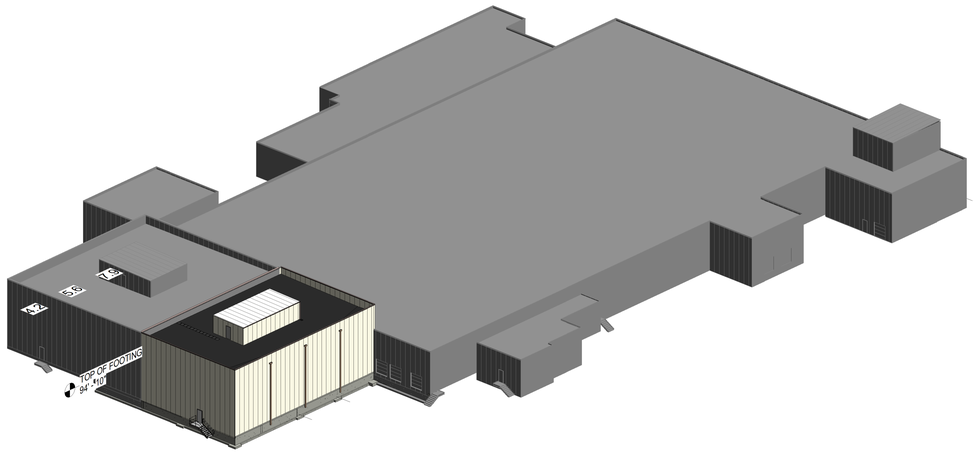
BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA, SOUTH CAROLINA

ISG PROJECT # 22-26670



PROJECT GENERAL NOTES

A.	ALL WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE OWNER - CONTRACTOR AGREEMENT, THE PROJECT MANUAL (WHICH INCLUDES GENERAL AND SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS), DRAWINGS OF ALL DISCIPLINES AND ALL ADDENDA, MODIFICATIONS AND CLARIFICATIONS ISSUED BY THE ARCHITECT / ENGINEER.
B.	CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN COMPLETE SETS IN ORDER TO ACHIEVE THE FULL EXTENT AND COMPLETE COORDINATION OF ALL WORK. CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CORRELATING QUANTITIES AND DIMENSIONS.
C.	WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
D.	FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT / ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
E.	DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED THROUGHOUT THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO DETAILS SHOWN. WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, NOTIFY ARCHITECT / ENGINEER BEFORE PROCEEDING WITH THE WORK.
F.	ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, CLEANED AND CONDITIONED ACCORDING TO MANUFACTURERS' INSTRUCTIONS. IN CASE OF DISCREPANCIES BETWEEN MANUFACTURERS' INSTRUCTIONS AND THE CONTRACT DOCUMENTS, NOTIFY ARCHITECT / ENGINEER BEFORE PROCEEDING WITH THE WORK.
G.	LARGE-SCALE, MORE SPECIFIC DETAILS TAKE PRECEDENCE OVER SMALLER-SCALE, LESS SPECIFIC DETAILS AND INFORMATION. MORE STRINGENT REQUIREMENTS FOR CODE, PRODUCTS AND INSTALLATION TAKE PRECEDENCE OVER LESS STRINGENT REQUIREMENTS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
H.	PROVIDE CONTINUOUS SEALANT AROUND ALL MATERIALS AT ALL INTERIOR AND EXTERIOR WALL PENETRATIONS. REFER TO SPECIFICATIONS FOR APPROPRIATE SEALANT.
I.	ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC CORROSION.
J.	SEAL ALL OPENINGS IN WALLS, FLOORS, CEILINGS, AND ROOFS, AROUND DUCTS, PIPES, VENTS, TRAPS, CONDUIT AND ALL OTHER PENETRATIONS WITH FIRE STOPPING AS SPECIFIED AND REQUIRED BY CODES. IF FIRE STOPPING IS NOT REQUIRED AT PENETRATIONS PER CODE, SEAL WITH CONTINUOUS SEALANT.
K.	PROVIDE TEMPORARY WALLS, ENCLOSURES, DUST SHIELDS AND WALK-OFF MATS AS REQUIRED TO SEPARATE DEMOLITION AND CONSTRUCTION FROM EXISTING BUILDING.
L.	PROVIDE BRACING AND SHORING AS REQUIRED TO PROTECT EXISTING STRUCTURE TO REMAIN. PROVIDE SECURE AND WEATHERPROOF ENCLOSURE OF TEMPORARY OPENINGS IN EXTERIOR WALLS. PROTECT ALL BUILDING COMPONENTS FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.
M.	RESTORE ALL EXISTING AREAS AFFECTED BY DEMOLITION AND RELATED NEW CONSTRUCTION TO THEIR ORIGINAL CONDITION, INCLUDING BUT NOT LIMITED TO WALLS, FLOORS, AND CEILINGS AND THEIR ASSOCIATED FINISHES.
N.	PROVIDE SOLID WALL BACKING WITH METAL OR FIRE-RETARDANT WOOD BLOCKING BEHIND DOOR HARDWARE SUCH AS WALL STOPS, BUMPERS, HOLD OPENS, ETC. AND AT ALL ITEMS REQUIRING FASTENING THROUGH GYP BD. TO BLOCKING
O.	RENDERED IMAGES MAY NOT BE AN ACCURATE REPRESENTATION OF BUILDING CONDITIONS, REFER TO PLANS AND DETAILS CONTAINED WITHIN FOR SCOPE OF WORK.

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PROJECT INDEX:

OWNER:

CARGILL MEATS
CONTACT NAME
1964 OLD DUNBAR RD
WEST COLUMBIA, SC 29172
PHONE #
FAX #

PROJECT ADDRESS:

CARGILL MEATS
1964 OLD DUNBAR RD
WEST COLUMBIA, SOUTH CAROLINA
29172

MANAGING OFFICE:

LA CROSSE OFFICE
201 MAIN STREET
SUITE 1020
LA CROSSE, WISCONSIN 54601
PHONE: 608.789.2034

PROJECT MANAGER: LANE PETERS
EMAIL: LANE.PETERS@ISGINC.COM

REFERENCE SCALE
1" = 1'
2'
1'
1/4" 1'-0"
0

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ISG

STATE OF SOUTH CAROLINA
185 Group, Inc.
Mankato, MN
101240
REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA
MARK A. CHAMBERS
GREEN BAY, WI
9638
REGISTERED ARCHITECT

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

REVISION SCHEDULE

DATE	DESCRIPTION	BY

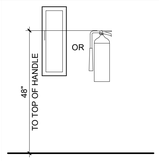
PROJECT NO.	22-26670
FILE NAME	
DRAWN BY	PES / MCZ
DESIGNED BY	PES / MCZ
REVIEWED BY	MAC
ORIGINAL ISSUE DATE	MM/DD/YY
CLIENT PROJECT NO.	

TITLE

TITLE SHEET, SHEET INDEX, PROJECT GENERAL NOTES

SHEET **G1-10 30x42**

MOUNTING HEIGHTS AND STANDARDS



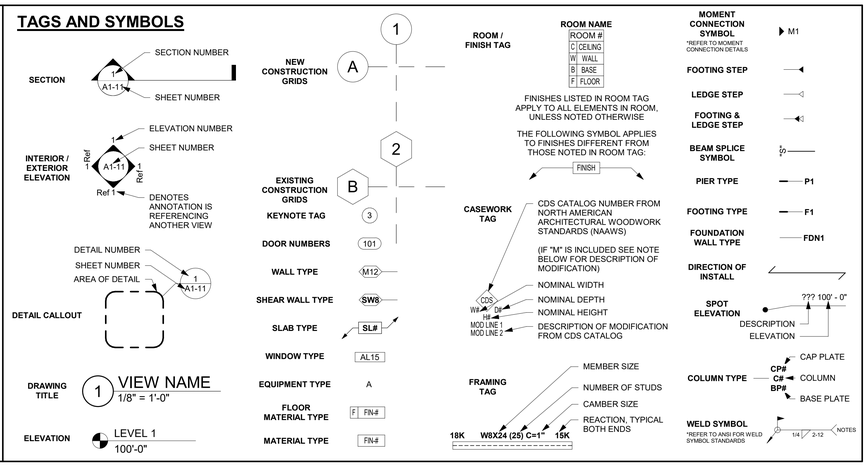
ABBREVIATIONS

#	POUND OR NUMBER	ENCL	ENCLOSURE	LLH	LONG LEG HORIZONTAL	RTU	ROOF TOP UNIT
@	AT	EPDM	ETHYLENE PROPYLENE DIENE MONOMER	LLV	LONG LEG VERTICAL	SA	SUPPLY AIR
ACP	ACOUSTICAL CEILING PANEL	EPX	EPOXY	LN	LINEAR	SC	SEALED CONCRETE
ACT	ACOUSTICAL CEILING TILE	EQ	EQUAL	LVT	LUXURY VINYL TILE	SF	SQUARE FOOT
ADA	AMERICANS WITH DISABILITIES ACT	EQUIP	EQUIPMENT	MATL	MATERIAL	SIM	SIMILAR
ADD	ADDENDUM	ETC	ETCETERA	MAX	MAXIMUM	SM	SURFACE MOUNTED
ADDL	ADDITIONAL	EWC	ELECTRIC WATER COOLER	MB	MARKER BOARD	SPEC	SPECIFICATION
ADJ	ADJACENT	EWC	ELECTRIC WATER COOLER	MECH	MECHANICAL	SS	SOLID SURFACE
AFF	ABOVE FINISH FLOOR	EX	EXISTING	MEP	MECHANICAL , ELECTRICAL, PLUMBING	SSTL	STAINLESS STEEL
AFG	ABOVE FINISHED GRADE	EXP	EXPANSION, EXPOSED	MEZZ	MEZZANINE	STD	STANDARD
AHU	AIR HANDLING UNIT	EXT	EXTERIOR	MFR	MANUFACTURER	STN	STONE
ALT	ALTERNATE	F&I	FURNISH AND INSTALL	MH	MANHOLE	STOR	STORAGE
ALUM	ALUMINUM	FA	FRESH AIR	MIN	MINIMUM	SUSP	SUSPENDED
APPROX	APPROXIMATELY	FAAP	FIRE ALARM ANNUNCIATOR PANEL	MISC	MISCELLANEOUS	SV	SHEET VINYL
ARCH	ARCHITECTURAL	FACP	FIRE ALARM CONTROL PANEL	MO	MASONRY OPENING	SY	SQUARE YARDS
AWP	ACOUSTICAL WALL PANEL	FBO	FURNISHED BY OTHERS	MTD	MOUNTED	T&G	TONGUE AND GROOVE
B	BASE	FD	FLOOR DRAIN	MTL	METAL	T&P	TEMPERATURE AND PRESSURE
BD	BOARD	FE	FIRE EXTINGUISHER	MULL	MULLION	TB	TACKBOARD
BL	BROADLOOM CARPET	FEC	FIRE EXTINGUISHER CABINET	NA	NOT APPLICABLE	TBD	TO BE DETERMINED
BLDG	BUILDING	FF	FLOOR FINISH	NIC	NOT IN CONTRACT	TD	TRENCH DRAIN
BO	BOTTOM OF OR BY OWNER	FFE	FINISHED FLOOR ELEVATION	NTS	NOT TO SCALE	TEC	TECTUM
BR	BRICK	FRP	FIBERGLASS REINFORCED PLASTIC	OC	ON CENTER	TEL	TELEPHONE
BRG	BEARING	FRZ	FREEZER	OCEW	ON CENTER EACH WAY	TEMP	TEMPERATURE
BSMT	BASEMENT	FT	FOOT OR FEET	OD	OUTSIDE DIAMETER	TER	TERRAZZO
C	CONDUIT	FTG	FOOTING	OH	OVERHEAD	TO	TOP OF
CFS	COLD FORMED STEEL	GA	GAUGE	OHD	OVERHEAD DOOR	TOF	TOP OF FOOTING
CG	CORNER GUARD	GALV	GALVANIZED	OL	OVERALL LENGTH	TOL	TOP OF LEDGE
CIP	CAST IN PLACE	GC	GENERAL CONTRACTOR	OPNG	OPENING	TOS	TOP OF STEEL
CJ	CONTROL JOINT OR CONSTRUCTION JOINT	GEN	GENERATOR	ORD	OVERFLOW ROOF DRAIN	TOW	TOP OF WALL
CL	CENTERLINE	GFCI	GROUND FAULT CIRCUIT INTERRUPT	OSB	ORIENTED STRAND BOARD	TP	TOILET PARTITION
CLG	CEILING	GL	GLAZING	PC	PHOTO CELL, POLISHED CONCRETE	TR	TAMPER RESISTANT
CLR	CLEAR	GND	GROUND	PLAM	PLASTIC LAMINATE	TS	TUBE STEEL / THRESHOLD / TRANSITION STRIP
CM	CORRUGATED METAL	GYP	GYPSUM	PLWP	PLASTIC LAMINATE WALL PANEL	TV	TELEVISION
CMU	CONCRETE MASONRY UNIT	HD	HUB DRAIN	PNT	PAINT	TYP	TYPICAL
CO	CLEANOUT	HDG	HOT DIP GALVANIZED	PNT-#E	EPOXY PAINT	UG	UNDERGROUND
CONC	CONCRETE	HDW	HARDWARE	POLYETH	POLYETHYLENE	UH	UNIT HEATER
CONF	CONFERENCE	HM	HOLLOW METAL	POLYISO	POLYISOCYANURATE	UNO	UNLESS NOTED OTHERWISE
CONT	CONTINUOUS	HORIZ	HORIZONTAL	PRV	POWER ROOF VENTILATOR	VCT	VINYL COMPOSITE TILE
CPT	CARPET	HSS	HOLLOW STRUCTURAL SECTION	PVC	POLYVINYL CHLORIDE	VERT	VERTICAL
CR	CHAIR RAIL	HT	HEIGHT	QT	QUARRY TILE	VEST	VESTIBULE
CRK	CORK	HVAC	HEATING VENTILATION AND AIR CONDITIONING	QTZ	QUARTZ	VF	VINYL FLOOR
CT	TILE	ID	INSIDE DIAMETER	RA	RETURN AIR	VIF	VERIFY IN FIELD
CURT	PRIVACY CURTAIN	IG	ISOLATED GROUND	RB	RESILIENT BASE	VTR	VENT THROUGH ROOF
CY	CUBIC YARD	IMP	INSULATED METAL PANEL	RBR	RUBBER	VWP	VENEER WALL PANEL
DEMO	DEMOLITION	INFO	INFORMATION	RCP	REFLECTED CEILING PLAN	W/	WITH
DF	DRINKING FOUNTAIN	INP	IN-PLACE	RD	ROOF DRAIN	W/O	WITHOUT
DH	DOOR HOLDER (MAGNETIC)	INSUL	INSULATION	REF	REFRIGERATOR	WC	WATER CLOSET
DIA	DIAMETER	INT	INTERIOR	REINF	REINFORCED	WCG	WALL COVERING
DLS	DIMENSIONAL LETTER SIGNAGE	J	JUNCTION BOX	REQD	REQUIRED	WD	WOOD
EA	EACH	JAN	JANITOR	RES	RESINOUS FLOOR	WF	WINDOW FILM
EC	ELECTRICAL CONTRACTOR	JBE	JOIST BEARING ELEVATION	REV	REVISION / REVISED	WG	WALL GUARD
EF	EXHAUST FAN	JST	JOIST	RM	ROOM	WH	WALL HYDRANT
EIFS	EXTERIOR INSULATION FINISH SYSTEM	KES	KITCHEN EQUIPMENT SUPPLIER	RO	ROUGH OPENING	WHTR	WATER HEATER
ELEC	ELECTRICAL	kW	KILOWATT	ROW / R/W	RIGHT OF WAY	WP	WEATHERPROOF
ELEV	ELEVATION	LAV	LAVATORY	RP	RESIN PANEL	WT	WINDOW TREATMENT
EMERG	EMERGENCY	LB	POUND	RTE	REFER TO ELEVATION	WWF	WELDED WIRE FABRIC
						XFMR	TRANSFORMER

MATERIALS KEY

- BATT INSULATION
- BRICK
- CONCRETE (SECTION)
- CMU (SECTION)
- EARTH
- GRANULAR FILL
- GRAVEL
- GYPSUM BOARD OR SHEATHING
- RIGID INSULATION
- PLYWOOD
- SAND
- STEEL
- SYNTHETIC STUCCO
- WOOD
- SPRAY IN PLACE INSULATION

TAGS AND SYMBOLS



I&S Group, Inc.
Mankato, MN
101240

MARK A. CHAMBERS
GREEN BAY, WI
9636

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

REVISION SCHEDULE

DATE	DESCRIPTION	BY

PROJECT NO.	22-26670
FILE NAME	
DRAWN BY	Author
DESIGNED BY	Designer
REVIEWED BY	Checker
ORIGINAL ISSUE DATE	MM/DD/YY
CLIENT PROJECT NO.	

TITLE

MOUNTING HEIGHTS, ABBREVIATIONS AND SYMBOLS

SHEET

G1-11

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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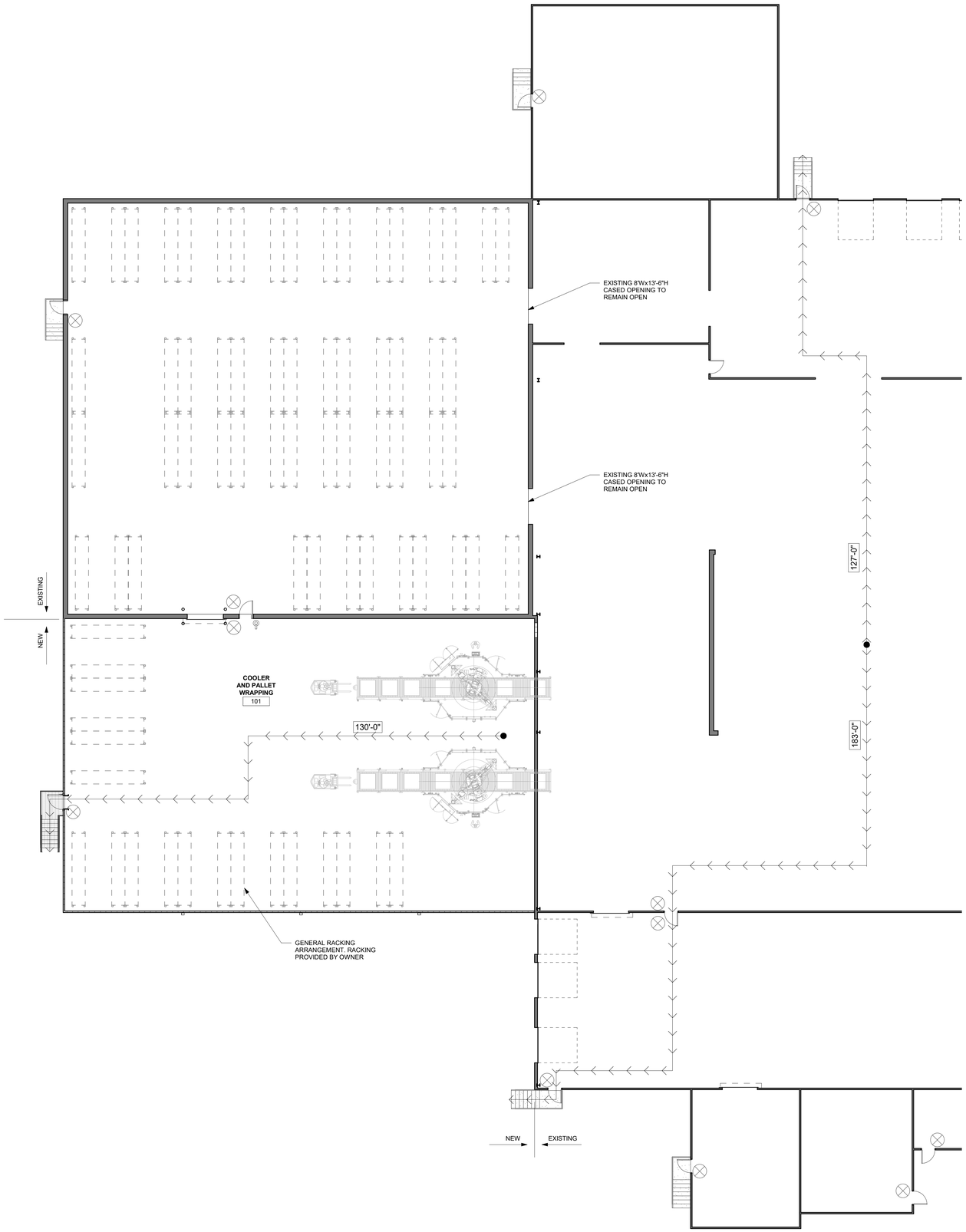

1 CODE DATA PLAN - COOLER ADDITION
3/32" = 1'-0"

GENERAL CODE DATA

22 26670 – CARGILL COOLER EXPANSION – WEST COLUMBIA, SOUTH CAROLINA
GENERAL CODE DATA – PRELIMINARY – 2022-05-23

OWNER

CARGILL MEATS
1964 OLD DUNBAR RD
WEST COLUMBIA, SOUTH CAROLINA

ARCHITECT

ISG
201 MAIN STREET SUITE 1020
LA CROSSE, WI 54601

BUILDING LOCATION

1964 OLD DUNBAR RD
WEST COLUMBIA, SOUTH CAROLINA

BUILDING CODE

2018 SOUTH CAROLINA BUILDING CODE (2018 IBC W/AMENDMENTS)
2018 SOUTH CAROLINA FIRE CODE (2018 IFC W/AMENDMENTS)
ENERGY CONSERVATION CODE 2009 OF SOUTH CAROLINA (AMENDS 2009 IEEC)
2018 SOUTH CAROLINA FUEL GAS CODE (2018 IFGC W/AMENDMENTS)
2018 SOUTH CAROLINA MECHANICAL CODE (2018 IMC W/AMENDMENTS)
2018 SOUTH CAROLINA PLUMBING CODE (2018 IPC W/AMENDMENTS)
NATIONAL ELECTRICAL CODE 2017 OF SOUTH CAROLINA (ADOPTS NFPA 70 2017 W/AMENDMENTS)
NATIONAL FIRE ALARM AND SIGNALING CODE 2016 OF SOUTH CAROLINA (NFPA 72, 2016)
STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS 2016 OF SOUTH CAROLINA (NFPA 13, 2016)

OCCUPANCY CLASSIFICATION AND USE

STORAGE GROUP S-2 (EXISTING AND NEW HIGH PILE STORAGE / COMMODITY CLASS I)
BUSINESS GROUP B (EXISTING)
FACTORY GROUP F-2 (EXISTING)

SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE

413 COMBUSTIBLE STORAGE (HIGH PILE STORAGE / COMMODITY CLASS I)

FIRE PROTECTION SYSTEMS

FULLY SPRINKLERED THROUGHOUT EXISTING AND NEW (NFPA 13)
CLASS 6A FIRE EXTINGUISHER (NFPA 10)

MIXED USE AND OCCUPANCY

NONSEPARATED OCCUPANCIES

CONSTRUCTION TYPE

TYPE IIB
EXTERIOR NONBEARING WALLS (BASED ON FIRE SEPARATION DISTANCE): 0 HOUR RATED

BUILDING HEIGHT

TABULAR ALLOWABLE HEIGHT: 4 STORIES / 75 FEET ABOVE GRADE PLANE
ACTUAL HEIGHT (EXISTING): 1 STORY / 38'-6" FEET ABOVE GRADE PLANE
ACTUAL HEIGHT (NEW): 1 STORY / 38'-6" FEET ABOVE GRADE PLANE

BUILDING AREA

UNLIMITED AREA (60' CLEAR AREA AROUND PERIMETER OF BUILDING)

ACTUAL AREA

FIRST FLOOR: (EXISTING)
S-2: STORAGE LOW-HAZARD: 28,675 SF
B: BUSINESS GROUP: 11,036 SF
F-2: FACTORY INDUSTRIAL LOW-HAZARD: 62,370 SF

FIRST FLOOR: (NEW)
S-2 STORAGE LOW-HAZARD: 7,100 SF

TOTAL ACTUAL AREA: 109,181 SF

OCCUPANT LOAD

FIRST FLOOR
ACCESSORY STORAGE / MECHANICAL: 7,100 SF / 300 GROSS = 24 OCCUPANTS (NEW)
ACCESSORY STORAGE / MECHANICAL: 28,675 SF / 300 GROSS = 96 OCCUPANTS (EXISTING)
BUSINESS: 11,036 SF / 150 GROSS = 74 OCCUPANTS (EXISTING)
INDUSTRIAL USE: 62,370 SF / 100 GROSS = 624 OCCUPANTS (EXISTING)

TOTAL FIRST FLOOR: 818 OCCUPANTS

MEANS OF EGRESS

MINIMUM NUMBER OF EXITS REQUIRED
FIRST FLOOR: 4 REQUIRED

ACTUAL NUMBER OF EXITS
FIRST FLOOR: 20 PROVIDED

MINIMUM EGRESS WIDTH REQUIRED
FIRST FLOOR
STAIRWAYS: (818 OCCUPANTS)(0.30) = 245.4 INCHES
OTHER EGRESS COMPONENTS: (818 OCCUPANTS)(0.20) = 163.6 INCHES

ACTUAL EGRESS WIDTH
FIRST FLOOR
STAIRWAYS: 384 INCHES
OTHER EGRESS COMPONENTS: 640 INCHES

COMMON PATH OF EGRESS TRAVEL: (F-2 / S-2) = 100 FEET MAXIMUM
EXIT ACCESS TRAVEL DISTANCE: (F-2 / S-2) = 400 FEET MAXIMUM
ACCESSIBLE MEANS OF EGRESS PER FLOOR: 2 REQUIRED / 2 PROVIDED (APPLICABLE TO EXISTING BUSINESS OCCUPANCY ONLY)

PLUMBING FIXTURES REQUIRED

FIRST FLOOR
TOTAL PLUMBING FIXTURES REQUIRED

STORAGE (EXISTING & NEW)
119 / 2 = 59.6 (1) MEN AND 59.6 WOMEN
59.6 / 100 = 1.01 (2) WATER CLOSETS FOR MEN
59.6 / 100 = 1.01 (2) WATER CLOSETS FOR WOMEN
59.6 / 100 = 1.01 (2) LAVATORIES FOR MEN
59.6 / 100 = 1.01 (2) LAVATORIES FOR WOMEN
119 / 1,000 = .12 (1) DRINKING FOUNTAINS
1 SERVICE SINK
BUSINESS (EXISTING)
74 / 2 = 37 MEN AND 37 WOMEN
37 / 1 PER 25 FIRST 50 THEN 1 PER 50 = 1.74 (2) WATER CLOSETS FOR MEN
37 / 1 PER 25 FIRST 50 THEN 1 PER 50 = 1.74 (2) WATER CLOSETS FOR WOMEN
37 / 1 PER 40 FIRST 80 THEN 1 PER 80 = 1.46 (2) LAVATORIES FOR MEN
37 / 1 PER 40 FIRST 80 THEN 1 PER 80 = 1.46 (2) LAVATORIES FOR WOMEN
74 / 100 = .74 (1) DRINKING FOUNTAINS
1 SERVICE SINK
FACTORY AND INDUSTRIAL (EXISTING)
624 / 2 = 312 MEN AND 312 WOMEN
312 / 100 = 3.12 (4) WATER CLOSETS FOR MEN
312 / 100 = 3.12 (4) WATER CLOSETS FOR WOMEN
312 / 100 = 3.12 (4) LAVATORIES FOR MEN
312 / 100 = 3.12 (4) LAVATORIES FOR WOMEN
624 / 400 = 1.56 (2) DRINKING FOUNTAINS
1 SERVICE SINK

TOTAL PLUMBING FIXTURES REQUIRED
5.87 (6) WATER CLOSETS FOR MEN
5.87 (6) WATER CLOSETS FOR WOMEN
5.59 (6) LAVATORIES FOR MEN
5.59 (6) LAVATORIES FOR WOMEN
2.42 (3) ACCESSIBLE DRINKING FOUNTAINS (HIGH AND LOW SPOUT HEIGHT)
3 SERVICE SINKS

TOTAL PLUMBING FIXTURES PROVIDED (EXISTING)
8 WATER CLOSETS AND 3 URINALS FOR MEN
9 WATER CLOSETS FOR WOMEN
9 LAVATORIES FOR MEN
9 LAVATORIES FOR WOMEN
4 UNISEX TOILET ROOMS, WITH 1 WATER CLOSET AND 1 LAVATORY EACH

CODE DATA PLAN KEY

EXIT

FIRE EXTINGUISHER

FIRE SUPPRESSION NOTES
(NEW SPRINKLER SYSTEM)

THROUGHOUT AREA OF WORK, PROVIDE A NEW NFPA 13 FIRE SUPPRESSION (SPRINKLER) SYSTEM. THE LICENSED AUTOMATIC SPRINKLER SYSTEM DESIGNER / INSTALLER SHALL FIELD VERIFY ALL CONDITIONS PRIOR TO BID. THE NFPA 13 SPRINKLER SYSTEM SHALL BE DESIGNED, INSTALLED, AND TESTED BY A LICENSED AUTOMATIC SPRINKLER SYSTEM DESIGNER / INSTALLER AND SHALL MEET ALL APPLICABLE CODE REQUIREMENTS. THE LICENSED AUTOMATIC SPRINKLER SYSTEM DESIGNER SHALL PROVIDE AUTOMATIC SPRINKLER SYSTEM DESIGN DOCUMENTS AND SHALL SUBMIT THEM TO ALL APPLICABLE JURISDICTIONS AND AUTHORITIES AND SHALL PROCURE ALL NECESSARY PERMITS. SPRINKLER DESIGNER / INSTALLER SHALL PAY ALL NECESSARY PERMITTING FEES.

DESIGN OF NEW NFPA 13 SPRINKLER SYSTEM SHALL BE BASED ON, BUT NOT LIMITED TO THE FOLLOWING CRITERIA:

1. COMPLY WITH NFPA 13 AND ALL OTHER APPLICABLE CODES.
2. DESIGN SPRINKLER HEAD LAYOUT TO PROVIDE ADEQUATE COVERAGE PER CODE REQUIREMENTS.
3. DESIGN SPRINKLER HEAD AND PIPING LAYOUT INCLUDING ALL DROPS, ARM-OVERS AND MAIN PIPES TO AVOID DIFFUSERS, LIGHT FIXTURES, MECHANICAL WORK, PLUMBING WORK, ELECTRICAL WORK, NEW CONSTRUCTION WORK AND ALL OTHER WORK AND COMPONENTS IN THE CONTRACT.
4. PROVIDE PROPER COVERAGE IN CONCEALED SPACES AS REQUIRED PER CODE.
5. ALL SPRINKLER PIPING AND COMPONENTS SHALL BE CONCEALED ABOVE CEILINGS AND WITHIN WALLS.
6. ALL SPRINKLER HEADS TO BE INSTALLED IN ACOUSTICAL CEILING TILE SHALL BE INSTALLED IN CENTER OF TILE.

FIRE SUPPRESSION NOTES
(MODIFIED OR ADDITION TO EXISTING SPRINKLER SYSTEM)

THROUGHOUT AREA OF WORK, MODIFY EXISTING AND / OR PROVIDE A NEW NFPA 13 FIRE SUPPRESSION (SPRINKLER) SYSTEM. THE LICENSED AUTOMATIC SPRINKLER SYSTEM DESIGNER / INSTALLER SHALL FIELD VERIFY ALL CONDITIONS PRIOR TO BID. THE NFPA 13 SPRINKLER SYSTEM SHALL BE DESIGNED, INSTALLED, MODIFIED AND TESTED BY A LICENSED AUTOMATIC SPRINKLER SYSTEM DESIGNER / INSTALLER AND SHALL MEET ALL APPLICABLE CODE REQUIREMENTS. THE LICENSED AUTOMATIC SPRINKLER SYSTEM DESIGNER SHALL PROVIDE AUTOMATIC SPRINKLER SYSTEM DESIGN DOCUMENTS AND SHALL SUBMIT THEM TO ALL APPLICABLE JURISDICTIONS AND AUTHORITIES AND SHALL PROCURE ALL NECESSARY PERMITS. SPRINKLER DESIGNER / INSTALLER SHALL PAY ALL NECESSARY PERMITTING FEES.

DESIGN OF NEW / MODIFIED NFPA 13 SPRINKLER SYSTEM SHALL BE BASED ON, BUT NOT LIMITED TO THE FOLLOWING CRITERIA:

1. COMPLY WITH NFPA 13 AND ALL OTHER APPLICABLE CODES.
2. MODIFY EXISTING SPRINKLER HEAD LAYOUT TO PROVIDE ADEQUATE COVERAGE PER CODE REQUIREMENTS.
3. MODIFY EXISTING SPRINKLER HEAD AND PIPING LAYOUT INCLUDING ALL DROPS, ARM-OVERS AND MAIN PIPES TO AVOID RELOCATED DIFFUSERS, LIGHT FIXTURES, MECHANICAL WORK, PLUMBING WORK, ELECTRICAL WORK, DEMOLITION WORK, NEW CONSTRUCTION WORK AND ALL OTHER WORK AND COMPONENTS IN THE CONTRACT.
4. PROVIDE PROPER COVERAGE IN CONCEALED SPACES AS REQUIRED PER CODE.
5. WHERE INSTALLING NEW WORK ADJACENT TO EXISTING, MATCH NEW COMPONENTS TO EXISTING COMPONENTS WITHIN CODE LIMITATIONS.
6. ALL NEW AND RELOCATED SPRINKLER PIPING AND COMPONENTS SHALL BE CONCEALED ABOVE CEILINGS AND WITHIN WALLS.

N

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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REGISTERED ARCHITECTS

MARK A. CHAMBERS
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9638
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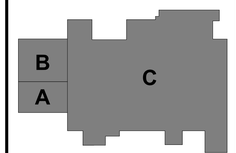


KEYPLAN

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

REVISION SCHEDULE

DATE	DESCRIPTION	BY

PROJECT NO.	22-26670
FILE NAME	
DRAWN BY	Author
DESIGNED BY	Designer
REVIEWED BY	Checker
ORIGINAL ISSUE DATE	MM/DD/YY
CLIENT PROJECT NO.	

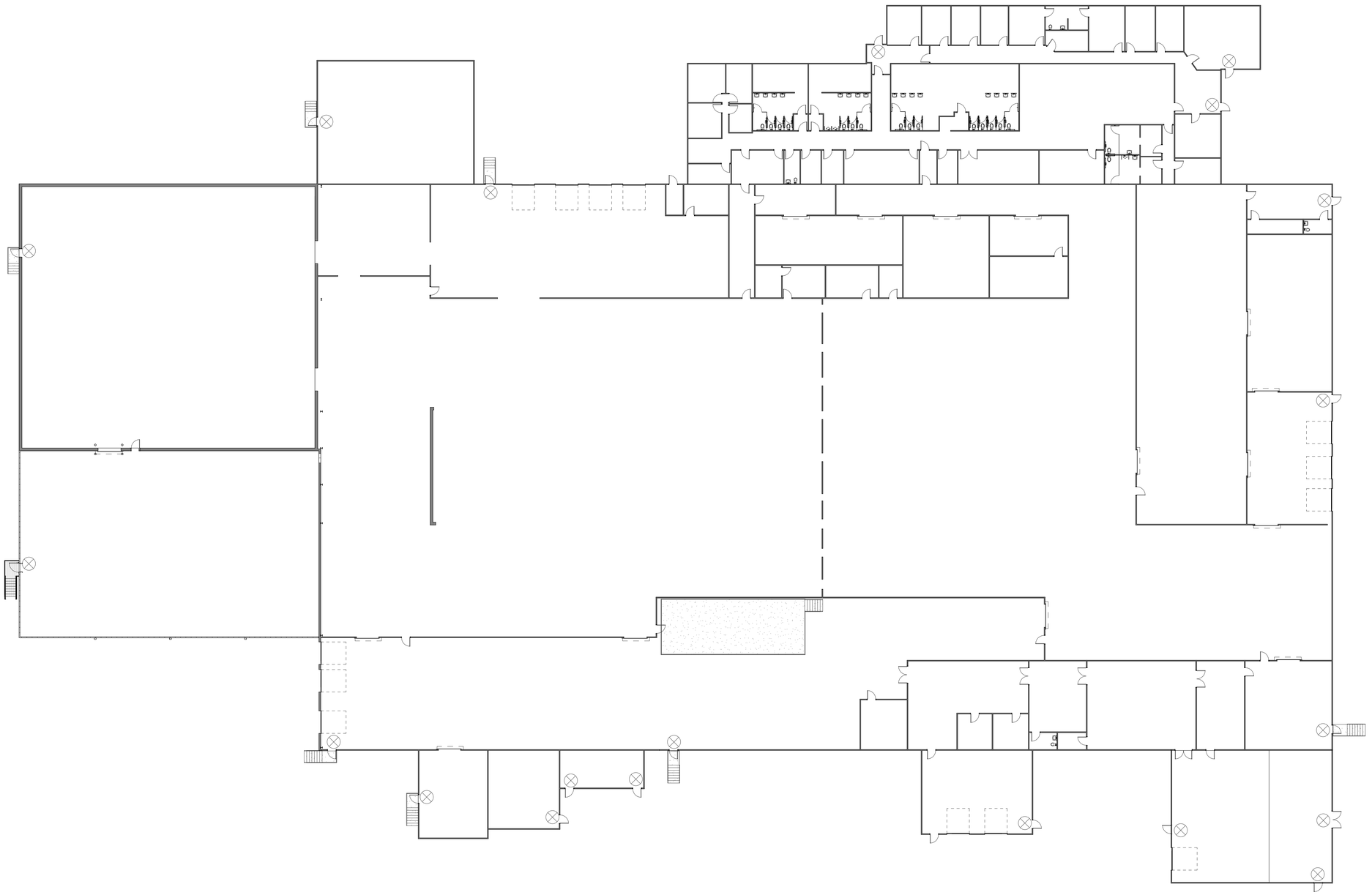
TITLE

CODE DATA AND CODE DATA PLAN

SHEET

G1-21

THIS SHEET ONLY VALID IF PRINTED IN COLOR



1 OVERALL FACILITY PLAN
1/16" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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N

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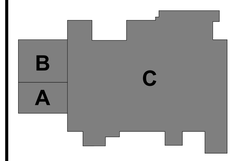

KEYPLAN

PROJECT

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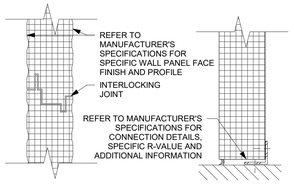
OVERALL FACILITY PLAN

SHEET

G1-31



PLAN TOP / BOTTOM

WALL TYPE	PANEL THICKNESS	PANEL WIDTH	APPROXIMATE R-VALUE	WALL PANEL ORIENTATION	KEY NOTES
Q4	4"	42"	35	VERTICAL	

NOTES:
A. FINISH: G-90 GALVANIZED STEEL FOR INTERIOR AND EXTERIOR FACE.

1 WALL TYPE Q (INSULATED METAL PANEL)
3" = 1'-0"

WALL ASSEMBLY KEY NOTES:

1. PROVIDE 1" GAP FOR DEFLECTION ALLOWANCE BETWEEN WALL FINISH / SUBSTRATE AND STRUCTURE ABOVE. TYPICAL UNLESS NOTED OTHERWISE ON STRUCTURAL DOCUMENTS.

GENERAL WALL ASSEMBLY NOTES:

A. NOT ALL WALL TYPES LISTED APPLY TO THIS PROJECT. REFER TO FLOOR PLAN FOR LOCATIONS AND ADDITIONAL NOTES.

B. LIGHT GAUGE STEEL FRAMING MEMBER DESIGNATION SYSTEM: (REFER TO STRUCTURAL NOTES)

600S125-54 (EQUIVALENT TO 6" x 16 GAUGE STUD OR JOIST WITH 1 1/4" FLANGES)

- MINIMUM BASE METAL THICKNESS IN MILS. EXAMPLE - .054 = 54 MILS)
  - 18 = 25 GAUGE
  - 27 = 22 GAUGE
  - 30 = 20 GAUGE (DRYWALL)
  - 33 = 20 GAUGE (STRUCTURAL)
  - 43 = 18 GAUGE
  - 54 = 16 GAUGE
  - 68 = 14 GAUGE
  - 97 = 12 GAUGE
- FLANGE WIDTH (1/100 INCHES): EXAMPLE - 125 = 1.25"
- STYLE: S = STUD OR JOIST SECTION (WITH FLANGE STIFFENERS) = ⊏
  - T = TRACK SECTION = ⊔
  - U = CHANNEL SECTION (STUDS WITHOUT FLANGE STIFFENERS) = [
  - F = FURRING CHANNEL = ⌒
  - Z = ZEE SECTION = ⌐
- MEMBER DEPTH (1/100 INCHES): EXAMPLE - 600 = 6"

C. ALL PARTITIONS CONTAINING PLUMBING OR HAVING AN EXTERIOR FACE SHALL BE INSULATED.

D. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS (BY OTHERS) FOR LOCATIONS OF WALL PENETRATIONS. SEAL ALL OPENINGS WITH ACOUSTICAL SEALANT.

E. PROVIDE FIRE-TREATED WOOD OR STEEL BACKING FOR ALL WALL-MOUNTED FINISH CARPENTRY, ARCHITECTURAL WOODWORK, TOILET PARTITIONS, ACCESSORIES AND OTHER SIMILAR ITEMS.

F. REFER TO STRUCTURAL DOCUMENTS FOR SHEAR WALL CRITERIA.

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WALL TYPES AND NOTES

SHEET

A1-01

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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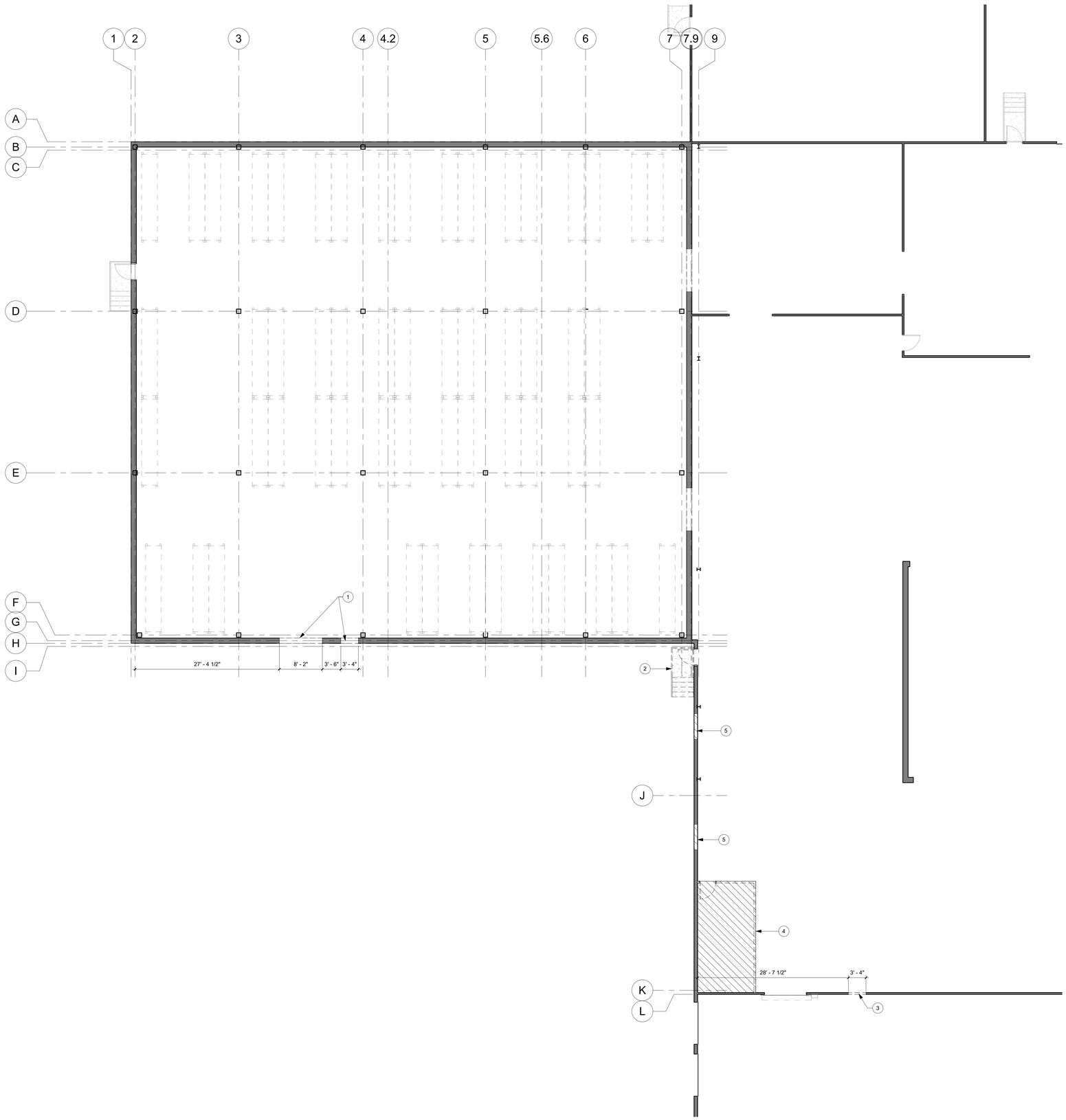

1 FIRST FLOOR DEMOLITION PLAN
1/8" = 1'-0"

REFERENCE SCALE
1" = 1'-0"
0 1/4" 1/2" 1" 2'

WALL LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- DEMOLITION

FLOORING & SLAB LEGEND

FOR ENTIRE ROOM/ SPACE IN SHADED AREA, REMOVE EXISTING FLOOR COVERING, WALL BASE & ASSOCIATED ITEMS. PREP SUB-SURFACE FOR NEW FINISHES. REFER TO SPEC FOR PREPERATION OF CONCRETE SLAB SUBSTRATE.

KEYNOTE LEGEND

1	REMOVE PORTIONS OF EXISTING COOLER WALL FOR NEW DOOR. REFER TO DOOR SCHEDULE FOR OPENING REQUIREMENTS.
2	REMOVE EXISTING DOOR AND STAIR AND RELATED COMPONENTS. REFER TO ARCHITECTURAL PLANS FOR WALL INFILL.
3	REMOVE PORTIONS OF EXISTING WALL FOR NEW EXIT ACCESS DOOR. REFER TO DOOR SCHEDULE FOR OPENING DIMENSIONS.
4	REMOVE EXISTING ENCLOSURE AND ASSOCIATED COMPONENTS IN ITS ENTIRETY FOR NEW CONVEYOR EQUIPMENT.
5	VERIFY LOCATION AND OPENING SIZE OF WALL OPENING FOR NEW CONVERYORS WITH OWNER. REFER TO ARCHITECTURAL PLAN.

SHEET NOTES

- EXISTING CONDITIONS SHOWN ON DRAWINGS REPRESENT CURRENT BUILDING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE DRAWINGS AND FIELD VERIFY EXISTING CONDITIONS TO DETERMINE SCOPE OF DEMOLITION WORK REQUIRED TO COMPLETE THE REMODELING WORK INDICATED ON THE DRAWINGS PRIOR TO PERFORMING WORK. ADDITIONAL WORK THAT IS REQUIRED, WAS VISIBLE, AND COULD HAVE BEEN IDENTIFIED DURING BIDDING SHALL BE COMPLETED BY THE RESPONSIBLE TRADE CONTRACTOR(S) AT NO ADDITIONAL COST TO THE OWNER.
- REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR REVIEW. WORK DONE WITHOUT RESOLUTION OF DISCREPANCIES MUST BE REDONE AT THE REQUEST OF THE ARCHITECT AT NO ADDITIONAL COST TO THE CONTRACT.
- DEMOLITION OF ANY EXISTING CONSTRUCTION SHALL INCLUDE WHAT IS NECESSARY AND REQ'D TO ACCOMMODATE THE REQUIREMENTS OF NEW CONSTRUCTION.
- ALL CORING THRU EXISTING FLOORS, WALLS & CEILINGS SHALL BE PERFORMED BY THE CONTRACTOR REQUIRING THE SAME.
- PATCH, REPAIR, PAINT, ETC. WALLS IN PREPARATION FOR NEW WORK WHERE ITEMS, FIXTURES OR FINISHES HAVE BEEN REMOVED.
- SURFACES SHALL BE PREPPED WITH THE NEW MATERIALS GUIDELINES OF INSTALLATION OF THEIR PRODUCT IN EXISTING CONDITIONS.
- ALL ADJACENT SURFACES DAMAGED BY DEMOLITION WORK SHALL BE RESTORED TO EXISTING CONDITION.
- ALL ROOF PENETRATIONS SHALL BE PERFORMED BY THE TRADE REQUIRING THE SAME. PATCHING & FLASHING ROOF SHALL BE PERFORMED BY THE ROOFING CONTRACTOR.
- VERIFY WITH OWNER FOR ITEMS TO BE SALVAGED BEFORE STARTING DEMOLITION WORK.
- COORDINATE DEMOLITION OF LOAD BEARING WALLS & STRUCTURAL ELEMENTS WITH STRUCTURAL PLANS.
- CONSTRUCT DUST PROOF PARTITIONS TO SEPARATE AREAS OF CONSTRUCTION FROM ADJACENT OCCUPIED AREAS OUTSIDE SCOPE OF CONSTRUCTION.
- PATCH & REPAIR FLOOR IN PREPARATION FOR NEW FLOORING WHERE WALLS HAVE BEEN REMOVED.
- REQUIRED MEANS OF EGRESS FROM THE BUILDING SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION WHEN THE BUILDING REMAINS OCCUPIED. IN THE EVENT THAT AN EXISTING MEANS OF EGRESS CONNOT BE MAINTAINED, THE GENERAL CONTRACTOR SHALL PROVIDE AN APPROVED TEMPORARY MEANS OF EGRESS.
- MAINTAIN THE INTEGRITY OF ALL EXISTING RATED ELEMENTS, FIRE SEAL ANY PENETRATIONS WITH U.L. APPROVED ASSEMBLY.
- CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES.
- DO NOT INTERRUPT EXISTING UTILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AHJ. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS ACCEPTABLE TO GOVERNING AUTHORITIES.
- WHEN UTILITY SERVICES ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, PROVIDE BYPASS CONNECTIONS TO MAINTAIN CONTINUITY OF SERVICE BEFORE PROCEEDING WITH REMOVAL.
- WHERE EXISTING INTERIOR PARTITIONS ARE REPLACED OR REMOVED, REMOVE MEP SYSTEMS BACK TO PANEL OR MECHANICAL ROOM OR FARTHEST POSSIBLE POINT WITHOUT DISTURBING EXISTING CONSTRUCTION. REMOVE EXISTING MECHANICAL EQUIPMENT, RELOCATE POWER PER MEP DRAWINGS
- ALL WALLS IN EXISTING ROOMS IN WHICH WORK IS OCCURRING: A) REPAIR HOLES, DEFECTS, ETC. IN EXISTING WALLS; B) AT REPAIRS AND UNPAINTED CMU, PROVIDE BLOCK FILL PAINT AND TWO FINISH COATS OF PAINT; C) PROVIDE ONE FINISH COAT OF PAINT OVER EXISTING PAINTED WALLS.

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KEYPLAN

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

REVISION SCHEDULE

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FIRST FLOOR DEMOLITION PLAN

SHEET

A1-11

N

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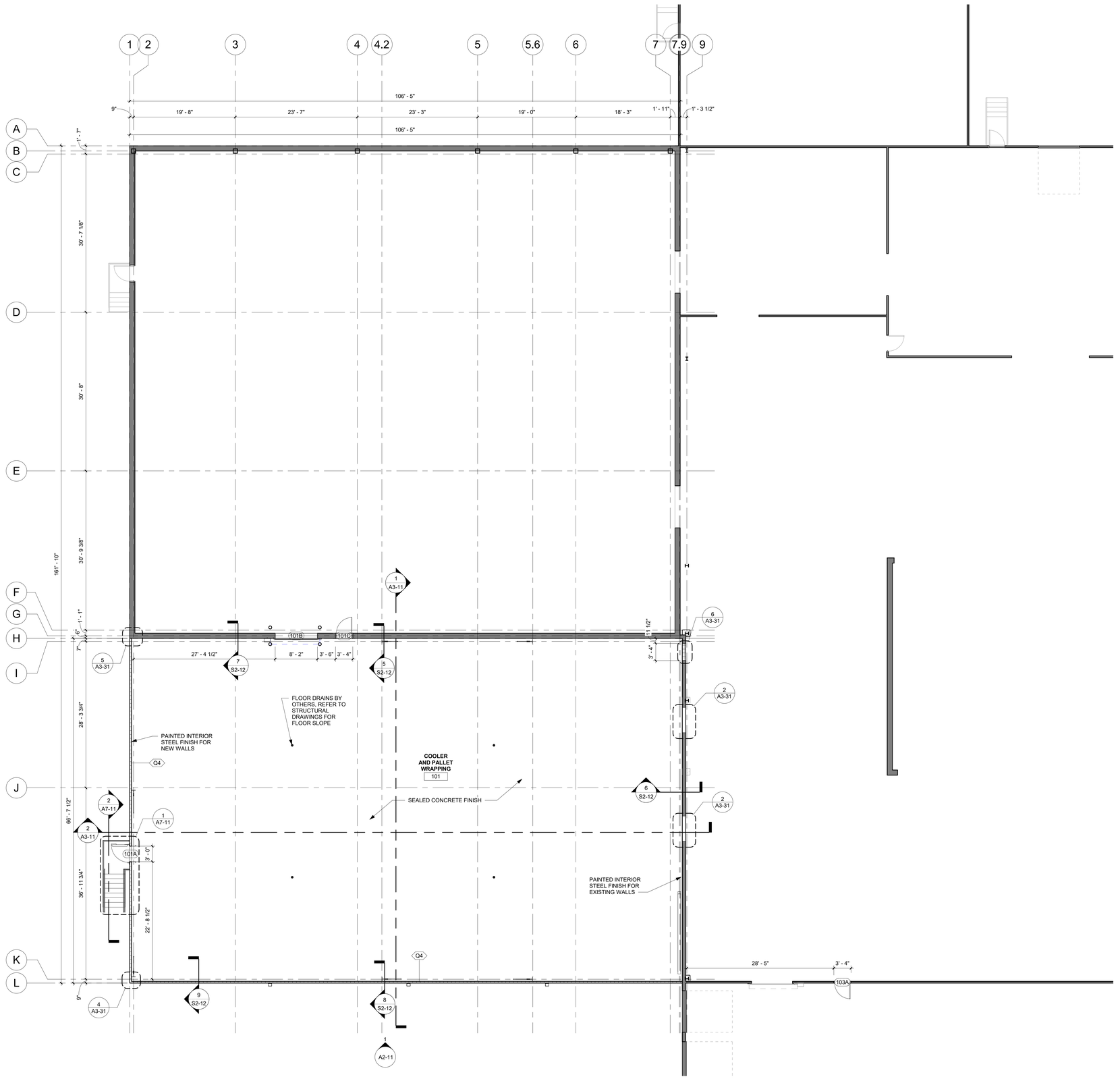

1 FIRST FLOOR PLAN
1/8" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1"
2"

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WALL LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- NEW CONSTRUCTION

SHEET NOTES

- SEE STRUCTURAL PLANS FOR IMP WALL BRACING DETAILS, COLUMN AND ROOF FRAMING LOCATIONS. SEE STRUCTURAL DRAWNGS FOR CAST-IN-PLACE CONCRETE CURB LOCATIONS AND FOUNDATION DETAILS.
- SEE STRUCTURAL SLAB PLAN FOR FLOOR DRAIN LOCATIONS AND SLOPE REQUIREMENTS.
- PAINT ALL EXPOSED METALS INCLUDING, BUT NOT LIMITED TO COLUMNS, RISERS, STRINGERS, HANDRAILS, GUARDRAILS, AND FLOOR EDGES, UNLESS NOTED OTHERWISE.
- WHERE EXISTING ITEM IS REMOVED AND NEW ITEM IS SMALLER AND INSTALLED IN THE SAME LOCATION, CLEAN AND REPAIR THE SIGHT-EXPOSED SURFACES TO REMAIN TO MATCH THE CONSTRUCTION MATERIALS AND METHODS, FINISHED TEXTURE, PATTERN, AND COLOR OF THE ADJACENT SURFACES TO REMAIN.

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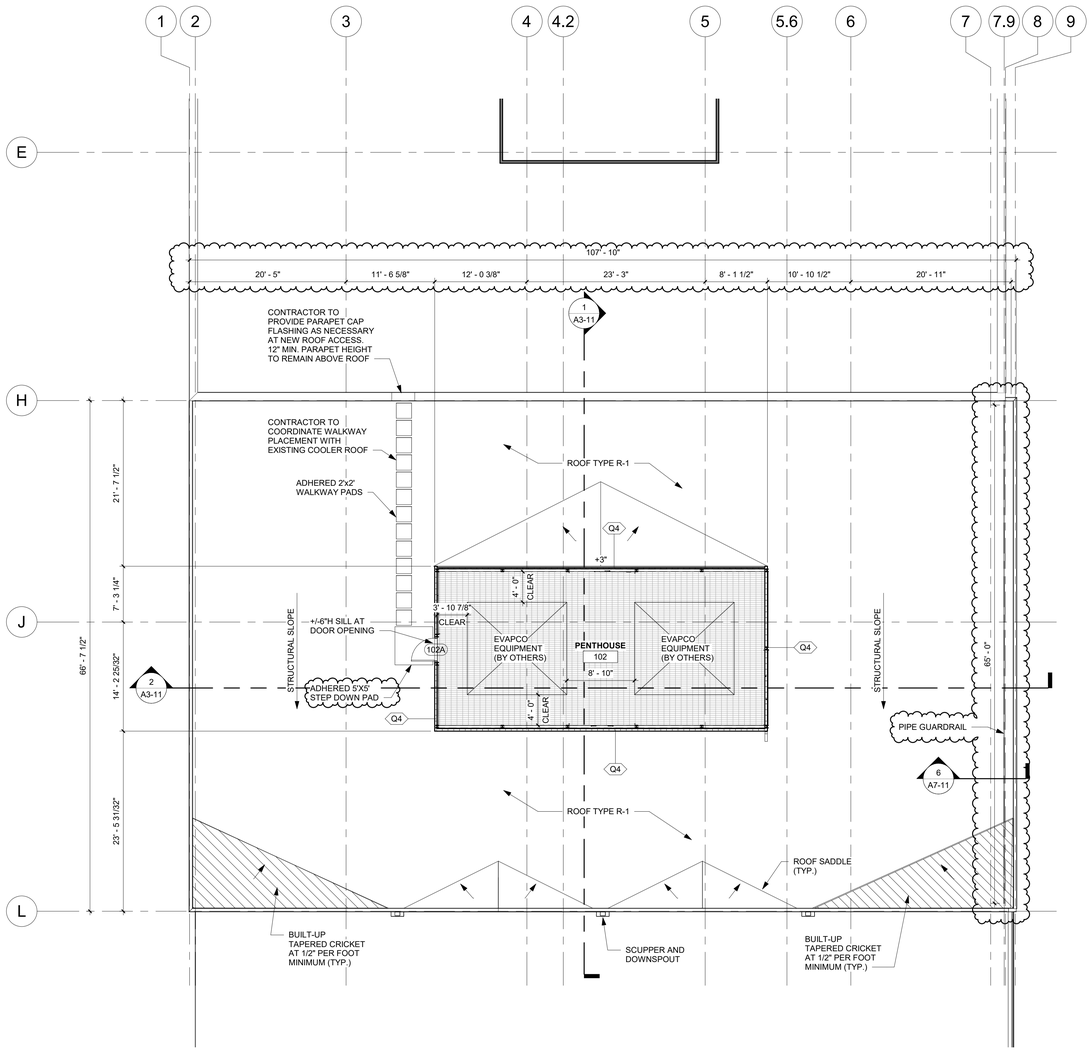
FIRST FLOOR PLAN

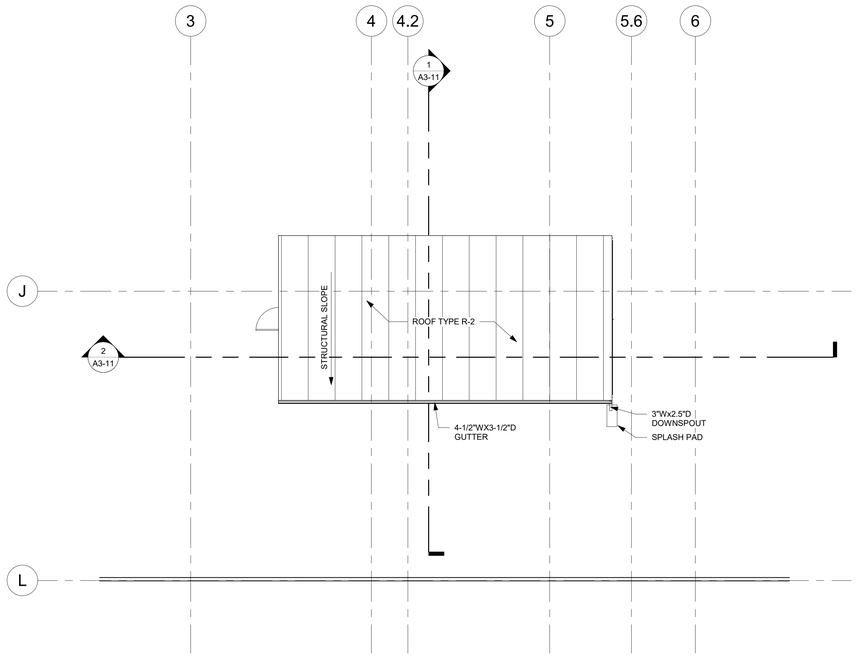
N

SHEET

A1-21



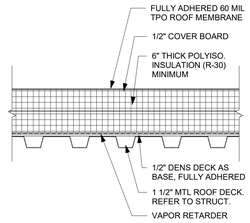
1 ROOF PLAN - COOLER
1/8" = 1'-0"



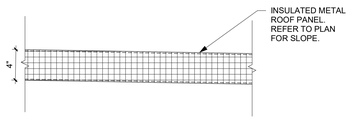
2 ROOF PLAN - COOLER PENTHOUSE
1/8" = 1'-0"

SHEET NOTES

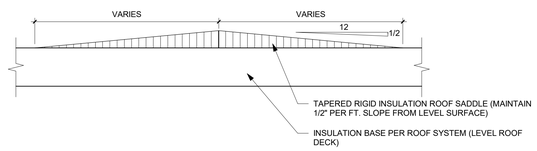
- FIELD VERIFY EXACT QUANTITY, SIZE AND LOCATIONS OF ROOF HOODS, VENTS, DRAINS, EQUIMENT, ETC.
- ALL VENT-THRU PIPES SHALL BE EXTENDED, AS NECESSARY, TO PROTECT MINIMUM OF 12" ABOVE FINISHED ELEVATION OF ROOFING. FLASH ALL VENTS WITH PREMOLDED PIPE BOOTS WITH STAINLESS STEEL CLAMPING RING. ANY THAT EXTEND ABOVE THE PARAPET HEIGHT AND ARE VISIBLE FROM GROUND LEVEL SHALL BE PAINTED, UNLESS NOTED OTHERWISE.
- ALL ROOF TOP CURBS TO BE SADDLES WITH MINIMUM 1/2" PER FOOT PITCH.
- FLASH DRAINS, CURBS, VENTS AND STACKS PER MANUFACTURER'S RECOMMENDATIONS IF DETAIL NOT SHOWN ON PLANS.
- PROVIDE SOLID WOOD BLOCKING WHERE INSULATION THICKNESS IS 6" OR MORE AND AT LOCATIONS INDICATED ON DRAWINGS, UNLESS NOTED OTHERWISE.
- WALKWAY PADS TO BE INSTALLED AT ROOF ACCESS POINTS, TOP AND BOTTOM OF LADDERS AND AT SERVICE LOCATIONS AROUND ROOF TOP MECHANICAL UNITS.
- FIELD VERIFY CONDITIONS PRIOR TO FABRICATION.



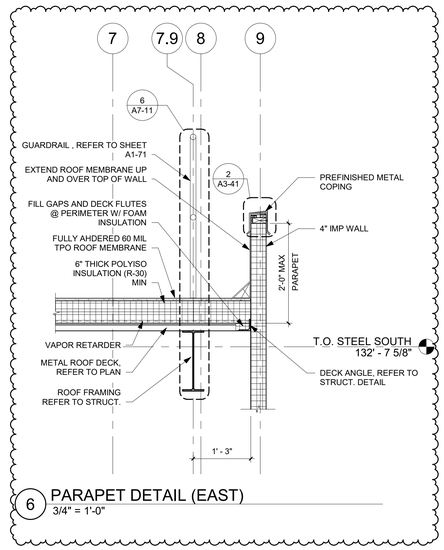
3 ROOF TYPE R-1
1 1/2" = 1'-0"



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



5 ROOF SADDLE DETAIL
1 1/2" = 1'-0"



6 PARAPET DETAIL (EAST)
3/4" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

6/17/2022 5:55:35 PM

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PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

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DATE	DESCRIPTION	BY
06/17/22	ADDENDUM 01	PS/MZ

PROJECT NO.	22-26670
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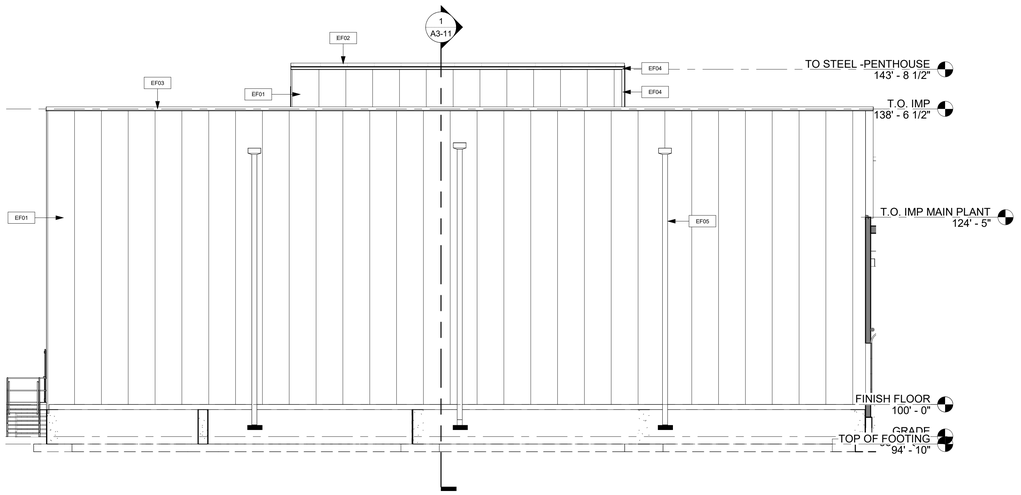
ROOF PLAN

N

SHEET

A1-71



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

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

EXTERIOR FINISH SCHEDULE

MARK	MATERIAL TYPE	MANUFACTURER	MODEL / SIZE	COLOR	ADDITIONAL INFORMATION	COMMENTS
EF01	4" INSULATED METAL PANEL	METAL SPAN	42" CF LIGHT MESA	WHITE	LIGHTLY PROFILED 1/16" DEEP, UNEMBOSSED	COLOR TO MATCH EXISTING COOLER
EF02	4" INSULATED PANEL ROOF	KING SPAN	40" KINGRIB MODEL 3	WHITE	MESA W/TRAPEZOIDAL RIBS	
EF03	4" PREFINISHED METAL COPING			WHITE		
EF04	PREFINISHED METAL GUTTERS AND DS		3"Wx2.5"D(DS) 4.5"Wx3.5"D(GTR)	WHITE		
EF05	PREFINISHED METAL DS		6"Wx4.5"D	WHITE		

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EXTERIOR ELEVATIONS

SHEET

A2-11

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1"

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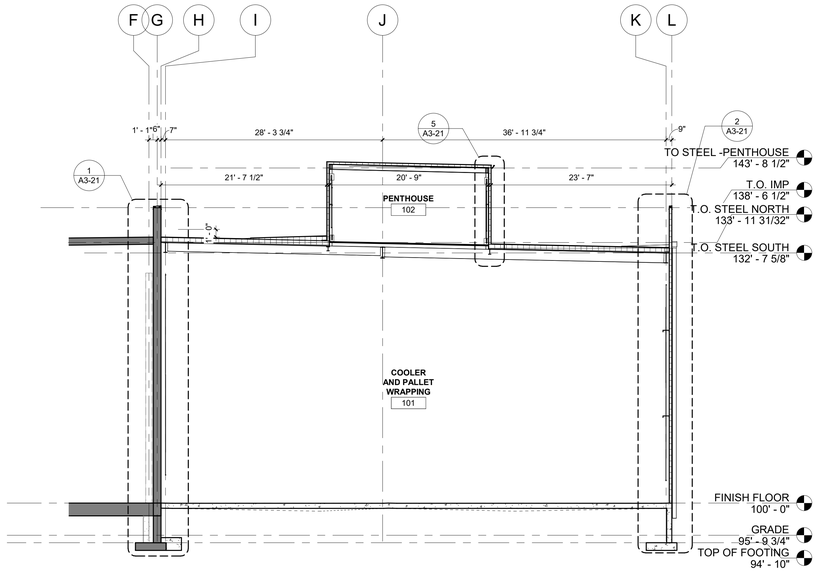
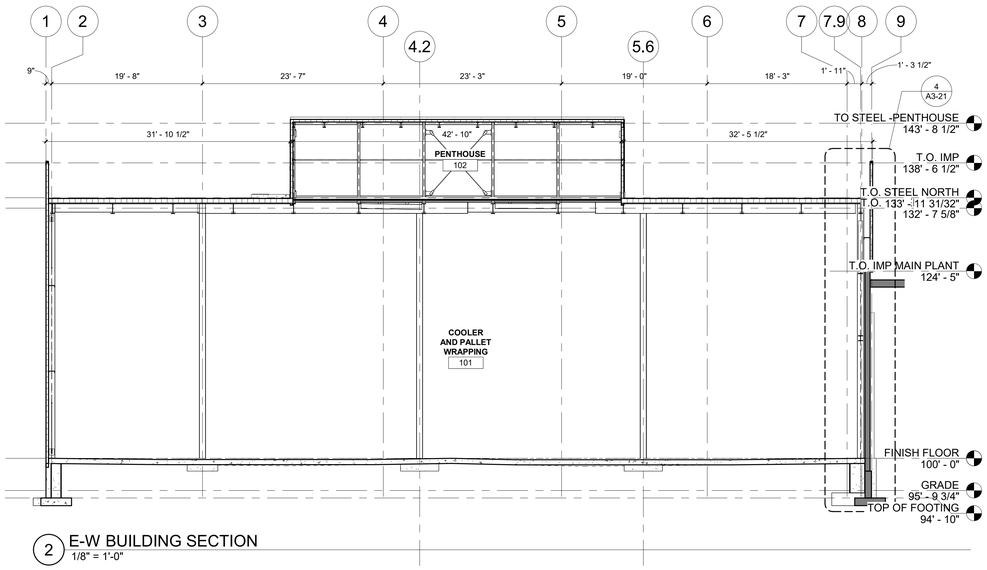


1 N-S BUILDING SECTION
1/8" = 1'-0"



2 E-W BUILDING SECTION
1/8" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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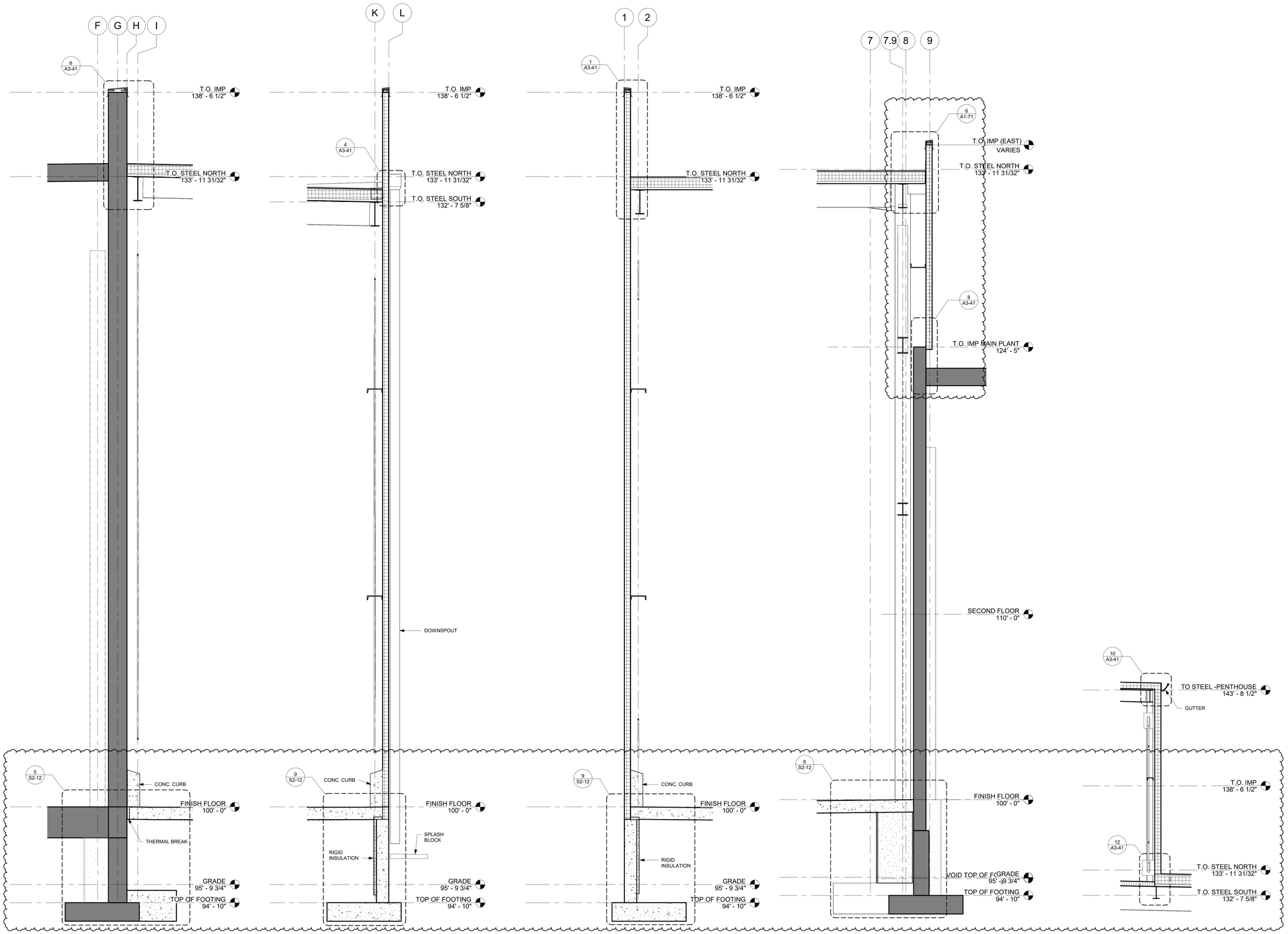
BUILDING SECTIONS

SHEET

A3-11



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

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

3 WALL SECTION-3
1/2" = 1'-0"

4 WALL SECTION-4
1/2" = 1'-0"

5 SECTION AT PENTHOUSE
1/2" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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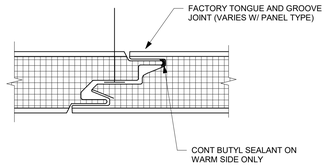
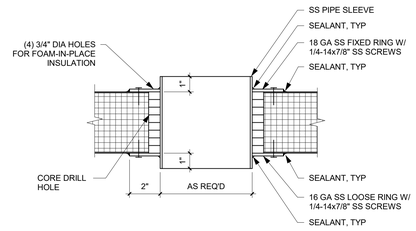
WALL SECTIONS

SHEET

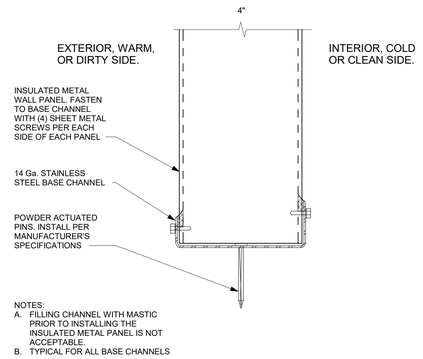
A3-21



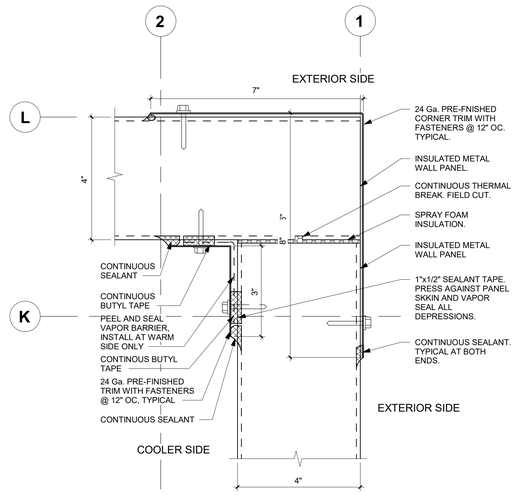
1 WALL - IMP - PANEL EDGE JOINT (TYPICAL)
NOT TO SCALE



2 WALL - IMP - SLEEVE THRU IMP
NOT TO SCALE



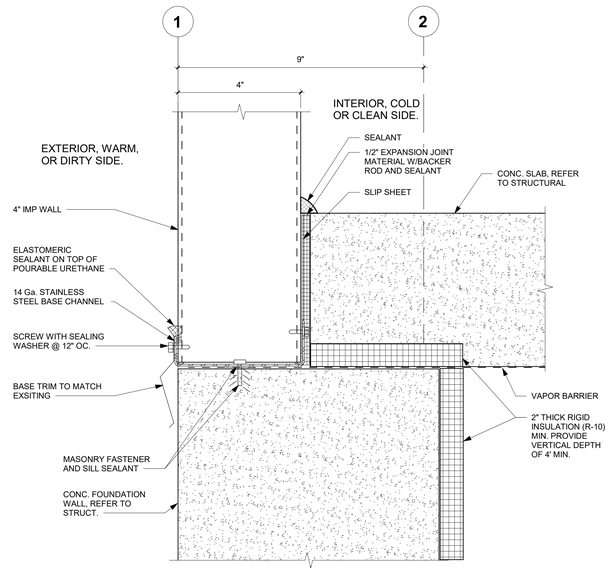
3 INSULATED METAL WALL PANEL BASE
NOT TO SCALE



4 INSULATED METAL WALL PANEL CORNER
NOT TO SCALE

5 INSULATED METAL WALL PANEL AT EXISTING
NOT TO SCALE

6 IMP INFILL DETAIL
NOT TO SCALE



7 IMP AT FOUNDATION WALL DETAIL
NOT TO SCALE

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

5/27/2022 5:26:50 PM

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I&S Group, Inc.
Mankato, MN
101240
REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA
MARK A. CHAMBERS
GREEN BAY, WI
9638
REGISTERED ARCHITECT

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

REVISION SCHEDULE

DATE	DESCRIPTION	BY

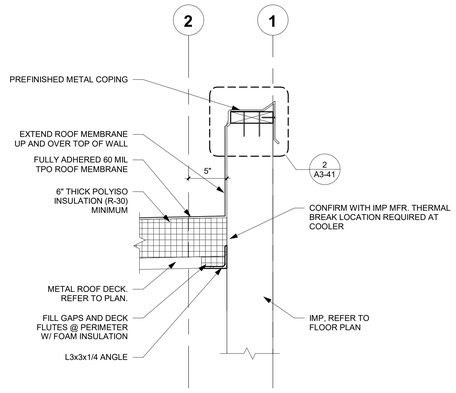
PROJECT NO.	22-26670
FILE NAME	
DRAWN BY	Author
DESIGNED BY	Designer
REVIEWED BY	Checker
ORIGINAL ISSUE DATE	MM/DD/YY
CLIENT PROJECT NO.	

TITLE

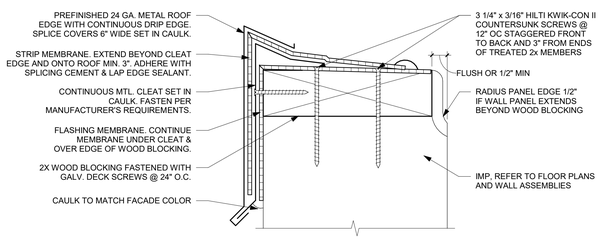
WALL DETAILS

SHEET

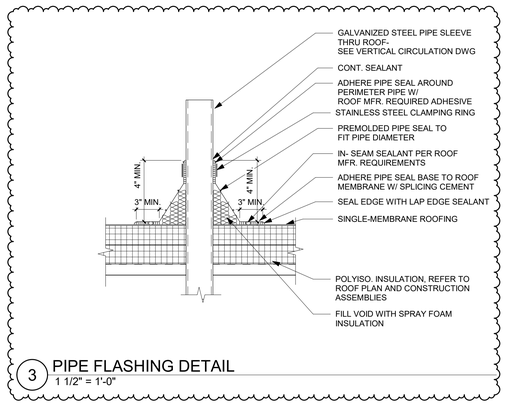
A3-31



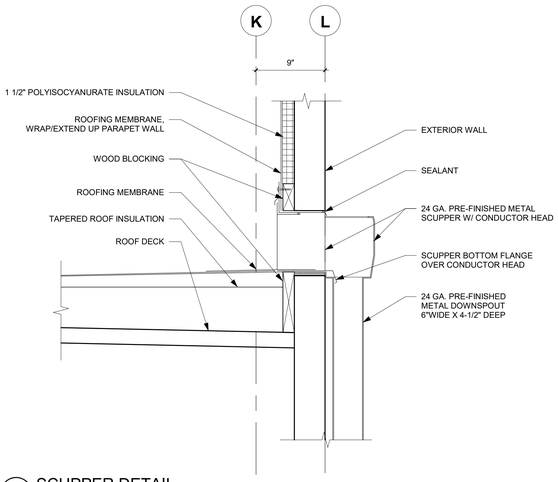
1 TYPICAL PARAPET DETAIL
1 1/2" = 1'-0"



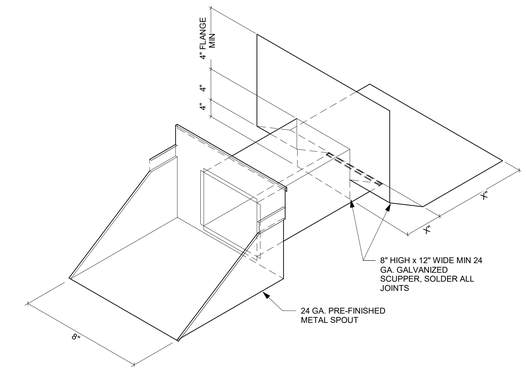
2 ENLARGED ROOF EDGE DETAIL
6" = 1'-0"



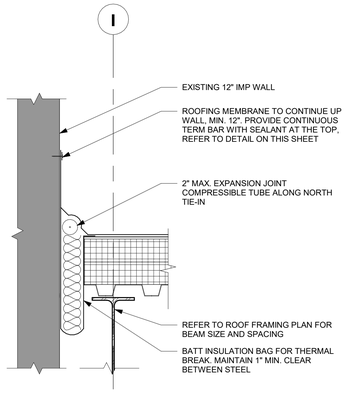
3 PIPE FLASHING DETAIL
1 1/2" = 1'-0"



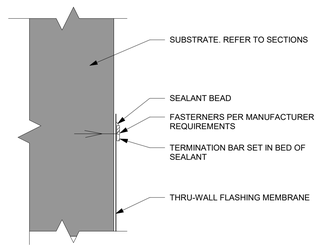
4 SCUPPER DETAIL
1 1/2" = 1'-0"



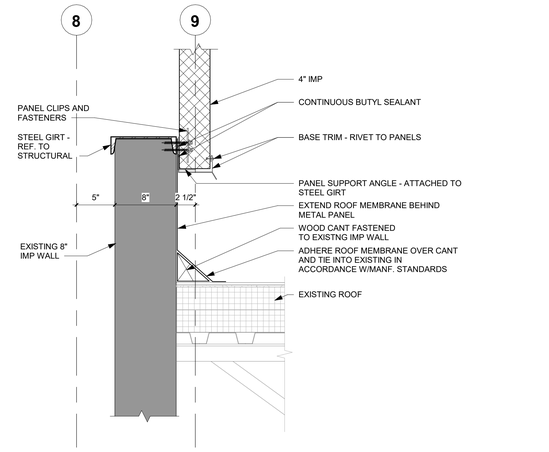
5 SCUPPER ISOMETRIC DETAIL
1 1/2" = 1'-0"



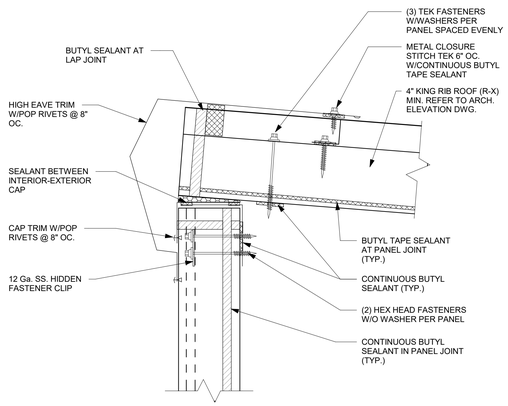
6 ROOF DETAIL AT EXISTING COOLER
1 1/2" = 1'-0"



7 TERM BAR DETAIL
3" = 1'-0"

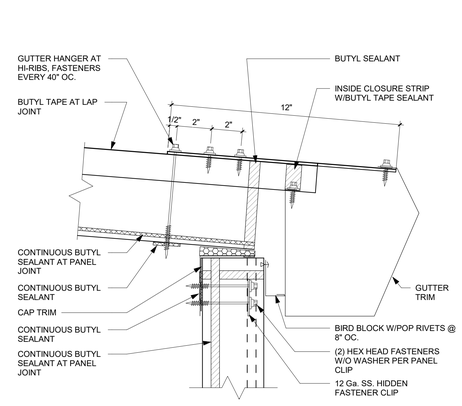


8 IMP TIE-IN AT EAST ROOF
1 1/2" = 1'-0"



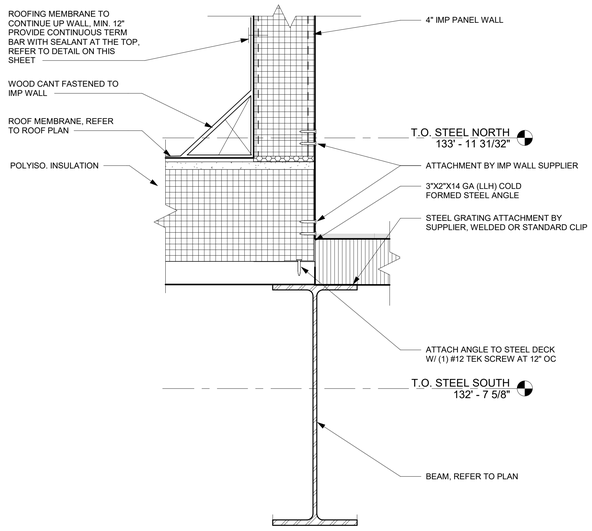
NOTE:
A. REFER TO MANUFACTURER'S STANDARDS AND INSTALLATION REQUIREMENTS.

9 HIGH EAVE AT PENTHOUSE
3" = 1'-0"

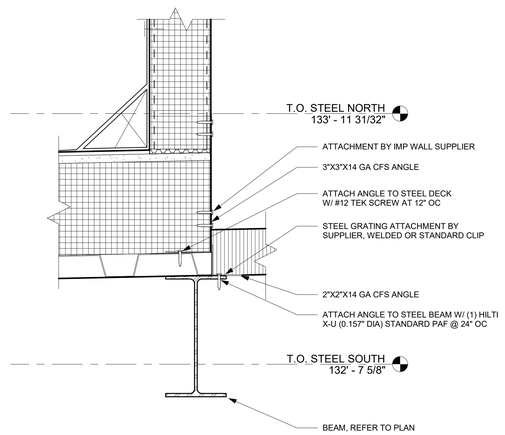


NOTE:
A. REFER TO MANUFACTURER'S STANDARDS AND INSTALLATION REQUIREMENTS.

10 LOW EAVE W/GUTTER AT PENTHOUSE
3" = 1'-0"



11 PENTHOUSE WALL TO COOLER ROOF (WEST)
3" = 1'-0"



12 PENTHOUSE WALL TO COOLER ROOF (SOUTH)
3" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1"

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I&S Group, Inc.
Mankato, MN
101240
REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA
MARK A. CHAMBERS
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9638
REGISTERED ARCHITECT

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

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DESIGNED BY	PES
REVIEWED BY	MAC
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CLIENT PROJECT NO.	

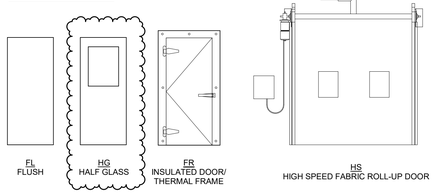
TITLE

ROOF DETAILS

SHEET

A3-41

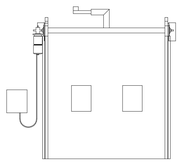
DOOR TYPES



FL
FLUSH

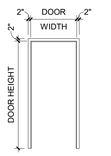
HG
HALF GLASS

FR
INSULATED DOOR/
THERMAL FRAME



HS
HIGH SPEED FABRIC ROLL-UP DOOR

FRAME TYPES



1
METAL FRAME

DOOR SCHEDULE

MARK	ROOM NAME	WIDTH	HEIGHT	DOOR TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	HARDWARE GROUP	FIRE RATING	COMMENTS
101A	COOLER AND PALLET WRAPPING	3' - 0"	7' - 1"	FR	INSULATED STEEL	-	HOLLOW METAL	1		INTERIOR EXIT HARDWARE ONLY. DOOR AND FRAME TO HAVE GALVANIZED FINISH.
101B	COOLER AND PALLET WRAPPING	8' - 2"	13' - 6"	HS	FABRIC	-	-	-		NON INSULATED ROLL-UP. MOTOR POWER TO BE COORDINATED BY ELECTRICAL.
101C	COOLER AND PALLET WRAPPING	3' - 0"	7' - 0"	HG	HOLLOW METAL	1	HOLLOW METAL	2		DOOR AND FRAME TO HAVE GALVANIZED FINISH.
102A	PENTHOUSE	3' - 0"	7' - 0"	FL	INSULATED STEEL	1	HOLLOW METAL	4		DOOR AND FRAME TO HAVE GALVANIZED FINISH.
103A	DRY STORAGE	3' - 0"	7' - 0"	HG	HOLLOW METAL	1	HOLLOW METAL	3		DOOR AND FRAME TO HAVE GALVANIZED FINISH.

HARDWARE GROUP 1

- 3 EA HINGE
- 1 EA FIRE EXIT HARDWARE
- 1 EA SURFACE CLOSER
- 2 EA KICK PLATE
- 1 EA WEATHERSTRIP
- 1 EA RAIN DRIP
- 1 EA DOOR SWEEP
- 1 EA THRESHOLD

HARDWARE GROUP 2

- 3 EA HINGE
- 1 EA PASSAGE SET
- 1 EA SURFACE CLOSER
- 2 EA KICK PLATE
- 1 EA DOOR SWEEP
- 1 EA THRESHOLD

HARDWARE GROUP 3

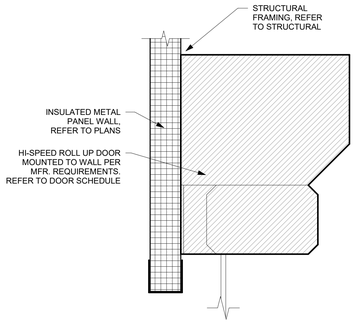
- 3 EA HINGE
- 1 EA FIRE EXIT HARDWARE
- 1 EA SURFACE CLOSER
- 1 EA DOOR SWEEP
- 2 EA KICK PLATE

HARDWARE GROUP 4

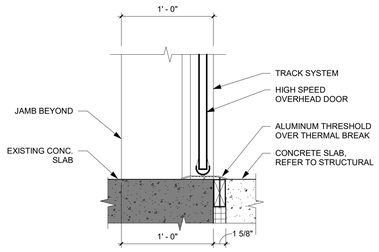
- 3 EA HINGE
- 1 EA FIRE EXIT HARDWARE
- 1 EA SURFACE CLOSER
- 2 EA KICK PLATE
- 1 EA WEATHERSTRIP
- 1 EA RAIN DRIP
- 1 EA DOOR SWEEP
- 1 EA THRESHOLD
(ELECTRIC STRIKE)

SHEET NOTES

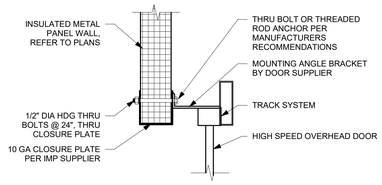
- REFER TO WALL TYPE THICKNESS FOR HOLLOW METAL DOOR FRAME THROAT WIDTH.
- ALL HOLLOW METAL DOORS & FRAMES TO BE PAINTED.
- DOORS WITH TAG "EX" SHOWN ON FLOOR PLAN ARE EXISTING DOORS THAT ARE TO REMAIN. NO WORK, UNLESS NOTED OTHERWISE.
- FRAME MANUFACTURER SHALL COORDINATE LOCATIONS OF ALL CONCEALED CONDUIT AND J-BOXES REQUIRED FOR SECURITY SYSTEM HARDWARE PRIOR TO MANUFACTURING OF HOLLOW METAL FRAMES AND COORDINATE WITH SECURITY HARDWARE AND DEVICES.
- REFER TO STRUCTURAL FRAMING ELEVATIONS AT NEW OPENINGS IN NEW AND EXISTING WALLS.



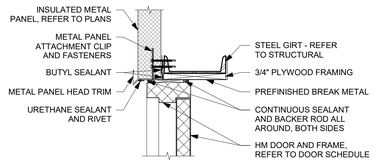
1 HIGH SPEED OVERHEAD DOOR HEAD @ IMP
1 1/2" = 1'-0"



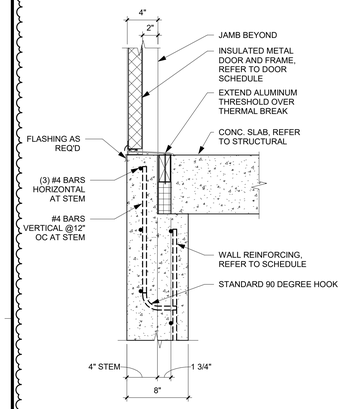
2 HIGH SPEED OVERHEAD DOOR SILL DETAIL @ IMP
1 1/2" = 1'-0"



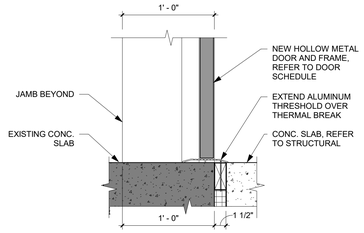
3 HIGH SPEED OVERHEAD DOOR JAMB @IMP
1 1/2" = 1'-0"



4 HM DOOR HEAD AT IMP
1 1/2" = 1'-0"



5 FREEZER DOOR SILL @ EXIT STAIR
1 1/2" = 1'-0"



6 HM DOOR SILL @ EXISTING IMP
1 1/2" = 1'-0"

REFRENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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I&S Group, Inc.
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101240

STATE OF SOUTH CAROLINA
REGISTERED ARCHITECTS

MARK A. CHAMBERS
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9638
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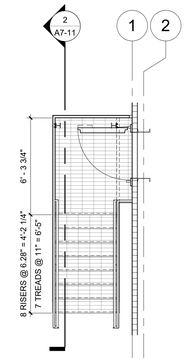
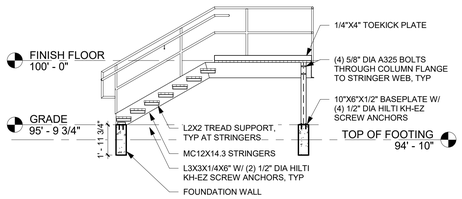
DOOR SCHEDULE, DOOR AND FRAME TYPES

SHEET

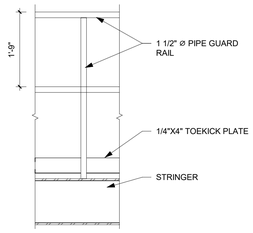
A4-11



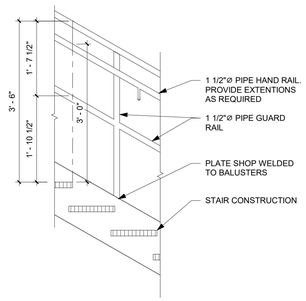
1 STAIR AT COOLER
1/4" = 1'-0"



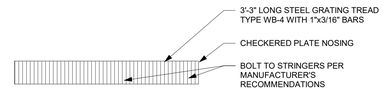
2 EXTERIOR STAIR SECTION
1/4" = 1'-0"



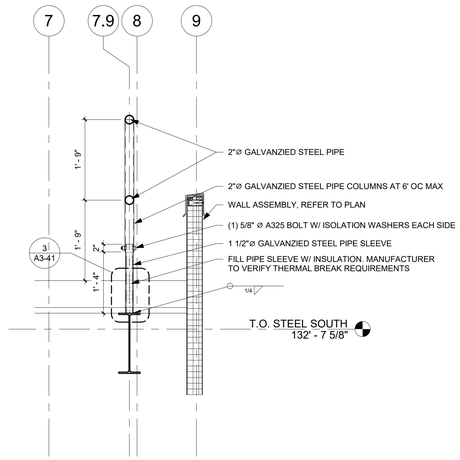
3 RAILINGS - LANDING AND PLATFORMS
3/4" = 1'-0"



4 RAILINGS - STAIRS
3/4" = 1'-0"



5 TYPICAL TREAD
3" = 1'-0"



6 GUARDRAIL DETAIL
3/4" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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ENLARGED VERTICAL CIRCULATION PLANS AND SECTIONS

SHEET

A7-11

GENERAL NOTES

A. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THESE STANDARD STRUCTURAL NOTES. TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE.

B. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK; AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED, IN WRITING, OF ANY DISCREPANCIES.

C. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE STRUCTURAL DRAWINGS.

D. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED BEFORE BEGINNING EXCAVATION.

E. NO PIPES, DUCTS, SLEEVES, CHASES, ETC., SHALL BE PLACED IN SLABS OR WALLS, NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC.

F. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY SHORING AND BRACING OF EXISTING STRUCTURAL ELEMENTS DURING CONSTRUCTION. ALL SHORING SHALL BE ADEQUATE TO SUPPORT ALL STRUCTURAL LOADS DURING THE REMOVAL OF THE EXISTING STRUCTURE. TEMPORARY SHORING MUST REMAIN IN PLACE UNTIL ALL NEW STRUCTURAL ELEMENTS ARE SECURED INTO PLACE PER CONSTRUCTION DOCUMENTS.

G. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR REQUIREMENTS, DIMENSIONS AND EXACT LOCATIONS OF FLOOR DRAINS, TRENCHES, DRAIN TILE, PUMPS AND EQUIPMENT INCLUDING ANCHORING SYSTEMS AND HOUSEKEEPING PADS. GENERAL CONTRACTOR TO COORDINATE ALL OF THESE ITEMS WITH ALL DISCIPLINES INVOLVED.

H. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES AND MANUALS (LATEST ADOPTED EDITION):
1. STATE BUILDING CODE, WHEN APPLICABLE.
2. INTERNATIONAL BUILDING CODE (IBC).
3. AMERICAN CONCRETE INSTITUTE (ACI).
4. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) MANUAL OF STANDARD PRACTICE (FOR PLACING AND DETAILING OF ALL REINFORCING).
5. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
6. AMERICAN WELDING SOCIETY (AWS) STANDARDS FOR WELDING AS MODIFIED BY AISC SPECIFICATION.
7. MASONRY STANDARDS JOINT COMMITTEE (MSJC)
8. AMERICAN FOREST & PAPER ASSOCIATION NATIONAL DESIGN SPECIFICATION (AF & PA NDS)

DESIGN LOADS CRITERIA

A. CODES USED:
1. 2018 SOUTH CAROLINA BUILDING CODE
2. 2018 INTERNATIONAL BUILDING CODE
3. 2016 AMERICAN SOCIETY OF CIVIL ENGINEERS STANDARD 7 (ASCE 7-16)

B. RISK CATEGORY: II

C. WIND LOAD CRITERIA:
1. BASIC DESIGN WIND SPEED, V = 115 MPH (3 SECOND GUST)
2. ALLOWABLE STRESS DESIGN WIND SPEED, Vasd = 90 MPH (3 SECOND GUST)
3. WIND LOAD EXPOSURE: C
4. INTERNAL PRESSURE COEFFICIENT: +/- 0.18 (ENCLOSED BUILDING)
5. WIND TOPOGRAPHIC FACTOR: K_{ZT} = 1.0
6. C & C WIND WALL PRESSURE: REFER TO COMPONENT AND CLADDING WIND PRESSURE TABLE
7. WIND NET UPLIFT: 15 PSF (NOMINAL)

D. SNOW LOAD CRITERIA
1. GROUND SNOW LOAD, P_G = 10 PSF
2. FLAT-ROOF SNOW LOAD (BALANCED), P_f = 12.7 PSF
3. SNOW LOAD IMPORTANCE FACTOR, I_S = 1.0
4. SLOPE FACTOR, C_S = 1.0
5. THERMAL FACTOR, C_T = 1.1
6. SNOW EXPOSURE FACTOR, C_E = 1.0

E. EARTHQUAKE LOAD CRITERIA
1. SEISMIC IMPORTANCE FACTOR: I_E = 1.0
2. MAPPED SPECTRAL RESPONSE ACCELERATIONS:
   - S_S = 34.7% g
   - S_1 = 11.4% g
3. SOIL SITE CLASS: C
4. SPECTRAL RESPONSE COEFFICIENT:
   - S_{DS} = 0.301
   - S_{D1} = 0.114
5. SEISMIC DESIGN CATEGORY = B
6. SEISMIC FORCE RESISTING SYSTEM: STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE
7. SEISMIC RESPONSE COEFFICIENT, C_S = 0.097
8. RESPONSE MODIFICATION FACTOR, R = 3
9. OVER-STRENGTH FACTOR: Ω = 3
10. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL-FORCE ANALYSIS

F. LIVE LOADS
1. ROOF: 20 PSF
2. STAIR ASSEMBLIES: 100 PSF
3. RAILING: 200 LBS AT ANY POINT OR 50 PLF, WHICHEVER PRODUCES MAXIMUM LOAD EFFECT

G. DEAD LOADS
1. ROOF: 15 PSF
2. FRAMING: ACTUAL
3. MISCELLANEOUS CEILING: 6 PSF
4. MECHANICAL: SEE PLAN

H. RAIN LOAD DATA
1. RAIN INTENSITY, i: 3.72 IN/HR

SHOP DRAWINGS

A. SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR APPROVAL, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER RESPONSIBLE FOR ITS PREPARATION, WHO IS REGISTERED IN THE STATE WHICH THE PROJECT IS LOCATED.

B. PRIOR TO SUBMITTAL, THE CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS AND MAKE ANY CORRECTIONS REQUIRED. THE CONTRACTOR SHALL STAMP AND SIGN THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE ENGINEER.

C. THE ENGINEER'S REVIEW OF SHOP DRAWINGS IS FOR GENERAL CONFORMANCE OF THE DESIGN CONCEPT. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTALS THAT IS ACCEPTABLE TO BOTH CONTRACTOR AND ENGINEER. AFTER THE CONTRACTOR HAS REVIEWED THE SHOP DRAWINGS, PROMPT REVIEW BY THE ENGINEER WILL BE MADE OF ALL SUBMITTALS.

D. FOR LARGE SUBMITTALS, REASONABLE REVIEW TIME SHALL BE ALLOWED AND MAY EXCEED TWO WEEKS. THE CONTRACTOR SHALL SUBMIT NECESSARY REQUEST FOR INFORMATION (RFI's) DURING THE DETAILING PROCESS TO AVOID SUBMITTALS THAT ARE INCOMPLETE OR NEED SIGNIFICANT VERIFICATIONS. THE CONCURRENT SUBMITTAL OF MULTIPLE SHOP DRAWINGS ("DUMPING") WILL FURTHER EXTEND THE REVIEW PROCESS AND TIME FRAME NECESSARY TO PROPERLY REVIEW EACH SUBMITTAL.

E. UNLESS INDICATED OTHERWISE, THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE FOLLOWING ITEMS FOR STRUCTURAL REVIEW. REFER TO SPECIFIC SECTION OF STRUCTURAL NOTES FOR ANY ADDITIONAL CRITERIA:
1. CONCRETE MIX DESIGNS
2. PRESTRESSED CONCRETE
3. STRUCTURAL STEEL
4. OPEN-WEB BAR JOISTS
5. STEEL ROOF DECK
6. PRE-ENGINEERED METAL BUILDING DESIGN
7. PRE-FABRICATED WOOD TRUSSES
8. PRE-ENGINEERED POST-FRAME BUILDING
9. ADDITIONAL STRUCTURAL SHOP DRAWINGS REQUESTED IN THE SPECIFICATIONS

F. A COPY OF ALL SHOP DRAWINGS SHALL BE MAINTAINED ON SITE AT ALL TIMES.

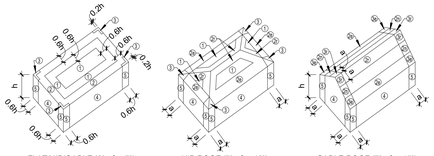
G. SHOP DRAWINGS SHALL INCLUDE COMPLETE DETAIL SCHEDULES, PROCEDURES, AND DIAGRAMS FOR FABRICATION AND ASSEMBLY OF STRUCTURAL MEMBERS AND SUBMIT PRIOR TO FABRICATION.

H. ERECTION PLANS ARE THE RESPONSIBILITY OF THE FABRICATOR.

COMPONENTS AND CLADDING WIND PRESSURES (PSF)

ROOF TYPE	ZONE	TRIBUTARY AREA				
		10 sf or smaller	20 sf	50 sf	100 sf	500 sf or greater
FLAT/HIP/GABLE (0° < θ ≤ 7°)	1	+16.0 / -54.2	+16.0 / -50.6	+16.0 / -45.9	+16.0 / -42.3	+16.0 / -34.0
	1*	+16.0 / -31.1	+16.0 / -31.1	+16.0 / -31.1	+16.0 / -31.1	+16.0 / -21.1
	2	+16.0 / -71.5	+16.0 / -66.9	+16.0 / -60.8	+16.0 / -56.2	+16.0 / -45.6
	3	+16.0 / -97.5	+16.0 / -88.3	+16.0 / -76.1	+16.0 / -66.9	+16.0 / -45.6
	4	+31.1 / -33.7	+29.8 / -32.4	+27.9 / -30.5	+26.6 / -29.2	+23.4 / -26.0
	5	+31.1 / -41.5	+29.8 / -38.8	+27.9 / -35.1	+26.6 / -32.4	+23.4 / -26.0
HIP ROOF (7° < θ ≤ 45°)	1	+16.0 / -54.2	+16.0 / -50.6	+16.0 / -45.9	+16.0 / -42.3	+16.0 / -34.0
	3	+16.0 / -97.5	+16.0 / -88.3	+16.0 / -76.1	+16.0 / -66.9	+16.0 / -45.6
	2e	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -
	2r	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -
	4	+31.1 / -33.7	+29.8 / -32.4	+27.9 / -30.5	+26.6 / -29.2	+23.4 / -26.0
	5	+31.1 / -41.5	+29.8 / -38.8	+27.9 / -35.1	+26.6 / -32.4	+23.4 / -26.0
GABLE ROOF (7° < θ ≤ 45°)	1,2e	+16.0 / -54.2	+16.0 / -50.6	+16.0 / -45.9	+16.0 / -42.3	+16.0 / -34.0
	2r	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -
	2n	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -
	3r	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -
	3e	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -	+16.0 / -
	4	+31.1 / -33.7	+29.8 / -32.4	+27.9 / -30.5	+26.6 / -29.2	+23.4 / -26.0
	5	+31.1 / -41.5	+29.8 / -38.8	+27.9 / -35.1	+26.6 / -32.4	+23.4 / -26.0

NOTES:
1. PRESSURE SHOWN ARE APPLIED NORMAL TO THE SURFACE.
2. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
3. FOR HIP ROOFS WITH θ ≤ 25° , ZONE 3 SHALL BE TREATED AS ZONE 2e AND 2r.
4. REFER TO GENERAL NOTES FOR INFORMATION REGARDING GOVERNING BUILDING CODE.
5. REFER TO FIGURE BELOW FOR ZONE DEFINITIONS.
6. LINEAR INTERPOLATION IS PERMITTED FOR TRIBUTARY AREAS NOT SHOWN.
7. IF OVERHANGS EXIST, THE LESSER HORIZONTAL DIMENSION OF THE BUILDING SHALL NOT INCLUDE ANY OVERHANG DIMENSION, BUT THE EDGE DISTANCE, a , SHALL BE MEASURED FROM THE OUTSIDE EDGE OF THE OVERHANG.



FLAT/HIP/GABLE (0° < θ ≤ 7°) HIP ROOF (7° < θ ≤ 45°) GABLE ROOF (7° < θ ≤ 45°)

NOTATION
a = 10% OF LEAST HORIZONTAL DIMENSION OR 0.4*h*, WHICHEVER IS SMALLER, BUT NOT LESS THAN EITHER 4% OF LEAST HORIZONTAL DIMENSION OR 3' (0.9m)
EXCEPTION: FOR BUILDINGS WITH θ = 0° TO 7° AND A LEAST HORIZONTAL DIMENSION GREATER THAN 300' (90m), DIMENSION *a* SHALL BE LIMITED TO A MAXIMUM OF 0.8 *h*.
h = MEAN ROOF HEIGHT, IN FT (m), EXCEPT THAT EAVE HEIGHT SHALL BE USED FOR ROOF ANGLES <10°.
θ = ANGLE OF PLANE OF ROOF FROM HORIZONTAL (IN DEGREES).

SPECIAL INSPECTIONS

A. SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1704 AND 1705. THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER, SHALL BE THOROUGHLY KNOWLEDGEABLE OF IBC SPECIAL INSPECTION REQUIREMENTS AND SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL. THE CONTRACTOR SHALL CONTACT THE SPECIAL INSPECTOR DURING APPROPRIATE PHASES OF CONSTRUCTION SO THAT INSPECTIONS CAN BE MADE IN A TIMELY MANNER. THE SPECIAL INSPECTOR SHALL SUBMIT WRITTEN INSPECTION REPORTS TO THE ENGINEER OF RECORD'S OFFICE, WITHIN 3 WORKING DAYS OF EACH INSPECTION. ANY PROBLEMS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR. THE FOLLOWING ITEMS WILL REQUIRE SPECIAL INSPECTION:
1. STEEL
   a. SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WORK DONE IN AN APPROVED FABRICATING SHOP. THE STEEL FABRICATOR MUST BE REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM THE WORK WITHOUT SPECIAL INSPECTIONS. (IBC 1704.2.5.2).
   b. HIGH STRENGTH BOLTING: CONTINUOUS INSPECTIONS ARE REQUIRED FOR SLIP-CRITICAL CONNECTIONS. PERIODIC INSPECTIONS ARE REQUIRED FOR BEARING-TYP. CONNECTIONS.
   c. FIELD WELDING: CONTINUOUS INSPECTIONS ARE REQUIRED FOR COMPLETE AND PARTIAL PENETRATION GROOVE WELDS, MULTI-PASS FILLET WELDS AND SINGLE-PASS FILLET WELDS GREATER THAN 5/16". PERIODIC INSPECTIONS ARE REQUIRED FOR FLOOR AND ROOF DECK WELDS AND SINGLE-PASS FILLET WELDS SMALLER THAN OR EQUAL TO 5/16". CORRECT WELD FILLER MATERIAL SHALL BE VERIFIED IN ALL CASES.
   d. STEEL ERECTION: PERIODIC INSPECTIONS SHALL BE MADE TO VERIFY COMPLIANCE WITH THE DESIGN DRAWINGS.
   e. MATERIALS: THE STEEL MANUFACTURERS CERTIFIED MILL TEST REPORTS SHALL BE SUBMITTED TO THE SPECIAL INSPECTOR OR TO THE ENGINEER OF RECORD.
2. CONCRETE
   a. REINFORCEMENT: REINFORCING STEEL SHALL BE INSPECTED ON A PERIODIC BASIS. WELDING OF REINFORCEMENT SHALL BE CONTINUOUSLY INSPECTED. ONLY ASTM A706 REINFORCEMENT MAY BE WELDED.
   b. SAMPLING AND TESTING: CONTINUOUS INSPECTIONS SHALL BE PROVIDED DURING SLUMP TESTS AND WHEN DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING SPECIMENS FOR STRENGTH TESTS.
   c. CONCRETE PLACEMENT: CONTINUOUS INSPECTION REQUIRED.
   d. COLD AND HOT WEATHER CONCRETING: PERIODIC INSPECTION OF COMPLIANCE IS REQUIRED.
3. MASONRY - LEVEL B QUALITY ASSURANCE
   a. BEGINNING OF CONSTRUCTION: PERIODIC INSPECTION SHALL BE MADE OF MORTAR PROPORTIONS, CONSTRUCTION OF MORTAR JOINTS AND REINFORCEMENT LOCATION AND CONNECTORS.
   b. ONGOING CONSTRUCTION: PERIODIC INSPECTION SHALL BE PROVIDED TO VERIFY SIZE AND LOCATION OF STRUCTURAL ELEMENTS, SIZE AND LOCATION OF ANCHORS, SIZE AND TYPE OF REINFORCEMENT AND COMPLIANCE WITH HOT OR COLD WEATHER REQUIREMENTS.
   c. GROUTING: PERIODIC INSPECTION SHALL BE PROVIDED TO VERIFY THAT THE GROUT SPACE IS PROPERLY POSITIONED AND SITE PREPARED GROUT IS PROPERLY PROPORTIONED. CONTINUOUS INSPECTION IS REQUIRED OF GROUT PLACEMENT.
   d. TEST SPECIMENS: CONTINUOUS INSPECTION SHALL BE MADE DURING PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS AND PRISMS.
4. SOILS
   a. THE SPECIAL INSPECTOR SHALL DETERMINE COMPLIANCE WITH THE SOIL REPORT FOR SITE PREPARATION, FILL PLACEMENT AND DENSITY TESTS.

B. TESTING REQUIREMENTS
1. CONCRETE:
   a. SAMPLE FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 150 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5,000 SQUARE FEET OF SURFACE AREA FOR SLABS OR WALLS. A MINIMUM OF FIVE STRENGTH TESTS SHOULD BE MADE FOR A GIVEN PROJECT.
2. MASONRY-UNIT STRENGTH METHOD:
   a. MASONRY UNITS SHALL BE SAMPLED AND TESTED ACCORDING TO ASTM C140.
   b. GROUT SHALL BE SAMPLED AND TESTED ACCORDING TO ASTM C1019.

FOOTINGS AND FOUNDATIONS

A. SOIL BEARING DESIGN VALUE:
1. 3000 PSF PER S&ME PROJECT NO. 22610156, REPORT DATED APRIL 19, 2022.
2. BEARING VALUE TO BE VERIFIED IN FIELD BY GEOTECHNICAL ENGINEER.

B. PROTECT FOUNDATION EXCAVATIONS FROM FROST; DO NOT PLACE CONCRETE ON FROZEN GROUND.

C. FOUNDATION EXCAVATIONS SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER AND SHALL BE CHECKED AND APPROVED BY THE ENGINEER BEFORE THE PLACEMENT OF ANY CONCRETE.

D. DESIGN FROST PENETRATION DEPTH: 42 INCHES (HEATED) OR 60 INCHES (UNHEATED)

E. MINIMUM OF 6" COMPACTED GRANULAR SUBGRADE BELOW SLABS.

FOOTINGS AND FOUNDATIONS (CONTINUED)

MATERIAL COMPACTION CRITERIA	
LOCATION	MINIMUM RELATIVE COMPACTION PERCENTAGE (ASTM D698 STANDARD PROCTOR DENSITY (SPD))
1'-0" BELOW FOUNDATION AND SLAB SUBGRADE ELEVATIONS	98%
ABOVE BOTTOM OF FOUNDATIONS AND BELOW SLAB SUBGRADE ELEVATIONS	95%
BELOW EXTERIOR SLAB, WITHIN 1'-0" OF SUBGRADE ELEVATIONS	98%
BELOW EXTERIOR SLAB, MORE THAN 1'-0" BELOW SUBGRADE ELEVATIONS	95%

CONCRETE

A. CONCRETE SHALL BE STANDARD WEIGHT MIX UNLESS NOTED OTHERWISE AND MEET THE FOLLOWING CRITERIA:

LOCATIONS	f'c @ 28 DAYS	AIR ENTRAINMENT	MAX. WATER/CEMENT RATIO
FOOTINGS / FOUNDATIONS	3000 PSI		0.55
FLOORS ON GRADE	3500 PSI		0.55
COLUMNS	4000 PSI		0.55
EXTERIOR SLABS ON GRADE	4500 PSI	6% ± 1.5%	0.45
EXPOSED EXTERIOR WALLS	4500 PSI	6% ± 1.5%	0.45

B. CEMENT SHALL CONFORM TO ASTM C150, TYPE I / II.

C. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.

D. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301 (LATEST EDITION) "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THESE NOTES.

E. ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL COMPLY WITH ASTM C494 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED).

F. CONTRACTOR SHALL SUBMIT MIX DESIGNS FOR APPROVAL 10 DAYS PRIOR TO FABRICATION AND INSTALLATION. ALL CONCRETE MIXES SHALL BE DESIGNED AND CERTIFIED BY A MATERIALS TESTING COMPANY.

G. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS, ETC. SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS DETAILED OR NOTED OTHERWISE.

H. PLACE VAPOR RETARDER OR VAPOR BARRIER DIRECTLY BELOW FLOOR SLAB.

I. CONCRETE FLOOR SHALL BE CURED IN ACCORDANCE WITH ASTM C309. CONCRETE FLOOR SHALL BE PROTECTED FROM MOISTURE LOSS FOR A MINIMUM OF 14 DAYS, USING AN APPROVED SHEET MEMBRANE IN ACCORDANCE WITH C171.

J. FLOOR FLATNESS AND LEVELNESS TOLERANCES:
1. UNLESS NOTED OTHERWISE, FLOORS SHALL CONFORM TO THE FOLLOWING SURFACE PROFILE TOLERANCES:
   a. FLOOR FLATNESS NUMBER (F_F)
      - SPECIFIED OVERALL VALUE = 20
      - MINIMUM LOCAL VALUE = 15
   b. FLOOR LEVELNESS NUMBER (F_L)
      - SPECIFIED OVERALL VALUE = 20
      - MINIMUM LOCAL VALUE = 15
2. FLOOR TOLERANCE (F_F AND F_L) MEASUREMENTS SHALL BE TESTED IN ACCORDANCE WITH ASTM E 1155. ACTUAL OVERALL F-NUMBERS SHALL BE CALCULATED USING THE INFERIOR / SUPERIOR AREA METHOD.
3. CORRECT DEFECTIVE SLABS BY GRINDING OR REMOVING AND REPLACING DEFECTIVE WORK. RE-MEASURE CORRECTED AREAS BY THE SAME PROCESS.

ANCHOR BOLTS

A. ALL ANCHOR RODS SHALL BE SUPPLIED AND INSTALLED BY THE CONCRETE CONTRACTOR, UNLESS NOTED OTHERWISE.

B. ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 HEX-HEAD, UNLESS NOTED OTHERWISE. NUTS SHALL BE ASTM A563 GRADE A HEAVY HEX. OVER-SIZED PLATE WASHERS SHALL BE ASTM A36.

C. ALL ANCHOR RODS SHALL BE SET WITH TEMPLATES.

D. POST-INSTALLED ANCHORS SHALL BE ADHESIVE ANCHORING SYSTEM PROVIDED AND INSTALLED BY FRAMING CONTRACTOR. ADHESIVE ANCHORS SHALL BE "HILTI HIT-HY 200 ADHESIVE ANCHOR SYSTEM" OR APPROVED ALTERNATE. ANCHORS SHALL BE "HILTI HAS-E" THREADED ROD CONFORMING TO ISO 898-1 CLASS 5.8 OR SHALL BE MADE FROM ALL-THREADED ROD CONFORMING TO ASTM A572 GRADE 60, OR APPROVED ALTERNATE, UNLESS NOTED OTHERWISE.

REINFORCING STEEL

A. BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60.

B. MINIMUM DEVELOPMENT LENGTH OF REINFORCING BARS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.

MINIMUM LENGTH FOR STANDARD UN-COATED BARS IN NORMAL WEIGHT CONCRETE						
CONCRETE STRENGTH f'c IN PSI	DEVELOPMENT LENGTH (Ld) FOR STRAIGHT BARS (MIN. OF 12 INCHES)					FOR 90 DEGREE HOOKED BARS, HOOK DEVELOPMENT LENGTH
	TENSION CLASS A		TENSION CLASS B		COMPRESSION	
	#6 AND SMALLER	#7 TO #11	#6 & SMALLER	#7 TO #11	#18, #14, & #11 AND SMALLER	
3000	44 Db	55 Db	57 Db	71 Db	30 Db	22 Db
3500	41 Db	51 Db	53 Db	66 Db	30 Db	20 Db
4000	38 Db	47 Db	49 Db	62 Db	30 Db	19 Db
4500	36 Db	45 Db	47 Db	58 Db	30 Db	18 Db
5000	34 Db	42 Db	44 Db	55 Db	30 Db	17 Db
NOTE: Db = DIAMETER OF REINFORCEMENT. Ld = DEVELOPMENT LENGTH						

C. TYPICAL SPLICES: CLASS B AS DEFINED IN ACI 318, UNLESS NOTED OTHERWISE

D. ADJUSTMENT FACTORS FOR STRAIGHT BARS IN TENSION
1. LIGHTWEIGHT CONCRETE = 1.3.
2. EPOXY COATED = 1.2.
3. EPOXY COATED WITH COVER LESS THAN 3DB OR CLEAR SPACING LESS THAN 6 DB = 1.5.
4. HORIZONTAL "TOP" BARS WITH 12" OF CONCRETE CAST BELOW = 1.3
5. EPOXY COATED HORIZONTAL "TOP" BARS WITH 12" OF CONCRETE CAST BELOW = NOT GREATER THAN 1.7.

E. ADJUSTMENT FACTORS FOR STRAIGHT HOOKS IN TENSION
1. LIGHTWEIGHT CONCRETE = 1.3.
2. EPOXY COATED = 1.2.

F. REINFORCING STEEL SHALL BE PROVIDED WITH THE FOLLOWING AMOUNTS OF COVER FOR CAST-IN-PLACE CONCRETE UNLESS NOTED OTHERWISE:

MINIMUM CLEAR CONCRETE COVER FOR REINFORCING STEEL	
CONCRETE ON SOIL (DIRECT CONTACT)	3"
SLAB ON GRADE	CENTERED
WALLS, STRUCTURAL SLABS EXPOSED TO SOIL OR WEATHER #6 TO #18 REBAR #5 AND SMALLER REBAR	 2" 1 1/2"
WALLS, STRUCTURAL SLABS NOT EXPOSED TO EARTH OR WEATHER #11 AND SMALLER REBAR	 3/4"
COLUMNS AND PIERS (COVER TO STIRRUPS AND TIES)	1 1/2"

G. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, AND INSERTS SHALL BE SECURED IN POSITION WITH WIRE POSITIONERS, OR EQUAL, BEFORE PLACING CONCRETE OR GROUT.

H. DOWELS BETWEEN FOOTINGS AND WALLS SHALL BE THE SAME GRADE, SIZE, AND SPACING AS VERTICAL WALL REINFORCING.

I. CONTRACTOR SHALL SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL A MINIMUM OF 10 DAYS PRIOR TO FABRICATION AND INSTALLATION.

J. BARS TO BE WELDED SHALL BE ASTM A706, GRADE 60. WELDING OF REINFORCING BARS SHALL CONFORM TO AWS D1.4.

STRUCTURAL STEEL

A. SPECIFICATIONS:
1. DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE "STEEL CONSTRUCTION MANUAL", 14TH EDITION, BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, UNLESS NOTED OTHERWISE.
2. STEEL MATERIALS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING SPECIFICATIONS, UNLESS NOTED OTHERWISE:

STRUCTURAL TYPE/SHAPE	ASTM DESIGNATION	MATERIAL STRENGTH
ANCHOR BOLTS	F1554 GRADE 36	Fy = 36 KSI
W-SHAPE	A992	Fy = 50 KSI
M, S, C, MC, AND L-SHAPES, PLATES AND BARS	A36	Fy = 36 KSI
STAIR STEEL PLATE	A283 GRADE C	Fy = 30 KSI
STAIR SHEET STEEL	A653 GRADE C	Fy = 36 KSI
HP-SHAPE	A572 GRADE 50	Fy = 50 KSI
PIPES	A53 GRADE B	Fy = 35 KSI
HSS RECTANGULAR	A500 GRADE B	Fy = 46 KSI
HSS ROUND	A500 GRADE B	Fy = 42 KSI
FASTENERS	A325N A325X A490N A490X	Fnv = 48 KSI, Fnt = 90 KSI Fnv = 60 KSI, Fnt = 90 KSI Fnv = 60 KSI, Fnt = 113 KSI Fnv = 75 KSI, Fnt = 113 KSI
CONNECTION NUTS	A563	
WASHERS	F436	
WELDS		
E70XX ELECTRODES	A233	FU = 70 KSI
COLD ROLLED E60XX ELECTRODES	A233	FU = 60 KSI
STUD ANCHORS	A108	FU = 65 KSI

3. TWO COPIES OF CERTIFIED MILL TEST REPORTS ON ALL ASTM MATERIALS USED IN THIS WORK SHALL BE FURNISHED TO THE ENGINEER.
4. ALL STAINLESS STEEL SHALL BE TYPE S30400/S30403 DUAL CERTIFIED OR S30403 (S304L), UNLESS NOTED OTHERWISE.
5. ALL ASTM A325 BOLTS EXPOSED TO EXTERIOR CONDITIONS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123; ASTM 490 BOLTS SHALL NOT BE GALVANIZED.
6. CLEAN ALL EXTERIOR FIELD WELDS AND MEMBERS PER SSPC-SP3 AND PRIME PAINT WITH GRAY INORGANIC ZINC TO A 3-5 MIL THICKNESS.

B. DESIGN STRESS:
1. MINIMUM BEAM CONNECTIONS SHALL NOT BE SMALLER THAN THOSE LISTED IN PART 10 OF THE AISC MANUAL.
2. UNLESS DETAILED OTHERWISE, MAKE CONNECTIONS WITH E70XX ELECTRODES OR BOLTED WITH 3/4" A325 BOLTS IN BEARING-TYPE CONNECTIONS WITH THREADS IN THE SHEAR PLANE (A325N).

C. WELDING:
1. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1 STRUCTURAL WELDING CODE.
2. WELDER CERTIFICATION PROCEDURES SHALL BE AS FOLLOWS:
   a. ALL WELDERS SHALL BE CURRENTLY CERTIFIED AND REGISTERED BY THE LOCAL OFFICIALS AND/OR THE AMERICAN WELDING SOCIETY AND, IF REQUIRED, ALL WELDERS SHALL HAVE THEIR CERTIFICATION AVAILABLE TO THE ENGINEER.
3. ALL WELD FILLER METAL SHALL BE AWS E70XX WITH A MINIMUM CHARPY V-NOTCH (CVN TOUGHNESS OF 20FT-LB AT 0 DEG F, AS DETERMINED BY THE APPROPRIATE AWS AS CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION, UNLESS NOTED OTHERWISE.
4. WELDS DESIGNATED AS DEMAND CRITICAL (DC) SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CVN TOUGHNESS OF 20 FT-LB AT -20 DEG F AND 40 FT-LB AT A TEMPERATURE OF 70DEG F AS DETERMINED BY THE MANUFACTURER'S CERTIFICATION, AISC 341-05 APPENDIX X, OR OTHER APPROVED METHOD. WELD FILLER METALS SHALL NOT BE USED FROM PACKAGING THAT HAS BEEN PUNCTURED OR TORN, OR IF THE MANUFACTURER'S RECOMMENDATIONS FOR EXPOSURE TIME OR DRYING PROCEDURES HAVE NOT BEEN FOLLOWED.
5. ALL BUTT WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) WELDS, UNLESS NOTED OTHERWISE.
6. ALL GROOVE WELDS SHALL BE COMPLETE JOINT PENETRATION (CJP) WELDS, UNLESS NOTED OTHERWISE.
7. WELDING PROCEDURE AND SEQUENCES SHALL BE PLANNED TO MINIMIZE WELD SHRINKAGE THAT COULD RESULT IN LAMELLAR TEARING.
8. FIELD WELDING WILL BE ALLOWED ONLY WHERE SHOWN ON THE DRAWINGS.
9. EXISTING AND NEW STEEL SURFACES TO BE WELDED SHALL BE CLEANED OR PAINT, GREASE, SCALE, OR OTHER FOREIGN MATERIAL REMOVED.
10. ALL FIELD WELDS SHALL BE WIRE BRUSHED AND CLEANED, THEN TOUCHED-UP PAINTED.

D. MISCELLANEOUS METAL
1. WORK INCLUDES LINTELS, STAIRS, PANS, HANDRAILS, GUARDRAILS, POSTS, ETC.
2. FABRICATION:
   a. FABRICATE STAIRS WITH CLOSED RISERS AND TREADS OF METAL PAN CONSTRUCTION READY TO RECEIVE CONCRETE, UNLESS NOTED OR DETAILED OTHERWISE IN THE CONSTRUCTION DOCUMENTS.
   b. FORM LANDINGS WITH

FOOTING SCHEDULE

MARK	LENGTH	WIDTH	THICKNESS	REINFORCEMENT	COMMENTS
F1				(2) #6 BARS CONTINUOUS W/ #4 BARS TRANSVERSE @ 18" OC	REFER TO PLAN AND DETAILS
F2				(2) #6 BARS CONTINUOUS W/ #4 BARS TRANSVERSE @ 18" OC	REFER TO PLAN AND DETAILS
F3				(3) #6 BARS CONTINUOUS W/ #4 BARS TRANSVERSE @ 18" OC	REFER TO PLAN AND DETAILS
F4	4' - 0"	4' - 0"	1' - 0"	#6 BARS @ 14" OCEW	
F5	5' - 0"	5' - 0"	1' - 0"	#6 BARS @ 14" OCEW	
WF1		4' - 0"	1' - 0"	(3) #6 BARS CONTINUOUS W/ #4 BARS TRANSVERSE @ 18" OC	

FOUNDATION WALL SCHEDULE

MARK	WIDTH	REINFORCEMENT	COMMENTS
FDN1	0' - 8"	#4 BARS @ 12" OCEW	CIP CONCRETE

PIER AND PILASTER SCHEDULE

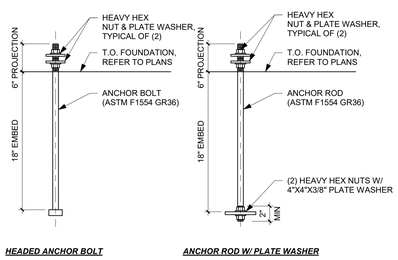
MARK	LENGTH	WIDTH	REINFORCEMENT	COMMENTS
P1	1' - 4"	1' - 4"	(4) #6 BARS VERTICAL W/ #4 TIES @ 12" OC THROUGHOUT AND (2) #4 TIES WITHIN TOP 5" OF PIER	VERTICAL REINFORCING CONTINUES INTO PAD FOOTING W/ STANDARD 90° HOOK
P2	2' - 0"	2' - 0"	(8) #6 BARS VERTICAL W/ #4 TIES @ 8" OC THROUGHOUT AND (2) #4 TIES WITHIN TOP 5" OF PIER	VERTICAL REINFORCING CONTINUES INTO PAD FOOTING W/ STANDARD 90° HOOK

COLUMN SCHEDULE

MARK	TYPE	DESCRIPTION
C1	W10x49	
C2	W4x13	

SLAB SCHEDULE

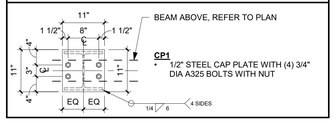
Mark	THICKNESS	REINFORCEMENT	COMMENTS
S1	8"	#4 BARS @ 12" OCEW	



HEADED ANCHOR BOLT ***ANCHOR ROD W/ PLATE WASHER***

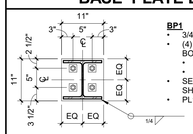
2 ANCHOR BOLT DETAIL
NOT TO SCALE

CAP PLATE LEGEND

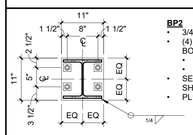


CP1
- 1/2" STEEL CAP PLATE WITH (4) 3/4" DIA A325 BOLTS WITH NUT

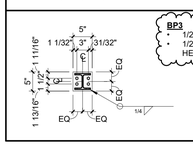
BASE PLATE LEGEND



BP1
- 3/4" STEEL BASE PLATE
- (4) 3/4" DIA ASTM F1554 ANCHOR BOLTS WITH NUT
  - 18" EMBED
  - 6" PROJECTION
- SET BASEPLATE ON 1 1/2" NON-SHRINK GROUT
- PL1/4x2x2 PLATE WASHERS



BP2
- 3/4" STEEL BASE PLATE
- (4) 3/4" DIA ASTM F1554 ANCHOR BOLTS WITH NUT
  - 18" EMBED
  - 6" PROJECTION
- SET BASEPLATE ON 1 1/2" NON-SHRINK GROUT
- PL1/4x2x2 PLATE WASHERS



BP3
- 1/2" STEEL BASE PLATE
- 1/2" DIA A325 BOLTS W/ HEAVY HEX NUT AND WASHER

N

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

6/17/2022 5:27:03 PM

ISG

I&S Group, Inc. No. 5411
SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 33537
JASON E. HOEHN

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
06/17/22	ADDENDUM 01	PS/MZ

PROJECT NO.	22-26670
FILE NAME	
DRAWN BY	MCZ
DESIGNED BY	MCZ
REVIEWED BY	JEH
ORIGINAL ISSUE DATE	05/27/22
CLIENT PROJECT NO.	

TITLE

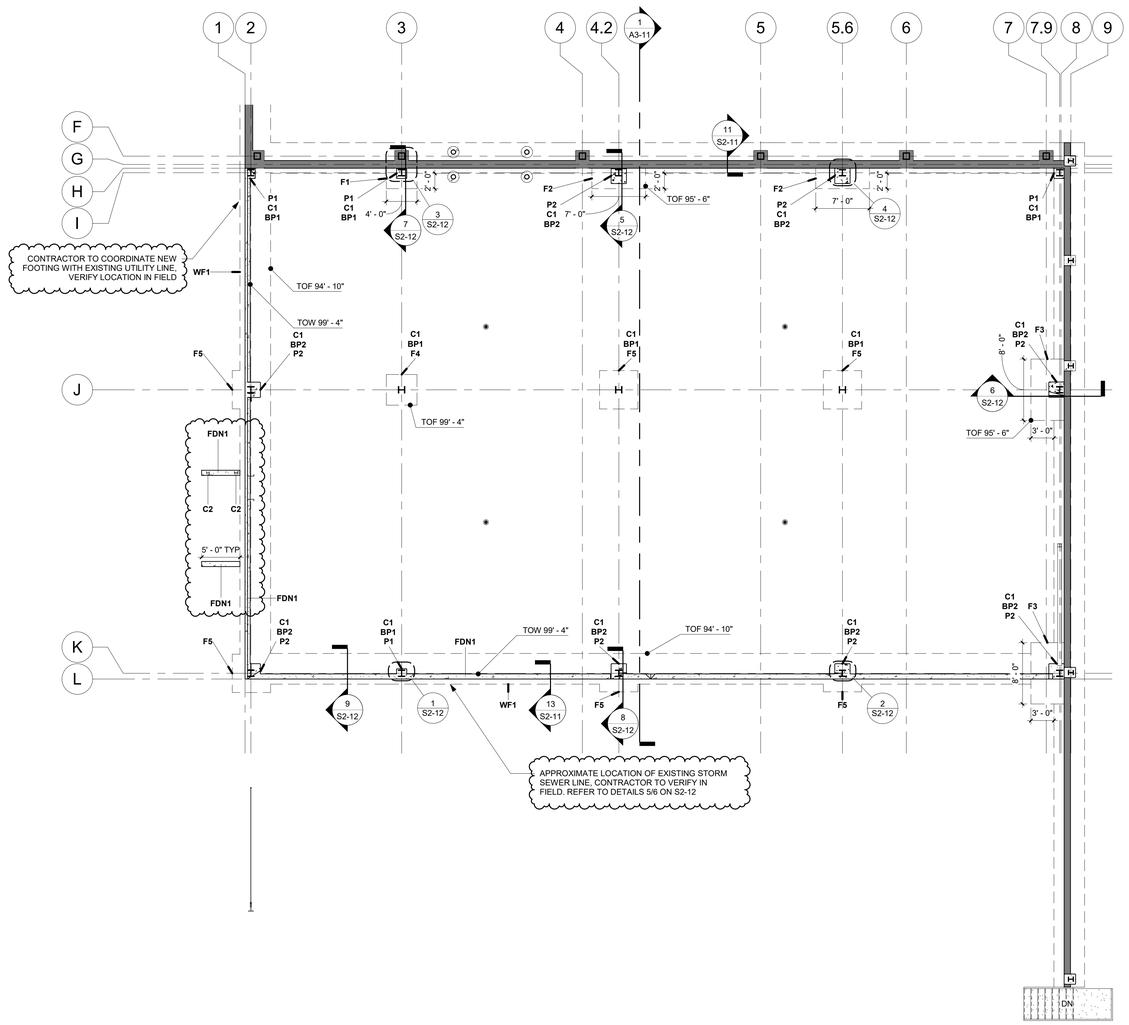
STRUCTURAL SCHEDULES

SHEET

S1-05

SHEET NOTES

1. REFER TO FOUNDATION DETAILS FOR TYPICAL CONSTRUCTION JOINT AND CONTROL JOINT DETAILS.
2. CONTRACTOR TO VERIFY IN FIELD SIZE OF EXISTING FOUNDATION WALLS AND FOOTINGS WHERE NEW WALLS AND FOOTINGS ARE BEING POURED AGAINST. REPORT FINDINGS TO STRUCTURAL ENGINEER OF RECORD IF DIFFERENT THAN SHOWN ON PLANS AND DETAILS.



1 FOUNDATION PLAN
1/8" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

N

6/17/2022 5:27:05 PM

ISG

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I&S Group, Inc.
No. 5411

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No. 33527
JASON E. HOEHN

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BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

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DRAWN BY	MCZ
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REVIEWED BY	JEH
ORIGINAL ISSUE DATE	05/27/22
CLIENT PROJECT NO.	

TITLE

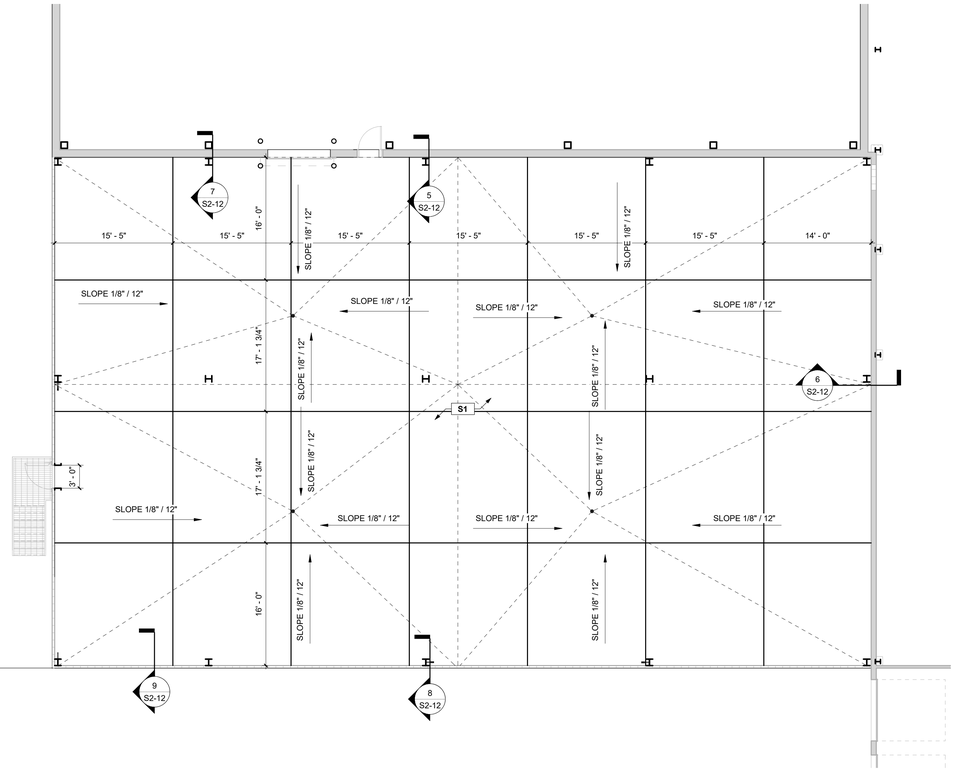
FOUNDATION PLAN

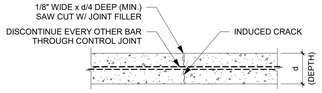
SHEET

S1-11

SHEET NOTES

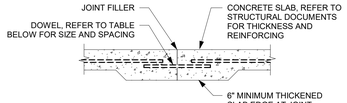
A. REFER TO FOUNDATION DETAILS FOR TYPICAL CONSTRUCTION JOINT AND CONTROL JOINT DETAILS.


15' - 5"
15' - 5"
15' - 5"
15' - 5"
15' - 5"
15' - 5"
14' - 0"
16' - 0"
17' - 1 3/4"
17' - 1 3/4"
16' - 0"
3' - 0"
SLOPE 1/8" / 12"
SLOPE 1/8" / 12"
SLOPE 1/8" / 12



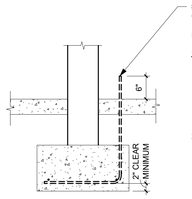
TYPICAL CONTROL JOINT SPACING AND JOINT DEPTH		
REINFORCED SLAB DEPTH	PREFERRED SPACING	CONTROL JOINT DEPTH (MIN.)
4"	8' TO 12'	1"
5"	10' TO 15'	1.25"
6"	12' TO 18'	1.5"
7"	14' TO 21'	1.75"
≥ 8"	16' TO 24'	2"
REFER TO CONTROL JOINT PLACEMENT GUIDE FOR ADDITIONAL CONTROL JOINT INFORMATION.		

1 TYPICAL CONTROL JOINT DETAIL
1" = 1'-0"



DOWEL SIZE AND SPACING FOR CONSTRUCTION JOINTS						
	DOWEL DIMENSIONS			DOWEL SPACING (CENTER-TO-CENTER)		
SLAB DEPTH	ROUND	SQUARE	PLATE DOWEL	ROUND	SQUARE	PLATE DOWEL
5" TO 6"	3/4"Ø x 10"	3/4" x 10"	M/R*	12"	14"	18"
7" TO 8"	1"Ø x 13"	1" x 13"	M/R*	12"	14"	18"
9" TO 11"	1 1/4"Ø x 15"	1 1/4" x 15"	M/R*	12"	12"	18"
*M/R = MANUFACTURER'S RECOMMENDATIONS. BECAUSE OF THE VARIOUS PLATE DOWEL GEOMETRIES AND INSTALLATION DEVICES AVAILABLE FROM DIFFERENT MANUFACTURERS, THE MANUFACTURERS SHOULD BE CONSULTED FOR THEIR RECOMMENDED PLATE DOWEL SIZE.						

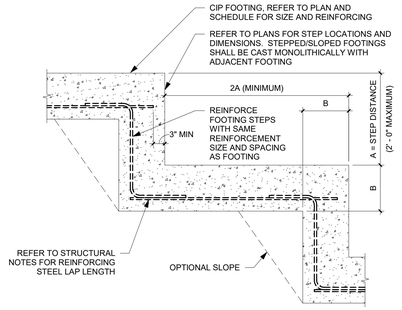
2 TYPICAL CONSTRUCTION JOINT DETAIL
1" = 1'-0"



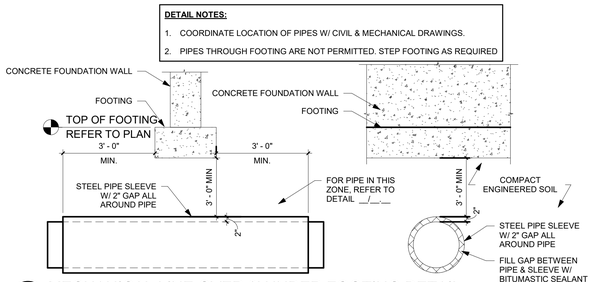
NOTES:

1. PURPOSE OF DETAIL IS TO INDICATE TYPICAL GROUNDING ELECTRODE INFORMATION ONLY AND DOES NOT REFLECT ACTUAL FOUNDATION CONSTRUCTION. REFER TO PLANS, SECTIONS, AND DETAILS FOR FOUNDATION CONSTRUCTION INFORMATION.
2. SUPPLY AND INSTALL GROUNDING ELECTRODE FOR GROUNDING OF ELECTRICAL SERVICE AS REQUIRED BY ELECTRICAL DOCUMENTS.

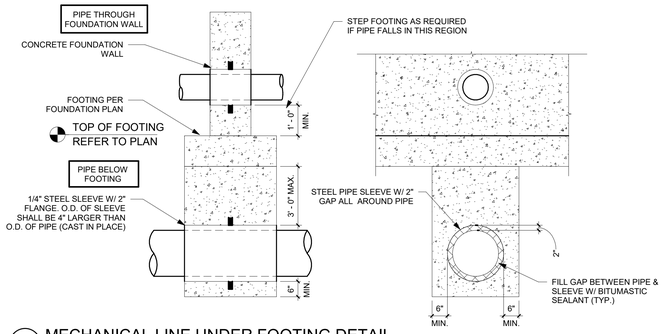
3 GROUNDING ELECTRODE DETAIL
3/4" = 1'-0"



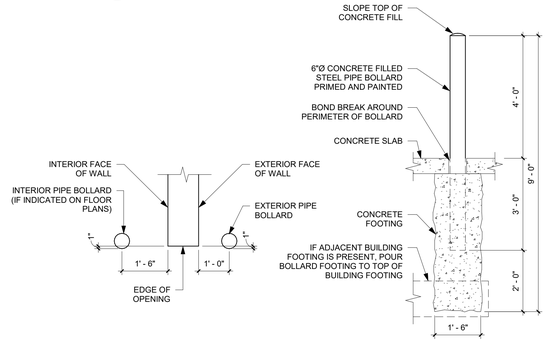
4 STEPPED FOOTING DETAIL
3/4" = 1'-0"



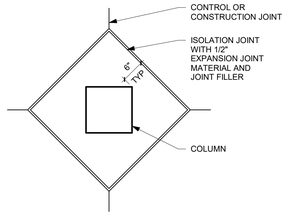
5 MECHANICAL LINE OVER 3' UNDER FOOTING DETAIL
1/2" = 1'-0"



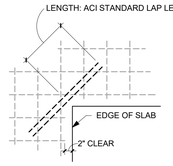
6 MECHANICAL LINE UNDER FOOTING DETAIL
1/2" = 1'-0"



7 PIPE BOLLARD DETAIL
1/2" = 1'-0"



8 FLOOR/COLUMN ISOLATION JOINT DETAIL
3/4" = 1'-0"

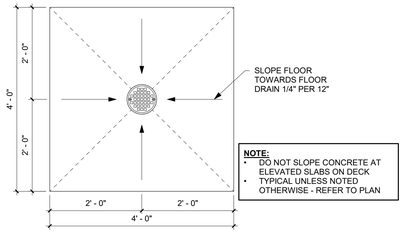


SLAB REINF BARS	ADDITIONAL CORNER BARS
WWF	(2) #4
#4	(2) #4
#5	(2) #5
#6	(2) #5
#7	(2) #5
#8	(2) #6
*USE LARGEST DIAMETER BAR IN EITHER DIRECTION FOR DETERMINING CORNER BARS.	

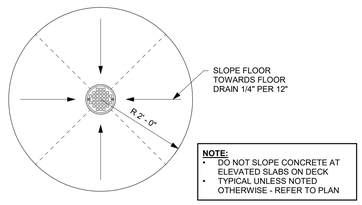
NOTE:
PROVIDE 2" CLEAR COVER OVER ALL BARS AT OPENINGS

ADDITIONAL CORNER BARS:
- WHEN SLAB HAS BOTTOM REINFORCEMENT LAYER ONLY, PLACE DIAGONAL BARS AT MID-DEPTH.
- WHEN SLAB HAS TOP REINFORCEMENT LAYER ONLY, PLACE DIAGONAL BARS BELOW TOP REINFORCEMENT.
- WHEN SLAB HAS TOP & BOTTOM REINFORCEMENT LAYERS, PLACE DIAGONAL BARS BETWEEN TOP & BOTTOM REINFORCEMENT (2-LAYERS)

9 SLAB REENTRANT CORNER DETAIL
3/4" = 1'-0"

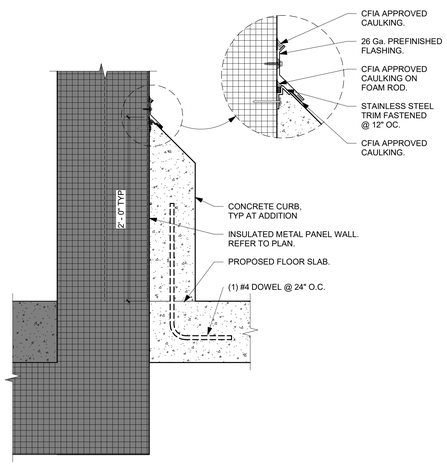


NOTE:
- DO NOT SLOPE CONCRETE AT ELEVATED SLABS ON DECK
- TYPICAL UNLESS NOTED OTHERWISE - REFER TO PLAN

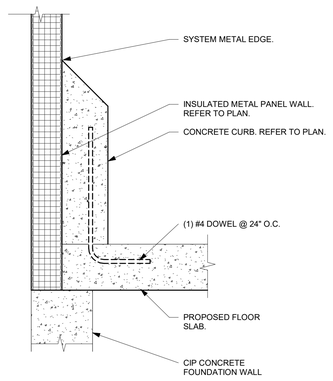


NOTE:
- DO NOT SLOPE CONCRETE AT ELEVATED SLABS ON DECK
- TYPICAL UNLESS NOTED OTHERWISE - REFER TO PLAN

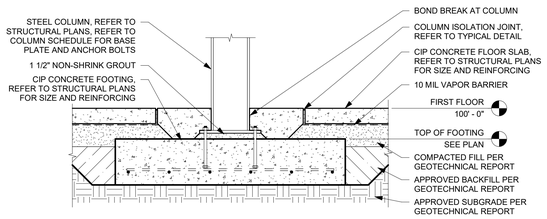
10 TYPICAL SLAB DEPRESSION AT FLOOR DRAIN
3/4" = 1'-0"



11 CONCRETE CURB AT EXISTING IMP WALL
1 1/2" = 1'-0"



13 FLOOR COATING AT CONCRETE CURB
1 1/2" = 1'-0"



14 TYIPCAL INTERIOR CIP COLUMN FOOTING DETAIL
3/4" = 1'-0"

REFERENCE SCALE
1" = 1'
2"
1"
0 1/4" 1/2"

5/27/2022 4:52:11 PM

N

ISG

SOUTH CAROLINA
I&S Group, Inc.
No. 5411
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
No. 33527
PROFESSIONAL ENGINEER
JASON E. HOEHN

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

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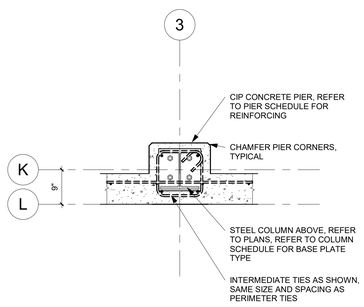
PROJECT NO.	22-26670
FILE NAME	
DRAWN BY	MCZ
DESIGNED BY	MCZ
REVIEWED BY	JEH
ORIGINAL ISSUE DATE	05/27/22
CLIENT PROJECT NO.	

TITLE

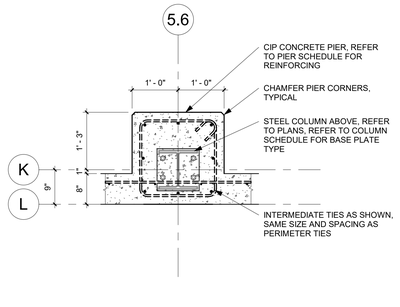
FOUNDATION & SLAB DETAILS

SHEET

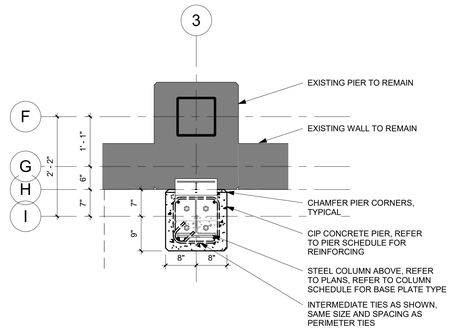
S2-11



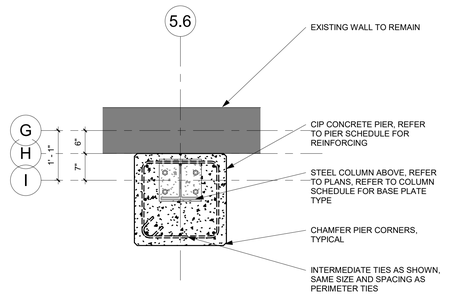
1 TYPICAL WALL PIER DETAIL AT NEW WALL
3/4" = 1'-0"



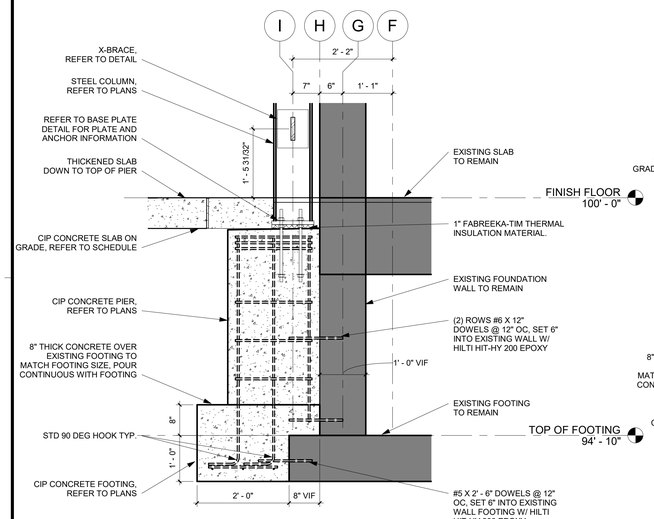
2 PIER DETAIL AT NEW WALL
3/4" = 1'-0"



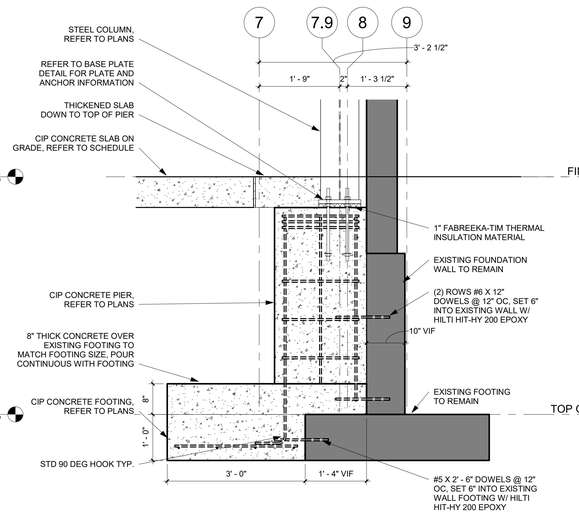
3 PIER DETAIL AT EXISTING FOUNDATION
3/4" = 1'-0"



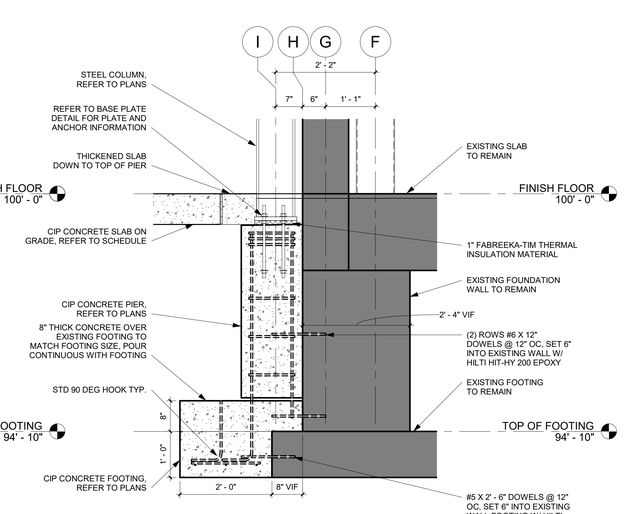
4 PIER DETAIL AT EXISTING WALL
3/4" = 1'-0"



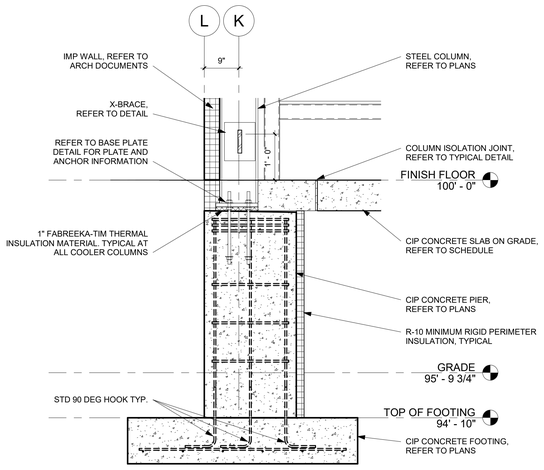
5 PIER DETAIL AT EXISTING FOUNDATION (NORTH WALL)
3/4" = 1'-0"



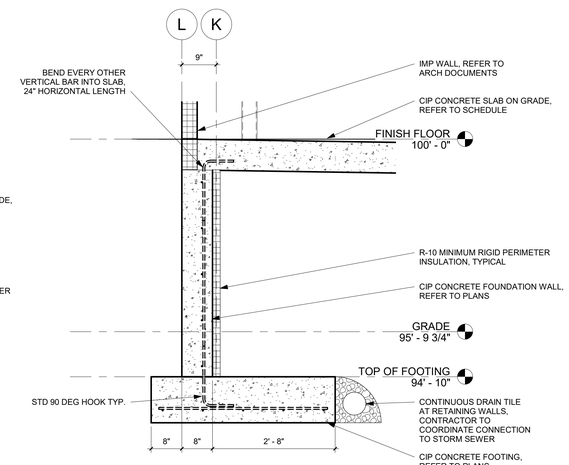
6 PIER DETAIL AT EXISTING FOUNDATION (EAST WALL)
3/4" = 1'-0"



7 PIER DETAIL AT EXISTING FOUNDATION (NORTH)
3/4" = 1'-0"



8 PIER DETAIL AT COOLER
3/4" = 1'-0"



9 FOOTING DETAIL AT COOLER
3/4" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

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SHEET NOTES

1. ALL IMP ATTACHMENT DETAILS BY IMP SUPPLIER.
2. CONTRACTOR TO VERIFY IN FIELD SIZE OF EXISTING FOUNDATION WALLS AND FOOTINGS WHERE NEW WALLS AND FOOTINGS ARE BEING POURED AGAINST. REPORT FINDINGS TO STRUCTURAL ENGINEER OF RECORD IF DIFFERENT THAN SHOWN ON PLANS AND DETAILS.

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WEST COLUMBIA SOUTH CAROLINA

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DESIGNED BY	MCZ
REVIEWED BY	JEH
ORIGINAL ISSUE DATE	05/27/22
CLIENT PROJECT NO.	

TITLE

PIER AND FOUNDATION DETAILS

SHEET

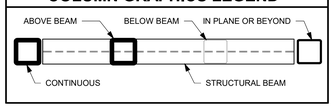
S2-12

N

KEYNOTE LEGEND

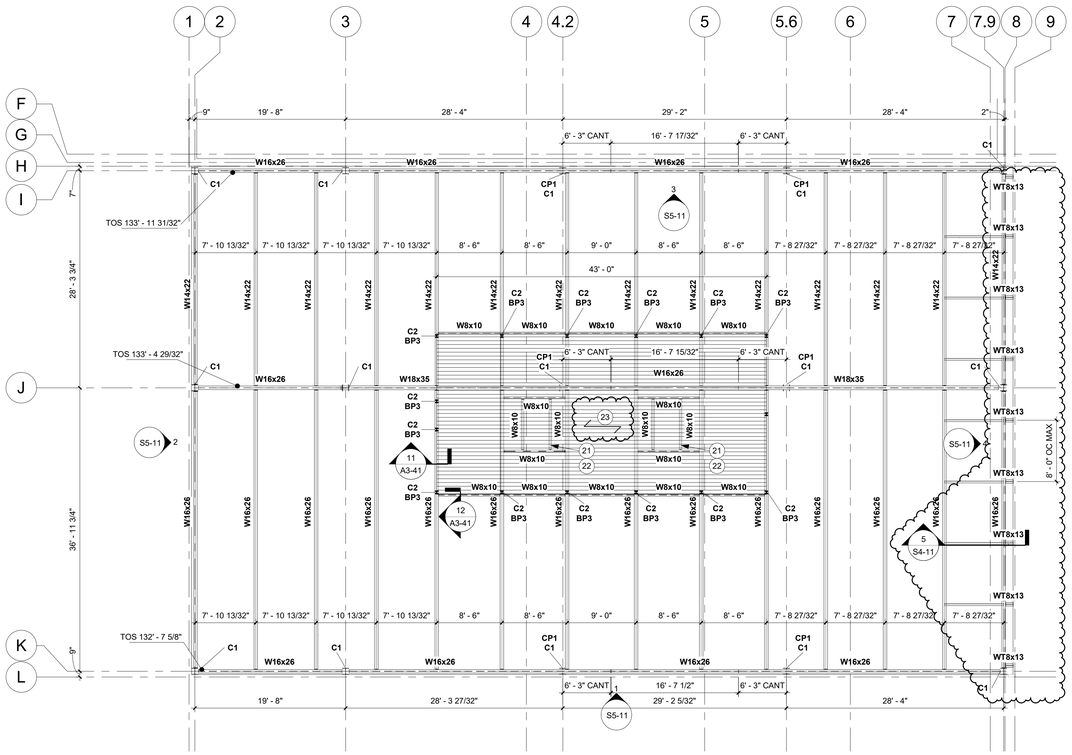
Key Value	Keynote Text
21	CONTRACTOR TO VERIFY LOCATIONS CONDENSING UNITS PRIOR TO FABRICATION AND ERECTION AND ALIGN SUPPORT STEEL BEAMS WITH SUPPORT LEGS.
22	ATTACHMENT OF CONDENSING UNITS TO SUPPORT STEEL BY SUPPLIER.
23	3" DEEP GALVANIZED RECTANGULAR BAR GRATING, SMOOTH

COLUMN GRAPHICS LEGEND

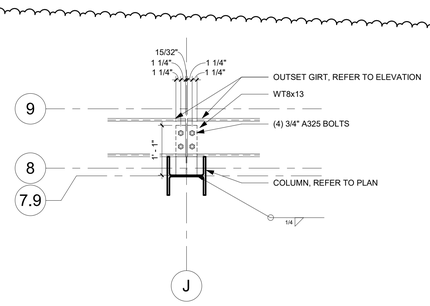


SHEET NOTES

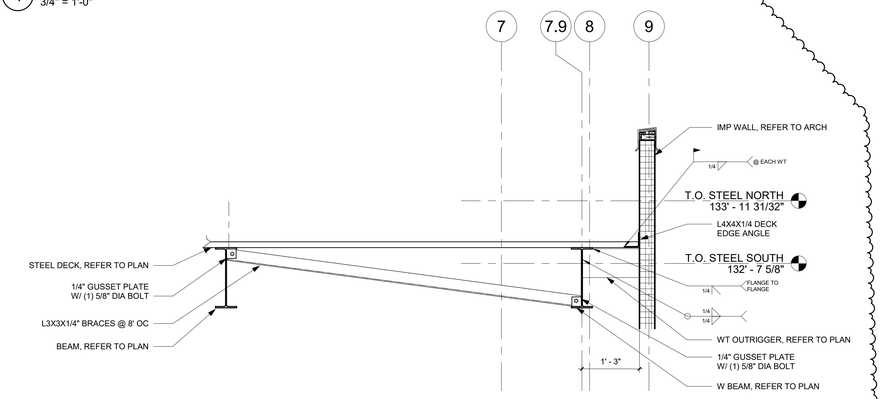
- 1.5B18 METAL DECKING, MINIMUM 3-SPAN CONDITION
- PROVIDE MIN. L4X4X1/4 EDGE ANGLE AT PERIMETER OF ALL ROOF DECK, TYPICAL UNO.



1 ROOF FRAMING PLAN
1/8" = 1'-0"



4 OUTSET GIRT CONNECTION
3/4" = 1'-0"



5 EAST ROOF PARAPET FRAMING DETAIL
3/4" = 1'-0"

N

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

6/17/2022 6:02:58 PM

ISG

SOUTH CAROLINA
I&S Group, Inc.
No. 5411
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
No. 33537
JASON E. HOEHN

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

REVISION SCHEDULE

DATE	DESCRIPTION	BY
06/17/22	ADDENDUM 01	PS/MZ

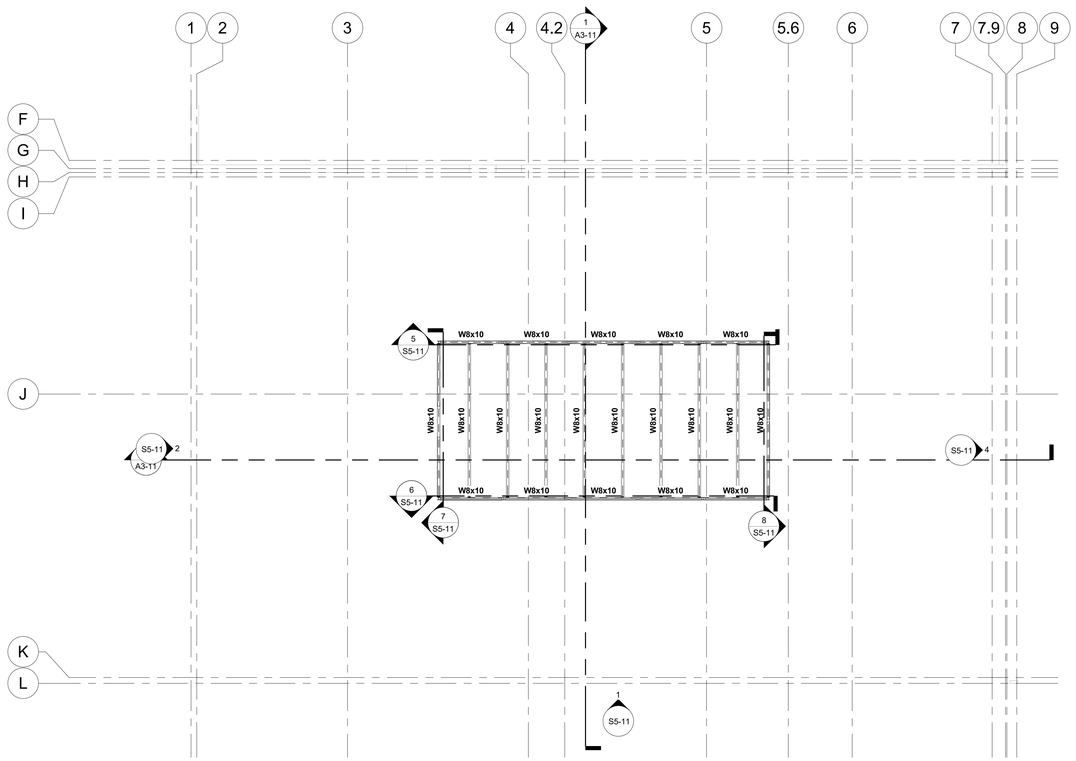
PROJECT NO.	22-26670
FILE NAME	
DRAWN BY	MCZ
DESIGNED BY	MCZ
REVIEWED BY	JEH
ORIGINAL ISSUE DATE	05/27/22
CLIENT PROJECT NO.	

TITLE

ROOF FRAMING PLAN

SHEET

S4-11



1 ROOF FRAMING PLAN
1/8" = 1'-0"

REFERENCE SCALE
1" = 1'
0 1/4" 1/2" 1" 2"

5/27/2022 4:52:19 PM

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SOUTH CAROLINA
I&S Group, Inc.
No. 5411
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
PROFESSIONAL ENGINEER
No. 33527
JASON E. HOBRN

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

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TITLE

PENTHOUSE FRAMING PLAN

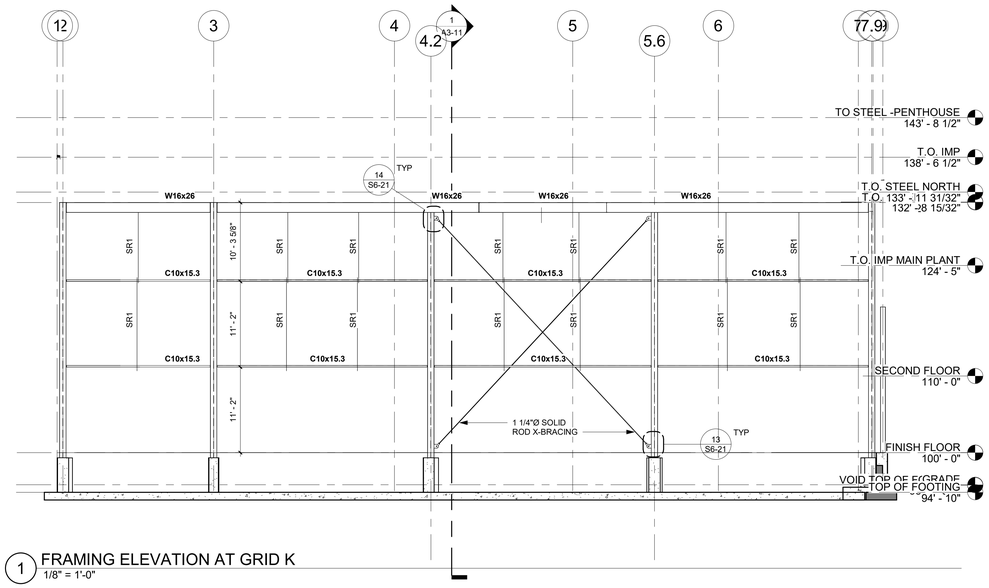
N

SHEET

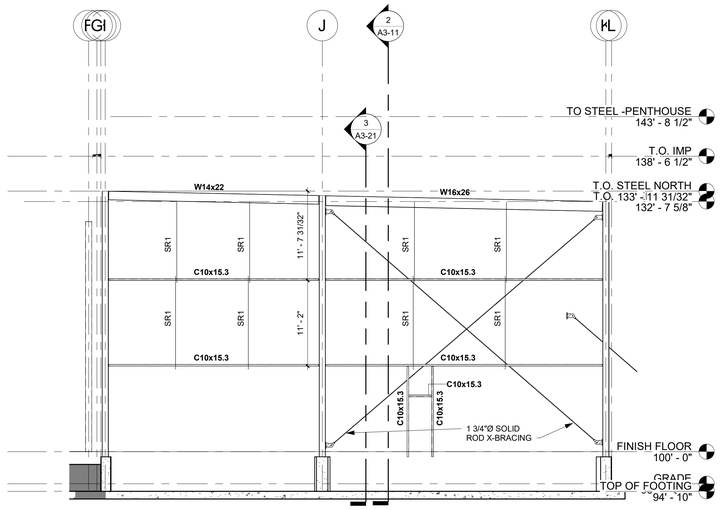
S4-12

SHEET NOTES

- SR1 - INDICATES 1/2Ø SAG ROD. DOUBLE NUT TOP AND BOTTOM. SPOIL THREADS WHEN INSTALLATION IS COMPLETE. ALIGN SAG RODS WITHIN INNER 1/3 OF GIRT.
- ALL SOLID ROD X-BRACING TO BE SHOP PRIMED AND PAINTED.



1 FRAMING ELEVATION AT GRID K
1/8" = 1'-0"



2 FRAMING ELEVATION AT GRID 2
1/8" = 1'-0"

3 FRAMING ELEVATION AT GRID I
1/8" = 1'-0"

4 FRAMING ELEVATION AT GRID 7.9
1/8" = 1'-0"

5 NORTH WALL OF STEEL PENTHOUSE
1/8" = 1'-0"

6 SOUTH WALL OF STEEL PENTHOUSE
1/8" = 1'-0"

7 WEST WALL OF STEEL PENTHOUSE
1/8" = 1'-0"

8 EAST WALL OF STEEL PENTHOUSE
1/8" = 1'-0"

REFERENCE SCALE
1"= 1'-0"
0 1/4" 1/2" 1" 2"

N

6/17/2022 5:29:38 PM

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WEST COLUMBIA SOUTH CAROLINA

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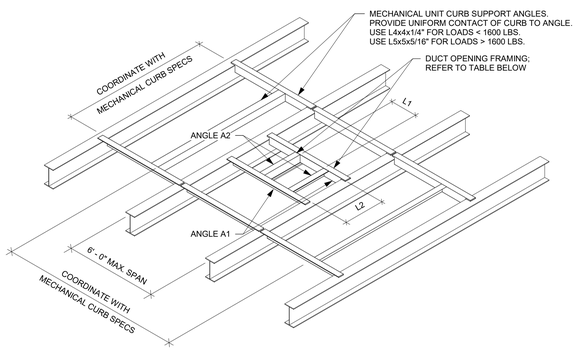
ORIGINAL ISSUE DATE	05/27/22
CLIENT PROJECT NO.	

TITLE

STRUCTURAL FRAMING ELEVATIONS

SHEET

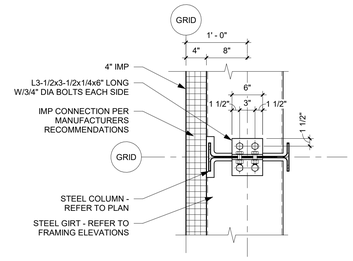
S5-11



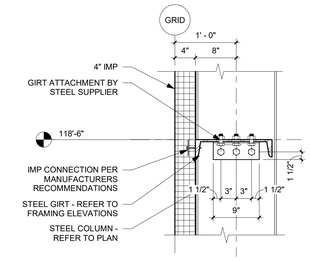
ROOF OPENING FRAMING LEGEND		
L1 OR L2 (WHICHEVER IS LARGER)	ANGLE A1	ANGLE A2
≤ 1' - 0"	NONE REQUIRED	NONE REQUIRED
≤ 2' - 0"	L3x3x3/16	L2x2x3/16
≤ 3' - 0"	L3 1/2x3x1/4 (LLV)	L3x3x3/16
≤ 4' - 0"	L4x3x1/4 (LLV)	L3x3x1/4
≤ 5' - 0"	L5x3x1/4 (LLV)	L3 1/2x3 1/2x1/4
≤ 6' - 0"	L6x4x5/16 (LLV)	L4x4x1/4

1. FRAMING LEGEND SHALL BE USED AT ALL NEW ROOF OPENINGS THAT EXCEED 1' - 0" IN EITHER DIRECTION, TYPICAL UNO.
2. REFER TO MECHANICAL DOCUMENTS FOR SIZE AND LOCATION OF ALL DUCT PENETRATIONS THROUGH ROOF.
3. REFER TO STRUCTURAL DOCUMENTS FOR ADDITIONAL OR ALTERNATE FRAMING METHODS.

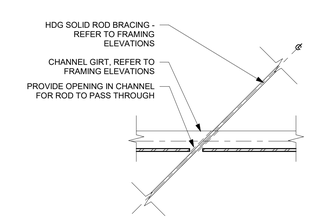
1 MECHANICAL CURB AND ROOF OPENING SUPPORT DETAIL
3/8" = 1'-0"



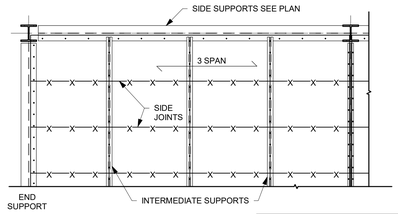
2 GIRT CONNECTION DETAIL
1" = 1'-0"



3 GIRT CONNECTION SECTION
1" = 1'-0"



7 BRACE THRU GIRT
1" = 1'-0"



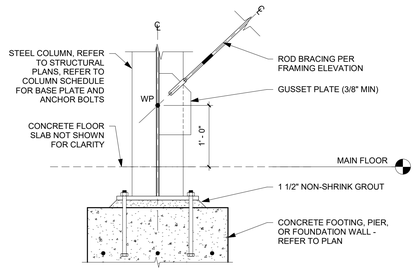
FASTENING REQUIREMENTS

END SUPPORTS.....HILTI X-HSN 24 @ 36/4.
INTERMEDIATE SUPPORTS.....HILTI X-HSN 24 @ 36/4
SIDE SUPPORTS.....HILTI X-HSN 24 @ 12" O.C.
SIDE LAP JOINTS.....HILTI #12 DRILL SCREW @ 24" O.C.

NOTES:
1. DECK MUST BE LAID OUT AS 3 SPAN CONDITION.
2. X INDICATES SIDE LAP FASTENERS
3. • INDICATES SUPPORT FASTENERS.

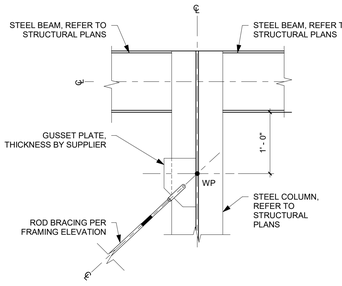
12 DECK ATTACHMENT PATTERN
3/8" = 1'-0"

NOTE:
- STEEL FABRICATOR TO SIZE GUSSET PLATE, WELDS, CLEVIS AND TURNBUCKLE, AND CONNECTIONS FOR FORCES INDICATED ON PLAN AND BRACED FRAME ELEVATIONS. ALL BRACING MEMBERS ARE TO BE HELD ABOVE FINISHED FLOOR ELEVATION AND REMAIN CLEAN OF CONCRETE OR OTHER DEBRIS
- DESIGN ROD X BRACING CONNECTIONS FOR THE FOLLOWING LOADS: 1.25" Ø ROD = 30 KIP, 1.75" Ø ROD = 50 KIP

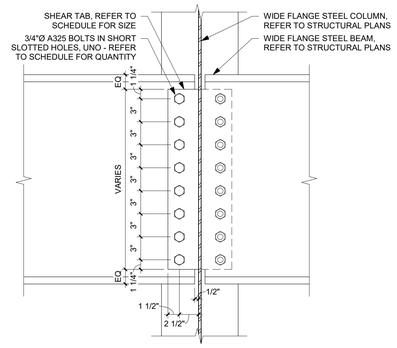


13 LOWER X-BRACE CONNECTION
1" = 1'-0"

NOTE:
- STEEL FABRICATOR TO SIZE GUSSET PLATE, WELDS, CLEVIS AND TURNBUCKLE, AND CONNECTIONS FOR FORCES INDICATED ON PLAN AND BRACED FRAME ELEVATIONS. ALL BRACING MEMBERS ARE TO BE HELD ABOVE FINISHED FLOOR ELEVATION AND REMAIN CLEAN OF CONCRETE OR OTHER DEBRIS
- DESIGN ROD X BRACING CONNECTIONS FOR THE FOLLOWING LRFD FACTORED LOADS: 1.25" Ø ROD = 30 KIP, 1.75" Ø ROD = 50 KIP

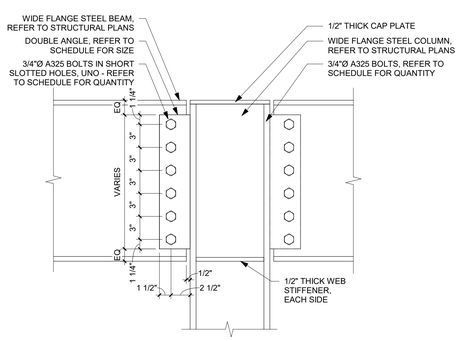


14 UPPER X-BRACE CONNECTION
1" = 1'-0"



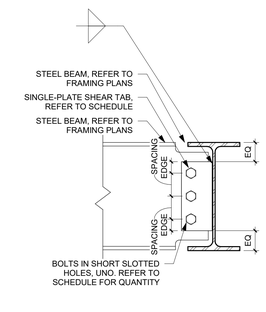
BEAM/COLUMN CONNECTION SCHEDULE		
BEAM SHAPE	SHEAR TAB SIZE	NO. OF BOLTS
W8	4" x 5/16"	2
W10	4" x 5/16"	3
W12	4" x 5/16"	3
W14	4" x 5/16"	4
W16	4" x 5/16"	4
W18	4" x 5/16"	5
W21	4" x 5/16"	6
W24	4" x 5/16"	7
W27	4" x 5/16"	8

4 SHEAR TAB STEEL BEAM/COLUMN CONNECTION DETAIL, TYPICAL UNO
1 1/2" = 1'-0"



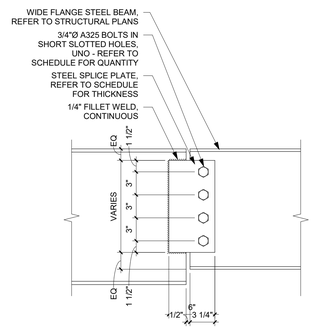
BEAM/COLUMN CONNECTION SCHEDULE		
BEAM SHAPE	SHEAR TAB SIZE	NO. OF BOLTS
W8	4" x 5/16"	2
W10	4" x 5/16"	3
W12	4" x 5/16"	3
W14	4" x 5/16"	4
W16	4" x 5/16"	4
W18	4" x 5/16"	5
W21	4" x 5/16"	6
W24	4" x 5/16"	7
W27	4" x 5/16"	8

5 TYPICAL TOP OF COLUMN TYPICAL SHEAR TAB STEEL BEAM/COLUMN CONNECTION DETAIL
1 1/2" = 1'-0"



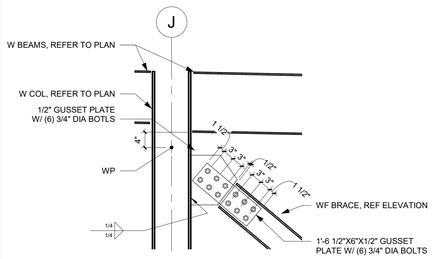
BEAM/BEAM CONNECTION SCHEDULE					
BEAM SHAPE	PLATE THICKNESS	NO. OF BOLTS	BOLT Ø	BOLT SPACING	BOLT EDGE DISTANCE
W6, C6	1/4"	2	1/2"	2 1/2"	1 1/4"
W8, C8	5/16"	2	3/4"	3"	1 1/2"
W10, C10	5/16"	2	3/4"	3"	1 1/2"
W12, C12	5/16"	3	3/4"	3"	1 1/2"
W14	5/16"	3	3/4"	3"	1 1/2"
W16	5/16"	4	3/4"	3"	1 1/2"
W18	5/16"	5	3/4"	3"	1 1/2"
W21	3/8"	6	3/4"	3"	1 1/2"

6 TYPICAL STEEL BEAM CONNECTION DETAIL
1 1/2" = 1'-0"

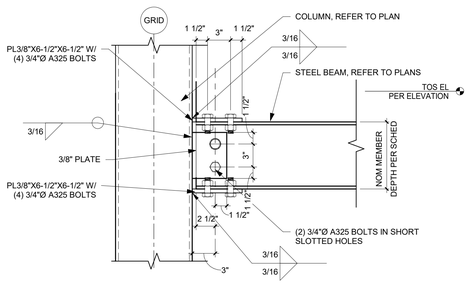


SPLICE CONNECTION SCHEDULE		
BEAM SHAPE	PLATE THICKNESS	NO. OF BOLTS
W18	(2) 1/2"	4
W18	(2) 1/2"	5

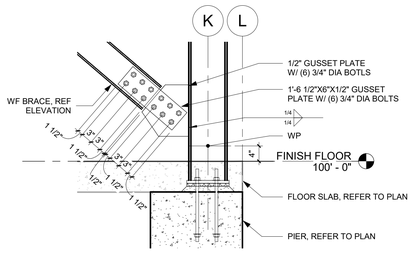
8 TYPICAL STEEL BEAM SPLICE DETAIL
1 1/2" = 1'-0"



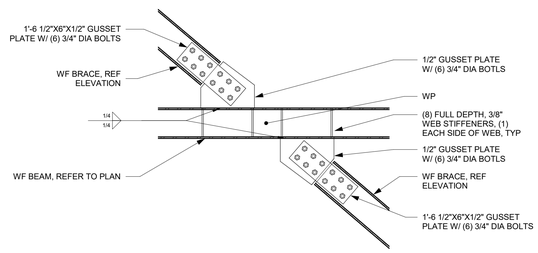
9 UPPER WIDE FLANGE ANGLE BRACE CONNECTION
3/4" = 1'-0"



10 TYPICAL BEAM MOMENT CONNECTION TO WF COLUMN
1 1/2" = 1'-0"



11 LOWER WIDE FLANGE ANGLE BRACE CONNECTION
3/4" = 1'-0"



15 WIDE FLANGE ANGLE BRACE TO BEAM CONNECTION
3/4" = 1'-0"

REFERENCE SCALE
1" = 1'
2"
1"
0 1/4" 1/2"

5/27/2022 4:52:29 PM

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ISG

SOUTH CAROLINA I&S Group, Inc. No. 5411 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 33527 JASON E. HOEHN

PROJECT

BURKE INDUSTRIAL INC. CARGILL COOLER EXPANSION

WEST COLUMBIA SOUTH CAROLINA

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TITLE

ROOF FRAMING DETAILS

SHEET

S6-21