

# PROTOTYPE - NEW CONSTRUCTION - SHELL

# PANERA BREAD BAKERY-CAFE#2406 1410 NE DOUGLAS ST LEES SUMMIT, MO 64086

# SITE MAP:



## **CODE INFORMATION:**

APPLICABLE CODES & REGULATIONS:

BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE
FIRE CODE: 2018 INTERNATIONAL FIRE CODE
PLUMBING CODE: 2018 INTERNATIONAL FIRE CODE
PLUMBING CODE: 2018 INTERNATIONAL PLUMBING CODE
ELECTRIC CODE: 2017 NATIONAL ELECTRIC CODE
MECHANICAL CODE: 2018 INTERNATIONAL MECHANICAL CODE
GAS CODE: 2018 INTERNATIONAL FUEL GAS CODE
ENERGY CODE: ??
ACCESSIBILITY CODE: ICC/ANSI A117.1-2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILI'
PENDING CHANGES: NONE

CODE CLASSIFICATION:
A. OCCUPANCY GROUP: A-2 ASSEMBLY
B. CONSTRUCTION CLASSIFICATION: V-B
C. AUTOMATIC FIRE SUPRESSION SYSTEM INSTALLED: NOT REQUIRED

AREA BREAKDOWN:
TOTAL GROSS PANERA SUITE: 3,482 SQFT
PATIO: 527 SQFT

TRAVEL DISTANCE:
ALLOWED TRAVEL DISTANCE: 200 FT
ACTUAL TRAVEL DISTANCE: 66'-0" FT MAX

SHELL PERMIT #: PRCOM20223170

#### STAR DEVELOPMENT ROBERT DE LA FUENTE 244 W. MILL ST. STE 101 LIBERTY, MO 64068 ARCHITECT: DENNIS D. SMITH 345 RIVERVIEW, SUITE 200 WICHITA, KS 67203 PHONE: 316.268.0230 EXT: 354 CGABOIAN@LK-ARCHITECTURE.COM PLANNING/ZONING DEPARTMENT CONTACT: NAME: MIKE WEISENBORN 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE: 816.969.1240 MIKE.WEISENBORN@CITYOFLS.NET DARRELL R. CASE 796 MERUS COURT ST. LOUIS, MO 63026 PHONE: 636.349.1600

**CONTACT LIST** 

ROGER BOST 3630 S. GEYER ROAD, SUITE 100

ROGER.BOST@PANERABREAD.COM

ST. LOUIS, MO 63127

PHONE: 573.300.9693

OWNER:

STRUCTURE:

STEPHEN J. SACCO

796 MERUS COURT

ST. LOUIS, MO 63026

PHONE: 636.349.1600

PANERA BREAD DESIGN MANAGER:

# PROTOTYPE INFORMATION:

TENANT PERMIT #: PRCOM20223840

THIS SET OF DOCUMENTS INCORPORATES ALL REVISIONS THROUGH PROTOTYPE UPDATE #2018-00.00

REVISION ISSUE LOG					
REVISION#	ISSUE DATE	DESCRIPTION	AFFECTED SHEETS	REMARKS	
Α	8/19/2022	Shell - City Comments			
В	8/25/2022	Shell - Construction Set			
С	12/09/2022	Shell - Owner Revision			
D	01/10/2023	Shell - Owner Revision			

#### DEFERRED SUBMITTALS:

LANDLORD APPROVAL:

DATE

NAME

SIGNATURE

ENGINEERED TRUSS PACKAGE
FIRE ALARM SYSTEM
SIGN PERMIT

#### GENERAL NOTES, SYMBOLS, LEGENDS & ABBREVIATIONS ACCESSIBILITY GUIDELINES LIFE SAFETY PLAN CIVIL PLANS ARCHITECTURAL SITE PLAN SITE DETAILS TRASH ENCLOSURE DETAILS SITE SIGNAGE PLAN SITE SIGNAGE DETAILS ENLARGED PATIO PLAN/DETAILS FLOOR & LIGHTING PLAN - DIMENSIONED LIGHTING SCHEDULE, DETAILS, & SECTIONS ROOF PLAN ROOF DETAILS ROOF DETAILS ARCH-EXTERIOR EXTERIOR ELEVATIONS EXTERIOR ELEVATIONS EXTERIOR PERSPECTIVES BUILDING SECTIONS EXTERIOR DETAILS A230 EXTERIOR DETAILS ARCH-WALL SECTIONS WALL SECTIONS WALL SECTIONS WALL SECTIONS ARCH-SCHEDULES & NOTES FINISH SCHEDULES, LEGENDS, & NOTES DOOR ELEVATIONS, SCHEDULES, & DETAILS STOREFRONT/GLAZING ELEVATIONS, SCHEDULES, & GENERAL NOTES GENERAL NOTES TYPICAL DETAILS TYPICAL DETAILS TYPICAL DETAILS FOUNDATION PLAN ROOF FRAMING PLAN FOUNDATION SECTIONS FRAMING SECTIONS FRAMING SECTIONS FRAMING SECTIONS SHELL MECHANICAL SPECIFICATIONS AND SCHEDULES MECHANICAL SHELL PLAN PLUMBING SHELL FLOOR PLAN PLUMBING SPECIFICATIONS ELECTRICAL SPECIFICATIONS ELECTRICAL SITE PLAN ELECTRICAL DETAILS AND SCHEDULES ELECTRICAL SHELL PLAN SITE PHOTOMETRIC PLAN Sheet Count: 48

Current

SHEET INDEX

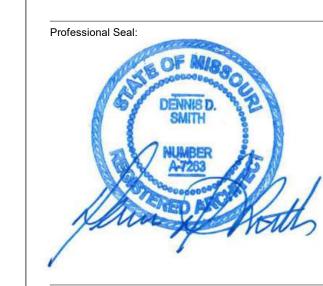
Number Sheet Name

GENERAL

Bakery-Cafe:

#2406

SYSTEM: G4 (ARIA)



Project Title





No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/202 2
D	Shell - Owner Revision	01/10/202 3

#### **COVER SHEET**

Project Number:		Sheet Number:
22302 Drawn By:		
EB		<b>G</b> 000
Issue Date:		JUUU
07/05/2022		
DPM:	DM:	CPM:
DPM	DM	CPM

MAX

MECH

MEPFP

AND

MTL

MIN

MISC

NTS

OFCI

OH

OPG

PLAM

PTN

**PWD** 

QTY

REF

REINF

REQ

REV

SAB

SIM

SLNT

**SPEC** 

SQ

SQ FT

STL

**SUSP** 

SYM

TEL TEMP

TOS

TOW

TYP

**VERT** 

W/O

WD

MEP

MAXIMUM

**METAL** 

MINIMUM

MECHANICAL

FIRE PROTECTION

**MISCELLANEOUS** 

**NOT IN CONTRACT** 

OWNER FURNISHED,

OWNER FURNISHED,

OWNER INSTALLED

OPPOSITE HAND

PLASTIC LAMINATE

ON CENTER

OPENING

OPPOSITE

PAINT(ED)

**PLYWOOD** 

QUANTITY

REFERENCE

REQUIRED

SOLID CORE

**SPECIFICATION** 

SUSPEND(ED)

SYMMETRICAL

**TELEPHONE** 

TEMPERED

TOP OF WALL

**TYPICAL** 

**VERTICAL** 

WITH

WITHOUT

WOOD

TOP OF STRUCTURE

SIMILAR

**SEALANT** 

**SQUARE** 

STEEL

**RESILIENT BASE** 

REVISION

PARTITION

CONTRACTOR INSTALLED

**ORIENTED STRAND BOARD** 

REINFORCE(D)

SOUND ATTENUATION BATTS

SQUARE FOOT (FEET)

UNDERWRITERS LABORATORIES, INC.

**UNLESS NOTED OTHERWISE** 

SQUARE FOOT (FEET)

NOT TO SCALE

ABOVE FINISHED FLOOR

ALTERNATE

APPROXIMATE(LY)

ALUMINUM

**BLOCKING** 

CENTERLINE

**CERAMIC TILE** 

CONTROL JOINT

DIAMETER

FACH

DIMENSION(S)

ELECTRIC(AL)

ELEVATION

**EXPANSION** 

**EXTERIOR** 

FINISH(ED)

**FLOOR** 

GAUGE

FLOOR DRAIN

**HANDICAPPED** 

**HOLLOW CORE** 

HORIZONTAL

INCLUDE(D)

INTERIOR

LAMINATE

INSULATION

**HOLLOW METAL** 

HARDWARF

HEIGHT

HOUR

**EXPANSION JOINT** 

EXISTING

FIRE EXTINGUISHER

FINISHED FLOOR

FLUORESCENT

FIRE-RETARDANT TREATED

GYPSUM BOARD

FIRE EXTINGUISHER CABINET

CEILING

CLEAR

BUILDING

BOARD

ACOUSTICAL CEILING TILE

ARCHITECT(URAL

CONTRACTOR FURNISHED.

CONTRACTOR INSTALLED

CONCRETE

CORRIDOR

**EQUIPMENT** 

CONTINUE, CONTINUOUS

ACT

ALT

ALUM

**ARCH** 

BLKG

BLDG

BD

CFCI

CLG

CLR

CONC

CONT

CORR

CJ

DIA

DIM

**ELEC** 

**ELEV** 

EQUIP

**EXIST** 

EXT

FIN

FEC

FLR

FD

**FLUOR** 

GYP BD

HCP

HDW

HOR

INCL

INSUL

HR

FRT

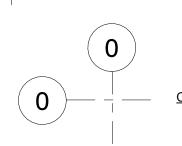
FIN FLR

EXP

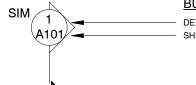
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APPROX

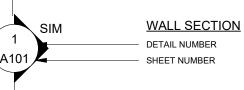
SYMBOLS LEGEND



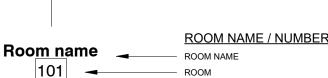
**COLUMN LINE DESIGNATION** 

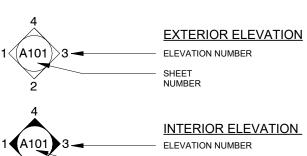


**BUILDING SECTION DETAIL NUMBER** SHEET NUMBER

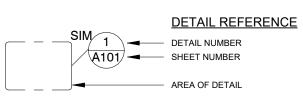


**DETAIL MARKS** SIM/ DETAIL NUMBER \A101/\_\_ NUMBER

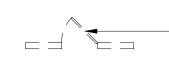




SHEET NUMBER







EXISTING DOOR TO BE

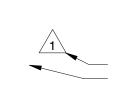
NEW CONSTRUCTION NEW DOOR AND TAG

> EXISTING PARTITIONS EXISTING PARTITIONS TO BE REMOVED



**NEW PARTITIONS (REF PARTITION NEW PARTITIONS W/ R-11 SOUND BATT** COOLER / FREEZER WALL

1/2 HEIGHT WALL (HEIGHT VARIES)



REVISION CLOUD AND TAG - REVISION NUMBER AREA OF REVISION

KEYED NOTE



**WINDOW NUMBER SYMBOL** 

**WALL PARTITION TYPE** 

#### GENERAL CONDITIONS...

- 2 QUALITY: CONTRACTOR SHALL PERFORM ALL WORK AND INSTALL TO BE TRUE, LEVEL AND PLUMB. ALL JOINTS TO BE TIGHT AND
- TESTED AND CERTIFIED ASSEMBLIES, AS REQUIRED BY CODE.
- ACCESSIBILITY GUIDELINES 36 CFR PART 1191 OF THE FEDERAL REGISTER, ITS REVISIONS TO ANSI STANDARD A117.1, AND TITLE III OF THE AMERICAN'S WITH DISABILITY ACT (ADA), AND LOCAL ORDINANCES
- 5 WARRANTY: ALL CONSTRUCTION, MATERIALS, PRODUCTS AND WORK TO BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE TENANT.
- 6 CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS. NO MEASUREMENTS SHALL BE SCALED FROM THE DRAWINGS. CONTRACTOR SHALL OBTAIN CLARIFICATION FROM ARCHITECT IN QUESTION.
- 7 CONTRACTOR IS ADVISED THAT PORTIONS OF THIS DOCUMENT MAY BE BASED ON UNFIELD VERIFIED INFORMATION PROVIDED BY OTHERS IN ACCORDANCE WITH THE OWNERS DIRECTIONS. CONTRACTOR TO ADVISE ARCHITECT OF ANY EXISTING CONDITION DIFFERENT FROM THAT NOTED WHICH MAY IMPACT CONSTRUCTION PRIOR TO EXECUTION.
- TO OVERRULE SMALLER SCALE DRAWINGS. ALL DIMENSIONS ARE TO FACE OF DRYWALL UNLESS NOTED OTHERWISE.
- 9 TURN OVER TO LANDLORD OR SAVE FOR REUSE THE FOLLOWING
  - A) DOORS, FRAMES, & DOOR HARDWARE AS INDICATED.
  - B) THERMOSTATS. C) SUPPLY AND RETURN AIR GRILLES.
- 1 CLEAN UP: REMOVE ALL DEBRIS, PACKING MATERIAL, DEMOLISHED 0 MATERIAL, AND EXTRANEOUS TRASH GENERATED BY CONSTRUCTION FROM BUILDING & SITE UNLESS NOTED, TO BE
- 1 BUILDING STANDARDS: ALL MATERIAL, HARDWARE, FIXTURES, AND
- 1 SITE VISIT; ALL GENERAL CONTRACTORS & SUBCONTRACTORS 2 ARE TO VISIT SITE PRIOR TO COMPLETING BID TO VERIFY EXISTING CONDITION. GENERAL CONTRACTOR & SUBCONTRACTORS TO PROVIDE WRITTEN DOCUMENTATION OF ANY DISCREPANCY BETWEEN SITE CONDITIONS & DOCUMENTS. SUBMISSION OF BID IS CONFIRMATION THAT EXISTING CONDITIONS HAVE BEEN FULLY TAKEN INTO CONSIDERATION & ARE REFLECTED IN THE COSTS
- 1 CONTRACTOR TO PROVIDE 2X FIRE RESISTANT BLOCKING AS
- REMOVAL OF CONSTRUCTION TO MATCH ADJACENT FINISH. PATCH THRU-WALL/ THRU-FLOOR PENETRATIONS TO MAINTAIN EXISTING BUILDING INTEGRITY.
- 1 USE 3M NON-INTUMESCENT FIRE STOPPING AS FOLLOWS: 7 FIREDAM 150 CAULK FOR WALL & FLOOR PENETRATION SEALS, TO MEET OR EXCEED ASTM E 814 (UL1479) AND/OR ASTM E 119 (UL263) STRUCTURAL STEEL, AND ELECTRICAL & CONTROL SYSTEM, TO MEET OR EXCEED ASTM E 119 (UL263) AND HIGH INTENSITY FIRE TEST
- 1 ALL NEW CONCRETE FLOORING SECTIONS TO BE DOWELED AND 8 PINNED TO EXISTING CONCRETE SLAB
- 1 ALL ROOF WORK TO BE COMPLETED BY LANDLORD'S APPROVED 9 ROOFING CONTRACTOR
- 2 FIRE PROTECTION: GENERAL CONTRACTOR IS RESPONSIBLE TO 0 PROVIDE, EXTEND, OR REVISE ALARM SYSTEMS AS REQUIRED TO COMPLY WITH APPLICABLE CODES. COORDINATE WORK WITH OWNER'S REPRESENTATIVES WHERE MODIFYING OR TYING INTO EXISTING SYSTEMS. GENERAL CONTRACTOR SHALL PREPARE REQUIRED DRAWINGS AND OBTAIN BUILDING PERMITS FOR ALARM SYSTEM WORK.
- 2 CONTRACTOR TO STORE & INSTALL AS NECESSARY ANY 3 OWNER-PROVIDED EQUIPMENT. REFER TO DOCUMENTS FOR FURTHER DETAIL.
- 2 NOT USED

- 1 PERMITS: CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS
- ALL COMPONENTS IN A PROFESSIONAL MANNER. ALL FINISH WORK
- 3 CODE COMPLIANCE: WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES INCLUDING NFPA; AND USE
- 4 HANDICAP ACCESSIBILITY: CONTRACTOR SHALL COMPLY WITH
- BEFORE PROCEEDING WITH CONSTRUCTION IF A DIMENSION(S) IS
- 8 DIMENSIONS AND NOTES ON ENLARGED PLANS AND DETAILS ARE
- ITEMS WHEN DISMANTLED:
- D) ADDITIONAL ITEMS INDICATED ON PLAN. E) EXISTING LIGHT FIXTURES INDICATED ON PLAN.
- TURNED OVER TO LANDLORD. ALL DEMOLISHED MATERIAL NOT TO BE TURNED OVER TO LANDLORD SHALL BECOME THE PROPERTY OF GENERAL CONTRACTOR.
- 1 FINISHES TO BE BUILDING STANDARD UNLESS NOTED OTHERWISE. BUILDING STANDARD INFORMATION IS AVAILABLE THROUGH THE TENANT'S REPRESENTATIVES. AND TYPICALLY MATCHES EXISTING INTERIOR CONSTRUCTION.
- 3 NECESSARY BEHIND ALL WALL MOUNTED INSTALLATIONS. 1 CONTRACTOR TO PROVIDE BUILDING CONSTRUCTION
- 4 REPRESENTATIVE WITH COPIES OF DELIVERY, AND CONSTRUCTION SCHEDULES. CONTRACTOR TO COORDINATE ALL SCHEDULES WITH BUILDINGS CONSTRUCTION REPRESENTATIVE.
- 1 IF EXTERIOR WINDOWS ARE BEING ENCLOSED CONTRACTOR IS TO 5 CLEAN ALL WINDOWS, SHADES, CAVITY AREA FROM CONSTRUCTION DUST AND DEBRIS PRIOR TO ENCLOSING EXTERIOR WINDOWS.
- 1 CUTTING & PATCHING: CONTRACTOR TO PATCH, REPAIR, & 6 REFINISH WORK DAMAGED AS A RESULT OF DEMOLITION OR
- (UL 1709). FIRE BARRIER 2001 SILICONE RTV FOAM FOR CABLE BUNDLES AND TRAYS, TRAYS CONDUIT BUNDLES AND MULTIPLE PIPE RUNS, AND OTHER LARGE OPENINGS TO MEET OR EXCEED ASTM E 814 AND TO COMPLY WITH CURRENTLY APPLICABLE REQUIREMENTS OF THE NEC (NFPA-70), BOCAI, ICBO, SBCCI, IBC AND NFPA CODE #101.

- 2 CONTRACTOR TO REQUEST FROM LANDLORD A COPY OF ALL 1 BUILDING RULES & REGULATIONS. THESE RULES & REGULATIONS TO BE FULLY COMPLIED WITH AT ALL TIMES DURING CONSTRUCTION BY THE GENERAL CONTRACTOR & SUB-CONTRACTOR(S). CONTRACTOR TO PROVIDE STATEMENT OF QUALIFICATIONS & INSURANCE CERTIFICATES AS NECESSARY TO THE BUILDING'S REPRESENTATIVE.
- 2 CONTRACTOR TO MAINTAIN CLEAR ACCESS TO ALL DRIVE & 2 ENTRANCES WHILE ON SITE.

2 EXISTING CONDITIONS DOCUMENTS PROVIDED FOR REFERENCE 5 ONLY. ANY WORK INDICATED HAS ALREADY BEEN COMPLETED.

**GENERAL CONDITIONS...** 

- 2 ALL AREAS MUST BE COMPLETELY CLEAN & CLEAR OF ANY 6 CONSTRUCTION MATERIALS @ A MINIMUM OF (2) HOURS BEFORE THE CAFE OPENS EACH DAY.
- 2 WOOD DOORS: REFER TO DOCUMENTS FOR FURTHER DETAIL.
- 2 METAL DOORS: REFER TO DOCUMENTS FOR FURTHER DETAIL.
- 2 FRAMES: REFER TO DOCUMENTS FOR FURTHER DETAIL.
- 3 HARDWARE STANDARD: PROVIDE DOOR HARDWARE IN 0 ACCORDANCE W/ SCHEDULE. ALL LOCKSET/LATCHSET HARDWARE COMPLY W/TITLE III OF AMERICANS WITH DISABILITIES ACT (ADA). GENERAL CONTRACTOR TO COORDINATE KEYING WITH OWNER REPRESENTATIVE.
- 3 DRYWALL: REFER TO PARTITION DETAILS FOR FURTHER 1 INFORMATION.
- 3 RESILIENT BASE: PROVIDE 6" HIGH RUBBER COVE BASE IN 100'

2 ROLLS. REFER TO DOCUMENTS FOR FURTHER DETAILS.

- 3 PAINT: PROVIDE 2 COATS OF ALKYD SEMI-GLOSS ENAMEL FINISH 3 COLOR ON METAL DOORS & FRAMES AS INDICATED ON DRAWINGS.
- 3 PAINT: PROVIDE 2 COATS OF PREMIUM BENJAMIN MOORE (NO 4 SUBSTITUTIONS ALLOWED) EGGSHELL FINISH COLOR ON ALL NEW SURFACES AS INDICATED ON DRAWINGS. PRIME NEW/EXISTING

SURFACES & PATCH AS REQUIRED.

- 3 SOUND BATT INSULATION (WALLS ONLY): SHALL BE UNFACED 5 GLASS FIBER ACOUSTICAL INSULATION COMPLYING WITH ASTM C665, TYPE 1, SIZED AS INDICATED IN DETAILS. MAXIMUM FLAME SPREAD: 10. STC ABOVE 55.
- 3 SOUND ATTENUATION (ABOVE CEILINGS) SHALL BE 3" UNFACED, 6 LIGHT WEIGHT, RESILIENT FIBERGLASS DESIGNED TO ABSORB SOUND AND SPECIFICALLY MANUFACTURED FOR USE ABOVE CEILINGS. MAXIMUM FLAME SPREAD: 25 STC ABOVE 55. NO SOUND ATTENUATION INSULATION IS TO BE USED ABOVE FINISHED CEILING IN FOOD PREPARATION AREAS.
- 3 ALL FLOORING PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH 7 MANUFACTURER RECOMMENDATIONS & SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR ALL FLOOR LEVELING THAT MAY BE REQUIRED IN ORDER TO COMPLY WITH PROPER
- INSTALLATION PROCEDURE. 3 ACOUSTICAL CEILING: SHALL BE AS INDICATED OR AS CALLED FOR 8 IN NOTES. INSTALLATION TO BE IN ACCORDANCE WITH

MANUFACTURER RECOMMENDATIONS AND SPECIFICATIONS.

- 3 EXTERIOR SIGNAGE, IF INDICATED, TO COMPLY WITH ALL CITY 9 REGULATION AND BUILDING DESIGN STANDARDS. ADVISE ARCHITECT OF ANY CONFLICTS. ALL SIGNAGE PROVIDED BY
- 4 CONTRACTOR SHALL PROVIDE MASTER KEY LOCK BOX IN 0 ACCORDANCE TO CITY REGULATION FOR APPROVAL BY LOCAL

OWNER, U.N.O.

FIRE DEPARTMENT.

- 4 CONTRACTOR TO PROVIDE SUITE NUMBERS AT EXTERIOR ENTRIES 1 AS REQUIRED BY CITY REGULATIONS AND APPROVED BY LOCAL FIRE DEPARTMENT AND LANDLORD. CONTRACTOR TO
- COORDINATE SIGNAGE TYPE AND LOCATION WITH ARCHITECT. 4 HVAC: REFERENCE MECH. DOCUMENTS FOR INFORMATION AND 2 LAYOUT. G.C. IS RESPONSIBLE FOR SCHEDULING AND PROVIDING A TEST AND BALANCE REPORT TO PANERA REPRESENTATIVE PRIOR TO TURNOVER. GC SHALL USE AN AABC OR NEBB INDEPENDENT THIRD PARTY AIR BALANCE COMPANY. THE REPORT

SHALL BE AVAILABLE ON JOB SITE PRIOR TO FINAL INSPECTION.

- 4 PROVIDE MATERIAL & INSTALLATION ALLOWANCE FOR TWO (2) 3 CLASS C FIRE EXTINGUISHERS AS REQUIRED TO MEET LOCAL FIRE OFFICIALS REQUEST AND TO MEET NFPA. CONTRACTOR TO COORDINATE WITH FIRE MARSHALL TO DETERMINE EXACT QUANTITY & LOCATION OF ALL EXTINGUISHERS. ABC, RATING: 10 BC 15 LBS.
- 4 PLUMBING: FIXTURES LOCATED ON ARCHITECTURAL SHEETS FOR 4 GENERAL REFERENCE ONLY. REFER TO PLUMBING SHEETS FOR ROUGH-IN DETAILS.
- 4 FIRE PROTECTION: GENERAL CONTRACTOR IS RESPONSIBLE TO 5 PROVIDE, EXTEND, OR REVISE ALARM SYSTEMS AS REQUIRED TO COMPLY WITH APPLICABLE CODES. COORDINATE WORK WITH OWNER'S REPRESENTATIVES WHERE MODIFYING OR TYING INTO EXISTING SYSTEMS. GENERAL CONTRACTOR SHALL PREPARE REQUIRED DRAWINGS AND OBTAIN BUILDING PERMITS FOR ALARM SYSTEM WORK.
- 4 ALL ELECTRICAL RECEPTACLES TO BE MOUNTED AT MIN. 15" A.F.F. 6 U.N.O. TO CENTERLINE. ALL LIGHT SWITCHES AND THERMOSTATS TO BE MOUNTED AT 48" A.F.F. TO CENTERLINE.
- 4 ELECTRICAL, DATA, AND COMMUNICATIONS OUTLETS ARE 7 PROVIDED FOR REFERENCE ONLY. REFERENCE ELEC. DOCUMENTS FOR ADDITIONAL ELECTRICAL INFORMATION ON SWITCHING, ADDITIONAL OUTLETS, EQUIPMENT ROOM REQUIREMENTS, ETC.
- 4 IF ANY DISCREPANCY EXISTS IN THE PLANS AND SPECIFICATIONS, 8 THE CONTRACTOR IS RESPONSIBLE FOR CLARIFYING WITH THE ARCHITECT. THE ARCHITECT, ONLY, SHALL INTERPRET THE PLANS AND SPECIFICATIONS. THE GENERAL CONTRACTOR SHALL RESOLVE FIELD CONDITIONS NOT SHOWN ON THE DRAWINGS WITH THE ARCHITECT.

Bakery-Cafe:

Project Team:

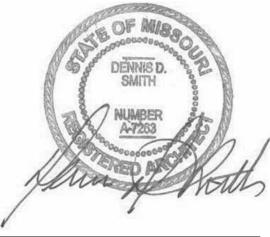
SYSTEM: G4 (ARIA)



LK ARCHITECTURE, INC. **345 RIVERVIEW** WICHITA, KS 67203 T 316.268.0230 F 316.268.0205

**Architecture** · **Engineering Planning · Interior Design Landscape Architecture** 

Professional Seal:



Project Title:

980 90 



Consultant Copyright Placeholder

CONSTRUCTION SET: 2022-09-09 Description Date Shell - Permit Set 7/5/2022 Shell - City Comments 8/19/2022

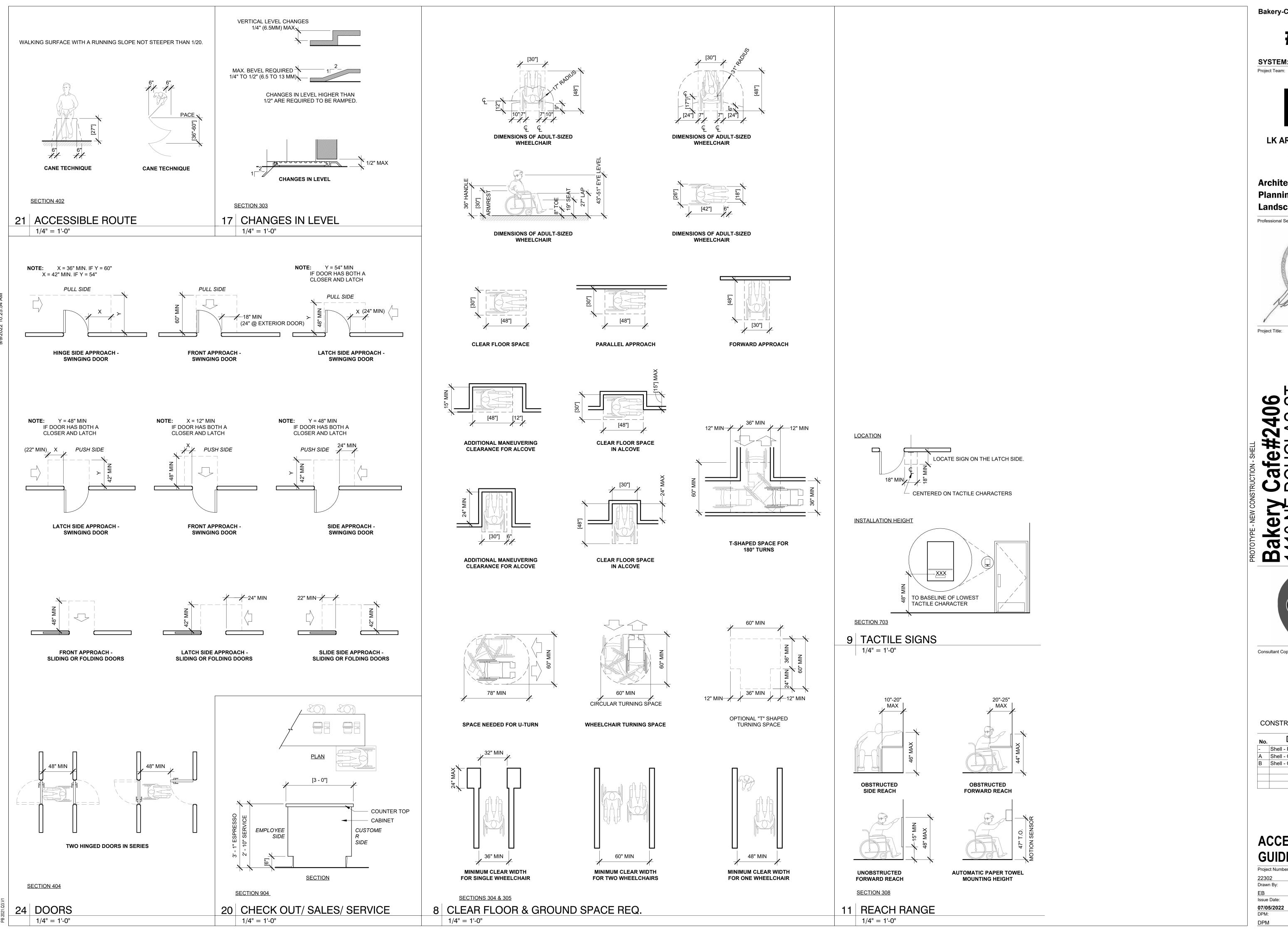
Shell - Construction Set

8/25/2022

**GENERAL NOTES, SYMBOLS, LEGENDS** 

**& ABBREVIATIONS** Project Number: Drawn By

Issue Date: 07/05/2022 DPM:



Bakery-Cafe:

SYSTEM: G4 (ARIA)

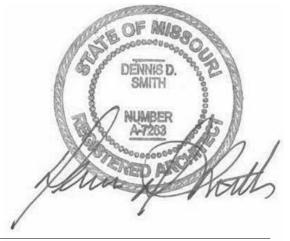


LK ARCHITECTURE, INC. 345 RIVERVIEW, WICHITA, KS 67203 T 316.268.0230

F 316.268.0205

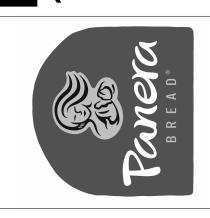
**Architecture** · Engineering · Planning - Interior Design **Landscape Architecture** 

Professional Seal:



Project Title:

Bakery Co



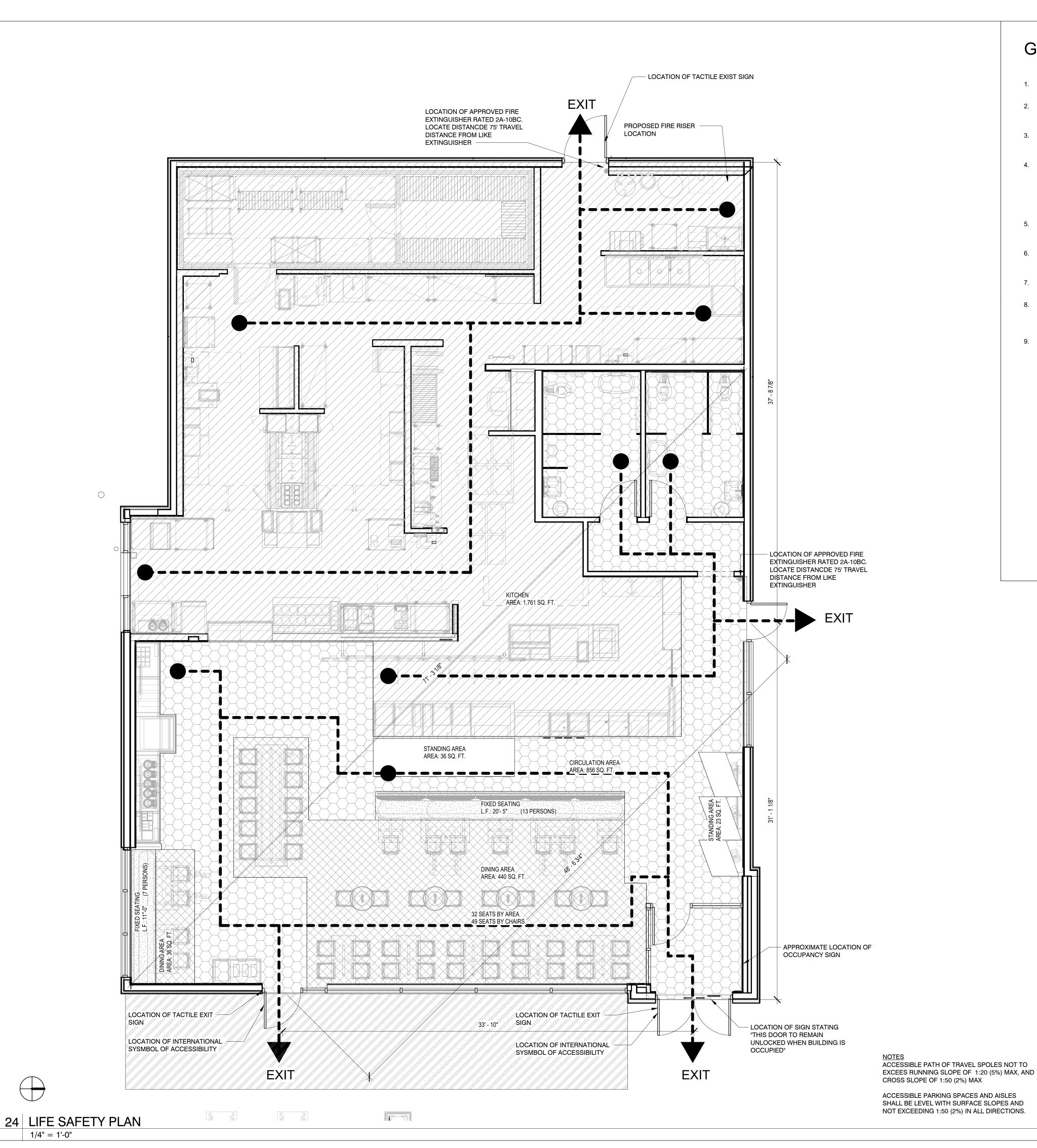
Consultant Copyright Placeholder

CONSTRUCTION SET: 2022-09-09

No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
-		

**ACCESSIBILITY GUIDELINES** 

Project Number: Issue Date: 07/05/2022



## GEN

- 1. TACT 5'-0"
- 2. ONE REQ THE
- ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT USE OF KEY OR SPECIAL KNOWLEDGE OR EFFORT.
- 4. AT LEAST 5%, BUT NO LESS THAN ONE OF THE SEATING

SPACES IN EACH FUNCTIONAL AREA SHALL BE ACCESSIBLE.

CALCULATION FOR NUMBER OF ACCESSIBLE SEATS:

(INTERIOR SEATS)  $100 \times 5\% = 5$ (EXTERIOR SEATS)  $26 \times 5\% = 2$ 

- 5. ACCESS TO ACCESSIBLE SEATING SPACES SHALL BE PROVIDED BY MAIN AISLES (ACCESSIBLE ROUTE) A MINIMUM WIDTH OF 36".
- 6. A MINIMUM OF 30" BY 48" CLEAR FLOOR SPACE SHALL BE PROVIDED AND SHALL NOT OVERLAP THE KNEE SPACE BY MORE THAN 14".
- 7. FIXED TABLES AND COUNTERS: HEIGHT OF TABLES NAD COUNTERS SHALL BE 28" MINIMUM AND 34" MAXIMUM.
- 8. MANEUVERING CLEARANCE: A MINIMUM OF 36" x 48" CLEAR FLOOR SPACE SHALL BE PROVIDED. KNEE CLEARANCE SHALL BE AT LEAST 27" HIGH, 30" WIDE AND 10"
- MARSHAL.

9. FINAL EXTINGUISHER LOCATIONS TO BE APPROVED BY FIRE

	APPLICABLE BUILDING COL	DES
NERAL NOTES	BUILDING CODE	2018 IBC
NEIVAL INOTEO	PLUMBING CODE	2018 IPC
	ELECTRICAL CODE	2017 NATIONAL ELECTRICAL CODE
	MECHANICAL CODE	2018 INTERNATIONAL MECHANICAL CODE
CTILE EXIT SIGNS TO BE MOUNTED BETWEEN 4'-6" AND	ENERGY CODE	
" AFF ON HINGE SIDE OF ALL EXTERIOR EXIT DOORS .	OF ALL EXTERIOR EXIT DOORS . FIRE CODE 2018 INTERNATIONAL FIRE	2018 INTERNATIONAL FIRE CODE
E 2A10BC DRY CHEMICAL FIRE EXTINGUISHER IS QUIRED FOR EACH 3,000 SQ. FT. OF FLOOR AREA WITH	ACCESSIBILITY CODE	2009 AMERICANS WITH DISABILITIES ACT, ICC/ ANSI A117.1
TRAVEL DISTANCE NOT TO EXCEED 75FEET.	BUILDING INFORMATION	

LEGEND

OCCUPANT LOAD

LENGTH

11'-0"

BUILDING INFORMATION

CONSTRUCTION TYPE TYPE V - B **BUILDING IS NON-SPRINKLERED** SPRINKLERED

CIRCULATION DINING AREA & CAFE AREA: 855 SQ. FT. AREA: 475 SQ. FT. FIXED SEATING KITCHEN AREA AREA: 70 SQ. FT. AREA: 1,761 SQ. FT.

STANDING ROOM PATIO AREA AREA: 59 SQ. FT. AREA: 325 SQ.FT.

> INTERIOR AREA (NET): 3,220 SQ. FT PATIO AREA: 325 SQ FT

ALLOWABLE AREA PER 2018 IBC PRIMARY OCCUPANCY A-2 | ASSEMBLY MAXIMUM ALLOWABLE BUILDING | 6000 SF, ACTUAL 3,493 TRAVEL DISTANCE 150FT ALLOWED (PER 2018 IBC TABLE 1016.2)

OCCUPANT LOAD COUNT TABLE PER 2018 IBC TABLE 1004.1.2

FUNCTION OF SPACE OCCUPANT AREA LOAD FACTOR (SQFT) 475 32 (49 SEATS) DINING AREA UNCONCENTRATED 15 CIRCULATION UNCONCENTRATED 0 855 KITCHEN: KITCHEN 1761 9 COMMERCIAL STANDING AREA STANDING AREA 59 12 FIXED SEATING TOTAL LINEAL LINEAL IN. PER OCC. PERSONS

TOTAL INTERIOR OCCUPANTS: SEAT COUNT 22 PATIO: TOTAL OCCUPANTS (INCLUDING PATIO): 112

EXIT REQUIRMENTS PER 2018 IBC SECTION 1015.2.1 71'-3 1/8" LONGEST INTERIOR DIAGONAL DIMENSION MIN. DISTANCE BETWEEN DOORWAYS 71'-3 1/8" = 35'-7 1/2" (SPRINKLED) ACTUAL DISTANCE BETWEEN CLOSEST DOORWAYS 48' - 6 3/4"

ALLOWABLE EGRESS WIDTH

PER 2018 IBC SECTION 1005.3.2 OCCUPANTS FACTOR (IN.) INTERIOR 0.20 EXTERIOR PATIO SPACE W/OUT 0.20 SPRINKLER MINIMUM EGRESS OPENING WIDTH 22.2 REQUIRED MINIMUM DOOR SIZE (PER 1008.1.1) 32.00

MAIN EXIT SECONDARY TOTAL (IN.) (IN.) (IN.) ACTUAL EGRESS OPENING WIDTH PROVIDED

PLUMBING CALCULATIONS

[CLEAR OPENING]

PER 2018 IPC BUILDING OCCUPANCY (TOTAL) TOTAL MEN/WOMEN OTHER WATER CLOSETS LAVATORIES BUILDING ASSEMBLY | MALE | FEMALE | MALE | FEMALE |

1:100 1:100 1:200 1:200 1:5ER SINK REQUIRED 2 2 1 1 PROVIDED 2 1 1 1

Bakery-Cafe:

SYSTEM: G4 (ARIA) Project Team:

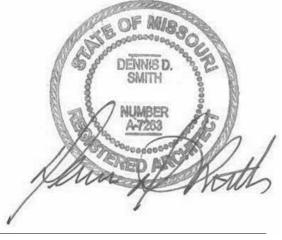


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**3ak** 410



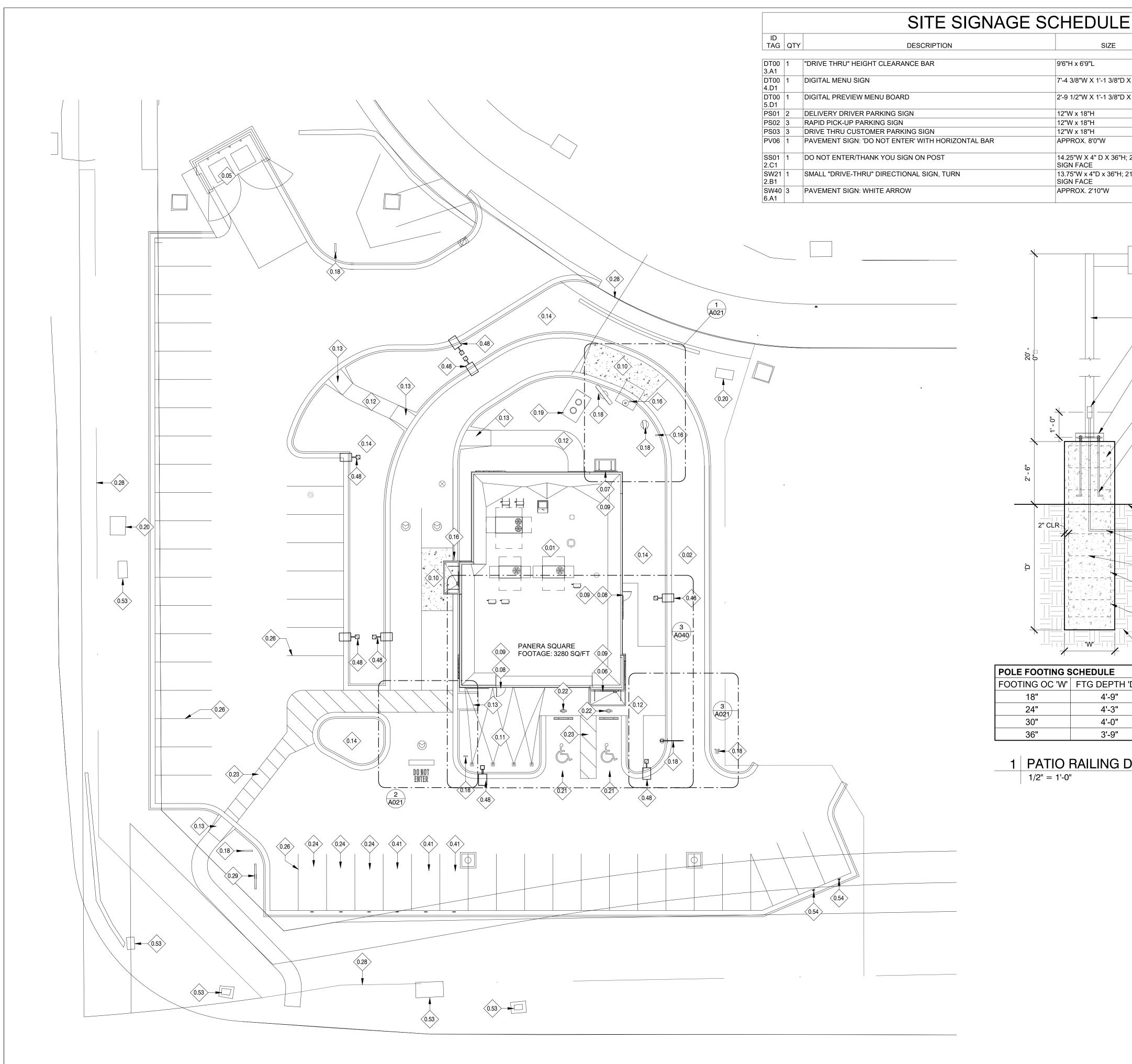
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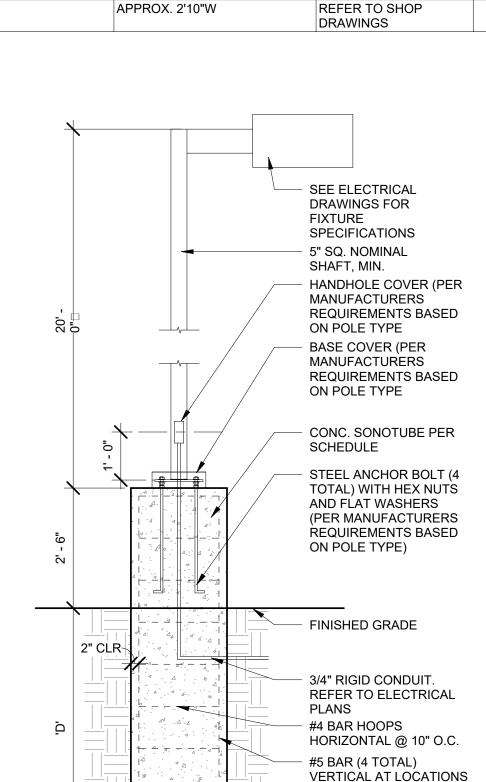
CONSTRUCTION SET: 2022-09-09

No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022

Project Number: Drawn By: Issue Date: 07/05/2022

DPM:





9'6"H x 6'9"L

12"W x 18"H

12"W x 18"H

12"W x 18"H

SIGN FACE

SIGN FACE

APPROX. 8'0"W

DETAIL/

N/A

N/A

REF.

MOUNTING

INSTRUCTIONS

REFER TO SHOP

DRAWINGS

DRAWINGS

SEE DETAIL

SEE DETAIL

SEE DETAIL

DRAWINGS

DRAWINGS

REFER TO SHOP DRAWINGS

REFER TO SHOP

REFER TO SHOP

OPPOSITE FROM

AGAINST UNDISTRIBUTED

FIRM, UNDISTURBED

NATIVE EARTH

ANCHOR BOLTS 3500 PSI CONCRETE PLACED DIRECTLY

REFER TO SHOP DRAWINGS

7'-4 3/8"W X 1'-1 3/8"D X 6'-2"H REFER TO SHOP

2'-9 1/2"W X 1'-1 3/8"D X 6'-2"H

14.25"W X 4" D X 36"H; 20.5"H

13.75"W x 4"D x 36"H; 21.25"H

POLE FOOTING SCHEDULE			
FOOTING OC 'W'	FTG DEPTH 'D'	VERT REINF.	
18"	4'-9"	#3 @ 8" / 3 IN TOP 5"	
24"	4'-3"	#3 @ 8" / 3 IN TOP 5"	
30"	4'-0"	#3 @ 8" / 3 IN TOP 5"	
36"	3'-9"	#3 @ 8" / 3 IN TOP 5"	

1 PATIO RAILING DETAIL 1/2" = 1'-0"

□ 'W'

Bakery-Cafe:

SYSTEM: G4 (ARIA) Project Team:

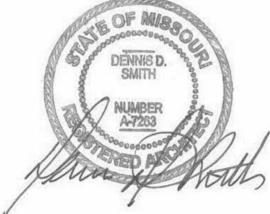


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Professional Seal:



# 98

# **KEYED NOTES**

0.01 PROPOSED PANERA CAFE SPACE.

**GENERAL NOTES:** 

AND REQUIREMENTS.

APPLICABLE CODES.

A. SITE PLAN PROVIDED FOR REFERENCE. REFER TO CIVIL

C. ALL WORK SHALL COMPLY WITH THE REGULATION AND

POINTS FOR ALL UTILITIES AFFECTED.

D. THE GENERAL CONTRACTOR (G.C.) SHALL CONTACT LOCAL

B. LANDSCAPE HAS BEEN INTENTIONALLY EXCLUDED FROM THIS

SHEET, SEE CIVIL DRAWINGS FOR ALL LANDSCAPE INFORMATION

ORDINANCES OF LEE SUMMIT, MO AND ANY OTHER APPLICABLE

UTILITIES TO VERIFY ALL SIZES, LOCATIONS, AND CONNECTION

G.C. TO VERIFY EXISTING SITE CONDITIONS PRIOR TO BID. ALSO

PROVIDE CONTINUOUS CURB CUTS AND SMOOTH PAVEMENT &

CURB TRANSITIONS BETWEEN NEW AND EXISTING CONDITIONS AS

STRUCTURAL FOOTINGS FOR ALL NEW SITE DRIVE-THRU SIGNAGE

E. ANY CONNECTIONS, DISCONNECTIONS, AND INSTALLATIONS TO

LOCAL UTILITIES SHALL BE MADE IN ACCORDANCE WITH

H. G.C. SHALL PROVIDE AND INSTALL ELECTRICAL CONDUIT AND

I. REFER TÓ CIVIL DOCUMENTS FOR GENERAL SITE LIGHTING.

F. EXTERIOR BUILDING SIGN FURNISHED AND INSTALLED BY

OWNER'S SIGN VENDOR, G.C. TO PROVIDE POWER.

REQUIRED FOR SITE WORK AS REQUIRED.

DOCUMENTS FOR ADDITIONAL INFORMATION.

0.02 DRIVE THRU LANE, REFER TO CIVIL DRAWINGS.

0.05 PROPOSED TRASH ENCLOSURE AND CONCRETE PAD; EXTERIOR MATERIALS TO MATCH MAIN BUILDING. REFER TO SHEET A020. 0.06 PRIMARY TENANT BUILDING ENTRANCE.

0.07 REAR SERVICE DOOR LOCATION; REFER TO SHEET A101 AND A601

FOR ADDITIONAL INFORMATION. 0.08 SECONDARY ENTRANCE, REFER TO SHEET A101 FOR FURTHER

INFORMATION. 0.09 G.C. TO PROVIDE MAXIMUM THRESHOLD HEIGHT OF 1/2"

0.10 DRIVE-THRU CONCRETE PAD; REFER TO CIVIL DRAWINGS AND SHEET A021 FOR ADDITIONAL INFORMATION. 0.11 CONCRETE PATIO; REFER TO SHEET A040 FOR ADDITIONAL

INFORMAITON. CORRDINATE WITH TENANT DRAWINGS FOR UNDERGROUND CONDUIT(S) FOR PATIO LIGHTING. 0.12 PROPOSED CONCRETE SIDEWALK, PROVIDE BROOM FINISH PERPENDICULAR TO BUILDING, TYPICAL. REFER TO CIVIL DRAWINGS

FOR ADDITIONAL INFORMATION. 0.13 ACCESSIBLE RAMP; REFER TO CIVIL DRAWINGS FOR ADDITIONAL

INFORMATION AND DETAILS. 0.14 PROPOSED LANDSCAPE AREA; REFER TO LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION TO UTILIZE LOCAL FLORA.

AT DRIVE LANE TO BE PAINTED SAFETY YELLOW WITH REFLECTIVE 0.18 NEW DRIVE THRU SIGNAGE; SEE SHEET A023 FOR FURTHER

0.16 4" CONCRETE PIPE BOLLARD, INSTALLED BY PANERA GC. BOLLARDS

INFORMATION. ALSO SEE SHOP DRAWINGS. 0.19 PROPOSED GREASE INTERCEPTOR LOCATION; REFER TO CIVIL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

0.20 ELECTRICAL TRANSFORMER LOCATION ON CONCRETE PAD; REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION. 0.21 PROPOSED ACCESSIBLE PARKING STALL; REFER TO CIVIL DRAWINGS

FOR ADDITIONAL INFORMATION. 0.22 BOLLARD MOUNTED ACCESSIBLE SIGNAGE; REFER TO SITE DETAILS FOR FURTHER REFERENCE.

0.23 PROPOSED PAINTED STRIPED CROSS WALK; REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION. 0.24 PROPOSED RAPID PICK-UP PARKING LOCATIONS AND BOLLARD MOUNTED SIGNAGE. REFER TO SITE DETAILS & VENDORS SHOP

DRAWINGS FOR SIGNAGE INFORMATION. 0.26 PARKING STRIPING; REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.

0.28 PROPERTY LINE, REFER TO CIVIL DRAWINGS FOR FURTHER

INFORMATION. 0.29 PROPOSED PANERA MONUMENT SIGN; TENANT SIGN PANEL BY SIGNAGE VENDOR COMPANY.

0.41 DRIVE THRU PULL FORWARD SPACE AND SIGNAGE, REFER TO SITE 0.48 SITE POLE LIGHTING. REFER TO SITE DETAILS AND CIVIL FOR

FURTHER INFORMATION.

0.53 PULL BOX. 0.54 DELIVERY DRIVER PARKING SIGN. a**ke** .10.



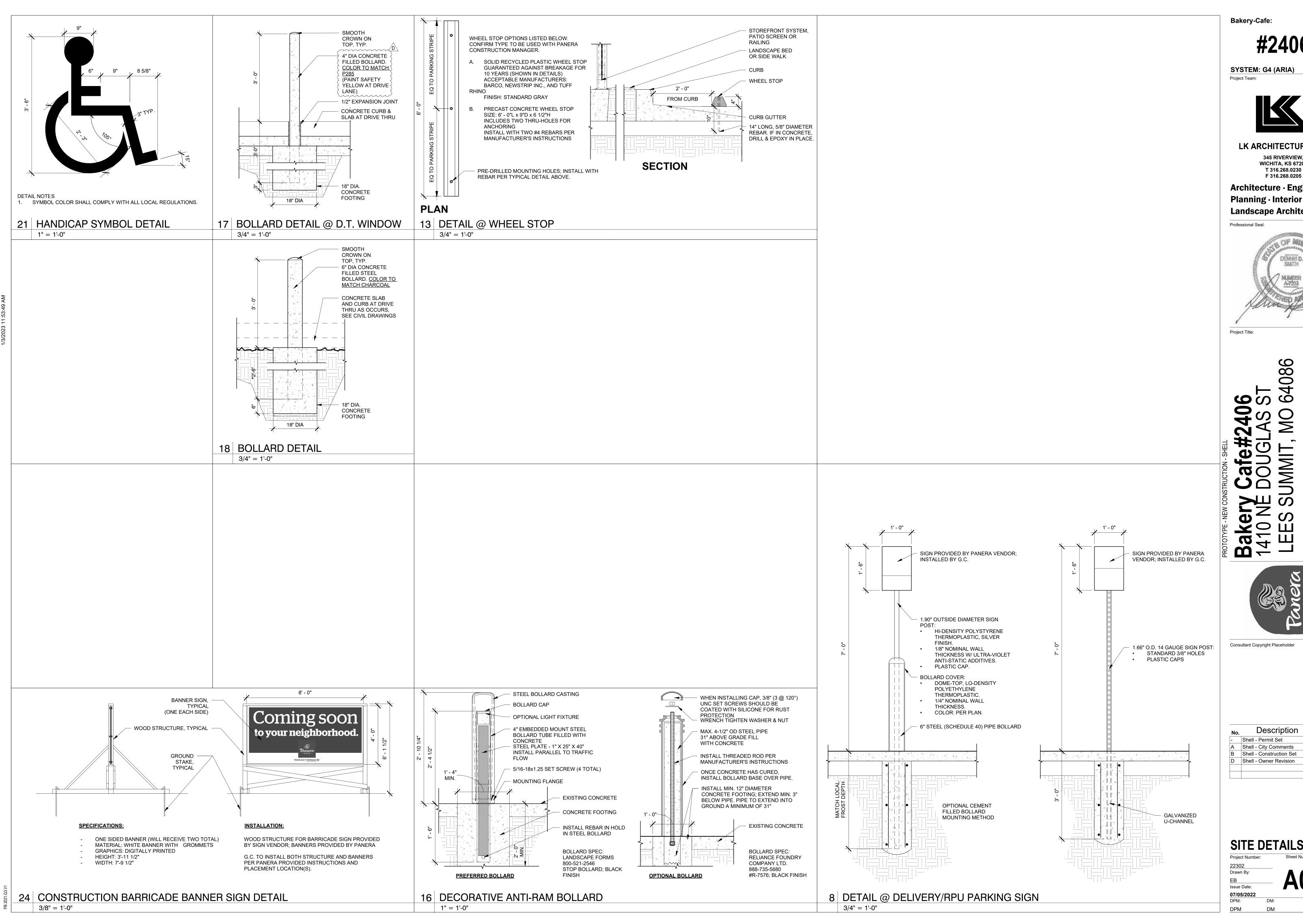
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No.	Description	Date
-	Shell - Permit Set	7/5/2022
A	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
D	Shell - Owner Revision	01/10/2023

# **ARCHITECTURAL SITE PLAN**

Project Number: Drawn By: Issue Date: 07/05/2022 DPM:

24 SITE PLAN 1/16" = 1'-0"

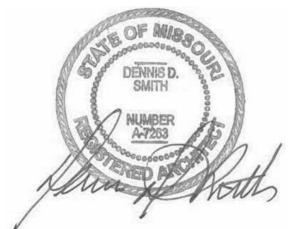


SYSTEM: G4 (ARIA)



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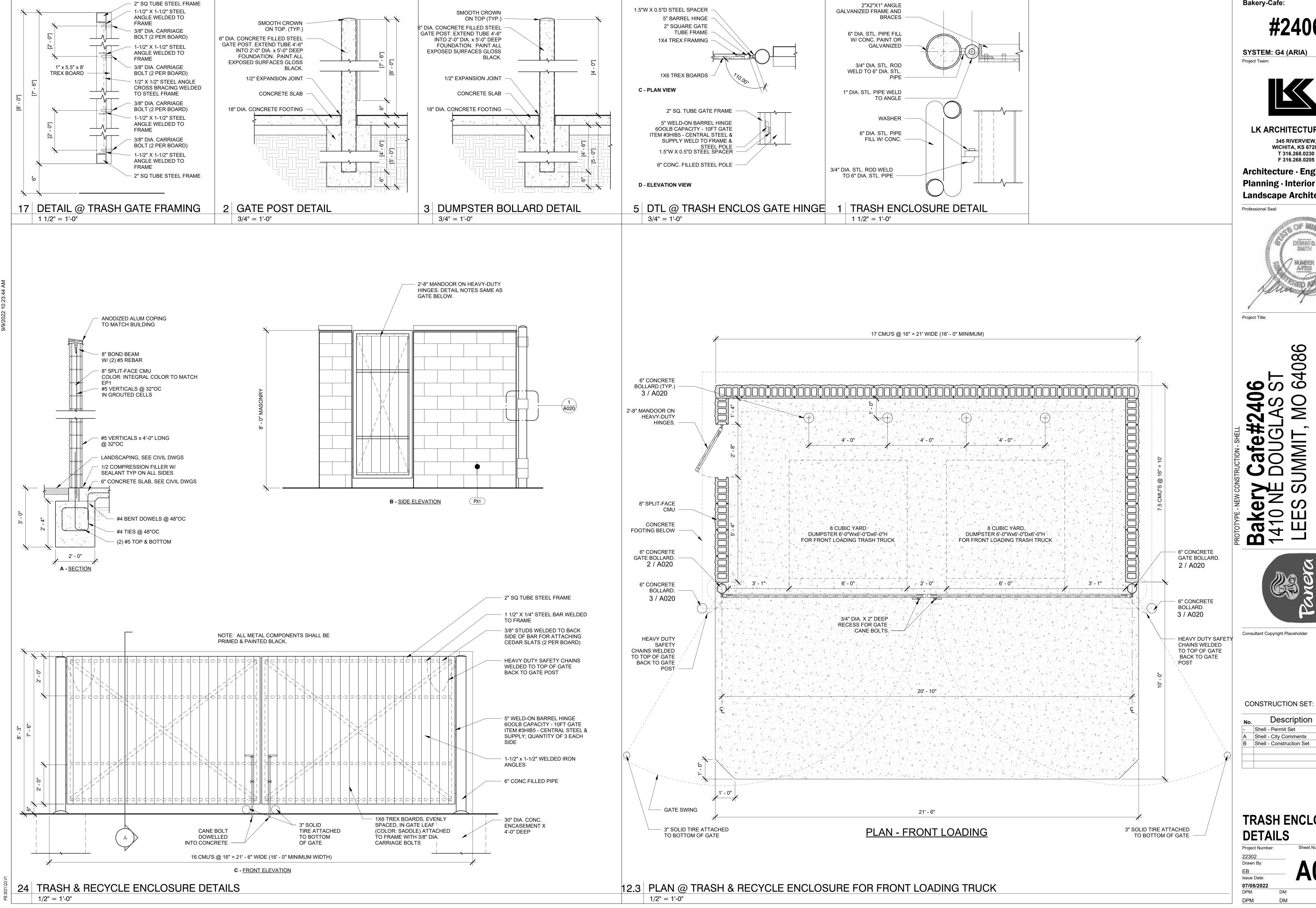


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No.	Description	Date
	Shell - Permit Set	7/5/2022
١	Shell - City Comments	8/19/2022
3	Shell - Construction Set	8/25/2022
)	Shell - Owner Revision	01/10/2023

SITE DETAILS



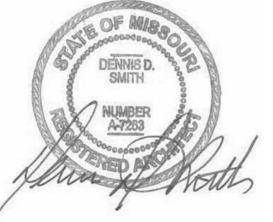
Bakery-Cafe:

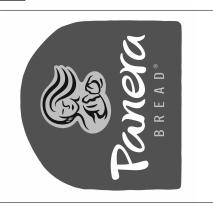
SYSTEM: G4 (ARIA)



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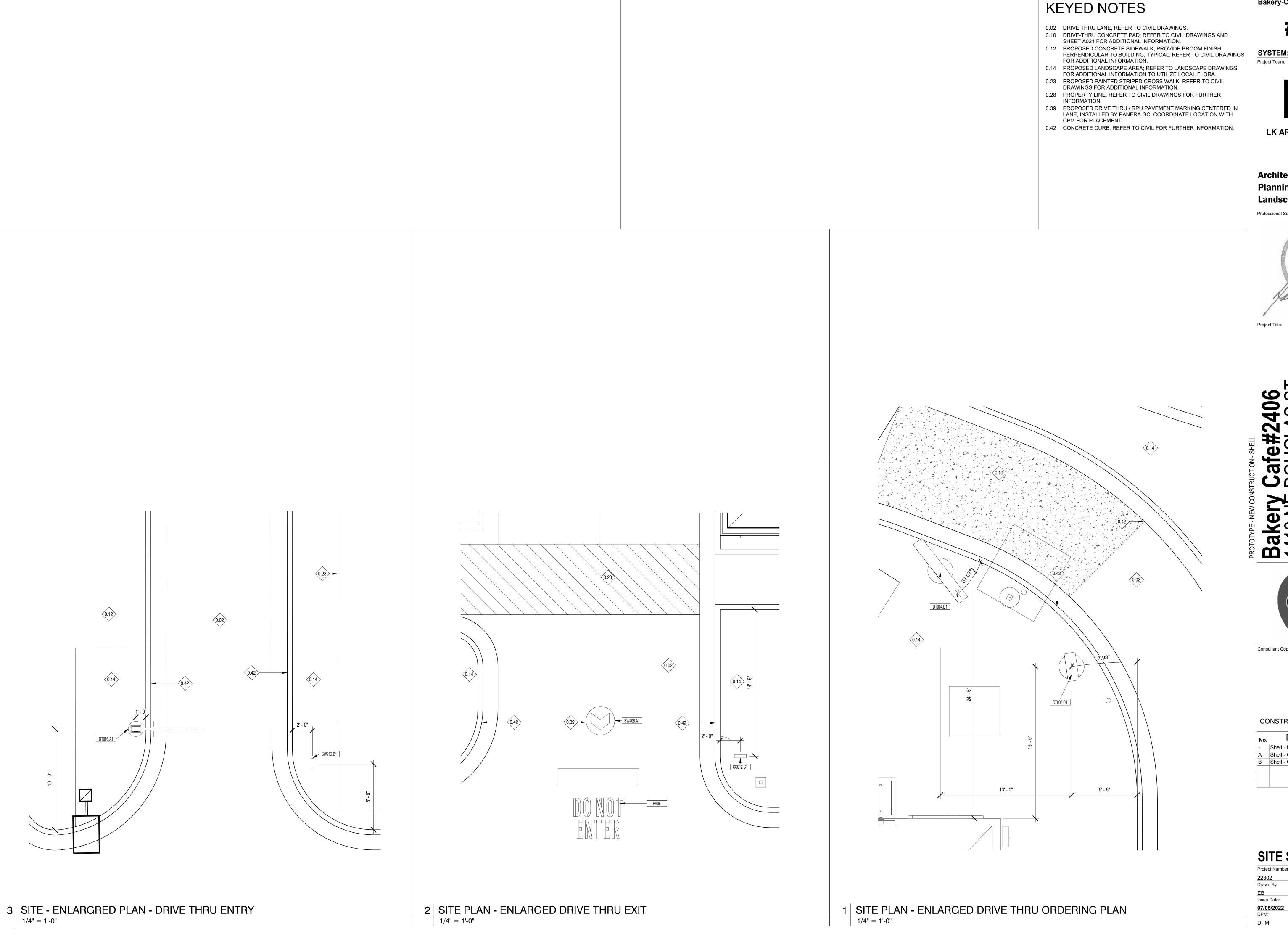




#### CONSTRUCTION SET: 2022-09-09

Description	Date
Shell - Permit Set	7/5/2022
Shell - City Comments	8/19/2022
Shell - Construction Set	8/25/2022
	Shell - Permit Set Shell - City Comments

TRASH ENCLOSURE



Bakery-Cafe:

SYSTEM: G4 (ARIA)

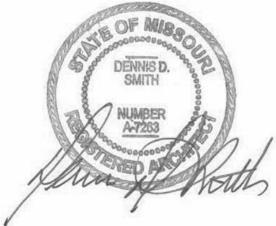


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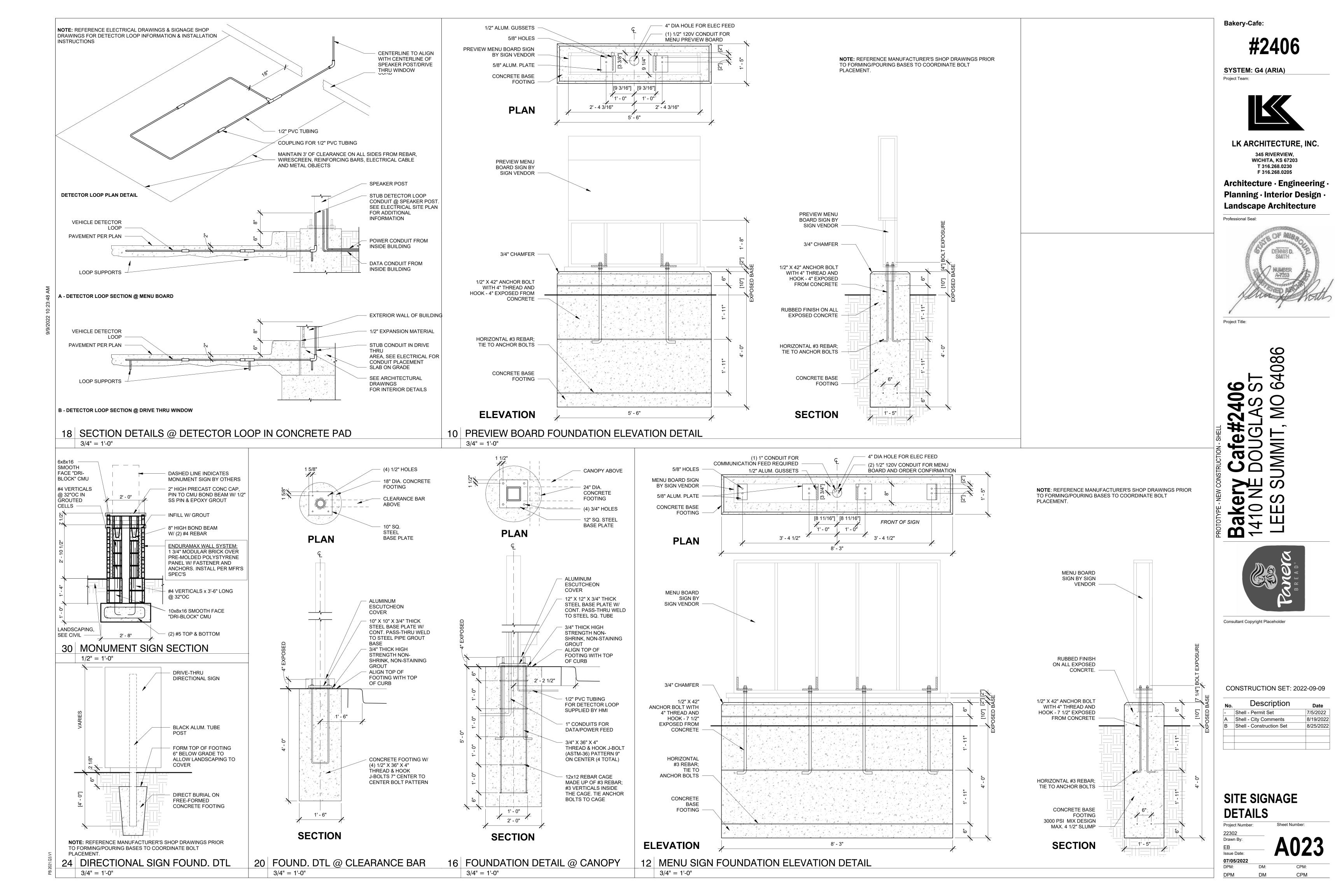
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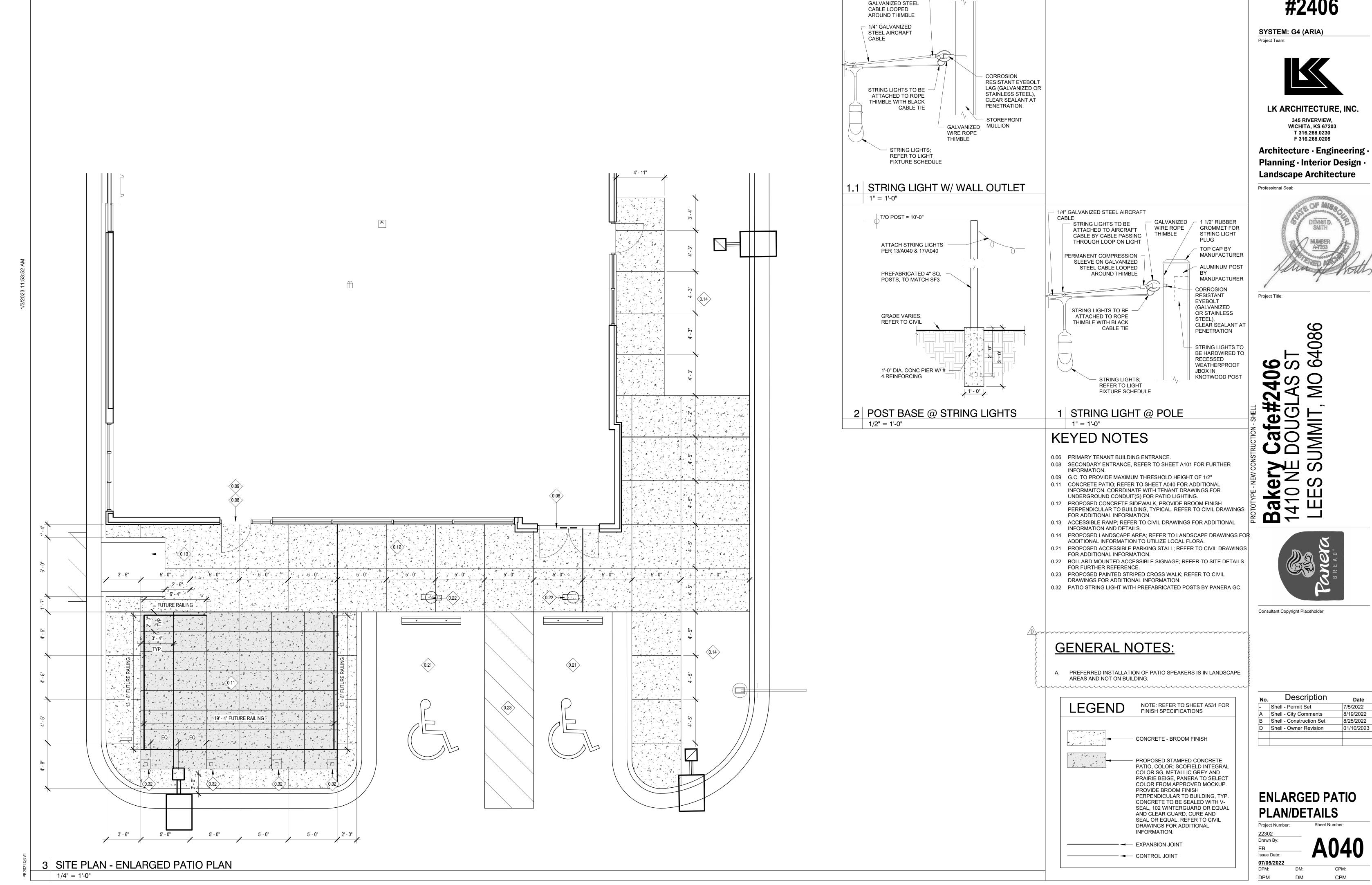
#### CONSTRUCTION SET: 2022-09-09

No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022

SITE SIGNAGE PLAN

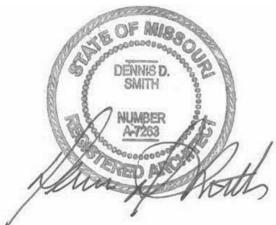
07/05/2022

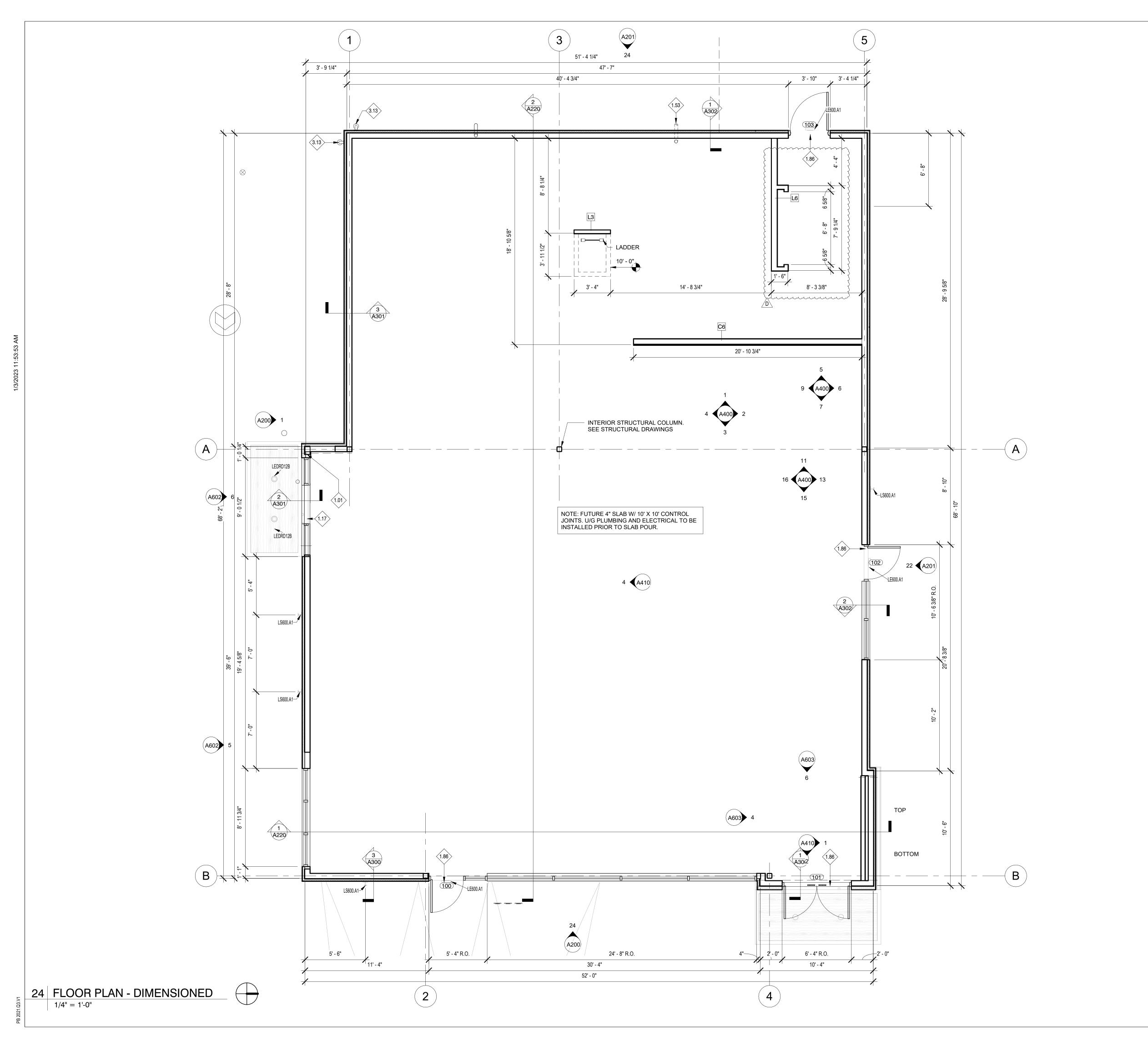




PERMANENT COMPRESSION SLEEVE ON

Bakery-Cafe:





**GENERAL NOTES:** 

**KEYED NOTES** 

INFORMATION.

INFORMATION.

THRU WINDOW. REFER TO SHEET 304

1.01 SOLID SURFACE SILL PROVIDED BY CASEWORK SUPPLIER, INSTALLED BY GC; COLOR: SS23. DIMENSIONS TO BE FIELD VERIFIED. 1.17 18 GA STAINLESS STEEL INFILL PANEL AT JAMB AND HEAD OF DRIVE

1.53 RUN ROOF DRAIN LEADERS DOWN EXTERIOR WALLS, RUN OVERFLOW LEADERS DOWN WALL AND CONNECT TO DOWNSPOUT NOZZLE ON EXTERIOR WALL. KEEP LEADERS AS TIGHT TO THE ROOF STRUCTURE

AS POSSIBLE. SEE SHELL PLUMBING DRAWINGS FOR ADDITIONAL

1.86 EXTERIOR DOOR OPENING. REFER TO STRUCTURAL FOR FURTHER

3.13 SECURITY CAMERA INSTALLED BY PANERA | COORDINATE ROUGH-IN

LOCATION(S) AND HEIGHTS WITH PANERA CONSTRUCTION MANAGER PRIOR TO INSTALLATION.

A. ALL DIMENSIONS NOTED ARE FROM FACE OF STUD.
B. ELECTRICAL EQUIPMENT BY G.C. SEE ELECTRICAL DRAWINGS. PLUMBING EQUIPMENT BY G.C. SEE PLUMBING DRAWINGS.

Bakery-Cafe:

SYSTEM: G4 (ARIA) Project Team:

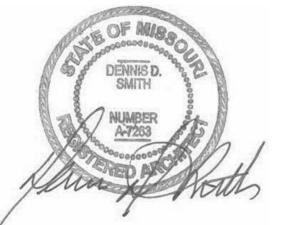


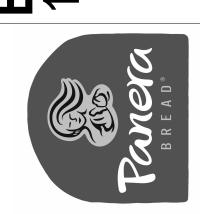
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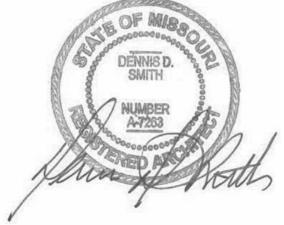
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No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022
D	Shell - Owner Revision	01/10/2023
<u> </u>	Shell - Owner Revision	01/10/202

# FLOOR & LIGHTING PLAN -DIMENSIONED

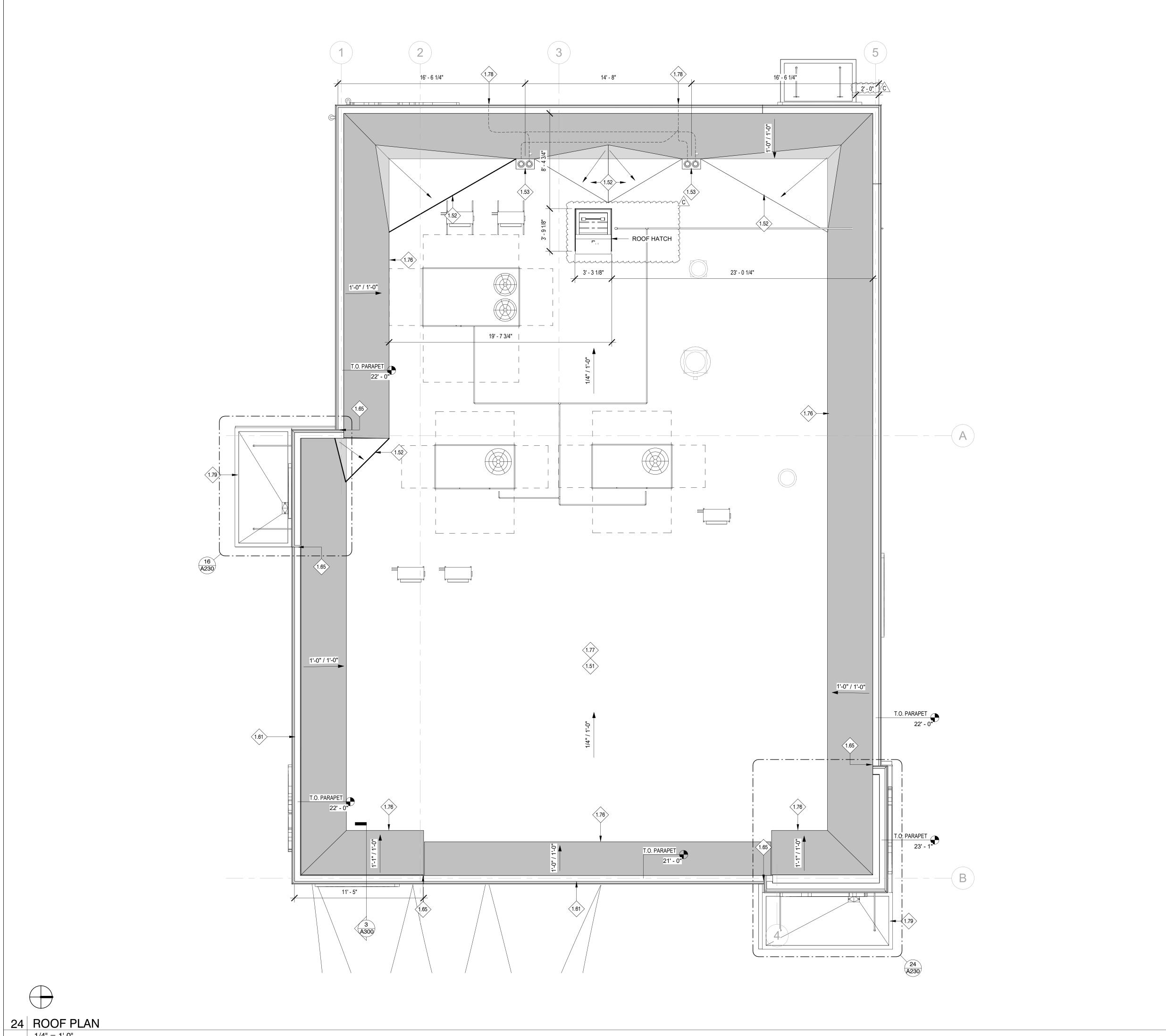
Project Number:		Sheet Number:
22302		
Drawn By:		$\Lambda$
EB		$\Delta 10$
Issue Date:		$\Lambda$ IV
07/05/2022		
DPM:	DM:	CPM:

			NG SCHEDULE							Bakery-Cafe:
	ID TAG	QT	TY. DESCRIPTION	MANUFACTURER	SUPPLIER	MODEL # VOLTAGE	E LAMP TYPE	FIXTURE LOCATION MOUNTING TY		#2406
	EXT15	3	'SCOOP' LED WALL MOUNT	WAC LIGHTING	STANDARD ELECTRIC	WS-W20506-XX 120	LED	EXTERIOR WALL	"XX" REFERS TO COLOR OF FIXTURE: AL-ALUM, BK-BLACK, BZ-BRONZE, GH-GRAPHITE, WH-WHITE. FIXTURE CAN BE MOUNTED AS DOWNLIGHT OR	SYSTEM: G4 (ARIA) Project Team:
	LD001.A1	19	RECESSED BOX DOWNLIGHT (2) MOSAICO LIGHT ENGINES, WHITE FINISH, MEDIUM BEAN 25 DEG	REGGIANI	STANDARD ELECTRIC	A.G512E10   120 V.E2L112.MO10   ACCESSORY: LL7 0.35036.0000 MEDIUM BEAM	(2) 9W MOSAICO LIGHT ENGINE	BAKERY SERVICE (THEATHER)	UPLIGHT  REQUIRES 14" PLENUM HEIGHT FOR SERVICING	Troject realli.
	LD001.B1	31 20	RECESSED BOX DOWNLIGHT (2) MOSAICO LIGHT ENGINES, WHITE FINISH, NARROW BEAM; 15 DEG	REGGIANI	STANDARD ELECTRIC	(25DEG)  A.G514B10   120  V.E2L72.MO10   ACCESSORY: LL7 0.35035.0000  NARROW BEAM (17DEG)	(2) 17W MOSAIC LIGHT ENGINE	D BAKERY SERVICE RECESSED (THEATHER)	REQUIRES 14" PLENUM HEIGHT FOR SERVICING	LK ARCHITECTURE, INC.
	LD002.A1	11 12	3" ROUND RECESSED LED DOWNLIGHT	SOLAIS	STANDARD ELECTRIC	YR3NC/D/Ym20/40c/2 120	19.1 W LED	FRONT OF HOUSE RECESSED	WHITE CONE/FLANGE	345 RIVERVIEW, WICHITA, KS 67203
	LE600.A1		LINEAR LED EGRESS WITH BOTH EM AND NL	MULE LIGHTING, IN	C STANDARD	7K/1000/WH/WH EUE-BB-10-A-W-SD 120V	LED	EMERGENCY SURFACE EGRESS		T 316.268.0230 F 316.268.0205
	NOTES 1. SEE	SEE PHOTOM	FUNCTION W/ BATTERY BACK-UP  METRIC FOR EXTERIOR SITE LIGHTING.		ELECTRIC			LUNESS	REQUIRES STANDARD 'MASONRY SIZED BOX' [3.75X3.5X7.375] (BY CONTRACTOR) FOR REMOTE POWER SUPPLY; REFER TO	Architecture · Engineering ·
	LEDCF1		5" X 47" ENCLOSED, LOW TEMP FIXTURE	KASON	STANDARD ELECTRIC	1810LC4000 LED 120	INTREGAL LED	COOLER/FREEZER SURFACE CEILING	SPECIFICATION SHEET FROSTED DIFFUSER; GRAY METAL HOUSING WITH WHITE STEEL LED TRAY; FIXTURE PROVIDED BY COOLER VENDOR; WET LISTED	Planning · Interior Design · Landscape Architecture  Professional Seal:
	LEDRD12E		6" LED ULTRA-THIN RECESSED DOWNLIGHT	LITELINE CORPORATION		SLMPRO6-27K-WH	15W LED		MEI FIQIED	
	LEDRD12E		6" LED ULTRA-THIN RECESSED DOWNLIGHT, EMERGENCY BACKUP	LITELINE CORPORATION		SLMPRO6-27K-WH	15W LED	EVIEDIOD	NTC	DENNIS D. 28
	LS600.A1 LU001.A1		7000W NTE 17"; COLOR: BRONZE  2X4 LED PANEL LIGHT	TECH LIGHTING  RAB LIGHTING		NTE 17  EZPAN2X4-50YN/D10 120	50W LED	EXTERIOR - WALL ACCENT BACK OF HOUSE RECESSED	0-10V DIMMABLE DRIVER, WHITE	SMITH SMITH
		13						Z C. TIOOL NEOLOGED	FINISH; FROSTED POLYSTYRENE LENS	NUMBER A-7263
55 AM		4	LINEAR ACCENT	ТЕМРО		C4X-24DC-C CL-0-2-20-WH	5W/FT LEF		C4X 24AC 2538 0 5 30H WH NARROW BEAM	A CONTRACTOR OF THE STATE OF TH
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										CONSTRUCTION SET: 2022-09-09
										No. Description Date
										- Shell - Permit Set 7/5/2022 A Shell - City Comments 8/19/2022 B Shell - Construction Set 8/25/2022
										B Shell - Construction Set 8/25/2022
										LIGHTING
										SCHEDULE,
										DETAILS, &
										SECTIONS
										Project Number: Sheet Number: 22302
										Drawn By:  EB Issue Date:  A131
23.V1										Issue Date: <b>7</b> 07/05/2022
2021										DPM         DM         CPM           DPM         DM         CPM



No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022

Project Number:		Sheet Number:
22302		
Drawn By:		
EB		A131
Issue Date:		
07/05/2022		
DPM:	DM:	CPM:
DPM	DM	CPM



# **GENERAL NOTES:**

- A. GC SHALL COORDINATE THE ANCHORING AND INSTALLATION OF THE ROOF TOP CONDENSER UNITS WITH THE FOOD SERVICE EQUIPMENT.
- B. REFER TO STRUCTURAL AND MEP DRAWINGS FOR RTU/CURB ANCHORING AND INSTALLATION.

Bakery-Cafe:

#240

SYSTEM: G4 (ARIA)
Project Team:



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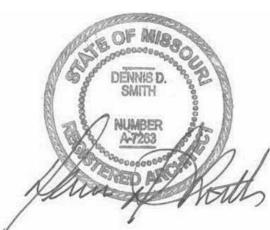
# **KEYED NOTES**

OVER PLYWOOD DECKING.

- 1.51 TAPERED INSULATION TO ROOF DRAIN/OVERFLOW DRAIN; SLOPE FOR POSITIVE DRAINAGE.
- 1.52 ROOF CRICKET; SLOPE FOR POSITIVE DRAINAGE.
- 1.52 ROOF CRICKET, SLOPE FOR FOSTIVE DRAINAGE.

  1.53 RUN ROOF DRAIN LEADERS DOWN EXTERIOR WALLS, RUN
  OVERFLOW LEADERS DOWN WALL AND CONNECT TO DOWNSPOUT
- NOZZLE ON EXTERIOR WALL. KEEP LEADERS AS TIGHT TO THE ROOF STRUCTURE AS POSSIBLE. SEE SHELL PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

  1.61 PRE-FINISHED METAL COPING. SEE EXTERIOR ELEVATIONS FOR
- SPECIFICATION AND COLOR.
- 1.65 TRANSITION BETWEEN HIGH PARAPET AND LOW PARAPET, PROVIDE METAL FLASHING AS REQUIRED.
- 1.76 REFERENCE STRUCTURAL PLANS FOR KICKER AT PARAPET.
  1.77 SINGLE PLY CLASS 'C' ROOF MEMBRANE OR EQUAL, COLOR: WHITE, OVER PROTECTION BOARD, RIGID INSULATION AND SHEATHING
- 1.78 COMBINATION ROOF DRAIN AND OVERFLOW DRAIN; SEE P01
   1.79 PREFABRICATED ALUMINUM CANOPY BELOW PROVIDED WITH SCUPPERS/DOWNSPOUTS, INSTALLED BY GC.



ect Title:

# Bakery Cafe#2406 1410 NE DOUGLAS ST LEES SUMMIT, MO 6408

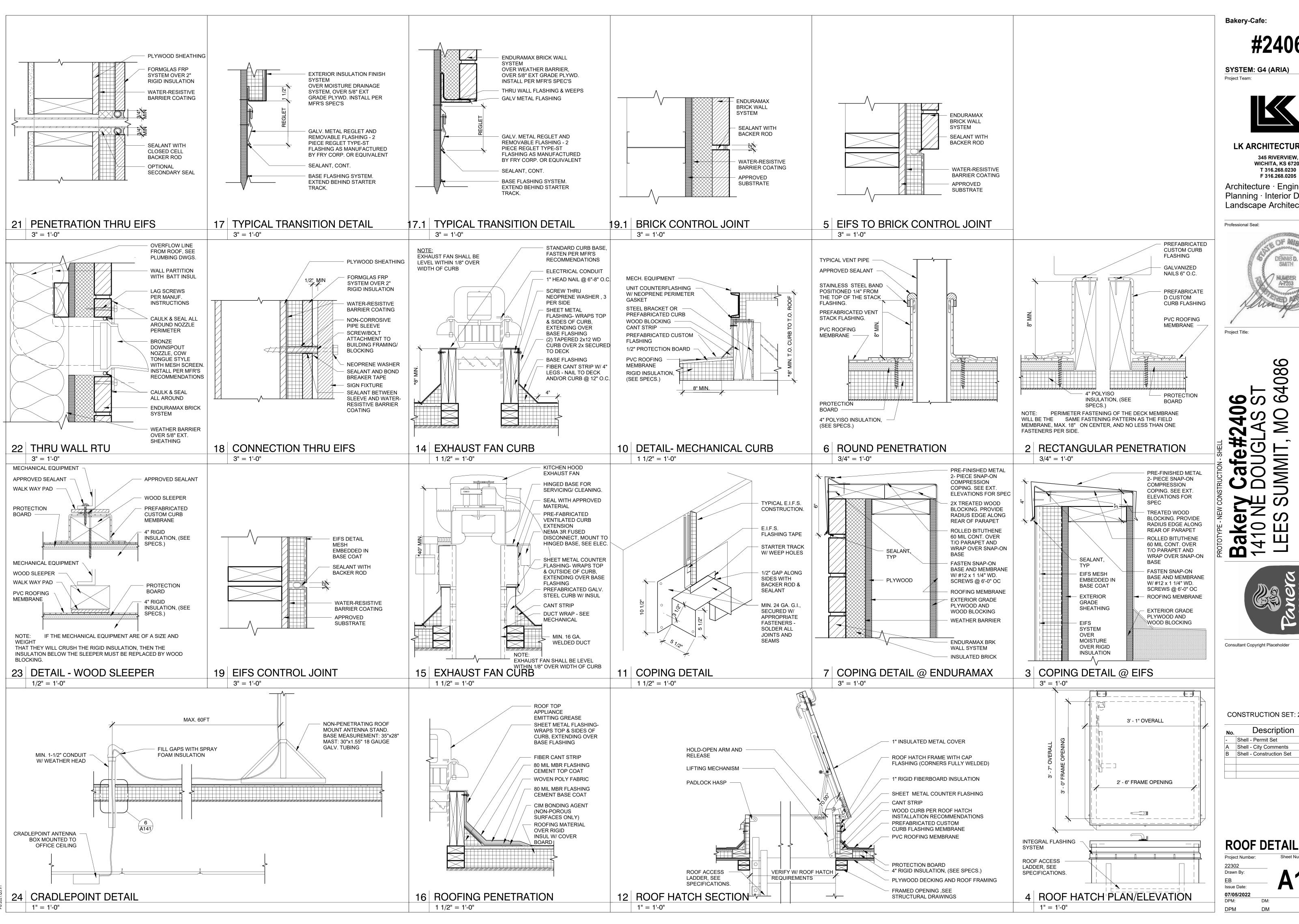


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-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

#### **ROOF PLAN**

KUUF	ΓL	AIN
Project Number:		Sheet Number:
22302		
Drawn By:		
EB		<b>A14</b>
Issue Date:		
07/05/2022		
DDM:	DM-	CDM:

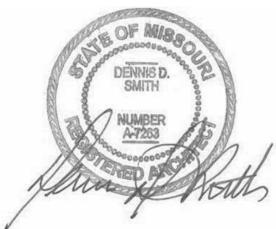


SYSTEM: G4 (ARIA)



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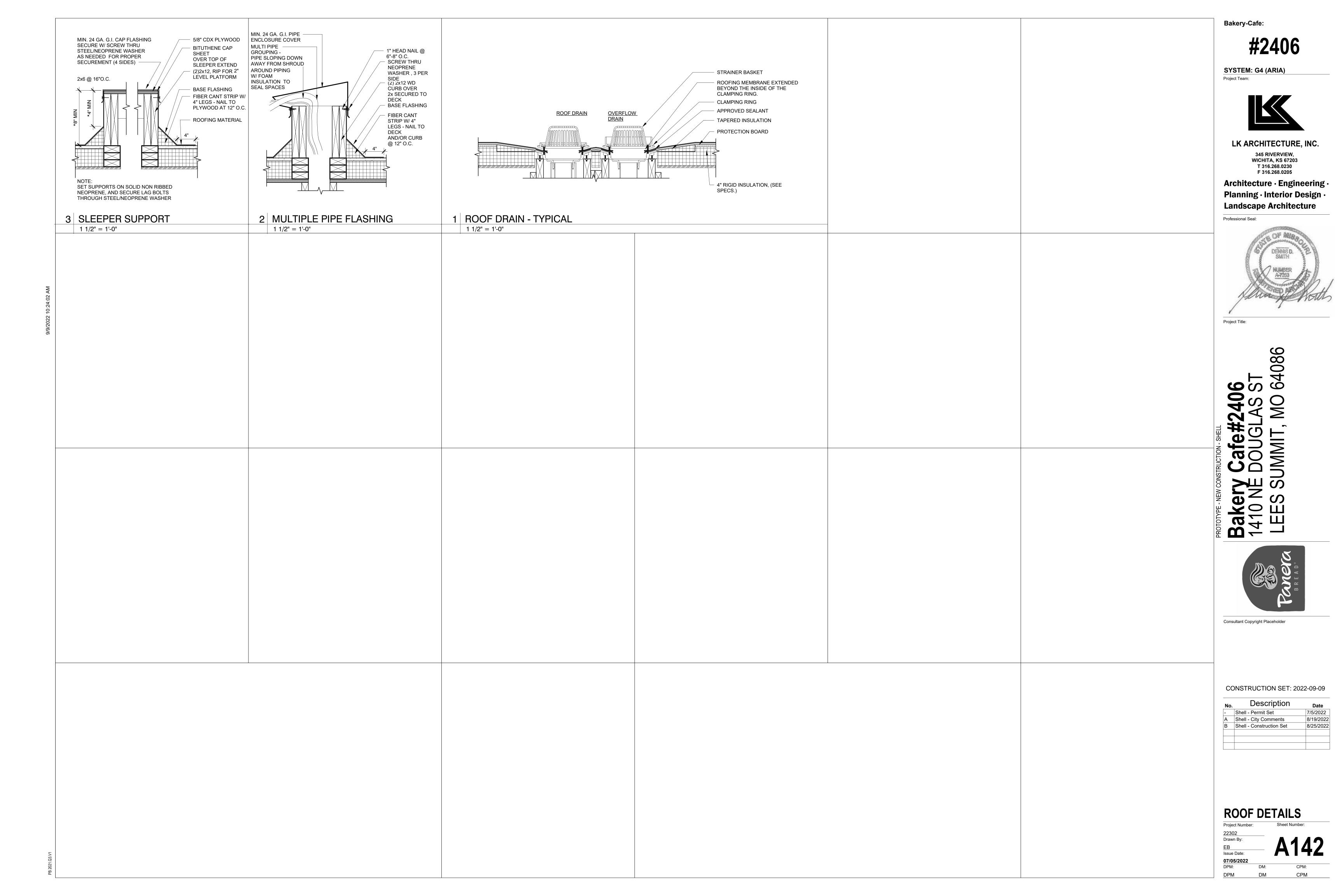
80 8

Consultant Copyright Placeholder

#### CONSTRUCTION SET: 2022-09-09

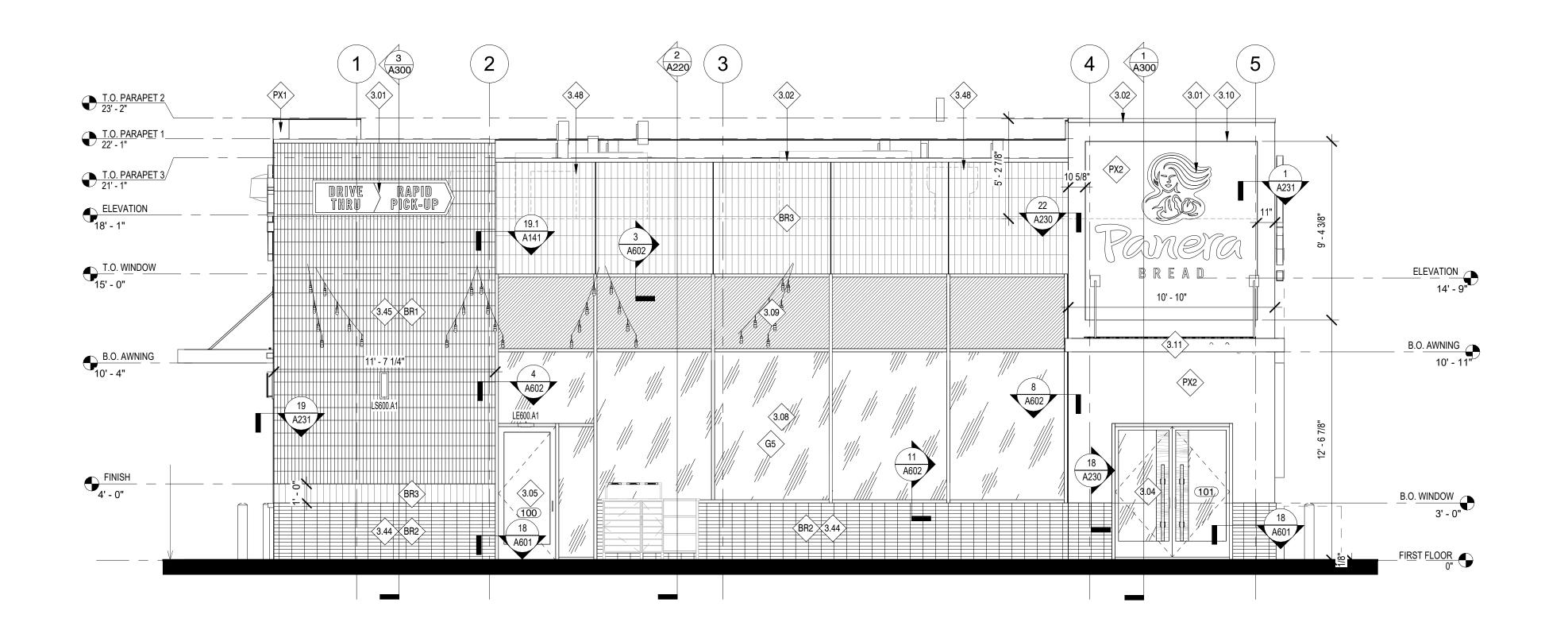
No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022

#### **ROOF DETAILS**



#### 1 ELEVATION - SOUTH

1/4" = 1'-0"



## **GENERAL NOTES:**

A. ALL GLAZING TO BE G1 UNLESS NOTED OTHERWISE. FOR STOREFRONT / WINDOW ELEVATIONS SEE SHEET A611.

Bakery-Cafe:

SYSTEM: G4 (ARIA) Project Team:



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F 316.268.0205

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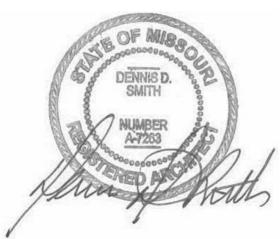
Professional Seal:

## KEYED NOTES

- 0.16 4" CONCRETE PIPE BOLLARD, INSTALLED BY PANERA GC. BOLLARDS AT DRIVE LANE TO BE PAINTED SAFETY YELLOW WITH REFLECTIVE
- 3.01 LOCATION OF INTERNALLY ILLUMINATED CLIP LETTERS AND/OR TRADEMARK SYMBOL; PROVIDED AND INSTALLED BY TENANT SIGN VENDOR UNDER SEPARATE PERMIT; G.C. TO PROVIDE BLOCKING IN WALL FOR SIGN AND PROVIDE ACCESS PANEL ON BACKSIDE OF PARAPET FOR ACCESS AS REQUIRED. (UNDER SEPARATE SIGNAGE
- 3.02 PRE-FINISHED METAL 2- PIECE SNAP-ON COMPRESSION COPING BY DUROLAST OR SIMILAR | COLOR: CHARCOAL TO MATCH RAL 7043 3.04 MAIN ENTRANCE/EXIT | REFER TO FLOOR A601 & A602 FOR FURTHER INFORMATION.
- 3.05 SECONDARY ENTRANCE/EXIT | REFER TO A601 & A602 FOR ADDITIONAL INFORMATION.
- 3.08 ALUMINUM STOREFRONT SYSTEM WITH 1" INSULATED GLAZING BY PANERA. REFER TO SHEET A602 FOR FURTHER INFORMATION.
- 3.09 ALUMINUM STOREFRONT SYSTEM WITH 1" INSULATED SPANDREL GLAZING BY PANERA. REFER TO SHEET A602 FOR FURTHER
- 3.10 CONTROL JOINT WHERE INDICATED. REFER TO DETAILS FOR FURTHER INFORMATION.
- 3.11 PRE-MANUFACTURED ALUMINUM CANOPY W/ TIE RODS WITH FINISHED UNDERSIDE, PROVIDED/INSTALLED BY SHELL G.C. | COLOR: DARK GREEN, PMS 2411C, CANOPOY TO INCLUDE LIGHTING, INTERNAL DRAIN (TO TIE INTO STORM), CANOPY UNDERSIDE TO HAVE FINISH TO
- LOCATION(S) AND HEIGHTS WITH PANERA CONSTRUCTION MANAGER PRIOR TO INSTALLATION.

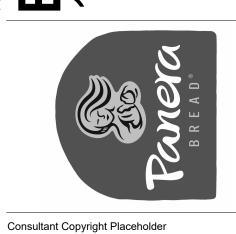
3.13 SECURITY CAMERA INSTALLED BY PANERA | COORDINATE ROUGH-IN

- 3.15 6" DIA. CONCRETE BOLLARD | FINISH: PAINT TO MATCH ADJACENT P165 | REFER TO SHEET A040 FOR FURTHER INFORMATION
- 3.44 BR-1 TO BE INSTALLED HORIZONTALLY
- 3.45 BR-1 TO BE INSTALLED VERTICALLY
- 3.48 ROOFTOP EQUIPMENT WILL BE SCREENED BY PARAPET. BR1 BRICK MASONRY WALL SYSTEM | MFR: TABS WALL SYSTEM, UTILITY
- STACKED, VERTICAL PATTERN| COLOR: MCNEAR (THIN BRK.) + SANTIAGO CREATE MATERIALS CUSTOM BLEND (TABS WALL SYSTEM) BR2 BRICK MASONRY WALL SYSTEM | MFR: TABS WALL SYSTEM + THIN BRICK, UTILITY STACKED, HORIZONTAL PATTERNI COLOR: MCNEAR
- (THIN BRK.) + SANTIAGO CREATE MATERIALS CUSTOM BLEND (TABS BR3 BRICK MASONRY WALL SYSTEM | MFR: TABS WALL SYSTEM, UTILITY
- STACKED, VERTICAL PATTERN| COLOR: MCNEAR (THIN BRK.) + DUNSMUIR (TABS WALL SYSTEM)
- G5 ALUMINUM STOREFRONT | MFR: KAWNEER RIFAB VERRSAGLAZE 4511 FINISH: POWDER COAT | COLOR: IVORY | 2" x 6" PROFILE | THERMAL BREAK| 1" CLEAR INSULATED GLAZING: PPG SOLARBAN 70 (OR APPROVED EQUAL) | REFER TO SHEET A602 FOR ADDITIONAL INFORMATION
- PX1 EIFS SYSTEM | PRODUCT: DRYVIT OUTSULATION PLUS MD w/ MOISTURE DRAINAGE SYSTEM | TEXTURE: DRYVUT LIMESTONE DPR TEXTURED FINISH | PAINTED COLOR: #105 SUEDE
- PX2 EIFS SYSTEM | PRODUCT: DRYVIT OUTSULATION PLUS MD w/ MOISTURE DRAINAGE SYSTEM ITEXTURE: DRYVUT LIMESTONE DPR TEXTURED FINISH | PAINTED COLOR TO MATCH PMS 2307 C | 4" THICK



Project Title:

# 0 Sakery 1410 NE LEES SU



G.C. TO INSTALL AFTER CONSTRUCTION BARRIER SIGN REMOVED - WITHOUT DRIVE THRU



#### **SPECIFICATIONS:**

- TWO SIDED BANNER
- MATERIAL: WHITE BANNER WITH GROMMETS
- GRAPHICS: DIGITALLY PRINTED HEIGHT: 4'-0" - WIDTH: 12'-0"

**INSTALLATION:** BANNERS PROVIDED BY PANERA AND TO BE INSTALLED ON EXTERIOR OF BUILDING BY G.C. PER PANERA PROVIDED HANGING INSTRUCTIONS AND

PLACEMENT LOCATION(S).

4 NEW CONSTRUCTION BANNER 1/4" = 1'-0"

Description	Date
Shell - Permit Set	7/5/2022
Shell - City Comments	8/19/202
Shell - Construction Set	8/25/202
Shell - Owner Revision	12/09/20
Shell - Owner Revision	01/10/20
	Shell - Permit Set Shell - City Comments Shell - Construction Set Shell - Owner Revision

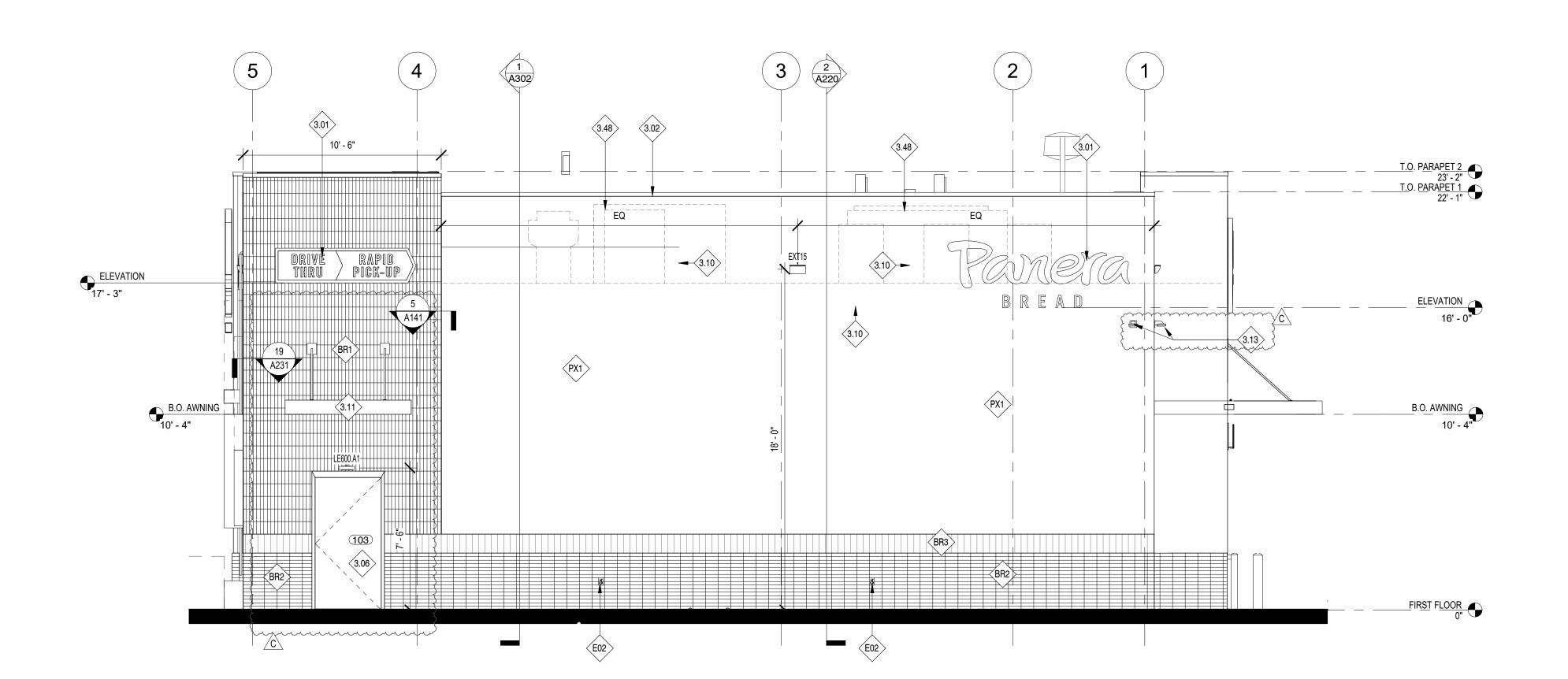
# **EXTERIOR ELEVATIONS**

DPM

Project Number: Drawn By: Issue Date: 07/05/2022 DPM:

24 ELEVATION - EAST 1/4" = 1'-0"

#### 22 ELEVATION - NORTH 1/4" = 1'-0"



# **GENERAL NOTES:**

A. ALL GLAZING TO BE G1 UNLESS NOTED OTHERWISE. FOR STOREFRONT / WINDOW ELEVATIONS SEE SHEET A611.

Bakery-Cafe:

#2406

SYSTEM: G4 (ARIA) Project Team:



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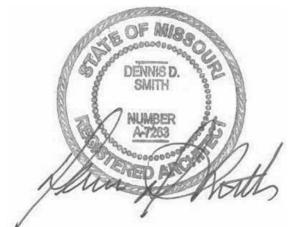
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Professional Seal:

# **KEYED NOTES**

- 3.01 LOCATION OF INTERNALLY ILLUMINATED CLIP LETTERS AND/OR TRADEMARK SYMBOL; PROVIDED AND INSTALLED BY TENANT SIGN VENDOR UNDER SEPARATE PERMIT; G.C. TO PROVIDE BLOCKING IN WALL FOR SIGN AND PROVIDE ACCESS PANEL ON BACKSIDE OF PARAPET FOR ACCESS AS REQUIRED. (UNDER SEPARATE SIGNAGE PERMIT)
- 3.02 PRE-FINISHED METAL 2- PIECE SNAP-ON COMPRESSION COPING BY DUROLAST OR SIMILAR | COLOR: CHARCOAL TO MATCH RAL 7043 3.06 HOLLOW METAL SERVICE DOOR WITH TRANSOM WINDOW ABOVE; 1" INSULATED SPANDREL GLAZING. EXTERIOR PAINT FINISH TO MATCH ADJACENT ALUMINUM STOREFRONT. REFER TO A601 FOR ADDITIONAL
- INFORMATION. 3.08 ALUMINUM STOREFRONT SYSTEM WITH 1" INSULATED GLAZING BY PANERA. REFER TO SHEET A602 FOR FURTHER INFORMATION.
- 3.10 CONTROL JOINT WHERE INDICATED. REFER TO DETAILS FOR FURTHER INFORMATION.
- 3.11 PRE-MANUFACTURED ALUMINUM CANOPY W/ TIE RODS WITH FINISHED UNDERSIDE, PROVIDED/INSTALLED BY SHELL G.C. | COLOR: DARK GREEN, PMS 2411C, CANOPOY TO INCLUDE LIGHTING, INTERNAL DRAIN (TO TIE INTO STORM), CANOPY UNDERSIDE TO HAVE FINISH TO
- 3.13 SECURITY CAMERA INSTALLED BY PANERA | COORDINATE ROUGH-IN LOCATION(S) AND HEIGHTS WITH PANERA CONSTRUCTION MANAGER
- PRIOR TO INSTALLATION. 3.22 ELECTRICAL SWITCHGEAR CABINETS. REFER TO ELECTRICAL FOR
- FURTHER INFORMATION.
- 3.44 BR-1 TO BE INSTALLED HORIZONTALLY
- 3.45 BR-1 TO BE INSTALLED VERTICALLY
- 3.48 ROOFTOP EQUIPMENT WILL BE SCREENED BY PARAPET. BR1 BRICK MASONRY WALL SYSTEM | MFR: TABS WALL SYSTEM, UTILITY
- STACKED, VERTICAL PATTERN| COLOR: MCNEAR (THIN BRK.) + SANTIAGO CREATE MATERIALS CUSTOM BLEND (TABS WALL SYSTEM BR2 BRICK MASONRY WALL SYSTEM | MFR: TABS WALL SYSTEM + THIN BRICK, UTILITY STACKED, HORIZONTAL PATTERNI COLOR: MCNEAR (THIN BRK.) + SANTIAGO CREATE MATERIALS CUSTOM BLEND (TABS WALL SYSTEM)
- BR3 BRICK MASONRY WALL SYSTEM | MFR: TABS WALL SYSTEM, UTILITY STACKED, VERTICAL PATTERN| COLOR: MCNEAR (THIN BRK.) + DUNSMUIR (TABS WALL SYSTEM)
- E02 RECEPTACLE PROVIDED IN BUILDING SHELL CONSTRUCTION, REFER TO SHELL CONSTRUCTION DOCUMENTS. VERIFY RECEPTACLE IS FULLY OPERATIONAL AND COORDINATE WITH PANERA REPRESENTATIVE. IF NECESSARY PROVIDE ALL CONDUCTORS, CONDUIT, AND CONNECTIONS REQUIRED TO COMPLETE INSTALLATION.
- PX1 EIFS SYSTEM | PRODUCT: DRYVIT OUTSULATION PLUS MD w/ MOISTURE DRAINAGE SYSTEM | TEXTURE: DRYVUT LIMESTONE DPR TEXTURED FINISH | PAINTED COLOR: #105 SUEDE
- PX2 EIFS SYSTEM | PRODUCT: DRYVIT OUTSULATION PLUS MD w/ MOISTURE DRAINAGE SYSTEM | TEXTURE: DRYVUT LIMESTONE DPR TEXTURED FINISH | PAINTED COLOR TO MATCH PMS 2307 C | 4" THICK



# 4086 **6** S **9 40** Bakery 1410 NE LEES SU



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No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

# **EXTERIOR ELEVATIONS**

Project Number: Drawn By: Issue Date: 07/05/2022 DPM:

24 ELEVATION - WEST 1/4" = 1'-0"





1 EXTERIOR PERSPECTIVE 4

2 EXTERIOR PERSPECTIVE 3





4 EXTERIOR PERSPECTIVE 1

Bakery-Cafe:

#2406

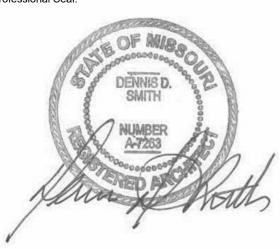
SYSTEM: G4 (ARIA)
Project Team:



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No.	Description	Date
	Planning Set	7/26/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

# **EXTERIOR**

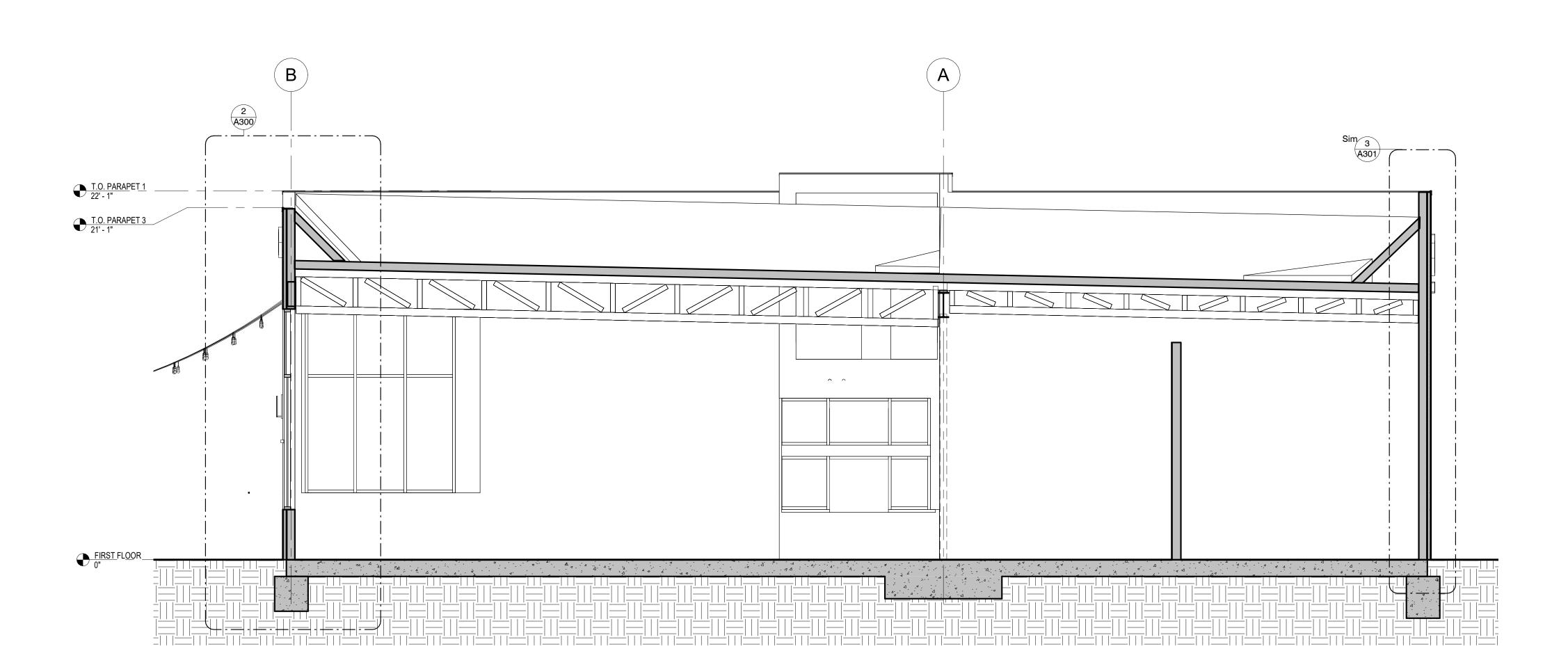
PERSPECTIVES

Project Number: Sheet Number:

3 EXTERIOR PERSPECTIVE 2

1 BUILDING SECTION - WEST TO EAST

1/4" = 1'-0"



Bakery-Cafe:

#2406

SYSTEM: G4 (ARIA)
Project Team:

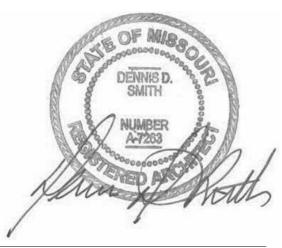


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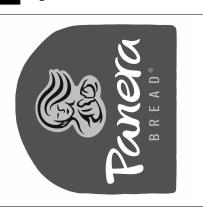
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Professional Seal:



Project Title:

Bakery Cafe#2406
1410 NE DOUGLAS ST
LEES SUMMIT, MO 64086



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No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

BUILDING SECTIONS
Project Number: Sheet Number:

Project Number:

22302

Drawn By:

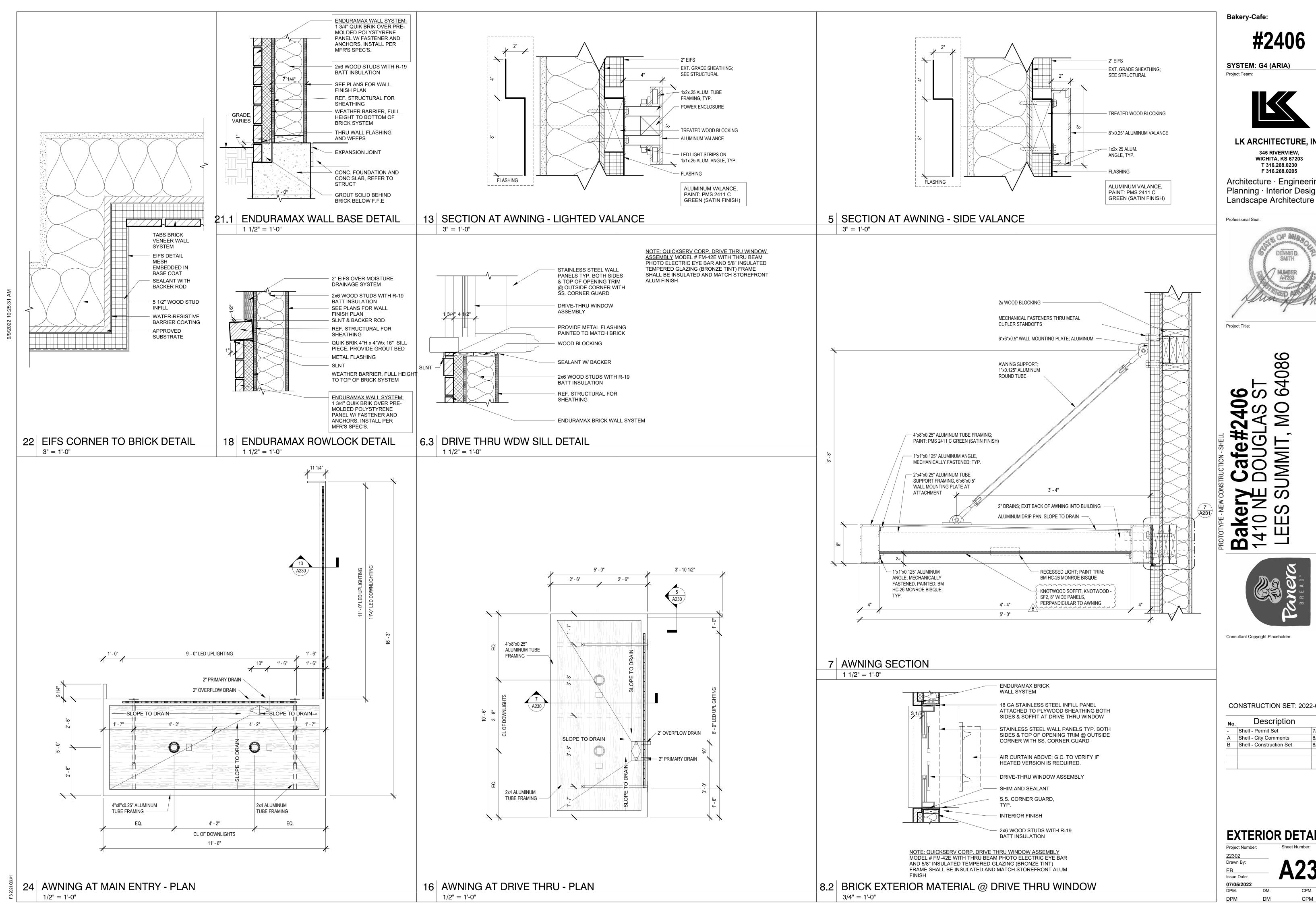
EB

Issue Date:

07/05/2022

DPM: DM: CPM:

2 BUILDING SECTION - NORTH TO SOUTH

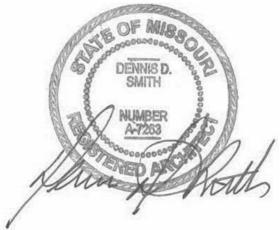


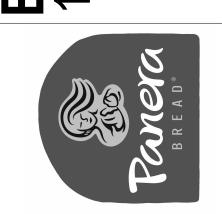
SYSTEM: G4 (ARIA)



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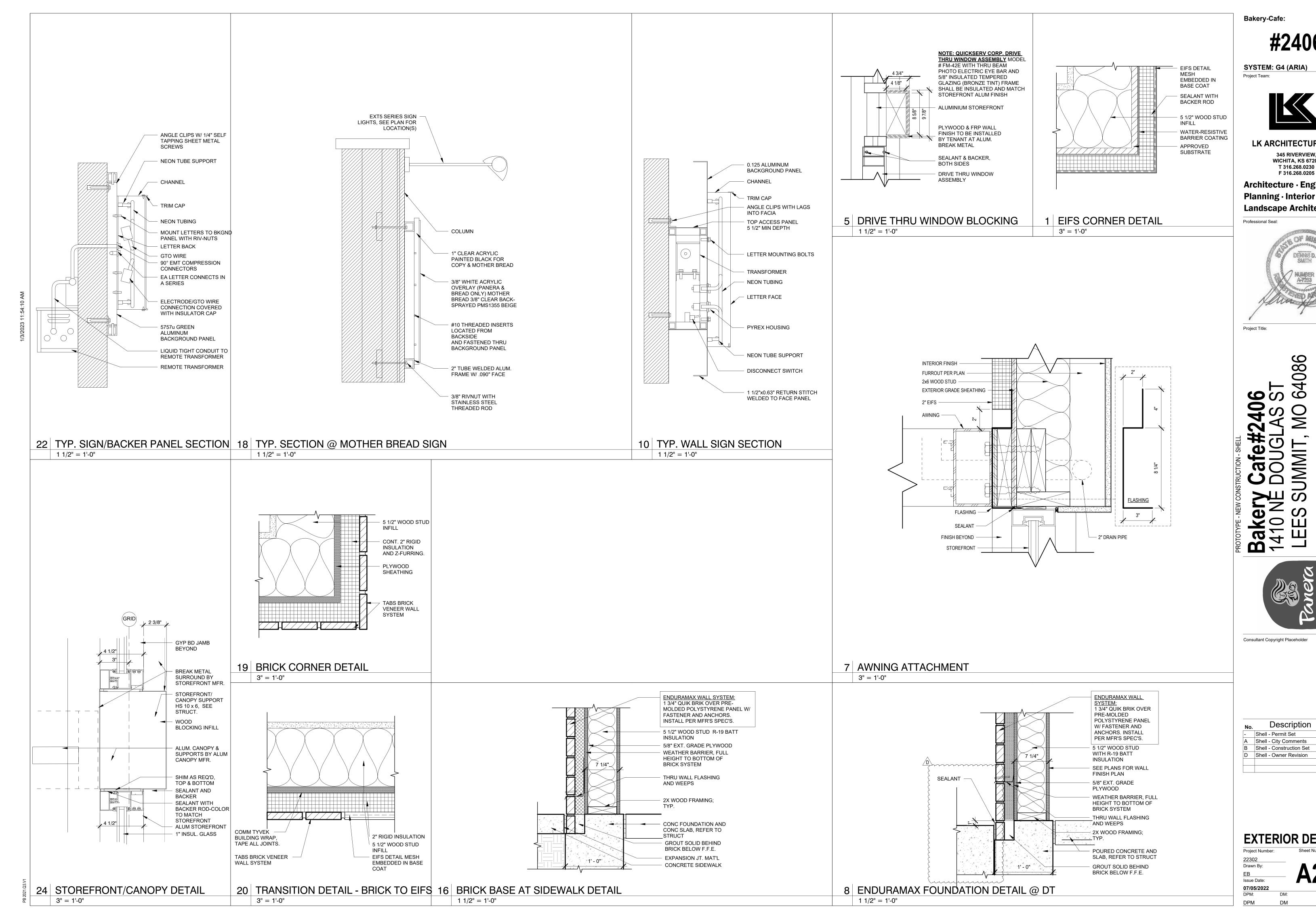




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CONSTRUCTION SET: 2022-09-09

No.	Description	Date	
-	Shell - Permit Set	7/5/2022	
Α	Shell - City Comments	8/19/2022	
В	Shell - Construction Set	8/25/2022	

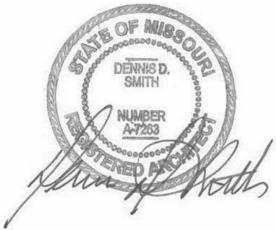


SYSTEM: G4 (ARIA)



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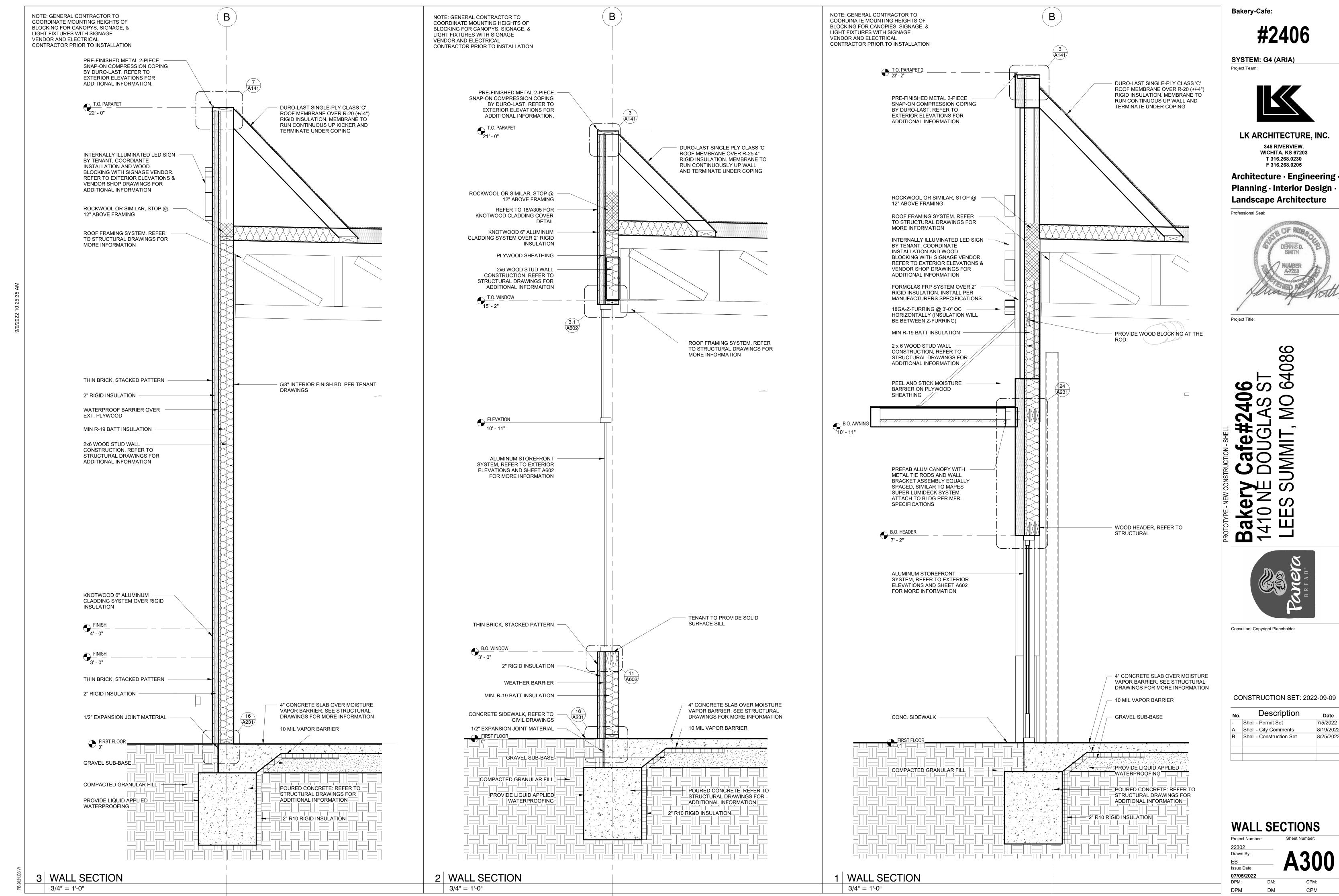


Bakery 1410 NE LEES SU

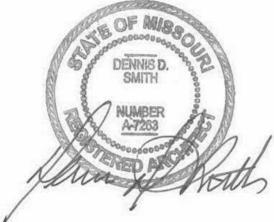


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No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
D	Shell - Owner Revision	01/10/2023



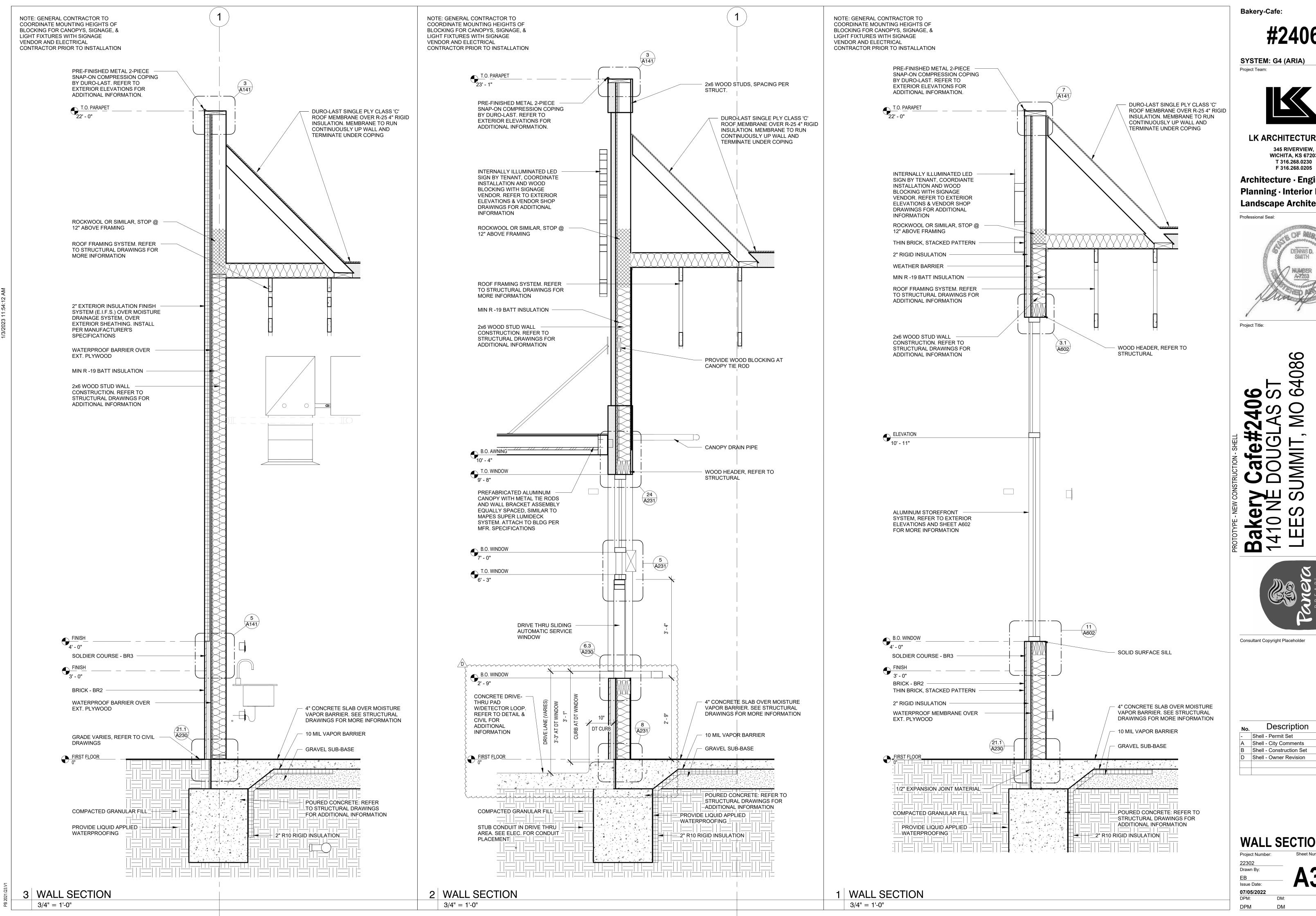
**Planning - Interior Design** 





CONSTRUCTION SET: 2022-09-09

No.	Description	Date
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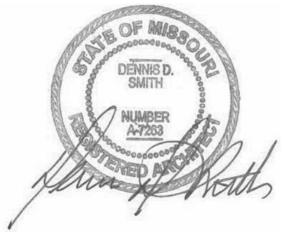


SYSTEM: G4 (ARIA)



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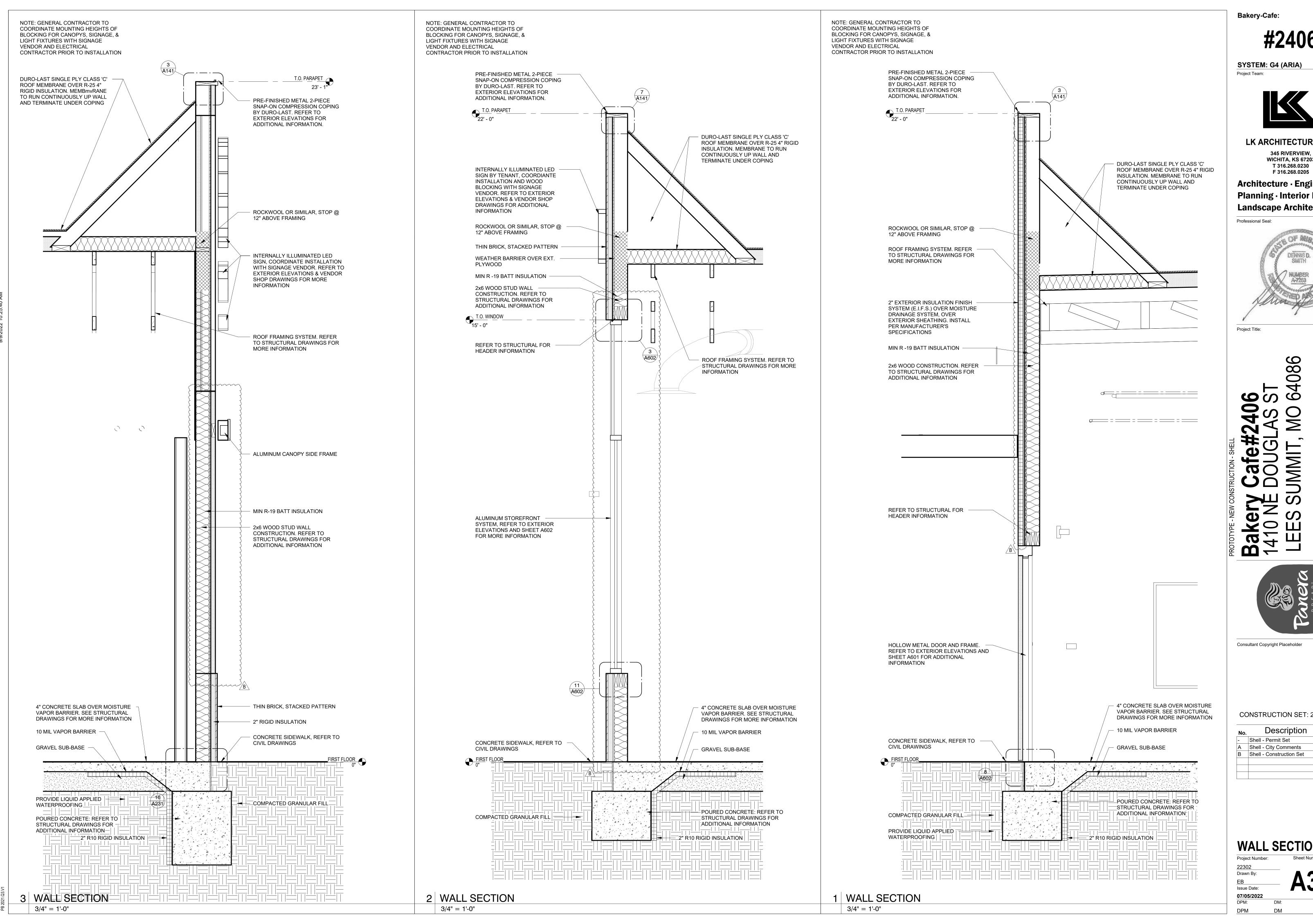
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**3ak** 410



No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
D	Shell - Owner Revision	01/10/2023



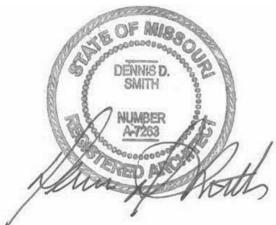
Bakery-Cafe:



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CONSTRUCTION SET: 2022-09-09

No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022

	FINISH SCHEDULE				
	NUMBER	DESCRIPTION	MANUFACTURER/DISTRIBUT	DR LOCATION	NOTES
	UPHOLSTER	RY			
	F133	VACATION; CANYON	FIL DOUX		
	F177	KIEV; CASTLE	POLLACK		
	F178	RE-FLE; INK WASH	POLLACK		
	F185	FLOCK; NETTLE	MOMENTUM		
	F187	FLOCK; FERN	MOMENTUM		
	F188	FLOCK; HEARTH	MOMENTUM		
	F189	FLOCK; FORREST	MOMENTUM		
	S10	REIN; SABLE	DESIGNTEX		
	S11	REIN; CLAY	DESIGNTEX		
	S57	BOUNTY; COFFEE	FIL DOUX		
ı	S69	DIMA; NIGHTFALL	FIL DOUX		
	S73	CASSIDY 2.0; PELICAN	CF STINSON		
	S74	CASSIDY 2.0; JUNGLE	CF STINSON		
	S75	BOUNTY; COCAO	FIL DOUX		
	SOLID SURF	FACING			
	SS23	CORIAN, COLOR: RAIN CLOUD	DUPONT	SILLS ONLY	
	SS24	COLOR: CARARRA-V201	ARRAY SOLID SURFACE	COUNTER/TABLE TOPS	
	SS25	COLOR: DOVER-A850	ARRAY SOLID SURFACE	COUNTER/TABLE TOPS	
	SS27	COLOR: NOUGAT-A905	ARRAY SOLID SURFACE	COUNTER/TABLE TOPS	
	SS31	COLOR: ACORN A-632	ARRAY SOLID SURFACE	COUNTER/TABLE TOPS	
	SS32	COLOR: YOSEMITE A-924	ARRAY SOLID SURFACE	COUNTER/TABLE TOPS	
	SS41	STYLE: LUNA, COLOR: SAIL WHITE	FORMICA	PICK-UP SHELVES	
	LAMINATES				
	L104	WILSONART 1500 - 60 GREY	WILSONART	KITCHEN DOOR	
	L107	0717 CASTORO OTTAWA	FENIX	CONSOLIDATION SCREENS	
	L109	0750 VERDE COMODORO	FENIX	CONSOLIDATION SCREENS	
	L114	J0720 NERO INGO	FENIX	CONSOLIDATION / BAKERY	
ı	L115	J0718 GRIGIO LONDRA	FENIX	CONSOLIDATION / BAKERY	
	L116	7954-38 NATURAL RIFT	WILSONART	ELIASON DOOR	
	LX	TEST LAMINATE, NOT ESTABLISHED			
	BRICK				
	BR-1	BRICK - THIN, SIZE: 3-5/8"W X 3/4"TH X 11-5/8"L, COLOR: SANTIAGO CREATIVE MATERIALS BLEND	MCNEAR BRICK & BLOCK	EXTERIOR	
	<b>EXTERIOR F</b>	FABRIC			
	EF-5	GREEN .SUNBRELLA COLOR: LEAF GREEN; PMS 2411C	SUNBRELLA	AWNING	
ĺ	EF-6	SLATE. SUNBRELLA COLOR: CHARCOAL; PMS 7540C	SUNBRELLA	AWNING	
+	EF-7	SAND. SUNBRELLA COLOR: SAND; PMS 9184C	SUNBRELLA	AWNING	

#### **GENERAL NOTES:**

- CORNER GUARDS TO BE INSTALLED AT ALL OUTSIDE CORNERS IN KITCHEN, BAKERY (1 1/2" X 1 1/2" STAINLESS
- STEEL). SUPPLIED AND INSTALLED BY G.C. NOT ALL FINISHES IN SCHEDULE OF FINISHES ARE NECESSARILY INCLUDED IN THIS SCOPE OF WORK. SEE ROOM FINISH SCHEDULE & SHEETS FOR LOCATIONS. C. G.C. TO LEAVE ON SITE, UPON COMPLETION OF JOB, (1) BOX
- USED REFER TO VENDOR LIST. ALL FLOORING SHALL BE IN ACCORDANCE WITH APPLICABLE

EACH OF ALL WALL, FLOOR, CARPET TILE & CEILING TILE

- ACCESSIBILITY CODE. PRIMARY SURFACES WITHIN FOOD PRODUCTION AREA SHALL
- MEET 70% LIGHT REFLECTIVE VALUE OR GREATER. PAINT FINISHES: INTERIOR PAINT TO BE BENJAMIN MOORE, REGAL SELECT. CEILINGS AND SOFFITS ARE TO BE FLAT. WALLS IN DINING AND GENERAL AREAS TO BE LOW LUSTER (EGGSHELL), WALLS IN KITCHEN AND BATHROOM, IF PAINT FINISH, TO BE SEMI GLOSS, FRONT OF HOUSE DOOR FRAMES
- TO BE SEMI GLOSS AND MATCH THE ADJACENT WALL SURFACE AT FOH. EXTERIOR EIFS PAINT TO BE BENJAMIN MOORE, REGA SELECT, EXTERIOR LOW LUSTER. EXTERIOR SEALANT TO
- MATCH ADJACENT EIFS COLOR OR BUILDING MATERIAL, TYP ROLLER SHADES: MANUFACTURER - DRAPER, OPERATING MECHANISM - MANUAL FLEX SHADE W/ STAINLESS STEEL BEAD CHAIN CLUTCH OPERATOR & WEIGHTED BAR @ BOTTOM, FABRIC - SHEER WEAVE SERIES 4100 "GREYSTONE" BY PHIFER @ CLEAR ANODIZED ALUMINUM STOREFRONT & SHEER WEAVE SERIES 3000 "CHOCOLATE" BY PHIFER @ BRONZE ALUMINUM STOREFRONT. SET UPPER AND LOWER TRAVEL LIMITS BY INSTALLING STOP BALLS TO BEAD CHAIN (CRIMP CLOSED USING PLIERS), PER MANUFACTURER'S RECOMMENDATIONS. USE STOP BALLS PROVIDED IN HARDWARE PACKET BY DRAPER, DO NOT SUBSTITUTE HARDWARE BY OTHERS AS THIS MAY INTERFERE WITH CLUTCH MECHANISM. MOUNT HOLDER CLIP FOR CHAIN ON MULLION AT 54" AFF, TYP. NOTES CONTAINING AN "X" REFER

TO TEST ITEMS AND ARE NOT STANDARD.

## GC ORDERED/COORDINATED ITEMS:

INTERIOR FINISH BENJAMIN MOORE - NATIONAL ACCOUNT PANERA ACCT # - NA229 CUSTOMER CARE - 877-623-8484 OPTION 3 FOR MORE INFO

CRANE COMPOSITES (ASK FOR GLASBOARD) (FIBERGLASS REINFORCED PLASTIC) RYAN MINATO - NATIONAL ACCT. 815.467.8951

PANERAFRP@CRANECOMPOSITES.COM CONTACT FOR STOCKING DISTRIBUTOR APPROVED COLORS: WHITE (85) AND BEIGE (70)

**DALTILE - NATIONAL ACCOUNT** 877-556-5728 NATIONAL.ACCOUNTS@DALTILE.COM JOANNA WHITTAKER (MAIN CONTACT) 314-629-0125 JOANNA.WHITTAKER@DALTILE.COM

DESIGN & DIRECT SOURCE (TILE) **BRITTANY HAM** 

503-882-0687 BRITTANY@DESIGNANDDIRECTSOURCE.COM

FIRECLAY TILE

CAITLYN CHILD: 971-570-2330 / 800-773-2226 CAITLYN@FIRECLAYTILE.COM ERIC EDELSON: 971-941-5493

ERIC@FIRECLAYTILE.COM INTERFACE CARPET (CARPET) DENNIS ÚPSHAW: 314-378-3197 DENNIS.UPSHAW@INTERFACE.COM

STEVE SWEETIN: 913-707-0787

314.250.3040

STEVE.SWEETIN@INTERFACE.COM MANNINGTON CARPET ERIC DEMINICO ERIC.DEMINICO@MANNINGTON.COM KRISTEN KOMIS

KRISTEN.KOMIS@MANNINGTON.COM

MATS, INC. (ENTRY MATS ROSS BECKER 508.326.3665 781.436.7525 RBECKER@MATSINC.COM

(QUARRY TILE) DIANNE YOUNG 877-358-1970 DYOUNG@IRONROCK.COM WWW.METROCERAMICS.COM

WWW.ROOSINTL.COM

METROPOLITAN QUARRY BASICS

ROOS INTERNATIONAL (TEXTURGLAS) DEBORAH & DICH ROOS 800-888-2776 / 954-429-3883 DEBORAH@ROOSINTL.COM **DICH@ROOSINTL.COM** 

SHAW CARPET (CARPET) **TIFFANY PURVIS** 706.532.7407 TIFFANY.PURVIS@SHAWINC.COM

SMARTSTEP FLOORING BRUCE BEANS 508.528.0886 (OFFICE) 774.571.7454 (CELL) BBEANS@COMCAST.NET RYAN BEANS 508.277.5487 508.528.0886

RYAN@SMARTSTEPFLOORINGINC.COM TRANSCERAMICA TILE

JAN WERNER (MAIN CONTACT) JWERNER@TRANSCERAMICA.COM 312-506-2856 NOREEN SCHERTLER (BACKUP) 312-342-4689

**EXTERIOR PRODUCTS** AMERISTAR RAILING

JASON.GOINS@ASSAABLOY.COM API (AMERICAN PRODUCTS, INC.) (METAL CANOPIES) MICHAEL CALDERONE 813-925-0144

JASON GOINS

800.321.8724

AWNING & SIGN CONTRACTORS TOM ARMSTRONG: 888-665-1521 / 317-409-9440 TARMSTRONG@BEAGLEONEINC.COM JOE STEMPIEN: 260-243-6751 JSTEMPIEN@BEAGLEONEINC.COM

DURO-LAST ROOFING, INC. (ROOFING MEMEBRANE) MOLLY GEHRIS: 989-758-6344 214-232-0079 MGEHRIS@DURO-LAST.COM

TENSHON CANOPY **CULLIN HOWARD** <u>480-663-3166</u> CHOWARD@TENSHON.COM

LIGHTING DOLAN LIGHTING (DECORATIVE LIGHTING) MICHELLE WEIR 888.506.7383 KNEADSUPPORT@DOLANHOSPTITALI TY.COM TAMMY MCARTHUR 206.268.3429 TMCARTHUR@DOLANHOSPITALITY.C

STANDARD ELECTRIC SUPPLY CO. (LIGHTING FIXTURES)

PANERA@STANDARDELECTRIC.COM UTILITY/SECURITY AO SMITH (HOT WATER HEATER) JEFF GERSTAI

978-661-1854

412-471-6984

NUCO2 HEATHER SHEPHERD 919-795-8676 HSHEPHERD@NUCO2.COM TINA SILAS 800-472-2855 (EXT 3446)

BSILAS@NUCO2.COM

PLAYNETWORK SOUND SYSTEM (PANERA ORDERED) REED STRUTZENBERG 425.531.1513 RSTRUTZENBERG@PLAYNETWORK.C JOHANNA DELONG

425-629-2725 JDELONG@PLAYNETWORK.COM UAS (SECURITY SYSTEM) MARY ANN SHEILDS (800) 421-6661 EXT 1230

MARYANN.SHIELDS@UAS.COM

ESSITY PROFESSIONAL HYGIENE (FORMERLY

(WHITE PAPER TOWEL DISPENSERS)

BRYAN YOUNG PHONE +1 303 470 8394 MOBILE +1 720 272 8037 BRYAN.YOUNG@ESSITY.COM **GENERAL PARTITIONS** 

MCALDERONE@AMERICANPROD.COM SUSAN MARCH (573) 696-0178 (P) (573) 696-0071 (F) (573) 489-7495 (C) SMARCHCOMPANY@GMAIL.COM **GENERALPARTITIONS.COM** 

> KJA INC. GLOBAL PARTITIONS - SALES REPRESENTATIVES ST. LOUIS JENNIFER WELLS / PRESIDENT CELL: 314-614-3562 <u>JENNIFER@KJAINC.COM</u>

TOTO USA (RESTROOM FIXTURES) PETER STANGEL C:415-652-6743 PSTANGEL@TOTO.COM <u>WWW.TOTOUSA.COM</u>

MISCELLANEOUS ARMSTRONG/TECTUM CLG PANELS LISA CAVATAIO 773.882.0299 LYCAVATAIO@ARMSTRONGCEILING.COM

BOSTON GROUP (BOSTON BUMPER GUARDS) DEBBIE MCNEILL: 708-639-2849 D.MCNEILL@BOSTON-GROUP.COM MARK MUCHA: 708-306-4114 M.MUCHA@BOSTON-GROUP.COM

CARDINAL ACOUSTICS, INC. (ACOUSTICAL PANELS) WILLIAM KHOURIE (PRESIDENT) 614-721-3001(O) 614-496-3623(M) CARDINALACOUSTICS.COM

HILSON INC. (ROLLER BLINDS) MARSHA JONES 314-773-8883

**IMRIE-GIELOW** (MARINITE) CONTACT: CYNTHIA VENT 314.772.4200 CVENT@IMRIEGIELOW.COM

MATS INC. (WALK-OFF MAT) NATIONAL ACCOUNT 800-628-7462 / 781-344-1536 JOHN DUNBAR: 7718-964-5373 JDUNBAR@MATSINC.COM

QUIKSERV CORP. (DRIVE-THRU WINDOWS) BRIAN MCCLOSKEY 713-849-5882(O) 832-792-2646(M) QUICKSERV.COM

**VICTORIAN SALES** (FIREPLACE) LAURIE COOK 636-343-4747 LAURIE@VICTORIANSALES.COM Bakery-Cafe:

SYSTEM: G4 (ARIA) Project Team:

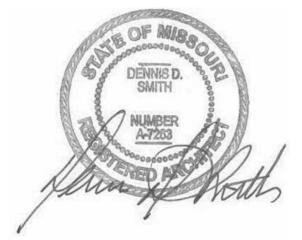


LK ARCHITECTURE, INC. **345 RIVERVIEW** WICHITA, KS 67203 T 316.268.0230

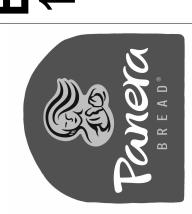
F 316.268.0205

**Architecture** · **Engineering** Planning - Interior Design **Landscape Architecture** 

Professional Seal:



Project Title:



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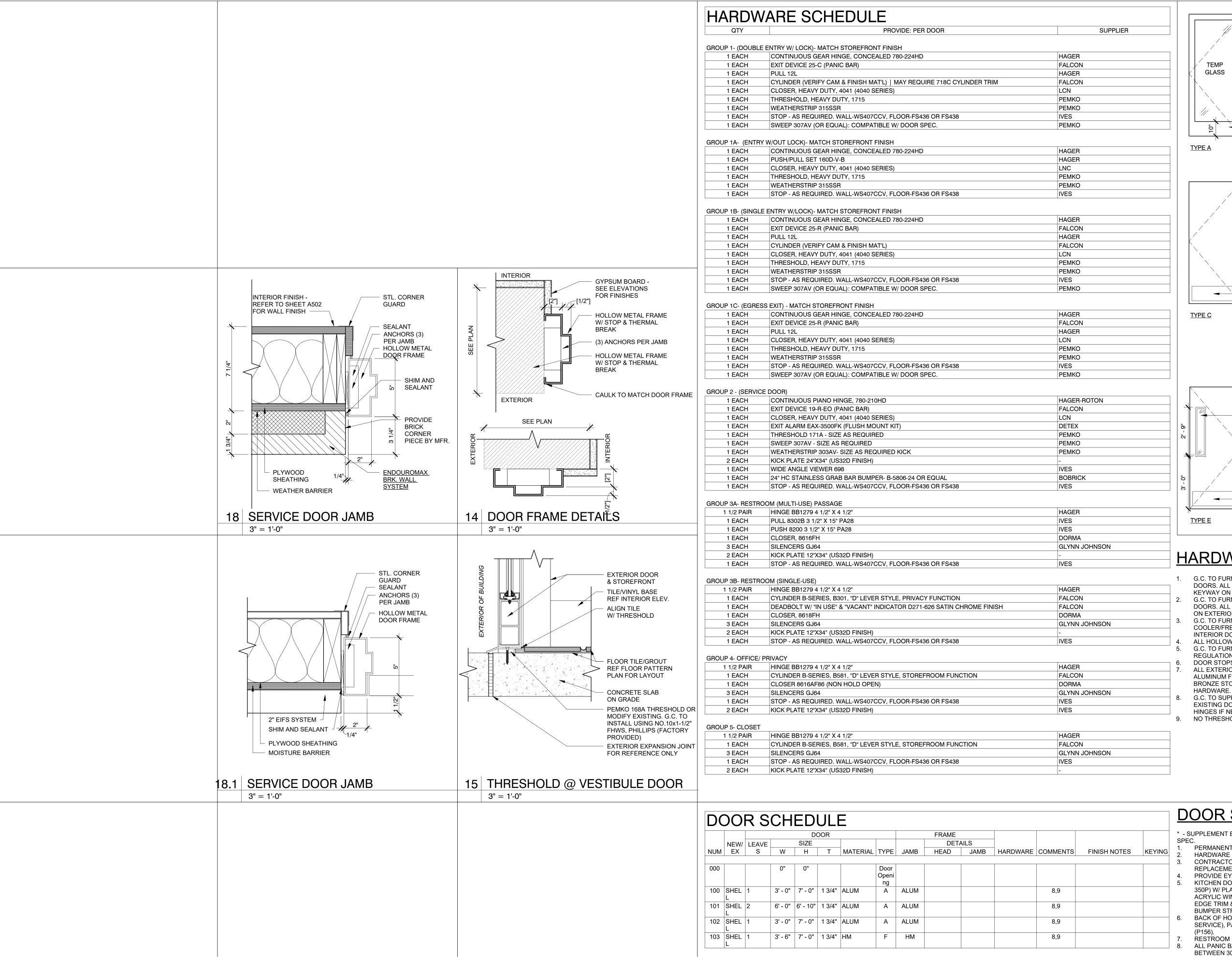
No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
D	Shell - Owner Revision	01/10/2023

FINISH SCHEDULES

Project Number: Drawn By Issue Date

07/05/2022 DPM:

FINISH SCHEDULE UPDATED PER PANERA 4TH QUARTER UPDATES 



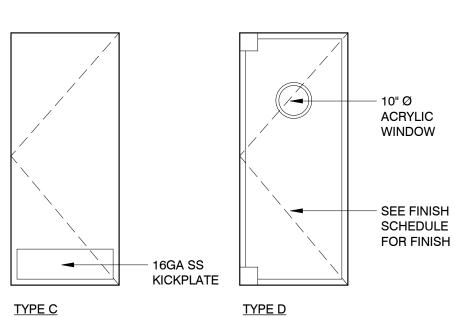
TEMP
GLASS

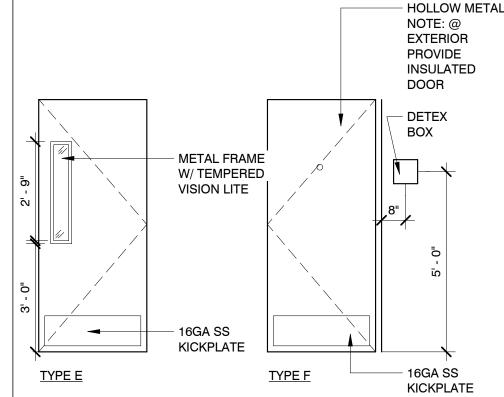
SOLID CORE
WHITE OAK
CLEAR FINISH.
ALTERNATE:
RED OAK,
CLEAR FINISH

16GA SS
KICKPLATE,
PUSH SIDE
ONLY

TYPE B

ONLY





# HARDWARE GENERAL NOTES:

 G.C. TO FURNISH & INSTALL FALCON CYLINDER IN ALL PERIMETER DOORS. ALL PERIMETER DOORS TO BE KEYED ALIKE. PROVIDE KEYWAY ON EXTERIOR FACE.

G.C. TO FURNISH & INSTALL FALCON CYLINDER IN ALL INTERIOR H.M. DOORS. ALL INTERIOR DOORS TO BE KEYED ALIKE. PROVIDE KEYWAY ON EXTERIOR FACE.
 G.C. TO FURNISH & INSTALL PADLOCK WITH 4" SHANK FOR WALK-IN

G.C. TO FURNISH & INSTALL PADLOCK WITH 4" SHANK FOR WALK-IN COOLER/FREEZER DOORS. PADLOCK TO BE KEYED ALIKE WITH INTERIOR DOORS.
ALL HOLLOW METAL DOOR FRAMES ARE TO BE WELDED.

G.C. TO FURNISH & INSTALL PANIC HARDWARE PER ALL APPLICABLE REGULATIONS & CODES HAVING JURISDICTION.
DOOR STOPS & BUMPERS TO BE INSTALLED BEHIND ALL DOORS.
ALL EXTERIOR HARDWARE TO MATCH STOREFRONT, USE US28 SATIN ALUMINUM FOR CLEAR ANODIZED FINISH, & US10B DARK BRONZE FOR BRONZE STOREFRONT. USE US28 SATIN ALUMINUM FOR ALL INTERIOR

G.C. TO SUPPLEMENT EXISTING HARDWARE AS REQUIRED (FOR EXISTING DOORS) TO MATCH PANERA'S SPECIFICATIONS - REPLACE HINGES IF NECESSARY.

NO THRESHOLD REQUIRED AT INTERIOR VESTIBULE DOORS.

Bakery-Cafe:

#2400

SYSTEM: G4 (ARIA)

Project Team:



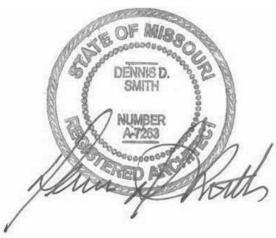
LK ARCHITECTURE, INC.

345 RIVERVIEW,
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T 316.268.0230

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Architecture · Engineering · Planning · Interior Design · Landscape Architecture

Professional Seal:



Project Title:

Bakery Cafe#2406 1410 NE DOUGLAS ST LEES SUMMIT, MO 6408



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# CONSTRUCTION SET: 2022-09-09

No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022

DOOR ELEVATIONS, SCHEDULES, & DETAILS

Project Number:

22302

Drawn By:

EB

Issue Date:

07/05/2022

DPM:

DPM:

DPM:

CPM:

CP

**DOOR SCHEDULE NOTES:** 

\* - SUPPLEMENT EXISTING HARDWARE AS REQUIRED TO MEET PANERA'S SPEC.

1. PERMANENTLY SECURE EXISTING DOOR PRIOR TO INTERIOR FURRING.

PERMANENTLY SECURE EXISTING DOOR PRIOR TO INTERIOR FURRING.
HARDWARE FURNISHED WITH DOOR.
CONTRACTOR TO VERIFY CONDITION OF EXISTING DOOR & CONFIRM IF

REPLACEMENT IS REQD.
PROVIDE EYE VIEWER INSTEAD OF SECURITY WINDOW.
KITCHEN DOORS: ELIASON SCP-8 MODEL (ALTERNATE: CHASE PROLINE 350P) W/ PLAM ANTIQUE WHITE FINISHED BOTH SIDES & 10" ROUND ACRYLIC WINDOW. 18" S.S. BASE (BOTH SIDES) W/ STAINLESS STEEL EDGE TRIM & HINGE COVERS. DOOR FURNISHED WITH BLACK ALUM BUMPER STRIP (32"AFF) BY MANUFACTURER.

BUMPER STRIP (32 AFF) BY MANUFACTURER.

BACK OF HOUSE METAL DOORS & METAL FRAMES- (ELIASON, OFFICE & SERVICE), PAINT BENJAMIN MOORE #1457 - WHITE WINGED DOVE (P156).

(P156).

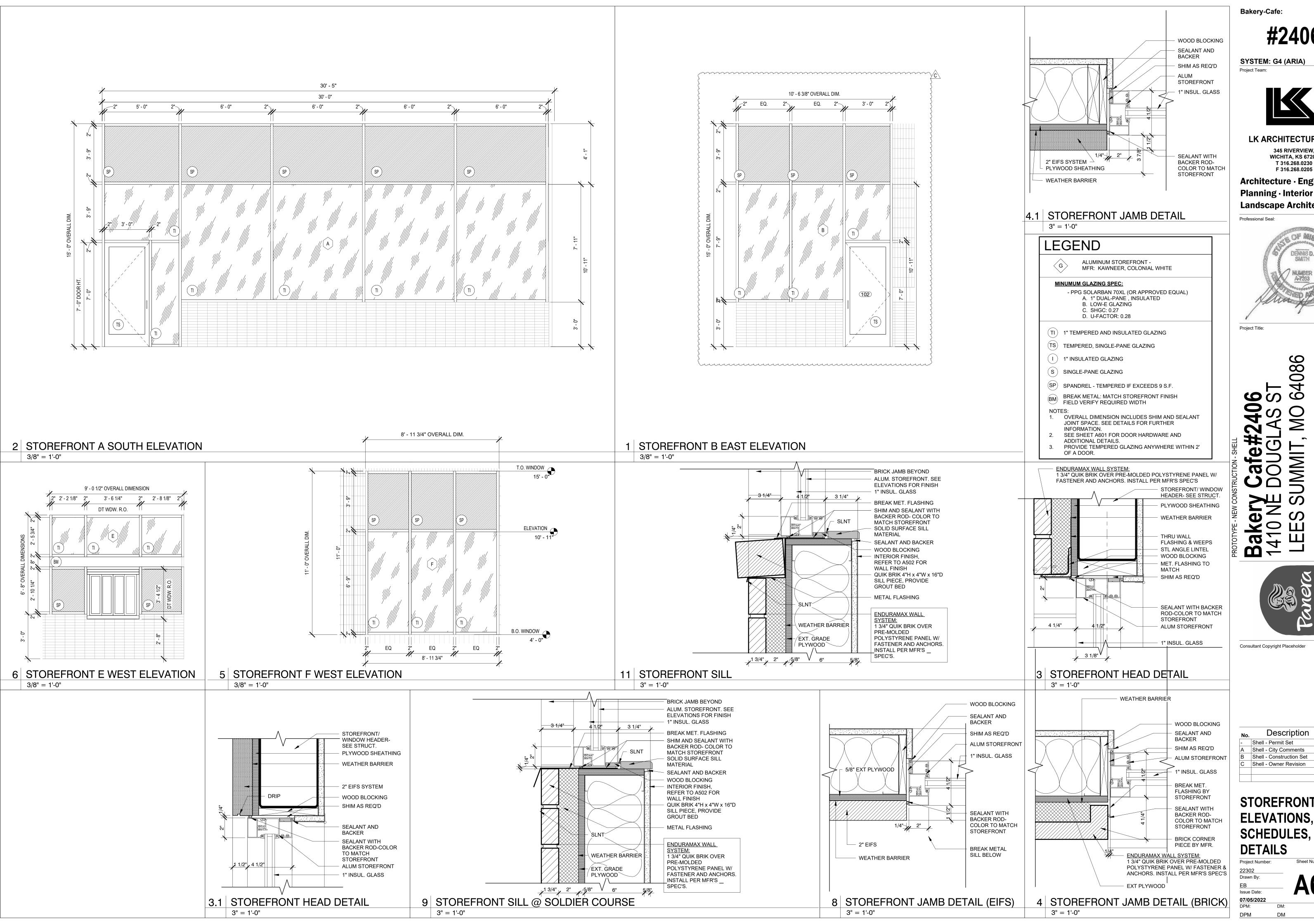
RESTROOM DOOR FRAME, PAINT TO MATCH ADJACENT WALL

ALL DANIC BARS AND DUSH BARS TO BE MOUNTED ON DOORS

ALL PANIC BARS AND PUSH BARS TO BE MOUNTED ON DOORS
 BETWEEN 30" AND 40" ABOVE FINISHED FLOOR.
 SEE DOOR CLOSER HARDWARE ITEMS SO THAT ALL INTERIOR DOORS
 DO NOT REQUIRE MORE THAN 5 LBS. TO OPERATE AND EXTERIOR

DOORS NOT TO EXCEED 8.5 LBS. OF FORCE TO OPERATE.

10. ROOF HATCH; PROVIDE KEYED PADLOCK.

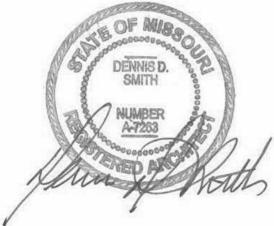


**SYSTEM: G4 (ARIA)** 

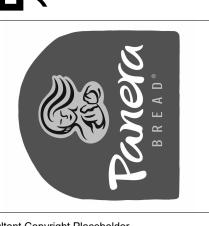


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3**36** 410



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		,
No.	Description	Date
-	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

STOREFRONT/GLAZING **ELEVATIONS**, SCHEDULES, &

STRUCTURAL ABBREVIATIONS		STRUCTURAL ABBREVIATIONS		
#	POUND(S), NUMBER	J/BRG	JOIST BEARING	
&	AND	JG	JOIST GIRDER	
(E)	EXISTING	JG/BRG	JOIST GIRDER BEARING	
@	AT	JST	JOIST	
AB	ANCHOR BOLT (S)	JT	JOINT	
ADDL	ADDITIONAL	kip	1,000 POUNDS	
ALT	ALTERNATE	ksi	kips PER SQUARE INCH	
ARCH	ARCHITECT(URAL)	LB	POUND	
B/FTG	BOTTOM OF FOOTING	LLH	LONG LEG HORIZONTAL	
BLDG	BUILDING	LLV	LONG LEG VERTICAL	
BLKG	BLOCKING	MAX	MAXIMUM	
BM	BEAM	MECH	MECHANICAL	
BMD	BOTTOM OF METAL DECK	MEZZ	MEZZANINE	
BN	BOUNDARY NAIL	MFR	MANUFACTURER	
ВОТ	BOTTOM	MIN	MINIMUM	
BP	BASE PLATE	MISC	MISCELLANEOUS	
BRG	BEARING	MTL	METAL	
BS	BOUNDARY SCREW	NS	NEAR SIDE	
BTWN	BETWEEN	NTS	NOT TO SCALE	
CANT	CANTILEVER(ED)	OC	ON CENTER	
CFS	COLD-FORMED STEEL	ОН	OPPOSITE HAND	
CIP	CAST-IN-PLACE	OPNG	OPENING	
CJ	CONTROL OR CONST JOINT			
CL	CENTER LINE	PAF	POWER-ACTUATED	
CLR	CLEAR		FASTENER	
CMU	CONCRETE MASONRY UNIT	PARA	PARAPET	
COL	COLUMN	PEMB	PRE-ENGINEERED METAL	
CONC	CONCRETE		BUILDING (MANUFACTURE	
CONN	CONNECTION	PIL	PILASTER	
CONST	CONSTRUCTION	PL	PLATE	
CONT	CONTINUOUS	PLBG	PLUMBING	
CTR	CENTER	PLYWD	PLYWOOD	
DBL	DOUBLE	psf	POUNDS PER SQUARE FOO	
DBL DC		psi	POUNDS PER SQUARE INC	
	DEMAND CRITICAL (WELD) DEGREE	PTDF	PRESSURE TREATED	
deg DET			DOUGLAS FIR	
DE I DF	DETAIL(S) DOUGLAS FIR	PTDFL	PRESSURE TREATED	
DFL	DOUGLAS FIR LARCH		DOUGLAS FIR LARCH	
dia	DIAMETER	PTSPF	PRESSURE TREATED	
ola DIM	DIMENSION	DT0\/D	SPRUCE PINE FIR	
DWG	DRAWING	PTSYP	PRESSURE TREATED	
DWG DWL		ОТ	SOUTHERN YELLOW PINE	
	DOWEL	QT	QUANTITY	
EA 	EACH	REINF	•	
EE 	EACH END	REQD	REQUIRED	
EF Fi	EACH FACE	RTU	ROOF TOP UNIT	
ELEV		SCHED		
ELEV		SD	SNOW DRIFT	
EMB	EMBEDMENT	SHTG	SHEATHING	
EN	EDGE NAIL	SIM	SIMILAR	
EOJ	END OF JOIST	SL	SNOW LOAD	
EQ	EQUAL	SPF		
ETC	ET CETERA	STD	STANDARD	
EW	EACH WAY	STL	STEEL	
EXP	EXPANSION	STRUC	STRUCTURAL	
EXT	EXTERIOR	SYP	SOUTHERN YELLOW PINE	
FDN	FOUNDATION	T&B	TOP AND BOTTOM	
FF	FINISH FLOOR	T&G	TONGUE AND GROOVE	
FIN FLR	FINISH FLOOR	T/BRG	TRUSS BEARING	
FLR	FLOOR	T/CONC	TOP OF CONCRETE	
FRMG	FRAMING	T/FTG	TOP OF FOOTING	
FRT	FIRE-RETARDENT TREATED	T/PAN	TOP OF PANEL	
FS	FAR SIDE	T/PARA		
FTG	FOOTING	T/PIL	TOP OF PILASTER	
FV	FIELD VERIFY	T/S		
ga	GAUGE	T/STL		
_	GALVANIZE(D)	TYP	TYPICAL	
GI B	GI III AM REAM		LINI ESS NOTED OTHERWIS	

#### SHOP DRAWING AND SUBMITTAL NOTES

**GLULAM BEAM** 

**HORIZONTAL** 

**HOLLOW STRUCTURAL** 

HANGER

**SECTION** 

INTERIOR

**INSIDE FACE** 

HOOK

HDR

HGR

**HORIZ** 

HK

HSS

INT

ISF

 SHOP DRAWINGS AND/OR SUBMITTALS SHALL BE FURNISHED FOR ALL STRUCTURAL COMPONENTS. UNLESS OTHERWISE NOTED, THESE SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION IN ACCORDANCE WITH THESE CONTRACT DRAWINGS AND PROJECT SPECIFICATIONS (IF APPLICABLE) CONTRACTOR SHALL ALLOW A MINIMUM OF 2 WEEKS FROM RECEIPT OF SHOP DRAWINGS FOR CASE ENGINEERING INC. TO PROVIDE RESPONSE.

UNO

USGS

VAR

**VERT** 

WP

**WWR** 

UNLESS NOTED OTHERWISE

US GEOLOGICAL SURVEY

WELDED HEADED STUD(S)

**VARIES** 

WITH

**VERTICAL** 

**WORK POINT** 

WELDED WIRE

REINFORCEMENT

- PRIOR TO SUBMITTAL TO THE ENGINEER, THE CONTRACTOR AND ARCHITECT SHALL HAVE REVIEWED THE SHOP DRAWINGS AND MADE ANY CORRECTIONS REQUIRED. THE CONTRACTOR AND ARCHITECT SHALL STAMP THE DRAWINGS, INDICATING THE SUBMITTAL HAS BEEN REVIEWED.
- STRUCTURAL DRAWINGS ARE THE SOLE PROPERTY OF CASE ENGINEERING. REPRODUCTION OF STRUCTURAL DRAWINGS FOR USE IN SHOP DRAWING SUBMITTALS IS NOT ACCEPTABLE WITHOUT OUR WRITTEN AGREEMENT

BUILDING CODES AND STANDARDS USED FOR DESIGN INTERNATIONAL BUILDING CODE 2018 EDITION ASCE 7-16

OCCUPANCY CATEGORY: II DESIGN LOADS

> DESIGN LOADS FLOOR LIVE LOAD: **PARTITION LIVE LOAD:** 15 psf ROOF LIVE LOAD: 20 psf ROOF DEAD LOAD 15 psf SNOW LOAD DESIGN CRITERIA SNOW LOAD IMPORTANCE FACTOR, I 1.0

GROUND SNOW LOAD, Pg: 20 psf FLAT ROOF SNOW LOAD. Pf: 20 psf THERMAL FACTOR, Ct: 1.0 **EXPOSURE FACTOR. Ce:** 1.0 MINIMUM FROST DEPTH: 3' - 0" WIND LOAD DESIGN CRITERIA

WIND IMPORTANCE FACTOR, I **ULTIMATE WIND SPEED:** 109 MPH (3 SEC GUST) 84.4 MPH (3 SEC GUST) NOMINAL WIND SPEED WIND EXPOSURE CATEGORY: WIND ENCLOSURE CLASSIFICATION ENCLOSED BUILDING

+/- 0.18 POSITIVE WIND ROOF PRESSURES (ASD VALUES) ZONE 1 - ZONE 1 16.0 psf - ZONE 2 & 3 21.1 psf

NET WIND UPLIFT ROOF PRESSURES (ASD VALUES) - ZONE - ZONE 24.3 psf

- ZONE 2 45.1 psf - ZONE 3 45.1 psf - 'a' DIMENSION 5.2 ft SEISMIC LOAD DESIGN CRITERIA SEISMIC IMPORTANCE FACTOR, I: 1.0

SITE CLASS: SPECTRAL RESPONSE ACCELERATIONS: Ss=0.099g, S1=0.068g Sds=0.106g, Sd1=0.109g SEISMIC DESIGN CATEGORY: BASIC SEISMIC-FORCE RESISTING SYSTEM: LIGHT FRAME WALLS w/WOOD

**PANELS** RESPONSE MODIFICATION FACTOR, R 6.5 SYSTEM OVER-STRENGTH FACTOR, OMEGAo: 2.5 DEFLECTION AMPLIFICATION FACTOR, Cd:

SEISMIC RESPONSE COEFFICIENT, Cs: ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

#### **GENERAL STRUCTURAL NOTES**

- THIS DRAWING SET IS TO BE VIEWED AS A WHOLE AND COORDINATED WITH ARCHITECTURAL, MECHANICAL, CIVIL, AND OTHER DISCIPLINES. ALL WORK PERTAINING TO A SPECIFIC CONTRACTOR MAY OR MAY NOT BE SHOWN ON SPECIFIC DRAWING SECTIONS. IT IS EACH SUBCONTRACTOR'S RESPONSIBILITY TO PREPARE HIS BID FROM A COMPLETE SET OF PLANS.
- THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS. DIMENSIONS NOT SHOWN ON PLAN TO BE COORDINATED WITH ARCHITECTURAL PLANS.
- ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY AT ANY SIMILAR SITUATION ELSEWHERE ON THE JOB. EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN
- THE STRUCTURE SHALL BE ADEQUATELY BRACED AND SHORED DURING ERECTION AGAINST WIND AND ERECTION LOADS. STRUCTURAL MEMBERS ARE DESIGNED FOR "IN-PLACE" LOADS ONLY.
- THE GENERAL CONTRACTOR SHALL VERIFY ALL OPENING SIZES, PAD SIZES, AND LOCATIONS WITH THE RESPECTIVE CONTRACTORS.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.
- 7. THE VARIOUS SUBCONTRACTORS ARE RESPONSIBLE FOR PLACING SLEEVES, OUTLET BOXES, ANCHORS, VENT OPENINGS, ETC. THAT MAY BE REQUIRED IN FOUNDATION WALLS. CONSTRUCTION MANAGER SHALL COORDINATE ALL PLACEMENT OF ITEMS IN FOUNDATION WALLS.
- ALL ELEVATIONS GIVEN ARE REFERENCED TO FINISHED FLOOR ELEVATIONS AT 100'-0", UNLESS SHOWN AS USGS ELEVATIONS.

SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND INFORMATION.

- WHERE GENERAL NOTES OR TYPICAL DETAILS CONTRADICT INFORMATION PROVIDED IN BUILDING SECTIONS, THE BUILDING SECTIONS TAKE PRECEDENCE.
- 11. ALL HOLES THROUGH CONSTRUCTION SHALL BE CORE DRILLED OR SAWCUT. 12. ALL STAIR STRINGERS, LANDINGS, AND HANDRAILS TO BE DESIGNED AND FABRICATED BY STAIR FABRICATOR.
- 13. FOR ARCHITECTURAL, MEP, & STRUCTURAL COORDINATION: MODELED ELEMENTS SHOWN ON STRUCTURAL DRAWINGS SUCH AS TRUSSES, OPEN-WEB JOISTS, AND JOIST GIRDERS, ARE NOT THE FINAL CONFIGURATION. ALL COORDINATION SHALL BE PERFORMED BETWEEN THE VARIOUS TRADES AND THE SUPPLIERS OF THESE
- ELEMENTS FOR THE STRUCTURE, NOT WITH THE STRUCTURAL MODEL 14. THIS DRAWING SET IS TO BE VIEWED AS A WHOLE, ALL TYPICAL DETAILS AND GENERAL NOTES SHOWN IN THESE DRAWINGS ARE APPLICABLE TO THE PROJECT EVEN IF THEY ARE NOT SHOWN ON PLANS OR SECTIONS

#### **DEFERRED SUBMITTALS**

INCLUDING:

THE FOLLOWING DESIGN ELEMENTS MUST BE SIGNED & SEALED BY A PROFESSIONAL ENGINEER (PE/SE) REGISTERED IN THE STATE WHERE THIS PROJECT IS LOCATED, AND SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD. DESIGNED DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND RECORD.

- STRUCTURAL STEEL CONNECTION CALCULATIONS AND SHOP FABRICATION DRAWINGS FOR CONNECTIONS.
- PRE-FABRICATED WOOD TRUSS CALCULATIONS AND FABRICATION DRAWINGS
- ALL TRUSS-TO-TRUSS CONNECTIONS PLAN AND DETAILS FOR THE LOCATIONS OF ALL ERECTION/TEMPORARY
- AND PERMANENT LATERAL AND DIAGONAL BRACING AND/OR BLOCKING. FRAMING PLAN LAYOUT (DIMENSIONED AND TO SCALE). EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED, OR OTHERWISE HAVE PERMANENTLY AFFIXED THERETO THE FOLLOWING INFORMATION LOCATED WITHIN 2 FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOTTOM
  - IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS
- DESIGN LOADS
- TRUSS SPACING

#### **EXCAVATION AND EARTHWORK NOTES**

- THE BEARING VALUE AND LATERAL EARTH PRESSURES OF THE SOILS IS PER REPORT BY: ASSUMED, DATED N/A. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING NET ALLOWABLE BEARING AND LATERAL EARTH PRESSURES (ALLOWABLE BEARING PRESSURES MAY BE INCREASED BY 33 PERCENT FOR WIND AND SEISMIC LOADS) SPREAD FOOTINGS 1,500 psf
- WATER LEVELS INDICATED ON THE BORING LOGS MAY BE SUBJECT TO SEASONAL AND/OR ANNUAL VARIATIONS. A DEWATERING SYSTEM OF SUFFICIENT CAPACITY SHALL BE INSTALLED AND OPERATED TO MAINTAIN THE CONSTRUCTION AREA FREE OF WATER AT ALL TIMES.
- ALL FOOTING EXCAVATIONS SHALL BE INSPECTED, PRIOR TO CONCRETE PLACEMENT, BY A SOILS ENGINEER TO VERIFY SUITABLE BEARING MATERIAL OF CAPACITY AS
- NOTIFY THE OWNER'S REPRESENTATIVE WHEN ADDITIONAL EXCAVATION IS REQUIRED TO REACH SUITABLE BEARING MATERIAL
- THE SOILS ENGINEER SHALL CERTIFY IN WRITING THAT ALL FOUNDATIONS WERE PLACED ON SOIL WITH THE BEARING VALUE AS SPECIFIED
- WITHIN THE EXCAVATION AREA OF FOUNDATIONS, ALL VEGETATION, TOPSOIL PREVIOUSLY PLACED FILL AND UNSUITABLE SOILS SHALL BE REMOVED. ALL FOOTINGS TO BEAR ON VIRGIN SOIL OR PROPERLY PLACED AND COMPACTED ENGINEERED FILL
- FOUNDATION DESIGN DOES NOT ACCOUNT FOR WINTER CONSTRUCTION. ANY UNENCLOSED / UNHEATED SPACES SHALL BE ADEQUATELY PROTECTED AGAINST FROST DURING WINTER CONSTRUCTION BY THE CONTRACTOR
- IF ANY SOFT SPOTS, OR AREAS QUESTIONABLE FOR ANY REASONS ARE ENCOUNTERED BY THE CONTRACTOR, ARCHITECT/ENGINEER SHALL BE NOTIFIED IMMEDIATELY SO THAT ANY REQUIRED ACTION MAY BE TAKEN PRIOR TO CONTINUATION OF CONSTRUCTION IN THAT AREA.

#### POST-INSTALLED ANCHOR NOTES

POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER OF RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED ON THESE DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING, AT A MINIMUM, THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE BUILDING CODE.

- TYPICAL POST-INSTALLED ANCHORS IN CONCRETE AND CMU SHALL COMPLY WITH THE LATEST OF THEIR RESPECTIVE ICC EVALUATION REPORTS.
- WHEN INSTALLING ANCHORS IN CONCRETE AND CMU, CONTRACTOR SHALL LOCATE EXISTING REINFORCING STEEL, CONDUITS, ETC, PRIOR TO DRILLING FOR ANCHORS. CONTRACTOR SHALL USE CARE AND CAUTION TO PREVENT DAMAGE TO EXISTING REINFORCING BARS.
- CONTRACTOR SHALL PROVIDE 1" MINIMUM CLEARANCE BETWEEN EDGES OF ANY HOLES FOR POST-INSTALLED ANCHORS AND EXISTING REINFORCING STEEL
- CONTRACTOR SHALL PROVIDE INSPECTION AND TESTING AS REQUIRED PER THE "SPECIAL INSPECTIONS" SECTION OF THESE GENERAL STRUCTURAL NOTES.
- CONTRACTOR SHALL USE A HOLLOW DRILL BIT AND VACUUM SYSTEM WHEN DRILLING
- INTO CEMENTITIOUS MATERIALS

#### STRUCTURAL STEEL NOTES

- FABRICATION AND ERECTION OF STRUCTURAL STEEL MEMBERS IS TO BE IN
- ACCORDANCE WITH "AISC CODE OF STANDARD PRACTICE", LATEST EDITION. STEEL FABRICATOR SHALL PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM AND BE DESIGNATED AN AISC-CERTIFIED PLANT, CATEGORY STD.
- IT IS THE RESPONSIBILITY OF THE STEEL FABRICATOR TO DESIGN THE CONNECTIONS. CONNECTIONS ARE TO BE IN ACCORDANCE WITH CURRENT AISC STANDARDS AND APPLICABLE GOVERNMENT CODES. ALL CONNECTIONS SHALL BE BOLTED OR WELDED AND SHALL DEVELOP 60% OF THE ALLOWABLE UNIFORM LOAD TABULATED IN THE AISC "MANUAL OF STEEL CONSTRUCTION" FOR ALLOWABLE STRESS DESIGN, 10k (ASD), OR SHEAR REACTION SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER. PROVIDE MINIMUM NUMBER OF ASTM F3125 GRADE A325 OR A490 BOLTS AS SHOWN IN THE "STRUCTURAL STEEL BOLTED CONNECTIONS" TABLE.
- ANCHOR RODS TO BE ASTM F1554, GRADE 36 FULLY-THREADED RODS WITH PLATE WASHERS AND NUTS ON THE BOTTOM UNLESS NOTED OTHERWISE-SEE "TYPICAL ANCHOR BOLT" DETAIL.
- BOLT HOLES SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED ON THE DRAWINGS
- FIELD BURNING OF BOLT HOLES SHALL NOT BE PERMITTED. WELDING SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN CONFORMANCE WITH AWS D1.1, USING E70 SERIES ELECTRODES, UNLESS OTHERWISE NOTED ON THE DRAWINGS. ADDITIONALLY, WELDING IN LOS ANGELES, CA SHALL BE PERFORMED BY
- ALL STEEL SHALL BE SHOP PAINTED WITH A STANDARD ALKYD PRIMER (GRAY). FOR HARSH ENVIRONMENTS USE A GRAY ZINC ORGANIC OR INORGANIC PRIMER.
- FABRICATE ALL BEAMS WITH THE MILL CAMBER UP. CONNECTION NOTATION IS AS FOLLOWS. SEE PLAN NOTES TO DETERMINE IF LOADS SHOWN ON PLAN/DETAILS ARE ALLOWABLE (ASD) OR ULTIMATE (LRFD):
- AXIAL FORCE = P
- SHEAR = V OR [] MOMENT = M

CERTIFIED WELDERS.

- TORSION = T
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS AND GRADES:
- WIDE FLANGE = A992, fy = 50ksi
- ANGLES, CHANNELS, PLATES, BARS, AND RODS = A36, fy = 36ksi RECTANGULAR HSS = A500 GRADE B, fy = 46ksi OR A500 GRADE C, fy=50ksi
- ROUND HSS = A500 GRADE B, fy = 42ksi
- STRUCTURAL PIPE = A53 GRADE B, fy = 35ksi 11. REFER TO "DEFERRED SUBMITTALS" FOR ADDITIONAL REQUIREMENTS.

#### STRUCTURAL STEEL BOLTED CONNECTIONS TARLE

STRUCTURAL STEEL BULTED CONNECTIONS TABLE			
NOMINAL MEMBER DEPTH	MINIMUM NUMBER OF BOLTS		
8" - 10"	2		
12" - 14"	3		
16" - 18"	4		
21" - 24"	5		
27" OR DEEPER	6		

#### **CONCRETE NOTES**

- ALL CONCRETE WORK INCLUDING FORMING, REINFORCING, MIXING, PLACING, FINISHING AND CURING SHALL BE DONE IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE INCLUDING "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE". ACI 318, AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE", ACI 301 LATEST EDITIONS
- IT SHALL BE THE RESPONSIBILITY OF THE MIX DESIGN SUPPLIER TO PROPORTION MIXES APPROPRIATELY TO REACH THE REQUIRED PROPERTIES NOTED, AND SHALL BE APPROPRIATE FOR THEIR INTENDED USE. ADMIXTURES MEETING ASTM C494 ARE OPTIONAL. HOWEVER, AIR-ENTRAINING ADMIXTURES MEETING ASTM C260 SHALL BE USED FOR CONCRETE EXPOSED TO THE EXTERIOR OR FREEZE-THAW CYCLES CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR EACH INTENDED USE ON THE PROJECT FOR REVIEW AND APPROVAL BY THE ENGINEER OF RECORD. CONTENTS OF
- THE MIX DESIGN SHALL COMPLY WITH, AND INCLUDE ALL INFORMATION REQUIRED BY, ACI 318, CHAPTER 5 (FOR 2011 AND EARLIER CODE EDITIONS), & CHAPTER 26 (FOR 2014 CODE EDITION). THIS INCLUDES, BUT IS NOT LIMITED TO NUMBER OF TESTS AND AGE OF TESTS INCLUDED IN THE MIX DESIGN REPORT.
- ALL CONCRETE DENSITY SHALL BE NORMAL WEIGHT (145 pcf +/- 5) UNLESS OTHERWISE INDICATED. LIGHT WEIGHT CONCRETE SHALL BE 110 pcf +/- 5, UNO.
- FLY ASH ALLOWANCES: 20% MAXIMUM BY WEIGHT OF CEMENTITIOUS IN FOOTINGS
- 15% MAXIMUM BY WEIGHT OF CEMENTITIOUS MATERIAL IN SLABS
- COORDINATE CONCRETE WORK WITH THAT OF OTHER TRADES TO ALLOW FOR SETTING OF SLEEVES, ACCESSORIES, ETC. ALL REINFORCING STEEL, ANCHOR RODS, DOWELS, AND INSERTS SHALL BE WELL-

SECURED IN POSITION PRIOR TO PLACING CONCRETE. DO NOT "WET SET" OR "FLOAT"

- INTO CONCRETE. TEST CYLINDERS WILL BE REQUIRED, AND RECORDS OF RESULTS SHALL BE SUBMITTED TO ENGINEER OF RECORD. PROVIDE A MINIMUM OF (4) 6"x12" CYLINDERS FOR TESTING (1) AT 7 DAYS, 2 AT 28 DAYS, ONE SPARE). ALTERNATIVELY, PROVIDE A MINIMUM (5) 4"x8" CYLINDERS FOR TESTING (1 AT 7 DAYS, 3 AT 28 DAYS, ONE SPARE). SLUMP TESTS ARE
- RECOMMENDED. CONSTRUCTION JOINTS IN CONCRETE INDICATED WITH A ROUGH, CLEAN SURFACE SHALL HAVE A 1/4" AVERAGE AMPLITUDE
- ALL COLD JOINTS SHALL BE ROUGHENED AND CLEANED PRIOR TO PLACING CONCRETE SLUMP: CONCRETE MIXES SHALL BE PROPORTIONED TO ACHIEVE A MAXIMUM SLUMP OF 8" FOR CONCRETE CONTAINING HIGH RANGE WATER REDUCING ADMIXTURE. 6" FOR CONCRETE CONTAINING A MID-RANGE WATER REDUCING ADMIXTURE. MIXES SHALL HAVE A WATER SLUMP OF 2"-3" (3" TO 4" FOR CONCRETE RECEIVING A "DRY-SHAKE" HARDENER). MAXIMUM 4" WATER SLUMP FOR ALL OTHER CONCRETE
- AIR CONTENT: ALL CONCRETE EXPOSED TO FREEZING AND THAWING AND/OR REQUIRED TO BE WATER TIGHT SHALL HAVE AN AIR CONTENT OF 4.5% TO 7.5%. ALL INTERIOR SLABS AND ALL SLABS TO RECEIVE DRY-SHAKE SHALL HAVE A MAXIMUM AIR CONTENT
- DEPOSIT AND CONSOLIDATE CONCRETE FOR FLOORS AND SLABS IN A CONTINUOUS OPERATION, WITHIN LIMITS OF CONSTRUCTION JOINTS, UNTIL PLACEMENT OF A PANEL OR SECTION IS COMPLETE.
  - CONSOLIDATE CONCRETE DURING PLACEMENT OPERATIONS, SO CONCRETE IS THOROUGHLY WORKED AROUND REINFORCEMENT AND OTHER EMBEDDED ITEMS AND INTO CORNERS
  - MAINTAIN REINFORCEMENT IN POSITION ON CHAIRS DURING CONCRETE
  - SCREED SLAB SURFACES WITH A STRAIGHT EDGE AND STRIKE OFF TO CORRECT ELEVATIONS.
  - UTILIZE A VIBRATORY SCREED FOR CONCRETE THAT WILL RECEIVE DIAMOND POLISH FINISH. KEEP VIBRATING SCREED MOVING CONTINUOUSLY ACROSS SURFACE. DO NOT STOP SCREED IN ANY ONE PLACE WHILE VIBRATING.
  - SLOPE SURFACES UNIFORMLY TO DRAINS WHERE REQUIRED
  - BEGIN INITIAL FLOATING USING BULL FLOATS OR DARBIES TO FORM A UNIFORM AND OPEN-TEXTURED SURFACE PLANE BEFORE EXCESS BLEED WATER APPEARS ON THE SURFACE. DO NOT FURTHER DISTURB SLAB SURFACES BEFORE STARTING FINISHING OPERATIONS.
  - G. THE USE OF HIGHWAY STRAIGHT EDGES OR "BUMP CUTTERS" ON CONCRETE SLABS TO BE POLISHED IS PROHIBITED.
- 14. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:
  - A. "N" IN COLUMN INDICATES THE ADDITION OF ENTRAINED AIR IS NOT REQUIRED, BUT IS PERMITTED. AIR ENTRAINMENT IS NOT RECOMMENDED FOR SURFACES TO BE GIVEN A SMOOTH, DENSE, HARD-TROWELED FINISH. COORDINATE FINISH REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND/ OR SPECIFICATIONS.

CONCRETE TABLE						
INTENDED USE	MIN 28 DAY STRENGTH (psi)	MAX WATER- CEMENT RATIO	% TOTAL AIR LIMITS	MACRO SYNTHETIC FIBER (1)	% MAX SHRINKAGE @ 28 DAYS	
NTERIOR SLAB ON GRADE	4,000	0.50	3	YES	0.04	
OOTING & FOUNDATION VALLS	4,000	0.48	4.5 TO 7.5 (WHERE EXPOSED TO EXT)	-	0.05	
ALL CONCRETE NOT	4,000	0.40	4.5 TO 7.5	-	0.05	

#### TABLE NOTES

OTHERWISE SPECIFIED

SYNTHETIC MACRO FIBER REINFORCEMENT MAY BE USED TO REPLACE REINFORCING STEEL IN CONCRETE SLABS ON GRADE AND TOPPING SLABS WHERE INDICATED ON DRAWINGS. SUBMIT FIBER MANUFACTURER'S DOCUMENTATION INDICATING THAT PROPOSED FIBER DOSAGE WILL PROVIDE A MINIMUM Fe3 VALUE AS FOLLOWS IN ACCORDANCE WITH ASTM C 1609. UNDER NO CIRCUMSTANCES SHALL DOSAGE RATE BE LESS THAN 3.0lbs PER CUBIC YARD OF CONCRETE IN SLABS ON GRADE AND TOPPING SLABS (4lbs PER CUBIC YARD FOR SLABS ON METAL DECK). SYNTHETIC MACRO FIBER REINFORCEMENT IS PROHIBITED IN CONCRETE TO RECEIVE POLISHED CONCRETE FINISHES.

A. SLABS ON GRADE AND TOPPING SLABS

. 4" DEEP SLAB: Fe3 = 94psi

2. 6" DEEP SLAB: Fe3 = 128psi

8" DEEP SLAB: Fe3 = 180 psi

#### **Bakery-Cafe:**

Project Team:

SYSTEM: G4 (ARIA)



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796 Merus Court St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. 001498

Description Date Shell - Permit Set 7/5/2022 A Shell - City Comments 8/19/2022 Shell - Construction Set 8/25/2022 C Shell - Owner Revision 12/09/2022

GENERAL NOTES

Project Number: LKA-MO-01-22

#### REINFORCING STEEL NOTES

- NON-WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60 WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A706.
- WELDING OF REINFORCING STEEL SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN CONFORMANCE WITH AWS D1.1 USING E90 ELECTRODES FOR ASTM A615 REBAR, AND E80 ELECTRODES FOR ASTM A706 REBAR UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- WELDED WIRE REINFORCEMENT (WWR) SHALL BE SMOOTH WIRE PER ASTM A185 WITH MINIMUM YIELD STRENGTH, fy = 65 ksi, OR DEFORMED WIRE PER ASTM A497 WITH MINIMUM YIELD STRENGTH, fy = 70 ksi, UNLESS NOTED OTHERWISE.
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE (NON-PRESTRESSED) CONCRETE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE
- CONCRETE CAST AGAINST EARTH = 3"
- CONCRETE EXPOSED TO WEATHER:
- #6 BAR AND LARGER = 2" #5 BAR AND SMALLER = 1 1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER (SLABS, WALLS, & JOISTS):
  - #14 BARS AND LARGER = 1 1/2" #11 BARS AND SMALLER = 3/4"
- D. CONCRETE NOT EXPOSED TO EARTH OR WEATHER (BEAMS & COLUMNS):
- PRIMARY REINFORCEMENT, TIES, STIRRUPS, & SPIRALS = 1 1/2" ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ACI 315 (SP-66), DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.
- LAP SPLICE LENGTHS FOR BARS INSTALLED IN CONCRETE AND CMU SHALL BE IN ACCORDANCE WITH THE TABLE.

#### DEVELOPMENT LENGTH OF STANDARD HOOKS IN CONCRETE NOTES

- 1. VALUES IN TABLE ARE BASED ON 60ksi REBAR. FOR OTHER REBAR YIELD STRENGTHS. MULTIPLY VALUES IN THE TABLE BY THE SPECIFIED YIELD STRENGTH DIVIDED BY 60.
- SEE ACI 318 SECTION 12.5 FOR ALLOWABLE REDUCTIONS IN DEVELOPMENT LENGTH. IT SHALL NOT BE LESS THAN 8 BAR DIAMETERS OR 6 INCHES
- HOOKED BARS ARE NOT CONSIDERED EFFECTIVE IN DEVELOPING BARS IN COMPRESSION.

DEVELOPMENT LENGTH OF STANDARD HOOKS IN CONCRETE - 60 ksi REBAR TABLE (INCHES)						
BAR SIZE	f'c = 3,000 psi	f'c = 3,500 psi	f'c = 4,000 psi	f'c = 5,000 psi		
#3	9	8	8	7		
#4	11	11	10	9		
#5	14	13	12	11		
#6	17	16	15	13		

#### TENSION LAP SPLICE LENGTH IN CONCRETE NOTES

- 1. FOR HORIZONTAL BARS, VALUES IN THE TABLE SHALL BE MULTIPLIED BY 1.3 WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE BAR.
- VALUES IN THE TABLE SHALL BE MULTIPLIED BY 1.5 FOR EPOXY COATED BARS WITH CLEAR COVER LESS THAN 3 BAR DIAMETERS OR CLEAR SPACING LESS THAN 6 BAR DIAMETERS. MULTIPLY VALUES IN TABLE BY 1.2 FOR ALL OTHER EPOXY COATED BARS.
- VALUES IN TABLE NEED NOT TO BE MULTIPLIED BY MORE THAN 1.7 DUE TO THE **INCREASE FROM NOTES 1 AND 2.**
- VALUES IN THE TABLE SHALL BE MULTIPLIED BY 1.33 WHERE LIGHT WEIGHT CONCRETE IS USED.
- LAP SPLICES IN TENSION ARE NOT PERMITTED FOR BAR LARGER THAN #11. A FULL MECHANICAL OR FULL WELDED SPLICE SHALL DEVELOP AT LEAST 1.25fy OF THE BAR.
- WHERE CLEAR SPACING OF BARS BEING SPLICED IS AT LEAST 2 BAR DIAMETERS AND CLEAR COVER AT LEAST 1 BAR DIAMETER, USE CASE 1. FOR ALL OTHER BAR ARRANGEMENTS, USE CASE 2.
- 7. VALUES IN THE TABLE ARE BASED ON 60ksi REBAR. FOR OTHER REBAR YIELD STRENGTHS, MULTIPLY VALUES IN THE TABLE BY THE SPECIFIED YIELD STRENGTH DIVIDED BY 60.
- 8. WHERE BARS OF DIFFERENT SIZES ARE SPLICED, PROVIDE THE LAP LENGTH OF THE LARGER BAR.
- WELDED WIRE REINFORCEMENT (DEFORMED OR PLAIN WIRE) SHALL BE LAPPED ONE FULL MESH SQUARE PLUS 2 INCHES MINIMUM. BUT NOT LESS THAN 12 INCHES.
- REBAR IN ALL CONCRETE MEMBERS SHALL BE SPLICED IN ACCORDANCE WITH "TENSION LAP SPLICE LENGTH" TABLE, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

<u>T</u>	TENSION LAP SPLICE LENGTH IN CONCRETE - 60 KSI REBAR TABLE (INCHES)							
f'c =	3,000psi	3,000psi	3,500psi	3,500psi	4,000psi	4,000psi	5,000psi	5,000psi
BAR SIZE	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2
#3	22	33	20	30	19	28	17	25
#4	29	43	27	40	25	37	23	34
#5	36	54	33	50	31	47	28	42
#6	43	65	40	60	37	56	34	50

#### **WOOD FRAMING NOTES**

- WOOD FRAMING SHALL CONFORM TO THE "LUMBER TABLE" UNLESS NOTED
- OTHERWISE. FOR WOOD FASTENING REQUIREMENTS. REFER TO TABLE 2304.9.1 FOR IBC 2012 AND OLDER, OR TABLE 2304.10.1 FOR IBC 2015 AND NEWER.
- ALL NAILS SHALL BE GALVANIZED COMMON WIRE NAILS UNLESS OTHERWISE NOTED. SEE "WOOD FASTENER TYPES SCHEDULE" FOR MINIMUM FASTENER DIMENSIONS. NAILS IN CONTACT WITH FIRE RETARDANT TREATED OR PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED (ASTM A153) OR STAINLESS STEEL (TYPE 304 OR 316). WHEN REQUIRED TO PREVENT SPLITTING, PRE-DRILL FOR NAILS WITH 1/8" DIAMETER
- BOLTS AND LAG SCREWS SHALL CONFORM TO ASTM A307 AND ANSI/ASME STANDARD B18.2.1-1981, AND SHALL BE GALVANIZED, BOLTS AND LAG SCREWS IN CONTACT WITH FIRE RETARDANT TREATED OR PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED (ASTM A153) OR STAINLESS STEEL (TYPE 304 OR 316). STANDARD WASHERS SHALL BE PROVIDED UNDER HEAD AND NUT OF ALL BOLTS IN WOOD FRAMING. BOLT THREADS SHALL NOT BEAR ON WOOD. DRILLED HOLES FOR BOLTS SHALL BE 1/16" LARGER IN DIAMETER THAN BOLT.
- ALL BOLTS SHALL BE RETIGHTENED IMMEDIATELY PRIOR TO CLOSING IN FRAMING. METAL FRAMING CONNECTORS SHALL BE "SIMPSON" BRAND OR ENGINEERED APPROVED EQUIVALENT AND SHALL BE GALVANIZED. METAL FRAMING CONNECTORS IN CONTACT WITH FIRE RETARDANT TREATED OR PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED (ASTM A123) OR STAINLESS STEEL (TYPE 316L). METAL FRAMING CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LATEST PUBLISHED INSTALLATION INSTRUCTIONS USING THE LARGER SIZE AND QUANTITY OF FASTENERS INDICATED, UNLESS OTHERWISE NOTED.
- WASHERS USED IN SHEAR WALLS AND ANCHOR HOLD DOWNS SHALL BE SQUARE WASHERS OF SIZE AND THICKNESS INDICATED IN "SHEAR WALL SHEATHING AND FASTENER SCHEDULE". ROUND WASHERS ARE NOT ACCEPTABLE FOR SHEAR WALL **APPLICATIONS**
- ALL BOLTS, WASHERS, NAILS, METAL FRAMING CONNECTORS AND OTHER FASTENERS IN CONTACT WITH PRESERVATIVE OR FIRE RETARDANT TREATED LUMBER SHALL BE
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT WOOD USED FOR STRUCTURAL PURPOSES IS KEPT AS DRY AS POSSIBLE BEFORE AND DURING CONSTRUCTION. A MAXIMUM MOISTURE CONTENT SHALL BE MAINTAINED UNTIL THE BUILDING ENVELOPE IS CLOSED IN AND WATER-PROOFED AS FOLLOWS:

HOT-DIPPED GALVANIZED (ASTM A153) OR STAINLESS STEEL (TYPE 304 OR 316).

- KILN-DRIED LUMBER: 19%
- TIMBERS: 19% GLULAM BEAMS: 16%
- LVL & PSL: 12%
- PLYWOOD: 8%
- OSB: 4%

SDS SCREW

ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED. ALL WOOD EXPOSED TO WEATHER SHALL BE PRESSURE-TREATED. PRESSURE TREATMENT OF WOOD THAT IS CUT SHALL BE REINSTATED ON CUT EDGES.

<u>LUMBER TABLE</u>					
MEMBER	SPECIES	GRADE			
GLULAM BEAMS (GLB)	PER PLAN	PER PLAN			
2x PLATES, STRIPPING, MISC CONCEALED FRAMING, BLKG, & FIRE STOPPING	SOUTHERN PINE	NO 2			
SILLS ON CONCRETE OR MASONRY	PRESSURE TREATED SOUTHERN PINE	NO 2			
2x LUMBER	SOUTHERN PINE	NO 2			
ALL 4x DIMENSIONED LUMBER	SOUTHERN PINE	NO 2			
TIMBER 5x5 AND LARGER	SOUTHERN PINE	NO 1			
PARALLEL STRAND LUMBER (PSL)	PER MANUFACTURER	2.0E			
ENGINEERED WOOD RIM BOARD	PER MANUFACTURER	APA RATED RIM BOARD PLUS			
LAMINATED VENEER LUMBER (LVL) HEADERS, BEAMS, STRINGERS AND POSTS	PER MANUFACTURER	ICC ESR-2403. GRADE 1.9E; OR ICC ESR-1387, GRADE 1.9E; OR ICC ESR-2993, GRADE 1.9E; OR ICC ESR-1994, GRADE 2.0E			
SHEAR WALL SHEATHING	PER MANUFACTURER	APA RATED SHEATHING, EXPOSURE 1 (PS 1 OR PS 2)			
ROOF SHEATHING	PER MANUFACTURER	APA RATED SHEATHING, EXPOSURE 1 (PS 1 OR PS 2)			

WOOD FASTENER TYPES SCHEDULE						
NOTE: 1"SD" AND "SDS" SCREWS ARE MANUFACTURED BY SIMPSON STRONG-TIE. 2ALL SCREWS SHALL BE INSTALLED SO THAT HEADS ARE FLUSH WITH OUTSIDE MATERIAL. DO NOT OVERDRIVE SCREWS. SCREWS WITH WING-TIPS ARE NOT PERMITTED IN SHEAR WALLS OR DIAPHRAGMS.						
TYPE	DIAMETER	LENGTH				
16d COMMON	0.162"	3 1/2"				
10d COMMON	0.148"	3"				
8d COMMON	0.131"	2 1/2"				
#9 SD SCREW	0.131"	1 1/2" OR 2 1/2"				
#10 SD SCREW	0.161"	1 1/2" OR 2 1/2"				

VARIES 1 1/2"-8"

0.25"

#### PRE-FABRICATED WOOD TRUSS NOTES

- DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE PUBLICATION "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES", LATEST EDITION
- PROVIDE ALL PERMANENT TRUSS BRACING INDICATED ON DRAWINGS OR SPECIFIED BY TRUSS MANUFACTURER. IN ADDITION, PROVIDE TEMPORARY BRACING AS INDICATED IN THE TRUSS PLATE INSTITUTE BOOKLET "BRACING WOOD TRUSSES COMMENTARY AND RECOMMENDATIONS BWT-76".
- NO FIELD MODIFICATIONS OF TRUSSES ARE PERMITTED UNLESS FABRICATOR PROVIDES CALCULATIONS AND DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED ENGINEER (REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED).
- REFER TO "DEFERRED SUBMITTALS" FOR ADDITIONAL REQUIREMENTS.

PRE-FABRICATED WOOD ROOF TRUSSES - DESIGN CRITERIA TABLE					
TOP CHORD	20 psf LIVE LOAD 10 psf DEAD LOAD SNOW LOAD AND WIND LOAD PER ROOF PLAN AND NOTES				
BOTTOM CHORD	10 psf LIVE LOAD (NOT CONCURRENT WITH TOP CHORD LIVE LOAD) 5 psf DEAD LOAD				
WIND UPLIFT	PER "DESIGN LOADS" ON THESE GENERAL NOTES				
LOAD DURATION FACTOR	AS REQUIRED				
TRUSS SPACING	PER PLAN				
DEFLECTION LIMITS	L/240 MAXIMUM LIVE LOAD				
CAMBER	75 PERCENT OF DEAD LOAD				

#### SPECIAL INSPECTIONS

- REFER TO THE SPECIAL INSPECTION TABLES FOR THE LIST OF ELEMENTS OF CONSTRUCTION THAT SHALL REQUIRE SPECIAL INSPECTION. THIS SHALL BE CONSIDERED A GUIDE, AND THE CONTRACTOR AND INSPECTOR SHALL REFER TO THE IBC FOR COMPLETE REQUIREMENTS, QUALIFICATIONS, EXCEPTIONS, AND SUBMITTALS. REFER TO IBC CHAPTER 17. THE OWNER SHALL BE RESPONSIBLE FOR EMPLOYING THE SPECIAL INSPECTION AGENCY. ANY "OBSERVATIONS" BY THE EOR WILL NOT BE TO PERFORM SPECIAL INSPECTIONS AND SHALL NOT BE INTERPRETED AS SUCH.
- COPIES OF ALL INSPECTION REPORTS THAT REPORT COMPLIANCE SHALL BE SUBMITTED TO THE ARCHITECT OF RECORD, STRUCTURAL ENGINEER OF RECORD AND BUILDING INSPECTOR WITHIN 7 CALENDAR DAYS OF COMPLETION OF THAT PORTION OF WORK. A MINIMUM OF ONE (1) PROGRESS REPORT PER MONTH FOR EACH TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD.
- SPECIAL INSPECTOR SHALL INFORM ENGINEER OF RECORD IMMEDIATELY OF NON-COMPLIANCE WITH CONSTRUCTION DOCUMENTS OR APPROVED SUBMITTALS. CONTACT ENGINEER OF RECORD THE SAME DAY NON-COMPLIANCE IS DISCOVERED AND FOLLOW UP WITH AN OFFICIAL REPORT WITHIN 2 BUSINESS
- THE SPECIAL INSPECTIONS IDENTIFIED ON THE PLANS ARE IN ADDITION TO, AND NOT A SUBSTITUTE FOR THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A BUILDING INSPECTOR.
- SPECIAL INSPECTIONS ARE NOTED AS EITHER "CONTINUOUS" OR "PERIODIC". A "CONTINUOUS" INSPECTION REQUIRES THE PRESENCE OF A QUALIFIED INSPECTOR IN THE VICINITY OF THE WORK BEING PERFORMED FOR 100% OF THAT WORK. A "PERIODIC" INSPECTION REQUIRES PART-TIME OBSERVATION OF THE WORK BEING PERFORMED. THE INSPECTOR SHALL ALSO OBSERVE THE FINAL CONDITION OF THE WORK BEFORE IT IS CLOSED FROM VIEW.
- WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED. IT SHALL BE THE RESPONSIBILITY OF THE AGENT TO EMPLOY A SUFFICIENT NUMBER OF SPECIAL INSPECTORS TO ASSURE THAT ALL WORK IS CONTINUOUSLY INSPECTED IN ACCORDANCE WITH THOSE PROVISIONS.

SPECIAL INSPECTIONS - WOOD TABLE			
ITEM	INSPECTION FREQUENCY	SCOPE	
PREMANUFACTURED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES	-	SEE "OFF-SITE FABRICATION" SPECIAL INSPECTION TABLE	
DIAPHRAGM AND SHEAR WALL	PERIODIC	WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE MAIN LATERAL SYSTEM WHEN THE FASTENER SPACING IS LESS THAN OR EQUAL TO 4 INCHES ON CENTER	

SPECIAL INSPECTIONS - CONCRETE TABLE				
ITEM	INSPECTION FREQUENCY	SCOPE		
REINFORCEMENT	PERIODIC	INSPECT REINFORCEMENT (INCLUDING PRESTRESSING TENDONS) AND PLACEMENT; VERIFY CONFORMANCE WITH CONSTRUCTION DOCUMENTS, AND THAT BARS ARE FREE FROM MATERIALS THAT COULD PREVENT BOND, ARE ADEQUATELY LAPPED, SPLICED, TIED, AND SUPPORTED		
ANCHOR INSTALLATION	PERIODIC	INSPECT CAST-IN-PLACE ANCHORS AND BOLTS		
ANCHOR INSTALLATION	PERIODIC	INSPECT POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS NOT OTHERWISE SPECIFIED		
ANCHOR INSTALLATION	CONTINUOUS	INSPECT POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS PER THE REQUIREMENTS IN THEIR RESPECTIVE ICC-ES REPORTS		
MIX DESIGN	PERIODIC	VERIFY USE OF APPROVED MIX DESIGN		
SAMPLING AND TESTING	CONTINUOUS	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTING; PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE TEMPERATURE OF THE CONCRETE		
CONCRETE PLACEMENT	PERIODIC	VERIFY MAINTENANCE OF CURING TEMPERATURE AND TECHNIQUES		

<u>S</u>	SPECIAL INSPECTIONS - SOILS AND FOUNDATIONS TABLE			
ITEM	INSPECTION FREQUENCY	SCOPE		
SOILS	PERIODIC	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY; VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL; PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS; PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		
SOILS	CONTINUOUS	VERIFY USE OF PROPER MATERIALS, DENSITIES, LIFT THICKNESSES, AND COMPACTION OF FILL; VERIFY MATERIALS AND PROCEDURES COMPLY WITH THE GEOTECHNICAL REPORT		

SPECIAL INSPECTIONS - STEEL TABLE			
ITEM	INSPECTION FREQUENCY	SCOPE	
MATERIAL VERIFICATION	PERIODIC	HIGH STRENGTH BOLTS, NUTS, AND WASHERS: REVIEW MANUFACTURER'S CERTIFICATE OF COMPLIANCE; IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE CONSTRUCTION DOCUMENTS	
MATERIAL VERIFICATION	PERIODIC	STRUCTURAL STEEL: REVIEW MANUFACTURER'S CERTIFIED MILL TEST REPORTS; IDENTIFICATION MARKINGS ON STEEL SHAPES TO CONFORM TO AISC STANDARDS SPECIFIED IN THE CONSTRUCTION DOCUMENTS	
HIGH-STRENGTH BOLTING	PERIODIC	BEARING-TYPE CONNECTIONS: VERIFY BOLTS, NUTS, WASHERS, PAINT, INSTALLATION, AND TIGHTENING CONFORM TO THEIR RESPECTIVE STANDARDS	
WELDING	PERIODIC	SINGLE PASS FILLET WELDS NOT GREATER THAN 5/16"	
WELDING	PERIODIC	VERIFY WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706; ALL REINFORCING STEEL NOT REQUIRING CONTINUOUS INSPECTION	

(INCLUDING PRE-MANUFACTURED WOOD STRUCTURAL				
<u>EL</u>	EMENTS AND ASS	EMBLIES, AND STEEL FABRICATING)		
ITEM	INSPECTION FREQUENCY	SCOPE		
FABRICATION AND IMPLEMENTATION PROCEDURES	PERIODIC	VERIFY THAT FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS; REVIEW PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK		
NOTE	-	SPECIAL INSPECTION FOR OFF-SITE FABRICATION IS NOT REQUIRED FOR FABRICATORS APPROVED BY THE BUILDING OFFICIAL IN ACCORDANCE WITH THE CODE		

SPECIAL INSPECTIONS - OFF-SITE FABRICATION

**Bakery-Cafe:** 

SYSTEM: G4 (ARIA)



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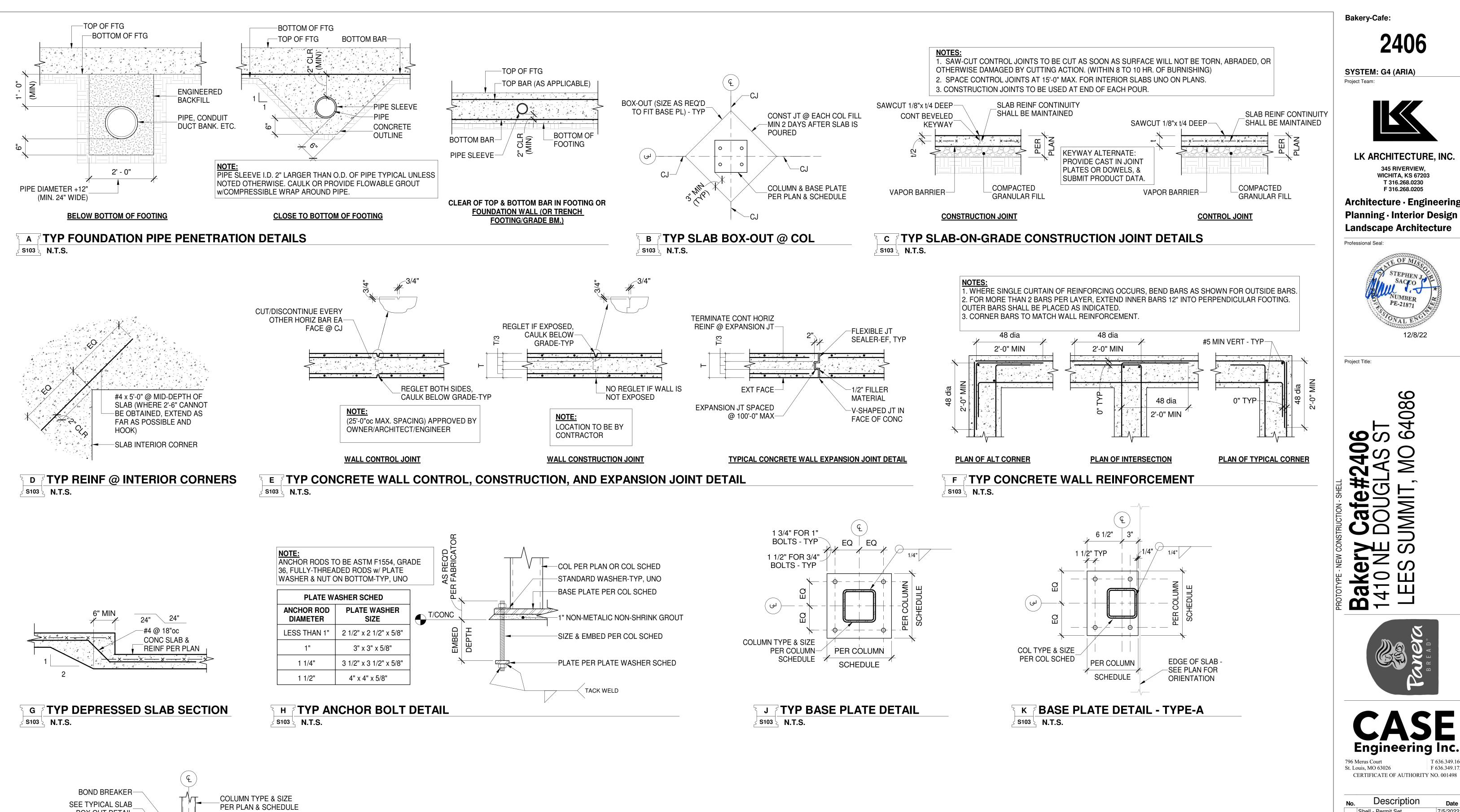
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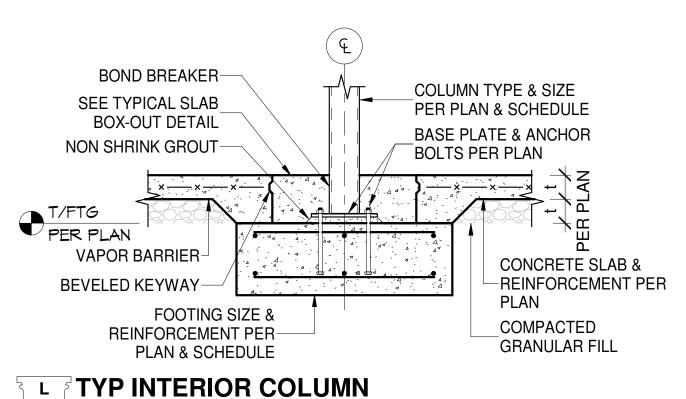
796 Merus Court St. Louis, MO 63026

Description 7/5/2022 Shell - Permit Set A | Shell - City Comments 8/19/2022 Shell - Construction Set 8/25/2022 12/09/2022 C Shell - Owner Revision

F 636.349.1730

**GENERAL NOTES** Project Number: LKA-MO-01-22





| S103 | N.T.S.

**Bakery-Cafe:** 

SYSTEM: G4 (ARIA) Project Team:



LK ARCHITECTURE, INC. 345 RIVERVIEW,

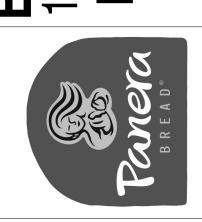
**WICHITA, KS 67203** T 316.268.0230 F 316.268.0205 **Architecture** · Engineering ·

Professional Seal:



Project Title:

**9** S 40 ery S S S S **Bake** 1410 LEE

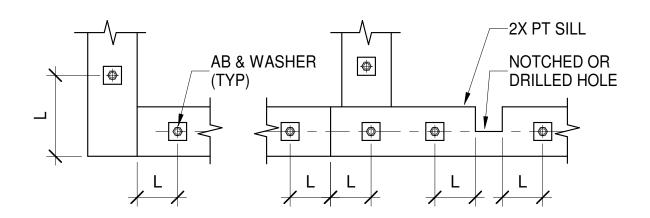




796 Merus Court St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. 001498

No.	Description	Date
	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

**TYPICAL DETAILS** Project Number: LKA-MO-01-22



#### NOTES:

- TYPICAL ANCHOR BOLT END DISTANCE  $L = 4 \frac{1}{2}$ " MIN, 12" MAX.
- ANCHOR BOLTS SHALL BE INSTALLED AT 12" MAXIMUM FROM EACH END OF EACH SILL PLATE PIECE, AND SHALL BE SPACED AT 48" ON CENTER MAXIMUM. SEE TYPICAL SHEAR WALL DETAIL FOR ANCHOR BOLT SPACING AT SHEAR WALLS
- WHERE SILL PLATE IS NOTCHED, DRILLED OR CUT MORE THAN ONE THIRD OF ITS WIDTH, INSTALL ANCHOR BOLT EACH SIDE AS SHOWN. NOTCHES, CUTS AND HOLES SHALL BE TREATED WITH A PRESERVATIVE SOLUTION CONFORMING TO AWPA STANDARD
- ANCHOR BOLTS SHALL BE 5/8" DIAMETER FULLY THREADED WITH 3"x3" x 0.229" PLATE WASHERS, UNLESS OTHERWISE NOTED.
- MINIMUM ANCHOR BOLT EMBEDMENT SHALL BE 7", MEASURED FROM TOP OF THE CONCRETE SLAB. FOR ANCHOR BOLTS EMBEDED IN CONCRETE CURBS **NOT** POURED MONOLITHICALLY WITH THE FOUNDATION (NON-INTEGRAL CURBS), THE LENGTH OF ANCHOR BOLT IN CONCRETE CURBS SHALL NOT APPLY TO THIS MINIMUM EMBEDMENT
- ANCHOR BOLTS WITH DAMAGED THREADS SHALL NOT BE USED
- WHERE SILL PLATE ANCHORS MUST BE POST-INSTALLED, PROVIDE 3/4"dia x 8 1/2" SIMPSON TITEN HD STAINLESS STEEL SCREW ANCHORS (INTEGRAL CURBS ONLY, OR NO CURB), OR 5/8"dia x (8 1/2" + CURB HEIGHT) STAINLESS STEEL THREADED ROD ANCHORS INSTALL w/ HILTI HIT-HY 200 ADHESIVE OR EQUIVALENT. POST-INSTALLED ANCHORS SHALL NOT REPLACE HOLDOWN ANCHOR BOLTS UNLESS ALLOWED IN THE HOLDOWN SCHEDULE.

#### EDGE STUDS PER SCHED WALL SHTG PER SCHED **SCREWS PER HOLDOWN** SCHED PER SCHED STEM WALL, CONC LUG, OR SILL PLATE **SLAB TURNDOWN** PER SCHED WHERE OCCURS T/FTG PER PLAN-HOLDOWN AB PER SCHED

**HOLDOWN AT FOUNDATION** 

3 - 2x	HDU8-SDS2.5	N/A	20	SSTB28	
6x	HHDU14-SDS2.5	N/A	36	SSTB36	
6x6	HD19	(5) 1" dia THRU BOLTS	N/A	N/A	

N/A

**FASTENERS** 

HOLDOWN SCHEDULE

1/4"x2.5"

STUD

**SCWS** 

AB

(CIP)

-WOOD TRUSS OR JST

**TRANSV** 

BLKG

NO

FN

SPCG

12"

**EDGE** 

MEMBER

THICK

12 5/8"

(POST-

INSTALLED)

14"

16"

"X" INDICATES

**ROOF PANEL** 

(NOT STRAP

**BRACING**)

(POST-

INSTALLED)

5/8" GR.36

7/8" GR.36

1" GR.36

1 1/4" GR.36

**D** 

EDGE

2 - 2x

MARK STUDS

SIMPSON

HOLDOWN

HDU2-SDS2.5

- HOLDOWN ANCHOR BOLTS SHALL BE HOT-DIPPED GALVANIZED (ASTM A153). CONTRACTOR MAY CHOOSE CAST-IN-PLACE OR POST-INSTALLED OPTION. ADHERE WITH HILTI HIT-HY 200 SAFE SET SYSTEM ADHESIVE FOR POST-INSTALLED OPTION. IF "N/A" IS SHOWN. POST-INSTALLED OPTION IS NOT ALLOWED
- THICKENED FOOTING WHERE REQUIRED TO ACHIEVE MINIMUM ANCHOR BOLT EMBEDMENT WHERE HOLDOWN OCCURS ADJACENT TO A POST ON THE PLAN, USE THE LARGER OF THE
- INDICATED POST OR THE SCHEDULE EDGE STUDS. "THRU BOLTS" TO BE STRUCTURAL QUALITY EQUAL TO OR BETTER THAN ASTM A307, GRADE A.
- HD19 w/1 1/4" ANCHOR ROD REQUIRES NO. 1 OR BETTER EDGE STUDS.

TRANSVERSE JOINT

EDGE NAILING (EN)

2x4 FLAT BLKG WHERE REQD,

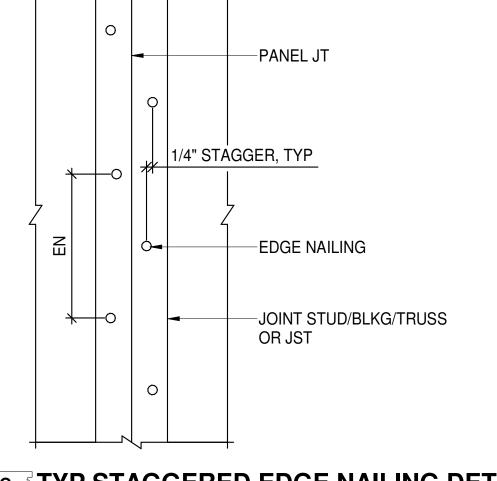
19/32" 3

TOENAIL 2 - 8d EA END

IZE

LUMBER SCHEDULE FOR REQUIREMENTS.

SHTG PER SCHED-



C TYP STAGGERED EDGE NAILING DETAIL ያ S104 է **N.T.S**.

\_\_\_\_\_\_\_

F=======

**BOUNDARY OF** 

**BOUNDARY** 

SCHED)

SUPPORTS

**EDGES** 

-3/8" MIN EDGE

-SIZE & SPCG

PER FRMG PLAN

PROVIDE 1/8" GAP

BTWN ALL PANEL

**ENDS & EDGES - TYP** 

NAILING (BN)

EXTEND BEYOND

DIAPHRAGM (SHTG MAY

**DIAPHRAGM BOUNDARY)** 

**BLKG @ TRANSVERSE** 

-JOINTS IF REQD (SEE

FIELD NAILING (FN)

AT INTERMEDIATE

**CENTER EDGES OF** 

STAGGER EDGE NAILING

-(EN) @ ADJOINING PNL

**DIST FOR NAILS-TYP** 

WOOD TRUSS OR JST

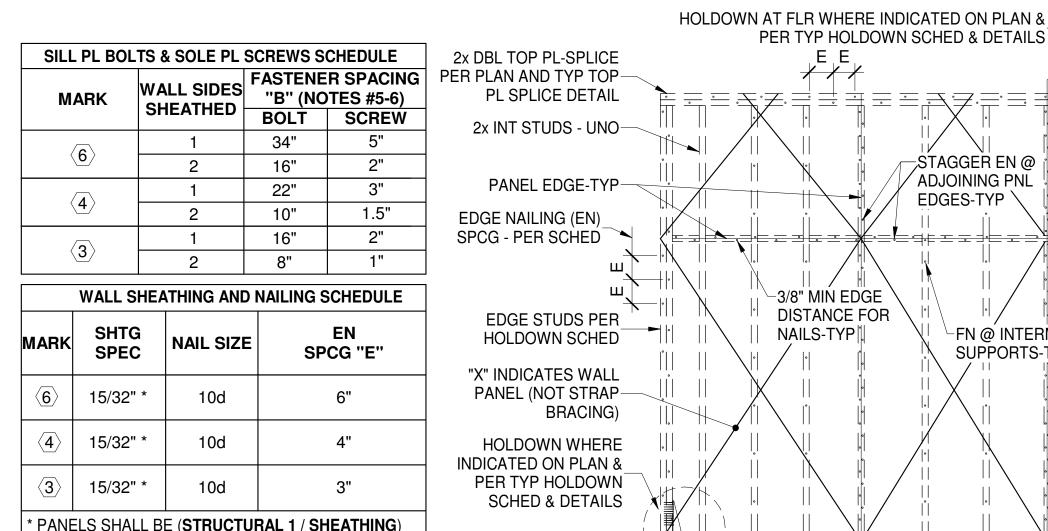
SHT'G ON FRMG

## В TYP HOLDOWN SCHEDULE & DETAILS

ያ S104 ኒ **N.T.S.** 

#### TYP SILL PLATE ANCHOR BOLT DETAIL

┆S104 ⊱ **N.T.S.** 



PER TYP HOLDOWN SCHED & DETAILS LOCATION WHERE SHTG EXTENDS PAST TOP PL DBL 2x END STUD OR POST PER PLAN (WHERE NO HOLDOWN OCCURS) CENTER SHTG ON STUD STAGGER EN @ **ADJOINING PNI** FULL-DEPTH BLKG @ **EDGES-TYP** PANEL EDGES, DBL 2x BLKG WHERE SHEAR WALL SHTG REQ'D ON **BOTH SIDES - TYP** STAGGER EDGE NAILING @ JT STUD & BLKG PER FN @ INTERMEDIATE TYP EDGE NAILING DETAIL SUPPORTS-TYP

SILL PLATE BOLT /

SOLE PL SCREW SPCG, "B"

JT STUD @ PNL EDGES, DBL 2x -JT STUD WHERE SHEAR WALL SHTG REQD ON BOTH SIDES

-SILL PL @ GROUND LEVEL/SOLE PL @ ELEVATED LEVELS

AB PER NOTE #5 @ GROUND LEVEL/SOLE PL SCREWS @ ELEVATED LEVELS PER NOTE #6

S104 \ N.T.S.

MARK

DIAPHRAGM SHEATHING NAILS SHALL BE DRIVEN SO THAT THEIR HEADS ARE FLUSH WITH THE SURFACE OF THE SHEATHING PROVIDE T & G SHEATHING AT ALL FLOORS. ALTERNATIVELY, USE PSCL

**SECTION A-A** 

DIAPHRAGM SHEATHING & NAILING SCHEDULE

ΕN

SPCG

BN

SPCG

\* PANELS SHALL BE (**STRUCTURAL 1/SHEATHING**) GRADE, SEE

- 19/32 CLIPS BY SIMPSON STRONG-TIE OR APPROVED EQUAL. 10d COMMON NAILS CAN BE SUBSTITUTED WITH #9 x 2" SCREW WSV2 BY
- SIMPSON STRONG-TIE.

# **TETTYP ROOF SHEATHING DETAIL**

FIELD NAILING (FN): 10d @ 12"oc.

GRADE, SEE LUMBER SCHEDULE FOR

REQUIREMENTS.

NOTES:

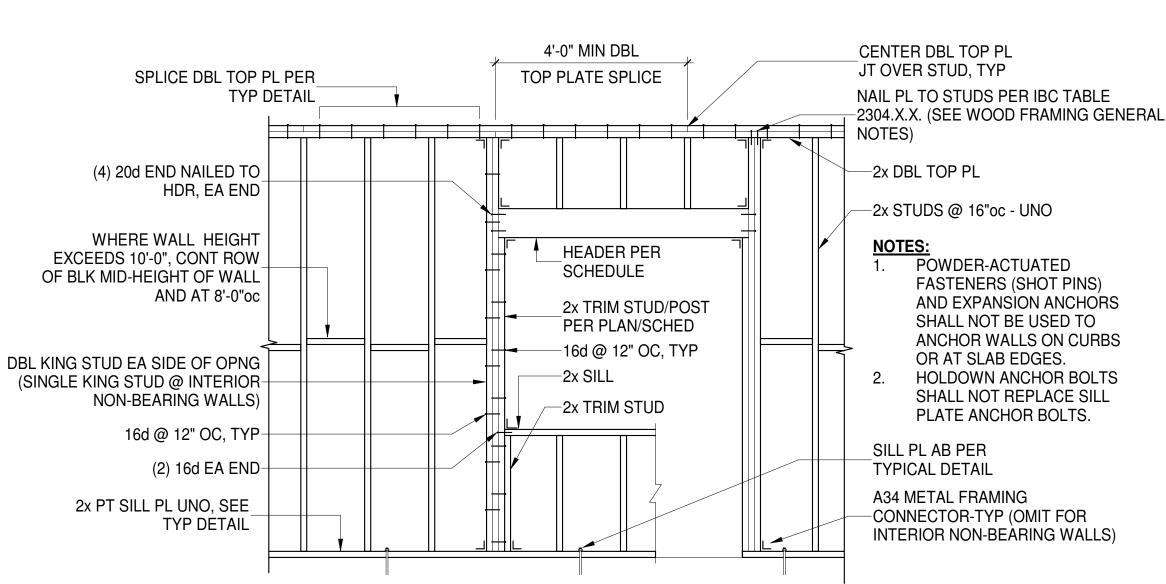
- ALL NAILS SHALL BE COMMON OR BOX WIRE NAILS
- MINIMUM DIMENSION OF ANY SHEATHING SHEET EQUALS 16" OR STUD SPACING, WHICHEVER IS GREATER
- ALL SHEAR WALL SHEATHING PANEL EDGES SHALL BE FULLY BLOCKED WITH FULL DEPTH 2x STUD BLOCKING-TYP-UNO SILL PLATES SHALL BE FASTENED WITH 5/8"dia x 7"LG EMBED ANCHOR BOLTS PER FASTENER SPACING "B" IN SCHEDULE ABOVE
- ALTERNATIVELY, USE 5/8" x 8"LG SIMPSON TITEN HD SCREW ANCHORS. BOTH OPTIONS REQUIRE 3"x3"x0.229" PLATE WASHERS AT EACH AB.
- SOLE PLATES SHALL BE FASTENED WITH 1/4"dia (#14) x 4 1/2"LG WOOD SCREWS PER SCREW FASTENERS SPACING "B" IN SCHEDULE ABOVE PRE-DRILL HOLES FOR #14 WOOD SCREWS PER NDS 12.1.5.3 ALTERNATIVELY, CONTRACTOR MAY USE SIMPSON STRONG-TIE SDS25412 STRONG-DRIVE SCREWS AND DOUBLE THE SCREW SPACING PER THE SCHEDULE ABOVE. NO PRE-DRILLING REQUIRED FOR SDS SCREWS.

EN, TYP-

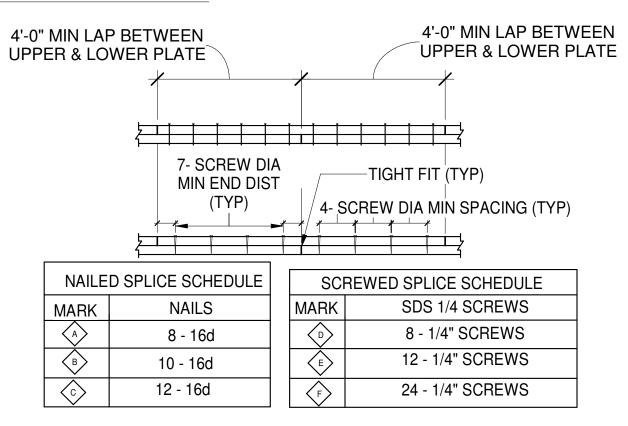
#### D TYP SHEAR WALL SHEATHING AND FASTENER SCHEDULE

Տ104 է **N.T.S.** 

∫ S104 է N.T.S.



# F TYP STRUCTURAL WALL PANEL FRAMING ELEVATION

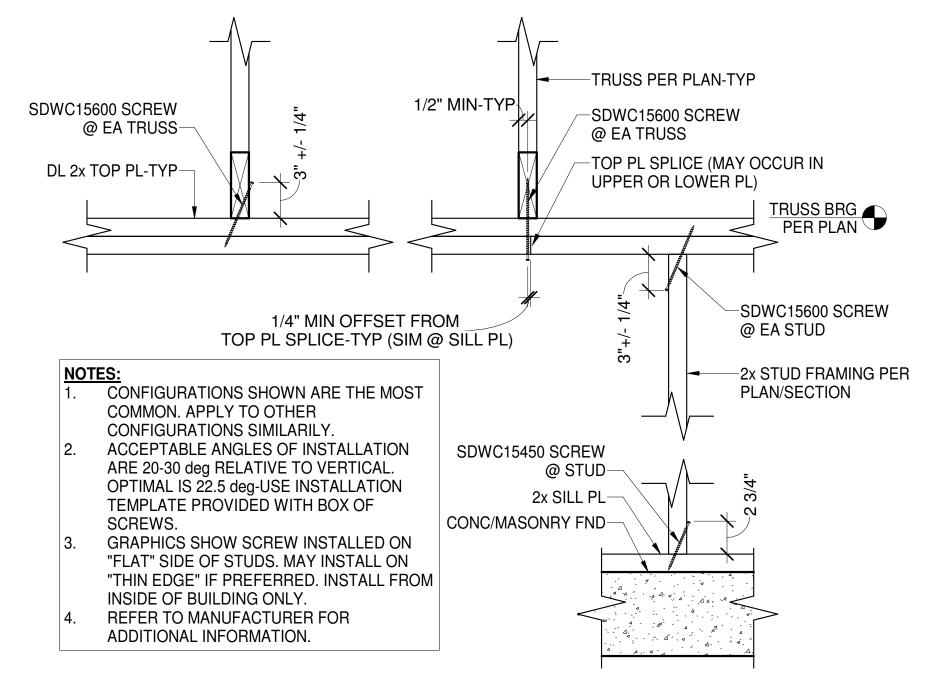


#### NOTES:

- 1. SPLICE 2x DOUBLE TOP PLATES PER MARK "A" AND 3x DOUBLE TOP PLATES PER MARK "D" OF THE ABOVE SCHEDULE, UNLESS OTHERWISE INDICATED.
- 2. SCREWS SHALL BE 3" LONG FOR 2x PLATES AND 5" LONG FOR 3x PLATES. 3. JOINTS IN UPPER AND LOWER PLATE SHALL BE CENTERED OVER STUD OR MULLION.
- 4. ALL NAILS SHALL BE COMMON WIRE NAILS. 5. SCHEDULE INDICATES NUMBER OF NAILS OR SCREWS ON EACH SIDE OF
- EACH JOINT.

#### G TYP TOP PLATE SPLICE DETAIL

S104 \ N.T.S.



H TYP SIMPSON SDWC TRUSS SCREW DETAIL

S104 \ N.T.S.

**Bakery-Cafe:** 

Project Team:

**SYSTEM: G4 (ARIA)** 



LK ARCHITECTURE, INC

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**Architecture** · **Engineering** · **Planning · Interior Design Landscape Architecture** 

Professional Seal:



Project Title:

4086 9 8 **40 (**) S III ¥° ü <u>a</u>,4

**m** ~

Engineering Inc.

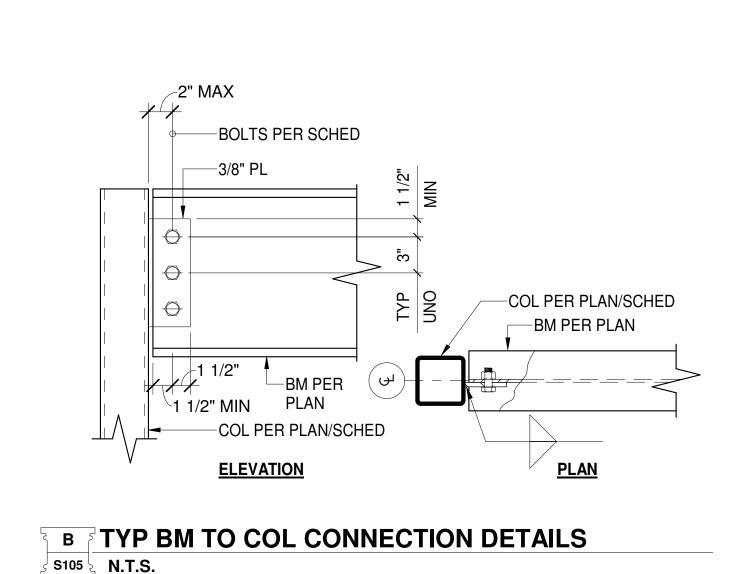
796 Merus Court St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. 001498

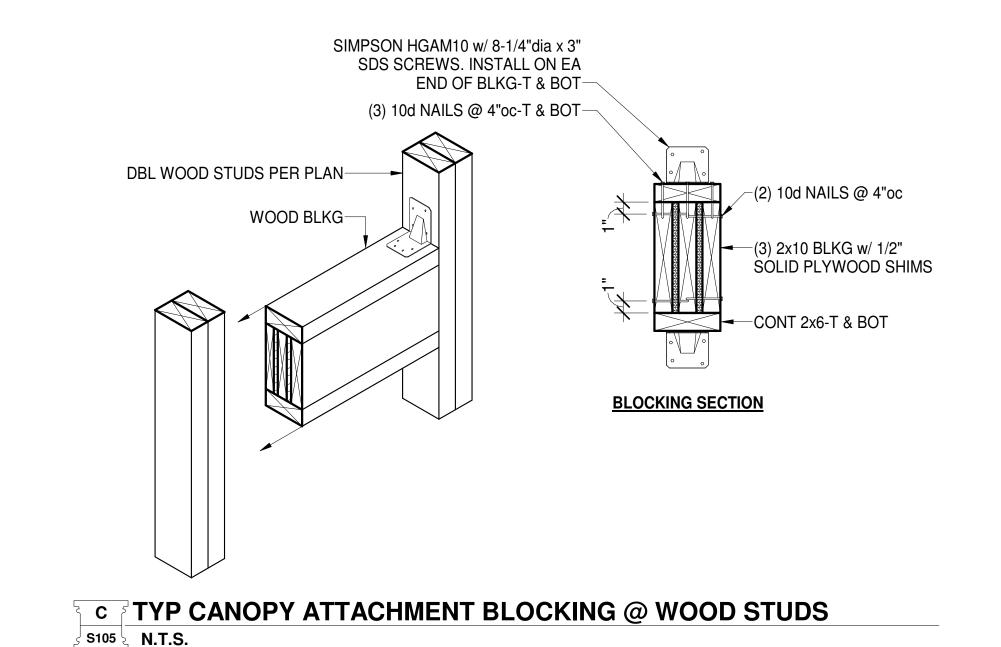
Description Shell - Permit Set 7/5/2022 A Shell - City Comments 8/19/2022 Shell - Construction Set 8/25/2022 C Shell - Owner Revision 12/09/2022

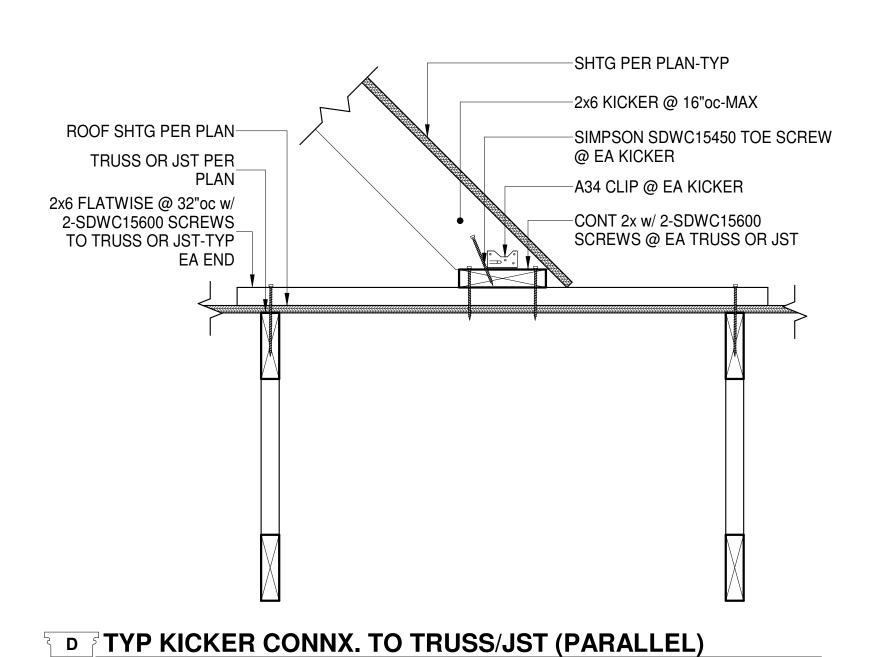
TYPICAL DETAILS Project Number: LKA-MO-01-22 Drawn By:

Issue Date:

07.05.2022 DPM:







SIMPSON PDPAW-250

@ 16"oc STAGGERED

-2x NAILER

STEEL FRAMING

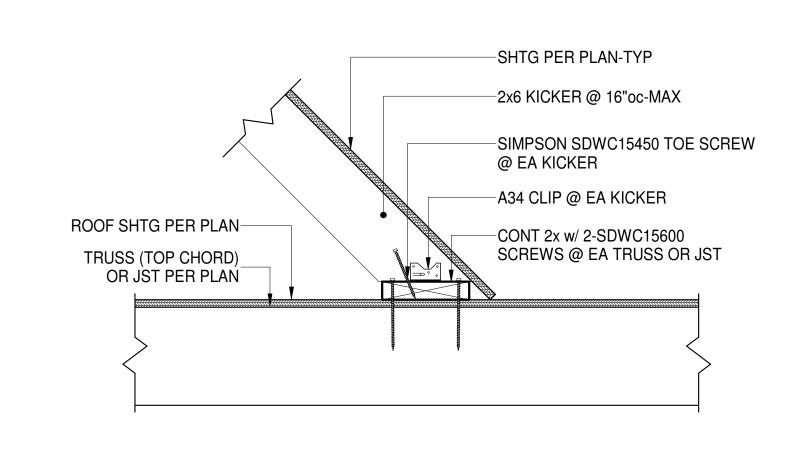
MEMBER PER PLAN

1/4" MAX

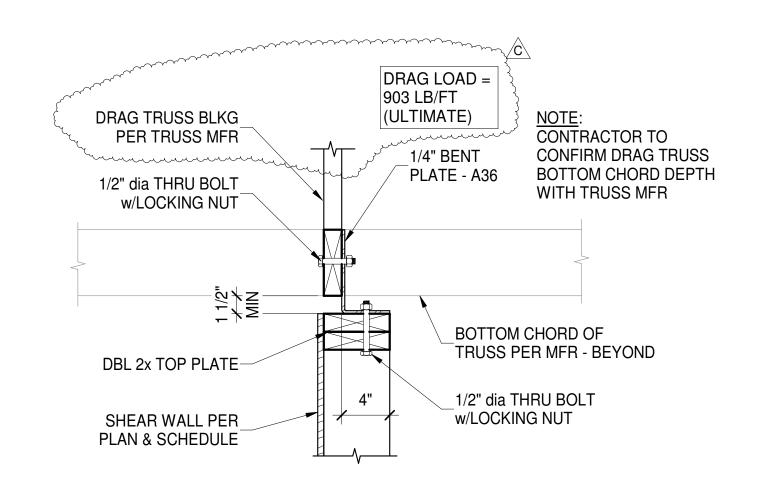
∫ S105 է N.T.S.

1/8" MIN - TYP 7

TYP NAILER ON BEAM-NAILED



E TYP KICKER CONNX. TO TRUSS/JST (PERPENDICULAR)
S105 N.T.S.



TRUSS PER PLAN - TYP

2 1/2" 8" 8" 2 1/2"

1/4" BENT PLATE - A36

NUTS

SHEAR WALL NOT SHOWN FOR CLARITY

FOR CLARITY

EQ 1'-9"

TRUSS PER PLAN - TYP

1/4" BENT PLATE - A36

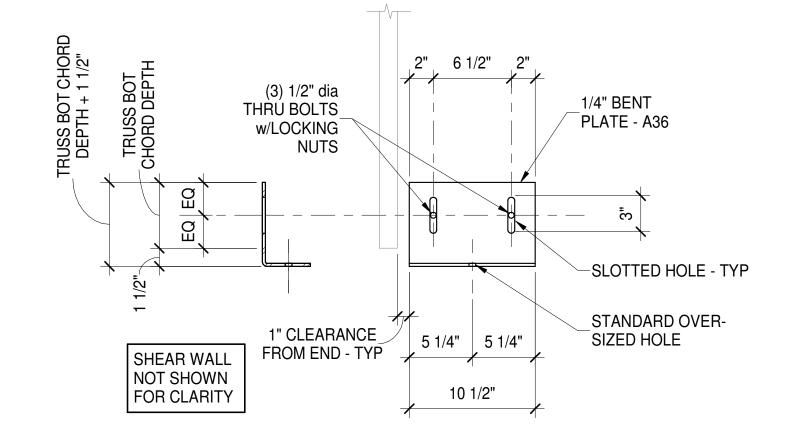
1/4" BENT PLATE - A36

1'-9"

EQ 1'-9"

EQ 1'-9"

EQ EQ



F SECTION - DRAG TRUSS TO SHEAR WALL CONNECTION
1 1/2" = 1'-0"

G BENT PLATE AT INTERMEDIATE DRAG TRUSS
S105 1 1/2" = 1'-0"

H BENT PLATE AT END DRAG TRUSS
S105 N.T.S.

Bakery-Cafe:

2406

SYSTEM: G4 (ARIA)

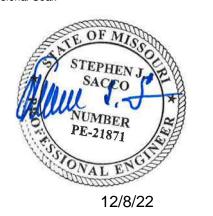


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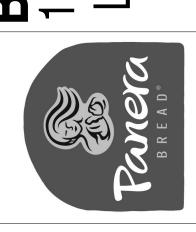
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Project Title:

Bakery Cafe#2406 1410 NE DOUGLAS ST LEES SUMMIT, MO 6408





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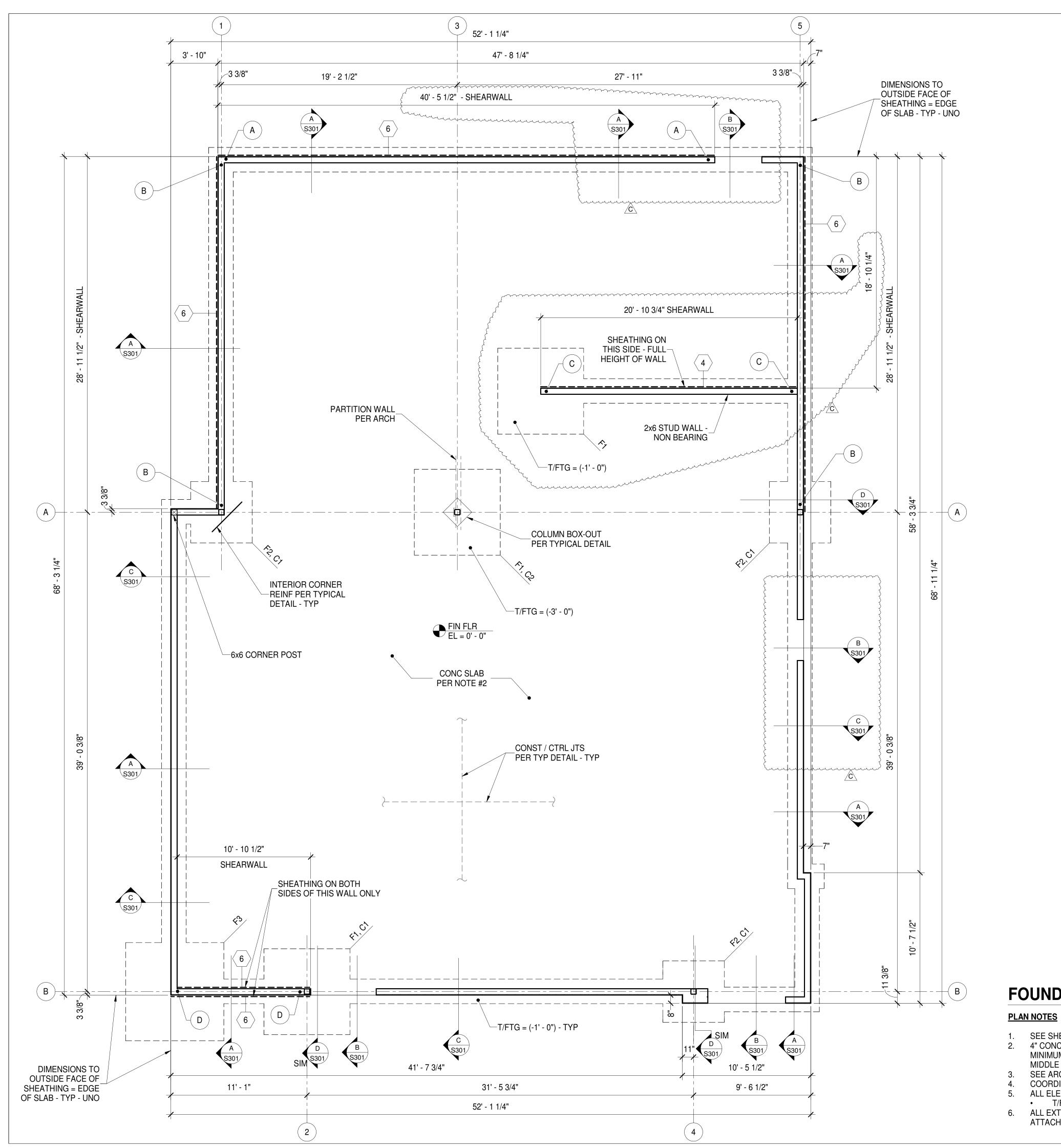
No.	Description	Date
	Shell - Permit Set	7/5/2022
A	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

Project Number: Sheet Number:

LKA-MO-01-22
Drawn By:

KG AC/S.IS

AC/SJS S 10 S 2022 M: DM: CPM:



Bakery-Cafe:

SYSTEM: G4 (ARIA)



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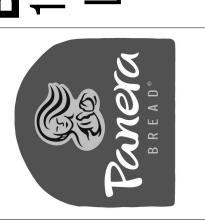
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**Bake** 1410 LEE



**Engineering Inc.** 

St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. 001498

No.	Description	Date
	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022
С	Shell - Owner Revision	12/09/2022

## **FOUNDATION PLAN**

MARK

F2

F3

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

LEGEND - FOUNDATION PLAN

 $\prec$  X angle ightharpoonup Indicates wood shear wall sheathing per typical detail

INDICATES POST OR COLUMN PER SCHEDULE (NOTE THAT

INDICATES HOLDOWN PER TYPICAL DETAIL

SOME POSTS REQUIRE HOLDOWNS)

-INDICATES EDGE OF SLAB AT DOOR OPENING

INDICATES STRUCTURAL WALL FRAMED WITH 2x6

**COLUMN SCHEDULE** 

BASE PLATE

DETAIL K / S103

J / S103

FOOTING SCHEDULE

16" x 16" x 3/4" SEE DETAIL 4 - 3/4"dia w/9" EMBED

ANCHOR BOLTS

4 - 3/4"dia w/16" EMBED

REINFORCING

8 - #5 EW TOP & BOT 6 - #5 EW TOP & BOT

10 - #5 EW TOP & BOT

-INDICATES EDGE OF FOOTING

HSS 5 1/2" x 5 1/2" x 3/8" 12" x 9 1/2" x 3/4" SEE

STUDS @ 16"oc

SIZE

HSS 6" x 6" x 1/4"

SIZE

7'-0" x 7'-0" x 1'-6"

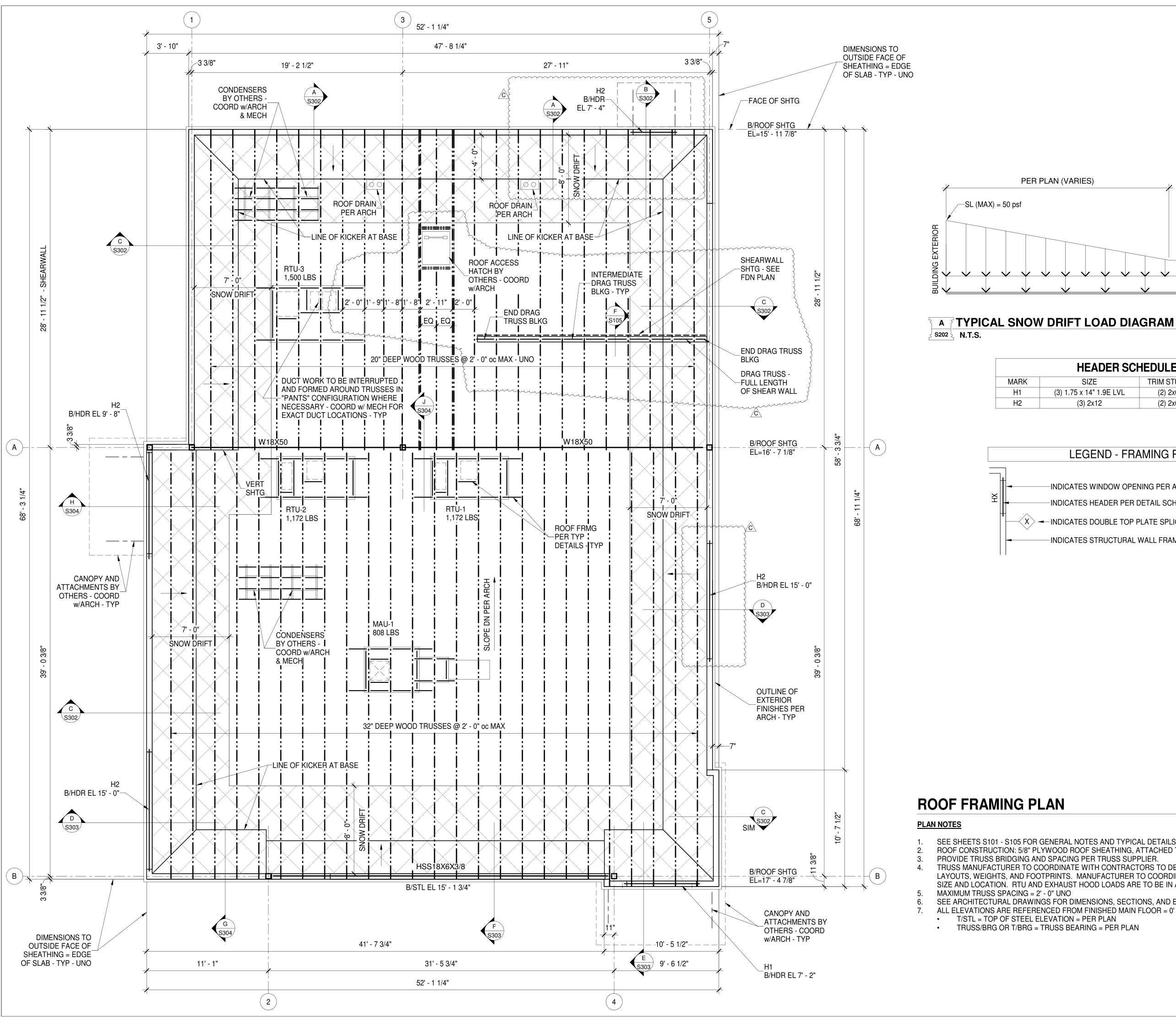
5'-0" x5'-0" x 1'-6"

8'-0" x 8'-0" x 1'-6"

- SEE SHEETS S101 S105 FOR GENERAL NOTES AND TYPICAL DETAILS. 4" CONCRETE SLAB REINFORCED WITH ONE LAYER OF 6x6 - W1.4xW1.4 WWR ON 10 MIL. POLY VAPOR BARRIER OVER 4" MINIMUM COMPACTED SUB-BASE AS RECOMMENDED BY THE SOILS REPORT). REINFORCEMENT TO BE LOCATED IN THE
- MIDDLE OF THE SLAB. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, SECTIONS, AND ELEVATIONS NOT SHOWN HEREON.
- COORDINATE SIZE AND LOCATION OF ROUGH OPENINGS IN FLOOR OR WALLS WITH ARCHITECTURAL DRAWINGS.
- ALL ELEVATIONS ARE REFERENCED FROM FINISHED MAIN FLOOR = 0' 0"
- T/FTG = TOP OF FOOTING = PER PLAN ALL EXTERIOR WALL SHEATHING NOT SPECIFIED AS "SHEAR WALL SHEATHING" IS TO BE 1/2" OSB SHEATHING AND ATTACHED PER IBC TABLE 2304.9.1 UNLESS OTHERWISE INDICATED BY ARCHITECT.

**FOUNDATION PLAN** Project Number:

LKA-MO-01-22



Bakery-Cafe:

SYSTEM: G4 (ARIA)

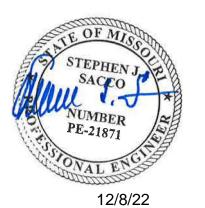


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Professional Seal:



Project Title:

DEAD = 20 PSF WIND = 10 PSF

64086 406 4S ST **3ak** 410 LEE



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Description	Date
Shell - Permit Set	7/5/2022
Shell - City Comments	8/19/2022
Shell - Construction Set	8/25/2022
Shell - Owner Revision	12/09/2022
	Shell - Permit Set Shell - City Comments Shell - Construction Set

**ROOF FRAMING PLAN** 

Project Number: LKA-MO-01-22

796 Merus Court St. Louis, MO 63026

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

Sheet Number:

**ROOF FRAMING PLAN** 

SEE SHEETS S101 - S105 FOR GENERAL NOTES AND TYPICAL DETAILS.

PER PLAN (VARIES)

MARK

H2

**HEADER SCHEDULE** 

LEGEND - FRAMING PLAN

-INDICATES HEADER PER DETAIL SCHEDULE

✓ X → INDICATES DOUBLE TOP PLATE SPLICE PER TYPICAL DETAIL

SIZE

(3) 1.75 x 14" 1.9E LVL

(3) 2x12

TRIM STUDS

(2) 2x6

(2) 2x6

-INDICATES WINDOW OPENING PER ARCHITECTURAL DRAWINGS

-INDICATES STRUCTURAL WALL FRAMED WITH 2x6 STUDS @ 16"oc

KING STUDS

(2) 2x6

(3) 2x6

ROOF CONSTRUCTION: 5/8" PLYWOOD ROOF SHEATHING, ATTACHED TO SUPPORTS PER MARK R1.

PROVIDE TRUSS BRIDGING AND SPACING PER TRUSS SUPPLIER.

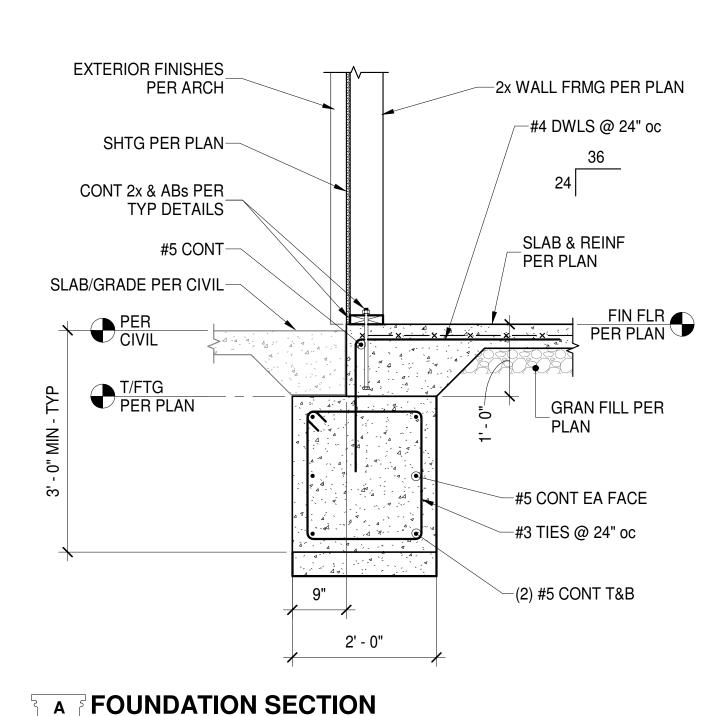
TRUSS MANUFACTURER TO COORDINATE WITH CONTRACTORS TO DETERMINE RTU AND TRANSFORMER LAYOUTS, WEIGHTS, AND FOOTPRINTS. MANUFACTURER TO COORDINATE WITH ROOF HATCH SUPPLIER FOR SIZE AND LOCATION. RTU AND EXHAUST HOOD LOADS ARE TO BE IN ADDITION TO OTHER DESIGN LOADS.

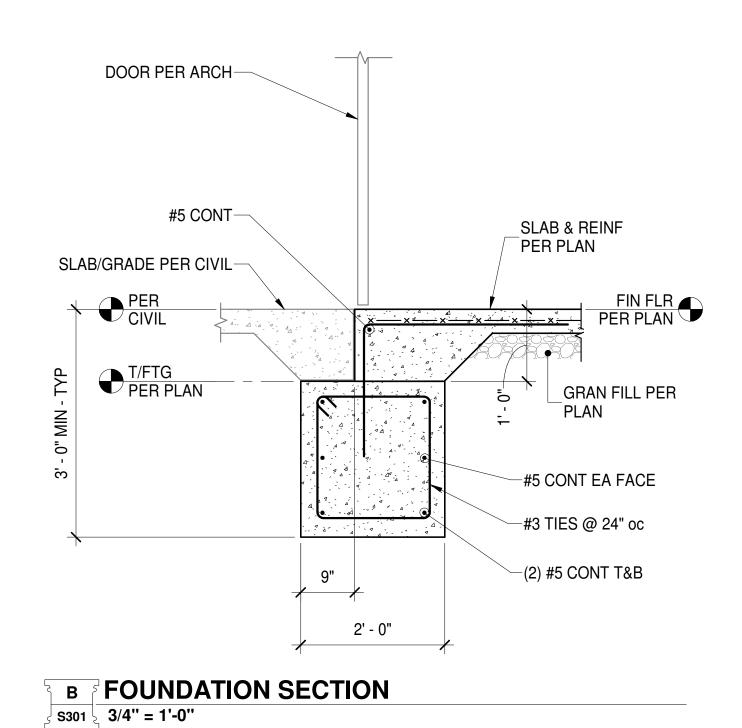
MAXIMUM TRUSS SPACING = 2' - 0" UNO

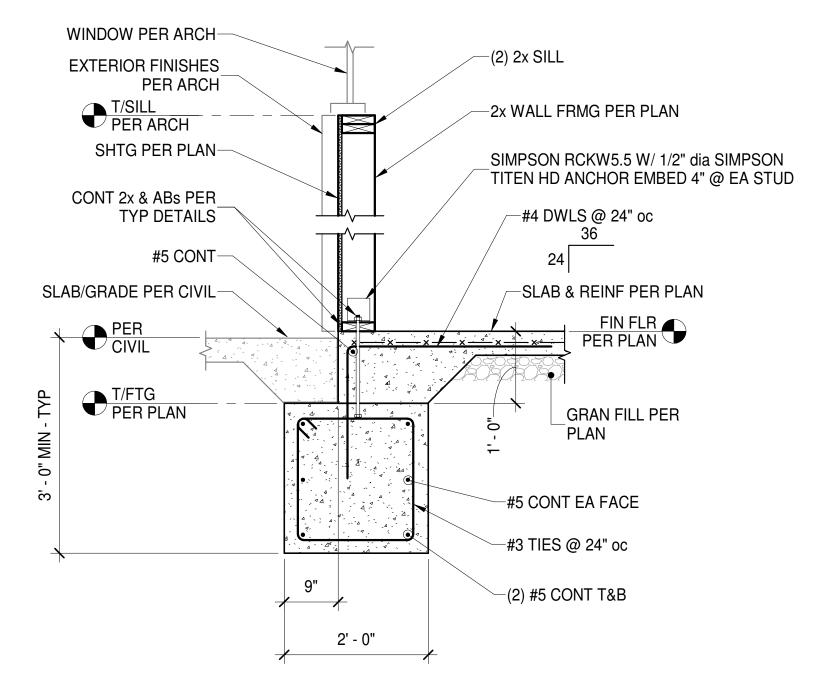
SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, SECTIONS, AND ELEVATIONS NOT SHOWN HEREON.

ALL ELEVATIONS ARE REFERENCED FROM FINISHED MAIN FLOOR = 0' - 0"

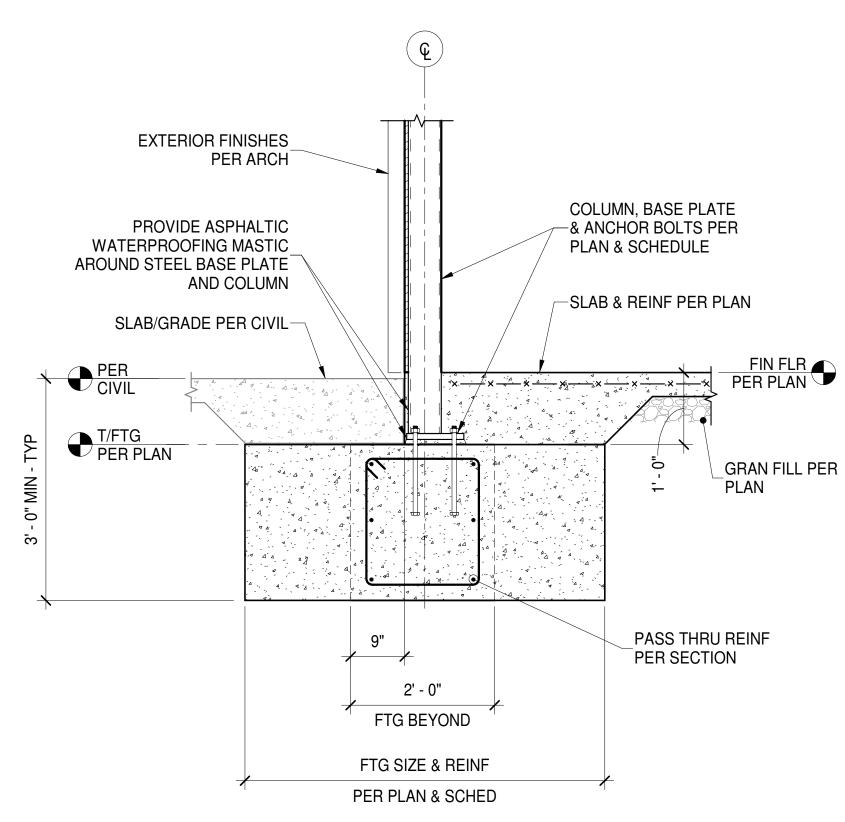
T/STL = TOP OF STEEL ELEVATION = PER PLAN TRUSS/BRG OR T/BRG = TRUSS BEARING = PER PLAN











FOUNDATION SECTION S301 3/4" = 1'-0"

S301 3/4" = 1'-0"

406 \S ST Bakery 1410 NE LEES SL

Bakery-Cafe:

Project Team:

Professional Seal:

Project Title:

SYSTEM: G4 (ARIA)

LK ARCHITECTURE, INC.

345 RIVERVIEW, WICHITA, KS 67203 T 316.268.0230 F 316.268.0205

**Architecture** · Engineering ·

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64086

**Landscape Architecture** 





St. Louis, MO 63026

No.	Description	Date
	Shell - Permit Set	7/5/2022
Α	Shell - City Comments	8/19/2022
В	Shell - Construction Set	8/25/2022

CERTIFICATE OF AUTHORITY NO. 001498

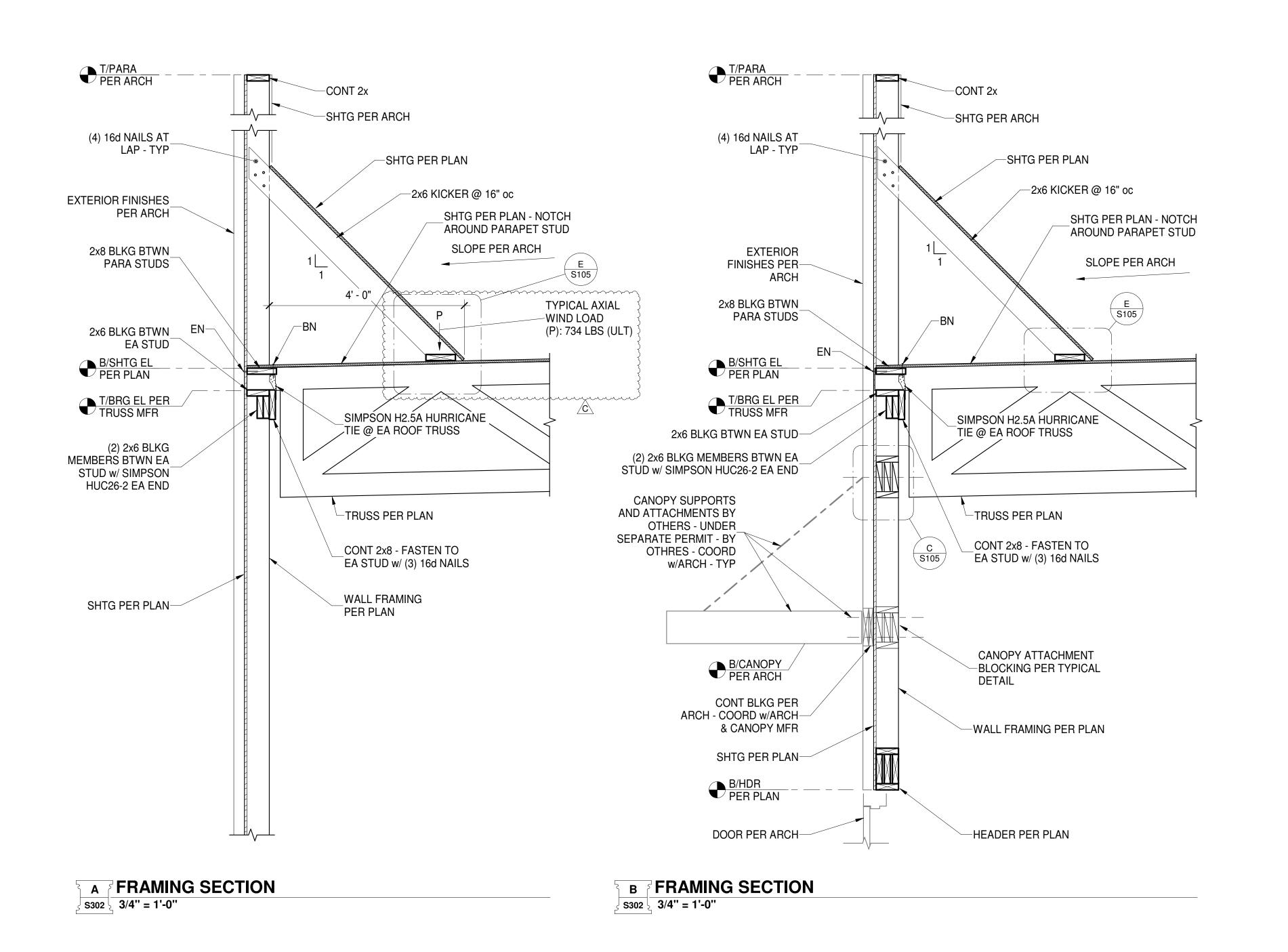
F 636.349.1730

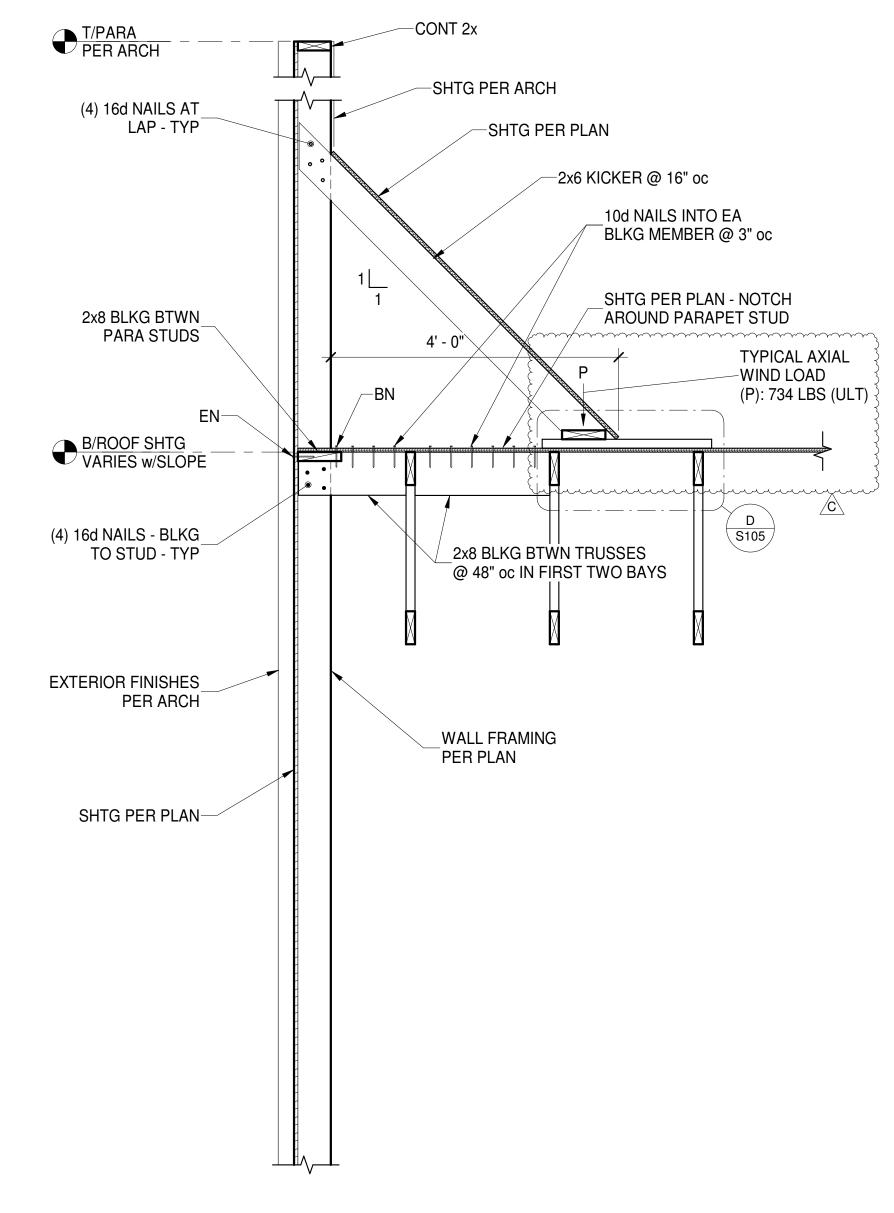
12/09/2022

# **FOUNDATION SECTIONS**

C Shell - Owner Revision

Project Number: Sheet Number: LKA-MO-01-22





c FRAMING SECTION

S302 3/4" = 1'-0"

Bakery Cafe#1410 NE DOUG

406 \S ST

Bakery-Cafe:

Project Team:

Professional Seal:

Project Title:

SYSTEM: G4 (ARIA)

LK ARCHITECTURE, INC.

345 RIVERVIEW, WICHITA, KS 67203

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No.	Description	Date
	Shell - Permit Set	7/5/2022
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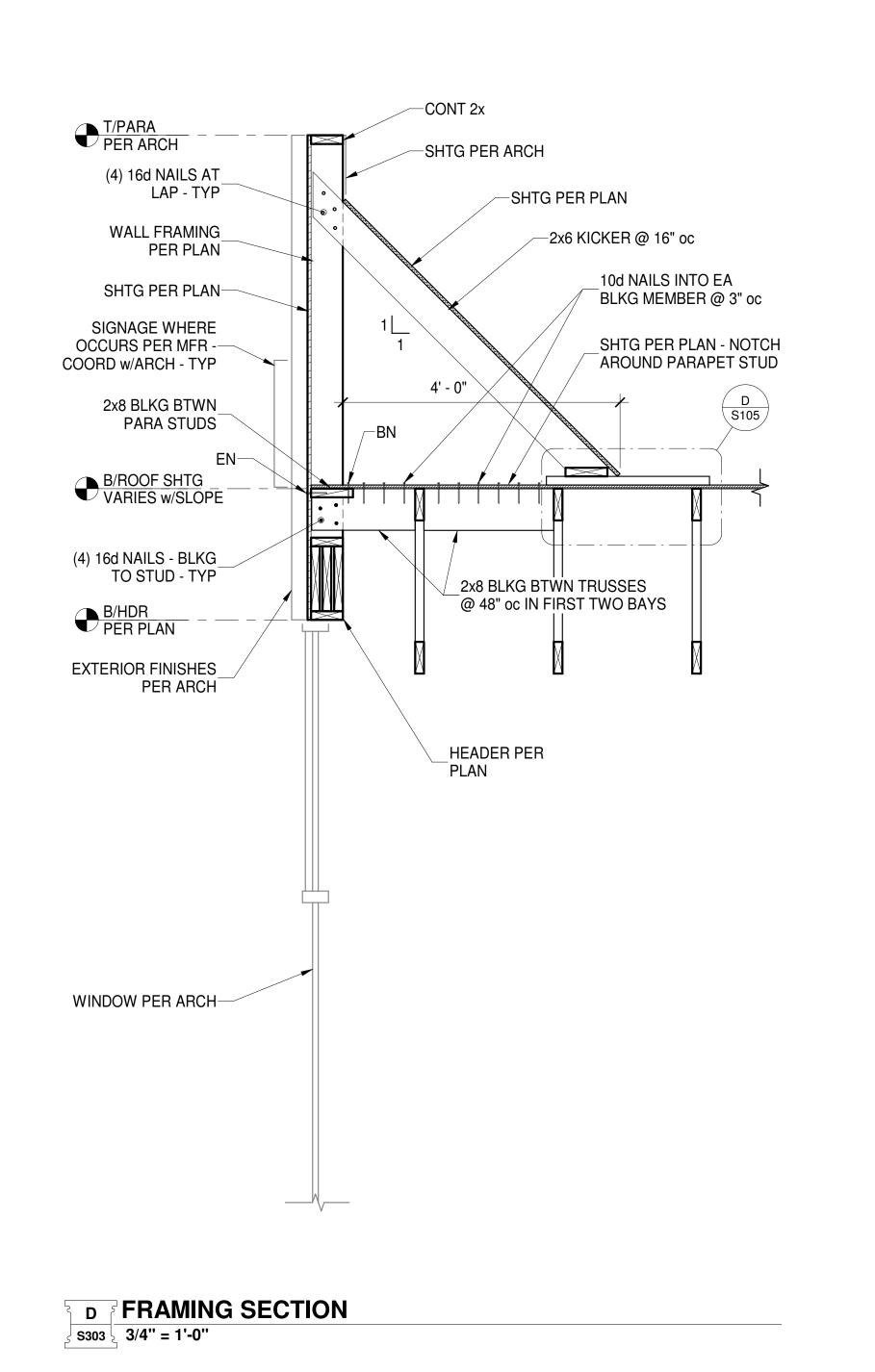
FRAMING SECTIONS

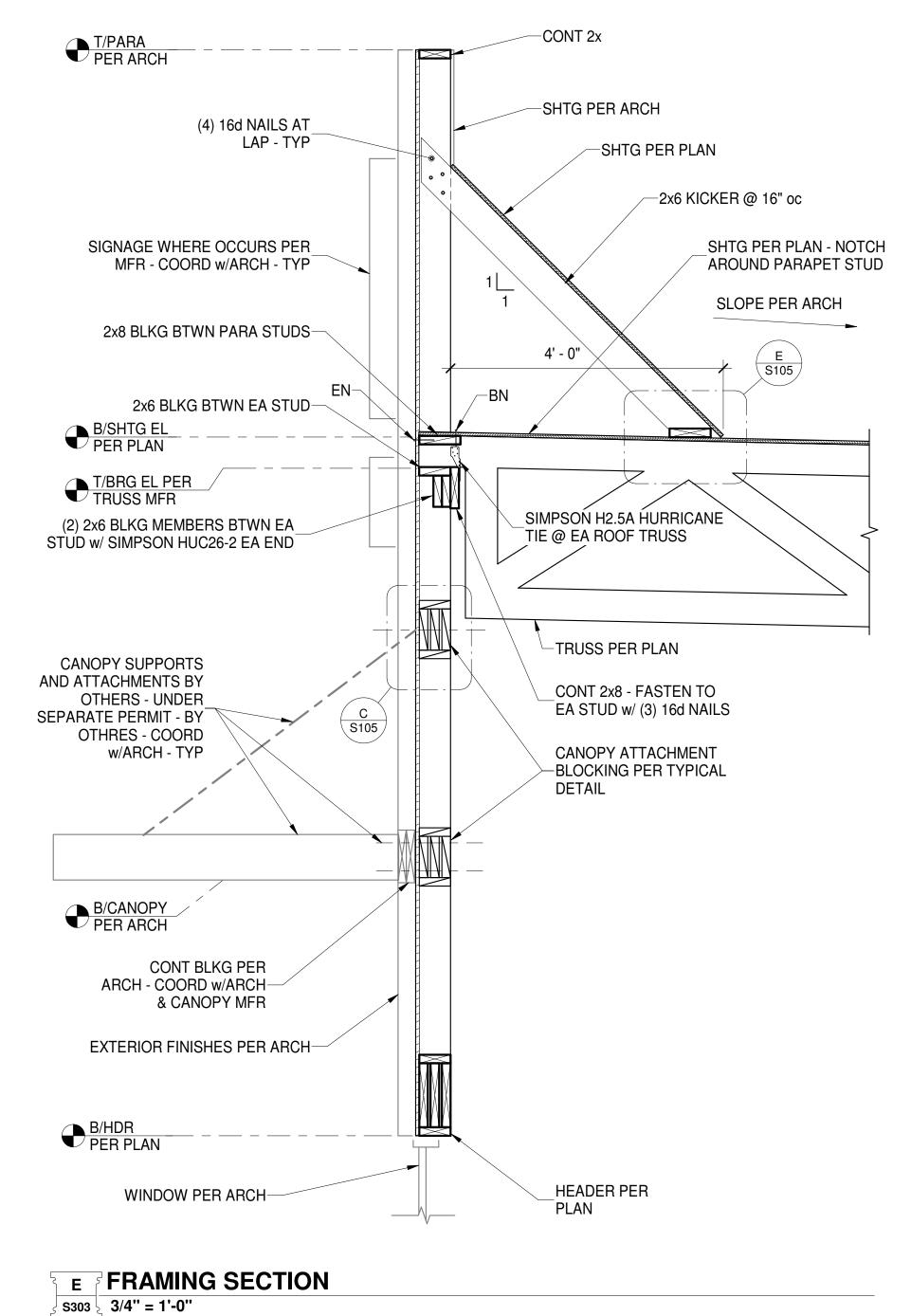
Project Number: Sheet Number:

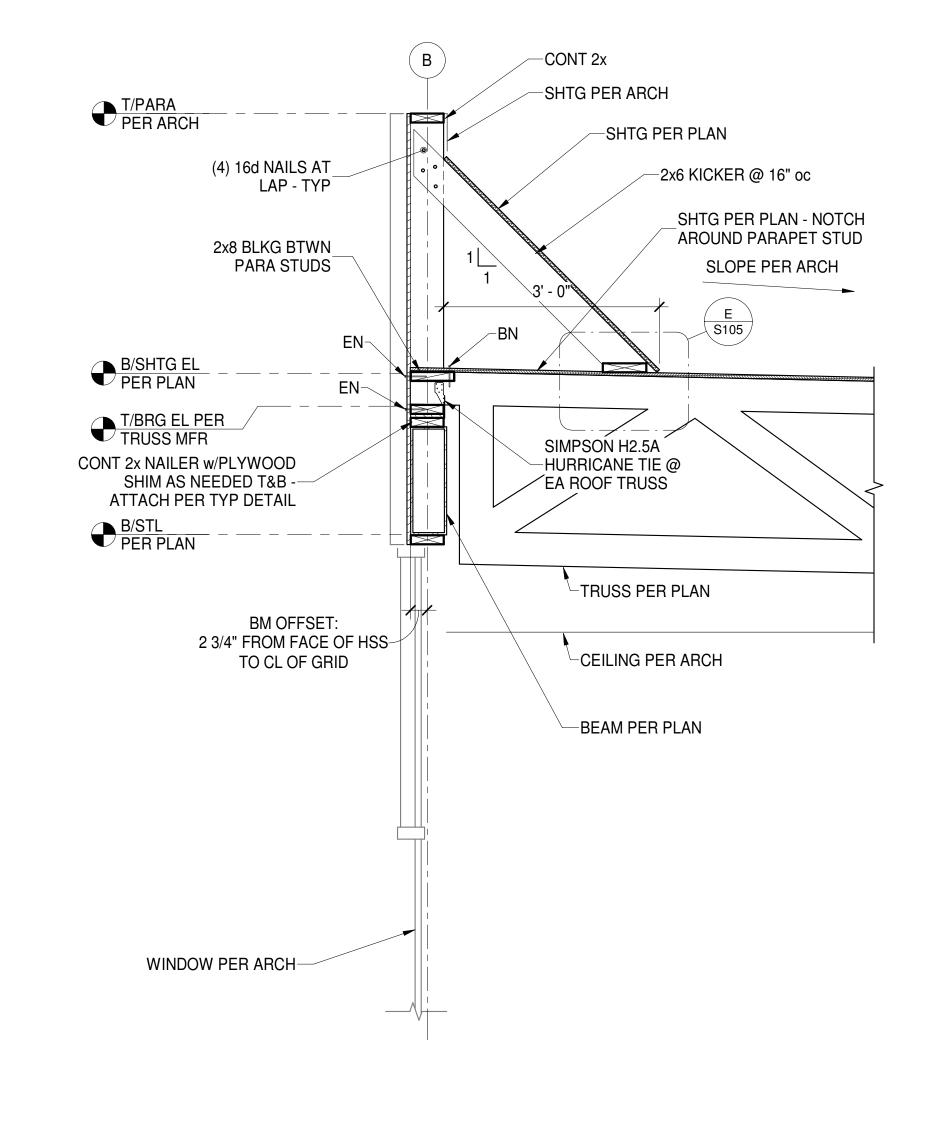
LKA-MO-01-22
Drawn By:

KG AC/SJS

Legus Date: S302







F FRAMING SECTION
3/4" = 1'-0"

Bakery-Cafe:

Project Team:

2406

SYSTEM: G4 (ARIA)



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WICHITA, KS 67203

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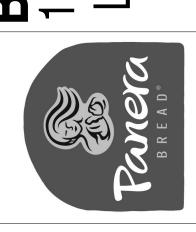
**Landscape Architecture** 

Professional Seal:



Project Title:

Bakery Cafe#2406 1410 NE DOUGLAS ST LEES SUMMIT, MO 64086



CASE Engineering Inc.

796 Merus Court T 636.349.1600 St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. 001498

No.	Description	Date				
	Shell - Permit Set	7/5/2022				
A	Shell - City Comments	8/19/2022				
В	Shell - Construction Set	8/25/2022				
С	Shell - Owner Revision	12/09/2022				

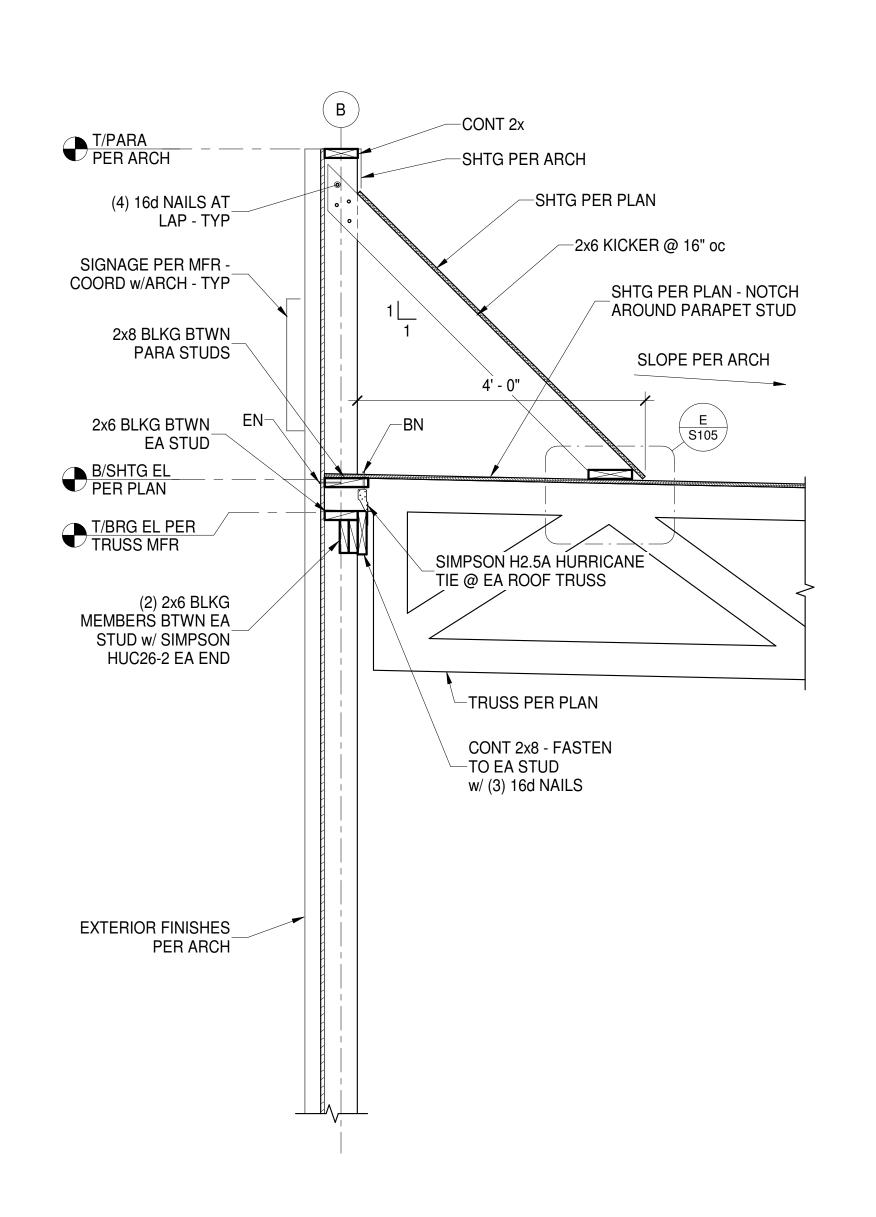
FRAMING SECTIONS

Project Number: Sheet Number:

LKA-MO-01-22
Drawn By:

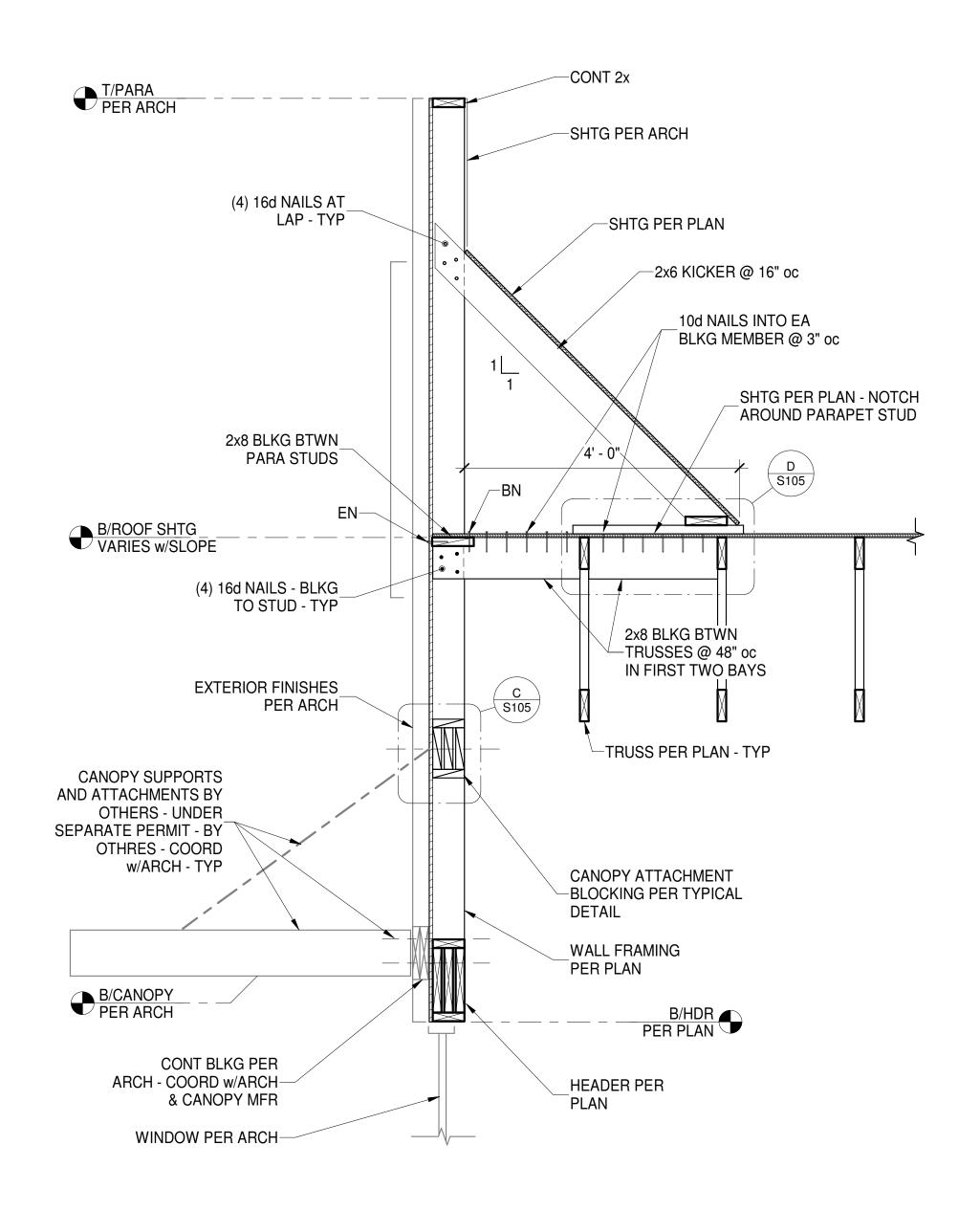
KG AC/SJS
Issue Date:

S/SJS S3U



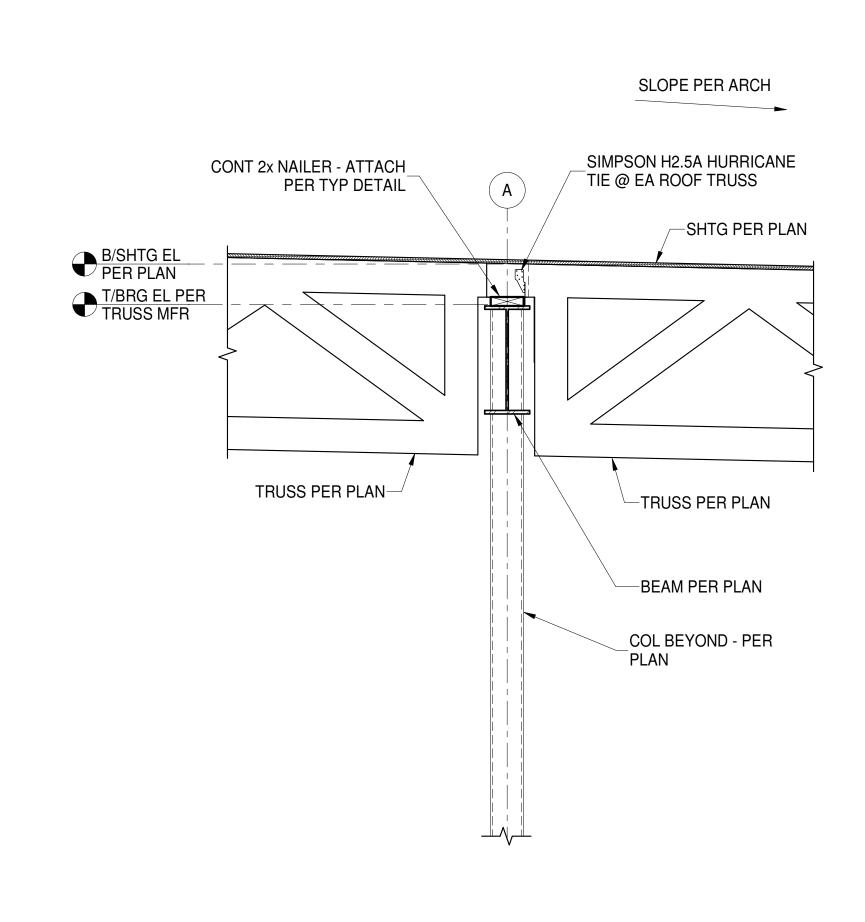
G FRAMING SECTION

\$ 3/4" = 1'-0"



TH FRAMING SECTION

\$ \$304 \ 3/4" = 1'-0"



J FRAMING SECTION

S304 3/4" = 1'-0"

Bakery-Cafe:

2406

SYSTEM: G4 (ARIA)
Project Team:



LK ARCHITECTURE, INC. 345 RIVERVIEW,

**WICHITA, KS 67203** 

T 316.268.0230 F 316.268.0205

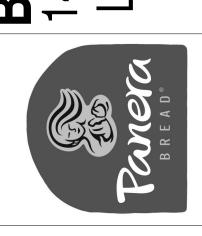
Architecture · Engineering · Planning · Interior Design · Landscape Architecture

Professional Seal:



Project Title:

Bakery Cafe#2406 1410 NE DOUGLAS ST LEES SUMMIT, MO 64086



CASE Engineering Inc.

F 636.349.1730

796 Merus Court St. Louis, MO 63026

 No.
 Description
 Date

 Shell - Permit Set
 7/5/2022

 A Shell - City Comments
 8/19/2022

 B Shell - Construction Set
 8/25/2022

 C Shell - Owner Revision
 12/09/2022

CERTIFICATE OF AUTHORITY NO. 001498

FRAMING SECTIONS

Project Number: Sheet Number:

LKA-MO-01-22

O-01-22
y:
AC/SJS
ate:

- 1. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH ALL APPLICABLE CODES AND THE OWNER'S MINIMUM REQUIREMENTS AS STATED HEREIN OR OTHERWISE INDICATED BY THE OWNER.
- 2. SEE ARCHITECTURAL GENERAL AND SPECIAL CONDITIONS. ALL CONDITION REQUIREMENTS SHALL APPLY UNLESS OTHERWISE NOTED.
- 3. ALL WORK SHALL BE PERFORMED AS INDICATED ON DRAWINGS UNLESS FIELD CONDITIONS REQUIRE MINOR CHANGES BE MADE. MINOR CHANGES SHALL BE MADE
- 4. ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
- CONTRACTOR SHALL PREPARE AND SUBMIT AS-BUILT DRAWINGS TO THE OWNER IF REQUESTED. AS-BUILT DRAWINGS SHALL INDICATE THE ACTUAL MANUFACTURER OF THE EQUIPMENT THAT WAS INSTALLED, THE EXACT LOCATION OF THE EQUIPMENT AND PERTINENT CAPACITIES FOR HEATING, COOLING, ETC.
- 6. EQUIPMENT, FIXTURES, AND ACCESSORIES SHALL NOT BE SUPPORTED FROM CEILING SOFFIT, NEUTRAL PIERS, PIPING, DUCTWORK, METAL ROOF DECK, LATERAL BRACING, BRIDGING OR CONDUIT. ITEMS SHALL ONLY BE SUPPORTED FROM STRUCTURE WHICH HAS BEEN APPROVED BY THE ARCHITECT FOR SUPPORT.
- ALL ROOF WORK PENETRATIONS AND REPAIRS SHALL BE TOTALLY PERFORMED BY ONLY THOSE ROOFING CONTRACTORS APPROVED BY THE OWNER/LANDLORD.
- INSTALLATION OF ROOF MOUNTED EQUIPMENT SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND OTHER TRADES.
- DEFICIENCIES AND NON-CONFORMING ITEMS SHALL BE CORRECTED BY THE CONTRACTOR. FAILURE TO CORRECT SUCH ITEMS SHALL PERMIT THE LANDLORD TO CORRECT SAME AT A COST TO THE CONTRACTOR.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS AND PAYING FOR SAME. HE SHALL INCLUDE IN HIS BID CHARGES FOR ALL FEES ASSOCIATED WITH THE CONSTRUCTION OF THE SPACE INCLUDING BUT NOT LIMITED TO LOCAL, COUNTY, OR STATE SERVICE CHARGES AND PERMIT FEES, AND UTILITY AND/OR EQUIPMENT CHARGES.
- 11. THE SCOPE OF WORK OF THIS CONTRACT INCLUDES, BUT SHALL NOT BE LIMITED

THIS CONTRACTOR SHALL PROVIDE DUCTWORK FULL SIZE FROM RTU AND CONNECTIONS TO DUCT SIZES NOTED. STUB S.A., R.A., AND E.F. DUCTS TO 12TH BELOW ROOF DUCT - FOR EXTENSION AND CONNECTION BY TENANT

INTERIOR CONTRACTOR. PROVIDE AND INSTALL ALL EQUIPMENT, APPLIANCES, CONTROL DEVICES.

ACCESSORIES, MATERIAL AND LABOR. PROVIDE AND INSTALL ALL DUCTWORK, INSULATION, AIR DEVICES, DUCT DEVICES, DUCT ACCESSORIES, MATERIAL AND LABOR.

PROVIDE AND INSTALL ALL PIPING, FITTINGS, VALVES, INSULATION, ACCESSORIES, MATERIAL AND LABOR.

PROVIDE AND INSTALL EXHAUST SYSTEMS(S) INDICATED.

PROVIDE AND INSTALL ALL ROOF WORK, INCLUDING EQUIPMENT SUPPORTS. ROOF PENETRATIONS, PATCHING AND WATERPROOFING OF ROOF.

PROVIDE ALL EQUIPMENT SUPPORTS AND HANGERS INCLUDING ANY AUXILIARY STEEL REQUIRED. ANY STRUCTURAL MODIFICATION TO THE BUILDING STRUCTURE SHALL BE MADE ONLY WITH THE WRITTEN APPROVAL OF THE LANDLORD.

CLEAN, TEST AND PUT INTO SERVICE ALL SYSTEMS SPECIFIED.

PROVIDE A BALANCE REPORT PREPARED BY AN INDEPENDENT AABC OR NEBB CERTIFIED AIR BALANCE CONTRACTOR.

WARRANTY ALL WORK AND MATERIALS HEREIN SPECIFIED FOR A PERIOD OF NOT LESS THAN ONE YEAR.

#### 12. MATERIALS

12.1 ALL MATERIALS SHALL BE NEW AND OF RECOGNIZED COMMERCIAL QUALITY. USED MATERIALS WILL NOTE BE PERMITTED.

#### 12.2 DUCTWORK

SHALL BE GALVANIZED SHEET METAL. FABRICATED AND INSTALLED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF SMACNA - "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE."

DUCTWORK 18" WIDTH AND LARGER SHALL BE CROSS-BROKEN OR RIBBED AND STIFFENED SO THAT IT WILL NOT "BREATHE", RATTLE, VIBRATE OR SAG.

FIBERGLASS DUCTWORK WILL ONLY BE PERMITTED WITH THE APPROVAL OF THE OWNER, ARCHITECT, AND ENGINEER

#### 12.3 DUCT INSULATION

ALL SUPPLY AND RETURN AIR DUCTWORK (EXCEPT FLEXIBLE DUCTS) SHALL BE INSULATED EXTERNALLY UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. EXTERNAL DUCT INSULATION (DUCT WRAP) SHALL BE MINIMUM OF R-5 FIBERGALSS DUCT WRAP WITH VINYL OR FSK FACING.

ALL DUCT INSULATION SHALL BE UL LABELED FOR FIRE AND SMOKE RATINGS.

DUCT INSULATION SHALL BE EQUAL TO PRODUCTS MANUFACTURED BY CERTAINTEED AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS

NOTE: ALL RESTAURANT DUCTWORK SHALL BE EXTERNALLY INSULATED - NO INTERNAL INSULATION ALLOWED.

#### 12.4 PIPING AND FITTINGS

CONDENSATE DRAIN PIPING SHALL BE TYPE L COPPER WITH SOLDERED JOINTS AND WROUGHT COPPER FITTINGS.

#### EQUIPMENT

HVAC EQUIPMENT SHALL BE AS SCHEDULED ON THE DRAWINGS AND/OR SPECIFIED HEREIN. EQUIVALENT EQUIPMENT AND/OR COMPONENTS THERE OF MAY BE SUBSTITUTED FOR SPECIFIED EQUIPMENT ONLY AS APPROVED BY THE OWNER AND/OR THE PROJECT ENGINEER.

#### 14.1 GENERAL

ACCESSIBILITY - ALL EQUIPMENT SHALL BE INSTALLED IN SUCH A MANNER THAT ALL COMPONENTS REQUIRING ACCESS ARE LOCATED AND INSTALLED THAT THEY MAY BE SERVICED, RESET, REPLACED, OR RECALIBRATED, ETC., BY SERVICE PEOPLE WITH NORMAL SERVICE TOOLS AND EQUIPMENT.

WORK BY OTHER TRADES - FOR THE WORK REQUIRED BY OTHER TRADES FOR CHANGES MADE BY THIS CONTRACTOR IN TYPE OR SIZE OF EQUIPMENT PURCHASED, ANY CUTTING, PATCHING, FURRING, PAINTING, ELECTRICAL OR PLUMBING WORK SHALL BE DONE BY THE AFFECTED TRADE AT THIS CONTRACTOR'S EXPENSE.

WORK NOT INCLUDED - POWER WIRING, INCLUDING FINAL CONNECTIONS, IS BY THE ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL INSTALL ALL MOTORS AND FURNISH THE STARTING EQUIPMENT TO THE ELECTRICAL CONTRACTOR FOR INSTALLATION. CONTROL WIRING, INCLUDING 115V FROM POWER SOURCE, CONDUIT AND SWITCHES SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR. CONTROL DEVICES, THERMOSTATS, INTERLOCKS, ETC. SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR. WIRING DIAGRAMS AND INSTALLATION INSTRUCTIONS SHALL BE FURNISHED TO THE OWNER UPON PROJECT COMPLETION.

EARLY START-UP - THIS CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL EQUIPMENT IS CONNECTED WITH ELECTRICAL POWER AS EARLY AS POSSIBLE SO THAT BALANCING AND TESTING CAN BEGIN AT THE EARLIEST DATE

CLEANING AND PAINTING - THOROUGHLY CLEAN ALL EQUIPMENT AND REMOVE ALL TRASH, CARTONS, ETC., FROM THE WORK AREA. MAKE ANY NECESSARY CORRECTIONS OR REPAIR/REPLACE ANY DAMAGED MATERIALS OR EQUIPMENT. LEAVE THE ENTIRE LEASE SPACE IN A THOROUGHLY CLEAN AND ORDERLY MANNER. ANY FINISHED SURFACES THAT HAVE BEEN SCRATCHED OR DISCOLORED SHALL BE TOUCHED UP OR REPAINTED TO MATCH THE ORIGINAL COLOR. IF ANY PART HAS BEEN BENT, BROKEN OR OTHERWISE DAMAGED, IT SHALL BE REPLACED PRIOR TO PROJECT CLOSEOUT. ALL METAL ITEMS INSIDE THE BUILDING SUBJECT TO RUSTING, AND ALL FERROUS METAL EXPOSED TO THE WEATHER SHALL BE GIVEN ONE COAT OF RUST PREVENTIVE PRIMER AS SOON AS INSTALLED.

#### 14.2 EQUIPMENT INSTALLATION

ALL EQUIPMENT AND RELATED PIPING, DUCTWORK, CONTROL WIRING AND ACCESSORIES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO BUILDING LINES AND, IF INSTALLED WITHIN THE BUILDING ENVELOPE SHALL BE INSTALLED AS HIGH AS POSSIBLE TO ALLOW THE MAXIMUM AMOUNT OF HEADROOM. EQUIPMENT THAT REQUIRES ROUTINE MAINTENANCE SUCH AS FILTER REPLACEMENT SHALL BE INSTALLED AND ARRANGED TO BE ACCESSIBLE. PROVIDE ACCESS PANEL(S) AS REQUIRED AND/OR AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER. ALL EQUIPMENT SHALL BE INSTALLED WITH THE REQUIRED CLEARANCES AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER OR AS REQUIRED BY GOVERNING CODES, WHICHEVER IS GREATER.

#### 14.3 DUCTWORK

LOW PRESSURE DUCTWORK AND FITTINGS SHALL BE MADE TIGHT FOR MINIMUM AIR LEAKAGE. DUCT TAPE SHALL NOT BE USED TO SEAL JOINTS, TO MAKE TRANSITIONS OR FOR ANY OTHER REASON ON THE OUTSIDE OF WRAPPED INSULATION.

INSTALL DUCTWORK AS HIGH AS POSSIBLE.

PROVIDE TURNING VANES AT ALL CHANGES IN DIRECTION.

PROVIDE VANED TEES AT BRANCH CONNECTIONS SERVING MORE THAN ONE

PROVIDE VOLUME CONTROL DAMPERS AND BALANCING DEVICES AS REQUIRED TO DISTRIBUTE THE AIR AND AS INDICATED ON THE DRAWINGS.

NOTE: DUCT DIMENSIONS INDICATED ON THE DRAWINGS ARE INSIDE CLEAR, OR "FREE AREA" DIMENSIONS. CONTRACTOR SHALL MAKE ALLOWANCE FOR INTERNAL DUCT LINER (WHERE SPECIFIED) WHEN ORDERING PRE-FABRICATED DUCT WORK OR WHEN FABRICATING DUCTS IN THE FIELD.

#### 14.4 DUCT INSULATION

ALL DUCTWORK DESIGNATED TO RECEIVE DUCT LINER SHALL BE COMPLETELY COVERED WITH LINER. TRAVERSE JOINTS SHALL BE NEATLY BUTTED AND THERE SHALL BE NO INTERRUPTIONS OR GAPS.

DUCT LINER SHALL BE CUT AS REQUIRED TO ENSURE OVERLAPPED AND COMPRESSED LONGITUDINAL CORNER JOINTS

FASTENERS SHALL START WITHIN 3" OF THE UPSTREAM TRAVERSE EDGES OF THE LINER AND 3" FROM THE LONGITUDINAL JOINTS AND SHALL BE SPACED AT A MAXIMUM OF 12" O.C. AROUND THE PERIMETER OF THE DUCT. ELSEWHERE THEY SHALL BE SPACED AT A MAXIMUM OF 18" O.C., EXCEPT THAT THEY SHALL BE PLACED NOT MORE THAN 6" FROM A LONGITUDINAL JOINT OF THE LINER OR 12" FROM A CORNER BREAK

DUCT WRAP SHALL BE INSTALLED IN A NEAT AND COMPETENT MANNER WITH ALL EDGES NEATLY COVERED WITH AN APPROVED METALLIC DUCT TAPE TO VAPOR-PROOF THE ENTIRE DUCT. LAPS AND JOINTS SHALL BE SECURED WITH INSULATION STAPLES AND THEN COVERED WITH APPROVED TAPE.

15. INSTALL ROOF MOUNTED EQUIPMENT SUPPORT RAILS OR ROOF CURB AS REQUIRED FOR THE JOB CONDITIONS AND AS RECOMMENDED BY THE MANUFACTURER FOR THE INSTALLATION OF ROOF MOUNTED EQUIPMENT. THE EXACT LOCATION OF ALL ROOF MOUNTED EQUIPMENT IS SUBJECT TO SITE CONDITIONS AND THE APPROVAL OF THE GENERAL CONTRACTOR. COORDINATE THE ENTIRE INSTALLATION WITH THE GENERAL CONTRACTOR AND OTHER TRADES.

CONTRACTOR SHALL PROVIDE A TEMPORARY PLYWOOD WORK PLATFORM THAT COMPLETELY SURROUND THE AREA WERE NEW ROOF MOUNTED FOUIPMENT AND/OR DUCTS ARE TO BE INSTALLED. THE ENTIRE WORK AREA SHALL REMAIN ONT HE ROOF DURING THE ENTIRE PERIOD OF INSTALLATION AND SHALL BE REMOVED FROM THE ROOF AND THE SITE BY THIS CONTRACTOR UPON COMPLETION OF THE INSTALLATION.

ALL ROOF PENETRATIONS FOR POWER AND CONTROL WIRING CONDUITS AND GAS. CONDENSATE, OR REFRIGERANT PIPING SHALL BE MADE WITH WATERPROOF PIPE

- 16. THIS CONTRACTOR SHALL ENGAGE THE SERVICES OF AN AABC OR NEBB CERTIFIED AIR BALANCE CONTRACTOR TO ADJUST AND COMPLETELY BALANCE THE INSTALLED SYSTEM(S) TO THE DESIGN AIR QUALITIES. CONTRACTOR SHALL PROVIDE THE OWNER AND THE ARCHITECT A COPY OF THE CERTIFIED AIR BALANCE REPORT SHOWING DESIGN AND MEASURED AIR QUANTITIES, STATIC PRESSURES, FAN MOTOR RPM AND MOTOR CURRENT. DEVIATION BETWEEN DESIGN AND MEASURED QUANTITIES SHALL NOT BE GREATER THAN 10%.
- 17. ALL MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.

FOR THE SAME PERIOD. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE PREMISES BY DEFECTS IN HIS WORKMANSHIP OR WORK AND/OR EQUIPMENT INSTALLED BY OTHERS UNDER HIS CONTRACT.

#### MINIMUM REQUIRED CONTROLS:

- A. UNLESS OTHERWISE SPECIFIED IN THESE DOCUMENTS, ALL EXHAUST AND RELIEF FANS SHALL BE CONTROLLED BY TIME CLOCK, TIME CLOCK PROVIDED BY HVAC CONTRACTOR, CONNECTED TO HAND-OFF-AUTO RELAYS OF FAN MOTOR STARTERS OR START-STOP OF VFD'S. ALL POWER WIRING OF TIME CLOCK BY HVAC CONTRACT.
- ALL EXHAUST AND RELIEF FANS SHALL HAVE POSITIVE CLOSURE DAMPERS INTERLOCKED TO OPEN WHEN FAN IS ENERGIZED, EXCEPTING SMOKE MANAGEMENT SYSTEMS, DRYER VENTS AND COOKING EQUIPMENT.
- C. ALL DIRECT DRIVE FANS SHALL BE PROVIDED WITH SOLID STATE MOTOR CONTROLLERS OR ELECTRONICALLY COMMUTATED MOTORS (ECM) WITH ALL REQUIRED CONTROL DEVICES FOR SPEED ADJUSTMENT OF THE FAN MOTOR.
- D. FOR ALL HVAC EQUIPMENT (EXCLUDING SMOKE MANAGEMENT SYSTEMS AND COOKING APPLICATIONS) PROVIDE AN INTERLOCK TO THE MOTORIZED DAMPER SUCH THAT THE DAMPERS WILL CLOSE UPON UNOCCUPIED CONDITION. HVAC CONTRACT TO PROVIDE TIME CLOCK OR DDC CONTROL.
- EACH ZONE SHALL HAVE A 7 DAY-4 FUNCTION PER DAY PROGRAMMABLE CONTROLLER WITH A 5°F DEADBAND AND SETPOINT OVERLAP RESTRICTIONS.
- MINIMUM AUTOMATIC CONTROLS SHALL SETBACK TO 55°F (HEAT) AND 85°F (COOL); 7-DAY CLOCK, 2-HOUR OCCUPANT OVERRIDE, 10-HOUR BACKUP.
- G. PROVIDE ECONOMIZER AND SUPPLY SIDE DUCT SMOKE DETECTORS ON ALL HVAC EQUIPMENT OVER 2000 CFM.
- H. PROVIDE EXHAUST AIR ENERGY RECOVERY ON ALL HVAC EQUIPMENT OVER 5000
- SEE SCHEDULES, SPECIFICATIONS, DETAILS AND NOTES WHICH MAY SUPERCEDE THESE MINIMUM PERFORMANCE REQUIREMENTS.

#### MAKE-UP AIR UNIT SCHEDULE ELECTRICAL E.S.P. MOTOR MARK MANUFACTURER MODEL SERVES CFM ("WC) TYPE | HP | VOLT/PH | FLA | MCA | MOCP | WEIGHT | NOTES RPM A1-IBT-150-15D FIREPLACE 950 MAU-1 CAPTIVE AIRE 1.0 1319 | ROOF | 1.0 | 208/3 | 3.1 | 3.9 | 15 | 808 | 1,2,3,4

- CAPTIVE AIRE SHALL PROVIDE MOTOR STARTER IN CAPTIVE AIRE WALL MOUNTED ELECTRICAL PACKAGE.
- VERIFY ELECTRICAL VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING. SEE CAPTIVE AIRE DRAWINGS FOR MORE INFORMATION/REQUIREMENTS.
- INTERLOCK OPERATION WITH FIREPLACE. FIREPLACE SHALL NOT BE IN OPERATION DURING MONTHS REQUIRING COOLING.

HVAC NATIONAL ACCOUNT CONTACT INFORMATION.	
Dave Ebner	

Strategic Account Manager Office (651) 233-1582 Cellular (612) 860-5933 Fax (952) 405-6607 dave.ebner@Lennoxind.com 15633 Apline Circle Burnsville, MN 55306

For Pricing information call

1-800-367-6285

HV	AC LEGEND
SYMBOL	DESCRIPTION
SD	DUCT MOUNTED SMOKE DETECTOR
T	THERMOSTAT (CONTOLLER)
S	TEMPERATURE SENSOR
F.O.I.C	FURNISH BY OWNER INSTALL BY CONTRACTOR
F.C.I.C	FURNISH BY CONTRACTOR INSTALL BY CONTRACTOR

#### DUCTWORK MATERIAL CONSTRUCTION & INSULATION SCHEDULE **REMARKS DUCTWORK CONSTRUCTION** INSULATION ROOF TOP +2.0 SUPPLY AIR RECTANGULAR DUCT: GALVANIZED SHEET METAL RIGID ROUND INTERIOR "CONCEALED" APPLICATIONS, INCLUDING ATTIC & 1, 2 & 3 BRANCHES (CONCEALED): LONGITUDINAL OR SPIRAL SEAMS FLEXIBLE PLENUM SPACES: USE 1-1/2" FLEXIBLE FIBERGLASS WRAP BRANCHES: INSULATED WITH NON-METALLIC LINER & SPRING HELIX INSULATION +/- 1.0 RETURN AIR RECTANGULAR DUCTWORK: GALVANIZED SHEET METAL RIGID ROUND INTERIOR "CONCEALED" APPLICATIONS, INCLUDING ATTIC & PLENUM 1, 2 & 3 BRANCHES (CONCEALED): LONGITUDINAL OR SPIRAL SEAMS. FLEXIBLE | SPACES: USE 1-1/2" FLEXIBLE FIBERGLASS WRAP INSULATION BRANCHES: NOT PERMITTED TOILET EXHAUST RECTANGULAR DUCT: GALVANIZED SHEET METAL RIGID. NOT REQUIRED +/- 1.0 TOILET 2 & 3 EXHAUST AIR ROUND BRANCHES: LONGITUDINAL OR SPIRAL SEAMS. FLEXIBLE BRANCHES: NOT PERMITTED.

. ALL DUCT SIZES INDICATED ON DRAWINGS REPRESENT INTERNAL NET DIMENSIONS. 2. DUCTWORK CONSTRUCTION, INCLUDING SHEET METAL GAUGES AND SEAM CONSTRUCTION METHODS, SHALL BE

IN ACCORDANCE WITH SMACNA STANDARDS 3. DUCTWORK ELBOWS, TRANSITIONS, ETC. SHALL BE FABRICATED IN ACCORDANCE WITH DETAIL "A" ON DRAWING M-4.1.

						FA	N SCHE	DULE							
						DISC'T BY	BIRD SCREEN	BACK DRAFT		ELECTRI	CAL [	DATA			
				E.S.P.	DRIVE	FAN	BY FAN	DAMPER BY							
TAG	LOCATION	SERVICE	CFM	(in. wg)	TYPE	MANF'T	MANF'T	MANF'T	HP	VOLT	PH	STARTER	WEIGHT	DESIGN EQUIPMENT	REMARKS
EF-1	ROOF	RACK OVEN HOOD	900	1.00	DIRECT	YES	YES	NO	1/2	120	1	BY E.C.	60	CAPTIVE AIRE DU50HFA	1, 3, 4, 5, 6
EF-2	ROOF	DISH EXHAUST	400	0.5	DIRECT	YES	YES	NO	1/3	120	1	BY E.C.	60	CAPTIVE AIRE DU50HFA	1, 3, 4, 5, 6
EF-3	ROOF	TOILET EXHAUST	225	0.35	DIRECT	YES	YES	NO	1/6	120	1	BY E.C.	60	GREENHECK G-070-VG	1, 2, 5

#### REMARKS:

1. FURNISH FAN WITH MANUFACTURER'S ROOF CURB.

2. FURNISH DUCTWORK CONNECTING TO FAN IN ACCORDANCE WITH THE "DUCTWORK MATERIAL CONSTRUCTION SCHEDULE" FOUND ON THIS DRAWING.

3. THE UNIT IS FURNISHED BY CAPTIVE AIRE AS PART OF HOOD PACKAGE PURCHASED BY OWNER. MECHANICAL CONTRACTOR SHALL INSTALL UNIT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REFER TO DETAILED SHOP DRAWINGS BY CAPTIVE AIRE FOR MORE INFORMATION. 4. FURNISH DUCTWORK CONNECTING TO FAN IN ACCORDANCE WITH HOOD MANUFACTURER'S REQUIREMENTS. REFER TO DETAILS ON DRAWINGS M301, M302 AND M303.

5. UNIT FURNISHED AND INSTALLED BY LANDLORD MC.

6. M.C. SHALL PROVIDE GRAVITY DAMPERS INSIDE THE EXHAUST DUCT SERVING EF-1,2. DAMPER SHALL BE GREENHECK MODEL WDR-53, SIZE DAMPER PER DUCT SIZE

PA(	CKAGE	D ROOF	ТОР	UNI <sup>.</sup>	T S	CHE	DUL	_E - [	) / XC	GAS												
						EVAP I	FAN	COOLII	NG (DX) - OAT	95° F		HEATIN	IG - GAS			EL	ECTRIC	CAL DATA				
G AG	LOCATION	SERVICE	NOM TONS	CFM	MIN OA	E.S.P. (in. wg)	HP	ТМВН	SMBH	EER	INPUT MBH	OUTPUT MBH	EAT	LAT	VOLT	PH	MCA	МОСР	STARTER	APPROX. WEIGHT (LBS)	DESIGN EQUIPMENT	REMARKS
TU-1	ROOF	CAFE	5	2000	400	1.00	1	60.1	42.2	12	150.0	120.0	55.4 °F	88.6 °F	208	3	35.0	50	PKGD.	1172	LENNOX LGH060S4B	1, 2, 3, 4, 5
TU-2	ROOF	DINING	5	2000	400	1.00	1	60.1	42.2	12	150.0	120.0	55.4 °F	88.6 °F	208	3	35.0	50	PKGD.	1172	LENNOX LGH060S4B	1, 2, 3, 4, 5
TU-3	ROOF	KITCHEN	10	4000	500	1.00	3.0	99.0	72.0	11.2	240.0	180.0	55.4 °F	88.6 °F	208	3	46.0	50	PKGD.	1500	LENNOX LGH120S4B	1, 2, 3, 4, 5

REMARKS: 1. UNIT SHALL BE CLASSIFIED IN ACCORDANCE WITH ANSI-Z21.47, ARI 210 & 270.

2. UNIT SHALL HAVE MANUFACTURER'S 14" HIGH ROOF CURB, RETURN AIR SMOKE DETECTOR, UNIT MOUNTED DISCONNECT, THRU BASE ELECTRICAL SERVICE AND HINGED ACCESS DOORS.

3. MANUFACTURER SHALL FURNISH UNIT WITH DIFFERENTIAL ENTHALPY CONTROL ECONOMIZER WITH BAROMETRIC RELIEF DAMPER, 0 TO 100% FULLY MODULATING MOTORIZED OUTSIDE AIR DAMPERS, OUTSIDE AIR HOOD & ADJUSTABLE POSITION POTENTIOMETER. DAMPER ACTUATOR SHALL BE SPRING RETURN TYPE TO FULLY CLOSE OUTSIDE AIR DAMPER WHEN UNIT IS SHUT DOWN.

4. COOLING CAPACITY IS BASED UPON 95°F AMBIENT AND 80/67 COIL ENTERING CONDITIONS, PROVIDE HIGH EFFICIENCY UNIT IF STANDARD EFFICIENCY UNIT DOES NOT MEET SCHEDULED VALUES. 5. LANDLORD CONTRACTOR SHALL PURCHASE FROM NATIONAL ACCOUNT. SEE CONTACTS ON THIS SHEET.

**Bakery-Cafe:** 

SYSTEM: G4 (ARIA)

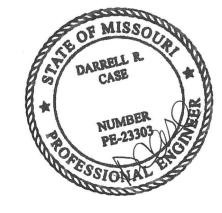


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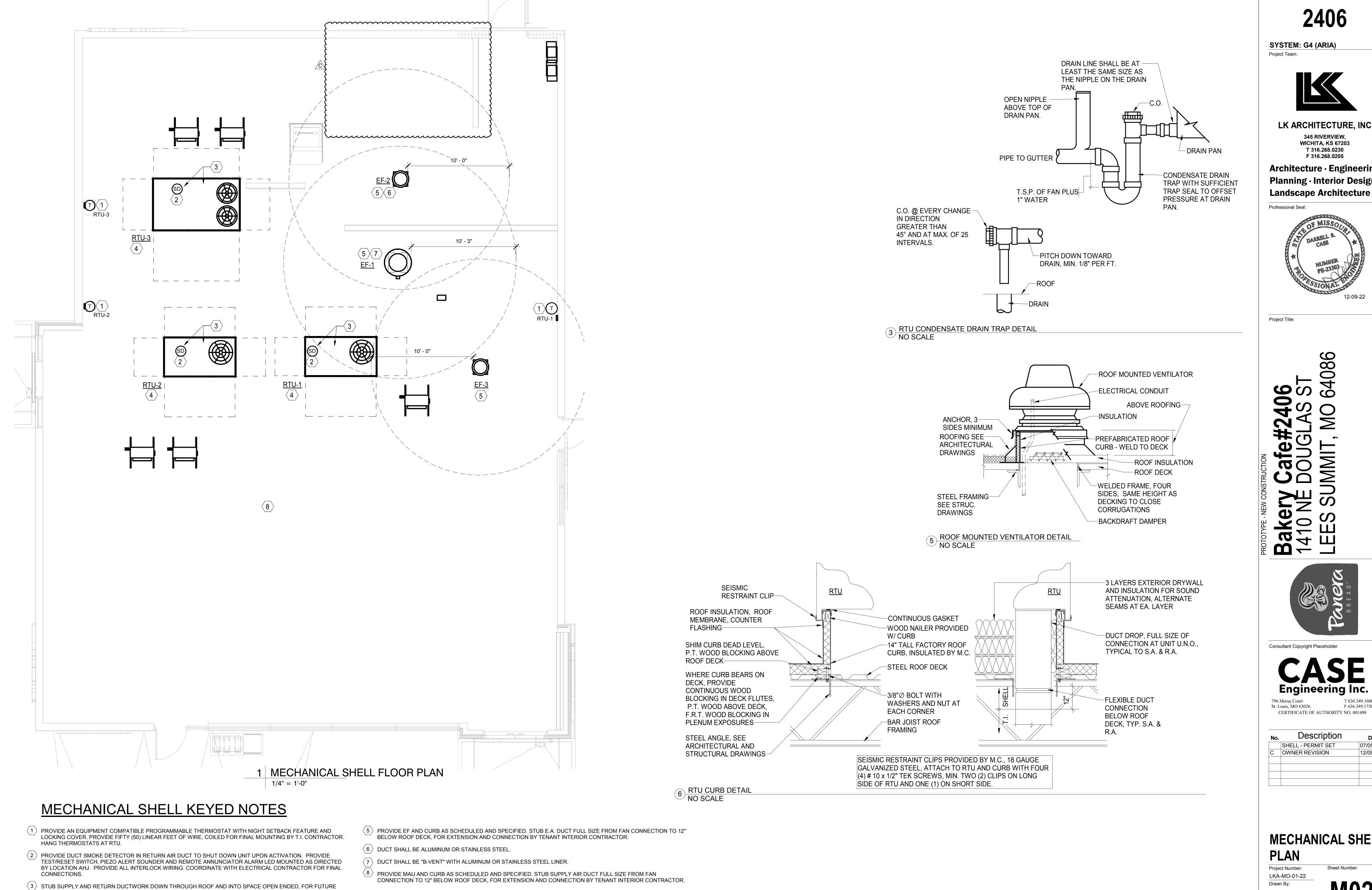


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No.	Description	Date
	SHELL - PERMIT SET	07/05/20 2

Project Number: LKA-MO-01-22 Drawn By: 07/05/2022



Bakery-Cafe:

SYSTEM: G4 (ARIA)



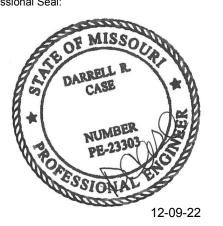
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CERTIFICATE OF AUTHORITY NO. 001498

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No.	Description	Date
	SHELL - PERMIT SET	07/05/2022
С	OWNER REVISION	12/09/2022

**MECHANICAL SHELL PLAN** Project Number: Sheet Number: LKA-MO-01-22 Drawn By:

07/05/2022

DPM:

 $\langle$  4  $\rangle$  FURNISH AND INSTALL ROOFTOP UNIT. VERIFY EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE

ARCHITECTURAL DRAWINGS FOR SCREENING REQUIREMENTS.

— - - — - - → DOMESTIC HOT WATER (110 DEGREES)  $\longleftarrow$  - - -  $\longrightarrow$  DOMESTIC HOT WATER RECIRC.

 $\longleftarrow$  GAS (ON ROOF)

 $- \hspace{.1cm} - \hspace{$ ∠ GREASE WASTE  $\succ$  — — — — — SANITARY VENT

∠ CONDENSATE DRAIN

PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING CONNECT TO EXISTING

WATER METER **GAS METER** 

> EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET P200 FOR EQUIPMENT INFORMATION

REDUCED PRESSURE ZONE BACKFLOW PREVENTER

VALVE SOLENOID-OPERATED VALVE WALL HYDRANT/ROOF HYDRANT

CHECK VALVE CIRCUIT-SETTER BALANCE VALVE RATED FOR POTABLE

FLOOR DRAIN FLOOR SINK CLEANOUT

#### **ABBREVIATIONS**

TRS

TSV

TUV

WCS

ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE EX **EXISTING** FLOOR CLEANOUT FLOOR DRAIN FS FLOOR SINK GCO **GRADE CLEANOUT** CO2AS TENANT'S CO2 ALARM SUPPLIER GENERAL CONTRACTOR HES TENANT'S HVAC EQUIPMENT SUPPLIER TENANT'S HOOD SUPPLIER TENANT'S KITCHEN EQUIPMENT SUPPLIER TENANT'S TEST AND BALANCE VENDOR TAB TENANT'S CABLING CONTRACTOR TENANT'S DUCT CLEANER TENANT'S ENERGY MANAGEMENT SYSTEM SUPPLIER TLS TENANT'S LIGHT/LAMP SUPPLIER TMB TENANT'S MENU BOARD SUPPLIER TMS TENANT'S MILLWORK SUPPLIER TP TENANT'S PHONE SUPPLIER

TENANT'S RAILING SUPPLIER

TENANT'S UV SANITIZER SUPPLIER TENANT'S WALK-IN COOOLER SUPPLIER

TENANT'S WATER HEATER SUPPLIER

TENANT'S SIGN VENDOR

 $\langle$  1  $\rangle$  PROVIDE A MINIMUM 4" SANITARY SEWER WASTE LINE TO THE PREMISES FOR TENANT'S USE.

 $\langle$  2  $\rangle$  PROVIDE NEW GAS METER SIZED FOR 2PSI AT A TOTAL LOAD OF 1024MBH AND BASED ON A TOTAL DEVELOPED LENGTH OF 80FT. VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS WITH LOCAL GAS COMPANY PRIOR TO ANY WORK. PROVIDE SEISMIC SHUT-OFF VALVE ON METER. ALL GAS PIPING SHALL BE PROTECTED/PAINTED TO MATCH EXTERIOR WHEN EXPOSED TO EXTERIOR ENVIRONMENT.

 $\langle$  3  $\rangle$  PROVIDE NEW 2" WATER METER. VERIFY EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH LOCAL UTILITY COMPANY. FURNISH AND INSTALL ONE COPPER-PIPED DOMESTIC WATER (DW) SERVICE SIZED PER LOCAL CODE MINIMUM 2" AFTER METER, MODIFY TO LARGER SERVICE PER TENANT'S

4 2" WATER STUB TO SPACE.

 $\langle$  5  $\rangle$  SEE CIVIL PLANS FOR SANITARY SEWER LINE CONTINUATION.

 $\langle 6 \rangle$  ROUTE TO CONNECT TO SITE WATER MAIN. SEE CIVIL DRAWINGS

⟨ 7 ⟩ PROVIDE NEW SCHIER GB-250 GREASE INTERCEPTOR BELOW GRADE. INSTALL SAMPLE PORT AS REQUIRED. VERIFY EXACT

8 PROVIDE A MINIMUM 4" GREASE WASTE LINE TO THE PREMISES

 $\langle 9 \rangle$  VENT PIPING BELOW GRADE FROM GREASE INTERCEPTOR.

 $\langle 10 \rangle$  2PSI GAS PIPING ON ROOF ROUTED TO 2" GAS PIPING DOWN THROUGH ROOF AND CAPPED FOR TENANT EQUIPMENT. PROVIDE PRESSURE REGULATOR PRIOR TO PENETRATION THROUGH ROOF.

(11) ROUTE OVER FLOW DRAINS TO LAMBS TONGUE SCUPPER ON

(13) PROVIDE 1/2" COLD WATER TO NEW FROST PROOF HOSE BIBB

(14) ROUTE DISCHARGE FROM CANOPY ROOF/OVERFLOW DRAIN TO

(15) ROUTE DISCHARGE FROM CANOPY ROOF/OVERFLOW TO DRAIN TO PARKING LOT. COORDINATE LOCATION IN FIELD.

 $\langle 18 
angle$  APPROXIMATE LOCATION OF STRUCTURAL FOOTINGS. GC TO COORDINATE ALL PLUMBING WITH STRUCTURAL FOOTINGS IN FIELD AND ROUTE AROUND AS REQUIRED. COORDINATE LOCATIONS WITH STRUCTURAL DRAWINGS.

PLUMBING KEYED NOTES

DOCUMENTS AS NEEDED. COORDINATE WITH FUTURE INTERIOR WORK.

FOR CONTINUATION.

LOCATION AND INSTALLATION REQUIREMENTS IN FIELD.

FOR TENANT'S USE.

BUILDING EXTERIOR.

 $\langle 12 \rangle$  DOWNSPOUT TO UNDERGROUND STORM. COORDINATE LOCATION IN FIELD WITH CIVIL DRAWINGS.

(WOODFORD MODEL 65).

<sup>→</sup> WALL SCUPPERS.

(16) PROVIDE GAS COCK, DIRT LEG AND LBS TO INCHES PRESSURE REGULATOR AT EACH PIECE OF ROOFTOP EQUIPMENT TO BE

(17) ROUTE PRIMARY ROOF DRAIN DRAINAGE DOWN INTERIOR WALL.

Bakery-Cafe:

<del>\D</del>

-4" OVERFLOW DRAIN

2" PRIMARY ROOF DRAIN-

2" OVERFLOW DRAIN

-4" PRIMARY ROOF DRAIN

--3/4" NG(450MBH)

SYSTEM: G4 (ARIA) Project Team:



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St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. 001498 Description

SHELL - PERMIT SET 07/05/2022 A CITY COMMENTS 8/19/2022 B COORDINATION REVISIONS 9/6/2022 C OWNER REVISION 12/09/2022 01/09/2023 D OWNER REVISION

**PLUMBING SHELL FLOOR PLAN** 

Project Number: LKA-MO-01-22 Drawn By:

1 PLUMBING SHELL FLOOR PLAN SCALE: 1/4" = 1'-0"

3/4" NG(150MBH)

I.E.=-2.20'

4"OVERFLOW-

4" OVERFLOW DRAIN-

\_\_\_\_3/4" NG (150MBH)

(300MBH) 3/4" NG-

(150MBH) 3/4" NG

4" PRIMARY ROOF DRAIN-

NOTE: INSULATE ALL PIPING FROM

HORIZONTALLY OVER CEILING SPACE TO PREVENT CONDENSATION DRIPS.

 $\frac{1}{\sqrt{16}}$ RTU-1

(16) RTU-2

ROOF DRAINS THAT RUN

2" PRIMARY ROOF DRAIN 2" OVERFLOW DRAIN

#### INSPECTION AND COOPERATION

NO DEVIATION FROM THE DRAWINGS AND /OR SPECIFICATIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF ARCHITECT OR ENGINEER. THIS CONTRACTOR SHALL COOPERATE WITH THE OTHER CONTRACTORS TO ALLOW FOR THE INSTALLATION OF THEIR WORK AS WELL AS HIS OWN.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK FITTING IN PLACE WITHOUT CONFLICT WITH THE OTHER TRADES, WHERE PROPER PLANNING COULD AVOID

NOTHING IN THE DRAWINGS AND/OR SPECIFICATIONS SHALL BE INTERPRETED TO CONFLICT WITH ANY CITY OR PROVINCIAL LAW, REGULATION, CODE, ORDINANCE, RULING, OR FIRE UNDERWRITER'S REQUIREMENT APPLICABLE TO THIS CLASS OF

SHOULD THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH SUCH LAWS OR ORDINANCES, THE CONFLICTING PORTION OF THE WORK SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH SUCH LAWS AND ORDINANCES WITHOUT EXTRA COST.

THIS CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED FOR THIS INSTALLATION OF HIS WORK.

THE INFORMATION GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED, BUT ITS EXTREME ACCURACY IS NOT GUARANTEED. THIS CONTRACTOR SHALL EXAMINE THE LOCATIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS AND EXISTING PIPE SIZES BEFORE STARTING THE WORK.

THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS, RAISED AND DROPS IN PIPING AND DUCTWORK AS REQUIRED BY BUILDING CONDITIONS AT NO ADDITIONAL

MECHANICAL DRAWINGS SHALL NOT BE USED FOR GENERAL CONSTRUCTION DIMENSIONS OR FOR TYPE OF MATERIAL USED. FOR EXACT BUILDING LAYOUT, DIMENSIONS AND BUILDING MATERIAL USED, THIS CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS.

FIVE (5) COPIES OF ALL SHOP OR INSTALLATION DRAWINGS, FOUNDATION PLANS, EQUIPMENT OR APPARATUS DRAWINGS SHALL BE FURNISHED BY THIS CONTRACTOR THESE DRAWINGS SHALL BE CLEARLY MARKED INDICATING WHICH ITEMS ARE TO BE SUPPLIED AND SHALL STATE CAPACITIES, SIZES AND GENERAL DESCRIPTION OF ALL EQUIPMENT. ANY CHANGES FROM THE SPECIFIED ITEMS SHALL BE NOTED ON THE SUBMITTALS.

SHOP DRAWINGS OF SPECIAL APPARATUS OR EQUIPMENT WHICH IS TO BE FABRICATED INDIVIDUALLY FOR THIS PROJECT AND IS NOT DESCRIBED BY STANDARD MANUFACTURER'S DRAWINGS OR BULLETINS SHALL BE SUBMITTED FOR PROCESSING BEFORE FABRICATION.

#### THESE DRAWINGS SHALL BE SUBMITTED IN A TIMELY MANNER.

IT SHALL BE THIS CONTRACTORS RESPONSIBILITY TO MAINTAIN LIAISON WITH ALL PARTIES CONCERNED WITH THE MATERIAL SUBMITTED. THIS CONTRACTOR SHALL NOT PURCHASE ANY EQUIPMENT UNTIL SHOP DRAWINGS HAVE BEEN PROCESSED.

THIS CONTRACTOR SHALL SUBMIT NO DRAWINGS WITHOUT NOTATION OF EACH COPY INDICATING DATE OF CONTRACTOR'S REVIEW AND SIGNATURE OF CHECK FOR CONTRACTOR TOGETHER WITH CONTRACTOR'S NAME AND PROJECT IDENTIFICATION.

ARCHITECT'S PROCESSING WILL NOT CONSTITUTE A COMPLETE CHECK BUT WILL INDICATE ONLY THAT GENERAL METHOD OF CONSTRUCTION AND DETAILING IS

ARCHITECT'S PROCESSING WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS SINCE THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR DIMENSIONS AND DESIGNS OF ADEQUATE CONNECTIONS, DETAILS AND SATISFACTORY CONSTRUCTION OF ALL WORK, AS WELL AS FURNISHING MATERIALS AND WORKMANSHIP REQUIRED BY DRAWINGS AND SPECIFICATIONS WHICH MAY NOT BE INDICATED ON THE SUBMITTALS WHEN APPROVED.

#### 6. SUBSTITUTIONS OF EQUIPMENT OR MATERIAL

THE BRAND NAMES OF EQUIPMENT OR MATERIALS SPECIFIED HEREIN SHALL ESTABLISH QUALITY, CAPACITY, TYPE AND DIMENSIONS TO BE INCLUDED IN THE BASE

APPROVAL OF SUBSTITUTED ITEMS WILL BE BASED ON ABILITY AND CAPACITY TO PERFORM FUNCTION SERVED, QUALITY AND AVAILABILITY OF PARTS AND SERVICE, QUALITY OF EQUIPMENT, DELIVERY SCHEDULE, ETC. THE ARCHITECT SHALL REVIEW ALL SUCH REQUESTS BUT RESERVES THE SOLE RIGHT OF JUDGEMENT TO APPROVE OR REJECT THE PROPOSED SUBSTITUTIONS.

ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL NOT CAUSE ADDITIONAL COST. ANY CHANGES OF PIPING, DUCTWORK, ELECTRICAL CONTROLS OR INSTALLATION REQUIRED BECAUSE OF THE SUBSTITUTION OR EQUIPMENT SHALL BE PAID FOR BY THIS CONTRACTOR PROPOSING THE SUBSTITUTION.

#### 7. ERECTION OF APPARATUS

ALL WORK SHALL BE DONE UNDER THE PERSONAL SUPERVISION OF THIS CONTRACTOR WHO SHALL PROVIDE A COMPETENT FOREMAN TO LAY OUT ALL WORK. ALL WORK SHALL BE LAID OUT WITH DUE REGARD FOR THE SPACE REQUIREMENTS OF THE OTHER CONTRACTORS. THIS CONTRACTOR SHALL REPORT ANY CONFLICTS OR DIFFICULTIES IN REGARD TO THE INSTALLATION IMMEDIATELY.

WHERE CROWDED LOCATIONS EXIST OR WHERE THERE IS A POSSIBILITY OF CONFLICT BETWEEN TRADES, THIS CONTRACTOR SHALL MAKE COMPOSITE DRAWINGS SHOWING THE EXACT LOCATIONS OF PIPES, DUCT, CONDUIT AND EQUIPMENT. DRAWINGS SHALL BE BASED ON FIELD MEASUREMENTS AND AFTER CONSULTATION AND AGREEMENT BETWEEN THE TRADES.

EQUIPMENT OF A TYPE TO REQUIRE REPLACEMENT, SERVICING, ADJUSTING OR MAINTENANCE SHALL BE LOCATED TO ALLOW EASY ACCESS AND SPACE FOR REMOVAL OF INTERNAL ASSEMBLIES, IT REQUIRED.

#### 8. EXCAVATION AND BACKFILL

THIS CONTRACTOR SHALL DO ALL EXCAVATION REQUIRED TO INSTALL PIPES AND EQUIPMENT SHOWN ON THE PLANS OR REQUIRED FOR PROPER OPERATION. EXCESS EXCAVATION BELOW THE REQUIRED LEVEL SHALL BE BACKFILLED WITH EARTH AND THOROUGHLY TAMPED. UTILITIES SERVICES LINES SHALL BE INSPECTED AND APPROVED BY THE PROPER INSPECTION AUTHORITY BEFORE BACKFILLING.

THE BOTTOM OF TRENCHES SHALL BE TAMPED HARD AN GRADED TO SECURE THE REQUIRED FALL. ROCK, WHERE ENCOUNTERED SHALL BE EXCAVATED TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE PIPE, AND BEFORE THE PIPE IS LAID, THE SPACE BETWEEN BOTTOM PIPE AND ROCK SURFACE SHALL BE FILLED WITH GRAVEL. IF TRENCHES ARE DEEPER THAN BOTTOM OF FLOORING OR CLOSER THAN THREE FEET (3'0") TO FOOTING THEY MUST BE FILLED WITH COHESIVE SOIL AND COMPACTED TO 95% OF MAXIMUM DENSITY, STANDARD PROCTOR, ASTM D- 698. ALL OTHER EXCAVATIONS UNDER FLOOR SLABS COMPACTED TO 95% STANDARD PROCTOR.

WHEN EXCESS DIRT HAS BEEN REMOVED, THE TRENCH SHALL BE BROUGHT TO THE REQUIRED LEVEL WITH SAND AND GRAVEL FIRMLY COMPACTED.

TRENCHES AND EXCAVATION SHALL BE BACKFILLED IN 6" LAYERS OF EARTH, FREE FROM CLODS, AND STONES THOROUGHLY TAMPED TO A DEPTH OF 12" ABOVE THE PIPE. AFTER THAT DEPTH HAS BEEN REACHED, BACKFILLING SHALL BE DONE IN 12" LAYERS. THOROUGHLY TAMPED.

#### 9. EQUIPMENT SUPPORTS

ANY STRUCTURAL STEEL MEMBERS REQUIRED TO ADAPT THE EQUIPMENT AND PIPING AS FURNISHED BY THIS CONTRACTOR, TO THE BUILDING STEEL OR STRUCTURE, SHALL BE INCLUDED IN THE BID OF THE CONTRACTOR FURNISHING THE EQUIPMENT OR PIPING. HANGING OF ALL EQUIPMENT AND REQUIRED SUPPORTING STEEL AND BRACING SHALL BE FURNISHED BY THE CONTRACTOR WHO SUPPLIES THE EQUIPMENT.

THIS CONTRACTOR SHALL INCLUDE ALL CUTTING, PATCHING AND PAINTING OF PATCHED AREAS REQUIRED FOR AND RESULTING FROM THE INSTALLATION OF ALL OF THIS CONTRACTOR'S WORK, EXCEPT WHERE NOTED OTHERWISE.

ALL OPENINGS AROUND PIPE PENETRATIONS THROUGH SMOKE OR FIRE-RATED FLOORS, CEILINGS OR WALLS SHALL BE SEALED AIRTIGHT WITH MATERIAL HAVING A RATING EQUAL TO THE MATERIAL OF THE WALL, CEILING AND/OR FLOOR PENETRATED.

ALL PATCHING SHALL BE NEATLY FINISHED TO THE SATISFACTION OF THE ARCHITECT.

THIS CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY THE GENERAL CONTRACTOR, ALL ACCESS PANELS AS REQUIRED FOR ACCESS TO VALVES, AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THE CONTRACT.

ALL PANELS SHALL BE MILCOR, STYLE "M" FOR MASONRY, "A" FOR ACOUSTICAL TILE AND "K" FOR PLASTER; EXCEPT FOR FIRE-RATED UL 1-1/2 HOUR AND "B" LABEL ACCESS PANELS SHALL BE FURNISHED IN FIRE-RATED WALLS AND CEILINGS AS INDICATED ON THE DRAWINGS. ACCESS DOORS SHALL BE 12" X 12" MINIMUM SIZE FOR VALVES.

FOR THE PREVENTION OF ELECTROLYTIC CORROSION AT CONNECTIONS BETWEEN PIPE OF DISSIMILAR METALS OR BETWEEN PIPE AND EQUIPMENT CONNECTIONS OF DISSIMILAR METALS, PROVIDE DIELECTRIC UNIONS OR FLANGES.

#### 13. MOTORS, STARTERS AND DISCONNECTS

UNLESS SPECIFIED TO BE FURNISHED WITH EQUIPMENT, ALL MOTOR STARTERS AND DISCONNECT SWITCHES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

#### 14. JOINTS AND FITTINGS

THREADS ON SCREWED PIPE SHALL BE STANDARD, CLEAN BUTT AND TAPERED. PIPE SHALL BE REAMED OF BURRS AND KEPT CLEAN OF SCALE, DIRT AND SHAVINGS. TREADS SHALL BE MADE WITH FLAKED GRAPHITE AND LUBRICATING OIL OR APPROVED PIPE COMPOUND ON THE MALE THREAD ONLY.

COPPER-TO-STEEL AND COPPER-TO-BRASS JOINTS SHALL BE MADE WITH SILVER SOLDER. ALL OTHER COPPER-TO-COPPER JOINTS ABOVE GROUND SHALL BE MADE WITH LEAD FREE SOLDER. COPPER PIPE SHALL BE CUT SQUARE, BURRS REMOVED AND CARE SHALL BE GIVEN TO KEEP THE LINES FREE OF DIRT AND MOISTURE. ALL TUBING AND FITTINGS SHALL BE THOROUGHLY CLEANED.

WELDED PIPE SHALL HAVE BUTT WELDED SINGLE "V" TYPE JOINTS FOR WHICH PIPE HAS BEEN BEVELED TO 45 DEGREES. WELD SHALL BE ONE-FOURTH GREATER THICKNESS THAN THE PIPE. CONNECTIONS TO EQUIPMENT, ACCESSORIES, ETC. SHALL BE MADE BY MEANS OF FLANGES AND/OR ADAPTERS.

UNIONS SHALL BE PROVIDED AT EACH SCREWED VALVE AND UNIONS OR FLANGES AT EACH EQUIPMENT CONNECTION.

#### 15. EXPANSION JOINTS

FURNISH AND INSTALL FLEXONICS EXPANSION JOINTS IN PIPING SYSTEM WHERE SHOWN OR NECESSARY FOR EXPANSION AND CONTRACTION.

EXPANSION JOINTS IN PIPE 4" AND GREATER SHALL BE THE PACKLESS TYPE WITH STAINLESS STEEL BELLOWS AND HAVE WELDED OR FLANGED END. JOINTS SHALL HAVE TRAVERSE AS INDICATED ON THE PLANS. EXPANSION JOINTS SHALL BE OF THE CONTROLLED FLEXING TYPE.

EXPANSION JOINTS IN COPPER PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL BELLOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES.

EXPANSION JOINTS IN STEEL PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL ELBOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES.

PROVIDE GUIDES ON EACH SIDE OF EXPANSION JOINT, AT 4 PIPE DIAMETERS, 14 PIPE DIAMETERS, AND A THIRD GUIDE AS RECOMMENDED BY THE MANUFACTURER.

#### 16. PIPE FLEXIBLE CONNECTIONS

FLEXIBLE PIPE CONNECTIONS SHALL BE RESISTOFLEX #R6904 OR APPROVED EQUAL FLEXIBLE CONNECTIONS MADE FROM TEFLON.

PROVIDE FOR MOVEMENT IN PIPING BY USE OF SWING JOINTS AT CONNECTION OF ALL BRANCHES TO MAINS AND RISERS. ALL BRANCHES FROM MAINS AND RISERS SHALL HAVE 1/4" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE TO PERMIT PIPE MOVEMENT.

#### 17. VALVES

THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL VALVES OF ONE MANUFACTURER, FIGURE NUMBER AND TYPE THROUGHOUT THE ENTIRE INSTALLATION OF THE WORK, UNLESS OTHERWISE SPECIFIED. THE FOLLOWING NUMBERS ARE FROM THE CRANE CATALOG. EQUAL VALVES OF REPUTABLE MANUFACTURERS, SUCH AS HAMMOND, NIBCO-SCOTT AND/OR JENKINS WILL BE CONSIDERED EQUIVALENT.

ALL VALVES SHALL BE BUILT FOR A MINIMUM OF 125 PSIG WORKING PRESSURE. GATE VALVES 2-1/2" AND SMALLER SHALL BE #438 (SCREWED ENDS) OR #1320 (SOLDER-JOINT ENDS) WITH BRONZE BODY, BRONZE TRIM AND RISING STEM.

CHECK VALVES 2-1/2" AND SMALLER SHALL BE #36 (SCREWED ENDS) OR #1342 (SOLDER-JOINT ENDS) SWING-TYPE WITH BRONZE BODY AND BRONZE TRIM.

BUTTERFLY VALVES 2" AND LARGER SHALL BE #12F, IRON BODY, CAST-IRON WAFER W/LOCK LEVER.

BALL VALVE UP TO 3" IN SIZE SHALL BE APOLLO SERIES #70 BRONZE VALVE WITH CHROME-PLATED BALL AND TEFLON SEAT.

#### GAS LINE COCKS UP TO 4" SHALL BE #320.

HOSE END VALVES SHALL BE #438 GATE VALVES WITH HOSE END NIPPLES.

#### 18. PIPE SLEEVES AND COLLARS

THIS CONTRACTOR SHALL LAY OUT ALL HIS WORK AND SET SLEEVES IN NEW CONSTRUCTION AS CONCRETE FORMS AND WALL ARE ERECTED SO AS TO BE ABLE TO INSTALL HIS WORK WITHOUT CUTTING OR BREAKING OF FLOORS OR WALLS. ALL SLEEVES FOR INSULATED PIPING SHALL BE LARGE ENOUGH TO ALLOW INSULATION TO PASS THROUGH SLEEVE.

ALL SLEEVES PASSING THROUGH FLOORS WHICH ARE WATERPROOFED SHALL BE COPPER TUBING SLEEVES EXTENDING 1" ABOVE FINISHED FLOOR. ALL OTHER SLEEVES SHALL BE 24 GAUGE GALVANIZED PIPES AND SLEEVES TO BE THOROUGHLY PACKED WITH OAKUM AND THE REMAINING SPACE FILLED WITH MASTIC AND MUST BE

ALL SLEEVES PASSING THROUGH INNER WALLS SHALL BE STANDARD PIPE THIMBLES EQUAL TO THE THICKNESS OF THE WALL.

SPACES BETWEEN PIPES AND SLEEVES THROUGH OUTSIDE WALLS, ABOVE GRADE, SHALL BE CAULKED WITH CAULKING COMPOUND; THOSE BELOW GRADE SHALL BE MADE WATERTIGHT.

SPACE AROUND ALL PIPING THROUGH FIRE OR SMOKE RATED PARTITIONS OR FLOORS SHALL BE SEALED AIRTIGHT WITH MATERIAL AS SPECIFIED UNDER FIRESTOPPING.

ALL PIPE PENETRATIONS OF SLABS ON GRADE SHALL BE WRAPPED WITH #15 BUILDING FELTS OR FOAM WRAP.

A. PIPE HANGER AND SUPPORT PRODUCTS INSTALLATION

- a. VERTICAL PIPING: MSS TYPE 8 OR 42 CLAMPS. INDIVIDUAL, STRAIGHT, HORIZONTAL PIPING RUNS: 100 FEET AND LESS: MSS TYPE 1, ADJUSTABLE, STEEL CLEVIS HANGERS. LONGER THAN 100 FEET: MSS TYPE 43, ADJUSTABLE ROLLER HANGERS. LONGER THAN 100 FEET IF INDICATED: MSS TYPE 49, SPRING CUSHION
- ROLLS. c. MULTIPLE, STRAIGHT, HORIZONTAL PIPING RUNS 100 FEET OR LONGER:MSS TYPE 44, PIPE ROLLS. SUPPORT PIPE ROLLS ON TRAPEZE.
- d. BASE OF VERTICAL PIPING: MSS TYPE 52, SPRING HANGERS.
- B. SUPPORT VERTICAL PIPING AND TUBING AT BASE AND AT EACH FLOOR. C. ROD DIAMETER MAY BE REDUCED ONE SIZE FOR DOUBLE-ROD HANGERS, TO A MINIMUM OF 3/8 INCH
- D. INSTALL HANGERS FOR COPPER TUBING WITH THE FOLLOWING MAXIMUM HORIZONTAL SPACING AND MINIMUM ROD DIAMETERS:
- a. NPS 3/4 AND SMALLER: 60 INCHES WITH 3/8-INCH ROD.
- b. NPS 1 AND NPS 1-1/4: 72 INCHES WITH 3/8-INCH ROD. c. NPS 1-1/2 AND NPS 2: 96 INCHES WITH 3/8-INCH ROD.
- e. NPS 3 TO NPS 5: 10 FEET WITH 1/2-INCH ROD. E. INSTALL SUPPORTS FOR VERTICAL COPPER TUBING EVERY 10 FEET. F. INSTALL HANGERS FOR STEEL PIPING WITH THE FOLLOWING MAXIMUM
- HORIZONTAL SPACING AND MINIMUM ROD DIAMETERS: a. NPS 1-1/4 AND SMALLER: 84 INCHES WITH 3/8-INCH ROD.
- b. NPS 1-1/2: 108 INCHES WITH 3/8-INCH ROD. c. NPS 2: 10 FEET WITH 3/8-INCH ROD.

d. NPS 2-1/2: 108 INCHES WITH 1/2-INCH ROD.

- d. NPS 2-1/2: 11 FEET WITH 1/2-INCH ROD. e. NPS 3 AND NPS 3-1/2: 12 FEET WITH 1/2-INCH ROD.
- f. NPS 4 AND NPS 5: 12 FEET WITH 5/8-INCH ROD. G. INSTALL SUPPORTS FOR VERTICAL STEEL PIPING EVERY 15 FEET. H. SUPPORT PIPING AND TUBING NOT LISTED IN THIS ARTICLE ACCORDING TO MSS SP-69 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO THE GROUNDS, WALKS, ROADS, ALL BUILDING COMPONENTS AND FINISHES, PIPING SYSTEMS, ELECTRICAL SYSTEMS AND THEIR EQUIPMENT AND CONTENT, CAUSED BY LEAKS IN THE PIPING SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED HEREIN. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

FURNISH AND INSTALL BRADY #B-350 THIN FILM OR APPROVED EQUAL PIPE MARKERS MARKERS SHALL BE 1-1/8" HIGH FOR PIPES 3" AND UNDER AND 2-1/4" HIGH FOR PIPES OVER 3". MARKERS SHALL INDICATE TYPE OF SERVICE AND DIRECTION OF FLOW.

PIPE MARKERS SHALL BE LOCATED:

 AT EQUIPMENT CONNECTIONS AT ACCESS DOORS

 AT BRANCH MAINS • ON ALL ACCESSIBLE PIPE A MAXIMUM OF 75' BETWEEN MARKERS.

#### 22. FLOOR, WALL AND CEILING PLATES

PIPES PASSING THROUGH FLOORS AND FINISHED CEILINGS, FITTED WITH CHROME-PLATED PLATES OR ESCUTCHEONS LARGE ENOUGH TO COMPLETELY CLOSE OPENING AROUND PIPE OR PIPE COVERING AND FLOOR SUPPORT IN THE CASE OF VERTICAL PIPING, SECURELY HELD IN PLACE; CAULK WATERTIGHT AROUND PIPE IN UNFINISHED

THE PENETRATIONS OF FIRE AND/OR SMOKE RATED WALLS OR FLOORS SHALL BE PROTECTED BY A UL APPROVED MATERIAL TO RETAIN THE INTEGRITY OF THE TIME-RATED CONSTRUCTION BY MAINTAINING AS EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE AND GASES. IT SHALL BE USED IN ALL DUCT CABLE, CONDUIT AND PIPING PENETRATIONS THROUGH FLOOR SLABS AND TIME-RATED WALLS, AND/OR FLOORS. THE RATING OF THE FIRESTOPPING SHALL EQUAL THE RATING OF THE TIME-RATED ASSEMBLY.

FIRESTOPPING MATERIAL SHALL BE 3M FIRE BARRIER SEALING SYSTEM OF APPROVED EQUAL. FIRESTOPPING MATERIAL SHALL CONSTITUTE ONE OR MORE OF THE FOLLOWING PRODUCTS:

• CAULK: CP-25

• PUTTY: #303

• WRAP/STRIP: FS195

 COMPOSITE SHEET: CS195 • PENETRATING SEALING SYSTEMS: 7900 SERIES

INSTALLATION OF FIRESTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH AND IN STRICT CONFORMITY WITH MANUFACTURER'S PRINTED INSTRUCTIONS AS TO SURFACE PREPARATION, INSTALLATION AND QUALITY CONTROL. AREAS OF WORK SHALL REMAIN ACCESSIBLE UNTIL INSPECTION AND APPROVAL BY THE APPLICABLE CODE AUTHORITIES.

ON INSULATED PIPES, THE FIRE-RATING CLASSIFICATION SHALL NOT REQUIRE REMOVAL OF THE INSULATION.

#### QUALITY ASSURANCE:

SUBMIT MANUFACTURER'S PRODUCT DATA, LETTER OF CERTIFICATION OR CERTIFIED LABORATORY TEST REPORT THAT THE MATERIAL OR COMBINATION OF MATERIALS MEET THE REQUIREMENTS SPECIFIED IN ASTM E814 AND ARE SO CLASSIFIED IN UL'S BUILDING MATERIALS DIRECTORY. MATERIALS SHALL MEET AND BE ACCEPTABLE FOR USE BY ALL MODEL BUILDING CODES. MATERIALS SHALL MEET THE REQUIREMENTS OF NFPME61- LIFE SAFETY CODE

SURMITTALS: SUBMIT SHOP DRAWINGS, PRODUCT DATA, CERTIFICATES AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUBMIT MANUFACTURER'S PRODUCT DATA FOR ALL MATERIALS AND PREFABRICATED DEVICES, PROVIDING DESCRIPTIONS SUFFICIENT FOR IDENTIFICATION AT THE JOB SITE. INCLUDE MANUFACTURER'S INSTRUCTIONS FOR

SUBMIT SHOP DRAWINGS SHOWING PROPOSED MATERIAL, REINFORCEMENT, ANCHORAGE, FASTENINGS, AND METHOD OF INSTALLATION. CONSTRUCTION DETAILS SHALL ACCURATELY REFLECT ACTUAL JOB CONDITIONS.

#### 24. CLEANUP AND ADJUSTMENT

ALL PARTS WORK LEFT CLEAN: EQUIPMENT, FIXTURES, VALVES, PIPES AND FITTINGS CLEANED OF GREASE AND METAL CUTTINGS. ANY DISCOLORATION OR OTHER DAMAGE TO PORTIONS OF BUILDING, ITS FINISH OR FURNISHING DUE TO THIS CONTRACTORS FAILURE TO PROPERLY CLEAN INTERIOR OF PIPING, REPAIRED AT THIS CONTRACTOR'S EXPENSE. ALL AUTOMATIC CONTROL DEVICES ADJUSTED FOR PROPER OPERATION. ALL SURPLUS MATERIALS AND ANY RUBBISH REMOVED AS IT ACCUMULATES. ALL EQUIPMENT LEFT IN SAFE, PROPER OPERATING CONDITION.

DAMAGE TO ANY PORTIONS MUST BE REPAIRED OF THE PART REPLACED BY THIS CONTRACTOR AND ALL PARTS LEFT WITHOUT DENTS, SCRATCHES, THROUGH THE FINISH PAINT, LOOSE PLASTER, STAINS OR OTHER BLEMISHES.

#### 25. PIPE TESTING AND START-UP

ALL PIPING TO BE TESTED IN ACCORDANCE WITH THE FOLLOWING:

• WATER - 100 PSI WATER PRESSURE ALL TESTING MUST HOLD FOR AT LEAST 24 HOURS WITHOUT LOSS OF PRESSURE OR VACUUM. ALL CONCEALED PIPING SHALL BE TESTED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO COVERING. BEFORE STARTING ANY SYSTEM, ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE LUBRICATED BY THIS CONTRACTOR. TEST ENTIRE PLANT FOR HEATING, VENTILATING, AND AIR CONDITIONING UNDER FULL LOAD CONDITIONS FOR A PERIOD OF NOT LESS THAT ONE (1) WEEK DURING WHICH TIME THE AARON BROTHERS OPERATING PERSONNEL SHALL BE FULLY INSTRUCTED IN THE OPERATION AND MAINTENANCE OF THE PLANT. AFTER

THE PLANT IS IN FULL OPERATION, THIS CONTRACTOR IS TO FURNISH WHATEVER ADDITIONAL SERVICE IS REQUIRED TO RECALIBRATE AND RESET CONTROLS, VALVES,

BALANCING COCKS, ETC. TO ENSURE PROPER OPERATION OF THIS SYSTEM.

#### 26. TESTING AND BALANCING

THIS CONTRACTOR SHALL AT THE TIME OF INSTALLATION ENSURE THAT ALL DEVICES TO COMPLETE TESTING AND BALANCING AS DIRECTED HEREIN ARE FURNISHED AND INSTALLED DURING FABRICATION AND INSTALLATION OF WORK.

#### 27. SEISMIC RESTRAINTS ON MECHANICAL EQUIPMENT

ALL PLUMBING EQUIPMENT SHALL BE PROVIDED WITH SEISMIC RESTRAINING SERVICES AS REQUIRED BY LOCAL BUILDING CODES. CONTRACTOR SHALL HAVE LOCAL BUILDING OFFICE REVIEW EACH PIECE OF EQUIPMENT WHEN INSTALLED AND THE CONTRACTOR SHALL INSTALL ALL REQUIRED TIE DOWN, ANCHORS, STRAPS OR OTHER DEVICES REQUIRED.

THIS CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, MATERIALS, AND LABOR FURNISHED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AND SHALL REPAIR OR REPLACE ANY EQUIPMENT OR MATERIAL WHICH IS DEFECTIVE OR IMPROPERLY INSTALL FD. IN ADDITION, THIS CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO THE BUILDINGS AND ITS CONTENTS OR OTHER EQUIPMENT, CAUSED BY DEFECTS OR IMPROPER INSTALLATION OF EQUIPMENT OR MATERIALS INSTALLED UNDER THIS SECTION OF THE SPECIFICATIONS.

#### 29. TEMPORARY WATER

TEMPORARY WATER SERVICE TO THE BUILDING SHALL BE PROVIDED BY THIS CONTRACTOR TO THE BUILDING FOR CONSTRUCTION PURPOSES. THIS CONTRACTOR TO MAINTAIN WATER SERVICE AS REQUIRED DURING CONSTRUCTION.

#### 30. DOMESTIC WATER SERVICE

PROVIDE PRESSURE REDUCING VALVE WITH STRAINER IN SERVICE LINE IF REQUIRED BY LOCAL CODES OR PRESSURE IS ABOVE 80 PSI.

JOINTS SHALL BE CLEANED AND DEBURRED AS RECOMMENDED BY THE MANUFACTURER AND FEDERAL, STATE, AND LOCAL CODES AND SOLDERED AS LISTED BELOW. FLUX SHALL BE NON-CORROSIVE.

ABOVE GRADE - WHERE FITTINGS ARE SOLDERED BOTH FITTINGS AND TUBING SHALL BE CLEANED AS DESCRIBED ABOVE. UNDER NO CIRCUMSTANCES SHALL DISSIMILAR METALS COME INTO DIRECT CONTACT WITH COPPER TUBING; E.G., GALVANIZED STRAPPING, HANGERS, OR CLAMPS TO SECURE THE TUBING.

BELOW GRADE, OR FLOOR SLAB ON EARTH OR STONE FILL - HIGH TEMPERATURE, SOLDER, 1200 DEG. F OR GREATER MELTING POINT.

NOTE: WATER PIPE TO BE PROPERLY SECURED AND ALIGNED SO AS NOT TO EXERT VERTICAL OR HORIZONTAL STRESSES ON THE SEATING OF THE MATING (MALE AND FEMALE) SURFACES OF THE UNIONS. MATERIALS - UNDERGROUND: TYPE "K" COPPER TUBE, SOFT TEMPE MATERIALS - ABOVEGROUND: TYPE "L" COPPER TUBE, HARD DRAWN. ALTERNATE MATERIALS - CPVC AND OR PEX PIPING IS AN ACCEPTABLE ALTERNATE IF NOT INSTALLED IN A PLENUM AND APPROVED BY LOCAL CODE OFFICIALS. VIEGA. PROPRESS COPPER ½-INCH THROUGH 4-INCH WITH EPDM SEALING ELEMENT AND/OR VIEGA, PROPRESS 304 OR 316 STAINLESS 1/2-INCH THROUGH 4-INCH WITH

#### 31. STERILIZATION OF DOMESTIC WATER SYSTEM

THE ENTIRE DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE THOROUGHLY STERILIZED WITH A SOLUTION CONTAINING NOT LESS THAN 100 PARTS PER MILLION OF AVAILABLE CHLORINE. THE SOLUTION SHALL REMAIN IN THE SYSTEM FOR TWO (2) HOURS DURING WHICH TIME ALL VALVES AND FAUCETS SHALL BE OPENED AND CLOSED SEVERAL TIMES. AFTER STERILIZATION, THE SOLUTION SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAN WATER UNTIL THE RESIDUE CHLORINE CONTENT IS NOT GREATER THAN THE CHLORINE LEVEL OF THE AVAILABLE WATER SUPPLY.

EPDM OR FKM SEALING ELEMENT IS ACCEPTABLE IF ALLOWED BY LOCAL CODE

THIS CONTRACTOR SHALL HAVE THE WATER TESTED AND APPROVED BY THE HEALTH DEPARTMENT.

DEFECTS.

THIS CONTRACTOR SHALL CONNECT SANITARY SEWER AS INDICATED ON THE DRAWINGS. VERIFY DIRECTION OF FLOW PRIOR TO ANY ROUGH-IN WORK.

EACH PIPE SHALL BE LAID TO THE LINE AND GRADE INDICATED ON THE PLANS AND SUCH A MANNER AS TO FORM A CLOSE CONCENTRIC JOINT WITH THE ADJOINING PIPE AND TO PRESENT OFFSETS IN FLOW LINE. ALL PIPE SHALL BE LAID WITH THE BELLS

THE SUB-GRADES SHALL BE KEPT FREE FROM WATER WHILE PIPES ARE BEING LAID. ALL PIPE SHALL BE LAID WITH ENDS ABUTTING AND TRUE TO LINE AND GRADE. THEY SHALL BE FITTED AND MATCHED SO THAT THEY WILL FORM A SEWER WITH A SMOOTH AND UNIFORM INVERT.

EACH JOINT SHALL BE CLEANED AS IT IS LAID AND ALL BELLS SHALL BE CLEANED BEFORE PIPES ARE JOINED.

PVC SEWER PIPE MAY BE USED IN LIEU OF THAT SPECIFIED ABOVE IF ALLOWED BY

#### LOCAL CODES. 33. WASTE, SOIL, DRAIN AND VENT PIPING

THE DRAINS, SOIL WASTE AND VENT PIPE AND FITTINGS INCLUDING EXTENSIONS TO SEWERS SHALL BE OF SAND SPUN SERVICE WEIGHT CAST IRON PIPE OF THE SIZES INDICATED ON THE DRAWINGS. PIPE AND FITTINGS TO BE COATED ON THE INSIDE AND OUTSIDE WITH COAL TAR PITCH, CYLINDRICAL AND FREE FROM CRACKS OR OTHER

ALL TRENCHES TO BE DUG WITH GRADUAL FALL, THE PIPING TO BE STRAIGHT AND THOROUGHLY YARNED WITH OAKUM AND POURED WITH MOLTEN LEAD AND THOROUGHLY CAULKED WITH CAULKING IRONS.

THE ARRANGEMENT OF THE SYSTEM SHALL BE AS SHOWN ON THE DRAWINGS AND AS DIRECT AS POSSIBLE, AVOIDING ALL UNNECESSARY OFFSETS. THE STACKS SHALL BE FIRMLY SECURED IN POSITION WITH WROUGHT IRON CLAMPS AT EACH FLOOR. ALL CHANGES IN DIRECTION OF SOIL OR WASTE PIPE SHALL BE MADE BY MEANS OF "Y"

BRANCHES AND 1/8 BENDS. NINETY DEGREE SHORT TURN FITTINGS WILL NOT BE

FROM THE HORIZONTAL TO THE VERTICAL. HANDHOLES WITH CAST IRON FERRULES AND HEAVY BRASS SCREWS FOR CLEANOUTS SHALL BE PLACED AT ENDS AND ALL CHANGES IN DIRECTION OF SOIL AND WASTE PIPE WHERE NOT OTHERWISE SHOWN OR WHERE REQUIRED AND BROUGHT UP TO THE

FLOOR LINE WHERE PIPING IS CONCEALED BY MEANS OF "Y"S OR SUITABLE BENDS.

PERMITTED EXCEPT TO INDIVIDUAL FIXTURE CONNECTIONS OR WHERE THE FLOW IS

ALL TRAP SCREWS MUST BE OF FULL SIZE OF PIPE UP TO 4" AND 4" FOR ALL OVER THIS SIZE. CONNECTIONS BETWEEN OUTLETS OF FIXTURES AND SOIL OR WASTE PIPE SHALL BE MADE WITH "Y" BRANCHES TO "TY" BRANCHES WHEREVER POSSIBLE. ALL HORIZONTAL SOIL WASTE AND VENT PIPE SHALL BE GRADED TOWARD OUTLETS AND PIPE NOT BURIED SHALL BE INSTALLED ABOVE THE CEILING OR CLOSE AS POSSIBLE TO THE CONSTRUCTION ABOVE WHERE THERE IS NO CEILING.

THE STACKS SHALL BE EXTENDED THROUGH ROOF OF BUILDING TO POINTS NOT LESS THAT 12" ABOVE ROOF. EXTENSIONS THROUGH ROOF SHALL BE MADE WATER- TIGHT BY MEANS OF A LEAD FLASHING OF FOUR POINTS SHEET LEAD SPREAD OVER A DISTANCE OF NOT LESS THAN TWELVE INCHES (12") AROUND PIPE. THIMBLE TO BE SOLDERED TO BASE AND EXTENDED OVER AND TURNED DOWN INTO END OF PIPE IN AN APPROVED MANNER.

ALL CLEANOUTS IN FLOORS TO BE JOSAM #8360 OR AMERICAN FOUNDRY #427 ADJUSTABLE CLEANOUT WITH CAST IRON BODY, CAST BRASS SCORIATED COVER WITH LETTERS C.O. CAST IN TOP AND CONCEALED BRASS PLUG.

CLEANOUTS SHALL BE INSTALLED IN BASE OF EACH STACK. CONCEALED CLEANOUTS

SHALL HAVE JOSAM #8600 OR AMERICAN FOUNDRY #71-F CAST BRASS CHROMIUM

FERRULES SHALL BE EXTRA HEAVY RED BRASS, EXTRA LONG AND SMOOTH ON THE INSIDE, FOR WASTE, SOIL AND VENT CONNECTION THE LEAD SHALL EXTEND THROUGH THE FERRULES, BE TURNED BACK, WIPED WITH SOLDER AND CAULKED INTO THE HUB.

PLATED FLAT ACCESS COVER PLATES.

ALL JOINTS OF CAST IRON PIPE SHALL BE MADE WITH JUTE AND PURE SOFT LEAD BEDDED IN WITH HAMMER AND CAULKING IRON, USING FOR EACH JOINT TWELVE OUNCES OF LEAD TO EACH INCH OF DIAMETER OF PIPE ON WHICH THE JOINT IS MADE. ALL JOINTS SHALL BE FILLED AT ONE POURING, IF IT FAILS TO RUN FULL IT SHALL BE DUG OUT AND RE-POURED AND CAULKED WITH PROPER TOOLS. JOINTS BETWEEN LEAD AND CAST IRON SHALL BE MADE WITH BRASS FERRULES, WIPED TO THE LEAD PIPE AND CAULKED INTO THE HUB OF THE CAST IRON FITTINGS. AT THE CONTRACTOR'S OPTION HE MAY USE NO-HUB PIPE, FITTINGS, COUPLING AND GASKETS IN LIEU OF LEAD JOINTS IF APPROVED BY THE LOCAL CODES AND ORDINANCES.

AT THE CONTRACTOR'S OPTION, DWV COPPER PIPING AND FITTINGS MAY BE USED IF APPROVED BY LOCAL CODES AND ORDINANCES.

IF APPROVED BY THE LOCAL CODES, SCHEDULE 40 PVC PIPE WITH DWV FITTINGS MAY BE USED FOR THE WASTE AND VENT SYSTEM. PVC PIPE AND FITTINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL CODES. ENCASEMENT OF PVC PIPES WITHIN RATED SHAFTS SHALL BE THE COST OF THIS CONTRACTOR.

EACH VENT FLASHING SHALL BE MADE WATER-TIGHT WITH THE ROOF BY PROPER LEAD FLASHING. FLASHING SHALL BE LEAD FOUR (4) POUNDS PER SQUARE FOOT.

35. WASTE, VENT AND WATER CONNECTIONS

THE MINIMUM SIZE OF WASTE, VENT, AND WATER CONNECTION TO THE INDIVIDUAL FIXTURES SHALL BE AS FOLLOWS:

WATER CLOSETS LAVATORIES 1-1/2" 1-1/2" 1/2" 1/2" 1-1/2" 1-1/2" 1/2" 1/2" WALL HYDRANTS

WHERE FIXTURES ARE GROUPED PIPES SHALL BE INCREASED IN PROPORTION: IN ALL CASES THE SIZE ARRANGEMENTS AND CONNECTIONS OF WATER AND VENT PIPING SHALL NOT BE LESS THAN SIZE OF OPENINGS SPECIFIED FOR FIXTURES AND APPEARING IN FIXTURE LIST. NO WATER PIPE LESS THAN 1/2" SHALL BE INSTALLED IN CONCEALED PLACES SUCH AS IN PARTITIONS OR WALLS ETC.

#### 36. PLUMBING FIXTURES AND TRIM

PLUMBING FIXTURES SHALL BE FURNISHED AND INSTALLED IN A NEAT AND WORKMANLIKE MANNER WITH PROPER CONNECTIONS TO SUPPLY AND DRAINAGE PIPING. ALL FIXTURES SHALL BE FREE OF FLAWS AND DEFECTS OF ANY SORT IN MATERIAL AND WORKMANSHIP AND SHALL OPERATE PERFECTLY WHEN INSTALLED IN ACCORDANCE WITH MANUFACTURER'S DIRECTION.

MATERIALS: FIXTURES SHALL BE THE STANDARD PRODUCT OF ONE OF THE MANUFACTURER'S LISTED BELOW, OR ANY EQUAL UNIT APPROVED BY THE ENGINEER.

ZURN, KOHLER, CRANE, AMERICAN STANDARD, ELJER, GROHE, DELTA, ELKAY

INSTALLATION: THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE PLUMBING FIXTURES AND ACCESSORIES DURING CONSTRUCTION. HE SHALL REPLACE AT HIS EXPENSE ANY MATERIAL THAT IS MARRED, SCRATCHED, DEFACED AND/OR BROKEN. FIXTURES SHALL BE COVERED WITH BUILDING PAPER AND WOODEN CRATES DURING CONSTRUCTION.

CONTRACTOR SHALL PROVIDE ROUGH-IN AND SHALL CONNECT ALL FIXTURES TO THE PLUMBING SYSTEM. ALL FIXTURES TO BE INSTALLED TO DIMENSIONS WITH CHROME-PLATED SUPPLIES WITH STOPS.

ALL FIXTURES INSTALLED TO DIMENSIONS SHOWN ON THE DRAWINGS. ALL WATER

CLOSETS SHALL HAVE CAULKING BETWEEN THE FLOOR AND UNDERSIDE OF THE

WATER CLOSET. PLUMBING EQUIPMENT: (REFER TO SCHEDULE ON THE DRAWINGS)

#### ALL INSULATION SHALL HAVE COMPOSITE (INSULATION, JACKET OR FACINGS AND ADHESIVE USED TO ADHERE THE FACING OR JACKET TO THE INSULATION) FIRE AND SMOKE HAZARD RATINGS AS TESTED BY PROCEDURE ASTM E-84, NFPA 225 UL 723 NOT

AND REGULATIONS.

**EXCEEDING:** 

FLAME SPREAD 25 SMOKE DEVELOPED 50 ALL ACCESSORIES SUCH AS ADHESIVES, MASTICS, CEMENTS, TAPES AND CLOTH FOR

FITTINGS SHALL HAVE THE SAME COMPONENTS RATINGS AS LISTED ABOVE. INSULATION SHALL BE APPLIED ON CLEAN, DRY SURFACES AND AFTER INSPECTION AND RELEASE FOR INSULATION APPLICATION, ALL INSULATION SHALL BE CONTINUOUS THROUGH WALL AND CEILING OPENINGS AND SLEEVES. INSULATION ON ALL COLD SURFACES WHERE VAPOR BARRIER JACKETS ARE USED, WILL BE APPLIED WITH A CONTINUOUS, UNBROKEN VAPOR SEAL, INCLUDING ALL FITTINGS AND VALVES. ALL

DOMESTIC COLD WATER - 1" THICK ARMAFLEX (FLAME SPREAD 25/ SMOKE DEVELOPED

DOMESTIC HOT WATER - 1" THICK ARMAFLEX (FLAME SPREAD 25/ SMOKE DEVELOPED

SHALL BE FINISHED WITH 1/4" COAT OF INSULATING CEMENT AND CANVAS.

INSULATION TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S. FITTINGS

# ALL MATERIALS USED SHALL COMPLY WITH SECTIONS 1712 AND 1713 OF THE UBC.

38. NATURAL GAS PIPING SYSTEM ALL PIPING FROM GAS METER TO GAS-FIRED EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR.

ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK OR GALVANIZED STEEL WITH BLACK OR GALVANIZED WITH MALLEABLE SCREWED FITTINGS. USE TEFLON TAPE ON ALL THREADED JOINTS. FITTINGS LARGER THAN TWO INCHES (2") SHALL BE WELDED. PROVIDE UNIONS AND GAS SHUT-OFF VALVES AT EACH PIECE OF GAS FIRED EQUIPMENT OR APPLIANCE. ANY GAS PIPING CONCEALED IN CHASES AND/OR

INACCESSIBLE CEILING IS TO BE WELDED WITH WELDED FITTINGS.

ALL GAS PIPING TO BE IN ACCORDANCE WITH LOCAL CODES, NFPA-54, IFGC AND UPC

ALL GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH NFPA-54, LOCAL CODES,

SYSTEM: G4 (ARIA) Project Team:

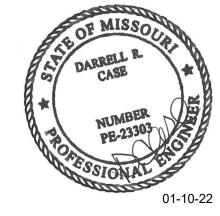
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64086



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Description SHELL - PERMIT SET 07/05/2022

Project Number:

CERTIFICATE OF AUTHORITY NO. 001498

F 636.349.1730

LKA-MO-01-22 07/05/2022

3. FURNISH ALL MATERIALS, EQUIPMENT, LABOR, & SERVICES REQUIRED FOR THE INSTALLATION OF ALL ELECTRICAL WORK & AS REQUIRED TO PROVIDE A COMPLETE & OPERABLE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS.

MATERIALS SHALL BE NEW W/ MANUFACTURERS NAME PRINTED THEREON & UNDERWRITERS LABORATORY LISTED. THE SELECTION OF MATERIALS SHALL BE IN STRICT ACCORDANCE W/ THE DRAWINGS AND/OR SPECIFICATIONS. SELECTION OF MATERIALS SHALL BE IN STRICT ACCORDANCE W/ THE DRAWINGS AND/OR SPECIFICATIONS.

- 4 SUBMIT MATERIAL LISTS AND SHOP DRAWINGS FOR MAJOR FOUIPMENT TO THE OWNER'S REPRESENTATIVE FOR REVIEW SUBMITTALS SHALL BE IN ACCORDANCE WITH GENERAL CONDITIONS AND SHALL BEAR THE STAMP OF THE ELECTRICAL CONTRACTOR SHOWING THAT HE HAS REVIEWED AND APPROVED THEM. LACK OF SUCH CONTRACTOR'S APPROVAL WILL BE CAUSE FOR REJECTION WITHOUT REVIEW BY THE OWNER.
- 5. CONTRACTOR SHALL GUARANTEE WORK INSTALLED UNDER THE CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP & MATERIALS, USUAL WEAR EXCEPTED, & SHOULD ANY SUCH DEFECTS DEVELOP W/IN A PERIOD OF ONE YEAR ACCEPTANCE OF THE BLDG. BY THE YEAR. THIS CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DEFECTIVE ITEMS & DAMAGE RESULTING FROM FAILURE OF THESE ITEMS, AT NO EXPENSE TO THE OWNER.
- INCIDENTAL ITEMS NOT INDICATED ON THE DRAWINGS, NOR MENTIONED IN THE SPECIFICATIONS THAT CAN BE LEGITIMATELY & REASONABLE BE INFERRED TO BELONG TO THE WORK DESCRIBED OR BE NECESSARY IN GOOD PRACTICE TO PROVIDE A COMPLETE SYSTEM, SHALL BE FURNISHED & INSTALLED AS THOUGH ITEMIZED HERE IN EVERY DETAIL.
- 7. NOTIFY ARCHITECT IMMEDIATELY OF POSSIBLE CONFLICTS WITH STRUCTURE, MECHANICAL OR OTHER FEATURES WHERE JOB CONDITIONS REQUIRE REASONABLE CHANGES IN LOCATIONS & ARRANGEMENT OF INDICATED EQUIP. CONDUIT, OUTLETS, OR WIRING, CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT COST TO OWNER.
- 8. CONTRACTOR SHALL FILE PLANS WITH AND OBTAIN APPROVALS FROM MUNICIPAL AGENCIES. ALL PERMITS AND CERTIFICATES OF INSPECTION SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.

PERTINENT CERTIFICATES SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE, PRIOR TO FINAL BILLING.

EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS.

ANY FEES ASSOCIATED WITH CONSTRUCTION AND INSPECTION SHALL BE BORNE BY THE CONTRACTOR IN ORDER TO DELIVER TO THE OWNER A FINISHED

BUILDING, READY FOR OCCUPANCY AND 100% OPERATION. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS

HE SHALL CAREFULLY EXAMINE THE EXISTING CONDITIONS AND LIMITATIONS THEREOF. HE SHALL ASCERTAIN CONDITIONS UNDER WHICH THE WORK MUST BE PERFORMED. INCLUDING THE HANDLING OF MATERIALS. SECURITY AND LIMITING FIELD DIMENSIONS. FURTHER, THIS CONTRACTOR SHALL PROVIDE FIELD VERIFICATION OF LOCATION OF POINTS OF CONNECTION TO LANDLORD'S ELECTRICAL AND TELEPHONE EQUIPMENT AND DISTANCE FROM LEASED SPACE.

ANY DISCREPANCIES WITH THE CONSTRUCTION DOCUMENTS DISCOVERED AS A RESULT OF THE AFOREMENTIONED FIELD SURVEY. SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. PRIOR TO COMMENCING ANY WORK. ANY ADDITIONAL COSTS RESULTING FROM CONTRACTOR'S FAILURE TO DO SO SHALL BE HIS RESPONSIBILITY AND SHALL BE BORNE BY HIM.

- 10. ANY DEVIATION FROM PLANS WITHOUT PRIOR APPROVAL OF THE ARCHITECT SHALL BE CAUSE FOR THE REJECTION OF MATERIALS AND/OR METHODS, AND ANY COST INCURRED TO CORRECT SUCH DEVIATION TO THE SATISFACTION OF THE A/E SHALL BE BORNE BY THE CONTRACTOR.
- 11. THE SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS AND BUILDING SITE CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR, BECAUSE OF DIFFICULTIES ENCOUNTERED, WILL NOT BE RECOGNIZED IF THEY COULD HAVE BEEN FORSEEN HAD PROPER EXAMINATION BEEN MADE
- 12. ANY COSTS INCURRED DUE TO LACK OF COOPERATION AMONG THE TRADES SHALL BE BORNE BY THE CONTRACTOR.
- 13 CONTRACTOR SHALL SUBMIT 6 COPIES OF SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR APPROVAL FOR ALL FOLIPMENT AND DEVICES INSTALLED.THERE WILL BE NO DRAW UNTIL SHOP DRWGS. HAVE BEEN SUBMITTED & REVIEWED BY ARCH./ENGR..
- 14. THE EQUIPMENT ROUGH-INS AS SHOWN ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, IN SOME INSTANCES, THE OWNER OR SUPPLIER MAY SUBSTITUTE OR THE FOUIPMENT MAY VARY FROM WHAT IS SHOWN THEREFORE, THE CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS WITH THE OWNER PRIOR TO CONSTRUCTION. FAILURE OF THE CONTRACTOR TO VERIFY THESE DIMENSIONS SHALL PLACE THE RESPONSIBILITY FOR ANY SUB-SEQUENT RELOCATION DIRECTLY UPON THE CONTRACTOR.
- 15 PLAN & INSTALL WORK IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, & KEEP OPENINGS & PASSAGEWAYS CLEAR
- 16. ELECTRICAL CONTRACTOR SHALL RECORD ALL FIELD CHANGES IN HIS WORK AS THE JOB PROGRESSES: AN ACCURATE RECORD OF ALL WORK AS ACTUALLY

UPON COMPLETION OF THE WORK AND BEFORE FINAL PAYMENT IS AUTHORIZED, SHALL TURN OVER TO THE OWNER'S REPRESENTATIVE A RECORD SET OF PRINTS SHOWING THESE CHANGES.

17. THIS CONTRACTOR SHALL DO ALL CUTTING, CHASING, OR CHANNELING AND PATCHING REQUIRED FOR ANY WORK HEREIN SPECIFIED.

ALL OPENINGS THROUGH STRUCTURALLY SUPPORTED SLABS MUST BE COREBORED, SLEEVED, GROUTED, SEALED AND MADE WATERPROOF. SLEEVES MUST EXTEND AT LEAST 2" AF

ALL SLEEVES, OPENINGS, ETC. THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED AFTER CONDUIT INSTALLATION TO RETAIN FIRE RATING.

18. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIR.

HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL, SUCH AS CHANNELS, RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE SECURED TO THE BUILDING STRUCTURE, NOT TO PIPING OR DUCTWORK.

ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. EXPOSED CONDUIT SHALL BE RUN IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES AND SEPARATED AT LEAST 3" FROM WATER LINES WHEREVER THEY RUN ALONG SIDE OR ACROSS SUCH LINES.

19. EVERY PART OF THE INSTALLATION SHALL BE TESTED, OPERATED AND LEFT IN PERFECT WORKING ORDER.

TEST ALL WIRES AND CABLES INSTALLED UNDER THIS CONTRACT WITH A 1,000 VOLT MEGOHM METER. ANY READINGS THAT ARE LOWER THAN REQUIRED BY GOOD PRACTICE OR APPLICABLE CODES, PROMPTLY REPLACE THE MATERIALS OR EQUIPMENT INVOLVED

SHOULD TESTING REVEAL ANY OTHER DEFECTS, PROMPTLY CORRECT SUCH DEFECTS AND RERUN TESTS UNTIL THE ENTIRE INSTALLATION IS SATISFACTORY IN ALL RESPECTS.

- 20. ALL ITEMS IN THE NOTES, SCHEDULES AND LEGEND MAY NOT NECESSARILY APPEAR ON THESE DRAWINGS
- 21. TWO COPIES OF OPERATION AND MAINTENANCE MANUALS FOR THE EQUIPMENT HEREIN INSTALLED SHALL BE GIVEN TO THE OWNER PRIOR TO ACCEPTANCE OF THE BUILDING FOR OCCUPANCY.
- 22. GUARANTEE:

CONTRACTOR IS TO GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR AFTER THE DATE OF ACCEPTANCE OF THE PROJECT BY THE OWNER. IT IS UNDERSTOOD BY HIS ACCEPTANCE OF THE CONTRACT THAT THIS CONTRACTOR WILL MAKE GOOD ANY AND ALL WORK WHICH IN ANY WAY HAS BECOME DEFECTIVE AS TO THE QUALITY OF MATERIALS AND WORKMANSHIP FOR ANY CAUSE OTHER THAN ORDINARY WEAR AND TEAR

FOR THE SAME PERIOD, ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

- 23. THE CONTRACTOR, BEFORE FINAL ACCEPTANCE BY THE OWNER WILL BE GRANTED, SHALL CLEAN ALL LIGHTING FIXTURES, DEVICE PLATES, SERVICE FITTINGS AND OTHER ITEMS FURNISHED UNDER THIS CONTRACT. HE SHALL INSURE THAT ALL DIRECTORIES ARE IN PLACE WITH COMPLETED OR REVISED. SCHEDULES AND ALL IDENTIFICATIONS AND MARKINGS OF EQUIPMENT, CABLES AND OTHER ITEMS ARE COMPLETED.
- 24. THIS CONTRACTOR SHALL COORDINATE SEQUENCE OF WORK WITH ALL OTHER TRADES. CONTRACTOR SHALL VERIFY VOLTAGE OF MECHANICAL EQUIPMENT AND FLUORESCENT FIXTURE BALLASTS, PRIOR COMMENCING ANY WORK NO REMOVALS SHALL BE MADE WITHOUT OWNER'S APPROVAL. ALL EXISTING EQUIPMENT, MATERIALS, ETC. THAT ARE NOT TO BE REUSED SHALL BE

REMOVED COMPLETELY AND DISPOSED OF BY THIS CONTRACTOR.

- 25. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY, PRIOR TO ANY INDIVIDUAL CIRCUIT'S INSTALLATION TO VERIEY WITH ALL OTHER TRADES CONCERNED THAT THE CIRCUIT WITH DEVICES AS DRAWN IS ADEQUATE IN SIZE AND MAKE-UP FOR THE MECHANICAL AND/OR KITCHEN EQUIPMENT TO BE INSTALLED IF ANY CONFLICT IN VOLTAGE, PHASE OR LOAD IS ENCOUNTERED WHICH WOULD ALTER THE CIRCUIT SIZE, THIS CONTRACTOR SHALL NOTIFY THE ENGINEER OR OWNER IMMEDIATELY. FAILURE TO DO SO SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT CIRCUIT CHANGE DIRECTLY UPON THE
- 26. REFER TO THE MECHANICAL DRAWINGS FOR THE LOCATION OF THER-MOSTATS, UNITS AND OTHER SPECIAL EQUIPMENT. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ALL CONDUITS, JUNCTION BOXES AND DISCONNECT SWITCHES, THERMOSTAT AND CONTROL WIRING.
- 27. THIS CONTRACTOR SHALL MAKE ARRANGEMENTS FOR TEMPORARY POWER AND SHALL PAY THE COST FOR THE LITH ITY CONNECTION AND SHALL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF THE TEMPORARY WORK AND FOR THE REMOVAL OF SAME.

CONTRACTOR SHALL PAY ALL UTILITY CHARGES IN CONNECTION WITH THE TEMPORARY POWER

CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION FOR ALL POWER EQUIPMENT USED ON THE PREMISES DURING CONSTRUCTION.

28 GENERAL SCOPE OF WORK

CONTRACTOR

CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, SUPPLIES, EQUIPMENT AND FEES REQUIRED TO COMPLETELY INSTALL, TEST AND PLACE THE HEREIN SPECIFIED EQUIPMENT, COMPONENTS, CONTROLS, AND SYSTEMS IN SERVICE

COMPLETE POWER AND LIGHTING DISTRIBUTION SYSTEMS INCLUDING ALL PANELS AND COMPLETE BRANCH CIRCUIT WIRING SYSTEM TEMPORARY ELECTRICAL SERVICE AS REQUIRED FOR CONSTRUCTION. TEMPORARY SERVICE SHALL INCLUDE. TEMPORARY INTERIOR AND EXTERIOR LIGHTING. TEMPORARY POWER OUTLETS AND RECEPTACLES.

COMPLETE LIGHTING FIXTURE INSTALLATION

COMPLETE UTILITY MOTOR WIRING SYSTEM (EXCEPT AS NOTED)

COMPLETE TELEPHONE CONDUIT SYSTEM INCLUDING CONDUIT FROM POINT OF CONNECTION TO UTILITY COMPANY SERVICE AND ALL TERMINAL DEVICES, BOXES, CONDUIT, PLATES, ETC.

PROVISIONS FOR FIRE ALARM SYSTEM AS REQUIRED BY CODE

WIRING AND FINAL CONNECTION TO ALL SIGNS AND GRAPHICS TESTING OF ALL CABLES AND CIRCUIT WIRING AFTER INSTALLATION

TESTING OF ALL ELECTRICAL EQUIPMENT

CLOSE-OUT 29. ELECTRICAL SERVICE

PROVIDE ELECTRICAL AS INDICATED ON THE DRAWING.

ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE LANDLORD OR THE POWER COMPANY SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR

WARRANTY OF ALL WORK FOR A PERIOD OF ONE YEAR FROM DATE OF PROJECT

CLOSELY COORDINATE ENTIRE INSTALLATION WITH THE POWER COMPANY. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE LOCAL UTILITY FOR INSTALLATION OF METERING

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE AVAILABLE SHORT CIRCUIT CURRENT AT THE SUPPLY TERMINALS FROM THE POWER COMPANY &/OR MALL/SHOPPING CENTER POWER SOURCE. THE SERVICE EQUIPMENT SHALL MEET OR EXCEED THIS RATING PER N.E.C.

30. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE LOCAL TELEPHONE LITH ITY COMPANY FOR TELEPHONE SERVICE TO THE SPACE, CONDUIT SYSTEM FOR TELEPHONE DISTRIBUTION TO THE LEASED PREMISES SHALL BE PROVIDED WHERE REQUIRED FOR UTILITY COMPANY WIRES.

COORDINATE INSTALLATION OF TELEPHONE WORK AND INSTALL ALL CONDUIT FOR TELEPHONE SYSTEM. OUTLET BOXES SHALL BE 4" SQUARE MINIMUM WITH SINGLE DEVICE COVER AND

TELEPHONE PLATE. PROVIDE INTERIOR TYPE 4-D PLYWOOD 24" X 24" TO SERVE AS TELEPHONE TERMINAL

31 THIS CONTRACTOR SHALL PROVIDE INSTALL AND CONNECT A COMPLETE SYSTEM OF GROUNDING FOR ALL EQUIPMENT AND STRUCTURES. A GOOD MECHANICAL AND ELECTRICAL CONNECTION SHALL BE MADE WITH APPROVED GROUNDING

ELECTRICAL SYSTEM AND EQUIPMENT GROUNDS SHALL COMPLY WITH ALL LOCAL.

STATE AND NEC CODES AND REGULATIONS. PANELS, CONDUIT SYSTEMS, MOTOR FRAMES, LIGHTING FIXTURES AND OTHER EQUIPMENT THAT ARE A PART OF THIS INSTALLATION SHALL BE SECURELY GROUNDED BOTH MECHANICALLY AND ELECTRICALLY IN ACCORDANCE WITH ALL CODES.

MAIN GROUNDING SYSTEM SHALL BE SIZED TO CONFORM WITH SECTION 250, TABLE 250-94 OF THE NATIONAL ELECTRICAL CODE. PROVIDE CONDUIT TO PROTECT GROUND WIRE FROM DAMAGE TO AN AREA 6 FT. ABOVE FLOOR.

MAKE ALL JOINTS AND CONNECTIONS OF THE CONDUIT SYSTEM TIGHT TO MAINTAIN CONTINUITY OF MECHANICAL AND ELECTRICAL GROUND THROUGHOUT ENTIRE

GROUND ALL 3 WIRE RECEPTACLES TO THE OUTLET BOXES.

GROUND NEUTRAL FROM THE TRANSFORMER CONNECTED TO WATER LINE. GROUND CONDUCTOR SHALL BE SUPPLIED IN ALL NON-METALLIC CONDUIT

32. IF REQUIRED: PROVIDE DRY-TYPE TRANSFORMER WHICH SHALL BE ENCLOSED. VENTILATED TYPE WITH KVA AND VOLTAGE RATINGS AS CALLED FOR ON THE DRAWING AS MANUFACTURED BY SQUARE-D OR EQUAL

TRANSFORMER SHALL HAVE A MINIMUM OF 150 DEGREE, CLASS H INSULATION AND A MINIMUM OF (4) 2-1/2% TAPS BELOW AND (2) 2-1/2% TAPS ABOVE RATED PRIMARY

SOUND LEVEL SHALL BE LOW AND INSTALLATION SHALL INCLUDE VIBRATION DAMPENING MOUNTS AND FLEXIBLE STEEL CONDUIT FOR PRIMARY AND SECONDARY 33. LIGHTING FIXTURES:

THE CONTRACTOR SHALL PROVIDE A NEW LIGHTING FIXTURE OF THE TYPE SPECIFIED FOR EACH LIGHTING OUTLET SHOWN WITH COMPLETE LAMPS OR TUBES. ALL FIXTURES SHALL BE HUNG AND MOUNTED IN PLACE, PROPERLY WIRED, TESTED AND LEFT READY FOR OPERATION

CONTRACTOR SHALL VERIFY LOCATION OF ALL PARKING LOT LIGHTS, MONUMENT SIGNS, AND PYLON SIGNS ON INDIVIDUAL SITE PLAN.

34. PANELBOARDS AND BREAKERS SHALL BE BY SQUARE-D OR EQUAL

PANEL SHALL BE CIRCUITED SP THAT THE LOAD IS DISTRIBUTED EVENLY ACROSS ALL THREE PHASES.

ALL PANELBOARDS AND EMERGENCY LIGHTING DISCONNECT SWITCHES SHALL BE LABELED WITH RESPECT TO THEIR TITLE. VOLTAGE AND PHASE: I.E. PANEL "A" 120/208/3Ø. LABEL SHALL BE PHENOLIC SHALL BE PERMANENTLY FIXED TO THE EQUIPMENT.

35. LIGHTING PANELBOARD SHALL BE 3-PHASE, 4-WIRE DISTRIBUTED PHASE TYPE W/SOLID NEUTRAL GROUND LUG, GROUND BUS AND ALL BREAKERS SHALL BE BOLTED TYPE, THERMAL MAGNETIC WITH ALL TWO OR THREE POLE BREAKERS HAVING COMMON TRIP

CIRCUIT BREAKERS SHALL BE RATED FOR MINIMUM 10,000 AMP SYMMETRICAL SHORT CIRCUIT AT 120/208V.

CIRCUIT BREAKERS SERVING LIGHTING CIRCUITS SHALL BE RATED FOR SWITCH

36. WIRING DEVICES:

WALL SWITCHES, SINGLE POLE, DOUBLE POLE, AND THREE WAY SHALL BE GENERAL DUTY, FLUSH, TOGGLE SWITCHES; SPECIFICATION GRADE, 20A, 120/277V, WITH SCREW TERMINALS: MANUFACTURERS SHALL BE HUBBELL, BRYANT, PASS & SEYMORE, OR LEVITRON.

GENERAL DUTY DUPLEX RECEPTACLES SHALL BE 2-POLE, 3-WIRE GROUNDING TYPE, SPECIFICATION GRADE, 20A, 125V, NEMA 5-20R UNLESS OTHERWISE INDICATED. MANUFACTURERS SHALL BE HUBBELL, BRYANT, PASS & SEYMORE,

GROUND FAULT INTERRUPTER RECEPTACLE SHALL BE GENERAL DUTY, DUPLEX RECEPTACLES. GROUND FAULT CIRCUIT INTERRUPTER. DOWNSTREAM RECEPTACLES ON A SINGLE CIRCUIT, GROUNDING TYPE UL-RATED CLASS A GROUP 1, 20A, 120V, 60 HZ; WITH SOLID-STATE GROUND FAULT SENDING AND SIGNALING; WITH 5 MILLIAMPERES GROUND-FAULT TRIP LEVEL; IN NEMA 5-15R CONFIGURATION. MANUFACTURERS SHALL BE HUBBELL, BRYANT, PASS & SEYMORE, OR LEVITRON.

DUPLEX ISOLATED GROUND TYPE RECEPTACLE SHALL BE 2-POLE, 4-WIRE, 15A STRAIGHT BLADE DEVICE WITH SEPARATE ISOLATED GROUND AND BUILDING GROUND CONNECTIONS, IN NEMA 5-15R CONFIGURATION, AS MANUFACTURED

WIRING DEVICE ACCESSORIES INCLUDING ALL WALL PLATES SHALL BE PROVIDED AT EACH DEVICE. WALL PLATES SHALL BE SAME COLOR AS DEVICE AND MANUFACTURED AS A COMPANION TO THE DEVICE. ANY ELECTRICAL OUTLETS WITHIN 6 FEET OF A SINK SHALL BE GFI PROTECTED PROVIDE EITHER INDIVIDUAL GFI DEVICES OR GFI CIRCUIT BREAKERS, UNLESS

PROVIDE A 120 VOLT RECEPTACLE WITHIN 25 FEET OF ALL HVAC EQUIPMENT ON

SPECIFICALLY NOTED ON THE DRAWINGS OR SCHEDULES.

ALL EXTERIOR RECEPTACLES AND DEVICES SHALL BE WEATHERPROOF ELECTRICAL DEVICES, DISCONNECT SWITCHES, ETC. SHALL BE SUPPORTED INDEPENDENT OF & ISOLATED FROM EQUIP, VIBRATIONS. 37. PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NON-FUSED AS

REQUIRED BY CODE OR SHOWN ON DRAWINGS. SWITCHES SHALL BE SQUARE-D. GENERAL ELECTRICAL. OR EQUA FURNISH AND INSTALL DUAL ELEMENT CURRENT LIMITING FUSES OF TYPE AND AMPICITY DESIGNED TO PROTECT SYSTEMS AGAINST AVAILABLE SHORT CIRCUIT FAULT CURRENT

38. COORDINATE ALL EQUIP. CONNECTIONS W/EQUIP. SUPPLIER PRIOR TO ROUGH-IN. PROVIDE ADDITION FUSED DISCONNECT SWITCHES & CONTROLS, IF OVERCURRENT PROTECTION OR CONTROLS ARE NOT INTEGRAL W/UNITS.

ALL ELECTRICAL EQUIP. ON ROOF OR OUTSIDE THE BLDG. SHALL BE IN NEMA-3R OR NEMA-4 FNCI OSURES

ALL EQUIP. SHALL BE FUSE SIZED PER MANUF. RECOMMENDATIONS & U.L.

ALL VIBRATING EQUIP. CONN. SHALL BE SEAL TYPE FLEX, 30" MAX. STARTERS AND RELATED WIRING SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR. OVERLOAD UNITS SHALL BE INSTALLED AS PER NAME PLATE DATA ON EQUIPMENT. EXCEPT FOR SUCH ITEMS AS ARE NORMALLY SUPPLIES WITH STARTERS INSTALLED (HVAC UNITS, DISHWASHERS ETC.). AT THEIR POINT OF MANUFACTURE, ALL STARTERS SHALL BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR WILL MOUNT ALL SUCH STARTERS. AS DIRECTED. FURNISHING SUPPORTING STRUCTURES WHERE NECESSARY

ALL REMOTE EQUIPMENT ON ROOF OR GROUNDS SHALL HAVE A DISCONNECT SWITCH AT EACH PIECE OF EQUIPMENT. FURNISH FUSED DISCONNECTS AS

FULL LOAD AMPS (FLA) SIZES ARE BASED ON SPECIFIED EQUIP. DATA CONTRACTOR SHALL VERIFY NAMEPLATE FLA OF EQUIP. SUPPLIED & COORDINATE ACCORDINGLY PER EQUIP. SUPPLIERS RECOMMENDATIONS.

39. CONDUIT SHALL BE STANDARD STEEL, RIGID, IMC OR EMT (THIN WALL) ACCORDING TO LOCAL CODE.

NOT POSSIBLE, CONDUIT & J-BOXES MAY BE SURFACE MOUNTED W/PERMISSION INSULATE ALL CONDUIT PASSING THROUGH WALK-IN COOLER, FILL AROUND CONDUIT WITH DUCT-IN SEAL WHERE IT PASSES THROUGH COOLER WALL OR

ALL CONDUIT & J-BOXES SHOWN SHALL BE CONCEALED WHEN POSSIBLE. WHEN

ALL EXTERIOR CONDUIT FOR WIRING SHOULD BE MINIMIZED BY ROUTING IN CEILING SPACE. NO EXTERIOR CONDUIT WILL BE ACCEPTED, UNLESS

PAINTING OR ELECTRICAL CONDUITS, ETC., IF REQUIRED, WILL BE BY THE GENERAL CONTRACTOR

40. RACEWAYS SHALL BE SURFACE METAL TYPE OF THE SIZE AND CHANNEL REQUIRED FOR SERVICE, CONSTRUCTED OF GALVANIZED STEEL WITH SNAP-ON COVERS, WITH 1/8" MOUNTING SCREW KNOCKOUTS IN BASE APPROXIMATELY 8" O.C. PROVIDE FITTINGS INDICATED WHICH MATCH AND MATE WITH RACEWAY. FINISH WITH MANUFACTURER'S STANDARD PRIME COATING SUITABLE FOR

41. OUTLET BOXES AND COVERS SHALL BE ONE PIECE, GALVANIZED STEEL JUNCTION BOXES, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL, CODE GAUGE AND SIZE.

42. ALL FEEDERS & BRANCH CIRCUITS SHALL BE THHN/TWHN (90° C). DESIGN IS BASED ON COPPER CONDUCTORS & ALL BRANCH CIRCUIT WIRING SHALL BE COPPER. ALL WIRING SHALL BE IN CONDUIT OR MC TYPE.

ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES.

ADDITIONAL CONDUCTOR SPECIFICATIONS:

#10 AND SMALLER - SOLID WITH SINGLE BRAID.

#8 AND LARGER - STRANDED WITH AT LEAST DOUBLE BRAID.

MINIMUM WIRE SIZE SHALL BE #12 (#14 MAY BE USED FOR CONTROLS) WIRES SHALL BE COLOR CODED IN KEEPING WITH NEC STANDARDS

PROVIDE IMC FOR FEEDER CONDUIT WHERE INSTALLED ABOVE GRADE. FITTINGS SHALL BE STEEL, THREADED, SET SCREW TYPE W/INSULATED THROATS. FURNISH EMT CONDUIT OP BX OR MC FOR INTERIOR WIRING NOT SUBJECT TO PHYSICAL DAMAGE, MIN. CONDUIT SIZE SHALL BE 1/2 UNLESS. SPECIFICALLY NOTED OTHERWISE. CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE & SHALL RUN PARALLEL OR PERPENDICULAR TO BLDG. WALLS OR CEILING. PCV SCHEDULE 40 CONDUIT MAY BE USED FOR UTILITY FEEDERS WHERE BURIED UNDERGROUND. SEE ADDITIONAL RATES ON ELECTRICAL SERVICE SCHEMATIC.

A SEPARATE GREEN INSULATED EQUIP. GROUNDED CONDUCTOR (BOND) SHALL BE INSTALLED W/IN EVERY RACEWAY.

WIRING SHOWN IN THE PANEL SCHEDULE IS THE MINIMUM REQUIRED. RUNS IN EXCESS OF 90'-0" (ONE-WAY) SHALL BE SIZED PER THE N.E.C. MAXIMUM 2% V.D.

43. TEST ELECTRICAL SYSTEM FOR SHORT CIRCUITS & MEGGAR TEST FEEDERS & BRANCH CIRCUIT WIRING. INSURE LOW IMPEDANCE GROUND PATH SYSTEM. 44. FINALLY: IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN

EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY

MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY

THE LOCATION OF THE RECEPTACLES AND FIXTURES SHOWN ON THE DRAWING IS APPROXIMATE AND THE OWNER SHALL HAVE THE RIGHT TO RELOCATE ANY

## **ELECTRICAL LEGEND** POWER DESCRIPTION **DUPLEX RECEPTACLE MOUNTED AT 15"AFF**

SYMBOL

UNLESS NOTED OTHERWISE QUAD PLEX RECEPTACLE MOUNTED AT 15"AFF UNLESS NOTED OTHERWISE DUPLEX ISOLATED GROUND TYPE RECEPTACLE (IG5392CN ORANGE) MOUNTED AT 15"AFF UNI ESS NOTED OTHERWISE QUAD PLEX ISOLATED GROUND TYPE RECEPTACLE MOUNTED AT 15"AFF UNLESS NOTED OTHERWISE DUPLEX GROUND FAULT INTERRUPTING TYPE RECEPTACLE JUNCTION BOX MOTOR CONNECTION DISCONNECT SWITCH

SINGLE SECTION PANELBOARD BRANCH CIRCUIT WIRING CONCEALED ABOVE CEILING OR IN PARTITION CIRCUIT HOME RUN VERIFY NEMA CONFIGURATION REQUIRED WITH EQUIPMENT SUPPLIER

COMMUNICATIONS ROUGH-IN FOR TELEPHONE VOICE LINE MOUNTED AT 15"AFF UNLESS NOTED OTHERWISE ROUGH-IN FOR TELEPHONE DATA LINE OR DATACOM MOUNTED AT 15"AFF UNLESS NOTED OTHERWISE EMPTY CONDUIT FOR TELEPHONE CABLES TO BE INSTALLED BY COMMUNICATINS SUB CONTRACTOR EMPTY CONDUIT FOR DATA CABLES TO BE INSTALLED BY DATA COM SUB CONTRACTOR

# LIGHTING CONTROL WALL MOUNTED TOGGLE SWITCH 3-WAY WALL MOUNTED TOGGLE SWITCH SLIDING DIMMER SWITCH (LEVITON OR EQUAL)

PROGRAMMABLE TIME SWITCH (TO CONTROL STOREFRONT LIGHTING CIRCUITS) OCCUPANCY SENSING CONTROL VERIFY FOUIPMENT SPEC WITH ROOM LAYOUT AND OWNER IN FIELD (LEVITON OR EQUAL) CEILING MOUNTED MOTION SENSING CONTROL. VERIFY LOCATION WITH ROOM LAYOUT AND OWNER IN FIELD LUTRON LOS-CDT-2000-WH

PHOTO SENSING CONTROL. VERIFY EQUIPMENT SPEC WITH SPACE

LAYOUT AND OWNER IN FIELD ABBREVIATIONS JUNCTION BOX AMPERE KILOWAT AWG AMERICAN WIRE GAUGE NOT IN CONTRACT NIC CIRCUIT BREAKER CB PNL PANEL ELEC ELECTRICAL SPECS SPECIFICATION EXIST **EXISTING** SW SWITCH EQUIP EQUIPMEN7 TEL TELEPHONE

TYP TYPICAL FA FIRE ALARM JRNISHED BY OWNER FOIC VOLT INSTALLED BY ELEC. CONTR. G,GND WIRE GROUND GFI GROUND FAULT INTERUPTER WP WEATHERPROOF HORSEPOWER PHASE ISOLATED GROUND XFMR TRANSFORMER VERIFY IN FIELD ON CENTER

BFG

ABOVE FINISH GRADE

BELOW FINISH GRADE

DIAMETER

ELECTRICAL CONTRACTOR

BAR JOIST EMT CONDUITS 3"-AND LARGER UNISTRUT **ELEVATION VIEW** 3/8" BOLT THROUGH JOIST **BAR JOIST** (TYPICAL OF 4) **EMT CONDUITS 3"** BELOW AND LARGER CONDUITS **BAR JOIST** (PERPENDICULAR TO JOIST)

**BAR JOIST** 

3/8" BOLT

JOIST

**THROUGH** 

SEISMIC CONDUIT SUPPORT DETAIL SCALE: NONE

**GENERAL NOTES** 

APPLICABLE.

ALL ELECTRICAL WORK SHALL BE

DONE IN STRICT ACCORDANCE WITH

CODE AND ALL REGULATIONS, LAWS,

ALL EQUIPMENT SHALL BE U.L. LISTED.

THE 2014 NATIONAL ELECTRICAL

AND ORDINANCES WHICH MAY BE

THROUGH JOIST (TYPICAL OF 4) **BAR JOIST** 3/8" BOLT **THROUGH** JOIST BAR JOIST -UNISTRUT BELOW **EMT CONDUITS 3"** CONDUITS, **EMT CONDUITS**  UNISTRUT BELOW AND LARGER STRAP CONDUIT STRAP TO CONDUITS TO UNISTRUT UNISTRUT **ELEVATION VIEW** PLAN VIEW (PARALLEL TO JOIST) SEISMIC CONDUIT SUPPORT DETAIL SCALE: NONE **ELECTRIC PANEL OVER 400 POUNDS** 

- 1-1/2" x 1-1/2" x 1/4" 6" STEEL ANGLE WITH (2) 3/8" **BOLTS INTO WALL AND PANEL** TYPICAL EACH SIDE OF PANEL SEISMIC BRACING FOR ELECTRIC

PANELS

- MECH'L./LIGHT FIXTURE 12 GA. SLACK SAFETY HANGERS PER PLAN. FIXTURE ATTACHED AT OPPOSING CORNERS INSTALLATION TO ATTACH TO BOTTOM CHORD OF COMPLY W/ ASTM TRUSS W/ (1) 1/4" x 3" EYE C636-96. SCREWS, 1" MIN. EMBED - 12 GA. T-BAR CEILING GRID FOR HANGERS AT T-BAR CEILING **EVERY CORNER** CEILING -TILE - RECESSED FIXTURE 4 TURNS IN 1 1/2" (TYP.) 1 EARTHQUAKE BRACKET ON EACH SIDE WHEN "TEES" ARE AT SIDES OF LUMINAIRE EARTHQUAKE BRACKETS. 2 ON EACH SIDE WHEN MAIN "TEES" ARE AT ENDS OF LUMINAIRE

SEISMIC BRACING FOR LIGHT FIXTURE

SCALE: NONE

086 

**Bakery-Cafe:** 

Project Team:

Professional Seal:

Project Title:

SYSTEM: G4 (ARIA)

LK ARCHITECTURE, INC

345 RIVERVIEW.

**WICHITA, KS 67203** 

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**Planning - Interior Design** 

**Landscape Architecture** 

**Architecture** · **Engineering** ·

Consultant Copyright Placeholder

St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. 001498 CONSTRUCTION SET: 2022-09-09 Description

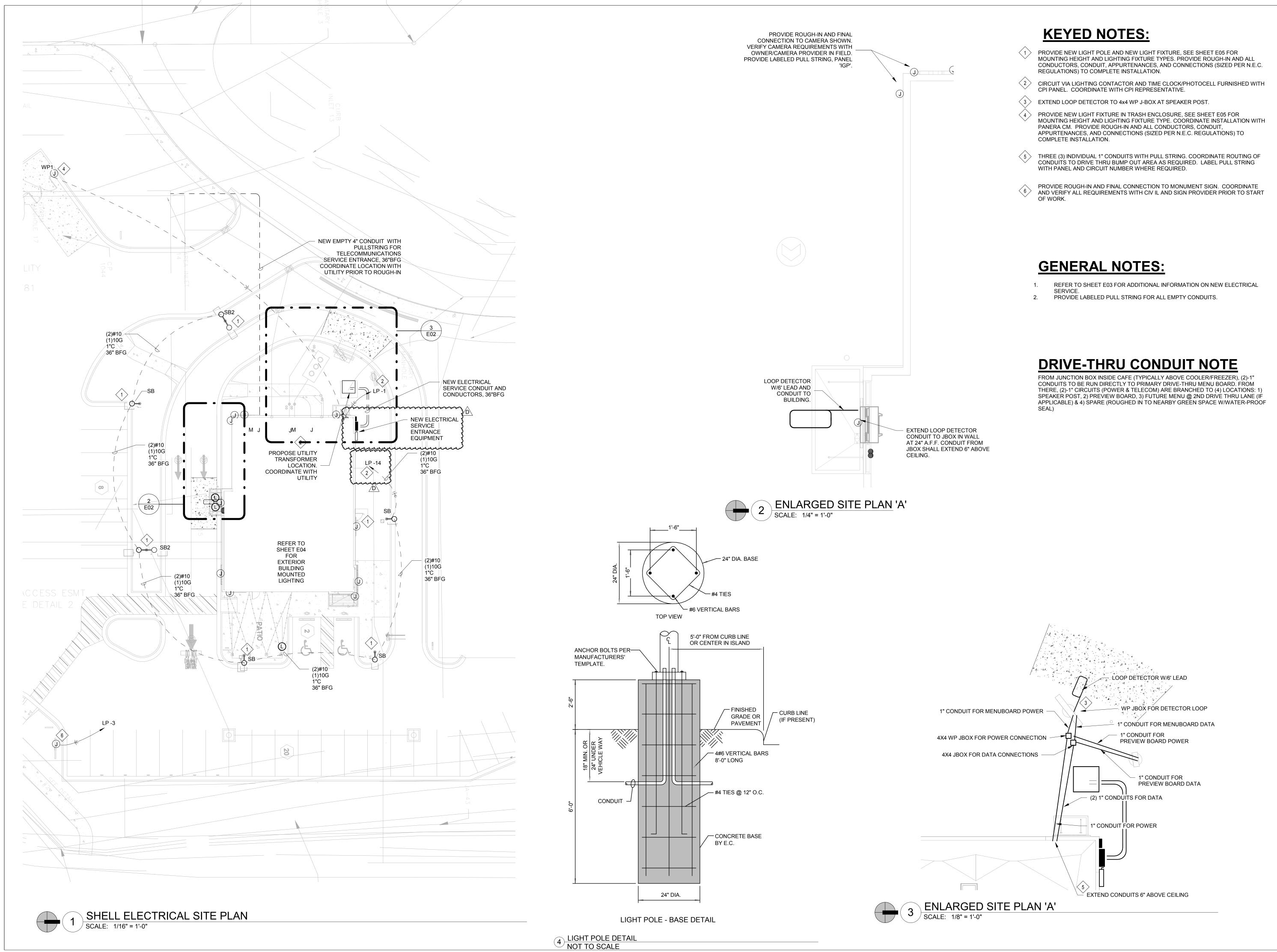
SHELL - PERMIT SET 07/05/202

**ELECTRICAL** 

LKA-MO-01-22 07/05/2022

COMPLETE THE WORK SHALL BE FURNISHED.

DEVICES BEFORE THEY ARE INSTALLED WITHOUT ANY ADDITIONAL COSTS



Bakery-Cafe:

2406

SYSTEM: G4 (ARIA)
Project Team:

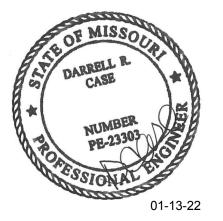


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Architecture · Engineering · Planning · Interior Design · Landscape Architecture

Professional Seal:



Project Title:

**3akery Cafe#2406**1410 NE DOUGLAS ST
LEES SUMMIT, MO 64086



Consultant Copyright Placeholder

# CASE Engineering Inc.

796 Merus Court T 636.349.16 St. Louis, MO 63026 F 636.349.17 CERTIFICATE OF AUTHORITY NO. 001498

No.	Description	Date
	SHELL - PERMIT SET	07/05/2022
Α	CITY COMMENTS	8/19/2022
D	OWNER REVISION	01/09/2023

ELECTRICAL SITE PLAN

Project Number: Sheet Number

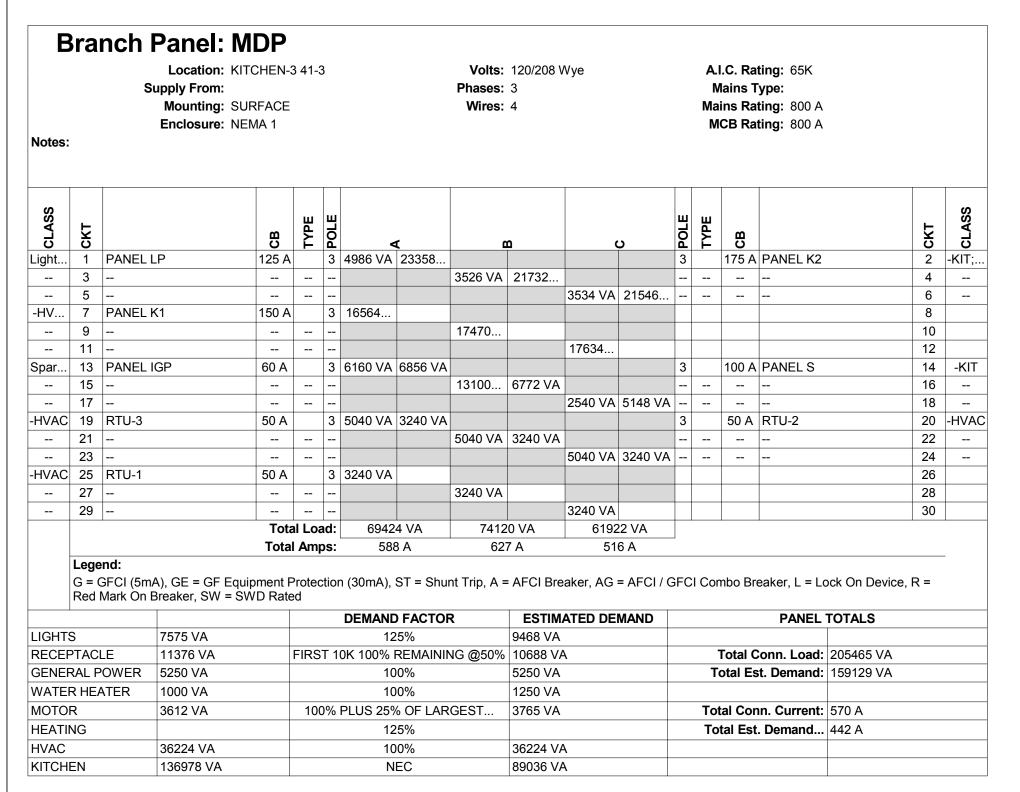
LKA-MO-01-22

Drawn By:

BDW

Issue Date:

07/05/2022



Mounting: SURFACE Enclosure: NEMA 1							Wires: 4					Mains Rating: 225 A MCB Rating: 0 A						
Note	≀S:																	
DE MA ND		CB	TYPE	POLE		<u> </u>		n		ບ	POLE	TYPE	CB		CKT	D N N		
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KIT		20 A		1	180 VA	960 VA					1			#76C		2 -K		
	33 EQ 61 (FUTURE)	30 A		2			2200 VA	960 VA			1			#76C		↓-K		
	35								2200 VA	832 VA	2		15 A	PROOFER CONDENSER		3 -F		
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	39			1					0001/4		1					) -		
	41 BAKERY HEAT SHELF #085D	20 A	G	1	500 \ / 4	040 \ / 4			636 VA		1			EQ 400 AID OUDTAIN		2 -		
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			al Lo		1656			O VA		84 VA								
		Tota	I Am	ps:	138	3 A	14	7 A	14	8 A						_		
	Legend: G = GFCI (5mA), GE = GF Equipment Mark On Breaker, SW = SWD Rate		otecti	on (	(30mA), ST	= Shunt	Trip, A = A	NFCI Break	ker, AG = A	AFCI / GF	CI C	comb	o Brea	aker, L = Lock On Device, R = I	Red			

Volts: 120/208 Wye

Phases: 3

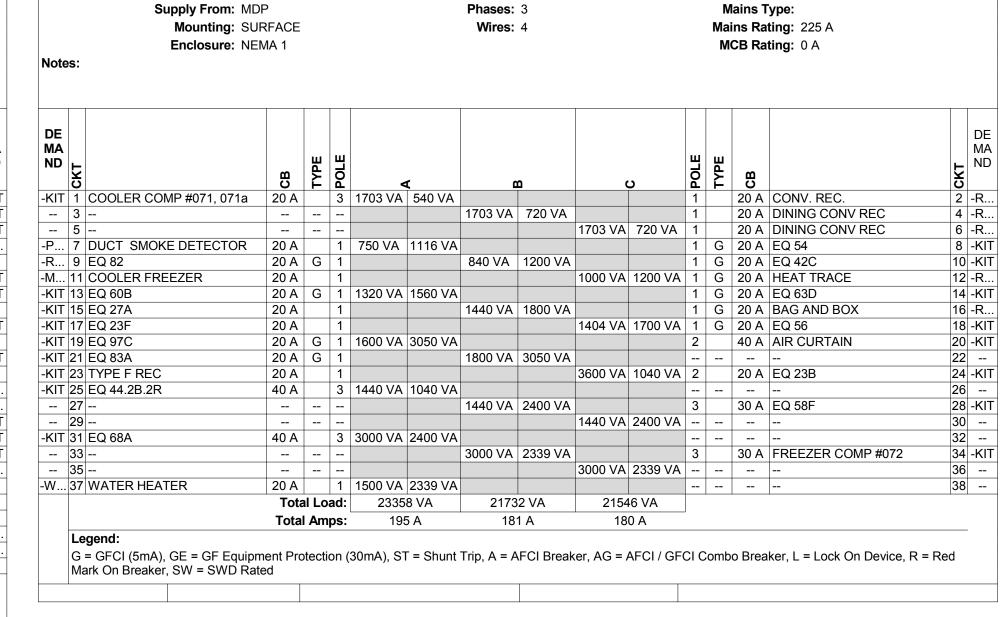
A.I.C. Rating: 65/22K SERIES RATED

Mains Type:

**Branch Panel: K1** 

Location:

Supply From: MDP

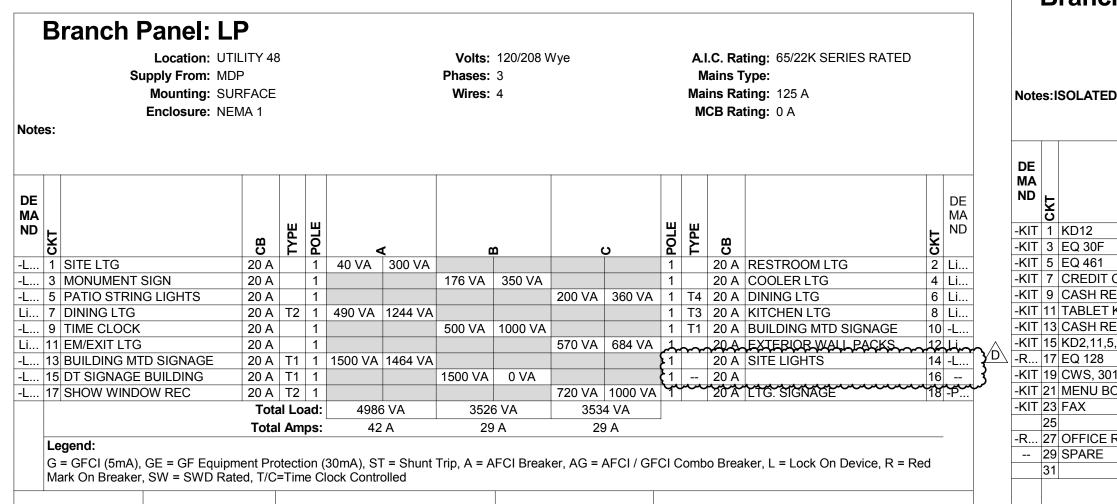


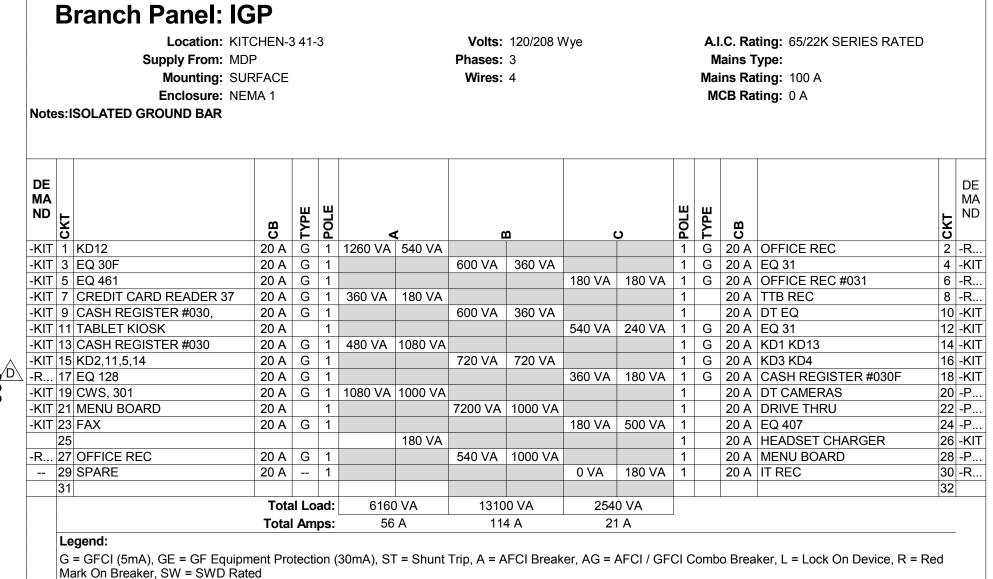
Volts: 120/208 Wye

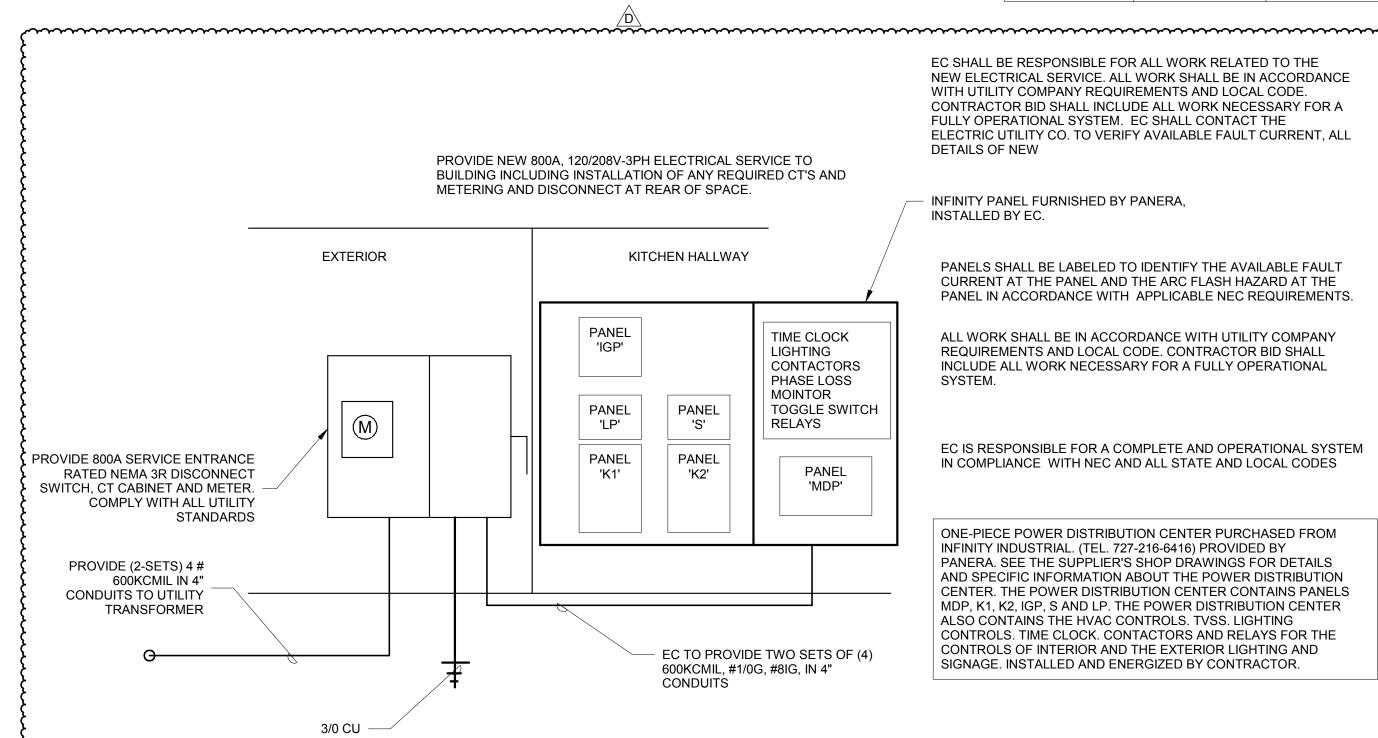
Branch Panel: K2

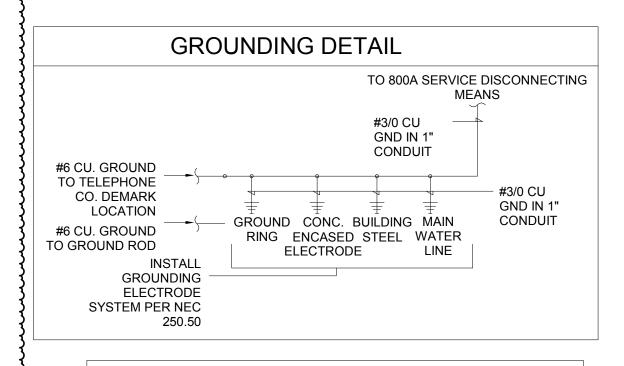
Location:

	В	ranch Panel:	S														
Location: UTILITY 48 Supply From: MDP Mounting: SURFACE Enclosure: NEMA 1					Volts: 120/208 Wye Phases: 3 Wires: 4				A.I.C. Rating: 65/22K SERIES RATED Mains Type: Mains Rating: 100 A MCB Rating: 0 A								
lote	s:																
DE MA ND	CKT		GB CB	TYPE	POLE		1	α	n		2	POLE	TYPE	CB		CKT	D M N
KIT		EQ 64C	20 A	Ė	2	1144 VA			_				G		EQ 42C	2	: -K
	_							1144 VA	1116 VA				G		EQ 54		.  -K
		EQ 53F	20 A		1					1080 VA	180 VA		G		EQ 55C		i -K
		EQ 53F	20 A	G	1	1080 VA						2		20 A	EQ 63C FUTURE		-K
		EQ 63C FUTURE	20 A		2			1404 VA	1404 VA	44041/4	4404374					10	
	11	 EQ 63C	 20 A		2	1404 VA	1404 \/A			1404 VA	1404 VA	2		20 A	EQ 63C	12	2 -K 4 -
	15		20 A			1404 VA		1404 VA	300 VA			1	 G	20 Δ	EQ 55T		+ - 6 -K
		' EQ 81D	20 A		1			1404 VA	300 VA	1080 VA		'	9	20 A	LQ 331	18	
	19	-	2071	<u> </u>	<u> </u>					1000 171		1				20	
			Tota	al Lo	ad:	6856	VA	6772	2 VA	5148	8 VA						-
			Tota			59	^	59	٨	12	3 A						









	GENERAL NOTES
1.	EC TO PROVIDE HANDLE TIE ON ALL MULTIWIRE BRANCH CIRCUITS PER NEC 210 4(B)

- CIRCUITS PER NEC 210.4(B). 2. ALL SPARE CIRCUIT BREAKERS AND DISCONNECT SWITCHES SHALL BE LEFT IN THE OFF POSITION.
- 3. EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OFALL EQUIPMENT DELIVERED TO THE SITE PRIOR TO CONNECTION. EC SHALL NOTIFY OWNER OF ANY DIFFERENCE.

**Bakery-Cafe:** 

A.I.C. Rating: 65/22K SERIES RATED

SYSTEM: G4 (ARIA) Project Team:



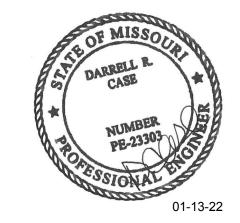
LK ARCHITECTURE. INC. 345 RIVERVIEW,

**WICHITA, KS 67203** 

T 316.268.0230 F 316.268.0205 **Architecture** · **Engineering** · **Planning - Interior Design** 

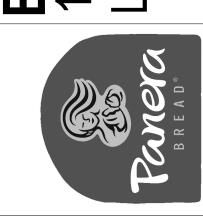
**Landscape Architecture** 

Professional Seal:



Project Title:

64086 406 4S S



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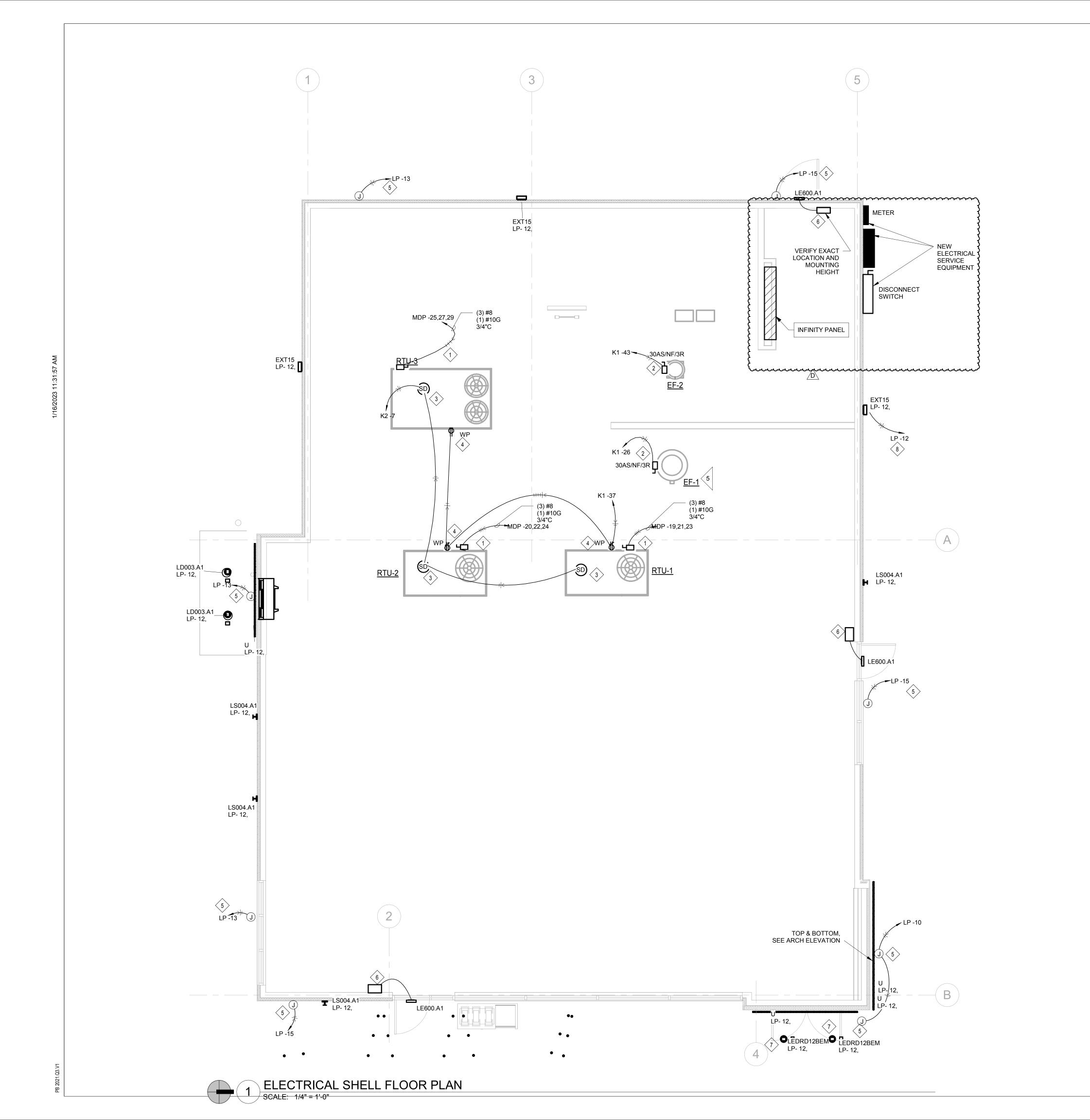
Description	Date
SHELL - PERMIT SET	07/05/2022
COORDINATION REVISIONS	9/6/2022
OWNER REVISION	01/09/2023
	SHELL - PERMIT SET COORDINATION REVISIONS

# **ELECTRICAL DETAILS AND SCHEDULES**

Project Number: LKA-MO-01-22 Drawn By: Issue Date: 07/05/2022 DPM:

ONE-LINE DIAGRAM

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# **KEYED NOTES:**

- DISCONNECT AND CONVENIENCE RECEPTACLE PROVIDED WITH UNIT. PROVIDE INUSE COVER FOR CONVENIENCE RECEPTACLE AND CIRCUIT AS INDICATED.
- 2 PROVIDE DISCONNECT AND CIRCUIT AS INDICATED. REFER TO 5/M02 FOR CONDUIT ROUTING.
- 3 DUCT SMOKE DETECTOR FURNISHED AND INSTALLED BY MC, CONNECTED BY EC.
- PROVIDE GFIC PROTECTED RECEPTACLE AND INUSE COVER FOR CONVENIENCE RECEPTACLE AND CIRCUIT AS INDICATED.
- PROVIDE 120V, 20A OUTLET WITH DISCONNECTING MEANS WITHIN SIGHT OF SIGN FOR BUILDING MOUNTED SIGNAGE. COORDINATE OUTLET ROUGHIN LOCATION WITH ARCHITECTURAL ELEVATIONS. CIRCUIT VIA LIGHTING CONTACTOR AND TIME CLOCK/PHOTOCELL PROVIDED BY EC.
- PROVIDE EXTERIOR EMERGENCY EGRESS LIGHT WITH EMERGENCY BATTERY BACK UP UNIT TO INSURE CONTINUED ILLUMINATION FOR AT LEAST 90 MINUTES IN CASE OF PRIMARY POWER LOSS. EXTEND UNSWITCHED CIRCUIT LEG TO BATTERY. VERIFY EXACT MOUNTING LOCATION OF EXTERIOR EGRESS LIGHT AND REMOTE BATTERY PRIOR TO START OF WORK.
- PROVIDE UNSWITCHED CIRCUIT TO EMERGENCY BATTERY AND PROVIDE SWITCHED CIRCUIT TO FIXTURE.
- 8 CIRCUIT VIA LIGHTING CONTACTOR AND TIME CLOCK/PHOTOCELL PROVIDED BY EC.

Bakery-Cafe:

240

SYSTEM: G4 (ARIA)
Project Team:

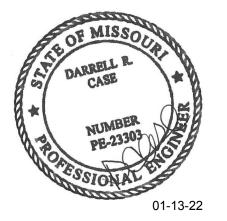


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Professional Seal:



Project Title:

**3akery Cafe#2406** 410 NE DOUGLAS ST EES SUMMIT, MO 64086



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No.	Description	Date
	SHELL - PERMIT SET	07/05/2022
В	COORDINATION REVISIONS	9/6/2022
С	OWNER REVISION	12/09/2022
D	OWNER REVISION	01/09/2023

PLAN

Project Number: Sheet Number:

LKA-MO-01-22

Drawn By:

Author

Issue Date:

ELECTRICAL SHELL

Sheet Number:

LKA-MO-01-22

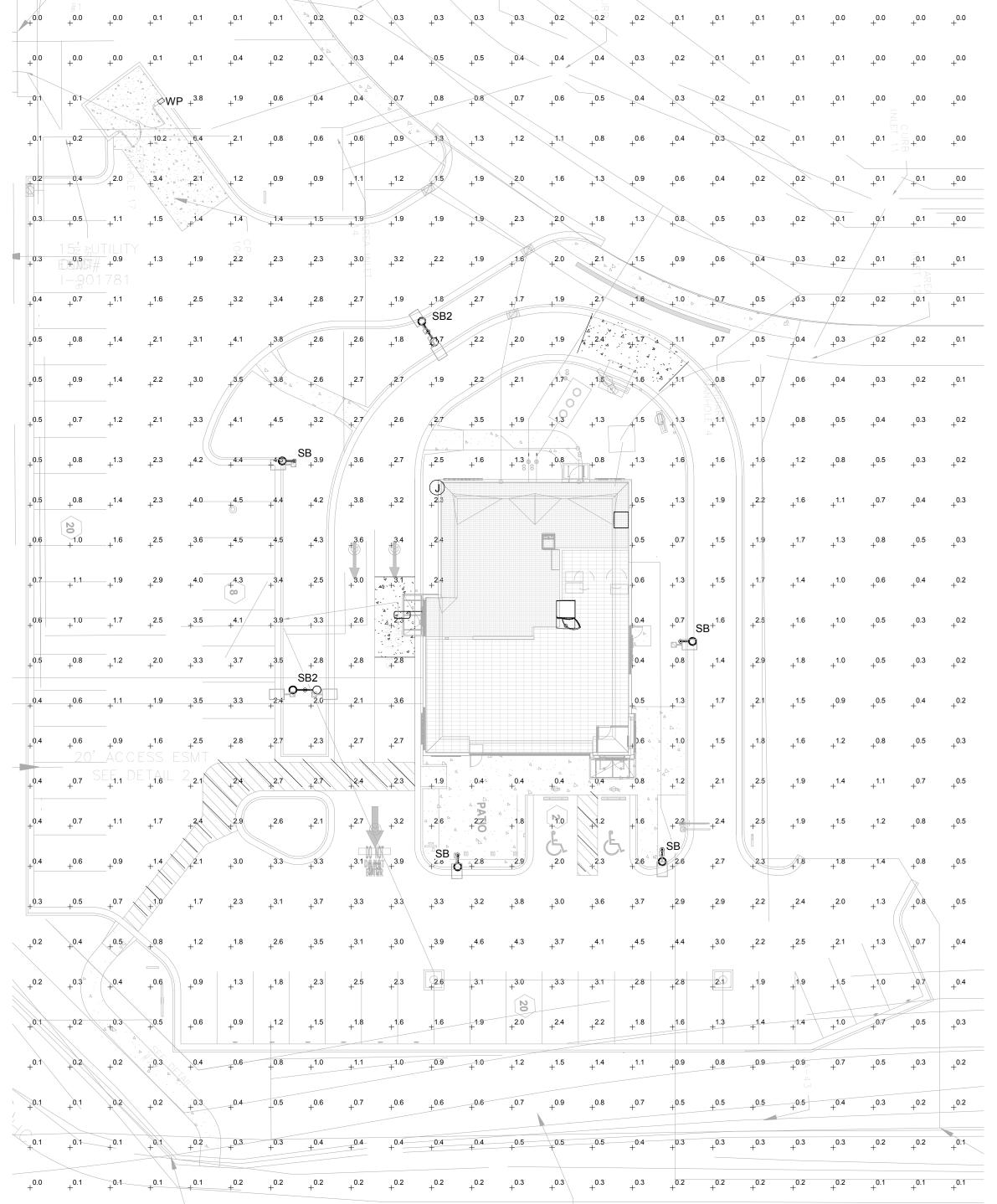
Drawn By:

EQ4

07/05/2022

Schedule											
Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	Plot
<u> </u>	SB2		2	KIM LIGHTING	2SB-ALT3-P35-120L-4K- 120-DB-FGL-4-6RD-ON- KRS20-4120-DB-BC4	TWIN HEAD (180°) POLE MOUNTED LED AREA LIGHT WITH FLAT GLASS AND TYPE III DISTRIBUTION MOUNTED ON 20'X4" ROUND STEEL POLE WITH 2' HIGH CONCRETE BASE.	2	12586	1	286	Max: 10639cd
	SB		4	KIM LIGHTING	ALT3P35-120L4K-FGL	POLE MOUNTED LED AREA LIGHT WITH FLAT GLASS AND TYPE III DISTRIBUTION MOUNTED ON 20'X4" ROUND STEEL POLE WITH 2' HIGH CONCRETE BASE.	1	12586	1	143	Max: 10639cd
	WP		1	Solais Lighting Inc dba EnergyLite	GL1-4-4S-740-STD	GL1-4-4S-740-STD	1	4243	1	35.85	Max: 2819cd

FIXTURES MOUNTED AT 22' AFG



SHELL ELECTRICAL SITE PHOTOMETRIC PLAN

SCALE: 1" = 20'-0"

Bakery-Cafe:

2406

SYSTEM: G4 (ARIA)



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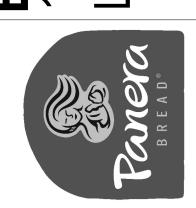
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Project Title:

Bakery Cafe#2406 1410 NE DOUGLAS ST LEES SUMMIT, MO 64086



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O	NSTRUCTION SET: 2022	2-09-09
).	Description	Date
	SHELL - PERMIT SET	07/05/2 2

F 636.349.1730

SITE PHOTOMETRIC
PLAN

Project Number: Sheet Number:

LKA-MO-01-22

Drawn By:

07/05/2022

2021.Q3.V1