ALL SITE FENCING AND RAILING INCLUDING ANY GATES.
   - D. ALL LANDSCAPE AND RETAINING WALLS.
   - E. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY AS SHOWN IN THESE PLANS. IF PLANS ARE NOT PROVIDED, CONTRACTOR SHALL COORDINATE AND PROVIDE CONTROLS TO THE SATISFACTION OF THE RIGHT-OF-WAY OWNER.

2. THE CONTRACTOR SHALL PROTECT ALL TREES OVER 3" CALIPER FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE ON THESE PLANS.

3. IN ADDITION TO THE CONDITIONS OF THE GEOTECHNICAL REPORT AND AS A MINIMUM THE CONTRACTOR SHALL PERFORM THE GRADING AS FOLLOWS:
   - A. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE IN AREAS DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE EXCESS STRIPPINGS AND EXCESS EXCAVATION WITHIN 30 DAYS OF COMPLETION OF GRADING OPERATIONS.
   - B. AREAS TO RECEIVE FILL AND AREAS CUT TO SUBGRADE LEVEL SHALL BE SCARIFIED AND THE TOP 9-INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE SUBGRADE SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
   - C. FILL SHALL BE PLACED IN MAXIMUM OF 9 INCH LIFTS.
   - D. TOPSOIL SHALL BE PLACED TO A MINIMUM DEPTH OF 6 INCHES OVER ALL AREAS DISTURBED BY THE WORK, LARGE STONES, STICKS AND LUMPS SHALL BE REMOVED OR BROKEN UP, AND THE TOPSOIL SHALL BE LEVELED AND RAKED. ALL DISTURBED AREAS SHALL BE LANDSCAPED PER LANDSCAPE PLANS OR SHALL BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED.
   - E. CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS AS REQUIRED.

4. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.

5. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.

6. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

7. THE EXISTING AND PROPOSED FINISHED GROUND SURFACES ARE AVAILABLE ELECTRONICALLY FOR CONTRACTOR VERIFICATION VIA E-MAIL (IN AUTOCAD FORMAT). THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE EXISTING GROUND SURFACE ELEVATIONS.

8. OFF-SITE FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE OWNER PRIOR TO BRINGING ON SITE.

EXISTING CONDITIONS

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. CONTACT THE ENGINEER REGARDING ANY DISCREPANCIES THAT MAY AFFECT THE ABILITY TO CONSTRUCT FROM THESE PLANS AS DESIGNED.

3. EXISTING CONDITIONS WERE DETERMINED THROUGH A VARIETY OF METHODS THAT MAY INCLUDE SURVEY, AERIAL IMAGERY, AVAILABLE RECORDS, GIS DATA, ETC. SUBSURFACE CONDITIONS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES AND OTHER SITE IMPROVEMENTS PRESENT ON SITE. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE RIGHT-OF-WAY AND FOR DAMAGED IMPROVEMENTS. DAMAGED IMPROVEMENTS SHALL BE REPAIRED TO THE CITY'S AND OWNER'S SATISFACTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO REPAIR ALL EXISTING DISTURBED AREAS DURING GRADING ACTIVITIES TO ORIGINAL OR BETTER CONDITION.

5. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITY NOTIFICATION CENTER FOR THE STATE THAT THE WORK IS BEING PERFORMED AND HAVE ALL THE UTILITIES MARKED AND PROVIDE NOTIFICATION OF THE COMMENCEMENT OF WORK.

6. ALL JOINTS WHERE NEW PAVEMENT ADJOINS EXISTING PAVEMENT SHALL BE SAW CUT, TO INSURE A STRAIGHT CLEAN LINE, OR WILL BE CARRIED TO THE NEXT JOINT WHEN THE EXISTING PANEL WILL BE LESS THAN HALF ORIGINAL WIDTH.

DEMOLITION PLAN NOTES

1. PRIOR TO ANY DEMOLITION EROSION CONTROL MEASURES AND CONSTRUCTION FENCING SHALL BE INSTALLED.

2. THE CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND/OR PROTECTED WITH SITE OWNER AND UTILITY OWNERS.

3. THE CONTRACTOR SHALL NOT INTERRUPT ANY UTILITY SERVICES TO ANY ADJACENT PROPERTIES. SHOULD ANY INTERRUPTIONS BECOME NECESSARY, THE CONTRACTOR SHALL COORDINATE WITH THE ADJACENT PROPERTY AND UTILITY OWNER AND MINIMIZE THE LENGTH OF TIME THE UTILITY IS INTERRUPTED TO THE GREATEST EXTENT POSSIBLE.

4. SECONDARY WIRING, SERVICES, IRRIGATION AND OTHER MINOR SITE IMPROVEMENTS THAT ARE NOT TO REMAIN IN SERVICE ARE TO BE DEMOLISHED AND REMOVED.

5. ALL PAVEMENT SAWCUTS ARE TO BE MADE IN STRAIGHT, CLEAN LINES LEAVING A CLEAN AND STABLE EDGE AT FULL PAVEMENT DEPTH.

6. ALL PCC PAVEMENT AND ALL CURB SHALL BE REMOVED TO NEAREST JOINT.

7. ALL MATERIALS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN STRICT CONFORMANCE WITH LOCAL CODES AND ORDINANCES.

8. ALL TREE REMOVAL SHALL INCLUDE STUMPS AND ROOTS. DEPRESSIONS CREATED SHALL BE FILLED TO PROVIDE DRAINAGE.

SITE PLAN NOTES

1. ALL PAVEMENT DIMENSIONS ARE TO FACE OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB IS PRESENT, UNLESS OTHERWISE NOTED. DIMENSIONED TIES BETWEEN PROPERTY LINES AND BUILDING FACES OR PAVEMENT ARE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS NECESSARY FOR FOUNDATIONS, BEDDING EXTENSIONS, SURCHARGING, ETC.

2. INSTALLED PAVEMENT SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT TO PROVIDE SMOOTH SURFACE TRANSITIONS. INSTALLED CURB & GUTTER SHALL MATCH EXISTING CURB & GUTTER IN SIZE AND TYPE OR CONTRACTOR SHALL INCLUDE A TRANSITION FROM NEW TO EXISTING OF NO LESS THAN 5' AS MEASURED ALONG BACK OF CURB.

3 ALL ASPHALT PAVING SHALL BE IN CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, ASPHALT PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MISSOURI DEPARTMENT OF TRANSPORTATION.

4. ALL PCC PAVING SHALL BE IN CONFORMANCE WITH LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, PCC PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MISSOURI DEPARTMENT OF TRANSPORTATION.

5. CONCRETE PAVEMENT JOINTS SHALL BE CONSTRUCTED AS FOLLOWS (REFER TO HARDSCAPE PLANS FOR SPECIFIC TREATMENT OF THESE AREAS):
   - A. CONTROL JOINTS SPACED AS SHOWN IN THESE PLANS OR AT INTERVALS NOT GREATER THAN 1.5x PANEL WIDTH OR 12 FEET (WHICHEVER IS SMALLER).
   - B. CONTROL JOINTS SHALL BE TOOLED OR SAWCUT TO ¼ THE SLAB THICKNESS. LOCAL STANDARDS AND SPECIFICATIONS SHALL TAKE PRECEDENCE WHERE MORE STRICT THAN THOSE LISTED HERE.
   - C. CONSTRUCTION JOINTS PLACED AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE.
   - D. ISOLATION JOINTS PLACED WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 1/2" NON-EXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET.
   - E. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.

6. CURB JOINTS SHALL BE CONSTRUCTED AS FOLLOWS:
   - A. PLACE 3/4" NON-EXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD AT 200' INTERVALS, AT BEGINNING AND END OF ALL RADII, AND AT STRUCTURES.
   - B. CONTRACTION JOINTS SPACED AT INTERVALS NOT GREATER THAN 10 FEET, SAWED TO 1/4 THE SLAB THICKNESS.

7. ACCESSIBLE PARKING
   - A. STALLS SHALL BE SIGNED WITH CITY/ADA APPROVED SIGN AND CONSTRUCTED IN STRICT ACCORDANCE WITH CITY/ADA CODES AND ORDINANCES.
   - B. ACCESSIBLE PARKING STALLS SHALL NOT EXCEED 2.00 PERCENT IN ANY DIRECTION. ACCESSIBLE SIDEWALKS HAVE A MAXIMUM CROSS SLOPE OF 2 PERCENT AND A MAXIMUM LONGITUDINAL SLOPE OF 5 PERCENT.
   - C. STALLS SHALL BE MARKED BY THE INTERNATIONAL HANDICAPPED SYMBOL AT INDICATED PARKING SPACES. USE A SUITABLE TEMPLATE THAT WILL PROVIDE A PAVEMENT MARKING WITH SHARP EDGES AND ENDS.

8. PAVEMENT MARKINGS SHALL NOT BE APPLIED UNTIL LAYOUT, COLORS AND PLACEMENT HAVE BEEN VERIFIED WITH THE ARCHITECT AND ENGINEER, THE INSTALLED PAVEMENT IS ALLOWED TO AGE AS RECOMMENDED BY THE MANUFACTURER (MINIMUM OF 24 HOURS), AND THE PAVEMENT SURFACE HAS BEEN SWEPT AND CLEANED.

9. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS (FHMS) AND CITY OF KANSAS CITY CODES AND ORDINANCES. USE FLAT BLACK, WHITE, OR YELLOW AS DIRECTED WITHIN PLANS OR IN CONFORMANCE WITH THE FHMS. UNLESS OTHERWISE SPECIFIED USE LATEX, WATER-BASE EMULSION, READY-MIXED, COMPLYING WITH FS TT-P-1952 WITH DRYING TIME OF LESS THAN 45 MINUTES.

10. APPLY ALL MARKINGS USING APPROVED MECHANICAL EQUIPMENT (WITH PROVISIONS FOR CONSTANT AGITATION OF PAINT), CAPABLE OF APPLYING THE MARKING WIDTHS AS SHOWN AND A MINIMUM WET FILM THICKNESS OF 15 MILS. USE PNEUMATIC SPRAY GUNS FOR HAND APPLICATION OF PAINT. ALL PAINTING EQUIPMENT AND OPERATIONS SHALL BE UNDER THE CONTROL OF EXPERIENCED TECHNICIANS THOROUGHLY FAMILIAR WITH EQUIPMENT AND MATERIALS AND MARKING LAYOUTS.

11. PAVEMENT MARKINGS SHALL BE PER SECTION 321723 OF THE PROJECT MANUAL AS INDICATED ON PLANS.

GRADING PLAN NOTES

1. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE, SURFACE OF PAVEMENT, TOP OF CURBS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT PAVEMENT DEPTH FROM ELEVATIONS SHOWN.

2. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL.

3. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND SIDEWALKS WHEN FINISH LANDSCAPE MATERIALS ARE IN PLACE.

4. SPOT ELEVATIONS ARE TO EDGE OF PAVEMENT, TOP OF CURB, OR FINISHED GRADE UNLESS OTHERWISE INDICATED. (SEE LEGEND)

STORM SEWER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF KANSAS CITY, MISSOURI.

2. ALL PIPE LENGTHS AND ELEVATIONS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

3. COORDINATES PROVIDED ARE AT THE CENTER OF THE STRUCTURES ON JUNCTION BOXES AND THE BACK OF CURB AT THE CENTER OF STRUCTURE AT CURB INLETS. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE BOX DURING INSTALLATION.

4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.

5. STORM SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.

6. STRUCTURE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE STRUCTURE.

7. PIPE PENETRATIONS SHALL BE GROUTED TO ENSURE WATERTIGHT SEALS.

8. REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE MANUFACTURED IN ACCORDANCE WITH THE PROVISIONS OF A.S.T.M. C-76 AND SHALL BE CLASS III, UNLESS OTHERWISE NOTED. MASTIC JOINTS ARE REQUIRED ON ALL PIPE SHAPES.

9. ALL PIPE LESS THAN 8" SHALL BE SCHEDULE 40.

SANITARY SEWER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF KANSAS CITY, MISSOURI.

2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

3. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE LID DURING INSTALLATION.

4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.

5. SANITARY SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.

6. MANHOLE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE MANHOLE.

7. PIPE PENETRATIONS SHALL BE USE GASKETS TO ENSURE WATERTIGHT SEALS.

8. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.

9. SEWER LINE INSPECTIONS AND TESTING MUST BE SCHEDULED A MINIMUM OF TWO FULL BUSINESS DAYS IN ADVANCE. CONTRACTOR SHALL FURNISH ALL TESTING EQUIPMENT. TESTING SHALL INCLUDE
   - A. MANDREL TEST OF ALL GRAVITY SEWERS. IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION SHALL BE UNCOVERED AND REPLACED.
   - B. AIR PRESSURE TEST OF ALL GRAVITY SEWERS.
   - C. VACUUM TEST OF ALL MANHOLES.

10. GRAVITY SANITARY SEWER AND WATER LINES SHALL BE SEPARATED BY A MINIMUM OF 10' HORIZONTALLY WHEN PARALLEL AND 2' VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.

WATER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.

2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF FITTING OR WALL OF VAULT.

3. COORDINATES ARE PROVIDED ALONG PIPE CENTERLINE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING INSTALLATIONS.

4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF WATER.

5. WATER PIPE TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.

6. ALL PRIVATE WATER LINES SHALL BE A MINIMUM OF 48 INCHES AND MAXIMUM OF 60 INCHES BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN UNLESS OTHERWISE NOTED.

7. IF AN AS-BUILT OF A WATER LINE IS REQUIRED OR EXPECTED THE CONTRACTOR SHALL NOT BACKFILL THE TRENCH UNTIL AN AS-BUILT SURVEY IS CONDUCTED.

8. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR AND AS REQUIRED BY THE UTILITY OWNER.

9. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.

10. WHERE SERVICE LINES MUST CROSS OVER SEWERS, STORM DRAINS, OR SANITARY SEWERS, THE SERVICE LINE MUST BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE SERVICE LINE IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. THIS VERTICAL SEPARATION MUST BE MAINTAINED FOR THAT PORTION OF THE SERVICE LINE LOCATION WITHIN 10 FEET HORIZONTALLY OF ANY SEWER LINE THAT IT CROSSES, SAID 10 FEET TO BE MEASURED AS THE NORMAL DISTANCE FROM THE SERVICE LINE TO SEWER.

DRY UTILITY PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.

2. ALL ON-SITE WIRING AND CABLES SHALL BE PLACED UNDERGROUND AND WITHIN CONDUIT UNLESS OTHERWISE SPECIFIED IN THESE PLANS. IF NOT SPECIFIED, ALL CONDUIT SHALL BE IN CONFORMANCE WITH UTILITY OWNER STANDARDS AND SPECIFICATIONS.

3. TELEPHONE AND COMMUNICATION SERVICE ROUTING AND CONDUITS, IF SHOWN AT ALL, ARE SUGGESTED ALIGNMENTS ONLY. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AS REQUIRED BY MEP AND RELATED PLANS AS WELL AS SERVICE PROVIDER PRIOR TO PAVEMENT INSTALLATION.

4. ALL CONDUIT SHALL BE SCHEDULE 40 PVC PIPE AND SIZED PER MEP PLANS OR AS NOTED. CONDUIT SHALL BE SUFFICIENTLY FLEXIBLE TO ALLOW IT TO CONFORM TO MINOR CHANGES IN TRENCH DIRECTION OR ELEVATION. ALL OTHER BENDS SHALL BE MADE USING PRE-FORMED SWEEPS.

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
STATE OF MISSOURI · PROFESSIONAL ENGINEER

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: GENERAL NOTES

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

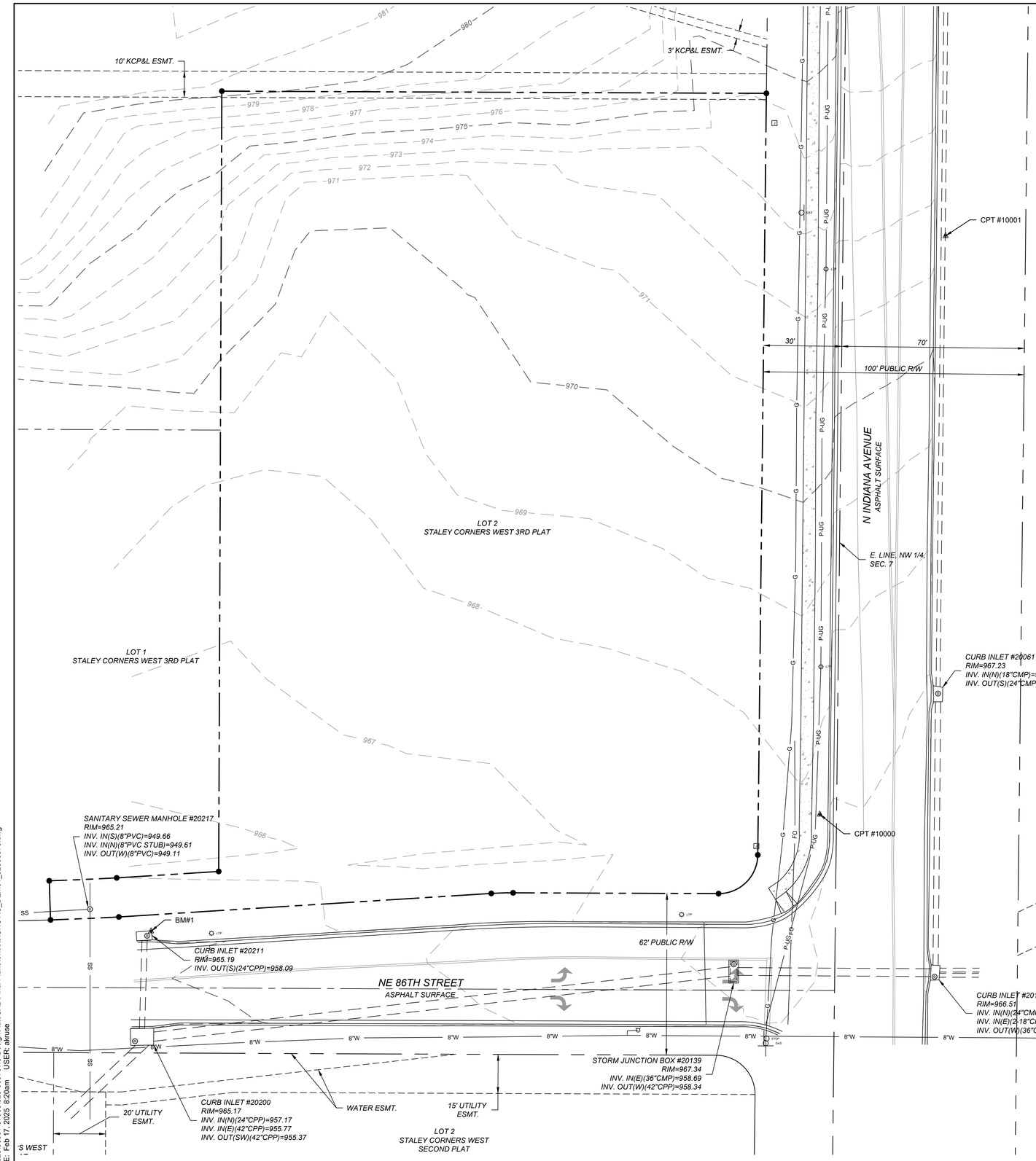
SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 88TH STREET, KANSAS CITY, MISSOURI

SHEET NO. C101

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DATE: Feb 17, 2025 8:12am USER: akruse



LEGEND

SECTION CORNER	WATER LINE
CONTROL POINT / BENCHMARK	SANITARY SEWER LINE
MONUMENT FOUND	STORM SEWER LINE
5/8" BAR w/ LC-366 CAP SET	UNDERGROUND POWER LINE
R/W RIGHT-OF-WAY	FIBER OPTIC LINE
SIGN	GAS LINE
ELECTRIC JUNCTION BOX	PROPERTY LINE
LIGHT POLE	PERMANENT EASEMENT
SANITARY SEWER MANHOLE	EXISTING GROUND CONTOUR (1' CONTOUR INTERVAL)
STORM SEWER MANHOLE	
FIRE HYDRANT	

CONTROL POINTS

CPT #10000:
SET 1/2" BAR WITH OLSSON CONTROL POINT CAP
N: 1123052.29
E: 2777646.93

CPT #10001:
SET 1/2" BAR WITH OLSSON CONTROL POINT CAP
N: 1123274.20
E: 2777695.14

BENCHMARK:

BM#1:
CHISELED SQUARE SET ON NE CORNER OF CURB INLET TOP, 278'± WEST OF CENTERLINE OF INDIANA AVE, 22'± NORTH OF CENTERLINE OF NE 86TH ST.
ELEV: 965.20

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT- OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

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

UTILITY NOTE:

OLSSON AND THE SURVEYOR OF RECORD MAKE NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE OF ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. OLSSON AND THE SURVEYOR OF RECORD FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. OLSSON AND THE SURVEYOR OF RECORD HAVE NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. IF ANY UNDERGROUND UTILITY LOCATIONS ARE REQUIRED THEY WILL HAVE TO BE VERIFIED BY FIELD POTHOLING THE UTILITIES. OLSSON AND THE SURVEYOR OF RECORD SHALL NOT BE LIABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF NON-VISIBLE UTILITIES.

N

0' 10' 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE
EXISTING CONDITIONS

DESCRIPTION
McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID
024-1306

SITE ADDRESS
N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

024-1306.00.0

SHEET NO.
C102

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DATE: Feb 17, 2025 8:20am USER: akruse

ITEM #9
3' KCP&L ESMT.
BK 323, PG 165

ITEM #11
10' KCP&L ESMT.
BK 945, PG 95

NW COR., LOT 2

N. LINE, LOT 2

S89°46'09"E 208.77'

N89°21'15"W
30.00'

30.00'

155.21'

159.21'

ITEM #24
100' PUBLIC R/W
PER PLAT

30'

70'

N00°13'51"E 299.32'

74.64'

65,082 SF
1.4941 AC

87.50'

S00°38'45"W 292.17'

N INDIANA AVENUE
(ASPHALT SURFACE)
(PUBLIC)(100' R/W WIDTH)

E. LINE, LOT 2

LOT 2
STALEY CORNERS WEST 3RD PLAT
STALEY CORNERS, LLC
BK 8117, PG 85
TAX PARCEL #141130001000400
ZONE: B2-2

PROPOSED BUILDING
OUTLINE

PROPOSED
BUILDING
FFE=969.00

W. LINE, LOT 2

169.32'

LOT 1
STALEY CORNERS WEST 3RD PLAT
STALEY CORNERS, LLC
BK 8117, PG 85
TAX PARCEL #141130001000100
ZONE: B2-2

74.02'

87.50'

68.68'

66.18'

R=1265.94'
Δ=001°10'22"
L=25.91'
CB=N87°30'29"E
CH=25.91'

R=125.00'
Δ=003°50'36"
L=8.38'
CB=S88°18'21"W
CH=8.38'

R=15.00'
Δ=089°35'06"
L=23.45'
CB=S45°26'18"W
CH=21.14'

SANITARY SEWER MANHOLE #20217
RIM=965.21
INV. IN(S)(8"PVC)=949.66
INV. IN(N)(8"PVC STUB)=949.61
INV. OUT(W)(8"PVC)=949.11

N86°23'24"E
39.16'

N01°54'21"W 15.00'

S. LINE, LOT 2

N89°46'09"W 78.75'

SW COR., LOT 2

S86°23'24"W 143.06'

BM#1

R=1280.94'
Δ=001°10'21"
L=26.21'
CB=S87°30'29"W
CH=26.21'

ITEM #25
50' PUBLIC R/W
PER PLAT

NE 86TH STREET
(ASPHALT SURFACE)
(PUBLIC)(R/W VARIES)

ITEM #25
62' PUBLIC R/W
PER PLAT

CURB INLET #20211
RIM=965.19
INV. OUT(S)(24"CPP)=958.09

CURB INLET #20061
RIM=967.23
INV. IN(N)(18"CMP)=962.33
INV. OUT(S)(24"CMP)=961.73

CURB INLET #20117
RIM=966.51
INV. IN(N)(24"CMP)=960.11
INV. IN(E)(18"CPP's)=959.81
INV. OUT(W)(36"CMP)=959.61

STORM JUNCTION BOX #20139
RIM=967.34
INV. IN(E)(36"CMP)=958.69
INV. OUT(W)(42"CPP)=958.34

CURB INLET #20200
RIM=965.17
INV. IN(N)(24"CPP)=957.17
INV. IN(E)(42"CPP)=955.77
INV. OUT(SW)(42"CPP)=955.37

ITEM #25
W/E
PER PLAT

ITEM #25
15' U/E
PER PLAT

ITEM #25
20' U/E
PER PLAT

LOT 1
STALEY CORNERS WEST
SECOND PLAT

LOT 2
STALEY CORNERS WEST
SECOND PLAT

BK 4

LEGEND

SECTION CORNER	W — WATER LINE
CONTROL POINT / BENCHMARK	SS — SANITARY SEWER LINE
MONUMENT FOUND	STORM SEWER LINE
5/8" BAR w/ LC-366 CAP SET	P-UG — UNDERGROUND POWER LINE
R/W RIGHT-OF-WAY	FO — FIBER OPTIC LINE
SIGN	G — GAS LINE
ELECTRIC JUNCTION BOX	PROPERTY LINE
LIGHT POLE	PERMANENT EASEMENT
SANITARY SEWER MANHOLE	
STORM SEWER MANHOLE	
FIRE HYDRANT	

PROPOSED PROPERTY DESCRIPTION:
LOT 2, STALEY CORNERS WEST 3RD PLAT, A SUBDIVISION IN KANSAS CITY, CLAY COUNTY, MISSOURI.

LAND SURVEYOR CERTIFICATION:
THE INFORMATION SHOWN HEREON ACCURATELY REPRESENTS THE EXISTING CONDITIONS AND PROPERTY BOUNDARIES AT THE TIME OF THE SURVEY. THE LICENSED SURVEYOR, WHOSE STAMP AND SIGNATURE ARE AFFIXED HEREON, DISCLAIMS ANY RESPONSIBILITY FOR PROPOSED IMPROVEMENTS OR ALTERATIONS SHOWN ON THIS PLAN. ANY MODIFICATIONS, ADDITIONS, OR CHANGES BEYOND THE EXISTING CONDITIONS FALL OUTSIDE THE LICENSED SURVEYOR'S CERTIFICATION.

STATE OF MISSOURI · MICHAEL JAMES BOGINA · NUMBER LS-2022043970 · 2025D2216 · PROFESSIONAL LAND SURVEYOR

02/26/25
MICHAEL J. BOGINA, PLS — DATE
MISSOURI PLS NO. 2022043970
LAND SURVEYOR

CIVIL ENGINEER CERTIFICATION:
THE INFORMATION SHOWN HEREON ACCURATELY REPRESENTS THE THE BUILDING FOOTPRINT IN RELATION TO THE SURVEYED PROPERTY LINES. THE PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED HEREON DISCLAIMS ANY RESPONSIBILITY FOR THE SURVEYED DATA SHOWN ON THIS PLAN.

STATE OF MISSOURI · MITCHELL ALAN PLEAK · NUMBER PE-2009018764 · 2-17-25 · PROFESSIONAL ENGINEER

02/17/25
MITCH A. PLEAK, PE — DATE
CIVIL ENGINEER

0' 10' 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
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www.olsson.com

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PREPARED FOR: McDonald's USA, LLC

DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: PROPERTY BOUNDARY PLAN

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

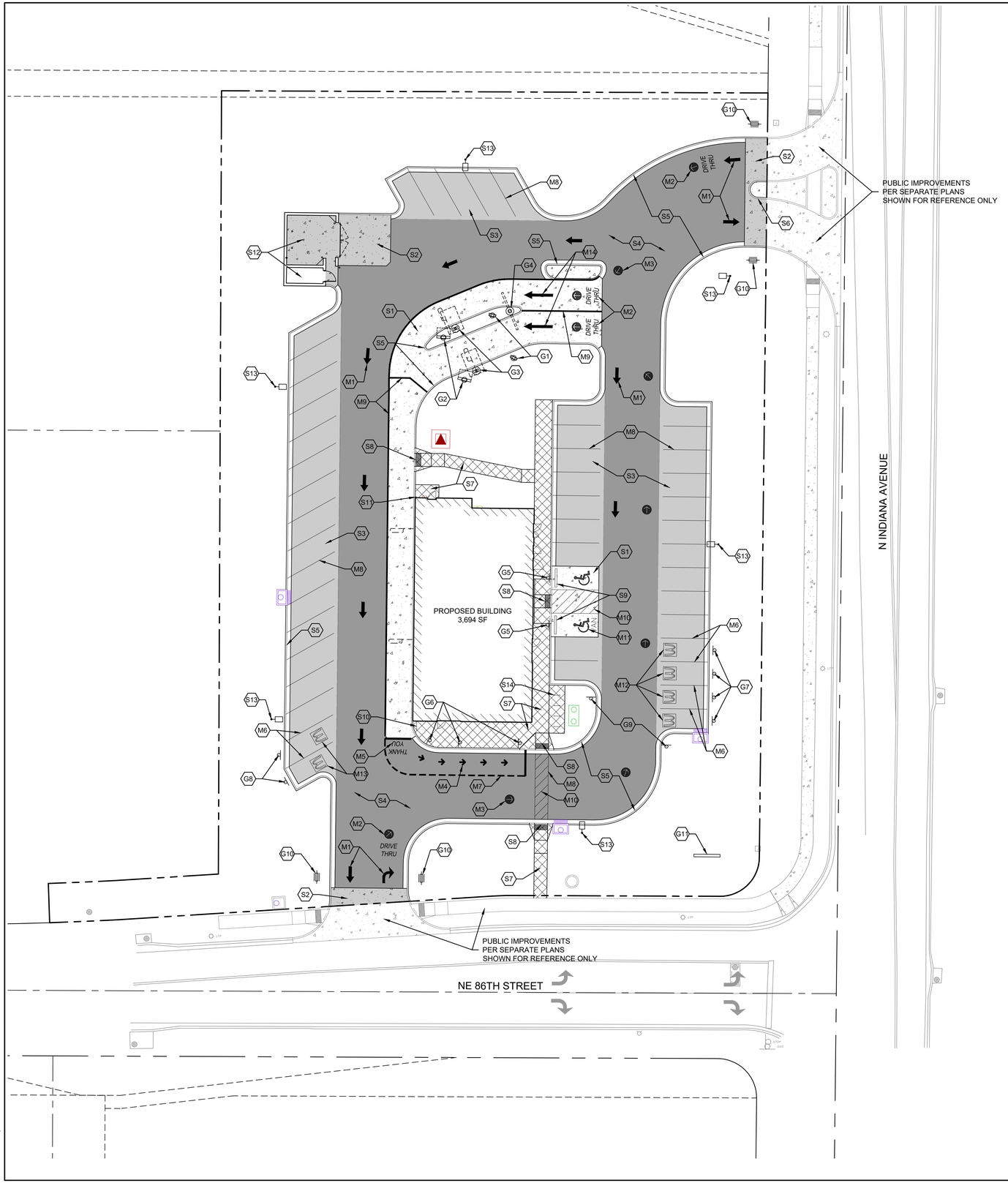
SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

024-1306.00.0

SHEET NO. C103

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DATE: Feb 26, 2025 11:28am USER: akruse



PAVING LEGEND

- HEAVY DUTY CONCRETE PAVEMENT
- LIGHT DUTY CONCRETE PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE SIDEWALK

SITE KEYNOTE LEGEND (S)

- S1 CONSTRUCT LIGHT DUTY CONCRETE PAVEMENT
- S2 CONSTRUCT HEAVY DUTY CONCRETE PAVEMENT
- S3 CONSTRUCT LIGHT DUTY ASPHALT PAVEMENT
- S4 CONSTRUCT HEAVY DUTY ASPHALT PAVEMENT
- S5 CONSTRUCT CG-1 CURB & GUTTER
- S6 CONSTRUCT CONCRETE MEDIAN WITH TYPE C-1 CURB
- S7 CONSTRUCT CONCRETE SIDEWALK
- S8 CONSTRUCT CONCRETE SIDEWALK RAMP w/ DETECTABLE WARNING
- S9 INSTALL WHEEL STOP
- S10 INSTALL 3'-4" OF METAL GUARDRAIL
- S11 INSTALL BOLLARD
- S12 TRASH ENCLOSURE/STORAGE SHED (RE: ARCH)
- S13 INSTALL LIGHT POLE, SEE PHOTOMETRIC PLAN
- S14 INSTALL BIKE RACK, 4 TOTAL

SIGN KEYNOTE LEGEND (G)

- G1 INSTALL PRE-BROWSE BOARD PER MANUFACTURER'S SPECIFICATIONS
- G2 INSTALL OUTDOOR DIGITAL MENU BOARD PER MANUFACTURER'S SPECIFICATIONS
- G3 INSTALL "ORDER HERE" CANOPY PER MANUFACTURER'S SPECIFICATIONS
- G4 INSTALL DOUBLE ARM GATEWAY PER MANUFACTURER'S SPECIFICATIONS
- G5 INSTALL ADA ACCESSIBLE AND VAN ACCESSIBLE PARKING SIGN
- G6 INSTALL McDONALD'S "ROLL FORWARD" SIGN, 3 TOTAL
- G7 INSTALL McDONALD'S MOBILE ORDER SIGN, 4 TOTAL
- G8 INSTALL McDONALD'S "McDELIVERY" PARKING SIGN, 2 TOTAL
- G9 INSTALL "DO NOT ENTER" SIGN
- G10 INSTALL McDONALD'S DIRECTIONAL SIGN
- G11 McDONALD'S MONUMENT SIGN, SHOWN FOR LOCATION ONLY DESIGN AND PERMITTING BY OTHERS

PAVEMENT MARKING KEYNOTE LEGEND (M)

- M1 INSTALL PARKING LOT ARROW, TYPICAL
- M2 INSTALL "DRIVE THRU" WITH DIRECTIONAL ARROW, TYPICAL
- M3 INSTALL DIRECTIONAL ARROW, TYPICAL
- M4 INSTALL ROLL FORWARD DIRECTIONAL ARROW, TYPICAL
- M5 INSTALL "THANK YOU" WITH 8" YELLOW STRIPE
- M6 INSTALL 4" SINGLE SOLID YELLOW STRIPE FOR MOBILE ORDER, AND McDELIVERY STALLS
- M7 INSTALL 8" SINGLE DASHED YELLOW STRIPE FOR ROLL FORWARD LANE
- M8 INSTALL 4" SINGLE SOLID WHITE STRIPE, TYPICAL
- M9 INSTALL 6" SINGLE SOLID YELLOW DRIVE THRU STRIPE
- M10 INSTALL 4" SINGLE SOLID WHITE STRIPE @ 45°, 2' O.C., TYPICAL
- M11 INSTALL ADA ACCESSIBLE SYMBOL, TYPICAL
- M12 INSTALL McDONALD'S MOBILE ORDER PARKING SYMBOL, 4 TOTAL
- M13 INSTALL McDONALD'S McDELIVERY PARKING SYMBOL, 2 TOTAL
- M14 INSTALL DRIVE THRU ARROW

N

0' 10' 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	REVIEWED BY:	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE
SITE PLAN

DESCRIPTION
McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

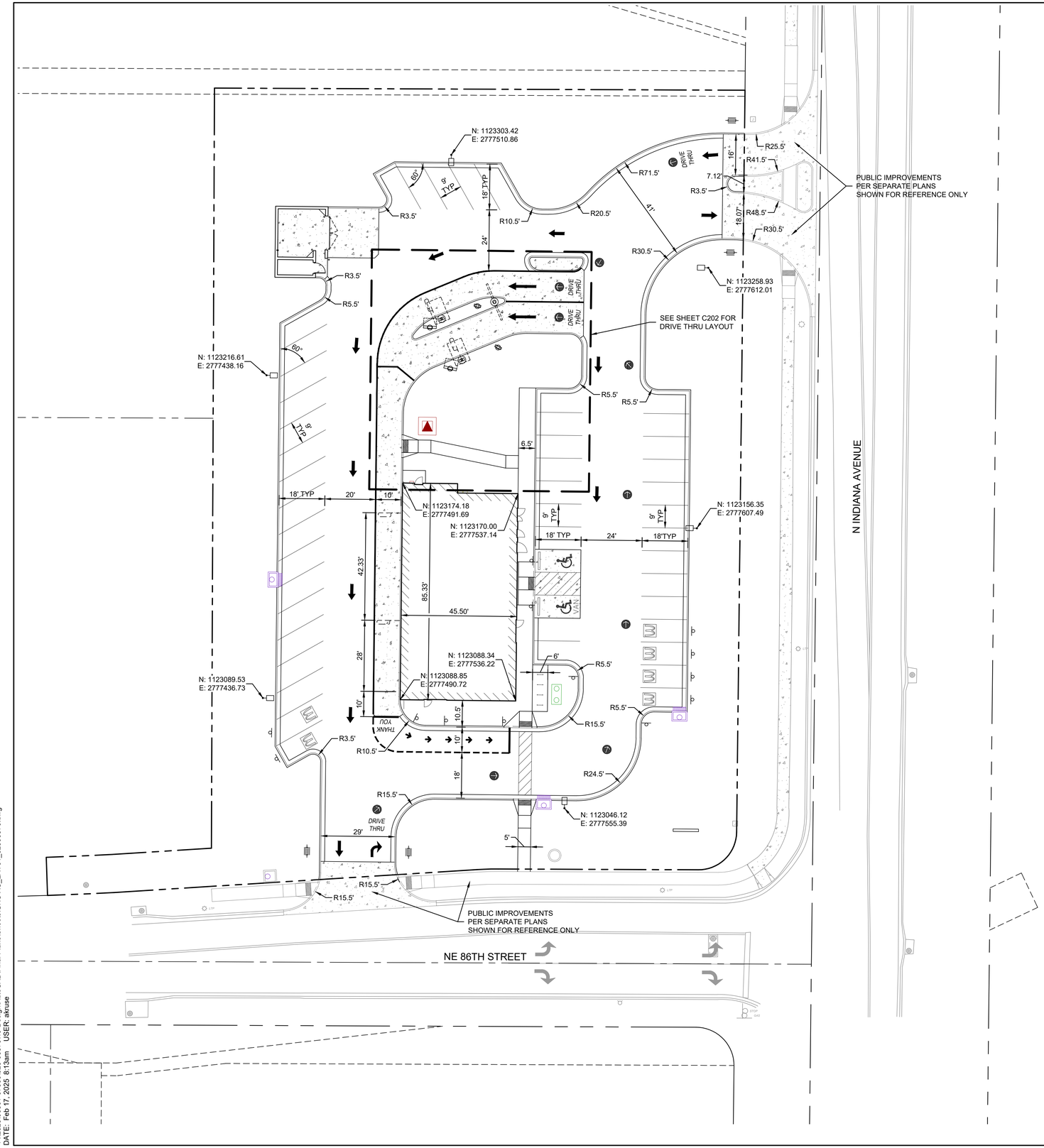
SITE ID
024-1306

SITE ADDRESS
N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

024-1306.00.0

SHEET NO.
C200

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DATE: Feb 17, 2025 8:13am USER: akruse



NOTES

1. ALL PAVEMENT DIMENSIONS ARE TO FACE OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB IS PRESENT, UNLESS OTHERWISE NOTED. DIMENSIONED TIES BETWEEN PROPERTY LINES AND BUILDING FACES OR PAVEMENT ARE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS NECESSARY FOR FOUNDATIONS, BEDDING EXTENSIONS, SURCHARGING, ETC.

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009018764
2-17-25
PROFESSIONAL ENGINEER

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

SHEET NO. C201

TITLE: LAYOUT PLAN

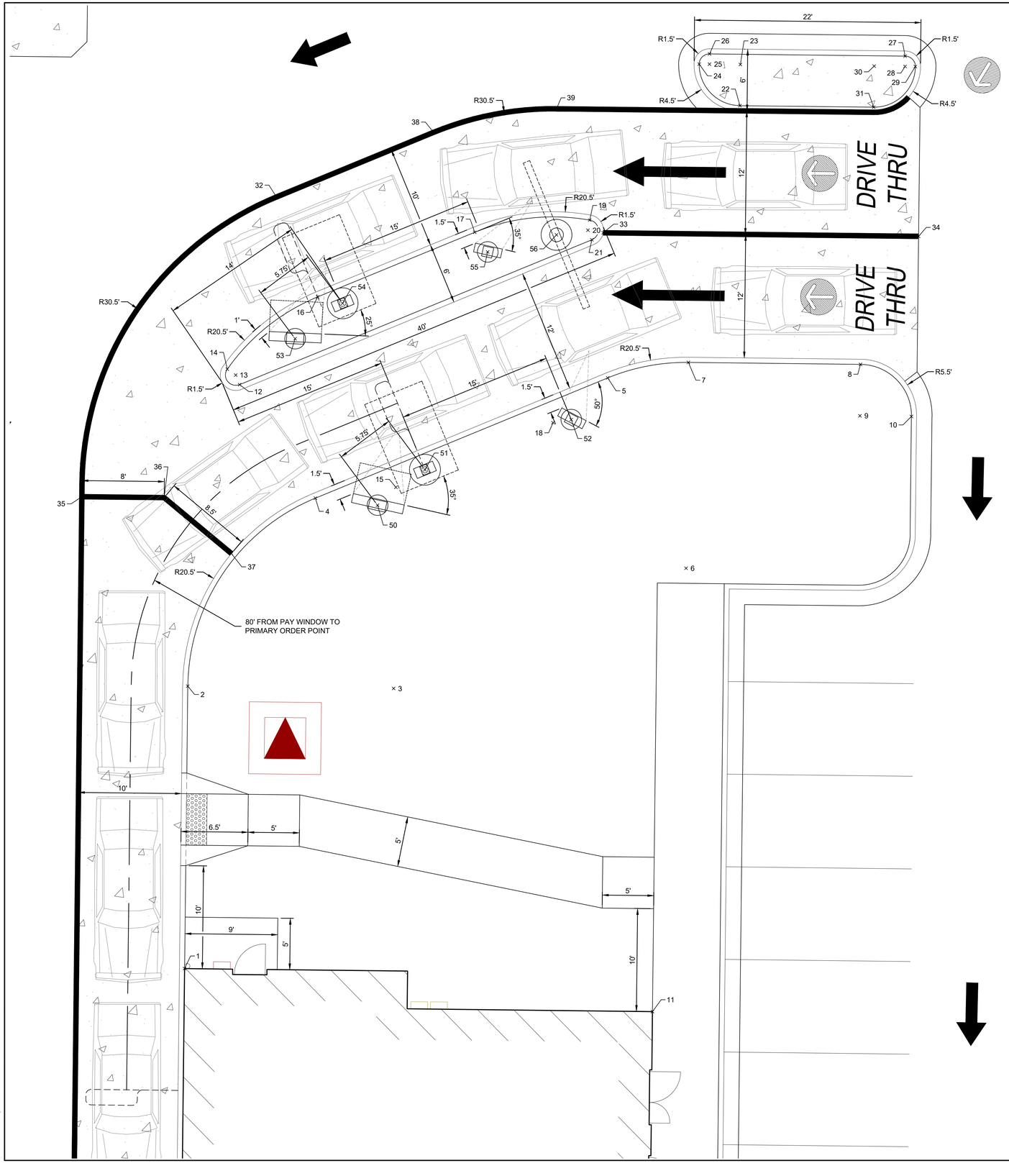
DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

024-1306.00.0

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DATE: Feb 17, 2025 8:13am USER: akruse



POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	1123174.18	2777491.69	BLD
2	1123201.62	2777492.00	ER
3	1123201.39	2777511.99	RP
4	1123219.89	2777504.39	ER
5	1123231.57	2777532.80	ER
6	1123213.08	2777540.41	RP
7	1123233.08	2777540.63	ER
8	1123232.89	2777557.35	ER
9	1123227.89	2777557.30	RP
10	1123227.83	2777562.30	ER
11	1123170.00	2777537.14	BLD
12	1123230.92	2777497.03	ER
13	1123231.85	2777496.65	RP
14	1123232.42	2777495.83	ER
15	1123220.95	2777512.21	RP
16	1123239.44	2777504.61	ER
17	1123245.72	2777519.87	ER
18	1123227.22	2777527.48	RP
19	1123246.90	2777531.05	ER
20	1123245.92	2777530.87	RP
21	1123244.99	2777531.25	ER
22	1123258.02	2777545.63	ER
23	1123262.02	2777545.68	RP
24	1123262.07	2777541.68	ER
25	1123262.05	2777542.68	RP
26	1123263.05	2777542.69	ER
27	1123262.84	2777561.69	ER
28	1123261.84	2777561.68	RP
29	1123261.83	2777562.68	ER
30	1123261.87	2777558.68	RP
31	1123257.87	2777558.63	ER
32	1123249.15	2777500.61	ES
33	1123245.67	2777532.35	ES
34	1123245.32	2777562.99	ES
35	1123220.03	2777481.70	ES
36	1123219.94	2777489.70	ES
37	1123214.50	2777496.24	ES
38	1123255.43	2777515.88	ES
39	1123257.72	2777527.82	ES

POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
50	1123219.20	2777510.43	CF
51	1123222.65	2777515.03	CF
52	1123227.52	2777529.25	CF
53	1123235.38	2777502.43	CF
54	1123238.82	2777507.03	CF
55	1123243.81	2777521.13	CF
56	1123245.47	2777527.81	CF

LAYOUT NOTES:
1. COORDINATES PROVIDED ON CURBS ARE GIVEN AT THE BACK OF CURB.

2. DIMENSIONS PROVIDED ON CURBS ARE GIVEN AT THE FACE OF CURB.

BLD - BUILDING CORNER
ER - END RADIUS
RP - RADIUS POINT
ES - END OF STRIPE
CF - CENTER OF FOUNDATION

NOTES

1. ALL PAVEMENT DIMENSIONS ARE TO FACE OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB IS PRESENT, UNLESS OTHERWISE NOTED. DIMENSIONED TIES BETWEEN PROPERTY LINES AND BUILDING FACES OR PAVEMENT ARE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS NECESSARY FOR FOUNDATIONS, BEDDING EXTENSIONS, SURCHARGING, ETC.

N

0' 2.5' 5' 10'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: DRIVE THRU LAYOUT PLAN
DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI
SITE ID: 024-1306
SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

024-1306.00.0
SHEET NO. C202

F:\2023\06501-07000\023-06570\40-Design\AutoCAD\Final Plans\Sheets\GNCVIC_LAY02_023065700.dwg
DATE: Feb 17, 2025 8:13am USER: aktuse

MATCH LINE
SEE SHEET C301

PROPOSED BUILDING
FFE = 969.00

N INDIANA AVENUE

NE 86TH STREET

PUBLIC IMPROVEMENTS
PER SEPARATE PLANS
SHOWN FOR REFERENCE ONLY

RIDGE LINE

FG=67.38
TI=67.28
RIDGE LINE
6:1
5' @ 2.00%
TP=68.30
FG=68.28
TC=68.22
TC=68.49
TC=68.64
TC=68.35
FG=68.45
TC=69.00
TC=68.85
TC=68.85
TS=68.89
TS=68.95
TC=68.85
TC=68.82
TC/TS=68.35
TC/TS=68.35
TC=68.90
FL=68.45
TP=68.18
TC=68.90
FL=68.45
TC/TS=69.00
TS=68.54
TS=68.54
1.50%
TC/TS=68.45
TC/TS=69.00
TC=68.90
FL=68.45
TC=68.90
FL=68.45
TP=68.18
8"SD
8"SD
8"SD
TC=68.90
TC=68.71
TC=68.60
TS=68.81
RIM=68.75
RIM=68.74
TS=68.80
TC=68.60
TC=67.87
TC=67.99
TC/TS=67.04
TC/TS=66.99
TI=67.44
TC=67.62
TC=67.89
TC=67.56
TC=67.47
TS=67.37
TS=67.32
TS=67.44
TS=67.40
N: 1123037.56
E: 2777560.15
FG=67.92
N: 1123037.68
E: 2777550.15
FG=67.78
N: 1123048.78
E: 2777586.89
FG=68.19
TC=67.37
TI=66.99
TC=66.87
TC=67.65
3.00'
N: 1123077.74
E: 2777614.70
FG=67.82
℄ 3' WIDE BERM
3.00%
3.00%
1.60%
4.45%
3.79%
10:1
TC=67.38
TC=66.68
TC=66.88
TC=66.63
TC=66.31
TS=67.06
TS=67.12
10:1
10:1
10:1
2"W
SS
GAS
P-UG
G
FO
M-E
LTP

GRADING PLAN NOTES

1. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE, SURFACE OF PAVEMENT, TOP OF CURBS, ETC. REFER TO PAVEMENT SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT PAVEMENT DEPTH FROM ELEVATIONS SHOWN.
2. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL.
3. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND SIDEWALKS WHEN FINISH LANDSCAPE MATERIALS ARE IN PLACE.
4. SPOT ELEVATIONS ARE TO EDGE OF PAVEMENT, TOP OF CURB, OR FINISHED GRADE UNLESS OTHERWISE INDICATED. (SEE LEGEND)

SPOT ELEVATION LEGEND

TC	TOP OF CURB
FL	FLOWLINE OF CURB
TP	TOP OF PAVEMENT
TS	TOP OF SIDEWALK
TI	TOP OF INLET
ME	MATCH EXISTING
FG	FINISHED GRADE

T	TRANSITION
R	RAMP
L	LANDING

NOTE: SPOT ELEVATIONS ARE TRUNCATED.
ADD 900.00 TO ALL SPOT ELEVATIONS.

CONTOUR LEGEND

975 EXISTING GROUND CONTOUR

975 FINISHED GROUND CONTOUR

N

0' 5' 10' 20'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: GRADING PLAN

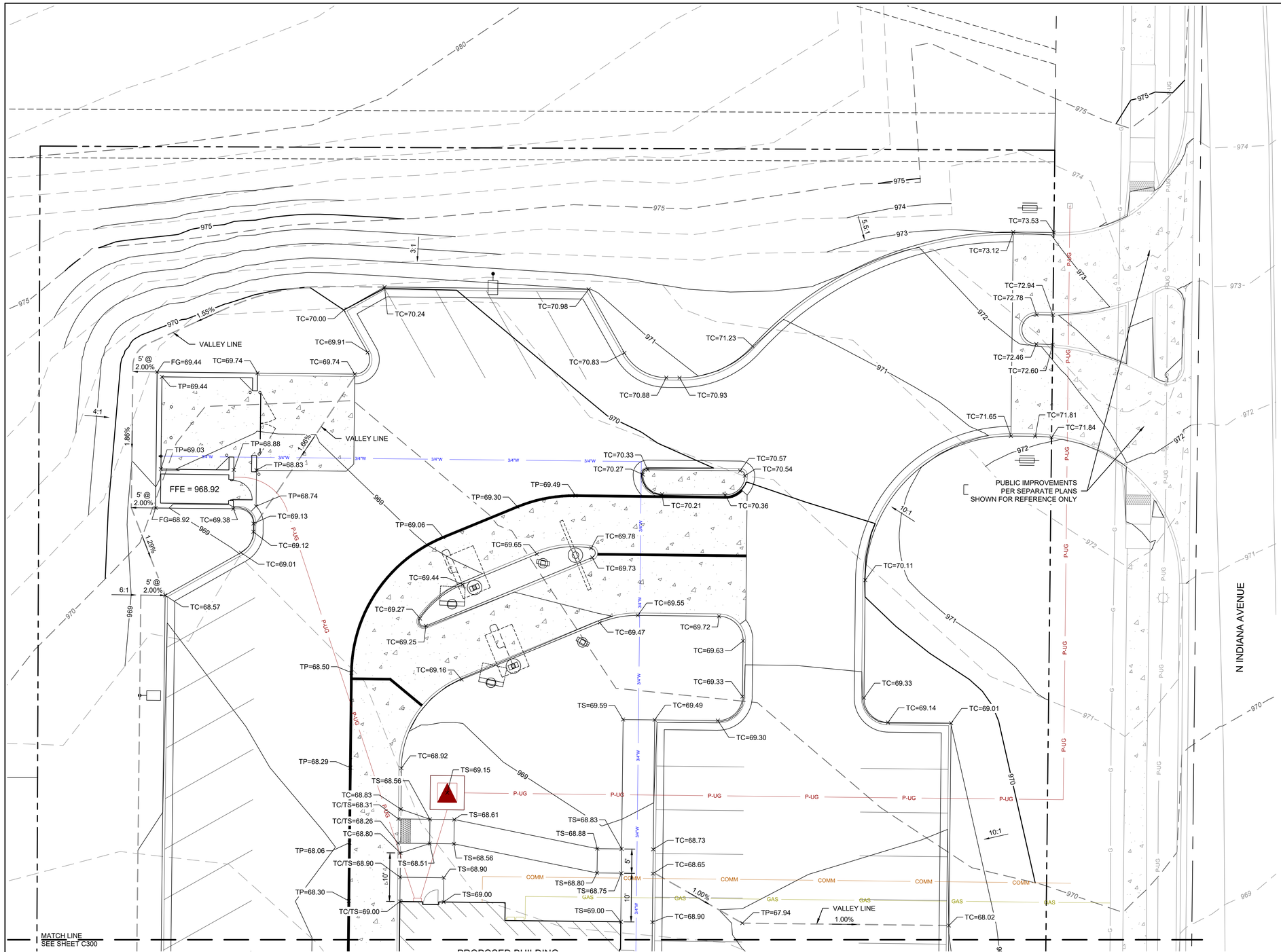
DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID: 024-1306
SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

SHEET NO. C300

024-1306.00.0

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DATE: Feb 17, 2025 8:13am USER: akruse



SPOT ELEVATION LEGEND

TC	TOP OF CURB
FL	FLOWLINE OF CURB
TP	TOP OF PAVEMENT
TS	TOP OF SIDEWALK
TI	TOP OF INLET
ME	MATCH EXISTING
FG	FINISHED GRADE
T	TRANSITION
R	RAMP
L	LANDING

NOTE: SPOT ELEVATIONS ARE TRUNCATED.
ADD 900.00 TO ALL SPOT ELEVATIONS.

CONTOUR LEGEND

975 EXISTING GROUND CONTOUR

975 FINISHED GROUND CONTOUR

0' 5' 10' 20'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

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PREPARED FOR
McDonald's USA, LLC

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STD ISSUE DATE	
REVIEWED BY	MAP
DATE ISSUED	02.17.25

TITLE: GRADING PLAN

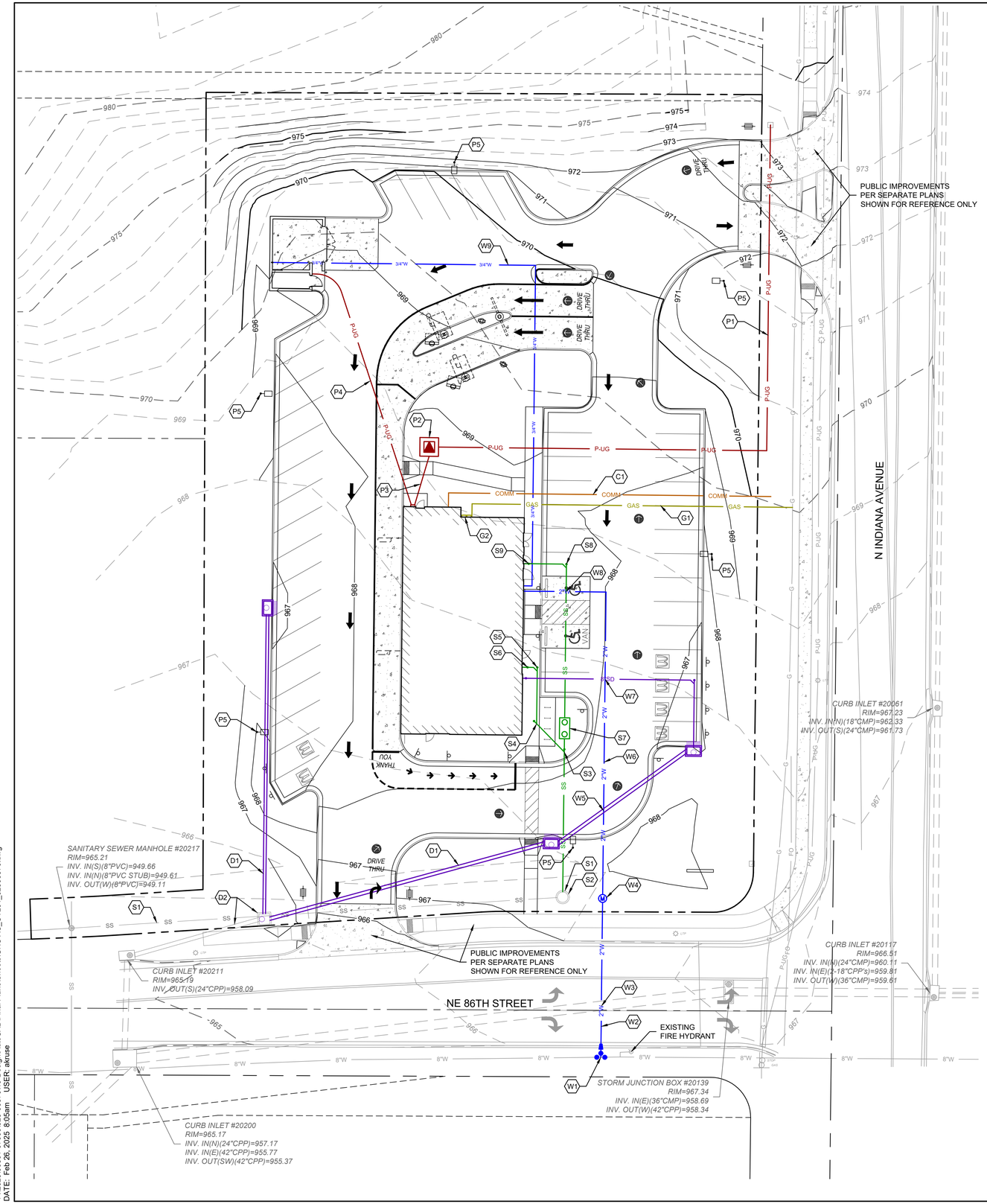
DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

SITE ID: 024-1306

SHEET NO: 024-1306.00.0
C301

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DATE: Feb 17, 2025 8:13am USER: akluse



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DATE: Feb 26, 2025 8:00am USER: akruse

POWER SERVICE (P)

ALL ALIGNMENT AND LOCATIONS ARE ENGINEER RECOMMENDATIONS ONLY. EVERGY SHALL DETERMINE FINAL DESIGN INCLUDING ALIGNMENTS. CONTRACTOR SHALL COORDINATE ALL INSTALLATION WITH EVERGY.

ALL INSTALLATIONS SHALL CONFORM WITH EVERGY SPECIFICATIONS AND GUIDELINES.

P1 INSTALL 246 L.F. OF 4" PVC CONDUIT WITH PULL STRING, PER EVERGY STANDARDS, FROM EXISTING JUNCTION BOX TO PROPOSED TRANSFORMER PAD.

P2 CONSTRUCT TRANSFORMER PAD PER EVERGY STANDARDS. EVERGY TO MOUNT TRANSFORMER AND PULL WIRE.

P3 INSTALL 19 L.F. OF 4" PVC CONDUIT W/ PULL STRING FOR SECONDARY POWER SERVICE. COORDINATE BUILDING CONNECTION WITH MEP PLANS.

P4 INSTALL 98 L.F. OF 4" PVC CONDUIT W/ PULL STRING FOR POWER SERVICE TO STORAGE SHED/TRASH ENCLOSURE

P5 INSTALL LIGHT POLE, SEE PHOTOMETRIC PLAN FOR ADDITIONAL INFORMATION

NATURAL GAS SERVICE (G)

NATURAL GAS SERVICE ROUTING SHOWN IS PROPOSED ONLY. FINAL DESIGN BY SERVICE PROVIDER. CONTRACTOR SHALL CONTACT ENGINEER WITH ANY CONFLICTS. METER LOCATION AND SERVICE SIZING PER MEP PLAN AND SERVICE PROVIDER.

G1 INSTALL 125 L.F. OF PIPE FOR NATURAL GAS SERVICE. COORDINATE SIZE AND MATERIAL WITH SERVICE PROVIDER.

G2 INSTALL GAS METER AND CONNECT TO BUILDING. COORDINATE BUILDING CONNECTION WITH MEP PLANS.

COMMUNICATIONS (C)

COMMUNICATION SERVICE ROUTING SHOWN IS PROPOSED ONLY. FINAL DESIGN BY SERVICE PROVIDER. CONTRACTOR SHALL CONTACT ENGINEER WITH ANY CONFLICTS.

C1 INSTALL 127 L.F. OF 2" PVC CONDUIT W/ PULL STRING FOR COMMUNICATION SERVICE. COORDINATE CONNECTION W/ AT&T.

SANITARY SEWER (S)

S1 REFERENCE PUBLIC IMPROVEMENT PLANS

S2 CONNECT TO 4' DIA. SAMPLING MANHOLE PER KCMO STANDARD DETAILS
RIM = 967.29
INV. IN (N) ELEV. = 959.91
INV. OUT (W) ELEV. = 959.81
INSTALL 54.5 L.F. OF 4" PVC (SCH-40) @ 2.00% TO S3

S3 INSTALL 4" PVC WYE & CLEANOUT
INV. ELEV. = 961.00
INSTALL 14.8 L.F. OF 4" PVC (SCH-40) @ 7.19% TO S4
INSTALL 5.0 L.F. OF 4" PVC (SCH-40) @ 2.00% TO S7

S4 INSTALL 4" PVC WYE & CLEANOUT
INV. ELEV. = 962.07
INSTALL 21.1 L.F. OF 4" PVC (SCH-40) @ 7.19% TO S5

S5 INSTALL 4" PVC WYE & CLEANOUT
INV. ELEV. = 963.59
INSTALL 3.7 L.F. OF 4" PVC (SCH-40) @ 7.19% TO S6

S6 INSTALL 4" PVC WYE & CLEANOUT
INV. ELEV. = 963.85
INSTALL 2.0 L.F. OF 4" PVC (SCH-40) @ 7.19% TO BUILDING
INV. ELEV. AT BUILDING = 964.00
RE: MEP PLANS FOR CONTINUATION

S7 INSTALL GREASE INTERCEPTOR. RE: MEP FOR ADDITIONAL DETAILS.
INV. IN (S) ELEV. = 961.10
INV. OUT (N) ELEV. = 961.27
INSTALL 57.7 L.F. OF 4" PVC (SCH-40) @ 2.00% TO S8

S8 INSTALL 4" PVC WYE & CLEANOUT
INV. ELEV. = 962.43
INSTALL 14.2 L.F. OF 4" PVC (SCH-40) @ 9.70% TO S9

S9 INSTALL 4" PVC WYE & CLEANOUT
INV. ELEV. = 963.80
INSTALL 2.0 L.F. OF 4" PVC (SCH-40) @ 9.70% TO BUILDING
INV. ELEV. AT BUILDING = 964.00
RE: MEP PLANS FOR CONTINUATION

WATER SERVICE (W)

ALL WATER SERVICE INSTALLATIONS INCLUDING BACKFLOW DEVICES ARE SUBJECT TO FIELD VERIFICATION AND APPROVAL BY THE WATER DEPARTMENT INSPECTOR.

IRRIGATION SERVICE SHALL BE FED FROM BUILDING. METER AND BACKFLOW PREVENTER FOR IRRIGATION SHALL BE LOCATED WITHIN BUILDING. (RE: MEP)

W1 COORDINATE WITH CITY TO CONNECT TO EXISTING 8" DIP WATER MAIN, SEE CONNECTION DETAIL A THIS SHEET

W2 BORE AND INSTALL 60 L.F. 2" TYPE K COPPER DOMESTIC WATER SERVICE LINE (48" MIN. COVER)

W3 CRITICAL CROSSING
BOTTOM OF WATER = 962.55
TOP OF EXISTING STORM = 961.55

W4 INSTALL 2" METER IN UNDERGROUND VAULT PER CITY OF KANSAS CITY STANDARDS AND SPECIFICATIONS. LIDS SHALL BE EXTENDED TO MATCH FINISH GRADE

W5 CRITICAL CROSSING. MAINTAIN 18" MIN. SEPARATION
BOTTOM OF STORM = 962.22
TOP OF WATER = 960.72

W6 INSTALL 146 L.F. 2" TYPE K COPPER DOMESTIC WATER SERVICE LINE (48" MIN. COVER) TO BUILDING (RE: MEP FOR CONTINUATION)
BACKFLOW PREVENTER LOCATED WITHIN BUILDING

W7 CRITICAL CROSSING. MAINTAIN 18" MIN. SEPARATION
BOTTOM OF STORM = 964.17
TOP OF WATER = 962.67

W8 CRITICAL CROSSING. MAINTAIN 18" MIN. SEPARATION
BOTTOM OF WATER = 964.07
TOP OF SEWER = 962.57

W9 INSTALL 223 L.F. 3/4" WATER LINE (48" MIN. COVER) TO FROST PROOF YARD HYDRANT LOCATED IN TRASH ENCLOSURE (RE: ARCH)

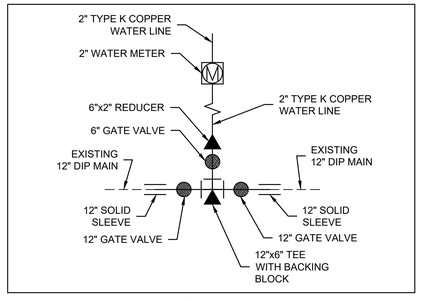
STORM SEWER (D)

D1 SEE STORM SEWER PLAN & PROFILE SHEET C401

D2 REFERENCE PUBLIC IMPROVEMENT PLANS

LEGEND

W	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
	EXISTING STORM SEWER LINE
P-OH	EXISTING OVERHEAD POWER LINE
P-UG	EXISTING UNDERGROUND POWER LINE
FO	EXISTING FIBER OPTIC LINE
G	EXISTING GAS LINE
W — W	PROPOSED WATER LINE
SS — SS	PROPOSED SANITARY SEWER LINE
	PROPOSED STORM SEWER LINE
P-UG	PROPOSED UNDERGROUND POWER LINE
COMM	PROPOSED COMMUNICATION LINE
GAS	PROPOSED GAS LINE
1000	EXISTING GROUND CONTOUR
1000	FINISHED GROUND CONTOUR



CONNECTION DETAIL A

NOTE: GATE VALVE LIDS SHALL BE INSTALLED TO FINISH GRADE ELEVATIONS

N

0' 10' 20' 40'
SCALE IN FEET

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

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PREPARED FOR: McDonald's USA, LLC

DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: UTILITY PLAN

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

024-1306.00.0

SHEET NO. C400

SD-B1
INSTALL 5' X 3' CURB INLET
N: 1123136.13
E: 2777440.75

RD-1
CONNECT TO 6" BUILDING ROOF DRAIN. (RE: MEP)
INSTALL 8"X6" REDUCER
E INV. OUT= 964.50 (8" PVC)
N: 1123109.73
E: 2777536.47

64.50 LF 8" PVC @ 0.99%

SDCO-1
INSTALL 6" CLEANOUT
RIM= 964.59
W INV. IN= 963.86 (8" PVC)
S INV. OUT= 963.86 (8" PVC)
N: 1123109.00
E: 2777600.97

26.58 LF 8" PVC @ 0.99%

SD-A3
INSTALL 5' X 3' CURB INLET
N: 1123082.42
E: 2777600.66

SD-A2
INSTALL 5' X 3' CURB INLET
N: 1123047.71
E: 2777547.26

STORM LINE A

STORM LINE B

N INDIANA AVENUE

NE 86TH STREET

PUBLIC IMPROVEMENTS PER SEPARATE PLANS SHOWN FOR REFERENCE ONLY

PUBLIC IMPROVEMENTS PER SEPARATE PLANS SHOWN FOR REFERENCE ONLY

SANITARY SEWER MANHOLE #20217
RIM=965.21
INV. IN(S)(8"PVC)=949.66
INV. IN(N)(8"PVC STUB)=949.61
INV. OUT(W)(8"PVC)=949.11

CURB INLET #20211
RIM=965.19
INV. OUT(S)(24"CPP)=958.09

CURB INLET #20061
RIM=967.23
INV. IN(N)(18"CMP)=962.33
INV. OUT(S)(24"CMP)=961.73

CURB INLET #20117
RIM=966.51
INV. IN(N)(24"CMP)=960.11
INV. IN(E)(2-18"CPP's)=959.81
INV. OUT(W)(36"CMP)=959.61

STORM JUNCTION BOX #20139
RIM=967.34
INV. IN(E)(36"CMP)=958.69
INV. OUT(W)(42"CPP)=958.34

CURB INLET #20200
RIM=965.17
INV. IN(N)(24"CPP)=957.17
INV. IN(E)(42"CPP)=955.77
INV. OUT(SW)(42"CPP)=955.37

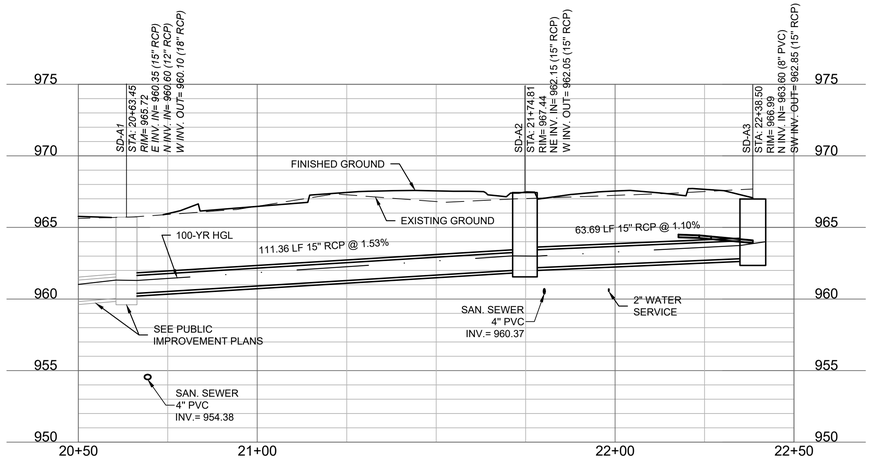
EXSD-1

SD-A1

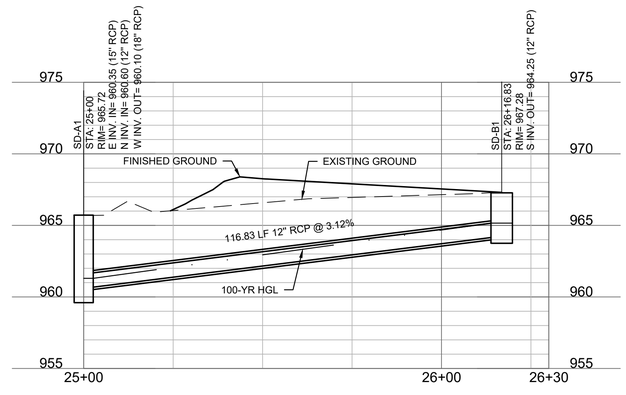
DRIVE THRU

THANK YOU

26+16.83
26+00
25+00
21+00
22+00
22+38.50
20+00



STORM LINE - A



STORM LINE - B

N

0' 10' 20' 40'

SCALE IN FEET

10'
5'
2.5'
0'

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

MITCHELL ALAN PLEAK
NUMBER PE-2009018764
2-17-25
STATE OF MISSOURI
PROFESSIONAL ENGINEER

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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	AJK
STD ISSUE DATE	
REVIEWED BY	MAP
DATE ISSUED	02.17.25

TITLE: STORM SEWER PLAN & PROFILE

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID: 024-1306

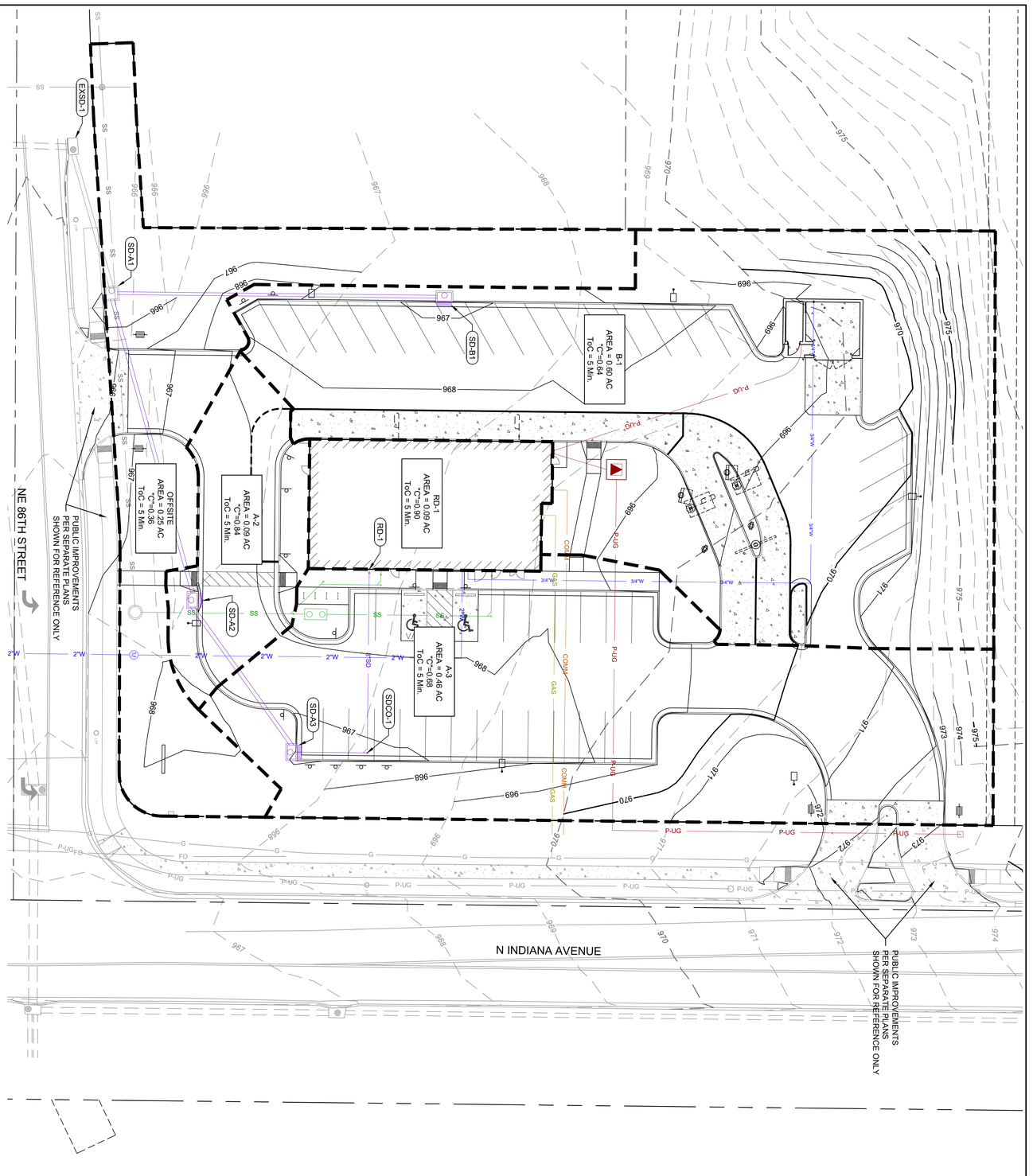
SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

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SHEET NO. C401

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DATE: Feb 17, 2025 8:14am USER: akruse



10-YEAR HYDRAULIC RESULTS

LineID	DrainageArea (ac)	TotalArea (ac)	RunoffCoeff (C)	Tc (min)	InletT (in/hr)	ISys (in/hr)	IncrQ (cfs)	TotalRunoff (cfs)	LineType	LineSize (in)	n-value	Pipe| InvertDn (ft)	InvertUp (ft)	LineLength (ft)	LineSlope (%)	CapacityFull (cfs)	Vel/Ave (ft/s)	J-lossCoeff	MinorLoss	Energy Loss (ft)	HGL|Dn (ft)	HGL|Up (ft)	HGLUnd (ft)	Grnd/RimElev Up (ft)	Rim-hw (ft)
A1 - EXSD1	0	1.24	0	6.9	0	7.23	0	6.17	Cir	18	0.013	959	960.1	53.45	2.06	15.06	5.37	0.97	n/a	0	959.9	961.06	961.06	965.72	4.66
A2 - A1	0.09	1.24	0.64	6.2	8.18	7.52	0.62	3.53	Cir	15	0.013	960.35	962.05	111.361	1.53	7.98	4.73	0.55	n/a	0	961.06	962.81	962.81	967.44	4.63
A3 - A2	0.46	0.55	0.68	5.8	8.18	7.73	2.56	3.04	Cir	15	0.013	962.15	962.85	63.689	1.1	6.77	4.47	1.00	n/a	0	962.81	963.55	963.55	966.99	3.44
SDC01 - A3	0	0.09	0	5.6	0	7.86	0	0.64	Cir	8	0.011	963.6	963.86	26.115	0.99	1.45	3.58	1.00	0.15	0	963.91	964.25	964.25	964.41	0.16
RD1 - SDC01	0.09	0.09	0.9	5	8.18	8.18	0.66	3.14	Cir	8	0.011	963.86	964.5	64.5	0.99	1.43	3.13	1.00	n/a	0	964.25	964.88	964.88	965.05	0.17
B1 - A1	0.6	0.64	0.9	5	8.18	8.18	3.14	3.14	Cir	12	0.013	960.6	964.25	116.827	3.12	6.29	6.46	1.00	0.38	0	961.1	965.01	965.01	967.28	2.27

100-YEAR HYDRAULIC RESULTS

LineID	DrainageArea (ac)	TotalArea (ac)	RunoffCoeff (C)	Tc (min)	InletT (in/hr)	ISys (in/hr)	IncrQ (cfs)	TotalRunoff (cfs)	LineType	LineSize (in)	n-value	Pipe| InvertDn (ft)	InvertUp (ft)	LineLength (ft)	LineSlope (%)	CapacityFull (cfs)	Vel/Ave (ft/s)	J-lossCoeff	MinorLoss	Energy Loss (ft)	HGL|Dn (ft)	HGL|Up (ft)	HGLUnd (ft)	Grnd/RimElev Up (ft)	Rim-hw (ft)
A1 - EXSD1	0	1.24	0	6.2	11.72	0	10	10	Cir	18	0.013	959	960.1	53.45	2.06	15.06	7.77	0.97	n/a	0	959.9	961.32	961.32	965.72	4.4
A2 - A1	0.09	1.24	0.84	5.8	12.76	12.05	0.96	5.66	Cir	15	0.013	960.35	962.05	111.361	1.53	7.98	5.56	0.55	n/a	0	961.32	963.01	963.01	967.44	4.43
A3 - A2	0.46	0.55	0.68	5.5	12.76	12.28	3.99	4.84	Cir	15	0.013	962.15	962.85	63.689	1.1	6.77	5.26	1.00	n/a	0	963.01	963.74	963.74	966.99	3.25
SDC01 - A3	0	0.09	0	5.4	0	12.42	0	1.01	Cir	8	0.011	963.6	963.86	26.115	0.99	1.45	4.13	1.00	0.22	0	964.01	964.35	964.35	964.41	0.06
RD1 - SDC01	0.09	0.09	0.9	5	12.76	12.76	1.03	1.03	Cir	8	0.011	963.86	964.5	64.5	0.99	1.43	3.77	1.00	n/a	0	964.35	964.98	964.98	965.05	0.07
B1 - A1	0.6	0.6	0.64	5	12.76	12.76	4.9	4.9	Cir	12	0.013	960.6	964.25	116.827	3.12	6.29	7.32	1.00	n/a	0	961.32	965.16	965.16	967.28	2.12

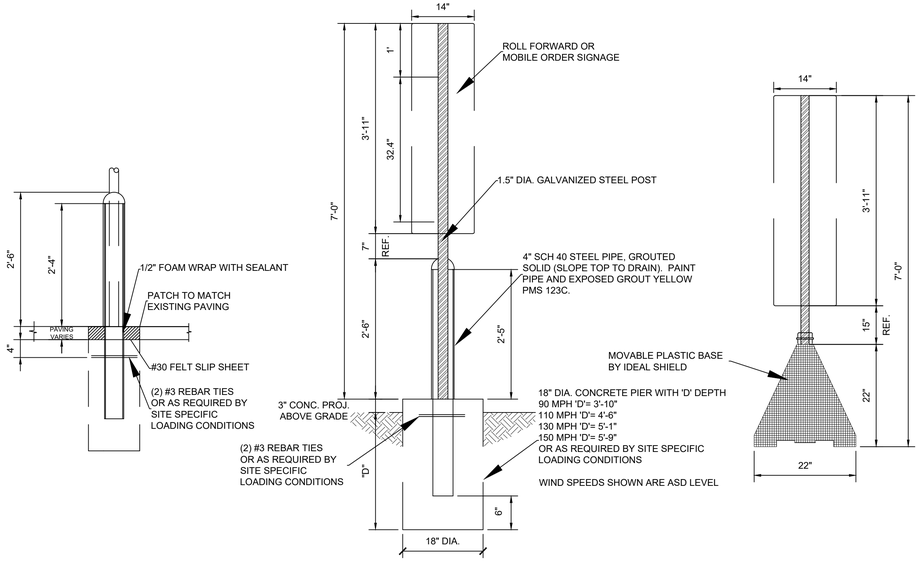
0' 10' 20' 40'
SCALE IN FEET

SHEET NO.	TITLE	DRAWN BY	PREPARED FOR:	© 2024 McDonald's USA, LLC
C402	DRAINAGE AREA MAP & HYDRAULICS TABLE	AJK	McDonald's USA, LLC	These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.
024-1306.00.0	DESCRIPTION: McDONALD'S RESTAURANT KANSAS CITY, MISSOURI	STD ISSUE DATE		
		REVIEWED BY: MAP		
		DATE ISSUED: 02.17.25		
	SITE ID: 024-1306	SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI		

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STATE OF MISSOURI · MITCHELL ALAN · NUMBER PE-2009018764 · 02-17-25 · PROFESSIONAL ENGINEER

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK



DIRECT BURIAL IN EXISTING PAVEMENT OPTION

DIRECT BURIAL IN SOIL/ LANDSCAPING OPTION

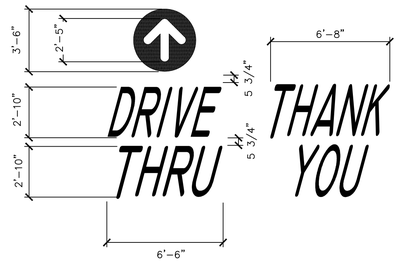
BASE AND POST OPTION

"ROLL FORWARD" AND "MOBILE ORDER" BOLLARD DETAIL

NOT TO SCALE

PAVEMENT BRANDING NOTES:

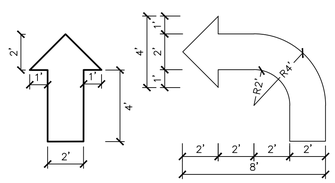
1. YELLOW PAINT (PMS1235C) IS USED FOR ALL DRIVE-THRU, MOBILE ORDER CURBSIDE, AND McDELIVERY MARKINGS, INCLUDING PARKING STALLS.
2. THE WORDS 'DRIVE-THRU' AND THE CIRCLE ARROW ARE PLACED AT ALL ENTRANCES TO THE LOT APPROX. 25' TO 30' FROM THE CURB OR SIDEWALK.
3. THE WORDS 'DRIVE-THRU' SHOULD BE CENTERED IN THE DRIVEWAY FOR ONE WAY TRAFFIC (ON THE INGRESS SIDE OF THE DRIVE AISLE IF THERE IS TWO WAY TRAFFIC).
4. THE CIRCLE DIRECTIONAL ARROW SHOULD BE CENTERED ABOVE THE WORD 'DRIVE' APPROX. 5' IN TO THE PARKING LOT.
5. IF FIVE OR MORE ARROWS ARE NEEDED TO DIRECT CARS TO THE DRIVE-THRU, PLAN THE CORRECT PLACEMENT OF THE ARROWS TO INCLUDE THE APPLICATION OF THE WORDS 'DRIVE THRU' WITH AN ARROW CENTERED ABOVE THE WORD 'DRIVE,' ORIENTED TO THE DECISION POINT.
6. THE DOUBLE-HEADED ARROW FOR A SIDE-BY-SIDE DRIVE-THRU SHOULD BE POSITIONED TO DIRECT TRAFFIC TO EITHER LANE, AS CARS APPROACH TO THE ISLAND. EACH ARROW MUST BE CUSTOMIZED TO FIT THE LANE CONFIGURATION.



PAVEMENT BRANDING

NOT TO SCALE

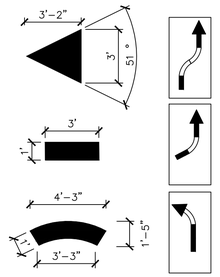
TRAFFIC & LANE MARKINGS: NOT ASSOCIATED WITH DRIVE-THRU



APPLY TWO COATS OF WATERBORNE PAINT (PER FS TT-P-1952) OR SOLVENT BORNE PAINT (PER FS A-A-2886 OR AASHTO M248). TRAFFIC-LANE MARKING PAINT OVER CLEANED PAVING SURFACE ACCORDING TO LAYOUT SHOWN ON THE SITE PLAN. PAINT WHITE OR AS REQUIRED BY CITY CODE.

PARKING LOT ARROWS

NOT TO SCALE

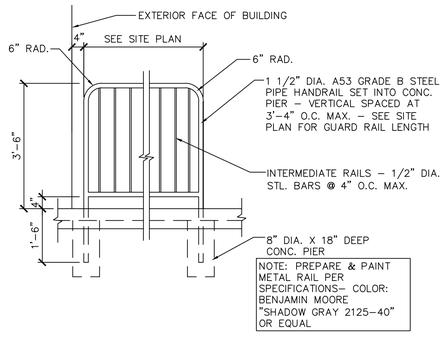


NOTES:

1. ALL PAINT MARKINGS TO BE APPLIED TO ASPHALT WHEN OUTDOOR TEMPERATURE EXCEEDS +8° MINIMUM.
2. ALL DRIVE-THRU MARKINGS SHALL BE PAINTED YELLOW (PMS1235C), INCLUDING 'DRIVE THRU,' 'THANK YOU,' ALL DIRECTIONAL ARROWS AND DRIVE THRU LANE MARKINGS.
3. BROADCAST GLASS BEADS UNIFORMLY INTO WET PAVEMENT MARKINGS AT A RATE OF 6LB/GAL.
4. CONTACT:
   "PAVEMENT STENCIL COMPANY"
   P.O BOX 915755
   LONGWOOD, FLORIDA 32791
   PHONE: 1-800-250-5547

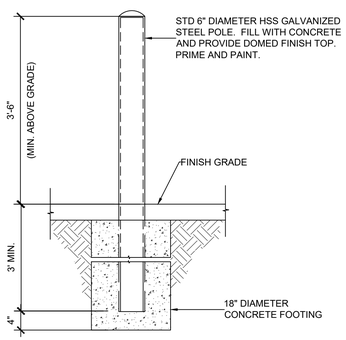
DRIVE THRU ARROW

NOT TO SCALE



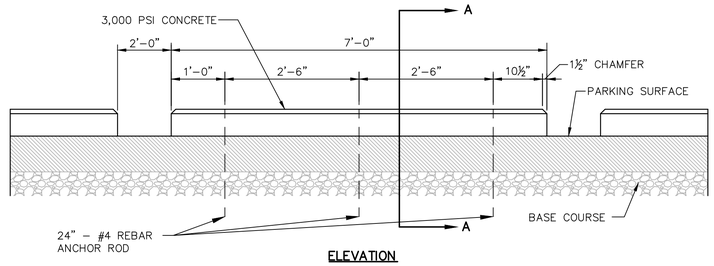
GUARDRAIL DETAIL

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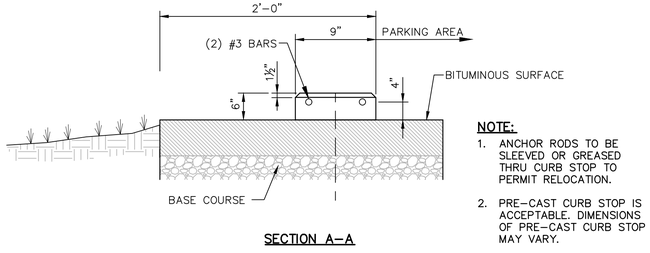


6" DIA. BOLLARD

NOT TO SCALE



ELEVATION



SECTION A–A

NOTE:

1. ANCHOR RODS TO BE SLEEVED OR GREASED THRU CURB STOP TO PERMIT RELOCATION.
2. PRE–CAST CURB STOP IS ACCEPTABLE. DIMENSIONS OF PRE–CAST CURB STOP MAY VARY.

WHEEL STOP DETAIL

NOT TO SCALE

REV	DATE	DESCRIPTION	BY
			AJK
	02.17.25	ISSUED FOR PERMIT REVIEW	

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

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AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: DETAILS

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KANSAS CITY, MISSOURI

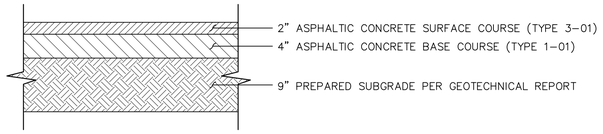
SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

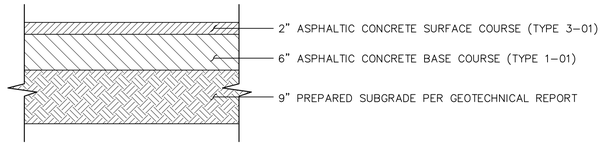
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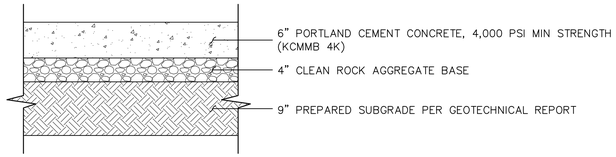
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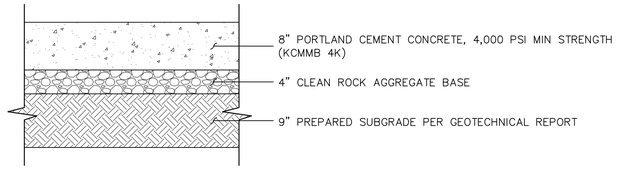
LIGHT DUTY ASPHALT SECTION



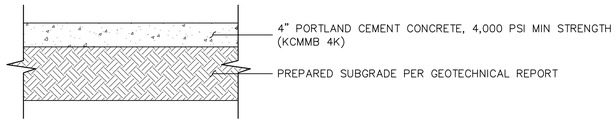
HEAVY DUTY ASPHALT SECTION



LIGHT DUTY CONCRETE SECTION



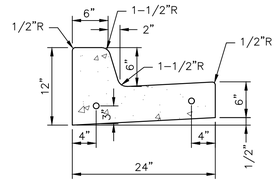
HEAVY DUTY CONCRETE SECTION



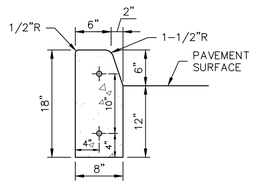
CONCRETE SIDEWALK SECTION

NOTE:
PAVEMENT SECTIONS TAKEN FROM RECOMMENDATIONS IN THE GEOTECHNICAL REPORT PROVIDED BY OLSSON, PROJECT #023-06570, DATED AUGUST 5, 2024, AND ALL ADDENDUMS. WHERE THE PLANS SHOW CONCRETE PAVING, ASPHALT SECTIONS ARE NOT AN ALTERNATIVE.

PAVEMENT SECTIONS
NOT TO SCALE



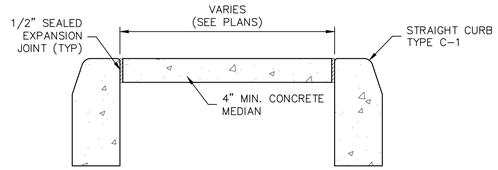
STRAIGHT BACK CURB & GUTTER TYPE CG-1
NOT TO SCALE



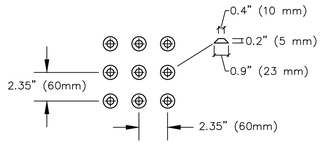
STRAIGHT CURB (TYPE C-1)
NOT TO SCALE

NOTES:

1. 1/2" EXPANSION JOINTS WITH 2' DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. FIX DOWEL BARS WITH BAR SUPPORTS.
4. DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH HANDICAP ACCESS RAMP.



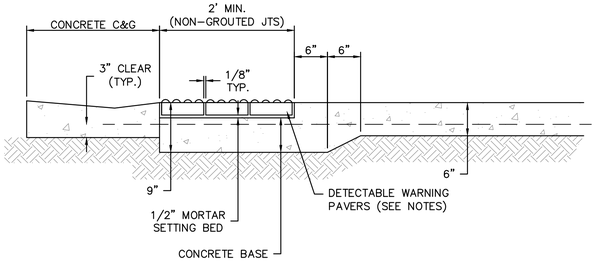
CONCRETE MEDIAN
NOT TO SCALE



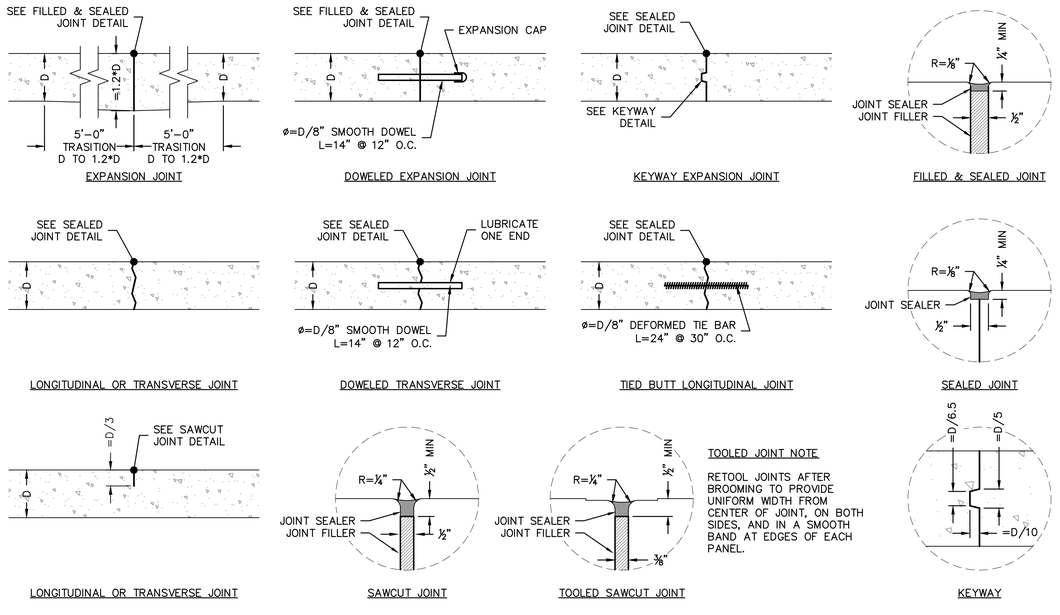
DETECTABLE WARNING SURFACE PATTERN
(NOT TO SCALE)

PAVER BRICK NOTES:

1. PAVING BRICK SHALL BE 2 ¼" X 4" X 8" NON-GROUTED ENDICOTT CLAY PRODUCTS CO., HANDICAP DETECTABLE WARNING PAVERS, COLOR TO CONTRAST WITH CONCRETE, OR APPROVED EQUAL AND SHALL MEET THE REQUIREMENTS OF ASTM C902 FOR CLASS SX TYPE 1 BRICK AND ASTM C1272.
2. THE BRICKS SHALL BE SAW CUT ONLY AND ANY BRICK SHALL NOT BE LESS THAN 25% OF A FULL BRICK.
3. BROOM 50/50 SAND/CEMENT MIX INTO NON-GROUTED JOINTS AFTER BRICK PLACEMENT. THE MAXIMUM ALLOWABLE NON-GROUTED JOINT WIDTH SHALL BE 1/8".
4. DETECTABLE WARNING SURFACE TO EXTEND A MINIMUM OF 2 FT. IN DIRECTION OF TRAVEL.



DETECTABLE WARNING SURFACE
NOT TO SCALE



TOOLED JOINT NOTE

RETOOL JOINTS AFTER BROOMING TO PROVIDE UNIFORM WIDTH FROM CENTER OF JOINT, ON BOTH SIDES, AND IN A SMOOTH BAND AT EDGES OF EACH PANEL.

CONCRETE JOINT DETAILS
NOT TO SCALE

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STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
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PREPARED FOR:
McDonald's USA, LLC

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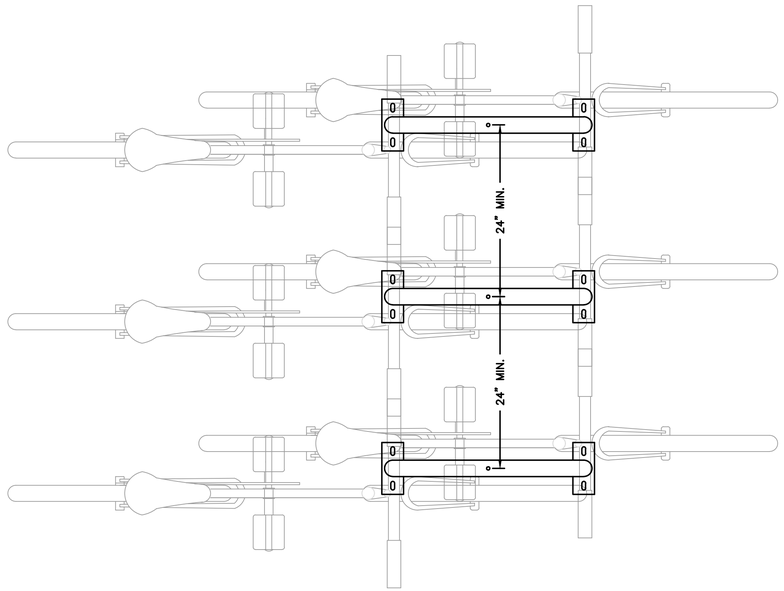
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KANSAS CITY, MISSOURI

SITE ID: 024-1306

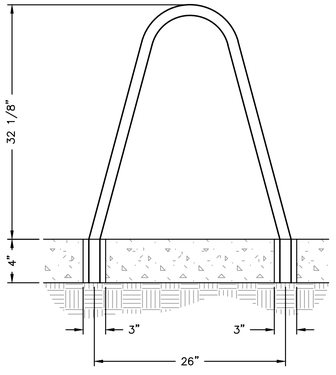
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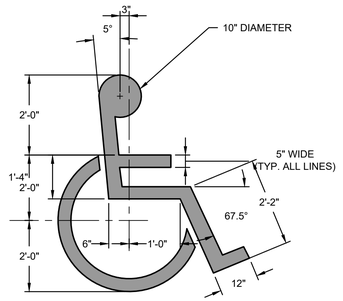


BIKE RACK PLAN VIEW



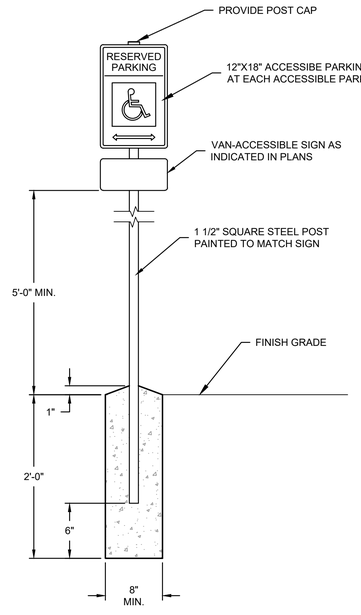
BIKE RACK DETAIL
NOT TO SCALE

1. CORE DRILL 3" DIAMETER (MINIMUM) HOLES 6" DEEP.
2. PREPARE THE HOLES FOR OUTDOOR ANCHORING CEMENT, SUCH AS KWIXSET OR SUPER POR-ROK. FOLLOW THE MANUFACTURER'S INSTRUCTIONS FOR BLOWING OUT DUST, FILLING WITH WATER, SCRUBBING, AND REMOVING EXCESS WATER.
3. PLACE THE BIKE RACK BACK INTO POSITION AND FILL THE HOLES WITH ANCHORING CEMENT.

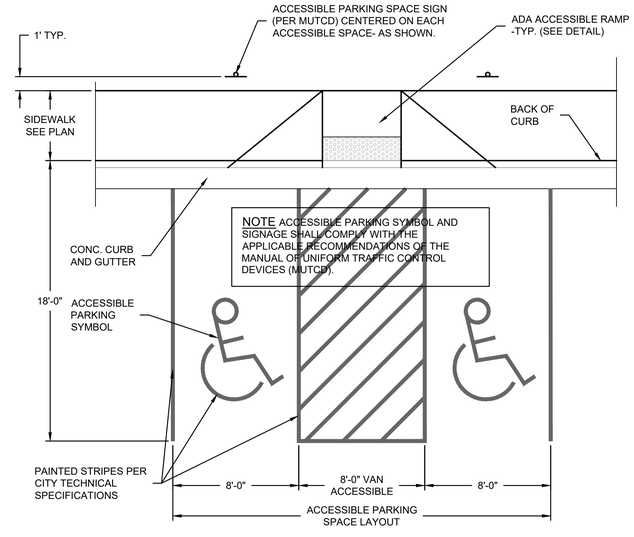


PROVIDE PAINTED SYMBOL AT EACH DESIGNATED ACCESSIBLE PARKING STALL. CENTER SYMBOL IN EACH STALL.

ACCESSIBLE PARKING SYMBOL
NOT TO SCALE



ACCESSIBLE PARKING SPACE SIGNAGE
NOT TO SCALE



ACCESSIBLE PARKING SPACE LAYOUT DETAIL
NOT TO SCALE

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	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
STATE OF MISSOURI
PROFESSIONAL ENGINEER

olsson
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Missouri COA #001592
302 S. 4th Street, Suite 110
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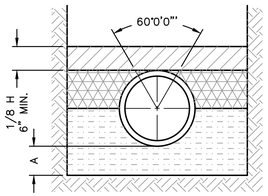
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McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ADDRESS
N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

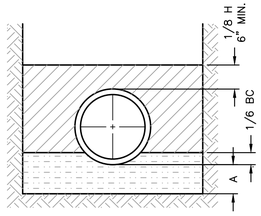
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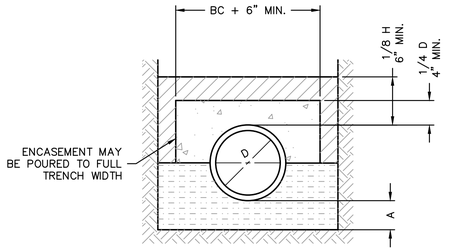
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FIRST CLASS BEDDING
CLASS B



ORDINARY BEDDING
CLASS C



ARCH ENCASEMENT
CLASS A

LEGEND

BC – OUTSIDE DIAMETER OF PIPE
H – BACKFILL COVER ABOVE TOP OF PIPE
D – NOMINAL PIPE SIZE
A – FILL BELOW PIPE (SEE TABLE)

– HAND PLACED BACKFILL
– TAMPED BACKFILL
– GRANULAR BACKFILL
– CONCRETE

RCP TRENCHING NOTES:

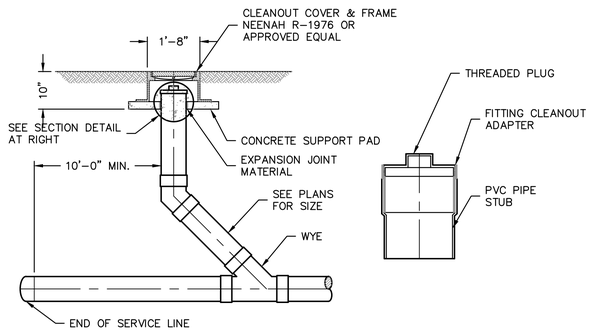
1. GRANULAR FILL TO BE CRUSHED STONE OR PEA GRAVEL WITH NOT LESS THAN 95% PASSING 1/2" AND NOT LESS THAN 95% TO BE RETAINED ON A #8; TO BE PLACED IN NOT MORE THAN 6" LAYERS.
2. TAMPED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO STANDARD, METHOD T–99. GRANULAR FILL MAY BE SUBSTITUTED FOR ALL OR PART OF TAMPED BACKFILL.
3. HAND–PLACED BACKFILL SHALL BE FINELY DIVIDED MATERIAL FREE FROM DEBRIS AND STONE.
4. WHERE CLASS B BEDDING IS SPECIFIED UNDER PAVED AREAS, FLOWABLE FILL MAY BE SUBSTITUTED FOR TAMPED BACKFILL.
5. SEE STREET TRENCHING DETAILS FOR ADDITIONAL REQUIREMENTS.

PIPE SIZE (INCHES)	MINIMUM TRENCH WIDTH (INCHES)	MINIMUM SIDE WALL CLEARANCE (INCHES)
12	30	6
15	30	6
18	35	6
21	39	6.5
24	44	7
27	49	8
30	54	8.5
33	58	9
36	64	10
42	73	11
48	83	12.5
54	92	13.5
60	102	15
66	109	15
72	117	15.5
78	124	15.5
84	132	16
90	139	16.5
96	147	17
102	154	17.5
108	162	18

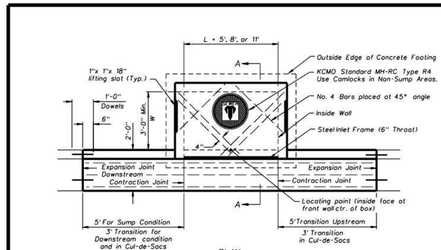
TABLE OF FILL DEPTHS BELOW PIPE

D	"A" MIN. IN SOIL	"A" MIN. IN ROCK
27" & SMALLER	3"	6"
30" TO 60"	4"	9"
66" & LARGER	6"	12"

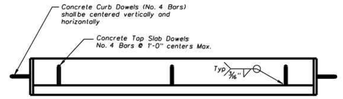
RCP TRENCHING
NOT TO SCALE



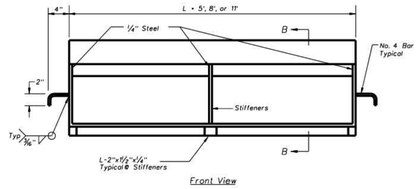
ONE-WAY WYE CLEANOUT DETAIL
NOT TO SCALE



PLAN



Top View

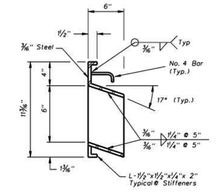


Front View

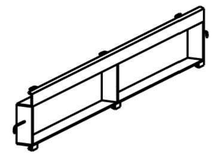
Steel Inlet Frame Notes

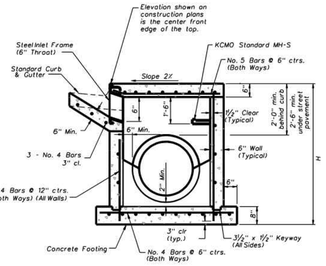
1. All welds shall be performed in accordance with appropriate AWS Specifications and Procedures.
2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished surface.
3. The entire frame shall be galvanized per ASTM A-123.
4. Steel inlet frame stiffeners shall be at equal intervals not to exceed 4'-0".

1. All work shall meet the requirements of APWA-KCMO 2600.
2. Inlet lid and throat shall conform to the street grade, except sump inlets which shall be level.
3. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension.
4. Locate KCMO Standard MH-RC ring and cover over outlet. Add a second ring and cover over inlet when L=11'.
5. Steps shall be spaced at 1'-4" O.C. vertically. The distance from the last step to the top of concrete invert should be a maximum of 24".
6. Bevel all exposed edges with ¾" chamfer or ½" tooled edge.
7. Expansion joint material shall comply with APWA - KCMO 2209.
8. The tops may be precast. When poured in place, the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the City Engineer.
9. Boxouts shall not project through the structure corners. Reinforcing shall be bent around pipe openings when possible. When reinforcing is cut, a diagonal bar shall be used to tie all cut ends together.
10. Floor of inlet shall be shaped with invert to provide smooth flow.
11. Reinforcing steel shall be ASTM A615 Grade 40 new billet, and shall be bent cold.
12. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted. Tolerance of +/-½" shall be permitted.
13. All lap splices not shown shall be a minimum of 40 bar diameters in length.
14. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
15. Precast inlets shall be set on four 8" solid concrete blocks with one at each corner, and the base and invert shall be poured monolithically. The vertical reinforcing shall be as per cast in place, except that the bars shall not protrude through the lid and base.
16. All curb inlet tops are to be constructed after final curb string line has been approved by the Engineer and prior to curb construction.
17. Pipe connections to precast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure, unless sealed with approved flexible waterproof gaskets in precast openings. Minimum clearance between pipe boxouts and precast riser joints is 8" without special design.
18. Backfill around structures shall comply with APWA-KCMO 2604.3.D.
19. These drawings are not to scale. Any questions regarding dimensions shall be brought to the attention of the Engineer prior to construction.
20. The structure elevation shown on the plans is the top surface over the locating point.
21. The curb inlet throat shall be 2' wide at the expansion joints, regardless of curb type.

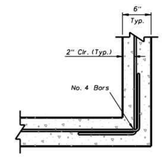


Section B-B





Section A-A



WALL CORNER DETAIL

THIS STANDARD IS ADAPTED FROM 1996 APWA "CI-2" FOR USE IN RECONSTRUCTION OF NON-SETBACK CURB INLETS ONLY.

ADOPTED

Acting Director of Public Works — 6/26/03 Date

Entry No. ____

Kansas City, Missouri
Public Works Department
Engineering Division

CURB INLET TYPE 2 | STANDARD DRAWING NUMBER CI-2

CURB INLET DETAIL
NOT TO SCALE

NOTE:

INSTALL 2 – 4" DRAIN PIPES IN THE FRONT FACE OF THE INLET, BENEATH THE INLET THROAT, TO CAPTURE WATER FROM PAVEMENT BASE ROCK. 4" GRATE SHALL BE INSTALLED IN DRAIN PIPES ON THE OUTSIDE OF CURB INLET PRIOR TO PLACING 3/4" ROCK, 15" IN ALL DIRECTIONS. GRATE SHALL HAVE A MAXIMUM OPENING SIZE OF 1/4".

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009018764
2-17-25
PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: DETAILS

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

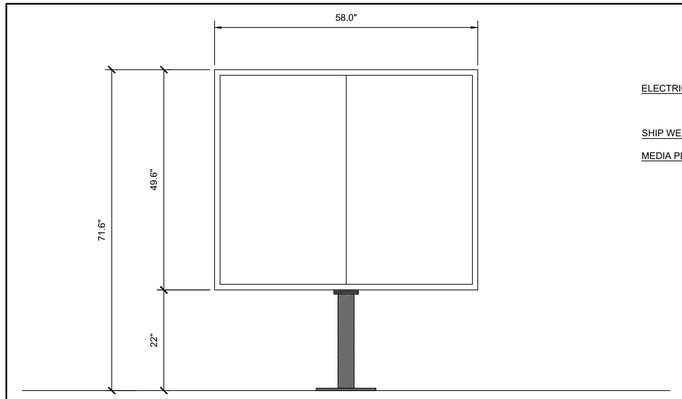
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SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

SHEET NO. C503

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SECOND CIRCUIT: 120/1/60, 10 AMP

SHIP WEIGHT: TBD LBS.

MEDIA PLAYER: STRATACACHE

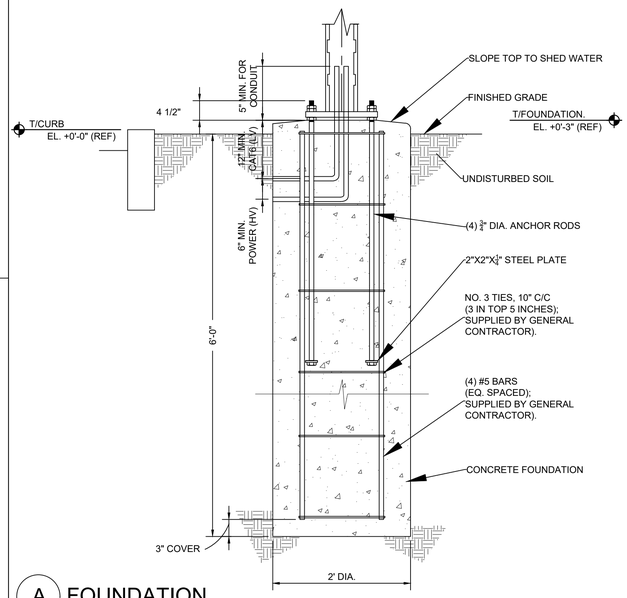
GENERAL NOTES
-THE FOLLOWING CODES WERE USED IN DESIGN:
-IBC 2018
-ASCE 7-16
-ACI 318-14
-AISC 360-16 & AISC 341-16
-AWS D1.1
-WIND SPEED 107 MPH (ULTIMATE WIND SPEED)
-EXPOSURE C
-DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
-AXIAL- 1200 #
-SHEAR- 620 #
-MOMENT- 2370 #'
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-REINFORCEMENT: ASTM A615 GRADE 60- BY GENERAL CONTRACTOR
-NUTS: ASTM A563A, HEAVY HEX
-WASHERS: ASTM F844 A36
-USE ASTM A153 CLASS C OT DIPPED GALVANIZED BOLTS AND FASTENERS.
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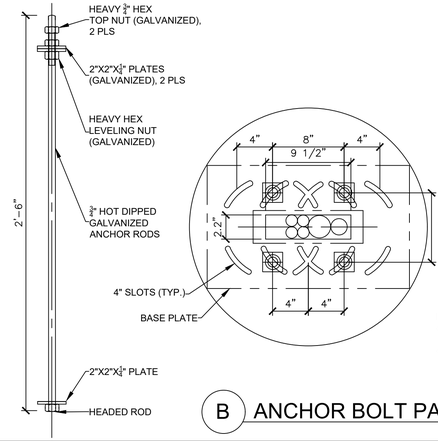
CONCRETE:

DIGITAL MENU BOARD
NOT TO SCALE

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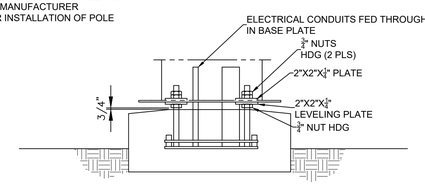


A FOUNDATION



B ANCHOR BOLT PATTERN

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C CONNECTION DETAILS

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
FAX 785.539.6901
www.olsson.com

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PREPARED FOR: McDonald's USA, LLC

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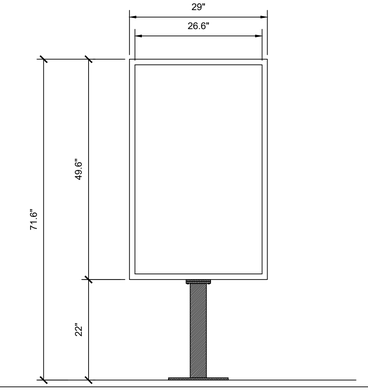
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STD ISSUE DATE:
REVIEWED BY: MAP
DATE ISSUED: 02.17.25

TITLE: DETAILS
DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI
SITE ID: 024-1306
SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

024-1306.00.0

SHEET NO. C504

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MEDIA PLAYER: STRATACACHE

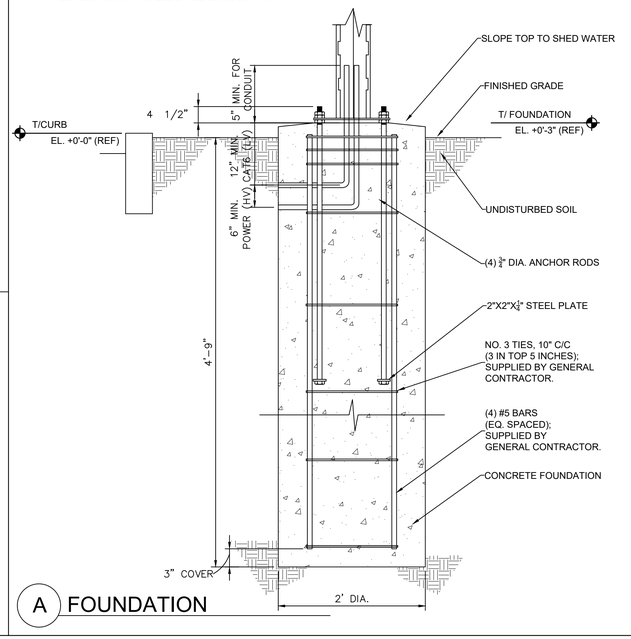
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-ACI 318-14
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-AWS D1.1
-WIND SPEED 107 MPH (ULTIMATE WIND SPEED)
-EXPOSURE C
-DESIGN LOADS DERIVED FROM THESE CODES AND FORCES
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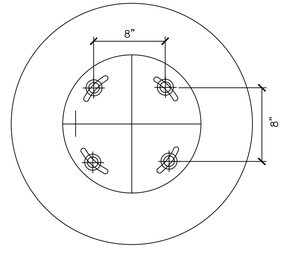
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NOT TO SCALE

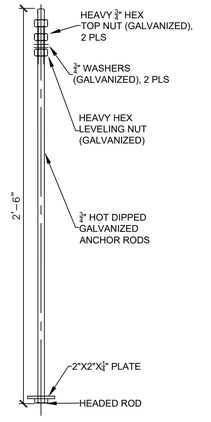
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A FOUNDATION

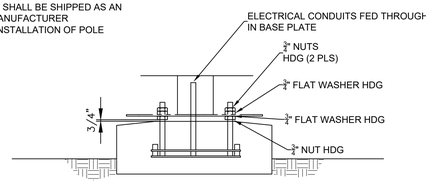
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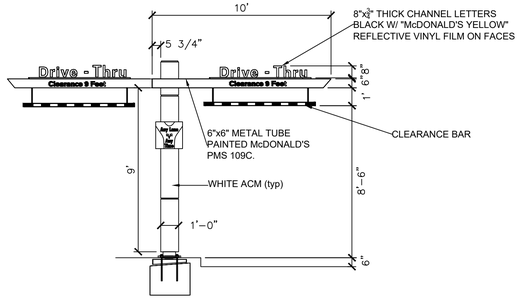


B ANCHOR BOLT PATTERN

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C CONNECTION DETAILS



APPROACH VIEW

DRIVE-THRU GATEWAY (DOUBLE)

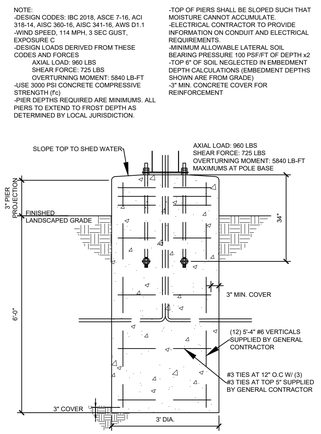
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ILLUMINATION: N/A

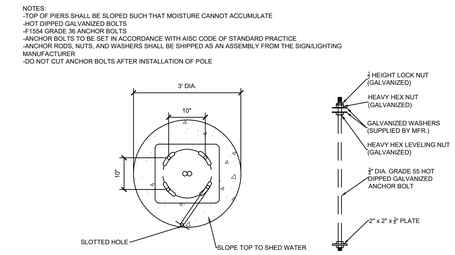
SHIP WEIGHT: 840 LBS.

OTHER: NON-ILLUMINATED CLEARANCE SIGN WITH SPRING LOADED BREAK AWAY CLEARANCE ARM

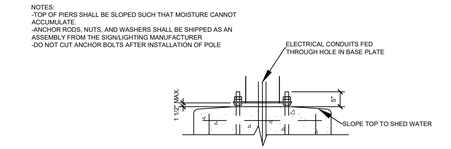
ADJUSTABLE HANGING BAR



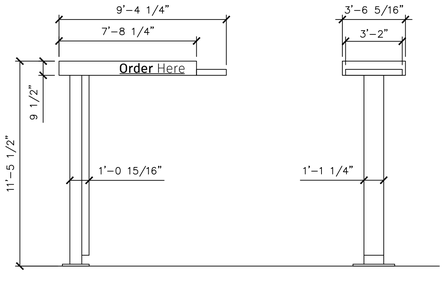
A SINGLE GATEWAY



B ANCHOR BOLT PATTERN



C CONNECTION DETAILS

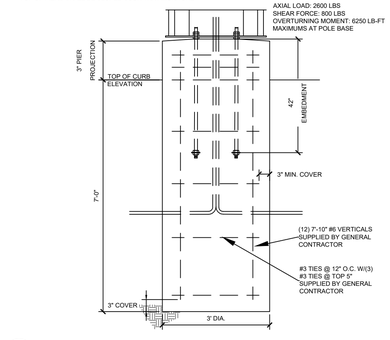


ORDER HERE CANOPY

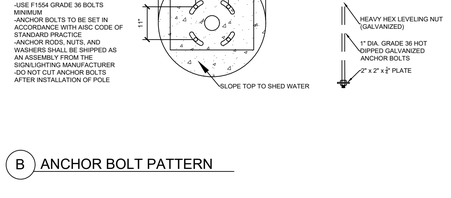
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ILLUMINATION: LED LIGHT FIXTURE

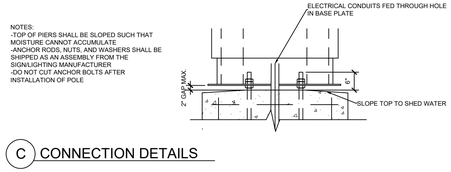
ELECTRICAL: CANOPY: 0.64 AMP
CIRCUIT: (1) 120 VOLTS, 20 AMP



A ORDER HERE CANOPY



B ANCHOR BOLT PATTERN



C CONNECTION DETAILS

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REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

MISSOURI — MITCHELL ALAN PLEAK — NUMBER PE-2009016764 — 2-17-25 — PROFESSIONAL ENGINEER

olsson
Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
TEL 785.539.6900
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www.olsson.com

PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: DETAILS

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID: 024-1306

SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

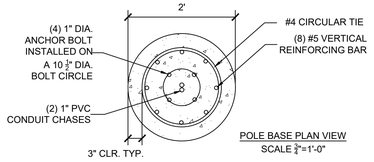
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024-1306.00.0

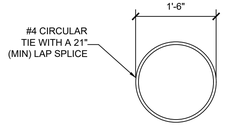
DESIGN CRITERIA
IBC 2012

FOUNDATION DESIGN PARAMETERS
1. MAXIMUM LIGHT POLE BASE REACTIONS:
BASE MOMENT = 6,764 LBS-FT
BASE SHEAR = 474 LBS
2. MAXIMUM WIND SPEED (3 SECOND GUST) = 110 MPH
3. MAXIMUM REQUIRED SOIL PARAMETERS:
COHESIVE SOILS:
- SHEAR STRENGTH = 750 LBS/FT
- 6" MAXIMUM DEPTH OF DISTURBED SOIL OR TOP SOIL
COHESIONLESS SOILS:
- ANGLE OF INTERNAL FRICTION = 27 DEGREES
- WATER TABLE SHALL BE LOCATED BELOW THE BOTTOM OF THE FOUNDATION
- 6" MAXIMUM DEPTH OF DISTURBED SOIL OR TOP SOIL
4. THE SOILS REPORT SHALL BE REVIEWED BY THE ENGINEER OF RECORD TO CONFIRM THAT THE MINIMUM SOIL PARAMETERS ARE MET OR EXCEEDED BEFORE THIS DESIGN IS USED. IF THE MINIMUM SOIL PARAMETERS ARE NOT MET, THIS DESIGN SHALL NOT BE USED.
5. THE ENGINEER OF RECORD SHALL REVIEW THE MAXIMUM BASE REACTIONS AND DESIGN WIND SPEED FOR THE LIGHT POLE TO BE INSTALLED TO DETERMINE IF THE FOUNDATION'S MAXIMUM DESIGN LOADS HAVE NOT BEEN EXCEEDED. THIS FOUNDATION DESIGN SHALL NOT BE USED IF THE MAXIMUM DESIGN LOADS OR WIND SPEEDS HAVE BEEN EXCEEDED.
6. THIS FOUNDATION DESIGN SHALL NOT BE USED IN LOCATIONS WHICH ARE CLOSER THAN 8FT FROM A RETAINING WALL.
7. THIS FOUNDATION DESIGN SHALL NOT BE USED AT LOCATIONS WHERE THE GROUND SLOPE EXCEEDS 4 INCHES PER FOOT.

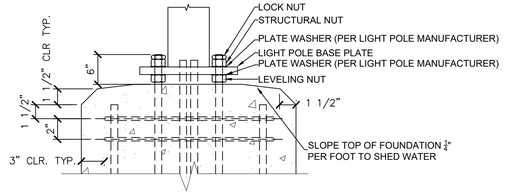
GENERAL NOTES:
1. CONCRETE COMPRESSIVE STRENGTH (F'C) SHALL BE A MINIMUM OF 3000 PSI.
2. ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 55, HOT DIP GALVANIZED PER ASTM F2329. THEY SHALL BE STRAIGHT AND NOT "I" SHAPED.
3. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
4. NUTS SHALL BE HEAVY HEX ASTM A563 GRADE DH, HOT DIP GALVANIZED PER ASTM A153.
5. PLATE SHALL BE ASTM A572 GRADE 50, HOT DIP GALVANIZED PER ASTM A153
6. LOCK NUT SHALL BE HOT DIP GALVANIZED PER ASTM A153
7. ALL REINFORCING PER GENERAL CONTRACTOR.
8. STANDARD LOT POLE IS FULLY, HOT DIPPED, GALVANIZED STEEL POLE WITH A PLATINUM COLOR POWDER COAT. PAINTED STEEL LOT LIGHTS ARE NOT APPROVED.



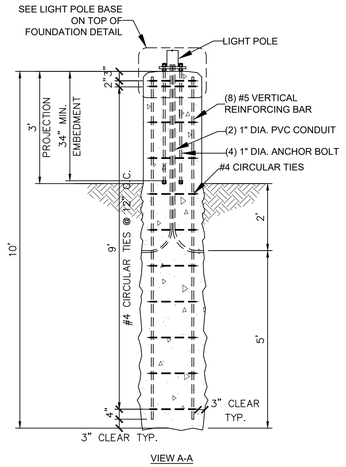
POLE BASE PLAN VIEW
SCALE 3/4"=1'-0"



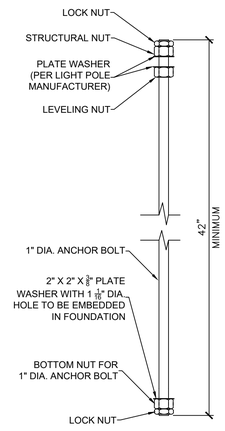
CIRCULAR TIE DETAIL



LIGHT POLE BASE ON TOP OF FOUNDATION



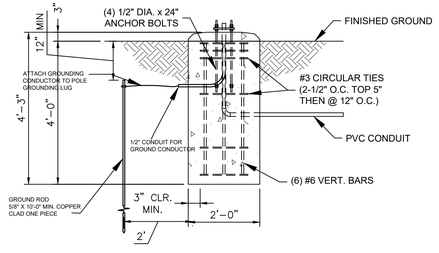
VIEW A-A



ANCHOR BOLT DETAIL

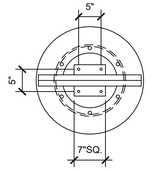
LIGHT POLE FOUNDATION
NOT TO SCALE

NOTE:
- DESIGN CODES:
  IBC 2012
  ASCE 7-10
  ACI 318-11
  AISC 360-10 & AISC 341-10
  AWS D1.1
- WIND SPEED: (110 MPH - 3 SEC. GUST)
  EXPOSURE C
- DESIGN LOADS DERIVED FROM THESE CODES AND FORCES:
  AXIAL - 180#
  SHEAR - 215#
  MOMENT - 487#'
- USE CONCRETE WITH A 3000 PSI MINIMUM COMPRESSIVE STRENGTH (f'c).
- PIER DEPTHS REQUIRED ARE MINIMUMS. ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED BY LOCAL JURISDICTION.
- TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE.
- ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS.
- MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE 100 PSF/FT OF DEPTH (x2)
- TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS ARE SHOWN FROM GRADE).
- PROVIDE A MINIMUM OF 3" CONCRETE COVER FOR ALL EMBEDDED STEEL.
- ALL REINFORCING STEEL BY GENERAL CONTRACTOR.

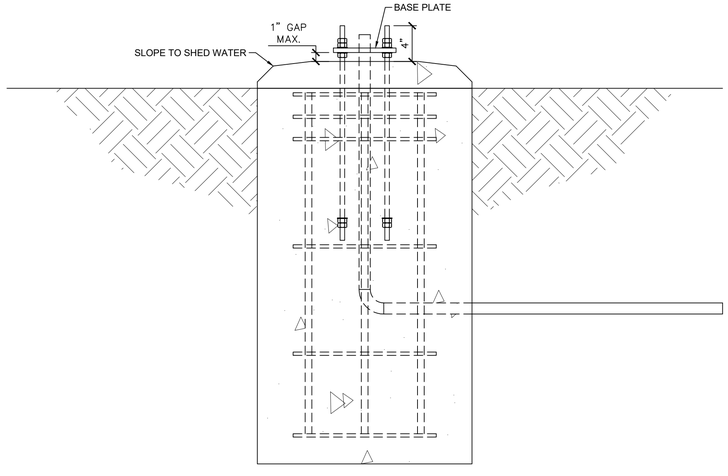


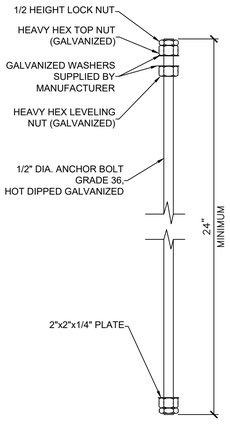
DIRECTIONAL ENTRANCE AND EXIT SIGN FOUNDATION
NOT TO SCALE

NOTES:
- USE F1554 GRADE 36 BOLTS MINIMUM
- USE HOT DIPPED GALVANIZED BOLTS
- ANCHOR BOLTS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE
- ANCHOR RODS, NUTS AND WASHERS SHALL BE SHIPPED AS AN ASSEMBLY FROM THE SIGN/LIGHTING MANUFACTURER
- DO NOT CUT ANCHOR BOLTS AFTER INSTALLATION OF POLE



ANCHOR BOLT PATTERN





ANCHOR BOLT DETAIL

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

MITCHELL ALAN PLEAK
NUMBER PE-2009016764
2-17-25
STATE OF MISSOURI
PROFESSIONAL ENGINEER

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Olsson - Engineering
Missouri COA #001592
302 S. 4th Street, Suite 110
Manhattan, Kansas 66502
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PREPARED FOR:
McDonald's USA, LLC

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AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE
DETAILS

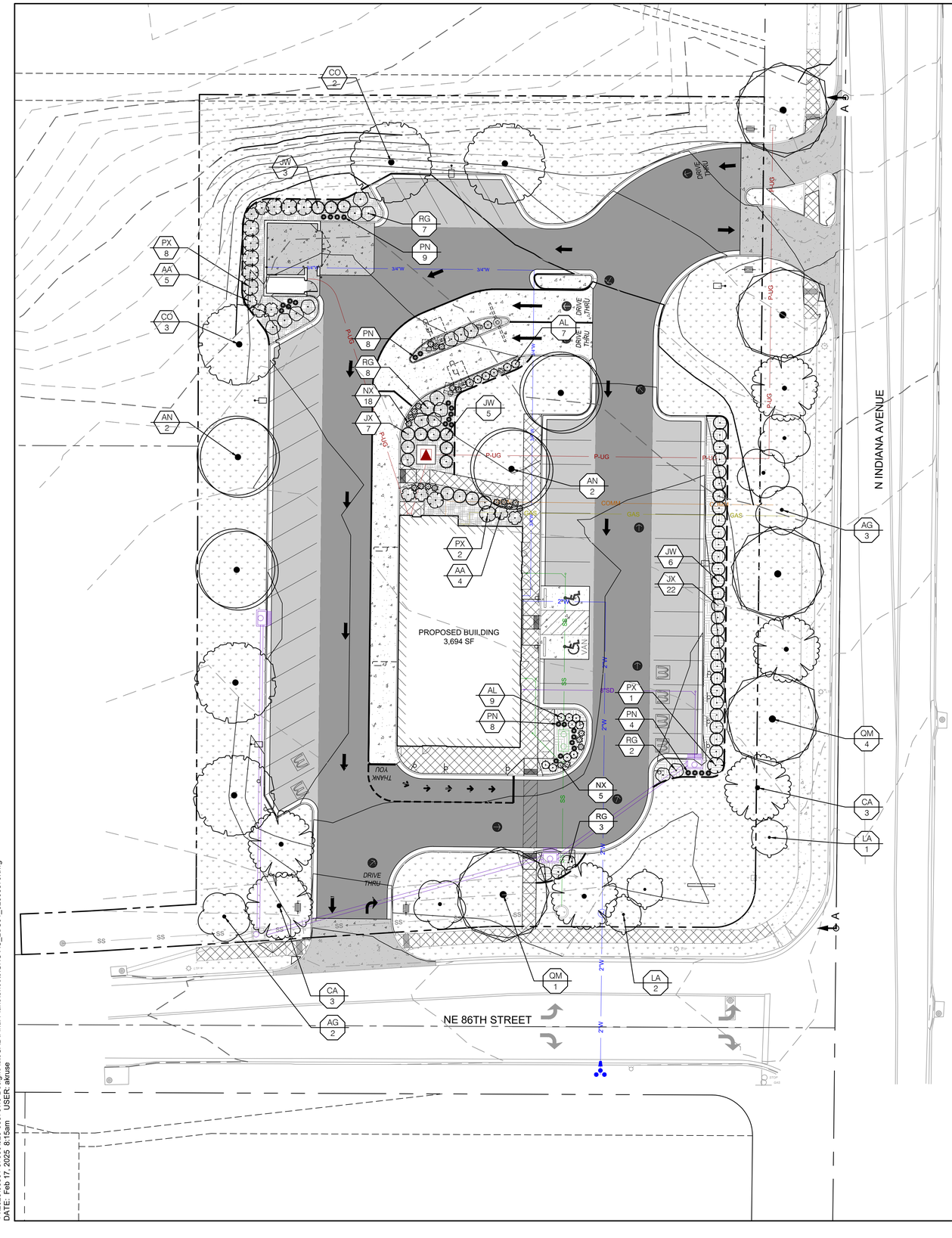
DESCRIPTION
McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

SITE ID
024-1306

SITE ADDRESS
N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI

SHEET NO.
024-1306.00.0
C506

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DATE: Feb 17, 2025 8:13am USER: akluse



PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	QTY	SIZE	CAL
DECIDUOUS TREES					
	AN	ACER SACCHARUM 'AUTUMN SPLENDOR' CADDO SUGAR MAPLE	4	B & B	2"
	AG	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' AUTUMN BRILLIANCE APPLE SERVICEBERRY	5	B & B	2"
	CA	CARPINUS CAROLINIANA AMERICAN HORNBEAM	6	B & B	2"
	CO	CELTIS OCCIDENTALIS COMMON HACKBERRY	5	B & B	2"
	LA	LIRIODENDRON TULIPIFERA 'ARNOLD' ARNOLD TULIP POPLAR	3	B & B	2"
	QM	QUERCUS MUEHLENBERGII CHINKAPIN OAK	5	B & B	2"
EVERGREEN TREES					
	JW	JUNIPERUS SCOPULORUM 'WICHITA BLUE' WICHITA BLUE JUNIPER	14	15 GAL	5–6' HT
SYMBOL	**CODE**	**BOTANICAL / COMMON NAME**	**QTY**	**SIZE**	
SHRUBS					
	JX	JUNIPERUS X 'GREY OWL' GREY OWL JUNIPER	29	5 GAL	
DECIDUOUS SHRUBS					
	AA	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA' BRILLIANT RED CHOKEBERRY	9	5 GAL	
	AL	ARONIA MELANOCARPA GROUND HUG GROUND HUG ARONIA	16	3 GAL	
	PX	PHILADELPHUS X 'ORSTPHILX1' SWAN LAKE®MOCK ORANGE	11	5 GAL	
	RG	RHUS AROMATICA 'GRO–LOW' GRO–LOW FRAGRANT SUMAC	20	3 GAL	
GRASSES					
	PN	PANICUM VIRGATUM 'NORTHWIND' NORTHWIND SWITCH GRASS	29	2 GAL	
PERENNIALS					
	NX	NEPETA X FAASSENII 'CAT'S MEOW' CAT'S MEOW CATMINT	23	1 GAL	
SYMBOL		**BOTANICAL / COMMON NAME**	**QTY**		
GROUND COVERS					
		TURF SOD DROUGHT TOLERANT FESCUE BLEND	30,339 SF		

N

0' 10' 20' 40'
SCALE IN FEET

LANDSCAPE REQUIREMENTS

(1) STREET TREES: 1 TREE PER 30 LF OF STREET R/W
(2) GENERAL LANDSCAPING TREES:1 TREE PER 5,000 SF OF BUILDING FOOTPRINT
(3A) PERIMETER LANDSCAPING TREES: 1 TREE PER 30 LF OF STREET FRONTAGE
(3B) PERIMETER LANDSCAPING BUFFER: 10' PLANTED BUFFER (MIN.) W/ 1 TREE PER 30 LF OF STREET FRONTAGE
(4A) INTERIOR LOT LANDSCAPE AREA: 35 SF OF LANDSCAPE PER PARKING SPACE
(4B) INTERIOR LOT TREES: 1 TREE PER 5 PARKING SPACES
(4C) INTERIOR LOT SHRUBS: 1 SHRUB PER PARKING SPACE

PUBLIC R/W STREET TREES (1)

STREET NAME	LF	REQUIRED	EXISTING	PROVIDED
N INDIANA AVE	307	10.2	0	11
NE 86TH ST	207	6.9	0	7

LANDSCAPE CALCULATIONS

				(2) GENERAL	(3) PERIMETER ADJACENT TO R/W			(4) PARKING LOT INTERIOR LANDSCAPING		
BUILDING FOOTPRINT (SF)	PARKING SPACES	PARKING FRONTING R/W (LF)		LANDSCAPE TREES	(3A) TREES	(3B) LANDSCAPING	(3B) SCREENING	(4A) AREA (SF)	(4B) TREES	(4C) SHRUBS
3,694	47	127	REQUIRED	0.7	4.2	10' MIN.	EVERGREEN SHRUBS	1,645	9.4	47
			PROVIDED	1	0 (SEE (1))	20' (TYP.)		1,645	10	50

GENERAL NOTES:

1. QUANTITIES LISTED IN THE PLANT LIST SCHEDULE ARE ESTIMATES ONLY. TREES, SHRUBS, AND GROUND COVER OF CONTRACT QUANTITIES SHALL BE THE NUMBER OF ITEMS SHOWN ON THE DRAWINGS.
2. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK. ANY DIFFERENCE IN QUANTITIES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
3. ALL DISTURBED AREAS NOT OTHERWISE SPECIFIED WITH GROUNDCOVER ARE TO BE PLANTED WITH TALL FESCUE TURF SEED.
4. TREES, SHRUBS, AND PLANTING BEDS SHALL BE SURFACED WITH 2"-4" WASHED RIVER ROCK (ROCK MULCH).
5. ROCK MULCH PLANTING BEDS SHALL RECEIVE METAL EDGING WHERE ADJACENT TO TURF.
6. THE LANDSCAPE CONTRACTOR SHALL REFER TO ENGINEERING DRAWINGS FOR ANY AND ALL EXISTING AND/OR PROPOSED UTILITIES. IF THERE ARE ANY DISCREPANCIES, CONFLICTS, AND/OR DEVIATIONS BETWEEN THE LANDSCAPE DRAWINGS AND THE EXISTING OR PROPOSED CONDITIONS, THE LANDSCAPE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT IMMEDIATELY.
7. FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF WORK.
8. PLANTING BEDS SHALL BE DRIP IRRIGATED. TURF AREAS SHALL BE IRRIGATED WITH POP-UP SPRAYERS. REFER TO IRRIGATION SPECIFICATIONS.

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

KRYSTAL McCLAIN
NUMBER PLA-2019005223
02/17/2025
STATE OF MISSOURI
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PREPARED FOR:
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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: LANDSCAPE PLAN

DESCRIPTION: McDONALD'S RESTAURANT
KANSAS CITY, MISSOURI

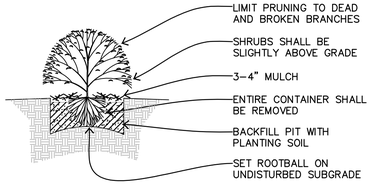
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SITE ID: 024-1306

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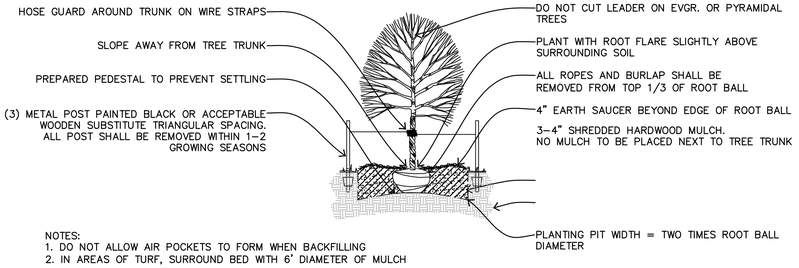
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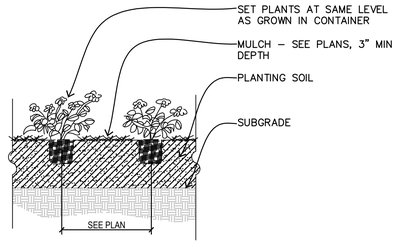
NOTES:
1. MINIMUM ROOT SPREAD TO BE IN ACCORDANCE WITH ANLA STANDARDS
2. PRUNE DAMAGED LIMBS OR ROOTS AFTER INSTALLATION
3. MAKE SURE ROOTS DO NOT DRY OUT DURING INSTALLATION
4. SOAK GENEROUSLY TO COMPACT AND SETTLE

1 SHRUB PLANTING
N.T.S.

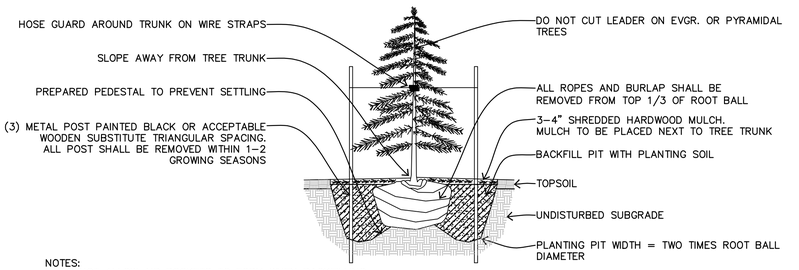


NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

2 DECIDUOUS TREE PLANTING
N.T.S.

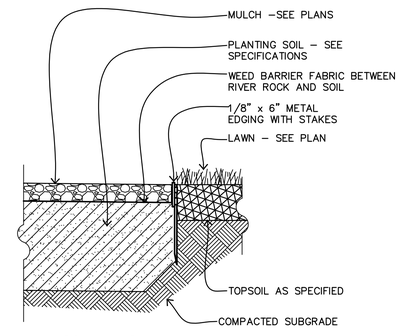


3 PERENNIAL & GROUNDCOVER PLANTING
N.T.S.



NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

4 EVERGREEN TREE PLANTING
N.T.S.



5 LANDSCAPE EDGER
N.T.S.

PLANTING NOTES:

1. PROVIDE PLANTS TRUE TO SPECIES AND VARIETY AND OTHER FEATURES INDICATED IN THE PLANT SCHEDULE AND COMPLYING WITH ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK." NOMENCLATURE TO COMPLY WITH "NATIONAL LIST OF SCIENTIFIC PLANT NAMES."
2. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER DURING AND AFTER INSTALLATION. ALL REJECTED PLANT MATERIAL TO BE PROMPTLY REMOVED FROM THE SITE.
3. CONTRACTOR RESPONSIBLE TO TOTAL AND CONFIRM ALL PLANT MATERIAL QUANTITIES. NUMERICAL QUANTITIES ON PLAN GOVERN OVER PLANT LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.
4. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OF COMPLETE.
5. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
6. PROVIDE PLANT SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" FOR TYPES AND FORM OF PLANTS REQUIRED.
7. LANDSCAPE CONTRACTOR RESPONSIBLE FOR REPAIRING OR REPLACING ACCESSORIES THAT FAIL IN MATERIALS AND, OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
8. LANDSCAPE CONTRACTOR TO REPLACE PLANTINGS THAT DIE, TURN BROWN, OR DEFOLIATES WITHIN ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. REMOVE REJECTED MATERIAL FROM THE SITE PROMPTLY AND REPLACE WITH MATERIAL OF THE SAME QUANTITY, SPECIES, AND SIZE IN ACCORDANCE WITH THE PLANT LIST SPECIFICATIONS.
9. THE LANDSCAPE CONTRACTOR TO COMPLETELY WARRANTY ALL PLANT MATERAIL FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF SUBSTANTIAL COMPLETION. THE LANDSCAPE CONTRACTOR TO PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE WARRANTY PERIOD AS DIRECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER.
10. UNLESS OTHERWISE NOTED, ALL STAKING AND GUYING MATERIALS ARE TO BE REMOVED FROM PLANT MATERIALS BY THE LANDSCAPE CONTRACTOR WITHIN 120 DAYS AFTER THE DATE OF PLANTING COMPLETION.
11. CONTRACTOR SHALL NOT LOCATE IRRIGATION EQUIPMENT WITHIN ROADWAY R.O.W. UNDER ANY CIRCUMSTANCE. CONTRACTOR TO INSPECT EXISTING IRRIGATION SYSTEM AND MAKE ALL NECESSARY MODIFICATIONS TO THE SYSTEM TO PROVIDE WATER FOR NEW AND EXISTING PLANTS.
12. GENERAL CONTRACTOR IS RESPONSIBLE FOR BACKFILLING TO WITHIN 0.2 FEET OF THE GRADE SHOWN ON THE GRADING PLAN. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR FINAL DISTRIBUTION OF TOPSOIL & PREPARATION FOR PLANTING WITH FRIABLE, NATURAL TOPSOIL TYPICAL OF THE REGION. TOPSOIL TO BE FREE OF WEEDS AND FOREIGN MATERIAL. DO NOT HANDLE TOPSOIL IN MUDDY OR FROZEN CONDITIONS.
13. LANDSCAPE CONTRACTOR TO RAKE AND SMOOTH TOPSOIL IN ALL AREAS TO BE PLANTED, INCLUDING LAWNS TO PROVIDE A SMOOTH SURFACE WHICH WILL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND WALKS. NO SEDIMENT CHARGED RUNOFF SHALL GO INTO TRAVEL LANES OF STATE ROUTE.
14. ALL PLANT BEDS TO RECEIVE 3" DEPTH OF MULCH.
15. UPRIGHT SHRUBS TO BE AT LEAST 24" HT. SPREADING SHRUBS TO HAVE MINIMUM SPREAD OF 18". ALL SHRUBS TO BE SURROUNDED BY MULCH.
16. PLANTING BEDS FOR PERENNIALS, ANNUALS AND GROUNDCOVER ARE TO BE MOUNDED WITH SIDE SLOPES OF 1" VERTICAL PER 1 FOOT HORIZONTAL AND TO BE SURROUNDED BY MULCH.
17. SEE PLANTING SOIL REQUIREMENTS BELOW.
18. CAREFULLY CUT AND REMOVE WEBBING, BURLAP, ROPE AND WIRE BASKETS FROM TOPS AND FROM ALL SIDES OF ROOTBALLS BUT DO NOT REMOVE FROM UNDER ROOTBALLS.
19. REMOVE SURPLUS SOIL AND WASTE MATERIAL INCLUDING EXCESS SOIL, UNSUITABLE SOIL, TRASH AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
20. DO NOT MAKE SUBSTITUTIONS; IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT OR ENGINEER WITH WRITTEN STATEMENTS FROM A MINIMUM OF TWELVE NURSERY (AMERICAN NURSERYMAN'S ASSOCIATION MEMBERS) SOURCES THAT THE PLANT IN QUESTION IS NOT OBTAINABLE IN THE SURROUNDING GEOGRAPHIC REGION.
21. A CONDITION OF APPROVAL IS IF ANY OF THE EXISTING TREES DIE, THEY SHALL BE REPLACED WITH A TREE THAT COMPLIES WITH THE MINIMUM REQUIREMENTS OF THE ORDINANCE.
22. ALL PLANT BEDS SHALL RECEIVE RIVER ROCK MULCH (2" TO 3" NOMINAL SIZE) PLACED TO A DEPTH OF 3" ON TOP OF GEOSYNTHETIC WEED BARRIER.
23. TREES TO BE INSTALLED WITHIN THE STREET ROW SHALL MEET THE "STREET TREE PLANTING REQUIREMENTS SET FORTH BY THE KCMO PARKS & RECREATION DEPARTMENT. THESE REQUIREMENTS CAN BE FOUND AT THE FOLLOWING WEBSITE: https://kcparks.org/wp-content/uploads/2021/03/KCMO-TREE-PLANTING-SPECIFICATIONS-Nov-2018.pdf

SOIL SPECIFICATIONS:

ORGANIC COMPOST: WELL DECOMPOSED, STABLE, WEED FREE ORGANIC MATTER SOURCE. IT SHALL BE DERIVED FROM; AGRICULTURE, FOOD, OR INDUSTRIAL RESIDUALS; BIOSOLIDS (TREATED SEWAGE SLUDGE); YARD TRIMMINGS AND LEAF RAKINGS; SOURCE-SEPARATED OR MIXED SOLID WASTE MEETING THE FOLLOWING CRITERIA;
1. 100 PERCENT SHALL PASS THROUGH A 3/8 INCH SCREEN.
2. PH OF 6.0 TO 8.5.
3. MOISTURE CONTENT OF 30% TO 60% BY WEIGHT.
4. NO SUBSTANCES TOXIC TO PLANTS.
5. 1% OR LESS BY WEIGHT MANUFACTURED FOREIGN MATTER.
6. NO OBJECTIONABLE ODOR.
7. SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT DERIVED.

PLANTING SOIL: A UNIFORM MIX OF, FREE OF PLANT RESIDUE, STONES, STUMPS ROOTS OR SIMILAR OBJECTS LARGER THAN 1 INCH. MIXTURE OF TOPSOIL, ORGANIC COMPOST AND SAND CONSISTING OF THE FOLLOWING:
1. 33% BY VOLUME ORGANIC COMPOST
2. 33% BY VOLUME SAND
3. 33% BY VOLUME TOPSOIL

TOPSOIL: SOIL CLASSIFICATION OF SANDY LOAM OR LOAMY SAND MEETING THE FOLLOWING CRITERIA:
1. 50 TO 85 PERCENT BY WEIGHT SAND (2.0 TO 0.050MM) ACCORDING TO AASHTO T88.
2. 5 TO 50 PERCENT BY WEIGHT SILT (0.050 TO 0.002MM) ACCORDING TO AASHTO T88.
3. 2 TO 5 PERCENT BY WEIGHT CLAY (LESS THAN 0.002MM) ACCORDING TO AASHTO T88.
4. 3 TO 10 PERCENT BY WEIGHT ORGANIC MATTER ACCORDING TO AASHTO T194.
5. TEXTURAL ANALYSIS:
   A. MINIMUM 100% BY WEIGHT PASSING THE 2" SIEVE PER ASTM E11.
   B. MINIMUM 90% BY WEIGHT PASSING THE NO, 4 PER ASTM E11.
   C. MINIMUM 80% BY WEIGHT PASSING THE NO. 10 SIEVE PER ASTM E11.

SOD NOTES:

1. ALL DISTURBED AREAS SHALL BE SODDED WITH TURFGRASS SOD: NUMBER 1 QUALITY/PREMIUM, INCLUDING LIMITATIONS ON THATCH, WEEDS, DISEASES, NEMATODES, AND INSECTS, COMPLYING WITH TPI'S "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" IN ITS "GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING." FURNISH VIABLE SOD OF UNIFORM DENSITY, COLOR, AND TEXTURE, STRONGLY ROOTED, AND CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN PLANTED.

   TURFGRASS SPECIES: SEE PLANT SCHEDULE.
2. ALL LAWN AREAS SHALL RECEIVE A MINIMUM 6-INCH DEPTH OF TOPSOIL COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
3. THE ENTIRE SURFACE TO BE SODDED SHALL BE REASONABLY SMOOTH AND FREE FROM STONES, ROOTS, OR OTHER DEBRIS.
4. SOD SHALL BE MACHINE STRIPPED AT A UNIFORM SOIL THICKNESS OF APPROXIMATELY ONE INCH (PLUS OR MINUS 1/4-INCH). THE MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH, AND SHALL BE DETERMINED AT THE TIME OF CUTTING IN THE FIELD. PRECAUTIONS SHALL BE TAKEN TO PREVENT DRYING AND HEATING. SOD DAMAGED BY HEAT AND DRY CONDITIONS, AND SOD CUT MORE THAN 18 HOURS BEFORE BEING INCORPORATED INTO THE WORK SHALL NOT BE USED.
5. HANDLING OF SOD SHALL BE DONE IN A MANNER THAT WILL PREVENT TEARING, BREAKING, DRYING AND OTHER DAMAGE. PROTECT EXPOSED ROOTS FROM DEHYDRATION. DO NOT DELIVER MORE SOD THAN CAN BE LAID WITH 24 HOURS.
6. MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE INSTALLING SOD. FERTILIZE, HARROW OR RAKE FERTILIZER IN THE TOP 1-1/2-INCHES OF TOPSOIL, AT A UNIFORM RATE OF ONE POUND OF NITROGEN PER 100 S.F.
7. SOD SHALL BE CAREFULLY PLACED IN THE DIRECTION PARALLEL WITH THE SLOPE OF THE AREA TO BE SODDED. SOD STRIPS SHALL BE BUTTED TOGETHER BUT NOT OVERLAPPED WITH THE SEAMS STAGGERED ON EACH ROW.
8. FERTILIZER SHALL BE 20-10-5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE OF IOWA DEPARTMENT OF AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N, P, K, IN THAT ORDER.
9. ALL SOD ON SLOPES GREATER THAN 5:1 AND WITHIN DETENTION AREAS SHALL BE STAKED.
10. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF FOUR INCHES BELOW SOD.

REV	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

STATE OF MISSOURI
KRYSTAL McCLAIN
NUMBER PLA-2019005223
02/17/2025
PROFESSIONAL LANDSCAPE ARCHITECT

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DRAWN BY	REVIEWED BY	DATE ISSUED
AJK	MAP	02.17.25
STD ISSUE DATE		

TITLE: LANDSCAPE DETAILS
DESCRIPTION: McDONALD'S RESTAURANT KANSAS CITY, MISSOURI
SITE ID: 024-1306
SITE ADDRESS: N. INDIANA AVENUE & NE 86TH STREET, KANSAS CITY, MISSOURI
024-1306.00.0
SHEET NO. L101

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DATE: Feb 17, 2025 8:15am USER: akluse

IRRIGATION SPECIFICATIONS:

SECTION 32 84 00

IRRIGATION SYSTEM

PART 1 - GENERAL

1.01 SCOPE OF WORK

A. FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT FOR THE PROPER INSTALLATION OF AN IRRIGATION SYSTEM TO SERVICE ALL LAWN AND PLANTED AREAS.

B. THE CONTRACTOR SHALL FOLLOW PLAN LAYOUT AND INSTALLATION DESIGN DETAIL PROVIDED AND COORDINATED WITH THE LANDSCAPE REQUIREMENTS OF THE PLANTING TYPES, LOCATIONS AND SHALL INCLUDE ALL WATER SAVING PRODUCTS AND PRACTICES WHICH DEMONSTRATE THE HIGHEST LEVEL OF PERFORMANCE.

C. SMART CONTROLLERS, HIGH-EFFICIENCY SPRAY NOZZLES, PRESSURE REGULATED HEADS, & DRIPLINE MUST BE INCORPORATED. INDIVIDUAL SUB-ZONES MUST BE TAILORED TO THE WATERING REQUIREMENTS OF EACH MAJOR PLANT TYPE. UNDER NO CIRCUMSTANCES SHALL ANY TURF AREAS BE WATERED IN COMBINATION WITH PLANT BEDS. SPACING OF ALL SPRINKLER EQUIPMENT SELECTED SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS AS PUBLISHED. "HEAD TO HEAD" COVERAGE IS REQUIRED IN ALL TURF AREAS.

D. IRRIGATION CONTRACTOR SHALL PARTICIPATE IN COORDINATION MEETINGS AS REQUIRED WITH THE OWNER'S REPRESENTATIVE AND RELATED PARTIES PRIOR TO COMMENCEMENT OF CONSTRUCTION

1.02 QUALITY ASSURANCE

A. THE IRRIGATION SYSTEM IS TO BE INSTALLED BY A CONTRACTOR WHO SPECIALIZES IN IRRIGATION DESIGN AND INSTALLATION AND HAS INSTALLED AT LEAST 5 PROJECTS OF EQUAL OR COMPARABLE SIZE AND COMPLEXITY. IRRIGATION WORK SHALL BE PERFORMED BY A SINGLE FIRM, ACCEPTABLE TO THE OWNER'S REPRESENTATIVE AND LICENSED AS A CONTRACTOR IN THE STATE WHERE THE PROJECT IS TO BE INSTALLED.

B. REFERENCED STANDARDS: AMERICAN SOCIETY FOR TESTING AND MATERIALS, ANNUAL BOOK OF ASTM STANDARDS, LATEST EDITION.

C. CODES AND STANDARDS: IRRIGATION DESIGN AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL GOVERNING AGENCY REQUIREMENTS AND TO INDUSTRY STANDARDS. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES, INCONSISTENCIES, OR CONTRADICTORY REQUIREMENTS.

D. SUBSTITUTIONS: NO SUBSTITUTIONS FROM THE INITIAL PLAN WILL BE PERMITTED WITHOUT REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE. REQUESTS MUST BE MADE AT LEAST 2 WEEKS IN ADVANCE OF THE PROJECT START DATE. IN THE EVENT THE CONTRACTOR DESIRES TO MAKE SUBSTITUTIONS OF MATERIALS, SUFFICIENT DESCRIPTIVE LITERATURE, NEW DESIGN, AND MATERIAL SAMPLES MUST BE FURNISHED TO ESTABLISH THE MATERIAL AS AN EQUAL SUBSTITUTE, AND THE DESIGN AS FUNCTIONAL. THE PROPOSED MATERIAL SUBSTITUTION MUST MEET THE ORIGINAL DESIGN INTENT AS IT PERTAINS TO WATER CONSERVATION.

E. APPROVAL AND SELECTION OF MATERIALS AND WORK: THE SELECTION OF ALL MATERIALS AND THE EXECUTION OF ALL OPERATIONS REQUIRED UNDER THIS PERFORMANCE SPECIFICATION IS SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE WHO HAS THE RIGHT TO REJECT ANY AND ALL MATERIALS AND ANY AND ALL WORK WHICH, IN THEIR OPINION, DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AT ANY STAGE OF THE OPERATIONS. REMOVE REJECTED WORK AND OR MATERIALS FROM PROJECT SITE AND REPLACE PROMPTLY.

F. ALL MATERIALS SHALL COME FROM A REGIONALLY AUTHORIZED IRRIGATION DISTRIBUTOR FOR THE PRODUCT AS SPECIFIED FOR WARRANTY PURPOSES.

G. WORKMANSHIP: INSTALL MATERIALS AND EQUIPMENT IN A NEAT AND PROFESSIONAL MANNER FOLLOWING MANUFACTURER'S RECOMMENDATIONS.

1.03 SUBMITTALS

A. IRRIGATION DESIGN DRAWING

1. THE IRRIGATION DESIGN DRAWING REFERENCED IN THE PLAN SHALL BE SUBMITTED IN AN ELECTRONIC FORMAT. ANY DESIGN CHANGES SHOULD BE SUBMITTED AS DRAWINGS FOR APPROVAL NO LESS THAN 2 WEEKS PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT MAY ACCEPT THE IRRIGATION DESIGN DRAWING AS SUBMITTED; MAY MARK-UP MINOR CORRECTIONS, AND ACCEPT THE INCLUDED IRRIGATION DESIGN DRAWING AS MARKED-UP; OR MAY REJECT THE IRRIGATION DESIGN DRAWING, AND REQUIRE THAT IT BE RESUBMITTED.
3. ALL COMPONENTS OF THE IRRIGATION SYSTEM SHALL BE SHOWN. SHOW SPRINKLER PIPING, INCLUDING PLAN LAYOUT AND LOCATIONS, TYPES, SIZES, CAPACITIES, AND FLOW CHARACTERISTICS OF SPRINKLER PIPING COMPONENTS. INCLUDE WATER METERS, BACKFLOW PREVENTERS, BOOSTER PUMPS, VALVES, PIPING, SPRINKLERS AND DEVICES, DRAINS, ACCESSORIES, CONTROLS, AND WIRING AS NECESSARY. ALL COMPONENTS SHALL BE LABELED WITH THE COMPONENT TYPE, MANUFACTURER, AND MODEL, OR SHALL BE SYMBOLS REFERENCED TO A LEGEND OR KEY. ALL COMPONENTS SHALL BE SHOWN WITH DIMENSIONS TO REFERENCE POINTS. SHOW AREAS OF SPRINKLER SPRAY AND OVERSPRAY. DRAWING SHALL BE SCALED NO SMALLER THAN 1" = 30'-0". IN AREAS WHERE CLARITY OF THE IRRIGATION DESIGN IS IN QUESTION BECAUSE OF THE SCALE, AN ENLARGEMENT OF THAT AREA SHALL BE SHOWN SO AS TO PROVIDE CLARITY OF THE DESIGN. APPROVAL OF IRRIGATION DESIGN DRAWING SHALL PRECEDE COMMENCEMENT OF ANY WORK.

B. PRODUCT DATA

1. IRRIGATION CONTRACTOR SHALL SUBMIT THREE (3) SETS OF MANUFACTURER'S TECHNICAL DATA TO THE OWNER'S REPRESENTATIVE INCLUDING, BUT NOT LIMITED TO VALVES, CONTROLLER, QUICK COUPLERS, SPRINKLER HEADS, ETC.

C. AS - BUILT DRAWING

1. IRRIGATION CONTRACTOR SHALL RECORD AND SUBMIT AN "AS-BUILT DRAWING" WHICH RECORDS ACTUAL INSTALLED CONDITIONS. THE AS-BUILT DRAWING SHALL BE CLEARLY AND NEATLY DRAWN ON A REPRODUCIBLE VELLUM OR SEPIA BASE OF THE ORIGINAL LANDSCAPE DESIGN. AN ELECTRONIC VERSION IS ALSO ACCEPTABLE. IRRIGATION CONTRACTOR SHALL SUBMIT THE AS BUILT DRAWING TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT BEFORE WORK UNDER THIS CONTRACT WILL BE CONSIDERED FOR ACCEPTANCE.
2. ALL COMPONENTS OF THE SYSTEM SHALL BE SHOWN WITH DIMENSIONS TO REFERENCE POINTS, AS INDICATED ABOVE UNDER "IRRIGATION DESIGN DRAWING." DRAWING SHALL BE SCALED NO SMALLER THAN 1" = 30'-0". SUBMITTAL, REVIEW, AND APPROVAL BY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT OF THE AS BUILT DRAWING SHALL PRECEDE APPLICATION FOR FINAL PAYMENT BY THE CONTRACTOR.

1.04 DELIVERY, STORAGE AND HANDLING

A. DELIVER MATERIALS AND EQUIPMENT IN SUCH A MANNER AS NOT TO DAMAGE THE PARTS OR DECREASE THE USEFUL LIFE OF EQUIPMENT.

B. STORE MATERIALS AWAY FROM DETRIMENTAL ELEMENTS. COORDINATE WITH OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, OR LANDSCAPE CONTRACTOR, AS APPROPRIATE, TO SECURE A SAFE STAGING AREA.

C. HANDLE, LOAD, UNLOAD, STACK, AND TRANSPORT MATERIALS CAREFULLY TO AVOID DAMAGE. HANDLE PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

1.05 JOB CONDITIONS

A. PRIOR TO COMMENCING ANY WORK REQUIRED UNDER THE CONTRACT, THE CONTRACTOR SHALL LOCATE ALL UTILITIES, SUBSURFACE DRAINAGE, AND UNDERGROUND CONSTRUCTION SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO CAUSE DAMAGE ANY SUBSURFACE OR SURFACE IMPROVEMENTS. DAMAGE TO ANY OF THE ABOVE MENTIONED ITEMS OR OTHER SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

B. WATER SERVICE AND ELECTRIC SERVICE WILL BE SUPPLIED BY THE GENERAL CONTRACTOR TO A DESIGNATED AREA IN A LANDSCAPE PLANTING FOR THE PURPOSE OF THE AUTOMATIC IRRIGATION SYSTEM. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE LOCATION OF THE WATERLINE AND ELECTRIC SERVICE.

C. IRRIGATION SYSTEM IS TO OPERATE UNDER THE WATER PRESSURE AND FLOW RATES PREVAILING AT THE PROJECT SITE. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE PARAMETERS, AND SHALL DESIGN THE IRRIGATION SYSTEM IN ACCORDANCE WITH THE EXISTING OR ANTICIPATED CONDITIONS.

D. INSURANCE ON IRRIGATION MATERIALS OR EQUIPMENT STORED OR INSTALLED IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR. SUCH INSURANCE SHALL COVER FIRE, THEFT, AND VANDALISM. SHOULD THE IRRIGATION CONTRACTOR ELECT NOT TO PROVIDE SUCH INSURANCE THE OWNER SHALL IN NO WAY BE RESPONSIBLE FOR ANY LOSSES INCURRED BY THE AFOREMENTIONED ACTS. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCURRED IN REPLACING DAMAGED OR STOLEN MATERIALS OR EQUIPMENT PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK.

E. OBTAIN ALL REQUIRED PERMITS AND PAY ALL REQUIRED FEES AT NO ADDITIONAL COST TO THE OWNER. ANY PENALTIES IMPOSED DUE TO FAILURE TO OBTAIN PERMITS OR PAY FEES ARE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

F. PROVIDE AND MAINTAIN ALL PASSAGEWAYS, GUARD FENCES, WARNING LIGHTS, AND OTHER PROTECTION DEVICES REQUIRED BY LOCAL AUTHORITIES OR OTHERS HAVING JURISDICTION.

G. IRRIGATION CONTRACTOR SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND THE CONTRACT DOCUMENTS.

H. EXISTING SITE IMPROVEMENTS: PERFORM WORK IN A MANNER THAT AVOIDS DAMAGE TO EXISTING SITE IMPROVEMENTS. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE OF MECHANICAL NATURE AS WELL AS DAMAGE RESULTING FROM LEAKS IN THE IRRIGATION SYSTEM WHETHER DUE TO NEGLIGENCE OR OTHERWISE.

I. TEST WATER CONDITIONS: IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MEASURE OR ANALYZE THE EXISTING OR ANTICIPATED WATER PRESSURE AT THE TAP AND DESIGN THE IRRIGATION SYSTEM ACCORDINGLY.

1. IN THE EVENT WATER PRESSURE IS INSUFFICIENT TO OPERATE THE SYSTEM AT AN ADEQUATE DESIGN PRESSURE AND FLOW, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING, SPECIFYING, SUPPLYING, AND INSTALLING A BOOSTER PUMP CAPABLE OF INCREASING THE PRESSURE AND FLOW AS REQUIRED. BOOSTER PUMP SHALL BE OPERATED BY A MAGNETIC STARTER, FLOW, OR PRESSURE TRANSDUCER/SWITCH. IF A BOOSTER PUMP IS REQUIRED, COORDINATE PROVISION OF ADEQUATE ELECTRICAL SERVICE FOR THE PUMP WITH GENERAL CONTRACTOR. BOOSTER PUMP (IF REQUIRED) SHOULD BE PROVIDED IN A LOCKABLE ENCLOSURE ON A WWF REINFORCED CONCRETE PAD 5" THICK, OVER 6" CA6 BASE IF IS TO BE INSTALLED OUTDOORS. INDOOR INSTALLATION OF BOOSTER PUMPS IS ALSO ACCEPTABLE PROVIDED THE PROPER APPROVAL AND SPACE REQUIREMENTS EXIST.
2. IN THE EVENT THE WATER PRESSURE SIGNIFICANTLY EXCEEDS AN APPROPRIATE OPERATING PRESSURE, IT SHALL BE THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND INSTALL A PRESSURE REGULATOR DOWNSTREAM FROM THE BACKFLOW PREVENTER. PRESSURE REGULATION MAY BE ACCOMPLISHED VIA A MASTER VALVE WITH A PRESSURE REDUCING DIAL, OR MAY BE ACCOMPLISHED AT THE INDIVIDUAL ZONE VALVE LOCATIONS WITH A PRESSURE REDUCING DIAL.
3. EACH SPRAY HEAD, ROTARY SPRINKLER OR EMISSION DEVICE MUST CONTAIN A BUILT IN, IN-STEM PRESSURE REGULATOR DESIGNED TO OPTIMIZE PRESSURE AT THE NOZZLE. SPRAYS ARE 30 PSI WITH STANDARD NOZZLES, 45PSI FOR USE WITH ROTARY SPRAYS AND TURF ROTORS.

J. SLEEVES FOR IRRIGATION PIPING AND WIRING SHALL BE COORDINATED AND INSTALLED BY THE GENERAL CONSTRUCTION CONTRACTOR.

1. IT SHALL BE THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO SUBMIT THE IRRIGATION DESIGN DRAWING, SHOWING THESE SLEEVES, IN A TIMELY MANNER, SUCH THAT THE GENERAL CONSTRUCTION CONTRACTOR IS ABLE TO INSTALL SLEEVES WITHIN AN APPROPRIATE SEQUENCE OF WORK, I.E., WITHOUT UNDOING, DAMAGING, OR OTHERWISE COMPROMISING WORK THAT HAS ALREADY BEEN INSTALLED.
2. IRRIGATION SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, MINIMUM 2X PIPE SIZE OF PROPOSED IRRIGATION PRESSURE PIPE. A SEPARATE SCHEDULE 40 PVC SLEEVE SHALL BE INSTALLED FOR IRRIGATION WIRE. ENDS OF ALL IRRIGATION SLEEVES SHALL BE MARKED WITH 2 X 2 WOODEN STAKES OR WHITE PVC PIPE, INDICATING IN INDELIBLE MARKER "IRRIGATION SLEEVE." GENERAL CONTRACTOR SHALL EXPOSE ANY IRRIGATION SLEEVES THAT ARE NOT MARKED FOR THE IRRIGATION CONTRACTOR PRIOR TO START OF IRRIGATION WORK. COORDINATION AND SCHEDULING FOR EXCAVATION OF SLEEVE ENDS IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

1.06 WARRANTY

A. WARRANTY ALL WORK FOR A PERIOD OF ONE (1) YEARS, STARTING ON THE DATE OF SUBSTANTIAL COMPLETION, AGAINST DEFECTS IN MATERIALS, EQUIPMENT, WORKMANSHIP, AND ANY REPAIRS REQUIRED RESULTING FROM LEAKS OR OTHER DEFECTS OF WORKMANSHIP, MATERIAL, OR EQUIPMENT.

PART 2 - PRODUCTS

2.01 GENERAL

A. SPECIFIC REQUIREMENTS CONCERNING THE VARIOUS MATERIALS AND THE ARRANGEMENTS IN WHICH THEY ARE TO BE INSTALLED ARE OUTLINED IN THIS SPECIFICATION.

B. QUALITY AND SIZE

1. MATERIAL SPECIFIED BY NAME AND / OR MODEL NUMBER IN THE SPECIFICATIONS, ON THE SITE, OR DETAILED DRAWINGS ARE USED FOR THE PURPOSE OF IDENTIFICATION OF MATERIALS AND TO ENSURE SPECIFIC USE OF THAT MATERIAL IN THE CONSTRUCTION OF THE SYSTEM. NO SUBSTITUTIONS WILL BE PERMITTED WITHOUT APPROVAL. (SEE SUBSTITUTIONS).
2. ALL MATERIALS USED IN THE SYSTEM MUST BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND BE THE BEST QUALITY AVAILABLE. ALL SPRAYS, ROTORS AND VALVES SHALL HAVE A MINIMUM THREE (3) YEAR WARRANTY AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP.

2.02 PIPE AND FITTINGS

A. ALL PVC PIPE FROM SIZES THREE (3) INCHES AND ABOVE SHALL BE CLASS 200, SDR 26, UNPLASTICIZED RIGID POLYVINYLCHLORIDE (PVC) PIPE WITH INTEGRAL BELL AND RUBBER RING GASKET UNLESS OTHERWISE SPECIFIED. PIPE FROM SIZES TWO AND ONE - HALF (2 1/2) TO ONE AND ONE - QUARTER (1 1/4) INCH SHALL BE CLASS 200, SOLVENT WELD PVC PIPE. PIPE SIZES ONE (1) AND THREE - QUARTER (3/4) INCH SHALL BE CLASS 200, SOLVENT WELD PVC PIPE. ONE - HALF (1/2) INCH PIPE SHALL BE CLASS 315 SOLVENT WELD PVC PIPE. ALL PIPE SHALL BE SUPPLIED IN STANDARD TWENTY (20) FOOT LENGTHS AND SHALL BE FROM ONE OF THE FOLLOWING MANUFACTURERS: NO POLYETHYLENE PIPE WILL BE ACCEPTED UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED BY THE LANDSCAPE ARCHITECT.

B. ALL PIPE THAT IS EXPOSED OR NOT BELOW GRADE SHALL BE SCHEDULE 80 PVC OR HDPE.

C. ALL PIPE FITTINGS SIZE FOUR (4) INCHES AND GREATER SHALL BE DUCTILE IRON. 3" FITTINGS SHALL BE BELL AND RUBBER GASKET. FITTINGS 2-1/2" AND UNDER SHALL BE SCHEDULE 40 SOLVENT WELD PVC.

D. SOLVENT WELD PVC PIPE, IF AND WHEN USED IN CONSTRUCTION OF THIS SYSTEM, SHALL BE RIGID PVC PIPE AND SHALL BE ASSEMBLED USING APPROPRIATE PVC PIPE CLEANER / PRIMER AND SOLVENT CEMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

E. EXPANSION JOINTS SHALL BE INSTALLED EVERY THREE HUNDRED (300) FEET OF SOLVENT WELD PIPING.

F. PVC PIPE COUPLINGS LOCATED WITHIN SLEEVES: PVC PIPE COUPLINGS FOUR (4) INCHES AND SMALLER SHALL BE SOLVENT WELD. PVC PIPE COUPLINGS SIX (6) INCHES AND LARGER SHALL BE MECHANICAL JOINTS. UPON EXITING SLEEVES, PIPE SOLVENT WELD OR INTEGRAL BELL AND RUBBER GASKET, AS DESCRIBED IN SECTION 2-02-A, MUST BE ADHERED TO.

2.03 RISERS: PROVIDE THREADED SCHEDULE 80 PVC RISERS. ALL RISERS ABOVE GRADE SHALL BE EITHER DARK GRAY OR BLACK PVC PIPE, AND SHALL BE SUPPORTED SO AS NOT TO CAUSE MISALIGNMENT MOVEMENT WHILE SPRINKLER IS IN OPERATION.

2.04 ELECTRIC WIRING

A. 120 VOLT AC WIRING: 120 VOLT SERVICE TO CONTROLLER SHALL CONSIST OF THREE WIRES: ONE BLACK, ONE WHITE, AND ONE GROUND. ELECTRICAL SERVICE IS TO BE PROVIDED BY THE GENERAL CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE. IT IS THE IRRIGATION CONTRACTORS RESPONSIBILITY TO COORDINATE THE LOCATION OF ELECTRICAL SERVICE TO BE PROVIDED FOR CONTROLLER.

B. SPLICES IN CONTROLLER WIRING SHALL BE WATERPROOF DIRECT BURY APPLICATION. CONNECTOR MUST UTILIZE A COMBINATION OF WIRE CAP AND SEPARATE GEL FILLED WATERPROOF CAP.

C. PROVIDE JUNCTION BOX, FLUSH-MOUNTED AND GASKETED PER CODE AS REQUIRED.

D. CONTROL WIRING SHALL BE 24 VOLT SOLID WIRE UNDERWRITER'S LABORATORY (UL) APPROVED FOR DIRECT BURIAL IN GROUND. MINIMUM WIRE SIZE SHALL BE FOURTEEN (14) GAUGE. ALL CONTROL WIRING AND WIRING CONNECTIONS FROM THE CONTROLLER TO THE VALVES IS INCLUDED IN THIS CONTRACT.

2.05 SPRINKLER HEADS

A. SHORT RANGE - 4' 6" OR 12" POP UP SPRAY HEAD:

1. SPRINKLER SHALL BE OF THE FIXED SPRAY TYPE DESIGNED FOR IN GROUND INSTALLATION. SPRINKLER SHALL HAVE A TRIPLE BLADED WIPER SEAL FOR INCREASED DURABILITY AND PRESSURE RATING.
2. POP-UP SPRAY SPRINKLERS SHALL INCLUDE A PRESSURE REGULATING DEVICE TO PREVENT HIGH PRESSURE FOGGING TO THE NOZZLE STREAM. THIS REGULATING DEVICE SHALL BE AN INTEGRAL PART OF THE POP-UP STEM AND SHALL REGULATE THE NOZZLE PRESSURE TO 30 PSI OR 45 PSI (NOZZLE APPROPRIATE) FOR INLET PRESSURES FROM 55 TO 70 PSI. THESE UNITS SHALL BE IDENTIFIABLE FROM THE TOP WITH "PRS" MARKINGS ON THE CAP.
3. THE ADDITION OF A CHECK VALVE FEATURE (SAM) SHALL BE INCORPORATED INTO THE SPRAY BODY AND USED IN LOCATIONS THROUGHOUT THE SYSTEM WHERE LOW HEAD DRAINAGE IS INDICATED.
4. SPRAY BODY SHALL INCORPORATE A DEVICE DESIGNED TO INDICATE WHEN A NOZZLE IS MISSING OR BROKEN, BY SENDING OUT A SMALL STREAM OF WATER 15 FEET INTO THE AIR AT 1 TO 1.5 GPM.

B. SPRAY NOZZLES: HIGH-EFFICIENCY NOZZLES DISTRIBUTION UNIFORMITY (DULQ) OF 70 % OR GREATER, (AS PUBLISHED BY THE MANUFACTURER) SHALL BE USED. THE HIGHER EFFICIENCY NOZZLE SHOULD RESULT IN BETTER THAN A 1.2 SC, REDUCING RUNTIME ACCORDINGLY. ALL NOZZLES SHALL ALL HAVE A MATCHED PRECIPITATION RATE WITH OTHER NOZZLES ON THE SAME ZONE.

a. UTILIZE LOWER PRECIPITATION RATE ROTARY NOZZLES (.6 IN/P HOUR) ON HILLY AREAS AND/OR WHERE INFILTRATION IS LOW AND THEREFOR RUNOFF IS EXPECTED. ROTARY NOZZLE FOR SHRUB OR SMALL TURF AREAS (13-24 FEET) SPACING- MAXIMUM 55 PSI.
b. UTILIZE HIGH PRECIPITATION HIGH-EFFICIENCY NOZZLES FOR IMPROVED WIND RESISTANCE WILL ALLOW FOR SHORTENED RUN-TIMES ON FLAT AREAS OR WHERE INFILTRATION RATES ALLOW. HE-VAN-8',10',12' OR 15' SPRAY NOZZLES SPACING OF 8 TO 15 FEET (DU OF 73% TO 78% RESPECTIVELY). SHALL HAVE AN ARC ADJUSTMENT FROM 0 TO 360 DEGREES.
c. DUAL ORIFICE NOZZLES MAY BE USED IN LOCATIONS REQUIRING SUPERIOR CLOSE-IN WATERING, WHILE MAINTAINING A DULQ OF 70% OR GREATER. U-SERIES SPRAY NOZZLE FOR SHRUB OR SMALL TURF AREAS (5-15 FEET) SPACING- MAXIMUM 30 PSI.

C. INTERMEDIATE RANGE ROTORS:

1. THE FULL OR PART CIRCLE ROTOR SPRINKLER UTILIZING THE MPR NOZZLE SETS. SPRINKLER SHALL BE A SINGLE STREAM, WATER LUBRICATED, GEAR DRIVE TYPE CAPABLE OF COVERING THE AREAS BETWEEN 25 AND 35 FEET AT A MINIMUM BASE PRESSURE OF 45 PSI. THE PART CIRCLE SPRINKLER SHALL HAVE ADJUSTABLE ARC COVERAGE OF 40 TO 360 DEGREES.
   a. THE SPRINKLER SHALL INCLUDE AN INTEGRAL PRESSURE REGULATOR TO REDUCE OPERATING PRESSURE TO 45 PSI FOR OPTIMAL NOZZLE PERFORMANCE. THE SPRINKLER SHALL HAVE A FLOW SHUT-OFF BALL VALVE TO ALLOW WATER PATH OF THE ROTOR AS WELL AS ADJUSTABLE ARC COVERAGE OF 40 TO 360 DEGREES.
   b. THE SPRINKLER SHALL HAVE A GREEN RUBBER COVER, TAPERED STEM FOR POSITIVE FLUSHING, AND A STRONG STAINLESS STEEL RETRACT SPRING FOR POSITIVE POP DOWN.

2.06 AUTOMATIC CONTROLLER

A. TRADITIONALLY WIRED (4 TO 48 ZONES)

1. IRRIGATION CONTROLLER SHALL HAVE A MODULAR STATION CAPACITY, BY RECEIVING EXPANSION MODULES OF 4, 8, OR 12 STATIONS, TO CREATE A CONTROLLER OF UP TO 48 STATIONS. THE CONTROLLER SHALL BE OF A HYBRID TYPE, HOUSED IN A WALL-MOUNTABLE, WEATHER RESISTANT PLASTIC CABINET WITH A KEY-LOCKING CABINET DOOR SUITABLE FOR OUTDOOR INSTALLATION. THE CONTROLLER SHALL HAVE 4 SEPARATE AND INDEPENDENT PROGRAMS WHICH CAN HAVE 8 DIFFERENT START TIMES, START DAY CYCLES AND STATION RUN TIMES. THE CONTROLLER SHALL HAVE A CYCLE+SOAK WATER MANAGEMENT FEATURE.
2. THE CONTROLLER SHALL INCORPORATE A FLOMANAGER FEATURE THAT SHALL PROVIDE REAL-TIME FLOW, POWER, AND STATION MANAGEMENT. FLOWATCH SHALL COMPARE THE CURRENT REAL-TIME FLOW RATE TO THE LEARNED RATES AND TAKE USER DEFINED ACTIONS IF PROBLEM IS DETECTED. FLOWATCH SHALL AUTOMATICALLY DETERMINE THE LOCATION OF THE FLOW PROBLEM AND ISOLATE THE PROBLEM BY TURNING OFF THE AFFECTED STATION OR MASTER VALVE.
3. THE CONTROLLER SHALL BE COMPATIBLE WITH THE COMMUNICATION CARTRIDGES PROVIDING REMOTE COMPUTER CONTROL OF THE CONTROLLER VIA A VARIETY OF COMMUNICATION OPTIONS (DIRECT CONNECT CABLE, PHONE, GPRS/CELLULAR, ETHERNET, WIFI, RADIO, AND IQNET COMMUNICATION CABLE).
4. SHALL INCLUDE A 3-YEAR TRADE WARRANTY.

2.07 AUTOMATIC RAIN / FREEZE SHUT OFF DEVICE

A. WR2RF WIRELESS RAIN FREEZE SENSOR SHALL EMPLOY AN ELECTRO-MECHANICAL ACTUATING MECHANISM DESIGNED TO CAUSE A CIRCUIT INTERRUPT IF PROGRAMMABLE LOW TEMPERATURE OR RAINFALL SET POINTS ARE SATISFIED.

B. THE DEVICE SHALL BE USED WITH 24VAC CONTROLLERS AND SHALL BE OF SUFFICIENT CAPACITY TO BE USED WITH A MAXIMUM OF SIX 24VAC 7VA SOLENOIDS PLUS AN ADDITIONAL MASTER VALVE OR PUMP START THAT DOES NOT EXCEED 53VA.

C. THE WIRELESS RAIN SENSOR SHALL INCORPORATE A PROVISION THAT ALLOWS THE INSTALLER TO SELECT FROM SEVERAL RAINFALL OR LOW TEMPERATURE SETTINGS THAT CAN BE PROGRAMMED THROUGH THE USE OF ICONS ON A CONTROLLER INTERFACE.

D. A SENSOR LED SHALL COMMUNICATE SIGNAL STRENGTH DURING THE INSTALLATION PROCESS.

2.08 SMART SENSORS FOR CONTROLLERS

1. SOIL MOISTURE SENSOR SHALL BE A SMART WATERING CONTROL DEVICE FOR USE WITH A STANDARD 24-VOLT AC MULTI-WIRE IRRIGATION CONTROLLER. IN OPERATION, THE SOIL MOISTURE SENSOR SHALL ONLY ALLOW A PROGRAMMED WATERING CYCLE WHEN THE SOIL MOISTURE DROPS BELOW A SET MOISTURE THRESHOLD.
2. USER INTERFACE SHALL ENABLE INSTANT READINGS OF SOIL MOISTURE, TEMPERATURE AND ELECTRICAL CONDUCTIVITY PLUS REVIEW OF 7-CYCLE WATERING HISTORY.
3. IT SHALL TAKE DIGITAL READINGS EVERY 10 MINUTES OF SOIL VOLUMETRIC WATER CONTENT (VWC) UTILIZING ADVANCED TIME DOMAIN TRANSMISSOMETRY (TDT) DIGITAL SIGNAL PROCESSING THAT DELIVERS ACCURATE READINGS INDEPENDENT OF SOIL TEMPERATURE AND ELECTRICAL CONDUCTIVITY.
4. IT SHALL CONSIST OF A 304 STAINLESS STEEL DIGITAL SOIL MOISTURE SENSOR AND A USER INTERFACE.

2.09 FLOW SENSORS

FLOW SENSORS SHALL BE AN IN LINE TYPE WITH A NONMAGNETIC, SPINNING IMPELLER (PADDLE WHEEL) AS THE ONLY MOVING PART. THE ELECTRONICS HOUSING SHALL HAVE TWO O-RINGS AND SHALL BE EASILY REMOVED FROM THE METER BODY. THE SENSOR ELECTRONICS WILL BE POTTED IN AN EPOXY COMPOUND DESIGNED FOR PROLONGED IMMERSION. ELECTRICAL CONNECTIONS SHALL BE 2 SINGLE CONDUCTOR 18 AWG LEADS 48 INCHES (1.2 METERS) LONG. INSULATION SHALL BE MADE USING SPECIAL DIRECT BURIAL "UF" TYPE, ELECTRICALLY SHIELDED CABLE TO AVOID INTERFERENCE, COLORED RED FOR THE POSITIVE LEAD AND BLACK FOR THE NEGATIVE LEAD. THE SENSOR SHALL BE CAPABLE OF OPERATING IN LINE PRESSURES UP TO 400 PSI (27.5 BARS) AND LIQUID TEMPERATURES UP TO 200° F, AND OPERATING IN FLOWS OF ½ FOOT PER SECOND TO 15 FEET PER SECOND WITH LINEARITY OF ±1% AND REPEATABILITY OF ±1%. THE METER BODY SHALL BE CAST 85-5-5-5 BRONZE, IN 1" AND 1½", FEMALE IRON PIPE THREAD SIZES.

2.10 METER: SUBMIT PRODUCT DATA AS REQUIRED.

2.11 BACKFLOW PREVENTER:

A. TO BE SUPPLIED AND INSTALLED BY THE IRRIGATION CONTRACTOR. BACKFLOW PREVENTER SHALL BE A RPZ REDUCED PRESSURE BACKFLOW ASSEMBLY TYPE, CAPABLE OF HAVING AN ADEQUATE FLOW RATE IN GALLONS PER MINUTE (GPM) WITHOUT EXCESSIVE PRESSURE LOSS, AND SHALL BE SUITABLE FOR SUPPLY PRESSURE OF UP 150 PSI. BACKFLOW PREVENTER BODY SHALL BE BRONZE WITH CORROSION-RESISTANT INTERIOR COMPONENTS AND CHECK ASSEMBLIES SHALL BE TIGHT SEATING RUBBER. WORKING PRESSURE SHALL BE 150PSI MINIMUM WITH A MAXIMUM PRESSURE LOSS OF 12 PSI THROUGH THE MIDDLE 1/3 OF FLOW RANGE. BACKFLOW PREVENTER SHALL BE INSTALLED WITHIN ENCLOSURE EQUIPPED WITH A HEAT TRACE WITH SUFFICIENT CLEARANCE TO PERMIT PERIODIC TESTING AND MAINTENANCE. THE CONTRACTOR IS RESPONSIBLE FOR RUNNING POWER FROM THE BUILDING TO THE HEATED ENCLOSURE. PROVIDE A LOCKABLE ENCLOSURE ON A CONCRETE PAD .5" THICK WITH WWF REINFORCEMENT, OVER 6" CA6 BASE FOR THE BACKFLOW PREVENTER. BACKFLOW PREVENTER ASSEMBLY MUST INCLUDE (2) GATE VALVES FOR ISOLATING UNIT, AND TWO (2) BALL VALVE TEST COCKS FOR TESTING UNIT TO ENSURE PROPER OPERATION.

2.12 VALVE BOXES

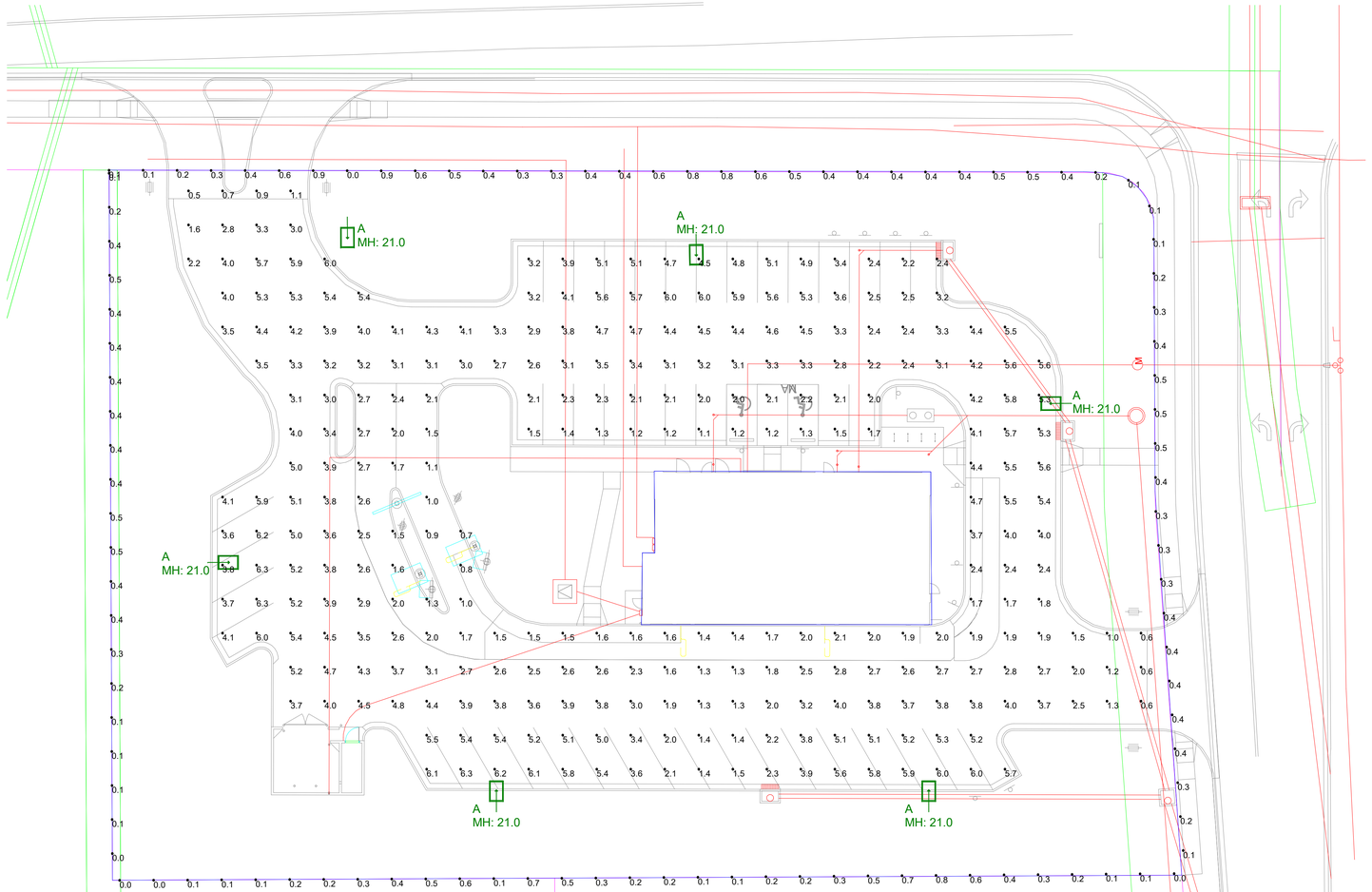
A. VALVE BOX BODY SHALL BE COMPOSED OF 100% RECYCLED HDPE. THERE SHALL BE NO PRE-PUNCHED HOLE IN THE VALVE BOX LID. THE STANDARD RECTANGULAR BODY SHALL HAVE 14 KNOCK-OUTS MOLDED INTO THE SIDES THAT CAN BE READILY REMOVED. THE VALVE BOX SHALL HAVE CORRUGATED SIDES FOR LATERAL STRENGTH. LIDS SHALL HAVE BEVELED EDGES TO MINIMIZE POTENTIAL DAMAGE FROM LAWN EQUIPMENT. LIDS SHALL BE CLEARLY MARKED WITH THE WORDS "IRRIGATION CONTROL VALVE" MOLDED ONTO THE TOP. LIDS SHALL HAVE A MARKING AREA MEASURING 6" BY 2.0" SUITABLE FOR BRANDING OR OTHER IDENTIFICATION. THE LOCKING BOLT, WASHER AND CLIP SHALL BE MADE OF STAINLESS STEEL.

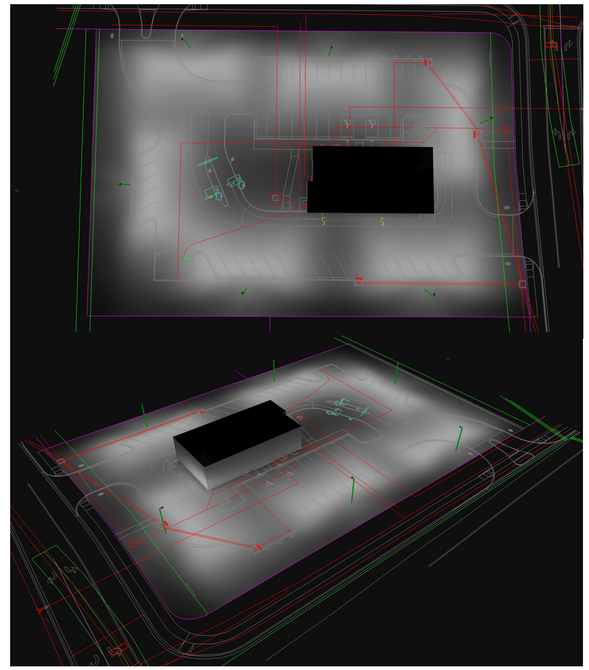
2.13 SLEEVES: CLASS 200 PVC PIPE TYPE LL20 OR 1220 COORDINATE WITH AND INSTALLED B

NOTES:

1. THE FOOTCANDLE LEVELS AS SHOWN ARE BASED ON THE FOLLOWING CRITERIA. ANY SUBSTITUTIONS IN SPECIFIED FIXTURES OR CHANGES TO LAYOUT WILL AFFECT LIGHTING LEVELS SHOWN AND WILL NOT BE THE RESPONSIBILITY OF SECURITY LIGHTING.

2. DISTANCE BETWEEN READINGS 10'





Pole Fixtures Are Full Cutoff
Tilt=0
Calculation Grids Are At Grade
Pole Light Mounting Height=21ft
(18' Pole + 3' Base)

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PAVED SURFACE READINGS	Illuminance	Fc	3.34	6.3	0.5	6.68	12.60
Property Line	Illuminance	Fc	0.34	0.9	0.0	N.A.	N.A.

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	EPA	Mtg Height	Pole Type
	6	A	SINGLE	0.850	RAR2-480L-240-5K7-4W	226.9	0.607	21	SES-18-40-1-TA-GL-xx (4")

PROJECT WIND LOAD CRITERIA BASED ON:
ASCE 7-10 WIND SPEEDS (3-SEC PEAK GUST MPH)
50 YEAR MEAN RECURRENCE INTERVAL
ALLOWED EPA 13.6 @ WIND LOAD 90 MPH

Regional Drawing
024-1306

1. THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS TO SECURITY LIGHTING SYSTEMS. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

4. THIS LAYOUT MAY NOT MEET TITLE 24 OR LOCAL ENERGY REQUIREMENTS. IF THIS LAYOUT NEEDS TO E COMPLIANT WITH TITLE 24 OR OTHER ENERGY REQUIREMENTS, PLEASE CONSULT FACTORY WITH SPECIFIC DETAILS REGARDING PROJECT REQUIREMENTS SO THAT REVISONS MAY BE MADE TO THE DRAWING.

THIS DRAWING MEETS OR EXCEEDS McDONALDS CURRENT ILLUMINATION SPECIFICATIONS OF A 3-4 FOOTCANDLE AVERAGE, UNLESS SUPERSEDED BY OTHER REQUIREMENTS.

SECURITY LIGHTING™
2100 Golf Road, Suite 460, Rolling Meadows, IL 60008
1-800-544-4848

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES

SCALE 1"=20' 0"

DRAWN BY CLB

POINT-BY-POINT FOOTCANDLE PLOT FOR
MCDONALDS
8500 INDIANA AVE
KANSAS CITY, MO 64156

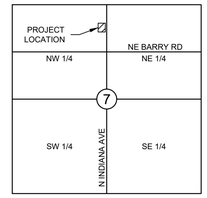
NATIONAL STORE NUMBER
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DATE	DRAWING NUMBER
11/8/2024	A242477A.AGI

Docusign Envelope ID: BFF3FE71-9E51-49EE-B1DB-9BBA4C4E81E8

PUBLIC IMPROVEMENT PLANS
FOR
McDONALD'S RESTAURANT
STALEY CORNERS WEST THIRD PLAT
LOT 2

SECTION 7, TOWNSHIP 51 NORTH, RANGE 32 WEST
N. INDIANA AVENUE & NE 86TH STREET
KANSAS CITY, CLAY COUNTY, MISSOURI



VICINITY MAP
SEC. 7-51-32
(NOT TO SCALE)

PROJECT TEAM & UTILITY CONTACT LIST	
OWNER STALEY CORNERS, LLC PO BOX 901471 KANSAS CITY, MO 64190 CONTACT: JAMES OWENS PHONE: 816-935-4016 EMAIL: jamesk@owensbuilt.com	UTILITY SERVICE NUMBERS NAME: KCMO PUBLIC WORKS PHONE: 816-513-2552 NAME: KCMO WATER SERVICES DEPARTMENT PHONE: 816-513-2139 NAME: SPIRE (MGE) PHONE: 816-472-3434 NAME: AT&T PHONE: 918-231-1834 NAME: EVERGY PHONE: 816-652-1654
DEVELOPER McDONALD'S USA, INC. 110 N. CARPENTER STREET CHICAGO, IL 60607 CONTACT: TODD WRIGHT PHONE: 773-805-7114 EMAIL: todd.wright@us.mcd.com	
ENGINEER OLSSON, INC. 302 S. 4TH STREET, SUITE 110 MANHATTAN, KS 66502 CONTACT: ANDY KRUSE PHONE: 785.320.7855 EMAIL: akruse@olsson.com	



LEGAL DESCRIPTION

LOT 1, GREEN HILLS PLAZA FOURTH PLAT, A SUBDIVISION IN KANSAS CITY, PLATTE COUNTY, MISSOURI

Sheet List Table	
Sheet #	Sheet Title
CP100	TITLE SHEET
CP101	GENERAL NOTES
CP102	EXISTING CONDITIONS & DEMOLITION PLAN
CP103	SITE PLAN
CP104	DIMENSION PLAN
CP105	GRADING PLAN
CP106	STORM SEWER PLAN & PROFILE
CP107	SANITARY SEWER PLAN & PROFILE
CP108	DETAILS

I HAVE REVIEWED THESE PLANS AND UNDERSTAND WHAT IS PROPOSED. ANY INCIDENTAL WORK NOT SPECIFICALLY PERMITTED MUST BE PERFORMED BY THE PERMIT HOLDER.

DocuSigned by: James K Owens — 02.17.25
JAMES OWENS, STALEY CORNERS, LLC — DATE

I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED, AND THESE PLANS PREPARED, TO MEET OR EXCEED THE DESIGN CRITERIA OF KANSAS CITY, MISSOURI, IN CURRENT USAGE, EXCEPT AS INDICATED BELOW.

EXCEPTIONS:
1. NONE
2.
3.
4.

OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

Mitch A. Pleak — 02.17.25
MITCH A. PLEAK, PE — DATE
CIVIL ENGINEER
MO# 2009018764

THE POLICY OF THE "PLAN PREPARATION CRITERIA AND PROCEDURE" AND POLICY DOCUMENT NO. 880544 "AS-BUILT DRAWINGS FOR SEWER BUILT BY PERMIT" STIPULATE THE FOLLOWING REGARDING "AS-BUILT" DRAWINGS:
1. DRAWINGS ARE TO BE PROVIDED WITHIN THIRTY (30) DAYS AFTER THE DATE THE "REQUEST FOR AS-BUILTS" LETTER IS ISSUED BY THE CITY TO THE CONTRACTOR.
2. DRAWINGS MUST BE ACCEPTED BY THE CITY BEFORE ANY SERVICE CONNECTIONS WILL BE ALLOWED.
3. DRAWINGS ARE PART OF THE PERMIT OBLIGATIONS MAKING THEM THE RESPONSIBILITY OF THE PERMITTEE.
4. THE COST OF PREPARING "AS-BUILT" DRAWINGS SHALL BE INCLUDED IN THE PERFORMANCE BOND.

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

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT- OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

CITY PROJECT\PLAT NO.:
CASE NO.:
FILE NUMBER:
APN NO.: CL1411300010010001
WATERSHED NAME: UPPER SHOAL CREEK

☐ NOT FOR CONSTRUCTION

☒ REVIEWED FOR CONSTRUCTION

olsson
302 South 4th Street
Suite 110
Manhattan, KS 66502
olsson.com
TEL 785.539.6900
FAX 785.539.6901
Olsson - Engineering
Missouri COA #001592

STATE OF MISSOURI — MITCHELL ALAN PLEAK — NUMBER PE-2009018764 — 2-17-25 — PROFESSIONAL ENGINEER

REVISIONS		
REV. NO.	DATE	DESCRIPTION
	02.17.25	ISSUED FOR PERMIT REVIEW

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GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MO, AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.ACTUAL SITE SIGNAGE LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER PER ARCHITECTURAL PLANS.
13. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

REFERENCES

1. ARCHITECTURAL AND STRUCTURAL ELEMENTS SHOWN IN THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTORS AND SURVEYORS SHALL REFERENCE THEIR RESPECTIVE PLANS FOR DESIGN INFORMATION.
2. THE CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AS PROVIDED BY THE GEOTECHNICAL ENGINEER INCLUDING ALL CURRENT ADDENDUMS. THE STANDARDS AND SPECIFICATIONS OF KANSAS CITY, MO SHALL ALSO APPLY AND TAKE PRECEDENCE WHEN STRICTER THAN THE GEOTECHNICAL REPORT OR WHEN NO GEOTECHNICAL REPORT IS GIVEN.
3. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY;
   A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF KANSAS CITY, MO.
   B. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
   C. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES..
   D. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF KANSAS CITY, MO AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT BY OLSSON DATED AUGUST 5, 2024.

SHOP DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION . CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
   A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
   B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
   C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
   D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
   E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.

2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:
   A. ALL STORM SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
   B. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
   C. ALL SITE FENCING AND RAILING INCLUDING ANY GATES.
   D. ALL LANDSCAPE AND RETAINING WALLS.
   E. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY AS SHOWN IN THESE PLANS. IF PLANS ARE NOT PROVIDED, CONTRACTOR SHALL COORDINATE AND PROVIDE CONTROLS TO THE SATISFACTION OF THE RIGHT-OF-WAY OWNER.
2. THE CONTRACTOR SHALL PROTECT ALL TREES OVER 3" CALIPER FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE ON THESE PLANS.
3. IN ADDITION TO THE CONDITIONS OF THE GEOTECHNICAL REPORT AND AS A MINIMUM THE CONTRACTOR SHALL PERFORM THE GRADING AS FOLLOWS:
   A. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE IN AREAS DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE EXCESS STRIPPINGS AND EXCESS EXCAVATION WITHIN 30 DAYS OF COMPLETION OF GRADING OPERATIONS.
   B. AREAS TO RECEIVE FILL AND AREAS CUT TO SUBGRADE LEVEL SHALL BE SCARIFIED AND THE TOP 9-INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE SUBGRADE SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
   C. FILL SHALL BE PLACED IN MAXIMUM OF 9 INCH LIFTS.
   D. TOPSOIL SHALL BE PLACED TO A MINIMUM DEPTH OF 6 INCHES OVER ALL AREAS DISTURBED BY THE WORK, LARGE STONES, STICKS AND LUMPS SHALL BE REMOVED OR BROKEN UP, AND THE TOPSOIL SHALL BE LEVELED AND RAKED. ALL DISTURBED AREAS SHALL BE LANDSCAPED PER LANDSCAPE PLANS OR SHALL BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED.
   E. CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS AS REQUIRED.
4. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
5. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.
6. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

EXISTING CONDITIONS

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. CONTACT THE ENGINEER REGARDING ANY DISCREPANCIES THAT MAY AFFECT THE ABILITY TO CONSTRUCT FROM THESE PLANS AS DESIGNED.
3. EXISTING CONDITIONS WERE DETERMINED THROUGH A VARIETY OF METHODS THAT MAY INCLUDE SURVEY, AERIAL IMAGERY, AVAILABLE RECORDS, GIS DATA, ETC. SUBSURFACE CONDITIONS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES AND OTHER SITE IMPROVEMENTS PRESENT ON SITE. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF THE RIGHT-OF-WAY AND FOR DAMAGED IMPROVEMENTS. DAMAGED IMPROVEMENTS SHALL BE REPAIRED TO THE CITY'S AND OWNER'S SATISFACTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO REPAIR ALL EXISTING DISTURBED AREAS DURING GRADING ACTIVITIES TO ORIGINAL OR BETTER CONDITION.
5. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITY NOTIFICATION CENTER FOR THE STATE THAT THE WORK IS BEING PERFORMED AND HAVE ALL THE UTILITIES MARKED AND PROVIDE NOTIFICATION OF THE COMMENCEMENT OF WORK.
6. ALL JOINTS WHERE NEW PAVEMENT ADJOINS EXISTING PAVEMENT SHALL BE SAW CUT, TO INSURE A STRAIGHT CLEAN LINE, OR WILL BE CARRIED TO THE NEXT JOINT WHEN THE EXISTING PANEL WILL BE LESS THAN HALF ORIGINAL WIDTH.

DEMOLITION PLAN NOTES

1. PRIOR TO ANY DEMOLITION EROSION CONTROL MEASURES AND CONSTRUCTION FENCING SHALL BE INSTALLED.
2. THE CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND/OR PROTECTED WITH SITE OWNER AND UTILITY OWNERS.
3. THE CONTRACTOR SHALL NOT INTERRUPT ANY UTILITY SERVICES TO ANY ADJACENT PROPERTIES. SHOULD ANY INTERRUPTIONS BECOME NECESSARY, THE CONTRACTOR SHALL COORDINATE WITH THE ADJACENT PROPERTY AND UTILITY OWNER AND MINIMIZE THE LENGTH OF TIME THE UTILITY IS INTERRUPTED TO THE GREATEST EXTENT POSSIBLE.
4. SECONDARY WIRING, SERVICES, IRRIGATION AND OTHER MINOR SITE IMPROVEMENTS THAT ARE NOT TO REMAIN IN SERVICE ARE TO BE DEMOLISHED AND REMOVED.
5. ALL PAVEMENT SAWCUTS ARE TO BE MADE IN STRAIGHT, CLEAN LINES LEAVING A CLEAN AND STABLE EDGE AT FULL PAVEMENT DEPTH.
6. ALL PCC PAVEMENT AND ALL CURB SHALL BE REMOVED TO NEAREST JOINT.
7. ALL MATERIALS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN STRICT CONFORMANCE WITH LOCAL CODES AND ORDINANCES.
8. ALL TREE REMOVAL SHALL INCLUDE STUMPS AND ROOTS. DEPRESSIONS CREATED SHALL BE FILLED TO PROVIDE DRAINAGE.

SITE PLAN NOTES

1. ALL PAVEMENT DIMENSIONS ARE TO BACK OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB IS PRESENT, UNLESS OTHERWISE NOTED. DIMENSIONED TIES BETWEEN PROPERTY LINES AND BUILDING FACES OR PAVEMENT ARE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS NECESSARY FOR FOUNDATIONS, BEDDING EXTENSIONS, SURCHARGING, ETC.
2. INSTALLED PAVEMENT SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT TO PROVIDE SMOOTH SURFACE TRANSITIONS. INSTALLED CURB & GUTTER SHALL MATCH EXISTING CURB & GUTTER IN SIZE AND TYPE OR CONTRACTOR SHALL INCLUDE A TRANSITION FROM NEW TO EXISTING OF NO LESS THAN 5' AS MEASURED ALONG BACK OF CURB.
3 ALL ASPHALT PAVING SHALL BE IN CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, ASPHALT PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MISSOURI DEPARTMENT OF TRANSPORTATION.
4. ALL PCC PAVING SHALL BE IN CONFORMANCE WITH LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, PCC PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MISSOURI DEPARTMENT OF TRANSPORTATION.
5. CONCRETE PAVEMENT JOINTS SHALL BE CONSTRUCTED AS FOLLOWS (REFER TO HARDSCAPE PLANS FOR SPECIFIC TREATMENT OF THESE AREAS):
   A. CONTROL JOINTS SPACED AS SHOWN IN THESE PLANS OR AT INTERVALS NOT GREATER THAN 1.5x PANEL WIDTH OR 12 FEET (WHICHEVER IS SMALLER).
   B. CONTROL JOINTS SHALL BE TOOLED OR SAWCUT TO ¼ THE SLAB THICKNESS. LOCAL STANDARDS AND SPECIFICATIONS SHALL TAKE PRECEDENCE WHERE MORE STRICT THAN THOSE LISTED HERE.
   C. CONSTRUCTION JOINTS PLACED AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE.
   D. ISOLATION JOINTS PLACED WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 1/2" NON-EXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET.
   E. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.
6. CURB JOINTS SHALL BE CONSTRUCTED AS FOLLOWS:
   A. PLACE 3/4" NON-EXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD AT 200' INTERVALS, AT BEGINNING AND END OF ALL RADII, AND AT STRUCTURES.
   B. CONTRACTION JOINTS SPACED AT INTERVALS NOT GREATER THAN 10 FEET, SAWED TO 1/4 THE SLAB THICKNESS.
8. PAVEMENT MARKINGS SHALL NOT BE APPLIED UNTIL LAYOUT, COLORS AND PLACEMENT HAVE BEEN VERIFIED WITH THE ARCHITECT AND ENGINEER, THE INSTALLED PAVEMENT IS ALLOWED TO AGE AS RECOMMENDED BY THE MANUFACTURER (MINIMUM OF 24 HOURS), AND THE PAVEMENT SURFACE HAS BEEN SWEPT AND CLEANED.
9. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS (FHMS) AND CITY OF KANSAS CITY CODES AND ORDINANCES. USE FLAT BLACK, WHITE, OR YELLOW AS DIRECTED WITHIN PLANS OR IN CONFORMANCE WITH THE FHMS, UNLESS OTHERWISE SPECIFIED USE LATEX, WATER-BASE EMULSION, READY-MIXED, COMPLYING WITH FS TT-P-1952 WITH DRYING TIME OF LESS THAN 45 MINUTES.
10. APPLY ALL MARKINGS USING APPROVED MECHANICAL EQUIPMENT (WITH PROVISIONS FOR CONSTANT AGITATION OF PAINT), CAPABLE OF APPLYING THE MARKING WIDTHS AS SHOWN AND A MINIMUM WET FILM THICKNESS OF 15 MILS. USE PNEUMATIC SPRAY GUNS FOR HAND APPLICATION OF PAINT. ALL PAINTING EQUIPMENT AND OPERATIONS SHALL BE UNDER THE CONTROL OF EXPERIENCED TECHNICIANS THOROUGHLY FAMILIAR WITH EQUIPMENT AND MATERIALS AND MARKING LAYOUTS.

GRADING PLAN NOTES

1. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE, SURFACE OF PAVEMENT, TOP OF CURBS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT PAVEMENT DEPTH FROM ELEVATIONS SHOWN.
2. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL.
3. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND SIDEWALKS WHEN FINISH LANDSCAPE MATERIALS ARE IN PLACE.
4. SPOT ELEVATIONS ARE TO EDGE OF PAVEMENT, TOP OF CURB, OR FINISHED GRADE UNLESS OTHERWISE INDICATED. (SEE LEGEND)

PUBLIC WORK QUANTITIES

	DESCRIPTION	VALUE	UNIT
1	CLEARING	.10	AC
2	DEMOLITION OF CURB & GUTTER	157	LF
3	DEMOLITION OF CONCRETE SIDEWALK	471	SF
4	8" CONCRETE PAVEMENT	197	SY
5	CURB & GUTTER - TYPE CG-1	127	LF
6	STRAIGHT CURB - TYPE C-1	94	LF
7	4" PCC SIDEWALK	941	SF
8	PCC ACCESSIBLE CURB RAMP	4	EA
9	EARTHWORK REPLACEMENT	71	CY
10	18" RCP	53.45	LF
11	4'x4' JUNCTION BOX	1	EA
12	CONNECTION TO EXISTING STORM STRUCTURE	1	EA
13	4" PVC SANITARY SEWER PIPE	184.78	LF
14	4' DIA. SEWER SAMPLING MANHOLE	1	EA
15	RELOCATE LIGHT POLE	1	EA
16	AS-BUILTS	1	EA

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.

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Missouri COA #001592

STATE OF MISSOURI
MITCHELL ALAN PLEAN
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

GENERAL NOTES
PUBLIC IMPROVEMENT PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

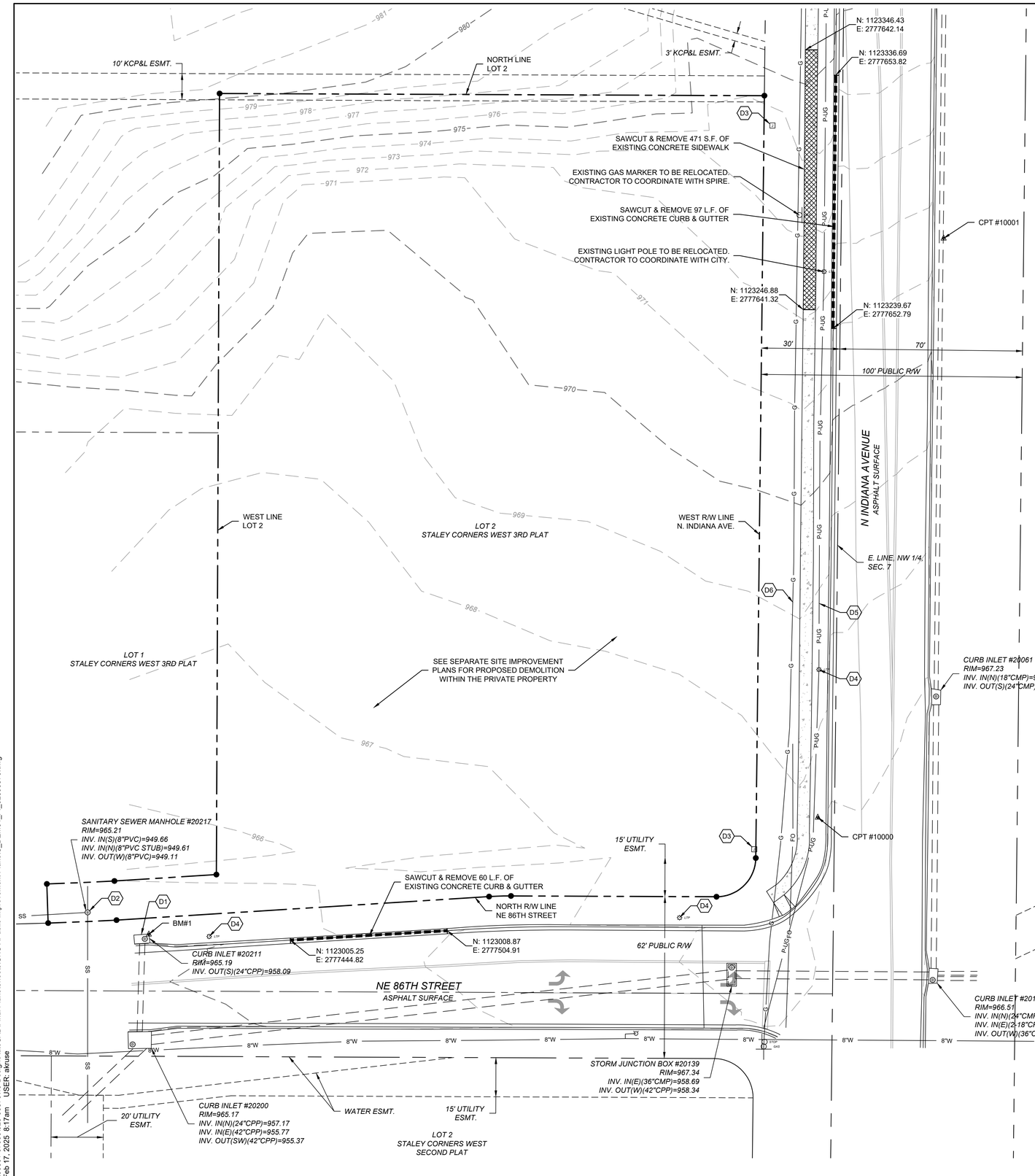
2024

drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

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LEGEND

SECTION CORNER	W	WATER LINE
CONTROL POINT / BENCHMARK	SS	SANITARY SEWER LINE
MONUMENT FOUND		STORM SEWER LINE
5/8" BAR w/ LC-366 CAP SET	P-UG	UNDERGROUND POWER LINE
R/W RIGHT-OF-WAY	FO	FIBER OPTIC LINE
SIGN	G	GAS LINE
ELECTRIC JUNCTION BOX		PROPERTY LINE
LIGHT POLE		PERMANENT EASEMENT
SANITARY SEWER MANHOLE	1000	EXISTING GROUND CONTOUR (1' CONTOUR INTERVAL)
STORM SEWER MANHOLE		
FIRE HYDRANT		

CONTROL POINTS

CPT #10000:
SET 1/2" BAR WITH OLSSON CONTROL POINT CAP
N: 1123052.29
E: 2777646.93

CPT #10001:
SET 1/2" BAR WITH OLSSON CONTROL POINT CAP
N: 1123274.20
E: 2777695.14

BENCHMARK:

BM#1:
CHISELED SQUARE SET ON NE CORNER OF CURB INLET TOP, 278'± WEST OF CENTERLINE OF INDIANA AVE, 22'± NORTH OF CENTERLINE OF NE 86TH ST.
ELEV: 965.20

DEMOLITION KEYNOTE LEGEND (D)

D1 PROTECT EXISTING STORM SEWER STRUCTURE

D2 PROTECT EXISTING SANITARY SEWER STRUCTURE

D3 PROTECT EXISTING UTILITY STRUCTURE

D4 PROTECT EXISTING LIGHT POLE

D5 UNDERGROUND ELECTRIC LINE, OPERATE WITH CAUTION

D6 GAS LINE, OPERATE WITH CAUTION

DEMOLITION LEGEND

REMOVE CONCRETE SIDEWALK

REMOVE CURB

SAWCUT FULL DEPTH

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

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT- OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

UTILITY NOTE:

OLSSON AND THE SURVEYOR OF RECORD MAKE NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE OF ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. OLSSON AND THE SURVEYOR OF RECORD FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. OLSSON AND THE SURVEYOR OF RECORD HAVE NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. IF ANY UNDERGROUND UTILITY LOCATIONS ARE REQUIRED THEY WILL HAVE TO BE VERIFIED BY FIELD POTHOLING THE UTILITIES. OLSSON AND THE SURVEYOR OF RECORD SHALL NOT BE LIABLE FOR THE LOCATION OF OR THE FAILURE TO NOTE THE LOCATION OF NON-VISIBLE UTILITIES.

N

0' 10' 20' 40'
SCALE IN FEET

olsson
302 South 4th Street
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Manhattan, KS 66502
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Olsson - Engineering
Missouri COA #001592

STATE OF MISSOURI
MITCHELL ALAN PLEAN
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY
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EXISTING CONDITIONS & DEMOLITION PLAN
PUBLIC IMPROVEMENT PLANS

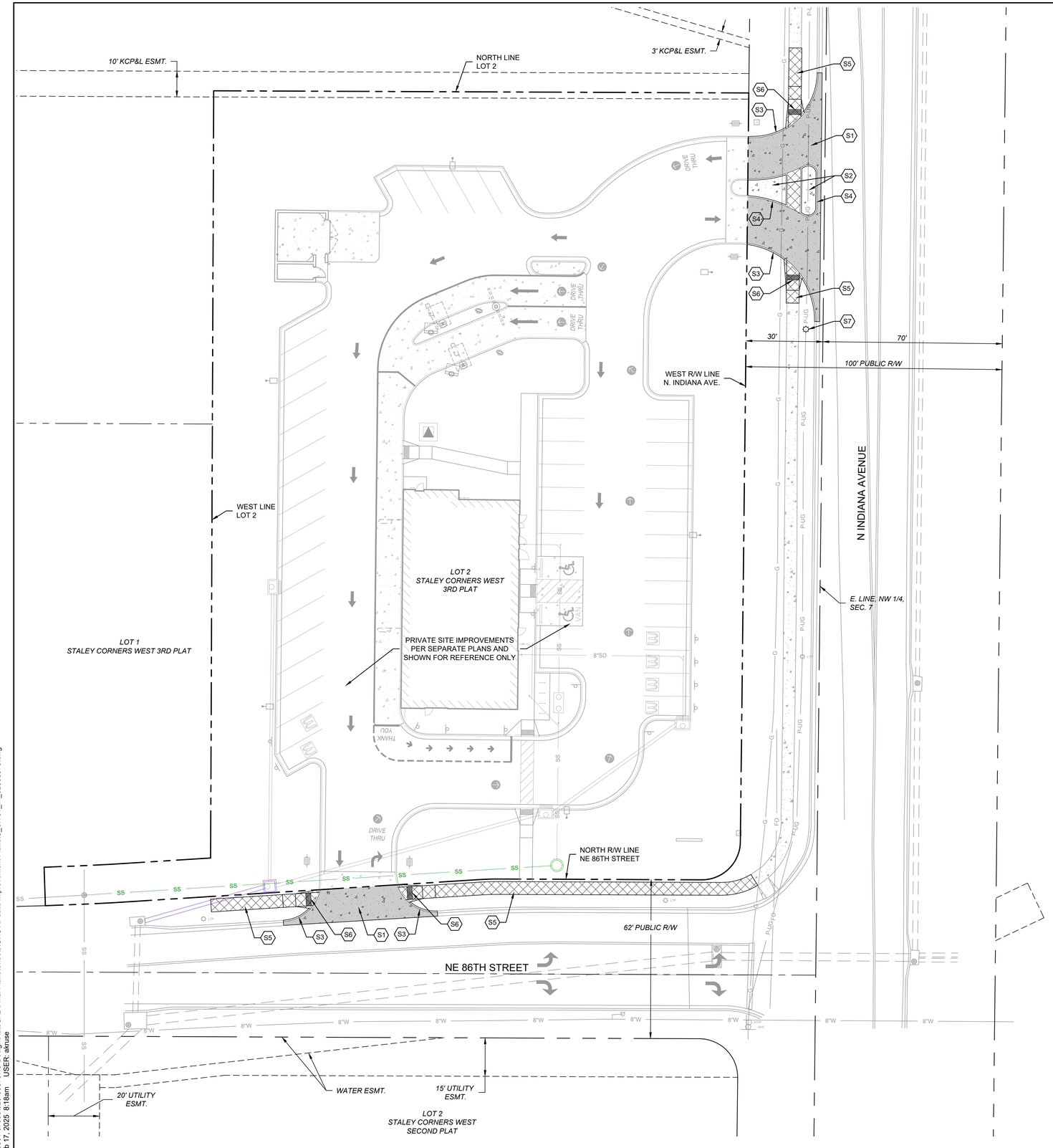
McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET
KANSAS CITY, MISSOURI
2024

drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

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LEGEND

- SECTION CORNER
- CONTROL POINT / BENCHMARK
- MONUMENT FOUND
- 5/8" BAR w/ LC-366 CAP SET
- R/W RIGHT-OF-WAY
- SIGN
- ELECTRIC JUNCTION BOX
- LIGHT POLE
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- FIRE HYDRANT
- W WATER LINE
- SS SANITARY SEWER LINE
- STORM SEWER LINE
- P-UG UNDERGROUND POWER LINE
- FO FIBER OPTIC LINE
- G GAS LINE
- PROPERTY LINE
- PERMANENT EASEMENT

PAVING LEGEND

- CONCRETE ENTRANCE PAVEMENT
- CONCRETE MEDIAN PAVEMENT
- CONCRETE SIDEWALK

KEYNOTE LEGEND

S1	CONSTRUCT CONCRETE ENTRANCE PAVEMENT
S2	CONSTRUCT CONCRETE MEDIAN PAVEMENT
S3	CONSTRUCT TYPE CG-1 CURB & GUTTER
S4	CONSTRUCT TYPE C-1 CURB
S5	CONSTRUCT CONCRETE SIDEWALK
S6	CONSTRUCT CONCRETE SIDEWALK RAMP w/ DETECTABLE WARNING
S7	RELOCATED LIGHT POLE

N

0' 10' 20' 40'
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SITE PLAN
PUBLIC IMPROVEMENT PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

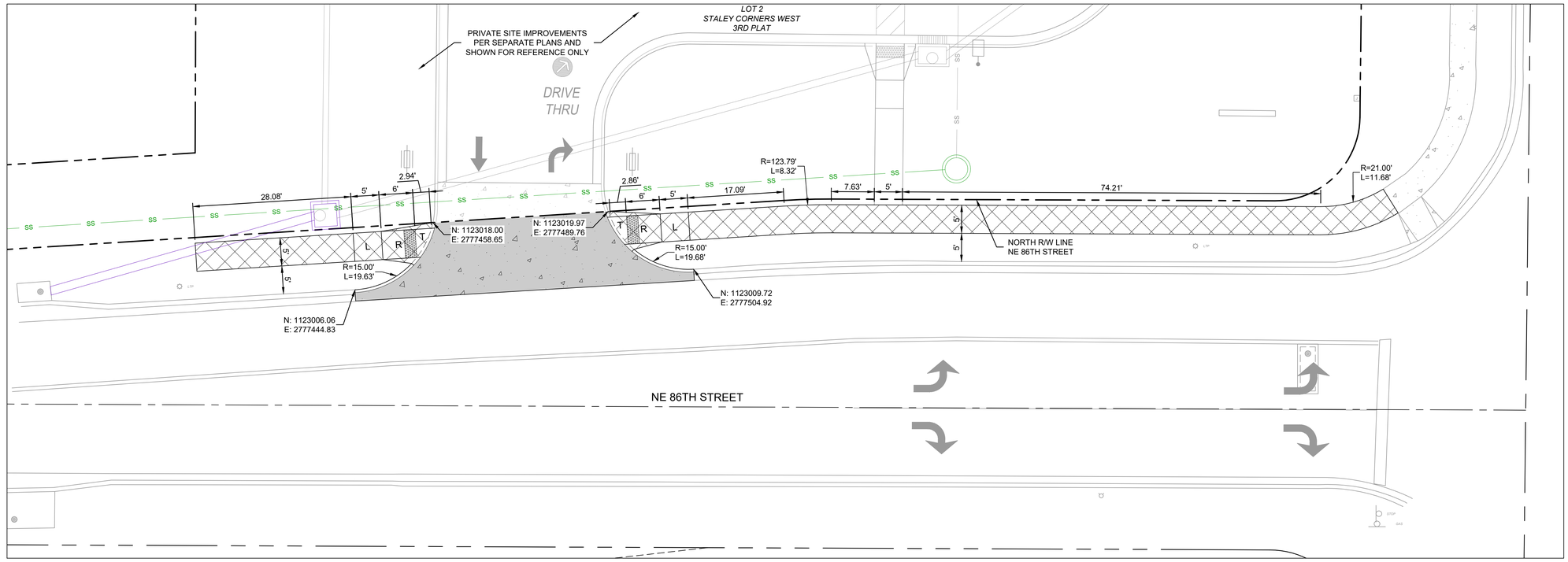
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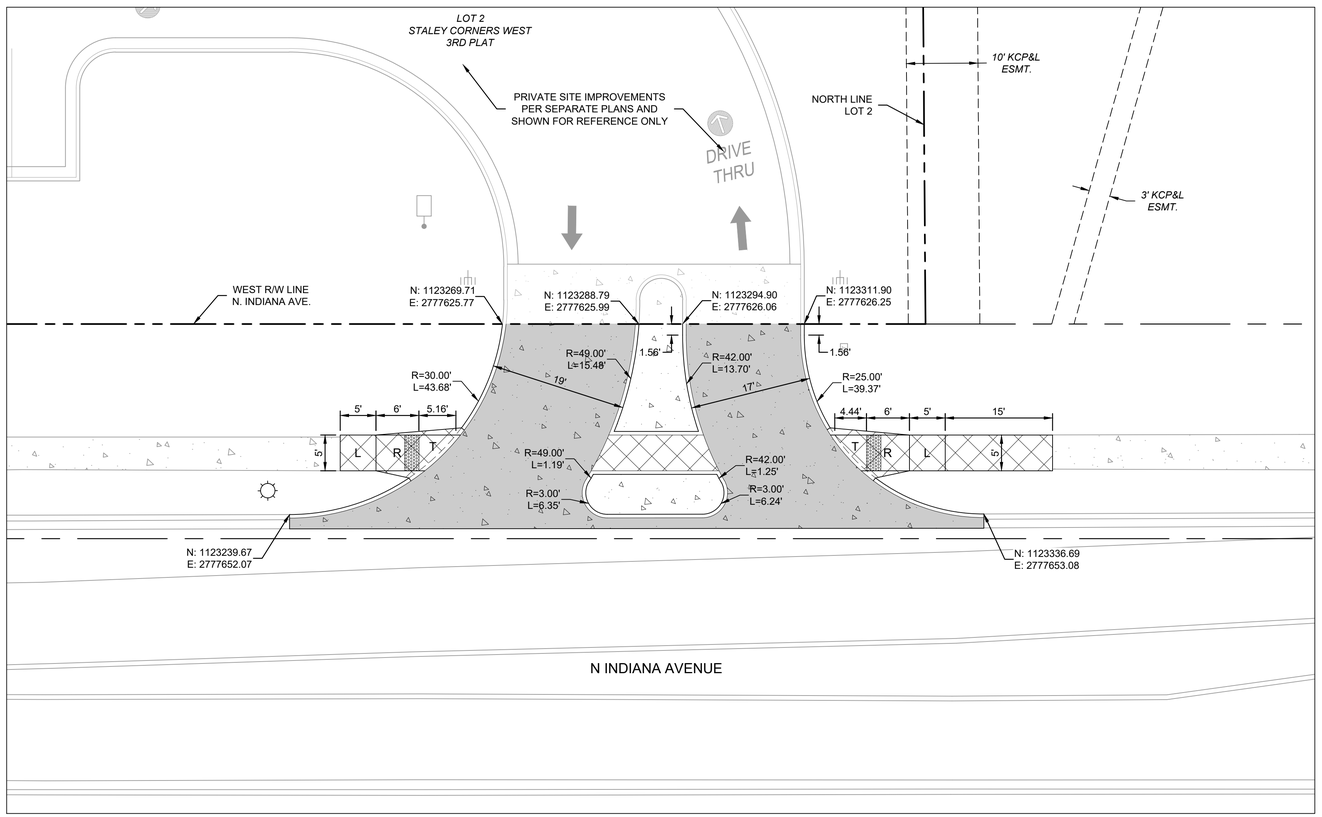
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LEGEND

SECTION CORNER	WATER LINE
CONTROL POINT / BENCHMARK	SANITARY SEWER LINE
MONUMENT FOUND	STORM SEWER LINE
5/8" BAR w/ LC-366 CAP SET	UNDERGROUND POWER LINE
R/W RIGHT-OF-WAY	FIBER OPTIC LINE
SIGN	GAS LINE
ELECTRIC JUNCTION BOX	PROPERTY LINE
LIGHT POLE	PERMANENT EASEMENT
SANITARY SEWER MANHOLE	
STORM SEWER MANHOLE	
FIRE HYDRANT	

PAVING LEGEND

- CONCRETE ENTRANCE PAVEMENT
- CONCRETE MEDIAN PAVEMENT
- CONCRETE SIDEWALK

R ACCESSIBLE RAMP
L ACCESSIBLE LANDING
T TRANSITION

0' 5' 10' 20'
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REVISIONS

DIMENSION PLAN
PUBLIC IMPROVEMENT PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

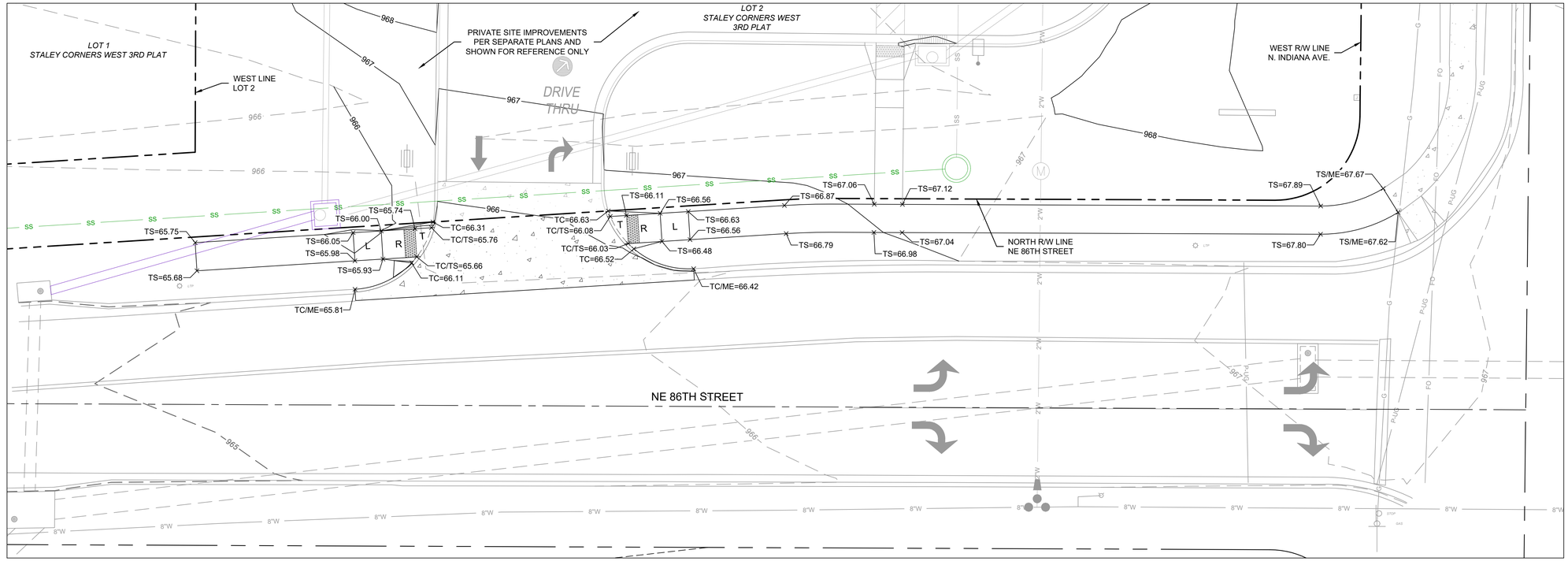
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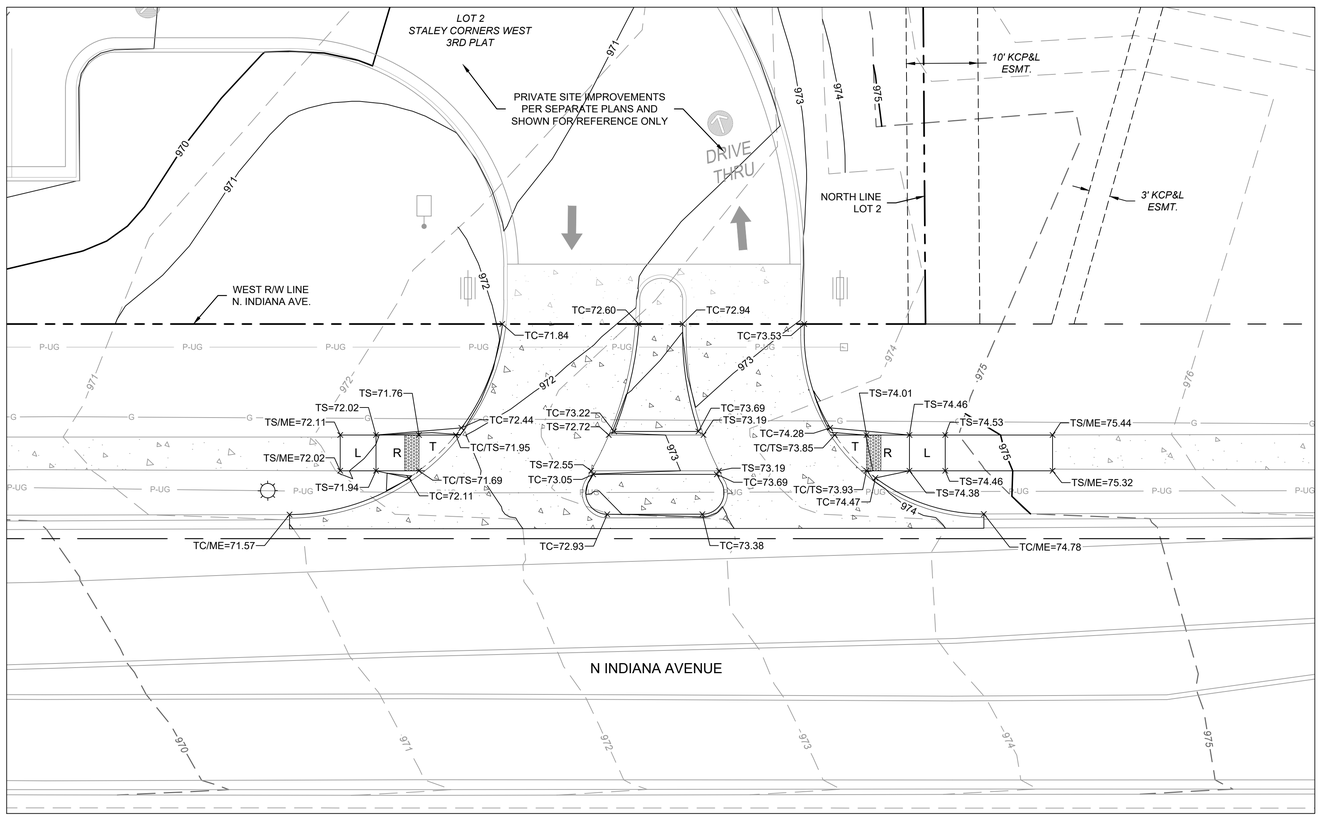
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SPOT ELEVATION LEGEND

TC TOP OF CURB
TS TOP OF SIDEWALK
ME MATCH EXISTING

T TRANSITION
R ACCESSIBLE RAMP
L ACCESSIBLE LANDING

NOTE: SPOT ELEVATIONS ARE TRUNCATED.
ADD 900.00 TO ALL SPOT ELEVATIONS.

CONTOUR LEGEND

975 EXISTING GROUND CONTOUR
975 FINISHED GROUND CONTOUR

0' 5' 10' 20'
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GRADING PLAN
PUBLIC IMPROVEMENT PLANS

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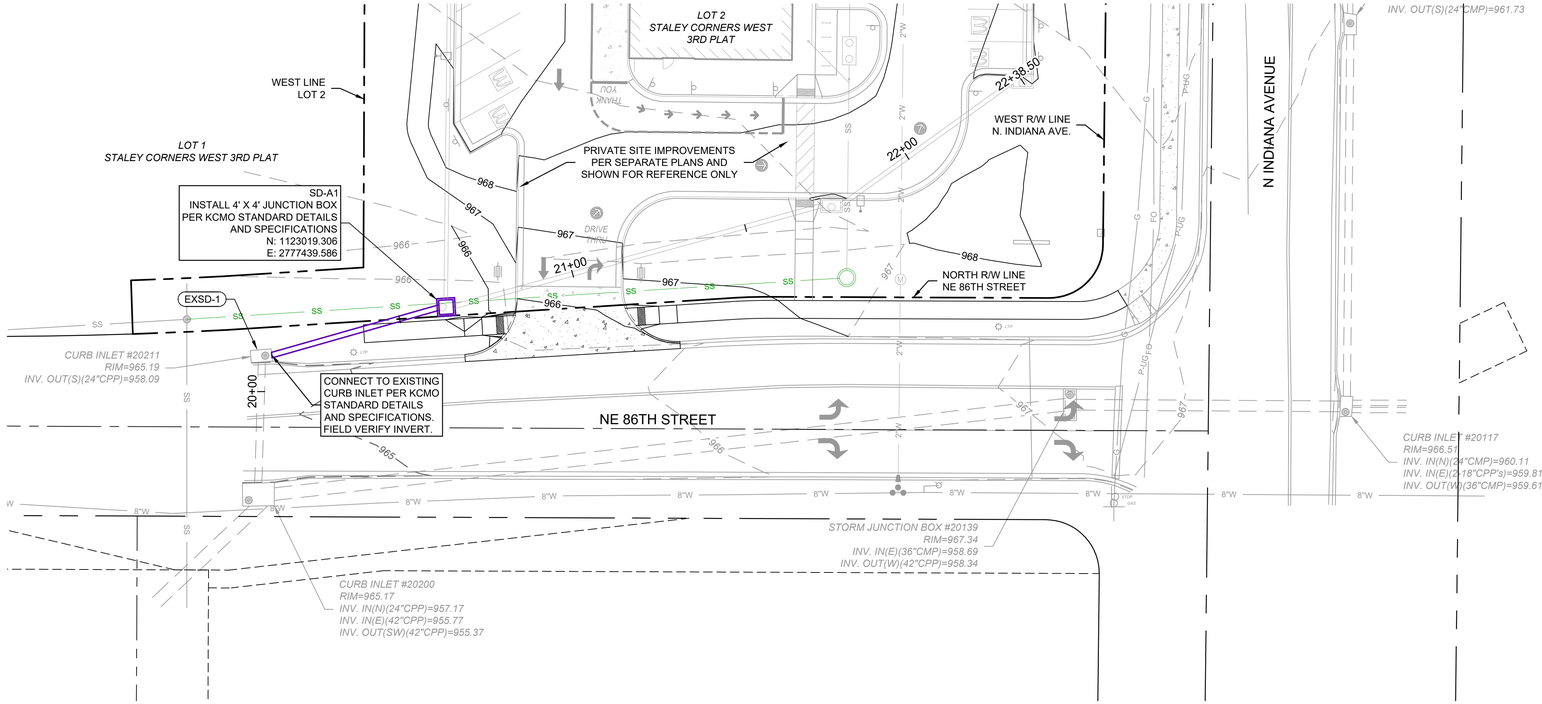
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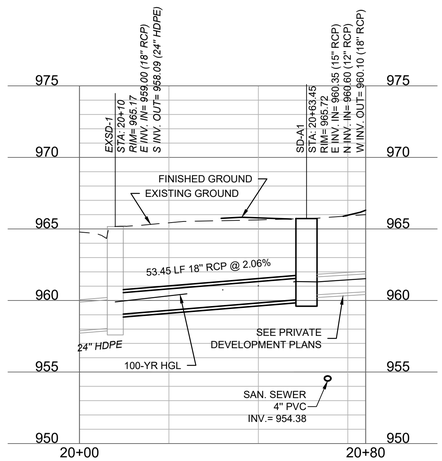
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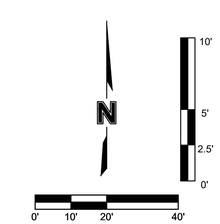
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STORM SEWER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF KANSAS CITY, MISSOURI.
2. ALL PIPE LENGTHS AND ELEVATIONS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. COORDINATES PROVIDED ARE AT THE CENTER OF THE STRUCTURES ON JUNCTION BOXES AND THE BACK OF CURB AT THE CENTER OF STRUCTURE AT CURB INLETS. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE BOX DURING INSTALLATION.
4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.
5. STORM SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
6. STRUCTURE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE STRUCTURE.
7. PIPE PENETRATIONS SHALL BE GROUTED TO ENSURE WATERTIGHT SEALS.
8. REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE MANUFACTURED IN ACCORDANCE WITH THE PROVISIONS OF A.S.T.M. C-76 AND SHALL BE CLASS III, UNLESS OTHERWISE NOTED. MASTIC JOINTS ARE REQUIRED ON ALL PIPE SHAPES.



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FAX 785.539.6901
Olsson - Engineering
Missouri COA #001592

STATE OF MISSOURI
MITCHELL ALAN PLEAN
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

REVISIONS

STORM SEWER PLAN & PROFILE
PUBLIC IMPROVEMENT PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

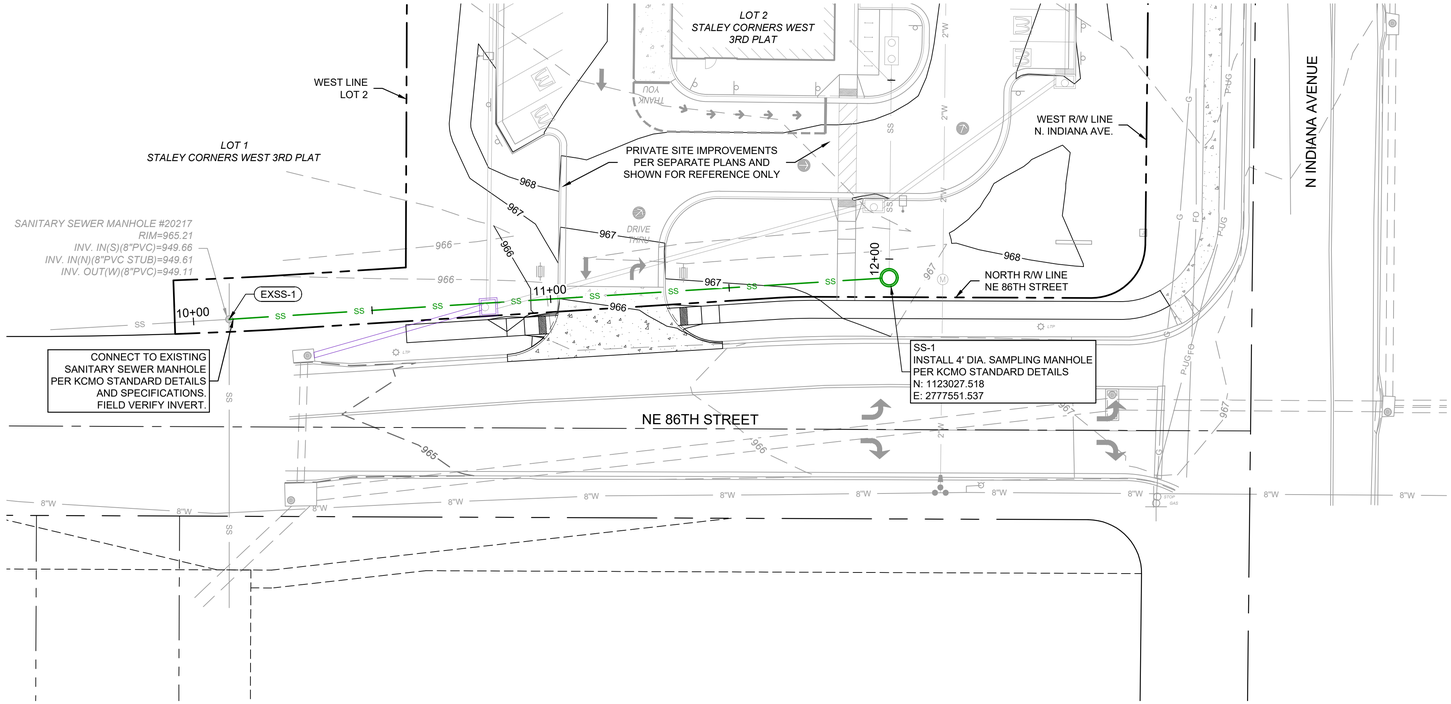
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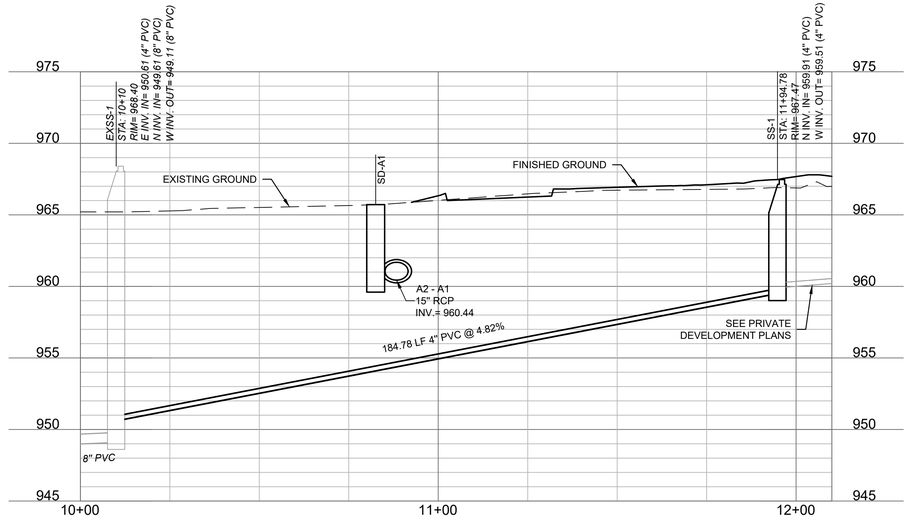
drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

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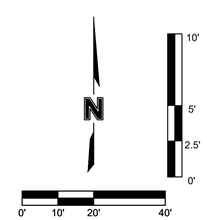
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SANITARY SEWER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF KANSAS CITY, MISSOURI.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE LID DURING INSTALLATION.
4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.
5. SANITARY SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
6. MANHOLE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE MANHOLE.
7. PIPE PENETRATIONS SHALL BE USE GASKETS TO ENSURE WATERTIGHT SEALS.
8. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
9. SEWER LINE INSPECTIONS AND TESTING MUST BE SCHEDULED A MINIMUM OF TWO FULL BUSINESS DAYS IN ADVANCE. CONTRACTOR SHALL FURNISH ALL TESTING EQUIPMENT. TESTING SHALL INCLUDE
   A. MANDREL TEST OF ALL GRAVITY SEWERS. IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION SHALL BE UNCOVERED AND REPLACED.
   B. AIR PRESSURE TEST OF ALL GRAVITY SEWERS.
   C. VACUUM TEST OF ALL MANHOLES.
10. GRAVITY SANITARY SEWER AND WATER LINES SHALL BE SEPARATED BY A MINIMUM OF 10' HORIZONTALLY WHEN PARALLEL AND 2' VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.



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Missouri COA #001592

STATE OF MISSOURI
MITCHELL ALAN
PLEAK
NUMBER
PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

REVISIONS

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SANITARY SEWER PLAN & PROFILE
PUBLIC IMPROVEMENT PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

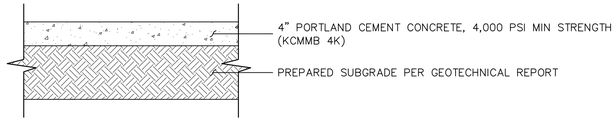
2024

drawn by: AJK
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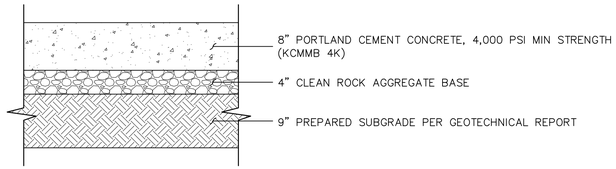
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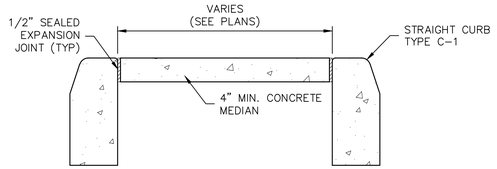
CONCRETE SIDEWALK SECTION



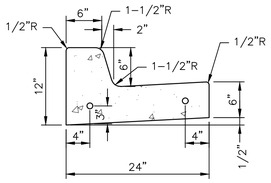
CONCRETE ENTRANCE PAVEMENT SECTION

NOTE:
ALL CONSTRUCTION, SITE PREPARATION, GRADING, AND EXCAVATION PROCEDURES SHALL CONFORM TO RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT PREPARED BY OLSSON, PROJECT #023-06570, DATED AUGUST 5, 2024, AND ALL ADDENDUMS. CONTRACTOR SHALL CONTACT ENGINEER WITH ANY DISCREPANCIES OR CONCERNS BASED ON ACTUAL SITE CONDITIONS.

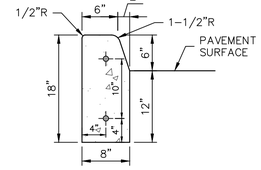
PAVEMENT SECTIONS
NOT TO SCALE



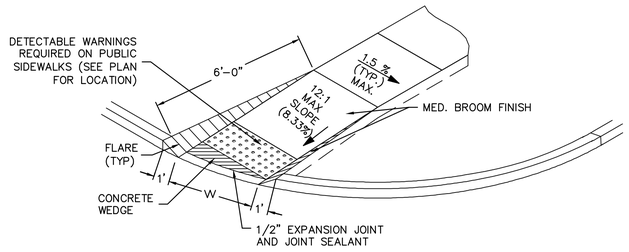
CONCRETE MEDIAN
NOT TO SCALE



STRAIGHT BACK CURB & GUTTER TYPE CG-1
NOT TO SCALE



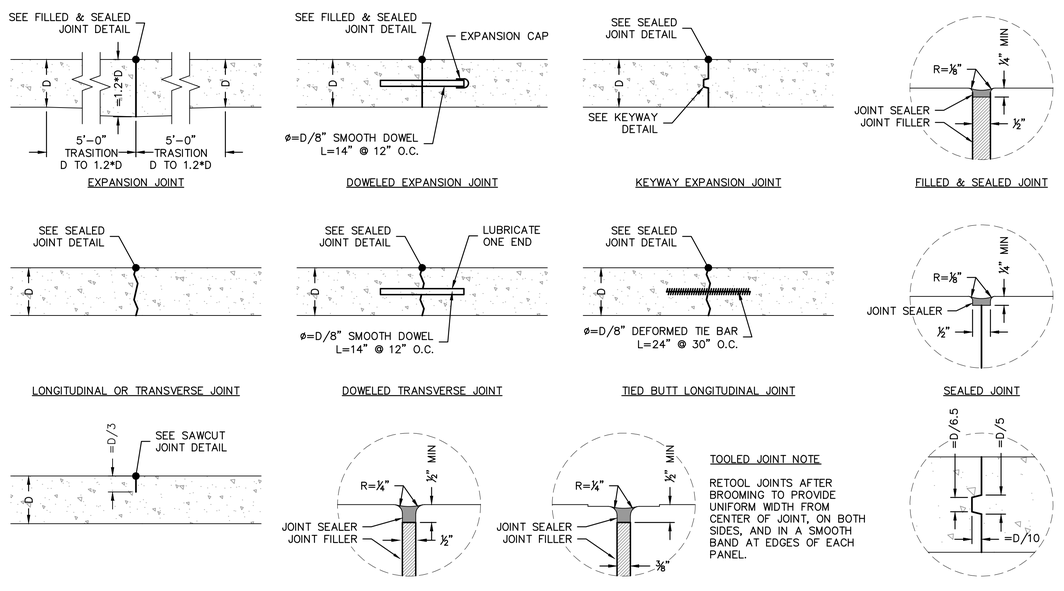
STRAIGHT CURB (TYPE C-1)
NOT TO SCALE



PERPENDICULAR CURB RAMP
NOTE:

1. 1/2" EXPANSION JOINTS WITH 2' DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. FIX DOWEL BARS WITH BAR SUPPORTS.
4. DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH HANDICAP ACCESS RAMP.

NOT TO SCALE



CONCRETE JOINT DETAILS
NOT TO SCALE

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Olsson - Engineering
Missouri COA #001592

STATE OF MISSOURI
MITCHELL ALAN DEAN
NUMBER PE-2009016764
2-17-25
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

DETAILS
PUBLIC IMPROVEMENT PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET
KANSAS CITY, MISSOURI

2024

drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

SHEET
CP108

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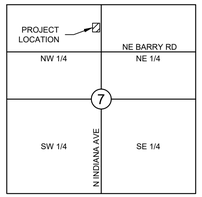
SITE DISTURBANCE PLANS
FOR
McDONALD'S RESTAURANT
STALEY CORNERS WEST THIRD PLAT
LOT 2

SECTION 7, TOWNSHIP 51 NORTH, RANGE 32 WEST

N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, CLAY COUNTY, MISSOURI

DISTURBED AREA = 1.36 ACRES



VICINITY MAP
SEC. 7-51-32
(NOT TO SCALE)

PROJECT TEAM & UTILITY CONTACT LIST	
OWNER STALEY CORNERS, LLC PO BOX 901471 KANSAS CITY, MO 64190 CONTACT: JAMES OWENS PHONE: 816-935-4016 EMAIL: jamesk@owensbuilt.com	UTILITY SERVICE NUMBERS NAME: KCMO PUBLIC WORKS PHONE: 816-513-2552 NAME: KCMO WATER SERVICES DEPARTMENT PHONE: 816-513-2139 NAME: SPIRE (MGE) PHONE: 816-472-3434 NAME: AT&T PHONE: 918-231-1834 NAME: EVERGY PHONE: 816-652-1654
DEVELOPER McDONALD'S USA, INC. 110 N. CARPENTER STREET CHICAGO, IL 60607 CONTACT: TODD WRIGHT PHONE: 773-805-7114 EMAIL: todd.wright@us.mcd.com	
ENGINEER OLSSON, INC. 302 S. 4TH STREET, SUITE 110 MANHATTAN, KS 66502 CONTACT: ANDY KRUSE PHONE: 785.320.7855 EMAIL: akruse@olsson.com	



LEGAL DESCRIPTION

LOT 2, STALEY CORNERS WEST THIRD PLAT, A SUBDIVISION IN KANSAS CITY, CLAY COUNTY, MISSOURI

"THIS EROSION CONTROL PLAN HAS BEEN PLACED IN THE CITY'S FILE FOR THIS PROJECT. THE PLAN APPEARS TO FULFILL THE MISSOURI DEPARTMENT OF NATURAL RESOURCES' TECHNICAL CRITERIA AND THE CRITERIA FOR EROSION CONTROL AND REQUIREMENTS OF THE CITY. I UNDERSTAND THAT ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED IF UNFORESEEN EROSION PROBLEMS ARISE OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE LAND OWNER UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED."

ACCEPTED:

DocuSigned by:
James K Owens
JAMES OWENS, STALEY CORNERS, LLC — 02.17.25 DATE

I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED, AND THESE PLANS PREPARED, TO MEET OR EXCEED THE DESIGN CRITERIA OF KANSAS CITY, MISSOURI, IN CURRENT USAGE, EXCEPT AS INDICATED BELOW.

EXCEPTIONS:
1. NONE
2. _____
3. _____
4. _____

Mitch A. Pleak
MITCH A. PLEAK, P.E. — 02.17.25 DATE
CIVIL ENGINEER
MO# 2009018764

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

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT- OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

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TEL 785.539.6900
FAX 785.539.6901
Olsson - Engineering
Missouri COA #001592

STATE OF MISSOURI — MITCHELL ALAN PLEAK — NUMBER PE-2009018764 — 2-17-25 — PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

TITLE SHEET
SITE DISTURBANCE PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

2024

drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

SHEET
SD100

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GENERAL NOTES:

1. THE INTENT OF THIS LAND DISTURBANCE PLAN IS TO ASSIST THE DEVELOPER IN HIS RESPONSIBILITY TO PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR NECESSARY TO CONTROL EROSION, SILTATION AND DISCHARGES OF SOIL MATERIAL (SEDIMENT) INTO DOWNSTREAM SYSTEMS OR RECEIVING CHANNELS. THIS SHALL BE REQUIRED DURING ALL PHASES OF CONSTRUCTION AND UNTIL SUITABLE GROUND COVER IS ESTABLISHED FOR ALL DISTURBED AREAS. IF ANY METHOD OF CONTROL FAILS, THE DEVELOPER SHALL NOTIFY THE OWNER IMMEDIATELY, SO THAT THE OWNER OR HIS AGENT CAN REVIEW THE DEVELOPER'S PROPOSED METHOD OF REPAIR.

THIS PLAN INDICATES THE CRITICAL AREA(S) OF CONCERN AND THESE AREA(S) WILL BE CONTROLLED AS A MINIMUM. THE CONTROL MAY CONSIST OF TEMPORARY CONTROL MEASURES AS SHOWN ON THE PLANS OR ORDERED BY THE OWNER DURING THE LIFE OF THE CONTRACT TO CONTROL EROSION OR WATER POLLUTION, THROUGH THE USE OF BERMS, DIKES, DAMS, SEDIMENT BASINS, FIBER MATS, NETTING, STRAW BALES, GRAVEL, MULCHES, GRASSES, SLOPE DRAINS, DIVERSION SWALES OR OTHER EROSION CONTROL DEVICES OR METHODS. THE OWNER HAS THE AUTHORITY TO LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY THE CONSTRUCTION OPERATIONS AND TO DIRECT THE DEVELOPER TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, OR OTHER AREAS OF WATER IMPOUNDMENT OR CONVEYANCES.

THE TEMPORARY POLLUTION CONTROL PROVISIONS CONTAINED HEREIN SHALL BE COORDINATED WITH ANY PERMANENT EROSION CONTROL FEATURES SPECIFIED ELSEWHERE IN THE CONTRACT TO THE EXTENT PRACTICAL TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION CONTROL THROUGHOUT THE CONSTRUCTION AND POST CONSTRUCTION PERIOD.

2. THIS SEDIMENTATION CONTROL PLAN MAKES USE OF THE FOLLOWING APPLICATIONS:
___PRESERVATION OF EXISTING VEGETATION
___SEDIMENT BARRIERS
___SEDIMENT TRAPS
_X_INLET PROTECTION
___SEDIMENT BASINS
___OUTLET PROTECTION
___SOIL RETAINING SYSTEMS
___SLOPE DRAINS
___SUBSURFACE DRAINS

PHYSICAL DESCRIPTION OF EACH SPECIFIC SEDIMENT CONTROL DEVICE TO BE UTILIZED IS CALLED OUT ON THE PLANS WITH INSTALLATION PROCEDURES, CONSTRUCTION SPECIFICATIONS AND MAINTENANCE ARRANGEMENT AS CALLED FOR ON THE DETAIL SHEET. IN ADDITION TO THE MEASURES SPECIFIED, THE FOLLOWING GENERAL PRACTICES SHALL BE ADHERED TO WHEN APPLICABLE.

A) CLEARING AND GRUBBING WITHIN 50' OF A DEFINED DRAINAGE COURSE SHOULD BE AVOIDED WHEN POSSIBLE. WHERE CHANGES TO A DEFINED DRAINAGE COURSE OCCUR, WORK SHOULD BE DELAYED UNTIL ALL MATERIALS AND EQUIPMENT NECESSARY TO PROTECT AND COMPLETE THE DRAINAGE CHANGE ARE ON SITE. CHANGES SHALL BE COMPLETED AS QUICKLY AS POSSIBLE ONCE THE WORK HAS BEEN INITIATED. THE AREA IMPACTED BY THE CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED OR PROTECTED FROM EROSION AS SOON AS POSSIBLE, AREAS WITHIN 50' OF A DEFINED DRAINAGE WAYS SHOULD BE RECONTOURED AS NEEDED OR OTHERWISE PROTECTED WITHIN FIVE (5) WORKING DAYS AFTER GRADING HAS CEASED.

B) WHERE SOIL DISTURBING ACTIVITIES CEASE IN AN AREA FOR MORE THAN 14 DAYS, THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES. IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH, THEN THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES IF ACTIVITIES CEASE FOR MORE THAN SEVEN (7) DAYS.

C) EXISTING VEGETATION SHALL BE PRESERVED TO THE EXTENT AND WHERE PRACTICAL. IN NO CASE SHALL DISTURBED AREAS REMAIN WITHOUT VEGETATIVE GROUND COVER FOR A PERIOD IN EXCESS OF 60 DAYS.

D) ADDITIONAL SITE MANAGEMENT PRACTICES WHICH SHALL BE ADHERED TO DURING THE CONSTRUCTION PROCESS SHALL INCLUDE:

SOLID AND HAZARDOUS WASTE MANAGEMENT INCLUDING PROVIDING TRASH CONTAINERS AND REGULAR SITE CLEAN UP FOR PROPER DISPOSAL OF SOLID WASTE SUCH AS BUILDING MATERIAL, PRODUCT/MATERIAL SHIPPING WASTE, FOOD CONTAINERS AND CUPS, AND PROVIDING CONTAINERS FOR THE PROPER DISPOSAL OF WASTE PAINTS SOLVENTS, AND CLEANING COMPOUNDS.

PROVISIONS OF PORTABLE TOILETS FOR PROPER DISPOSAL OF SANITARY SEWAGE.

STORAGE OF CONSTRUCTION MATERIALS AWAY FROM DRAINAGE COURSES AND LOW AREAS.

INSTALLATION OF CONTAINMENT BERMS AND USE OF DRIP PANS AT PETROLEUM PRODUCT AND LIQUID STORAGE TANKS AND CONTAINERS.

3. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED, OR SODDED, IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY AND GOOD ENGINEERING PRACTICES. THIS SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER COMPLETING THE WORK, IN ANY AREA. IF THIS IS OUTSIDE OF THE SEEDING PERIOD, SILT BARRIERS OR OTHER SIMILARLY EFFECTIVE MEASURES SHALL BE PROVIDED UNTIL SUCH TIME THAT THE AREAS CAN BE SEEDED.

4. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL CURRENT STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY. THE DEVELOPER WILL BE RESPONSIBLE FOR DETERMINING ALL ADDITIONAL STANDARDS, SPECIFICATIONS OR REQUIREMENTS WHICH ARE REQUIRED BY GOVERNING AGENCIES (INCLUDING LOCAL, STATE AND FEDERAL AUTHORITIES) HAVING JURISDICTION OVER THE WORK PROPOSED BY THESE CONSTRUCTION DRAWINGS.

5. ALL EROSION CONTROL MEASURES, TEMPORARY OR PERMANENT, REQUIRE MAINTENANCE TO PRESERVE THEIR EFFECTIVENESS. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED IMMEDIATELY AFTER EACH HEAVY RAINSTORM AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. ALL COSTS ASSOCIATED WITH THE REPAIR WORK INCLUDING RELATED INCIDENTALS WILL BE THE DEVELOPER'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE DEVELOPER'S BID FOR THE PROPOSED WORK.

6. ALL EROSION CONTROL MEASURES TO BE PER KANSAS CITY, MISSOURI STANDARD DETAILS.

7. THE DEVELOPER MUST REMOVE AT HIS COST ANY BAD SUBSURFACE SOIL WHICH WOULD NOT BE ABLE TO SUPPORT ANY PROPOSED PUBLIC IMPROVEMENT. BACKFILL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTIONS 2100 AND 2201 ENTITLED "GRADING AND SITE PREPARATION" AND "SUBGRADE PREPARATION".

KANSAS CITY, MISSOURI ORDINANCE NO. 981135

SEC. 63-29. SITE MAP AND GRADING PLAN
(1) SEE GRADING PLAN
(2) SEE GRADING PLAN
(3) SEE GRADING PLAN
(4) SEE GRADING PLAN
(5) SEE SOILS MAP, THIS SHEET
(6) SEE GRADING PLAN & EROSION CONTROL PLANS
(7) SEE GRADING PLAN FOR LIMITS OF DISTURBANCE
(8) SEE EROSION CONTROL PLANS
(9) SEE GRADING PLAN
(10) SEE THIS PLAN
(11) SEE ALL SHEETS FOR P.E. SEAL

SEC. 63-30. EROSION AND SEDIMENT CONTROL PLAN

(1) FROM "DRAINAGE MAP(S)"

POINT OF INTEREST	AREA (ACS.)	COMPOSITE "C"	Q_{10} (CFS)
1	1.47	0.64	7.72

(2) N/A

(3-5) SEE "EROSION CONTROL PLAN(S)", ALSO ALL MEASURES WILL BE MONITORED AFTER EVERY 0.5" RAINFALL BUT NOT TO EXCEED EVERY 14 DAYS.

(6) SEE "EROSION CONTROL PLAN(S)"

(7) SEE "EROSION CONTROL PLAN(S)"

(8) SEE "EROSION CONTROL PLAN(S)"

(9) SEE CONSTRUCTION SCHEDULE BELOW.

SEC. 63-36. COORDINATION WITH OTHER PERMITS

THE APPLICANT SHALL INSPECT THE LAND DISTURBANCE SITE AT LEAST EVERY FOURTEEN (14) DAYS, OR MORE FREQUENTLY IF REQUIRED ON THE PLAN, AND WITHIN TWENTY-FOUR HOURS FOLLOWING EACH RAINFALL EVENT OF 1/2" OR MORE WITHIN ANY TWENTY-FOUR HOUR PERIOD. FOR DISTURBED AREAS THE HAVE NOT BEEN STABILIZED, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED FOR PROPER INSTALLATION, OPERATION AND MAINTENANCE. LOCATIONS WHERE STORM WATER LEAVES THE SITE SHALL BE INSPECTED FOR EVIDENCE OF EROSION OR SEDIMENT DEPOSITION. ANY DEFICIENCIES SHALL BE NOTED IN A REPORT OF THE INSPECTION.

INSPECTION REPORTS SHALL BE KEPT BY THE APPLICANT AND SHALL BE SUBMITTED TO THE DIRECTOR UPON REQUEST. THE INSPECTION REPORT SHALL INCLUDE THE FOLLOWING MINIMUM INFORMATION:

(1) INSPECTOR'S NAME;
(2) DATE OF INSPECTION;
(3) OBSERVATIONS RELATIVE TO THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL MEASURES;
(4) ACTIONS NECESSARY TO CORRECT DEFICIENCIES;
(5) SAMPLING RESULTS, IF TAKEN; AND
(6) SIGNATURE OF APPLICANT OR PERSON PERFORMING THE INSPECTION IF DULY AUTHORIZED TO DO SO.

THE DIRECTOR SHALL ALSO PERFORM REGULAR INSPECTIONS OF THE LAND DISTURBANCE SITE TO ENSURE COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN FOR THE SITE AND THE CITY'S ADOPTED STANDARDS.

SEC. 63-39. MAINTENANCE OF CONTROL MEASURES

THE APPLICANT SHALL AT ALL TIMES MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN GOOD ORDER AND IN COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN FOR THE SITE AND WITH THE CITY'S ADOPTED STANDARDS, FOR THE DURATION OF THE PERMIT AS DEFINED IN SECTION 63-35 OF THIS ARTICLE. IN DETERMINING THE APPLICANT'S COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN FOR THE SITE, THE DIRECTOR SHALL TAKE INTO CONSIDERATION ANY RESULTS THAT APPLICANT HAS OBTAINED THROUGH SAMPLING.

SEC. 63-40. SAMPLING

THE APPLICANT SHALL HAVE THE OPTION OF INCLUDING A SYSTEM OF REGULAR SAMPLING BY INDIVIDUALS APPROVED TO PERFORM SUCH SAMPLING BY THE CITY OF KANSAS CITY AS A PART OF THE APPLICANT'S EROSION AND SEDIMENT CONTROL PLAN. THE DIRECTOR MAY REQUIRE SAMPLING TO DETERMINE THE EFFECTIVENESS OF THE EROSION CONTROL PLAN OR TO OBTAIN INFORMATION TO INVESTIGATE COMPLAINTS REGARDING THE SITE. SAMPLING SHALL NOT BE THE ONLY ITEM REVIEWED TO DETERMINE COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN FOR THE SITE. THE DIRECTOR MAY ALSO PERFORM SAMPLING.

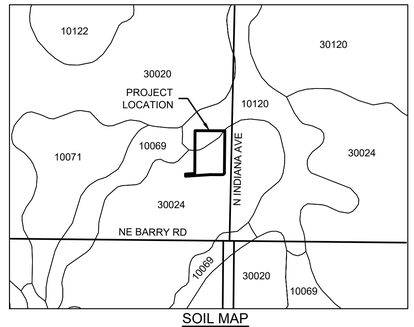
SEC. 63-41. REMOVAL OF CONTROL MEASURES

THE APPLICANT SHALL RECEIVE THE DIRECTOR'S APPROVAL BEFORE ANY STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURE IDENTIFIED ON THE PLANS IS REMOVED OR MADE INEFFECTIVE. REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES MUST BE PERFORMED IN THE MANNER DESCRIBED IN THE EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH THE CITY'S ADOPTED STANDARDS. WHEN DETERMINING WHETHER AN EROSION AND SEDIMENT CONTROL MEASURES MAY BE REMOVED OR MADE INEFFECTIVE, THE DIRECTOR SHALL TAKE INTO CONSIDERATION TESTING RESULTS FURNISHED BY THE APPLICANT.

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
	SITE DISTURBANCE			
1	CONSTRUCTION ENTRANCE (VEHICLE TRACKING)	EA.	1	
2	CONCRETE WASHOUT	EA.	1	
3	SILT FENCE	L.F.	1025	
4	INLET PROTECTION	EA.	4	
5	TURF GRASS SEEDING	AC.	0.44	

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.



SOIL MAP

HYDROLOGIC SOIL GROUP

MAP UNIT SYMBOL	MAP UNIT NAME	SLOPES	RATING
30024	ARMSTER LOAM	9%-14%	C
10120	SHARPSBURG SILT LOAM	2%-5%	C

OPINION OF PROBABLE CONSTRUCTION SCHEDULE

CONSTRUCTION ACTIVITY	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25
INSTALL EROSION CONTROL DEVICES - PHASE A						
CLEARING AND GRUBBING						
INSTALL EROSION CONTROL DEVICES - PHASE B						
SITE GRADING						
BUILDING CONSTRUCTION						
UTILITY INSTALLATION						
SITE PAVING AND HARDSCAPE						
PHASE C SEED AND LANDSCAPE						
ESTABLISH VEGETATION						
REMOVAL OF ALL EROSION CONTROL & SEED ANY AREAS DISTURBED BY TEMPOARY BMP REMOVAL						

NOTE:
THIS SCHEDULE DOES NOT ADDRESS WEATHER DELAYS OR THE SEEDING SEASON. SCHEDULE IS PRELIMINARY FOR DESIGN USE ONLY AND MAY NEED MODIFIED DUE TO CONSTRUCTION AND CONTRACTOR AVAILABILITY. SCHEDULE MAY FLUCTUATE DUE TO MARKET DEMAND AND AS DETERMINED BY THE DEVELOPER AND IS TO BE USED AS A GUIDELINE ONLY. SEEDING IS NOT TO OCCUR DURING THE WINTER MONTHS. VEGETATION GROWING SEASONS ARE MARCH/APRIL AND SEPTEMBER/OCTOBER. IF STABILIZATION IS TO OCCUR OUTSIDE OF THE GROWING SEASON, EROSION CONTROL MAT IS TO BE IN PLACE TO STABLIZE DISTURBED AREA.

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Olsson - Engineering
Missouri COA #001592

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009018764
2-17-25
PROFESSIONAL ENGINEER

REVISIONS

REV NO.	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

GENERAL NOTES
SITE DISTURBANCE PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

2024

KANSAS CITY, MISSOURI

drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

SHEET
SD101

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10' KCP&L ESMT.

3' KCP&L ESMT.

S89°46'09"E 208.77'

N00°13'51"E 299.32'

S00°38'45"W 292.17'

LOT 2
STALEY CORNERS WEST 3RD PLAT
ZONE: B2-2

65,082 SF
1.4941 AC

LOT 1
STALEY CORNERS WEST 3RD PLAT

N INDIANA AVENUE
ASPHALT SURFACE

E. LINE, NW 1/4, SEC. 7

30'

70'

100' PUBLIC R/W

62' PUBLIC R/W

NE 86TH STREET
ASPHALT SURFACE

SANITARY SEWER MANHOLE #20217
RIM=965.21
INV. IN(S)(8"PVC)=949.66
INV. IN(N)(8"PVC STUB)=949.61
INV. OUT(W)(8"PVC)=949.11

R=1265.94'
L=25.91'

N86°23'24"E 39.16'

N01°54'21"W
15.00'

R=1280.94'
L=26.21'

S86°23'24"W 143.06'

R=125.00'
L=8.38'

N89°46'09"W 78.75'

R=15.00'
L=23.45'

CURB INLET #20211
RIM=965.19
INV. OUT(S)(24"CPP)=958.09

CURB INLET #20200
RIM=965.17
INV. IN(N)(24"CPP)=957.17
INV. IN(E)(42"CPP)=955.77
INV. OUT(SW)(42"CPP)=955.37

CURB INLET #20061
RIM=967.23
INV. IN(N)(18"CMP)=962.33
INV. OUT(S)(24"CMP)=961.73

CURB INLET #20117
RIM=966.51
INV. IN(N)(24"CMP)=960.11
INV. IN(E)(2-18"CPP's)=959.81
INV. OUT(W)(36"CMP)=959.61

STORM JUNCTION BOX #20139
RIM=967.34
INV. IN(E)(36"CMP)=958.69
INV. OUT(W)(42"CPP)=958.34

20' UTILITY ESMT.

WATER ESMT.

15' UTILITY ESMT.

LOT 2
STALEY CORNERS WEST SECOND PLAT

981 980 979 978 977 976 975 974 973 972 971 970 969 968 967 966

LEGEND

	SECTION CORNER	W	WATER LINE
	CONTROL POINT / BENCHMARK	SS	SANITARY SEWER LINE
	MONUMENT FOUND		STORM SEWER LINE
	5/8" BAR w/ LC-366 CAP SET	P-UG	UNDERGROUND POWER LINE
R/W	RIGHT-OF-WAY	FO	FIBER OPTIC LINE
	SIGN	G	GAS LINE
	ELECTRIC JUNCTION BOX		PROPERTY LINE
	LIGHT POLE		PERMANENT EASEMENT
	SANITARY SEWER MANHOLE	1000	EXISTING GROUND CONTOUR (1' CONTOUR INTERVAL)
	STORM SEWER MANHOLE		
	FIRE HYDRANT		

N

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
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PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY
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EXISTING CONDITIONS
SITE DISTURBANCE PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

2024

drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

SHEET
SD102

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PROPOSED BUILDING
FFE = 969.00

DRIVE THRU

THANK YOU

VAN

N INDIANA AVENUE

NE 86TH STREET

SANITARY SEWER MANHOLE #20217
RIM=965.21
INV. IN(S)(8"PVC)=949.66
INV. IN(N)(8"PVC STUB)=949.61
INV. OUT(W)(8"PVC)=949.11

CURB INLET #20211
RIM=965.19
INV. OUT(S)(24"CPP)=958.09

CURB INLET #20200
RIM=965.17
INV. IN(N)(24"CPP)=957.17
INV. IN(E)(42"CPP)=955.77
INV. OUT(SW)(42"CPP)=955.37

STORM JUNCTION BOX #20139
RIM=967.34
INV. IN(E)(36"CMP)=958.69
INV. OUT(W)(42"CPP)=958.34

CURB INLET #20061
RIM=967.23
INV. IN(N)(18"CMP)=962.33
INV. OUT(S)(24"CMP)=961.73

CURB INLET #20117
RIM=966.51
INV. IN(N)(24"CMP)=960.11
INV. IN(E)(2-18"CPP's)=959.81
INV. OUT(W)(36"CMP)=959.61

CONTOUR LEGEND

975 EXISTING GROUND CONTOUR

975 FINISHED GROUND CONTOUR

N

0' 10' 20' 40'
SCALE IN FEET

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GRADING PLAN
SITE DISTURBANCE PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

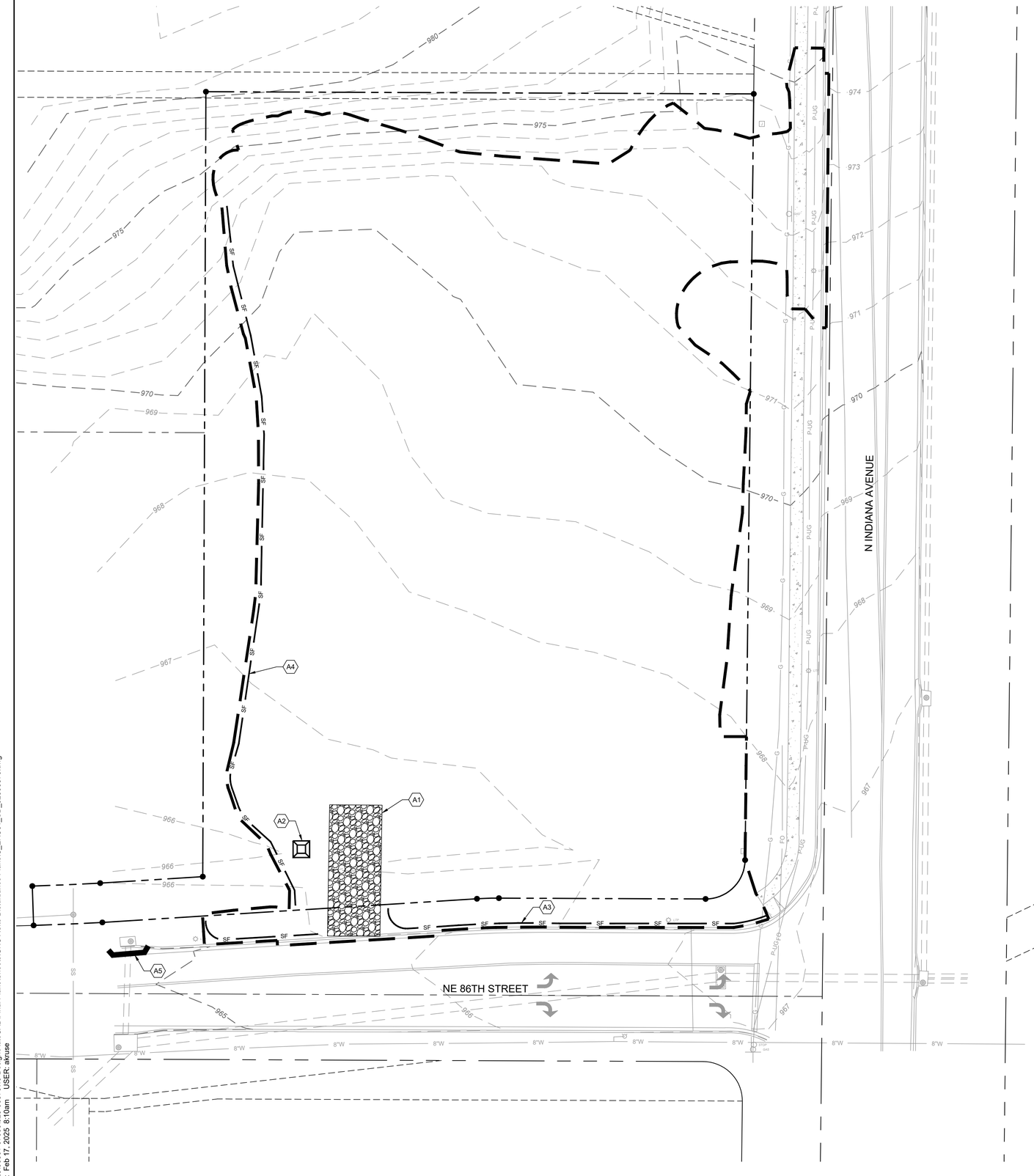
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2024

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project no.: 023-06570
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NOTE:
1. THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

EROSION CONTROL PHASING CHART

PROJECT PHASE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
A - PRE-CONSTRUCTION	A1	CONSTRUCTION ENTRANCE	C	INSTALL PER APWA DETAIL ESC-01
	A2	CONCRETE WASHOUT	C	INSTALL PER APWA DETAIL ESC-01
	A3	SILT FENCE	A	INSTALL PER APWA DETAIL ESC-03
	A4	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	A5	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
B - INTERIM	B1	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	B2	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
	MAINTAIN ALL INSTALLED EROSION CONTROL DEVICES			
C - DISTURBED AREA STABILIZATION	C1	FINAL SEEDING, SOD, AND PLANTINGS SHALL BE INSTALLED PER SITE LANDSCAPE PLAN. ANY AREAS OUTSIDE OF LANDSCAPE PLAN COVERAGE SHALL BE SEEDED PER THIS PLAN.		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406. COORDINATE ALL STABILIZATION WITH EROSION CONTROL MEASURES INDICATED IN SITE DEVELOPMENT PLANS.

LEGEND

PHASE A	
SF	SILT FENCE
	CONCRETE WASHOUT
	TEMPORARY STONE CONSTRUCTION ENTRANCE
	STORM DRAIN INLET PROTECTION
	LIMITS OF DISTURBANCE = 1.36 ACRES

LEGEND

975 EXISTING GROUND CONTOUR

975 FINISHED GROUND CONTOUR

N

0' 10' 20' 40'
SCALE IN FEET

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REVISIONS

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SITE DISTURBANCE - PHASE A
SITE DISTURBANCE PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

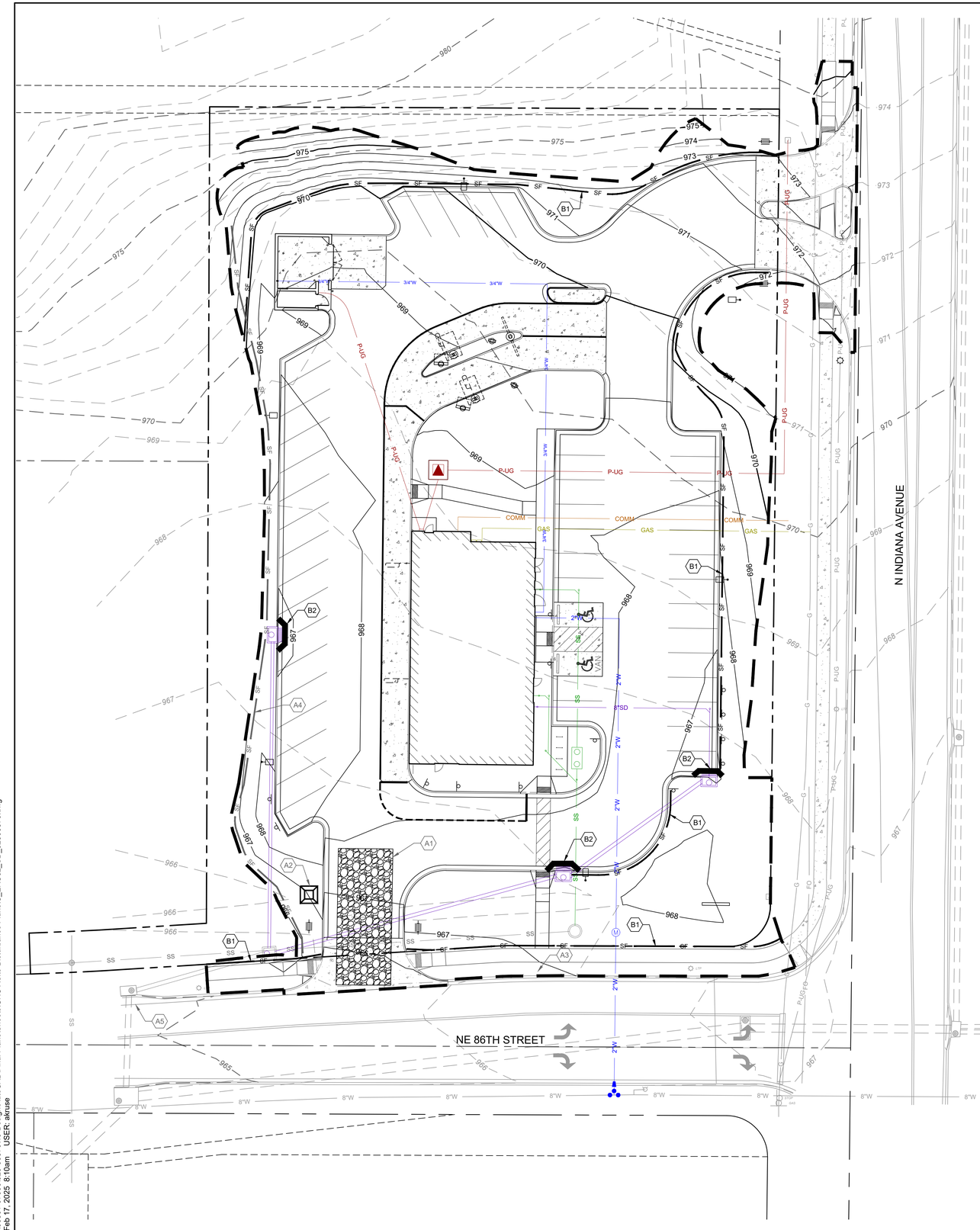
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project no.: 023-06570
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NOTE:
1. THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

EROSION CONTROL PHASING CHART

PROJECT PHASE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
A - PRE-CONSTRUCTION	A1	CONSTRUCTION ENTRANCE	C	INSTALL PER APWA DETAIL ESC-01
	A2	CONCRETE WASHOUT	C	INSTALL PER APWA DETAIL ESC-01
	A3	SILT FENCE	A	INSTALL PER APWA DETAIL ESC-03
	A4	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	A5	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
B - INTERIM	B1	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	B2	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
	MAINTAIN ALL INSTALLED EROSION CONTROL DEVICES			
C - DISTURBED AREA STABILIZATION	C1	FINAL SEEDING, SOD, AND PLANTINGS SHALL BE INSTALLED PER SITE LANDSCAPE PLAN. ANY AREAS OUTSIDE OF LANDSCAPE PLAN COVERAGE SHALL BE SEEDED PER THIS PLAN.		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406. COORDINATE ALL STABILIZATION WITH EROSION CONTROL MEASURES INDICATED IN SITE DEVELOPMENT PLANS.

LEGEND

PHASE A	PHASE B	
SF	SF	SILT FENCE
		CONCRETE WASHOUT
		TEMPORARY STONE CONSTRUCTION ENTRANCE
		STORM DRAIN INLET PROTECTION
		LIMITS OF DISTURBANCE = 1.36 ACRES

LEGEND

975 EXISTING GROUND CONTOUR

975 FINISHED GROUND CONTOUR

N

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
MITCHELL ALAN PLEAN
NUMBER PE-2009018764
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PROFESSIONAL ENGINEER

REVISIONS

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SITE DISTURBANCE - PHASE B
SITE DISTURBANCE PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

KANSAS CITY, MISSOURI

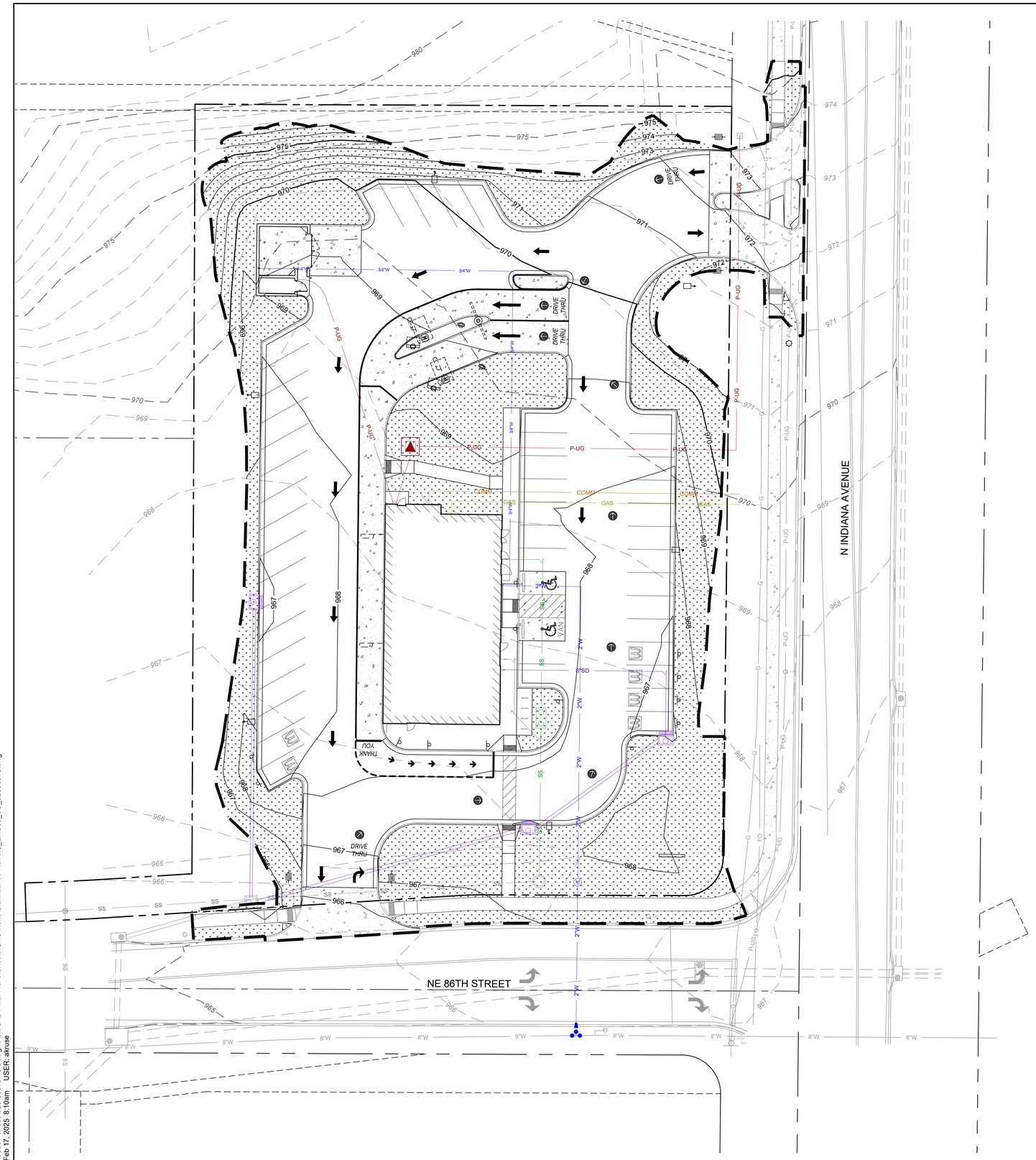
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SEED & MULCH NOTES:
SEEDING SHALL BE DONE BEFORE THE PROPOSED SEEDBED BECOMES ERODED, CRUSTED OVER,OR DRIED OUT AND SHALL NOT BE DONE WHEN THE GROUND IS FROZEN, OR COVERED WITH SNOW. THE SEED SHALL COMPLY WITH THE REQUIREMENTS OF THE MISSOURI SEED LAW AND THE FEDERAL SEED ACT. ALSO, IT SHALL CONTAIN NO SEED OF ANY PLANT ON THE FEDERAL NOXIOUS WEED LIST. OTHER WEED SEED SHALL NOT EXCEED ONE PERCENT BY WEIGHT OF MIX.

SEED & FERTILIZER RATE:
MIX I - RYE GRASS / BLUE GRASS -----100 LBS. PER. ACRE
MIX II - TALL FESCUE / BLUE GRASS ----195 LBS. PER ACRE
FERTILIZER ----------800 TO 1200 LBS. PER ACRE (25 LBS. PER 1000 SQ. FT.)

DURING THE DATES DECEMBER 15TH THROUGH MAY 31 ALL LIME, FERTILIZER, SEED, AND MULCH SHALL BE APPLIED TO FINISHED SLOPES OF DISTURBED AREAS. DURING THE MONTHS OF JUNE, JULY, OCTOBER, AND NOVEMBER 1ST THROUGH DECEMBER 15TH, LIME, FERTILIZER, SEED, AND MULCH SHALL BE APPLIED AT THE FOLLOWING RATES:
LIME - 100 % OF SPECIFIED QUANTITY
FERTILIZER - 75 % OF THE SPECIFIED QUANTITY
SEED - 50 % OF THE SPECIFIED QUANTITY
MULCH - 100 % OF THE SPECIFIED QUANTITY
MULCH SHALL BE VEGETATIVE TYPE, CEREAL STRAW FROM STALKS OF OATS, RYE, OR BARLEY, OR APPROVED EQUAL. THE STRAW SHALL BE FREE OF PROHIBITED WEED SEED AND RELATIVELY FREE OF ALL OTHER NOXIOUS AND UNDESIRABLE SEED. MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE, (70 TO 90 LBS. PER 1000 SQ. FT.). MULCH SHALL BE EMBEDDED BY A MULCH ANCHORING TOOL OR DISK TYPE ROLLER HAVING FLAT SERRATED DISKS SPACED NOT MORE THAN 10 INCHES APART AND CLEANING SCRAPERS SHALL BE PROVIDED.

ALL DISTURBED AREAS SHALL BE PREPPED FOR SEEDING/SODDING PER KCMO/APWA 2406, APPLICATION OF SEED/SOD SHALL BE DONE IN ACCORDANCE WITH KCMO/APWA 2406.4. THE SITE DISTURBANCE PERMIT SHALL BE MAINTAINED IN AN "OPEN" STATUS UNTIL FINAL ACCEPTANCE PER KCMO/APWA 2407.

NOTE:
1. THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

EROSION CONTROL PHASING CHART

PROJECT PHASE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER PHASE	NOTES:
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	A3	SILT FENCE	A	INSTALL PER APWA DETAIL ESC-03
	A4	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	A5	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
B - INTERIM	B1	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	B2	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
	MAINTAIN ALL INSTALLED EROSION CONTROL DEVICES			
C - DISTURBED AREA STABILIZATION	C1	FINAL SEEDING, SOD, AND PLANTINGS SHALL BE INSTALLED PER SITE LANDSCAPE PLAN. ANY AREAS OUTSIDE OF LANDSCAPE PLAN COVERAGE SHALL BE SEEDED PER THIS PLAN.		SITE STABILIZATION PER LOCAL CODES AND ORDINANCES. AT A MINIMUM STABILIZATION SHALL CONFORM WITH APWA SECTION 2406. COORDINATE ALL STABILIZATION WITH EROSION CONTROL MEASURES INDICATED IN SITE DEVELOPMENT PLANS.

LEGEND		
PHASE A&B	PHASE C	
SF		SILT FENCE
		CONCRETE WASHOUT
		TEMPORARY STONE CONSTRUCTION ENTRANCE
		STORM DRAIN INLET PROTECTION
		TURF GRASS SEEDING
		LIMITS OF DISTURBANCE = 1.36 ACRES

LEGEND

975 EXISTING GROUND CONTOUR

975 FINISHED GROUND CONTOUR

N

0' 10' 20' 40'
SCALE IN FEET

olsson
302 South 4th Street
Suite 110
Manhattan, KS 66502
olsson.com
TEL 785.539.6900
FAX 785.539.6901
Olsson - Engineering
Missouri COA #001592

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009018764
2-17-25
PROFESSIONAL ENGINEER

REV. NO.	DATE	DESCRIPTION	BY
	02.17.25	ISSUED FOR PERMIT REVIEW	AJK

REVISIONS

SITE DISTURBANCE - PHASE C
SITE DISTURBANCE PLANS

McDONALD'S RESTAURANT
N. INDIANA AVENUE & NE 86TH STREET

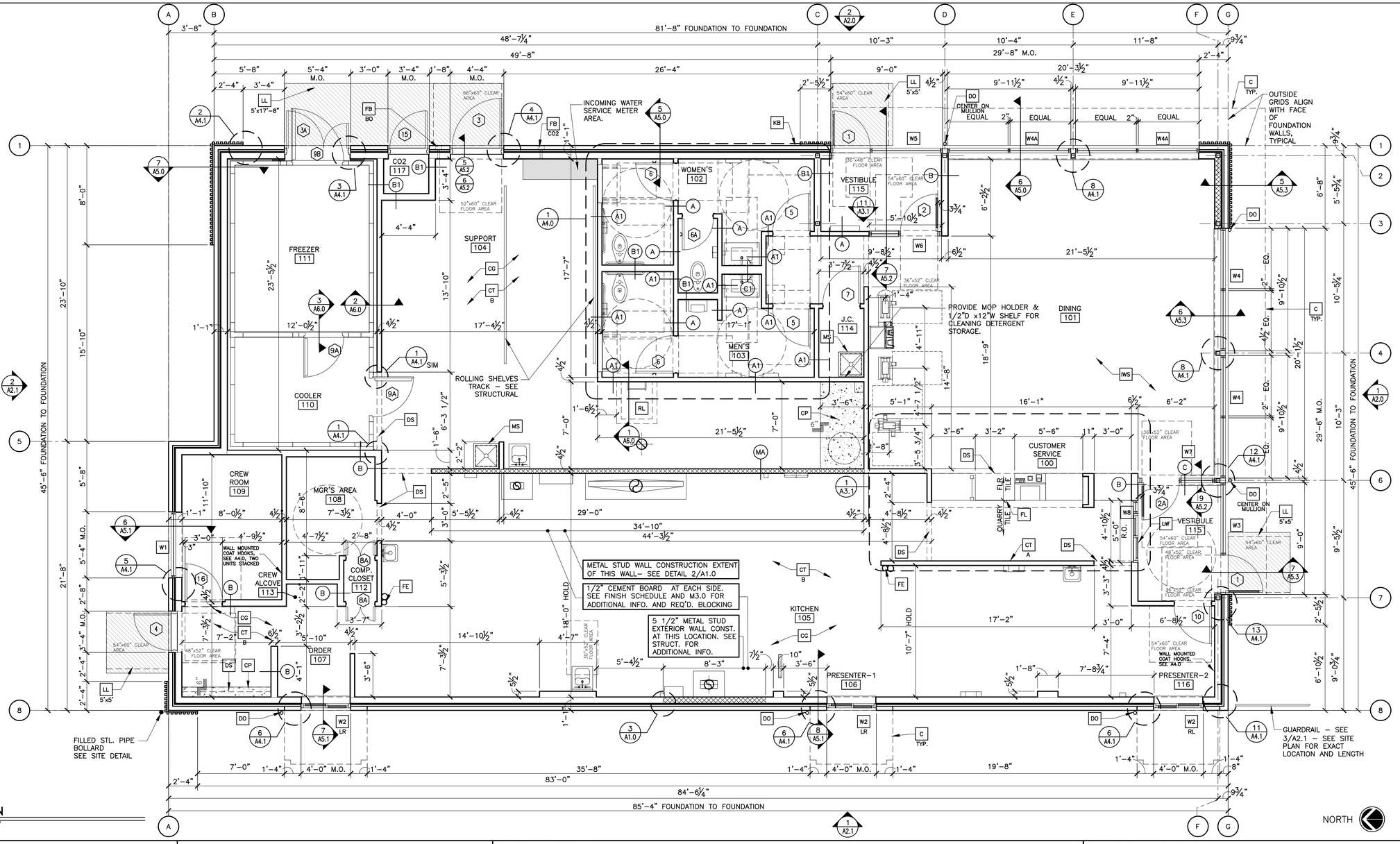
KANSAS CITY, MISSOURI

2024

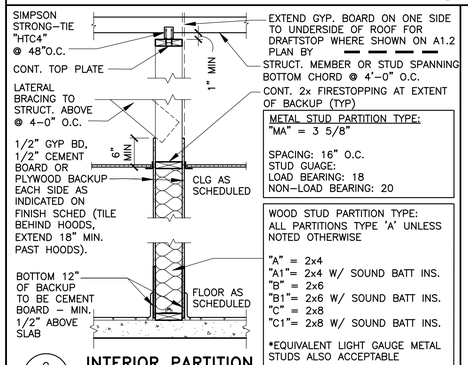
drawn by: AJK
designed by: AJK
project no.: 023-06570
date: 02.17.25

SHEET
SD106

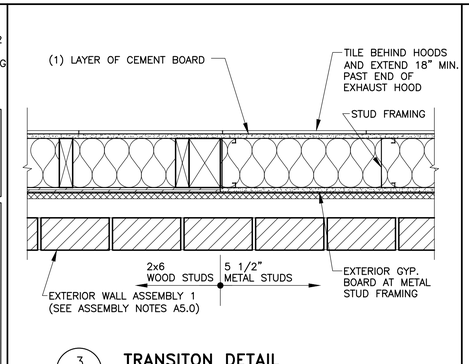
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DATE: Feb 17, 2025 8:10am USER: akruse



1 A1.0 **FLOOR PLAN** 1/4"=1'-0"



2 A1.0 **INTERIOR PARTITION** 3/4"=1'-0"



3 A1.0 **TRANSITON DETAIL** 1 1/2"=1'-0"

KEY NOTES

- C — ALUMINUM CANOPY SYSTEM ABOVE – SEE 4/A5.0 FOR NOTES – SEE ROOF PLAN FOR DIMENSIONS, SEE ELEVATION FOR COLORS
- CG — G.C. TO PROVIDE 4"x4"x5'–0" HIGH STAINLESS STEEL CORNER GUARDS AT ALL EXPOSED LOCATIONS IN KITCHEN/SUPPORT AREA. CORNER GUARDS TO START AT FINISH FLOOR. ATTACH WITH WOOD SCREWS INTO WOOD BLOCKING BULLNOSE COVE BASE WHERE TILE MEETS STAINLESS STEEL CORNER
- CP — CONCRETE EQMT PAD – VERIFY SIZE W/ EQUIPMENT MANUFACTURER – SEE STRUCTURAL – SEE DETAIL 5/A6.0 FOR OPTIONAL TILE AT RAISED SLAB
- CT A — WALL FINISH: PER DECOR PORTFOLIO. SEE SHEET A3.1 AND A6.1 FOR FINISH INFORMATION.
- CT B — WALL TILE: CROSSVILLE – COLOR BY NUMBERS COLOR: AFTERNOON SPRAY, SIZE: 4"x12", PATTERN: STACKED BOND GROUT: MAPEI 02 PEWTER – JOINT TO BE 3/8" MAX. USE THIS TILE WHEN HIGH LRV IS REQUIRED COORDINATE WITH McDONALD'S AREA CONSTRUCTION MANAGER
- DO — DOWNSPOUT CONNECTED TO CANOPY SYSTEM. SEE ELEVATIONS. COORDINATE CONNECTION WITH CIVIL.
- DS — DROPPED SOFFIT ABOVE – SEE REFLECTED CEILING PLAN
- D# — DECOR PORTFOLIO SPECIFIC ELEMENT – SEE FINISH SCHEDULE
- FB CO2 — CO2 FILL BOX (EQUIPMENT SCHEDULE ITEM 49.00)
- FB BO — OPTIONAL BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18) CONFIRM USE WITH MCDONALD'S AREA CONSTRUCTION MANAGER
- FE — PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED PER NFPA 10–2018 (IFC–2018 § 906.1; 906.2). SEE K1.0, K2.0, AND K2.1 FOR MORE INFORMATION.
- FL — FLOOR LINE – CHANGE IN MATERIAL – SEE FINISH SCHEDULE
- FP — FIBERGLASS REINFORCED PLASTIC (FRP) – PANOLAM, GRAY SMOOTH, CLASS A, .075. REFER TO ROOM FINISH SCHEDULE SHEET A6.1 FOR INSTALLATION LOCATIONS. FOR ORDERING, CONTACT KIMBERLY LAWSON Kimberly_Lawson@panolam.com 1–866–925–4377
- KB — A KNOX BOX SHALL BE PROVIDED NEAR THE MAIN ENTRANCE TO THE BUILDING (IFC–2018 § 506.1). SEE GENERAL NOTE 10.
- IWS — INTERIOR WAYFINDING SIGNAGE @ AMENITY STATION – ADA ASSISTANCE SIGNAGE – SEE DECOR FOR LOCATION
- LL 5'x5' — LEVEL LANDING @ EXT. DOOR W/ MAX. 2% RUNNING/CROSS SLOPE AWAY FROM BUILDING; SIZE OF LANDING
- LW — LATE–NIGHT WINDOW (OPTIONAL) BY READYACCESS, MANUAL OPEN/SELF CLOSE. SEE SHEET A6.0 FOR NOTES.
- MS — MOP SINK – SEE DETAIL 8/A6.1 AND PLUMBING DRAWINGS.
- RL — ROOF ACCESS LADDER W/HATCH ABOVE SEE STRUCTURAL FRAMING PLAN FOR LOCATING DIMENSIONS
- W# — EXTERIOR WINDOW ASSEMBLY – SEE A2.0, A2.1 & 4/A5.0 FOR ADDITIONAL NOTES

SYMBOL LEGEND

- (A) — PARTITION TYPE TAG SEE 2/A1.0
- (7) — DOOR TAG – SEE DOOR SCHEDULE ON A6.0
- X — KEY NOTE

GENERAL NOTES

1. EXTERIOR DIMENSIONS ARE TO COLUMN REFERENCE LINES AND EXTERIOR FACE OF FINISH UNLESS OTHERWISE NOTED. INTERIOR DIMENSIONS ARE TO FACE OF INTERIOR WALL BOARD UNLESS OTHERWISE NOTED.
2. SEE 4/A5.0 FOR EXTERIOR WALL ASSEMBLY TYPES. SEE 2/A1.0 FOR INTERIOR PARTITION TYPES. INTERIOR PARTITIONS ARE TYPE 'A' UNLESS NOTED OTHERWISE.
3. SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES
4. SEE SHEET A6.0 FOR DOOR SCHEDULE AND A6.1 FOR ROOM FINISH SCHEDULE.
5. SEE SITE PLAN FOR SIDEWALKS, RAMPS, ETC.
6. GC TO PROVIDE ADA SIGNAGE PACKAGE AND INSTALL SIGNS AT LOCATIONS AND POSITIONS INDICATED IN PACKAGE OR AS REQUIRED BY LOCAL CODES. SIGNAGE PACKAGE SUPPLIED BY: FRANKE/S2K 1–800–423–5247 www.frankesupply.com email: fs–frankesupply.us@franke.com
7. MAXIMUM OCCUPANCY SIGN TO BE POSTED PER LOCAL CODE. SIGN FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
8. ALL HANDSINK LOCATIONS SHALL HAVE CEMENT BOARD BACKING 48" IN HEIGHT A.F.F.
9. GC TO COORDINATE ALL REQUIRED BLOCKING FOR WALL HUNG EQUIPMENT, SHELVES, ETC. FOR PROPER INSTALLATION HEIGHTS.
10. KNOX BOX TO BE INSTALLED PER LOCAL CODE AS REQUIRED. MODEL AND LOCATION TO BE COORDINATED WITH FIRE MARSHALL.
11. DASHED LINES @ DOORS, RESTROOMS, & FIXTURES REPRESENT CLEAR FLOOR MANEUVERING CLEARANCES AS REQUIRED BY THE ACCESSIBILITY CODE. CLEARANCES MUST BE MAINTAINED WITHOUT EXCEPTION. IF CONDITIONS PREVENT ANY CLEAR FLOOR SPACE FROM BEING MAINTAINED, CONTACT THE ARCHITECT FOR RESOLUTION.

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

PREPARED BY: enprise DESIGN
Architecture, Inc.
12450 Portland Avenue South
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4042
Fax: (952) 252-4043

PREPARED FOR: McDonald's USA, LLC

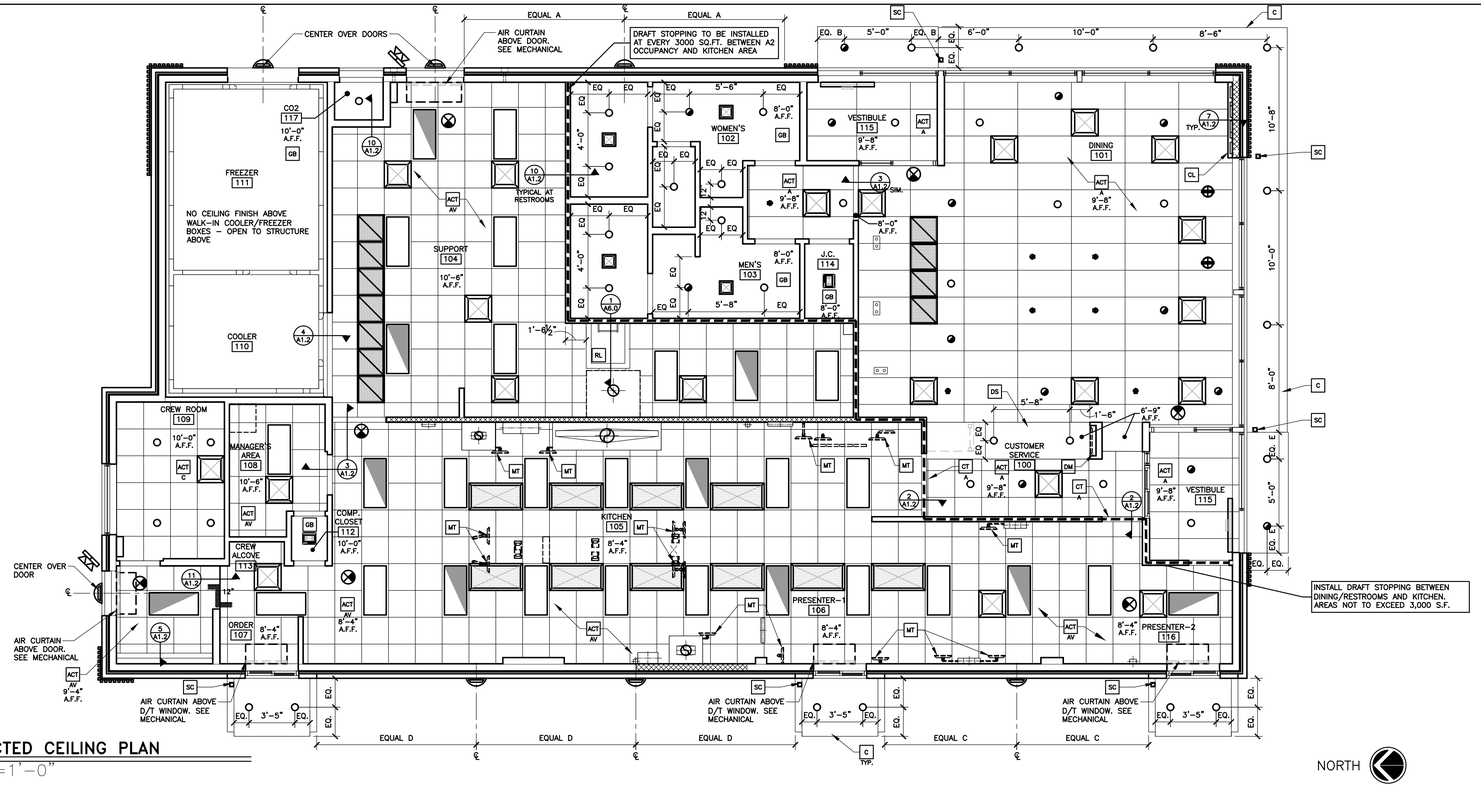
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DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
ROJ#	24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
MSN:43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306	

SHEET NO. 024–1306.00.0
A1.0
FLOOR PLAN



1 A1.2 REFLECTED CEILING PLAN

3/16"=1'-0"

KEY NOTES

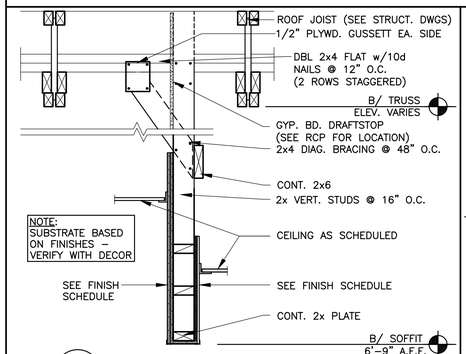
- ACT A — ACOUSTICAL CEILING TILE. VERIFY FINISHES WITH DECOR COMPANY – SEE FINISH SCHEDULE
- ACT AV — ACOUSTICAL CEILING TILE; VINYL FACED USG 24"x24" CLEAN ROOM CLIMA–PLUS. UNPERFORATED. SMOOTH TEXTURE COLOR: WHITE GRID:USG 15/16" DX/DXL COLOR: WHITE
- ACT C — ACOUSTICAL CEILING TILE – 24"x24". VERIFY FINISHES WITH DECOR COMPANY – SEE FINISH SCHEDULE
- C — ALUMINUM CANOPY WITH INTEGRAL GUTTER AND SCUPPER – SEE 4/A5.0 FOR NOTES – SEE ROOF PLAN FOR DIMENSIONS – SEE ELEVATION FOR COLOR
- CL — COVE LIGHTING – SEE ELECTRICAL AND DECOR
- CT A — WALL TILE: PER DECOR PORTFOLIO GEOMETRY/LUNA/RAY: EUROWEST – 754–747. COLOR: NOIR, SIZE: 4"x12", PATTERN: STACKED BOND. GROUT: MAPEI 02 PEWTER – JOINT TO BE 1/16" MAX. ROUTE 66: EUROWEST – WHITE GLOSSY CHEVRON GROUT: CHARCOAL 47 – JOINT TO BE 1/16" MAX.
- CT B — WALL TILE: CROSSVILLE – COLOR BY NUMBERS COLOR: AFTERNOON SPRAY, SIZE: 4"x12", PATTERN: STACKED BOND GROUT: MAPEI 02 PEWTER – JOINT TO BE 1/16" MAX. USE THIS TILE WHEN HIGH LRV IS REQUIRED COORDINATE WITH McDONALD'S AREA CONSTRUCTION MANAGER
- DC — SUSPENDED DECORATIVE CEILING TREATMENT – SEE DECOR DRAWINGS FOR ADDITIONAL INFORMATION – SEE FINISH SCHEDULE
- DM — DIGITAL MERCHANDISER
- DS — DROPPED SOFFIT
- D# — DECOR PORTFOLIO SPECIFIC ELEMENT – SEE FINISH SCHEDULE
- GB — GYPSUM BOARD CEILING FINISH. SEE DECOR & ROOM FINISH SCHEDULE
- MT — CEILING MOUNTED MONITOR: A) VERIFY MONITOR LOCATIONS WITH McDONALD'S PROJECT MANAGER PRIOR TO INSTALLATION. B) SEE DETAIL 6/A1.2 FOR INSTALLATION METHOD
- RL — ROOF LADDER OPENING
- SC — INTERGRAL GUTTER SCUPPER

GENERAL NOTES

1. SEE SHT A6.1 FOR CEILING FINISHES.
2. SEE SHT A1.0 FOR MENU BOARD DROPPED SOFFIT LOCATION DIMENSIONS
3. GENERAL CONTRACTOR SHALL COORDINATE HVAC DIFFUSER LOCATION WITH DECOR & MECHANICAL PLANS AND REPORT ANY DISCREPANCIES TO ARCHITECT.
4. REFERENCE MECHANICAL AND ELECTRICAL DRAWINGS FOR DIFFUSER AND LIGHTING INFORMATION.
5. PROVIDE USG V15 CEILING TILE RETENTION CLIPS IN ALL VESTIBULE AREAS

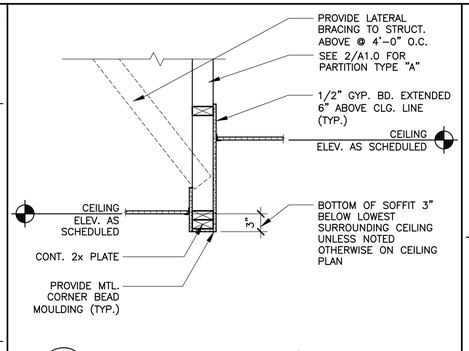
SYMBOL LEGEND

- LOUVERED FACE DIFFUSER
- PLAQUE DIFFUSER (SHADED AREA DESIGNATES BLANK–OFF PANEL LOCATION)
- LINEAR SLOT DIFFUSER
- AIR CURTAIN
- RECESSED FLUORESCENT 1 or x2x4 LIGHT FIXTURE – SEE ELECT. SHEETS
- PERFORATED FACE DIFFUSER
- MOP SINK EXHAUST
- RECESSED DOWN LIGHT
- EXTERIOR WALL SCONCE
- EMERGENCY LIGHT W/ BATTERY BACKUP
- DIRECTIONAL EMERGENCY LIGHT
- NOTE: FIXTURES SHOWN AS HALF SHADED ARE 24 HR SECURITY LIGHTS. SEE ELECTRICAL FOR ADDITIONAL INFORMATION.
- DRAFT STOPPING – SEE 1/A1.2



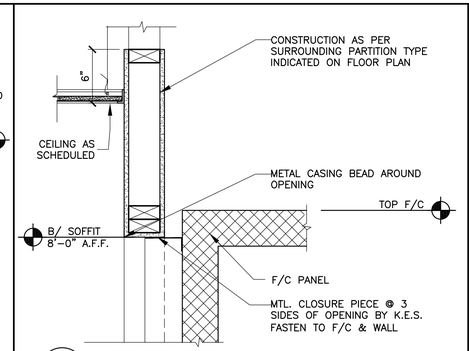
2 A1.2 VALANCE SECTION

1"=1'-0"



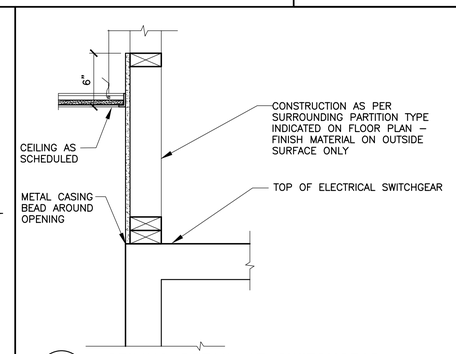
3 A1.2 CEILING TRANSITION w/ SOFFIT

1"=1'-0"



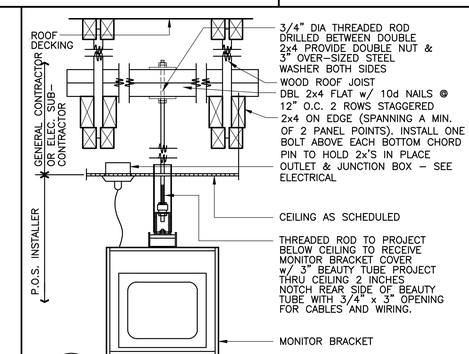
4 A1.2 CEILING DETAIL AT COOLER

1 1/2"=1'-0"



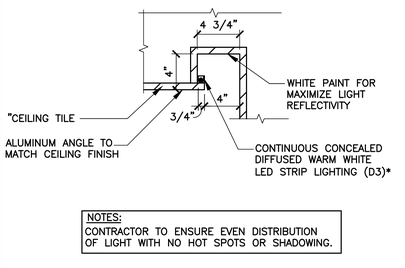
5 A1.2 CEILING DETAIL AT SWITCHGEAR

1 1/2"=1'-0"



6 A1.2 MONITOR INSTALLATION DETAIL

N.T.S.

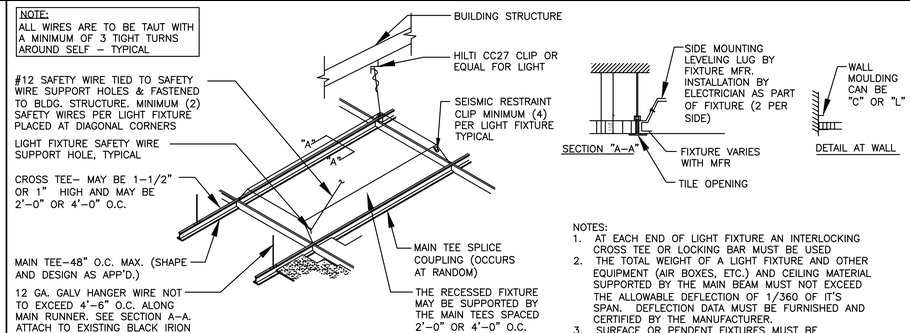


NOTES:
CONTRACTOR TO ENSURE EVEN DISTRIBUTION OF LIGHT WITH NO HOT SPOTS OR SHADOWING.

7 A1.2 COVE LIGHTING DETAIL

N.T.S.

NOTE:
ALL WIRES ARE TO BE TAUT WITH A MINIMUM OF 3 TIGHT TURNS AROUND SELF – TYPICAL



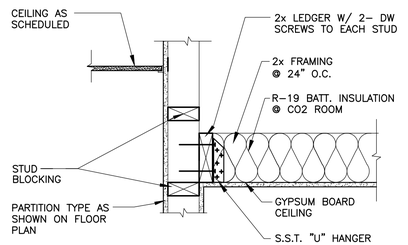
NOTES:
1. AT EACH END OF LIGHT FIXTURE AN INTERLOCKING CROSS TEE OR LOCKING BAR MUST BE USED
2. THE TOTAL WEIGHT OF A LIGHT FIXTURE AND OTHER EQUIPMENT (AIR BOXES, ETC.) AND CEILING MATERIAL SUPPORTED BY THE MAIN BEAM MUST NOT EXCEED THE ALLOWABLE DEFLECTION OF 1/360 OF IT'S SPAN. DEFLECTION DATA MUST BE FURNISHED AND CERTIFIED BY THE MANUFACTURER.
3. SURFACE OR PENDENT FIXTURES MUST BE INDEPENDENTLY SUPPORTED FROM FLOOR OR ROOF CONSTRUCTION.

8 A1.2 CEILING GRID & LIGHT SUPPORT DETAIL

N.T.S.

9 A1.2 NOT USED

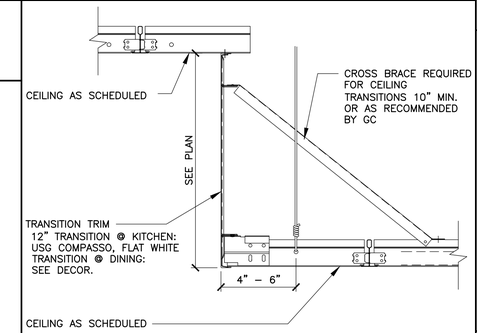
N.T.S.



10 A1.2 GYP BD CEILING DETAIL

1 1/2"=1'-0"

A0610WB1



11 A1.2 ACOUSTIC CEILING TRANSITION

N.T.S. COORDINATE w/ DECOR

REV	DATE	DESCRIPTION	BY
.	.		
	12/06/24	BID SET	AL
	02/26/25	BID SET	AL

PREPARED BY:
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PREPARED FOR:
McDonald's USA, LLC

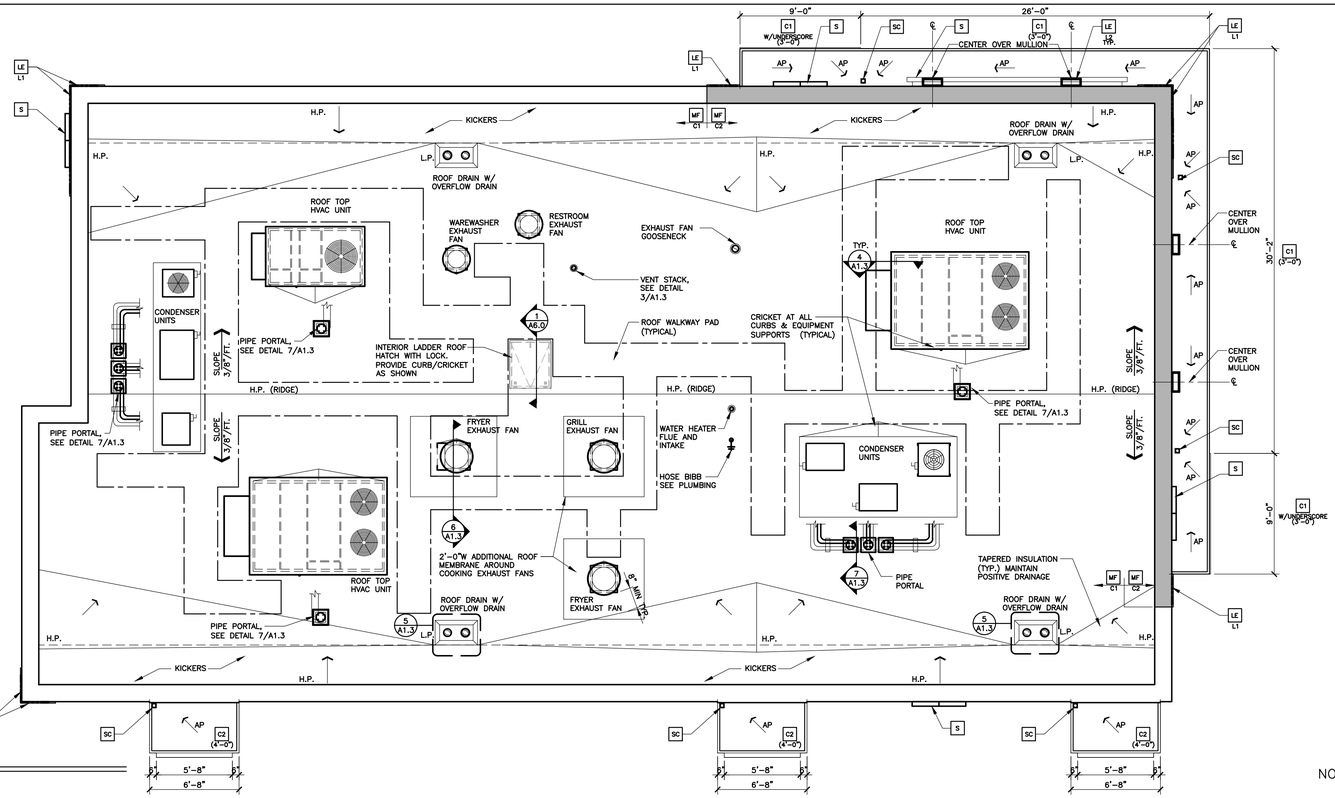
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DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
ROJ#	24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	SITE ADDRESS
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
MSN: 43016	8712 N. Indiana Avenue, Kansas City, MO 64156
I/C: 024–1306	

SHEET NO. A1.2
024–1306.00.0
REFLECTED CLG. PLAN



1 A1.3 **ROOF PLAN**
3/16"=1'-0"

LEGEND

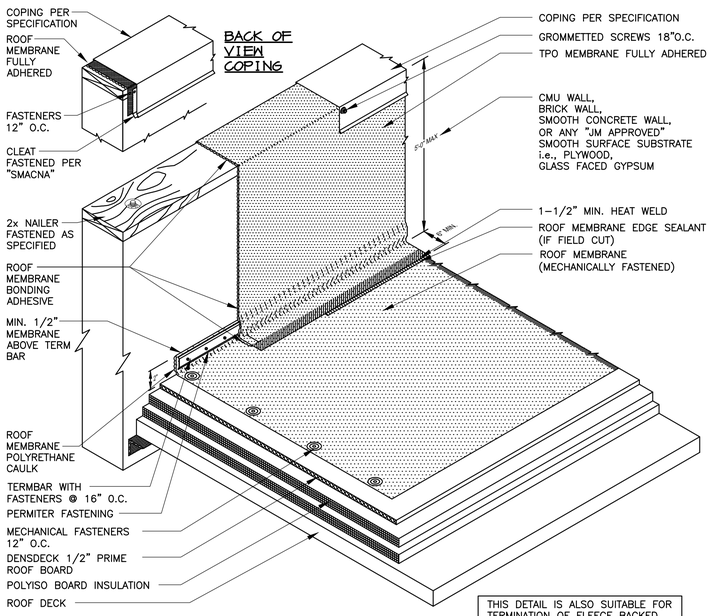
L.P.	LOW POINT
H.P.	HIGH POINT
←	DIRECTION OF DRAINAGE
← AP	TRELLIS SYSTEM WITH ALUMINUM INFILL PANELS. SLOPE TO EDGE @1/4"PER FT.

KEY NOTES

- C1 ALUMINUM CANOPY SYSTEM (COLOR: SEE ELEVATIONS)
- C2 ALUMINUM CANOPY SYSTEM (COLOR: SEE ELEVATIONS)
- LE ACCENT LIGHTING – SEE ELEVATIONS & ELECTRICAL
  - L1 LED LIGHT:
    - L1 = SLIM LED (DOWN ONLY)
    - L2 = UP ONLY FLOOD FIXTURE
- MF METAL FASCIA
  - C1 COLOR:
    - C1 = SEE ELEVATIONS FOR COLOR
    - C2 = SEE ELEVATIONS FOR COLOR
- S McDONALD'S SIGNAGE BY OTHERS UNDER SEPARATE PERMIT (SEE ELEVATIONS)
- SC INTERGRAL GUTTER SCUPPER

ROOFING NOTES

1. SINGLE–PLY ROOFING SYSTEM WITH BASE FLASHING SHEET EXTENDING UP PARAPET AND TERMINATED UNDER COPING HOT WELDED TO SEALING STRIP SECURED TO WOOD BLOCKING
2. INSTALLATION OF ROOFING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND PER DETAIL 2 OF THIS SHEET.
3. PROVIDE PREFABRICATED METAL CURBS. COORDINATE SIZE, LOCATION AND INSTALLATION REQUIREMENTS W/ M, E, P & S SHEETS. PROVIDE SHIMS TO LEVEL CURB AREAS WHERE ROOF DECK IS PITCHED.
4. FOR EXACT LOCATION OF EXHAUST FANS, HVAC UNITS, AND ROOF HATCH. REFER TO STRUCTURAL DRAWINGS.
5. CRICKETS MUST BE INSTALLED AT ALL ROOF CURBS & EQUIPMENT PLATFORMS BY GENERAL CONTRACTOR.



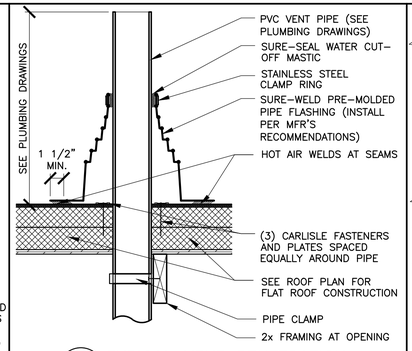
THIS DETAIL IS ALSO SUITABLE FOR TERMINATION OF FLEECE BACKED MEMBRANES. NON FLEECE BACK MEMBRANE IS REQUIRED FOR WALL FLASHINGS.

2 A1.3 **ROOFING SYSTEM**
N.T.S.

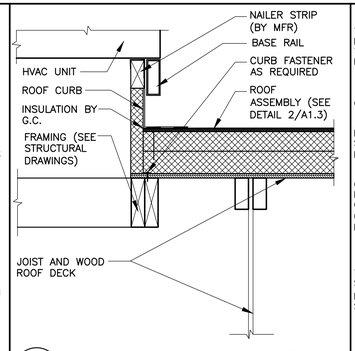
ROOFING SYSTEM

1. MANUFACTURERS AND PRODUCTS:
   - A. DURO–LAST PVC ROOFING SYSTEM
   - B. JM–PVC. REFER TO JOHNS MANVILLE WEBSITE (www.jm.com) FOR MOST UP–TO–DATE INFORMATION.

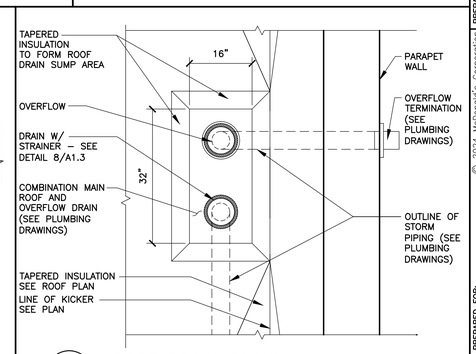
   NO SUBSTITUTIONS ALLOWED
2. SPECIFIED ROOFING SYSTEMS (AS SHOWN):
   HEAT–WELDABLE SINGLE–PLY 50 MIL PVC ROOFING SYSTEM, INSTALLED OVER RIGID INSULATION ON WOOD ROOF DECK HAVING A SLOPE OF 3/8"/FT. MATERIALS SHALL BE AS FOLLOWS:
   - A. SINGLE–PLY ROOFING SYSTEM AS MANUFACTURED BY MANUFACTURER LISTED ABOVE TO COMPLY WITH ASTM E 108 OR UL 790, ASTM D–6878, AND FMG I–90 FOR WIND UPLIFT.
   - B. FASTENERS: METAL FASTENERS AND PLATES AS PER MANUFACTURER.
   - C. ACCESSORIES: PRE–FABRICATED CURBS, FLASHING, CORNERS, TERMINATION BARS, PIPE FLASHING, VENT FLASHING ETC. AS PER MANUFACTURER.
   - D. PLEASE SEE SINGLE–PLY FLASHING SPECIFICATIONS FOR A FULL DESCRIPTION OF INSTALLATION INSTRUCTIONS AND REQUIREMENTS WHICH ARE CONSIDERED A PART OF THIS DETAIL.
   - E. ANY CARPENTRY OR METAL WORK SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY A LICENSED DESIGN PROFESSIONAL. CONTACT MANUFACTURER FOR METAL OPTIONS TO BE INCLUDED WITHIN THE MANUFACTURER'S GUARANTEE.
   - F. ROOF MEMBRANE EDGE SEALANT IS REQUIRED ON ALL CUT OR NON–ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE
3. WALKWAYS:
   - A. 30" WIDE WALKWAY ROLL, HOT AIR WELDED TO MEMBRANE.
   - B. PROVIDE WALKWAY FROM ROOF LADDER EXIT TO ALL ROOF TOP EQUIPMENT AS PER ROOF PLAN ABOVE.
   - C. INSTALL WALKWAY ACCORDING TO WALKWAY PAD MANUFACTURER'S WRITTEN INSTRUCTION.
4. RIGID INSULATION:
   PROVIDE REQUIRED LAYERS OF POLYISOCYANURATE INSULATION W/ 1/2" "DENSDECK" COVER BOARD TO MEET A MINIMUM CONTINUOUS R–30 VALUE – THICKNESS AS REQUIRED. PROVIDE POSITIVE SLOPE TO ALL ROOF DRAINS. SEE ROOF PLAN. PROVIDE TOP LAYER PROTECTION MATERIAL AS PER MANUFACTURERS RECOMMENDATIONS. BOTTOM LAYER OF INSULATION TO HAVE INTEGRAL THERMAL BARRIER OR APPROVED ROOFING MANUFACTURER'S THERMAL UNDERLAYMENT SHEET. ASSEMBLY SHALL COMPLY WITH UL 1256 OR FMG 4450 AND ASTM C 1289, TYPE I OR II.
5. TAPERED INSULATION:
   PROVIDE TAPERED INSULATION AS REQUIRED FOR POSITIVE DRAINAGE TO ROOF DRAINS AS INDICATED PER ROOF PLAN ABOVE. ¼" PER FOOT MIN. REQUIRED.
6. EXHAUST FANS:
   PROVIDE ADDITIONAL LAYER OF ROOF MEMBRANE AROUND EXHAUST FANS AS INDICATED PER ROOF PLAN ABOVE.



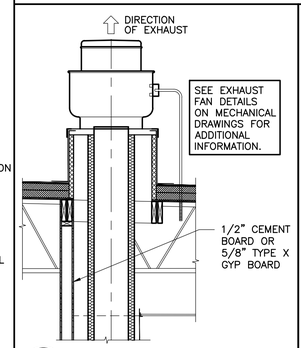
3 A1.3 **TYPICAL VENT PENETRATION**
1 1/2"=1'-0"



4 A1.3 **HVAC UNIT ROOF CURB DETAIL**
1 1/2"=1'-0"

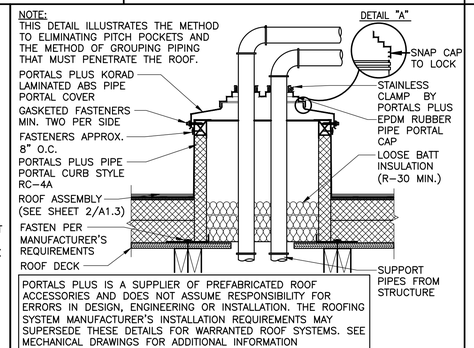


5 A1.3 **ROOF DRAIN DETAIL**
3/4"=1'-0"



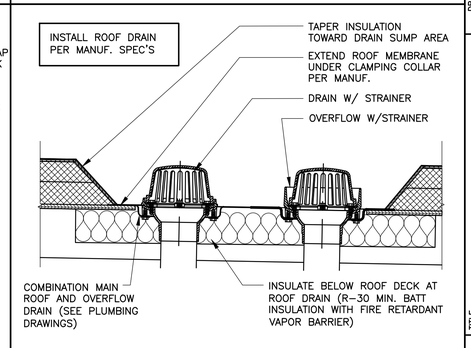
6 A1.3 **DETAIL @ EXHAUST FAN**
1/2"=1'-0"

NOTE:
THIS DETAIL ILLUSTRATES THE METHOD TO ELIMINATING PITCH POCKETS AND THE METHOD OF GROUPING PIPING THAT MUST PENETRATE THE ROOF.



PORTALS PLUS IS A SUPPLIER OF PREFABRICATED ROOF ACCESSORIES AND DOES NOT ASSUME RESPONSIBILITY FOR ERRORS IN DESIGN, ENGINEERING OR INSTALLATION. THE ROOFING SYSTEM MANUFACTURER'S INSTALLATION REQUIREMENTS MAY SUPERSEDE THESE DETAILS FOR WARRANTED ROOF SYSTEMS. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION

7 A1.3 **PIPE PORTAL DETAIL**
1 1/2"=1'-0"



8 A1.3 **SECTION @ ROOF DRAIN**
1 1/2"=1'-0"

NO.	DESCRIPTION	DATE	BY
			AL
			AL
	BID SET	02/26/25	
	BID SET	12/06/24	
		.	

PREPARED BY: Reprise Design
Architecture, Inc.
12450 Portland Avenue South
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4040
Direct: (952) 252-4043

PREPARED FOR: McDonald's USA, LLC

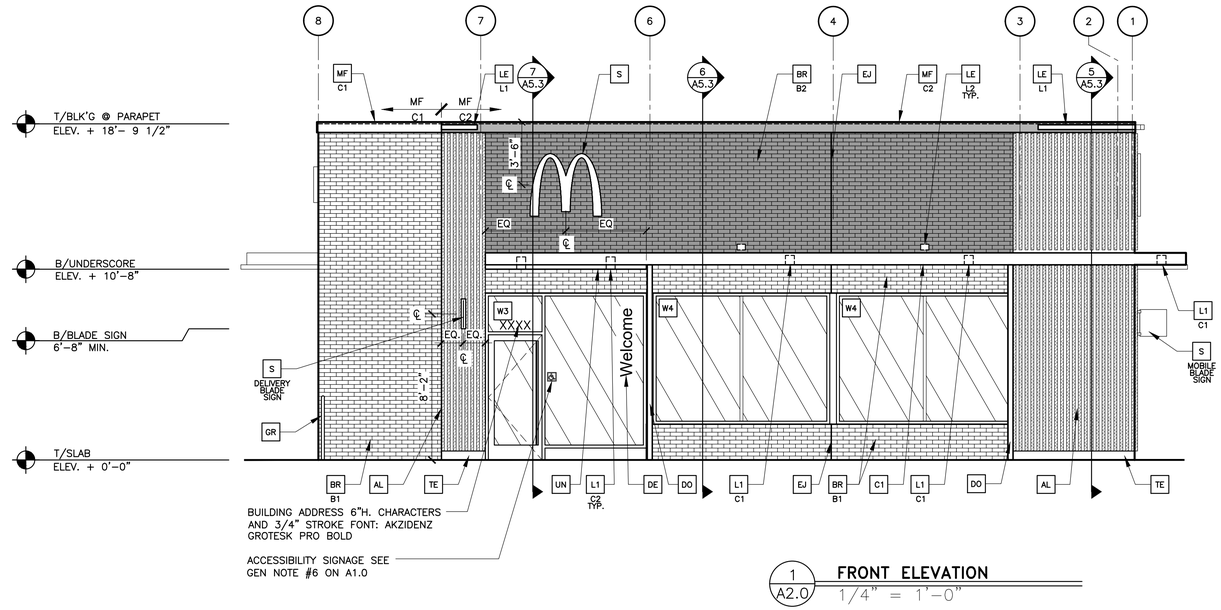
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DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
R#	24247

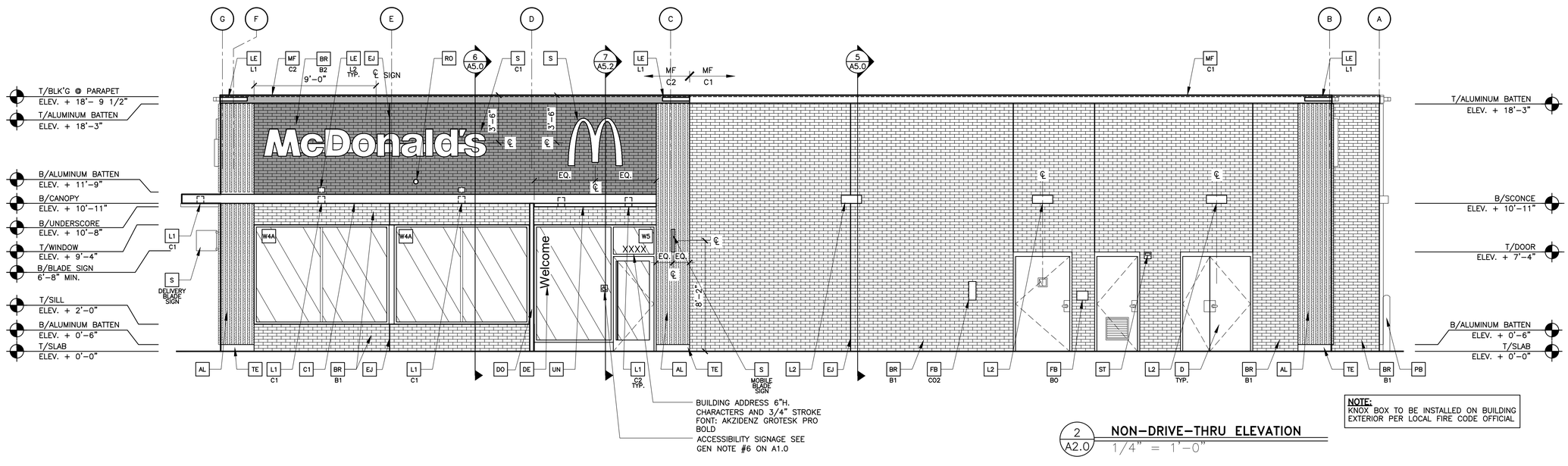
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
	WOOD TRUSS ROOF FRAMING
	E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
MSN: 43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
J/C: 024–1306	

SHEET NO.: A1.3
ROOF PLAN
024–1306.00.0



1 A2.0 **FRONT ELEVATION**
1/4" = 1'–0"



2 A2.0 **NON–DRIVE–THRU ELEVATION**
1/4" = 1'–0"

NOTE:
KNOX BOX TO BE INSTALLED ON BUILDING EXTERIOR PER LOCAL FIRE CODE OFFICIAL

KEY NOTES:

- AL — ALUMINUM BATTEN SYSTEM
  SIZE: 2"x2" PROFILE
  COLOR: WOOD GRAIN, BACKRAIL UNFINISHED, ENDCAP PAINTED TO MATCH SUBSTRATE: 1/2" EXTERIOR HIGH DENSITY OVERLAY (HDO) PLYWOOD, BB, GROUP 1, HDO BOTH FACES, APA TRADEMARKED.
  COURSE GRIT SAND SURFACES PRIOR TO PRIMING. PRIME AND PAINT BOTH SIDES AND ALL EDGES PRIOR TO INSTALLATION.
  SUBSTRATE COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS
- BR — MODULAR FACE BRICK
  B1— COLOR:
  B1 = "OLD BAILEY QUEEN" BY COLUMBUS BRICK COMPANY
  B2 = "MEDIUM IRON SPOT 46" BY ENDICOT
- C1 — ALUMINUM CANOPY SYSTEM
  COLOR: WHITE
- C2 — ALUMINUM CANOPY SYSTEM
  COLOR: RAL 7022
- D — HOLLOW METAL DOOR
  PAINT: MATCH "OLD BAILEY QUEEN" BRICK. CONFIRM COLOR WITH ACM
- DE — DECAL BY GRAPHICS SUPPLIER
  SURFACE APPLIED, FIELD INSTALLED, PRE CUT, PRE SPACED.
  SUPPLIERS:
  VOMELA (865) 330–7337, ann.bowen@vomela.com
  GFX INTERNATIONAL (847) 543–4600, mcdonaldsdecor@gfxi.com
- DO — DOWNSPOUT
  3" DOWNSPOUT BY CANOPY SYSTEM MANUFACTURER, COLOR: RAL 7022
  COORDINATE WITH CIVIL TO TIE INTO STORM DRAINAGE
- EJ — EXPANSION JOINT, SEE DETAIL 7/A4.1
- FB — CO2— CO2 = BULK CO2 FILL BOX (EQPM SCHEDULE ITEM 49.00)
  BO = BULK OIL FILL BOX (EQPM SCHEDULE ITEM 700.18)
- GR — GUARD RAIL –SEE SITE PLAN FOR EXACT LOCATION AND LENGTH
  PAINT: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS
- L1 — RECESSED DOWN LIGHT FIXTURE – SEE ELECTRICAL
  C1— COLOR:
  C1= WHITE
  C2= GOLD
- L2 — RADIAL SCONCE LIGHT FIXTURE – SEE ELECTRICAL
  COLOR: PLATINUM SILVER
- LE — ACCENT LIGHTING – SEE ELECTRICAL
  L1— LED LIGHT:
  L1 = SLIM LED (DOWN ONLY)
  L2 = UP ONLY FLOOD FIXTURE
- MF — PRE–FAB ANCHOR–TITE METAL FASCIA
  C1— COLOR:
  C1= WEATHERED ZINC
  C2= RAL 7022
- PB — PIPE BOLLARD – PAINTED YELLOW
- PT — (RMHC) COIN COLLECTOR
  MODEL: #WPT STD
  CALL 1–888–743–7435 TO ORDER
- RO — ROOF DRAIN OVERFLOW PIPE PAINT TO MATCH SURROUNDING MATERIAL
- S — McDONALD'S SIGNAGE BY OTHERS – UNDER SEPARATE PERMIT.
  C1— COLOR:
  C1= WEATHERED ZINC RACEWAY
  C2= RAL 7022 RACEWAY
- ST — CO2 STROBE/ALARM. SEE MECHANICAL DRAWINGS FOR SPECIFICATION.
- TE — TRU EXTERIOR 1"X6" TRIM, PAINTED ON SITE
  COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS
- UN — METAL UNDERSCORE
  COLOR: GOLD
- W# — EXTERIOR WINDOW ASSEMBLY – TEMPERED GLASS
  COLOR: DARK BRONZE
  SEE SHEET A6.0
- W2 — DRIVE–THRU WINDOW BY READY ACCESS
  MODEL: 600 SERIES, 36" SERVICE HEIGHT WITH TRANSOM, MANUAL OPEN, ELECTRONIC RELEASE
  XX— COLOR: DEEP BRONZE
  SLIDE DIRECTION: RL = RIGHT TO LEFT
  LR = LEFT TO RIGHT

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

Enterprise Architecture, Inc.
12400 Portland Avenue South
Corporate Center Burnsville
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4840
Fax: (952) 252-4843

PREPARED BY: DESIGN

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PREPARED FOR: McDonald's USA, LLC

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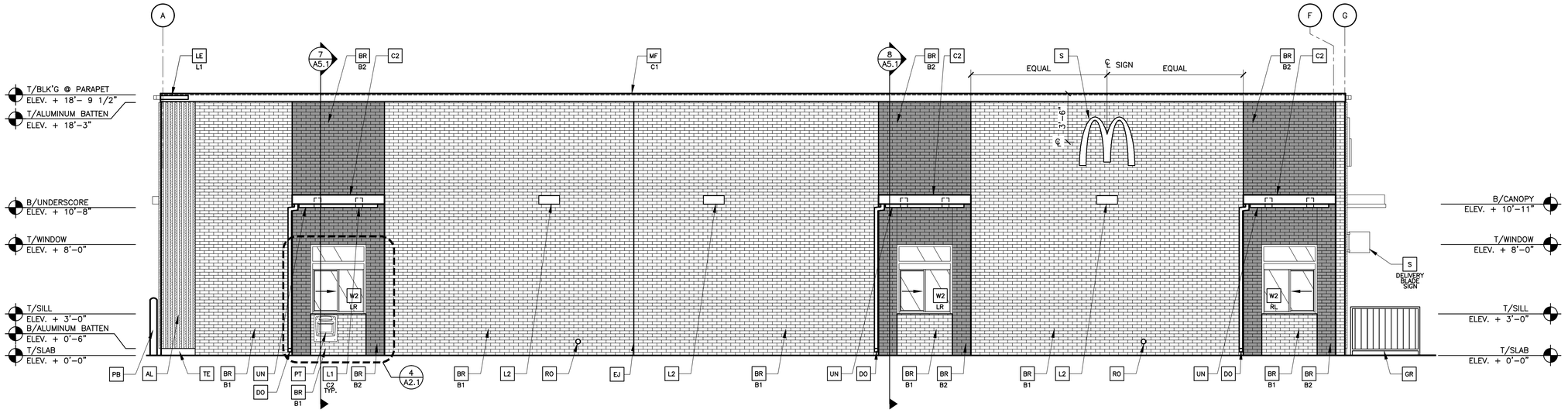
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RQ# 24247

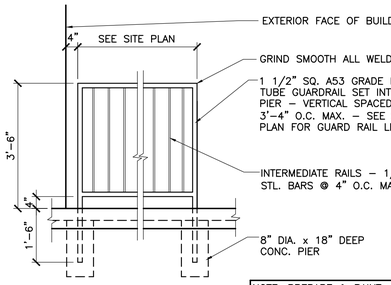
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	SITE ADDRESS
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
NSN:43016	8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306	

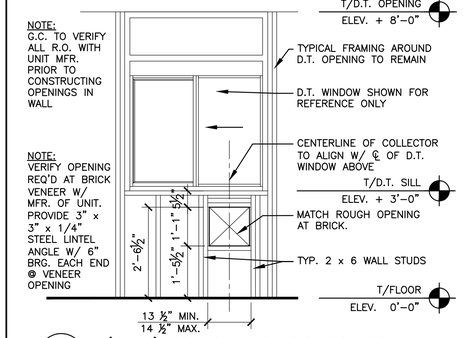
SHEET NO. 024–1306.00.0
A2.0
ELEVATIONS



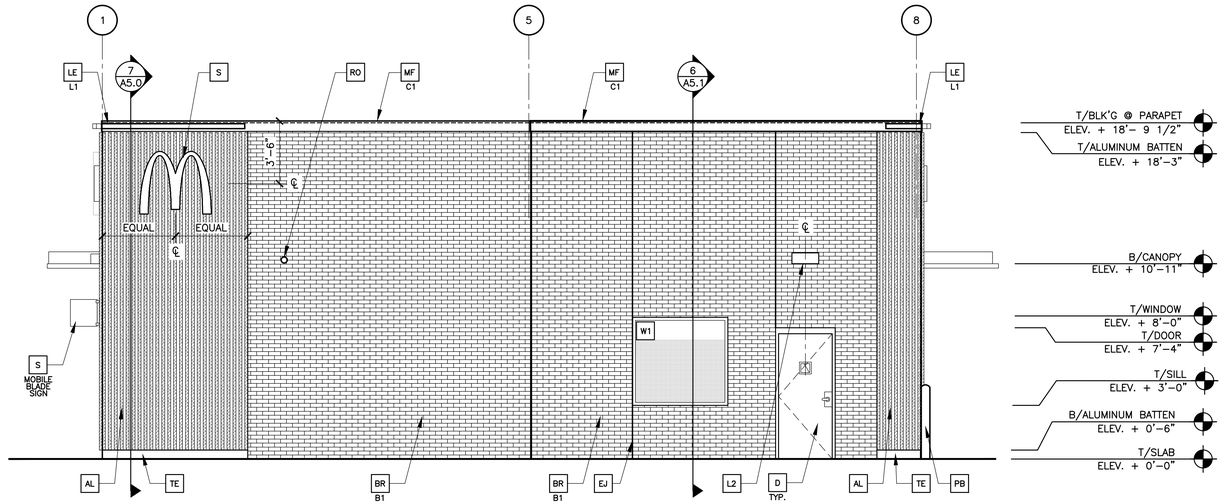
1 A2.1 **DRIVE THRU ELEVATION**
1/4" = 1'-0"



3 A2.1 **GUARD RAIL DETAIL**
1/2"=1'-0"



4 A2.1 **(RMHC) COIN COLLECTOR @ FRAMED WALL**
1/2" = 1'-0" INTERIOR ELEVATON



2 A2.1 **REAR ELEVATION**
1/4" = 1'-0"

KEY NOTES:

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  COLOR: WOOD GRAIN, BACKRAIL UNFINISHED, ENDCAP PAINTED TO MATCH SUBSTRATE: 1/2" EXTERIOR HIGH DENSITY OVERLAY (HDO) PLYWOOD, BB, GROUP 1, HDO BOTH FACES, APA TRADEMARKED.
  COURSE GRIT SAND SURFACES PRIOR TO PRIMING. PRIME AND PAINT BOTH SIDES AND ALL EDGES PRIOR TO INSTALLATION.
  SUBSTRATE COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS
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  3" DOWNSPOUT BY CANOPY SYSTEM MANUFACTURER, COLOR: RAL 7022
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- EJ — EXPANSION JOINT, SEE DETAIL 7/A4.1
- FB
  C02— C02 = BULK CO2 FILL BOX (EQPM SCHEDULE ITEM 49.00)
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  COLOR: PLATINUM SILVER
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  L1—LED LIGHT:
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  COLOR: "IRON ORE" SW 7069 BY SHERWIN WILLIAMS
- UN — METAL UNDERSCORE
  COLOR: GOLD
- W# — EXTERIOR WINDOW ASSEMBLY – TEMPERED GLASS
  COLOR: DARK BRONZE
  SEE SHEET A6.0
- W2 XX— DRIVE-THRU WINDOW BY READY ACCESS
  MODEL: 600 SERIES, 36" SERVICE HEIGHT WITH TRANSOM, MANUAL OPEN; ELECTRONIC RELEASE
  COLOR: DEEP BRONZE
  SLIDE DIRECTION: RL = RIGHT TO LEFT
  LR = LEFT TO RIGHT

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

PREPARED BY:
DESIGN
Architecture, Inc.
12400 Portland Avenue South
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4842
Fax: (952) 252-4843

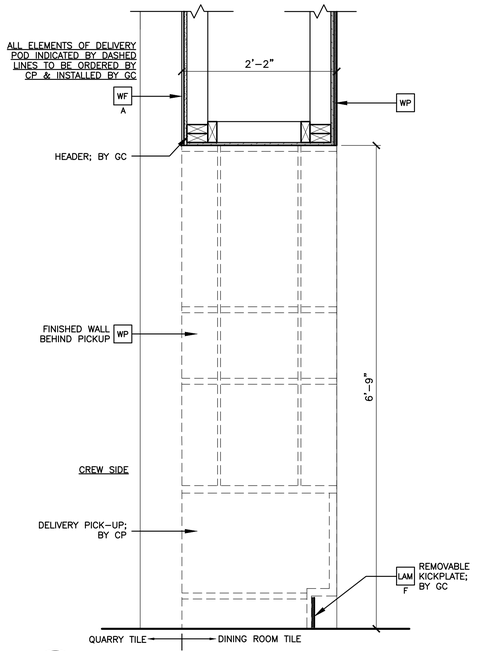
PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY: AL
STD ISSUE DATE: 2024 05
REVIEWED BY: KD
DATE ISSUED: 02 26 2025
ROJ# 24247

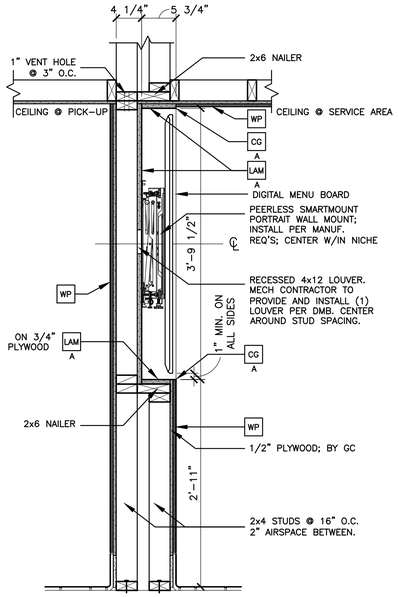
TITLE: 2024 STANDARD BUILDING – BB20
4584-WOOD/WOOD
DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
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MSN: 4.5016
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024-1306

SHEET NO.: 024-1306.00.0
A2.1
ELEVATIONS



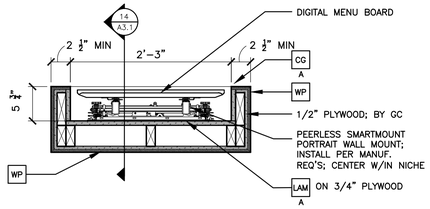
15 A3.1 **SECTION @ DELIVERY POD**

1" = 1'-0"



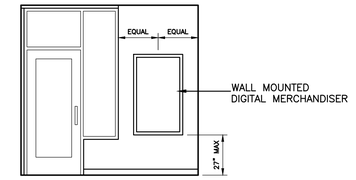
14 A3.1 **SECTION @ DIGITAL MERCHANDISER**

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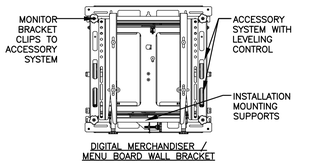
13 A3.1 **PLAN DETAIL @ DIGITAL MERCH.**

1"=1'-0"



11 A3.1 **NONDRIVE-THRU VESTIBULE ELEVATION**

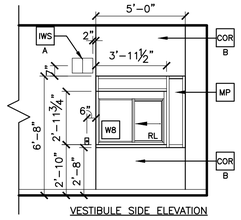
1" = 1'-0"



- SECURE TO STUDS OR 3/4" PLYWOOD BACKING
- FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS

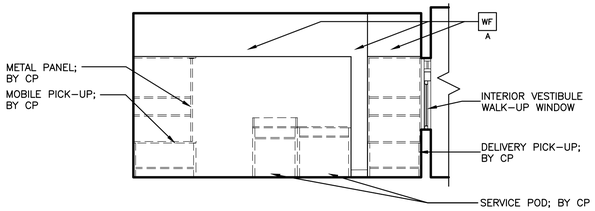
10 A3.1 **DIGITAL BOARD BRACKET DETAIL**

1"=1'-0"



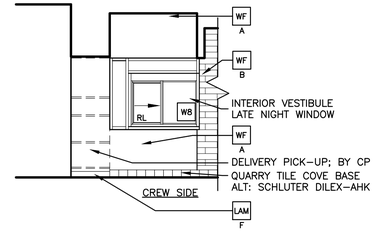
9 A3.1 **LATE NIGHT WINDOW – VESTIBULE SIDE**

1/4" = 1'-0"



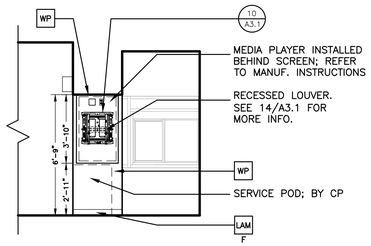
8 A3.1 **SERVICE AREA ELEVATION – CREW SIDE**

1/4" = 1'-0"



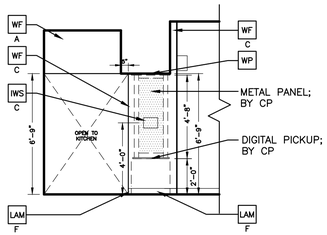
6 A3.1 **LATE NIGHT WINDOW – CREW SIDE**

1/4" = 1'-0"



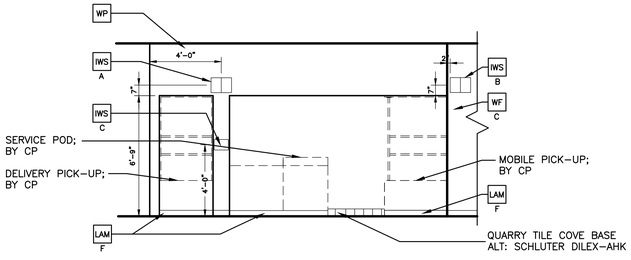
5 A3.1 **SERVICE AREA ELEVATION**

1/4" = 1'-0"



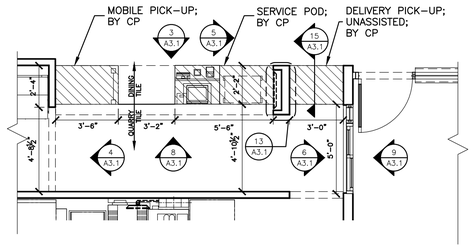
4 A3.1 **SERVICE AREA ELEVATION**

1/4" = 1'-0"



3 A3.1 **SERVICE AREA ELEVATION – CUSTOMER SIDE**

1/4" = 1'-0"



1 A3.1 **SERVICE AREA PLAN**

1/4" = 1'-0"

KEY NOTES

CG CORNER GUARD: 3/4" ANGLE BY DECOR
X—
A = BLACK

COR CORIAN:
X—
A = 1/2" CORIAN CAMEO WHITE
B = 1/2" CORIAN DEEP TITANIUM

IWS INTERIOR WAYFINDING SIGNAGE
X—
A = McDELIVERY INTERIOR TRIANGULAR SIGN
B = MOBILE ORDER INTERIOR TRIANGULAR SIGN
C = ADA ASSISTANCE SIGNAGE

LAM LAMINATE:
X—
COLOR:
A = IDMB / DIG. MERCH., SMOOTH BLACK PLASTIC LAMINATE BY GC
E = McDELIVERY UNDERSCORE, LAMITECH GOLDEN
F = BASE BOARD, FORMICA COMPACT LAMINATE MATTE BLACK BY GC

MP METAL INFILL PANEL. MATCH DARK BRONZE WINDOW ASSEMBLY

WP LAMINATE WALL PANEL
PER DECOR PORTFOLIO:
GEOMETRY = LAMITECH – 1557–PR, COLOR: SEASON ASH
LUNA = LAMITECH – 1467 MT, COLOR: LINEAL OAK
RAY = WILSONART – 7954–38A, COLOR: NATURAL RIFT
ROUTE 66 = LAMITECH – 1540 PW, COLOR: ONTARIO OAK
COORDINATE WITH McDONALD'S AREA CONSTRUCTION MANAGER

WF WALL FINISH.
TILE GROUT: MAPEI 02 PEWTER – JOINT TO BE 1/16" MAX. (UNO)
X—
A = TILE PER DECOR PORTFOLIO.
GEOMETRY/LUNA/RAY: EUROWEST – 754–747. COLOR: NOIR.
SIZE: 4"x12". PATTERN STACKED BOND.
ROUTE 66: EUROWEST – WHITE GLOSSY CHEVRON
GROUT: CHARCOAL 47 – JOINT TO BE 1/16" MAX.
B = CROSSVILLE – COLOR BY NUMBERS. COLOR: AFTERNOON SPRAY.
SIZE: 4"x12". PATTERN: STACKED BOND.
C = WALL PANEL / TILE PER DECOR PORTFOLIO.
GEOMETRY: CROSSVILLE – KALEIDOSCOPE, 24"x24", STACKED BOND.
LUNA: CROSSVILLE – MOONLIGHT GREY, 12"x24", STACKED BOND.
RAY: LAMITECH – INDUSTRIAL CONCRETE (WITHOUT HOLES)
ROUTE 66: EUROWEST – WHITE GLOSSY CHEVRON
GROUT: CHARCOAL 47 – JOINT TO BE 1/16" MAX.

GENERAL NOTES

- ALL WALL LAMINATE PANELING MANUFACTURED BY DECOR PURCHASE AND INSTALL BY GC, UNO.
- ALL ELEMENTS 'BY CP' TO BE ORDERED BY CENTRAL PURCHASING AND INSTALLED BY GC, UNO.
- KIOSK SIGNAGE BY GC; ORDER FROM AMANDA GUSTAFSON W/ ALTRUA (agustafson@altrua.com)
'CREDIT ONLY' & 'CASH/CREDIT' KIOSK SIGNAGE

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

PREPARED BY:
DESIGN
Architecture, Inc.
12400 Portland Avenue South
Suite 100, Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252-4042
Cell: (952) 292-4043

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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	STD ISSUE DATE	REVIEWED BY	DATE ISSUED
AL	2024 05	KD	02 26 2025

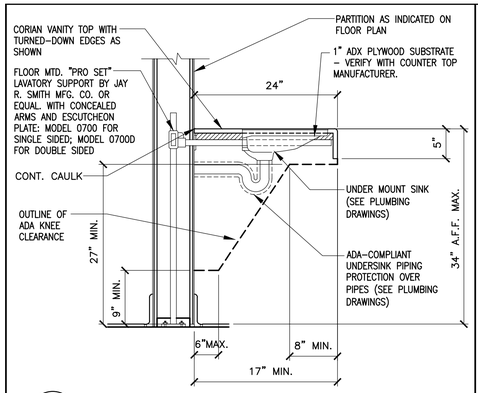
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI WOOD TRUSS ROOF FRAMING E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

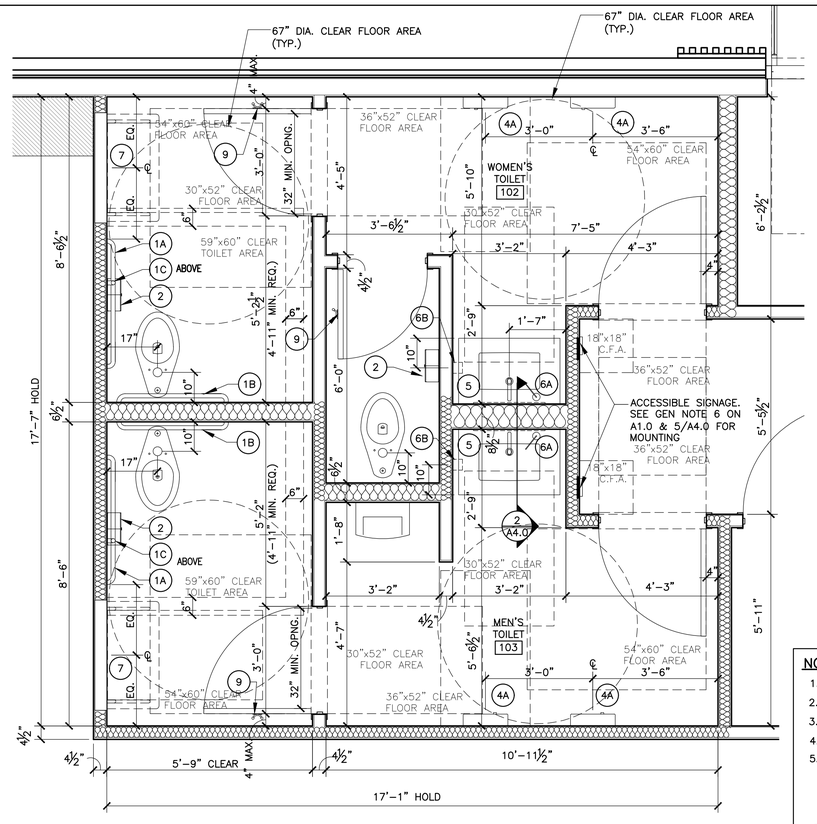
SITE ADDRESS: NSN: 43016 — 8712 N. Indiana Avenue, Kansas City, MO 64156

L/C: 024–1306 — RD# 24247

SHEET NO.: 024–1306.00.0
A3.1
SERVICE AREA DETAILS



2 / A4.0 **SECTION @ LAVATORY**
1"=1'-0"



1 / A4.0 **ENLARGED RESTROOM PLAN**
1/2" = 1'-0"

NOTES:

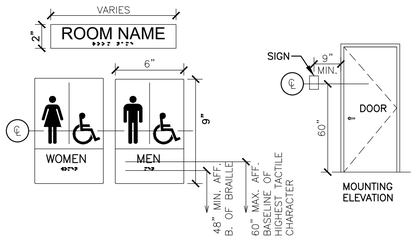
1. ALL DIMENSIONS SHOWN ARE TAKEN TO CEMENT BD.
2. SEE 2/A1.0 FOR PARTITION TYPES
3. SEE SHEETS A6.0 & A6.1 FOR DOOR AND FINISH SCHEDULES.
4. SEE 4/A4.0 FOR FIXTURE MOUNTING HEIGHTS
5. DASHED LINES REPRESENTING CLEAR FLOOR SPACE REQUIREMENTS MUST BE MAINTAINED WITHOUT EXCEPTION. IF CONDITIONS PREVENT ANY CLEAR FLOOR SPACE FROM BEING MAINTAINED, CONTACT THE ARCHITECT FOR RESOLUTION.

(X) = RESTROOM ACCESSORY - SEE 3/A4.0

	ITEM (SEE NOTE 2)	MFR MODEL #	SUPPLIER	BACKUP SUPPORT (SEE NOTE 3)
1A	GRAB BAR 42"	BOBRICK B-5806X42	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	(1)2x6 4'-0" LONG CENTER MOUNTED
1B	GRAB BAR 42"	B-5806X42		
1C	GRAB BAR 24"	B-5806X24		
2	TOILET TISSUE DISPENSER, JUMBO, SURFACE MOUNTED	BRADLEY 5424	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	FRAME WALL OPENING PER MANUFACTURER'S RECOMMENDATIONS
3	SANITARY NAPKIN RECEPTACLE, RECESSED (OPTIONAL)	BOBRICK B-353	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	
4A	HAND DRYER, ENERGY EFFICIENT MODEL, ADA, ALUMINUM BRUSHED	WORLD DRYER Q-973A2 VerdeDri	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	FRAME WALL OPENING PER MANUFACTURER'S RECOMMENDATIONS
4A OPTION	HAND DRYER, ENERGY EFFICIENT MODEL ADA, SPRAYED NICKEL	DYSON AIRBLADE V	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	
4B OPTION	TOWEL DISPENSER & WASTE RECEPTACLE, COMBINATION, RECESSED (OPTIONAL)	BOBRICK B-3974	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	
5	MIRROR, CHANNEL FRAME	BOBRICK B-165 2436	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	
6A	SOAP DISPENSER, COUNTER MOUNTED, 6" SPOUT (OPTIONAL)	BOBRICK B-82216	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	
6B	SOAP DISPENSER, WALL-MOUNTED	BOBRICK B-2112	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	
7	BABY CHANGING TABLE, HORIZONTAL, RECESSED, ADA COMPLIANT, STAINLESS STEEL	KOALA KARE KB310-SSRE	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
7 OPTION "A"	BABY CHANGING TABLE, HORIZONTAL, SURFACE MOUNT, ADA COMPLIANT, STAINLESS STEEL	KOALA KARE KB310-SSWM	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	INSTALL PER MANUFACTURER'S RECOMMENDATIONS *TO BE MOUNTED OUTSIDE OF 59" TOILET AREA
8	DIAPER CONTAINER (OPTIONAL)	-	BY OWNER	
9	CLOTHES HOOK	BRADLEY 917	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	
10	COAT RACK (CREW ROOM & BDAP)	BRADLEY 917	HUGHES SUPPLY (866) 310-3576 MCDCOORD@HAJOCA.COM	

NOTES:
1) SEE 4/A4.0 FOR ACCESSORY MOUNTING HEIGHTS
2) SELECT ONE ITEM FROM ITEM GROUPS 4 & 6, VERIFY WITH AREA CONSTRUCTION MANAGER.
3) CUT BACK-UP SUPPORTS BETWEEN STUDS SO FACE OF SUPPORT IS FLUSH W/WALL STUD

3 / A4.0 **RESTROOM ACCESSORY SCHEDULE**



GRAPHICS SHOWN ARE FOR REFERENCE ONLY.

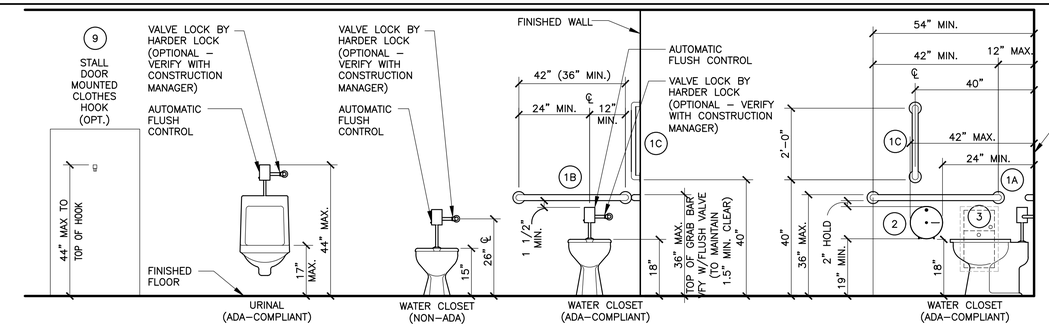
GC TO PROVIDE ADA SIGNAGE PACKAGE AND INSTALL SIGNS AT LOCATIONS AND POSITIONS INDICATED IN PACKAGE OR AS REQUIRED BY LOCAL CODES. SIGNAGE PACKAGE SUPPLIED BY:

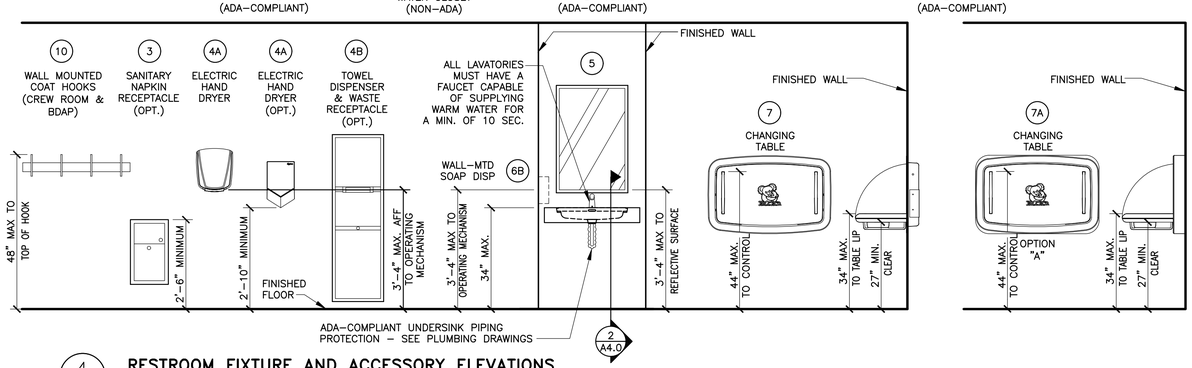
FRANKE/S2K
1-800-423-5247
www.frankesupply.com
email: fs-frankesupply.us@franke.com

SIGNAGE NOTES:

1. EACH EXIT DOOR SHALL HAVE A TACTILE SIGN, INCLUDING RAISED LETTERS AND BRAILLE, STATING 'EXIT' AND SHALL COMPLY WITH CHAPTER 7. ALL SIGNAGE SHALL CONFORM WITH ACCESSIBILITY GUIDELINES AND LOCAL GUIDELINES INCLUDING BUT NOT LIMITED TO PROPORTION, COLOR CONTRAST AND RELIEF AND GRADE 2 BRAILLE REQUIREMENTS.
2. WHEN PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, RAISED LETTERS SHALL BE PROVIDED AND SHALL BE ACCOMPANIED BY BRAILLE IN CONFORMANCE WITH CHAPTER 7. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. MOUNTING HEIGHT SHALL BE 60" ABOVE THE FINISHED FLOOR TO THE CENTERLINE OF THE SIGN. MOUNTING LOCATION SHALL BE DETERMINED SO THAT A PERSON MAY APPROACH WITHIN 3" OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

5 / A4.0 **ACCESSIBLE SIGNAGE**
N.T.S.





4 / A4.0 **RESTROOM FIXTURE AND ACCESSORY ELEVATIONS**
1/2" = 1'-0"

BY	AL	AL			
DESCRIPTION	BID SET	BID SET			
DATE	02/26/25	12/06/24			
REV	.	.			

PREPARED BY:
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Fax: (952) 252-4843

PREPARED FOR:
McDonald's USA, LLC

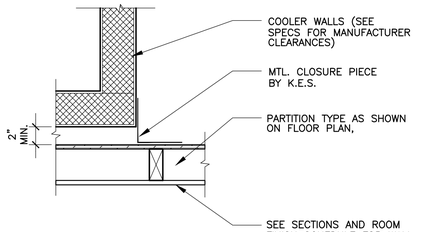
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STD ISSUE DATE: 2024 05
REVIEWED BY: KD
DATE ISSUED: 02 26 2025
RQ# 24247

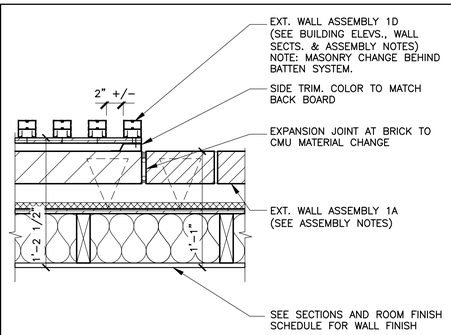
TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION	SITE ADDRESS
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & GI	8712 N. Indiana Avenue, Kansas City, MO 64156
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
NSN: 43016 L/C: 024-1306	

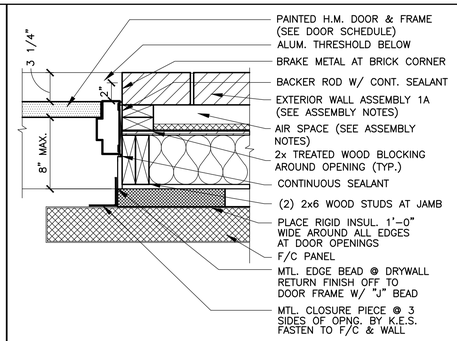
SHEET NO.: 024-1306.00.0
A4.0
RESTROOM PLAN



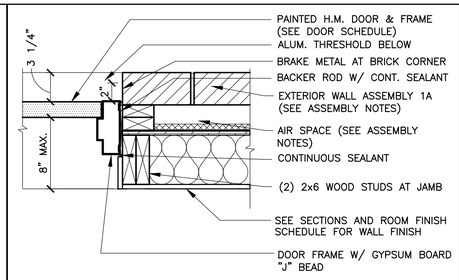
1 A4.1 **CLOSURE DETAIL @ COOLER**
1 1/2"=1'-0"



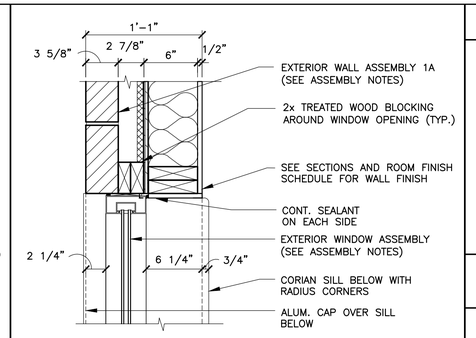
2 A4.1 **BATTEN TO BRICK TRANSITION**
1 1/2"=1'-0"



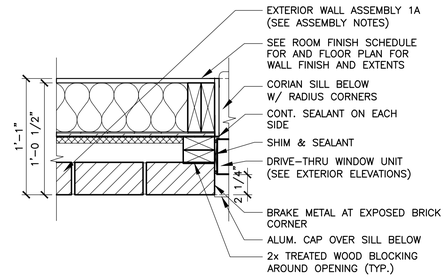
3 A4.1 **DOOR JAMB @ F/C DOOR**
1 1/2"=1'-0"



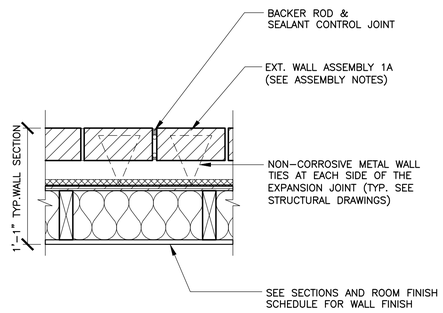
4 A4.1 **EXT.DOOR JAMB DETAIL**
1 1/2"=1'-0"



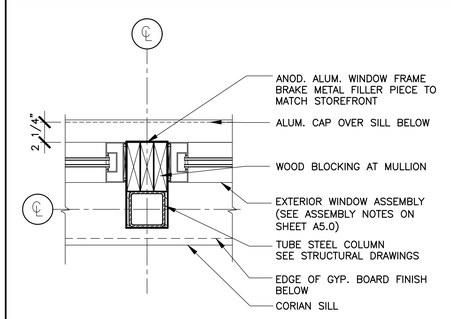
5 A4.1 **CREW WINDOW JAMB DETAIL**
1 1/2"=1'-0"



6 A4.1 **ORDER WINDOW JAMB DETAIL**
1 1/2"=1'-0"



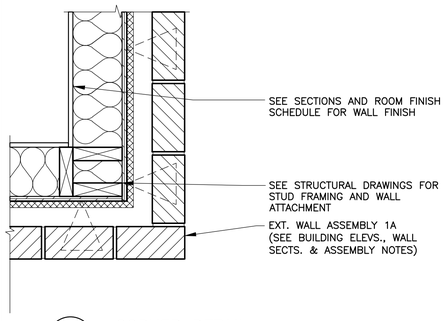
7 A4.1 **EXPANSION JOINT DETAILS**
1 1/2"=1'-0"



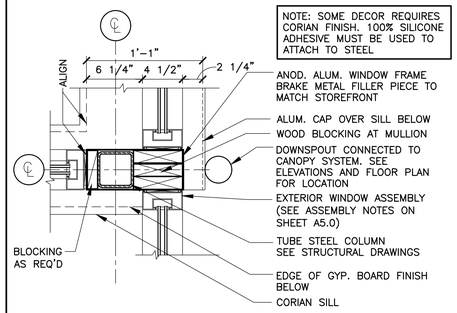
8 A4.1 **DETAIL @ COLUMN**
1 1/2"=1'-0"

9 A4.1 **NOT USED**
–

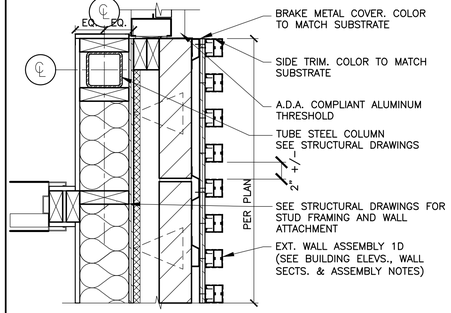
10 A4.1 **NOT USED**
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11 A4.1 **CORNER DETAIL**
1 1/2"=1'-0"



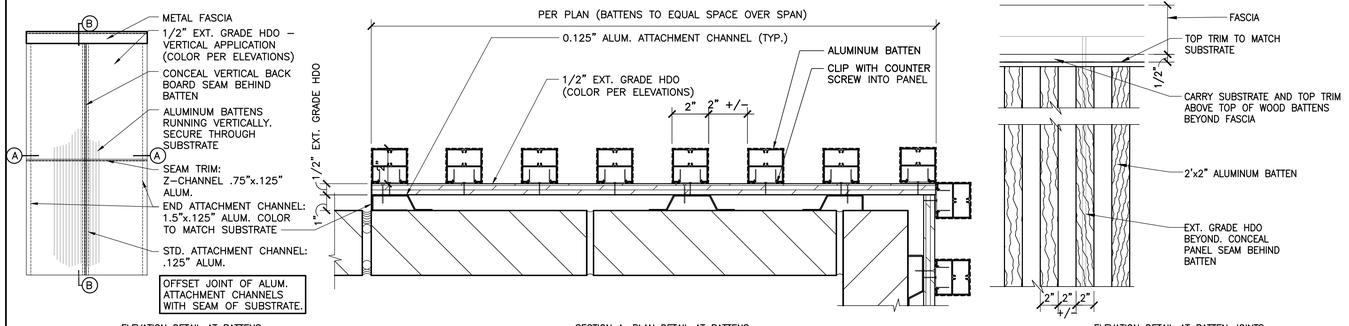
12 A4.1 **DETAIL @ COLUMN**
1 1/2"=1'-0"



13 A4.1 **DETAIL @ ENTRY**
1 1/2"=1'-0"

14 A4.1 **NOT USED**
–

15 A4.1 **NOT USED**
–



16 A4.1 **ALUMINUM BATTEN DETAIL**
1/4"=1'-0"

17 A4.1 **NOT USED**
–

BY	DESCRIPTION	DATE	REV
AL	BID SET	02/26/25	.
AL	BID SET	12/06/24	.

PREPARED BY:
DESIGN
Architecture, Inc.
12490 Portland Avenue South
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Burnsville, MN 55337
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Office: (952) 252-4040
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PREPARED FOR:
McDonald's USA, LLC

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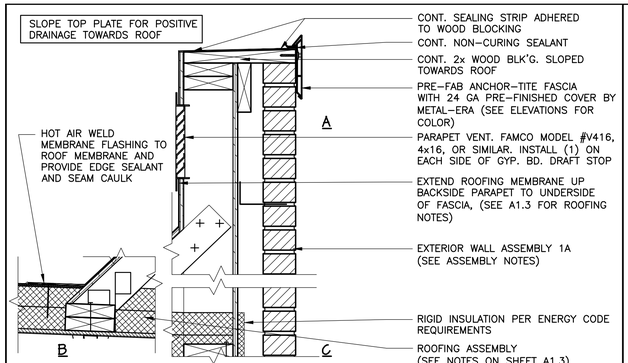
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STD ISSUE DATE 2024 05		

TITLE
2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

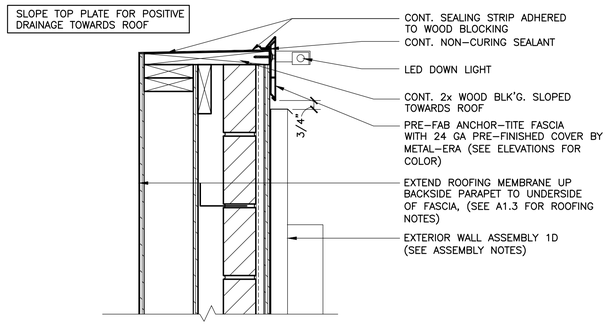
DESCRIPTION	SITE ADDRESS
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L/C: 024-1306	

RQJ# 24247

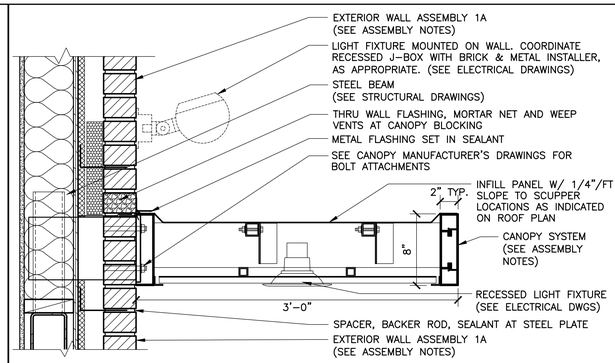
SHEET NO.
024–1306.00.0
A4.1
PLAN DETAILS



1 A5.0 **DETAIL– FASCIA @ PARAPET**
1 1/2" = 1'–0"



2 A5.0 **DETAIL– FASCIA @ AL PARAPET**
1 1/2" = 1'–0"



3 A5.0 **DETAIL– CANOPY ABOVE WINDOW**
1 1/2" = 1'–0"

EXTERIOR WALL ASSEMBLIES

FROM EXTERIOR TO INTERIOR

1A. BRICK VENEER

1. FULL HEIGHT MODULAR SIZE MASONRY, 4" BRICK VENEER (VISIBLE MASONRY) OR 4" CONCRETE BLOCK VENEER WITH INTEGRAL WATER REPELLENT (NON-VISIBLE), W/NON-CORROSIVE METAL TIES VERTICALLY & HORIZONTALLY PER STRUCTURAL. PROVIDE 10" HIGH MESH DOVETAIL CAVITY DRAINAGE SYSTEM. PROVIDE MESH WEEP VENTS 24" O.C. AT ALL FLASHING LOCATIONS. MORTAR: SM750 SILVERSTONE BY SPEC MIX OR EQ.
2. AIR SPACE – SIZE VARIES ACCORDING TO OVERALL WALL WIDTH. AT TYP. WALL (12"), AIR SPACE IS 2 3/8" WIDE.

1B. METAL REVEAL WALL PANEL SYSTEM

1. NOT USED

1C. E.I.F.S. SYSTEM

1. NOT USED

1D. VERTICAL BATTEN SYSTEM

1. ALUMINUM BATTEN W/MOUNTING BACK RAIL. SIZE: 2" WIDE x 2" DEEP. REFER TO EXTERIOR ELEVATIONS FOR COLOR. INSTALL PER LOCAL CODES AND MANUFACTURERS SPECIFICATIONS ON TERMINATION AND INSTALLATION DETAILS. BY SUPPLIER. GC INSTALL
2. 1/2" EXTERIOR HIGH DENSITY OVERLAY (HDO) PLYWOOD, BB, GROUP 1. HDO BOTH FACES. APA TRADEMARKED. SAND WITH COURSE GRIT ALL SURFACES PRIOR TO PRIMING. PRIME AND PAINT BOTH SIDES AND ALL EDGES. BY GC, INSTALL BY GC. ALUM EDGE TRIM BY GC. COLOR TO MATCH SUBSTRATE.
3. 1" 0.125 ALUMINUM CHANNEL BY GC, INSTALL BY GC
4. OVER WALL ASSEMBLY 1A
   VERTICAL BATTEN SYSTEM BY:
   B+N INDUSTRIES (650) 393–2315 — TUBELITE (214) 288–5801
   PIRKKO LUCCHESI — CHASITY DICKINSON
   plucchesi@bnind.com — mcdonalds@tubeliteinc.com
5. OVER WALL ASSEMBLY 1A

1E. ALPOLIC ACM PANEL

1. NOT USED

1F. TRU EXTERIOR

1. 1"x6" PRE–PRIMED TRIM. COLOR: SEE ELEVATIONS. NAIL TRIM PIECES IN PLACE WITHIN 2" OF THE EDGE OF THE TRIM PIECE AND EVERY 16" ALONG THE LENGTH OF THE TRIM, USING MANUFACTURER APPROVED NAILS. INSTALL PER LOCAL CODES AND MANUFACTURERS SPECIFICATIONS.
2. 3/4" RIGID INSULATION, R–3.8 VALUE
3. PERMEABLE BUILDING WRAP OVER 1/2" EXTERIOR GRADE PLYWOOD. INSTALL PER LOCAL CODES AND MFR'S SPEC'S.
4. 2x6 WOOD STUD FRAMING @ 16" O.C. (WITH CONTINUOUS DRAFTSTOP/FIRESTOP BLOCKING AT FINISH CEILING LEVEL).
5. 5 1/2" THICK UNFACED BATT INSULATION (R VALUE = 20 MIN.).
6. "CERTAINTEED MEMBRAIN" SMART VAPOR RETARDER (SEMI–VAPOR PERMEABLE) BY CERTAINTEED OR EQUAL.
7. 1/2" CEMENT BOARD SUBSTRATE FOR ALL TILE LOCATIONS. (TYP.) NON TILE LOCATIONS: 1/2" GYPSUM BOARD TO EXTEND TO DECK ABOVE. UNLESS NOTED OTHERWISE.
   ALL GYP. BOARD MUST SCORE 10 PER ASTM D3273. REFERENCE CURRENT PROJECT MANUAL.
8. SEE A1.0 & ROOM FINISH SCHEDULE FOR ADDITIONAL SUBSTRATE INFORMATION.

EXTERIOR WINDOW ASSEMBLY

(STOREFRONT & ENTRANCE SYSTEM)

GLAZING REQ'S: U VALUE = 0.36 U VALUE "DOOR"= 0.63 SHGC = 0.40

1. DARK BRONZE ANODIZED ALUMINUM FRAME, THERMALLY BROKEN WITH HEAD RECEIVER CHANNEL.
2. 1" TEMPERED INSULATED GLAZING
3. PROVIDE FLASHING AT HEAD & SILL – CONTINUOUS SEALANT.
4. PROVIDE METAL SILL CAP AS SHOWN IN DETAILS
5. 1/2" CORIAN SILL AT INTERIOR

CANOPY SYSTEM

CANOPY INFORMATION SHOWN IN CONSTRUCTION DOCUMENTS IS FOR DESIGN INTENT ONLY. APPROVED MANUFACTURERS SHALL PROVIDE A COMPLETE AND CODE COMPLIANT FINAL DESIGN. REFER TO ELEVATIONS FOR COLOR OF ELEMENTS

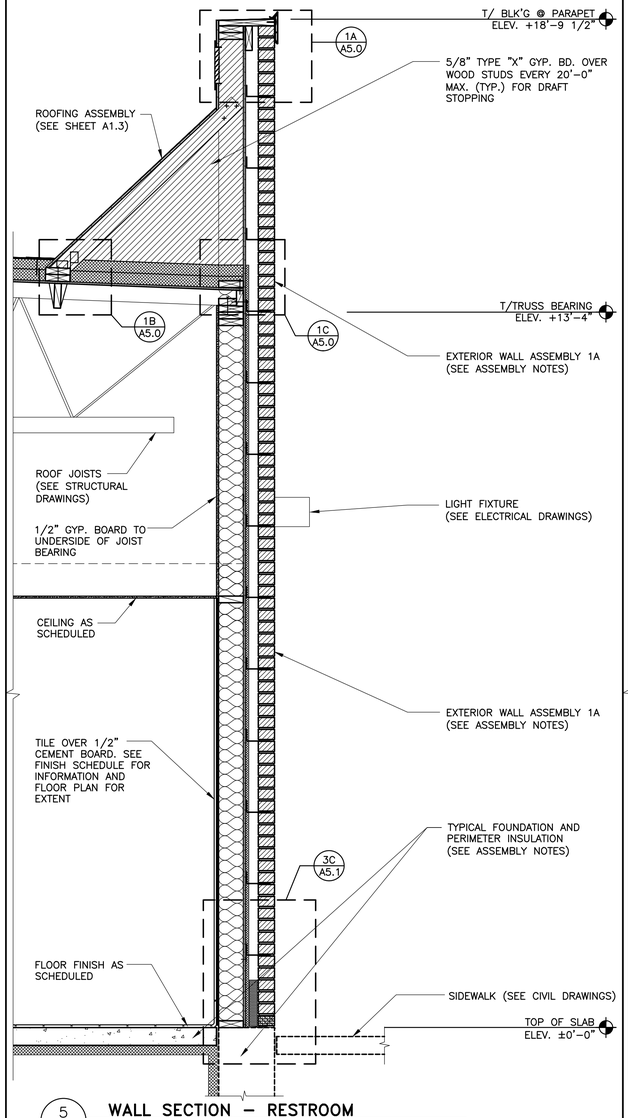
1. CANOPY STRUCTURE/OUTRIGGERS: CONT. 2" x 8" PAINTED ALUM. TUBE. PROVIDE CLOSURE PIECE WHERE TUBE ENDS ARE EXPOSED.
2. WHERE INDICATED ON ROOF PLAN, PROVIDE PAINTED ALUM. PANEL INFILL WITH INTEGRAL SCUPPER TO MATCH OUTRIGGERS. PANEL TO PROVIDE POSITIVE SLOPE FOR DRAINAGE.
3. SYSTEM SHALL ALLOW FOR MOVEMENT AT EXPANSION JOINTS AND FOR MOVEMENT OF EXTERIOR WALL SYSTEM ON WHICH THE CANOPY IS MOUNTED.
4. STRUCTURAL ATTACHMENTS & LOAD CALCULATIONS SHALL BE FURNISHED BY CANOPY SYSTEM DESIGNER OF RECORD. SUPPLIER'S DESIGNER OF RECORD SHALL DESIGN PER PREVAILING CODES.
5. CANOPY SYSTEM SHALL BE SELECTED FROM ONE OF THE SUPPLIERS LISTED BELOW.
6. MANUFACTURER SHALL PROVIDE INSTALLER WITH INSTALLATION INSTRUCTIONS. MANUFACTURER SHALL DESIGN CANOPY IN ACCORDANCE WITH THE WALL SYSTEM AND BLOCKING AS INDICATED IN THE CONSTRUCTION DOCUMENTS.
7. INSTALLER SHALL NOTIFY CANOPY DESIGNER OF RECORD, McDONALD'S ACM, G.C. AND ARCHITECT OF ANY DEFICIENCIES THAT WOULD NOT ALLOW FOR THE PROPER INSTALLATION OF THE CANOPY. CANOPY SHALL NOT BE INSTALLED UNTIL DEFICIENCIES HAVE BEEN CORRECTED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND THE CANOPY MANUFACTURER'S INSTALLATION INSTRUCTIONS.

CANOPY SYSTEM BY:

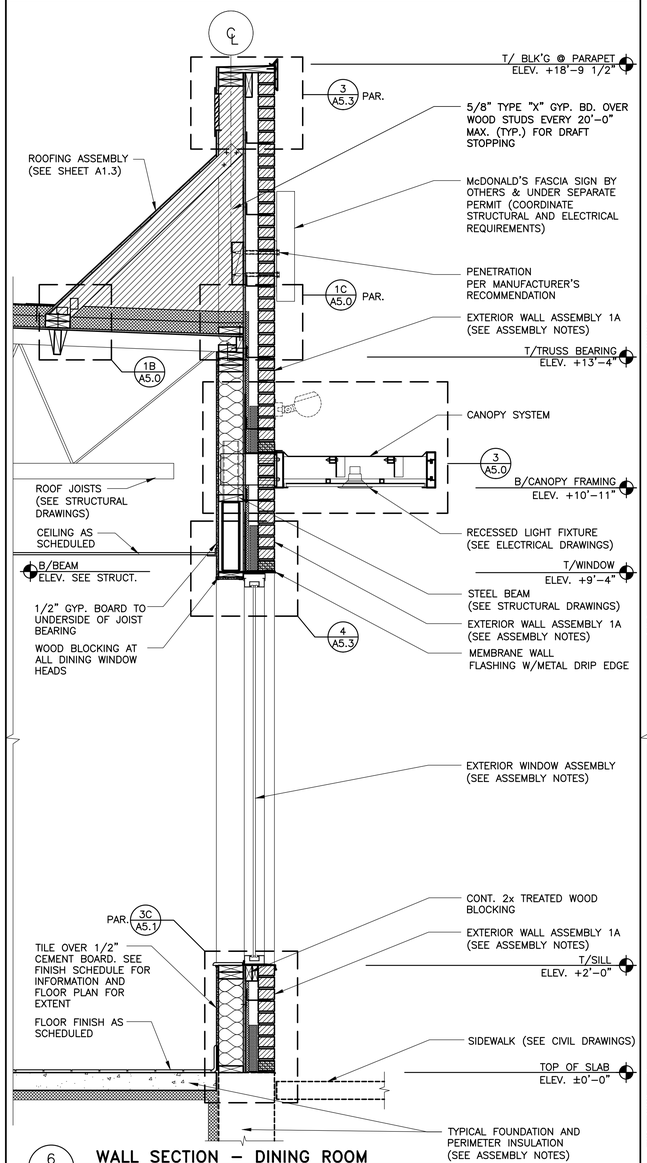
AWNEX (770) 704–7140 — ALL–LITE (817) 509–2300
www.awnexinc.com — www.alllite.com
GREENHECK (715) 355–3942
www.greenheck.com

FOUNDATION AND PERIMETER INSULATION

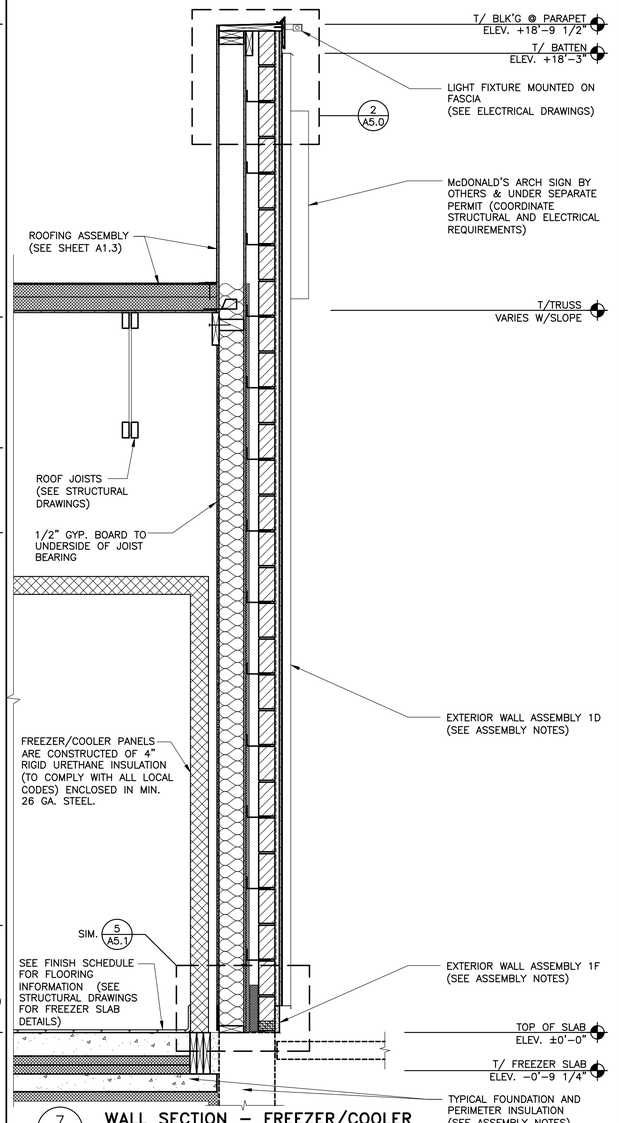
1. SEE STRUCTURAL DRAWINGS FOR FOUNDATION AND SLAB DETAILS
2. PROVIDE RIGID UNDERSLAB INSULATION AS FOLLOWS:
   - VERTICALLY FROM TOP OF FOOTING TO BOTTOM OF SLAB:
   - 2'–0" MIN. R–VALUE: R–15



5 A5.0 **WALL SECTION – RESTROOM**
3/4" = 1'–0"



6 A5.0 **WALL SECTION – DINING ROOM**
3/4" = 1'–0"



7 A5.0 **WALL SECTION – FREEZER/COOLER**
3/4" = 1'–0"

4 A5.0 **ASSEMBLY NOTES**

BY	DESCRIPTION	DATE	REV
AL	BID SET	02/26/25	.
AL	BID SET	12/06/24	.

PREPARED BY: enprise DESIGN
Architecture, Inc.
12400 Portland Avenue South
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PREPARED FOR: McDonald's USA, LLC

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STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
ROJ#	24247

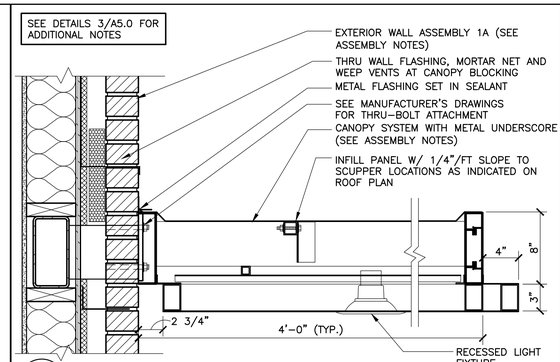
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & Ci	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
NSN: A3016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306	

SHEET NO.: 024–1306.00.0
A5.0
WALL SECTIONS

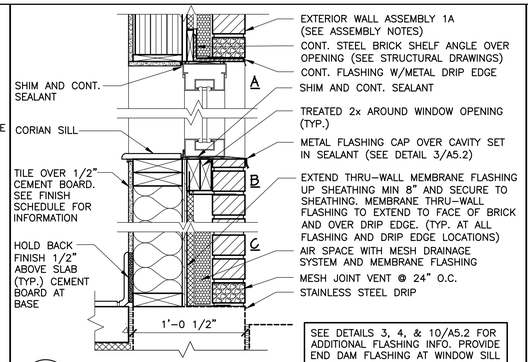
1 A5.1 **NOT USED**

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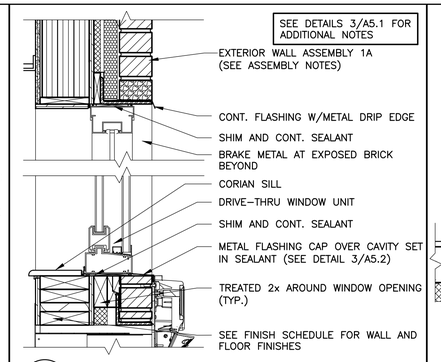
2 A5.1 **DETAIL– DRIVE THRU CANOPY SYSTEM**

1 1/2" = 1'–0"



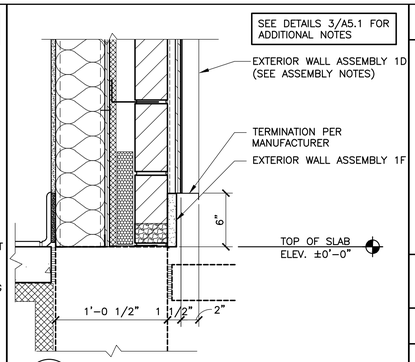
3 A5.1 **SECTION @ WINDOW**

1 1/2" = 1'–0"



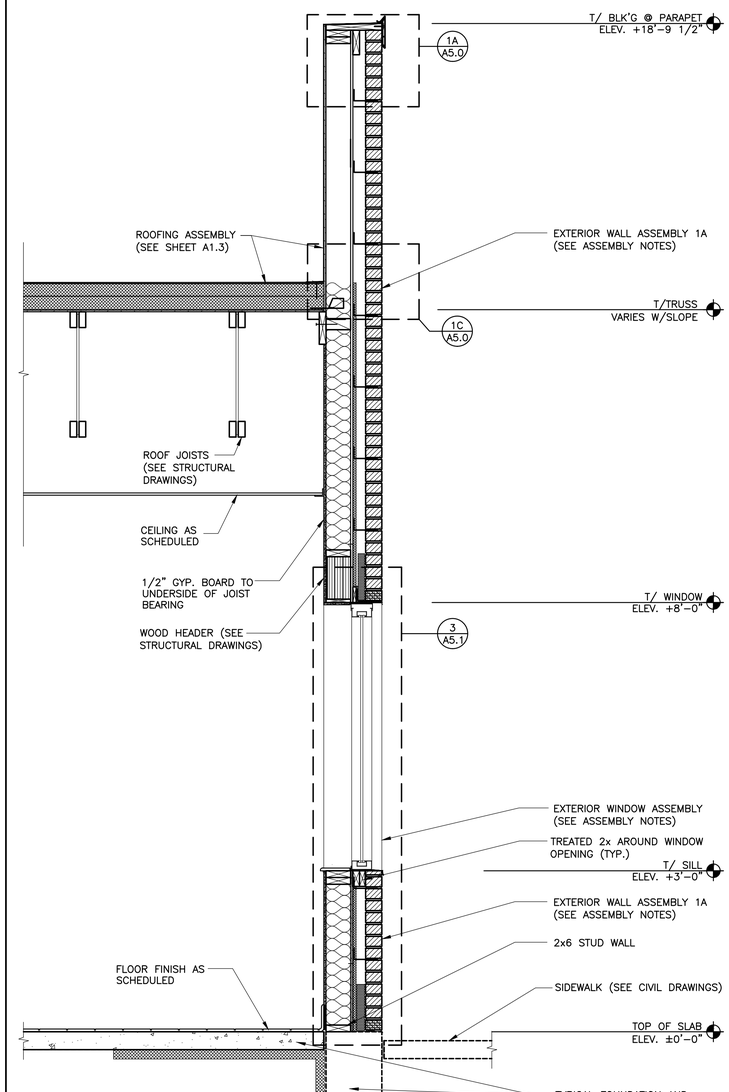
4 A5.1 **SECTION @ DRIVE–THRU WINDOW**

1 1/2" = 1'–0"



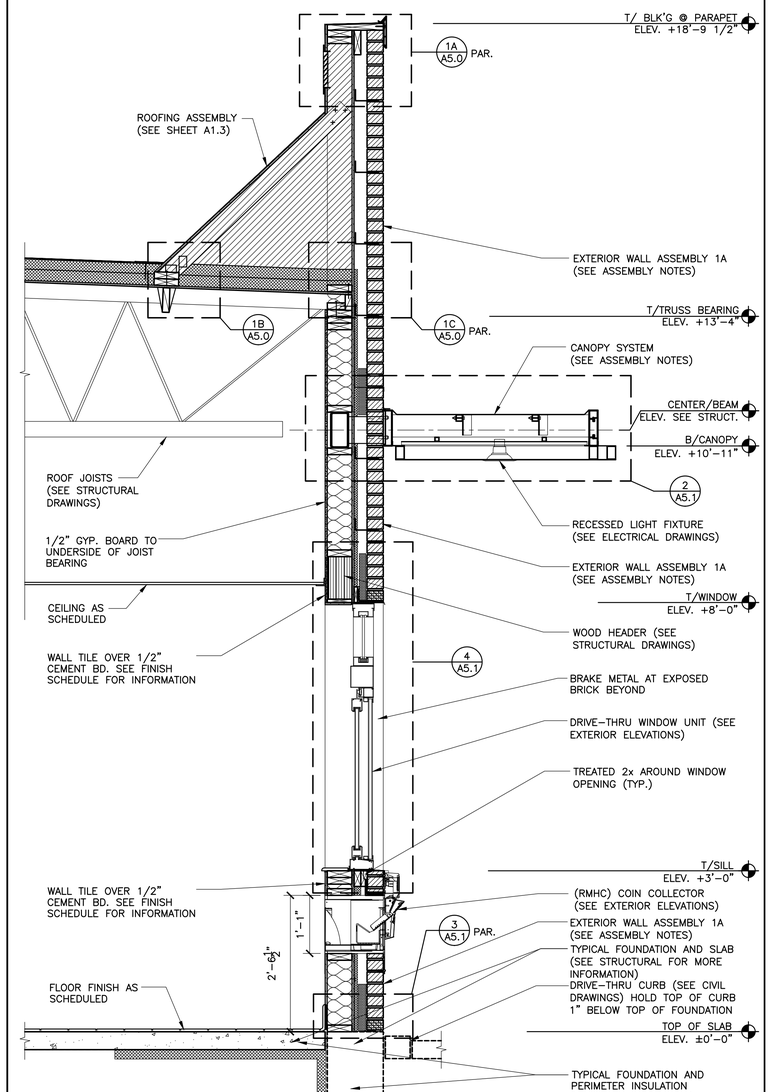
5 A5.1 **DETAIL– BATTEN TERMINATION**

1 1/2" = 1'–0"



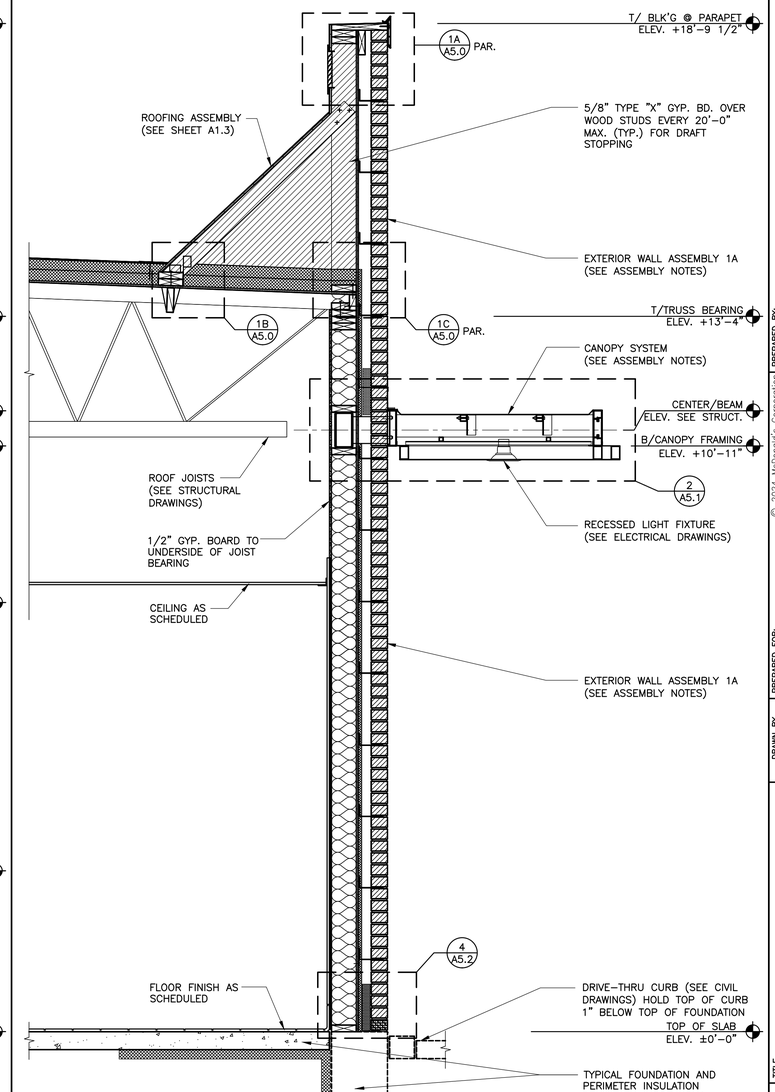
6 A5.1 **WALL SECTION – CREW ROOM**

3/4" = 1'–0"



7 A5.1 **WALL SECTION – ORDER WINDOW**

3/4" = 1'–0"



8 A5.1 **WALL SECTION – PRESENTER WINDOW**

3/4" = 1'–0"

BY	DESCRIPTION	DATE	REV
AL	BID SET	12/06/24	.
AL	BID SET	02/26/25	.

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PREPARED FOR:
McDonald's USA, LLC

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TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

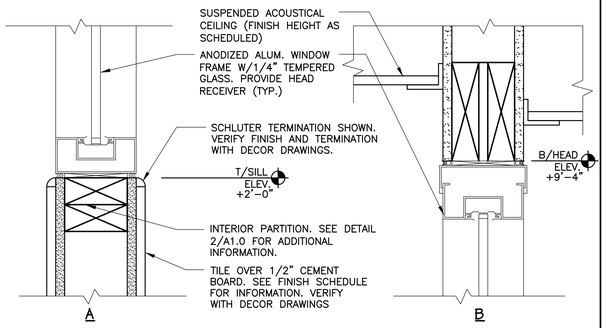
NSN: 4.30216
L/C: 024–1306

SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

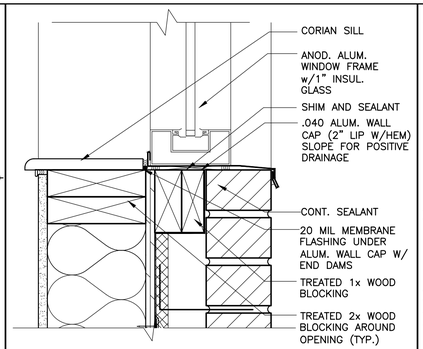
DRAWN BY: AL
STD ISSUE DATE: 2024 05
REVIEWED BY: KD
DATE ISSUED: 02 26 2025
RD# 24247

SHEET NO. 024–1306.00.0
A5.1
WALL SECTIONS

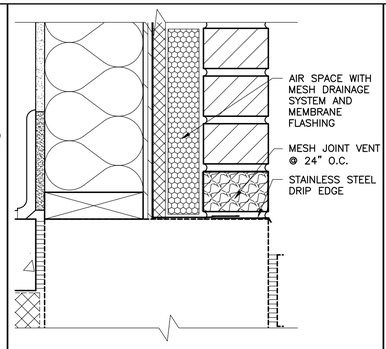
1 A5.2 **NOT USED**



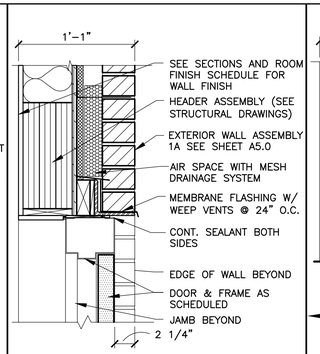
2 A5.2 **HEAD & SILL INTERIOR VESTIBULE WALL (FRONT)**
3" = 1'-0"



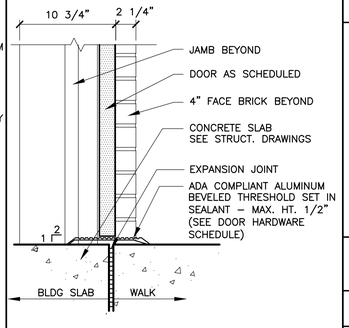
3 A5.2 **WINDOW SILL FLASHING**
3" = 1'-0"



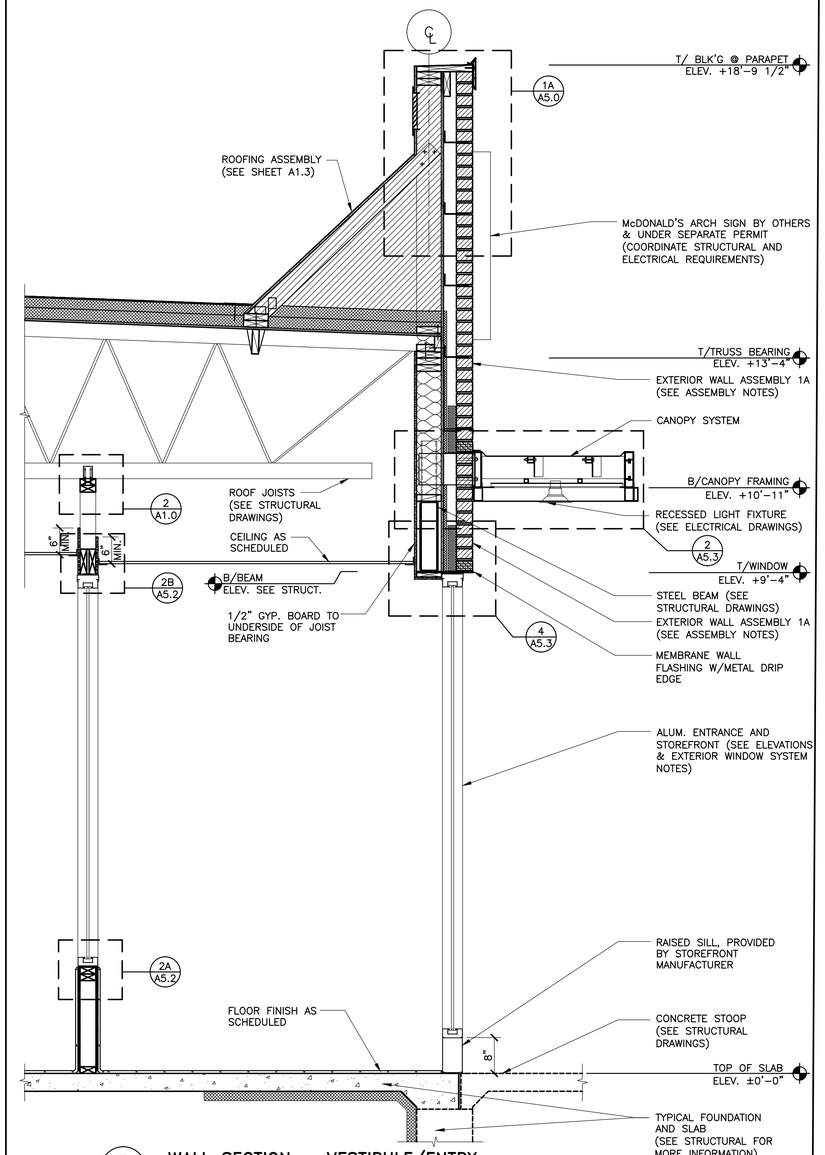
4 A5.2 **FLASHING DETAIL @ FOUNDATION**
3" = 1'-0"



5 A5.2 **SECTION @ DOOR HEAD**
1 1/2" = 1'-0"

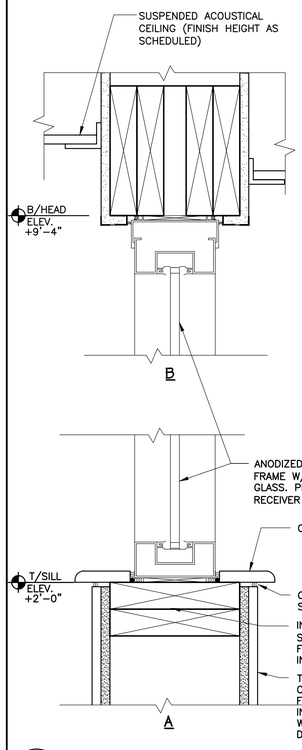


6 A5.2 **SECTION @ DOOR SILL**
1 1/2" = 1'-0"

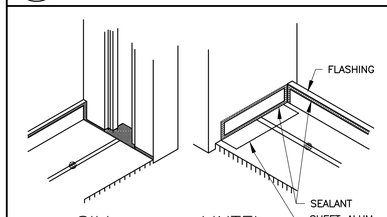


7 A5.2 **WALL SECTION – VESTIBULE/ENTRY**
3/4" = 1'-0"

8 A5.2 **NOT USED**
N.T.S.



9 A5.2 **HEAD & SILL INTERIOR VESTIBULE WALL**
3" = 1'-0"



NOTE: SEAL GLASS POCKET OF WINDOW JAMB AT SILL.

NOTE: SEALANT ON BACK LEG OF FLASHING TO BE APPLIED PRIOR TO INSTALLATION OF FRAME.

NOTE: SEAL OVER HEADS OF ALL PERIMETER OPENINGS.

10 A5.2 **FLASHING DETAIL @ JAMB**
N.T.S.

REV	DATE	DESCRIPTION	BY
.	.	.	.
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

PREPARED BY:
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PREPARED FOR: McDonald's USA, LLC

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STD ISSUE DATE: 2024 05
REVIEWED BY: KD
DATE ISSUED: 02 26 2025
ROJ# 24247

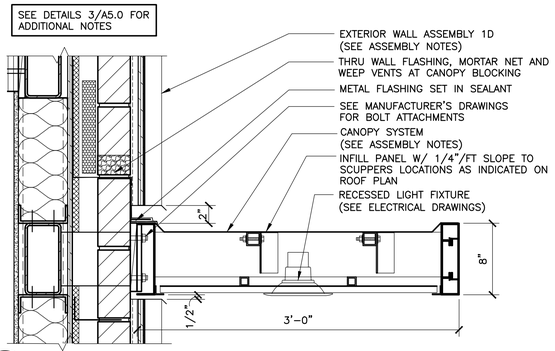
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

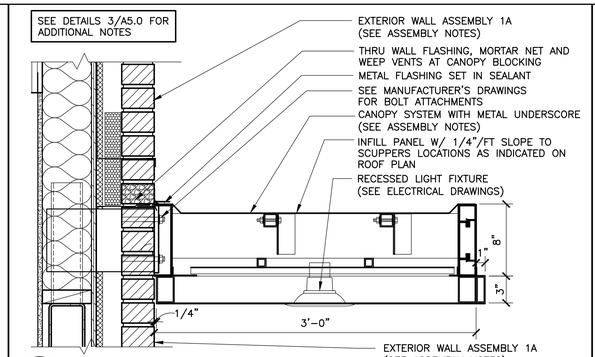
NSN:43016
L/C:024–1306

SHEET NO.: 024–1306.00.0
A5.2
WALL SECTIONS



1 A5.3 **DETAIL– CANOPY @ BATTENS**

1 1/2" = 1'-0"

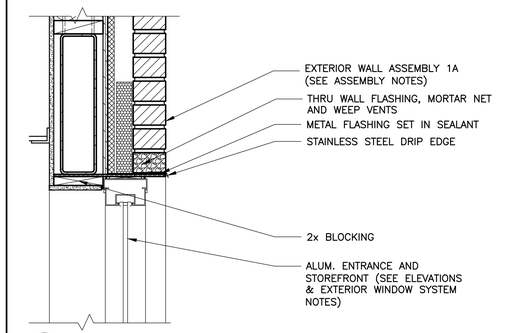


2 A5.3 **DETAIL– CANOPY ABOVE ENTRY**

1 1/2" = 1'-0"

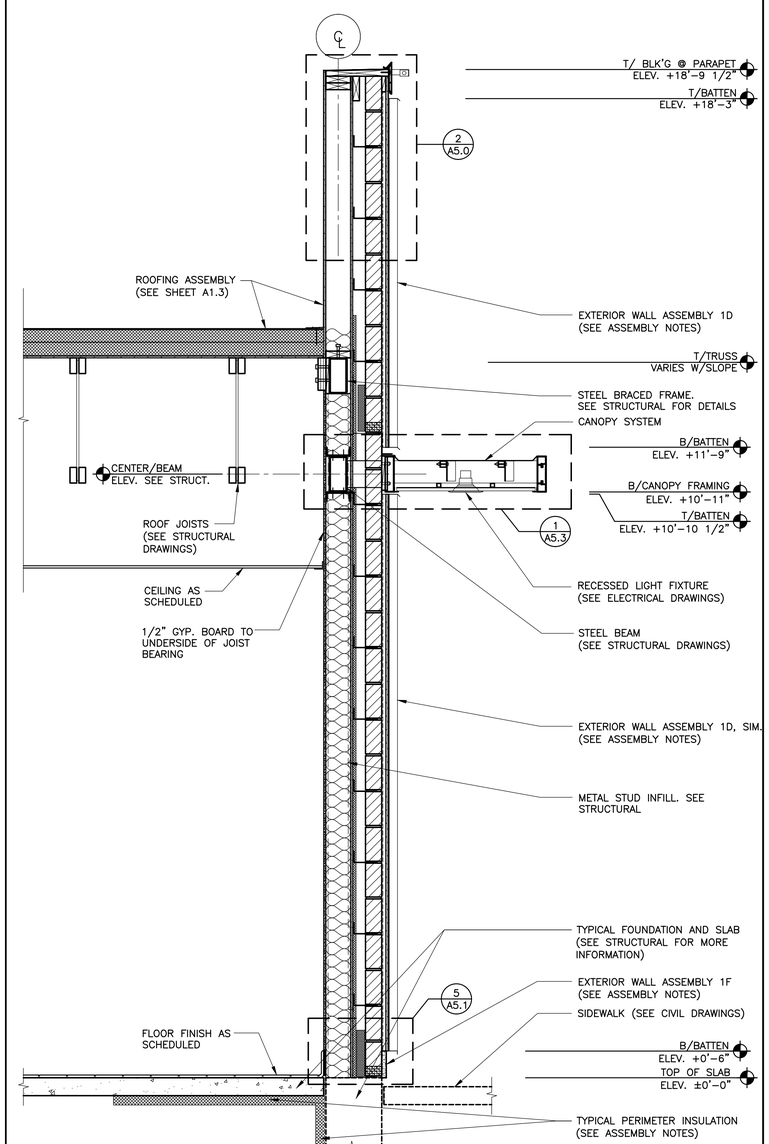
3 A5.3 **NOT USED**

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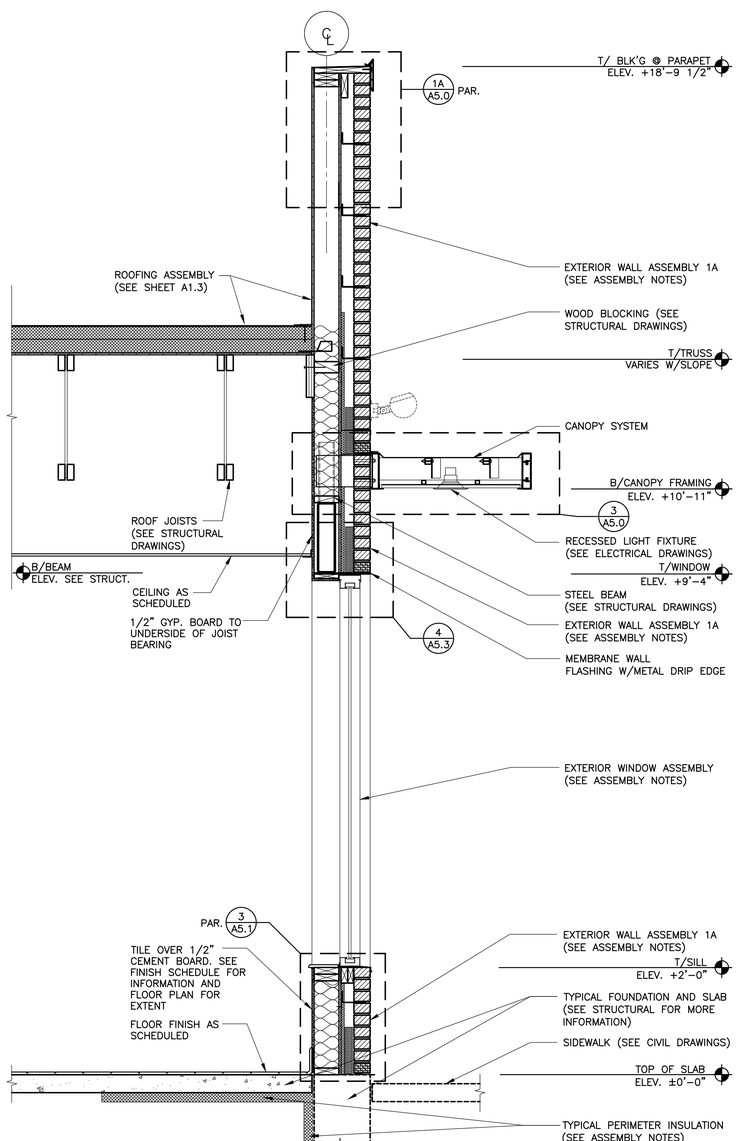
4 A5.3 **DETAIL– STOREFRONT HEADER**

1 1/2" = 1'-0"



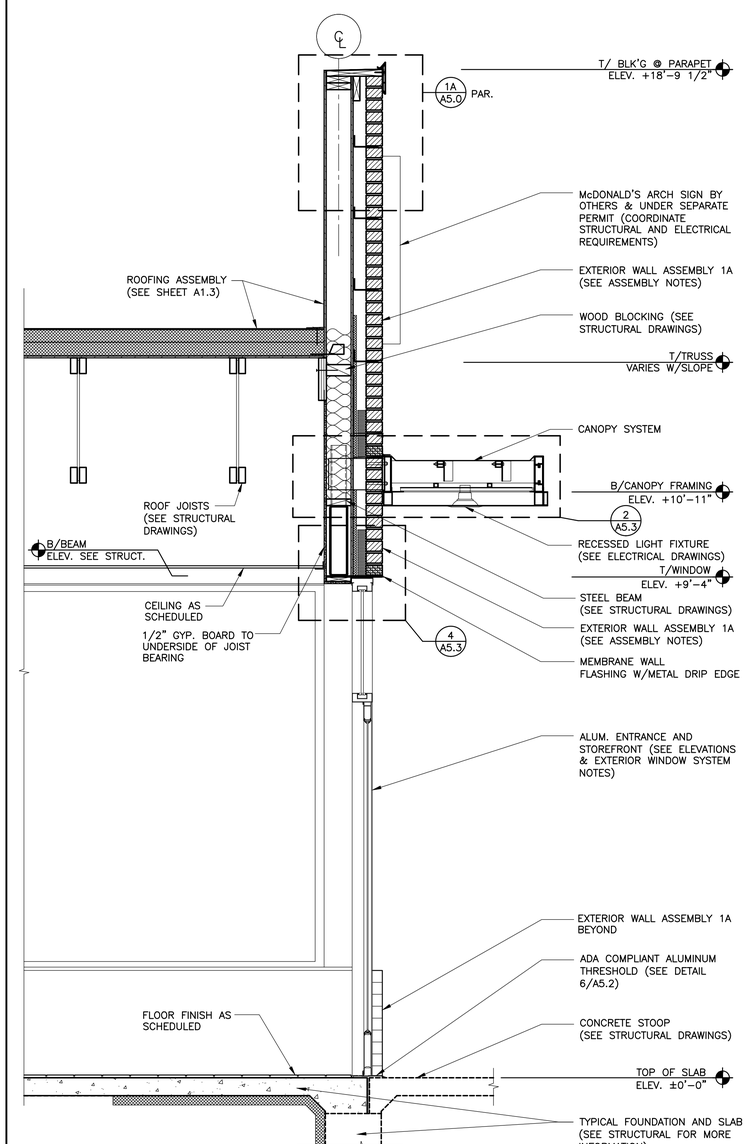
5 A5.3 **WALL SECTION – FRONT CORNER BATTEN**

3/4" = 1'-0"



6 A5.3 **WALL SECTION – STORE FRONT**

3/4" = 1'-0"



7 A5.3 **WALL SECTION – FRONT ENTRANCE**

3/4" = 1'-0"

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

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Burnsville, MN 55337
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Fax: (952) 252-4843

PREPARED FOR:
McDonald's USA, LLC

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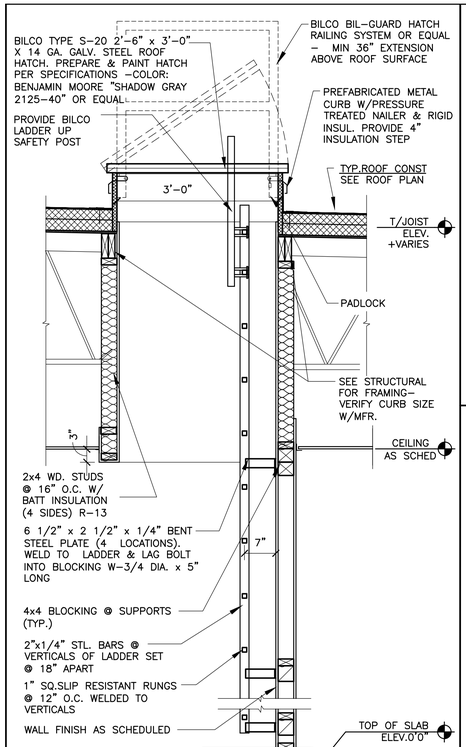
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STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	02 26 2025
	RQ# 24247

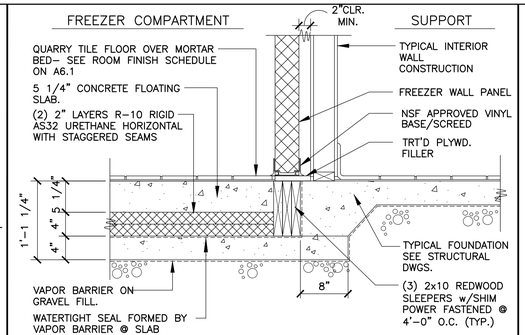
TITLE
2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
	WOOD TRUSS ROOF FRAMING
	E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
MSN: 43016	SITE ADDRESS
L/C: 024–1306	8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.
024–1306.00.0
A5.3
WALL SECTIONS

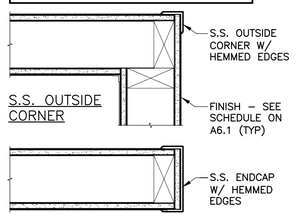


1 A6.0 **SECTION @ INTERIOR LADDER**
3/4"=1'–0"

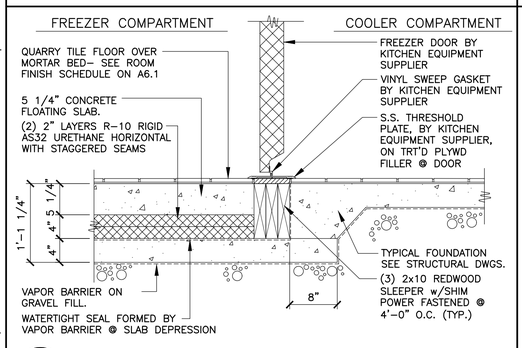


2 A6.0 **FREEZER FLOOR DETAIL @ INT. WALL**
1"=1'–0"

NOTE:
1. BUTT FINISH & TRIM PIECES TO S.S. ENDCAP & CORNER GUARD.
2. CORNER GUARDS & END CAPS TYPICAL AT KITCHEN, SUPPORT ROOM, & SELF SERVE BEVERAGE AREAS
3. SEE 'CG' KEY NOTE ON A1.0

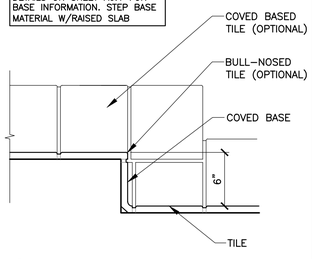


4 A6.0 **STAINLESS STEEL DETAILS**
1/2"=1'–0"



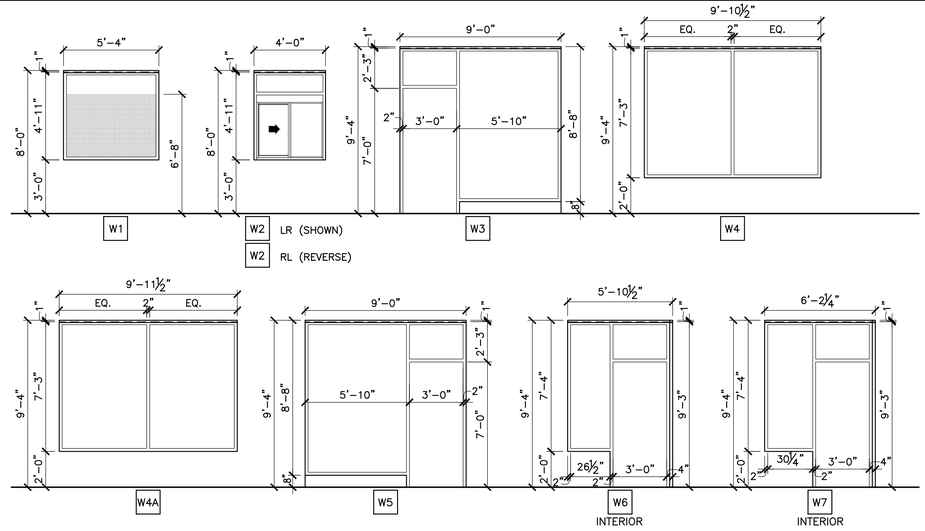
3 A6.0 **FREEZER FLOOR DETAIL @ DOOR**
1"=1'–0"

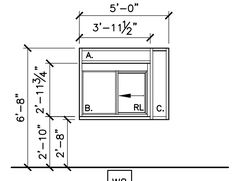
NOTE:
SEE FINISH SCHEDULES & DETAILS ON SHEET A6.1 FOR BASE INFORMATION. STEP BASE MATERIAL W/RAISED SLAB



5 A6.0 **DETAIL RAISED SLAB**
1 1/2"=1'–0"

FRAME TYPES





OPTIONAL LATE NIGHT WINDOW, FOR HIGH DELIVERY RESTAURANTS

A. STOREFRONT WINDOW ASSEMBLY – TEMPERED GLASS COLOR: DARK BRONZE
B. LATE NIGHT WINDOW COLOR: DARK BRONZE
C. METAL INFILL PANEL. MATCH DARK BRONZE WINDOW ASSEMBLY

PICK–UP WINDOW SPECIFICATION
MODEL: READY ACCESS 275 SERIES
FRAME SIZE – 47.5"W x 35.75"H x 4"D
SERVICE OPENING – 19"W x 27"H
MANUAL OPEN/SELF CLOSE

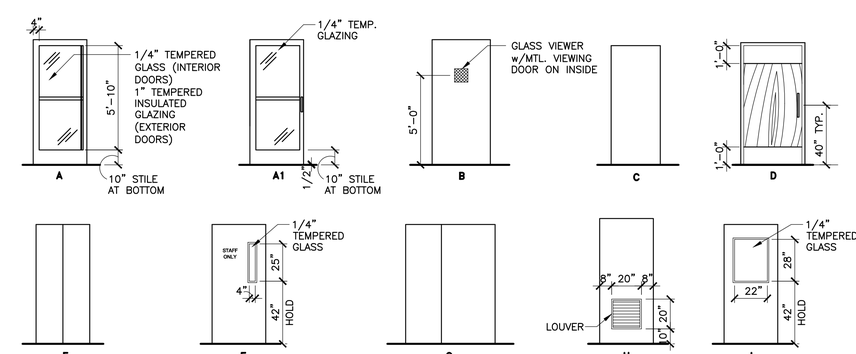
EXTERIOR WINDOW ASSEMBLY
(STOREFRONT & ENTRANCE SYSTEM)
FOR GLAZING & FRAME REQUIREMENTS: SEE EXTERIOR WINDOW ASSEMBLY, 4/A5.0

INTERIOR WINDOW ASSEMBLY
(STOREFRONT & ENTRANCE SYSTEM)
1. DARK BRONZE ALUMINUM FRAME, THERMALLY BROKEN WITH HEAD RECEIVER CHANNEL.
2. 1/4" CLEAR TEMPERED GLAZING
3. 1/2" CORIAN SILL EACH SIDE

DOOR SCHEDULE

MARK	DOOR MATERIAL	DOOR SIZE	DOOR TYPE	FRAME MATL.	FRAME SIZE
1	ALUM.	3'–0"x7'–0"x1 3/4"	A	ALUM.	(NOTE 5)
2	ALUM.	3'–0"x7'–0"x1 3/4"	A1	ALUM.	(NOTE 5)
2A	ALUM.	3'–0"x7'–0"x1 3/4"	A1	ALUM.	(NOTE 5)
3	H.M.	4'–0"x7'–0"x1 3/4"	B	H.M.	2"JAMB 4"HD
3A	H.M.	5'–0"x7'–0"x1 3/4"	G	H.M.	2"JAMB 4"HD
4	H.M.	3'–0"x7'–0"x1 3/4"	B	H.M.	2"JAMB 4"HD
5	S.C. WOOD W/ LAM.	3'–0"x6'–8"x1 3/4"	C	H.M.	2"JAMB & HEAD
6	S.C. WOOD W/ LAM.	3'–0"x4'–8"x1 3/4"	D	H.M.	2"JAMB & HEAD
6A	S.C. WOOD W/ LAM.	2'–6"x4'–8"x1 3/4"	D	H.M.	2"JAMB & HEAD
7	S.C. WOOD W/ LAM.	3'–0"x6'–8"x1 3/4"	C	H.M.	2"JAMB & HEAD
8		NOT USED			
8A	S.C. WOOD W/ LAM.	(2) 1'–2"x8'–0"x1 3/4"	E	H.M.	2"JAMB & HEAD
9A	INSULATED METAL	3'–0"x6'–6"x4"	C	N/A	N/A
9B	INSULATED METAL	4'–0"x6'–6"x4"	C	N/A	N/A
10	H.M.	3'–0"x7'–0"x1 3/4"	F	H.M.	2"JAMB & HEAD
11		NOT USED			
12		NOT USED			
13		NOT USED			
14	S.C. WOOD W/ LAM.	3'–0"x6'–8"x1 3/4"	J	H.M.	2"JAMB 4" HD (OPTIONAL)
15	H.M.	3'–0"x7'–0"x1 3/4"	H	H.M.	2"JAMB 4"HD
16	S.C. WOOD W/ LAM.	3'–0"x7'–0"x1 3/4"	C	H.M.	2"JAMB & HEAD

GENERAL DOOR NOTES:
1. GC TO INSTALL ACCESSIBILITY DOOR SIGNS WHERE REQ'D BY LOCAL CODES – SEE GENERAL NOTE 6, SHEET A1.0
2. ALARM CONTACT SWITCHES SHALL BE RECESSED INTO THE TOP OF THE DOOR & HOLLOW METAL FRAME ABOVE.
3. DOORS, DOOR FRAMES, & HARDWARE FOR DOORS 3, 3A, 4, 5, 6, 6A, 7, 8, 8A, 10, 11, 12, 14, 15, 16 SUPPLIED BY: UNIVERSAL MANUFACTURING 1–800–821–1414.
4. DOOR 9 SUPPLIED BY FREEZER/COOLER MANUFACTURER
5. SEE ELEVATIONS AND WALL SECTIONS
6. ALL INTERIOR SOLID CORE WOOD DOORS TO HAVE A LAMINATED FINISH.
7. DOOR 8 & 8A – 1" UNDERCUT FOR MAKE UP AIR. LAMINATED FINISH – "WILSONART DOVE GREY" D92–60
8. DOOR 3, 3A, 4 & 15 TO HAVE MAXIMUM U VALUE = 0.61
9. DOOR 5 RESTROOM EXTERIOR 7 – LAMINATED FINISH, PER DECOR PORTFOLIO:
   GEOMETRY – "LAMITECH 2315 MT DARKSTEEL" FRAME FINISH – BENJAMIN MOORE "GRAY 2121–10"
   LUNA – "LAMITECH 1467 MT LINEAL OAK" FRAME FINISH – BENJAMIN MOORE "GRAY 2121–10"
   ROUTE 66 – "WILSONART NORTH SEA D90–60" FRAME FINISH – BENJAMIN MOORE "WHALE GRAY 2134–40"
   RAY – "LAMITECH 2255 MT IRON" FRAME FINISH – BENJAMIN MOORE "MIDNIGHT OIL 1631"
10. DOOR 5 RESTROOM INTERIOR, 6, 6A – LAMINATED FINISH – "LAMITECH ONTARIO OAK 1540 PW" FRAME FINISH BENJAMIN MOORE "GRAY 2121–10"



DOOR TYPES

DOOR HARDWARE

GENERAL NOTES:
1. ALL EXIT DOORS SHALL BE KEYLESS IN THE DIRECTION OF EGRESS.
2. THE OPENING FORCE OF ALL EXT. PUSH/PULL DOORS SHALL NOT EXCEED 8 1/2 LBS.
3. THE OPENING FORCE OF ALL INTERIOR PUSH/PULL DOORS SHALL NOT EXCEED 5 LBS.
4. PROVIDE PANIC HARDWARE FOR ALL EXTERIOR DOORS AS NOTED ON THE DOOR SCHEDULE.
5. ALL DOOR HARDWARE SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.

DOOR #1 – ENTRY DOOR/EMERGENCY EXIT
1. 1 EA CLOSER LCN 4021 x 18
2. 3 EA HINGES OFFSET PIVOT ANSI –A–156.4 GRADE 1; PROVIDE EXPOSED PARTS OF CAST ALUMINUM ALLOY, AS SUPPLIED BY DOOR MANUFACTURER.
3. 1 EA (DOOR #1 ONLY) PULL HANDLE ROCKWOOD MFG. MODEL: RM3311. SIZE: 1–1/4" DIA. CTC: 5'–10". FINISH: TO MATCH STOREFRONT DOOR. OFFSET MOUNTING: TYPE 1XHD – THRU BOLT HEAVY DUTY
4. 1 EA PANIC HARDWARE ADAMS RITE MFG. CO. 8800 SERIES WITH OUTSIDE CYLINDER (FINISH TO MATCH STOREFRONT DOOR)
5. 1 EA THRESHOLD NATIONAL GUARD PRODUCTS, INC. SADDLE TYPE THRESHOLD 325, 36" WIDE x 1/2" RISE (ADA ACCESSIBLE).
6. 1 EA WEATHER STRIPPING: PROVIDE COMPRESSION WEATHER STRIPPING AGAINST FIXED STOPS. AT OTHER EDGES PROVIDE SLIDING WEATHER STRIPPING RETAINED IN ADJUSTABLE STRIP MORTISED INTO DOOR EDGE. PROVIDE EPDM OR VINYL GASKET WEATHER STRIPPING IN BOTTOM DOOR RAIL ADJUSTABLE FOR CONTACT W/ THRESHOLD.
7. 1 EA SIGN MOUNT ONTO DOOR. TO READ "THIS DOOR MUST REMAIN UNLOCKED WHENEVER THE BUILDING IS OCCUPIED/DURING BUSINESS HOURS."

DOOR #2 & #2A – VESTIBULE
1. 1 EA CLOSER LCN 4041 x 18
2. 3 EA HINGES OFFSET PIVOT ANSI –A–156.4 GRADE 1; BY DOOR MANUFACTURER.
3. 1 EA PUSH/PULL HANDLE HAGER PUSH/PULL SET 164D/V/B.
4. 1 EA (DOOR #2A) PANIC HARDWARE ADAMS RITE MFG. CO. 8800 SERIES WITH OUTSIDE CYLINDER (FINISH TO MATCH STOREFRONT DOOR)

DOOR #3 – STORAGE DELIVERY
1. 1 EA HINGE 780–112HD 83" ALUM HAGER
2. 1 EA CLOSER 4111 H–CUSH ALUM LCN
3. 1 EA PANIC 9975EO–LD 48" SP28 V.DUPRIN
4. 1 EA TRIM 990DT US26D V.DUPRIN
5. 1 EA ALARM LOCK PG21MSS ALARM
6. 1 EA LOCKGUARD CLP110 US32D DON–JO
7. 1 EA TREADPLATE 24 X 46 UMCO
8. 1 EA WTH/STP160V 48 X 84 N.GUARD
9. 1 EA THRESHOLD 325HD 48" N.GUARD
10. 1 EA SWEEP 101VA 48" N.GUARD
11. 1 EA VIEW FRAME LVGLFMD 9 X 9 DKB W/FLAP ON INSIDE N.GUARD
12. 1 EA MORTISE CYL HOUSING 7PIN SFIC 626
13. 1 EA 7 PIN CONSTRUCTION CORE FOR ABOVE 626
14. 1 EA CONTROL KEY FOR ABOVE

DOOR #3A – FREEZER DELIVERY (DOUBLE DOOR)
1. 2 EA CONTINUOUS HINGE A210HDC 83
2. 1 EA DEADBOLT B661P 626 SCHLAGE
3. 1 EA LATCH PROTECTOR CLP–110 630
4. 1 EA PULL H3E US28 HAGER
5. 1 EA GASKETING 160V 1 x 60" 2 x 84" SMS–TEKS 6 x 3/4"
6. 1 EA DRIP CAP 16 A 64" SMS–TEKS 6 x 3/4"
7. 1 EA TREADPLATE DIA CUT W/ HOLES 24" x 22"
8. 1 EA TREADPLATE DIA CUT W/ HOLES 24" x 34"
9. 2 EA SURFACE BOLT 2750 8" US26D
10. 1 EA THRESHOLD 325 HD 60" N.GAURD
11. 1 EA SWEEP 101VA 24" N.GAURD
12. 1 EA SWEEP 101VA 36" N.GAURD

DOOR #4 – REAR EXIT
1. 1 EA HINGE 780–112HD 83" ALUM HAGER
2. 1 EA CLOSER 4111 H–CUSH ALUM LCN
3. 1 EA PANIC 9975EO–LD 48" SP28 V.DUPRIN
4. 1 EA TRIM 990DT US26D V.DUPRIN
5. 1 EA ALARM LOCK PG21MSS ALARM
6. 1 EA LOCKGUARD CLP110 US32D DON–JO
7. 1 EA TREADPLATE 24 X 34 UMCO
8. 1 EA WTH/STP160V 36 X 84 N.GUARD
9. 1 EA THRESHOLD 325HD 48" N.GUARD
10. 1 EA SWEEP 101VA 36" N.GUARD
11. 1 EA VIEW FRAME LVGLFMD 9 X 9 DKB W/FLAP ON INSIDE N.GUARD
12. 1 EA MORTISE CYL HOUSING 7PIN SFIC 626
13. 1 EA 7 PIN CONSTRUCTION CORE FOR ABOVE 626
14. 1 EA CONTROL KEY FOR ABOVE

DOOR #5 – RESTROOM ENTRY
1. 3 EA HINGE BB1279 4 ½ X 4 ½ US26D HAGER
2. 1 EA CLOSER LDPA4031 SNB ALUM LCN
3. 1 EA PUSH PLATE 30S 4 X 32 US32D 40"AFF MOUNTED TO CENTER OF PLATE
4. 1 EA PULL PLATE LADDER PULL HANDLE WITH DECORATIVE FIXING, 32"L 1"DIA #S–32–1000 – UMCO 32D. 40" AFF MOUNTED CENTER OF PULL
   ALT. OPTION: 1 EA PULLPLATE SANITGRASP
   ALT. OPTION: 1 EA PULL–PUSH BUTTON CYLINDRICAL LOCK – TRILOGY DL2700 US26D CHROME
5. 2 EA KICKPLATE 190S 8 X 34 US32D HAGER
6. 1 EA DOOR STOP 236W US32D HAGER
7. 1 EA FINGER GRD MKIA PUSH SIDE BRN F.SAFE
8. 1 EA FINGER GRD MKIB PULL SIDE BRN F.SAFE
9. 1 EA STEPNPULL PULL SIDE (OPTIONAL)

DOOR #6 – ADA STALL
1. 2 EA HINGE 1250 4 ½ X 4 ½ US26D HAGER
2. 1 EA HINGE BB1279 4 ½ X 4 ½ US26D HAGER
3. 1 EA DEADBOLT B571 X 10–087 214EE X 12 X 291 X 626 SCHLAGE
4. 2 EA BACK TO BACK LADDER PULL HANDLE, 16"L 1"DIA #S–16–100D BTB–UMCO 32D MOUNTED 6" FROM EDGE OF DOOR TO CENTER OF SCREWS – 28½" MOUNTED 28¾" FROM TOP OF DOOR TO C/L OF PULL
5. 1 EA ROBE HOOK 917 BRADLEY
6. 1 EA DOOR STOP 236W US32D HAGER

DOOR #6A – STANDARD STALL
1. 2 EA HINGE 1250 4 ½ X 4 ½ US26D HAGER
2. 1 EA HINGE BB1279 4 ½ X 4 ½ US26D HAGER
3. 1 EA DEADBOLT B571 X 10–087 214EE X 12 X 291 X 626 SCHLAGE
4. 2 EA BACK TO BACK LADDER PULL HANDLE, 16"L 1"DIA #S–16–100D BTB–UMCO 32D MOUNTED 6" FROM EDGE OF DOOR TO CENTER OF SCREWS – 28½" MOUNTED 28¾" FROM TOP OF DOOR TO C/L OF PULL
5. 1 EA ROBE HOOK 917 BRADLEY
6. 1 EA DOOR STOP 236W US32D HAGER

DOOR #7 – DINING ROOM JANITORS CLOSET
1. 3 EA HINGE BB1279 4 ½ X 4 ½ US26D HAGER
2. 1 EA LOCK ND80PD RHO 626 SCHLAGE

DOOR #8A – COMPUTER CLOSET
1. 8 EA HINGE BB1279 4 ½ X 4 ½ US26D HAGER
2. 1 EA LOCK ND80PD RHO 626 SCHLAGE
3. 2 EA FLUSH BOLT 283D US26D HAGER

DOOR #9A & #9B – COOLER
1. ALL DOOR HARDWARE FOR THE REFRIGERATED COOLER / FREEZER SHALL BE PROVIDED BY THE MANUFACTURER.
   MANUFACTURER: KOLPAK @ HY 641 N. McCORKLE PARK ROAD PARSONS, TN 38363 PHONE: 800–344–4675
   HARDWARE PROVIDED:
   2. THRESHOLD REINFORCED PLASTIC (FRP)
   3. POSI–SEAL DOOR CLOSURE
   4. STATIONARY CHROME DOOR PULL HANDLE
   5. INTERIOR SAFETY RELEASE HANDLE
   6. HINGES – BRUSHED CHROME CAST ALLOY

DOOR #10
1. 1 EA HINGE 780–112HD 83" ALUM HAGER
2. 1 EA CLOSER 1461 RW/PA ALUM LCN
3. 1 EA LOCK ND80PD RHO 626 SCHLAGE
   OPTIONAL – FOR OUTSWING DOOR REPLACE WITH 3A&B:
   3A. 1 EA PANIC 9975EO–LD 36" SP28 V.DUPRIN
   3B. 1 EA TRIM 990DT US26D V.DUPRIN
4. 1 EA ELEC STRIKE 6211 24V DC FSE US32D SCHLAGE
5. 1 EA PWR SUPPLY PS902 SCHLAGE
6. 1 EA ANNUNCIATOR BSV–24P SURFACE MOUNTED
7. 3 EA PUSH BUTTON 621–BK–DA HDP 626 SCHLAGE
8. 1 EA PUSH BUTTON 621–RD–DA HDP 626 SCHLAGE
9. 1 EA HORN WITH STROBE 1910S SCHLAGE
10. 1 EA GLASS 5 X 26 X ¼ UMCO
11. 1 EA VIEW FRAME LFRA10O 6 X 27 DKB N.GUARD
12. 1 EA GLASS 5 X 26 X ¼ UMCO

DOOR #14 (OPTIONAL) MANAGERS OFFICE
1. 3 EA HINGE BB1279 4 ½ X 4 ½ US26D HAGER
2. 1 EA LOCK ND53BD RHO 626 FINISH SCHLAGE
3. 1 EA VIEW FRAME LFRA10O 24 X 30 DKB N.GUARD
4. 1 EA GLASS 23 X 29 X ¼ CLEAR UMCO
5. 1 EA 7 PIN CONSTRUCTION CORE 626
6. 1 EA CONTROL KEY FOR ABOVE

DOOR #15 CO2
1. 1 EA HINGE 780–112HD 83" ALUM HAGER
2. 1 EA LOCK ND80PD RHO 626 SCHLAGE
3. 1 EA LOCK GUARD CLP110 US32D DON JO
4. 1 EA WTH/STP 160V 36 X 84 N.GUARD
5. 1 EA THRESHOLD 425E 36" N.GUARD
6. 1 EA SWEEP 101VA 36" N.GUARD
7. 1 EA SEC. LOUVER LVRSG–3 DKB 18 X 18 N.GUARD

DOOR #16 CREW ROOM
1. 3 EA HINGE BB1279 4 ½ X 4 ½ US26D HAGER
2. 1 EA ND60PD RHO VESTIBULE LEVER LOCK SCHLAGE

DOOR SCHEDULE

NO.	DESCRIPTION	DATE
.	REV	
	BID SET	02/26/25
	BID SET	12/06/24
AL	DESCRIPTION	
AL	DESCRIPTION	
BY	DATE	

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY: AL | STD ISSUE DATE: 2024 05 | REVIEWED BY: KD | DATE ISSUED: 02 26 2025 | ROJ# 24247

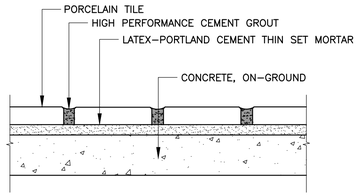
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4584–WOOD/WOOD

DESCRIPTION	SITE ADDRESS
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
NSN: 43016	8712 N. Indiana Avenue, Kansas City, MO 64156
	L/C: 024–1306

SHEET NO.: A6.0 | 024–1306.00.0
DOOR & HARDWARE

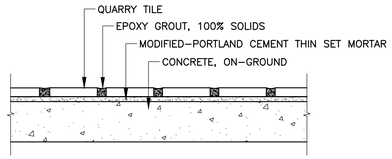
1 / A6.1 — NOT USED

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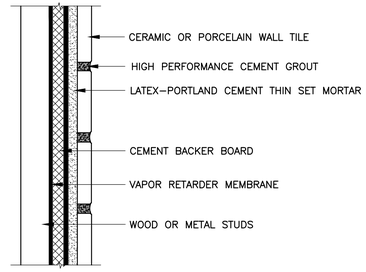
2 / A6.1 — RESTROOM AND DINING ROOM FLOORS OVER CONCRETE

N.T.S.



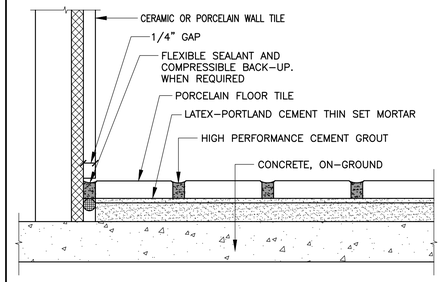
3 / A6.1 — KITCHEN/SUPPORT FLOORS OVER CONCRETE

N.T.S.



4 / A6.1 — DINING ROOM INTERIOR WALLS OVER WOOD OR METAL STUDS

N.T.S.



5 / A6.1 — DINING ROOM PERIMETER JOINT

N.T.S.

WALL TILE SCHEDULE – LUNA

MARK	ROOM NAME	WALL		MORTAR SETTING BED	GROUT
100	CUSTOMER SERVICE	CERAMIC OR PORCELAIN WALL TILE	(NOTE 5C)	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
101	DINING	SEE DINING ROOM FINISH SCHEDULE	(NOTE 5B & 5C)	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
102	WOMEN'S TOILET	CERAMIC OR PORCELAIN WALL TILE	(NOTE 4)	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT (NOTE 4)
103	MEN'S TOILET	CERAMIC OR PORCELAIN WALL TILE	(NOTE 4)	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT (NOTE 4)
104	SUPPORT	N/A – SEE ROOM FINISH SCHEDULE		----	----
105	KITCHEN	N/A – SEE ROOM FINISH SCHEDULE		----	----
106	PRESENTER–1	CERAMIC WALL TILE		LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
107	ORDER	N/A – SEE ROOM FINISH SCHEDULE		----	----
108	MANAGER'S OFFICE	N/A – SEE ROOM FINISH SCHEDULE		----	----
109	CREW ROOM	SEE ROOM FINISH SCHEDULE	(NOTE 5B)	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
110	COOLER	N/A – SEE ROOM FINISH SCHEDULE		----	----
111	FREEZER	N/A – SEE ROOM FINISH SCHEDULE		----	----
112	COMPUTER CLOSET	N/A – SEE ROOM FINISH SCHEDULE		----	----
113	CREW ALCOVE	N/A – SEE ROOM FINISH SCHEDULE		----	----
114	JANITOR'S CLOSET	N/A – SEE ROOM FINISH SCHEDULE		----	----
115	VESTIBULE	CERAMIC WALL TILE		LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
116	PRESENTER–2	CERAMIC WALL TILE		LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
117	CO2	N/A – SEE ROOM FINISH SCHEDULE		----	----

FLOOR TILE SCHEDULE – LUNA

MARK	ROOM NAME	FLOOR	BASE	MORTAR SETTING BED	GROUT
100	CUSTOMER SERVICE	PORCELAIN FLOOR TILE (NOTE 3)	NONE – WALL TILE	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
101	DINING	PORCELAIN FLOOR TILE (NOTE 3)	NONE – WALL TILE	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
102	WOMEN'S TOILET	PORCELAIN FLOOR TILE (NOTE 4)	NONE – WALL TILE (NOTE 5A)	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
103	MEN'S TOILET	PORCELAIN FLOOR TILE (NOTE 4)	NONE – WALL TILE (NOTE 5A)	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
104	SUPPORT	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
105	KITCHEN	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
106	PRESENTER–1	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
107	ORDER	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
108	MANAGER'S OFFICE	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
109	CREW ROOM	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
110	COOLER	QUARRY TILE (NOTE 2)	4" ALUM. COVED BASE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
111	FREEZER	QUARRY TILE (NOTE 2)	4" ALUM. COVED BASE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
112	COMPUTER CLOSET	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
113	CREW ALCOVE	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
114	JANITOR'S CLOSET	PORCELAIN FLOOR TILE	COVED QUARRY TILE	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
115	VESTIBULE	PORCELAIN FLOOR TILE	NONE – WALL TILE	LATEX–PORTLAND CEMENT THIN SET (MEDIUM BED)	HIGH PERFORMANCE CEMENT GROUT
116	PRESENTER–2	QUARRY TILE (NOTE 2)	COVED QUARRY TILE	MODIFIED–PORTLAND CEMENT THIN SET MORTAR (MEDIUM BED)	CHEMICAL RESISTANT, WATER–CLEANABLE, TILE–SETTING EPOXY – 100% SOLIDS, INDUSTRIAL–GRADE
117	CO2	N/A – SEE ROOM FINISH SCHEDULE	----	----	----

ROOM FINISH SCHEDULE – LUNA

MARK	ROOM NAME	WALLS			CEILING *	REMARKS
		SUBSTRATE	FINISH			
100	CUSTOMER SERVICE	CEMENT BOARD	TILE **	TILE AS NOTED ON A1.0 AND A3.1	2'x2' VINYL–FACED LAY–IN	
101	DINING	CEM BD/GYP BD	TILE/V.W.C. **	SEE DINING ROOM FINISH SCHEDULE	SEE DINING ROOM FINISH SCHEDULE	
102	WOMEN'S TOILET	CEMENT BOARD	TILE		PAINTED GYP. BD.	BENJAMIN MOORE – "OC–17 WHITE DOVE"
103	MEN'S TOILET	CEMENT BOARD	TILE		PAINTED GYP. BD.	BENJAMIN MOORE – "OC–17 WHITE DOVE"
104	SUPPORT	CEMENT BOARD	TILE	STAINLESS STEEL CORNERS	2'x2' VINYL–FACED LAY–IN	SEE NOTE 5 FOR WALL FINISH EXCEPTIONS
105	KITCHEN	CEMENT BOARD	TILE	STAINLESS STEEL CORNERS, TILE OVER CEM BD AS NOTED ON A1.0	2'x2' VINYL–FACED LAY–IN	SEE SHEET A1.0 FOR EXTENT OF CEMENT BOARD, SS OR CT
106	PRESENTER –1	CEM BD, 1/2" PLYWD (NOTE 4)	TILE	TILE AS NOTED ON A1.0	2'x2' VINYL–FACED LAY–IN	
107	ORDER	CEMENT BOARD	TILE		2'x2' VINYL–FACED LAY–IN	
108	MANAGER'S AREA	CEMENT BOARD	TILE		2'x2' VINYL–FACED LAY–IN	
109	CREW ROOM	CEM BD/GYP BD	TILE/V.W.C. **	SEE NOTE 8	2'x2' ACOUST. LAY–IN	
110	COOLER	N/A	PRE–FAB METAL SKIN PANEL		PRE–FAB METAL SKIN PANEL	BASE SUPPLIED BY KES
111	FREEZER	N/A	PRE–FAB METAL SKIN PANEL		PRE–FAB METAL SKIN PANEL	BASE SUPPLIED BY KES
112	COMPUTER CLOSET	CEMENT BOARD	TILE		PAINTED GYP. BD.	
113	CREW ALCOVE	CEMENT BOARD	TILE	STAINLESS STEEL CORNERS, TILE OVER CEM BD AS NOTED ON A1.0	2'x2' VINYL–FACED LAY–IN	SEE SHEET A1.0 FOR EXTENT OF CEMENT BOARD, SS OR CT
114	JANITOR'S CLOSET	1/2" PLYWD (NOTE 4)	FRP		PAINTED GYP. BD.	EXT GRADE PLYWOOD (NOTE 4) SEE NOTE 5A
115	VESTIBULE	CEM BD/GYP BD	TILE/V.W.C.	SEE DINING ROOM FINISH SCHEDULE	SEE DINING ROOM FINISH SCHEDULE	OPTIONAL PEDIMAT. SEE DETAIL 7/A6.1. VERIFY WITH MCD CONSTRUCTION MANAGER
116	PRESENTER –2	CEMENT BOARD	TILE	TILE AS NOTED ON A1.0	2'x2' VINYL–FACED LAY–IN	
117	CO2	CEMENT BOARD	TILE		PAINTED GYP. BD.	EXT GRADE PLYWOOD (NOTE 4) SEE NOTE 7

DINING ROOM FINISH SCHEDULE – LUNA

MARK	QUANTITY	TYPE	PRODUCT, FINISH & COLOR	REMARKS
D1	N/A	WALL/WAINSCOT TILE	CROSSVILLE – MOONLIGHT GREY 24"x24"	GROUT: MAPEI ULTRACOLOR GRAY 09 – JOINT 1/16" MAX
D2	N/A	WALL PANELING	LAMITECH – 1467 MT LINEAL OAK 48"x120"	
D3	N/A	WALL PANELING	MDF WITH ROUTED V–GROOVE, LAQUERED TO MATCH RAL 9010, 3/4"x47.5"X96"	
D4	N/A	WALLCOVERING	KOROSEAL WALLCOVERING – 7421–30 CIPRIANI FOUNTAIN HEAD	
D5	N/A	WALLCOVERING	ASA WALLCOVERING – NAT–GREEN	
D6	N/A	SERVICE AREA TRIM	SCHLUTER – QUADEC – TUSCAN PEWTER Q80TSG	
D7	N/A	MAIN DINING TRIM	SCHLUTER – QUADEC – SATIN ANODIZED ALUMINUM	
D8	N/A	LAMINATE BASE	LAMITECH – 2255 MT IRON, COMPACT	
D9	N/A	WINDOW SILLS AND CASEMENT	DUPONT –CORIAN "DEEP CLOUD"	
D10	N/A	MAIN CEILING TILE	ACOUSTICAL SURFACES INC. – WOOD WOOL "5/8"x24"x48" DROP IN CEILING W/ SQUARE EDGES	FACTORY PAINTED: BENJAMIN MOORE – GALVESTON GRAY AC–27
D11	N/A	MAIN CEILING GRID	USG – DX/DXL INTERMEDIATE DUTY GRID	CUSTOM PAINTED: BENJAMIN MOORE – GALVESTON GRAY AC–27
D12	N/A	CEILING VENT PAINT	BENJAMIN MOORE – GALVESTON GRAY AC–27	
D13	1	PARTITION W/ HALF WALL	TEXTURED GREY POWDERCOAT ROUND MESH AND FRAME, WALL FINISH – LAMITECH – 1467 MT LINEAL OAK	TRIM FINISH: SIGNAL YELLOW SEMI–GLOSS POWDERCOAT
D14	1	FRIES WALL GRAPHIC	SET OF 4	LIGHTING BY PERSONA
D15	4	LUNA WINDOW SHUTTER	TEXTURED GREY POWDERCOAT ROUND MESH AND FRAME	
D16	SEE PLAN	COVE LIGHTING	SECURITY LIGHTING – FLEXIBLE TAPE LIGHT	SEE ELECTRICAL
D17	SEE PLAN	PENDANT LIGHTING	SECURITY LIGHTING – ORBIT PENDANT LIGHT	SEE ELECTRICAL
D18				
D19				
D20				

GENERAL FINISH NOTES:

1. REFERENCE: McDONALD'S PROJECT MANUAL – SECTION 093000
2. KITCHEN FLOOR TILE:
   TILE: CROSSVILLE 6"x6" 'METROPOLITAN QUARRY BASICS ABRASIVE'
   GROUT: CHARCOAL #47 BY MAPEI
   KERAPOXY IEG BLACK #10 BY MAPEI (FOR OPTIONAL GREY TILE)
   COLOR: PURITAN GRAY EXTRA ABRASIVE 57XA (STANDARD)
3. DINING ROOM FLOOR TILE:
   TILE: CROSSVILLE 24"x24" 'MOONLIGHT GREY'
   GROUT: MAPEI ULTRACOLOR GRAY 09 – JOINT 1/8" MAX.
4. RESTROOM TILE:
   MAIN WALL TILE: ICG ITALIA – ARCHITECT 12"x24" 'FACTORY'
   ACCENT WALL TILE: ICG ITALIA – SHELTER 4"x12" 'BIANCO MATTE'
   RESTROOM SINK & HAND DRYER PANEL: CORIAN – CAMEO WHITE
   FLOOR TILE: ICG ITALIA – NEW GROUND 12"x24" 'ANTHRACITE'
   GROUT: MAPEI ULTRACOLOR CHARCOAL 47 – JOINT 1/8" MAX
5. TILE TRANSITION AND EDGE PROTECTION:
   A) TILE BASE (RESTROOM ONLY): SCHLUTER DILEX–AHK SERIES, BRUSHED STAINLESS STEEL.
   B) TILE EDGE PROTECTION (WALL TRANSITION): SCHLUTER–RONDEC–DB, SATIN ANODIZED ALUMINUM.
   C) TILE CORNER PROTECTION (OUTSIDE CORNER): SCHLUTER–RONDEC–AE, SATIN ANODIZED ALUMINUM.

   BEFORE FINAL INSPECTION, REMOVE PROTECTIVE COVERINGS AND PERFORM FINAL CLEANING.
6. TILE CLEANER: DETERDEK, BY FILA SURFACE CARE PRODUCTS – NO SUBSTITUTIONS ALLOWED
   CAN BE ORDERED BY ICG ITALIA, CROSSVILLE, OR DIRECT FROM MANUFACTURER: FILA/DETEREK
   POST INSTALLATION CLEANING REQUIRED ON ALL FLOOR TILE INSTALLATIONS PRIOR TO RESTAURANT TURN OVER.

   APPLY CLEANER PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
   REFERENCE: McDONDALDS PROJECT MANUAL – SECTION 09300 TILING INTERIOR.
7. GROUT COLOR AND MANUFACTURER AS INDICATED ON SHEET A1.0 AND INTERIOR DECOR DRAWINGS.

6 / A6.1 — NOT USED

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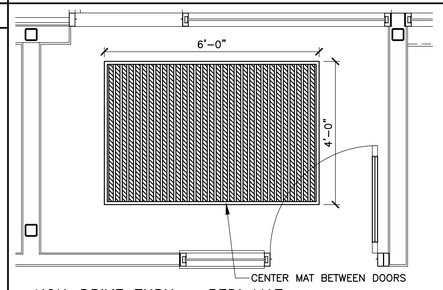
GENERAL FINISH NOTES:

1. ALL FINISH SURFACES OF WALL AND CEILING MATERIALS SHALL BE CLASS B AND SHALL HAVE A FLAME SPREAD RATING OF 26 TO 75 AND A SMOKE DENSITY OF 450 MAX. (PER IBC TABLE 803.9).
2. DECORATIVE MATERIALS SHALL BE FLAME RETARDANT AND MEET THE CRITERIA OF NFPA 701.
3. DECORATIVE MATERIAL SHALL NOT CONCEAL EXITS, EXIT LIGHTS, ALARM STATIONS, HOSE CABINETS, AND EXTINGUISHER LOCATIONS
4. WHEN BUILDING TYPE IS A NON–COMBUSTIBLE CATEGORY, ALL PLYWOOD SHALL BE FIRE RETARDANT TREATED.
5. A. TILE WAINSCOT TO 6' A.F.F. OVER CEMENT BD. OVER EXT GRADE PLYWOOD (NOTE 4) AT MOP SINKS
6. PROVIDE CEMENT BOARD BACKER OR EQUIVALENT AT ALL TILE LOCATIONS.
7. PROVIDE VAPOR BARRIER BEHIND PLYWOOD AT WALLS AND BEHIND GYP. AT CEILING
8. CREW ROOM FINISHES:
   NORTH WALL: MOMENTUM WALL GRAPHIC – VIS703.
   EAST/WEST/SOUTH WALLS: TILE WAINSCOT TO 3' A.F.F. – ICG ITALIA ARCHITECT FACTORY 12"x24". TILE COVE BASE – ICG ITALIA ARCHITECT FACTORY 6"x12". LUNA WOOD WALL COVERING – MOMENTUM NA–5C–MC439 – ENGLEWOOD, ELM.
   CEILING: USG – FROST CLIMAPLUS 534 CHARCOAL 24"x24". PAINT GRID TO MATCH TILE.

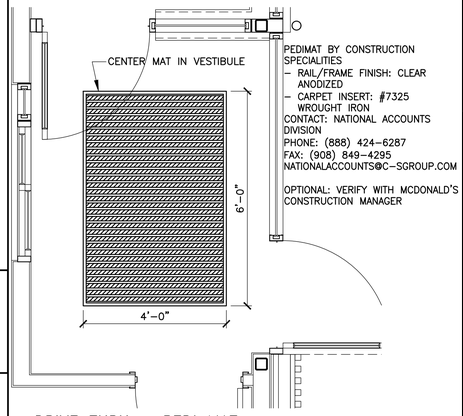
   *TILE OPTION FOR HEALTH CODE: WAINSCOT – ICG ITALIA MA.DE UNI GRIGIO 12"x24". TILE COVE BASE – ICG ITALIA UNI GRIGIO 6"x12".
9. ALL DECOR ELEMENTS MANUFACTURED BY DECOR TO BE PURCHASED AND INSTALLED BY GC, UNO.

* SEE CEILING PLAN FOR HEIGHTS & LAYOUTS

** VWC ON EXTERIOR WALL ASSEMBLIES TO BE PERFORATED



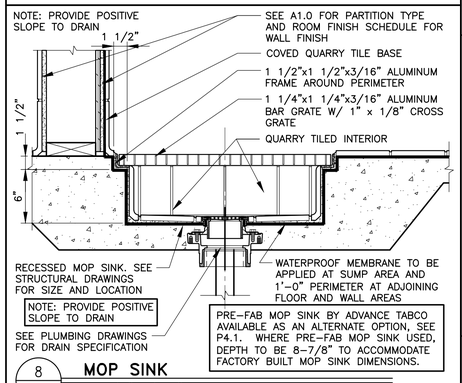
NON–DRIVE THRU – PEDI MAT



DRIVE THRU – PEDI MAT

7 / A6.1 — PEDIMAT (OPTIONAL)

1/2" =1'–0"



8 / A6.1 — MOP SINK

1 1/2"=1'–0"

REV	DATE	DESCRIPTION	BY
.	.		
.	12/06/24	BID SET	AL
.	02/26/25	BID SET	AL

PREPARED BY: enterprise Architecture, Inc. DESIGN
12400 Portland Avenue South
Suite 100, Northpointe Corporate Center
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Office: (952) 252-4042
Cell: (952) 250-4043

PREPARED FOR: McDonald's USA, LLC

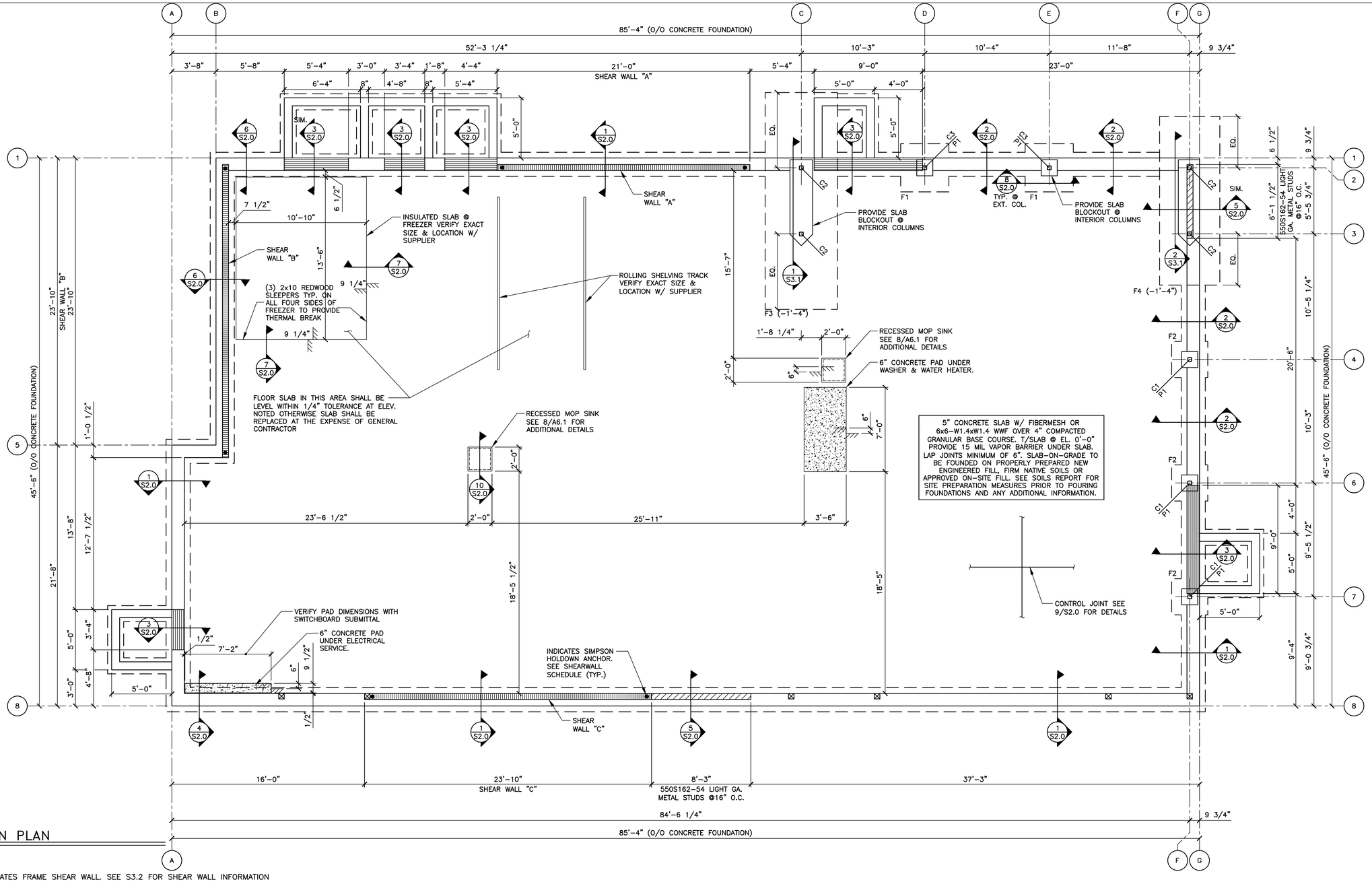
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DRAWN BY: AL
STD. ISSUE DATE: 2024 05
REVIEWED BY: KD
DATE ISSUED: 02 26 2025
RQ# 24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI; WOOD TRUSS ROOF FRAMING; E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
NSN:43016
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306

SHEET NO.: 024–1306.00.0 A6.1
FINISH SCHEDULES



1 S1.0 FOUNDATION PLAN

1/4"=1'-0"

INDICATES FRAME SHEAR WALL. SEE S3.2 FOR SHEAR WALL INFORMATION

INDICATES DEPRESSION IN FOUNDATION WALL @ DOORS. SEE 3/S2.0 FOR THRESHOLD DETAILS.

INDICATES METAL STUD FRAME WALL. SEE 5/S2.0 FOR DETAILS.

NOTES:

1. TOP OF FOOTING @ EL. (-2'-6") UNLESS NOTED OTHERWISE.
2. TOP OF PIER @ EL. (-0'-8") UNLESS NOTED OTHERWISE.
3. SEE SHEET S4.0 FOR GENERAL STRUCTURAL NOTES.
4. PROVIDE POSITIVE DRAINAGE TO ALL FLOOR DRAINS/SINKS (MIN 6") BEYOND DRAIN) SEE PLUMBING DRAWINGS FOR EXACT LOCATIONS
5. SEE SHEET S2.0 FOR TYPICAL CORNER BAR DETAILS.
6. MINIMUM REQUIREMENTS FOR SILL PLATE CONNECTION TO FOUNDATION:
   MINIMUM # OF BOLTS = 2 PER PIECE OF SILL
   MAXIMUM DISTANCE FROM END OF SILL TO ANCHOR = 12"
   MINIMUM DISTANCE FROM END OF SILL TO ANCHOR = 4"
7. WHERE SILL PLATES ARE NOT CONTINUOUS AT ALL LOCATIONS EXCEPT SHEAR WALLS, USE SIMPSON "RPS22Z" TIE FOR NOTCH < 5 1/2", USE SIMPSON "RPS28Z" FOR NOTCH < 12", W/ 16d NAILS INTO SILL PLATE ENDS. (MAX. SPACING BETWEEN STUDS = 16" O.C.)
8. WHERE SILL PLATES ARE NOT CONTINUOUS AT SHEAR WALLS, CONTACT ENGINEER OF RECORD FOR RESPONSE.

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F1	4'-0"x4'-0"x1'-0"	5-#5 E.W.-B.
F2	3'-0"x3'-0"x1'-0"	4-#5 E.W.-B.
F3	6'-0"x16'-0"x3'-0"	14-#7 L.W.-T&B #6 @ 12" O.C. S.W.-T&B
F4	5'-0"x12'-0"x3'-0"	11-#7 L.W.-T&B #6 @ 12" O.C. S.W.-T&B

PIER SCHEDULE

MARK	SIZE	REINFORCING	REMARKS
P1	1'-4"x1'-4"	4-#6 VERT. #4 TIES @ 12" O.C.	SEE DETAIL 8/S2.0

COLUMN & BASE PLATE SCHEDULE

MARK	MEMBER	SHAPE	BASE PLATE	REMARKS
C1	HSS4x4x3/8	⊞	A	EXTEND TO ROOF
C2	HSS4x4x3/8	⊞	B	BRACED FRAME
C3	HSS4x4x3/8	⊞	A	EXTEND TO ROOF

NOTE: SEE DETAIL 3/S3.1 FOR BASE PLATE AND ANCHOR ROD DETAILS

REV	DATE	DESCRIPTION	BY
-	12/06/24	BID SET	
	02/26/25	PERMIT SET	
1			

STATE OF MISSOURI — PAUL W. WASHINGTON VOIGT — NUMBER PE-2008007055 — PROFESSIONAL ENGINEER — 02/26/25

PREPARED BY:
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PHONE: (651)686-7727
FAX: (651)686-8644

PREPARED FOR:
McDonald's USA, LLC

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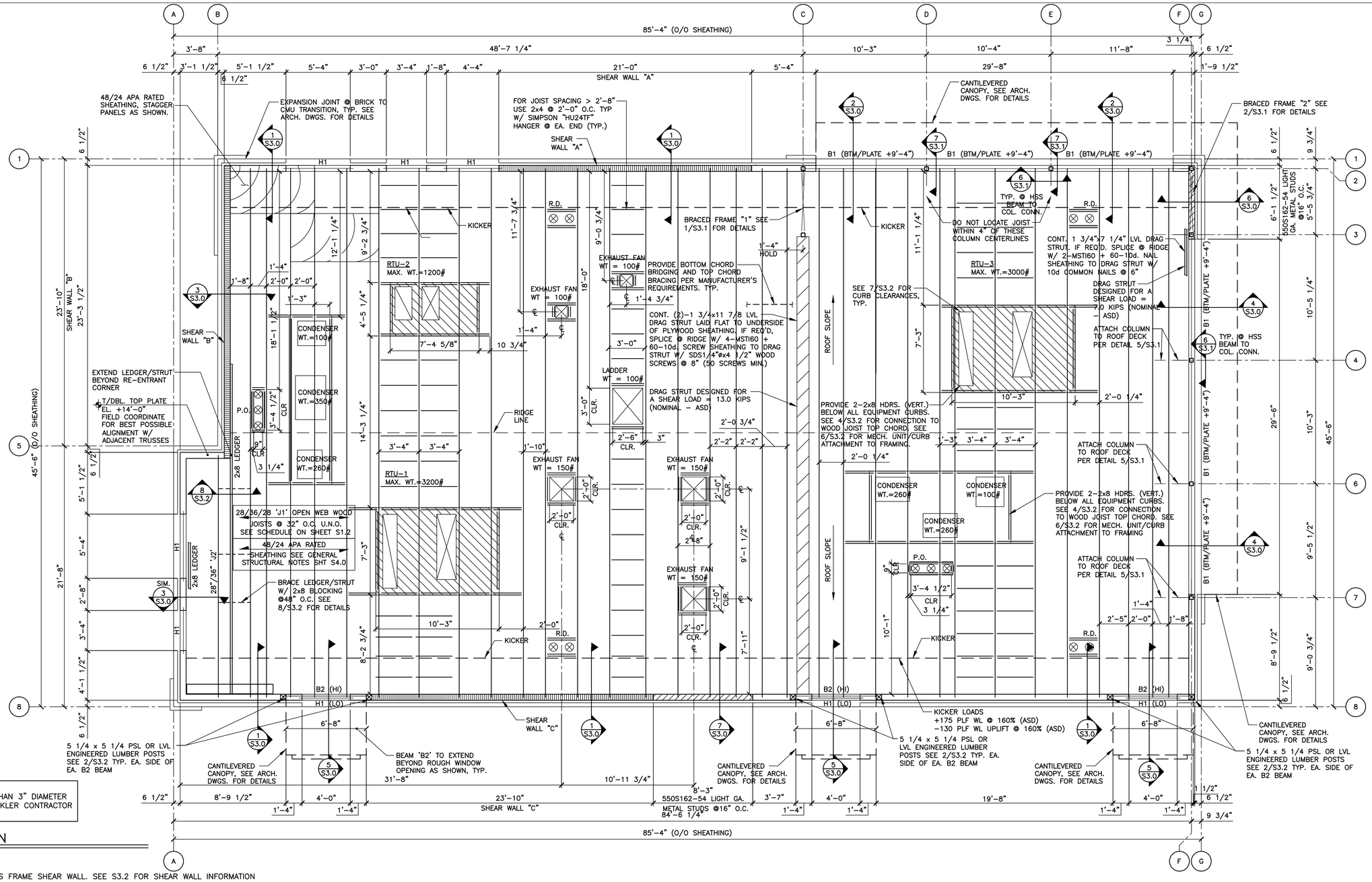
DRAWN BY: CRB
STD. ISSUE DATE: 2024 05
REVIEWED BY: AWM
DATE ISSUED: 02 26 2025
VA#24-015

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 43016
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024-1306

SHEET NO.: 024-1306.00.0
S1.0
FOUNDATION PLAN



NOTE TO CONTRACTOR:
ANY SPRINKLER LINES GREATER THAN 3" DIAMETER SHALL BE VERIFIED BY THE SPRINKLER CONTRACTOR PRIOR TO TRUSS FABRICATION.

1/S1.2 FRAMING PLAN

1/4"=1'-0"

INDICATES FRAME SHEAR WALL. SEE S3.2 FOR SHEAR WALL INFORMATION

INDICATES METAL STUD FRAME WALL. SEE 7/S3.0 FOR DETAILS.

INDICATES ALLOWABLE RTU PLACEMENT ZONE. RTU VENDOR/SUPPLIER, MODEL AND WEIGHTS SHALL BE VERIFIED PRIOR TO INSTALLATION FOR COORDINATION AND FINAL TRUSS DESIGN VERIFICATION. G.C. TO PROVIDE (2)-2x8 HDRS. BELOW RTU CURBS PER DETAIL 4/S3.2 AND COORDINATE LOCATIONS WITH MANUFACTURER CURB SPECIFICATIONS.

INDICATES RTU SUPPLY/RETURN ROOF DECK PENETRATIONS. G.C. TO PROVIDE (2)-2x8 HDRS. AT PERIMETER OF ALL PENETRATIONS/OPENINGS PER DETAIL 4/S3.2 AND COORDINATE EXTENT WITH MANUFACTURER SPECIFICATIONS.

NOTES:
1. SEE SHEET S4.0 FOR GENERAL STRUCTURAL NOTES.
2. R.D.: ROOF DRAINS
3. P.O.: ROOF CURB PORTAL OPENING - COORDINATE WITH MECHANICAL DRAWINGS.
4. WHEN TOP PLATES ARE NOT CONTINUOUS, USE SIMPSON "RPS22" TIE FOR NOTCH < 5 1/2", USE SIMPSON "RPS28" TIES FOR NOTCH < 12", W/ 16d NAILS INTO TOP PLATE ENDS. (MAX. SPACING BETWEEN STUDS = 16" O.C.)
5. TOP PLATE SPLICE SHALL BE MINIMUM LENGTH OF 48" WITH 2 ROWS (2 1/2" APART) OF 22-16d COMMON NAILS SPACED @ 2" ON CENTER (44 TOTAL).
6. SEE 5/S3.2 FOR SNOW DRIFT DIAGRAM.
7. SEE 2/S4.0 FOR VENEER TIES REQUIREMENTS.

BEAM SCHEDULE

MARK	MEMBER	SHAPE	SUPPORT	REMARKS
B1	HSS16x4x1/4 LLV + 5/16" PLATE	L	1/2" END PLATE	SEE DETAIL 6/S3.1
B2	HSS8x4x1/4 LLV	[]	SEE DETAIL 2/S3.2	SEE DETAIL 2/S3.2

HEADER SCHEDULE

MARK	MEMBER	SHAPE	BEARING
H1	5 1/4"x9 1/2" LVL + L5x3 1/2x5/16 LLV	⊠L	SEE DETAIL 2/S3.2 6" @ BRG. ANGLE

JOIST SCHEDULE

MARK	LIVE/ROOF SNOW LOAD	DEPTH	MANUFACTURER & SERIES
J1	20/20	28"/36"/28"	REDBUILT "RED-S"
J2	20/20	28"/36"	REDBUILT "RED-S"

NOTE: SEE DETAIL 4/S3.2 FOR JOIST DETAILS AND SUPPLIER INFORMATION

REV	DATE	DESCRIPTION	BY
-	12/06/24	BID SET	
	02/26/25	PERMIT SET	

STATE OF MISSOURI
PAUL W. VOIGT
NUMBER PE-2008007055
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:
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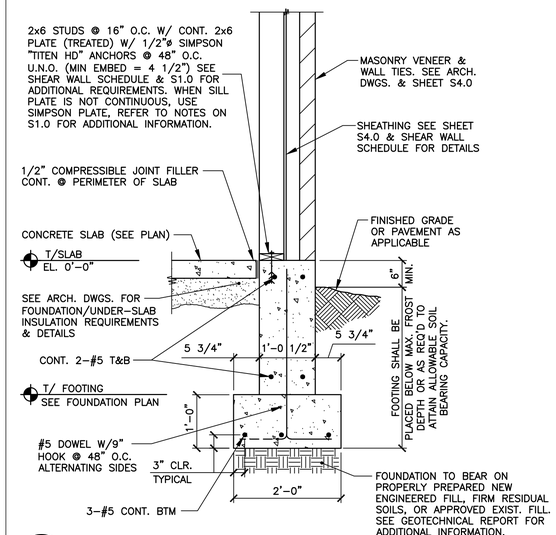
PREPARED FOR:
McDonald's USA, LLC

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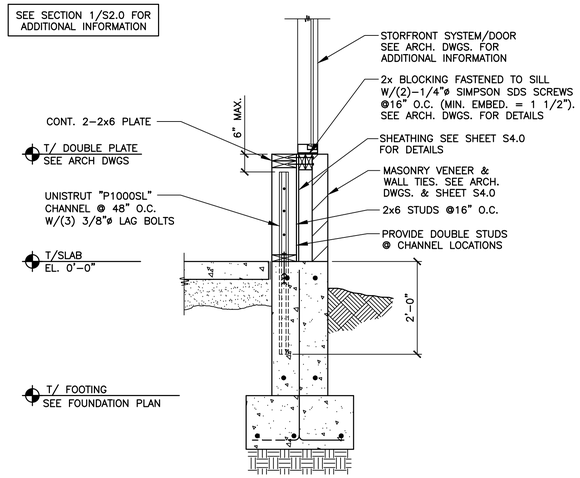
DRAWN BY: CRB
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VAN#24-015

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD
DESCRIPTION
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WOOD TRUSS ROOF FRAMING
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SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156
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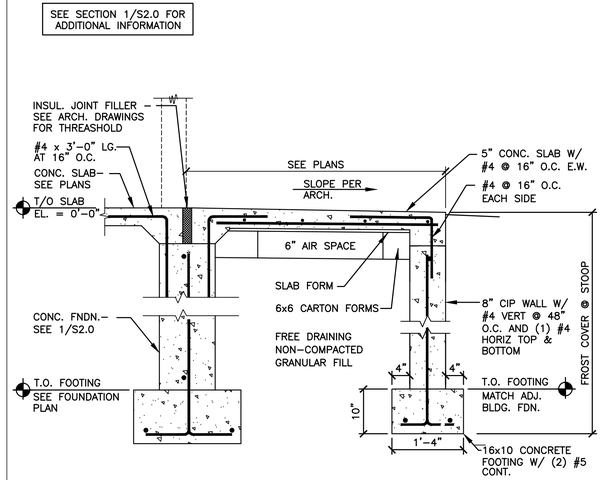
SHEET NO.: S1.2
024-1306.00.0
FRAMING PLAN



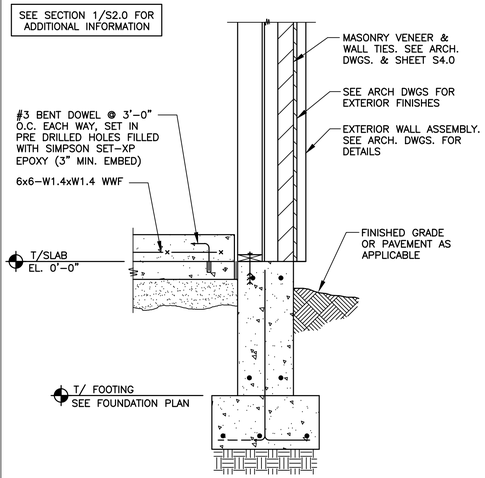
1 S2.0 SECTION
3/4" = 1'-0"



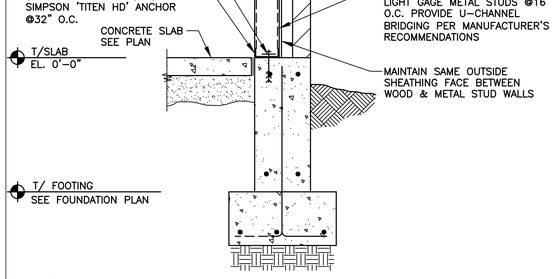
2 S2.0 SECTION
3/4" = 1'-0"



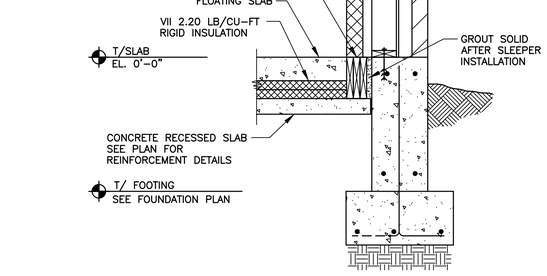
3 S2.0 SECTION
3/4" = 1'-0"



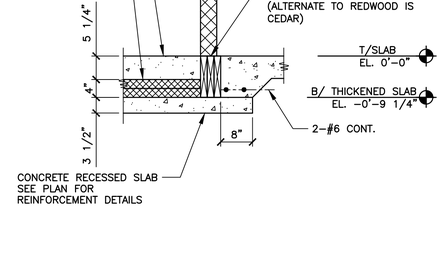
4 S2.0 SECTION
3/4" = 1'-0"



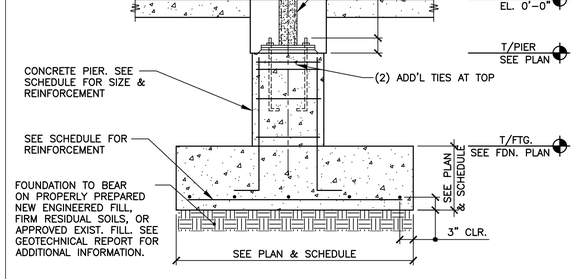
5 S2.0 SECTION
3/4" = 1'-0"



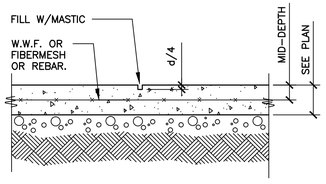
6 S2.0 SECTION
3/4" = 1'-0"



7 S2.0 SECTION
3/4" = 1'-0"



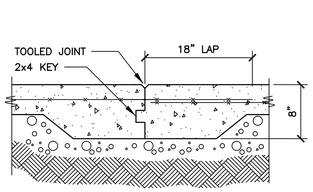
8 S2.0 ISOLATED COLUMN FOOTING DETAIL
3/4" = 1'-0"



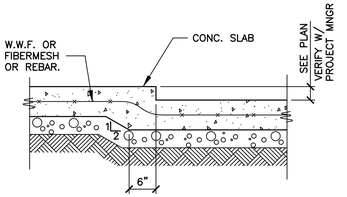
CONTROL JOINT

SAWCUT MAX. NEXT MORNING AFTER SLAB IS CAST

CONTROL JOINTS SHALL BE IN A SQUARE PATTERN OF 400 SQ. FT. AND/OR THE LENGTH SHALL NOT BE MORE THAN 2x WIDTH. ALIGN WITH COLUMN CENTER LINES.



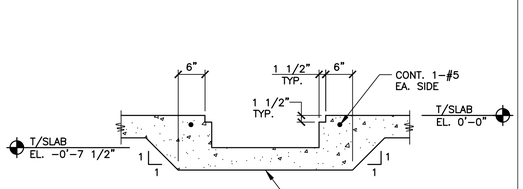
CONSTRUCTION JOINT



SLAB DEPRESSION

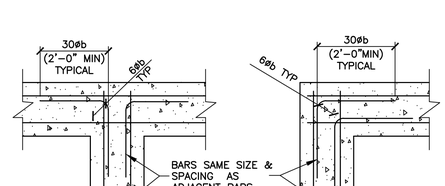
SLAB-ON-GRADE TO BEAR ON PROPERLY PREPARED NEW ENGINEERED FILL, FIRM RESIDUAL SOILS, OR APPROVED EXIST. FILL. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

9 S2.0 SLAB ON GRADE DETAILS
N.T.S.



NOTE:
WHERE PREFAB MOP SINK IS USED, DEPTH TO BE 8 7/8" TO ACCOMMODATE FACTORY-BUILT MOP SINK DIMENSION

10 S2.0 RECESSED SLAB DETAIL
3/4" = 1'-0"



TYPICAL CORNER BAR DETAIL

11 S2.0 CORNER BAR DETAILS
N.T.S.

REV	DATE	DESCRIPTION	BY
-	02/26/25	PERMIT SET	
-	12/06/24	BID SET	

STATE OF MISSOURI — PAUL W. VOIGT — NUMBER PE-2008007555 — PROFESSIONAL ENGINEER — 02/26/25

PREPARED BY:
VOIGT & ASSOCIATES, INC.
STRUCTURAL ENGINEERING SERVICES
4835 NICOLS RD. SUITE A MINNESOTA 55122
PHONE (651) 686-7727
FAX (651) 686-8644

PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY CRB
STD ISSUE DATE 2024 05
REVIEWED BY AWM
DATE ISSUED 02 26 2025
VA#24-015

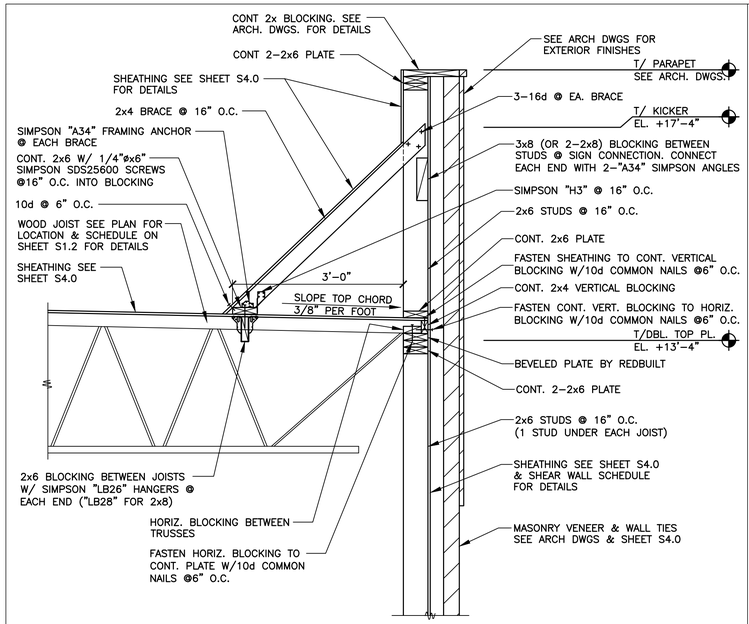
TITLE
2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 43016
SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024-1306

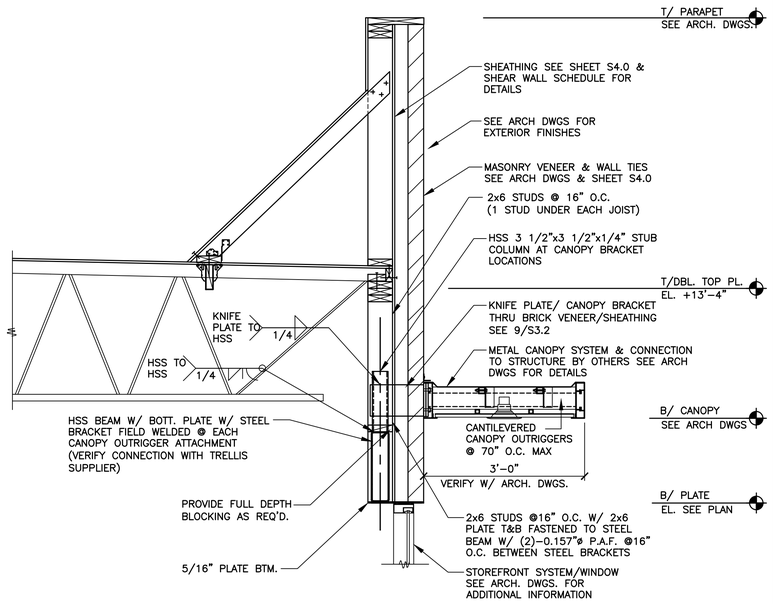
024-1306.00.0

SHEET NO. S2.0
FOUNDATION SECTIONS

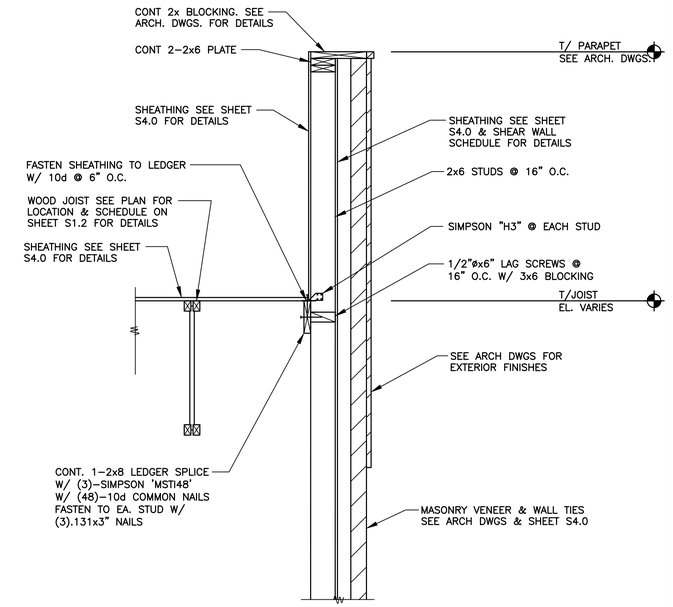


1 S3.0 SECTION
3/4" = 1'–0"

SEE SECTION 1/S3.0 FOR ADDITIONAL INFORMATION

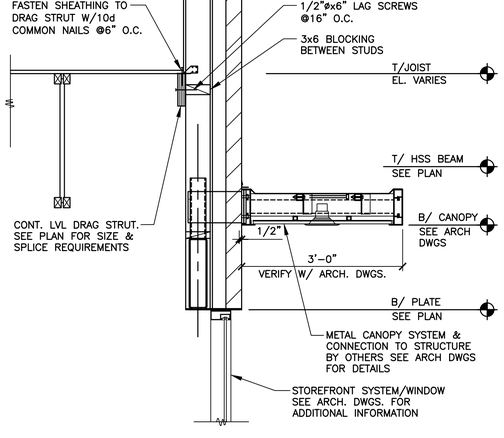


2 S3.0 SECTION
3/4" = 1'–0"



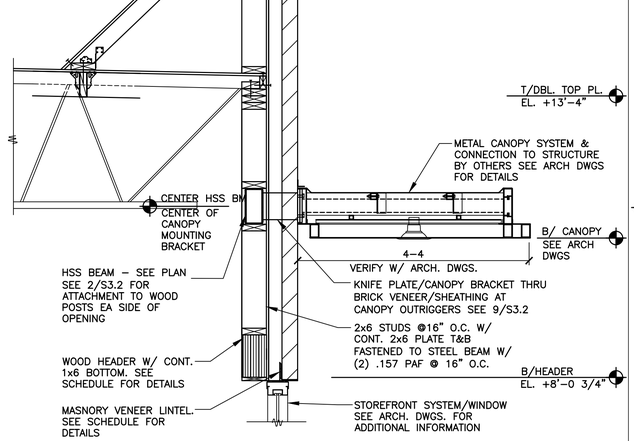
3 S3.0 SECTION
3/4" = 1'–0"

SEE SECTION 2/S3.0 & 3/S3.0 FOR ADDITIONAL INFORMATION



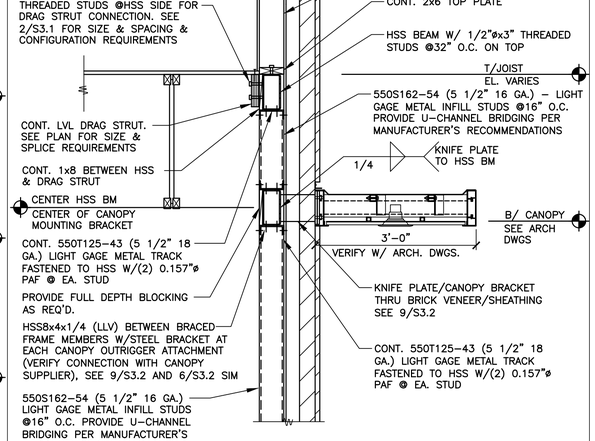
4 S3.0 SECTION
3/4" = 1'–0"

SEE SECTION 1/S3.0 FOR ADDITIONAL INFORMATION



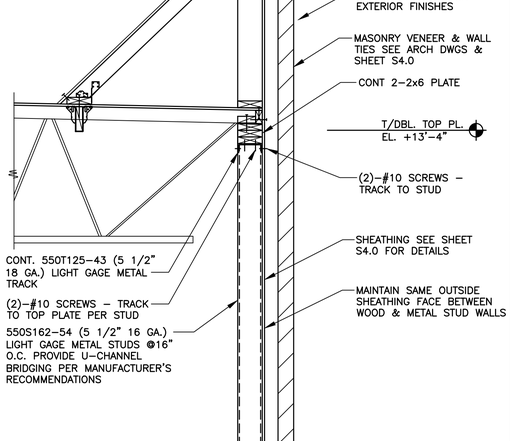
5 S3.0 SECTION
3/4" = 1'–0"

SEE SECTION 4/S3.0 FOR ADDITIONAL INFORMATION



6 S3.0 SECTION
3/4" = 1'–0"

SEE SECTION 1/S3.0 FOR ADDITIONAL INFORMATION



7 S3.0 SECTION
3/4" = 1'–0"

BY	DESCRIPTION	DATE
I	PERMIT SET	02/26/25
I	BID SET	12/06/24
REV		

PREPARED BY:
VOICT & ASSOCIATES, INC.
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MINNEAPOLIS, MINNESOTA 55332
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PREPARED FOR:
McDonald's USA, LLC

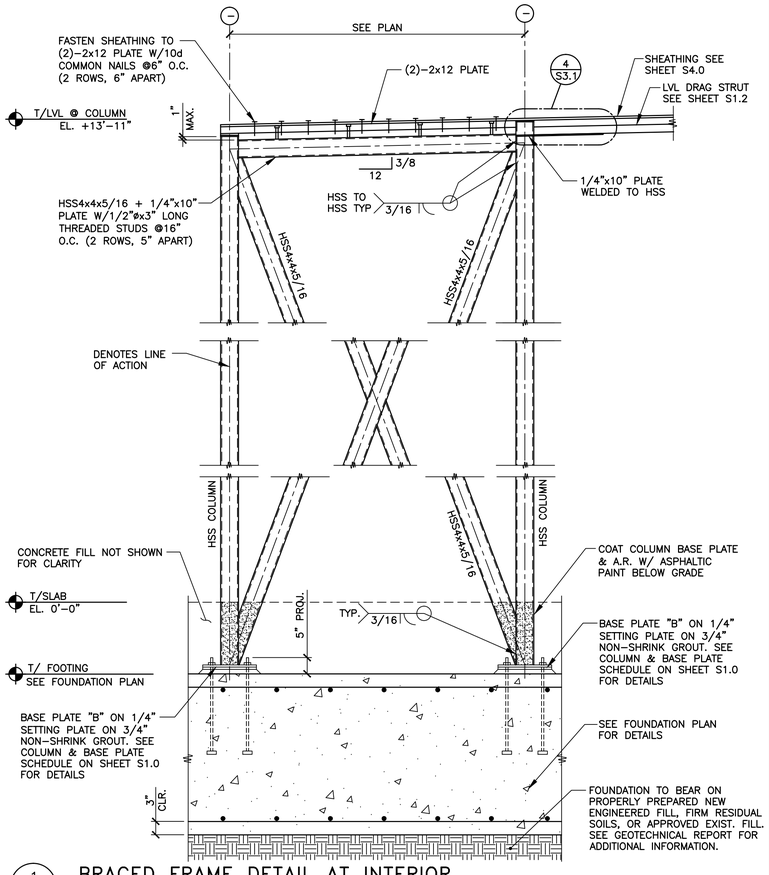
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DRAWN BY	STD. ISSUE DATE
CRB	2024 05
REVIEWED BY	DATE ISSUED
AWM	02 26 2025

TITLE
2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

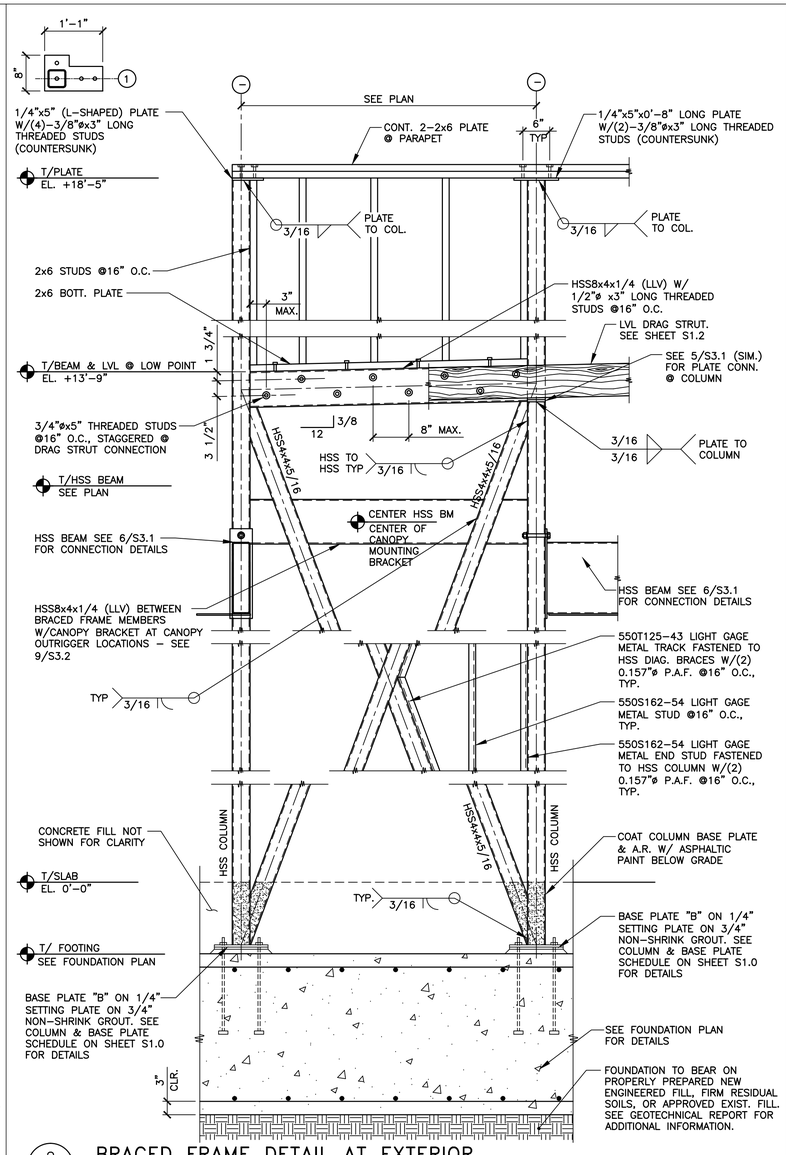
DESCRIPTION	
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & Ci	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
NSN: 43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306	VA#24–015

SHEET NO.
024–1306.00.0
S3.0
FRAMING SECTIONS



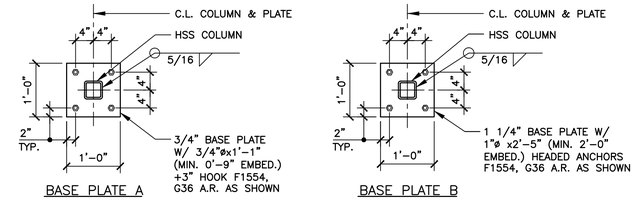
1 S3.1 **BRACED FRAME DETAIL AT INTERIOR**

3/4" = 1'–0"



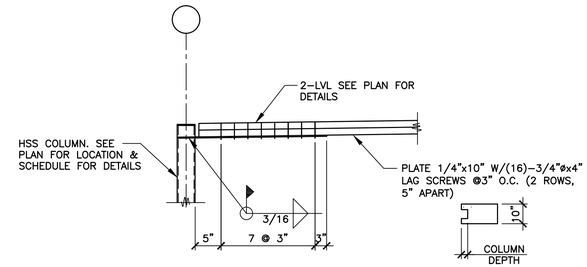
2 S3.1 **BRACED FRAME DETAIL AT EXTERIOR**

3/4" = 1'–0"



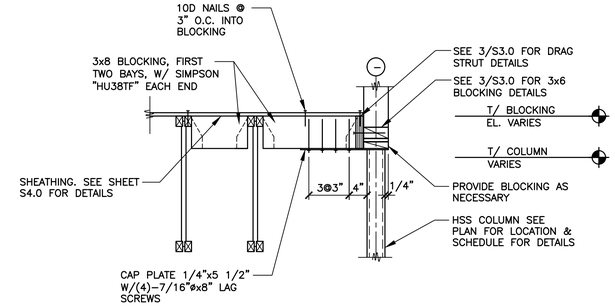
3 S3.1 **BASE PLATE DETAILS**

N.T.S.



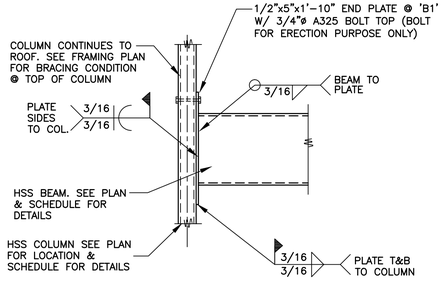
4 S3.1 **DRAG STRUT CONNECTION DETAIL**

3/4" = 1'–0"



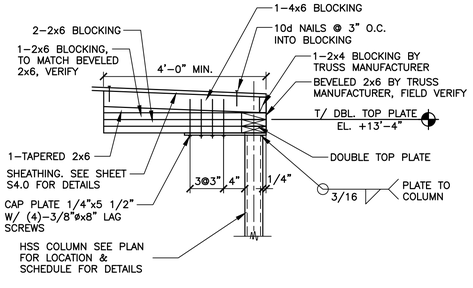
5 S3.1 **COLUMN BRACING DETAIL**

3/4" = 1'–0"



6 S3.1 **HSS BEAM CONNECTION DETAIL**

3/4" = 1'–0"



7 S3.1 **COLUMN BRACING DETAIL**

3/4" = 1'–0"

8 S3.1 **NOT USED**

3/4" = 1'–0"

9 S3.1 **NOT USED**

3/4" = 1'–0"

BY	DESCRIPTION	DATE	REV
–	PERMIT SET	02/26/25	–
	BID SET	12/06/24	

STATE OF MISSOURI — PAUL W. VOICT — NUMBER PE-2008007055 — PROFESSIONAL ENGINEER — 02/26/25

PREPARED BY:
VOICT & ASSOCIATES, INC.
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PHONE: (651) 686-7727
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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	CRB
STD ISSUE DATE	2024 05
REVIEWED BY	AWM
DATE ISSUED	02 26 2025

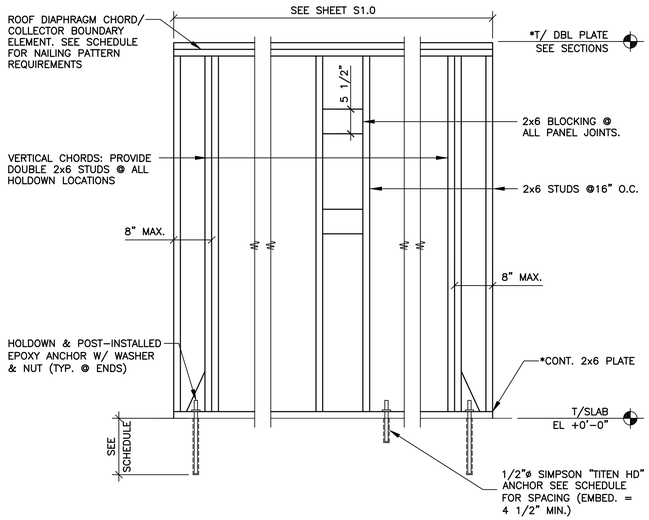
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 43016
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306

VAJ#24–015

SHEET NO. 024–1306.00.0
S3.1
STEEL DETAILS



SHEAR WALL SCHEDULE

MARK	SHEATHING	SHEATHING NAIL SIZE	SHEATHING NAIL** SPACING @ PANEL EDGES	HOLDDOWN*** ANCHORS	ANCHOR BOLT SPACING	REMARKS
A	1-15/32"	.131 x 2 1/2"	6"	1-HDU8-SDS2.5 7/8"ø EPOXY ANCH.	32"	15" MIN. EMBED. ON HOLDDOWN ANCHORS.
B	1-15/32"	.131 x 2 1/2"	6"	1-HDU8-SDS2.5 7/8"ø EPOXY ANCH.	32"	15" MIN. EMBED. ON HOLDDOWN ANCHORS.
C	1-15/32"	.131 x 2 1/2"	6"	1-HDU8-SDS2.5 7/8"ø EPOXY ANCH.	32"	15" MIN. EMBED. ON HOLDDOWN ANCHORS.

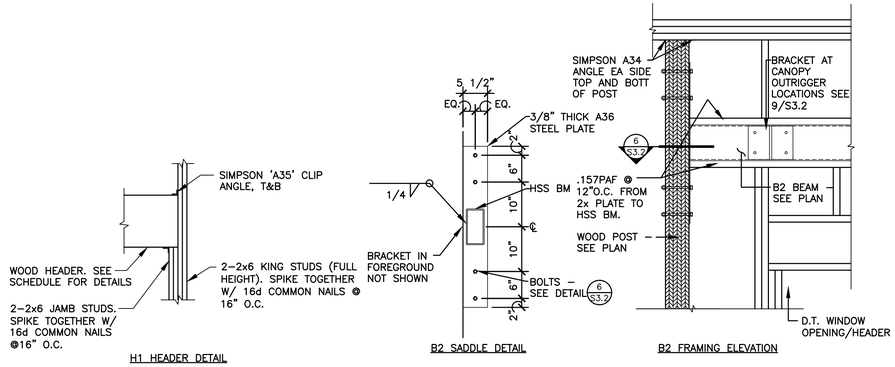
NOTES:
1. SHEATHING PANELS MAY BE LAID UP HORIZONTALLY OR VERTICALLY. NO VERTICAL PANEL EDGES ON VERTICAL CHORDS (HOLDDOWN LOCATION).
2. WIND LOADS GOVERN OVER SEISMIC LOADS UNLESS AS NOTED IN THE REMARKS COLUMN.
3. NAIL ALL SHEATHING TO INTERMEDIATE SUPPORTS @ 12" O.C.
4. SCREW HOLDOWN ANCHORS TO VERTICAL MEMBER W/ 20-"SDS1/4"øx2 1/2" SCREWS EACH

* IF SILL PLATE OR TOP PLATES ARE NOT CONTINUOUS, CONTACT THE ENGINEER OF RECORD FOR SOLUTION.

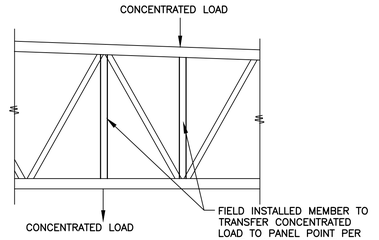
** NAIL SHEATHING TO ROOF DIAPHRAGM CHORD & TO EACH MEMBER/WALL VERTICAL CHORD W/ 10d COMMON NAILS @ 6" O.C., UNO.

*** AS MANUF. BY SIMPSON. USE SET HIGH STRENGTH EPOXY FOR THE INSTALLATION OF END THREADED ROD ANCHORS.

1 S3.2 SHEAR WALL SCHEDULE
N.T.S.



2 S3.2 HEADER SUPPORT DETAIL/B2 BEAM DETAIL
N.T.S.



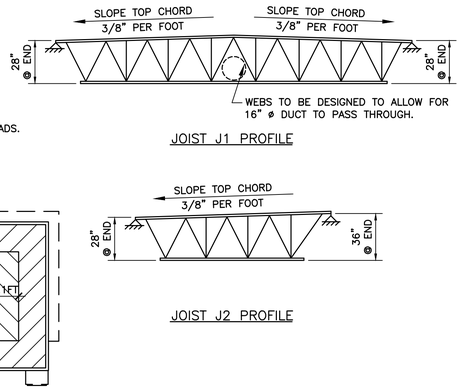
3 S3.2 JOIST DETAIL @ POINT LOADS
N.T.S.

1. FOR NATIONAL ACCOUNT PACKAGE & PRICING CONTACT REDBUILT @ 1-866-859-6757
2. JOIST MFGR. TO VERIFY SIZE AT HVAC ROOF TOP UNITS.

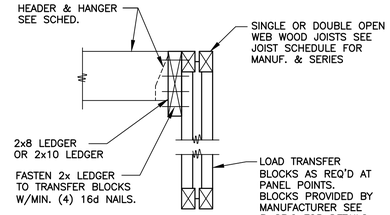
HEADER	HANGER
2x6	LUS26
2-2x6	LUS26-2
2x8	LUS28
2-2x8	LUS28-2
2x10	LUS210
2-2x10	LUS210-2

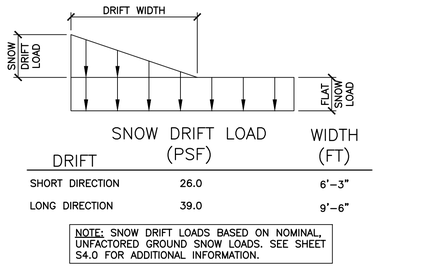
FOR OPENINGS < 1'-4" USE 1-2x6
FOR OPENINGS > 1'-4" AND < 4'-0" USE 2-2x8
FOR OPENINGS > 4'-0" AND < 6'-0" USE 2-2x10

3. ALL JOISTS SHALL BE DESIGNED FOR THE FOLLOWING UPLIFT LOADS.
111 MPH 3 SEC GUST - EXPOSURE C, UNFACTORED
ASCE 7-16 LOADS
WIND UPLIFT:
DEAD LOAD RESISTANCE TO BE USED IN NET UPLIFT CALCULATION = 8 PSF



4 S3.2 JOIST NOTES
N.T.S.

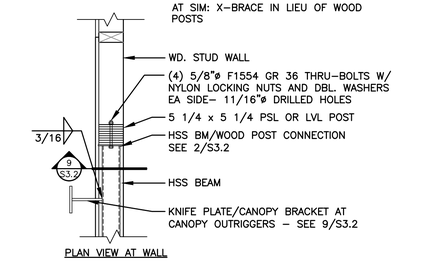




DRIFT	SNOW DRIFT LOAD (PSF)	WIDTH (FT)
SHORT DIRECTION	26.0	6'-3"
LONG DIRECTION	39.0	9'-6"

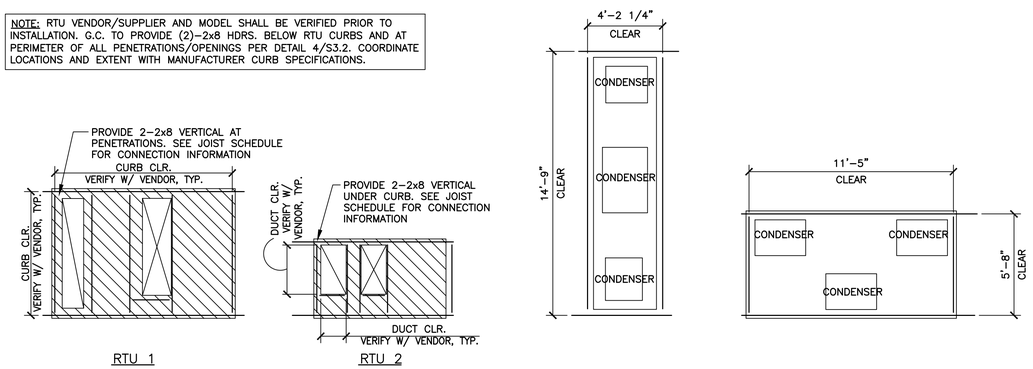
NOTE: SNOW DRIFT LOADS BASED ON NOMINAL, UNFACTORED GROUND SNOW LOADS. SEE SHEET S4.0 FOR ADDITIONAL INFORMATION.

5 S3.2 SNOW DRIFT DIAGRAM/SCHEDULE
N.T.S

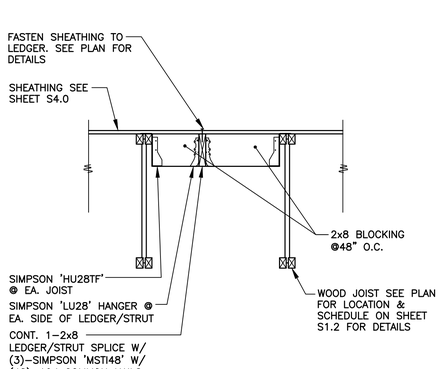


6 S3.2 SECTION AT B2 BM/FRONT X BRACE
3/4" = 1'-0"

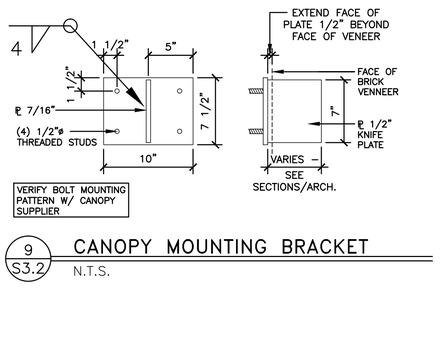
NOTE: RTU VENDOR/SUPPLIER AND MODEL SHALL BE VERIFIED PRIOR TO INSTALLATION. G.C. TO PROVIDE (2)-2x8 HDRS. BELOW RTU CURBS AND AT PERIMETER OF ALL PENETRATIONS/OPENINGS PER DETAIL 4/S3.2. COORDINATE LOCATIONS AND EXTENT WITH MANUFACTURER CURB SPECIFICATIONS.



7 S3.2 ROOF TOP UNIT CLEARANCES
1/4" = 1'-0"



8 S3.2 SECTION
3/4" = 1'-0"



9 S3.2 CANOPY MOUNTING BRACKET
N.T.S.

REV	DATE	DESCRIPTION	BY
-	02/26/25	PERMIT SET	
-	12/06/24	BID SET	

STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER PAUL W. VOIGT NUMBER PE-2008007055 02/26/25

PREPARED BY: VOIGT & ASSOCIATES, INC. STRUCTURAL ENGINEERING SERVICES 4835 NICOLS RD. SUITE X, MINNESOTA 55122 PHONE: (651)686-7727 FAX: (651)686-8644

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	CRB
STD ISSUE DATE	2024 05
REVIEWED BY	AWM
DATE ISSUED	02 26 2025

TITLE: 2024 STANDARD BUILDING - BB20 4584-WOOD/WOOD

DESCRIPTION	SITE ADDRESS
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	8712 N. Indiana Avenue, Kansas City, MO 64156
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
NSN: 43016	L/C: 024-1306

VA#24-015

SHEET NO. S3.2 DETAILS

024-1306.00.0

STRUCTURAL GENERAL NOTES:

DESIGN AND LOADING

1. THE STRUCTURAL DESIGN OF THIS BUILDING WAS BASED ON THE DESIGN CRITERIA:
   - A. BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE
   - B. FLOOR:
     - LIVE LOAD: 100 PSF (NON-REDUCIBLE)
   - C. ROOF:
     - LIVE LOAD: 20 PSF
     - DEAD LOAD: 20 PSF
   - D. SNOW:
     - GROUND LOAD, P_G: 20 PSF
     - FLAT ROOF LOAD, P_f: 20 PSF
     - IMPORTANCE FACTOR, I_S: 1.0
     - EXPOSURE FACTOR, C_E: 1.0
     - THERMAL FACTOR, C_T: 1.0
     - SLOPE FACTOR, C_S: 1.0
   - E. WIND:
     - BASIC DESIGN WIND SPEED (3-SECOND GUST), V: 110 MPH
     - ALLOWABLE STRESS DESIGN WIND SPEED (3-SECOND GUST), V_{ASD}: 86 MPH
     - RISK CATEGORY: II
     - WIND EXPOSURE: C
     - GC_{pi} = ±0.18
     - PRESSURES PER ASCE 7-16
   - F. SEISMIC:
     - RISK CATEGORY: II
     - IMPORTANCE FACTOR: 1.00
     - SITE CLASS: D (ASSUMED)
     - SS = 0.095, S1= 0.069
     - SDS = 0.082, SD1 = 0.069
     - DESIGN CATEGORY: B
     - PLYWOOD SHEAR WALLS (R = 6.5)
     - STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE (R = 3.25)
     - CS1: 0.013 (LONGITUDINAL DIRECTION) CS2: 0.025 (TRANSVERSE DIRECTION)
     - DESIGN BASE SHEAR = SEE CALCULATIONS
     - ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   - G. FLOOD LOAD: N/A
   - H. SPECIAL LOADS: N/A

RAIN LOADS: N/A

FOUNDATION NOTES

1. THE FOUNDATION DESIGN OF THIS BUILDING WAS BASED ON THE FOLLOWING CRITERIA:
   - A. MINIMUM ALLOWABLE SOIL BEARING CAPACITY = 2000 PSF.
   - B. RECOMMENDED BY OLSSON INC. IN THEIR REPORT #023-06570 DATED AUGUST 2024
   - C. ANY FILL REQUIRED BELOW SLABS ON GRADE OR FOOTINGS SHALL BE COMPACTED AS REQUIRED BY THE SOILS REPORT NOTED IN ITEM #2.
2. ALL EXTERIOR FOOTINGS SHALL EXTEND BELOW THE MAXIMUM ANTICIPATED DEPTH OF FROST.
3. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER OF RECORD IMMEDIATELY IN THE EVENT THAT THE SOILS CONDITIONS ENCOUNTERED VARY FROM THOSE SHOWN ON THE BORING LOGS.
4. ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY A SOILS TESTING LABORATORY PRIOR TO PLACEMENT OF CONCRETE.

CONCRETE AND REINFORCING

1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH THE "AMERICAN CONCRETE INSTITUTE BUILDING CODE" (ACI 318) AND WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301) LATEST EDITIONS.
2. ALL NORMAL WEIGHT CONCRETE (145 PCF) SHALL OBTAIN A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI (3500 PSI FOR SLABS).
3. ALL CONCRETE SUBJECT TO EXTERIOR EXPOSURE SHALL BE AIR ENTRAINED AS RECOMMENDED BY ACI 318.
4. TEST CYLINDERS SHALL BE MADE AND TESTED AS OUTLINED IN CHAPTER 16 OF ACI-301.
5. REINFORCING BARS SHALL BE DEFORMED BARS OF NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. ALL REINFORCING AND ACCESSORIES SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARD 315 AND 315R.
6. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT AT POSITIONS SHOWN ON THE PLANS AND DETAILS. PLASTIC COATED ACCESSORIES SHALL BE USED IN ALL EXPOSED CONCRETE WORK.
7. THE GENERAL CONTRACTOR SHALL CHECK WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND THE SUB-CONTRACTORS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, INSERTS, SLAB DEPRESSIONS AND OTHER ITEMS RELATED TO THE CONCRETE WORK AND SHALL ASSUME RESPONSIBILITY FOR THEIR PROPER LOCATION.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN CONFORMANCE WITH THE AISC360 "SPECIFICATION FOR STRUCTURAL STEEL". SEISMIC DESIGN OF STRUCTURAL STEEL STRUCTURES SHALL CONFORM TO AISC 341.
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
   - A. ANCHOR RODS F1554, GRADE 36
   - B. HIGH STRENGTH STRUCTURAL BOLTS A325-N U.N.O.
   - C. STRUCTURAL SHAPES (W) A992
   - D. STRUCTURAL SHAPES (M, S, C, MC, PLATES) A36
   - E. STRUCTURAL SHAPES (HP) A572
   - F. STRUCTURAL TUBING (HSS) A500 GRADE B
   - G. STRUCTURAL ANGLES A36
3. ALL WELDING ELECTRODES SHALL BE E70-XX. ALL SHOP AND FIELD WELDING SHALL BE MADE IN ACCORDANCE WITH A.W.S. D1.1 "CODE FOR WELDING IN BUILDING CONSTRUCTION" AND SHALL BE MADE BY CERTIFIED WELDERS.

LAMINATED VENEER LUMBER (LVL)

1. ALL BEAMS SHALL BE MANUFACTURED WITH LAMINATED VENEER LUMBER AND WATERPROOF ADHESIVES.
2. SIZE, MANUFACTURER & SERIES OF ALL LVL MEMBERS SHALL BE AS SHOWN ON DRAWINGS.
3. ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ENGINEER OR ARCHITECT OF RECORD.
4. PROVIDE 3" MINIMUM BEARING OR AS SPECIFIED ON PLANS. REFER TO PLANS FOR FASTENING OF MULTIPLE PIECE BEAMS.

OPEN WEB WOOD JOISTS

1. OPEN WEB WOOD JOISTS SHALL BE MANUFACTURED WITH MACHINE STRESS RATED TOP AND BOTTOM CHORDS. WEBS SHALL BE TUBULAR STEEL MEMBERS PER MANUFACTURERS' SPECIFICATIONS.
2. SIZE, MANUFACTURER & SERIES OF ALL OPEN WEB JOISTS SHALL BE AS SHOWN ON DRAWINGS. ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ENGINEER OR ARCHITECT OF RECORD.
3. PROVIDE 3 1/2" MINIMUM BEARING OR AS SPECIFIED ON PLANS. SHIM AS REQUIRED TO PROVIDE FULL BEARING AND LEVEL SUPPORT.
4. DO NOT CUT TOP OR BOTTOM CHORDS.
5. ALL HANGERS AND FRAMING CONNECTORS SHOWN ARE MANUFACTURED BY SIMPSON STRONG TIE. ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ENGINEER OR ARCHITECT OF RECORD.
6. REFER TO PLANS FOR WEB STIFFENER AND CONCENTRATED LOAD REQUIREMENTS.
7. REFER TO MANUFACTURERS' INSTALLATION GUIDE FOR JOIST BRACING DURING ERECTION. REFER TO MANUFACTURERS' INSTALLATION GUIDE FOR JOIST BRIDGING REQUIREMENTS.

SAWN LUMBER

1. ALL GRADES OF LUMBER INDICATED ON STRUCTURAL DRAWINGS SHALL BE RATED BY THE SOUTHERN PINE INSPECTION BUREAU (SPIB), OR THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA). LUMBER GRADES SHALL BE AS FOLLOWS, WITH A MAXIMUM MOISTURE CONTENT OF 19%:
   - A. SOUTHERN PINE NO. 1.
   - B. DOUGLAS FIR-LARCH NO. 1.
   - C. HEM-FIR NORTH NO. 1
2. BOLT HEADS AND NUTS BEARING ON WOOD SHALL BE PROVIDED WITH STANDARD CUT WASHERS. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
3. MINIMUM NAILED CONNECTIONS FOR WOOD FRAMING MEMBERS SHALL BE IN ACCORDANCE WITH THE LOCAL BUILDING CODE OR TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE IF NO OTHER CRITERIA IS GIVEN.
4. CONNECTORS SHOWN ON THE DETAILS ARE MANUFACTURED BY SIMPSON. WRITTEN APPROVAL BY ENGINEER REQUIRED FOR SUBSTITUTIONS.

ROOF & WALL SHEATHING

1. ALL SHEATHING SHALL CONFORM TO AMERICAN PLYWOOD ASSOCIATION (APA) DESIGN SPECIFICATIONS, LATEST EDITION. SHEATHING SHALL BE CONTINUOUS OVER THREE ADJACENT SPANS MINIMUM.
2. WALL SHEATHING SHALL BE 15/32" (1/2" NOMINAL) APA RATED SHEATHING, EXPOSURE 1, 32/16. ALL WALL SHEATHING SHALL BE FASTENED TO SUPPORTING MEMBERS W/ 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATED SUPPORTS, U.N.O.
3. ROOF SHEATHING SHALL BE 23/32" (3/4" NOMINAL) APA RATED SHEATHING, EXPOSURE 1, 48/24. ALL ROOF SHEATHING SHALL BE FASTENED TO SUPPORTING MEMBERS W/10d COMMON NAILS @ 6" O.C. AT PANEL EDGES, AND 12" O.C. AT INTERMEDIATE SUPPORTS. U.N.O.

MASONRY

CONCRETE BLOCK DESIGN AND CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES," TMS 402/ACI 530/ASCE 5 AND "SPECIFICATIONS FOR MASONRY STRUCTURES" (TMS 602/ACI 530.1/ASCE 6)

1. MASONRY MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS:
   - A. HOLLOW LOAD BEARING CONCRETE BLOCK: ASTM C-90. MINIMUM COMPRESSIVE STRENGTH = 2800 PSI AT 28 DAYS.
   - B. MORTAR: ASTM C-270, TYPE S. MINIMUM COMPRESSIVE STRENGTH = 1800 PSI AT 28 DAYS.
   - C. MORTAR: ASTM C-270, TYPE M. MINIMUM COMPRESSIVE STRENGTH = 2500 PSI AT 28 DAYS. (USED FOR BELOW GRADE WORK)
   - D. GROUT: ASTM C-476. MINIMUM COMPRESSIVE STRENGTH = 2000 PSI AT 28 DAYS
   - E. MASONRY REINFORCEMENT: ASTM A-82 GALVANIZED (JOINT BEDS, TIES)
   - F. MASONRY PRISM STRENGTH: F'm = 2000 PSI
2. PRIOR TO DELIVERY OF MASONRY UNITS TO THE JOB SITE, FURNISH TO THE OWNER AFFIDAVITS FROM AN APPROVED TESTING LABORATORY CERTIFYING THAT ALL UNITS CONFORM TO THEIR RESPECTIVE ASTM REQUIREMENTS.
3. GROUT ALL CAVITIES CONTAINING REINFORCEMENT IN LIFTS NOT TO EXCEED 5'-0".
4. LABORATORY PREPARED MIXES SHALL BE PREPARED AND TESTED IN ACCORDANCE WITH ASTM C-270. FIELD MORTAR SHALL BE TESTED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH ASTM C-780 TWO SETS OF THREE MORTAR CUBES SHALL BE TAKEN DIRECTLY FROM THE MIXER FOR EACH DAY OF MASONRY WORK. TEST THE CUBES AT 28 DAYS. ACCEPTANCE OF THE MORTAR SHALL BE AT THE DISCRETION OF THE ENGINEER.
5. CALCIUM CHLORIDE AND/OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE INCLUDED IN MORTAR OR GROUT MIX, EXCEPT WHEN APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. NO ANTI FREEZE COMPOUNDS SHALL BE USED TO LOWER THE MORTAR'S FREEZING POINT.
6. NO EXTERIOR MASONRY SHALL BE LAID WHEN THE OUTSIDE AIR TEMPERATURE IS LESS THAN 40 DEGREES FAHRENHEIT, UNLESS THE RECOMMENDATIONS SPECIFIED BY THE BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" TMS 402/ACI 530/ASCE 5 AND "SPECIFICATIONS FOR MASONRY STRUCTURES" (TMS 602/ACI 530.1/ASCE 6) FOR COLD WEATHER CONSTRUCTION ARE STRICTLY FOLLOWED.
7. THE MASONRY CONTRACTOR SHALL PROVIDE BRACING TO WITHSTAND HORIZONTAL PRESSURES AS REQUIRED BY THE BUILDING CODE AND LOCAL ORDINANCE.

LIGHT GAGE METAL FRAMING

1. 16 GA. AND HEAVIER STUDS SHALL HAVE A MINIMUM YIELD STRESS OF 50,000 PSI. 18 GA. AND LIGHTER STUDS AND TRACKS SHALL HAVE A MINIMUM YIELD STRESS OF 33,000 PSI.
2. STUDS AND TRACKS SHALL BE 18 GA. MINIMUM U.N.O. THEY SHALL BE MANUFACTURED BY DIETRICH INDUSTRIES, INC. OR APPROVED EQUAL.
3. PROVIDE DOUBLE STUDS FOR FULL HEIGHT OF WALL EACH SIDE OF ALL OPENINGS UNLESS OTHERWISE NOTED. WELD STUDS TO EACH OTHER WITH 1 1/2" LONG 1/8" FILLET WELDS AT 12" O.C. EACH SIDE. PROVIDE STUD TRACK AT EACH HEAD AND SILL.
4. REFER TO PLANS AND DETAILS FOR CONNECTION OF STUD WALLS TO FOUNDATION, FLOOR OR ROOF.

SHOP DRAWINGS

1. SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY.
2. SHOP DRAWINGS SHALL BE REVIEWED BY CONTRACTOR TO VERIFY THAT SUBMITTAL IS COMPLETE PRIOR TO SUBMITTING TO ARCHITECT/ENGINEER.
3. DRAWINGS CREATED BY THE ENGINEER OF RECORD CANNOT BE REPRODUCED AND/OR USED AS A SHOP DRAWING SUBMITTAL. SHOP DRAWING SUBMITTALS SHALL INCLUDE THE FOLLOWING:
   - A. CONCRETE MIX DESIGN
   - B. FOUNDATION REINFORCING BARS
   - C. STRUCTURAL STEEL
   - D. OPEN WEB JOISTS AND CALCULATIONS
   - E. ROOF SHEATHING
   - F. TRELLIS SYSTEM & CALCULATIONS
   - G. LAMINATED VENEER LUMBER (LVL)
   - H. SAWN LUMBER AND CONNECTORS

SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 1705 OF IBC AND THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED UNDER SECTION 1705. THE FOLLOWING AREAS OF WORK REQUIRE SPECIAL INSPECTIONS IN ACCORDANCE WITH THE LISTED 2018 INTERNATIONAL BUILDING CODE SECTIONS/LOCATIONS:
   - A. SOILS – SECTION 1705.6 PER TABLE 1705.6
   - B. CONCRETE – SECTION 1705.3 PER TABLE 1705.3
   - C. STEEL – SECTION 1705.2 (SEE AISC 360-16)
   - D. WOOD – SECTION 1705.5

MISCELLANEOUS

1. ALL DIMENSIONS ON STRUCTURAL DRAWINGS TO BE CHECKED AGAINST ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS BY THE GENERAL CONTRACTOR AND ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.
2. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY, UNRELIEVED BY REVIEW OF SHOP DRAWINGS OR PERIODIC OBSERVATION OF CONSTRUCTION, FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS, FOR FABRICATION PROCESSES AND CONSTRUCTION TECHNIQUES, AND FOR SAFE CONDITIONS ON THE JOB SITE.
3. DO NOT SCALE THE DRAWINGS.

CONCRETE BLOCK JOINT REINFORCEMENT:

ALL CONCRETE BLOCK WALLS TO RECEIVE THE FOLLOWING JOINT REINFORCEMENT: LADDER TYPE JOINT REINFORCING WITH SIDE AND CROSS RODS WITH WIRE SIZE (W2.8 OR 3/16"ø) SPACED 16" O.C. VERTICALLY. (HOHMANN & BARNARD 220 "SUPER HEAVY DUTY" OR EQUAL) SIMILAR FOR CONCRETE BRICK PRODUCTS.

1 / S4.0 CONCRETE BLOCK JOINT REINFORCEMENT

VENEER TIE REQUIREMENTS:

1. VENEER TIES W/ WIRE SIZE (W2.8 OR 3/16"ø) SPACED 16" O.C. VERTICALLY AND 32" HORIZONTALLY. ADDITIONAL TIES ALONG ALL OPENINGS GREATER THAN 16" ARE REQUIRED TO BE LOCATED WITHIN 12" OF OPENING AND SPACED 36" O.C. MAX. AROUND OPENING PERIMETER. (HOHMANN & BARNARD VBT-VEE-BYNA TIE WITH DW10-HS ANCHOR PLATE OR EQUAL).

2 / S4.0 VENEER TIE REQUIREMENTS

REV	DATE	DESCRIPTION	BY
-	02/26/25	PERMIT SET	
-	12/06/24	BID SET	

STATE OF MISSOURI — PAUL W. WOICT — NUMBER PE-2008007555 — PROFESSIONAL ENGINEER — 02/26/25

PREPARED BY:
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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	CRB
STD ISSUE DATE	2024 05
REVIEWED BY	AWM
DATE ISSUED	02 26 2025

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
	WOOD TRUSS ROOF FRAMING
	E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
SITE ADDRESS	8712 N. Indiana Avenue, Kansas City, MO 64156

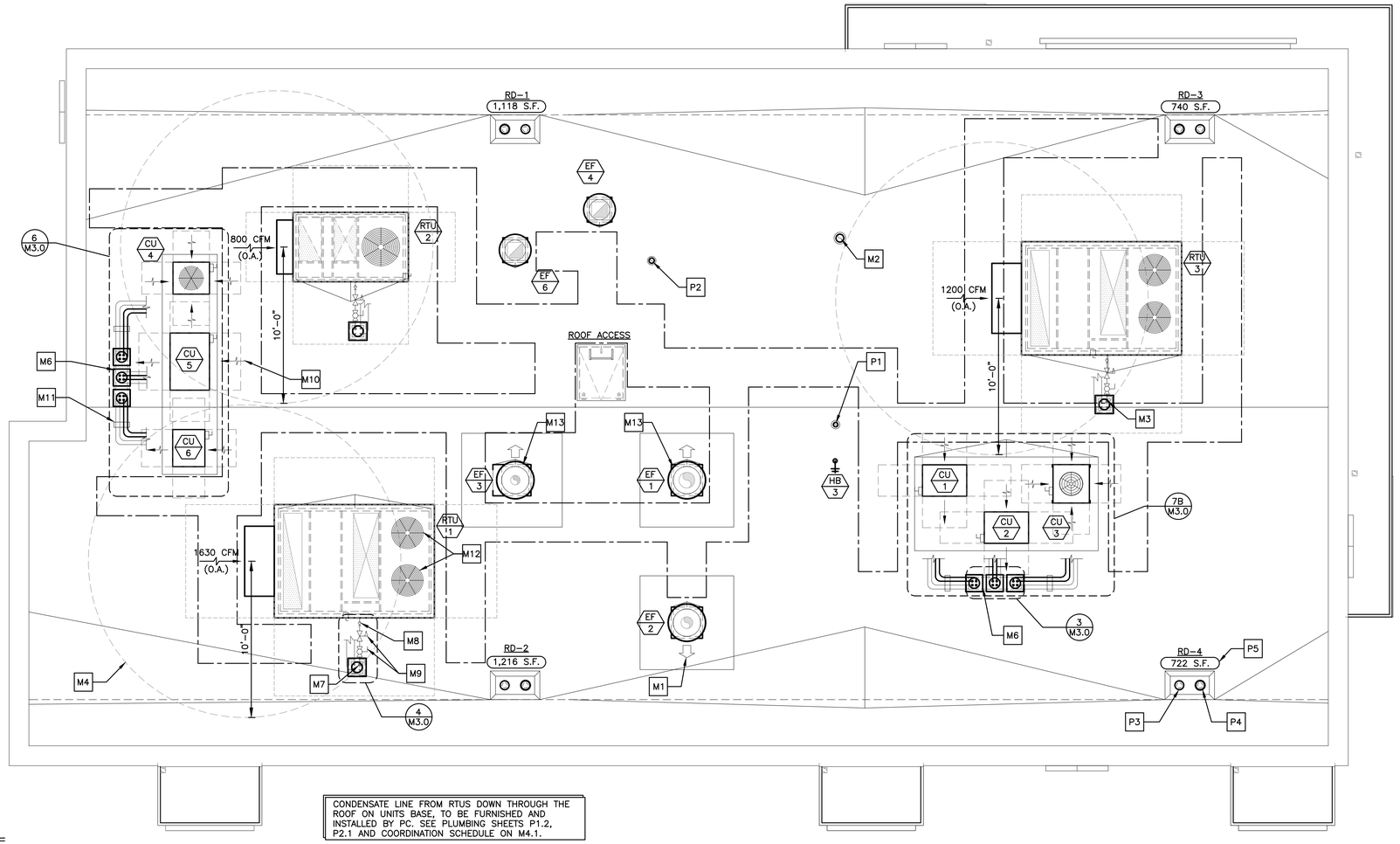
VA#24-015

NSN: 43016
L/C: 024-1306

SHEET NO.: 024-1306.00.0
S4.0
STRUCTURAL NOTES

IF YOU HAVE ANY QUESTIONS REGARDING THE PLANS, PLEASE CALL THE DESIGNER.

DESIGNER: Wendy Wenborg
PHONE: 952-540-4047
EMAIL: wwenborg@epinc.com



CONDENSATE LINE FROM RTUS DOWN THROUGH THE ROOF ON UNITS BASE, TO BE FURNISHED AND INSTALLED BY PC. SEE PLUMBING SHEETS P1.2, P2.1 AND COORDINATION SCHEDULE ON M4.1.

1 / M1.0 ROOF PLAN
1/4"=1'-0"

DRAWING NOTES

1. ROOFTOP EQUIPMENT LOCATIONS SHOWN ARE GENERAL. ACTUAL LOCATIONS SHALL BE COORDINATED WITH THE STRUCTURAL DRAWINGS.
2. ROOF OPENINGS FOR ROOFTOP UNITS AND EXHAUST FANS SHALL BE COORDINATED WITH THE MANUFACTURER.
3. ROOF OPENINGS FOR PIPE PORTALS SHALL ONLY BE LARGE ENOUGH TO ALLOW PIPE AND CONDUIT PENETRATIONS. PIPE PORTAL CURB SHALL BE FILLED WITH AS MUCH BATT INSULATION AS POSSIBLE.
4. PRIOR TO INSTALLING THE TOP OF THE EQUIPMENT PLATFORM, INSIDE OF THE PLATFORM SHALL BE INSULATED WITH AS MUCH BATT INSULATION AS POSSIBLE.

DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED AS SUPPLEMENTING EACH OTHER. WORK SPECIFIED BUT NOT SHOWN ON DRAWINGS, OR SHOWN ON DRAWINGS BUT NOT SPECIFIED, SHALL BE PERFORMED OR FURNISHED AS THOUGH MENTIONED IN BOTH SPECIFICATIONS AND DRAWINGS. IF NOT OTHERWISE DIRECTED, INSTALLATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE WORK DESCRIBED IN THE SPECIFICATIONS IS IN CONFLICT WITH THE WORK SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL SUPPLY THE GREATER QUANTITY, QUALITY AND COST VIA THE BID AND CONTACT THE ENGINEER FOR CLARIFICATION ON DIRECTION PRIOR TO INSTALLATION. SCALES AS STATED HEREON ARE VALID ON THE ORIGINAL DRAWING ONLY. CONTRACTORS SHALL NOT SCALE OFF OF ANY DRAWINGS. IF DIMENSION IS NOT PROVIDED AND IS REQUIRED, CONTACT ARCHITECT TO HAVE THE DIMENSION CONFIRMED.

PRIOR TO BID, THE CONTRACTOR SHALL REVIEW THE MECHANICAL, ELECTRICAL AND KITCHEN EQUIPMENT DRAWINGS. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL RELEVANT WORK IN THE ENTIRE SET OF DOCUMENTS AND REPORT ALL DISCREPANCIES BETWEEN THESE DRAWINGS TO THE ENGINEER PRIOR TO BIDDING FOR CLARIFICATION. IF DISCREPANCIES REMAIN UNRESOLVED DUE TO A SHORT TIME FRAME, THE CONTRACTOR SHALL INCLUDE THE MOST WORK AND THE HIGHER COSTS IN THE BID. SOLUTIONS TO UNREPORTED DISCREPANCIES WILL BE DETERMINED BY THE ARCHITECT/ENGINEER, WITH NO ADDITIONAL COMPENSATION DUE TO THE CONTRACTOR.

KEYED NOTES

- M1 ARROW INDICATES DIRECTION OF EXHAUST FAN HINGE SWING (TYP.)
- M2 6"ø ALUMINUM EXHAUST DUCT FROM EXHAUST FAN (EF-5). PROVIDE PORTALS PLUS PLASTI-FLASH WITH C-126 CAP (OR EQUAL) FOR ROOF PENETRATION. TERMINATE DUCT A MIN. OF 24" ABOVE FINISHED ROOF WITH GOOSENECK.
- M3 GAS PIPING DOWN (TYP. 3 PLACES)
- M4 MAINTAIN A MINIMUM 10'-0" CLEARANCE FROM EDGE OF OUTLETS AND VENT TERMINALS TO FRESH AIR INTAKES (TYP.)
- M5 NOT USED
- M6 ROOF PIPE PORTAL FOR CONDENSING UNITS
- M7 ROOF PIPE PORTAL FOR ROOFTOP UNITS (TYP. 3 PLACES)
- M8 GAS PIPING FROM ROOF PORTAL TO ROOFTOP UNIT SHALL BE COATED WITH A CORROSION RESISTANT PAINT (SEE SHEET M4.0 "NATURAL GAS SYSTEMS", NOTE 8).
- M9 GAS PRESSURE REGULATOR AND SHUT-OFF VALVE, SET PRESSURE AT 7" W.C. - NATURAL GAS (TYP. OF 3)
- M10 ARROW INDICATES DIRECTION OF AIRFLOW FOR CONDENSING OR ROOFTOP UNIT AIR INTAKE (TYP.)
- M11 REFRIGERANT PIPING SUPPORT AS REQUIRED. PROVIDE ROOFTOP BLOX MODEL RTB-01 (OR EQUAL) AND ALL NECESSARY ACCESSORIES FOR PROPER PIPE AND CONDUIT SUPPORT. PROVIDE GALVANIZED PIPE SHIELD TO PROTECT INSULATION AT ALL SUPPORTS.
- M12 PROVIDE HAIL GUARD FOR RTU-1 PROTECTING CONDENSER COIL FROM GREASE.
- M13 EXHAUST FANS WITH WINDBAND EXTENSION TO PREVENT DIRECT GREASE BLOW ONTO CONDENSER COIL OF UNIT RTU-1.

- P1 CONCENTRIC VENTING KIT FOR COMBUSTION AIR INTAKE AND FLUE EXHAUST FOR SEALED COMBUSTION WATER HEATER (SEE PLUMBING DRAWINGS). PROVIDE PORTALS PLUS PLASTIFLASH WITH C-126 CAP (OR EQUAL) FOR ROOF PENETRATION.
- P2 PLUMBING VENT THROUGH ROOF (SEE PLUMBING DRAWINGS). PROVIDE PORTALS PLUS PLASTI-FLASH WITH C-126 CAP (OR EQUAL) FOR ROOF PENETRATION.
- P3 PRIMARY ROOF DRAIN WITH DOME STRAINER (SEE PLUMBING DRAWINGS) (TYP.)
- P4 OVERFLOW ROOF DRAIN WITH DOME STRAINER (SEE PLUMBING DRAWINGS) (TYP.)
- P5 AREA OF ROOF SERVED BY ROOF DRAIN (TYP.)

PIPE PORTAL SCHEDULE

MANUFACTURER	CURB DIMENSIONS	CURB TYPE	CAP TYPE (QTY)	SERVES
RPS	12"x12"x11"H	RC-2A	N18 (1)	RTU-1 THROUGH RTU-3
RPS	43"x12"x13"H	RC-2A	N18 (3)	CU-1 THROUGH CU-6

SEQUENCE OF OPERATION

THERMOSTAT SETTINGS

		SETPOINTS	
MODE	FAN	COOLING	HEATING
OCCUPIED	ON	75°F	70°F
UNOCCUPIED	AUTO	90°F	55°F
HUMIDITY			
HUMIDITY SETPOINT (FOR DEHUMIDIFICATION UNITS ONLY)		60%	

RTU-1, RTU-2 & RTU-3:

1. OCCUPIED MODE SHALL BEGIN AS FOLLOWS:
   - RTU-1: 1.5 HOURS BEFORE OPEN
   - RTU-2: 1 HOUR BEFORE OPEN
   - RTU-3: 30 MINUTES BEFORE OPEN
2. ROOFTOP UNIT FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED MODE
3. ECONOMIZER SHALL BE OPEN DURING OCCUPIED MODE (OUTDOOR AIR THROUGH ROOFTOP UNITS SERVES AS MAKE-UP AIR FOR THE KITCHEN EXHAUST SYSTEM) - REFER TO E3.2 FOR HOOD/FAN INTERLOCK DETAILS.
4. UNOCCUPIED MODE SHALL BEGIN ONE (1) HOUR AFTER STORE CLOSES
5. DURING UNOCCUPIED MODE, ECONOMIZER IS CLOSED AND HEATING, COOLING AND FAN OPERATE IN AUTO MODE (ON DEMAND)
6. RTU-2 SHALL BE INTERLOCKED WITH EF-6. UPON ACTIVATION OF EF-6, RTU-2 SHALL INCREASE SUPPLY AND OUTSIDE AIR BY 600 CFM, WHILE MAINTAINING 1200 CFM RETURN AIR. COORDINATE WITH E.C. AND BAS SUPPLIER.

REV	DATE	DESCRIPTION	BY
	02/26/25	PERMIT SET	WLW
	12/06/24	BID SET	WLW

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3801.0075

STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:

PREPARED FOR:
McDonald's USA, LLC

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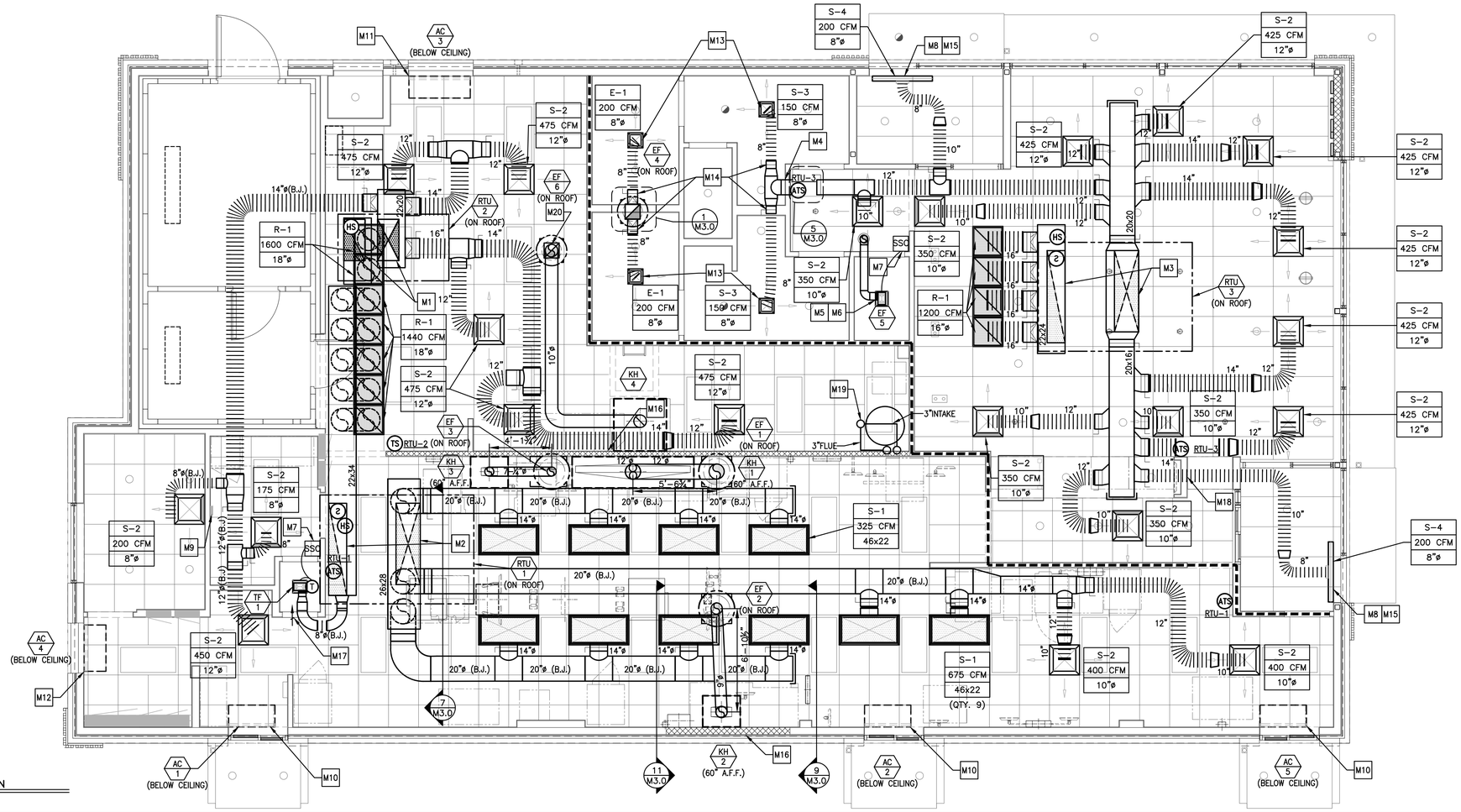
DRAWN BY	REVIEWED BY	PROJECT NO.
DWS/HB	WLW	R# 24247
STD ISSUE DATE 2024 05	DATE ISSUED 02 26 2025	

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION:
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
MSN: 4.3016
J/C: 024-1306

SHEET NO.: M1.0
024-1306.00.0
ROOF PLAN



1 M1.2 DUCTWORK PLAN
1/4"=1'-0"

DRAWING NOTES

1. ALL DUCTWORK SHALL BE RUN BETWEEN OR THROUGH THE JOISTS UNLESS NOTED OTHERWISE. DUCTWORK DESIGNATED WITH (B.J.) SHALL BE RUN BELOW THE JOISTS.
2. DUCT SIZES SHOWN ARE INTERNAL FREE AREA DIMENSIONS UNLESS NOTED OTHERWISE.
3. ALL SHEET METAL DUCTWORK SHALL BE EXTERNALLY INSULATED. INSULATION IS NOT SHOWN FOR CLARITY. SEE MECHANICAL NOTES FOR INSULATION REQUIREMENTS.
4. CARBON STEEL KITCHEN EXHAUST DUCTWORK SHALL BE EXTERNALLY INSULATED. INSULATION NOT SHOWN FOR CLARITY. SEE MECHANICAL NOTES AND DETAILS FOR INSULATION REQUIREMENTS.
5. RETURN AIRFLOW VOLUME SHOWN ON PLAN IS FOR DUCTWORK SIZING PURPOSES WHEN THE UNIT IS IN RECIRCULATION (UNOCCUPIED) MODE.
6. DIFFUSERS IN DINING ROOM ARE SPECIFIC TO THE DECOR PLAN SHOWN. DIFFERENT CEILING LAYOUTS MAY REQUIRE A DIFFERENT DIFFUSER TYPES, QUANTITIES, LOCATIONS AND FINISHES/COLORS.
7. NO DIFFUSERS OR GRILLES TO BE INSTALLED ABOVE KIOSKS TO AVOID CONFLICTS WITH KIOSK'S CEILING PENETRATIONS FOR CONDUITS

KEYED NOTES

- M1 17x33 SUPPLY AND 17x33 RETURN DUCT DROPS FROM ROOFTOP UNIT (RTU-2)
- M2 19X65 SUPPLY AND 15X73.5 RETURN DUCT DROPS FROM ROOFTOP UNIT (RTU-1)
- M3 19X65 SUPPLY AND 15X73.5 RETURN DUCT DROPS FROM ROOFTOP UNIT (RTU-3)
- M4 PROVIDE SHEET METAL DUCT AT ALL DRAFTSTOP WALL PENETRATIONS (TYP.) (WHERE REQUIRED BY CODE.)
- M5 6"ø ALUMINUM DUCT FROM EXHAUST FAN UP THROUGH ROOF
- M6 EXTERNALLY INSULATE EXHAUST DUCT FROM FAN TO ROOF PENETRATION
- M7 STEADY STATE SPEED CONTROLLER FOR CEILING MOUNTED EXHAUST FAN. STEADY STATE SPEED CONTROLLER SHALL BE INSTALLED OVER SUSPENDED CEILING FOR ACCESS. DO NOT INSTALL OVER AREAS WITH DRYWALL CEILINGS.
- M8 SET DIFFUSER'S (S-4) OUTER SLOT FOR VERTICAL AIR THROW PATTERN AND INNER SLOT FOR HORIZONTAL THROW PATTERN (TYP.)
- M9 BUILDING AUTOMATION SYSTEM LOCATION. SEE LIGHTING CONTROL DETAILS ON SHEET E4.1.
- M10 MOUNT AIR CURTAIN TIGHT TO CEILING
- M11 MOUNT AIR CURTAIN WITH BOTTOM OF UNIT AT TOP OF DOOR FRAME
- M12 MOUNT AIR CURTAIN WITH BOTTOM OF UNIT ABOVE DOOR FRAME AND TOP OF SWITCHGEAR TO MEET 3'-0" MINIMUM SWITCHGEAR'S CLEARANCE REQUIREMENT
- M13 FOR DIFFUSERS INSTALLED IN DRYWALL CEILINGS, VOLUME DAMPER IS INTEGRAL TO DIFFUSER AND ADJUSTABLE AT FACE OF DIFFUSER (SEE NOTE 18 UNDER "VENTILATION SYSTEMS" ON DRAWING M4.0 AND AIR DEVICE SCHEDULE ON DRAWING M4.1)
- M14 FOR DIFFUSERS INSTALLED IN DRYWALL CEILINGS, INSTALL HIGH-EFFICIENCY TAKE-OFFS WITH VOLUME DAMPER IN FULL-OPEN POSITION TO FACILITATE BALANCING AT FACE OF DIFFUSER.
- M15 GENERAL CONTRACTOR SHALL PROVIDE ADDITIONAL T-BAR FRAME TO PROPERLY LOCATE DIFFUSER AS SHOWN. AIR STREAM FROM DIFFUSER SHALL COVER ENTIRE DOOR OPENING.
- M16 NONCOMBUSTIBLE WALL CONSTRUCTION BEHIND TYPE I KITCHEN HOODS. REFER TO SHEET A1.0 FOR MORE INFORMATION.
- M17 ONE INCH DOOR UNDERCUT TRANSFER AIR TO CLOSET (100 CFM)
- M18 MECHANICAL CONTRACTOR TO PROVIDE 4x12 LOUVERED RETURN AIR BEHIND EACH RECESSED MENU BOARD. SEE ARCHITECTURAL PLANS, DETAIL 14/A3.1. AND AIR DEVICE SCHEDULE (R-2) ON SHEET M4.1.
- M19 PROVIDE AIR INTAKE AND FLUE EXHAUST PER MANUFACTURER'S INSTALLATION MANUAL. AIR INTAKE AND FLUE EXHAUST TO COMBINE WITH CONCENTRIC VENT KIT. REFER TO 6/P3.0 FOR FURTHER DETAILS.
- M20 10" TYPE 304 STAINLESS STEEL DUCT FROM TYPE II EXHAUST HOOD UP THROUGH ROOF TO EXHAUST FAN. DUCTWORK SHALL BE PITCHED TOWARDS TYPE II EXHAUST HOOD. EXTERNALLY INSULATE EXHAUST DUCT FROM TYPE II EXHAUST HOOD CONNECTION TO ROOF PENETRATION.

2012 IMC SECTION 403.3 - VENTILATION SCHEDULE

UNIT	AREA SERVED	AREA FT² (Az)	CFM/PERSON (Rp)	CFM/FT² (Ra)	PEOPLE OR PEOPLE/1000 FT² (Pz)	UNCORRECTED REQUIRED O/A CFM (Vbz)	E_z*	E_v**	REQUIRED O/A CFM (Vot)***	ACTUAL O/A CFM	REQUIRED EXHAUST CFM	ACTUAL EXHAUST CFM
RTU-1	PRESENTER	267	5	0.06	1	21	0.8	0.98				
	KITCHEN	732	7.5	0.18	13	-	0.8					
						250			255	1630		
RTU-2	SUPPORT	569	0	0.12	2	68	0.8	0.84	-	-		
	MANAGER'S OFFICE	59	5	0.06	0	4	0.8		-	-		
	CREW ROOM	96	5	0.06	0	6	0.8		-	-		
	ORDER	133	5	0.06	1	13	0.8		-	-		
						91			108	800		
RTU-3	DINING	872	7.5	0.18	54	562	0.8	0.91	-	-		
	VESTIBULE 1	62	0	0.06	0	4	0.8		-	-		
	VESTIBULE 2	61	0	0.06	0	4	0.8		-	-		
	WOMEN'S	136	0	0.06	0	8	0.8		-	-		
	MEN'S	121	0	0.06	0	7	0.8		-	-		
						585			643	1200		
EF-1, 2 & 3	KITCHEN	732	-	0.7	-	-	-	-	-	-	512	2405
EF-4	WOMEN'S	136	-	-	-	-	-	-	-	-	100	200
	MEN'S	121	-	-	-	-	-		-	-	100	200
EF-5	JANITOR'S	20	-	-	-	-	-				-	75
EF-6	WAREWASHER	-	-	-	-	-	-				400	600
											1112	3480

* Zone Air Distribution Effectiveness Based on ASHRAE 62.1 Table 6.2 for Ceiling Supply of Warm Air 15° F or More Above Space Temperature and Ceiling Return (IMC Table 403.3.1.2)

** Ventilation System Efficiency Based on ASHRAE 62.1 Table 6.3 and Section 6.2.5 (IMC Section 403.3.2.3 MZ)

*** Corrected Required O/A Intake Required for System Calculated Based on ASHRAE 62.1 Section 6.2 (IMC Section 403.3)

AIR BALANCE SCHEDULE

UNIT	SUPPLY AIR	RETURN AIR	OUTDOOR AIR	EXHAUST AIR	PRESSURE
RTU-1	7200	5570	1630		1630
RTU-2	3200	2400	800		800
RTU-3	5000	3800	1200		1200
EF-1				1350	-1350
EF-2				575	-575
EF-3				480	-480
EF-4				400	-400
EF-5				75	-75
EF-6				600	-600
TOTALS	15400	11770	3630	3480	150

NOTES:
1. BALANCING TOLERANCES ARE AS FOLLOWS:
   HOODS: 0% TO +10%
   OUTDOOR AIR: 0% TO +10%
   SUPPLY AND RETURN AIR DIFFUSERS: -10% TO +10%
   TOILET EXHAUST AIR: -10% TO +10%
2. BALANCE ROOFTOP UNIT SUPPLY AND RETURN AIR PRIOR TO TURNING ON EXHAUST FANS.
3. EXHAUST HOODS SHALL BE BALANCED WITH A 4" VANE ANEMOMETER.
4. RTU BLOWER TO RUN CONTINUOUSLY DURING OCCUPIED HOURS. REFER TO SEQUENCE OF OPERATIONS ON M1.0 AND E3.2 FOR HOOD/FAN INTERLOCK DETAILS.
5. EF-6 DOES NOT RUN CONTINUOUSLY - VALUES SHOWN IN AIR BALANCE SCHEDULE REFLECT OPERATIONAL STATE. WHEN EF-6 IS NOT OPERATIONAL, RTU-2 SHALL BE DECREASED BY 600 CFM ACCORDINGLY. REFER TO M1.0 FOR ADDITIONAL DETAILS OF SEQUENCE OF OPERATIONS AND INTERLOCKING REQUIREMENTS.

HEATING SCHEDULE

EQUIPMENT	INPUT (BTU/HR)	OUTPUT (BTU/HR)	REQUIRED HEAT (BTU/HR)
ROOFTOP UNIT (RTU-1)	250,000	202,500	134,219
ROOFTOP UNIT (RTU-2)	120,000	97,200	70,401
ROOFTOP UNIT (RTU-3)	250,000	202,500	121,410
TOTALS	620,000	502,200	326,030

REV	DATE	DESCRIPTION	BY
-	02/26/25	PERMIT SET	WLW
-	12/06/24	BID SET	WLW

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STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:

PREPARED FOR: McDonald's USA, LLC

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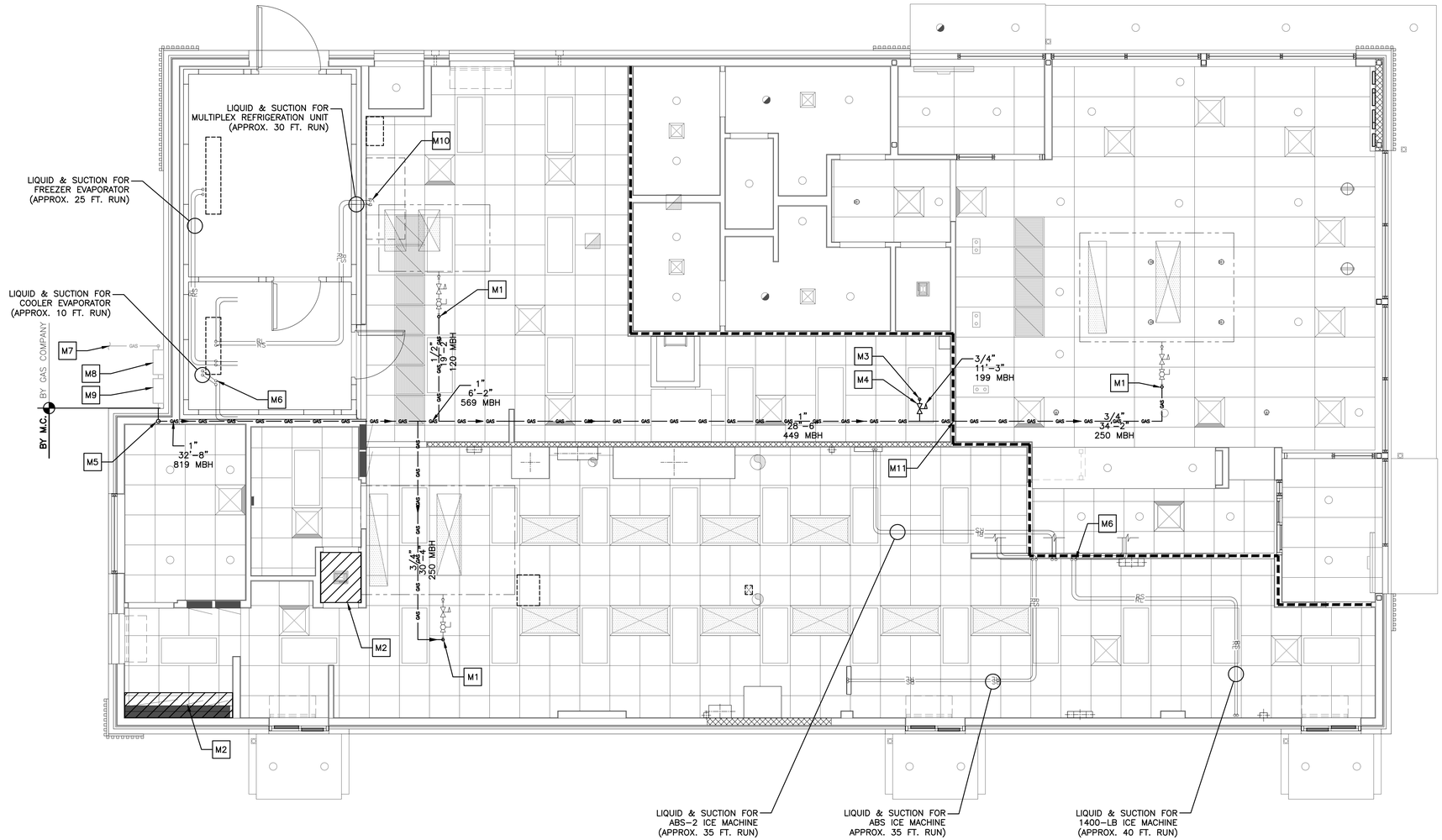
TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./PATTEN/BRICK EXTERIOR FINISH

MSN: 4.5016
U/C: 024-1306
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156

DRAWN BY: DMS/HB
STD ISSUE DATE: 2024 05
REVIEWED BY: WLW
DATE ISSUED: 02 26 2025
Rdy# 24247

SHEET NO.: 024-1306.00.0
M1.2
DUCTWORK PLAN



1 M1.4 MECHANICAL PIPING PLAN
1/4"=1'-0"

DRAWING NOTES

1. GAS PIPING LENGTHS ARE APPROXIMATE AND ARE SHOWN FOR SIZING PURPOSES ONLY.
2. REFRIGERANT PIPE SIZES SHALL BE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

KEYED NOTES

- M1 GAS PIPE UP THROUGH ROOF TO RTU.
- M2 UTILITIES SHALL NOT BE ROUTED ABOVE TECH. CLOSET. OR SWITCHGEAR.
- M3 GAS PIPE DOWN TO WATER HEATER – APPROX. 10 FT. DROP
- M4 SIZE REGULATOR PROPERLY FOR APPLICATION – SET GAS PRESSURE REGULATOR OUTLET PRESSURE TO 10" W.C. AND PROVIDE VENT THROUGH ROOF AS REQUIRED
- M5 GAS PIPE UP IN WALL – APPROX. 10 FT. RISE
- M6 REFRIGERANT LIQUID AND SUCTION LINES UP THROUGH ROOF TO CONDENSING UNITS (TYP. 6 PLACES – SEE DETAIL 3 ON DRAWING M3.0)
- M7 INCOMING SERVICE LINE – SEE GAS PIPING NOTES ON DRAWING M4.0
- M8 INCOMING SERVICE REGULATOR SET TO 2 PSIG
- M9 INCOMING SERVICE METER – SEE GAS LOAD SCHEDULE FOR SIZING
- M10 REFRIGERANT LINES DOWN TO SODA SYSTEM (MULTIPLEX).
- M11 PROPERLY SEAL ALL PIPE PENETRATIONS THROUGH DRAFT STOP WALL (TYP.)

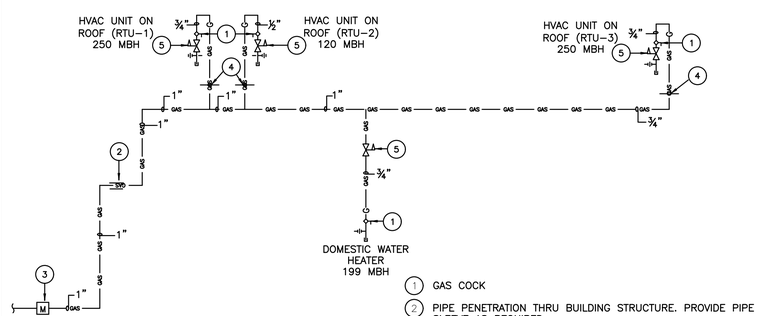
GAS LOAD SCHEDULE

EQUIPMENT	INPUT (BTU/HR)	GAS FLOW (1,000 BTU/CF) (CF/HR)
ROOFTOP UNIT (RTU-1)	250,000	250
ROOFTOP UNIT (RTU-2)	120,000	120
ROOFTOP UNIT (RTU-3)	250,000	250
WATER HEATER (WH-1)	199,000	199
TOTAL	819,000	819

PIPING KEY

1 1/2" BPE 10'-11" 1010 MBH

- PIPE SIZE
- PIPE LENGTH
- LOADING ON PIPE LENGTH



GAS RISER DIAGRAM
NOT TO SCALE

1. GAS COCK
2. PIPE PENETRATION THRU BUILDING STRUCTURE. PROVIDE PIPE SLEEVE AS REQUIRED.
3. GAS COMPANY METER/REGULATOR
4. GAS PIPING UP THRU THE ROOF. COORDINATE PIPE ROOF PENETRATION WITH AC UNIT LOCATION IN THE FIELD.
5. GAS REGULATOR (SEE DETAIL 4/M3.0)

REV	DATE	DESCRIPTION	BY
	02/26/25	PERMIT SET	WLW
	12/06/24	BID SET	WLW

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3801.0075

STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER

02/26/25

PREPARED BY:

PREPARED FOR: McDonald's USA, LLC

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TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD
DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./PATTEN/BRICK EXTERIOR FINISH
NSN: 4.3016
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
J/C: 024-1306

DRAWN BY	REVIEWED BY	DATE ISSUED
DWS/HB	WLW	02 26 2025
STD ISSUE DATE 2024 05		

RDJ# 24247

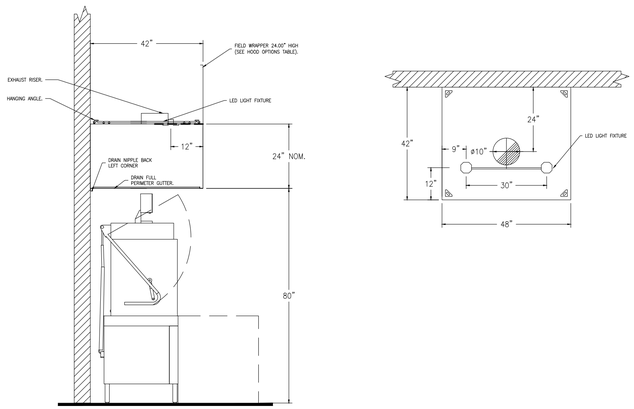
SHEET NO. 024-1306.00.0
M1.4
MECH. PIPING PLAN

HOOD INFORMATION

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	APPLIANCE DUTY	DESIGN CFM/FT.	TOTAL EXH. CFM	EXHAUST PLENUM RISERS							HOOD CONSTRUCTION	HOOD CONFIG.	
								WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.		END TO END	ROW
1	DISH	CLASS 2	48"	NA	DISH	150	600			4"	10"	600	1100	-0.25"	304 SS	ALONE	ALONE

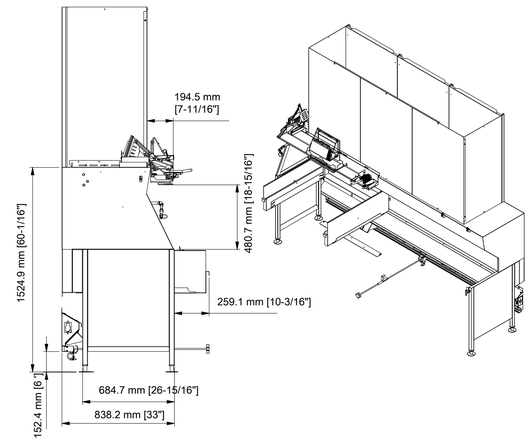
HOOD OPTIONS

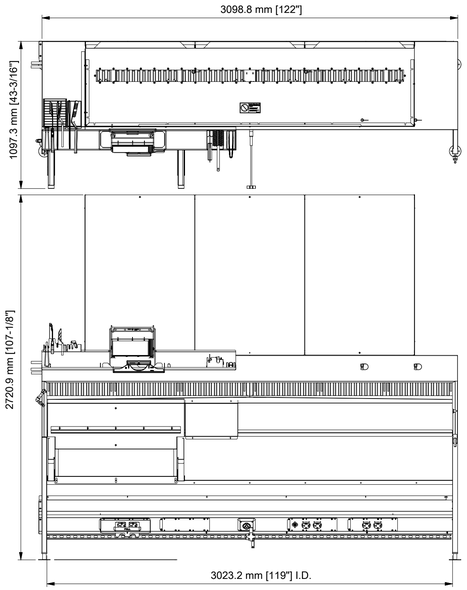
HOOD NO.	TAG	OPTION
1	DISH	FASCIA PANEL 14.00" HIGH FRONT, LEFT, RIGHT (FASCIA HEIGHT INCREASES FOR TALLER CEILING)



KITCHEN EXHAUST HOOD (TYPE II)

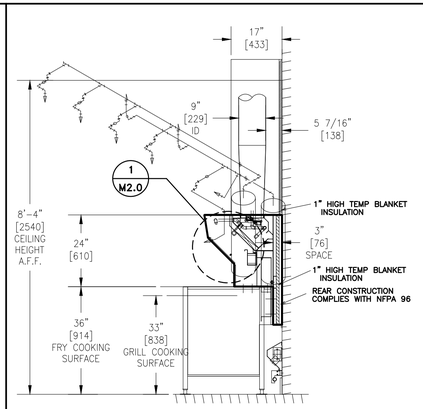
TAG: KH-4 (SEE KITCHEN EXHAUST HOOD SCHEDULE)
N.T.S.

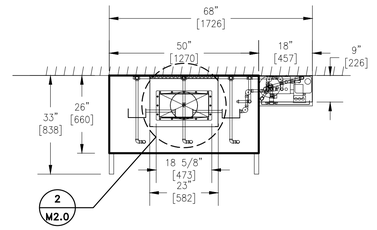


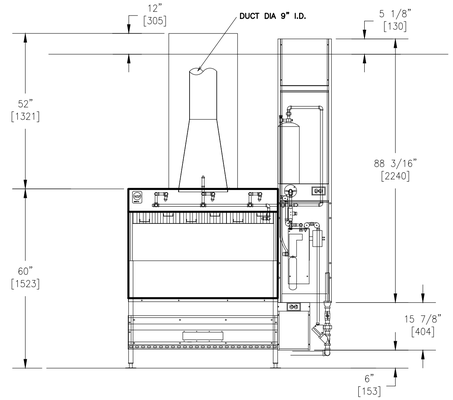


KITCHEN EXHAUST HOOD

TAG: KH-1 (SEE KITCHEN EXHAUST HOOD SCHEDULE)
SCALE: ½"=1'-0"

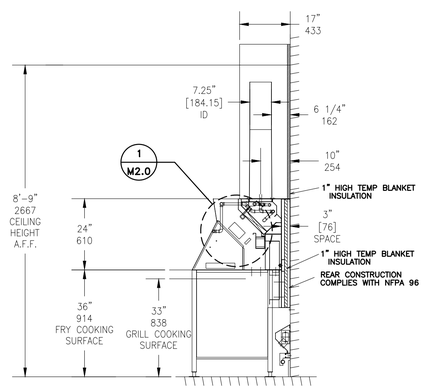


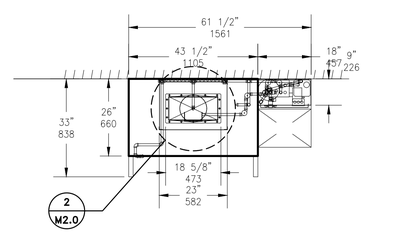


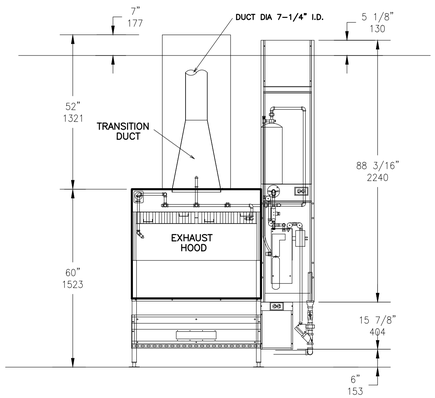


KITCHEN EXHAUST HOOD

TAG: KH-2 (SEE KITCHEN EXHAUST HOOD SCHEDULE)
SCALE: ½"=1'-0"







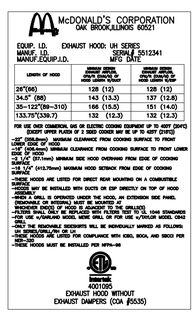
KITCHEN EXHAUST HOOD

TAG: KH-3 (SEE KITCHEN EXHAUST HOOD SCHEDULE)
SCALE: ½"=1'-0"

OWNER SELECTED EQUIPMENT WITH MANUFACTURER CUT SHEET FOR INFORMATION PURPOSES ONLY

DRAWING NOTES

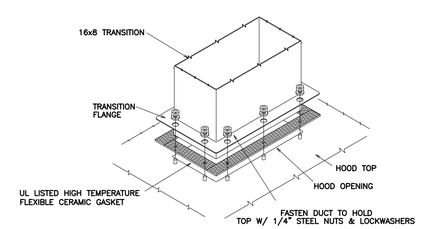
1. 16 GA. STAINLESS STEEL MATERIAL USED FOR HOOD CONSTRUCTION
2. FILTER BAFFLE:
   UL FILE R14372, VOL. 1, SEC. 1
   UL CONTROL NUMBER 5L65
   MEA-446-92-M
3. EXHAUST HOOD:
   UL FILE MH12755, VOL. 4
   UL CONTROL NUMBER 78L1
4. UTILITY CHASE AND RACEWAY:
   UL FILE E163328, VOL.1, SEC.3
5. HIGH TEMP GASKET:
   UL FILE MH12755, VOL. 2, SEC. 1, ILL. 9
6. HOOD CONSTRUCTION COMPLIES WITH NSF STANDARD 2
7. HOOD PERFORMANCE TESTED IN ACCORDANCE WITH UL 710
8. UL 300 AND NFPA 17A COMPLIANT R-102 WET CHEMICAL SYSTEM INCLUDED WITH HOOD INSTALLATION
9. ANSUL CONNECTIONS AND STARTUP BY APPROVED ANSUL REPRESENTATIVE
10. REFER E3.2 FOR HOOD/FAN INTERLOCK DETAILS
11. CAPTURE JET PLENUMS ARE TO BE ATTACHED WHEN CALLED OUT PER KITCHEN SCHEDULE.



DETAIL

UL LABEL
SCALE: NONE

1 / M2.0



DETAIL

HOOD CONNECTION
SCALE: NONE

2 / M2.0

REV	DATE	DESCRIPTION	BY
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.	.	.	.
.	.	.	.
.	02/26/25	PERMIT SET	WLW
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PREPARED BY: 02/26/25

PREPARED FOR: McDonald's USA, LLC

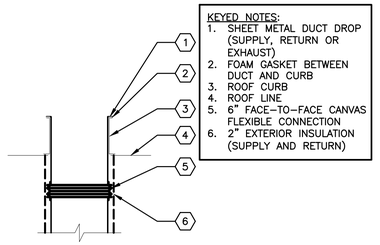
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STD ISSUE DATE	2024 05
REVIEWED BY	WLW
DATE ISSUED	02 26 2025

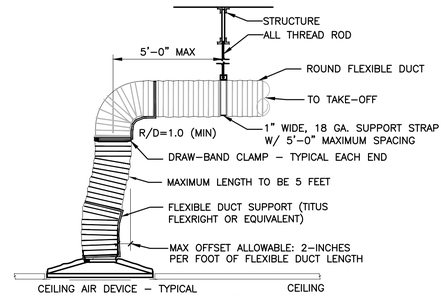
TITLE: 2024 STANDARD BUILDING – BB20 4584-WOOD/WOOD
DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI WOOD TRUSS ROOF FRAMING E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
NSN: 43016
L/C: 024-1306
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
RQ# 24247

SHEET NO.: 024-1306.00.0
M2.0
EXHAUST HOODS

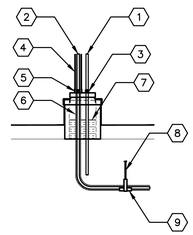


KEYED NOTES:
1. SHEET METAL DUCT DROP (SUPPLY, RETURN OR EXHAUST)
2. FOAM GASKET BETWEEN DUCT AND CURB
3. ROOF CURB
4. ROOF LINE
5. 6" FACE-TO-FACE CANVAS FLEXIBLE CONNECTION
6. 2" EXTERIOR INSULATION (SUPPLY AND RETURN)

DETAIL 1 M3.0
DUCT DROP INSTALLATION
SCALE: NONE

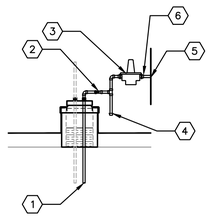


DETAIL 2 M3.0
DIFFUSER/GRILLE CONNECTION
SCALE: NONE



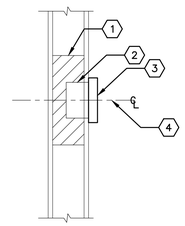
KEYED NOTES:
1. REFRIGERANT LIQUID LINE
2. REFRIGERANT SUCTION LINE WITH 1" THICK EXTERNAL FOAM INSULATION (ARMAFLEX BY ARMACELL OR EQUAL)
3. STAINLESS STEEL CLAMP
4. APPLY WEATHERPROOFING OVER FOAM INSULATION (ALUMAGUARD BY POLYGUARD OR EQUAL)
5. WRAP FOAM INSULATION OVER PIPE PORTAL NIPPLE AND STAINLESS STEEL CLAMP
6. RESTART FOAM INSULATION IMMEDIATELY AFTER PIPE PORTAL PENETRATION
7. INSULATE BOTTOM OF ROOF PORTAL CURB (MIN. R-19)
8. PIPE HANGER
9. LIGHT GAUGE GALVANIZED STEEL PROTECTIVE SHIELD

DETAIL 3 M3.0
REFRIGERANT PIPE INSTALLATION
SCALE: NONE



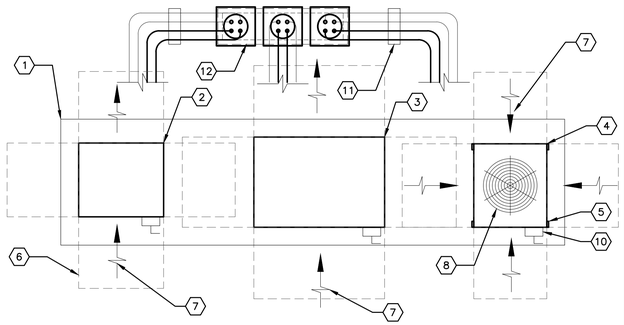
KEYED NOTES:
1. GAS PIPING
2. SHUT-OFF VALVE
3. PRESSURE REGULATOR (PROPERLY SIZED FOR APPLICATION)
4. DIRT LEG
5. ROOFTOP UNIT ENTRY
6. UNION (TYP.)

DETAIL 4 M3.0
GAS PIPE INSTALLATION
SCALE: NONE



KEYED NOTES:
1. PROVIDE BATT INSULATION FOR TEMPERATURE SENSORS INSTALLED IN HOLLOW CAVITY WALLS
2. 2x4 ELECTRICAL BOX
3. SENSOR (TEMPERATURE, HUMIDITY OR CO2)
4. MOUNT SENSOR(S) BETWEEN 4'-0" TO 4'-6" A.F.F.

DETAIL 5 M3.0
REMOTE SENSOR INSTALLATION
SCALE: NONE

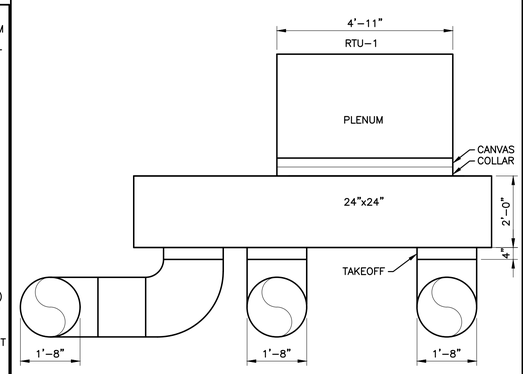


KEYED NOTES:
1. 180"Lx43"Wx14"H EQUIPMENT PLATFORM MANUFACTURED BY RPS OR EQUAL
2. 28⅝"Lx24¾"Wx19¾"H CONDENSING UNIT (COOLER).
3. 43⅜"Lx30⅜"Wx29¾"H CONDENSING UNIT (FREEZER).
4. 29"Lx24½"Wx34"H CONDENSING UNIT (MULTIPLEX).
5. FASTEN CONDENSING UNIT TO TOP OF PLATFORM AND SEAL FASTENER PENETRATIONS WITH UV RESISTANT SEALANT
6. OUTLINE OF SERVICE CLEARANCE EXTENDING 3'-0" FROM CONDENSING UNIT ON ALL SIDES
7. CONDENSER AIR INTAKE
8. CONDENSER FAN OUTLET ON TOP OF UNIT
9. CONDENSER FAN OUTLET ON SIDE OF UNIT
10. DISCONNECT SWITCH FURNISHED WITH UNIT
11. PROVIDE PIPE SUPPORT AS REQUIRED (TREATED LUMBER IS NOT ACCEPTABLE)
12. MULTIPLE PIPE PORTAL MANUFACTURED BY RPS OR EQUAL

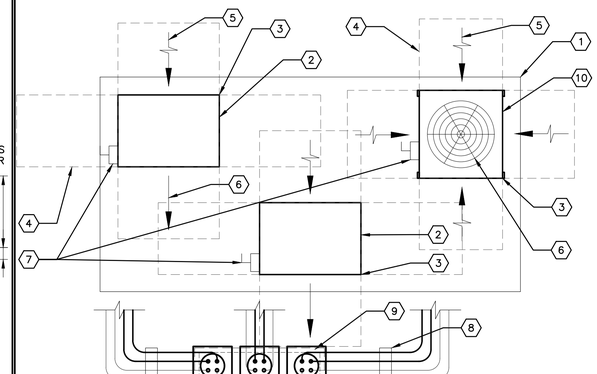
CONDUIT SIZES: (PER CONDENSING UNIT)
(1) ¾" POWER
(1) ¾" CONTROL

REFRIGERANT PIPING SIZES:
SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR RECOMMENDED REFRIGERANT PIPE SIZING

DETAIL 6 M3.0
REMOTE CONDENSER UNITS (CU-4, CU-5 & CU-6)
SCALE: ½"=1'-0"



DETAIL 7 M3.0
VIEW TOWARDS REAR OF KITCHEN AT DUCT DROPS
SCALE: ½"=1'-0"

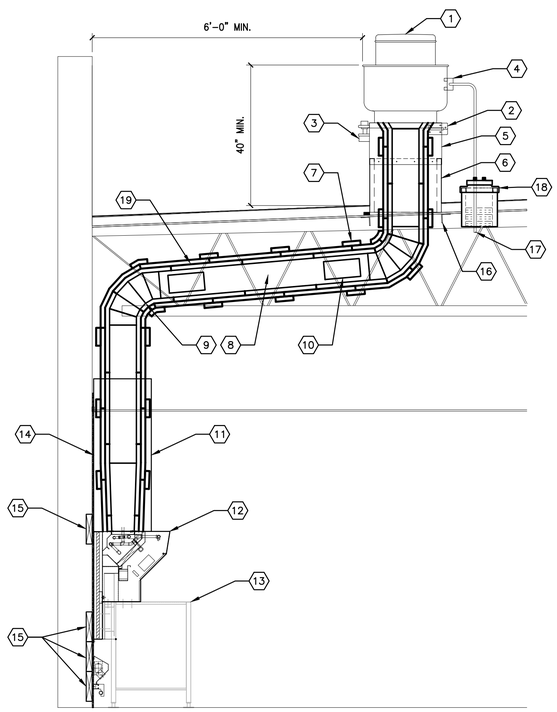


KEYED NOTES:
1. 141"x72"x14"H EQUIPMENT PLATFORM MANUFACTURED BY RPS OR EQUAL
2. 34"x24⅛"x25¾"H CONDENSING UNIT
3. FASTEN CONDENSING UNIT TO TOP OF PLATFORM AND SEAL FASTENER PENETRATIONS WITH UV RESISTANT SEALANT
4. OUTLINE OF SERVICE CLEARANCE EXTENDING FROM CONDENSING UNIT ON ALL SIDES
5. CONDENSER AIR INTAKE
6. CONDENSER FAN OUTLET
7. DISCONNECT SWITCH PROVIDED BY ELECTRICAL CONTRACTOR
8. PROVIDE PIPE SUPPORT AS NECESSARY (TREATED LUMBER IS NOT ACCEPTABLE)
9. MULTIPLE PIPE PORTAL MANUFACTURED BY RPS OR EQUAL
10. 29½"x28"x38"H CONDENSING UNIT

CONDUIT SIZES: (PER CONDENSING UNIT)
(1) ¾" POWER
(1) ¾" CONTROL

REFRIGERANT PIPING SIZES:
(PER CONDENSING UNIT)
ICE MACHINE - ½" LIQUID, ¾" SUCTION
(CU-3 CONDENSING UNIT)
ICE MACHINE - ⅜" LIQUID, ½" SUCTION

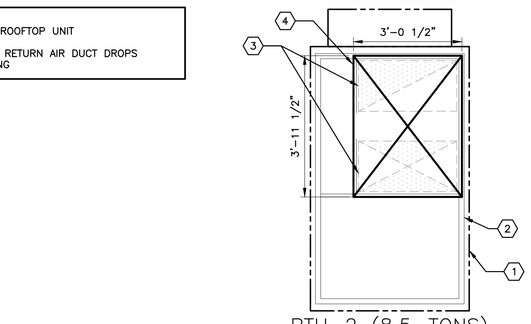
DETAIL 7B M3.0
REMOTE CONDENSER UNIT (CU-1, CU-2 & CU-3)
SCALE: ½"=1'-0"



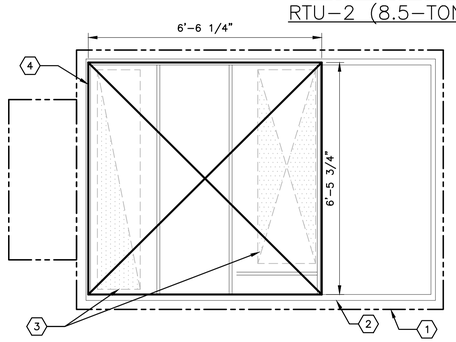
KEYED NOTES:
1. UPBLAST EXHAUST FAN (SEE EXHAUST FAN SCHEDULE)
2. HINGED CURB CAP FOR CLEANING ACCESS (FURNISHED WITH FAN)
3. GREASE TRAP (FURNISHED WITH FAN)
4. NEMA 3R DISCONNECT SWITCH (FURNISHED WITH FAN)
5. 12" HIGH CURB EXTENSION (FURNISHED WITH FAN)
6. 18" HIGH CURB (FURNISHED WITH FAN)
7. TWO (2) LAYERS OF 1½" THICK DUCT WRAP TO MEET ASTM E2336 INSTALLED PER MANUFACTURER'S INSTRUCTIONS (SEE MECHANICAL NOTES FOR INSULATION SPECIFICATION)
8. 16 GAUGE BLACK IRON (CARBON STEEL) OR 18 GAUGE STAINLESS STEEL DUCTWORK WELDED LIQUID-TIGHT
9. 5-GORE BLACK IRON (CARBON STEEL) RADIUS ELBOW
10. 12"x6" ACCESS DOOR AT ALL CHANGES IN DIRECTION
11. STAINLESS STEEL FASCIA PANEL TO PROTECT DUCTWORK AND INSULATION
12. BACKSHELF TYPE EXHAUST HOOD (SEE KITCHEN EXHAUST HOOD SCHEDULE)
13. COOKING APPLIANCE (SEE KITCHEN DRAWINGS)
14. REAR WALL CONSTRUCTION SHALL CONSIST OF CERAMIC TILE OR MIN. 22 GAUGE STAINLESS STEEL OVER ⅝" TYPE X GYPSUM BOARD OR ½" CEMENT BOARD FROM FLOOR TO CEILING AND EXTENDING 24" TO EACH SIDE OF THE HOOD INSTALLED ON NON-COMBUSTIBLE WALL (REFER TO SHEET A1.0 FOR MORE INFORMATION.
15. 2x10 LIGHT GAUGE STEEL FOR SUPPORT BLOCKING FOR HOOD AND RACEWAY (COORDINATE INSTALLATION WITH HOOD INSTALLER)
16. STRUCTURAL FRAMING FOR ROOF OPENING (SEE STRUCTURAL DRAWINGS)
17. TRANSITION TO FLEXIBLE CONDUIT UNDER ROOF PENETRATION WHERE ALLOWED BY CODE.
18. ROOF PIPE PORTAL, RPS-N18(1) RC-2A 12x12x11H.
19. ¼" PER FOOT SLOPE PITCHED BACK TOWARDS THE HOOD.

SECTION 8 M3.0
KITCHEN EXHAUST HOOD INSTALLATION
SCALE: ½"=1'-0"

KEYED NOTES:
1. OUTLINE OF ROOFTOP UNIT
2. ROOF CURB
3. SUPPLY AND RETURN AIR DUCT DROPS
4. ROOF OPENING

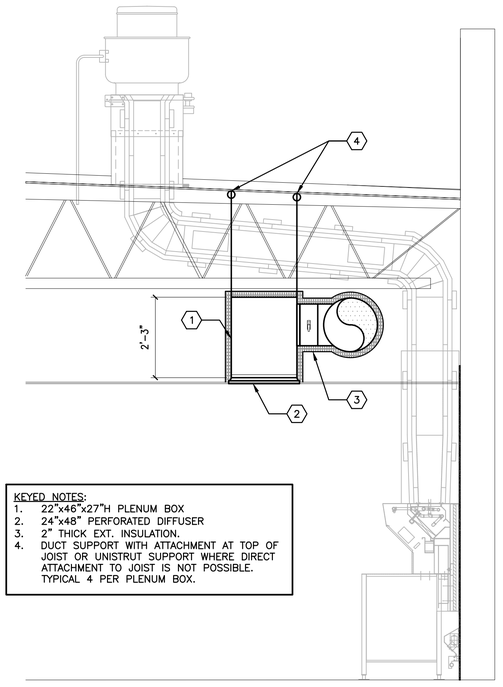


RTU-2 (8.5-TONS)



RTU-1 (20 TONS) & RTU-3 (15-TONS)

DETAIL 9 M3.0
ROOF OPENINGS
SCALE: ½"=1'-0"



KEYED NOTES:
1. 22"x46"x27"H PLENUM BOX
2. 24"x48" PERFORATED DIFFUSER
3. 2" THICK EXT. INSULATION.
4. DUCT SUPPORT WITH ATTACHMENT AT TOP OF JOIST OR UNISTRUT SUPPORT WHERE DIRECT ATTACHMENT TO JOIST IS NOT POSSIBLE. TYPICAL 4 PER PLENUM BOX.

SECTION 10 M3.0
SUPPLY (S-1) PLENUM INSTALLATION
SCALE: ½"=1'-0"

REV	DATE	DESCRIPTION	BY

MECHANICAL NOTES

GENERAL:
1. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
2. ALL DIMENSIONS, CLEARANCES AND TOLERANCES SHALL BE VERIFIED PRIOR TO INSTALLATION.
3. ALL MATERIALS, FIXTURES AND EQUIPMENT USED SHALL BE IN ACCORDANCE WITH McDONALD'S SPECIFICATIONS. SPECIFICATIONS ARE CONTAINED WITHIN THESE DRAWINGS AND THE McDONALD'S PROJECT MANUAL. ANY CONTRACTOR IN NEED OF A COPY OF THE McDONALD'S PROJECT MANUAL SHALL CONTACT THE McDONALD'S AREA CONSTRUCTION MANAGER. ANY VARIANCE FROM THE McDONALD'S SPECIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER-OF-RECORD.
4. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ITS LISTING AND/OR THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. SEE COORDINATION SCHEDULE FOR ADDITIONAL SCOPE OF WORK.
6. PRIOR TO BUILDING TURNOVER, A COMPLETE START-UP, TEST, ADJUST AND BALANCE SHALL BE PERFORMED ON ALL MECHANICAL SYSTEMS. THIS WORK SHALL BE PERFORMED BY A CERTIFIED TEST AND BALANCE CONTRACTOR. A CERTIFIED TEST AND BALANCE CONTRACTOR CAN BE FOUND BY VISITING:
   HTTP://WWW.AABCHQ.COM/DIRECTORY
   HTTP://WWW.NEBB.ORG/DIRECTORY.HTM
   HTTP://WWW.TABBCERTIFIED.ORG/SITE/CONTENT/CONTRACTORS/SEARCH
7. UPON COMPLETION OF THE PUNCHLIST, THE MECHANICAL CONTRACTOR AND TEST AND BALANCE CONTRACTOR SHALL SUBMIT REDLINED OR AS-BUILT DRAWINGS ALONG WITH THE TEST AND BALANCE REPORT AND ALL EQUIPMENT OPERATION AND MAINTENANCE MANUALS TO THE McDONALD'S AREA CONSTRUCTION MANAGER. A MINIMUM OF TWO (2) COPIES SHALL BE PROVIDED, ONE (1) FOR REGIONAL RECORDS AND ONE (1) FOR THE RESTAURANT.
8. ALL PENETRATIONS OF FIRE-RATED WALLS SHALL BE FIRESTOPPED WITH AN APPROVED AND LISTED FIRESTOPPING SYSTEM.

VENTILATION SYSTEMS:
1. ALL SHEET METAL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH LOCAL CODES AND SMACNA STANDARDS.
2. ALL DUCTWORK DIMENSIONS ARE INTERNAL FREE AREA DIMENSIONS AND SIZED FOR 0.08" W.C. PER 100 FT. OF DUCT.
3. ALL SHEET METAL DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA TABLES FOR 2" W.C. AND SHALL BE SUPPORTED WITH AN APPROVED HANGER AT INTERVALS NOT EXCEEDING 10 FT.
4. ALL DUCT DROPS INTO THE BUILDING SHALL BE INSTALLED WITH FLEXIBLE CONNECTIONS TO ISOLATE THE DUCTWORK SYSTEM FROM NOISE AND VIBRATION. FLEXIBLE CONNECTIONS SHALL BE TESTED IN ACCORDANCE WITH UL 181 AND LISTED AS CLASS 0 OR CLASS 1.
5. ALL DUCT DROPS INTO THE BUILDING SHALL BE OFFSET AS NECESSARY TO ALLOW FOR THE CLEAR INSTALLATION OF THE EXTERNAL DUCTWORK INSULATION.
6. ALL DUCTWORK BRANCHES THAT SERVE A SINGLE DIFFUSER SHALL BE SUPPLIED WITH A VOLUME DAMPER FOR BALANCING. BRANCHES THAT SERVE MULTIPLE DIFFUSERS, THE BALANCING IS HANDLED VIA REMOTE DAMPER INSTALLED NEAR THE DIFFUSER. REFER TO M1.2 FOR DAMPER LOCATIONS. VOLUME DAMPER SHALL HAVE A 2" OFFSET TO ACCOMMODATE EXTERNAL INSULATION.
7. TAKE-OFFS FROM RECTANGULAR TO ROUND DUCT SHALL BE DUCTMATE STRAIGHT-SIDED OR CENTER HIGH-EFFICIENCY TAKE-OFFS WITH A 2" DAMPER STAND-OFF TO ACCOMMODATE FOR EXTERNAL INSULATION.
8. ALL DUCTWORK JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS SHALL BE SEALED WITH WELDS, GASKETS, MASTICS (ADHESIVES), TAPES, ETC. ALL SEALANT MATERIALS SHALL BE LISTED IN ACCORDANCE WITH UL 181A OR 181B.
9. ALL SUPPLY AND RETURN SHEET METAL DUCTWORK LOCATED WITHIN THE CEILING SPACE SHALL BE EXTERNALLY INSULATED. INSULATION SHALL BE 2" THICK MICROLITE FSK-100 BY JOHNS MANVILLE OR EQUAL.
10. ALL SUPPLY AND RETURN SHEET METAL DUCTWORK LOCATED OUTSIDE OF THE BUILDING SHALL BE INTERNALLY LINED WITH A 1" THICK FIBERGLASS (MIN. R-4.2) AND EXTERNALLY INSULATED WITH A 2" THICK RIGID POLYSTYRENE, POLYURETHANE OR POLYISOCYANURATE BOARD (MIN. R-8 FOR CLIMATE ZONES 1 THROUGH 4), OR A 3" THICK (MIN R-12 FOR CLIMATE ZONES 5 THROUGH 8). INTERNAL FIBERGLASS INSULATION SHALL BE LINATEX BY JOHNS MANVILLE OR EQUAL. EXTERNAL RIGID BOARD INSULATION SHALL BE THERMAPINK BY OWENS CORNING OR EQUAL.
11. FOR APPLICABLE SITUATIONS OR PLAYPLACE ADDITIONS: ALL EXPOSED SPIRAL DUCTWORK SHALL BE INTERNALLY INSULATED TO PREVENT CONDENSATION (MIN. R-4.3). INTERNAL INSULATION SHALL BE 1" THICK SPIRACOUSTIC PLUS BY JOHNS MANVILLE OR EQUAL.
12. ALL DUCTWORK PENETRATIONS THROUGH FIRE-RATED WALLS, BARRIERS OR PARTITIONS SHALL BE PROTECTED WITH A FIRE DAMPER. THE PERIMETER OF THE FIRE DAMPER SHALL BE FIRESTOPPED WITH AN APPROVED AND LISTED FIRESTOPPING MATERIAL.
13. ALL EXTERIOR SHEET METAL DUCTWORK SHALL BE EXTERNALLY WRAPPED WITH AN APPROVED WEATHERPROOFING MATERIAL TO PROTECT AGAINST WATER PENETRATION AND CORROSION. SIDES AND TOP OF EXTERNAL WEATHERPROOFING SHALL BE ALUMAGUARD 60 MIL UV BARRIER BY POLYGUARD OR EQUAL. BOTTOM OF EXTERNAL WEATHERPROOFING SHALL BE VAPORGUARD 5 MIL MEMBRANE BY POLYGUARD OR EQUAL.
14. ALL FLEXIBLE DUCTWORK, METALLIC AND NONMETALLIC, SHALL CONFORM TO THE FOLLOWING:
   A. 2" THICK INSULATION (R-6.0) SEE NOTE#9 AND TABLE(S) BELOW:

DUCT LOCATION: UNCONDITIONED SPACE			CLIMATE ZONES 1 THROUGH 8
DUCTWORK CLASSIFICATION	PRESSURE	SEAL CLASS	INSULATION
SUPPLY	2.00" W.C.	A	TYPE A (R-6)
RETURN	-2.00" W.C.	A	TYPE A (R-6)
EXHAUST	-2.00" W.C.	A	(*)TYPE A (R-6)
HANGER SUPPORTS	EVERY 6 FT.		1" TYPE B

DUCT LOCATION: EXTERIOR (INCLUDES ATTICS ABOVE INSULATED CEILINGS AND CRAWL SPACES.			CLIMATE ZONES 1 THROUGH 4	CLIMATE ZONES 5 THROUGH 8
DUCTWORK CLASSIFICATION	PRESSURE	SEAL CLASS	INSULATION	INSULATION
SUPPLY	2.00" W.C.	A	TYPE A (R-8)	TYPE A (R-12)
RETURN	-2.00" W.C.	A	TYPE A (R-8)	TYPE A (R-12)
EXHAUST	-2.00" W.C.	A	(*)TYPE A (R-8)	(*)TYPE A (R-12)
HANGER SUPPORTS	EVERY 6 FT.		1" TYPE B	

   (*) EXHAUST DUCTWORK IS ONLY REQUIRED TO BE INSULATED WITHIN 2-FEET OF ROOF PENETRATION. REFER TO "COMMERCIAL KITCHEN EXHAUST SYSTEMS", NOTE#4 FOR FIRE WRAPPING REQUIREMENTS ON KITCHEN GREASE DUCTWORK.

   B. INTEGRAL VAPOR BARRIER
   C. LISTED AND LABELED UL 181, CLASS 0 OR CLASS 1
   D. INSTALLED IN ACCORDANCE WITH:
      i. SMACNA STANDARDS,
      ii. AIR DIFFUSION COUNCIL INSTALLATION GUIDELINES, AND/OR
      iii. MANUFACTURER'S INSTALLATION INSTRUCTIONS
14. FLEXIBLE DUCTWORK SHALL NOT PENETRATE WALLS. SHEET METAL DUCTWORK IS REQUIRED AT ALL FIRE-RATED AND DRAFTSTOP WALL PENETRATIONS.
15. ALL COVERINGS, LININGS AND ADHESIVES (TAPES, ETC.) SHALL HAVE A FLAME-SPREAD INDEX NOT GREATER THAN 25 AND A SMOKE-DEVELOPED INDEX NOT GREATER THAN 50.
16. DUCT-MOUNTED SMOKE DETECTORS, PROVIDED BY ROOFTOP UNIT MANUFACTURER, SHALL BE INSTALLED IN SYSTEMS WITH DESIGN CAPACITY GREATER THAN 2,000 CFM. SEE MECHANICAL DRAWINGS FOR LOCATIONS OF SMOKE DETECTORS. DUCT-MOUNTED SMOKE DETECTORS ARE NOT REQUIRED WHEN THE BUILDING IS PROTECTED THROUGHOUT BY AREA SMOKE DETECTORS CONNECTED TO A FIRE ALARM SYSTEM WHERE THE FIRE ALARM SYSTEM IS DESIGNED TO SHUT DOWN THE ROOFTOP UNITS.
17. ALL SUPPLY AIR DIFFUSERS SHALL BE INSULATED TO PREVENT CONDENSATION.
18. ALL AIR DEVICES LOCATED IN DRYWALL CEILINGS SHALL BE SUPPLIED WITH AN INTEGRAL VOLUME DAMPER ACCESSIBLE FROM THE AIR DEVICE FACE TO FACILITATE BALANCING.
19. ALL OUTDOOR AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10 FT. HORIZONTALLY FROM ANY SOURCE OF CONTAMINATION SUCH AS EXHAUST FANS, PLUMBING VENTS, WATER HEATER FLUES, ETC. WHERE A CONTAMINANT SOURCE IS LOCATED WITHIN 10 FT. OF AN INTAKE, THE INTAKE OPENING SHALL BE LOCATED A MINIMUM OF 2 FT. BELOW THE CONTAMINANT SOURCE.
20. ALL ROOFTOP CONDENSING UNITS THAT DISCHARGE HORIZONTALLY SHALL BE ORIENTED SUCH THAT THE DISCHARGE DOES NOT BLOW IN THE DIRECTION OF AN OUTDOOR AIR INTAKE.

COMMERCIAL KITCHEN EXHAUST SYSTEMS:
1. ALL METAL DUCTWORK USED FOR THE CONVEYANCE OF GREASE-LADEN AIR SHALL BE CONSTRUCTED OF MINIMUM 18 GAUGE STAINLESS STEEL OR 16 GAUGE CARBON STEEL (BLACK IRON).
2. ALL GREASE EXHAUST DUCTWORK JOINTS SHALL BE EITHER TELESCOPING OR BELL TYPE. BUTT-WELDED JOINTS ARE PROHIBITED.
3. ALL GREASE EXHAUST DUCTWORK SEAMS AND JOINTS SHALL BE CONTINUOUSLY WELDED WATER-TIGHT ON THE EXTERNAL SURFACE OF THE DUCT SYSTEM. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER.
4. ALL GREASE EXHAUST DUCTWORK SHALL BE EXTERNALLY INSULATED WITH A ASTM E2336 LISTED AND LABELED GREASE DUCT ENCLOSURE SYSTEM. INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. ACCESS PANELS SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION OF THE GREASE EXHAUST DUCTWORK SYSTEM. ACCESS PANELS SHALL BE INSTALLED IN ACCORDANCE WITH THE INSULATION MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SHALL BE LABELED AS FOLLOWS: "ACCESS PANEL - DO NOT OBSTRUCT".
6. ALL HORIZONTAL GREASE EXHAUST DUCTWORK SHALL BE INSTALLED WITH A MINIMUM ¼" PER FOOT SLOPE AND SHALL BE PITCHED BACK TOWARD THE HOOD.
7. UPBLAST KITCHEN EXHAUST FANS SHALL BE LOCATED A MINIMUM OF 6 FT. FROM ANY PARAPET WALL OR ADJACENT STRUCTURE AND SHALL TERMINATE A MINIMUM OF 40 INCHES ABOVE THE FINISHED ROOFING MATERIAL.

REFRIGERANT PIPING:
1. ALL REFRIGERATION WORK SHALL BE PERFORMED BY A CERTIFIED REFRIGERATION CONTRACTOR.
2. ALL REFRIGERANT PIPING SHALL BE SEAMLESS COPPER TUBING OF TYPE L IN ACCORDANCE WITH ASTM B 88 AND ALL JOINTS SHALL BE SOLDERED.
3. ALL REFRIGERANT SUCTION LINES SHALL BE INSULATED WITH A MINIMUM 1" FOAM PIPE INSULATION. PIPE INSULATION INSTALLED OUTDOORS SHALL BE PROTECTED WITH AN APPROVED WEATHERPROOFING MATERIAL.
4. ALL SUSPENDED REFRIGERANT PIPING SHALL BE SUPPORTED AS FOLLOWS:

MATERIAL	MAX. HORIZ. SPACING	MAX. VERT. SPACING
COPPER TUBING ≤1¼"	6 FT.	10 FT.
COPPER TUBING ≥1½"	10 FT.	10 FT.

5. ALL REFRIGERANT PIPING SHALL BE SIZED PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
6. PRE-CHARGED LINESETS ARE NOT PERMITTED AS LINES WILL MOST LIKELY NEED TO BE CUT TO FIT THE APPLICATION AND REFRIGERANT WILL NEED TO BE RECLAIMED.
7. ALL PIPE INSULATION SHALL BE PROTECTED FROM DAMAGE FROM PIPE HANGERS. PROTECTION SHALL BE LIGHT GAUGE GALVANIZED STEEL OR EQUAL.
8. ALL REFRIGERANT PIPING SYSTEMS SHALL BE PRESSURE TESTED FOR LEAKS PRIOR TO START-UP. ALL LEAKS SHALL BE REMEDIED PRIOR TO BUILDING TURNOVER.
9. ALL PIPING SHALL MEET MINIMUM INSULATION THICKNESS PER THE TABLE BELOW:

PIPING	MINIMUM INSULATION THICKNESS (IN INCHES) PER NOMINAL PIPE OR TUBE SIZE				
NOMINAL PIPE SIZE	<1	1 TO 1.5	1.5 TO <4	4 TO <8	≥8
LIQUID (REFRIGERATION) (<40°F)	0.5	1.0	1.0	1.0	1.5
SUCTION (REFRIGERATION) (<40°F)	0.5	1.0	1.0	1.0	1.5

CO2 DETECTION EQUIPMENT:
1. THE CO2 DETECTOR SHALL BE HARD-WIRED TO PREVENT TAMPERING AND SHALL BE INSTALLED AT 12" A.F.F. WITHIN A 5 FT. RADIUS OF THE CO2 STORAGE TANKS.
2. ONE (1) AUDIBLE AND ONE (1) VISUAL ALARM SHALL BE INSTALLED A MINIMUM OF 7 FT. A.F.F., IN PLAIN SIGHT IN THE SAME ROOM AS THE CO2 STORAGE TANKS.
3. ONE (1) AUDIBLE AND ONE (1) VISUAL ALARM SHALL BE INSTALLED A MINIMUM OF 7 FT. A.F.F., AT THE BACK OF THE KITCHEN AND IN PLAIN SIGHT FROM THE MAIN SIDE OF THE PREP LINE.
4. THE CO2 EXTERIOR STROBE SHALL BE INSTALLED AS SHOWN ON SHEET A2.0, (DETAIL 2) AND ON SHEET E1.1. THE INSIDE AUDIBLE AND VISUAL ALARM SHALL BE INSTALLED INSIDE THE CO2 CLOSET, AND IN THE SUPPORT/BACK-OF-THE HOUSE LOCATION AS SHOWN ON SHEETS E1.1 AND E3.0.

NATURAL GAS SYSTEMS:
1. ALL GAS PIPING, WATER HEATER VENTS, INTAKES AND FLUES SHALL CONFORM TO THE CURRENT VERSION OF NFPA 54, NATIONAL FUEL GAS CODE, AND ANY LOCAL CODE REQUIREMENTS.
2. THE NATURAL GAS MAIN PIPE SIZING IS BASED ON THE FOLLOWING:
   A. MINIMUM SUPPLY PRESSURE AT THE METER OF 2 PSIG
   B. 1 PSIG PRESSURE DROP FROM METER TO FARTHEST APPLIANCE
   C. 1,000 BTU PER CU. FT. OF NATURAL GAS
3. GAS PIPING RUN-OUTS TO EQUIPMENT ARE SIZED BASED ON THE FOLLOWING:
   A. SUPPLY PRESSURE AT THE REGULATOR OF 10" W.C. (¼ PSIG)
   B. 0.5" W.C. PRESSURE DROP FROM REGULATOR TO FARTHEST APPLIANCE
   C. 1,000 BTU PER CU. FT. OF NATURAL GAS
4. ALL NATURAL GAS PIPE SHALL BE SCHEDULE 40 CARBON STEEL PIPE WITH MALLEABLE IRON FITTINGS AND SHALL BE COMPLY TO ONE OF THE FOLLOWING STANDARDS: ASME B36.10, 10M; ASTM A 53; OR ASTM A 106.
5. NATURAL GAS PRESSURE REGULATORS SHALL BE MAXITROL 325 SERIES OR EQUAL.
6. ALL SUSPENDED STEEL PIPING SHALL BE SUPPORTED AS FOLLOWS:

SIZE	MAX. HORIZ. SPACING	MAX. VERT. SPACING
½"	6 FT.	6 FT.
¾" TO 1"	8 FT.	8 FT.
≥1¼"	10 FT.	10 FT.

7. GAS PIPING SHALL NOT PENETRATE ANY FIRE-RATED CHASE OR SHAFT, DUCTWORK OR PLENUM.
8. ALL NATURAL GAS PIPING INSTALLED OUTDOORS SHALL BE COATED WITH A CORROSION RESISTANT PAINT. PAINT COLOR SHALL BE ORANGE OR YELLOW.
9. ALL INTAKE AND VENT PIPING FOR SEALED-COMBUSTION WATER HEATERS SHALL BE PVC OR ABS, SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SHALL BE INSTALLED BY THE PLUMBING CONTRACTOR.
10. ALL WATER HEATER VENTS SHALL BE LOCATED A MINIMUM OF 10 FT. HORIZONTALLY FROM ANY OUTDOOR AIR INTAKE. WHERE A WATER HEATER VENT IS LOCATED WITHIN 10 FT. OF AN INTAKE, THE FLUE OR VENT SHALL TERMINATE A MINIMUM OF 2 FT. ABOVE THE INTAKE.
11. UPON COMPLETION OF INSTALLATION, THE GAS PIPING SYSTEM SHALL BE PURGED OF DELETERIOUS MATERIAL AND SHALL BE PRESSURE TESTED. PRESSURE TESTING SHALL BE PERFORMED WITH THE EQUIPMENT SHUT-OFF VALVES IN THE CLOSED POSITION TO PROTECT EQUIPMENT FROM DAMAGE DUE TO EXCESSIVE PRESSURE.
12. AFTER THE PRESSURE TEST HAS BEEN COMPLETED AND ANY LEAKS REMEDIED, THE INSTALLING CONTRACTOR SHALL MEASURE AND VERIFY THE FOLLOWING GAS PRESSURES WHILE EQUIPMENT IS IN OPERATION:
   A. GRILL - 6" W.C. NATURAL, 14" W.C. L.P.
   B. FRYER - 6" W.C. NATURAL, 14" W.C. L.P.
   C. WATER HEATER - 6" W.C. NATURAL, 14" W.C. L.P.
   D. HVAC UNIT - 7" W.C. NATURAL, 14" W.C. L.P.
13. IF THE MINIMUM PRESSURES ARE NOT MET, THIS SHALL BE IMMEDIATELY REPORTED TO THE MCDONALD'S AREA CONSTRUCTION MANAGER.

CONDENSATE PIPING:
1. CONDENSATE PIPING SHALL BE GALVANIZED STEEL, COPPER OR PVC.
2. PVC PIPE SHALL BE PAINTED WITH WATER BASED LATEX PAINTING TO RESIST DEGRADATION FROM ULTRAVIOLET EXPOSURE.
3. PIPE SUPPORTS SHALL BE RPS MODEL PMP-2 OR EQUAL. QUANTITY AS REQUIRED DEPENDANT UPON PIPING MATERIAL.
4. PIPING SHALL BE SUPPORTED AS FOLLOWS:

MATERIAL	MAX. HORIZ. SPACING	MAX. VERT. SPACING
COPPER PIPE	12 FT.	10 FT.
GALVANIZED STEEL	12 FT.	15 FT.
PVC	4 FT.	10 FT.

5. CONDENSATE PIPING SHALL SLOPE A MINIMUM OF ⅛" PER FOOT.
6. CONDENSATE PIPING SHALL BE SIZED BASED ON THE FOLLOWING:

TOTAL TONS SERVED BY PIPE	MINIMUM PIPE SIZE
<20 TONS	¾"
>20 TONS, <40 TONS	1"
>40 TONS, <125 TONS	1½"

LEGEND

TS	TEMPERATURE SENSOR
ATS	AVERAGING TEMPERATURE SENSOR
CO2	CO2 SENSOR FOR ROOFTOP UNIT DEMAND CONTROL VENTILATION
HS	HUMIDITY SENSOR
T	THERMOSTAT
S	SMOKE DETECTOR
KH 2	EQUIPMENT TAG
R-1 / 1750 CFM / 18"ø	DIFFUSER INFORMATION LINE 1: TAG LINE 2: AIRFLOW LINE 3: NECK SIZE
	SUPPLY AIR DUCT (VERTICAL)
	RETURN OR EXHAUST AIR DUCT (VERTICAL)
	ROUND DUCT (VERTICAL)
SSC	STEADY-STATE SPEED CONTROLLER
	PLAQUE DIFFUSER (SHADED AREA DESIGNATES BLANK-OFF PANEL LOCATION)
	LINEAR SLOT DIFFUSER
	LOUVERED FACE DIFFUSER
	CEILING-MOUNTED EXHAUST FAN
	SPIN-IN COLLAR WITH VOLUME DAMPER
	VOLUME DAMPER
	FLEXIBLE DUCTWORK
12"ø	SHEET METAL DUCTWORK W/DIA. SIZE
	PERFORATED FACE DIFFUSER
	SHEET METAL TEE WITH CAP

ABBREVIATIONS

ACM	AREA CONSTRUCTION MANAGER
B.J.	BELOW JOISTS
BSI	BEVERAGE SYSTEM INSTALLER
DCV	DEMAND CONTROL VENTILATION
E.A.	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
FAC	FIRE ALARM CONTRACTOR
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FPC	FIRE PROTECTION CONTRACTOR
GC	GENERAL CONTRACTOR
I.D.	INSIDE DIMENSION
KEI	KITCHEN EQUIPMENT INSTALLER
KES	KITCHEN EQUIPMENT SUPPLIER
M.A. (S)	MIXED AIR - SUMMER
M.A. (W)	MIXED AIR - WINTER
MC	MECHANICAL CONTRACTOR
O.A.	OUTDOOR AIR
O.D.	OUTSIDE DIMENSION
O/O	OWNER/OPERATOR
PC	PLUMBING CONTRACTOR
R.A.	RETURN AIR
RC	REFRIGERATION CONTRACTOR
S.A.	SUPPLY AIR
S.P.	STATIC PRESSURE
MC	TEST AND BALANCE CONTRACTOR

BY	DESCRIPTION	DATE
WLW	PERMIT SET	02/26/25
WLW	BID SET	12/06/24
	REV	

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STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:

PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
DMS/HB	WLW	02 26 2025
STD ISSUE DATE 2024 05		

RQ# 24247

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN:43016

SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156

L/C: 024-1306

SHEET NO.: M4.0
024-1306.00.0
GENERAL NOTES

COORDINATION SCHEDULE

GENERAL REQUIREMENTS	FURNISH	INSTALL	FINAL CONNECTION	NOTES
MECHANICAL PERMIT	MC			1–3
HOT WORK (WELDING) PERMIT (IF APPLICABLE)	MC			1–3
REFRIGERATION PERMIT (IF APPLICABLE)	KES			1–3
PLUMBING PERMIT	PC			1–3
ELECTRICAL PERMIT	EC			1–3
FIRE SPRINKLER PERMIT (IF APPLICABLE)	FPC			1–3
FIRE ALARM PERMIT (IF APPLICABLE)	FAC			1–3
CONTRACTOR COORDINATION REQUIREMENTS				
HEATING & AIR–CONDITIONING				
ROOFTOP UNITS, INTAKE AND RELIEF	MCD CP	MC		1–5, 17, 22
ROOF CURBS	MCD CP	MC		1–3, 20, 22
GAS PIPING AND GAS PIPE KIT	PC	PC	PC	1–3, 14, 22–23
CONTROLS WIRING	MC	EC	EC	1–3, 19, 22, 24
POWER WIRING	EC	EC	EC	1–3, 19, 22, 24
CONDENSATE TRAP	MC	PC		1–3, 22–23
CONDENSATE PIPING (IF APPLICABLE)	PC	PC		1–3, 22–23
DUCT–MOUNTED SMOKE DETECTOR	MC	MC	EC	1–3, 22, 24
GENERAL EXHAUST SYSTEMS				
EXHAUST FANS	MCD CP	MC		1–3, 17, 22
ROOF CURBS	MCD CP	MC		1–3, 22
CONTROLS (WHERE APPLICABLE)	MC	EC	EC	1–3, 22, 24
POWER WIRING	EC	EC	EC	1–3, 22, 24
TEMPERATURE CONTROLS				
BUILDING AUTOMATION SYSTEM	MCD CP	MC	EC	1–3, 22, 24
REMOTE SENSORS (RH AND/OR TEMPERATURE)	MC	MC	EC	1–3, 22, 24
CONTROLS WIRING (WHERE APPLICABLE)	MC	EC	EC	1–3, 22, 24
POWER WIRING	EC	EC	EC	1–3, 22, 24
DUCTWORK AND ACCESSORIES				
GALVANIZED SHEET METAL DUCTWORK	MC	MC		1–3, 22
EXTERNAL INSULATION	MC	MC		1–3, 22
INTERNAL INSULATION (IF APPLICABLE)	MC	MC		1–3, 22
WEATHERPROOFING (IF APPLICABLE)	MC	MC		1–3, 22
SPIN–IN COLLARS	MC	MC		1–3, 22
FLEXIBLE DUCTWORK	MC	MC		1–3, 22
VOLUME/BALANCING DAMPERS	MC	MC		1–3, 22
FIRE DAMPERS (IF APPLICABLE)	MC	MC		1–3, 22
FIRESTOPPING (IF APPLICABLE)	MC	MC		1–3, 22
AIR DEVICES AND ACCESSORIES	MC	MC	MC	1–3, 7, 22, 28
PLUMBING SYSTEMS				
WATER HEATERS	MCD CP	PC	PC	1–3, 11–12, 23
HOT AND COLD WATER PIPE	PC	PC	PC	1–3, 23
VENTS AND INTAKES	PC	PC	PC	1–3, 23
THERMOSTATIC MIXING VALVE	PC	PC	PC	1–3, 23
POWER AND CONTROL WIRING	EC	EC	EC	1–3, 23–24
KITCHEN EXHAUST SYSTEMS				
McDONALD'S BACKSHELF EXHAUST HOODS	KES	KEI		1–3, 6, 22, 27
CANOPY EXHAUST HOODS (IF APPLICABLE)	KES	KEI		1–3, 6, 22, 27
BLACK IRON DUCTWORK	KES	KEI		1–3, 6, 22
STAINLESS STEEL DUCTWORK (IF APPLICABLE)	KES	KEI		1–3, 6, 22
ALUMINUM DUCTWORK (IF APPLICABLE)	KES	KEI		1–3, 6, 22
UL LISTED DUCT WRAP	MC	MC		1–3, 6, 22
FIRE–RATED DUCT ENCLOSURE (IF APPLICABLE)	GC	GC		1–3, 6, 20, 22
EXHAUST FANS	MCD CP	MC		1–3, 6, 17, 22
ROOF CURBS	MCD CP	MC		1–3, 6, 20, 22
CURB EXTENSIONS	MC	MC		1–3, 6, 22
CONTROLS (WHERE APPLICABLE)	EC	EC	EC	1–3, 6, 22, 24
POWER WIRING	EC	EC	EC	1–3, 6, 22, 24
FIRE SUPPRESSION SYSTEM	KES	KES	KES	1–3, 16, 22, 27
KITCHEN EQUIPMENT				
COOLER/FREEZER	KES	GC		1–3, 27
EVAPORATOR COILS	KES	MC		1–3, 27
CONDENSATE PIPING	PC	PC	PC	1–3, 23, 27
REMOTE CONDENSING UNIT (MAC)	KES	MC		1–3, 22, 27
ROOF CURBS	MC	MC		1–3, 22
REFRIGERANT PIPING	KES	MC	MC	1–3, 22, 27
POWER WIRING	EC	EC	EC	1–3, 22, 24, 27
CONTROL WIRING	EC	EC	EC	1–3, 24, 27
PIPE PORTALS	MC	MC		1–3, 22
ICE MACHINES	KES	KEI		1–3, 27
WATER SUPPLY PIPING	KES	KEI	BSI	1–3, 27
REMOTE CONDENSING UNITS	KES	MC		1–3, 22, 27
ROOF CURBS	MC	MC		1–3, 22, 27
REFRIGERANT PIPING	KES	MC	MC	1–3, 22, 27
POWER WIRING	EC	EC	EC	1–3, 22, 24, 27
CONTROL WIRING	KES	EC	EC	1–3, 24, 27
PIPE PORTALS	MC	MC		1–3, 22
GRILLS	KES	KES		1–3, 27
GAS PIPING (IF APPLICABLE)	PC	PC	PC	1–3, 23, 27
POWER WIRING	EC	EC	EC	1–3, 24, 27
CONTROL CABLE (6' CLAMSHELL ONLY)	MC	EC	EC	1–3, 23, 24, 27
FRYERS	KES	KES		1–3, 27
GAS PIPING (IF APPLICABLE)	PC	PC	PC	1–3, 23, 27
POWER WIRING	EC	EC	EC	1–3, 24, 27
3–COMPARTMENT SINK	KES	KES		1–3, 12, 27
FAUCETS AND PRE–RINSE SPRAYER	KES	KES		1–3, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
HAND SINKS	MCD CP	PC		1–3, 23, 27
FAUCET	MCD CP	PC		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
VEGETABLE SINK	KES	KES		1–3, 23, 27
FAUCET	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
WASHING MACHINE	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
WARE WASHER	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
MISCELLANEOUS ITEMS				
FIRE SPINKLER SYSTEMS	FPC	FPC	FPC	1–3, 15, 25
HVAC EQUIPMENT START–UP	MC			1–3, 22
TEST, ADJUST AND BALANCE HVAC SYSTEMS	TAB			1–3, 22
DOOR GRILLES (IF APPLICABLE)	MC	GC		1–3, 20, 22
ROOF/WALL OPENINGS	GC			1–3, 20–24
APPLIANCE BACKFLOW PREVENTION	KES/BSI	PC	PC	1–3, 23, 27
CO2 DETECTION SYSTEM	KES/BSI	EC/BSI	EC/BSI	1–3, 22, 27

NOTES:
1. THIS SCHEDULE IS INTENDED AS A GUIDE FOR THE WORK TO BE PERFORMED. ALL WORK SHALL BE COORDINATED BETWEEN THE McDONALD'S AREA CONSTRUCTION MANAGER AND ALL GC AND O/O SUBCONTRACTORS.
2. ONE (1) COPY OF THE DECOR PACKAGE DRAWINGS SHALL BE SUPPLIED TO THE GENERAL CONTRACTOR AND EACH OF THE SUBCONTRACTORS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE SUBCONTRACTORS TO INSURE THAT THEY HAVE RECEIVED THE DECOR PACKAGE DRAWINGS.
3. FOR ANY WORK NOT CLARIFIED IN THIS SCHEDULE OR IN THE NOTES AND SPECIFICATIONS, PLEASE CONSULT THE McDONALD'S CONSTRUCTION MANAGER FOR SCOPE OF WORK.
4. ALL ROOFTOP UNIT EQUIPMENT SUPPLIED BY THE MECHANICAL CONTRACTOR AND THE KITCHEN EQUIPMENT SUPPLIER SHALL BE ON SITE AT THE SAME TIME FOR A SINGLE CRANE LIFT. EQUIPMENT SITE ARRIVAL DATE SHALL BE COORDINATED BETWEEN THE CONSTRUCTION MANAGER, MECHANICAL CONTRACTOR AND KITCHEN EQUIPMENT SUPPLIER.
5. ALL ROOFTOP UNITS INSTALLED IN McDONALD'S RESTAURANTS SHALL BE HIGH EFFICIENCY EQUIPMENT. THE INSTALLATION OF STANDARD EFFICIENCY ROOFTOP UNITS IS PROHIBITED. PLEASE REFER TO THE LATEST EDITION OF IECC FOR HVAC EQUIPMENT PERFORMANCE REQUIREMENTS.
6. ALL KITCHEN EQUIPMENT REQUIRING EXHAUST SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER AND THE ENGINEER–OF–RECORD.
7. WHERE GYPSUM BOARD CEILINGS ARE INSTALLED, THE MECHANICAL CONTRACTOR SHALL SUPPLY DRYWALL MOUNTING FRAMES FOR LAY–IN TYPE DIFFUSERS.
8. ALL WORK SHOWN ON P1.6 DRAWING(S) SHALL BE COMPLETED BY THE BEVERAGE SYSTEM INSTALLER (OR K.E.S.) UNLESS OTHERWISE NOTED IN THE PLUMBING DRAWINGS.
9. ALL WORK ON P1.0 & P1.2 DRAWING(S) SHALL BE BY THE PLUMBING CONTRACTOR.
10. THE BEVERAGE SYSTEM INSTALLER FURNISHES, RUNS AND CONNECTS ALL FLEXIBLE WATER AND SYRUP LINES FOR ALL AFFECTED EQUIPMENT INCLUDING THE FOLLOWING:
    A. HOT CHOCOLATE
    B. COFFEE BREWER
    C. ICE MACHINE
    D. O.J.
    E. SODA TOWERS
11. ALL WATER HEATERS INSTALLED IN McDONALD'S RESTAURANTS SHALL BE HIGH EFFICIENCY SEALED–COMBUSTION WATER HEATERS. THE INSTALLATION OF STANDARD EFFICIENCY GRAVITY–VENTED WATER HEATERS IS PROHIBITED. PLEASE REFER TO THE LATEST EDITION OF IECC FOR SERVICE WATER–HEATING EQUIPMENT PERFORMANCE EFFICIENCY REQUIREMENTS.
12. THE CONSTRUCTION MANAGER, PLUMBING CONTRACTOR AND KITCHEN EQUIPMENT SUPPLIER SHALL COORDINATE WHICH SOILED DISHWASHER (3–COMPARTMENT SINK) IS BEING INSTALLED IN THE RESTAURANT.
13. ALL GAS PIPING FOR COOKING EQUIPMENT SHALL TERMINATE IN THE CEILING PRIOR TO THE INSTALLATION OF THE PIPING CHASE. UPON INSTALLATION OF THE CHASE, THE GAS PIPING SHALL THEN BE CONTINUED IN THE CHASE FOR FINAL CONNECTION TO THE APPLIANCE.
14. ALL GAS PIPING FOR ROOFTOP EQUIPMENT SHALL BE BROUGHT UP THROUGH THE BASE OF THE UNIT TO MINIMIZE ROOF PENETRATIONS. WHERE THIS IS NOT POSSIBLE, THE PLUMBING CONTRACTOR SHALL PROVIDE THE NECESSARY PIPE PORTALS ON ROOF.
15. ALL FIRE PROTECTION DRAWINGS CONTAINED WITHIN THIS SET ARE STRICTLY FOR REFERENCE ONLY. FIRE SPRINKLER DRAWINGS SHALL BE DESIGNED AND PERMITTED BY A FIRE PROTECTION CONTRACTOR.
16. ALL R–102 WET CHEMICAL FIRE SUPPRESSION SYSTEMS FOR TYPE I HOODS SHALL BE DESIGNED AND INSTALLED BY A LOCAL ANSUL AGENT. THE USE OF DRY CHEMICAL SYSTEMS IS PROHIBITED. THE LOCAL ANSUL AGENT CONTRACT IS HANDLED THROUGH THE KITCHEN EQUIPMENT SUPPLIER.
17. ALL ROOFTOP UNITS AND EXHAUST FANS ARE SUPPLIED WITH A FACTORY–INSTALLED DISCONNECT SWITCH.
18. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES FOR REMOTE CONDENSING UNITS.
19. ALL ELECTRICAL CONDUITS FOR ROOFTOP EQUIPMENT SHALL BE BROUGHT UP THROUGH THE BASE OF THE UNIT TO MINIMIZE ROOF PENETRATIONS. WHERE THIS IS NOT POSSIBLE, THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE NECESSARY PIPE PORTALS ON ROOF.
20. WALK–IN COOLER AND WALK–IN FREEZER REFRIGERATION SYSTEMS SHALL MEET THE PERFORMANCE REQUIREMENTS OUTLINED IN THE LATEST EDITION OF IECC. MINIMUM ANNUAL WALK–IN ENERGY FACTOR (AWEF) PROVIDED BY EQUIPMENT MANUFACTURER IS DETERMINED IN ACCORDANCE WITH AHRI 1250.
21. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
22. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
23. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
24. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
25. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
26. SEE FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION.
27. SEE FIRE ALARM DRAWINGS FOR ADDITIONAL INFORMATION.
28. SEE KITCHEN DRAWINGS FOR ADDITIONAL INFORMATION.
29. SEE DECOR DRAWINGS FOR ADDITIONAL INFORMATION.

AIR DEVICE SCHEDULE

TAG	MANUFACTURER	MODEL	BORDER	SIZE	COLOR	ACCESSORIES	NOTES
S–1	TITUS	PDR	LAY–IN	48x24	WHITE	7	1,2,8
	PRICE	PDDRE					
S–2	TITUS	OMNI	LAY–IN	24x24	VARIES	4,6,7	1,6,7,8
	PRICE	SPD					
S–3	TITUS	OMNI	LAY–IN	12x12	VARIES	1,2,7	1,3,6,8
	PRICE	SPD					
S–4	TITUS	TBDI–80	LAY–IN	48" (2) ¾" SLOTS	VARIES	7	1,5,6,8
	PRICE	TBDI4					
R–1	TITUS	PAR	LAY–IN	24x24	VARIES	7	1,6,8
	PRICE	10					
R–2	TITUS	355RL	SURFACE MOUNT	4x12	WHITE	–	8
	PRICE	530					
E–1	TITUS	355RL	LAY–IN	12x12	WHITE	1,7	1,8
	PRICE	530					

ACCESSORIES:
1. COMBINATION DAMPER AND EQUALIZING GRID
2. PLASTER FRAME FOR DRYWALL CEILING INSTALLATION
3. (NOT USED)
4. BACKPAN INSULATION
5. OPPOSED BLADE DAMPER
6. BLANK–OFF PANEL AS SHOWN ON DUCTWORK PLAN
7. PLASTER FRAME MAY BE NECESSARY – COORDINATE WITH DECOR DRAWINGS

NOTES:
1. SEE PLAN FOR NECK SIZES
2. FABRICATE 46"x22"x27"H PLENUM WITH 14"ø SIDE INLET (SEE DETAIL 10 ON DRAWING M3.0)
3. PROVIDE 1" FIBERGLASS INSULATION FOR DIFFUSER BACKPAN
4. NOT USED
5. GENERAL CONTRACTOR SHALL PROVIDE ADDITIONAL 4 FT. T–BAR FOR DIFFUSER FRAMING
6. AIR DEVICE FINISH WILL VARY:
   * KITCHEN, STORAGE, RESTROOMS – WHITE
   * DINING ROOM, VESTIBULES – WHITE, BLACK OR PAINTABLE/PRIME COAT (COORDINATE FINAL COLOR WITH DECOR PLANS).
7. ADDITIONAL ACCESSORIES AND/OR ALTERNATE DIFFUSERS MAY BE REQUIRED. REFER TO DECOR DRAWINGS TO VERIFY.
8. ACCEPTABLE ALTERNATIVE MANUFACTURERS: NAILOR & METALAIRE.

AIR CURTAIN SCHEDULE

TAG	MANUFACTURER	MODEL	SERVES	AIRFLOW	ELEC	ACCESS.	NOTES
AC 1	POWERED AIRE	MP 1–30E	CASH BOOTH	VARIABLE	8 KW ⅛ HP	2,3,5–7	1,2
AC 2	POWERED AIRE	MP 1–30E	PRESENTER'S BOOTH	VARIABLE	8 KW ⅛ HP	2,3,5–7	1,2
AC 3	POWERED AIRE	RBT 1–48	STORAGE ENTRANCE	2,559 CFM	MCA: 10 MOCP: 20 ¾ HP	1–4	1,2
AC 4	POWERED AIRE	RBT 1–36	REAR ENTRANCE	2,541 CFM	MCA: 10 MOCP: 20 ¾ HP	1–4	1,2
AC 5	POWERED AIRE	MP 1–30	FORWARD PRESENTER'S BOOTH	VARIABLE	MCA: 5.5 MOCP: 10 ⅛ HP	2–4	1,2

ACCESSORIES:
1. NSF LISTING
2. DOOR SWITCH
3. DELAY TIMER
4. 120V/1ø/60Hz
5. 208V/1ø/60Hz
6. 8 KW ELECTRIC HEATER
7. REMOTE MOUNTED VARIABLE SPEED SWITCH THERMOSTAT.

NOTES:
1. SET DELAY TIMER TO 30 SECONDS
2. MAINTAIN 7" CLEARANCE FOR MOTOR ACCESS ON SIDE OF AIR CURTAIN.

CONTROLS

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL
T	24V THERMOSTAT (ROOFTOP UNITS)	–	–
	120V THERMOSTAT (COMPUTER CLOSET)	HONEYWELL	T651A3018
TS	REMOTE TEMPERATURE SENSOR	–	–
ATS	REMOTE AVERAGING TEMPERATURE SENSOR	–	–
HS	REMOTE HUMIDITY SENSOR	–	–
	BULK CO2 DETECTION SYSTEM	LOGIC02	–

NOTES:
1. FOR TSTAT, TS, HS AND ATS INFORMATION, REFER TO E4.1
2. TO ORDER HONEYWELL EQUIPMENT CALL (800)575–4841
3. SEE KITCHEN DRAWINGS FOR BULK CO2 DETECTION LOCATIONS

KITCHEN HOOD SCHEDULE

TAG	SERVED BY	GENERAL MANUFACTURER	MODEL	NOTES	AIRFLOW CFM	AIRFLOW CFM/LF	FILTERS QTY/SIZE	FILTERS FPM
KH 1	EXHAUST FAN (EF–1)	FRANKE	UH–122	1–4	1350	166	(5)10x20	263
		H&K						
KH 2	EXHAUST FAN (EF–2)	FRANKE	UH–50	1–4	575	173	(3)10x16	255
		H&K						
KH 3	EXHAUST FAN (EF–3)	FRANKE	UH–43	1–4	480	166	(2)10x20	255
		H&K						
KH 4	EXHAUST FAN (EF–6)	FRANKE	TYPE II	1–2, 5	600	150	–	–
		H&K						

NOTES:
1. HOODS SHALL BE PROVIDED BY THE KES (SEE COORDINATION SCHEDULE)
2. SEE HOOD DRAWINGS FOR CONSTRUCTION DETAILS AND UL INFORMATION
3. REFER TO E3.2 FOR HOOD/FAN INTERLOCK DETAILS
4. CAPTURE JET PLENUMS TO BE INSTALLED ON HOOD, REFER TO K2.1 KITCHEN SCHEDULE.
5. PROVIDE WITH FASCIA KIT. COORDINATE CONDENSATE DRAINAGE WITH P.C.

FAN SCHEDULE

TAG	MANUFACTURER	MODEL	SERVES	ACCESSORIES	NOTES	DESIGN CFM	DESIGN S.P.	DESIGN BHP	DESIGN FRPM	ELECTRICAL VOLTS	ELECTRICAL Ø	ELECTRICAL Hz	ELECTRICAL HP	ELECTRICAL FLA AMPS
EF 1	ACCUREX	XCUE–14010VG124MCD	KITCHEN HOOD (KH–1)	1–5,13,14	1,2,6	1350	1.75	0.61	1725	115 TO 10VDC ECM	1	60	1	11.5
EF 2	ACCUREX	XCUE–14010VG124MCD	KITCHEN HOOD (KH–2)	1–5,14	1,2,6	575	1.75	0.19	1725	115 TO 10VDC ECM	1	60	1	11.5
EF 3	ACCUREX	XCUE–14010VG124MCD	KITCHEN HOOD (KH–3)	1–5,13,14	1,2,6	480	1.75	0.19	1725	115 TO 10VDC ECM	1	60	1	11.5
EF 4	ACCUREX	XRED–099–VG4X–QD	DINING RESTROOMS	6–8,14	1,2,5	400	0.50	0.07	1126	115 TO 10VDC ECM	1	60	¼	2.5
EF 5	ACCUREX	XCR–A90	DINING ROOM JANITOR'S CLOSET	9–12	1–3,5	75	0.20	–	900	115	1	60	–	0.52
EF 6	ACCUREX	XCUE–099–VG	KITCHEN HOOD (KH–4)	6–9,14	1,2,7	600	0.75	0.19	1725	115	1	60	¼	2.9
TF 1	ACCUREX	XCR–A125	COMPUTER CLOSET	9–12	1–4	100	0.20	–	1100	115	1	60	–	0.79

ACCESSORIES:
1. 2–POLE NEMA 3R DISCONNECT SWITCH FACTORY–WIRED AND MOUNTED TO FAN
2. UL 762 LISTED AND LABELED
3. ROOF CURB MODEL GPF–24–G30 WITH 1" INSULATION
4. CURB EXTENSION INTEGRAL TO MCD FAN PACKAGE.
5. HINGED CURB CAP BASE
6. 120VAC BACKDRAFT DAMPER
7. ROOF CURB MODEL GPI–19–G14 WITH 1" INSULATION AND DAMPER TRAY
8. NEMA 1 DISCONNECT SWITCH
9. EXTERNAL STEADY–STATE SPEED CONTROLLER
10. ROUND DUCT CONNECTOR
11. 10W LED LAMP
12. FROSTED LENS
13. WINDBAND EXTENSION ON FAN OUTLET
14. VARIGREEN 10VDC ELECTRONICALLY COMMUTATED MOTOR

NOTES:
1. NO SUBSTITUTIONS PERMITTED
2. TO ORDER ACCUREX EQUIPMENT CALL (888)325–6629 OR E–MAIL: MCD@ACCUREX.COM
3. ELECTRICAL CONTRACTOR SHALL PROVIDE DOOR SWITCH FOR LIGHT CONTROL
4. MECHANICAL CONTRACTOR SHALL FURNISH LINE VOLTAGE THERMOSTAT FOR FAN CONTROL. ELECTRICAL CONTRACTOR SHALL INSTALL THERMOSTAT.
5. CONNECT TO TIMECLOCK FOR FAN SHUT–OFF DURING UNOCCUPIED HOURS
6. REFER TO E3.2 FOR HOOD/FAN INTERLOCK DETAILS
7. UNIT SHALL BE INTERLOCKED WITH WAREWASHER SWITCHING CONTACT.

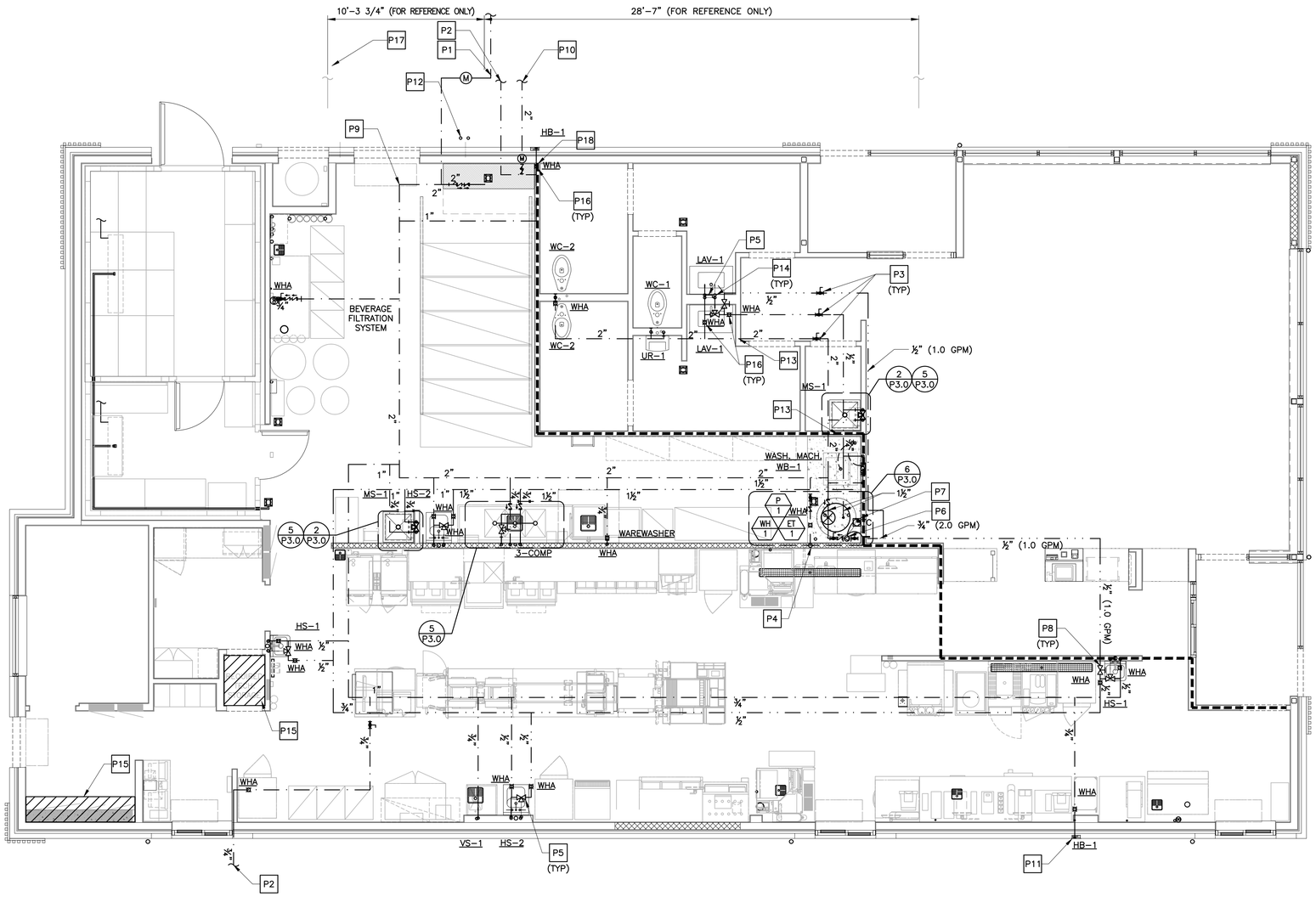
ROOFTOP UNIT SCHEDULE

TAG	AREA SERVED	NOMINAL TONNAGE	MINIMUM OA (CFM)	SUPPLY FAN: SUPPLY AIRFLOW (CFM)	SUPPLY FAN: EXT. S.P. (IN W.C.)	SUPPLY FAN: MHP	SUPPLY FAN: BHP	SUPPLY FAN: RPM	COOLING COIL (DX): ENTERING AIR DB °F	ENTERING AIR WB °F	LEAVING AIR DB °F	LEAVING AIR WB °F	COOLING CAPACITY (MBH): SENSIBLE	COOLING CAPACITY (MBH): TOTAL	ENTERING AIR (DB °F)	HEAT EXCHANGER (GAS): LEAVING AIR (DB °F)	TOTAL CAPACITY: INPUT	TOTAL CAPACITY: OUTPUT	# OF STAGES	MINIMUM EFFICIENCY: SEER	EER	IEER	WEIGHT (LBS.)	UNIT POWER CONNECTION: VOLT.	PHASE	MCA	MOCP	MANUFACTURER	MODEL NO.	ACCESSORIES
RTU–1	KITCHEN	20	1,630	7,200	1.40	5	4.13	1,464	80.5	65.6	58.0	54.5	186.0	226.3	52.8	79.3	250	203		-	11	15.8	2,550	208	3	108	150	TRANE	YH K 240	1,3,4,7,9,11,12,16,17,19,20,21
RTU–2	SUPPORT	8.5	800	3,200	0.80	3	1.52	1,306	81.0	65.9	54.9	54.3	87.8	109.4	51.5	80.0	120	97		-	11	14.6	1,184	208	3	53	70	TRANE	YS K 102	1,3,4,7,8,9,11,12,19,20,21
RTU–3	DINING ROOM	15	1,200	5,000	1.00	3	1.89	1,134	80.8	65.8	54.2	53.6	139.6	178.0	52.2	90.1	250	203		-	10.8	14	2,215	208	3	79	110	TRANE	YS K 180	1,3,4,7,8,9,11,12,17,19,20,21

ACCESSORIES:
1. DIFF. ENTHALPY ECONOMIZER
2. MOTORIZED O.A. DAMPER
3. BAROMETRIC RELIEF
4. MERV 13 FILTER
5. POWER EXHAUST
6. CO2 SENSOR FOR DCV
7. HUMIDITY CONTROL
8. SUPPLY AIR TEMPERING
9. TEMPERATURE SENSOR
10. COMBINED TEMP/HUMIDITY SENSOR
11. DISCONNECT SWITCH
12. FIELD WIRED 120V CONVENIENCE OUTLET
13. STAINLESS STEEL HEAT EXCHANGER
14. CONDENSER COIL PROTECTIVE COATING
15. EVAPORATOR COIL PROTECTIVE COATING
16. HAIL GUARD
17. RETURN AIR SMOKE DETECTOR
18. SUPPLY AIR SMOKE DETECTOR
19. 14" ROOF CURB
20. CONDENSATE DRAIN W/ P–TRAP
21. FLOAT SWITCH KIT

NOTES:
1. NO SUBSTITUTIONS PERMITTED.
2. TO ORDER TRANE EQUIPMENT, CALL (630) 400-4285 OR EMAIL: MCDONALDS@TRANE.COM
3. FACTORY INSTALLED DISCONNECT SWITCH IS NOT AVAILABLE WHEN MOCP IS 200 AMPS OR HIGHER. VERIFY WITH MANUFACTURERS DOCUMENTATION PRIOR TO ORDERING.
4. MECHANICAL CONTRACTOR SHALL INSTALL SECONDARY ENTHALPY SENSOR IN RETURN AIR DUCT DROP & WIRE TO UNIT PER MAUFACTURERS INSTRUCTIONS.

REV	DATE	DESCRIPTION	BY



1 P1.0 DOMESTIC WATER PIPING PLAN
1/4"=1'-0"

HOT OR COLD WATER SUPPLY
PDI SIZE "A"
INSTALL PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS
SINGLE FIXTURE

IF HORIZONTAL BRANCH IS LESS THAN 20' LONG, PROVIDE ONE WHA AT END OF LINE PROVIDE ANOTHER WHA IN MIDDLE, EACH SIZED FOR HALF THE FIXTURE UNITS
MULTIPLE FIXTURES

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32

FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
TANK WATER CLOSET	5	--
URINAL	5	--
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3
HOSE BIBB	2	--
SODA FACTORY	10	--
WAREWASHER	4	--

PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE.

DETAIL 2/P1.0
WATER-HAMMER ARRESTER (TYP.)
NOT TO SCALE

DRAWING NOTES

1. PIPING ROUTES AS SHOWN ARE GENERAL AND MAY VARY DUE TO FIELD CONDITIONS. COORDINATE ALL PIPE ROUTES WITH OTHER TRADES. MAKE SURE HOT WATER MAIN LOOP REMAINS WITHIN 10 FT OF FIXTURE FOR ENERGY CODE PURPOSE.
2. ALL WATER DISTRIBUTION PIPING SHALL BE INSULATED. INSULATION NOT SHOWN FOR CLARITY. SEE PLUMBING NOTES FOR INSULATION REQUIREMENTS, SHEET M4.0, "DOMESTIC SUPPLY SYSTEMS", NOTE 18.
3. ALL WATER SERVICE INSTALLATIONS INCLUDING BACKFLOW DEVICES ARE SUBJECT TO FIELD VERIFICATION AND APPROVAL BY THE WATER DEPARTMENT INSPECTOR.

DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED AS SUPPLEMENTING EACH OTHER. WORK SPECIFIED BUT NOT SHOWN ON DRAWINGS, OR SHOWN ON DRAWINGS BUT NOT SPECIFIED, SHALL BE PERFORMED OR FURNISHED AS THOUGH MENTIONED IN BOTH SPECIFICATIONS AND DRAWINGS. IF NOT OTHERWISE DIRECTED, INSTALLATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE WORK DESCRIBED IN THE SPECIFICATIONS IS IN CONFLICT WITH THE WORK SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL SUPPLY THE GREATER QUANTITY, QUALITY AND COST VIA THE BID AND CONTACT THE ENGINEER FOR CLARIFICATION ON DIRECTION PRIOR TO INSTALLATION. SCALES AS STATED ARE VALID ON THE ORIGINAL DRAWING ONLY. CONTRACTORS SHALL NOT SCALE OFF OF ANYDRAWING. IF DIMENSION IS NOT PROVIDED AND IS REQUIRED CONTACT ARCHITECT TO HAVE THE DIMENSION CONFIRMED

PRIOR TO BID, THE CONTRACTOR SHALL REVIEW THE MECHANICAL, ELECTRICAL AND KITCHEN EQUIPMENT DRAWINGS. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL RELEVANT WORK IN THE ENTIRE SET OF DOCUMENTS AND REPORT ALL DISCREPANCIES BETWEEN THESE DRAWINGS TO THE ENGINEER PRIOR TO BIDDING FOR CLARIFICATION. IF DISCREPANCIES REMAIN UNRESOLVED DUE TO A SHORT TIME FRAME, THE CONTRACTOR SHALL INCLUDE THE MOST WORK AND THE HIGHER COSTS IN THE BID. SOLUTIONS TO UNREPORTED DISCREPANCIES WILL BE DETERMINED BY THE ARCHITECT/ENGINEER, WITH NO ADDITIONAL COMPENSATION DUE TO THE CONTRACTOR.

KEYED NOTES

P1 INCOMING UNDERGROUND WATER SERVICE (SEE SITE PLAN FOR CONTINUATION). WATER PIPING FROM THIS POINT TO CEILING PENETRATION INSIDE BUILDING SHALL BE COPPER.

P2 COLD WATER UNDERGROUND TO YARD HYDRANT (HB-2) IN TRASH CORRAL. SEE SITE PLAN FOR CONTINUATION.

P3 SHUT-OFF VALVE FOR RESTROOM AND HOSE BIBB ISOLATION. SEE VALVE SCHEDULE. ALL SHUT-OFF VALVES SHALL BE LOCATED OVER SUSPENDED CEILINGS FOR ACCESSIBILITY. DO NOT LOCATE IN AREAS WITH DRYWALL CEILINGS.

P4 ¾" COLD WATER UP TO ROOF HYDRANT.

P5 FOR MIXING VALVE LOCATIONS AND INSTALLATION DETAILS ON PUBLIC LAVATORIES, SEE DETAIL 3 ON DRAWING P3.0. FOR PRIVATE HAND SINKS OR LAVS, MIXING VALVES FOR INFORMATIONAL PURPOSES.

P6 PIPE-MOUNTED AQUASTAT TO SHUT PUMP DOWN WHEN RECIRULATION TEMPERATURE REACHES 140°F. SEE DETAIL 6 ON DRAWING P3.0.

P7 TIME CLOCK TO SHUT PUMP AND WATER HEATER DOWN DURING UNOCCUPIED HOURS. SEE ELECTRICAL DRAWINGS FOR WIRING DETAIL.

P8 BALANCING VALVE FOR RECIRCULATION SYSTEM. SEE VALVE SCHEDULE. ALL BALANCING VALVES SHALL BE LOCATED OVER SUSPENDED CEILINGS FOR ACCESSIBILITY. DO NOT LOCATE IN AREAS WITH DRYWALL CEILINGS.

P9 WATER PIPING AFTER CEILING PENETRATION CAN TRANSITION TO CPVC WHERE PERMITTED BY CODE.

P10 VERIFY IRRIGATION SYSTEM, PROVIDE WATER LINE WITH BACKFLOW PREVENTER, VERIFY EXACT LOCATION WITH LANDSCAPE. 1" SEWER SAC METER AND BACKFLOW ASSEMBLY. CONTACT STEVE ZUHLKE AT 816-513-0605 TO FOLLOW UP ON INITIATED REQUEST FOR DIRECTION AND LOCATION.

P11 PROVIDE FREEZE PROOF HYDRANT.

P12 NOT USED.

P13 PROPERLY SEAL ALL PIPE PENETRATIONS THROUGH ANY FIRE WALL (TYP.) AND DRAFT STOP WALL (TYP.)

P14 HOT WATER RECIRCULATION SHALL CONNECT WITHIN 6" OF SUPPLY STUB OUT TO FIXTURE.

P15 UTILITIES SHALL NOT BE ROUTED ABOVE THE TECH. CLOSET AND THE SWITCHGEAR.

P16 INSTALL WATER-HAMMER ARRESTOR WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER-HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WATER-HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010.

P17 MAINTAIN A MINIMUM OF 10'-0" CLEARANCE FROM THE INCOMING DOMESTIC WATER TO THE GREASE WASTE AND SANITARY LINES.

P18 COORDINATE WITH GC FOR LOCATION OF WATER PIPE IN WALL TO NOT INTERFERE WITH CHANGING TABLE.

SUPPLY PIPE SIZING - UPC

Fixture Type	SIZE	SUPPLY HW	SUPPLY CW	QUANTITY	TOTAL
URINAL	1 IN.	0	20	1	20
WATER CLOSET	1 IN.	0	110	3	110
LAVATORY SINK	1/2 IN.	1	1	2	4
WASH SINK (HAND SINK)	1/2 IN.	2	2	4	16
MOP SINK	3/4 IN.	3	3	2	12
VEGETABLE SINK	3/4 IN.	3	3	1	6
3-COMPARTMENT SINK	3/4 IN.	3	3	1	6
WASHING MACHINE	3/4 IN.	4	4	1	8
WAREWASHER	3/4 IN.	-	1.5	1	1.5
HOSE BIB	3/4 IN.	0	2.5	3	7.5
LAWN SPRINKLER	1/2 IN.	0	1	1	1
WATER FILTATION SYSTEM	3/4 IN.	0	4	1	4
				TOTAL	196

IF YOU HAVE ANY QUESTIONS REGARDING THE PLANS, PLEASE CALL THE DESIGNER.

DESIGNER: Wendy Wenborg
PHONE/FAX: 952-540-4047
EMAIL: wwenborg@epinc.com

REV	DATE	DESCRIPTION	BY
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STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:

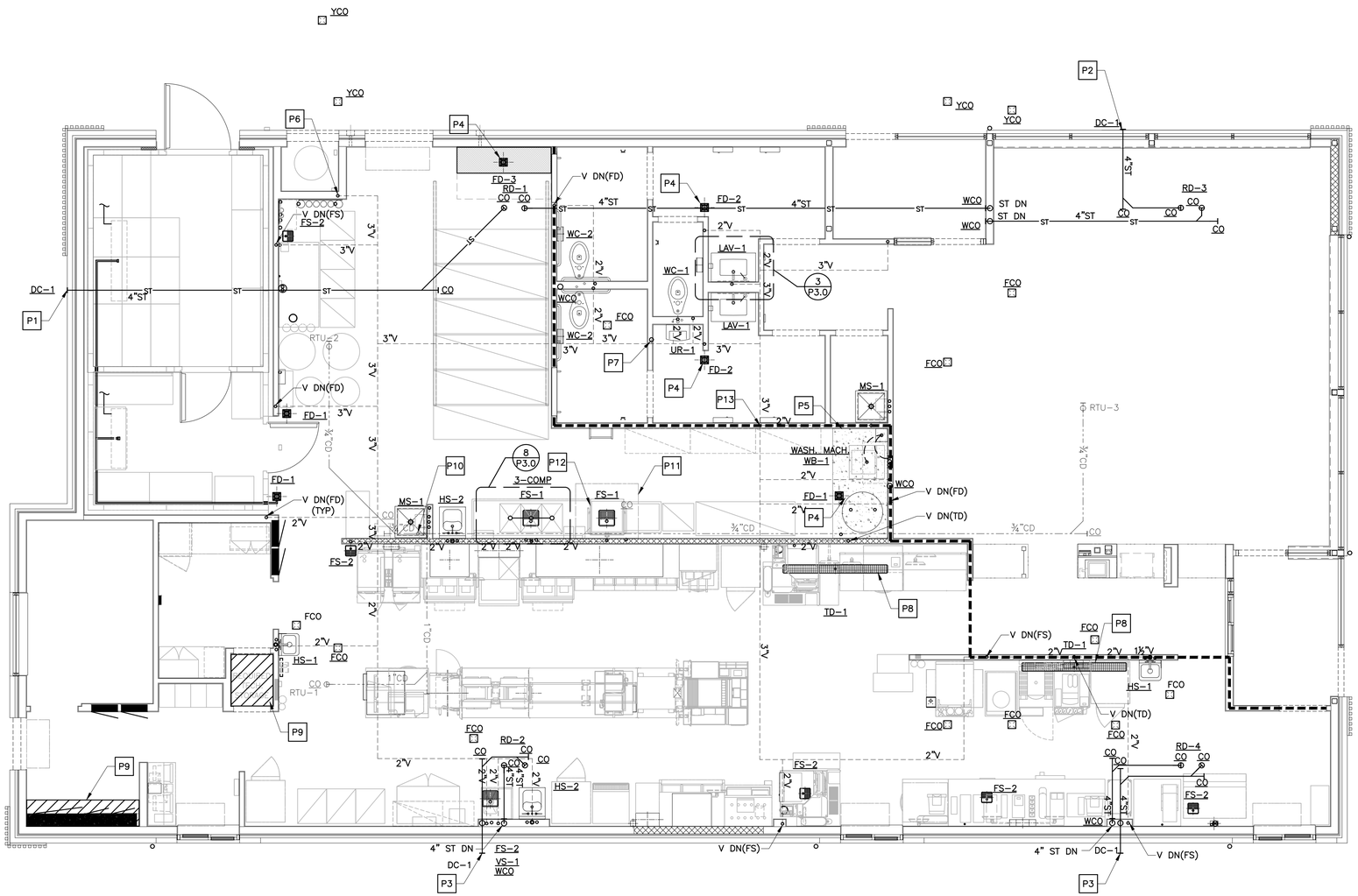
PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY: DMS/HB
STD ISSUE DATE: 2024 05
REVIEWED BY: WLW
DATE ISSUED: 02 26 2025
Rdj 24247

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD
DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
NSN: 43016
L/C: 024-1306
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO. P1.0
024-1306.00.0
DOMESTIC WATER PIPING PLAN



1 / P1.2 VENT & STORM PIPING PLAN
1/4"=1'-0"

DRAWING NOTES

1. PIPING ROUTES ARE GENERAL AND MAY VARY DUE TO FIELD CONDITIONS. COORDINATE ALL PIPE ROUTES WITH OTHER TRADES.
2. WALL CLEAN-OUTS FOR WASTE PIPING NOT SHOWN FOR CLARITY. SEE GENERAL NOTES FOR REQUIREMENTS.
3. ONLY MAIN FLOOR CLEAN-OUTS ARE SHOWN FOR CLARITY. SEE GENERAL NOTES FOR REQUIREMENTS.
4. ALL HORIZONTAL STORM DRAINAGE PIPING SHALL BE INSULATED TO PREVENT CONDENSATION. INSULATION NOT SHOWN FOR CLARITY. SEE PLUMBING NOTES FOR INSULATION REQUIREMENTS.

KEYED NOTES

- P1 TERMINATE OVERFLOW DRAIN AS HIGH AS POSSIBLE WITH DOWNSPOUT COVER.
- P2 TERMINATE OVERFLOW DRAIN ABOVE TRELLIS WITH DOWNSPOUT COVER. BOTTOM OF DOWNSPOUT OUTLET PIPE SHALL BE AT LEAST 3" BUT NOT MORE THAN 8" ABOVE TOP OF TRELLIS.
- P3 TERMINATE BOTTOM OF OVERFLOW DRAIN A MINIMUM OF 12" ABOVE GRADE WITH DOWNSPOUT COVER.
- P4 PROVIDE PROSET TRAP GUARD® FOR FLOOR DRAIN.
- P5 TOP OF CONCRETE SLAB IS 0'-6" A.F.F.
- P6 PROVIDE COMBINATION SANITARY VENT CONNECTION
- P7 4" VENT UP THROUGH ROOF WITH A 4"x5" VENT CAP
- P8 REFERENCE MANUFACTURER INSTALLATION GUIDE FOR LAYOUT AND SLOPING GUIDELINES PRIOR TO INSTALL AND POURING THE SLAB.
- P9 UTILITIES SHALL NOT BE ROUTED ABOVE THE TECH. CLOSET AND THE SWITCHGEAR.
- P10 CONDENSATE LINE FROM RTUs DOWN TO DRAIN AT MOP SINK INDIRECT WITH AIR GAP 2 x DIAMETER, TERMINATE PIPE ABOVE FLOOD RIM. FURNISHED AND INSTALLED BY PC. SEE COORDINATION SCHEDULE ON P4.1 & M4.1.
- P11 CONTRACTOR SHALL ROUTE ½" OD 304 S/S PIPE (PROVIDED BY OTHERS) FROM TYPE II EXHAUST HOOD TO FLOOR SINK.
- P12 CONTRACTOR SHALL INSTALL DRAIN PIPE AND AIR GAP KIT (PROVIDED BY OTHERS). CONNECT DRAIN HOSES FROM WAREWASHER TO DRAIN PIPE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO DETAIL 9/P3-0 FOR FURTHER DETAILS.
- P13 PROPERLY SEAL ALL PIPE PENETRATIONS THROUGH DRAFT STOP WALL (TYP.)

STORM PIPE SIZING

RAINFALL = 4 IN./HR

VERTICAL LEADERS

ROOF DRAIN	ROOF AREA SQ. FT.	SIZE IN.
RD-1	1,118	4
RD-2	1,216	4
RD-3	740	4
RD-4	722	4
TOTAL	3,796	

HORIZONTAL PIPING (SLOPE ⅛" PER FOOT)

ROOF DRAIN	ROOF AREA SQ. FT.	SIZE IN.
RD-2 & RD-4	1,938	6
RD-2, RD-3 & RD-4	2,678	6
RD-1, RD-2, RD-3 & RD-4	3,796	6

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STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER

PREPARED BY: 02/26/25

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PREPARED FOR: McDonald's USA, LLC

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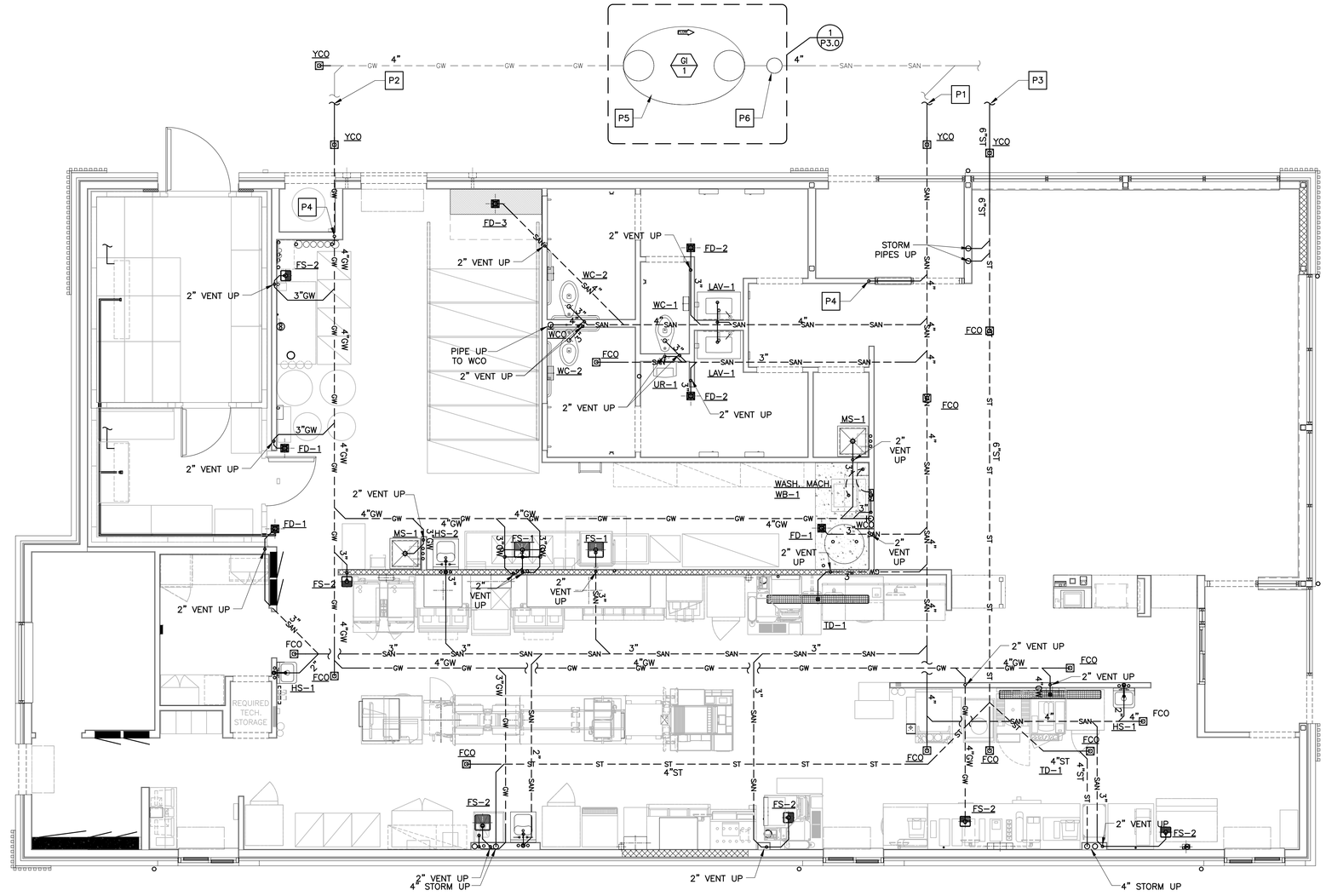
TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 43016
LC: 024-1306

SITE ADDRESS: 8712 N. IndDno Avenue, Kansas City, MO 64156

SHEET NO. 024-1306.00.0
P1.2
VENT & STORM PIPING PLAN



1 P1.3 UNDERFLOOR PLUMBING PLAN
1/4"=1'-0"

SANITARY AND STORM OUTFALL SIZING AND LOCATION TO BE COORDINATED WITH CIVIL ENGINEER AND DRAWINGS PRIOR TO CONSTRUCTION.

DRAWING NOTES

1. PIPING ROUTES ARE GENERAL AND MAY VARY DUE TO FIELD CONDITIONS. COORDINATE ALL PIPE ROUTES WITH OTHER TRADES.
2. WALL CLEAN-OUTS FOR WASTE PIPING NOT SHOWN FOR CLARITY. SEE GENERAL NOTES FOR REQUIREMENTS.
3. ONLY MAIN FLOOR CLEAN-OUTS ARE SHOWN FOR CLARITY. SEE GENERAL NOTES FOR REQUIREMENTS.

KEYED NOTES

- P1 SANITARY LINE TO SANITARY SEWER. SEE SITE PLAN FOR CONTINUATION.
- P2 GREASE LINE TO EXTERIOR GREASE INTERCEPTOR. SEE SITE PLAN FOR CONTINUATION
- P3 STORM LINE TO STORM SYSTEM. SEE SITE PLAN FOR CONTINUATION.
- P4 VENT FOR GREASE INTERCEPTOR.
- P5 GREASE INTERCEPTOR LOCATION SHOWN FOR REFERENCE ONLY. COORDINATE GREASE INTERCEPTOR LOCATION WITH CIVIL ENGINEER AND SITE CONTRACTOR.
- P6 INSTALL SAMPLING PORT (IF REQUIRED) SCHIER MODEL SV10 OR APPROVED ALTERNATIVE.

WASTE PIPE SIZING - UPC

Fixture Type	TRAP SIZE	DFU	QUANTITY	TOTAL
URINAL	2 IN.	2	1	2
WATER CLOSET	3 IN.	4	3	12
LAVATORY SINK	1 1/4 IN.	1	2	2
WASH SINK (HAND SINK)	1 1/2 IN.	2	4	8
FLOOR DRAIN OR SINK	3 IN.	6	4	24
FLOOR DRAIN OR SINK	4 IN.	8	2	16
FLOOR DRAIN EMERGENCY	3 IN.	0	2	0
			TOTAL	64

GREASE PIPE SIZING - UPC

Fixture Type	TRAP SIZE	DFU	QUANTITY	TOTAL
MOP SINK/3-COMP SINK	3 IN.	3	3	9
FLOOR DRAIN OR SINK	3 IN.	3	3	9
TRENCH DRAIN	4 IN.	8	3	24
WASHING MACHINE	2 IN.	3	1	3
			TOTAL	42

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STATE OF MISSOURI
MICHAEL WEBERT
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PROFESSIONAL ENGINEER
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PREPARED BY:

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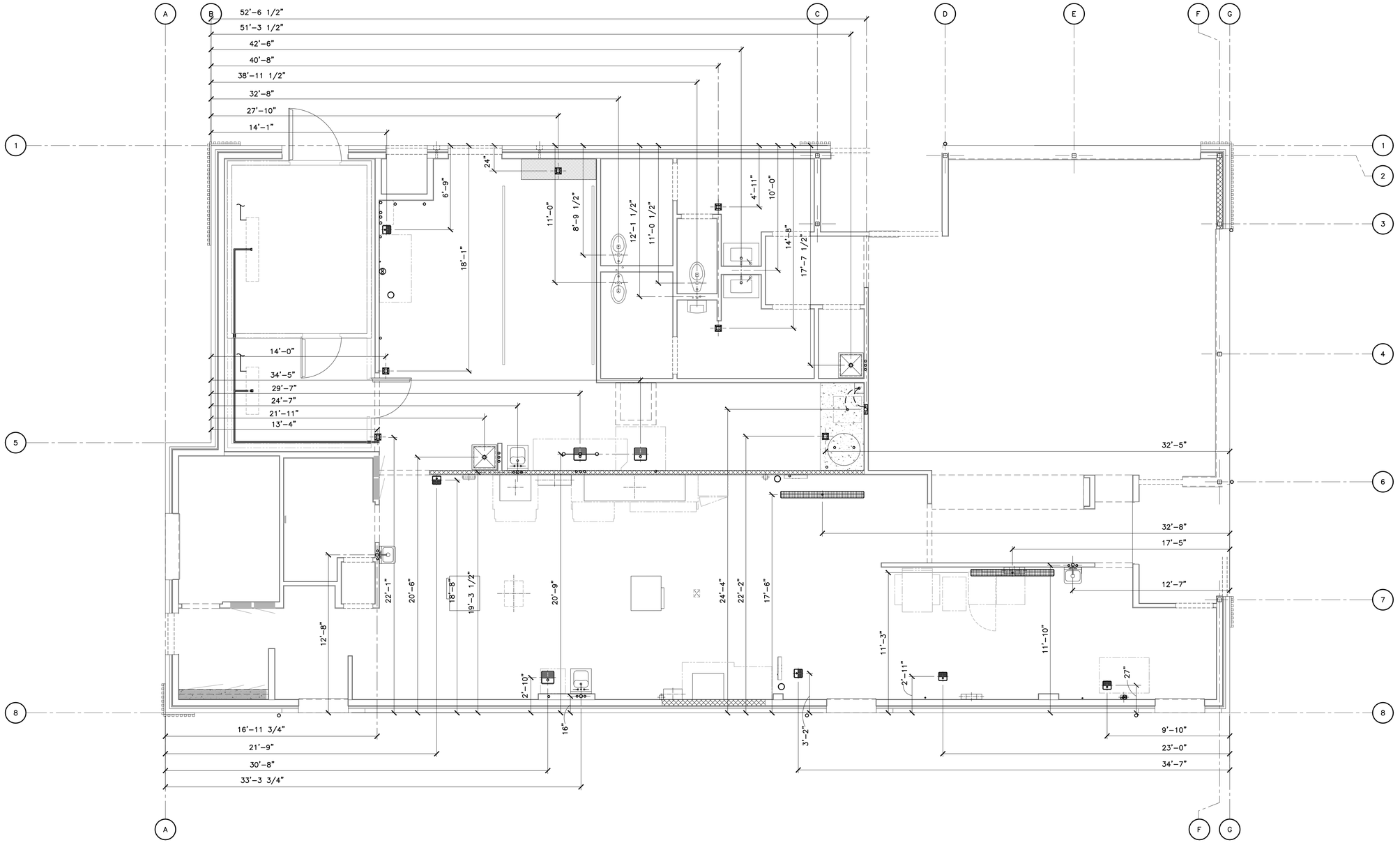
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WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN:43016

SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

L/C: 024-1306

SHEET NO.
024-1306.00.0
P1.3
UNDERGROUND PLUMBING



1 / P1.4 UNDERGROUND ROUGH-IN PLAN

1/4"=1'-0"

DRAWING NOTES

1. THIS PLAN IS PROVIDED AS A GUIDE FOR THE PLUMBING CONTRACTOR. ALL DIMENSIONS ARE ROUNDED TO THE NEAREST ¼", AND ARE TAKEN FROM ARCHITECTURAL GRID LINES.

SEE SHEET P1.6 FOR OVERHEAD DIMENSIONS AND PLUMBING SCHEDULE.

REV	DATE	DESCRIPTION	BY
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STATE OF MISSOURI
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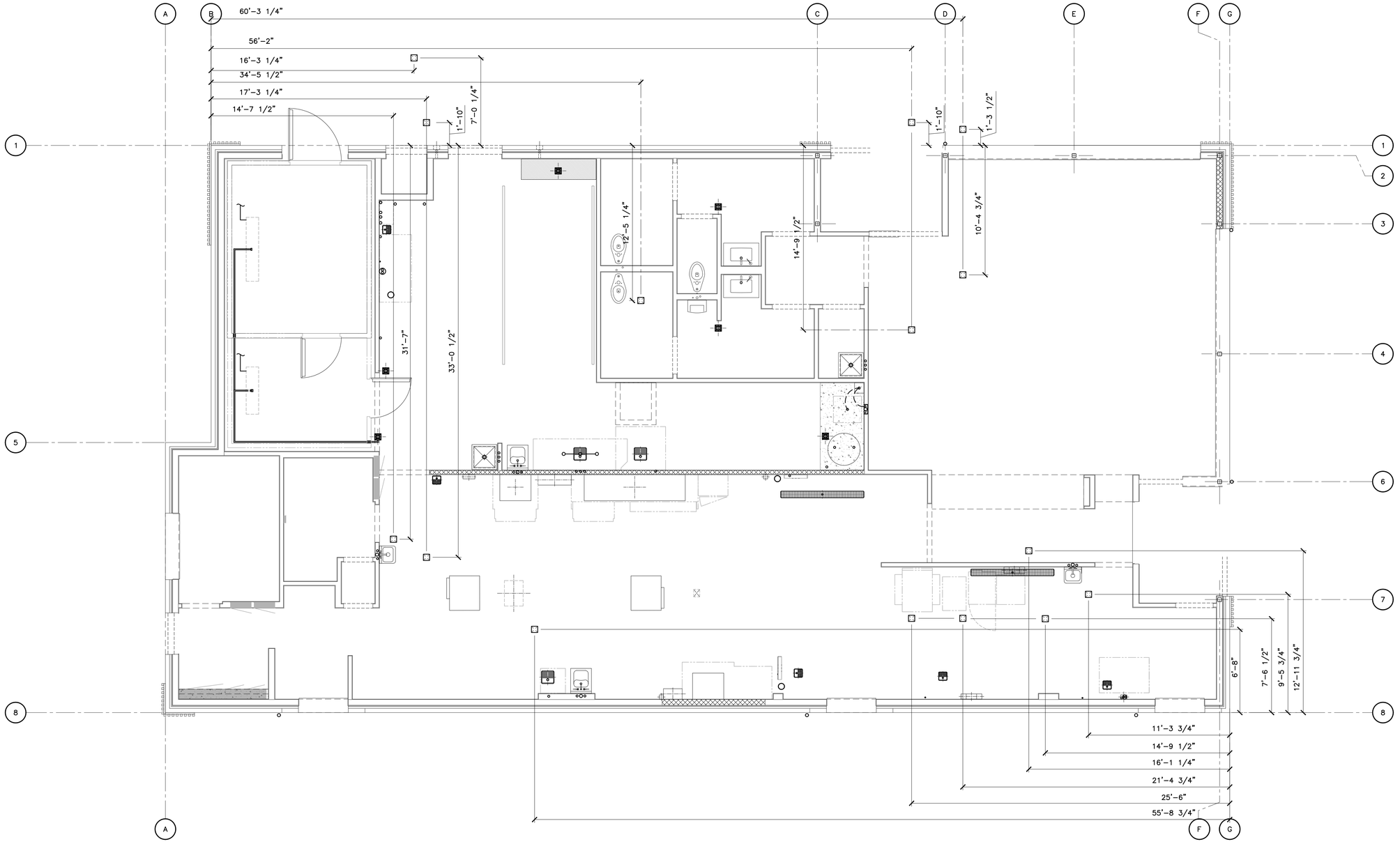
RD# 24247

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4584-WOOD/WOOD

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WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 43016
L/C: 024-1306
SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.: P1.4
024-1306.00.0
UNDERGROUND ROUGH-IN



1 / P1.5 UNDERGROUND ROUGH-IN PLAN

1/4"=1'-0"

DRAWING NOTES

1. THIS PLAN IS PROVIDED AS A GUIDE FOR THE PLUMBING CONTRACTOR. ALL DIMENSIONS ARE ROUNDED TO THE NEAREST ¼", AND ARE TAKEN FROM ARCHITECTURAL GRID LINES.

SEE SHEET P1.6 FOR OVERHEAD DIMENSIONS AND PLUMBING SCHEDULE.

REV	DATE	DESCRIPTION	BY
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	12/06/24	BID SET	WLW

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705 Bush Lake Road
Eden Prairie, MN 55439
(952) 930-0050 | www.epinc.com

3801.0075

STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER

02/26/25

PREPARED BY:

PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	REVIEWED BY	DATE ISSUED
DMS/HB	WLW	02 26 2025
STD ISSUE DATE 2024 05		

ROJ# 24247

TITLE: 2024 STANDARD BUILDING - BB20 4584-WOOD/WOOD

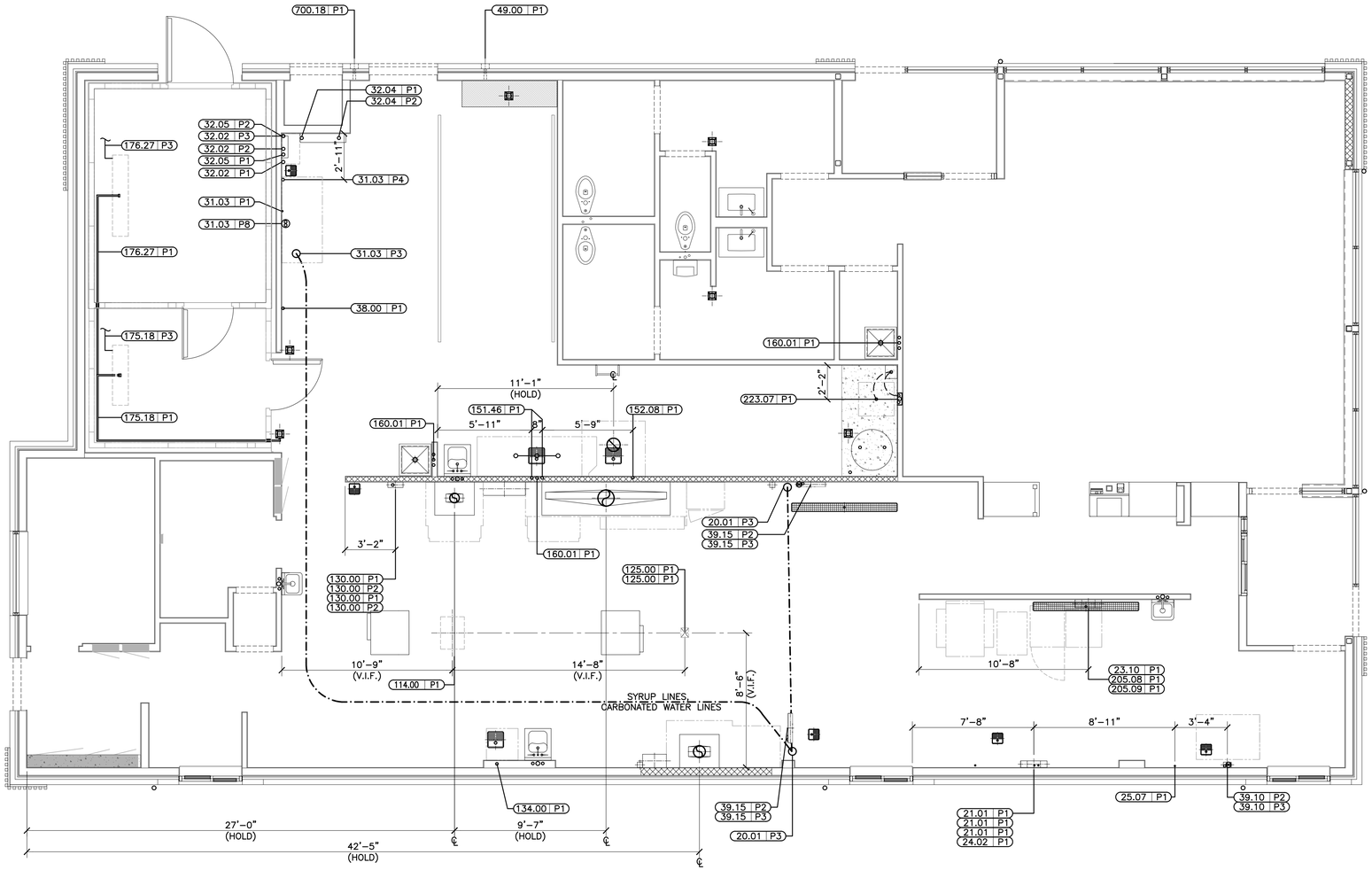
DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN:43016 | SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156

L/C: 024-1306

SHEET NO. 024-1306.00.0

P1.5 UNDERGROUND ROUGH-IN



1 / P1.6 OVERHEAD ROUGH-IN PLAN

1/4"=1'-0"

SEE SHEET P1.4 FOR UNDERGROUND ROUGH-IN PLAN

VIF = Verify in Field
PC = Plumbing Contractor
BSI = Beverage System Installer

PLUMBING SCHEDULE

TAG #	QTY	DESCRIPTION	GAS TYPE	GAS BTU	GAS SIZE	HW	CW	MISC PLBG	HGT AFF	DRAIN	REQUIREMENTS & REMARKS
020.01P3	2	AUTOMATED BEVERAGE SYSTEM 2.0	–	–	–	–	–	SODA BUNDLE	SEE RMKS	–	DN CHASE FROM SODA SYSTEM – "T" FROM D/T – BSI TO MAKE FINAL CONNECTIONS PER LOCAL CODES
021.01P1	3	COFFEE BREWER (GLASS DECANTERS)	–	–	–	–	1/4" TRTD	–	SEE RMKS	–	DN CHASE FROM SODA SYSTEM – IF NO CHASE RUN IN 2"COND TO JB –BSI TO CONN CW LINE PER LOCAL CODES. 1/4" R.O. WATER OPTIONAL
023.10P1	1	ESPRESSO BREWER	–	–	–	–	3/8" R.O.	–	SEE RMKS	3/8" IND	DN CHASE FROM R.O. SYSTEM – IF NO CHASE RUN IN 2"COND TO JB –BSI TO CONN CW LINE PER LOCAL CODES
024.02P1	1	JUICE DISPENSER	–	–	–	–	1/2" FLTR	–	SEE RMKS	–	–
025.07P1	1	INFUSION TEA BREWER – MIS	–	–	–	–	1/2" TRTD	3/8" CO2	SEE RMKS	–	DN CHASE FROM SODA SYSTEM – IF NO CHASE RUN IN 2"COND TO JB –BSI TO CONN CW LINE PER LOCAL CODES
031.03P1	1	SODA SYSTEM PACKAGE B.I.B.(RECIRCULATING– 3 TOWERS)	–	–	–	–	–	3/8" OUTLET	SEE RMKS	–	FLEX LINE OVERHEAD TO VARIOUS EQUIP. BSI TO MAKE FINAL CONN PER LOCAL CODES
031.03P3	1	SODA SYSTEM PACKAGE B.I.B.(RECIRCULATING– 3 TOWERS)	–	–	–	–	–	SODA BUNDLE	SEE RMKS	–	OVERHEAD TO SODA TOWER CHASE(S) – BSI TO MAKE FINAL CONNECTIONS PER LOCAL CODES
031.03P4	1	SODA SYSTEM PACKAGE B.I.B.(RECIRCULATING– 3 TOWERS)	–	–	–	–	3/4"	–	1'–6"	3/4" IND	BSI TO MAKE CONNECTION FROM BACKFLOW PREVENTER (VERIFY HEIGHT IN FIELD)
031.03P8	1	SODA SYSTEM PACKAGE B.I.B.(RECIRCULATING– 3 TOWERS)	–	–	–	–	–	REFRIG LINES	SEE RMKS	–	FROM REMOTE CONDENSING UNIT
032.02P1	1	REVERSE OSMOSIS WATER FILTRATION SYSTEM – TANKLESS	–	–	–	–	3/8" FLTR	–	SEE RMKS	–	FLEX LINE OVERHEAD FROM SODA SYSTEM –BSI TO MAKE FINAL CONN PER LOCAL CODES
032.02P2	1	REVERSE OSMOSIS WATER FILTRATION SYSTEM – TANKLESS	–	–	–	–	–	3/8" OUTLET	SEE RMKS	–	FLEX LINE OVERHEAD TO RAPID STEAMER, ESPRESSO, AND COFFEE (OPT.) –BSI TO MAKE FINAL CONN PER LOCAL CODES
032.02P3	1	REVERSE OSMOSIS WATER FILTRATION SYSTEM – TANKLESS	–	–	–	–	–	–	–	1/4" WASTE	–
032.04P1	1	WATER FILTRATION SYSTEM	–	–	–	–	–	3/4" INLET	6'–0"	–	–
032.04P2	1	WATER FILTRATION SYSTEM	–	–	–	–	–	3/4" OUTLET	–	–	3/4" GHT RINSE CONN. FLEX LINE OVHD. TO RAPID STEAMER, ESPRESSO, & COFFEE (OPT.) –BSI TO MAKE FINAL CONN PER LOCAL CODE
032.05P1	1	WATER FILTRATION SYSTEM	–	–	–	–	–	3/4" INLET	SEE RMKS	–	FLEX LINE OVERHEAD FROM R.O. SYSTEM –BSI TO MAKE FINAL CONN PER LOCAL CODES
032.05P2	1	WATER FILTRATION SYSTEM	–	–	–	–	–	3/4" OUTLET	SEE RMKS	–	FLEX LINE OVERHEAD TO COMBI OVENS AND STAGING CABINET –BSI TO MAKE FINAL CONN PER LOCAL CODES
038.00P1	1	CLEAN IN PLACE PANEL	–	–	–	–	1/2" FLTR	–	6'–0"	–	FOR CLEANING BULK COKE TANKS. INSTALL HEIGHT TO BOTTOM OF UNIT
039.10P2	1	ICE MACHINE – 1400 LB.	–	–	–	–	1/2" TRTD	–	SEE RMKS	3/4" IND	WATER LINE OVERHEAD FROM SODA SYSTEM – BSI TO MAKE FINAL CONNECTIONS PER LOCAL CODES

VIF = Verify in Field
PC = Plumbing Contractor
BSI = Beverage System Installer

PLUMBING SCHEDULE

TAG #	QTY	DESCRIPTION	GAS TYPE	GAS BTU	GAS SIZE	HW	CW	MISC PLBG	HGT AFF	DRAIN	REQUIREMENTS & REMARKS
039.10P3	1	ICE MACHINE – 1400 LB.	–	–	–	–	–	REFRIG LINES	–	–	REFRIGERATION LINES OVERHEAD FROM REMOTE CONDENSING UNIT
039.15P2	2	ICE MACHINE – 1000 LB.	–	–	–	–	1/2" TRTD	–	SEE RMKS	3/4" IND	WATER LINE OVERHEAD FROM SODA SYSTEM – BSI TO MAKE FINAL CONNECTIONS PER LOCAL CODES
039.15P3	2	ICE MACHINE – 1000 LB.	–	–	–	–	–	REFRIG LINES	–	–	REFRIGERATION LINES OVERHEAD FROM REMOTE CONDENSING UNIT
049.00P1	1	CO2 FILL BOX	–	–	–	–	–	–	3'–4"	–	HEIGHT IS TO BOTTOM OF FILL BOX;SUPPLIED BY MANUFACTURER;INSTALLED BY G.C. SEE BUILDING ELEVATIONS.
114.00P1	1	HUMIDIFIED HOLDING CABINET	–	–	–	–	3/8" R.O.	–	SEE RMKS	–	BSI EXTENDS CW LINE OVERHEAD FROM R.O. SYSTEM & TERM. W/QUICK DISCONN. AND SHUTOFF
125.00P1	2	RAPID BUN STEAMER	–	–	–	–	3/8" R.O.	–	SEE RMKS	–	BSI EXTENDS CW LINE FROM R.O. SYSTEM & TERM. W/QUICK DISCONN.
130.00P1	2	COMBI OVEN	–	–	–	–	1/2" FLTR	–	SEE RMKS	1 1/2" IND	BSI EXTENDS CW LINE OVERHEAD FROM SODA SYSTEM & TERM. W/QUICK DISCONN. AND SHUTOFF
130.00P2	2	COMBI OVEN	–	–	–	–	3/8" R.O.	–	SEE RMKS	–	BSI EXTENDS CW LINE OVERHEAD FROM R.O. SYSTEM & TERM. W/QUICK DISCONN. AND SHUTOFF
134.00P1	1	VEGETABLE SINK	–	–	–	–	3/4"	–	1'–10"	1–1/2" IND	–
151.46P1	1	SOILED DISHTABLE – RIGHT HAND – 90.5" WIDE	–	–	–	3/4" 140	3/4"	–	1'–6"	–	PC MAKES FINAL CONNECTIONS PER LOCAL CODE
152.08P1	1	WAREWASHER – HIGH TEMP	–	–	–	–	3/4"	–	SEE RMKS	1" INDIRECT	PC TO PROVIDE HW, CW, INDIRECT DRAIN PIPING AND MAKE ALL FINAL CONNECTIONS. CW @ 1'–0" AFF, DRAIN @ 36"
160.01P1	3	CHEMICAL SYSTEM	–	–	–	3/4" 110	–	–	SEE RMKS	–	PC TO PROVIDE 3/4" MHT. FINAL CONNECTIONS BY EQUIPMENT INSTALLER PER LOCAL CODE, SEE SHEET P3.0 FOR INSTALLATION HEIGHT
175.18P1	1	COOLER EVAPORATOR	–	–	–	–	–	–	–	3/4" COND.	PC TO ROUTE CONDENSATE DRAIN LINE TO FLOOR DRAIN. PC TO LIQUID–TIGHT SEAL OPENING FOR LINE EXITING BOX
175.18P3	1	COOLER EVAPORATOR	–	–	–	–	–	REFRIG LINES	–	–	RUN TO REMOTE CONDENSING UNIT–INSULATE FULL RUN LENGTH–INSTALLED BY REFRIG. CONTRACTOR
176.27P1	1	FREEZER EVAPORATOR	–	–	–	–	–	–	–	3/4" COND.	PC TO ROUTE CONDENSATE DRAIN LINE TO FLOOR DRAIN. PC TO LIQUID–TIGHT SEAL OPENING FOR LINE EXITING BOX. HEAT TAPE BY REF.
176.27P3	1	FREEZER EVAPORATOR	–	–	–	–	–	REFRIG LINES	–	–	RUN TO REMOTE CONDENSING UNIT–INSULATE FULL RUN LENGTH–INSTALLED BY REFRIG. CONTRACTOR
205.08P1	1	BIC MACHINE	–	–	–	–	1/2" FLTR	–	SEE RMKS	1" IND	DN CHASE. IF NO CHASE RUN IN 2"COND TO JB –BSI TO CONNECT LINES PER LOCAL CODES
205.09P1	1	FROZEN BEVERAGE DISPENSER	–	–	–	–	1/2" FLTR	3/8" CO2	SEE RMKS	–	DN CHASE. IF NO CHASE RUN IN 2"COND TO JB –BSI TO CONNECT LINES PER LOCAL CODES
223.07P1	1	WASHER	–	–	–	3/4" 140	3/4"	–	4'–0"	1 1/2" D	SEE PLUMBING DWGS FOR WALL BOX. INSTALL HEIGHT IS TO BOTTOM OF THE BOX
700.18P1	1	BULK OIL FILL BOX	–	–	–	–	–	–	3'–4"	–	HEIGHT IS TO BOTTOM OF FILL BOX;SUPPLIED BY MANUFACTURER;INSTALLED BY G.C. SEE BUILDING ELEVATIONS.

REV	DATE	DESCRIPTION	BY
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.	02/26/25	PERMIT SET	WLW
.	12/06/24	BID SET	WLW

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STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER

02/26/25

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DRAWN BY	DMS/HB
STD. ISSUE DATE	2024 05
REVIEWED BY	WLW
DATE ISSUED	02 26 2025
RQ#	24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION:
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./DAYTEV/BRICK EXTERIOR FINISH

NSN: 43016
LC: 024–1306

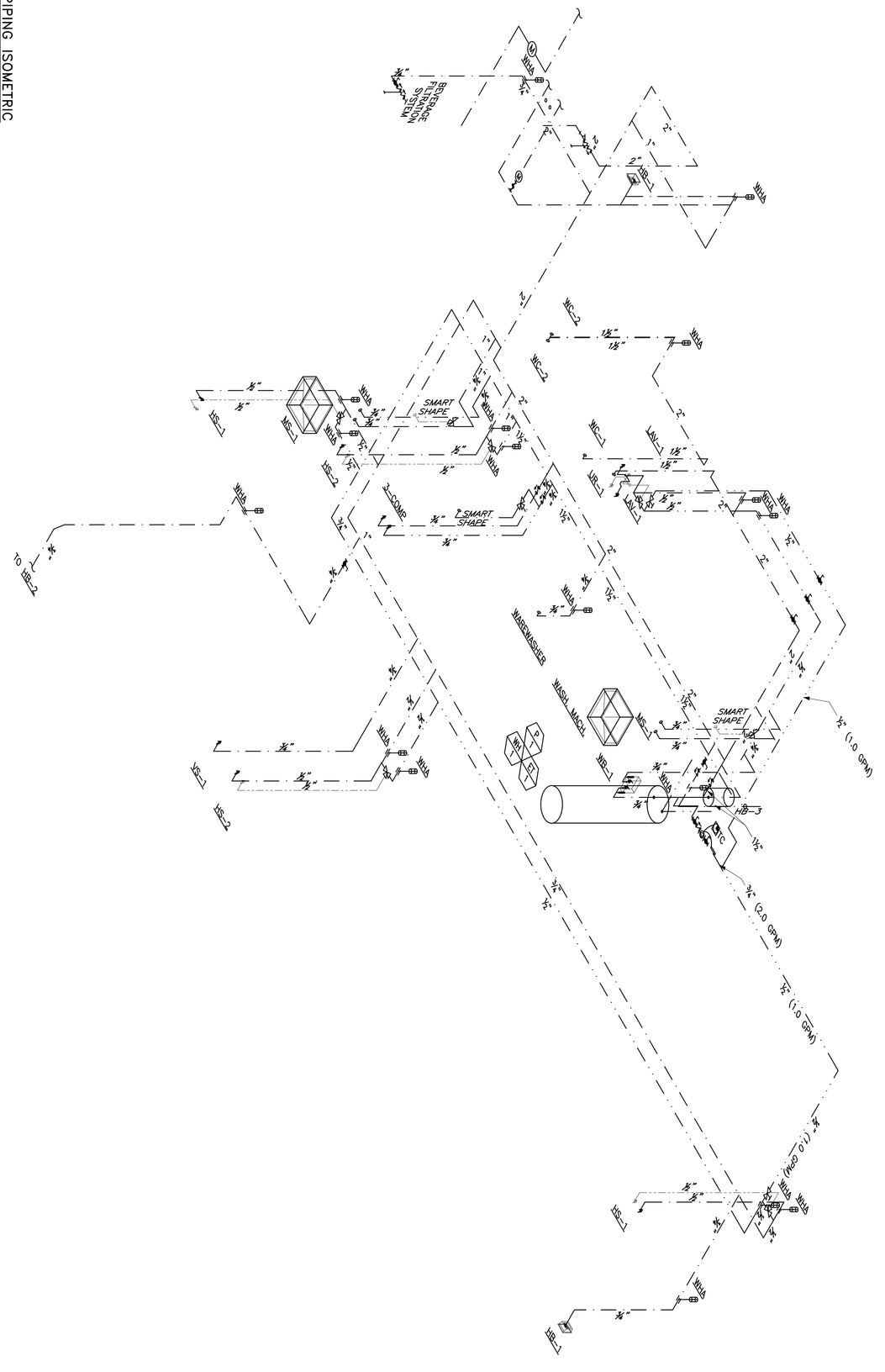
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.: 024–1306.00.0
P1.6
OVERHEAD ROUGH–IN

1 P2.0

DOMESTIC WATER PIPING ISOMETRIC

NO SCALE



SHEET NO.	TITLE	DRAWN BY	PREPARED FOR:	PREPARED BY:	
DOMESTIC WATER ISOMETRIC P2.0	2024 STANDARD BUILDING – BB20 4584–WOOD/WOOD	DMS/HB STD ISSUE DATE 2024 05	© 2024 McDonald's Corporation McDonald's USA, LLC These drawings and specifications are the confidential and proprietary property of McDonald's USA, LLC and shall not be copied or reproduced without written authorization. The contract documents were prepared for use on this specific site in conjunction with its issue date and are not suitable for use on a different site or at a later time. Use of these drawings for reference or example on another project requires the services of properly licensed architects and engineers. Reproduction of the contract documents for reuse on another project is not authorized.	02/26/25 STATE OF MINNESOTA PRELIMINARY NOT FOR CONSTRUCTION PE: 20000077 WILLIAM L. WEBER REGISTERED PROFESSIONAL ENGINEER	3801.0075
DESCRIPTION WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI WOOD TRUSS ROOF FRAMING E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	REVIEWED BY WLW DATE ISSUED 02 26 2025				
NSN: 43016	SITE ADDRESS				
L/C: 024–1306	8712 N. Indiana Avenue, Kansas City, MO 64156	RD# 24247			

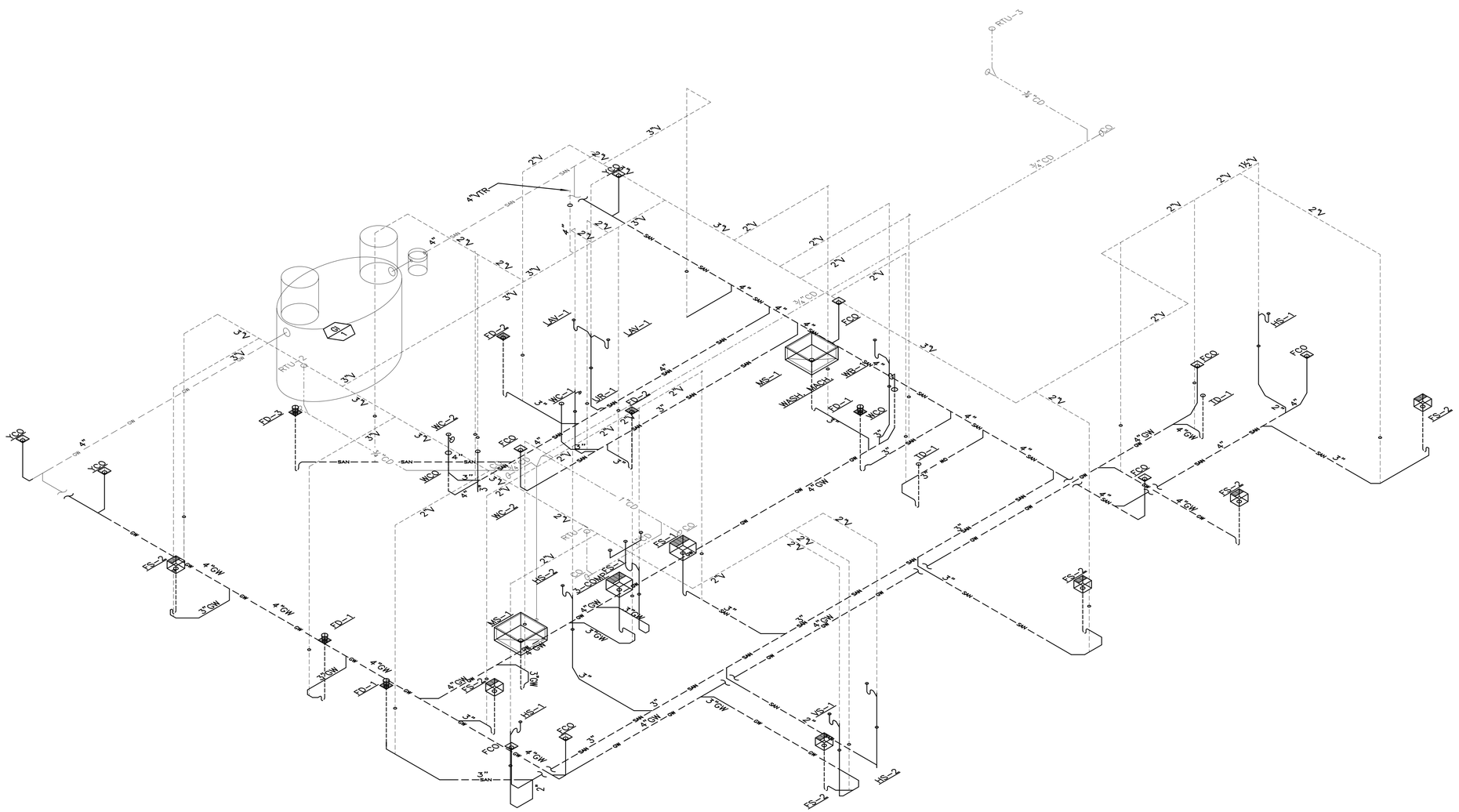
024–1306.00.0

emanuelson-podas
consulting engineers

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Edina, MN 55439

(952) 930-0050 | www.epinc.com

REV	DATE	DESCRIPTION	BY
	02/26/25	PERMIT SET	WLW
.	12/06/24	BID SET	WLW



1 / P2.1 WASTE & VENT PIPING ISOMETRIC
NO SCALE

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consulting engineers
Emanuelson-Podas, Inc.
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Eden Prairie, MN 55439
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3801.0075

STATE OF MISSOURI
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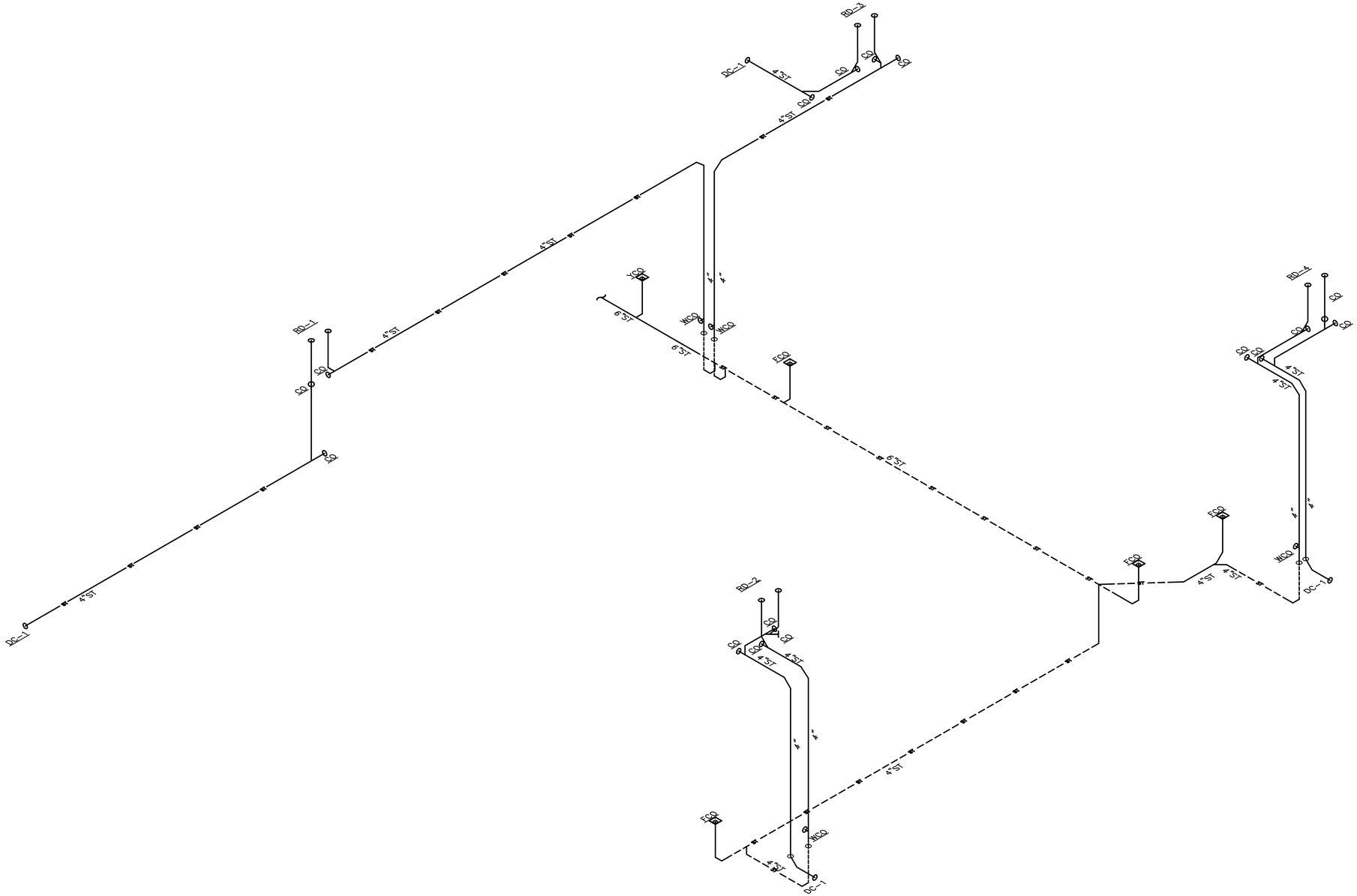
DRAWN BY: DMS/HB
STD ISSUE DATE: 2024 05
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Roll# 24247

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

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WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

MSN: 43016
L/C: 024-1306
SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.: 024-1306.00.0
P2.1
WASTE & VENT ISOMETRIC



1 P2.2 STORM PIPING ISOMETRIC
NO SCALE

REFER TO ARCHITECTURAL ELEVATIONS FOR DRAINS EXITING THE BUILDING FOR FINAL LOCATIONS.

REV	DATE	DESCRIPTION	BY
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.	12/06/24	BID SET	WLW

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4584–WOOD/WOOD

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WOOD TRUSS ROOF FRAMING
E.I.F.S./PATTEN/BRICK EXTERIOR FINISH

MSN: 43016
L/C: 024–1306

SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

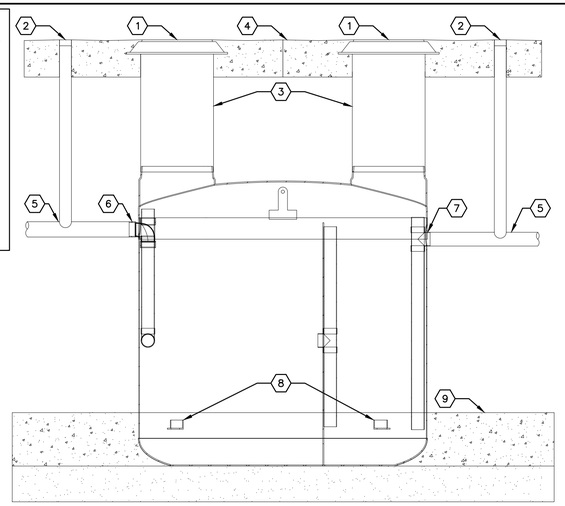
DRAWN BY: DMS/HB
STD ISSUE DATE: 2024 05
REVIEWED BY: WLW
DATE ISSUED: 02 26 2025
Roll# 24247

SHEET NO.
024–1306.00.0
P2.2
STORM ISOMETRIC

KEYED NOTES:
1. 24"ø MANWAY ACCESS COVER CONSTRUCTED OF ROUND CAST IRON OR SIMILAR RATED FOR HEAVY ROAD TRAFFIC WITH SUFFICIENT WEIGHT TO PREVENT UNAUTHORIZED ACCESS, OR BOLT OR LOCKING MECHANISM.
2. 4" CLEAN–OUT
3. MANWAY EXTENSION TO FINISHED GRADE
4. CONCRETE SLAB FOR TRAFFIC LOADING
5. PROVIDE COMBINATION SANITARY AND VENT PIPING
6. 4"ø INLET
7. 4"ø OUTLET
8. HOLD DOWN BRACKET
9. ANTI–BUOYANCY PAD FOR HIGH WATER TABLE INSTALLATIONS

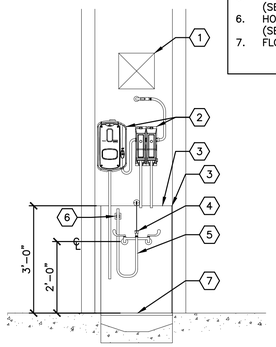
*SEE ZURN (GREEN TURTLE) PROCEPTOR INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION.

LOADING DESIGN: 12' 0" UNSATURATED SOIL / AASHTO STANDARD HS20–44 LOAD RATING



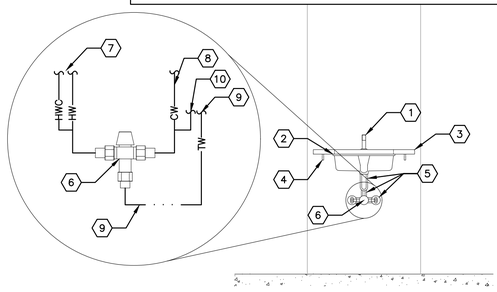
DETAIL
GREASE INTERCEPTOR INSTALLATION
SCALE: NONE
1 P3.0

KEYED NOTES:
1. ACCESS PANEL FOR THERMOSTATIC MIXING VALVE (SEE CHEMICAL SYSTEM INSTALLATION DETAIL)
2. ECOLAB CHEMICAL SYSTEM (SEE CHEMICAL SYSTEM INSTALLATION DETAIL)
3. 24"Wx36"H WALL GUARD (QTY. 2) FURNISHED WITH MOP SINK (SEE PLUMBING FIXTURE SCHEDULE)
4. MOP SINK FAUCET WITH INTEGRAL VACUUM BREAKER (SEE PLUMBING FIXTURE SCHEDULE)
5. HOSE FURNISHED WITH MOP SINK FAUCET (SEE PLUMBING FIXTURE SCHEDULE)
6. HOSE BRACKET FURNISHED WITH MOP FAUCET (SEE PLUMBING FIXTURE SCHEDULE)
7. FLOOR GRATE

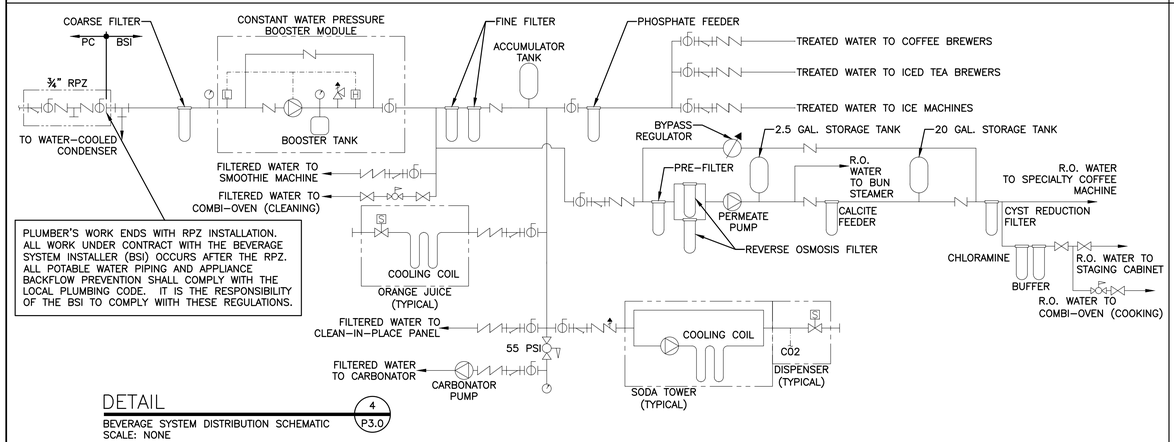


DETAIL
RECESSED MOP SINK
SCALE: ½"=1'–0"
2 P3.0

KEYED NOTES:
1. FAUCET (SEE PLUMBING FIXTURE SCHEDULE)
2. LAVATORY OR HAND SINK (SEE PLUMBING FIXTURE SCHEDULE)
3. CORIAN COUNTERTOP – TOILET ROOMS ONLY (FURNISHED BY G.C.)
4. LAVATORY CARRIER – TOILET ROOMS ONLY (SEE ARCHITECTURAL DRAWINGS)
5. OUTLINE OF ADA COMPLIANT WRAP (SEE PLUMBING FIXTURE SCHEDULE)
6. THERMOSTATIC MIXING VALVE (SEE VALVE SCHEDULE)
7. HOT WATER AND HWC DOWN WALL (WITH BALANCING VALVE AND CHECK VALVE INSTALLED).
8. COLD WATER DOWN TO MIXING VALVE
9. TEMPERATED WATER TO FIXTURES
10. COLD WATER TO FIXTURES AS APPLICABLE.

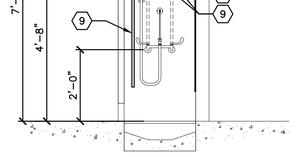


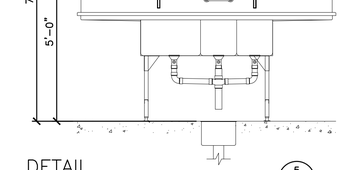
DETAIL
LAVATORY (PUBLIC)
SCALE: ½"=1'–0"
3 P3.0



PLUMBER'S WORK ENDS WITH RPZ INSTALLATION. ALL WORK UNDER CONTRACT WITH THE BEVERAGE SYSTEM INSTALLER (BSI) OCCURS AFTER THE RPZ. ALL POTABLE WATER PIPING AND APPLIANCE BACKFLOW PREVENTION SHALL COMPLY WITH THE LOCAL PLUMBING CODE. IT IS THE RESPONSIBILITY OF THE BSI TO COMPLY WITH THESE REGULATIONS.

DETAIL
BEVERAGE SYSTEM DISTRIBUTION SCHEMATIC
SCALE: NONE
4 P3.0



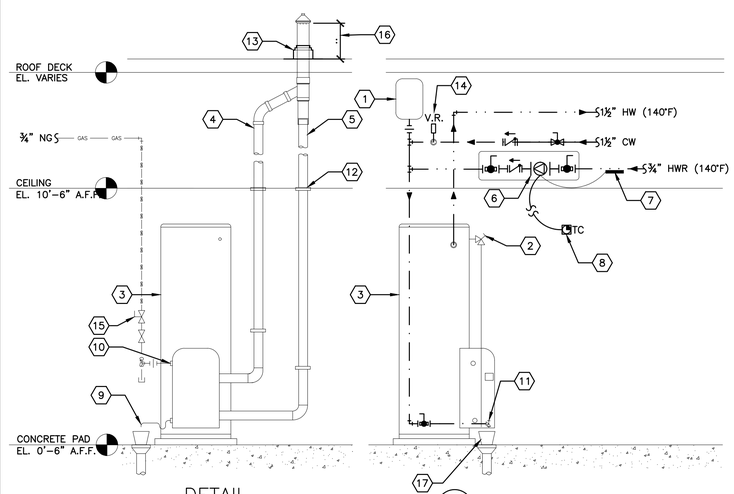


KEYED NOTES:
1. 12"x12" ACCESS PANEL (COORDINATE INSTALLATION WITH G.C.)
2. THERMOSTATIC MIXING VALVE SET TO 110°F (SEE VALVE SCHEDULE)
3. PIPE THROUGH WALL WITH ESCUTCHEON PLATE
4. SHUT–OFF VALVE
5. ¾" MHT CONNECTION

PLUMBER'S WORK ENDS AT MHT CONNECTION

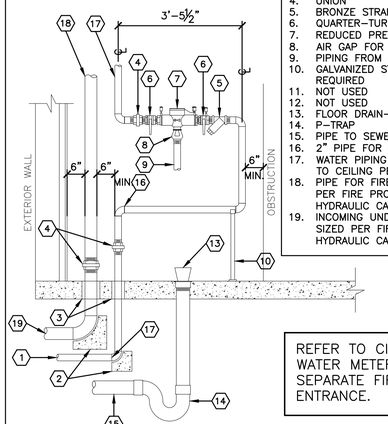
6. HOSE TO CHEMICAL SYSTEM
7. ECOLAB SOLIDSENSE CHEMICAL DISPENSER
8. ECOLAB SMARTSHAPE CHEMICAL DISPENSER
9. CHEMICAL DISPENSING HOSE
10. 140° WATER SUPPLY WITH ASSE 1055 RATED BACK FLOW PREVENTOR.

DETAIL
CHEMICAL SYSTEM INSTALLATION
SCALE: ½"=1'–0"
5 P3.0



KEYED NOTES:
1. THERMAL EXPANSION TANK (SEE EXPANSION TANK SCHEDULE)
2. WATER HEATER PRESSURE/TEMPERATURE RELIEF VALVE (EXTEND TO FLOOR DRAIN)
3. WATER HEATER (SEE WATER HEATER SCHEDULE)
4. 3" PVC INTAKE. (SIZE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS)
5. 3" ABS MIN. 84" REQ'D. (SIZE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS).
6. RECIRULATION PUMP (SEE PUMP SCHEDULE)
7. STRAP–ON AQUASTAT FOR PUMP CONTROL
8. TIMECLOCK TO SHUT DOWN PUMP AND WATER HEATER DURING UNOCCUPIED HOURS
9. SEALED–COMBUSTION CONDENSATE DRAIN (EXTEND TO FLOOR DRAIN)
10. GAS CONNECTION
11. WATER HEATER DRAIN (EXTEND TO FLOOR DRAIN)
12. PIPE SUPPORT EVERY 5 FT. MINIMUM
13. PIPE BOOT BY PORTALS PLUS (OR EQUAL)
14. PROVIDE VACUUM RELIEF VALVE FOR BOTTOM–FED WATER HEATERS (ANSI Z21.22) WILKINS MODEL VR10.
15. GAS PRESSURE REGULATOR (AS APPLICABLE).
16. CONCENTRIC VENT KIT. MAINTAIN 12" MIN. CLEARANCE ABOVE HIGHEST ANTICIPATED SNOW LEVEL. MAXIMUM OF 24" ABOVE ROOF.
17. FLOOR DRAIN WITH FUNNEL OR FLOOR SINK. REFER TO P1.2 FOR PLAN AND P4.1 FOR SCHEDULE.

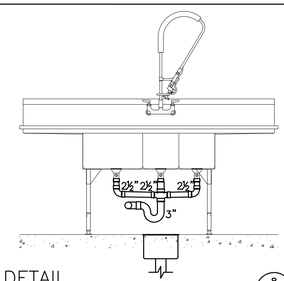
DETAIL
WATER HEATER PIPING
SCALE: NONE
6 P3.0



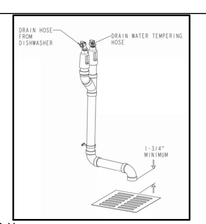
KEYED NOTES:
1. INCOMING UNDERGROUND WATER SERVICE SIZED PER BUILDING PLUMBING WATER CALCULATIONS
2. BLOCKING AT CHANGES IN DIRECTION
3. MINIMUM ½" ANNULAR CLEARANCE
4. UNION
5. BRONZE STRAINER
6. QUARTER–TURN BALL VALVE
7. REDUCED PRESSURE ZONE (RPZ) ASSEMBLY
8. AIR GAP FOR RELIEF VALVE
9. PIPING FROM AIR GAP TO FLOOR DRAIN
10. GALVANIZED STEEL PIPE SUPPORTS AS REQUIRED
11. NOT USED
12. NOT USED
13. FLOOR DRAIN–PITCH FLOOR TOWARDS DRAIN
14. P–TRAP
15. PIPE TO SEWER–PITCH AND VENT PER CODE
16. 2" PIPE FOR WATER SERVICE
17. WATER PIPING FROM 5 FT. FROM BUILDING TO CEILING PENETRATION SHALL BE COPPER.
18. PIPE FOR FIRE SPEINKLER SYSTEM SIZED PER FIRE PROTECTION CONTRACTOR'S HYDRAULIC CALCULATIONS.
19. INCOMING UNDERGROUND WATER SERVICE SIZED PER FIRE PROTECTION CONTRACTOR'S HYDRAULIC CALCULATIONS

REFER TO CIVIL PLANS FOR WATER METER LOCATION. SEPARATE FIRE WATER SERVICE ENTRANCE.

DETAIL
INCOMING WATER SERVICE
SCALE: ½"=1'–0"
7 P3.0



DETAIL
INDIRECT DRAINAGE PIPING (TYP.)
SCALE: ½"=1'–0"
8 P3.0



DETAIL
WAREWASHER DRAIN AIR GAP KIT
SCALE: NTS
9 P3.0

REV	DATE	DESCRIPTION	BY

GENERAL PLUMBING NOTES

GENERAL:
1. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
2. ALL PLUMBING WORK SHALL BE PERFORMED BY A LICENSED PLUMBER.
3. ALL DIMENSIONS, CLEARANCES AND TOLERANCES SHALL BE VERIFIED PRIOR TO INSTALLATION. ALL ROUGH–IN LOCATIONS SHALL BE COORDINATED WITH THE MANUFACTURER'S SUBMITTAL INFORMATION.
4. ALL DIMENSIONAL INFORMATION IS AS FOLLOWS (UNLESS NOTED OTHERWISE):
   A. UNDERGROUND PIPE IS TO FOUNDATION
   B. OVERHEAD PIPE IS TO FINISHED WALL
   C. ELEVATIONS ARE TO FINISHED FLOOR
5. ALL MATERIALS, FIXTURES AND EQUIPMENT USED SHALL BE IN ACCORDANCE WITH McDONALD'S SPECIFICATIONS. SPECIFICATIONS ARE CONTAINED WITHIN THESE DRAWINGS AND THE McDONALD'S PROJECT MANUAL. ANY CONTRACTOR IN NEED OF A COPY OF THE McDONALD'S PROJECT MANUAL SHALL CONTACT THE McDONALD'S AREA CONSTRUCTION MANAGER. ANY VARIANCE FROM THE McDONALD'S SPECIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER–OF–RECORD.
6. SEE COORDINATION SCHEDULE FOR ADDITIONAL SCOPE OF WORK.
7. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ITS LISTING AND/OR THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
8. WHERE POOR SOIL CONDITIONS EXIST OR WHERE SUBSTANTIAL SETTLEMENT OF EITHER THE PIPING, THE BUILDING OR ADJACENT WALKS, PLANTERS, ETC., MAY OCCUR, THE CONTRACTOR SHALL PROVIDE ADEQUATE UNDERSLAB STAINLESS STEEL PIPE HANGERS OR APPROVED OTHER SUPPORT.
9. ALL PIPE SLEEVES SHALL BE PROPERLY SEALED AND INSULATED TO PREVENT HEAT LOSS AND SEEPAGE.
10. ALL PIPE INSULATION SHALL BE PROTECTED FROM DAMAGE FROM PIPE HANGERS. PROTECTION SHALL BE LIGHT GAUGE GALVANIZED STEEL OR EQUAL.
11. ALL PENETRATIONS OF FIRE–RATED WALLS SHALL BE FIRESTOPPED WITH AN APPROVED AND LISTED FIRESTOPPING SYSTEM.

SANITARY AND VENT SYSTEMS:
1. THE BUILDING SANITARY PIPE SHALL BE LOCATED A MINIMUM OF 10 FT. FROM THE INCOMING WATER SERVICE. WHERE A 10 FT. SEPARATION IS NOT POSSIBLE, THE BOTTOM OF THE WATER SERVICE PIPE SHALL BE A MINIMUM OF 12 IN. ABOVE THE TOP OF THE HIGHEST POINT OF THE SANITARY PIPE.
2. ALL SANITARY AND VENT PIPE SHALL BE PVC TYPE DWV, ABS OR PROTECTO 401 LINED CAST–IRON WHERE REQUIRED BY CODE.
3. ALL HORIZONTAL SANITARY PIPE SHALL BE INSTALLED WITH A MINIMUM PITCH OF ¼" PER FOOT, OR IF THE (AHJ) ALLOWS AS FOLLOWS:

PIPE SIZE	MIN. SLOPE
2½" OR LESS	½" PER FT.
3" TO 6"	⅜" PER FT.
8" OR LARGER	⅛" PER FT.

4. CLEANOUTS SHALL BE INSTALLED IN ALL HORIZONTAL DRAINAGE PIPE AND SHALL BE LOCATED NOT MORE THAN 100 FT. APART. (UNLESS OTHERWISE DICTATED BY LOCAL CODES).
5. CLEANOUTS SHALL BE INSTALLED AT ALL CHANGES OF DIRECTION GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A SINGLE PIPE RUN, ONLY ONE (1) CLEANOUT SHALL BE REQUIRED FOR EVERY 40 FEET OF DEVELOPED LENGTH.
6. CLEANOUTS SHALL BE INSTALLED ON PIPES PRIOR TO ANY SLAB PENETRATION.
7. WHERE PIPING IS LOCATED WITHIN WALL CAVITIES, ACCESS TO THE CLEANOUTS SHALL BE PROVIDED.
8. CLEANOUTS ON 6–IN. AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 18 IN. CLEANOUTS ON 8–IN. AND LARGER PIPE SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 36 IN.
9. ALL SUSPENDED SANITARY AND VENT PIPE SHALL BE SUPPORTED AS FOLLOWS:

MATERIAL	MAX. HORIZ. SPACING	MAX. VERT. SPACING
ABS	4 FT.	10 FT.
PVC (TYPE DWV)	4 FT.	10 FT.
CAST–IRON (<10 FT. PIPE SECTIONS)	5 FT.	15 FT.
CAST–IRON (10 FT. PIPE SECTIONS)	10 FT.	15 FT.

10. ALL PLUMBING FIXTURES SHALL BE VENTED AND THE MAXIMUM DISTANCE FROM THE FIXTURE TRAP TO THE VENT SHALL BE AS FOLLOWS:

TRAP SIZE	SLOPE	DISTANCE
1¼"	¼" PER FT.	2'–6"
1½"	¼" PER FT.	3'–6"
2"	¼" PER FT.	5'–0"
3"	⅛" PER FT.	6'–0"
4" & LARGER	⅛" PER FT.	10'–0"

11. ALL PLUMBING VENTS THROUGH THE ROOF SHALL TERMINATE A MINIMUM OF 12 INCHES ABOVE THE ROOF AND SHALL BE LOCATED A MINIMUM OF 8 FT. FROM ANY PARAPET WALL. WHERE A VENT TERMINATES WITHIN 8 FT. OF A PARAPET WALL, THE VENT SHALL TERMINATE A MINIMUM OF 6 INCHES ABOVE THE PARAPET.
12. ALL PLUMBING VENTS SHALL TERMINATE A MINIMUM OF 10 FT. HORIZONTALLY FROM ANY OUTDOOR AIR INTAKE. WHERE A PLUMBING VENT IS LOCATED WITHIN 10 FT. OF AN INTAKE, THE VENT SHALL TERMINATE A MINIMUM OF 2 FT. ABOVE THE INTAKE.
13. ALL SIDE WALL VENT TERMINATIONS SHALL BE PROTECTED TO PREVENT BIRDS OR RODENTS FROM ENTERING OR BLOCKING THE VENT OPENING.
14. ALL FLOOR DRAINS THAT DO NOT SERVE EQUIPMENT SHALL BE PROTECTED AGAINST DRYING OUT EITHER THROUGH THE INSTALLATION OF A TRAP PRIMER, DEEP SEAL TRAP OR PROSET TRAP GUARD. ALL TRAPS SHALL BE FILLED WITH AN INITIAL LAYER OF COOKING OIL.
15. ALL APPLIANCES SHALL DRAIN TO AN APPROVED SANITARY WASTE RECEPTOR (FLOOR SINK OR FLOOR DRAIN WITH FUNNEL). INDIRECT DRAINAGE FROM AN APPLIANCE SHALL MAINTAIN AN AIR GAP BETWEEN THE PIPE OUTLET AND THE TOP OF THE RECEPTOR. THE MINIMUM DISTANCE BETWEEN THE PIPE OUTLET AND THE TOP OF THE RECEPTOR SHALL BE TWICE THE DIAMETER OF THE APPLIANCE DRAIN PIPE.
16. THE PVC PLASTIC PIPING TO BE INSTALLED MUST COMPLY WITH ONE OF THE FOLLOWING ASTM STANDARDS: D2665, OR F891. THE INSTALLATION MUST COMPLY WITH ASTM STANDARD D2321
17. ALL PLASTIC PIPE USED FOR DRAIN, WASTE, AND VENT SYSTEM (ABS, PVC). SHALL COMPLY WITH ASTM D2661 OR F268 (ABS) AND D2665, D2949 OR F891 (PVC). ABOVE GRADE HORIZONTAL RUNS OF PLASTIC WASTE AND VENT PIPE CANNOT EXCEED 35 FEET IN TOTAL LENGTH. AND ABOVE GRADE VERTICAL STACKS CONSTRUCTED OF PLASTIC PIPE MAY EXCEED 35 FEET IN TOTAL HEIGHT ONLY IF AN APPROVED EXPANSION JOINT IS USED. SOLVENT WELD JOINTS IN PVC AND CPVC PIPE MUST INCLUDE USE OF PRIMER WHICH IS OF CONTRASTING COLOR TO THE PIPE AND CEMENT.
18. CAST IRON PIPE USED FOR ABOVE GROUND WASTE SYSTEMS MUST MEET ANSI STANDARD A21.2, A21.6, A21.8, A40.5, OR ASTM STANDARD A–74.

GREASE INTERCEPTORS:
1. SEE SITE PLAN FOR THE SIZE AND LOCATION OF THE GREASE INTERCEPTOR.
2. THE GREASE INTERCEPTOR SHALL BE INSTALLED IN A LOCATION THAT IS ACCESSIBLE FOR PUMPING.
3. THE GREASE INTERCEPTOR SHALL BE CONSTRUCTED OF FIBERGLASS OR ROTATIONALLY–MOLDED POLYETHYLENE. GREASE INTERCEPTOR CONSTRUCTION SHALL CONFORM TO ALL LOCAL CODES. CONCRETE GREASE INTERCEPTORS ARE NOT PERMITTED UNLESS REQUIRED BY THE LOCAL AHJ.
4. GREASE INTERCEPTORS SHALL BE GRAVITY OR HYDROMECHANICAL TYPE, SIZED FOR THE APPLICATION LISTED.
5. THE GREASE INTERCEPTOR SHALL BE VENTED IN ACCORDANCE WITH THE LOCAL CODE OR THE MANUFACTURER'S REQUIREMENTS.
6. ACCESS TO THE GREASE INTERCEPTOR SHALL BE PROVIDED WITH TWO (2) 24–IN. MANHOLES. COVER SHALL PROVIDE WATER/GAS–TIGHT SEAL AND HAVE A MINIMUM 16,000 LBS. LOAD CAPACITY. ALL SURFACE WATER MUST DRAIN AWAY FROM MANHOLES.
7. PIPING INLET AND OUTLET SIDES SHALL BE CLEARLY LABELED ON THE TOP OF THE GREASE INTERCEPTOR TO INSURE PROPER INSTALLATION.

DOMESTIC SUPPLY SYSTEMS:
1. THE INCOMING WATER SERVICE PIPE SHALL BE LOCATED A MINIMUM OF 5 FT. FROM THE EXITING SANITARY PIPE. WHERE A 5 FT. SEPARATION IS NOT POSSIBLE, THE BOTTOM OF THE WATER SERVICE PIPE SHALL BE A MINIMUM OF 12 IN. ABOVE THE TOP OF THE HIGHEST POINT OF THE SANITARY PIPE.
2. ALL UNDERGROUND SITE PLUMBING SHALL CONFORM TO NSF 61, BRANCH SERVICE LINES 2" AND SMALLER SHALL CONFORM TO THE LATEST FEDERAL SPECIFICATIONS FOR TYPE K FLEXIBLE COPPER TUBING UP TO THE WATER METER. FIVE FEET AFTER THE METER TO THE BUILDING HIGH DENSITY POLYETHYLENE (HDPE) PIPE MAY BE INSTALLED ON SERVICE LINES UP TO TWO INCHES. THE HDPE PIPING SHALL BE SDR 9 AND MEET AWWA C901 AND COPPER TUBING SIZE (CTS) STANDARDS.
3. INCOMING DOMESTIC WATER SIZE TO BE 2" INNER DIAMETER. FOR PROJECTS WISHING TO DOWNSIZE, A HYDRANT FLOW TEST IS REQUIRED PRIOR TO CONSTRUCTION DOCUMENTS. ENGINEER OF RECORD TO SUBMIT PRESSURE DROP CALCULATIONS AND HYDRANT FLOW TEST TO USRD FOR REVIEW AND APPROVAL OF SMALLER INCOMING DOMESTIC WATER LINE.
4. IF PEX PIPING IS USED, ALL MAINS SHALL BE UPSIZED BY 0.5" DIAMETER.
5. INCOMING WATER SERVICE PRESSURE SHOULD BE BETWEEN 50 AND 55 PSI STATIC. WHERE WATER PRESSURE SERVICE EXCEEDS 80 PSI STATIC, AN APPROVED WATER–PRESSURE REDUCING VALVE WITH STRAINER CONFORMING TO ASSE 1003 SHALL BE INSTALLED. WHERE INCOMING WATER PRESSURE IS BELOW 50 PSI STATIC, A PRESSURE BOOSTER SYSTEM SHALL BE INSTALLED.
6. IF THE RESTAURANT HAS A COMBINED WATER AND FIRE SPRINKLER SERVICE, THE INCOMING WATER SERVICE SHALL BE SIZED BASED ON THE FIRE SPRINKLER CONTRACTOR'S HYDRAULIC CALCULATIONS.
7. PROVIDE A MINIMUM ½" ANNULAR CLEARANCE AROUND ALL PIPE SLAB PENETRATIONS.
8. A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPZ) SHALL BE INSTALLED AT THE INCOMING SERVICE WHERE REQUIRED BY CODE. (MIN. 60" A.F.F.)
9. AN EXPANSION TANK SHALL BE INSTALLED ON THE COLD WATER LINE INLET TO THE WATER HEATER. SEE EXPANSION TANK SCHEDULE.
10. ALL WATER SUPPLY PIPE WITHIN 5 FT. OF THE BUILDING AND INSIDE THE BUILDING SHALL COMPLY WITH NSF 61 AND SHALL BE TYPE L COPPER TUBING, COPPER PIPE PEX OR CPVC PIPE.
11. CPVC PIPE SHALL BE FLOWGUARD GOLD OR FLOWGUARD BENDABLE AS MANUFACTURED BY LUBRIZOL.
12. CPVC PIPE SHALL BE CONNECTED WITH FLOWGUARD GOLD YELLOW LOW–VOC SOLVENT CEMENT AS MANUFACTURED BY IPS WELD–ON OR OATEY.
13. ALL CPVC PIPE SHALL BE INSULATED TO PREVENT EXPOSURE TO GREASE.
14. ALL SUSPENDED PIPE SHALL BE SUPPORTED AS FOLLOWS:

MATERIAL	MAX. HORIZ. SPACING	MAX. VERT. SPACING
COPPER PIPE	12 FT.	10 FT.
COPPER TUBING	≤1¼" 6 FT. >1¼"10 FT.	10 FT.
CPVC	≤1" 3 FT. ≥1¼" 4 FT.	10 FT.
PEX	≤1"32 IN. ≥1¼" 4 FT.	10 FT.

15. A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPZ) SHALL BE INSTALLED AT THE INLET TO THE WATER FILTRATION SYSTEM. ALL PIPING DOWNSTREAM OF THE RPZ SHALL BE COPPER OR CROSS–LINKED POLYETHYLENE (PEX).
16. ALL DEVICES, APPLIANCES, AND APPARATUS INTENDED TO SERVE SOME SPECIAL FUNCTION (EX.: SODA MACHINE, COFFEE MACHINE, BEVERAGE DISPENSERS, ETC.) SHALL BE PROVIDED WITH PROTECTION AGAINST BACKFLOW AND CONTAMINATION OF THE WATER SUPPLY SYSTEM. ALL BACKFLOW PREVENTION DEVICES SHALL BE ASSE LISTED AND APPROVED FOR THE DEVICE OR APPLIANCE THEY SERVE.
17. ALL WATER SUPPLY LINES SHALL BE PROVIDED WITH A QUARTER–TURN SHUT–OFF VALVE BEFORE FINAL CONNECTION TO EQUIPMENT.
18. QUARTER–TURN SHUT–OFF VALVES SHALL BE INSTALLED UPSTREAM OF ANY INLINE BACKFLOW PREVENTION DEVICE.
19. ALL VALVES AND BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED WITH FITTINGS THAT FACILITATE REMOVAL IN CASE OF FAILURE.
20. ALL OVERHEAD WATER LINES SHALL BE INSULATED WITH 1" THICK EXTERNAL JACKETED INSULATION AND A MINIMUM INSTALLED R–VALUE OF 3.7. ALL HOT WATER AND HOT WATER RETICULATION OF 1.5" OR LARGER SHALL BE INSULATION OF 1.5".
21. PRIOR TO BUILDING TURNOVER, THE DOMESTIC WATER SUPPLY SYSTEM SHALL BE PURGED OF DELETERIOUS MATERIAL AND DISINFECTED. DISINFECTION SHALL BE DONE IN ACCORDANCE WITH THE LOCAL HEALTH CODE, PLUMBING CODE OR IN ACCORDANCE WITH AWWA C651 OR AWWA C652.

STORM DRAINAGE SYSTEMS:
1. ALL ROOF DRAINS SHALL BE SIZED IN ACCORDANCE WITH LOCAL CODES AND SHALL CONFORM TO ASME A112.21.2M OR A112.3.1.
2. ALL STORM DRAINAGE PIPING SHALL BE ABS, PVC TYPE DWV OR CAST–IRON WHERE REQUIRED BY CODE.
3. ALL SUSPENDED STORM DRAINAGE PIPE SUPPORT REQUIREMENTS SHALL BE THE SAME AS THE SANITARY AND VENT REQUIREMENTS.
4. ALL HORIZONTAL STORM DRAINAGE PIPE PITCH REQUIREMENTS SHALL BE THE SAME AS THE SANITARY AND VENT REQUIREMENTS.
5. ALL HORIZONTAL STORM DRAINAGE PIPE SHALL BE INSULATED WITH 1" THICK EXTERNAL JACKETED INSULATION AND A MINIMUM INSTALLED R–VALUE OF 3.7 TO PROTECT AGAINST CONDENSATION.
6. CLEANOUTS SHALL BE INSTALLED IN ALL HORIZONTAL DRAINAGE PIPE AND SHALL BE LOCATED NOT MORE THAN 100 FT. APART.
7. CLEANOUTS SHALL BE INSTALLED AT ALL CHANGES OF DIRECTION GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A SINGLE PIPE RUN, ONLY ONE (1) CLEANOUT SHALL BE REQUIRED FOR EVERY 40 FEET OF DEVELOPED LENGTH.

SIZING IS PER THE ZURN PROCEPTOR (GRAVITY INTERCEPTOR SIZING)

Grease Interceptor Sizing (UPC)	
A. DRAINAGE FIXTURE UNITS	
1. Total drainage fixture units (DFU):	42 DFU
B. INTERCEPTOR MINIMUM VOLUME	
2. Minimum volume from UPC Table 1014.3.6	1250 Gal.
*Note: Update required volume manually, see table below	

8. CLEANOUTS SHALL BE INSTALLED ON PIPES PRIOR TO ANY SLAB PENETRATION.
9. WHERE PIPING IS LOCATED WITHIN WALL CAVITIES, ACCESS TO THE CLEANOUTS SHALL BE PROVIDED.
10. ROOF DRAINS AND OVERFLOW ROOF DRAINS SHALL BE PIPED INDEPENDENTLY. OVERFLOW ROOF DRAINS SHALL NOT BE CONNECTED TO THE PRIMARY ROOF DRAINAGE SYSTEM.

"PEX" TUBING MUST MEET THE FOLLOWING STANDARDS:
1. THE TUBING MUST COMPLY WITH ASTM STANDARD F877 AND D2846
2. WHEN INSTALLED AS A SYSTEM IN ACCORDANCE WITH WITH F877 THE SYSTEM TUBING AND FITTINGS MUST BE FROM THE SAME MANUFACTURER.
3. WHEN OTHER FITTINGS ARE USED WITH ASTM STANDARD F877 AND F876 TUBING, FITTINGS MUST COMPLY AND BE MARKED WITH ASTM STANDARD F1807, F1960, F2080, F2098–01, OR F2159. IN ADDITION THE TUBING MUST BE MARKED TO INDICATE THE FITTING STANDARD AND CORRESPONDING TUBING STANDARD (E.G. ASTM F877/F876/F1960, F877/F876/F1807, ECT.)
4. THE SYSTEM MUST BE INSTALLED BY A FACTORY TRAINED INSTALLER OF THE PARTICULAR PEX SYSTEM TO BE INSTALLED. CERTAIN MANUFACTURERS REQUIRED INSTALLATION BY A LICENSED PLUMBER WHO HAS BEEN TRAINED TO INSTALL THEIR MATERIAL.
5. ALL PERSONS INSTALLING PEX MATERIALS SHALL HAVE A CARD IN THEIR POSSESSION DOCUMENTING COMPLETION OF TRAINING BY MANUFACTURER OR HIS AGENT FOR THE MATERIAL TO BE INSTALLED.
6. THE TUBING AND FITTINGS MUST BE MARKED AS REQUIRED BY THE APPLICABLE STANDARD SPECIFICATION AND WITH APPROPRIATE ASTM DESIGNATIONS BY THE MANUFACTURER.
7. THE INSTALLATION MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
8. ALL PIPING MUST BE UPSIZED BY 0.5" DIAMETER.
9. VERTICAL TUBING SHALL
   9.A. BE SUPPORTED AT EACH FLOOR OR AS SPECIFIED BY THE WATER–DISTRIBUTION SYSTEM DESIGNER TO ALLOW FOR EXPANSION AND CONTRACTION.
   9.A.A. ARE SUPPORTED AT INTERVALS NOT EXCEEDING 1.8M (6 FT)
   9.A.B. HAVE A MAXIMUM CANTILEVER, MEASURED FROM THE SUPPORT TI THE END OF THE CTS SUPPORT CHANNEL, PORT CHANNEK OF 0.5M (1.5 FT)
10. HORIZONTAL TUBING SHALL
   10.A. NTS–1 AND SMALLER SHALL BE SUPPORTED EVERY 0.8M (32 IN), UNLESS CONTINUOUSLY SUPPORTED BY METALLIC CTS OR v CHANNELS THAT
   10.B. NTS–1¼ AND LARGER SHALL BE SUPPORTED EVERY 1.2M (4 FT), UNLESS CONTINUOUSLY SUPPORTED BY METALLIC CTS OR V CHANNELS THAT.
   10.B.A. ARE SUPPORTED AT INTERVALS NOT EXCEEDING 2.4M (8 FT) AND
   10.B.B. HAVE A MAXIMUM CANTILEVER, MEASURED FROM THE SUPPORT TO THE END OF THE CTS SUPPORT CHANNEL, OF 0.5M (1.5 FT.)

PIPING INSULATION THICKNESS:
1. MINIMUM PIPING INSULATION THICKNESS HEATING AND HOT–WATER SYSTEMS (STEAM, STEAM CONDENSATE, HOT–WATER HEATING AND DOMESTIC WATER SYSTEMS). PLEASE REFER TO THE LATEST EDITION OF IECC FOR MINIMUM PIPE INSULATION THICKNESS (TABLE C403.12.3)

PIPING	MINIMUM INSULATION THICKNESS (IN INCHES) PER NOMINAL PIPE OR TUBE SIZE				
NOMINAL PIPE SIZE	<1	1 TO 1.5	1.5 TO <4	4 TO <8	≥8
DOMESTIC COLD WATER (40°F TO 60°F)	0.5	0.5	1.0	1.0	1.0
TEMPERATE HOT WATER (105°F TO 140°F)	1.0	1.0	1.5	1.5	1.5
HOT WATER (141°F TO 200°F)	1.5	1.5	2.0	2.0	2.0
STORM DRAIN (HORIZONTAL)	–	–	1.0	1.0	1.0

LEGEND

— · — · — · —	COLD WATER PIPING
— — — — — —	TEMPERED WATER PIPING (110°F)
— · · — · · —	HOT WATER PIPING (140°F)
— · · · — · · · —	RECIRCULATED HOT WATER PIPING
- - - - - - - -	OVERHEAD LINES (BY P.C.)
— — —SAN— — —	UNDERGROUND SANITARY PIPING
— — —GW— — —	UNDERGROUND GREASE WASTE PIPING
- - - - - - - -	VENT PIPING
——ST——	ABOVE GROUND STORM PIPING
— — — ST — — —	UNDERGROUND STORM PIPING
- - - - CD - - - -	CONDENSATE PIPING
	HOSE BIBB
OR	CHECK VALVE
	BALL VALVE
	THERMOSTATIC MIXING VALVE
	FLOOR DRAIN
	CLEAN–OUT (FLOOR OR YARD)
	FLOOR SINK
	PRESSURE GUAGE
	LOW PRESSURE SWITCH
H	HIGH PRESSURE SWITCH
S	SOLENOID VALVE
	THREE–WAY VALVE
	PRESSURE REGULATOR
	DUAL CHECK VALVE OR RPZ
	DUAL CHECK VALVE WITH ATMOSPHERIC VENT
	STRAINER
	RELIEF VENT
	FULL–PORT BALL VALVE
	PUMP
	BACK FLOW PREVENTER
	WATER HAMMER ARRESTER
	CLEAN OUT

ABBREVIATIONS

ACM	AREA CONSTRUCTION MANAGER
AVB	ATMOSPHERIC VACUUM BREAKER
BSI	BEVERAGE SYSTEM INSTALLER
CO	CLEAN–OUT
DC	DOWNSPOUT COVER
DFU	DRAINAGE FIXTURE UNIT(S)
EC	ELECTRICAL CONTRACTOR
FAC	FIRE ALARM CONTRACTOR
FCO	FLOOR CLEAN–OUT
FD	FLOOR DRAIN
FPC	FIRE PROTECTION CONTRACTOR
FS	FLOOR SINK
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
GPF	GALLONS PER FLUSH
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HS	HAND SINK
I.P.S.	IRON PIPE SIZE (ALSO NPS)
KEI	KITCHEN EQUIPMENT INSTALLER
KES	KITCHEN EQUIPMENT SUPPLIER
LAV	LAVATORY
MC	MECHANICAL CONTRACTOR
MHT	MALE HOSE THREADS
MS	MOP SINK
NPS	NATIONAL PIPE THREAD STANDARD
NPT	NATIONAL PIPE THREAD TAPERED
O/O	OWNER/OPERATOR
OH	OVERHEAD
P	PUMP
PC	PLUMBING CONTRACTOR
RC	REFRIGERATION CONTRACTOR
RPZ	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
SAN	SANITARY SEWER
ST	STORM SEWER
SVB	ANTI–SIPHON, SPILL RESISTANT VACUUM BREAKER
TAB	TEST AND BALANACE CONTRACTOR
UG	UNDERGROUND
UR	URINAL
V	VENT
WC	WATER CLOSET
WCO	WALL CLEAN–OUT
WSFU	WATER SUPPLY FIXTURE UNIT(S)
YCO	YARD CLEAN–OUT

BY	DESCRIPTION	DATE	REV
WLW	BID SET	12/06/24	
WLW	PERMIT SET	02/26/25	

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DRAWN BY	DMS/HB
STD ISSUE DATE	2024 05
REVIEWED BY	WLW
DATE ISSUED	02 26 2025
RDJ#	24247

TITLE	2024 STANDARD BUILDING – BB20 4584–WOOD/WOOD
DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI WOOD TRUSS ROOF FRAMING E.I.F.S./BATTEN/BRICK EXTERIOR FINISH
MSN: A3016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306	

SHEET NO. P4.0
024–1306.00.0
GENERAL NOTES

COORDINATION SCHEDULE

GENERAL REQUIREMENTS	FURNISH	INSTALL	FINAL CONNECTION	NOTES
MECHANICAL PERMIT	MC			1–3
HOT WORK (WELDING) PERMIT (IF APPLICABLE)	MC			1–3
REFRIGERATION PERMIT (IF APPLICABLE)	KES			1–3
PLUMBING PERMIT	PC			1–3
ELECTRICAL PERMIT	EC			1–3
FIRE SPRINKLER PERMIT (IF APPLICABLE)	FPC			1–3
FIRE ALARM PERMIT (IF APPLICABLE)	FAC			1–3
CONTRACTOR COORDINATION REQUIREMENTS				
HEATING & AIR–CONDITIONING				
ROOFTOP UNITS, INTAKE AND RELIEF	MCD CP	MC		1–5, 17, 22
ROOF CURBS	MCD CP	MC		1–3, 20, 22
GAS PIPING AND GAS PIPE KIT	PC	PC	PC	1–3, 14, 22–23
CONTROLS WIRING	MC	EC	EC	1–3, 19, 22, 24
POWER WIRING	EC	EC	EC	1–3, 19, 22, 24
CONDENSATE TRAP	MC	PC		1–3, 22–23
CONDENSATE PIPING (IF APPLICABLE)	PC	PC		1–3, 22–23
DUCT–MOUNTED SMOKE DETECTOR	MC	MC	EC	1–3, 22, 24
GENERAL EXHAUST SYSTEMS				
EXHAUST FANS	MCD CP	MC		1–3, 17, 22
ROOF CURBS	MCD CP	MC		1–3, 22
CONTROLS (WHERE APPLICABLE)	MC	EC	EC	1–3, 22, 24
POWER WIRING	EC	EC	EC	1–3, 22, 24
TEMPERATURE CONTROLS				
BUILDING AUTOMATION SYSTEM	MCD CP	MC	EC	1–3, 22, 24
REMOTE SENSORS (RH AND/OR TEMPERATURE)	MC	MC	EC	1–3, 22, 24
CONTROLS WIRING (WHERE APPLICABLE)	MC	EC	EC	1–3, 22, 24
POWER WIRING	EC	EC	EC	1–3, 22, 24
DUCTWORK AND ACCESSORIES				
GALVANIZED SHEET METAL DUCTWORK	MC	MC		1–3, 22
EXTERNAL INSULATION	MC	MC		1–3, 22
INTERNAL INSULATION (IF APPLICABLE)	MC	MC		1–3, 22
WEATHERPROOFING (IF APPLICABLE)	MC	MC		1–3, 22
SPIN–IN COLLARS	MC	MC		1–3, 22
FLEXIBLE DUCTWORK	MC	MC		1–3, 22
VOLUME/BALANCING DAMPERS	MC	MC		1–3, 22
FIRE DAMPERS (IF APPLICABLE)	MC	MC		1–3, 22
FIRESTOPPING (IF APPLICABLE)	MC	MC		1–3, 22
AIR DEVICES AND ACCESSORIES	MC	MC	MC	1–3, 7, 22, 28
PLUMBING SYSTEMS				
WATER HEATERS	MCD PC	PC	PC	1–3, 11–12, 23
HOT AND COLD WATER PIPE	PC	PC	PC	1–3, 23
VENTS AND INTAKES	PC	PC	PC	1–3, 23
THERMOSTATIC MIXING VALVE	PC	PC	PC	1–3, 23
POWER AND CONTROL WIRING	EC	EC	EC	1–3, 23–24
KITCHEN EXHAUST SYSTEMS				
McDONALD'S BACKSHELF EXHAUST HOODS	KES	KEI		1–3, 6, 22, 27
CANOPY EXHAUST HOODS (IF APPLICABLE)	KES	KEI		1–3, 6, 22, 27
BLACK IRON DUCTWORK	KES	KEI		1–3, 6, 22
STAINLESS STEEL DUCTWORK (IF APPLICABLE)	KES	KEI		1–3, 6, 22
ALUMINUM DUCTWORK (IF APPLICABLE)	KES	KEI		1–3, 6, 22
UL LISTED DUCT WRAP	MC	MC		1–3, 6, 22
FIRE–RATED DUCT ENCLOSURE (IF APPLICABLE)	GC	GC		1–3, 6, 20, 22
EXHAUST FANS	MC	MC		1–3, 6, 17, 22
ROOF CURBS	MC	MC		1–3, 6, 20, 22
CURB EXTENSIONS	MC	MC		1–3, 6, 22
CONTROLS (WHERE APPLICABLE)	EC	EC	EC	1–3, 6, 22, 24
POWER WIRING	EC	EC	EC	1–3, 6, 22, 24
FIRE SUPPRESSION SYSTEM	KES	KES	KES	1–3, 16, 22, 27
KITCHEN EQUIPMENT				
COOLER/FREEZER	KES	GC		1–3, 27
EVAPORATOR COILS	KES	MC		1–3, 27
CONDENSATE PIPING	PC	PC	PC	1–3, 23, 27
REMOTE CONDENSING UNIT (MAC)	KES	MC		1–3, 22, 27
ROOF CURBS	MC	MC		1–3, 22
REFRIGERANT PIPING	KES	MC	MC	1–3, 22, 27
POWER WIRING	EC	EC	EC	1–3, 22, 24, 27
CONTROL WIRING	EC	EC	EC	1–3, 24, 27
PIPE PORTALS	MC	MC		1–3, 22
ICE MACHINES	KES	KEI		1–3, 27
WATER SUPPLY PIPING	KES	KEI	BSI	1–3, 27
REMOTE CONDENSING UNITS	KES	MC		1–3, 22, 27
ROOF CURBS	MC	MC		1–3, 22, 27
REFRIGERANT PIPING	KES	MC	MC	1–3, 22, 27
POWER WIRING	EC	EC	EC	1–3, 22, 24, 27
CONTROL WIRING	KES	EC	EC	1–3, 24, 27
PIPE PORTALS	MC	MC		1–3, 22
GRILLS	KES	KES		1–3, 27
GAS PIPING (IF APPLICABLE)	PC	PC	PC	1–3, 23, 27
POWER WIRING	EC	EC	EC	1–3, 24, 27
CONTROL CABLE (6' CLAMSHELL ONLY)	MC	EC	EC	1–3, 23, 24, 27
FRYERS	KES	KES		1–3, 27
GAS PIPING (IF APPLICABLE)	PC	PC	PC	1–3, 23, 27
POWER WIRING	EC	EC	EC	1–3, 24, 27
3–COMPARTMENT SINK	KES	KES		1–3, 12, 27
FAUCETS AND PRE–RINSE SPRAYER	KES	KES		1–3, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
HAND SINKS	MCD CP	PC		1–3, 23, 27
FAUCET	MCD CP	PC		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
VEGETABLE SINK	KES	KES		1–3, 23, 27
FAUCET	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
WASHING MACHINE	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
WARE WASHER	KES	KES		1–3, 23, 27
WATER SUPPLY PIPING	PC	PC	PC	1–3, 23, 27
SANITARY DRAIN PIPING	PC	PC	PC	1–3, 23, 27
MISCELLANEOUS ITEMS				
FIRE SPINKLER SYSTEMS	FPC	FPC	FPC	1–3, 15, 25
HVAC EQUIPMENT START–UP	MC			1–3, 22
TEST, ADJUST AND BALANCE HVAC SYSTEMS	TAB			1–3, 22
DOOR GRILLES (IF APPLICABLE)	MC	GC		1–3, 20, 22
ROOF/WALL OPENINGS	GC			1–3, 20–24
APPLIANCE BACKFLOW PREVENTION	KES/BSI	PC	PC	1–3, 23, 27
CO2 DETECTION SYSTEM	KES/BSI	EC/BSI	EC/BSI	1–3, 22, 27

NOTES:
1. THIS SCHEDULE IS INTENDED AS A GUIDE FOR THE WORK TO BE PERFORMED. ALL WORK SHALL BE COORDINATED BETWEEN THE McDONALD'S AREA CONSTRUCTION MANAGER AND ALL GC AND O/O SUBCONTRACTORS.
2. ONE (1) COPY OF THE DECOR PACKAGE DRAWINGS SHALL BE SUPPLIED TO THE GENERAL CONTRACTOR AND EACH OF THE SUBCONTRACTORS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE SUBCONTRACTORS TO INSURE THAT THEY HAVE RECEIVED THE DECOR PACKAGE DRAWINGS.
3. FOR ANY WORK NOT CLARIFIED IN THIS SCHEDULE OR IN THE NOTES AND SPECIFICATIONS, PLEASE CONSULT THE McDONALD'S CONSTRUCTION MANAGER FOR SCOPE OF WORK.
4. ALL ROOFTOP UNIT EQUIPMENT SUPPLIED BY THE MECHANICAL CONTRACTOR AND THE KITCHEN EQUIPMENT SUPPLIER SHALL BE ON SITE AT THE SAME TIME FOR A SINGLE CRANE LIFT. EQUIPMENT SITE ARRIVAL DATE SHALL BE COORDINATED BETWEEN THE CONSTRUCTION MANAGER, MECHANICAL CONTRACTOR AND KITCHEN EQUIPMENT SUPPLIER.
5. ALL ROOFTOP UNITS INSTALLED IN McDONALD'S RESTAURANTS SHALL BE HIGH EFFICIENCY EQUIPMENT. THE INSTALLATION OF STANDARD EFFICIENCY ROOFTOP UNITS IS PROHIBITED. PLEASE REFER TO THE LATEST EDITION OF IECC FOR HVAC EQUIPMENT PERFORMANCE REQUIREMENTS.
6. ALL KITCHEN EQUIPMENT REQUIRING EXHAUST SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER AND THE ENGINEER–OF–RECORD.
7. WHERE GYPSUM BOARD CEILINGS ARE INSTALLED, THE MECHANICAL CONTRACTOR SHALL SUPPLY DRYWALL MOUNTING FRAMES FOR LAY–IN TYPE DIFFUSERS.
8. ALL WORK SHOWN ON P1.6 DRAWING(S) SHALL BE COMPLETED BY THE BEVERAGE SYSTEM INSTALLER (OR K.E.S.) UNLESS OTHERWISE NOTED IN THE PLUMBING DRAWINGS.
9. ALL WORK ON P1.0 & P1.2 DRAWING(S) SHALL BE BY THE PLUMBING CONTRACTOR.
10. THE BEVERAGE SYSTEM INSTALLER FURNISHES, RUNS AND CONNECTS ALL FLEXIBLE WATER AND SYRUP LINES FOR ALL AFFECTED EQUIPMENT INCLUDING THE FOLLOWING:
    A. HOT CHOCOLATE
    B. COFFEE BREWER
    C. ICE MACHINE
    D. O.J.
    E. SODA TOWERS
11. ALL WATER HEATERS INSTALLED IN McDONALD'S RESTAURANTS SHALL BE HIGH EFFICIENCY SEALED–COMBUSTION WATER HEATERS. THE INSTALLATION OF STANDARD EFFICIENCY GRAVITY–VENTED WATER HEATERS IS PROHIBITED. PLEASE REFER TO THE LATEST EDITION OF IECC FOR SERVICE WATER–HEATING EQUIPMENT PERFORMANCE EFFICIENCY REQUIREMENTS.
12. THE CONSTRUCTION MANAGER, PLUMBING CONTRACTOR AND KITCHEN EQUIPMENT SUPPLIER SHALL COORDINATE WHICH SOILED DISHWASHER (3–COMPARTMENT SINK) IS BEING INSTALLED IN THE RESTAURANT.
13. ALL GAS PIPING FOR COOKING EQUIPMENT SHALL TERMINATE IN THE CEILING PRIOR TO THE INSTALLATION OF THE PIPING CHASE. UPON INSTALLATION OF THE CHASE, THE GAS PIPING SHALL THEN BE CONTINUED IN THE CHASE FOR FINAL CONNECTION TO THE APPLIANCE.
14. ALL GAS PIPING FOR ROOFTOP EQUIPMENT SHALL BE BROUGHT UP THROUGH THE BASE OF THE UNIT TO MINIMIZE ROOF PENETRATIONS. WHERE THIS IS NOT POSSIBLE, THE PLUMBING CONTRACTOR SHALL PROVIDE THE NECESSARY PIPE PORTALS ON ROOF.
15. ALL FIRE PROTECTION DRAWINGS CONTAINED WITHIN THIS SET ARE STRICTLY FOR REFERENCE ONLY. FIRE SPRINKLER DRAWINGS SHALL BE DESIGNED AND PERMITTED BY A FIRE PROTECTION CONTRACTOR.
16. ALL R–102 WET CHEMICAL FIRE SUPPRESSION SYSTEMS FOR TYPE I HOODS SHALL BE DESIGNED AND INSTALLED BY A LOCAL ANSUL AGENT. THE USE OF DRY CHEMICAL SYSTEMS IS PROHIBITED. THE LOCAL ANSUL AGENT CONTRACT IS HANDLED THROUGH THE KITCHEN EQUIPMENT SUPPLIER.
17. ALL ROOFTOP UNITS AND EXHAUST FANS ARE SUPPLIED WITH A FACTORY–INSTALLED DISCONNECT SWITCH.
18. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCHES FOR REMOTE CONDENSING UNITS.
19. ALL ELECTRICAL CONDUITS FOR ROOFTOP EQUIPMENT SHALL BE BROUGHT UP THROUGH THE BASE OF THE UNIT TO MINIMIZE ROOF PENETRATIONS. WHERE THIS IS NOT POSSIBLE, THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE NECESSARY PIPE PORTALS ON ROOF.
20. WALK–IN COOLER AND WALK–IN FREEZER REFRIGERATION SYSTEMS SHALL MEET THE PERFORMANCE REQUIREMENTS OUTLINED IN THE LATEST EDITION OF IECC. MINIMUM ANNUAL WALK–IN ENERGY FACTOR (AWEF) PROVIDED BY EQUIPMENT MANUFACTURER IS DETERMINED IN ACCORDANCE WITH AHRI 1250.
21. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
22. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
23. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
24. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
25. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
26. SEE FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION.
27. SEE FIRE ALARM DRAWINGS FOR ADDITIONAL INFORMATION.
28. SEE KITCHEN DRAWINGS FOR ADDITIONAL INFORMATION.
29. SEE DECOR DRAWINGS FOR ADDITIONAL INFORMATION.

PUMP SCHEDULE

TAG	MANUFACTURER	MODEL	HP	V	Ø	Hz	ACCESSORIES
P–1	GRUNDFOS	UP 15–18 B7	1/25	120	1	60	1–3

ACCESSORIES:
1. TIMECLOCK
2. AQUASTAT
3. CHECK VALVE

NOTES:
1. SEE ELECTRICAL DRAWINGS FOR TIMECLOCK WIRING
2. DESIGN: 2 GPM, 7 FT. HEAD
3. SEE DETAIL 6 ON DRAWING P3.0

BACKFLOW PREVENTER SCHEDULE

TYPE	MFR.	MODEL	ASSE LISTING	SERVES	LOCATION
AG	FURN. WITH CHEM. SYS.		1055B	CHEMICAL SYSTEM	DIN. RM.–MOP SINK
AG	FURN. WITH CHEM. SYS.		1055B	CHEMICAL SYSTEM	KITCHEN–MOP SINK
AVB	FURN. WITH CHEM. SYS.		1001	CHEMICAL SYSTEM	SUPP. RM.–3–COMP
AVB	FURN. WITH FAUCET		–	MOP SINK FAUCET	SEE DRAWINGS
VB	FURN. WITH HB		1011	WALL HYDRANT	SEE DRAWINGS
DCV	FURN. WITH HB		1052	YARD HYDRANT	TRASH CORRAL
DCV	FURN. WITH HB		1052	ROOF HYDRANT	ROOF
DCV	WATTS	SD–3	1022	SODA TOWERS AND SPEC. COFFEE	
RPZ	WILKINS	2–375XLFT	1013	INCOMING WATER	SUPPORT ROOM
RPZ	WILKINS	375XL–AG	1013	FILTRATION SYSTEM	SUPPORT ROOM
PVB	WATTS	WA800M4QT–100	1020	IRRIGATION SYSTEM	IRRIGATION SYSTEM
BFP	PROVIDED BY FIRE PROTECTION CONTRACTOR				
DCV	WATTS	1 inch 007M1QT	1015	IRRIGATION SYSTEM	IRRIGATION SYSTEM

WATER HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	SIZE	HEATING		RECOV. 100°F ΔT	ELECTRICAL			
			GAL.	TYPE	MBH	GPH	VOLTS	Ø	Hz	F.L.A.
WH–1	BRADFORD–WHITE	EF–100T–199E–3N	100	GAS	199	239	120	1	60	<20
	RHEEM	GHE100SU/SS–200(A)	100			227				

ACCESSORIES:
1. CONCENTRIC VENT KIT.

NOTES:
1. MINIMUM THERMAL EFFICIENCY 97%

VALVE SCHEDULE

MANUFACTURER	MODEL	TEMP. SETTING	LISTING	SERVES
WATTS	LFMMV	110°F	ASSE 1017,1069,1070	CHEMICAL SYSTEM MIXING
CHICAGO FAUCETS	131–ABNF	85°F	ASSE 1017,1069,1070	HAND SINKS MIXING
WATTS	LFMMV	104°F	ASSE 1017,1069,1070	LAV SINKS MIXING
ZURN	ZW3870XLT	104°F		
WATTS	LFUSG–B	110°F	ASSE 1016, 1070	VEGETABLE PREP. SINK MIXING
B & G	CB–1/2	–	–	RECIRC. SYSTEM BALANCING VALVE
NIBCO	585–70–HC	–	–	CHEMICAL SYSTEM SHUT–OFF
NIBCO	S–FP–600A–LF	–	–	RESTROOM SHUT–OFF
NIBCO	S–FP–600A–LF	–	–	COMBI OVEN WATER SHUT OFF
WATTS	LFFBV–PEX	–	–	COMBI OVEN RO WATER SHUT OFF

EXPANSION TANK SCHEDULE

TAG	MANUFACTURER	MODEL	TOTAL VOL.	CONNECTION	ACCESSORIES
ET–1	AMTROL	ST–12	4.4 GAL.	¾"	–

NOTES:
1. SEE DETAIL 6 ON DRAWING P3.0

INTERCEPTOR SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	ACCESSORIES	NOTES
GI–1	EXTERIOR GREASE INTERCEPTOR	ZURN – GREEN TURTLE	PROCEPTOR MODEL GMC1300–UPC	4" INLET, 4" OUTLET	1–2,4–5

NOTES:
1. SEE GREASE INTERCEPTOR NOTES ON DRAWING P4.0
2. GREASE INTERCEPTOR IS SIZED FOR CITY SEWER APPLICATIONS ONLY. DO NOT USE FOR SEPTIC FIELDS.
3. (NOT USED)
4. SEE SITE PLAN FOR LOCATION
5. FOR ZURN PROCEPTOR ORDERING, CONTACT HUGHES SUPPLY, DIRECT LINE: (407) 244–7918, OR E–MAIL: MCDCOORD@HAJOCA.COM

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	WATER USE	ACCESSORIES/COMMENTS	
F–1	FAUCET FOR LAV–1	SLOAN	SF–2150	0.5 GPM (0.08 GAL/10 SEC CYCLE)	FAUCET OPERATION: SENSOR	
		ZURN	Z6950–XL–S–N–10S			
F–2	FAUCET FOR MS–1	ZURN	Z843M4		FAUCET OPERATION: MANUAL SEE DETAIL 2 ON DRAWING P3.0	5' VINYL HOSE WALL HOOK
FCO	6x6 FLOOR CLEAN OUT	ZURN	Z1400–SZ		SEE DRAWINGS FOR PIPE SIZES SEE NOTE 8	
		JAY R. SMITH	4040			
FD–1	6x6 FLOOR DRAIN WITH FUNNEL	ZURN	Z415–SZ1		PIPE SIZE: 3" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: ZURN Z329 SEE NOTE 8
		JAY R. SMITH	3510–F25			
FD–2	6x6 FLOOR DRAIN	ZURN	Z415–SZ1		PIPE SIZE: 3" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: NONE SEE NOTE 8
		JAY R. SMITH	2005			
FD–3	6x6 FLOOR DRAIN WITH FUNNEL	ZURN	Z415–SZ1		PIPE SIZE: 4" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: ZURN Z329 SEE NOTE 8
		JAY R. SMITH	3510–F25			
FD–4	6x6 FLOOR DRAIN	ZURN	Z415–SZ1		PIPE SIZE: 4" STRAINER SIZE: 6" NICKEL BRONZE	FUNNEL: NONE SEE NOTE 8
		JAY R. SMITH	2005			
FS–1	12x12 FLOOR SINK WITH HALF–GRATE	ZURN	ZN1901		PIPE SIZE: 3" DOME STRAINER: ALUMINUM	GRATE: HALF – NICKEL–BRONZE SEE NOTE 8
		JAY R. SMITH	3435			
FS–2	8x8 FLOOR SINK WITH HALF–GRATE	ZURN	ZN1910		PIPE SIZE: 3" DOME STRAINER: ALUMINUM	GRATE: HALF – NICKEL–BRONZE SEE NOTE 8
		JAY R. SMITH	3415			
FS–3	8x8 FLOOR SINK	ZURN	ZN1910		PIPE SIZE: 3" DOME STRAINER: ALUMINUM	GRATE: FULL – NICKEL–BRONZE SEE NOTE 8
		JAY R. SMITH	3415			
HB–1	WALL HYDRANT	WOODFORD	B65		WALL CLAMP: ADJUSTABLE WALL THICKNESS: M/S = 9½" W/W = 13¾"	SEE NOTE 3
		ZURN	Z1320–EZ			
		JAY R. SMITH	5519			
HB–2	YARD HYDRANT	WOODFORD	S4H		SEE NOTES 4 & 9	
HB–3	ROOF HYDRANT	WOODFORD	RHY2–MS		(NO DRAIN REQUIRED)	
HS–1	STAINLESS STEEL HAND SINK	TARRISON	TA–HS9DMSP		FAUCET: CHICAGO FAUCET 116.101.AB.1T	SEE NOTES 6 & 10
HS–2	STAINLESS STEEL HAND SINK – ADA	ADVANCE TABCO	7–PS–26		FAUCET: INCLUDED WITH SINK	SEE NOTES 6 & 10
HS–3	STAINLESS STEEL HAND SINK – SPACESAVER	ADVANCE TABCO	7–PS–22		FAUCET: INCLUDED WITH SINK	SEE NOTES 6 & 10
LAV–1	LAVATORY	KOHLER	K–2882–0		FAUCET: F–1 TRUEBRO LAVGUARD2 MODEL #102–E–Z CORIAN COUNTER BY G.C.	SEE NOTE 10 & 11 SEE DETAIL 3 ON P3.0
		SLOAN	SS3021			
MS–1	MOP SINK	FIELD FABRICATED	RECESSED – FLOOR (24x24x12)		FAUCET: F–2 INCLUDES HOSE, HOSE BRACKET AND TWO (2) 24"Wx36"H WALL GUARDS SEE DETAIL 2 ON P3.0	
		ADVANCE TABCO	9–OP–24FM			
TD–1	TRENCH DRAIN	ZURN	Z886–DGC		CLASS A STAINLESS STEEL MESH SCREEN GRATE. NO–HUB BOTTOM OUTLET. BOTTOM DOME STRAINER. CLOSED END CAP	
UR–1	ADA WALL–HUNG URINAL	TOTO	SU–1009	0.125 GPF	FLUSH VALVE: SLOAN SOLIS 8186 ZURN ZTR6203–ULF–LL ¾" I.P.S., 1" TOP SPUD	FLUSH VALVE OPERATION: SENSOR SEE NOTE 2
		ZURN	Z5755			
		–	–			
WB–1	WALL BOX FOR WASHING MACHINE	SIOUX CHIEF	696–2313		HAMMER ARRESTER INCLUDED WITH BOX MOUNTING HEIGHT: 12" A.F.F.	SEE NOTE 7
WB–2	WALL BOX FOR WAREWASHER	SIOUX CHIEF	687 SERIES		MOUNTING HEIGHT: 12" A.F.F.	SEE NOTE 7
WC–1	WATER CLOSET	SLOAN	ST–2009	1.28 GPF	FLUSH VALVE: SLOAN SOLIS 8111 ZURN ZTR6200EV–LL 1" I.P.S., 1½" TOP SPUD	FLUSH VALVE OPERATION: SENSOR SEAT: BEMIS MODEL 2155CT
		ZURN	Z5655			
		–	–			
WC–2	ADA WATER CLOSET	SLOAN	ST–2029 ADA	1.28 GPF	FLUSH VALVE: SLOAN SOLIS 8111 ZURN ZTR6200EV–CC–LL 1" I.P.S., 1½" TOP SPUD	FLUSH VALVE OPERATION: SENSOR SEAT: BEMIS MODEL 2155CT
		ZURN	Z5665			
		–	–			
3–COMP	SOILED DISHTABLE (3–COMPARTMENT SINK)	–	–		ITEM: 151.46	SEE NOTE 7
VS–1	VEGETABLE PREPARATION SINK	–	–		ITEM: 134.02	SEE NOTE 7
–	WAREWASHER	HOBART	AM16SVLT WITH DRAIN WATER ENERGY RECOVERY		ITEM: 152.08 WALL BOX: WB–2	SEE NOTE 7
–	WASHING MACHINE	–	–		ITEM: 223.07 WALL BOX: WB–1	SEE NOTE 7
WCO	6x6 WALL CLEAN OUT	ZURN	Z1441–VP		SEE DRAWINGS FOR PIPE SIZES	SEE NOTE 8
WHA	WATER–HAMMER ARRESTER	SIOUX CHIEF	SERIES 650		–	SEE SHEET P1.2
	ROOF DRAINS AND ACCESSORIES					
DC–1	OVERFLOW DOWNSPOUT COVER	ZURN	Z199–SS		SEE DRAWINGS FOR PIPE SIZES	SEE NOTE 8
		JAY R. SMITH	1770–BS		BIRD SCREEN	
RD–1 THRU RD–4	COMBINATION MAIN ROOF AND OVERFLOW DRAIN	ZURN	Z165		SEE DRAWINGS FOR PIPE SIZES ROOF OPENING: 30"x14"	SEE NOTE 8

NOTES:
1. SEE McDONALD'S PROJECT MANUAL FOR ADDITIONAL MANUFACTURERS
2. PLUMBING CONTRACTOR SHALL COORDINATE WITH G.C. TO PROVIDE BLOCKING FOR PROPER URINAL SUPPORT
3. PLUMBING CONTRACTOR SHALL COORDINATE WITH G.C. TO PROVIDE INTERIOR BLOCKING ON W/W BUILDING FOR WALL CLAMP
4. YARD HYDRANT IS FOR TRASH CORRAL – SEE SITE PLAN FOR LOCATION
5. PLUMBING CONTRACTOR SHALL ROUTE ¾" DRAIN PIPE FROM HOSE BIBB TO NEAREST FLOOR DRAIN OR FLOOR SINK
6. PLUMBING CONTRACTOR SHALL COORDINATE WITH G.C. TO PROVIDE BLOCKING FOR PROPER SINK SUPPORT
7. SEE KITCHEN DRAWINGS FOR ADDITIONAL INFORMATION – PLUMBING CONTRACTOR SHALL COORDINATE INSTALLATION WITH K.E.S.
8. PLUMBING CONTRACTOR SHALL SPECIFY CONNECTION MATERIAL/TYPE WHEN ORDERING
9. PLUMBING CONTRACTOR SHALL SPECIFY BURY DEPTH WHEN ORDERING
10. PLUMBING CONTRACTOR SHALL PROVIDE GRID DRAIN, P–TRAP AND VALVE STOPS FOR ALL SINKS & LAVS
11. FOR ALTERNATIVE LAVATORY OPTIONS, SUCH AS MOLDED SINKS OR DECK MOUNTED HAND DRYER, PLEASE CONTACT USRD OR HUGHES DIRECTLY.

TO ORDER PLUMBING FIXTURES, CONTACT HUGHES SUPPLY:
E–MAIL:
MCDCOORD@HUGHESSUPPLY.COM
OR MCDCOORD@HAJOCA.COM

BY	DESCRIPTION	DATE	REV
WLW	BID SET	12/06/24	1
WLW	PERMIT SET	02/26/25	2

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consulting engineers
Emanuelson-Podas, Inc.
705 Bush Lake Road
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(952) 930-0050 | www.epinc.com

3801.0075

STATE OF MISSOURI
MICHAEL WEBERT
NUMBER PE-2004000077
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:

PREPARED FOR:
McDonald's USA, LLC

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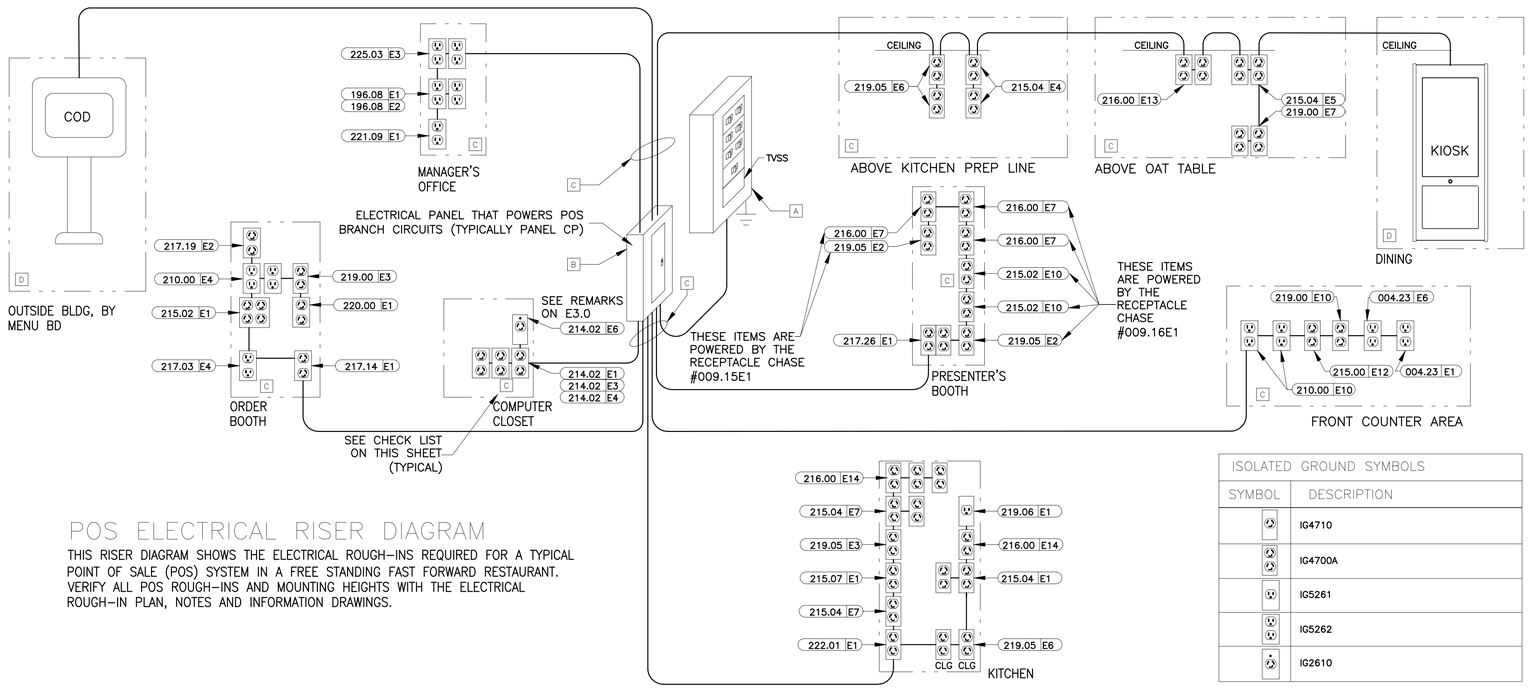
DRAWN BY	REVIEWED BY
DMS/HB	WLW
STD ISSUE DATE 2024 05	DATE ISSUED 02 26 2025

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./MATTEN/BRICK EXTERIOR FINISH	
MSN: 43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
J/C: 024–1306	R# 24247

SHEET NO. P4.1
SCHEDULES
024–1306.00.0

THE PURPOSE OF THIS SHEET IS TO PROVIDE A CHECKLIST AND VISUAL GUIDE SO THE INSTALLING EC CAN VERIFY THE WORK IS IN COMPLIANCE WITH MCDONALD'S SPECIFICATIONS THAT ARE CRITICAL TO THE PROPER FUNCTIONING OF OUR POINT OF SALE (POS) COMPUTER SYSTEMS.



POS ELECTRICAL RISER DIAGRAM

THIS RISER DIAGRAM SHOWS THE ELECTRICAL ROUGH-INS REQUIRED FOR A TYPICAL POINT OF SALE (POS) SYSTEM IN A FREE STANDING FAST FORWARD RESTAURANT. VERIFY ALL POS ROUGH-INS AND MOUNTING HEIGHTS WITH THE ELECTRICAL ROUGH-IN PLAN, NOTES AND INFORMATION DRAWINGS.

ISOLATED GROUND SYMBOLS	
SYMBOL	DESCRIPTION
	IG4710
	IG4700A
	IG5261
	IG5262
	IG2610

LOW VOLTAGE CABLE MANAGEMENT SPECIFICATION

GENERAL/MATERIALS

1. THE GC OR EC SHALL FURNISH AND INSTALL A COMPLETE LOW VOLTAGE CABLE MANAGEMENT SYSTEM UTILIZING CADDY-ERICO TYPE CAT-32 J-HOOK SUPPORTS (2-INCH DIAMETER LOOP MINIMUM). ALL J-HOOKS SHALL;
   - HAVE A MINIMUM BEARING SURFACE OF 1⅜",
   - HAVE FLARED EDGES TO PREVENT DAMAGE TO HIGH PERFORMANCE CABLES,
   - HAVE AN ELECTRO-GALVANIZED FINISH,
   - HAVE 3/8" WIDE CABLE RETAINING STRAPS,
   - BE UL LISTED AND LABELED,
   - BEAR THE UL SYMBOL MARKING ON THE PART FOR IDENTIFICATION
   - BE INSTALLED PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. THE ENTIRE INSTALLATION SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), NEC SECTION 800, BICSI STANDARDS 568 & 569, ALL APPLICABLE NATIONAL, STATE, LOCAL, AND SAFETY CODES, AND McDONALD'S SPECIFICATIONS.

INSTALLATION

1. LOW VOLTAGE J-HOOK CABLE PATHWAY (FOR POS CABLING SYSTEM) SHALL BE PROVIDED FROM THE MANAGERS OFFICE (OR COMPUTER CLOSET) DATA CONDUIT STUB-UP LOCATION TO THE FOLLOWING DATA CONDUIT STUB-UP LOCATIONS (AS APPLICABLE):
   - FRONT COUNTER.
   - PRESENTERS BOOTH.
   - CASHIERS BOOTH.
   - THIRD DRIVE-THRU WINDOW(IF PRESENT).
   - CREW ROOM.
   - VALENCE WALL.
   - REMOTE ORDERING STATIONS.
   - NETPOP TELEPHONE PANEL LOCATION.
   - KIOSK
   - DIGITAL MERCHANDISER

   CABLE SUPPORTS SHALL BE PROVIDED WITHIN 24 INCHES OF THESE STUB-UP LOCATIONS. ALL STUB-UP CONDUITS SHALL BE PROVIDED WITH AN INSULATED BUSHING TO PROTECT CABLES DURING INSTALLATION.
2. THE LOCATION AND ROUTING OF THE LOW VOLTAGE CABLE MANAGEMENT SYSTEM SHALL BE COORDINATED WITH ALL OTHER CONSTRUCTION TRADES PRIOR TO INSTALLATION TO AVOID CONFLICTS WITH THE OTHER TRADES FINAL INSTALLATIONS, BOTH BEFORE AND AFTER THE CABLE MANAGEMENT SYSTEM AND THE POS CABLING ARE INSTALLED. FINAL INSTALLATION LOCATION SHALL BE READILY ACCESSIBLE TO ALLOW FOR EASE IN INSTALLATION OF THE POS CABLING BY THE POS VENDOR'S INSTALLER.
3. LOW VOLTAGE J-HOOK CABLE SUPPORTS AND APPURTENANCES SHALL BE FASTENED TO THE BUILDING STRUCTURAL AND/OR FRAMING MEMBERS. LOW VOLTAGE J-HOOK CABLE SUPPORTS SHALL NOT BE FASTENED OR UTILIZE THE CEILING GRID SUSPENSION WIRES OR T-BAR GRID FOR INSTALLATION. CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACKETS, HANGERS, RODS, CLAMPS, FLANGES, SUPPORTS, ETC. FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM. THE INSTALLATION OF THE LOW-VOLTAGE CABLE MANAGEMENT SYSTEM SHALL BE DONE SO THAT THE ROUTING OF THE CABLES IS PARALLEL TO AND/OR PERPENDICULAR TO FRAMING AND STRUCTURAL BUILDING MEMBERS.
4. LOW VOLTAGE J-HOOK **CABLE SUPPORTS** SHALL BE INSTALLED A MAXIMUM OF 36 INCHES APART. AT TRANSITION LOCATIONS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL J-HOOKS TO ALLOW FOR A MINIMUM ONE-FOOT RADIUS BEND AND FOR ADDITIONAL CABLE SUPPORT AT THESE TRANSITION POINTS.
5. TO AVOID **ELECTROMAGNETIC INTERFERENCE** (EMI), ALL PATHWAYS SHALL PROVIDE A MINIMUM CLEARANCE OF 4 FEET (1.2 METERS) FROM MOTORS AND TRANSFORMERS AND A MINIMUM CLEARANCE OF 1 FOOT (0.3 METERS) FROM CONDUIT AND CABLES UTILIZED FOR ELECTRICAL POWER DISTRIBUTION, AND OTHER NON-POS LOW VOLTAGE CONDUCTORS.
6. ANY **CEILING TILES** IN THE AREA WHERE THE LOW-VOLTAGE CABLE MANAGEMENT SYSTEM IS LOCATED SHALL NOT BE INSTALLED UNTIL THE POS VENDOR'S CONTRACTOR COMPLETES THE INSTALLATION OF ALL POS CABLING.
7. ALL NON-POS LOW VOLTAGE CABLING SHALL BE INSTALLED IN A SEPARATE CABLE MANAGEMENT SYSTEM INDEPENDENT OF THE LOW-VOLTAGE CABLE MANAGEMENT SYSTEM UTILIZED FOR THE POS CABLING.
8. THE POS INSTALLER SHALL BE RESPONSIBLE TO FURNISH AND INSTALL ALL LOW VOLTAGE CABLING REQUIRED FOR THE COMPLETE AND FULLY FUNCTIONAL OPERATION OF THE POS SYSTEM. ALL POS CABLING SHALL BE INSTALLED WITHIN THE LOW-VOLTAGE CABLE MANAGEMENT SYSTEM.
9. GENERAL CONTRACTOR TO COORDINATE WITH POS INSTALLER. INSTALLER TO PERFORM POS CABLE INSTALLATION PRIOR TO CLOSING OF WALLS AND CEILING.

ELECTRICAL POS CERTIFICATION

AS OF THE DATE BELOW, I HEREBY CERTIFY THAT ALL ELECTRICAL WORK, ELECTRICAL SERVICE AND ELECTRICAL SYSTEMS, MATERIALS AND LABOR RELATED TO THE POS ELECTRICAL INSTALLATION IN WHICH THE UNDERSIGNED ARE DIRECTLY OR INDIRECTLY RESPONSIBLE HAVE BEEN PROPERLY INSTALLED IN FULL COMPLIANCE WITH ALL CONSTRUCTION DOCUMENTS AND ALL NFPA, BUILDING, ELECTRICAL AND OTHER APPLICABLE CODES, ALONG WITH ALL OF THE REQUIREMENTS OUTLINED ON THIS DRAWING. I FURTHER CERTIFY THAT THE ELECTRIC SERVICE POWERING THE POS SYSTEM HAS BEEN PROPERLY INSTALLED BY A QUALIFIED ELECTRICIAN. SKILLED, KNOWLEDGEABLE AND TRAINED TO INSTALL ALL THE REQUIRED ELECTRICAL DISTRIBUTION COMPONENTS NECESSARY TO POWER THE POINT OF SALE (POS) SYSTEM.

GENERAL CONTRACTOR: _____

BY: _____

DATE: _____

ELECTRICAL CONTRACTOR: _____

BY: _____

DATE: _____

IF YOU HAVE ANY QUESTIONS REGARDING THE PLANS, PLEASE CALL THE DESIGNER.

DESIGNER: Wendy Wenborg
PHONE: 952-540-4047
EMAIL: wwenborg@epinc.com

START HERE

A VISUALLY INSPECT THE MAIN ELECTRICAL PANEL (MDP)

YES	NO	N/A		
☐	☐	☐	1.	IS AN **EQUIPMENT GROUND BAR** INSTALLED SUCH THAT IT IS ELECTRICALLY **CONNECTED** TO THE PANEL?
☐	☐	☐	2.	DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR?
☐	☐	☐	3.	DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR?
☐	☐	☐	4.	DOES THE ISOLATED GROUND CONDUCTOR (GREEN W/YELLOW STRIPE) TERMINATE ON THE EQUIPMENT GROUND BAR?
☐	☐	☐	5.	IS THERE AN APPROPRIATE ELECTRICAL CONNECTION (BOND) BETWEEN THE NEUTRAL BAR AND THE EQUIPMENT GROUND BAR?
☐	☐	☐	6.	DOES THE GROUNDING SYSTEM COMPLY WITH MCDONALD'S "BUILDING ELECTRICAL GROUNDING DETAIL"?
☐	☐	☐	7.	IS A SURGE PROTECTOR INSTALLED THAT COMPLIES WITH MCDONALD'S "TVSS INSTALLATION GUIDE" OR DETAIL?
☐	☐	☐	8.	ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED?
☐	☐	☐	9.	ARE ALL CIRCUIT BREAKERS CLEARLY LABELED?

B VISUALLY INSPECT THE PANEL "CP" THAT POWERS POS

YES	NO	N/A		
☐	☐	☐	1.	IS AN **EQUIPMENT GROUND BAR** INSTALLED SUCH THAT IT IS ELECTRICALLY **CONNECTED** TO THE PANEL?
☐	☐	☐	2.	IS AN **ISOLATED GROUND BAR** INSTALLED SUCH THAT IT IS ELECTRICALLY **INSULATED** FROM THE PANEL?
☐	☐	☐	3.	DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR?
☐	☐	☐	4.	DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR?
☐	☐	☐	5.	DO ALL ISOLATED GROUND CONDUCTORS (GREEN W/YELLOW STRIPE) TERMINATE ONLY TO THE ISOLATED GROUND BAR?
☐	☐	☐	6.	ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED?
☐	☐	☐	7.	ARE ALL POS AND COD CIRCUIT BREAKERS ON THE SAME PANEL?
☐	☐	☐	8.	ARE ALL CIRCUIT BREAKERS CLEARLY LABELED?
☐	☐	☐	9.	DO ALL POS & COD CIRCUIT BREAKERS HAVE A LOCKING MECHANISM ON THEIR HANDLES TO PREVENT THEM FROM BEING SHUT OFF BY MISTAKE?
☐	☐	☐	10.	DOES THE FEEDER CIRCUIT FOR THIS SUBPANEL CONTAIN PHASE, NEUTRAL ONE EQUIPMENT GROUND AND ONE ISOLATED GROUND CONDUCTORS THAT ARE PROPERLY TERMINATED (SEE POS & COD ISO GND/DED CKT DETAIL)?

VISUALLY INSPECT ALL REMAINING ELECTRICAL SUBPANELS

YES	NO	N/A		
☐	☐	☐	1.	IS AN **EQUIPMENT GROUND BAR** INSTALLED SUCH THAT IT IS ELECTRICALLY **CONNECTED** TO THE PANEL?
☐	☐	☐	2.	DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR?
☐	☐	☐	3.	DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR?
☐	☐	☐	4.	ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED?
☐	☐	☐	5.	ARE ALL CIRCUIT BREAKERS CLEARLY LABELED?
☐	☐	☐	6.	DOES THE FEEDER CIRCUIT FOR THIS SUBPANEL CONTAIN PHASE, NEUTRAL AND ONE EQUIPMENT GROUND CONDUCTORS THAT ARE PROPERLY TERMINATED? (SEE BUILDING ELECTRICAL GROUNDING DETAIL)

C VISUALLY INSPECT THE POS BRANCH CIRCUITS

YES	NO	N/A		
☐	☐	☐	1.	ARE THE POS BRANCH CIRCUITS ROUTED IN THEIR OWN CONDUIT BY THEMSELVES?
☐	☐	☐	2.	IF THE POS BRANCH CIRCUIT IS ROUTED ABOVE GRADE, IS IT IN A METALLIC CONDUIT?
☐	☐	☐	3.	DOES EACH POS BRANCH CIRCUIT CONTAIN: ONE PHASE (BLACK COLORED INSULATION) ONE NEUTRAL (WHITE COLORED INSULATION) ONE EQUIPMENT GROUND (GREEN COLORED INSULATION) ONE ISOLATED GROUND (GREEN W/YELLOW STRIPE COLORED INSULATION).
☐	☐	☐	4.	DO ALL POS BRANCH CIRCUITS TERMINATE AT EITHER AN IG4700, IG4710, IG5261, IG5262 RECEPTACLES OR ANY COMBINATION OF THESE?
☐	☐	☐	5.	ARE ALL ELECTRICAL TERMINATIONS TO IG RECEPTACLES MADE WITH SOLID #12 AWG WIRE CAPTURED AROUND THE SCREW BARREL AND SUITABLY TIGHTENED?
☐	☐	☐	6.	ARE ALL BRANCH CIRCUIT CONNECTIONS PROPERLY TIGHTENED?
☐	☐	☐	7.	ARE THE CORRECT AMOUNT AND TYPE OF IG RECEPTACLES PROVIDED AS SHOWN IN THE ELECTRICAL ROUGH-IN PLAN, NOTES AND INFORMATION?
☐	☐	☐	8.	DO ALL POS RECEPTACLES HAVE ORANGE "COMPUTER ONLY" COVERPLATES?
☐	☐	☐	9.	DO ALL POS BRANCH CIRCUITS COMPLY WITH THE "POS & COD ISOLATED GROUND/DEDICATED CIRCUIT DETAIL?

D VISUALLY INSPECT THE POS BRANCH CIRCUIT FOR THE COD & KIOSK

YES	NO	N/A		
☐	☐	☐	1.	ARE THE COD AND KIOSK BRANCH CIRCUITS ROUTED IN THEIR OWN CONDUIT BY THEMSELVES?
☐	☐	☐	2.	DOES EACH COD AND KIOSK BRANCH CIRCUIT CONTAIN; - ONE PHASE (BLACK COLORED INSULATION), - ONE NEUTRAL (WHITE COLORED INSULATION), - ONE EQUIPMENT GROUND (GREEN COLORED INSULATION), - ONE ISOLATED GROUND (GREEN W/YELLOW STRIPE COLORED INSULATION).
☐	☐	☐	3.	ARE THE COD(S) AND KIOSK(S) POWERED FROM THE SAME PANEL AS THE POS?
☐	☐	☐	4.	DO THE BREAKERS FOR THE COD(S) AND KIOSK(S) HAVE A LOCKING MECHANISM ON THEIR HANDLES THAT WILL PREVENT IT FROM BEING SHUT OFF?
☐	☐	☐	5.	DO THE COD BRANCH CIRCUIT(S) COMPLY WITH THE "POS & COD ISOLATED GROUND/DEDICATED CIRCUIT DETAIL?

ARE **ALL** BOXES CHECKED "YES"?

NO

REWORK ELECTRICAL SYSTEM TO BRING INTO COMPLIANCE WITH MCDONALD'S SPECIFICATIONS

YES

ALL WORK IS NOT CONSIDERED TO MEET MCDONALD'S SPECIFICATIONS UNTIL THE INSTALLED ELECTRICAL SYSTEM SUPPORTS A "YES" ANSWER FOR ALL QUESTIONS ASKED.

AS PART OF THIS PROCESS, THE EC AND THE GC WILL BE REQUIRED TO SIGN THE ELECTRICAL CERTIFICATION DOCUMENT INDICATING THAT THE INSTALLED ELECTRICAL SYSTEM MEETS MCDONALD'S SPECIFICATIONS.

NOTICE:

CHANGES SHALL NOT BE MADE TO THE POS ELECTRICAL SYSTEM AFTER THE POS EQUIPMENT HAS BEEN INSTALLED WITHOUT FIRST NOTIFYING THE POS VENDOR.

IF CHANGES ARE MADE TO THE POS ELECTRICAL SYSTEM **AFTER** THE CERTIFICATION PROCESS HAS BEEN COMPLETED, THEN A SYSTEM RE-CERTIFICATION SHALL BE REQUIRED.

FINISHED

REV	DATE	DESCRIPTION	BY
.	.	.	.
.	.	.	.
.	.	.	.
.	02/26/25	PERMIT SET	WLW
.	12/06/24	BID SET	WLW

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MATTHEW FULTS — STATE OF MISSOURI — NUMBER PE-2004008366 — PROFESSIONAL ENGINEER

02/26/25

PREPARED BY:

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PREPARED FOR: McDonald's USA, LLC

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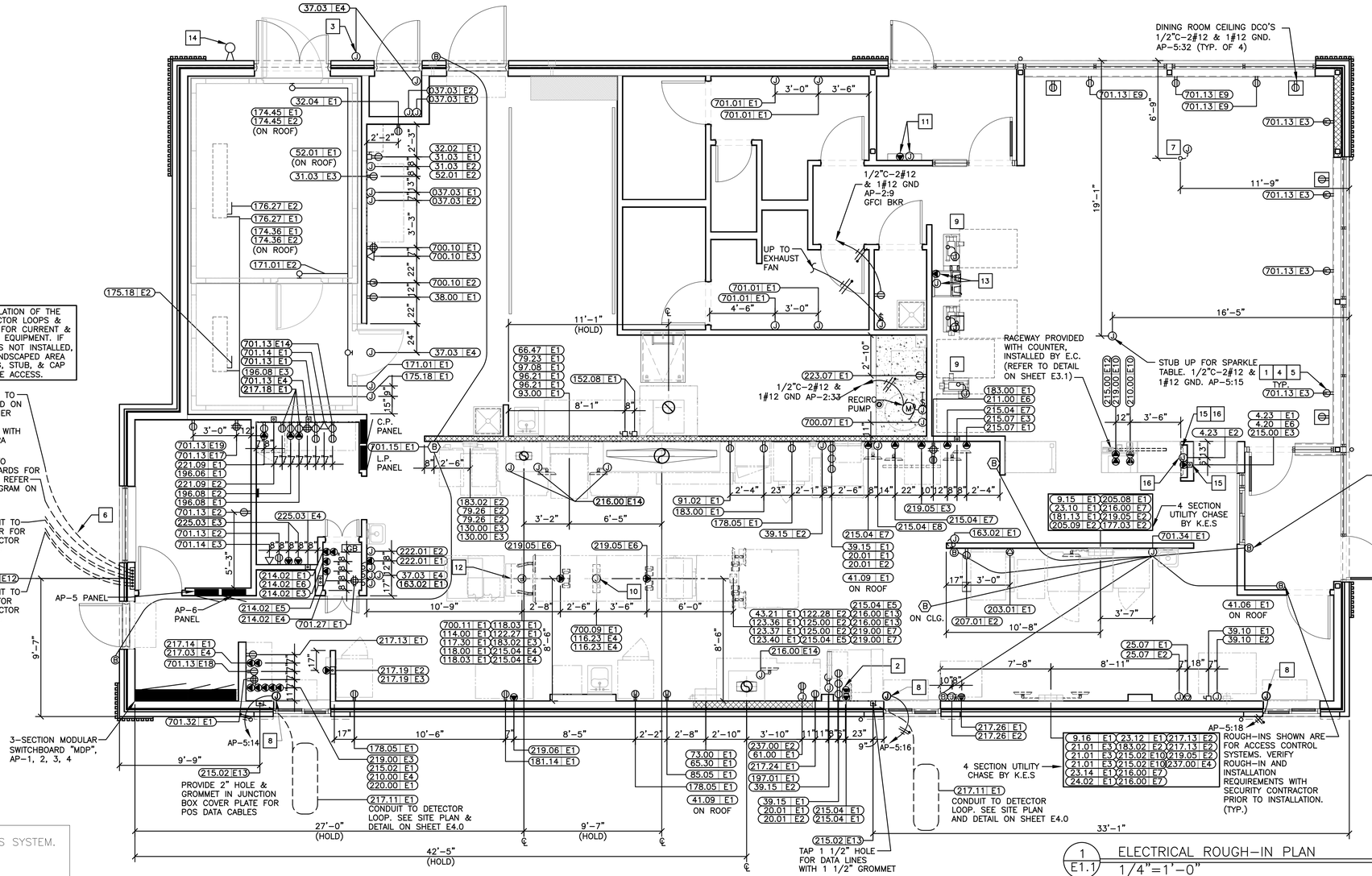
DRAWN BY	REVIEWED BY	DATE ISSUED	R#
MJW	WLW	02 26 2025	24247
STD ISSUE DATE 2024 05			

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION	SITE ADDRESS
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	8712 N. Indiana Avenue, Kansas City, MO 64156
WOOD TRUSS ROOF FRAMING	
E.I.F.S./PATTERN/BRICK EXTERIOR FINISH	
MSN: 43016	
J/C: 024-1306	

SHEET NO. E1.0
024-1306.00.0
POS RISER DIAGRAM

TRASH CORRAL POWER:
3/4"C-4#10 & 1#10 GND TO A 30A-2P AND A 20A-1P CB IN PANEL AP-2 FOR TRASH COMPACTOR AND WP GFCI DCO. PROVIDE 30A-2P NF DISCONNECT FOR TRASH COMPACTOR. VERIFY EXACT LOCATION AND ALL REQUIREMENTS OF TRASH CORRAL IN FIELD.



1 E1.1 ELECTRICAL ROUGH-IN PLAN
1/4"=1'-0"

THE LATE NIGHT WINDOW AND DOOR ACCESS SYSTEM.
3 EACH PUSH BUTTON 621-BK-DA HDP 626 SCHLAGE
1 EACH PUSH BUTTON 621-RD-DA HDP 626 SCHLAGE
1 EACH HORN WITH STROBE 1910S SCHLAGE
REFER TO ARCH DOOR SCHEDULE FOR MORE INFORMATION

SYMBOLS AND ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
$	SINGLE POLE SWITCH, 3W=THREE WAY SWITCH, K=KEYED SWITCHED, VS=VACANCY SENSOR	(B)	BUZZER
$T	MANUAL SWITCH (T=THERMAL OVERLOADS)	(B)	BUTTON FOR BUZZER
T	TRANSFORMER		PULLBOX
	JB WITH DUPLEX CONVENIENCE OUTLET (FLUSH WITH CEILING)		PANELBOARD
	JB WITH SINGLE CONVENIENCE OUTLET		CIRCUIT BREAKER
	JB WITH DUPLEX CONVENIENCE OUTLET	A	AMPERES
	JB WITH TWO DUPLEX CONVENIENCE OUTLETS	ACM	AREA CONSTRUCTION MANAGER
	JB WITH SPECIAL PURPOSE OUTLET	AFF	ABOVE FINISHED FLOOR
	JB WITH ISOLATED GROUND OUTLET =IG4710, =IG5261, =IG4700A, =IG5262	C	CONDUIT
		CCT	CIRCUIT
	INTERCOM STATION W/ 3/4"C- TO MAIN STATION	EC	ELECTRICAL CONTRACTOR
	TELEPHONE JACK	GC	GENERAL CONTRACTOR
J	JUNCTION BOX - WALL OR CEILING MOUNTED	GFI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER
	DISCONNECT SWITCH	GND	GROUND
S	STUB UP THRU ROOF	IG	ISOLATED GROUND
T	THERMOSTAT SENSOR W/ 1/2"C- UP TO CEILING SPACE	JB	JUNCTION BOX
M	MOTOR CONNECTION	KES	KITCHEN EQUIPMENT SUPPLIER
	CONDUIT RUN CONCEALED IN CEILING OR WALLS	MLO	MAIN LUGS ONLY
	CONDUIT RUN IN FLOOR SLAB	WP	WEATHERPROOF
X	HOT (SHORT), NEUTRAL (LONG), EQUIP GRD (LONG WITH DOT), & 'X' DENOTES ISOLATED GRD	CO	CARBON MONOXIDE SENSOR
	J-BOX WITH FINAL EQUIPMENT CONNECTION	GB	GROUND BUS TERMINAL
OS	CEILING MOUNTED OCCUPANCY SENSOR	DS	DAYLIGHT SENSOR

ADT ROUGH-IN NOTES

1. COORDINATE EXACT INSTALLATION REQUIREMENTS WITH ADT PRIOR TO INSTALLATION TEL. 800-417-8238
2. EC SHALL PROVIDE A 2 GANG 3 23/32" X 3 23/32" X 3 1/2"D JUNCTION BOX AT DOOR FOR INSTALLATION OF DOOR ALARM UNIT. STUB 1/2"C ABOVE CEILING FROM JUNCTION BOX. PROVIDE 1/2"C FROM J-BOX TO DOOR MAGNETIC SWITCH LOCATION.
3. EC SHALL PROVIDE 4" X 4" JUNCTION BOX ABOVE CEILING FOR INSTALLATION OF LOW VOLTAGE TRANSFORMER. VERIFY EXACT LOCATION WITH ADT PRIOR TO INSTALLATION. PROVIDE 1/2"C-2#12 TO LOCKOUT TYPE CB IN PANEL LP-1.

GENERAL NOTES

1. SEE SHEET E3.0 FOR PANEL & CIRCUIT BREAKER ASSIGNMENT, VOLT/PH, FLA, BREAKER SIZE, COND/WIRE, RECEPTACLE TYPE, HEIGHT ABOVE FINISHED FLOOR, REQUIREMENTS & REMARKS FOR ALL ELECTRICAL EQUIPMENT.
2. SEE LOW VOLTAGE CABLE MANAGEMENT SPECIFICATION ON SHEET E1.0 FOR POS, DATA, AND SOUND SYSTEM REQUIREMENTS.
3. GC/EC SHALL COORDINATE LOCATION AND ALL REQUIREMENTS OF CT& METER CABINET WITH LOCAL UTILITY COMPANY. CT & METER CABINET SHALL NOT BE INSTALLED ON D/T SIDE OF BUILDING. GC SHALL PAINT TO MATCH BUILDING COLOR.

KEY NOTES

1 TAMPER RESISTANT GFCI DUPLEX RECEPTACLE IN PUBLIC AREAS. EC SHALL PROVIDE HUBBELL GFTRST* ("*": AL=ALMOND, BK=BLACK, -=BROWN, GY=GRAY, I=IVORY, LA=LIGHT ALMOND, R=RED, W=WHITE). SPECIFIED RECEPTACLE BECOMES DE-ENERGIZED UPON FAILURE OF GFCI DEVICE. NO SUBSTITUTIONS.(TYPICAL)

2 SEE POS ELECTRICAL RISER DIAGRAM ON SHEET E1.0. (TYPICAL)

KEY NOTES

3 EC TO FURNISH AND INSTALL A FLUSH MOUNTED JUNCTION BOX WITH WEATHERPROOF GASKET AND OUTDOOR WEATHERPROOF, 24 VOLT CO2 HORN/STROBE UNIT COMPATIBLE WITH CO2 ALARM SYSTEM - EDWARDS GENESIS WGAVRN OR APPROVED EQUAL. STROBE SHALL HAVE AN AMBER COVER AND MEET ALL LOCAL REGULATORY REQUIREMENTS FOR SPECIFICATIONS AND INSTALLATION. PROVIDE A 3/4" CONDUIT STUB-IN INTO BUILDING WITH THERMOPLASTIC BUSHING FROM WEATHERPROOF BACKBOX. PROVIDE FINAL WIRING TERMINATIONS AT HORN/STROBE UNIT AND THEN PROVIDE 36 INCHES OF PIGTAIL WIRING FROM HORN/STROBE INTO THE BUILDING AND NEATLY COIL FOR FINAL CONNECTION. FINAL WIRING CONNECTION FROM OUTDOOR HORN/STROBE PIGTAILS TO THE CO2 ALARM SYSTEM INSTALLATION TO BE PROVIDED BY BEVERAGE INSTALLER.

4 PER THE AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG), A MINIMUM OF ONE (1) ADA COMPLIANT ELECTRICAL RECEPTACLE SHALL BE INSTALLED AT AN ACCESSIBLE TABLE. GC/EC SHALL REFERENCE FINAL DECOR PLANS AND PROVIDE RECEPTACLES AS NECESSARY FOR COMPLIANCE. (TYPICAL)

5 COORDINATE LOCATION OF RECEPTACLES SO THAT RECEPTACLES ARE LOCATED ON FULL HEIGHT WALLS PER THE DECOR PLAN. STUB UP AND CIRCUIT IN HALF WALL FOR RECEPTACLES NOT ON FULL HEIGHT WALLS, CONFIRM FINAL LOCATIONS WITH DECOR DRAWINGS PRIOR TO ROUGH-IN.

6 IF MOUNTED TO A LIGHTING POLE, DT CAMERA SHALL ONLY BE INSTALLED ON A POLE WITH MAXIMUM OF (2) LIGHTING HEADS. PROVIDE ISOLATION OF DT CAMERA MOUNTING HARDWARE AND POLE TO PREVENT BI-METALLIC OR GALVANIC CORROSION.

7 E.C. TO PROVIDE AN ALLOWANCE IN BID TO PROVIDE TWO(2) FLEXIBLE POWER CONNECTIONS FOR POWER TO FURNITURE/ FAMILY EXPERIENCE ELEMENTS AS PART OF THE DECOR PACKAGE. E.C. SHALL VERIFY EXACT LOCATIONS IN FIELD AND WITH DECOR DRAWINGS. PROVIDE ALL NECESSARY MATERIALS AND LABOR FOR A COMPLETE AND FULLY NEC CODE COMPLIANT INSTALLATION. ALL COMPONENTS SHALL BE FED FROM A GFCI TYPE CIRCUIT BREAKER AND BRANCH CIRCUIT SHALL CONTAIN TWO PATHS OF GROUNDING (CONDUIT BODY AND AN INSULATED GROUNDING CONDUCTOR) TO COMPLY WITH McDONALD'S GROUNDING STANDARDS.

8 DRIVE THRU WINDOW POWER, CONFIRM REQUIREMENTS WITH MANUFACTURER DRAWINGS.

9 PROVIDE POWER FOR CONNECTION TO SELF ORDER KIOSKS. COORDINATE EXACT LOCATION OF KIOSKS WITH DECOR DRAWINGS. PROVIDE 2#12, 1#12 GRD., & 1#12 ISOLATED GROUND ON A 20A DEDICATED CIRCUIT FED FROM THE CP PANEL FOR EVERY KIOSK.

10 VERIFY DROP CORDS AND RECEPTACLES DO NOT FALL BELOW HEIGHTS LISTED ON E3.0 ELECTRICAL SCHEDULE. RECEPTACLES SHOULD BE LOCATED AT HEIGHTS TO AVOID CONTACT WITH HOT APPLIANCES.

11 PROVIDE POWER AND DATA ROUGH-INS FOR DIGITAL MERCHANDISER. EXTEND CIRCUIT TO THIS LOCATION FROM FRONT COUNTER MERCHANDISER IN SERVICE AREA. EXTEND J-HOOKS FROM SERVICE AREA FOR DATA CABLES. REFER TO 3/E3.1.

12 EC TO INSTALL DROP CORDS JUSTIFIED TO THE DRIVE THRU SIDE OF THE BUILDING

13 PROVIDE POWER AND DATA ROUGH-INS FOR CASH HANDLERS REFER TO 4/E3.1 FOR MORE INFORMATION. COORDINATE EXACT LOCATION WITH DECOR DRAWINGS.

14 AT&T TO PROVIDE #8 GRD CONDUCTOR FROM BUILDING EXTERIOR WIRELESS ACCESS POINT TO ABOVE INTERIOR CEILING. EC TO EXEND CONDUCTOR TO BUILDING GROUNDING SYSTEM. COORDINATE EXACT LOCATION OF ACCESS POINT IN FIELD WITH AT&T.

15 CONTRACTOR TO PUNCH HOLES IN SERVICE POD FOR CABLE AND CONDUIT ROUTING. UTILIZE BUSHINGS PROVIDE WITH SERVICE POD TO PROTECT CABLES

16 REFER TO DETAIL ON A3.1 FOR DIMENSIONS OF DIGITAL MERCHANDISER ROUGH-INS.

REV	DATE	DESCRIPTION	BY
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STATE OF MISSOURI
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NUMBER PE-2004008366
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:

PREPARED FOR:
McDonald's USA, LLC

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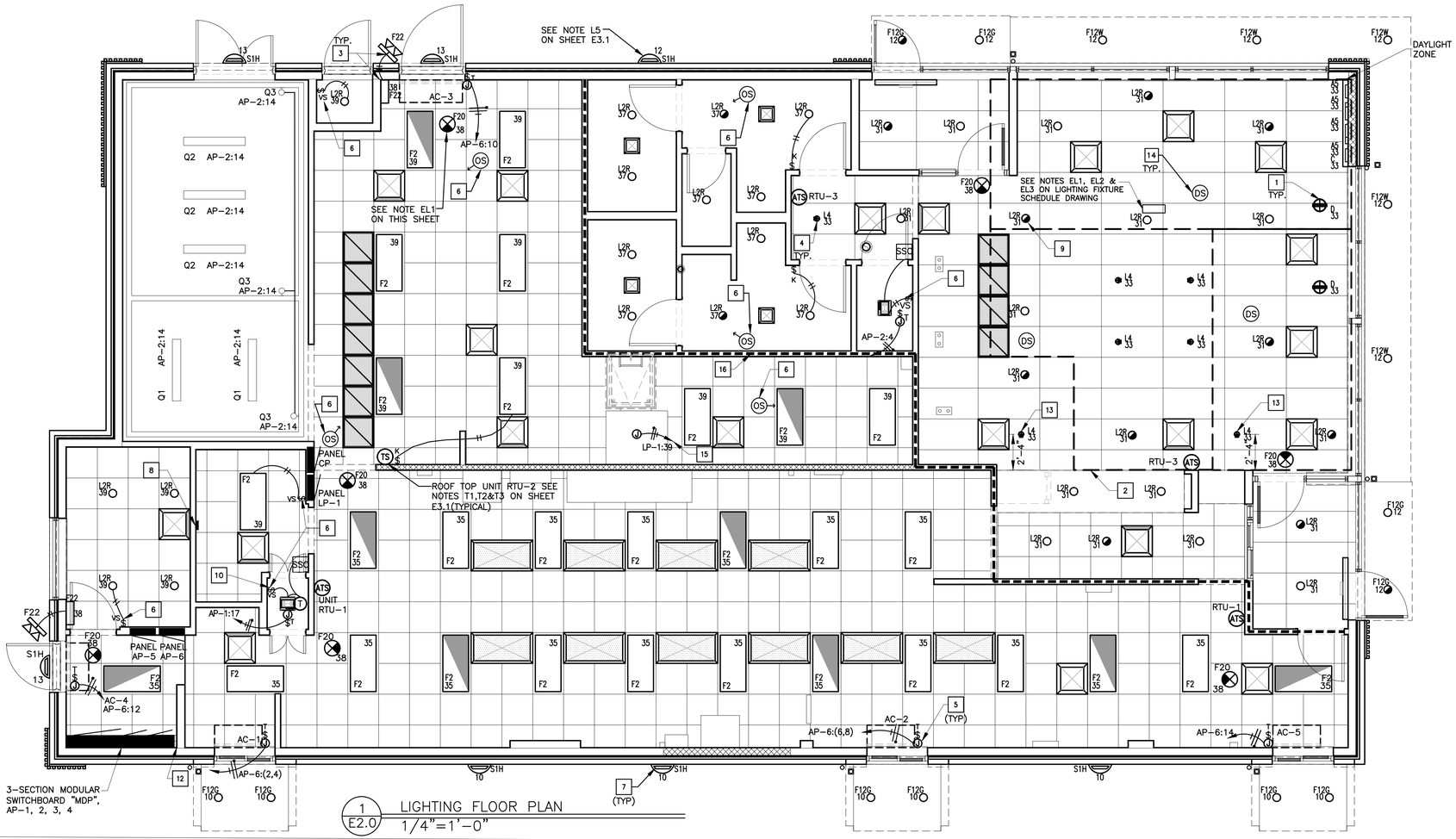
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MJW	WLW	02 26 2025
STD. ISSUE DATE 2024 05		

RQ# 24247

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION	WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
	WOOD TRUSS ROOF FRAMING
	E.I.F.S./PATTERN/BRICK EXTERIOR FINISH
MSN: 43016	SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
I/C: 024-1306	

SHEET NO. E1.1
024-1306.00.0
ROUGH-IN PLAN



1 E2.0 LIGHTING FLOOR PLAN
1/4"=1'-0"

KEY

DENOTES FIXTURE TYPE — F2
DENOTES CIRCUIT NUMBER — 41

LIGHTING FIXTURES SHOWN WITH ARROW DENOTES GENERAL DIRECTION TO AIM ADJUSTABLE FIXTURES. VERIFY IN FIELD.

LIGHTING FIXTURES SHOWN HALF HATCHED SHALL BE WIRED TO AN EMERGENCY INVERTER AND CIRCUITED AS SWITCHED EMERGENCY FIXTURES SO THE FIXTURE IS CONTROLLED VIA TIMECLOCK BUT TURNS ON UPON LOSS OF POWER. SEE NOTE EL3 ON THIS SHEET. COORDINATE LOCATION WITH DECOR.

KEY NOTES

1. CENTER PENDANT LIGHTS OVER TABLES (TYPICAL)
2. ALL SOFFIT LOCATIONS, LIGHTING, & SUPPLY GRILLS SHALL BE COORDINATED WITH DECOR COMPANY DRAWING PRIOR TO INSTALLATION.
3. EC SHALL INSTALL AND CONFIGURE REMOTE EMERGENCY LIGHTING AT ALL EGRESS EXTERIOR DOORS FOR MAXIMUM ILLUMINATION AT POINTS OF EGRESS. INSTALL WP J-BOX WITHIN SOFFIT TO ALLOW A FLUSH INSTALLATION OF ANY EXTERIOR EMERGENCY EGRESS LIGHTING (TYPICAL).
4. OPTIONAL ADJUSTABLE WALL WASH FIXTURE TO ILLUMINATE LOGO OR GRAPHICS. EC SHALL VERIFY EXACT LOCATION SO AS TO ADEQUATELY ILLUMINATE McDONALD'S ARCH LOGO SIGN AND GRAPHICS.
5. AIR CURTAIN UNIT. NON HEATED VERSION TO USE 1/2"C. 2#12, 1#12GRD. HEATED VERSION TO USE 1"C. 2#6, 1#10 GRD. (TYPICAL).
6. PROVIDE DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR OR WALL MOUNTED VACANCY SENSOR AS SHOWN. ORDER ALL SENSORS FROM SECURITY LIGHTING SYSTEMS, INC.
7. RADIAL WALL SCONCE. SEE NOTE L2 ON SHEET E3.1 AND ARCHITECTURAL ELEVATIONS ON SHEETS A2.0 & A2.1. (TYPICAL)
8. BUILDING AUTOMATION SYSTEM LOCATION. SEE LIGHTING CONTROL DETAILS ON SHEET E4.1.
9. PROVIDE LIGHTING INVERTER FOR USE WITH FIXTURES SHOWN SHADED OR SLASHED. MODEL #LG125T SHOULD BE USED FOR L2R, L4 & F12G WITH NOT MORE THAN SEVEN DOWNLIGHTS CONNECTED TO EACH INVERTER. AND NOT MORE THAN TWO F2 FIXTURES. IF DECOR USES ALTERNATE FIXTURES, COORDINATE INVERTER TO BE USED WITH LIGHTING SUPPLIER. E.C. SHALL VERIFY THE QUANTITY OF FIXTURES THAT CAN BE CONNECTED WITHOUT EXCEEDING OPERATING CAPACITY OF UNIT AND PROVIDE ADDITIONAL CIRCUITS AND INVERTERS AS REQUIRED. (TYPICAL)
10. CENTER VACANCY SENSOR SWITCH OPPOSITE COMPUTER RACK IN A LOCATION ACCESSIBLE FROM BOTH DOORS FOR CONTROL OF CEILING MOUNTED LIGHT, IN DATA ROOM. FAN CONTROLLED BY LOCAL THERMOSTAT.
11. NOT USED.
12. LIGHTING CONTACTORS IN NEMA 1 ENCLOSURE JUST BELOW CEILING. EC SHALL PROVIDE 120 VOLT CONTROL CIRCUIT TO CONTACTOR PANEL. VERIFY EXACT LOCATION IN FIELD AND REFER TO DRAWING E4.1 FOR ADDITIONAL DETAILS.
13. ADJUST FIXTURE TO ILLUMINATE DELIVERY POD SHELVING.
14. NEW DAYLIGHT SENSOR TO BE INSTALLED TO CONTROL DAYLIGHT AREAS IN THE DINNING AREAS. ORDER ALL DAYLIGHT SENSORS FROM; SECURITY LIGHTING SYSTEMS, INC.
15. PROVIDE POWER FOR LIGHT WITHIN EXHAUST HOOD. INTEGRATE INTO LOCAL LIGHTING CONTROLS.
16. DRAFT STOP ABOVE CEILING, SEAL ALL ELECTRICAL PENETRATIONS.

EMERGENCY LIGHTING NOTES

EL1. EC SHALL VERIFY ALL REQUIREMENTS AND FINAL EMERGENCY LIGHTING LOCATIONS WITH LOCAL AUTHORITIES. INCLUDE ALL COSTS IN BASE BID.

EL2. IF NOT INSTALLED BY MANUFACTURER, EC SHALL BE RESPONSIBLE FOR THE COMPLETE INSTALLATION OF THE EMERGENCY INVERTER BALLAST IN NIGHT LIGHTING FIXTURES SHOWN ON THIS SHEET.

EL3. LED FIXTURES DENOTED AS NIGHT LIGHTING OR SWITCHED EMERGENCY SHALL BE CONNECTED TO AN INVERTER. INVERTER SHALL BE CAPABLE OF ILLUMINATING FIXTURE FOR 1.5 HOURS TO COMPLY WITH NEC SECTION 700 AND UL924.

EL4. EMERGENCY BATTERY LIGHTING WALL PACKS IN PLAYPLACE SHALL BE LOCATED SO AS TO PROVIDE FOR MAXIMUM ILLUMINATION OF AREA. EC SHALL VERIFY EXACT PLACEMENT IN THE FIELD WITH McDONALD'S ACM. (IF APPLICABLE)

EL5. EMERGENCY LIGHTING HAS BEEN DESIGNED PER NFPA 101 TO MAINTAIN 1 FC IN PATH OF EGRESS. IF FIELD CONDITIONS REQUIRE ANY CHANGES TO LIGHTING DESIGN, EMERGENCY LIGHTING, SHALL BE INSTALLED TO MEET THE ABOVE REQUIREMENTS.

McDONALD'S SITE SIGNAGE:

EC SHALL PROVIDE:

ELECTRICAL CONTRACTOR SHALL COORDINATE POWER REQUIRED FOR ROAD SIGN. MOST SIGNS REQUIRE (1) 20 AMP 120V CIRCUIT. IF USED A 90-200 SIGN REQUIRES (4) 20 AMP 120V CIRCUITS OR ONE 1-PHASE 60 AMP 120/208V CIRCUIT. COORDINATE WITH SUPPLIERS DRAWINGS.
(1) 20 AMP 208 VOLT CIRCUIT, EC TO WIRE 2#12 TO 208 VOLT FLAG FLOODLIGHTS.
(1) 20 AMP 120 VOLT CIRCUIT TO D.C.O. IN ROAD SIGN BASE IF REQUIRED.
(2) 20 AMP 120 VOLT CIRCUITS FOR INGRESS/EGRESS DIRECTIONAL SIGNS (IF APPLICABLE).

*VERIFY EXACT LOCATIONS/TYPES/QUANTITIES OF ALL THE ABOVE WITH SITE/CIVIL PLANS AND MCD ACM.

SEE SHEET E3.1 FOR GENERAL LIGHTING NOTES AND "ROOF PLAN" (SHEET E2.1) FOR ADDITIONAL ELECTRICAL ROUGH-IN & LIGHTING REQUIREMENTS.

LIGHTING FIXTURE SCHEDULE:

MARK	SYMBOL	DESCRIPTION	DIFFUSER	LAMPS WATTS	LAMPS TYPE	BALLAST		
F2		2' X 4' GRID TROFFER	PRISMATIC ACRYLIC	44W	LED	–	RECESSED	SECURITY LIGHTING: # LCAT24-35HLG-EDU-WP-GK
F7		1' X 4' GRID TROFFER	PRISMATIC ACRYLIC	44W	LED	–	RECESSED	SECURITY LIGHTING # LCAT14-35HLG-EDU-WP-GK
L2R	○	4" LED ADJUSTABLE DOWN LIGHT	–	16W	LED	–	RECESSED	SECURITY LIGHTING # RDA-136LM-30-FL-S/RDA-136-H VERIFY DOWNLIGHT TO BE USED WITH PHOTOMETRIC
L4	○	3" LED ADJUSTABLE DOWN LIGHT	–	7W	LED	–	RECESSED	SECURITY LIGHTING # RDA-60LM-30-NF-S/RDA-60-H VERIFY DOWNLIGHT TO BE USED WITH PHOTOMETRIC
F12G	○	6" LED DOWN LIGHT – SHALLOW HOUSING	–	12W	LED	–	RECESSED	SECURITY LIGHTING # LB6LEDA10L-50K-9-GL/LBRA-6RW-T-10LCS9WH
A5		WALL ART	–	10W	LED	–	SURFACE	REMOTE POWER SUPPLY IN CEILING FOR WALL ART COORDINATE WITH DECOR
B		RING PENDANT	–	96W EA	LED	–	SUSPENDED	SECURITY LIGHTING # MPLN-63R-400-LM-30-DGCDS
D		ORBIT PENDANT	–	19W	LED	–	SUSPENDED	SECURITY LIGHTING # MPLN-11R-120-LM-30-DGCDG
C		COVE LIGHT	–	2.5W/FT	LED	–	SURFACE	SECURITY LIGHTING # LC-36L-8LM30-W-SM AND LC-24L-6LM30-W-SM
E		LUNA CEILING ELEMENT	–	55W	LED	–	SURFACE	ACOUSTICAL SURFACES # MIKE@ACOUSTICALSURFACES.COM
Q1		REFRIGERATION LIGHTING	INTERNAL PRISMATIC LENS VAPOR TIGHT	81.1W	LED	–	SURFACE FREEZER/COOLER	METALUX 4VT2-LD4-8-DR-UNV-L835-CD1-WL-U
Q2		REFRIGERATION LIGHTING	INTERNAL PRISMATIC LENS VAPOR TIGHT	38W	LED	–	SURFACE FREEZER/COOLER	METALUX 4VT2-LD4-4-DR-UNV-L835-CD1-WL-U

MECHANICAL DIFFUSERS, TRANSFERS, AND RETURNS.

Q3	○	REFRIGERATION LIGHTING	VAPOR PROOF	1-100	A16	–	SURFACE TO WALL FREEZER AND COOLER	KASON REFRIGERATION LIGHTING: 1802000002, WITH WIRE GUARD.
F20		EXIT SIGN WITH BATTERY BACKUP	–	1.8W	LED	–	SURFACE	SECURITY LIGHTING: EVEURWE. SEE NOTE LS2 ON THIS SHEET.
F21		2 HEADED EMERGENCY BATTERY LIGHT	–	–	LED	–	SURFACE TO WALL OR CEILING	SECURITY LTG. #EV4D
F22		EMERG BATTERY & 2 REMOTE HEADS	–	–	LED	–	SURFACE TO WALL OR SOFFIT	SECURITY LTG. #EV4D-02L-0/EVODB
F23		2 HEADED EMERG LIGHT & 2 REMOTE HEAD IF REQ'D	–	–	LED	–	SURFACE TO WALL OR SOFFIT	SECURITY LTG. #EV4D/EVODB
S1H		"DOWN ONLY" RADIAL WALL SCONCE – SILVER	TEMPERED GLASS	(1)-14W	LED	–	SURFACE TO WALL	SECURITY LIGHTING: #RWSC-36L-5K-DO-U-PS
F12W	○	6" LED DOWN LIGHT – WHITE TRIM	–	12.5W	LED	–	RECESSED	SECURITY LIGHTING # 8542-5CCT

LIGHTING SCHEDULE NOTES:

LS1. ORDER LED EXIT SIGNS WITH LETTER COLORS THAT COMPLY WITH LOCAL CODES.
– FOR RED LETTERS USE #EVE-U-R (UNIVERSAL),
– FOR GREEN LETTERS USE #EVE-U-G (UNIVERSAL), OR
IF THE ABOVE EXIT SIGNS DO NOT COMPLY WITH LOCAL CODES USE: LED SIGN WITH BATTERY BACKUP, LETTER SIZE, COLOR, TYPE & DIRECTIONAL ARROWS AS REQUIRED BY THE LOCAL AUTHORITIES.

LS2. ALL INTERIOR LIGHT FIXTURES SHALL BE 120 VOLT UNLESS NOTED OTHERWISE.

LS3. LIGHTING FIXTURES HAVE BEEN CHOSEN TO ACHIEVE MAXIMUM ENERGY CONSERVATION WHILE MAINTAINING ADEQUATE LEVEL OF ILLUMINATION. SPECIFICATIONS SHALL BE STRICTLY FOLLOWED. ANY DEVIATION FROM THE SPECIFICATIONS SHALL BE APPROVED IN WRITING BY McDONALD'S CORPORATION.

ORDER ALL LIGHT FIXTURES FROM:

SECURITY LIGHTING SYSTEMS, INC.
PHONE: 1-800-LIGHT-IT (800-544-4848)
EMAIL: SLORDERS@CURRENTLIGHTING.COM

CS ILLUMINATIONS
PHONE: 760-477-1244
EMAILS: MCD@CSILLUMINATIOINS.COM
WWW.CSILLUMINATIONS.COM/MCD

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PREPARED BY:
STATE OF MISSOURI
MATTHEW FULTS
NUMBER PE-2004003366
PROFESSIONAL ENGINEER
02/26/25

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PREPARED FOR: McDonald's USA, LLC

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REVIEWED BY: WLW | DATE ISSUED: 02 26 2025
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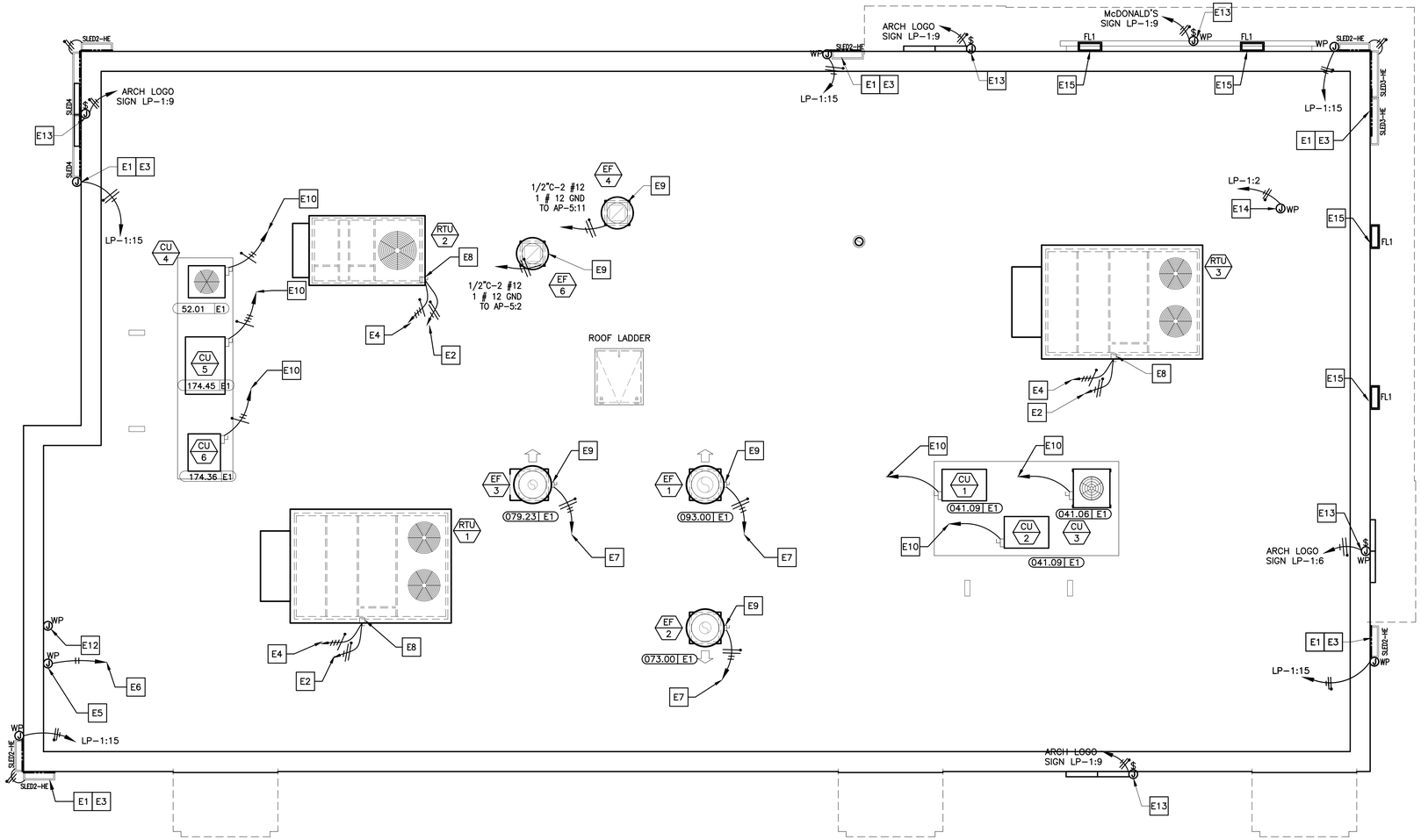
TITLE: 2024 STANDARD BUILDING – BB20
4584-WOOD/WOOD

DESCRIPTION: WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156

NSN: 43016 | L/C: 024-1306

SHEET NO.: 024-1306.00.0
E2.0
LIGHTING PLAN



1 E2.2 ROOF PLAN
1/4"=1'-0"

KEYED NOTES

- E1 EVERY LINEAR RUN OF SLED FIXTURES REQUIRES A DEDICATED WHIP KIT PROVIDED WITH FIXTURE. CONTRACTOR TO FIELD VERIFY FIXTURE MOUNTING HEIGHT, LOCATION, QUANTITY, FIXTURE LENGTHS, AND ALL ELECTRICAL CONNECTION REQUIREMENTS WITH SECURITY LIGHTING PRIOR TO ORDERING AND INSTALLATION (TYPICAL).
- E2 WEATHER PROOF RECEPTACLES WITH GFCI PROTECTION ARE PROVIDED AND MOUNTED WITHIN MOTOR HOUSING LOCATIONS PER NEC ARTICLE 210.63. CIRCUIT SHALL EMANATE FROM PANEL AP-5, CCT.#13.(TYPICAL).
- E3 SMOOTH BRACING IS REQUIRED FOR LED FIXTURE INSTALLATION UNDER COPING/FLASHING.(TYPICAL)
- E4 REFER TO SHEET E4.0 FOR CONDUIT AND WIRE SIZE.(TYPICAL)
- E5 E.C SHALL PROVIDE A WEATHER-PROOF J-BOX ON INSIDE FACE OF PARAPET, MOUNTED 6" BELOW TOP OF PARAPET FOR LIGHTING CONTROL PANEL PHOTOCELL. (PHOTOCELL FURNISHED BY OTHERS AND INSTALLED BY EC). REFER TO LIGHTING CONTROL DETAILS ON E4.1
- E6 TO LIGHTING ENCLOSURE W/ TIMER. COORDINATE WITH LIGHTING CONTROL DETAILS ON SHEET E4.1
- E7 COOKING EQUIPMENT EXHAUST FANS. SEE SHEET E3.0 FOR ELECTRICAL REQUIREMENTS. SEE SHEET E3.2 FOR EXHAUST FAN INTERLOCK WIRING DIAGRAMS. (TYPICAL)
- E8 PROVIDE NEMA 3R DISCONNECT WITH CURRENT LIMITING FUSES TO COMPLY WITH NEC 110 AND 440. ELECTRICAL CONTRACTOR SHALL STUB UP THRU RACEWAY IN CURB TO ELIMINATE CONDUIT PENETRATION OF ROOFING. (TYPICAL)
- E9 EXTERNAL NEMA 3R MOUNTED ON SIDE OF FAN BY MANUFACTURER. ELECTRICAL CONTRACTOR SHALL STUB-UP THRU ROOF AND PROVIDE FLEXIBLE WEATHERPROOF CONDUIT FROM ROOF PENETRATION TO DISCONNECT (TYPICAL).
- E10 REMOTE CONDENSING UNITS. SEE SHEET E3.0 FOR WIRING AND CIRCUITRY REQUIREMENTS.
- E11 NOT USED.
- E12 E.C. SHALL PROVIDE A WEATHER-PROOF JUNCTION BOX WITH ¾"C STUB DOWN TO CEILING SPACE WITH BUSHING FOR ROOF-TOP CAMERA OR SATELLITE. VERIFY EXACT LOCATION(S) WITH MCD AREA CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
- E13 E.C. SHALL PROVIDE A JUNCTION BOX FOR ARCH LOGO / McDONALD'S FASCIA / PLAY-PLACE SIGN. SEE NOTE L1 ON SHEET E3.1. COORDINATE EXACT LOCATION IN FIELD WITH ACM. ALL SIGNS PROVIDED WITH INTEGRAL DISCONNECT SWITCH FROM MANUFACTURER.(TYPICAL)
- E14 E.C. SHALL PROVIDE A JUNCTION BOX FOR ROOF-TOP FLAG POLE LIGHTING. VERIFY LOCATION(S) WITH MCD PROJECT MANAGER PRIOR TO INSTALLATION.
- E15 FLOOD LIGHT MOUNTED ABOVE CANOPY. LP-1:11 EC SHALL VERIFY EXACT SPECIFICATIONS AND LOCATION WITH ARCHITECTURAL ELEVATIONS. VERIFY EXACT INFEED REQUIREMENTS IN THE FIELD. SEE FLOOD LIGHT DETAIL ON SHEET E3.1. (TYPICAL)

DRAWING NOTES

1. SEE DRAWING M-4.0 FOR GENERAL MECHANICAL NOTES.
2. SEE DRAWINGS M-3.0 AND M-4.1 FOR MECHANICAL EQUIPMENT SCHEDULES AND DETAILS.
3. SEE DRAWING M-4.0 FOR MECHANICAL LEGEND.
4. SEE DRAWING K-2.1 FOR REMOTE CONDENSER AND MAC UNIT INFORMATION.
5. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

LED GENERAL NOTES

1. PLACE LED FIXTURE AT DESIRED LOCATION AND ATTACH POWER SUPPLY AND MOUNTING BRACKET AS RECOMMENDED BY MANUFACTURER.

   EC SHALL CONNECT NEW FIXTURES TO A 120V CIRCUIT AND MAKE ALL ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE OPERATING SYSTEM.

   POWER SUPPLY SHALL ALWAYS BE INSTALLED TO THE LEFT SIDE OF FIXTURE WHEN FACING BRAND WALL.

LED FIXTURE SCHEDULE:

MARK	SYMBOL	DESCRIPTION	DIFFUSER	LAMPS WATTS	LAMPS TYPE	BALLAST	MOUNTING	MANUFACTURER AND CATALOG NUMBER
SLED2-HE	▭	DOWN ONLY ACCENT LIGHTING (SEE PLAN)	TEMPERED GLASS	1-10W PER FIXTURE	LED	–	SURFACE	SECURITY LIGHTING: SLED-HE-24-DO-U-IO CUSTOM BUILT FOR EXTERIOR ACCENT CHANNELS.
SLED3-HE	▭	DOWN ONLY ACCENT LIGHTING (SEE PLAN)	TEMPERED GLASS	1-14W PER FIXTURE	LED	–	SURFACE	SECURITY LIGHTING: SLED-HE-36-DO-U-IO CUSTOM BUILT FOR EXTERIOR ACCENT CHANNELS.
SLED4-HE	▭	DOWN ONLY ACCENT LIGHTING (SEE PLAN)	TEMPERED GLASS	1-19W PER FIXTURE	LED	–	SURFACE	SECURITY LIGHTING: SLED-HE-48-DO-U-IO CUSTOM BUILT FOR EXTERIOR ACCENT CHANNELS.
FL1	▬	UP ONLY ACCENT LIGHTING (SEE PLAN)	TEMPERED GLASS	1-16W PER FIXTURE	LED	–	SURFACE	SECURITY LIGHTING: EL218-W-5-8L-5K-UV-IO-JWIO

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STATE OF MISSOURI
MATTHEW FULTS
NUMBER PE-2004008366
PROFESSIONAL ENGINEER

PREPARED BY: 02/26/25

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L/C: 024-1306

SHEET NO.: 024-1306.00.0
E2.2
ELEC. ROOF PLAN

PB = Pullbox VIF = Verify in Field
JB = Junction Box
EC = Electrical Contractor

ELECTRICAL SCHEDULE

TAG #	QTY	DESCRIPTION	VOLT/PH	FLA	BRK SIZE	COND/WIRE	PNL/CCT	RECEP TYPE	HGT AFF	REQUIREMENTS & REMARKS
004.20E6	1	DIGITAL MERCHANDISER	120/1 ISOLATED	2.6	20A	1/2"C–2#12IG	CP:6	IG5262	6'–5"	–
004.23E1	1	DIGITAL MERCHANDISER – MEDIA PLAYER	120/1 ISOLATED	1.0	20A	1/2"C–2#12IG	CP:6	IG5262	6'–5"	USE SAME RECEPTACLE AS 4.20E6
004.23E2	1	DIGITAL MERCHANDISER – MEDIA PLAYER	DATA CABLE	–	–	–	–	JB	6'–5"	JB W/ 1" C. TO FULL HEIGHT WALL AND TO ABOVE CEILING W/BUSHINGS. FOR DATA CABLES. SUPPLY W/GROMMETED OPENING IN COVER PLATE
009.15E1	1	UTILITY CHASE – FFDT INTERIOR WALL	–	–	–	–	–	–	SEE RMKS	UTILITY CHASE AND RECEPTACLES PROVIDED BY K.E.S.
009.16E1	1	UTILITY CHASE – FFDT EXTERIOR WALL	–	–	–	–	–	–	SEE RMKS	UTILITY CHASE AND RECEPTACLES PROVIDED BY K.E.S.
020.01E1	2	AUTOMATED BEVERAGE SYSTEM 2.0	120/1	5.0	20A	1/2"C–2#12	AP–1:12, AP–2:24	5–20R	2'–0"	–
020.01E2	2	AUTOMATED BEVERAGE SYSTEM 2.0	120/1	14.9	20A	1/2"C–2#12	AP–1:6, AP–2:26	5–20R	3'–10"	FOR PRE–COOLER
021.01E3	3	COFFEE BREWER (THERMAL POTS)	120–208/1	15.5	20A	1/2"C–3#12	AP–1:(2,4)(14,16), AP–6:(11,13)	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO L14–20R RECEPTACLE IN CHASE
023.10E1	1	ESPRESSO BREWER	208/1	21.6	30A	1/2"C–2#10	AP–1:(19,21)	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO L6–30R RECEPTACLE IN CHASE
023.12E1	1	COFFEE CREAM DISPENSER	120/1	1.0	20A	1/2"C–2#12	AP–1:8	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO 5–20R RECEPTACLE IN CHASE
023.14E1	1	SUGAR/SWEETENER DISPENSER	120/1	1.5	20A	1/2"C–2#12	AP–1:8	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO 5–20R RECEPTACLE IN CHASE
024.02E1	1	JUICE DISPENSER	120/1	4.5	20A	1/2"C–2#12	AP–1:8	5–20R	SEE RMKS	EC TO EXTEND CIRCUIT TO 5–20R RECEPTACLE IN CHASE
025.07E1	1	INFUSION TEA BREWER – MIS	120–208/1	13.0	20A	1/2"C–3#12	AP–2:(32,34)	L14–20R	2'–3"	–
025.07E2	1	INFUSION TEA BREWER – MIS	–	–	–	–	–	JB	2'–3"	FOR WATER LINE TO ICED TEA BREWER IF CHASE IS NOT SPECIFIED. (SEE P1.6)
031.03E1	1	SODA SYSTEM PACKAGE – B.I.B. (RECIRCULATING– 3 TOWERS)	208/3	26.0	30A	3/4"C–3#10	AP–2:(37,39,41)	SEE RMKS	3'–0" SEE RMKS	EC SUPPLIES 30A–3P NF DISC SW MTD 9" BELOW CEILING PER NEC SECT. 404.8(A)
031.03E2	1	SODA SYSTEM PACKAGE – B.I.B. (RECIRCULATING– 3 TOWERS)	–	–	–	–	–	JB	4'–0"	FOR CONTROL WIRES FROM REMOTE CONDENSING UNIT
031.03E3	1	SODA SYSTEM PACKAGE – B.I.B. (RECIRCULATING– 3 TOWERS)	120/1	(2) 6.8	20A	1/2"C–2#12	AP–2:35	5–20R	6'–6"	FOR WATER BOOSTER SYSTEM AND OPTIONAL AIR COMPRESSOR
032.02E1	1	REVERSE OSMOSIS WATER FILTRATION SYSTEM – TANKLESS	120/1	4.0	20A	1/2"C–2#12 EA.	AP–2:23	5–20R	6'–0"	–
032.04E1	1	WATER FILTRATION SYSTEM	120/1	0.08	20A	1/2"C–2#12 EA.	AP–2:23	5–20R	6'–0"	–
037.03E1	2	CO2 SAFETY SYSTEM – DETECTOR	120/1	1.0	20A	1/2"C–2#12	AP–1:10	JB	SEE RMKS	PROVIDE LOCKOUT CB. SEE MECHANICAL DRAWINGS
037.03E2	2	CO2 SAFETY SYSTEM	–	–	–	–	–	JB	SEE RMKS	FOR LV WIRES. STUB 3/4"C. ABV. CLG. SEE MECHANICAL DRAWINGS
037.03E4	4	CO2 SAFETY SYSTEM – CO2 DETECTOR AV ALARM	–	–	–	–	–	JB	7'–0" MINIMUM	STUB 3/4"C. ABOVE CLG. FOR LV COND. TO 037.03E2. SEE MECHANICAL DRAWINGS
038.00E1	1	CLEAN IN PLACE PANEL	120/1	1.0	20A	1/2"C–2#12	AP–2:21	5–20R	5'–6"	–
039.10E1	1	ICE MACHINE – 1400 LB.	208/3	13.4	20A	1/2"C–3#12	AP–2:(1,3,5)	SEE RMKS	SEE RMKS	EC SUPPLIES 30A–3P NF DISC SW MTD9"BELOW CEILING PER NEC 404.8(A) EX.2 VERIFY W/ AHJ
039.10E2	1	ICE MACHINE – 1400 LB.	–	–	–	–	–	JB	4'–6" SEE RMKS	CONTROL WIRES TO REMOTE CONDENSER
039.15E1	2	ICE MACHINE – 1000 LB.	120/1	1.1	15A	1/2"C–2#12	AP–1:37,39	5–20R	SEE RMKS	MOUNT 9" BELOW CEILING – CIRCUIT BREAKERS SHALL BE HACR TYPE
039.15E2	2	ICE MACHINE – 1000 LB.	–	–	–	1/2"C	–	JB	SEE RMKS	MOUNT 9" BELOW CEILING – CONTROL WIRES TO REMOTE CONDENSER
041.06E1	1	ICE MACHINE REMOTE CONDENSER – 1400 LB.	208/1	1.0	20A SEE RMKS	1/2"C–3#12	AP–1:(26,28)	SEE RMKS	SEE RMKS	EC TO PROVIDE WP 30A–2P NF DISC AT UNIT ON ROOF – CIRCUIT BREAKERS SHALL BE HACR TYPE
041.09E1	2	ICE MACHINE REMOTE CONDENSER – 1000 LB.	208/3	11.1	15A SEE RMKS	1/2"C–3#12 SEE RMKS	AP–1:(32,34,36)(38,40,42)	SEE RMKS	SEE RMKS	EC TO PROVIDE WP 30A–3P NF DISC AT UNIT ON ROOF – CIRCUIT BREAKERS SHALL BE HACR TYPE
043.21E1	1	OPTIMIZED ORDER ASSEMBLY TABLE	120/1	5.4	20A	SEE RMKS	KES BREAKER PANEL	SEE RMKS	SEE RMKS	PLUGS INTO KES OUTLET CHASE FOR HLA
052.01E1	1	SODA SYSTEM PACKAGE REMOTE CONDENSER – 3–TOWER	208/1	2.5	20A SEE RMKS	SEE RMKS	SEE RMKS	SEE RMKS	SEE RMKS	EC TO PROVIDE 30A–2P DISC SW W/15A FUSE – POWERED BY 31.03 – LOCATION BY ACM
052.01E2	1	SODA SYSTEM PACKAGE REMOTE CONDENSER – 3–TOWER	–	–	–	–	–	–	SEE RMKS	CONTROL WIRES TO SODA SYSTEM – LOCATION BY ACM
061.00E1	1	FRY BAGGING STATION 36"	120/1	12.5	20A	1/2"C–2#12	AP–1:31	JB	4'–0"	–
065.30E1	1	3–VAT LOV FRYER – ELECTRIC – F/F/F	208/3	38.9 EA. VAT	(3) 50A	1"C–3#6 EA. VAT	AP–4:(13,15,17)(19,21,23) (25,27,29)	BY KES	SEE RMKS	PLUGS INTO RACEWAY RECEP WITH(1)L21–20P INTERLOCK PLUG &(3) 15–60P POWER PLUG BY KES
066.47E1	1	4–VAT LOV FRYER – ELECTRIC – S/S/S/S	208/3	38.9 EA. VAT	(4) 50A	1"C–3#6 EA. VAT	AP–3:(1,3,5)(7,9,11) (2,4,6)(8,10,12)	BY KES	SEE RMKS	PLUGS INTO RACEWAY RECEP WITH(1)L21–20P INTERLOCK PLUG &(4) 15–60P POWER PLUG BY KES
073.00E1	1	UNIVERSAL EXHAUST HOOD 3–VAT FRYER	120/1	12.5, 9.8	(2)20A–1P	1/2"C–2#12EA	AP–1:23,24	BY KES	SEE RMKS	EC TO CONN POWER TO RACEWAY FLA = 12.0 FRYER CONTROLS, 0.5 CAPTURE JET & 9.8 INDIVID. EXHAUST FAN INTERLOCK
079.23E1	1	UNIVERSAL EXHAUST HOOD FULL–CLAM/4–VAT FRYER	120/1	17.6, 13.8	(2)20A–1P	1/2"C–2#12EA	AP–1:29,41	BY KES	SEE RMKS	EC TO CONN POWER TO RACEWAY FLA=3.6 GRILL,13.0 FRYER CONTROLS, 1.0 CAPTURE JET & 13.8 INDIVID EXHAUST FAN INTERLOCK
079.26E2	2	VENTLESS HOOD COMBI OVEN	120/1	8.0	15A	1/2"C–2#12	AP–4:14,16	BY KES	SEE RMKS	EC TO EXTEND DEDICATED CIRCUIT TO 5–15R RECEPTACLE IN CHASE
085.05E1	1	FROZEN FRY DISPENSER	120/1	9.0	20A	1/2"C–2#12	AP–1:27	5–20R	4'–0"	–
091.02E1	1	WALL MOUNT FREEZER UNIT–SINGLE WIDE–HIGH CAPACITY	120/1	5.0	20A	1/2"C–2#12	AP–5:23	5–20R	7'–6"	–
093.00E1	1	UNIVERSAL EXHAUST HOOD FULL–CLAM GRILL	120/1	13.9	20A	1/2"C–2#12	AP–2:17	BY KES	SEE RMKS	EC TO CONN. POWER TO RACEWAY FLA = 3.6 GRILL CONTROLS, 0.5 CAPTURE JET & 9.8 INDIVID. EXHAUST FAN INTERLOCK
096.21E1	2	36" NEXT GEN 3–PLATEN CLAMSHELL GRILL – ELECTRIC	208/3	21.7, 43.3	(2)50A	1–1/2"C– 6#4	AP–3:(14,16,18)(20,22,24) AP–4:(1,3,5)(7,9,11)	BY KES	SEE RMKS	PLUGS IN RACEWAY RECEP WITH(1)L21–20P INTERLOCK& (2) 15–50P POWER PLUG EA GRILL
097.08E1	1	MEAT FREEZER – DOUBLE WIDE – HIGH CAPACITY – RIGHT HAND	120/1	7.0	20A	1/2"C–2#12	AP–2:19	5–15R	SEE RMKS	UNIT PLUGS INTO RACEWAY RECEPTACLE
114.00E1	1	HUMIDIFIED HOLDING CABINET	208/1	9.1	20A	1/2"C–2#12	AP–5:(34,36)	SEE RMKS	5'–6"	PLUGS INTO OVERHEAD RECEPTACLE # 320C6W(B) PROVIDED BY KES – HEIGHT TO BOTTOM OF RECEPTCLE
116.23E4	2	UNIVERSAL HOLDING CABINET – HIGH DENSITY – 2–SIDED – PIN & SLEEVE	208/1	15.2	20A	1/2"C–2#12	AP–5:(4,6)(8,10)	BY KES	5'–6"	PLUGS INTO OVERHEAD RECEPTACLE # 320C6W(B) PROVIDED BY KES – HEIGHT TO BOTTOM OF RECEPTCLE
117.30E1	1	UHC TABLE COPL – 2 SIDED – 51"D x 34"W – PIN&SLEEVE	120/1	2.0	20A	1/2"C–2#12	AP–5:12	BY KES	5'–6"	PLUGS INTO OVERHEAD RECEPTACLE # 320C4W(Y) PROVIDED BY KES– HEIGHT TO BOTTOM OF RECEPTACLE
118.00E1	1	Q'ING OVEN – PIN & SLEEVE	208/1	15.4	20A	1/2"C–2#12	AP–2:(38,40)	SEE RMKS	5'–6"	PLUGS INTO OVERHEAD RECEPTACLE # 320C6W(B) PROVIDED BY KES– HEIGHT TO BOTTOM OF RECEPTACLE
118.03E1	2	Q'ING OVEN – PIN & SLEEVE	208/1	14.9	20A	1/2"C–2#12	AP–2:(18,20)(28,30)	SEE RMKS	5'–6"	PLUGS INTO OVERHEAD RECEPTACLE # 320C6W(B) PROVIDED BY KES– HEIGHT TO BOTTOM OF RECEPTACLE
122.27E1	1	NEXT GEN. UNIVERSAL RADIANT TOASTER –PIN & SLEEVE	208/1	25.2	30A	1/2"C–2#10	AP–5:(27,29)	SEE RMKS	5'–6"	PLUGS INTO OVERHEAD RECEPTACLE # 330C6W(B) PROVIDED BY KES– HEIGHT TO BOTTOM OF RECEPTACLE
122.28E2	1	NEXT GEN. UNIVERSAL CONTACT TOASTER –PIN & SLEEVE	208/1	25.2	30A	1/2"C–2#10	KES BREAKER PANEL	SEE RMKS	SEE RMKS	PLUGS INTO KES RACEWAY RECEPTACLE
123.36E1	1	ECU TABLE – COPL	208/1	4.9	15A	SEE RMKS	KES BREAKER PANEL	SEE RMKS	SEE RMKS	PLUGS INTO KES OUTLET CHASE.
123.37E1	1	BREAKER PANEL– 125 AMP – 1 PHASE – EQUIPMENT MOUNTED	120–208/1	SEE RMKS	125A	1–1/2C"–3#1	MDP:11	–		EC TO EXTEND AND CONNECT ELECTRICAL SERVICE. HARDWIRE TO KES BREAKER PANEL.
123.40E1	1	PREP TABLE – HD – 2–SIDED COPL – 38"D x 83 1/2" – PIN & SLEEVE W/ REF.	120/1	10.0	20A	SEE RMKS	KES BREAKER PANEL	SEE RMKS	SEE RMKS	PLUGS INTO KES OUTLET CHASE.
125.00E2	2	RAPID BUN STEAMER	208/1	14.3	30A	1/2"C–2#10	KES BREAKER PANEL	SEE RMKS	SEE RMKS	PLUGS INTO KES RACEWAY RECEPTACLE
130.00E3	2	COMBI OVEN	208/3	15.1	30A	1/2"C–3#10	AP–4:(2,4,6)(8,10,12)	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO L430R9 RECEPTACLE IN CHASE
152.08E1	1	WAREWASHER – HIGH TEMP	208/3	26.9 EA.	(2)30A	1/2"C–3#10	AP–5(31,33,35)(37,39,41)	SEE RMKS	SEE RMKS	EC TO SUPPLY 30A–3P NF DISC SW HANDLE HGT. MTD @ 6'–7" AFF FOR EA. CCT PER NEC 404.8(A). LABEL "WAREWASHER (# OF 2)"
163.02E1	4	REMOTE ANSUL PULL	–	–	–	–	–	JB	SEE DETAILS	4" OCTAGONAL, RACO #165 OR EQUAL MUST BE USED.
171.01E1	1	WALK–IN COOLER / FREEZER FLOORLESS	120/1	10.0	20A	1/2"C–2#12	AP–2:14,16	JB	FLUSH ON CLG	JB FOR LIGHTS &]DOOR HEATER– UNSWITCHED LIGHT TO BE IN BOTH COOLER & FREEZER,EC TO CONNECT POWER
171.01E2	1	WALK–IN COOLER / FREEZER FLOORLESS	–	–	–	–	–	VIF		EC TO FURNISH & INSTALL CONDUIT,WIRE & LIGHT FIXTURES& OTHER DEVICES INSIDE COOLER/FREEZER BOX
174.36E1	1	REMOTE CONDENSING UNIT	208/1	15.0	20A	1/2"C–2#12	AP–5:(38,40)	JB	VIF	EC TO PROVIDE 30A–2P NF DISC AT UNIT ON ROOF. CIRCUIT BREAKERS TO BE HARC RATED.
174.36E2	1	REMOTE CONDENSING UNIT	LOW VOLT WIRES	–	–	–	–	–	VIF	–
174.45E1	1	REMOTE CONDENSING UNIT	208/3	24.7	40A	3/4"C–3#8	MDP:15	JB	VIF	EC TO PROVIDE 60A–3P NF DISC AT UNIT ON ROOF. CIRCUIT BREAKERS TO BE HARC RATED.
174.45E2	1	REMOTE CONDENSING UNIT	LOW VOLT WIRES	–	–	–	–	–	VIF	–
175.18E1	1	COOLER EVAPORATOR	208/1	1.0	20A	1/2"C–2#12	AP–6:(9,11)	JB	FLUSH ON CLG	–
175.18E2	1	COOLER EVAPORATOR	LOW VOLT WIRES	–	–	–	–	–	FLUSH ON CLG	L V WIRES CONN UNIT TO EVAPS & SHALL BE ROUTED SEPARATELY FROM POWER CONDUCTORS
176.27E1	1	FREEZER EVAPORATOR	208/1	20.3	30A SEE RMKS	1/2"C–2#10	AP–6:(13,15)	JB	FLUSH ON CLG	–
176.27E2	1	FREEZER EVAPORATOR	LOW VOLT WIRES	–	–	–	–	–	FLUSH ON CLG	L V WIRES CONN UNIT TO EVAPS & SHALL BE ROUTED SEPARATELY FROM POWER CONDUCTORS
177.03E2	1	REACH–IN REFRIGERATOR–SINGLE WIDE	120/1	2.7	20A	1/2"C–2#12	AP–2:31	SEE RMKS	SEE RMKS	EC TO EXTEND CIRCUIT TO 5–20R RECEPTACLE IN CHASE
178.05E1	3	REACH–IN FREEZER–SINGLE WIDE	120/1	11.0	20A	1/2"C–2#12	AP–1:25,30,35	5–20R	7'–6"	–
181.13E1	1	REFRIGERATOR – SPECIALTY COFFEE– 27" WIDE	120/1	3.9	20A	1/2"C–2#12	AP–2:22	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO 5–20R RECEPTACLE IN CHASE
181.14E1	1	REFRIGERATOR – WORK TOP –48" WIDE	120/1	5.0	20A	1/2"C–2#12	AP–2:8	5–20R	2'–0"	–
183.00E1	2	REFRIGERATOR/FREEZER – 2 DRAWER BASE – 30" W X 33" H	120/1	5.0	20A	1/2"C–2#12	AP–5:1	5–20R	2'–0"	–
183.02E2	2	REFRIGERATOR/FREEZER – 2 DRAWER BASE – 30" W X 30" H	120/1	5.0	20A	1/2"C–2#12	AP–5:5,7	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO 5–20R RECEPTACLE IN CHASE
183.02E3	1	REFRIGERATOR/FREEZER – 2 DRAWER BASE – 30" W X 30" H	120/1	5.0	20A	1/2"C–2#12	AP–5:9	BY KES	5'–6"	PLUGS INTO OVERHEAD RECEPTACLE # 320C4W(Y) PROVIDED BY KES– HEIGHT TO BOTTOM OF RECEPTACLE
196.06E1	1	SAFE – STANDARD BLDG.	120/1	1.0	20A	1/2"C–2#12	AP–1:7	5–20R	2'–0"	PROVIDE LOCKOUT TYPE CB
196.08E1	1	BOCA	120/1 ISOLATED	8.2	20A	1/2"C–2#12IG	CP:33	IG5262	2'–0"	–
196.08E2	1	BOCA	120/1 ISOLATED	1.8	20A	1/2"C–2#12IG	CP:33	IG5262	2'–0"	–
196.08E3	1	BOCA	DATA CABLE	–	–	2" C	–	4x4x4 PB	2'–0"	EXTEND 2" CONDUIT ABOVE CLG. W/ BUSHING FOR DATA CABLES

PB = Pullbox VIF = Verify in Field
JB = Junction Box
EC = Electrical Contractor

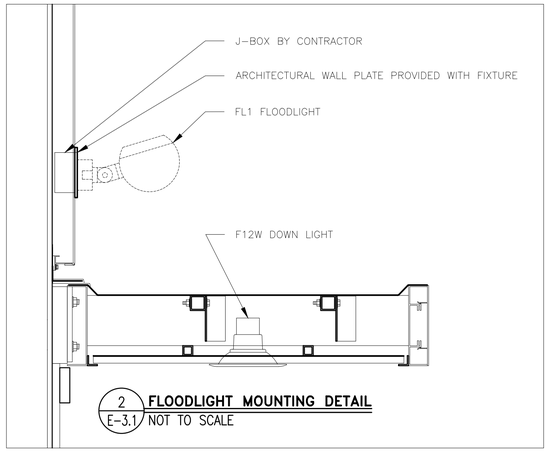
ELECTRICAL SCHEDULE

TAG #	QTY	DESCRIPTION	VOLT/PH	FLA	BRK SIZE	COND/WIRE	PNL/CCT	RECEP TYPE	HGT AFF	REQUIREMENTS & REMARKS
197.01E1	1	HAND WASH TIMER	120/1	0.1	20A	1/2"C–2#12	AP–1:33	5–20R	4'–6"	–
203.01E1	1	HEAT TREAT COMBINATION SHAKE/SUNDAE MACHINE	208/3	13.0	30A	3/4"C–3#8	AP–1:(18,20,22)	4x4x4 PB	1'–0"	RECEP #A460R9 BY KES, IF TAYLOR C602 IS ORDERED USE A 40A BRKR & #6 CONDUCTORS –EC MAKES FINAL CONN
205.08E1	1	BIC MACHINE	120/1	8.6	20A	1/2"C–2#12	AP–2:29	BY KES	SEE RMKS	EC TO EXTEND DEDICATED CIRCUIT TO 5–20R RECEPTACLE IN CHASE
205.09E2	1	FROZEN BEVERAGE DISPENSER	208/1	20.0	30A	1/2"C–2#10	AP–5:(17,19)	SEE RMKS	SEE RMKS	RECEP L6–30R IN CHASE BY KES, EC MAKES FINAL CONN
207.01E2	1	BLENDER – MCFLURRY – RAIL MOUNT	120/1	1.2	20A	1/2"C–2#12	AP–2:7	5–20R	4'–0"	
210.00E10	1	CASH RECYCLER	120/1 ISOLATED	4.4	20A	1/2"C–2#12IG	CP:27	(2) IG5262	SEE RMKS	PROVIDE RECEP. IN COUNTER–MOUNTED RACEWAY
210.00E4	1	CASH RECYCLER	120/1 ISOLATED	4.4	20A	1/2"C–2#12IG	CP:24	(2) IG5262	2'–10"	–
211.00E6	1	DELIVERY TABLETS	120/1	3.0	20A	1/2"C–2#12	AP–5:21	(2) 5–20R	5'–6"	–
214.02E1	1	TECHNOLOGY RACK	120/1 ISOLATED	5.0	20A	1/2"C–2#12IG	CP:11	IG4700	7'–6"	FOR SWITCHES, HUBS AND RADIUS
214.02E3	1	TECHNOLOGY RACK	120/1 ISOLATED	10.0	20A	1/2"C–2#12IG	CP:15	IG4700	3'–0"	FOR CASHLESS DEVICE UPS
214.02E4	1	TECHNOLOGY RACK	120/1 ISOLATED	12.0	20A	1/2"C–2#12IG	CP:17	IG4700	3'–0"	FOR POS SYSTEM UPS AND ORB CONTROLLER
214.02E5	1	TECHNOLOGY RACK	DATA CABLE	–	–	–	–	8x6x4 PB	7'–6"	EXTEND (2) 2 1/2" CONDUIT ABOVE CLG. W/BUSHING FOR DATA CABLES
214.02E6	1	TECHNOLOGY RACK	120/1 ISOLATED	14.0	30A	1/2"C–2#10IG	CP:12	L5–30R IG	3'–0"	FOR POS SYSTEM UPS
215.00E12	1	POS REGISTER – FRONT COUNTER	120/1 ISOLATED	3.0 EA.	–	3/4"C–2#12IG	CP:19	IG4700	SEE RMKS	PROVIDE IG RECEP. IN COUNTER–MOUNTED RACEWAY
215.00E3	1	POS REGISTER – FRONT COUNTER	DATA CABLE	–	–	–	–	4x4x4 PB	10"	EXTEND 2" CONDUIT TO ABOVE CEILING FOR POS DATA CABLES
215.02E1	1	POS REGISTER – 2 WINDOW D/T	120/1 ISOLATED	3.0 EA.	SEE RMKS	1/2"C–2#12IG	SEE REMARKS	(2)IG4700	2'–5"	IN ORDER BOOTH, CONNECT TO CP:7 – IF INCLUDED IN PRESENTERS BOOTH, CONNECT TO CP:8
215.02E10	2	POS REGISTER – 2 WINDOW D/T	120/1 ISOLATED	3.0 EA.	20A	1/2"C–2#12IG	CP:1	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO IG4700 RECEPTACLE IN CHASE
215.02E12	1	POS REGISTER – 2 WINDOW D/T	–	–	–	–	–	18x12x4 PB	10"	REFER TO D/T LOW VOLTAGE CONDUIT DIAGRAM FOR CONDUITS UNDER SLAB AND EXTEND (2) 2 1/2"C. TO ABOVE CLG.
215.02E13	2	POS REGISTER – 2 WINDOW D/T	–	–	–	–	–	4x4x4 PB	10"	EXTEND 1 1/2"C. UNDER SLAB TO 217.11E1 AND 2 1/2" C. TO ABOVE CEILING FOR POS DATA CABLES
215.04E1	2	POS – KVS MONITOR	120/1 ISOLATED	1.5 EA.	20A	1/2"C–2#12IG	CP:8	IG4700	FLUSH ON CLG	–
215.04E4	2	POS – KVS MONITOR	120/1 ISOLATED	1.5	20A	1/2"C–2#12IG	CP:26	SEE RMKS	SEE RMKS	EC TO EXTEND CIRCUIT TO IG4700 RECEPTACLE IN OEP
215.04E5	2	POS – KVS MONITOR	120/1 ISOLATED	1.5 EA.	20A	1/2"C–2#12IG	CP:3	SEE RMKS	SEE RMKS	EC TO EXTEND CIRCUIT TO IG4700 RECEPTACLE IN CHASE
215.04E7	3	POS – KVS MONITOR	120/1 ISOLATED	1.5 EA.	20A	1/2"C–2#12IG	CP:23	IG4700	5'–6"	–
215.04E8	1	POS – KVS MONITOR	DATA CABLE	–	–	–	–	4x4x4 PB	4'–0"	EXTEND 2" CONDUIT ABOVE CEILING. CABLE FURNISHED AND INSTALLED BY POS SYSTEM SUPPLIER
215.07E1	1	POS REGISTER – DELIVERY	120/1 ISOLATED	3.0	20A	1/2"C–2#12IG	CP:23	IG4700	3'–6"	
215.07E3	1	POS REGISTER – DELIVERY	–	–	–	–	–	4x4x4 PB	3'–6"	EXTEND 2" CONDUIT TO ABOVE CEILING FOR POS DATA CABLES
216.00E13	2	POS – VIDEO MONITOR	120/1 ISOLATED	1.5 EA.	20A	1/2"C–2#12IG	CP:3	SEE RMKS	SEE RMKS	EC TO EXTEND CIRCUIT TO IG4700 RECEPTACLE IN CHASE
216.00E14	4	POS – VIDEO MONITOR	120/1 ISOLATED	1.5 EA.	20A	1/2"C–2#12IG	CP:9	IG4700	SEE RMKS	EXTEND CONDUIT DOWN GRILL HOOD SHROUD AND PROVIDE IG4700 RECEPTACLE
216.00E7	3	POS – VIDEO MONITOR	120/1 ISOLATED	1.5 EA.	20A	1/2"C–2#12IG	CP:1	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO IG4700 RECEPTACLE IN CHASE
217.03E4	1	POS – COD OPTICAL ISOLATOR	120/1 ISOLATED	1.0	20A	1/2"C–2#12IG	CP:14	IG5262	7'–6"	–
217.10E1	2	REMOTE DETECTOR LOOP	–	–	–	–	–	–	–	1 1/2"CONDUIT–CONN TO PULLBOX#215.03E5,215.01E4, OR 215.02E12 PER DRIVE–THRU CONFIG–SEE SITE PLAN
217.11E1	2	DETECTOR LOOP	–	–	–	–	–	–	–	1 1/2"CONDUIT–CONN TO PULLBOX#215.02E5,215.02E13, OR 215.02E4 PER DRIVE–THRU CONFIG–SEE SITE PLAN
217.13E1	1	MERGE POINT MONITOR (DOUBLE DRIVE THRU)	120/1	2.0	20A	1/2"C–2#12	AP–1:11	5–20R	3'–6"	DO NOT POWER FROM POS CIRCUIT
217.13E2	2	MERGE POINT MONITOR (DOUBLE DRIVE THRU)	120/1	2.0	20A	1/2"C–2#12	AP–1:11	BY KES	SEE RMKS	EC TO EXTEND CIRCUIT TO 5–20R RECEPTACLE IN CHASE
217.14E1	1	POS– VIDEO MONITOR (DOUBLE DRIVE THRU)	120/1 ISOLATED	1.5	SEE RMKS	1/2"C–2#12IG	CP:7	IG4700	3'–6"	–
217.18E1	3	HAND HELD ORDER TAKER AND MANAGEMENT OF SHIFT EQUIPMENT	120/1	5.0	20A	1/2"C–2#12	AP–1:15	5–20R	4'–6"	–
217.19E2	1	WIRELESS HEADSET BASE STATION	120/1 ISOLATED	1.9	20a	1/2"C–2#12IG	CP:1	IG4700	4'–6"	
217.19E3	1	WIRELESS HEADSET BASE STATION	DATA CABLE	–	–	–	–	4x4x4 PB	5'–0"	
217.24E1	1	DANGER POINT MONITOR (DOUBLE DRIVE–THRU)	120/1	2.0	20A	1/2"C–2#12	AP–1:11	5–20R	8'–0"	DO NOT POWER FROM POS CIRCUIT
217.26E1	1	ZOOM TIMER	120/1 ISOLATED	6.0	20A	1/2"C–2#12IG	CP:10	(2) IG4700	7'–6"	–
217.26E2	1	ZOOM TIMER	DATA CABLE	–	–	–	–	JB	7'–6"	JB W/ 1–1/2" C. TO TERMINATE ABOVE CEILING W/BUSHINGS. FOR DATA CABLES. SUPPLY W/ GROMMETED OPENING IN COVER PLATE
219.00E10	1	POS – RECEIPT PRINTER	120/1 ISOLATED	0.7	20A	3/4"C–2#12IG	SEE RMKS	IG4700	SEE RMKS	PROVIDE IG RECEP. IN COUNTER–MOUNTED RACEWAY, POWER FROM SAME CIRCUIT AS 215.00E12
219.00E3	1	POS – RECEIPT PRINTER/CASHLESS	120/1 ISOLATED	0.7	20A	1/2"C–2#12IG	CP:4	IG4700	2'–0"	–
219.00E7	2	POS – RECEIPT PRINTER	120/1 ISOLATED	0.7	20A	1/2"C–2#12IG	CP:3	BY KES	SEE RMKS	EC TO EXTEND IG CIRCUIT TO IG4700 RECEPTACLE IN KES OUTLET CHASE.
219.05E2	2	STICKY LABEL PRINTER	120/1 ISOLATED	0.7	20A	1/2"C–2#12IG	CP:1	BY KES	SEE RMKS	EC TO EXTEND IG CIRCUIT TO IG4700 RECEPTACLE IN CHASE
219.05E3	1	STICKY LABEL PRINTER	120/1 ISOLATED	0.7	20A	1/2"C–2#12IG	CP:3	IG4700	3'–2"	–
219.05E6	2	STICKY LABEL PRINTER	120/1 ISOLATED	0.7	20A	1/2"C–2#12IG	CP:3	IG4700	FLUSH ON CLG	–
219.06E1	1	LABELING SYSTEM	120/1 ISOLATED	2.0	20A	1/2"C–2#12IG	CP:8	IG5261	2'–0"	–
220.00E1	1	POS – COIN DISPENSER	120/1 ISOLATED	0.75	20A	1/2"C–2#12IG	CP:7	IG4700	2'–0"	–
221.09E1	1	O/O EQUIPMENT RACK	120/1 ISOLATED	4.0	20A	1/2"C–2#12IG	CP:31	IG5262	8'–0"	–
221.09E2	1	O/O EQUIPMENT RACK	DATA CABLE	–	–	2" C	–	4x4x4 PB	8'–0"	EXTEND 2" CONDUIT ABOVE CLG. W/ BUSHING FOR DATA CABLES
222.01E1	1	TIME CLOCK	120/1 ISOLATED	0.5	20A	1/2"C–2#12IG	CP:28	IG4700	4'–0"	–
222.01E2	1	TIME CLOCK	DATA CABLE	–	–	–	–	JB	4'–0"	EXTEND 1" CONDUIT ABOVE CEILING
223.07E1	1	WASHER	120/1	8.0	15A	1/2"C–2#12	AP–1:13	5–15R	3'–6"	–
225.03E3	2	OFFICE PACKAGE/DESK UNIT	120/1 ISOLATED	10.0	20A	1/2"C–2#12IG	CP:20,22	IG5262	4'–6"	FOR MONITOR, PRINTER AND THIN CLIENT
225.03E4	1	OFFICE PACKAGE/DESK UNIT	DATA CABLE	–	–	–	–	4x4x4 PB	4'–6"	EXTEND 2 1/2" CONDUIT ABOVE CLG. W/BUSHING

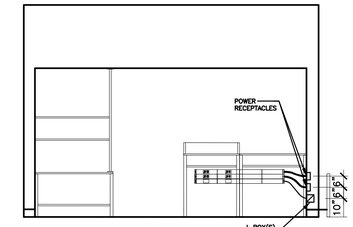
PB = Pullbox
JB = Junction Box
EC = Electrical Contractor
VIF = Verify in Field

ELECTRICAL SCHEDULE

TAG #	QTY	DESCRIPTION	VOLT/PH	FLA	BRK SIZE	COND/WIRE	PNL/CCT	RECEP TYPE	HGT AFF	REQUIREMENTS & REMARKS
701.16E1	1	DOOR ALARM	120/1	.5	20A	1/2"C–2#12	LP–1:16	JB	SEE RMKS	JUNCTION BOX ABOVE CEILING, PROVIDE LOCKOUT ON CIRCUIT BREAKER HANDLE.
701.27E1	1	DCO–SATELLITE MUSIC SYSTEM	120/1	1.0	20A	1/2"C–2#12	AP–5:30	(2) 5–20R	3'–0"	PROVIDE DOUBLE DUPLEX WALL PLATE
701.32E1	1	REMOTE ORDER TAKER BATTERY PACK	120/1	2.0	20A	1/2"C–2#12	AP–1:9	(2) 5–20R	4'–6"	PROVIDE DOUBLE DUPLEX WALL PLATE. FIELD VERIFY HEIGHT AND LOCATION WITH ACM
701.34E1	1	ACCESS CONTROL PANEL	120/1	2.0	20A	1/2"C–2#12	LP–1:16	JB	8'–0"	ROUTE LOW VOLTAGE WIRES TO DOOR BUTTON, HORN AND DOOR STRIKE AS REQUIRED. SUPPLY WITH 4 RELAY CONTROL BOARD.



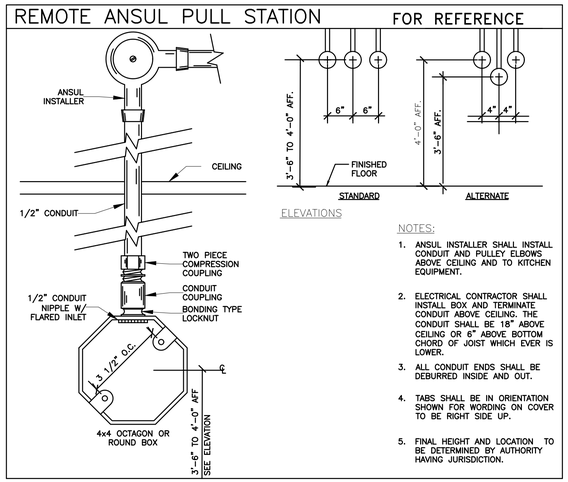
2 E-3.1 **FLOODLIGHT MOUNTING DETAIL**
NOT TO SCALE



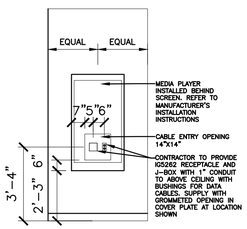
SYMBOL	CATALOG #	DESCRIPTION
	HBLAUL5370R & 1G4700	RECEPTACLE COVERPLATE WITH ORANGE, NYLON COVER, GFCI, GROUND DUPLEX RECEPTACLE
	HBLAUL5370R & 5–20R FOR BAKED GOODS AND 5352R2 FOR CASH	RECEPTACLE COVERPLATE WITH STRAIGHT BLADE RECEPTACLE
	HBLAUL870R	COMMUNICATIONS COVERPLATE
	HBLAUTR2080G2W2990	2" SECTION OF RACEWAY, INCLUDES COUPLERS
	HBLAUTR3080G3W2990	3" SECTION OF RACEWAY, INCLUDES COUPLERS
	HBLAUL7610082M2	SERVICE ENTRANCE FITTING & BUSHING FOR DATA CABLES
	HBLAUL76108	BLANK END FITTING
N/A	HBLAUL5701	COUPLER (INCLUDED WITH RACEWAY SECTION)
N/A	HBLAUL5709	GROUND ADAPTER

NOTES:
1. REFER TO SERVICE POD MANUFACTURER INSTRUCTIONS FOR EXACT PLACEMENT OF RACEWAY
2. RACEWAY AND RECEPTACLES TO BE PROVIDED WITH SERVICE POD, INSTALLED BY CONTRACTOR.
3. DETAIL SHOWN IS A TYPICAL CONFIGURATION ONLY. SITE SPECIFICS MIGHT CAUSE DEVIATIONS.
4. PART NUMBERS SHOWN REFLECT HUBBELL, SOME SUPPIERS MAY USE WIREMOLE EQUIVALENT.

1 E-3.1 **SERVICE POD RACEWAY DETAIL**
NOT TO SCALE

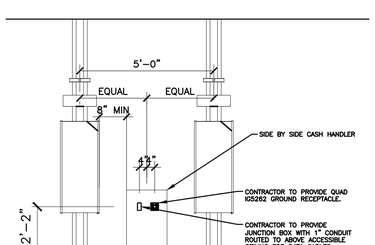


NOTES:
1. ANSUL INSTALLER SHALL INSTALL CONDUIT AND PULLEY ELBOWS ABOVE CEILING AND TO KITCHEN EQUIPMENT.
2. ELECTRICAL CONTRACTOR SHALL INSTALL BOX AND TERMINATE CONDUIT ABOVE CEILING. THE CONDUIT SHALL BE 18" ABOVE CEILING OR 6" ABOVE BOTTOM CHORD OF JOIST WHICH EVER IS LOWER.
3. ALL CONDUIT ENDS SHALL BE DEBURRED INSIDE AND OUT.
4. TABS SHALL BE IN ORIENTATION SHOWN FOR WORDING ON COVER TO BE RIGHT SIDE UP.
5. FINAL HEIGHT AND LOCATION TO BE DETERMINED BY AUTHORITY HAVING JURISDICTION.



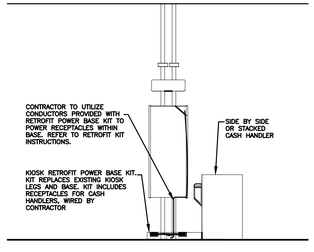
NOTES:
1. THIS EXAMPLE IS FOR A WALL MOUNTED DIGITAL MERCHANDISER.

3 E-3.1 **DIGITAL MERCHANDISER POWER DETAIL**
NOT TO SCALE



NOTES:
1. THIS EXAMPLE IS FOR A SIDE BY SIDE CASH HANDLER WITH THE REAR OF THE UNIT FACING A FULL HEIGHT GC BUILT WALL.
2. EACH SIDE BY SIDE CASH HANDLER UTILIZES 3 PLUGS AND ADDS 4.4 AMPS OF LOAD.

4 E-3.1 **CASH HANDLER POWER DETAIL W/REAR TO WALL**
NOT TO SCALE



NOTES:
1. THIS EXAMPLE IS FOR A SIDE BY SIDE CASH HANDLER THAT DOES NOT HAVE A GC WALL BEHIND IT AND IS NEXT TO A KIOSK. IT IS ALSO INTENDED FOR ALL STACKED CASH HANDLERS.
2. EACH SIDE BY SIDE CASH HANDLER UTILIZES 3 PLUGS AND ADDS 4.4 AMPS OF LOAD TO THE KIOSK CIRCUIT.
3. EACH STACKED CASH HANDLER UTILIZED 2 PLUGS AND ADDS 3.6 AMPS OF LOAD TO THE KIOSK CIRCUIT.
4. ONLY 1 SIDE BY SIDE CAN BE CONNECTED TO A KIOSK, HOWEVER TWO STACKED UNITS CAN BE CONNECTED. REFER TO DECOR PLANS FOR EXACT CONFIGURATIONS.

5 E-3.1 **TYP. CASH HANDLER POWER DETAIL**
NOT TO SCALE

GENERAL ELECTRICAL NOTES:

INSTALLATION METHODS:

M1. ALL ELECTRICAL MATERIAL USED ON THIS PROJECT SHALL BE "UL" LISTED AND LABELED.

M2. ALL DIMENSIONS SHOWN ARE TAKEN FROM FACE OF GYP BOARD/PLYWOOD. THE EC SHALL MAKE NECESSARY DIMENSIONAL ALLOWANCES. ALL DIMENSIONS SHOWN ARE TO CENTER LINE OF OUTLET BOX AND/OR RECEPTACLE UNLESS NOTED OTHERWISE.

M3. ALL J–BOXES, DCOs, AND OTHER ELECTRICAL DEVICES SHOWN SHALL BE RECESSED INTO A WALL, FLOOR OR CEILING UNLESS SPECIFICALLY NOTED OTHERWISE.

M4. ALL RECEPTACLES (EXCEPT SPECIFIED HUBBELL PIN & SLEEVE TYPES) SHALL BE FURNISHED BY THE EC. THE RECEPTACLES INCLUDING PIN AND SLEEVE TYPE SHALL BE INSTALLED BY THE EC.

M5. EC SHALL PROVIDE STAINLESS STEEL COVER PLATES ON ALL RECEPTACLES AND J–BOXES. ADDITIONALLY, EC SHALL PROVIDE ORANGE NYLON COVER PLATES MARKED "COMPUTER ONLY" ON ALL ISOLATED GROUND/DEDICATED CIRCUIT RECEPTACLES. PURCHASE PJ8CO (ONE DUPLEX) OR PJ82CO (TWO DUPLEX) FROM HUBBELL.

M6. ROUGH–INS FOR OPTIONAL EQUIPMENT ARE SHOWN ON THESE SHEETS. EC SHALL VERIFY WITH McDONALD'S PROJECT MANAGER WHICH OPTIONAL EQUIPMENT IS TO BE INCLUDED AND INSTALL OPTIONAL ROUGH–INS AS REQUIRED. PRICING FOR OPTIONAL ROUGH–INS SHALL BE INCLUDED IN BID AND CALLED OUT AS OPTIONAL.

M7. EC SHALL COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER, MECHANICAL CONTRACTOR AND GC FOR FINAL LOCATIONS AND CONNECTION REQUIREMENTS OF ALL EQUIPMENT PRIOR TO INSTALLATION OF ANY CONDUIT AND/OR STUB–UP LOCATIONS.

M8. CEILING MOUNTED ECONOMY OEP BOX IS FURNISHED BY McDONALD'S, AND INSTALLED BY THE GC. CORD AND PLUG SET FURNISHED BY KES AND INSTALLED BY THE EC.

M9. FOR GRILLS, FRYERS, AND ANSUL SYSTEMS, EC SHALL EXTEND CONDUIT AND CONDUCTORS DOWN CHASE OR WALL TO TERMINAL BLOCK MOUNTED ON EQUIPMENT AND MAKE FINAL CONNECTIONS TO TERMINAL BLOCKS.

M10. ALL HOLES IN THE FRONT COUNTER FOR THE POS CORDS AND CABLES SHALL BE LOCATED BY OWNER AND DRILLED BY GC.

M11. ALL ELECTRICAL CONDUCTORS SHALL BE CONNECTED TO RECEPTACLES USING ONLY THE TERMINAL SCREWS. RECEPTACLE BACK WIRE/QUICK CONNECTIONS SHALL NOT BE USED. HUBBELL EDGE CONNECT IS APPROVED ALTERNATIVE.

M12. EC SHALL PROVIDE 208V HEAT TRACE ON THE FREEZER EVAPORATOR CONDENSATE DRAIN LINE. HEAT TRACE SHALL OPERATE CONTINUOUSLY. EC SHALL WIRE HEAT TRACE TO FREEZER EVAPORATOR POWER SUPPLY. A SEPARATE CIRCUIT FOR HEAT TRACE IS NOT REQUIRED. VERIFY HEAT TRACE REQUIREMENTS WITH EVAPORATOR MANUFACTURER

M13. POWER AND CONTROL CORDS ARE FURNISHED WITH KITCHEN APPLIANCES. THE EC SHALL CONNECT CORD SETS TO APPLIANCES AS REQUIRED.

M14. GC SHALL NOT INSTALL CEILING TILE IN AREAS OF THE BEVERAGE BAR REFRIGERATION LINES AND EQUIPMENT PENETRATION LOCATIONS UNTIL THE LINES HAVE BEEN INSTALLED. THE CEILING TILE INSTALLER SHALL RETURN AND INSTALL THE TILES AFTER THE REFRIGERATION LINES HAVE BEEN INSTALLED AND TESTED.

UTILITIES:

U1. INCOMING SERVICE SHALL BE 208Y/120V, 3 PHASE, 4 WIRE. ANY DEVIATIONS TO THIS SERVICE TYPE SHALL NOT BE PERMITTED UNLESS APPROVED IN WRITING BY McDONALD'S.

U2. THE EC SHALL ARRANGE WITH THE ELECTRIC, TELEPHONE, AND OTHER UTILITY COMPANIES FOR INCOMING SERVICE REQUIREMENTS AND SHALL INCLUDE ALL COSTS IN BASE BID.

U3. THE EC SHALL VERIFY EXACT METHODS AND REQUIREMENTS FOR ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY. CURRENT TRANSFORMERS SHALL BE INSTALLED OUTSIDE RESTAURANT, LOCATE INSIDE ONLY IF REQUIRED BY UTILITY COMPANY OR LOCAL AUTHORITIES.

U4. PROVIDE CONCRETE PAD IF TRANSFORMER IS LOCATED ON GRADE AND PROVIDE SECONDARY SERVICE FEEDER AND CONDUITS TO PANEL MDP AS PER LOCAL UTILITY REQUIREMENTS.

U5. THE EC/GC/ACM SHALL OBTAIN AVAILABLE SHORT CIRCUIT CURRENT FROM THE LOCAL UTILITY COMPANY. THE EC/GC/ACM SHALL ADVISE IN WRITING (FAX SUPPLIER THE UTILITY LETTER) THE AVAILABLE AMOUNT OF FAULT CURRENT. THE PANELBOARD SUPPLIER SHALL BE RESPONSIBLE TO VERIFY THAT THE ELECTRICAL EQUIPMENT SHIPPED HAS APPROPRIATE ELECTRICAL RATINGS WHICH ARE EQUAL TO OR GREATER THAN THE AVAILABLE AMOUNT OF FAULT CURRENT AT THE SITE.

U6. EC AND ACM OR OWNER/OPERATOR AND ACM SHALL COORDINATE WITH LOCAL PHONE COMPANY TO PROVIDE A 10 PAIR (OR MORE) COPPER TELEPHONE CABLE FROM THE TELEPHONE UTILITY EASEMENT TO THE RESTAURANT TELEPHONE DEMARCATION POINT. IF THE TELEPHONE PANEL/BOX IS LOCATED INSIDE THE RESTAURANT, EC SHALL PROVIDE (2) EMPTY 3/4" CONDUITS FROM THE TELEPHONE PANEL/BOX UP TO ABOVE THE CEILING FOR FUTURE TELEPHONE CABLE INSTALLATION. ADDITIONALLY, THE EC SHALL PROVIDE AN EMPTY 3/4" CONDUIT FROM THE TELEPHONE PANEL/BOX TO THE LOCATION OF THE FUTURE INTERNET SERVER (VERIFY LOCATION WITH PM). EC SHALL CONNECT, INSTALL AND INCORPORATE ALL OTHER REQUIREMENTS NECESSARY FOR COMPLETE AND OPERATIONAL TELEPHONE SYSTEM(S) FOR THIS SITE. THE REMAINING UNUSED TELEPHONE CONDUCTOR PAIRS SHALL BE CAPPED AND LEFT IN PLACE FOR FUTURE USE. THE TELEPHONE PANEL/BOX SHALL BE GROUNDED AS SHOWN IN THE "BUILDING ELECTRICAL GROUNDING DETAIL."

U7. EC SHALL PROVIDE A 4" SCHEDULE 40/80 PVC CONDUIT THAT IS SUITABLE FOR DIRECT BURIAL FROM BUILDING TO UTILITY EASEMENT/ROW IN UTILITY CABLING/CONDUIT TRENCH PROVIDED BY GC. CONDUIT SHALL RUN FROM INCOMING TELCOM LOCATION AT BUILDING TO TELECOM PEDESTAL LOCATION IN UTILITY EASEMENT/ROW. VERIFY EXACT LOCATIONS IN FIELD WITH AREA CONSTRUCTION MANAGER AND TELECOM UTILITY PROVIDER PRIOR TO INSTALLATION.

INSTALLATION NOTES:

1. IF TELCOM CONDUIT IS TERMINATED WITHIN BUILDING, PVC SHALL TRANSITION TO HWG/RMC TYPE CONDUIT PRIOR TO RISING ABOVE FINISHED SLAB.
2. PROVIDE THERMOPLASTIC BUSHINGS AT BOTH ENDS OF CONDUIT FOR CABLING PROTECTION.
3. IF 90 DEGREE BENDS ARE REQUIRED, CONTRACTOR SHALL PROVIDE WIDE SWEEPING BENDS TO PREVENT BENDING/DAMAGE TO CABLE
4. ALL COMMUNICATIONS CABLING SHALL BE PULLED VIA THIS CONDUIT.
5. INSTALL A MINIMUM OF 6 PULL WIRES IN CONDUIT TO ALLOW FOR THE INSTALLATION OF FUTURE CABLING. USE NON–DEGRADING POLYPROPYLENE OR MONOFILAMENT PLASTIC LINE OR #12 AWGT SOLID COPPER CONDUCTORS WITH NOT LESS THAN 200 LBF TENSILE STRENGTH. PROVIDE AT LEAST 12 INCHES OF SLACK AT EACH END OF PULL WIRE.
6. AFTER INSTALLATION OF COMMUNICATIONS CABLING AND PULLSTRINGS/WIRES, CONTRACTOR SHALL SEAL BOTH ENDS OF CONDUIT TO PREVENT INTRUSION FROM WEATHER, RODENTS, DEBRIS, ETC. SEAL SHALL BE OF TYPE TO ALLOW FOR REMOVAL FOR INSTALLATION OF FUTURE CABLING

CONDUIT AND WIRE:

W1. THE FOLLOWING WIRING METHODS SHALL NOT BE USED: NON–METALLIC SHEATHED CABLE (ROMEX, NM, NMC, & NMS), ARMORED CABLE TYPE AC (BX), ELECTRICAL NON–METALLIC TUBING, TYPE ENT (SMURF–TUBE).

W2. CONDUIT RUNS MAY BE COMBINED EXCEPT WHERE ISOLATED GROUNDS ARE USED. IG CIRCUITS SHALL BE RUN IN SEPARATE CONDUITS. ALL HOME RUNS SHALL BE SIZED BASED ON DERATED CONDUCTOR AMPACITIES AND INCREASE CONDUIT AND WIRE SIZE AS REQUIRED BY NEC SECTION 310 REQUIREMENTS.

W3. CONDUIT SHALL HAVE A MAXIMUM OF 4 BENDS WITHOUT A JUNCTION BOX TO PREVENT DAMAGE TO CABLE DURING PULLING. THE EC SHALL PIGTAIL #12 PULL WIRE AT EACH END FOR INSTALLER TO PULL CABLE. ALL LOW VOLTAGE CONDUIT STUB–UPS SHALL BE PROVIDED WITH A BUSHING.

W4. MINIMUM WIRE SIZE SHALL BE #12 AWG COPPER UNLESS NOTED OTHERWISE. MINIMUM CONDUIT SIZE SHALL BE 1/2" UNLESS NOTED OTHERWISE. WIRES INSTALLED UNDERGROUND OR OUTDOORS SHALL BE THW.

W5. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID COPPER. CONDUCTORS #8 AND LARGER SHALL BE STRANDED COPPER. ALUMINUM CONDUCTORS SHALL NOT BE UTILIZED FOR FEEDER OR BRANCH CIRCUIT DISTRIBUTION.

W6. RACEWAYS SHALL BE ANY OF THE FOLLOWING MATERIALS, INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES:

OUTDOORS: (FOR SPECIFIC APPLICATIONS AND APPROPRIATE FITTINGS, SEE TABLE W6)

1. EXPOSED: RMC, IMC.
2. CONCEALED: RMC, IMC.
3. BELOW GRADE, SINGLE RUN: RNC, RMC.
4. BELOW GRADE, GROUPED: RNC, RMC.
5. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, ELECTRIC SOLENOID, OR MOTOR–DRIVEN EQUIPMENT): LFMC.
6. BOXES AND ENCLOSURES: NEMA 250, TYPE 3R OR 4.

INDOORS: (FOR SPECIFIC APPLICATIONS AND APPROPRIATE FITTINGS, SEE TABLE W6)

1. EXPOSED: EMT, IMC.
2. CONCEALED: EMT, IMC.

(CONTINUED ON TOP)

3. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, ELECTRIC SOLENOID, OR MOTOR–DRIVEN EQUIPMENT): FMC; EXCEPT USE LFMC IN DAMP OR WET LOCATIONS.
4. DAMP OR WET LOCATIONS: RIGID STEEL CONDUIT.
5. BOXES AND ENCLOSURES: NEMA 250, TYPE 1, EXCEPT AS FOLLOWS: A. DAMP, WET OR KITCHEN LOCATIONS: NEMA 250, TYPE 4, STAINLESS STEEL.

TABLE W6:

LOCATION	208V.	480V.	LOW ENERGY*
EXPOSED			
INDOORS	< 1" EMT COMPRESS. FTGS >1.25" IMC THREADED FTGS	IMC THREADED FTGS	EMT COMPR. FTGS
OUTDOORS	RMC OR IMC THREADED FTGS	RMC OR IMC THREADED FTGS	RMC OR IMC THREADED FTGS
CONCEALED			
WALLS	<2" EMT SET SCREW FTGS >2.5" IMC THREADED FTGS	<2" EMT SET SCREW. FTGS >2.5" IMC THREADED FTGS	EMT 1/2"– 2" SET SCREW FTGS 2.5" – 4" COMPR. FTGS
AIR HANDLING CEILING/SPACE	<2" EMT COMPR. FTGS >2.5" IMC THREADED. FTGS	2" EMT COMPR. FTGS < >2.5" IMC THREADED. FTGS	EMT COMPR. FTGS
NON AIR HANDLING CEILING/SPACE	<2" EMT SET SCREW FTGS >2.5" IMC THREADED. FTGS	<2" EMT COMPR. FTGS >2.5" IMC THREADED. FTGS	EMT 1/2" – 2" SET SCREW FTGS 2.5"– 4" COMPR. FTGS
BELOW GRADE			
INTERIOR	IMC THREADED FTGS OR SCHEDULE 40 OR 80 PVC	IMC THREADED FTGS	IMC THREADED FTGS SCHEDULE 40 OR 80 PVC
EXTERIOR	SCHEDULE 40 OR 80 PVC OR RMC THREADED FTGS	SCHEDULE 40 OR 80 PVC OR RMC THREADED FTGS	SCHEDULE 40 OR 80 PVC OR RMC THREADED FTGS

W7. ALL CONDUITS PENETRATING THE FREEZER/COOLER BOX SHALL BE SEALED IN COMPLIANCE NEC SECTION 300 AND THE FREEZER/COOLER BOX MANUFACTURERS REQUIREMENTS.

W8. PROVIDE THREE (3) 3/4" EMPTY CONDUITS FROM PANEL LP–1 UP TO THE CEILING SPACE AND CAP FOR FUTURE USE.

GROUNDING:

G1. ALL BRANCH AND FEEDER CIRCUITS SHALL BE GROUNDED BY TWO METHODS. THE FIRST METHOD SHALL INCLUDE AN INSULATED COPPER EQUIPMENT GROUNDING CONDUCTOR CONTAINED WITHIN THE SAME CONDUIT AS THE PHASE CIRCUIT CONDUCTORS AND SIZED PER NEC SECTION 250 REQUIREMENTS. THIS INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL HAVE ONE END PROPERLY TERMINATED AT THE EQUIPMENT GROUND BUS IN THE CORRESPONDING CIRCUIT BREAKER PANEL, AND THE OTHER END TERMINATED AT THE GROUNDING CONTACT OF A GROUNDING RECEPTACLE AND TO THE JUNCTION BOX OR TO AN EQUIPMENT CABINET, AS APPLICABLE. THE SECOND METHOD PROVIDES EQUIPMENT GROUNDING VIA METALLIC CONDUIT THAT IS CONNECTED AND TERMINATED IN FITTINGS LISTED FOR GROUNDING PER NEC SECTION 250 REQUIREMENTS. BOTH GROUNDING METHODS ARE REQUIRED IN A MCDONALD'S RESTAURANT. ISOLATED GROUND SHALL BE INSTALLED WHERE INDICATED ON PLAN AND AS SHOWN IN POS ISOLATED GROUND/DEDICATED CIRCUIT DETAIL ON SHEET E4.2.

G2. THE BUILDING GROUNDING SYSTEM SHALL COMPLY WITH NEC ARTICLE 250, MCDONALD'S SPECIFICATIONS, AND SHEET E4.2. CAUTION: IT IS A SAFETY HAZARD AND AN NEC VIOLATION TO HAVE ANY NEUTRAL TO GROUND CONNECTIONS BEYOND THE MAIN ELECTRICAL DISCONNECT MEANS. MCDONALD'S GROUNDING STANDARDS PURPOSELY EXCEED THOSE GIVEN BY THE NEC. THE EC SHALL PROVIDE A BUILDING GROUNDING SYSTEM MEETING NEC SECTION 250 REQUIREMENTS AS WELL AS MCDONALD'S STANDARDS.

G3. EC SHALL REFER TO "POS ISOLATED GROUND/DEDICATED CIRCUIT DETAIL, SHEET E4.2, FOR REQUIRED WIRING REQUIREMENTS OF COMPUTER PANEL CP.

G4. METAL RACEWAYS CONTAINING A GROUNDING ELECTRODE CONDUCTOR SHALL BE BONDED AT BOTH ENDS AS REQUIRED BY NEC SECTION 250 REQUIREMENTS.

TEMPERATURE CONTROLS:

T1. REMOTE TEMPERATURE SENSORS: EC SHALL PROVIDE 1/2" CONDUIT FROM JUNCTION BOX ABOVE CEILING DOWN TO SENSOR MOUNTED AT 4'–0" TO 4'–6" AFF.

T2. SEE DETAIL ON SHEET M3.0. FOR SENSOR MOUNTING DETAIL. LOCATION OF WALL MOUNTED TEMPERATURE SENSORS ARE SHOWN ON SHEET M1.2 AND E2.0.

T3. WHEN WIRING FOR PROGRAMMABLE THERMOSTATS AND REMOTE SENSORS IS NOT IN A CONDUIT, THE WIRING SHALL BE RUN TO THE UNDERSIDE OF THE ROOF DECK. NONE OF THE WIRING SHALL BE ROUTED OVER FLUORESCENT BALLASTS, POWER BOXES OR IN A CONDUIT WITH LINE VOLTAGE WIRING AS ELECTRICAL INTERFERENCE (NOISE) WILL CAUSE ERRATIC CONTROL OPERATION. ALL THERMOSTATS SHALL BE MOUNTED 4'–0" AFF.

FLAT PANEL TELEVISIONS:

TV1. EC SHALL PROVIDE A DUPLEX RECEPTACLE AND A LOW VOLTAGE BROADBAND CONNECTION FOR THE INSTALLATION OF FLAT PANEL TELEVISIONS. COORDINATE EXACT LOCATIONS WITH DECOR COMPANY. FOR BROADBAND CONNECTION, EC SHALL PROVIDE A 4 X 4 BOX WITH A 3/4" CONDUIT STUB–UP WITH A BUSHING INTO ACCESSIBLE CEILING SPACE.

ELECTRICAL PANELS:

E1. THE EC SHALL BE RESPONSIBLE FOR BALANCING THE LOADS ON ALL PANELS.

E2. THE EC SHALL PROVIDE ELECTRICAL SERVICE TO THE EQUIPMENT MOUNTED BREAKER PANEL. SEE ELECTRICAL ROUGH–IN PLAN AND SCHEDULE FOR ALL REQUIREMENTS.

E3. THE EC SHALL BE RESPONSIBLE FOR THE PROPER IDENTIFICATION AND LABELING OF ALL CIRCUIT BREAKERS. EACH PANEL SHALL BE PROVIDED WITH AN ACCURATE TYPEWRITTEN CIRCUIT DIRECTORY AT THE CONCLUSION OF THE PROJECT AND PRIOR TO RESTAURANT OPENING.

SECURITY AND DRIVE–THRU CAMERAS:

S1. EC TO PROVIDE ELECTRICAL POWER AND COMMUNICATION CONDUITS FOR BUILDING MOUNTED SECURITY AND DRIVE THRU CAMERAS. COORDINATE FINAL LOCATIONS WITH SECURITY AND DRIVE THRU CAMERA INSTALLERS.

LIGHTING:

L1. PROVIDE A WEATHERPROOF JUNCTION BOX IN PARAPET FOR FASCIA SIGN. FINAL CONNECTION BY OTHERS.

L2. COORDINATE THE LOCATION OF JUNCTION BOX (IN THE WALL) WITH THE OPENING IN TRELLIS (FOR THE LIGHT FIXTURE WIRES). THE LOCATION OF THE JUNCTION BOX AND THE OPENING IN THE TRELLIS SHALL BE ALIGNED FOR THE LIGHT FIXTURE TO BE INSTALLED PROPERLY. COORDINATE INSTALLATION OF JUNCTION BOX AND ANY NECESSARY OPENINGS IN TRELLIS WITH GC AND TRELLIS/CANOPY MANUFACTURER. SEE LIGHT FIXTURE INSTALLATION INSTRUCTIONS FOR REQUIREMENTS REGARDING MOUNTING BRACKETS FOR USE IN C–CHANNEL TRELLISES.

L3. EC SHALL FIELD VERIFY THAT LIGHT FIXTURES DO NOT OBSTRUCT OR CONFLICT WITH THE WORK OF OTHER TRADES. IF A DISCREPANCY IS FOUND, THE EC SHALL IMMEDIATELY NOTIFY THE GC BEFORE THE THE INSTALLATION OF SUCH FIXTURE(S). EC SHALL COORDINATE LOCATIONS OF ALL LIGHT FIXTURES IN DINING AREA WITH FINAL SEATING AND DECOR PLANS.

L4. IF PC–POS CASH REGISTER SYSTEM IS INSTALLED, EC SHALL RELOCATE FIXTURES ABOVE FRONT COUNTER TO AVOID GLARE ON THE CASH REGISTER SCREENS. EC SHALL INSTALL CABLE WHIP TO FIXTURES SO THAT FIXTURE MAY BE RELOCATED FOUR FEET WITHOUT DISCONNECTING CABLE WHIP.

L5. EC SHALL COORDINATE LOCATION OF ALL EXTERIOR LIGHTS TO AVOID INTERFERENCE WITH ANY CORBELS, TRUSSES, BEAMS OR OTHER SPECIAL EXTERIOR TREATMENTS. INSTALL LIGHT FIXTURES WITH CORRECT ORIENTATION PER MANUFACTURER'S INSTRUCTIONS

L6. THE USE OF INTERLOCK TYPE "MC" CABLE IN LENGTHS OF 6 FEET OR LESS (WHERE PERMITTED BY LOCAL CODES) SHALL BE ALLOWED FOR WIRING TO INTERIOR LIGHTING FIXTURES. "ROMEX" OR "BX" SHALL NOT BE USED.

L7. EC SHALL VERIFY THAT NOT MORE THAN 3% VOLTAGE DROP EXISTS FROM THE LIGHTING PANEL TO ANY EXTERIOR LIGHTING FIXTURE OR SIGNAGE BALLAST.

L8. WHERE MCDONALD'S RESTAURANT HAS A PLAYPLACE, THE EC SHALL COORDINATE EXACT LOCATION OF PLAYPLACE LIGHTING WITH PLAYPLACE TOY VENDOR FOR MAXIMUM ILLUMINATION AND SAFETY PER THE FINAL LOCATION OF THE PLAYPLACE TOY. LIGHTING FIXTURES SHALL NOT BE MOUNTED TO THE TOY OR ANY PART OF THE TOY STRUCTURE.

L9. EC SHALL VERIFY ALL TAP SETTINGS FOR H.I.D. LIGHTING FIXTURES AND MAKE ANY NECESSARY CORRECTIONS PRIOR TO INSTALLATION.

REV	DATE	DESCRIPTION	BY
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.	02/26/25	PERMIT SET	WLW
.	12/06/24	BID SET	WLW

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3801.0075

PREPARED BY:
STATE OF MISSOURI
MATTHEW FULTS
NUMBER PE-2004035366
PROFESSIONAL ENGINEER
02/26/25

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PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	PREPARED BY	DATE ISSUED
MJW	WLW	02 26 2025
STD ISSUE DATE 2024 05		

TITLE
2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD
DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

RO# 24247

NSN-43016
SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306

SHEET NO.
024–1306.00.0
E3.1
NOTES & DETAILS

SEQUENCE OF OPERATION:

1. TURNING "ON" ANY PIECE OF COOKING EQUIPMENT UNDER A HOOD WILL TURN ON THE EXHAUST FAN AND ASSOCIATED RTU PROVIDING MAKEUP AIR FOR THAT HOOD.
2. TURNING "OFF" THE LAST PIECE OF COOKING EQUIPMENT UNDER A HOOD WILL TURN OFF THE EXHAUST FAN FOR THAT HOOD.
3. IF THE ANSUL SYSTEM SHOULD DISCHARGE WHILE THE COOKING EQUIPMENT AND EXHAUST FAN ARE OPERATING, THE COOKING EQUIPMENT WILL BE SHUT OFF, BUT THE EXHAUST FAN WILL CONTINUE TO RUN AND WILL FORCE THE ROOFTOP UNITS INTO A "SCHEDULED" MODE
4. THE ANSUL SYSTEM MUST BE RECHARGED AND MANUALLY RESET BEFORE THE COOKING EQUIPMENT WILL AGAIN BE ABLE TO OPERATE.
5. THE ON/OFF SWITCH ON THE EXHAUST FAN IS NORMALLY KEPT IN THE "ON" POSITION. IF IT IS TURNED OFF FOR SERVICE, THE COOKING EQUIPMENT WILL TURN OFF AND NOT BE ABLE TO OPERATE UNTIL THE EXHAUST FAN ON/OFF SWITCH IS AGAIN TURNED ON.

INTERLOCK DIAGRAM LEGEND

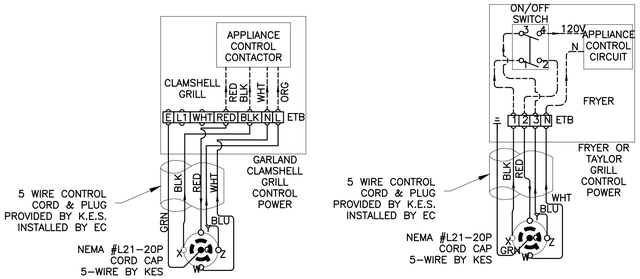
- ● TERMINAL BLOCK IN CHASE
- CTB – CHASE TERMINAL BLOCK. PROVIDED AND INSTALLED BY KITCHEN EQUIPMENT SUPPLIER
- ETB – EQUIPMENT TERMINAL BLOCK
- EFCR – EXHAUST FAN CONTROL RELAY. PROVIDED BY CONTRACTOR.
- IGR – INTERNAL GRILL RELAY PROVIDED WITHIN GARLAND GRILLS
- MS – ANSUL MICROSWITCH PROVIDED BY KITCHEN EQUIPMENT SUPPLIER
- >> CONTROL CORD PLUG & RECEPTACLE
- —— FIELD WIRING
- —— CONTROL CORD/INTERNAL WIRING
- - - - FACTORY WIRING
- —— EQUIPMENT OR ENCLOSURE

COOKING EQUIPMENT EXHAUST FAN	MAKE UP PROVIDED BY
EF/1	RTU–3
EF/2	RTU–1
EF/3	RTU–2

NOTE
RTU # ASSOCIATED WITH EACH EXHAUST FAN BASED ON PROTOTYPICAL VALUES ONLY. VERIFY THAT EXHAUST FAN ACTIVATES THE CORRESPONDING RTU TO PROVIDE AN ADEQUATE AMOUNT OF MAKEUP AIR.

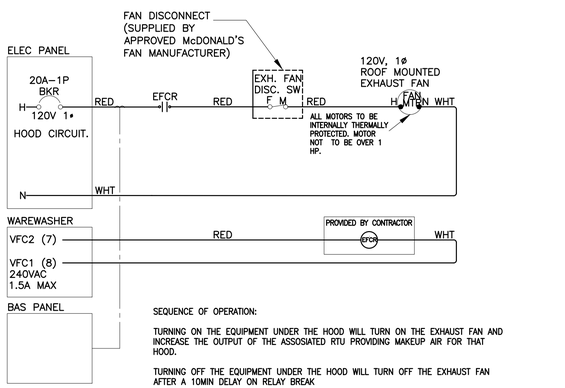
1 E-3.2 **TYPICAL MAKEUP AIR RTU EXHAUST FAN SCHEDULE**
FOR REFERENCE ONLY

REVISED: 6/18



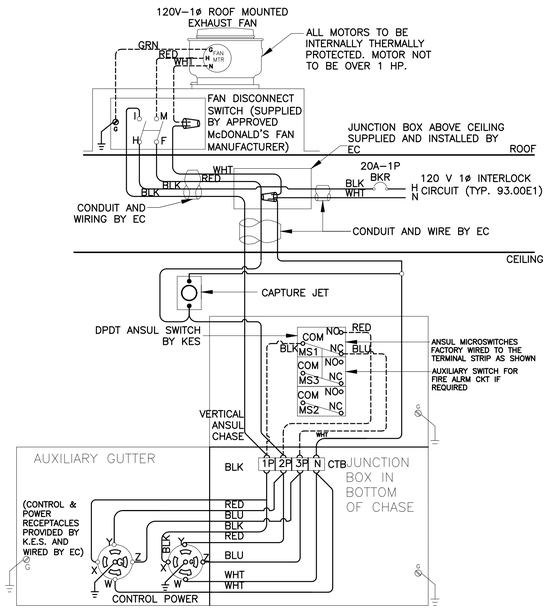
4 E-3.2 **CONTROL CORD CONNECTION**
FOR REFERENCE ONLY

REVISED: 6/18



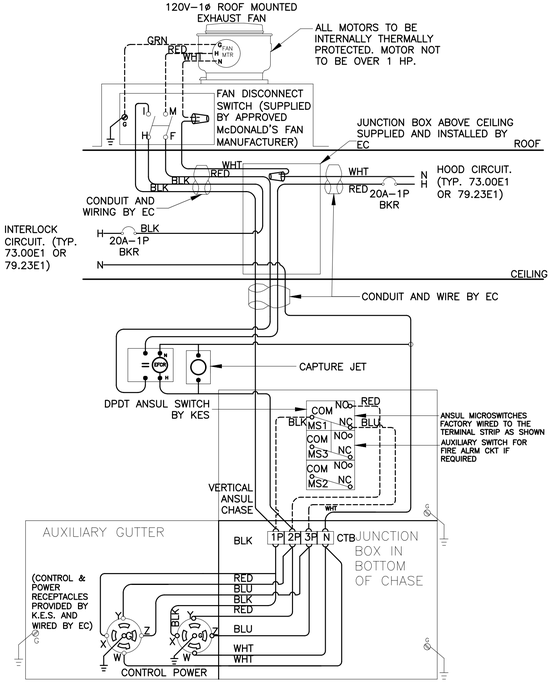
7 E-3.2 **INTERLOCK LADDER DIAGRAM FOR EXHAUST FAN AND WAREWASHER**
FOR REFERENCE ONLY

REVISED: 02/24



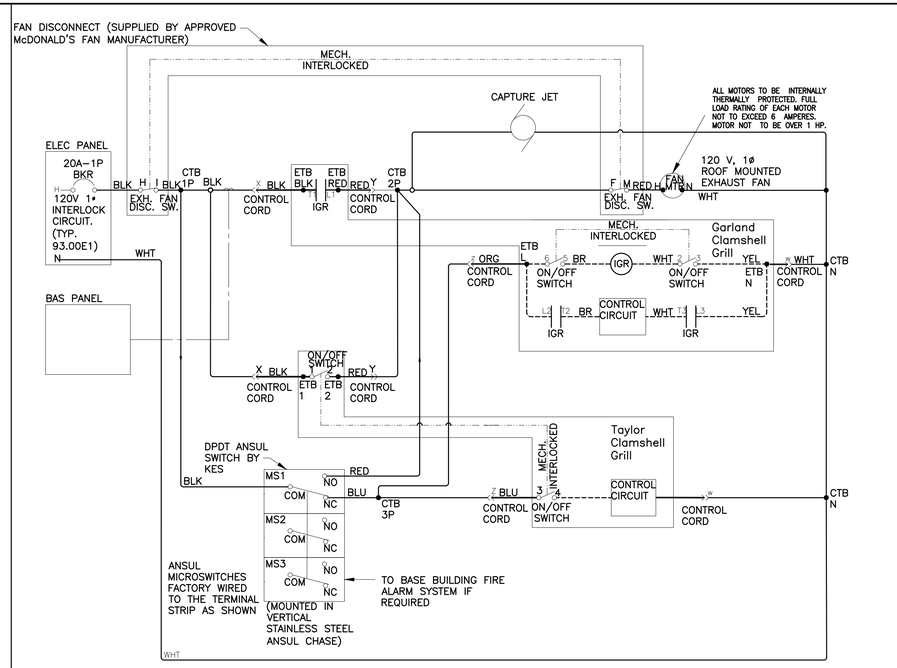
2 E-3.2 **INTERLOCK WIRING DIAGRAM FOR EXHAUST FAN AND COOKING EQUIPMENT**
FOR REFERENCE ONLY

REVISED: 6/18



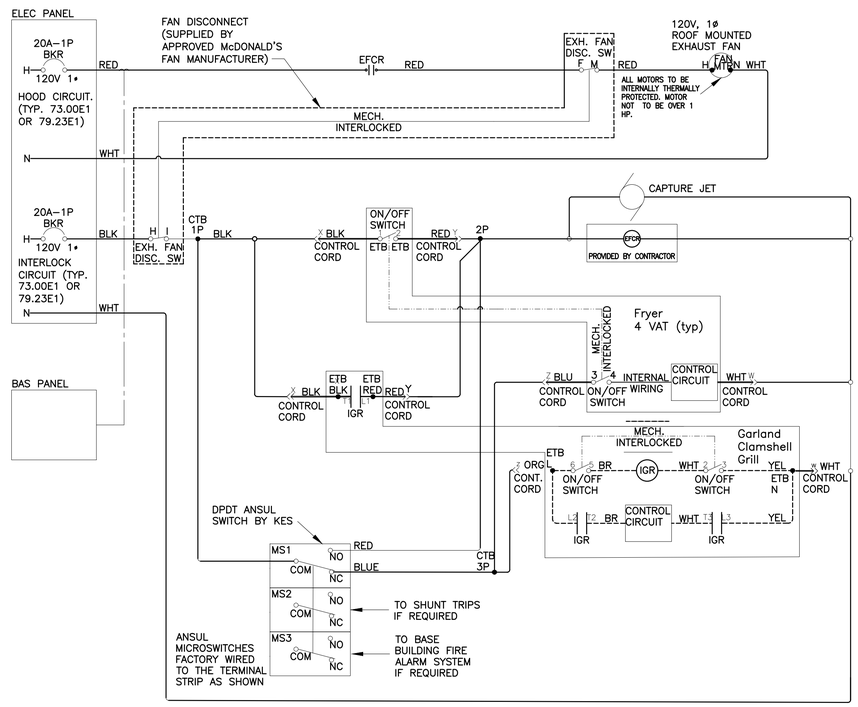
5 E-3.2 **INTERLOCK WIRING DIAGRAM FOR EXHAUST FAN AND COOKING EQUIPMENT**
FOR REFERENCE ONLY

REVISED: 6/18



3 E-3.2 **INTERLOCK LADDER DIAGRAM**
FOR REFERENCE ONLY

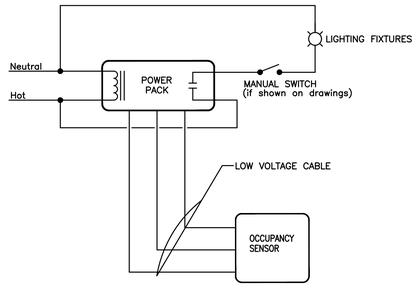
REVISED: 6/18



6 E-3.2 **INTERLOCK LADDER DIAGRAM**
FOR REFERENCE ONLY

REVISED: 6/18

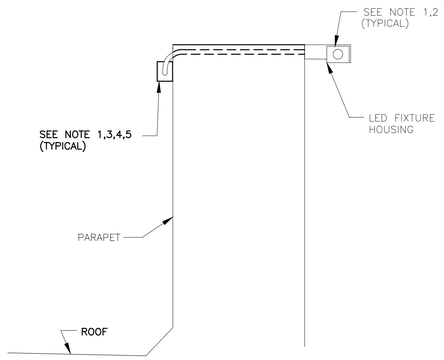
REV	DATE	DESCRIPTION	BY



NOTES:

1. REFER TO LIGHTING PLAN FOR OCCUPANCY SENSOR LOCATIONS AND QUANTITIES.

1 / E-4.0 **OCCUPANCY SENSOR CONTROL DETAIL**
NOT TO SCALE



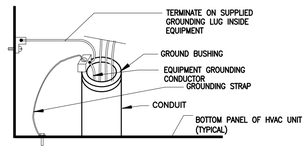
3 / E-4.0 **BRAND WALL LIGHTING DETAIL**
NOT TO SCALE

GENERAL NOTES

1. PLACE LED FIXTURE AT DESIRED LOCATION AND INSTALL FIXTURE FROM LEFT TO RIGHT WHEN FACING ARCADE AND ATTACH POWER SUPPLY AND MOUNTING BRACKET AS RECOMMENDED BY MANUFACTURER.
2. EC SHALL CONNECT NEW FIXTURES TO THE NEXT AVAILABLE SPARE 120V CIRCUIT AND MAKE ALL ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE OPERATING SYSTEM.
3. POWER SUPPLY SHALL ALWAYS BE INSTALLED TO THE LEFT SIDE OF FIXTURE WHEN FACING ARCADE.
4. OVERALL FIXTURE RUN TO BE CENTERED ON OVERALL LENGTH OF WALL.
5. CONNECT NEW LED FIXTURES TO EXISTING LIGHTING CIRCUIT(S) AS REQUIRED. ENSURE THAT CIRCUIT BREAKER AND CONDUCTOR SIZES DO NOT EXCEED 1200 WATTS ON A 15A CIRCUIT AND 1600 WATTS ON A 20A CIRCUIT. VERIFY EXISTING CONDITIONS AND REQUIREMENTS IN FIELD. PROVIDE ADDITIONAL CIRCUITS (C.B.,WIRING,CONDUITS) AS REQUIRED.

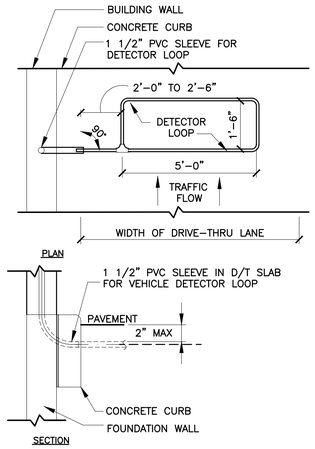
CONDUIT, WIRE SIZE AND GROUNDING FOR HVAC UNITS

HACR BRKR SIZE	CONDUIT & WIRE SIZE
40A	1"C–3#8
45A	1"C–3#6
50A	1"C–3#6
60A	1"C–3#6
70A	1–1/4"C–3#4
80A	1–1/4"C–3#3
90A	1–1/4"C–3#3
100A	1–1/4"C–3#2
125A	1–1/2"C–3#1
150A	1–1/2"C–3#1/0
175A	2"C–3#2/0
200A	2"C–3#3/0
225A	2"C–3#4/0
250A	2–1/2"C–3#250

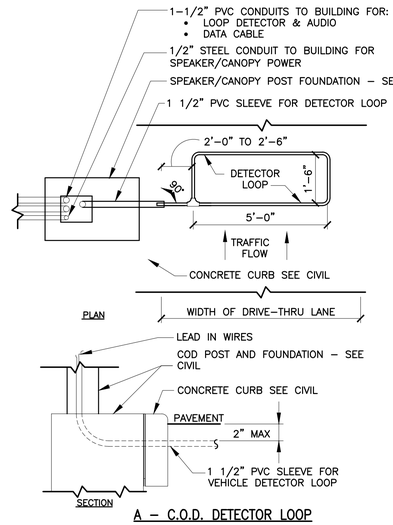


4 / E-4.0 **HVAC GROUNDING DETAIL**
NOT TO SCALE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION OF ALL ELECTRICAL FEEDERS AND CIRCUIT BREAKERS WITH THE MANUFACTURER'S WRITTEN DATA FOR EACH MECHANICAL DEVICE PRIOR TO SUBMITTAL OF ANY ELECTRICAL EQUIPMENT FOR REVIEW. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY CHANGES TO ELECTRICAL FEEDERS OR CIRCUIT BREAKERS REQUIRED FOR ANY MECHANICAL DEVICES.



B – DT WINDOW DETECTOR LOOP

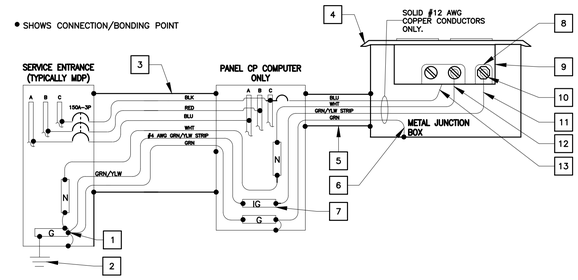


A – C.O.D. DETECTOR LOOP

2 / E-4.0 **DETECTOR LOOP DETAILS**
NOT TO SCALE

NOTES

1. VERIFY CONDUIT SIZES AND LAYOUT WITH DETECTOR LOOP MANUFACTURER.
2. CENTER VEHICLE DETECTOR LOOP (ITEM # 217.11E1) IN DRIVE THRU LANE. INSTALL PER MFR. RECOMMENDATIONS.
3. SEE CIVIL FOR DIMENSIONS OF DRIVE–THRU LANE CONCRETE PAD FOR DETECTOR LOOP.
4. NO STEEL (REBAR OR ELECTRICAL WIRE) SHALL BE USED WITHIN 2' OF LOOP.
5. DETECTOR LOOP MANUFACTURERS:
   DETECTOR LOOPS MAY BE BY ONE OF THE FOLLOWINGS COMPANIES OR EQUAL.
   3M: 1–800–328–0033
   HME: 1–800–848–4468
6. DETECTOR LOOP MATERIAL:
   PVC TUBING 1/2" I.D. 100 PSI LOOP MADE FROM ONE LENGTH OF THIN FOURTEEN GAUGE STRANDED WIRE. LEAD–IN IS PRE–TWISTED AT FACTORY.
7. DETECTOR LOOP CONSTRUCTION:
   FORMED WITH ONE CONTINUOUS LENGTH OF PVC WITH NO SHARP CORNERS AS DETAILED. WIRE LOOPED, FORMED, & PIGTAILED AS DETAILED.



NOTES

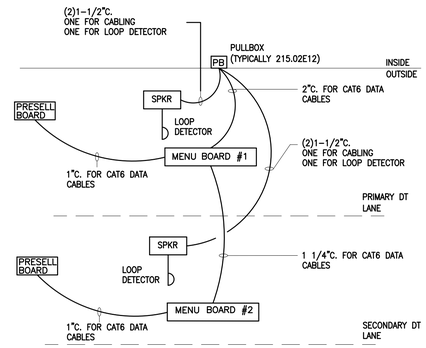
1. ALL P.O.S. EQUIPMENT (COMPUTERS,PRINTERS,MONITORS KVS, MODEM, HUB & COD) SHALL BE POWERED FROM THE COMPUTER PANEL.

   ALL OTHER COMPUTER/DIGITAL EQUIPMENT SHALL BE POWERED FROM PHASE "A" IN THE COMPUTER PANEL.
2. ISOLATED GROUND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF NEC SECTION 250 .
3. EACH 20 AMP CIRCUIT SHALL HAVE IT'S OWN ISOLATED EQUIPMENT GROUNDING CONDUCTOR.
4. ENTIRE GROUNDING SYSTEM SHALL COMPLY WITH NEC ARTICLE 250 AND MCDONALD'S BUILDING GROUNDING DETAIL.
5. EC SHALL VERIFY CORRECT POLARITY AT RECEPTACLE.
6. EC SHALL VERIFY THAT SUBPANEL CP DOES NOT CONTAIN ANY ILLEGAL NEUTRAL TO GROUND BONDS.
7. PANEL CP SHALL ONLY BE USED TO POWER SENSITIVE ELECTRONIC EQUIPMENT, AS OUTLINED IN NOTE #1. IT SHALL NOT BE USED TO POWER ANY OTHER LOADS.
8. IT IS A SAFETY HAZARD AND AN NEC VIOLATION FOR THE POS SYSTEM TO HAVE ITS OWN INDEPENDENT GROUNDING ROD. IF AN INDEPENDENT GROUND ROD IS FOUND FOR THE POS SYSTEM, IT SHALL BE BONDED TO THE BUILDING GROUNDING SYSTEM.

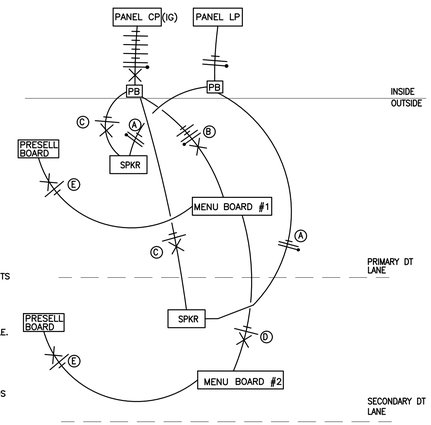
KEY NOTES

1	THIS IS THE ONLY POINT WHERE THE ISOLATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE CONNECTED TO THE BUILDING'S GROUNDING SYSTEM.
2	SEE BUILDING GROUNDING DETAIL SHEET E4.2.
3	1 1/2" METAL CONDUIT: 4–#1/0 CU + 1–#6 CU EQUIP GND + 1–#4 CU ISOLATED GND.
4	ALL ISOLATED GROUND/ DEDICATED CIRCUIT RECEPTACLE COVER PLATES SHALL BE ORANGE HUBBELL PJ7CO (SINGLE), PJ8CO (ONE DUPLEX) OR PJ82CO (TWO DUPLEX) MARKED "COMPUTER ONLY".
5	METAL CONDUIT SHALL CONTAIN ONLY P.O.S. CIRCUIT CONDUCTORS (DEDICATED CIRCUIT). ONLY USE RIGID NON–METALLIC CONDUIT BELOW GRADE WHEN REQUIRED BY LOCAL CODE.
6	EQUIPMENT GROUNDING BONDING CONDUCTOR (TYPICAL)
7	ISOLATED GROUND BUS, ELECTRICALLY INSULATED FROM PANEL ENCLOSURE USED TO TERMINATE ONLY ISOLATED EQUIPMENT GROUNDING CONDUCTORS.
8	ALL CONDUCTORS SHALL BE SOLID COPPER AND TERMINATED TO THEIR APPROPRIATE TERMINAL SCREWS BY WRAPPING THE CONDUCTOR COMPLETELY AROUND THE SCREW BARREL AND TIGHTENING THE SCREW PER MANUFACTURER'S TORQUE SPECIFICATIONS.
9	ISOLATED GROUND RECEPTACLE HUBBELL–IG4700,IG4710,IG5262 OR IG5261. SEE ROUGH IN SCHEDULE FOR THE APPROPRIATE RECEPTACLE TO USE.
10	ISOLATED GREEN GROUND SCREW.
11	ISOLATED EQUIPMENT GROUNDING CONDUCTOR (GRN W/YLW STRIP)
12	NEUTRAL CONDUCTOR TERMINATED ON SILVER SCREW.
13	PHASE CONDUCTOR TERMINATED ON BRASS SCREW

5 / E-4.0 **POS & COD ISOLATED GROUND/DEDICATED CIRCUIT**
NOT TO SCALE



DT LOW VOLTAGE CONDUIT DIAGRAM
NOT TO SCALE



DRIVE THRU POWER DIAGRAM
NOT TO SCALE

NOTE:

* VERIFY EXACT CIRCUITS & QUANTITIES OF CIRCUITS WITH PANEL SCHEDULES AND MANUFACTURERS INSTALLATION INSTRUCTIONS.

* VERIFY LOW VOLTAGE CABLE COUNT WITH POS INSTALLER. LOW VOLTAGE CABLE SUPPLIED AND TERMINATED BY POS INSTALLER. EC TO PULL CABLE.

(A) 2#12 & 1#12 GND. TO LP–1 FOR COD CANOPY LIGHTING.

(B) 4#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO MENUBOARDS AND MEDIA PLAYERS.

(C) 2#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO SPEAKER CANOPY/STAND. EACH CANOPY/STAND SHALL BE ON ITS OWN SEPARATE CIRCUIT.

(D) 2#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO MENUBOARDS AND MEDIA PLAYERS.

(E) 2#12 & 1#12 GND & 1#12 ISOLATED GND., TO CP FOR ISOLATED GROUND POWER TO FOR PRESELL BOARDS AND MEDIA PLAYER.

REV	DATE	DESCRIPTION	BY
			WLW
	02/26/25	PERMIT SET	WLW
	12/06/24	BID SET	

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3801.0075

STATE OF MISSOURI
MATTHEW FULTS
NUMBER PE-2004008366
PROFESSIONAL ENGINEER
02/26/25

PREPARED BY:

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PREPARED FOR: McDonald's USA, LLC

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STD ISSUE DATE	2024 05
REVIEWED BY	WLW
DATE ISSUED	02 26 2025
RD#	24247

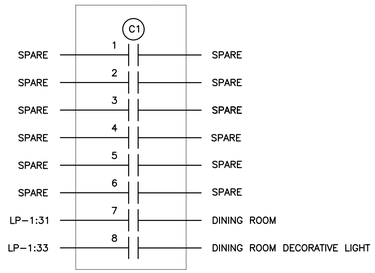
TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION	
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI	
WOOD TRUSS ROOF FRAMING	
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH	
SITE ADDRESS	8712 N. Indiana Avenue, Kansas City, MO 64156
NSN: 43016	
L/C: 024–1306	

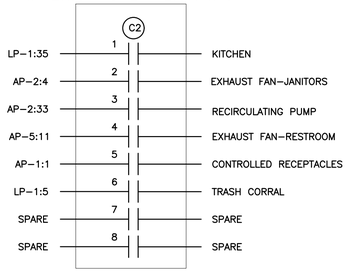
SHEET NO.: 024–1306.00.0
E4.0
WIRING DETAILS

LIGHTING CONTROL SYSTEM

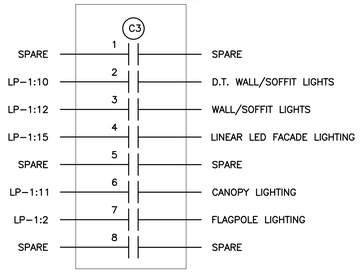
INTERIOR CUSTOMER LIGHTING



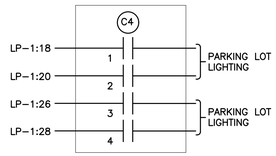
INTERIOR CREW LIGHTING



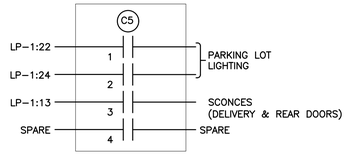
BUILDING FACADE



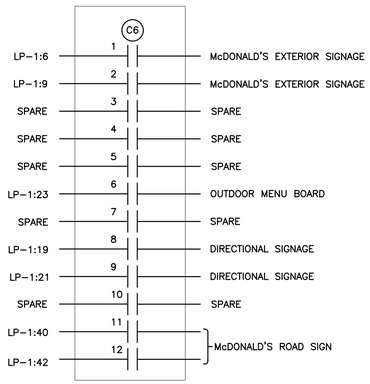
EXTERIOR LIGHTING



EXTERIOR LIGHTING



EXTERIOR SIGNAGE



INTERIOR LIGHTING CONTROL SCHEDULE							
	LOCAL CONTROL	MANUAL ON	PARTIAL ON	MULTI LEVEL	DAYLIGHTING	AUTO OFF	SCHEDULE OFF
DINING	MANAGERS OFFICE		X		X		X
KITCHEN	MANAGERS OFFICE		X				X
SUPPORT/STOCK	X					X	
CREW	X	X		X		X	
MANAGER	X	X		X		X	
BATHROOM						X	
SMALL STORAGE	X	X				X	
ENTRY VESTIBULE							X

NOTES:
1. LOCAL CONTROL: MANUAL LIGHTING CONTROL THAT PROVIDES ON AND OFF CONTROL IN SPACE. REMOTE LOCATION CONTROL DEVICE MUST BE LABELED TO IDENTIFY CONTROLLED LIGHTING.
2. MANUAL ON: NONE OF THE LIGHTING SHALL BE AUTOMATICALLY TURNED ON.
3. PARTIAL ON: 50% OF THE GENERAL LIGHTING SHALL BE AUTOMATICALLY TURNED ON.
4. MULTI LEVEL: GENERAL LIGHTING SHALL BE FITTED WITH A MANUAL CONTROLLED CONTINUOUS DIMMER.
5. DAYLIGHTING: REQUIRED WHEN PRIMARY AND SECONDARY ZONES CONTAIN 150W OF GENERAL LIGHTING. PHOTOCONTROL SHALL REDUCE LIGHTING IN RESPONSE TO AVAILABLE DAYLIGHT USING CONTINUOUS DIMMING TO 20% AND OFF.
6. AUTO OFF: ALL LIGHTING INCLUDING LIGHTING CONNECTED TO EMERGENCY CIRCUITS SHALL BE AUTOMATICALLY SHUT OFF WITHIN 20 MINUTES OF OCCUPANTS LEAVING THE SPACE.
7. SCHEDULE OFF: ALL LIGHTING, INCLUDING LIGHTING CONNECTED TO EMERGENCY CIRCUITS, SHALL BE AUTOMATICALLY SHUT OFF DURING PERIODS WHEN THE SPACE IS SCHEDULED TO BE UNOCCUPIED.
8. 0.02W PER SQUARE FT OF BUILDING ALLOWED TO BE CONTINUOUSLY LIT.

EXTERIOR LIGHTING CONTROL SCHEDULE			
	TIME CLOCK	PHOTCELL	OCCUPANCY SENSOR
POLE LIGHTING	X	X	X
BUILDING MOUNT LIGHTING	X	X	
SIGNAGE	X	X	

NOTES:
1. TIME CLOCK: LIGHTING SHALL BE AUTOMATICALLY SHUT OFF BETWEEN BUSINESS CLOSING (OR MIDNIGHT) AND BUSINESS OPENING (OR 6AM) WHICHEVER PROVIDES THE SHORTEST OFF DURATION.
2. PHOTOCELL: LIGHTING SHALL BE AUTOMATICALLY TURNED OFF WHEN SUFFICIENT DAYLIGHT IS AVAILABLE.
3. OCCUPANCY SENSOR: LIGHTING SHALL AUTOMATICALLY REDUCE THE CONNECTED LIGHTING POWER BY 50% WHEN NO ACTIVITY HAS BEEN DETECTED IN AREA IN 15 MINUTES. NO MORE THAN 1500W OF LIGHTING PER CONTROL ZONE.

LIGHTING CONTROL NOTES:

LIGHTING CONTROL NOTES

LC1. CONTACTOR DETAILS ARE DIAGRAMMATIC ONLY AND ARE SHOWN WITH TYPICAL LOADS AND CIRCUIT ASSIGNMENTS. LOADS, CIRCUIT ASSIGNMENTS AND NUMBER OF CONTACTORS MAY VARY BY RESTAURANT LOCATION AND PER BAS SUPPLIERS SYSTEMS. VERIFY EXACT REQUIREMENTS WITH BAS INSTALLATION DETAILS, SITE PLANS, ELECTRICAL PANEL SCHEDULES AND ACM. EC SHALL MAKE ALL MODIFICATIONS AS REQUIRED. FINAL INSTALLATION SHALL BE FULLY NEC AND ENERGY CODE COMPLIANT.

LC2. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING, CONNECTIONS, TERMINATIONS, ETC. THAT ARE NOT PROVIDED BY THE BAS SUPPLIER FOR A COMPLETE, FULLY OPERATIONAL AND CODE COMPLIANT LIGHTING CONTROL SYSTEM.

LC3. ALL COMPONENTS FOR THIS LIGHTING CONTROL SYSTEM SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR. SEE BOXED NOTE BELOW FOR OPTIONS.

LC4. ALL COMPONENTS SHALL BE UL LISTED AND LABELED AND THE SYSTEM SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL ENERGY CODE REQUIREMENTS.

LC5. ALL CONTACTORS SHALL BE LOCATED IN A NEMA 1 ENCLOSURE WITH SCREW TYPE COVER MOUNTED DIRECTLY ABOVE LIGHTING PANEL OR SWITCHGEAR SO AS TO BE ACCESSIBLE.

LC6. ALL CONTACTORS SHALL BE RATED FOR 30 AMP LOADS UNLESS NOTED OTHERWISE AND SHALL BE HID RATED WHERE REQUIRED.

LC7. COIL VOLTAGES FOR ALL CONTACTORS SHALL BE 120 VOLT UNLESS NOTED OTHERWISE.

LC8. CONTACTOR C5 IS INTENDED TO CONTROL PARKING LOT LIGHTS NEAR TRASH CORRAL, DELIVERY DOORS, AND EMPLOYEE PARKING, THUS ALLOWING A DIFFERENT LIGHTING SCHEDULE TO BE USED IN THOSE AREAS.

LIGHTING CONTROL INSTALLATION OPTIONS

OPTION 1 (STANDARD) CONTACTORS AND CONTACTOR ENCLOSURE FOR THIS LIGHTING CONTROL SYSTEM SHALL BE FURNISHED BY THE BAS SUPPLIER AND INSTALLED BY THE ELECTRICAL CONTRACTOR ON SITE FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.

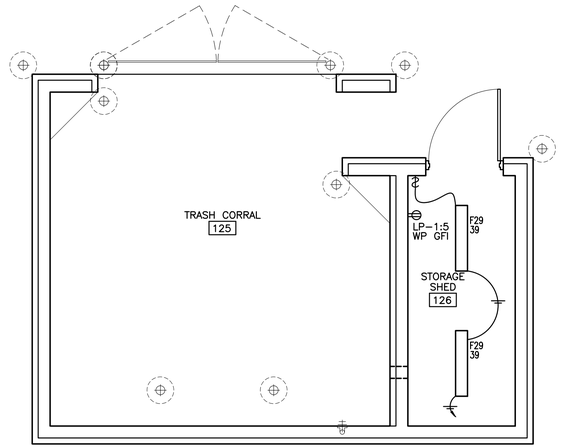
OPTION 2 (OPTIONAL) LIGHTING CONTROL CAN BE ACCOMPLISHED VIA UTILIZATION OF A SMART TYPE BREAKER PANEL REPLACING STANDARD PANEL LP-1. PANEL SHALL UTILIZE AN INTEGRAL MOTOR OPERATED CIRCUIT BREAKERS OR AN INTEGRAL CIRCUIT BREAKER/CONTACTOR TYPE COMBINATION DEVICE WITH AN INTEGRAL PROGRAMMING CONTROL MODULE AND SHALL BE ORDERED THROUGH OUR ELECTRICAL EQUIPMENT NATIONAL ACCOUNT PROGRAM (SQUARE-D) THROUGH OUR CONSTRUCTION PURCHASING TEAM.

BUILDING AUTOMATION SYSTEM NOTES

BAS1. THE DIAGRAM SHOWN ABOVE IS SCHEMATIC IN NATURE AND SHOWS THE GENERAL REQUIREMENTS FOR THE INSTALLATION OF THE BUILDING AUTOMATION SYSTEM. EXACT EQUIPMENT REQUIREMENTS AND QUANTITIES WILL VARY PER SITE. G.C., M.C., T.C.C. AND E.C. SHALL COORDINATE ALL EXACT EQUIPMENT AND INSTALLATION REQUIREMENTS WITH SUPPLIER PRIOR TO SUBMITTING BID FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.

BAS2. THE BUILDING AUTOMATION SYSTEM ALSO HAS ADDITIONAL OPTIONS AVAILABLE SUCH AS MONITORING DOOR CONTACTS (RESTROOM & COOLER FREEZER), ENERGY METER, COOLER/FREEZER TEMP. ADDITIONAL OPTIONS MAY BE SELECTED ON CENTRAL PURCHASING PROJECT DETAIL FORM. G.C., M.C., T.C.C. AND E.C. SHALL COORDINATE ALL EXACT INSTALLATION REQUIREMENTS WITH SUPPLIER PRIOR TO SUBMITTING BID FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.

BAS3. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LINE AND LOW VOLTAGE WIRING AND CONNECTIONS, INCLUDING BUT NOT LIMITED TO CONTROL POWER TO ALL BAS COMPONENTS AND POWER CIRCUITRY WIRING OF ALL LIGHTING CONTACTORS. COORDINATE INSTALLATION WITH SITE SPECIFIC BAS INSTALLATION DETAILS PROVIDED BY SUPPLIER.

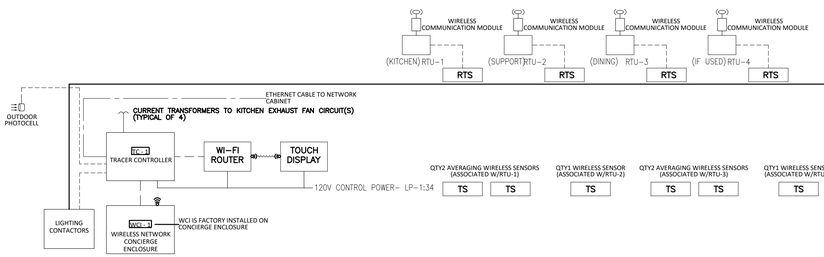


1 / E4.1 TRASH CORRAL PLAN W/ SHED
1/4"=1'-0"

LIGHTING FIXTURE SCHEDULE:

MARK	SYMBOL	DESCRIPTION	DIFFUSER	WATTS	TYPE	BALLAST	MOUNTING	MANUFACTURER AND CATALOG NUMBER
F29		INDUSTRIAL STRIP	ACRYLIC	25W	LED	–	VARIES	COLUMBIA – LCL4–40LW–EDU

INSTALLATION & TECHNICAL ASSISTANCE INFORMATION:
TRANE BAS: McDcontrols@Trane.com



PROVIDE AND INSTALL DATA OUTLET NEXT TO BAS PANEL. REMOTE COMMISSIONING IS NOT POSSIBLE WITHOUT DATA CONNECTION.

INSTALLATION NOTES:
1. PROVIDE, INSTALL AND SECURE ALL NECESSARY CABLE & CONDUIT PER BAS DRAWINGS AND SPECIFICATIONS.
2. MOUNT ALL BAS CONTROL ENCLOSURES.
3. PERFORM ALL LOW VOLTAGE TERMINATIONS.
4. ROUGH-IN, INSTALLATION AND WIRING FOR TEMPERATURE SENSORS AND TOUCHSCREEN PER PLAN LOCATIONS.
5. PROVIDE POWER CIRCUITS INTO CONTROL CANS PER BAS DETAILS.
6. COORDINATE WITH SUPPLIER TO SCHEDULE REMOTE COMMISSIONING.
7. CORRECT ALL PUNCH LIST ITEMS FOUND DURING REMOTE COMMISSIONING.

CONTROLS SCHEDULE		
MARK	DESCRIPTION	MANUFACTURER MODEL
TS	WIRELESS SPACE TEMPERATURE SENSOR	*PROVIDED WITH BAS
RTS	RETURN TEMPERATURE SENSOR	*PROVIDED WITH BAS
HS	OUTDOOR TEMP/HUMIDITY SENSOR	FACTORY FURNISHED AND INSTALLED W/EACH RTU
NOTES: 1. FOR TS LOCATIONS, REFER TO M1.2 2. RTS TO BE MOUNTED IN RETURN AIR DUCT OF RTU		

WIRE LEGEND	
MARK	WIRE/CABLE TYPE
—— – ——	CAT 5E
– – – – – –	18 AWG CONDUCTORS

REV	DATE	DESCRIPTION	BY
	02/26/25	PERMIT SET	WLW
	12/06/24	BID SET	WLW

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3801.0075

STATE OF MISSOURI MATTHEW FULTS NUMBER PE-2004008986 PROFESSIONAL ENGINEER

PREPARED BY: 02/26/25

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PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	REVIEWED BY:	PREPARED BY:
MJW	WLW	
STD ISSUE DATE 2024 05	DATE ISSUED 02 26 2025	RQ# 24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: A3016 | SITE ADDRESS: 8712 N. Indiana Avenue, Kansas City, MO 64156
L/C: 024–1306

SHEET NO.: 024–1306.00.0
E4.1
LIGHTING CONTROLS

MLO, AIC: NOTES D6,D7,&D8, Mounting: flush, NEMA 1 — **PANEL LP-1** — 225A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRIP POLES	CCT NO.	CCT NO.	TRIP POLES	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
0			Spare		20A-1	1	2	20A-1	S	Flag Pole	220		
	0		Spare		20A-1	3	4	20A-1		Spare		0	
		400	Trash Corral Lighting		20A-1	5	6	20A-1	S	Front Signage			294
0			Spare		20A-1	7	8	20A-1	S	Spare	0		
	294		Back, DT & Non DT Signage	S	20A-1	9	10	20A-1	S	Exterior Wall/Soffit Lights DT		114	
		193	Flood Lights	S	20A-1	11	12	20A-1	S	Exterior Wall/Soffit Lights		.	114
42			Back of House Sconces	S,L	20A-1	13	14	20A-1		DCO In Road Sign Base	180		
	126		Linear LED Façade Lighting	S	20A-1	15	16	20A-1	L	Dr Alarm/CO2		524	
		0	Spare		20A-1	17	18	30A-2		Lot Lights			480
96			Directional Sign	S	20A-1	19	20	|		|	480		
	96		Directional Sign	S	20A-1	21	22	30A-2		Lot Lights		240	
		120	COD Lighting	S	20A-1	23	24	|		|			240
0			Spare		20A-1	25	26	30A-2		Lot Lights	480		
	0		Spare	S	20A-1	27	28	|		|		480	
		0	Spare	S	20A-1	29	30	30A-2		Spare			0
320			Dining Area Lighting	S	20A-1	31	32	|		|	0		
	224		Pendants/cove lights	S	15A-1	33	34	20A-1	L	BAS Controller		300	
		792	Kitchen Lighting	S	20A-1	35	36	20A-1	L	Lighting Control Panel			180
176			Restroom Lighting	S	20A-1	37	38	20A-1	S,L	Night/Ltg /Emerg. LED Lighting	80		
	488		Support Area Lighting	S	20A-1	39	40	60A-2	S	Mcd'S Road Sign		2496	
			Spare		20A-1	41	42	|		|			2496
										Total Connect	2074	5382	5309
										Connect Amps		35	Amps
										Demand Amps		44	Amps

MLO, AIC: NOTES D6, D7, & D8, Mounting: MDP, NEMA 1 — **PANEL AP-1** — 225A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRIP PLS	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
1620			DCO-Manager office/Crew room		20A-1	1	2	20A-2	G	Coffee brewer (presenter's booth)	1612		
	900		DCO - General Purpose	G	20A-1	3	4	|	|	|		1612	
		0	Spare		20A-1	5	6	20A-1	G	ABS (phase c, presenter's booth)			1788
120			Safe - (mo) DCO Gen Purp	L	20A-1	7	8	20A-1	G	Oj dispenser/ coffee cream disp	840		
	240		Remote Order Battery		20A-1	9	10	20A-1	G	CO2 Detector		120	
		960	Merge/audio sys/dry mon(sa)	G	20A-1	11	12	20A-1	G	Automated beverage sys (abs,pb)			600
960			Washer		15A-1	13	14	20A-2	G	Coffee Brewer (front counter)	1612		
	1800		Hand held Order		20A-1	15	16	|	|	|		1612	
		120	Computer Room (TF/1)		20A-1	17	18	30A-3	G	Heat treat combo shake (frnt cntr)			1560
2246			Espresso Brewer	G	30A-2	19	20	|	|	|	1560		
	2246		|	|	|	21	22	|	|	|		1560	
		1500	3-Vat fryer exhst hd interlock		20A-1	23	24	20A-1		3-Vat fryer exhst hd interlock			1176
1320			Reach in Freezer-SW	G	20A-1	25	26	20A-2	H	Ice Machine Remote Cond 1400lb	104		
	1080		Frozen fry dispenser (fry wall)	G	20A-1	27	28	|	|		104		
		2112	4-Vat fryer exhst hd interlock		20A-1	29	30	20A-1	G	Reach in Freezer-SW			1320
1500			Fry bagging station	L,G	20A-1	31	32	15A-3	H	Ice Machine Remote Cond 1000lb	1332		
	60		Hand Wash Timer	G	20A-1	33	34	|	|	|		1332	
		1320	Reach in Freezer-SW	G	20A-1	35	36	|	|	|			1332
132			Ice machine - 1000 lb		15A-1	37	38	15A-3	H	Ice Machine Remote Cond 1000lb	1332		
	132		Ice machine - 1000 lb		15A-1	39	40	|	|	|		1332	
		1656	4-Vat fryer hd interlock		20A-1	41	42	|	|	|			1332
										Total Connect	16290	14130	16776
										Connect Amps		131	Amps
										Demand Amps		91	Amps

MLO, AIC: NOTES D6,D7,&D8, Mounting: MDP, NEMA 1 — **PANEL AP-2** — 225A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRIP PLS	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
1536			Ice machine 1400LB	H	20A-3	1	2	20A-1		Spare			
	1536		|	|	|	3	4	20A-1		Janitor EF		100	
		1536	|	|	|	5	6	20A-1	G	DCO - General Purpose			540
144			Blender McFlurry	G	20A-1	7	8	20A-1	G	Refrig-wt-48"	600		
	180		Janitor's closet	G	20A-1	9	10	30A-2	H	Trash Compactor			2496
		480	Water Heater - Gas Igniter Cntrl	L	20A-1	11	12	|	|	|			2496
0			Spare	G	20A-1	13	14	20A-1		Walk in cooler / freezer	600		
	864		Bulk oil system (sup area)	G	20A-1	15	16	20A-1		Walk in cooler / freezer		600	
		1668	Clm grill exhaust hd interlock		20A-1	17	18	20A-2	G	Q'ing oven - P& S			1550
840			Meat freezer DW (grill side)	G	20A-1	19	20	|	|	|	1550		
	120		Clean in place panel	G	20A-1	21	22	20A-1	G	Specialty Coffee Refrigerator 27"		468	
		490	Reverse Osmosis, Filtration	G	20A-1	23	24	20A-1	G	Automated beverage sys			600
180			DCO in Trash Corral	G	20A-1	25	26	20A-1	G	ABS (presenter's booth)	1788		
	1200		Bulk oil sys - support area (sa)	G	20A-1	27	28	20A-2	G	Q'ing oven - P& S		1550	
		1032	BIC Machine	G	20A-1	29	30	|	|	|			1550
324			Reach In SW fridge	G	20A-1	31	32	20A-2	G	Infusion Tea Brewer	1352		
	120		Recirc pump		20A-1	33	34	|	|	|		1352	
		1632	Soda syst pack (support area)		20A-1	35	36	20A-1		Spare			100
3120			Soda syst pack (support area)		30A-3	37	38	20A-2	G	Q'ing oven - P& S	1602		
	3120		|	|	|	39	40	|	|	|		1602	
		3120	|	|	|	41	42	20A-1	G	Dco-General Purpose			540
										Total Connect	13636	15308	17333
										Connect Amps		129	Amps
										Demand Amps		85	Amps

MLO, AIC: NOTES D6,D7,&D8, Mounting: MDP, NEMA 1 — **PANEL AP-3** — 225A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRIP- PLS	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
4668			4-Vat-Fryer-Electric-S/S/S/S	G	50A-3	1	2	50A-3	G	4-Vat-Fryer-Electric-S/S/S/S	4668		
	4668		|	|	|	3	4	|	|	|		4668	
		4668	|	|	|	5	6	|	|	|			4668
4668			4-Vat-Fryer-Electric-S/S/S/S	G	50A-3	7	8	50A-3	G	4-Vat-Fryer-Electric-S/S/S/S	4668		
	4668		|	|	|	9	10	|	|	|		4668	
		4668	|	|	|	11	12	|	|	|			4668
0			Space			13	14	50A-3	G	Clamshell Grill	2604		
	0		Space			15	16	|	|	|	2604		
		0	Space			17	18	|	|	|			2604
0			Space			19	20	50A-3	G	Clamshell Grill	5196		
	0		Space			21	22	|	|	|	5196		
		0	Space			23	24	|	|	|			5196
0			Space			25	26			Space	0		
	0		Space			27	28			Space		0	
		0	Space			29	30			Space			0
0			Space			31	32			Space	0		
	0		Space			33	34			Space		0	
		0	Space			35	36			Space			0
0			Space			37	38			Space	0		
	0		Space			39	40			Space		0	
		0	Space			41	42			Space			0
										Total Connect	26472	26472	26472
										Connect Amps		220	Amps
										Demand Amps		143	Amps

MLO, AIC: NOTES D6,D7,&D8, Mounting: MDP, NEMA 1 — **PANEL AP-4** — 225A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRIP- PLS	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
2604			Clamshell Grill	G	50A-3	1	2	30A-3	G	Combi Oven	1812		
	2604		|	|	|	3	4	|	|	|		1812	
		2604	|	|	|	5	6	|	|	|			1812
5196			Clamshell Grill	G	50A-3	7	8	30A-3	G	Combi Oven	1812		
	5196		|	|	|	9	10	|	|	|		1812	
		5196	|	|	|	11	12	|	|	|			1812
4668			3-Vat-Fryer-Electric-F/F/F	G	50A-3	13	14	15A-1		Combi Oven Hood	960		
	4668		|	|	|	15	16	15A-1		Combi Oven Hood		960	
		4668	|	|	|	17	18			Space			0
4668			3-Vat-Fryer-Electric-F/F/F	G	50A-3	19	20			Space	0		
	4668		|	|	|	21	22			Space		0	
		4668	|	|	|	23	24			Space			0
4668			3-Vat-Fryer-Electric-F/F/F	G	50A-3	25	26			Space	0		
	4668		|	|	|	27	28			Space		0	
		4668	|	|	|	29	30			Space			0
0			Spare			31	32			Space	0		
	0		Spare			33	34			Space		0	
		0	Spare			35	36			Space			0
0			Space			37	38			Space	0		
	0		Space			39	40			Space		0	
		0	Space			41	42			Space			0
										Total Connect	26387	26387	25427
										Connect Amps		217	Amps
										Demand Amps		141	Amps

MLO, AIC: NOTES D6,D7,&D8, Mounting: MDP, NEMA 1 — **PANEL AP-5** — 225A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRIP- PLS	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
600			Fridge/Freezer 2Dr Base	G	20A-1	1	2	20A-1		Warewasher Exhaust Fan	864		
	600		Fridge/Freezer 2Dr Base	G	20A-1	3	4	20A-2	G	Universal Holding Cabinet P&S		1581	
		600	Fridge/Freezer 2Dr Base	G	20A-1	5	6	|	|	|			1581
600			Fridge/Freezer 2Dr Base	G	20A-1	7	8	20A-2	G	Universal Holding Cabinet P&S	1581		
	600		Fridge/Freezer 2Dr Base	G	20A-1	9	10	|	|	|		1581	
		864	Toilet Exhaust Fan	G	20A-1	11	12	20A-1	G	Universal Holding Cabinet Table			240
540			Roof Receptacles	G	20A-1	13	14	20A-1		DT Power Window	120		
	132		Sparkle Table or spare		20A-1	15	16	20A-1		DT Power Window		120	
		2080	Frozen Carbonated Beverage	G	30A-2	17	18	20A-1		DT Power Window			120
2080			|	|	|	19	20	20A-2	G	Coffee Brewer (front counter)	1612		
	360		Delivery Tablets	G	20A-1	21	22	|	|	|		1612	
		600	Wall Mount Frz Unit SW HC	G	20A-1	23	24	20A-1	G	Pie Display			564
828			Bulk Oil System	G	20A-1	25	26	20A-1	G	Pie Display	564		
	2620		Universal Radiant Toaster	G	30A-2	27	28	20A-1		Spare		0	
		2620	|	|	|	29	30	20A-1		DCO-Muzak satellite system			120
3230			Warewasher 1of2	G	30A-3	31	32	20A-1		Clg. Mt window recepts	540		
	3230		|	|	|	33	34	20A-2	G	Humidified Holding Cabinet		947	
		3230	|	|	|	35	36	|	|	|			947
3230			Warewasher 2of2	G	30A-3	37	38	20A-2	H	Remote Condensing Unit	1560		
	3230		|	|	|	39	40	|	|	|		1560	
		3230	|	|	|	41	42	20A-1		Spare			0
										Total Connect	17949	18173	16796
										Connect Amps		147	Amps
										Demand Amps		96	Amps

MLO, AIC: NOTES D6,D7,&D8, Mounting: MDP, NEMA 1 — **PANEL AP-6** — 225A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRIP PLS	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
1092			Hand Dryer	L,G	20A-1	1	2	50A-2P		Unit AC-1	4000		
	1092		Hand Dryer	L,G	20A-1	3	4	|		|		4000	
		1092	Hand Dryer	L,G	20A-1	5	6	50A-2P		Unit AC-2			4000
1092			Hand Dryer	L,G	20A-1	7	8	|		|	4000		
	104		Cooler Evap	H	20A-2	9	10	20A-1		Unit AC-3		1200	
		104	|	|	|	11	12	20A-1		Unit AC-4			1200
2111			Freezer Evap	H	30A-2P	13	14	20A-1		Unit AC-5	600		
	2111		|	|	|	15	16	20A-1		Spare		0	
		0	Spare		20A-1	17	18	20A-1		Spare			0
0			Spare		20A-1	19	20	20A-1		Spare	0		
	0		Space			21	22			Space		0	
		0	Space			23	24			Space			0
0			Space			25	26			Space	0		
	0		Space			27	28			Space		0	
		0	Space			29	30			Space			0
0			Space			31	32			Space	0		
	0		Space			33	34			Space		0	
		0	Space			35	36			Space			0
0			Space			37	38			Space	0		
	0		Space			39	40			Space		0	
		0	Space			41	42			Space			0
										Total Connect	12895	8507	6396
										Connect Amps		77	Amps
										Demand Amps		54	Amps

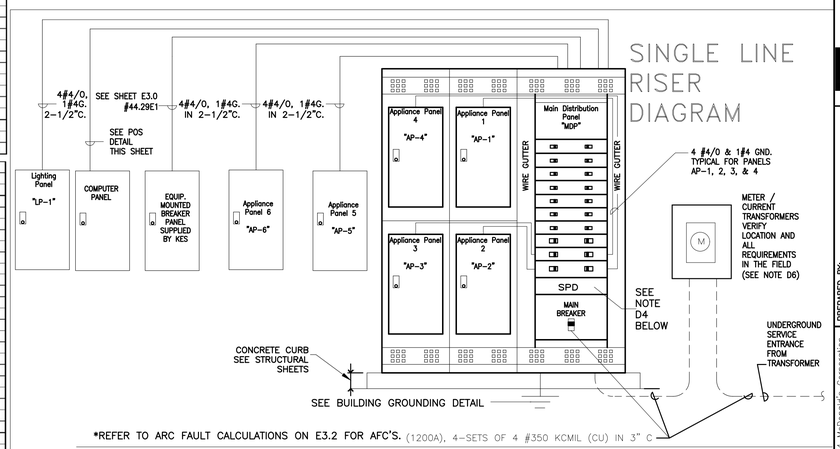
150 MLO AIC;SEE NOTES D6, D7, & D8, Mounting: Flush — **COMPUTER PANEL** — 100A, 208Y/120 VAC, 3PH, 4W, CB TYPE: BL or BLH

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRIP- PLS	BRKR REQ	DESCRIPTION	WATTS A	WATTS B	WATTS C
1656			POS/Reg/Mon/Printer/Headset	L	20A-1	1	2	20A-1	L	Spare	0		
	1200		Kvs Mon OAT/Vid/Rec/label	G, L	20A-1	3	4	20A-1	L	Rec		84	
		120	Cctv/Timer	L	20A-1	5	6	20A-1	L	Digital Merch/Media Player			432
630			Order Pos Reg/vid mon Coin Dispenser	L	20A-1	7	8	20A-1	G,L	Kvs Mon Kit/Labeling system	600		
	720		Video Monitor	G, L	20A-1	9	10	20A-1		Zoom Timer		720	
		600	Tech Rack	L	20A-1	11	12	20A-1	L	Tech Rack UPS			1680
0			Spare	L	20A-1	13	14	20A-1	L	Cod Optical Isolator	120		
	1200		Tech Rack	L	20A-1	15	16	20A-1	L	Speaker Canopy #1		120	
		1440	Tech Rack	L	20A-1	17	18	20A-1	L	Speaker Canopy #2,			120
444			Counter Pos Reg Rec	L	20A-1	19	20	20A-1	L	Office desk	1200		
	0		Spare	L	20A-1	21	22	20A-1	L	Office desk		1200	
		900	KVS Mon/KIT/Del. Pos Reg	G, L	20A-1	23	24	20A-1	L	Order Cash Recycler			528
1860			Exterior Menu Boards/Media Player	L	20A-1	25	26	20A-1	G, L	Kvs mon Prep	360		
	528		Counter Cash Recycler	L	20A-1	27	28	20A-1	G, L	Time Clock		60	
		1860	Exterior Menu Boards/Media player	L	20A-1	29	30	20A-1	L	Kiosks Cash Handler			528
480			DO Equipment Rack	L	20A-1	31	32	20A-1	L	Kiosks	1080		
	1200		BOCA	L	20A-1	33	34	20A-1	L	Kiosks		1080	
		0	Space			35	36	20A-1	L	Kiosks			1080
0			Space			37	38			Space			
	0		Space			39	40			Space			
		0	Space			41	42			Space			
										Total Connect	8430	8112	9288
										Connect Amps		72	Amps
										Demand Amps		50	Amps

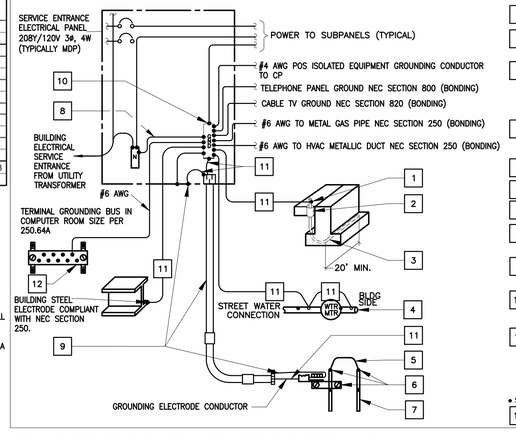
1200A MCB, NOTES D6, D7, & D8, Mounting: Free Standing, NEMA 1 100% FULLY RATED — **PANEL MDP** — 208Y/120 VAC, 3PH, 4W

WATTS A	WATTS B	WATTS C	DESCRIPTION	BRKR REQ	BRKR REQ	TRP PLS	CCT NO.	CCT NO.	TRP PLS	BRKR REQ	TYPE	DESCRIPTION	WATTS A	WATTS B	WATTS C
2074	5362	5309	Lighting Panel 1; LP-1			225A-3	1	2	225A-3			Appliance Panel; AP-1	16290	14130	16776
13636	15308	17333	Appliance Panel; AP-2			225A-3	3	4	225A-3	SHT		Appliance Panel; AP-3	26472	26472	26472
12960	12960	12960	*Roof Top Unit 1		H	150A-3	5	6	150A-3	L		CP Panel	8430	8112	9288
			Space			125A-3	7	8	110A-3	H		*Roof Top Unit 3	9480	9480	9480
17949	18173	16796	Appliance Panel; AP-5			225A-3	9	10	225A-3	SHT		Appliance Panel; AP-4	26387	26387	25427
7450	7402	0	KEC Breaker Panel			125A-2	11	12	70A-3	H		*Roof top unit 2	6360	6360	6360
			Space				13	14	225A-3			Appliance Panel; AP-6	12895	8507	6396
4056	4056	4056	Remote Condensing Unit	H		40A-3	15	16				Space			
			Space				17	18				SPD			
			Space				19	20				SPD			
												Total Connect	164439	162729	156853
												Connect Amps		1343	Amps

* SEE ELECT SHTS FOR CONDUIT AND WIRE SIZE



BUILDING ELECTRICAL GROUNDING DETAIL



KEY NOTES

1. PROVIDE ENOUGH LENGTH TO TERMINATE DIRECTLY TO GROUND BUS OR USE BOLTED-TYPE CONNECTION DEVICE OR EXOTHERMIC WELD.
2. NON-METALLIC PROTECTIVE SLEEVE. LOCATE SLEEVE DIRECTLY UNDER THE ELECTRICAL SERVICE ENTRANCE PANEL. EC TO PROVIDE PLIABLE SEALANT BETWEEN COPPER WIRE AND SLEEVE.
3. FOR NEW CONSTRUCTION WHEN A SPREAD FOOTING OR DOWN TURNED SLAB IS USED, EC SHALL INSTALL A CONCRETE ENCASED ELECTRODE, COMPLIANT WITH NEC SECTION 250, CONSISTING OF AT LEAST 20 FEET OF BARE #4 AWG COPPER ENCASED IN 2 INCHES OF CONCRETE NEAR THE BOTTOM OF THE FOOTING OR FOUNDATION (BELOW GRADE) THAT IS IN DIRECT CONTACT WITH EARTH.
4. METAL UNDERGROUND WATER PIPE ELECTRODE COMPLIANT WITH NEC SECTION 250. THE GROUNDING CONNECTION TO THE INTERIOR METAL WATER PIPE SHALL BE MADE WITHIN THE FIRST FIVE FEET OF THE WATER PIPE ENTRANCE TO THE BUILDING.
5. IF MULTIPLE GROUNDING RODS ARE BEING USED OR NEED TO BE USED, THEY SHALL ALL BE BONDED TOGETHER PER NEC SECTION 250.
6. CLAMPS SUITABLE FOR DIRECT BURIAL OR EXOTHERMIC WELD.
7. 8'-0" X 5/8" CU ROD GROUNDING ELECTRODE COMPLIANT WITH NEC SECTION 250.
8. CU BONDING JUMPER SIZED PER NEC SECTION 250 OR FACTORY PROVIDED NEUTRAL TO GROUND BAR LINK. (THIS IS THE ONLY PLACE IN THE BUILDING WHERE N-G SHALL BE BONDED TOGETHER)
9. ALL METAL RACEWAYS CONTAINING GROUNDING ELECTRODE CONDUCTORS SHALL BE BONDED AT BOTH ENDS AS REQUIRED BY NEC SECTION 250. PROVIDE GROUNDING TYPE BUSHINGS & FITTINGS.
10. MCDONALD'S GROUNDING STANDARDS PURPOSELY EXCEED THOSE GIVEN BY THE NEC. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A BUILDING GROUNDING SYSTEM MEETING NEC AND MCDONALD'S STANDARDS AS SHOWN ON THIS DRAWING.
11. CU GROUNDING ELECTRODE CONDUCTORS AND BONDING JUMPERS SHALL BE SIZED BASED UPON ELECTRICAL SERVICE SIZE PER NEC SECTION 250

800A 3/0 CU	1000A 3/0 CU	1200A 4/0 CU

* SHOWS CONNECTION/BONDING POINT

12. TERMINAL GROUNDING BUS AT 90"AFF. HARGER #GBI14212D.

DISTRIBUTION EQUIPMENT NOTES:

D1. ALL ELECTRICAL MATERIAL USED ON THIS PROJECT SHALL BE "UL" LISTED AND LABELED.

D2. THE EC/GC/AREA CONSTRUCTION MANAGER WHEN ORDERING PANELBOARDS, SHALL DETERMINE THE NUMBER OF SERVICE ENTRANCE CONDUCTORS, SIZE AND MATERIAL TYPE, AND SHALL PROVIDE THIS INFORMATION TO THE PANELBOARD SUPPLIER SO THAT THE APPROPRIATE LUGS CAN BE PROVIDED FROM THE FACTORY.

D3. ALUMINUM SERVICE ENTRANCE CONDUCTORS SHALL ONLY BE USED WHEN THEY ARE TERMINATED DIRECTLY TO THE LINE LUGS ON A C/T AND METERING CABINET, THE LINE LUGS OF A FUSIBLE DISCONNECT SWITCH OR TO THE LINE LUGS OF A MAIN LUG ONLY (6 HANDLE RULE) SERVICE ENTRANCE PANEL. ALUMINUM SERVICE ENTRANCE CONDUCTORS SHALL NOT BE TERMINATED TO THE LINE LUGS OF ANY MAIN BREAKER SINCE DOING SO WILL VIOLATE IT'S 100% UL RATING. IF ALUMINUM CONDUCTORS ARE USED AS PREVIOUSLY INDICATED THEY SHALL BE TERMINATED AS FOLLOWS, AND THE WIRE SIZE INCREASED DUE TO LOWER AMPACITY OF ALUMINUM. EXPOSED ALUMINUM CONDUCTOR STRANDS SHALL BE COATED WITH AN ANTI-OXIDANT IMMEDIATELY AFTER INSULATION IS STRIPPED AWAY. A COMPRESSION LUG SHALL BE PROPERLY INSTALLED ONTO THE EXPOSED ALUMINUM CONDUCTOR STRANDS, AND THAT COMPRESSION LUG SHALL THEN BE BOLTED TO THE TRANSFORMER TAPS AND SWITCHBOARD BUSS USING PROPERLY SIZED BOLTS, NUTS AND WASHERS. MERELY INSERTING ALUMINUM STRANDS UNDER A SCREW LUG SHALL NOT BE ACCEPTABLE.

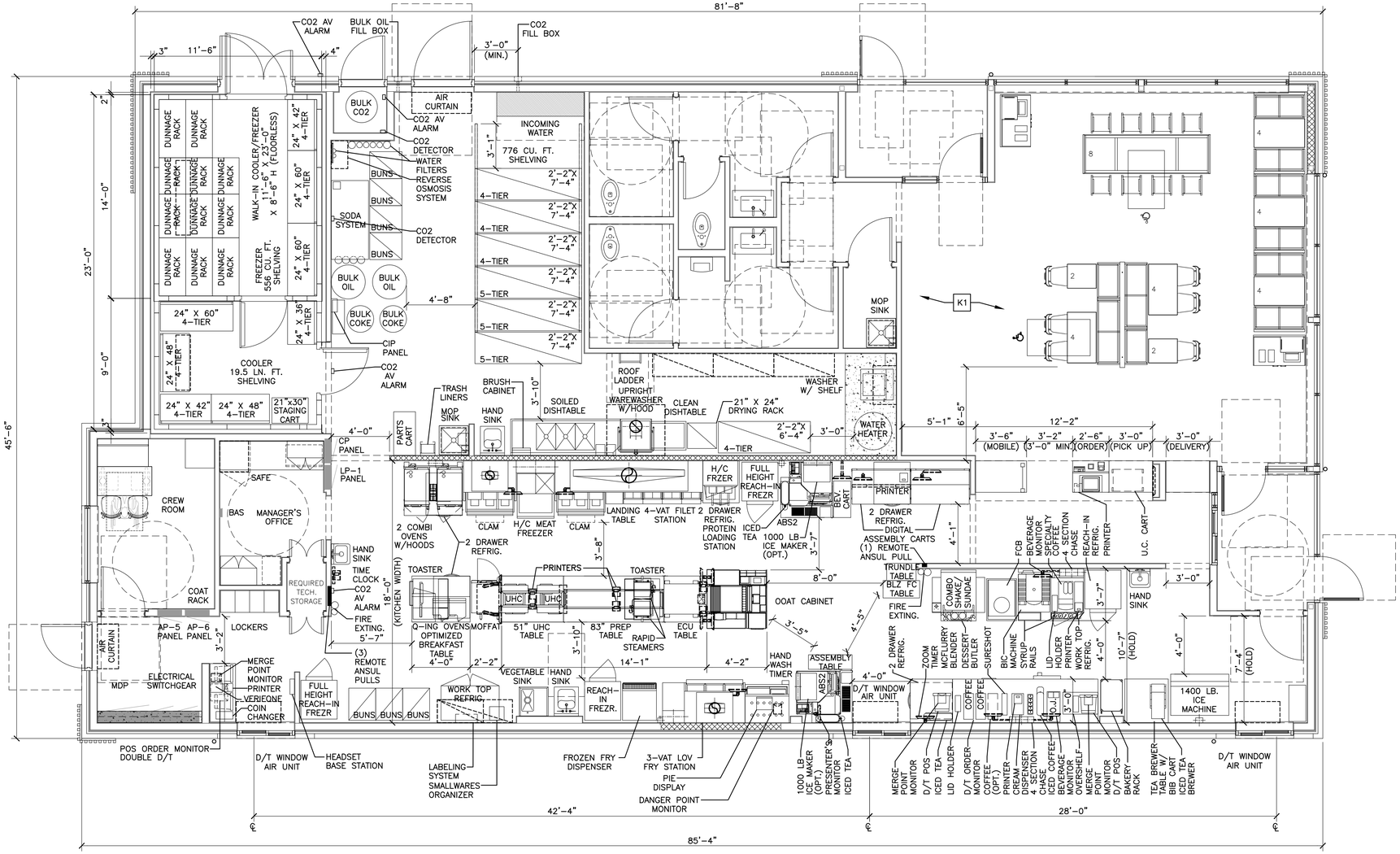
D4. THE SURGE PROTECTIVE DEVICE (SPD) UNIT SHALL BE AN INTEGRAL UNIT PROVIDED AND INSTALLED BY THE SWITCHBOARD MANUFACTURER. ORDER APPROVED UNITS AS SHOWN IN D5.

D5. APPROVED SWITCHBOARDS, PANEL, & SPD SUPPLIER (IN ADDITION TO ORDERING SWITCHBOARD & PANELS ALSO ORDER SPD) SUPPLIERS:

SQUARE D VIA GRAYBAR
900 REGENCY DRIVE
GLENDALE HEIGHTS, IL 60139
TEL: (800)784-6059 OR (630) 671.6304

SPD INTEGRAL: I-LINE SERIES,
(208Y/120V, 3Ø)

D6. MAIN INCOMING METER / CURRENT TRANSFORMER CABINET, MAIN DISTRIBUTION PANEL MDP, SERVICE CABINET AND SWITCH SHALL BE BRACED FOR THE HIGHEST AVAILABLE FAULT CURRENT BUT NOT LESS THAN NEMA SYMMETRICAL RMS OF 65,000 AMPERES. CONTACT UTILITY/PM/GC/E



KITCHEN COVER SHEET

1 / K1.0 — 1/4" = 1'-0"

KEYED NOTES

K1 CUSTOMER KIOSK & DECOR LAYOUT FOR REFERENCE ONLY.

REV	DATE	DESCRIPTION	BY
.	12/06/24	BID SET	AL

PREPARED BY:
Enterprise Architecture, Inc.
12450 Portland Avenue South
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Fax: (952) 252-4043
ENTERPRISE DESIGN

PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	AL
STD ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	MM DD YYYY
RD#	24247

TITLE: 2024 STANDARD BUILDING - BB20
4584-WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 43016
L/C: 024-1306

SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.
024-1306.00.0
K1.0
KITCHEN COVER SHT

NOTE: DIMENSION VARIES BETWEEN CLR/FZR & EXT. WALL 2" MIN. – 4" MAX. SEE ARCH DWGS.

DRAWING NOTES

1. ALL DIMENSIONS SHOWN ARE TAKEN TO FACE OF WALL FINISH
2. * INDICATES OPTIONAL EQUIPMENT
3. KES TO VERIFY ALL BLOCKING FOR WALL MOUNTED EQUIPMENT AS REQUIRED BY GENERAL NOTE 9 ON A1.0 PRIOR TO INSTALLATION

SEE SHEET K2.1 FOR EQUIPMENT SCHEDULE

1 K2.0 KITCHEN EQUIPMENT PLAN
1/4" = 1'-0"

2 K2.0 COMPUTER CLOSET RACK
1/4" = 1'-0"

3 K2.0 FRONT COUNTER
1/4" = 1'-0"

4 K2.0 FRONT COUNTER ELEVATION
1/4" = 1'-0"

5 K2.0 BEVERAGE CELL (INTERIOR WALL)
1/4" = 1'-0"

6 K2.0 BEVERAGE CELL (EXTERIOR WALL)
1/4" = 1'-0"

7 K2.0 COMPACT OPTIMIZED PREP LINE
1/4" = 1'-0"

BY	DESCRIPTION	DATE	REV
AL	BID SET	12/06/24	.

PREPARED BY: Enprise DESIGN
Architecture, Inc.
12450 Portland Avenue South
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Fax: (952) 252-4043

PREPARED FOR: McDonald's USA, LLC

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DRAWN BY	AL
STD. ISSUE DATE	2024 05
REVIEWED BY	KD
DATE ISSUED	MM DD YYYY
ROJ#	24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & CI
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN:	43016
L/C:	024–1306
SITE ADDRESS	8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.: 024–1306.00.0
K2.0
KITCHEN PLAN

x = Optional Equipment VIF = Verify in Field
GC = General Contractor
R = Relocated Equipment

EQUIPMENT SCHEDULE

ITEM	O	QTY	DESCRIPTION	MANUFACTURER	MODEL #	UL	NSF	FURNISHED	GENERAL REMARKS	SPECIAL REQUIREMENTS
1.40		1	SERVICE POD – 30"	DECOR	SEE PLAN	–	2	GC	–	
1.51		1	PICKUP POD – 36"	DECOR	SEE PLAN	–	2	GC	–	
1.52		1	PICKUP POD – 42"	DECOR	SEE PLAN	–	2	GC	–	
1.63		1	McDELIVERY PICKUP COUNTER	DECOR	SEE PLAN	–	2	GC	–	
2.05		1	UNDER COUNTER CART – 24"W x 18"D FRONT COUNTER	INTERMETRO	UC18–DMS	–	2	KES	–	
9.08		2	UTILITY CHASE – ICE MAKER ON ABS VERSION	KES	5"x8"x23"	–	2	KES	CONCEALS WATER AND CONDENSING UNIT LINES	
9.15		1	UTILITY CHASE – FFDT INTERIOR WALL	KES	20"x5"x76"	–	2	KES	4 SECTION CHASE FOR BUYOUT RECEPTACLES, POS, CO2 AND WATER	
9.16		1	UTILITY CHASE – FFDT EXTERIOR WALL	KES	20"x5"x76"	–	2	KES	4 SECTION CHASE FOR BUYOUT RECEPTACLES, POS AND WATER	
9.18		2	UTILITY CHASE – WALL VERSION	KES	4"x4"x82"	–	2	KES	CHASE FOR BULK OIL LINES, MOUNT AT 2'–0"	
9.20		1	UTILITY CHASE – COMBI CELL	KES	4"x8"x84"	–	2	KES	CHASE FOR BUYOUT RECEPTACLES AND WATER	
13.02		1	BAKERY RACK	KRISPY KREME	18"x26"x65"	–	2	SUPPLIER	–	
19.00		2	DIGITAL ASSEMBLY CART – 48"	INTERMETRO	MCDDAC–48	–	2	KES	–	
20.01		2	AUTOMATED BEVERAGE SYSTEM 2.0	IMI CORNELIUS	621058590LON	–	–	KES	INSTALLATION KIT INCLUDES STAINLESS STEEL CHASE & DATA LINE	
21.01		3	COFFEE BREWER (THERMAL POTS)	BUNN–O– MATIC	AXIOM–DV–3	E32066	4	KES	W/ELECTRONIC CONTROLLER FOR CONVERSION TO LOW OR HIGH VOLTAGE	
23.10		1	ESPRESSO BREWER	FRANKE	FM850	–	4	KES	–	
23.12		1	COFFEE CREAM DISPENSER	SURESHOT	AC110–PC–51	E217698	20	KES	–	
23.14		1	SUGAR/SWEETENER DISPENSER	SURESHOT	AC2–GP–1–G38	E217698	18	KES	–	
24.02		1	JUICE DISPENSER	BUNN–O– MATIC	JDF–2S	–	18	KES	–	
25.01		4	SLIMLINE ICED BEVERAGE DISPENSER	BUNN–O– MATIC	TDO–N	E32066	4	KES	KES TO VERIFY EXACT QUANTITY PER MARKET	
25.06		3	SLIMLINE ICED BEVERAGE DISPENSER – SHORT	BUNN–O– MATIC	TDO–N LP	E32066	4	KES	KES TO VERIFY EXACT QUANTITY PER MARKET	
25.07		1	INFUSION TEA BREWER – MIS	BUNN–O– MATIC	ITCB–DV	E32066	4	KES	PROVIDED WITH BREWER, INSTALLATION KIT AND TDO–N BOOSTER	
25.95		3	SLIMLINE ICED BEVERAGE DISPENSER – 2 TIER STAND	KES	–	–	2	KES	–	
26.01		1	TEA BREWER TABLE – 36"X36"	ISS SHELVING	WST1758C	–	2	KES	–	
31.03		1	SODA SYSTEM PACKAGE B.I.B.(RECIRCULATING– 3 TOWERS) – REMOTE	MULTIPLEX	50MR04	SA4632	18	KES	–	
32.02		1	REVERSE OSMOSIS WATER FILTRATION SYSTEM – TANKLESS	EVERPURE	MRS–600HE	–	–	KES	FOR COFFEE MAKER, ESPRESSO MACHINE, AND RAPID BUN STEAMER	
32.04		1	WATER FILTRATION SYSTEM	EVERPURE	EV9337–26	–	–	KES	–	
32.05		1	WATER FILTRATION SYSTEM	EVERPURE	EV9272–24	–	–	KES	FOR COMBI OVENS AND STAGING CABINET	
36.00		2	BULK COKE	CHART INDUSTRIES	10667511	–	18	MANU–FACTURER	SYRUP LINES BY CHART INDUSTRIES	
37.00		1	BULK CO2 – 750 LB.	CHART INDUSTRIES	CARBO–MAX 750	–	–	MANU–FACTURER	–	
37.03		2	CO2 SAFETY SYSTEM	SEE RMKS	–	–	–	KES	SEE MECHANICAL DRAWINGS	INCLUDES DETECTOR AND (4) AV ALARMS
38.00		1	CLEAN IN PLACE PANEL	CHART INDUSTRIES	10667431	–	18	MANU–FACTURER	MOUNT 6"W x 7"H. BOX @ 6'–0" AFF TO BOX CENTER LINE	
39.10		1	ICE MACHINE – 1400 LB.	MANITOWOC	IYT1500N3/ D970	SA4027	12	KES	USE HEADMASTER KIT K00221	
39.15		2	ICE MACHINE – 1000 LB.	MANITOWOC	IBT1020C–161	SA4027	12	KES	CONDENSER: CVDT1200	
40.00		1	ICE MACHINE CHASE	KES	4"x6"x48"	–	2	KES	CONCEALS WATER AND CONDENSING UNIT LINES	
41.06		1	ICE MACHINE REMOTE CONDENSER – 1400 LB.	MANITOWOC	JCT–1500	SA4027	12	KES	–	
41.09		2	ICE MACHINE REMOTE CONDENSER – 1000 LB.	MANITOWOC	CVDT1200–263A	SA4027	12	KES	–	
43.21		1	OPTIMIZED ORDER ASSEMBLY TABLE	KES	90001	E152097	2	KES	–	
44.46		1	SMALL RISER SHELF – 18" TO 30"	FRANKE	180006010	–	2	KES	–	
45.20		1	MODULAR BEVERAGE CABINET – 10'–0"	KES	–	–	2	KES	–	
45.21		1	BEVERAGE CABINET – DRIVE–THRU TABLE 35"	KES	–	–	2	KES	–	
46.00		1	CUP DISPENSER VERTICAL 3 CUP	KES	–	–	2	KES	–	
46.02		1	SYRUP BOTTLE RACK – (5) SYRUP PUMPS	PRONTO	–	–	2	KES	–	
49.00		1	CO2 FILL BOX – 6 1/2"W x 18"H	CHART INDUSTRIES	8512629	–	–	MANU–FACTURER	SEE EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT. INSTALLED BY GC	
51.03		3	CUP LID HOLDER 3 HIGH S/S	KES	–	–	2	KES	–	
51.04		2	CUP LID HOLDER SINGLE STACK 8" HIGH	KES	–	–	2	KES	–	
52.01		1	REMOTE CONDENSING UNIT – 50MR04	MULTIPLEX	TS–0895	SA2298	–	KES	ORDER PRE–CHARGE LINE #204017 – VIF LENGTH FROM UNIT TO SODA SYST.	
61.00		1	FRY BAGGING STATION 36"	KES	FB25A	E99018	2	KES	–	
65.30		1	3–VAT LOV FRYER – ELECTRIC – F/F/F	HENNY PENNY	LVE–203	E30993	4	KES	–	IDLE ENERGY RATE=0.73kW, ENERGY EFFICIENCY=87%
66.47		1	4–VAT LOV FRYER – ELECTRIC – S/S/S/S	HENNY PENNY	LVE–204	E30993	4	KES	–	IDLE ENERGY RATE=0.73kW, ENERGY EFFICIENCY=87%
69.00		2	CAPTURE JET PLENUM – FRYER	HALTON	CJP–F	MH27607	2	KES	ATTACH TO UNIVERSAL EXHAUST HOOD	
69.01		2	CAPTURE JET PLENUM – GRILL	HALTON	CJP–G	MH27607	2	KES	ATTACH TO UNIVERSAL EXHAUST HOOD	
73.00		1	UNIVERSAL EXHAUST HOOD 3–VAT FRYER	KES	UH–50	MH12755	2	KES	–	
79.23		1	UNIVERSAL EXHAUST HOOD FULL–CLAM/4–VAT FRYER	KES	UH–122	MH12755	2	KES	–	
79.26		2	VENTLESS HOOD FOR COMBI OVEN	CONVOTHERM	CONOVENT MINI 6.10	E325060	2	KES	–	
80.00		1	MECHANICAL CHASE	KES	9"x18" SGCL.	E163328	2	KES	–	
80.08		1	MECHANICAL CHASE	KES	9"x32" SGCL.	E163328	2	KES	–	
81.00		1	PROTEIN LOADING STATION KIT	KES	272436	–	2	KES	–	
81.01		1	PRODUCT LANDING SHELF – SOLID TOP	KES	–	–	2	KES	–	
82.00		1	LANDING TABLE	INTERMETRO	TLDP–S	–	2	KES	–	
85.05		1	FROZEN FRY DISPENSER	RAM	280–FP	E140753	4	KES	–	
91.02		1	WALL MOUNT FREEZER UNIT–SINGLE WIDE–HIGH CAPACITY	KES	HCWF1	SA7329	7	KES	AIR–COOLED, SELF–CONTAINED – MOUNT BOTTOM AT 51" AFF	HCWF1.99A INSTALL HARDWARE KIT REQUIRED
93.00		1	UNIVERSAL EXHAUST HOOD FULL–CLAM GRILL	KES	UH–43	MH12755	2	KES	–	
96.21		2	36" NEXT GEN 3–PLATEN CLAMSHELL GRILL – ELECTRIC	GARLAND	ME–3PX	E28898	4	KES	–	
97.08		1	MEAT FREEZER – DOUBLE WIDE – HIGH CAPACITY – RIGHT HAND	KES	HCMF30B–RH	SA6032 S	2	KES	AIR–COOLED, SELF–CONTAINED	
99.01		2	GRILL TOOL ORGANIZER – 43" HOOD	KES	–	–	2	KES	–	
110.01		1	OPTIMIZED BREAKFAST TABLE	KES	OBT	–	2	KES	–	
114.00		1	HUMIDIFIED HOLDING CABINET	MOFFAT	HP10T–LMD	197	4	KES	–	
116.23		2	UNIVERSAL HOLDING CABINET – HIGH DENSITY – 2–SIDED – PIN & SLEEVE	FRYMASTER	UHCHD8T	E44571	4	KES	–	
117.30		1	UHC TABLE COPL – 2 SIDED – 51"D x 34"W – PIN&SLEEVE	KES	91011	–	2	KES	–	
118.00		1	O'ING OVEN – PIN & SLEEVE	AMANA	MC23MPW2	E40456	4	KES	–	
118.03		2	O'ING OVEN – PIN & SLEEVE	ACP	MCMOC24	–	4	KES	–	
122.27		1	NEXT GEN. UNIVERSAL RADIANT TOASTER – PIN & SLEEVE	ANTUNES	HRT–5H	–	4	KES	–	
122.28		1	NEXT GEN. UNIVERSAL CONTACT TOASTER – PIN & SLEEVE	ANTUNES	HCT–5H	–	4	KES	–	
123.36		1	ECU TABLE – COPL	KES	90165	–	2	KES	–	
123.37		1	BREAKER PANEL– 125 AMP – 1 PHASE – EQUIPMENT MOUNTED	KES	–	–	–	KES	–	
123.40		1	PREP TABLE – HD – 2–SIDED COPL – 38"D x 83 1/2" – PIN & SLEEVE W/REF.	KES	91010	–	2	KES	–	
125.00		2	RAPID BUN STEAMER	PRINCE CASTLE	625–MFY	–	4	KES	–	
130.00		2	COMBI OVEN	CONVOTHERM	MS6102083LCMD1	E360598	4	KES	–	0.89kW, 69% STEAM MODE, 0.61kW, 81% CONVECTION MODE
134.02		1	VEGETABLE SINK	KES	SK04–4	–	2	KES	–	
139.04		1	COMBI OVEN STAND – DOUBLE WIDE	KES	–	–	2	KES	–	
151.12		1	CLEAN DISHTABLE – LEFT HAND – 28.23"	KES	SK–SPL	–	2	KES	–	
151.46		1	SOILED DISHTABLE – RIGHT HAND – 90.5" WIDE	KES	SK–SPL	–	2	KES	–	
152.04		1	WAREWASHER HOOD	KES	–		3		TYPE 2 HOOD FOR NON GREASE APPLICATION – REQUIRED PER CODE	
152.08		1	WAREWASHER – HIGH TEMP	HOBART	AM16SVLT–1		3	MANU–FACTURER	–	
153.00		1	SCULLERY SHELVING KIT – 3 TIER – 14" x 36"	INTERMETRO	SHSS–4	–	2	KES	–	
153.04		1	SMALLWARE WALL ORGANIZER	INTERMETRO	SW1812–MPS	–	2	KES	–	
153.06		1	REUSABLE DRYING RACK	INTERMETRO	MCD2124–DRY6	–	2	KES	–	
154.00		1	BRUSH CABINET	KES	8047	–	4	KES	–	
157.00		1	TRASH LINER DISPENSER SHELF	KES	A0053	–	2	KES	–	
159.03		1	UNIVERSAL PARTS CART – 36" W	INTERMETRO	MCD–1836UPC	–	2	KES	–	
160.01		4	CHEMICAL SYSTEM	ECOLAB	–	–	–	MANU–FACTURER	–	
163.00		2	FIRE EXTINGUISHER – 5 LB. – ABC	ANSUL	SEE RMKS	–	–	SEE RMKS	LOCAL ANSUL AGENT SPECIFIES, SUPPLIES & LOCATES PER LOCAL CODE	
163.01		2	FIRE EXTINGUISHER – 6 L. – K GUARD	ANSUL	SEE RMKS	–	–	SEE RMKS	LOCAL ANSUL AGENT SPECIFIES, SUPPLIES & LOCATES PER LOCAL CODE	
163.02		4	REMOTE ANSUL PULL	ANSUL	4835	EX3470	–	SEE RMKS	CODE MAY REQUIRE LOCAL ANSUL AGENT TO SUPPLY	
171.01		1	WALK–IN COOLER / FREEZER FLOORLESS	NORLAKE	–	E42763	7	KES	–	
174.36		1	REMOTE CONDENSING UNIT	BOHN	BCH0010MBACZC0225	SA4272	–	KES	BEACON II/INTELLIGEN SYSTEM	
174.45		1	REMOTE CONDENSING UNIT	BOHN	BCH0055LCACZC0225	SA4272	–	KES	BEACON II/INTELLIGEN SYSTEM	
175.18		1	COOLER EVAPORATOR	BOHN	BEL0095BS6AMAD0096	SA1525	–	KES	INTELLIGEN EVAPORATOR	
176.27		1	FREEZER EVAPORATOR	BOHN	BEL0170BS6EEAD0096	SA1525	–	KES	INTELLIGEN EVAPORATOR	
177.03		1	REACH–IN REFRIGERATOR–SINGLE WIDE	BEVERAGE AIR	HR1HC–1HS	SA2651	7	KES	–	
178.05		3	REACH–IN FREEZER – SINGLE WIDE	BEVERAGE AIR	HF1HC–1HS	SA2651	7	KES	–	
181.13		1	REFRIGERATOR – SPECIALTY COFFEE– 27" WIDE	TRUE	TUC–27 MCDCF1	SA33040	7	KES	RIGHT–HAND HINGED	
181.14		1	REFRIGERATOR – WORKTOP – 48" WIDE	TRUE	TWT–48 MCD1	SA4065	7	KES	–	

x = Optional Equipment VIF = Verify in Field
GC = General Contractor
R = Relocated Equipment

EQUIPMENT SCHEDULE

ITEM	O	QTY	DESCRIPTION	MANUFACTURER	MODEL #	UL	NSF	FURNISHED	GENERAL REMARKS	SPECIAL REQUIREMENTS
183.00		2	REFRIGERATOR/FREEZER – 2 DRAWER BASE – 30" W X 33" H	KES	18012498	SA4044	7	KES	–	
183.02		3	REFRIGERATOR/FREEZER – 2 DRAWER BASE – 30" W X 30" H	KES	18021304	SA4044	7	KES	–	
187.72		1	FREEZER SHELVING 24" x 42" x 74" H. – 4–TIER	ISS SHELVING	FSMS/FSMA742442E	–	2	KES	–	
187.75		2	FREEZER SHELVING 24" x 60" x 74" H. – 4–TIER	ISS SHELVING	FSMS/FSMA742460E	–	2	KES	–	
188.00		3	DUNNAGE RACK 22" x 36"	INTERMETRO	HP2236PD	–	2	KES	–	
188.07		1	UNIVERSAL STAGING CART	ISS SHELVING	WST1384Y	–	2	KES	–	
188.08		3	DUNNAGE RACK 22" x 30"	INTERMETRO	HP2230PD	–	2	KES	–	
188.09		5	DUNNAGE RACK 22" x 48"	INTERMETRO	HP2248PD	–	2	KES	–	
189.71		1	COOLER SHELVING 24" x 36" x 74" H. – 4–TIER	ISS SHELVING	FSMS/FSMA742436E	–	2	KES	–	
189.72		1	COOLER SHELVING 24" x 42" x 74" H. – 4–TIER	ISS SHELVING	FSMS/FSMA742442E	–	2	KES	–	
189.73		2	COOLER SHELVING 24" x 48" x 74" H. – 4–TIER	ISS SHELVING	FSMS/FSMA74248E	–	2	KES	–	
189.75		1	COOLER SHELVING 24" x 60" x 74" H. – 4–TIER	ISS SHELVING	FSMS/FSMA742460E	–	2	KES	–	
191.01		3	VALANCE SHELVING – 18" x 48"	INTERMETRO	M1848C–MP	–	2	KES	MOUNT AT 6'–8"AFF TO SHELF BOTTOM UNLESS OTHERWISE NOTED	
191.02		1	VALANCE SHELVING – 18" x 60"	INTERMETRO	M1860C–MP	–	2	KES	MOUNT AT 6'–8"AFF TO SHELF BOTTOM UNLESS OTHERWISE NOTED	
191.03		1	VALANCE SHELVING – 18" x 30"	INTERMETRO	M1830C–MP	–	2	KES	MOUNT AT 5'–0"AFF TO SHELF BOTTOM FOR ABOVE WASHER APPLICATION	
191.04		1	VALANCE SHELVING – 18" x 36"	INTERMETRO	M1836C–MP	–	2	KES	MOUNT AT 5'–0"AFF TO SHELF BOTTOM –W/STL LINER FOR SALAD EQUIP	
194.35		3	DRY SHELVING 26" x 88" x 84" H.– 4–TIER – MOBILE	DENSTOR	–	–	2	KES	–	
194.49		1	DRY SHELVING 26" x 76" x 84" H.– 4–TIER – FIXED	DENSTOR	–	–	2	KES	–	
195.35		2	DRY SHELVING 26" x 88" x 84" H.– 5–TIER – MOBILE	DENSTOR	–	–	2	KES	–	
195.50		1	DRY SHELVING 26" x 88" x 84" H.– 5–TIER – FIXED	DENSTOR	–	–	2	KES	–	
196.06		1	SAFE – STANDARD BLDG. – LEFT HINGE	NKL	BSD4125FGXL–MC	–	–	OWNER	–	
197.00		2	STAINLESS STEEL HAND SINK	ADVANCE TABCO	7–PS–61	–	2	GC	REFER TO PLUMB. DWGS. FOR DETAILS, SOAP & TOWEL DISP. BY OTHERS	PROVIDE SIDE SPLASHES (7–PS–11) WHEN REQUIRED BY LOCAL CODE
197.01		1	HAND WASH TIMER	NATIONAL CONTROLS	TMD–T1715–120	E53595	–	KES	–	
197.03		2	STAINLESS STEEL HAND SINK – ADA	ADVANCE TABCO	7–PS–26	–	2	GC	REFER TO PLUMB. DWGS. FOR DETAILS, SOAP & TOWEL DISP. BY OTHERS	PROVIDE SIDE SPLASHES (7–PS–11D) WHEN REQUIRED BY LOCAL CODE
201.13		1	DRIVE–THRU CASH STAND – 21" D x 48" W	INTERMETRO	DT48–8	–	2	KES	SOLID WORK TOP, WIRE SHELVES	
201.15		1	READY NEXT DRIVE–THRU ASSEMBLY CART – 12" D x 36" W	INTERMETRO	DTPC–36	–	2	KES	–	
201.16		2	DRIVE–THRU ABS CART	KES	–	–	2	KES	ABS DRINK STAGING CART WITH TROUGH	
201.18		2	CBB STAGING CART	INTERMETRO	MCD–CBB	–	2	KES	–	
201.21		1	BLZ FRONT COUNTER TABLE – 30" D x 14" W	INTERMETRO	MCD1430–BLZM	–	2	KES	W/ CASTERS AND OVERSHELF	
203.01		1	HEAT TREAT COMBINATION SHAKE/SUNDAE MACHINE	CARPIGIANNI	K3	SA4203	6	KES	SUPPLIED WITH CONE DISPENSER AND 7'–6" LONG CORD	
203.03		2	CUP/CONE DISPENSER	KES	–	–	2	KES	–	
205.08		1	BIC MACHINE	MULTPLEX	MA–8–2	SA12070	6	KES	–	
205.09		1	FROZEN BEVERAGE DISPENSER	IMI CORNELIUS	VIPER 3	SA2128	6	KES	–	
206.01		1	SPECIALTY BEVERAGE STANDOFF SHELF	KES	KES	–	2	KES	MOUNT SHELF @ 2'–6" AFF	
207.01		1	BLENDER – RAIL MOUNT – MCFLURRY	VITAMIX	056385	–	8	KES	SUPPLIED MOUNTING BRACKETS	
207.09		1	DESSERT BUTLER	KES	–	–	2	KES	–	–
211.00		1	DELIVERY TABLET	APPLE	IPAD	–	–	DELIVERY PARTNER	QUANTITY DEPENDENT UPON NUMBER OF DELIVERY PARTNERS	
214.02		1	TECHNOLOGY RACK	BY OWNER	BY OWNER	OEM	–	OWNER	V.I.F. EXACT LOCATION FOR NETWORK RACK	
215.00		1	POS REGISTER – FRONT COUNTER	BY OWNER	BY OWNER	OEM	–	OWNER	INCLUDES MONITOR AND CPU	
215.02		4	POS REGISTER – 2 WINDOW D/T	BY OWNER	BY OWNER	OEM	–	OWNER	INCLUDES MONITOR AND CPU	
215.04		8	POS – KVS MONITOR	BY OWNER	BY OWNER	OEM	–	OWNER	–	
215.07		1	POS REGISTER – DELIVERY	BY OWNER	BY OWNER	OEM	–	OWNER	–	
216.00		8	POS – VIDEO MONITOR	BY OWNER	BY OWNER	E106786	–	OWNER	SUPPORTS INSTALLED BY GC IF REQUIRED – MOUNT @ 5'–8" AFF	FOR APPLICATIONS ABOVE ABS, MOUNT AT 6'–6" AFF
217.13		3	MERGE POINT MONITOR (DOUBLE DRIVE–THRU)	BY OWNER	BY OWNER	–	–	OWNER	MONITORS ARE REQUIRED FOR SIDE BY SIDE DRIVE THRU SYSTEM	–
217.14		1	POS – ORDER MONITOR (DOUBLE DRIVE THRU)	BY OWNER	BY OWNER	E106786	–	OWNER	SUPPORTS INSTALLED BY GC IF REQUIRED – MOUNT @ 5'–8" AFF	
217.19		1	WIRELESS HEADSET BASE STATION	HME	NEXEO HDX	–	–	OWNER	–	
217.24		1	DANGER POINT MONITOR (DOUBLE DRIVE–THRU)	BY OWNER	BY OWNER	–	–	OWNER	MONITORS ARE REQUIRED FOR SIDE BY SIDE DRIVE THRU SYSTEM	
217.26		1	ZOOM TIMER	HME	ZOOM NITRO	–	–	OWNER	–	
219.00		4	POS – RECEIPT PRINTER	BY OWNER	BY OWNER	OEM	–	OWNER	–	
219.05		7	STICKY LABEL PRINTER	BY OWNER	BYOWNER	OEM	–	OWNER	–	–
219.06		1	LABELING SYSTEM	TRANSACT	9700	–	–	KES	–	
220.00		1	POS – COIN DISPENSER	BY OWNER	BY OWNER	OEM	–	OWNER	–	
221.01		1	POS – OFFICE	BY OWNER	BY OWNER	OEM	–	OWNER	–	
221.09		1	O/O EQUIPMENT RACK	TRIPP–LITE	SRW12USDP	–	–	OWNER	AVAILABLE THROUGH POS SUPPLIER	
222.01		1	TIME CLOCK	BY OWNER	BY OWNER	OEM	–	OWNER	–	
223.07		1	WASHER – ELECTRIC	WHIRLPOOL	CAE2793BQ	–	–	KES	–	
225.03		1	OFFICE PACKAGE/DESK UNIT	DENSTOR	2000–0100	–	–	KES	WORK SURFACE 75", (1) DESK PEDESTAL W/ 2 DRAWERS AND (1) PEDESTAL W/ 3 DRAWERS	
225.04		1	OFFICE PACKAGE/ 2–WALL CABINETS	DENSTOR	2000–0200	–	–	KES	–	
225.05		1	OFFICE PACKAGE/HIGH WORK SURFACE	DENSTOR	2000–0300	–	–	KES	W/ (6) L–BRACKETS – WORK SURFACE IS 75" W. – CUT IN FIELD IF REQUIRED	
225.06		1	OFFICE PACKAGE W/3 DRAWER LATERAL FILE	DENSTOR	2000–0400	–	–	KES	–	
226.08		4	CREW LOCKERS –12" x 12" x 18" (6 HIGH)	DENSTOR	3–121278	–	2	KES	–	
237.00		1	PIE DISPLAY	PRINCE CASTLE	524–MCDC	E341354	4	KES	PROVIDE WITH S/S PANEL	
700.02		2	MOP SINK	GC	–	–	2	GC	PROVIDE WITH S/S WALL PANELS @ 36" A.F.F.	
700.07		1	WATER HEATER – GAS	GC	SEE RMKS	–	2	GC	REFER TO PLUMB. DWGS. FOR DETAILS	
700.09		1	ECONOMY OEP BOX W/MOUNTING HARDWARE	ACS	OEP–6	E71309	–	KES	6" W. x 24" D.	
700.10	X	1	BULK OIL SYSTEM	RTI	BI–3F	SEE RMKS	4	MANU–FACTURER	IF AVAILABLE IN MARKET – ETL ELECTRICAL RATING: 9900762	
700.11		1	OEP UTILITY PANEL W/ MOUNTING HARDWARE – STATIC BOX	H&K DALLAS	–	–	–	H&K DALLAS	2'–4"x2'–4" x4" HIGH BOX	
700.18	X	1	BULK OIL FILL BOX – 8"Wx10"H	RTI	–	–	–	MANU–FACTURER	SEE EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT, INSTALLED BY GC	

SEE SHEET K2.0 FOR EQUIPMENT LAYOUT AND TAG IDENTIFICATION

1 / K2.1 KITCHEN SCHEDULE

BY	DESCRIPTION	DATE	REV
AL	BID SET	12/06/24	.

PREPARED BY:
DESIGN enprise Architecture, Inc.
12450 Portland Avenue South
Corporate Crossing Building
Suite 100 Portland Corporate Center
Burnsville, MN 55337
Office: (952) 252–4042
Fax: (952) 252–4043

PREPARED FOR:
McDonald's USA, LLC

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DRAWN BY	CHECKED BY
AL	KD
STD ISSUE DATE	DATE ISSUED
2024 05	MM DD YYYY

RD# 24247

TITLE: 2024 STANDARD BUILDING – BB20
4584–WOOD/WOOD

DESCRIPTION
WOOD BEARING WALLS W/BRICK EXTERIOR FINISH & Ci
WOOD TRUSS ROOF FRAMING
E.I.F.S./BATTEN/BRICK EXTERIOR FINISH

NSN: 43016
L/C: 024–1306

SITE ADDRESS
8712 N. Indiana Avenue, Kansas City, MO 64156

SHEET NO.
024–1306.00.0
K2.1
KITCHEN SCHEDULE