PORTER COUNTY OFFICE BUILDING

PORTAGE, IN

100% CONSTRUCTION DOCUMENTS - BP1

08.17.18

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2017.01279

ABBREVIATIONS

A	
A/E	ARCHITECT/ENGINEER
ACOUS	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICAN'S WITH DISABILITIES ACT
ADD	ADDENDUM
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
ARCH	ARCHITECT (URAL)
B	
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BRG	BEARING
C	
C/C	CENTER TO CENTER
CAB	CABINET
CB	CORNER BEAD
CER	CERAMIC
CF	CUBIC FOOT
CFCI	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED
CHAN	CHANNEL
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CP/CPT	CARPET
D	
DEMO	DEMOLITION (ISH)
DF	DRINKING FOUNTAIN
DIFF	DIFFUSER
DIM	DIMENSION
DISP	DISPENSER
DO	DOOR OPENING
DS	DOWNSPOUT
DWG	DRAWING
E	
EJ	EXPANSION JOINT
ELEC	ELECTRICAL (ELEVATOR)
ELEV	ELEVATION
ENCL	ENCLOSURE
ENGR	ENGINEER
EQUIP	EQUIPMENT
EWC	ELECTRICAL WATER COOLER
EXST	EXISTING
F	
F/F	FACE TO FACE
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FHC	FIRE HOSE CABINET
FIN	FINISH
FIN FL	FINISHED FLOOR
FLR (FLRG)	FLOOR(ING)
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FR	FIRE RATING
FT	FIRE TREATED
FTG	FOOTING
FURN	FURNITURE
FURR	FURRING
G	
GALV	GALVANIZED
GLZ	GLAZING
GUT	GUTTER
GYP BD/GWB	GYPSUM BOARD
H	
HC	HANDICAP(PED)
HCW	HOLLOW CORE WOOD
HDWE/HDW	HARDWARE
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HORIZ	HORIZONTAL
HT	HEIGHT
HVAC	HEATING, VENTILATION, AIR CONDITIONING
I	
ICF	INSULATED CONCRETE FORM
ID	INSIDE DIAMETER
IF	INSIDE FACE
INCAND	INCANDESCENT
INDIC	INDICATE
INSTL	INSTALL(ATION)
INSUL	INSULATION
INT	INTERIOR
J	
JST	JOIST
JT	JOINT
L	
LAV	LAVATORY
LD BRG	LOAD BEARING
LF	LINEAR FOOT
LTG	LIGHTING
LTWT	LIGHTWEIGHT
LVR	LOUVER
M	
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDICINE (MEDICAL)
MET	METAL
MFG	MANUFACTURER (ING)
MIN	MINIMUM
MISC	MISCELLANEOUS
MLWK	MILLWORK
MO	MASONRY OPENING
MTD	MOUNTED
MTG	MOUNTING
MULL	MULLION
MULT	MULTIPLE
N	
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
O	
O/O	OUT TO OUT
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFCI	OWNER FURNISHED - CONTRACTOR INSTALLED
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
ORD	OVERFLOW ROOF DRAIN
ORIG	ORIGINAL
P	
PERM	PERMANENT
PH	PHASE
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PNL	PANEL
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PRELIM	PRELIMINARY
PREP	PREPARATION
PROJ	PROJECT
PT	PRESERVATIVE TREATED
PTD	PAINTED
PTN	PARTITION
Q	
QT	QUARRY TILE
R	
R	RADIUS
RD	ROOF DRAIN
REC	RECESSED
RECPT	RECEPTACLE
REF	REFER(ENCE)
REINF	REINFORCE(D)(ING)(MENT)
REQD	REQUIRED
RESIL	RESILIENT
RM	ROOM
RO	ROUGH OPENING
RTU	ROOF TOP UNOT
S	
SAN	SANITARY
SCW	SOLID CORE WOOD
SF	SQUARE FOOT
SPKLR	SPRINKLER
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR or ST	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMBOL
SYS	SYSTEM
T	
T&G	TONGUE AND GROOVE
T/	TOP OF
TEL	TELEPHONE
TEMP	TEMPORARY
THRES	THRESHOLD
TOT	TOTAL
TYP	TYPICAL
U	
UNIF	UNIFORM
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
V	
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIN	VINYL
VT	VINYL TILE
VWC	VINYL WALL COVERING
W	
WW	WALL TO WALL
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WH	WALL HUNG
WT	WEIGHT

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SHEET NUMBER	SHEET NAME	CURR REV	REV DATE	REV DESCR
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G001	SHEET INDEX			
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C110	DEMOLITION PLAN			
C200	OVERALL SITE PLAN			
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C310	STORM SEWER PLAN AND PROFILES			
C311	STORM SEWER PLAN AND PROFILES			
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C612	IAWC WATER INSTALLATION DETAILS AND NOTES			
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STRUCTURAL				
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S002	GENERAL NOTES			
S003	SPECIAL INSPECTION REQUIREMENTS			
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S501	STEEL SCHEDULES, SECTIONS, AND DETAILS			
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ARCHITECTURAL				
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SHEET NUMBER	SHEET NAME	CURR REV	REV DATE	REV DESCR

GENERAL NOTES

A. SEE SHEET G001 FOR GRAPHIC SYMBOL LEGEND.
B. SEE SHEET A001 FOR GENERAL PARTITION NOTES.
C. SEE SHEET A701 FOR GENERAL FINISH NOTES
D. COORDINATE WORK OF ALL TRADES PRIOR TO STARTING CONSTRUCTION.
E. ALL DIMENSIONS ARE TO GRID LINES, FACE OF STUD FRAMING, FINISHED FACE OF EXISTING WALL SURFACE, OR FACE OF CONCRETE / MASONRY UNITS UNLESS NOTED OTHERWISE.
F. THE CONTRACTOR AND SUBCONTRACTORS INVOLVED IN THIS PROJECT SHALL BE RESPONSIBLE FOR DESIGNING AND INSTALLING THEIR RESPECTIVE WORK AND SYSTEMS TO MEET ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, LAWS, SAFETY REGULATIONS, HAZARDOUS WASTE LAWS, ETC. THE CONTRACTOR SHALL FURNISH ALL NECESSARY PERMITS.
G. THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND UNIDERSTAND THE SCOPE OF THE DRAWINGS TO BE THE FOLLOWING: THESE CONSTRUCTION DOCUMENTS (DRAWINGS, SPECIFICATIONS, ADDENDA, ETC.) INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPTS, THE DIMENSIONS OF THE BUILDING, THE MAJOR ARCHITECTURAL ELEMENTS, AND THE MAJOR STRUCTURAL, MECHANICAL, AND ELECTRICAL SYSTEMS. THE DOCUMENTS DO NOT AND ARE NOT INTENDED TO INDICATE OR DESCRIBE IN DETAIL ALL THE NECESSARY WORK REQUIRED FOR FULL PERFORMANCE OF, AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT. ON THE BASIS OF THE GENERAL SCOPE INDICATED IN THESE DOCUMENTS, THE TRADE CONTRACTORS SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THEIR WORK. ALL WORK SHALL BE COMPLETE IN EVERY DETAIL AND THE CONTRACTORS SHALL PROVIDE A ONE YEAR WARRANTY FOR THEIR WORK.
H. CONTRACTORS SHALL FOLLOW AND OBEY ALL FEDERAL, STATE AND LOCAL CODES, LAWS, SAFETY REGULATIONS AND HAZARDOUS WASTE LAWS, ETC.
I. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL GOVERN EACH BUILDING COMPONENT LOCATION. BRING ANY DISCREPANCIES TO THE ARCHITECT'S ATTENTION IN WRITING IMMEDIATELY.
J. BUILDING FIRST FLOOR IS REFERENCE ELEVATION 100'-0". REFERENCE CIVIL DRAWINGS FOR U.S.G.S. ELEVATION.
K. ALL WORK SHALL BE PERFORMED IN A SKILLED WORKMANSHIP TYPE AND MANNER ACCEPTABLE TO THE ARCHITECT AND OWNER.
L. CAULK INTERSECTION BETWEEN DIFFERENT MATERIALS.
M. CAULK TOILET FIXTURES AND COUNTERTOP SPLASHES TO FINISH SURFACE IN ACCORDANCE WITH SEALANT SCHEDULE IN SPECIFICATIONS.
N. EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO BIDDING OR BEGINNING OF WORK. ANY ERRORS OR OMISSIONS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IN WRITING IMMEDIATELY.
O. COVER ALL RETURN AIR AND EXHAUST GRILLES WITH FILTER MEDIA FOR DURATION OF JOB AND CHANGE REGULARLY.

MATERIALS LEGEND

- ACOUSTICAL CEILING TILE
- AIR BARRIER SYSTEM
- BATT INSULATION: THERMAL OR ACOUSTICAL, UNO
- BRICK MASONRY
- CARPET, CARPET TILE (DETAIL)
- CONCRETE, CAST-IN-PLACE
- CONCRETE, PRECAST/CAST STONE
- CONCRETE MASONRY UNIT
- EARTH
- EIFS
- GLASS FIBER REINFORCED CONCRETE SIDING OR TRIM
- GRANULAR FILL
- GRATING (PLAN)
- GRATING (SECTION)
- GYPSUM WALL BOARD
- INSULATED GLASS: (DETAIL)
- INSULATED GLASS: (SMALL SCALE)
- MEMBRANE: WATERPROOF, ROOF, DAMPPROOFING
- METAL: ROLLED SHAPES
- METAL: TYPE AS NOTED
- PARTICLEBOARD
- PLASTER ON METAL LATH
- PLYWOOD
- RESINOUS FLOORING: TERRAZO, TROWEL-ON, UNO
- RIGID INSULATION: THERMAL, ACOUSTICAL, OR SAFING
- SAND, GROUT AS NOTED
- SHEATHING: GYPSUM, OR AS NOTED
- SPRAYED FIREPROOFING SHOWN ON ROLLED SHAPE
- STONE: LIMESTONE, GRANITE, MARBLE OR AS NOTED
- TERRA COTTA, STRUCTURAL CLAY TILE
- TILE: CERAMIC, QUARRY, UNO
- WOOD/ENGINEERED: GLUE LAMINATED
- WOOD/FINISHED, SHOWN CUT AND ELEVATION
- WOOD FLOOR, WOOD SHINGLES, OR SIDING
- WOOD FRAMING / BLOCKING: CONTINOUS
- WOOD SHIM

NOTE: PATTERNS SHOWN REPRESENT CUT MATERIALS IN PLAN OR SECTION, UNLESS NOTED OTHERWISE.

GRAPHIC LEGEND

- COLUMN GRID EXISTING
- COLUMN GRID NEW
- NORTH ARROW
- WALL SECTION CUT REFERENCE: DRAWING NUMBER, SHEET NUMBER
- BUILDING SECTION CUT REFERENCE: DRAWING NUMBER, SHEET NUMBER
- EXTERIOR ELEVATION REFERENCE: DRAWING NUMBER, SHEET NUMBER
- ENLARGED DRAWING REFERENCE
- ROOM NAME AND NUMBER
- WINDOW TAG
- DOOR TAG
- KEYED NOTE
- ELEVATION DATUM REFERENCE
- REVISION REFERENCE
- WALL TYPE REFERENCE (REFERENCE INTERIOR PARTITION LEGEND)
- EQUIPMENT TAG

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PORTER COUNTY OFFICE BUILDING

PORTAGE, IN

DANIEL L. McCLOSKEY REGISTERED No. AR10700109 STATE OF INDIANA ARCHITECT

CERTIFIED BY

ISSUANCE INDEX
DATE:
08.17.18
PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

Project Number 2017.01279

SHEET INDEX

G001

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STEEL SYMBOLS

STEEL DECK

STEEL DECK MARK AND SPAN DIRECTION (D#)

SLAB-ON-DECK MARK AND SPAN DIRECTION (S#)

BEAM SPLICE CONNECTION (OR)

BEAM SHEAR CONNECTION AT COLUMN

BEAM CONTINUOUS OVER COLUMN

BEAM MOMENT CONNECTION AT COLUMN

SLAB ON STEEL DECK (WWR)

SLAB ON STEEL DECK

COLUMN STARTS HERE

HANGER OR POST

HANGER OR POST BELOW FLOOR

COLUMN MARK (C#)

STEEL MEMBERS

SHAPE	SECTION	ELEVATION	PLAN VIEW
W-SHAPE BEAM			
CHANNEL			
ANGLE			
DOUBLE ANGLE	LLV LLH		
HOLLOW STRUCTURAL SECTION -RECTANGULAR			
HOLLOW STRUCTURAL SECTION -CIRCULAR (PIPE)			
OPEN WEB STEEL JOIST			

MASONRY MEMBERS

CMU SECTION

CMU BOND BEAM SECTION (FULLY GROUTED)

CMU LINTEL SECTION (FULLY GROUTED)

SINGLE REINFORCEMENT (FULLY GROUT REINFORCED CELLS)

PLAN

DOUBLE REINFORCEMENT (FULLY GROUT REINFORCED CELLS)

PLAN

CONNECTORS

CONNECTOR	SECTION	END/ALT VIEW
CAST-IN ANCHOR ROD		
POST-INSTALLED MECHANICAL ANCHOR		
POST INSTALLED ADHESIVE ANCHOR		
HEADED STUD		
BOLT		

MISCELLANEOUS SYMBOLS

NORTH ARROW (N)

SECTION NUMBER / SHEET NUMBER (1 / S101)

CALLOUT NUMBER / SHEET NUMBER (1 / S101)

SOIL

GRANULAR FILL

LIMIT OF EXTENT

CONTINUOUS EXTENT

ELEVATION REFERENCE (Name / Elevation)

GRIDLINES (A, 1)

COLUMN NOTATION (C#)

PRECAST/ BRICK SUPPORT (Z#)

LINTEL NOTATION (L#)

COLUMN FOOTING NOTATION (F ##)

WALL FOOTING NOTATION (WF ##)

THICKENED SLAB NOTATION (TS ##)

GRADE BEAM NOTATION (GB ##)

PIER NOTATION (P ##)

CONCRETE BEAM NOTATION (B ##)

POST-TENSIONED CONCRETE BEAM NOTATION (PB ##)

PILE CAP NOTATION (PC ##)

BEARING WALL NOTATION (BW ##)

SHEAR WALL NOTATION (SW ##)

WALL NOTATION (W ##)

WALL PIER NOTATION (WP ##)

CONCRETE SYMBOLS

CHANGE OF SLAB ELEVATION

SLOPING SLAB

CHANGE OF SLAB THICKNESS

LIMIT OF MEMBER OR SPAN MARK

DIRECTION OF SPAN

OPENING

CONTROL JOINT LOCATION IN CONCRETE WALLS

INTENTIONALLY ROUGHENED CONSTRUCTION JOINT TO 1/4" AMPLITUDE

FORM-SAVER

SLAB ON GRADE MARK (SOG#)

POST-TENSION TENDON ANCHOR DEAD END LOCATION

POST-TENSION TENDON ANCHOR JACKING LOCATION

REBAR

MECHANICAL COUPLER REBAR SPLICE

REBAR TERMINATOR

SELF-EXPANDING WATERSTOP

PVC WATERSTOP

WELDED WIRE REINFORCING

COLUMN CONTINUES

COLUMN TERMINATED

WALL FOOTING OR THICKENED SLAB (WF# / TS#)

ISOLATED FOOTING (F#)

COLD-FORMED STEEL SYMBOLS

CF TRACK

CF STUD/JOIST/RAFTER

BEARING WALL (BELOW)

SCREW

PRODUCT IDENTIFICATION KEY:

MEMBER DEPTH:
(EXAMPLE: 6" = 600 X 1/100 INCHES)
ALL MEMBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "T" SECTIONS MEMBER DEPTH IS THE INSIDE TO INSIDE DIMENSION.

FLANGE WIDTH:
(EXAMPLE: 1 5/8" = 1.625" = 162 X 1/100 INCHES)
ALL FLANGE WIDTHS ARE TAKEN IN 1/100 INCHES.

600 S 162 - 54

STYLE:
(EXAMPLE: STUD OR JOIST SECTION = S)
THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE:
S = STUD OR JOIST SECTIONS
T = TRACK SECTIONS
U = CHANNEL SECTIONS
F = FURRING CHANNEL SECTIONS

MATERIAL THICKNESS:
(EXAMPLE: 0.054 IN = 54 MILS; 1 MIL = 1/100 IN)
MATERIAL THICKNESS IS THE MINIMUM BASE METAL THICKNESS IN MILS. MINIMUM BASE METAL THICKNESS REPRESENTS 95% OF THE DESIGN THICKNESS.

GAUGE THICKNESS EQUIVALENTS:

33 MIL = 20 GA 68 MIL = 14 GA
43 MIL = 18 GA 97 MIL = 12 GA
54 MIL = 16 GA 118 MIL = 10 GA

STRUCTURAL DRAWINGS ABBREVIATIONS

&	AND
A/E	ARCHITECT/ENGINEER
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
ADJ	ADJACENT
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATE
AR	ANCHOR ROD
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BV	BOTTOM OF
BAL	BALANCE
BC	BOTTOM CHORD
BD	BOARD
BF	BRACED FRAME
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BTWN	BETWEEN
BU	BUILT UP
C	STANDARD CHANNEL
CANT	CANTILEVER
CC	CENTER TO CENTER
CF	COLD FORMED
CG	CENTER OF GRAVITY
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEARANCE, CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER
CTRD	CENTERED
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CYD	CUBIC YARD
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION, DEMOLISH
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIM	DIMENSION
DN	DOWN
DO	DITTO
DP	DEEP
DWG	DRAWING
DWL	DOWELS
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE
ENGR	ENGINEER
EOD	EDGE OF DECK
EOJ	EDGE OF JOIST
EOS	EDGE OF SLAB
EQ	EQUAL
EQPT	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EX	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISH
FLG	FLANGE
FLR	FLOOR
FS	FAR SIDE
FT	FEET
FTG	FOOTING
FTGD	FOOTING DRAIN
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GL	GLUED LAMINATED TIMBER (GLULAM)
GRND	GROUND
GT	GIRDER TRUSS
HAS	HEADED ANCHOR STUD
HORIZ	HORIZONTAL
HP	HIGH POINT
HSS	HOLLOW STRUCTURAL SECTION
HT	HIP TRUSS
HVAC	HEATING, VENTILATION, AIR CONDITIONING
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
INCL	INCLUDE
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
J/BRG	JOIST BEARING
JST	JOIST
JT	JOINT
KB	KNEE BRACE
KIP, K	1,000 POUNDS
KO	KNOCK-OUT
KSI	KIPS PER SQUARE INCH
L	ANGLE OR LENGTH
LAB	LABORATORY
LB	POUND
LF	LINEAL FOOT
LIN	LINEAL, LINEAR
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONGIT	LONGITUDINAL
LP	LOW POINT
LSL	LAMINATED STRAND LUMBER
LSLT	LONG SLOTTED HOLE
LTWT	LIGHT WEIGHT
LVL	LAMINATED VENEER LUMBER
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MISCELLANEOUS CHANNEL
MECH	MECHANICAL
MEMB	MEMBRANE
MEP	MECHANICAL/ ELECTRICAL/ PLUMBING
MF	MOMENT FRAME
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MULT	MULTIPLE
N/A	NOT APPLICABLE
NO	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFD	OVERFLOW DRAIN
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPPHD	OPPOSITE HAND
ORIG	ORIGINAL
OVS	OVERSIZED HOLE
OWJ	PRE-MANUFACTURED OPEN WEB JOIST
PC	PRECAST CONCRETE
PEMB	PRE-ENGINEERED METAL BUILDING
PERIM	PERIMETER
PERM	PERMANENT
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PLYWD	PLYWOOD
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PREP	PREPARATION, PREPARE
PROJ	PROJECTION
PS	PRESTRESSED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	POST-TENSIONED
R	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCEMENT, REINFORCE
REQD	REQUIRED
RO	ROUGH OPENING
RTU	ROOFTOP MECHANICAL UNIT
S	SLOPE
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SOG	SLAB-ON-GRADE
SPA	SPACES, SPACE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
SSLT	SHORT SLOTTED HOLE
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUC	STRUCTURAL
SYM	SYMMETRICAL
T & B	TOP AND BOTTOM
T/	TOP OF
T/GB	TOP OF GRADE BEAM
TBS	MECHANICAL TENSION BUTT SPLICE
TC	TOP CHORD
TEMP	TEMPERATURE
THRU	THROUGH
TJI	PREFABRICATED WOOD I-JOIST
TRANS	TRANSVERSE
TYP	TYPICAL
UL	UNDERWRITERS' LABORATORY INC.
UNO	UNLESS NOTED OTHERWISE
UT	ULTRA-SONIC TEST
VERT	VERTICAL
W	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WD	WOOD
WH	WEEP HOLE
WP	WORK POINT
WT	WEIGHT, STRUCTURAL T
WWF, WWR	WELDED WIRE REINFORCEMENT
XS	EXTRA STRONG (PIPE)
XXS	DOUBLE EXTRA STRONG (PIPE)

STEEL BEAM LEGEND

BEAM REACTION, TYP
BEAM SIZE — 20K — W18X40 — C=1" — 20K — CAMBER — MOMENT CONNECTION
(20)
##K
NOTE 6
C=1/2" — CAMBER
CANT BM, SAME SIZE AND END REACTION AS BACKSPAN, UNO
QUANTITY OF SHEAR STUDS, UNIFORMLY SPACED BETWEEN SUPPORTS, UNO
"(MIN)" = STUDS @ 24" OC FOR FULL BEAM LENGTH

NOTES:

1. REACTION VALUE IS ASD (KIPS), UNO.
2. WHERE NO VALUE IS SHOWN, DESIGN CONNECTION FOR A MINIMUM REACTION OF **16 KIPS**.
3. POSITIVE CAMBER UPWARDS, NEGATIVE CAMBER DOWNWARDS. CAMBER SHOWN ON CANTILEVERS IS AT END OF CANTILEVER.
4. BEAMS ARE PRIMARY MEMBERS FOR FIREPROOFING UNLESS NOTED AS SECONDARY.
5. "M" IN PLACE OF BEAM SIZE INDICATES W10X12.
6. LATERAL FORCE TO BE TRANSFERRED THROUGH SUPPORT BY CONNECTIONS IN ADDITION TO VERTICAL REACTION FORCES. FORCE MAY ACT IN EITHER DIRECTION. FORCE IS GREATER OF 0.6W OR 0.7E, UNO. WHERE NO VALUE IS SHOWN, DESIGN CONNECTION FOR A MINIMUM OF **5 KIPS**.

STEEL JOIST AND JOIST GIRDER SUPPLEMENTAL LOAD LEGEND

JOIST GIRDER
NOTE 3
##K
(##K)
JOIST TYP
<##K>
NOTE 4
##K
ADDITIONAL VERT LOAD AT INDICATED JOIST GIRDER PANEL POINT
ADDITIONAL VERT LOAD ON JOIST

NOTES:

1) VERTICAL LOAD IS ASD LIVE LOAD (KIPS), UNO.
2) VERTICAL LOAD IS IN ADDITION TO TYPICAL PANEL POINT LOADS, UNO.
3) LATERAL FORCE TO BE TRANSFERRED THROUGH SUPPORT BY CONNECTIONS, IN ADDITION TO VERTICAL REACTION FORCES. FORCE MAY ACT IN EITHER DIRECTION. FORCE IS GREATER OF 0.6W OR 0.7E, UNO.
4) TOP CHORD AXIAL FORCE IN ADDITION TO CHORD FORCES PRODUCED BY VERTICAL LOADS. FORCE MAY BE EITHER COMPRESSION OR TENSION. FORCE IS GREATER OF 0.6W OR 0.7E, UNO.
5) "SP" INDICATES SPECIAL LOADING CONDITION. REFER TO LOAD MAPS, FRAMING PLANS AND DETAILS FOR LOADING INFORMATION.

STRUCTURAL INDEX

PORTER COUNTY Indiana

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Indianapolis, IN 46256
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PORTER COUNTY - TRUSTEES OFFICE

PORTAGE, IN

DAVID A. CLARK REGISTERED No. PE11200028 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED BY

ISSUANCE INDEX
DATE:
08.20.18
PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

Project Number 2017.01279

ABBREVIATIONS AND SYMBOLS

S001

8/17/2018 11:35:44 AM

GENERAL

STRUCTURES INDICATED ON THESE DRAWINGS HAVE BEEN DESIGNED FOR THE IN-SERVICE LOADS ONLY. THE METHODS, MEANS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER CONSTRUCTION IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURES AND RELATED COMPONENTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, TIEDOWNS, ETC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF ANY STRUCTURAL ELEMENT AT THE TIME THE LOADS ARE APPLIED, INCLUDING BUT NOT LIMITED TO: WEIGHTS OF MATERIALS, WEIGHTS OF EQUIPMENT AND WORKERS, AND ALL LOADS APPLIED FROM TEMPORARY LIFTS, HOISTS AND CRANES, ETC.

THE STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DISCIPLINES, TRADES, AND DELEGATED DESIGN ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH ALL OTHER APPLICABLE TRADES.

THE GENERAL NOTES ON THE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE FULL WRITTEN MATERIAL SPECIFICATIONS (IF ANY) FOR THE PROJECT.

DO NOT SCALE THE DRAWINGS. REFER TO THE WRITTEN DIMENSIONS AND INFORMATION.

IF A DISCREPANCY IS NOTED ON THE DRAWINGS, GENERAL NOTES, OR SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER A WRITTEN REQUEST FOR CLARIFICATION AND SHALL NOT PROCEED WITH THE AFFECTED WORK WITHOUT DOCUMENTED RESOLUTION OF THE DISCREPANCY. ALL COSTS RESULTING FROM THE CONTRACTOR IMPROPERLY PROCEEDING WITH THE AFFECTED WORK PRIOR TO DOCUMENTED RESOLUTION OF THE DISCREPANCY, INCLUDING COST OF REMOVAL AND REPLACEMENT OF NON-CONFORMING WORK, SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

PENETRATIONS AND EMBEDDED ITEMS

CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED TRADES THE REQUIRED SIZES, TYPES, AND LOCATIONS OF ALL EMBEDDED ITEMS IN, AND ALL PENETRATIONS THROUGH, STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.

NO PENETRATIONS THROUGH STRUCTURAL ELEMENTS, OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE MADE WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

NO ITEMS (INCLUDING, BUT NOT LIMITED TO, CONDUIT, PIPING, ETC.), OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE EMBEDDED IN STRUCTURAL ELEMENTS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

ALL EMBEDDED ITEMS IN EXPOSED EXTERIOR CONCRETE SHALL BE GALVANIZED, PLASTIC, OR EPOXY-COATED.

CONCRETE MIX DESIGN SUBMITTAL

THE CONTRACTOR SHALL SUBMIT FOR THE REVIEW OF THE STRUCTURAL ENGINEER A MIX DESIGN FOR EACH PROPOSED CLASS OF CONCRETE. EACH MIX DESIGN SHALL BE IDENTIFIED BY A MIX NUMBER OR OTHER UNIQUE IDENTIFICATION. THE CONTRACTOR SHALL NOT VARY FROM THE MIX DESIGNS NOR USE ANY CONCRETE OTHER THAN THE APPROVED MIX DESIGNS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. MIX DESIGN SUBMITTALS SHALL INCLUDE THE FOLLOWING INFORMATION:

1. MIX DESIGN NUMBER OR UNIQUE IDENTIFICATION AND INTENDED LOCATION OF PLACEMENT.
2. CEMENT TYPE, PROPORTION AND NAME OF MANUFACTURER.
3. FLY ASH PROPORTION (WHEN USED), LABORATORY ANALYSIS CERTIFICATION, AND NAME AND LOCATION OF SUPPLIER.
4. COURSE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION OF SUPPLIER.
5. FINE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION OF SUPPLIER.
6. MIXING WATER PROPORTION AND SOURCE.
7. ADMIXTURE DOSAGES, PRODUCT NAME(S) AND MANUFACTURER NAME(S).
8. FIBER REINFORCEMENT DOSAGE (WHEN USED), PRODUCT NAME AND MANUFACTURER NAME.
9. DESIGN 28-DAY COMPRESSIVE STRENGTH (F'C).
10. DESIGN SLUMP RANGE.
11. DESIGN AIR-ENTRAINMENT (FOR CONCRETE REQUIRING ENTRAINED AIR).
12. STATISTICAL ANALYSIS OF LABORATORY STRENGTH TEST DATA IN ACCORDANCE WITH "STANDARD DEVIATION" DETERMINATION OUTLINED IN ACI 318.

DELEGATED DESIGN

FOR ALL SUBMITTALS INDICATED AS "DELEGATED DESIGN," THE CONTRACTOR SHALL ENGAGE A SPECIALTY STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN AND DETAIL THE ITEMS NOTED IN THE STRUCTURAL SUBMITTALS AND SPECIFICATIONS AS A DELEGATED DESIGN.

DELEGATED DESIGN CALCULATIONS AND RELATED DRAWINGS SHALL CONTAIN THE FOLLOWING, AS A MINIMUM:

1. COVER PAGE SIGNED AND SEALED BY THE SPECIALTY STRUCTURAL ENGINEER INCLUDING A STATEMENT OF CERTIFICATION THAT THE SUBMITTED CALCULATIONS ARE IN CONFORMANCE WITH THE DESIGN CRITERIA PROVIDED IN THE CONTRACT DOCUMENTS AND THAT THE RELATED SHOP DRAWINGS ARE IN CONFORMANCE WITH THE SUBMITTED CALCULATIONS.
2. TABLE OF CONTENTS, PLACED ON, OR IMMEDIATELY FOLLOWING THE COVER SHEET.
3. SUMMARY OF APPLICABLE CODE CRITERIA, LOAD DATA AND PERFORMANCE CRITERIA AS OUTLINED IN THE CONTRACT DOCUMENTS.
4. CLEAR DEFINITION OF THE LOCATION(S) IN THE STRUCTURE WHERE EACH CALCULATION APPLIES.
5. LOCATION, TYPE, MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE STRUCTURE BY THE DELEGATED DESIGN SYSTEM/COMPONENTS.

SUBMITTALS THAT DO NOT CONTAIN THE INFORMATION NOTED ABOVE WILL BE REJECTED WITHOUT COMMENT.

THE STRUCTURAL ENGINEER'S REVIEW OF DELEGATED DESIGN SUBMITTALS WILL BE FOR GENERAL CONFORMANCE WITH THE DESIGN LOADING, DESIGN INTENT AND LOADS IMPOSED.

SHOP DRAWING SUBMITTALS

THE CONTRACTOR SHALL PREPARE DETAILED SHOP DRAWINGS TO ENABLE ALL PARTS OF THE WORK TO BE FABRICATED AND CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THESE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, ACCURACY AND FIT OF WORK.

ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. DRAWINGS SUBMITTED WITHOUT CONTRACTOR'S REVIEW WILL BE RETURNED UNCHECKED.

PROVIDE ALL SUBMITTALS IN ELECTRONIC PDF FORMAT.

SUBMIT SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:

1. CONCRETE REINFORCEMENT
2. STRUCTURAL STEEL
3. STEEL JOISTS AND JOIST GIRDERS (INCLUDING ALL BRIDGING AND BRACING)
4. STEEL DECK

SUBMIT DELEGATED DESIGN SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:

1. STRUCTURAL STEEL CONNECTIONS (INCLUDING DESIGN CALCULATIONS AND SUMMARY PAGE FOR CONNECTIONS NOT SPECIFICALLY DETAILED IN THE CONTRACT DRAWINGS)
2. GLAZING SYSTEMS - CURTAIN WALL AND STOREFRONT (INCLUDING DESIGN CALCULATIONS AND CONNECTION DETAILS)
3. COLD-FORMED STEEL FRAMING (INCLUDING DESIGN CALCULATIONS, MEMBER PROPERTIES, FASTENER REQUIREMENTS, ASSEMBLY DETAILS AND CONNECTION DETAILS)

PRODUCT DATA SUBMITTALS

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL PRODUCT DATA FOR THE SPECIFIC ITEMS LISTED BELOW. CONTRACTOR SHALL NOT USE PRODUCTS OTHER THAN THOSE SUBMITTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

SUBMIT HARD COPIES OR ELECTRONIC VERSIONS OF PRODUCT DATA. FOR HARD COPY OPTION, SUBMIT A MINIMUM OF TWO COPIES OF PRODUCT DATA TO THE STRUCTURAL ENGINEER FOR REVIEW (ONE COPY SHALL BE RETAINED BY THE STRUCTURAL ENGINEER). FOR ELECTRONIC OPTION, SUBMIT PRODUCT DATA IN ADOBE PDF FORMAT.

1. FIBER REINFORCEMENT FOR CONCRETE
2. CONCRETE CURING COMPOUND
3. CONCRETE JOINT SEALANT
4. EXPANSION ANCHORS
5. ADHESIVE ANCHORS
6. NON-SHRINK GROUT
7. COLD-FORMED STEEL FRAMING
8. COLD-FORMED STEEL FRAMING CONNECTOR HARDWARE
9. VAPOR RETARDER

FOUNDATIONS

SEE GEOTECHNICAL REPORT NUMBER 18SB0022 PREPARED BY ALT & WITZIG ENGINEERING, INC DATED 30TH MARCH 2018 AND ALL APPLICABLE ADDENDA AND AMENDMENTS FOR INFORMATION RELATED TO FOUNDATION EXCAVATIONS AND SOIL-RELATED WORK.

DESIGN NET SOIL PRESSURE:

SPREAD FOOTINGS:	1500 PSF
CONTINUOUS WALL FOOTINGS:	1500 PSF

FOUNDATIONS AND SOILS RELATED WORK SHALL BE INSPECTED BY A LICENSED GEOTECHNICAL ENGINEER. WRITTEN FIELD REPORTS SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER AS SOON AS THEY BECOME AVAILABLE.

FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT, SHALL BE REPORTED TO THE STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

EXCAVATIONS FOR SPREAD FOOTINGS, COMBINED FOOTINGS, CONTINUOUS FOOTINGS AND MAT FOUNDATIONS SHALL BE CLEANED AND HAND TAMPED TO UNIFORM SURFACE AND SHALL BE PROTECTED AND MAINTAINED UNIFORM UNTIL CONCRETE IS PLACED.

INSULATION

ANY INSULATION SHOWN ON THE STRUCTURAL DRAWINGS IS FOR GENERAL VISUAL REFERENCE ONLY, UNLESS NOTED OTHERWISE. SEE THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR EXACT LOCATION, PLACEMENT, THICKNESS AND MATERIAL REQUIREMENTS.

FLOWABLE FILL

WHERE INDICATED ON THE STRUCTURAL DRAWINGS, FLOWABLE FILL SHALL BE A CONTROLLED LOW-STRENGTH MATERIAL (CLSM) PRODUCED AND PLACED IN ACCORDANCE WITH RECOMMENDATIONS OF ACI 229. PROVIDE MATERIAL WITH 28-DAY COMPRESSIVE STRENGTH OF 1,000 PSI UNLESS NOTED OTHERWISE.

CONCRETE

REINFORCED CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318) AND COMMENTARY (ACI 318R).

MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO THE LATEST EDITION OF THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301). READY-MIXED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C94. IN CASE OF A DISCREPANCY, THE PLANS AND SPECIFICATIONS SHALL GOVERN.

CEMENT SHALL CONFORM TO ASTM C150, TYPE I, UNO.

FLY ASH SHALL CONFORM TO ASTM C618, CLASS C OR F.

NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33.

WATER-REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494.

AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260 AND SHALL BE CERTIFIED BY THE MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES.

CALCIUM CHLORIDE ADMIXTURES OR ADMIXTURES CONTAINING MORE THAN 0.1 PERCENT CHLORIDE IONS SHALL NOT BE USED.

IN COLD WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 306R, COLD WEATHER CONCRETING.

IN HOT WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 305R, HOT WEATHER CONCRETING.

USE OF CONSTRUCTION JOINTS AT LOCATIONS OTHER THAN THOSE INDICATED ON THE DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

SLUMP FOR PUMPED CONCRETE SHALL BE MEASURED AT POINT OF DISCHARGE.

NORMAL WEIGHT CONCRETE SHALL HAVE THE PROPERTIES AS INDICATED IN THE CONCRETE MIX SCHEDULE AND SPECIFICATIONS.

CONCRETE SLABS ON GRADE

SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION (ACI 302.1R).

PLACE CONCRETE IN A MANNER SO AS TO PREVENT SEGREGATION OF THE MIX. DELAY FLOATING AND TROWELING OPERATIONS UNTIL THE CONCRETE HAS LOST SURFACE WATER SHEEN OR ALL FREE WATER. DO NOT SPRINKLE FREE CEMENT ON THE SLAB SURFACE.

PROVIDE CURING OF CONCRETE SLABS ON GRADE AS REQUIRED TO ACCOMMODATE FLOOR FINISHES AND FINISH MATERIALS PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. REVIEW ALL FLOOR FINISH REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE SLABS AND COORDINATE SLAB MIX, PLACEMENT AND CURING TO COMPLY WITH FINISH FLOORING MATERIAL MANUFACTURER'S REQUIREMENTS.

CURING PROCEDURES SHALL COMPLY WITH ACI 302.1R AND USE OF CURING MATERIALS SHALL BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. MOISTURE RETENTION COVERS, IF USED, SHALL BE APPLIED FLAT AND SMOOTH TO RESULT IN A UNIFORM APPEARANCE AND MINIMIZE SURFACE MARKINGS AND BLEMISHES.

UNLESS NOTED OTHERWISE, OR UNLESS MORE STRINGENT REQUIREMENTS APPLY, CURE SLABS ON GRADE AS FOLLOWS:

SLABS RECEIVING FLOOR COVERING MATERIALS: MOIST CURE A MINIMUM OF 7 DAYS (OR, IF APPROVED BY FLOOR FINISH MATERIAL MANUFACTURER, USE ASTM C309, TYPE 1, CLASS B, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND, DISSIPATING). REMOVAL OF CURING COMPOUND MATERIAL, IF REQUIRED FOR PROPER INSTALLATION OF FLOOR FINISH MATERIALS, SHALL BE PERFORMED BY THE CONCRETE CONTRACTOR.

EXPOSED SLABS UNO: ASTM C1315, TYPE 1, CLASS A, WATERBORNE, MEMBRANE-FORMING CURING AND SEALING COMPOUND.

PROVIDE SLABS ON GRADE WITH A SMOOTH TROWEL FINISH UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL REVIEW ALL REQUIRED FLOOR FINISH MATERIAL REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE AND SHALL PROVIDE FLOOR SLAB FLATNESS AND LEVELNESS MEETING THE FINISH MATERIAL SUPPLIER'S WRITTEN REQUIREMENTS. FLATNESS AND LEVELNESS SHALL BE THE MORE STRINGENT OF THE FINISH MATERIAL REQUIREMENTS AND THE FOLLOWING:

SEE THE SLAB ON GRADE FLATNESS / LEVELNESS SCHEDULE.

CONTRACTOR SHALL PROVIDE ALL NECESSARY REPAIR, GRINDING AND/OR LEVELING OF THE CONCRETE SLAB TO ACCOMMODATE ALL FLOOR FINISHES PRIOR TO INSTALLATION OF THE FINISH MATERIALS WITH NO ADDITIONAL COST TO THE PROJECT.

THE MINIMUM LOCAL AREA SHALL BE ANY BAY DEFINED BY COLUMN LINES.

UNLESS SHOWN OR NOTED OTHERWISE, PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS-ON-GRADE AT A MAXIMUM SPACING OF 36 TIMES THE SLAB THICKNESS. PROVIDE JOINTS AT ALL COLUMN LOCATIONS. LOCATE JOINTS TO ELIMINATE RE-ENTRANT CORNERS AND TO CREATE SQUARE OR RECTANGULAR SECTIONS WITH MAXIMUM LONG SIDE TO SHORT SIDE RATIO OF 1.5 TO 1.

CONTROL JOINTS IN SLABS ON GRADE SHALL NOT RECEIVE JOINT FILLER MATERIAL UNLESS NOTED OTHERWISE.

FINISH SLABS WITH FIBER REINFORCEMENT IN ACCORDANCE WITH THE FIBER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED TO MINIMIZE FIBER EXPOSURE AT THE SLAB SURFACE. FOR SLABS WITH APPLIED FINISHES AND/OR MATERIALS, INCLUDING POLISHED CONCRETE FINISHES WHEN USED, REMOVE ALL PROTRUDING FIBERS PER THE FIBER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED TO PROPERLY INSTALL THE FINISHES AND/OR MATERIALS. FOR SLABS EXPOSED TO VIEW IN THE COMPLETED CONSTRUCTION, REMOVE ALL PROTRUDING FIBERS PRIOR TO COMPLETION OF CONSTRUCTION PER THE FIBER MANUFACTURER'S RECOMMENDATIONS.

VAPOR RETARDER

VAPOR RETARDER SHALL BE ASTM E1745 CLASS A WITH A PERMEANCE OF 0.1 PERMS OR LESS, UNO. INSTALL, INSPECT AND REPAIR IN ACCORDANCE WITH ASTM E1643 AND MANUFACTURER'S WRITTEN REQUIREMENTS. INSTALL VAPOR RETARDER ONLY AT LOCATIONS SPECIFICALLY INDICATED.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI.

REINFORCING BAR DETAILING, FABRICATING, AND PLACING SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING STANDARDS: ACI 301, ACI 315, ACI 318, ACI DETAILING MANUAL (SP66), AND CRSI MANUAL OF STANDARD PRACTICE.

THE CONTRACTOR SHALL PROVIDE BAR SUPPORTS AND SPACERS AS REQUIRED TO MAINTAIN PROPER SUPPORT AND POSITIONING OF THE REINFORCING STEEL THROUGHOUT CONCRETE PLACEMENT OPERATIONS. DESIGN OF THE SUPPORT SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

UNLESS A GREATER AMOUNT OF COVER IS INDICATED ON THE DRAWINGS, PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS:

CONCRETE CAST AGAINST EARTH:	3 INCHES
FOUNDATION TOP REINFORCEMENT:	2 INCHES
FOUNDATION BOTTOM AND SIDE REINFORCEMENT:	3 INCHES

REINFORCING STEEL SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE STRUCTURAL ENGINEER.

WHERE LAP SPLICE LENGTHS ARE NOT SHOWN OR NOTED, PROVIDE A CLASS "B" LAP.

ALL 90 DEGREE AND 180 DEGREE BENDS SHOWN ON THE DRAWINGS SHALL BE STANDARD HOOKS, UNLESS NOTED OTHERWISE.

PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL BARS AT CORNERS OF ALL WALLS AND GRADE BEAMS. LAP SPLICE CORNERS BARS WITH STRAIGHT BARS.

UNLESS OTHERWISE SHOWN OR NOTED, PROVIDE 2-#5 BARS (ONE EACH FACE) AROUND UNFRAMED OPENINGS IN CONCRETE WALLS AND GRADE BEAMS. PLACE BARS PARALLEL TO THE SIDES OF THE OPENING AND EXTEND 24" BEYOND CORNERS.

FIBER REINFORCEMENT (SYNTHETIC)

MICRO-FIBER REINFORCEMENT SHALL BE VIRGIN (NON-RECYCLED) NYLON OR POLYPROPYLENE FIBERS COMPLYING WITH ASTM C1116, WITH LONGEST FIBERS NOT LESS THAN 0.75 INCHES.

MACRO-FIBER REINFORCEMENT SHALL BE VIRGIN (NON-RECYCLED) POLYPROPYLENE / POLYETHYLENE FIBER BLEND COMPLYING WITH ASTM C1116, WITH LONGEST FIBERS NOT LESS THAN 1.75 INCHES.

FIBERS SHALL BE INTRODUCED INTO CONCRETE MIX AT THE BATCH PLANT AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

DOSAGE RATES SHALL BE AS INDICATED IN THE CONTRACT DOCUMENTS. USE ONLY THE FIBER TYPE INDICATED FOR EACH APPLICATION. SUBSTITUTION OF FIBER TYPES IS NOT PERMITTED.

CONCRETE TESTING

MAKE ONE SET OF TEST CYLINDERS IN ACCORDANCE WITH ASTM C31 FOR EACH DAY'S POUR AND FOR EACH 100 CUBIC YARDS FOR EACH TYPE OF CONCRETE PLACED. EACH SET SHALL INCLUDE ONE SPECIMEN TESTED AT 7 DAYS, 2 SPECIMENS TESTED AT 28 DAYS (3 SPECIMENS TESTED AT 28 DAYS IF USING 4x8 CYLINDERS) AND ONE SPECIMEN RETAINED IN RESERVE TO BE TESTED AT THE DIRECTION OF THE STRUCTURAL ENGINEER. SPARE CYLINDER MAY BE DISCARDED 90 DAYS AFTER CASTING UNLESS DIRECTED OTHERWISE BY THE STRUCTURAL ENGINEER. THIS SET OF TEST CYLINDERS SHALL BE PROTECTED AGAINST FREEZING.

WHEN THE AMBIENT TEMPERATURE IS EXPECTED TO FALL BELOW 40 DEGREES DURING THE COURSE OF A CONCRETE POUR OR SUBSEQUENT CURING PROCESS, AN ADDITIONAL SET OF CONCRETE TEST CYLINDERS SHALL BE MADE AND TESTED. THESE CYLINDERS SHALL BE STORED IMMEDIATELY ADJACENT TO, AND CURED UNDER THE SAME CONDITIONS AS THE BUILDING CONCRETE. SPECIAL CURING BOXES ARE NOT PERMITTED FOR THESE TEST CYLINDERS.

FORWARD COPIES OF TEST RESULTS TO THE ARCHITECT, STRUCTURAL ENGINEER, READY-MIX SUPPLIER AND CONTRACTOR WITHIN 24 HOURS AFTER TESTING.

POTENTIALLY LOW-STRENGTH CONCRETE: CONCRETE WHICH EXHIBITS STRENGTH BASED ON 7-DAY TESTS BELOW 70% OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH SHALL BE CONSIDERED DEFECTIVE WORK AND SHALL BE SUBJECT TO REPAIR OR REPLACEMENT BY THE CONTRACTOR AT THE DISCRETION OF THE OWNER AND STRUCTURAL ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

CONCRETE UNIT MASONRY

CONCRETE MASONRY HAS BEEN DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES (ACI 530).

CONCRETE MASONRY SHALL CONSIST OF HOLLOW UNITS CONFORMING TO THE REQUIREMENTS OF ASTM C90, WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2,800 PSI. CONCRETE MASONRY ASSEMBLAGES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'M) OF 2,000 PSI AT 28 DAYS.

ALL MASONRY TO BE LAID IN RUNNING BOND, UNO.

MORTAR SHALL BE TYPE S PROPORTIONED IN ACCORDANCE WITH ASTM C270.

GROUT FOR REINFORCED MASONRY SHALL BE PROPORTIONED IN ACCORDANCE WITH ASTM C476. COARSE AND FINE AGGREGATES SHALL CONFORM TO ASTM C404. USE COARSE GROUT FOR ALL GROUTING EXCEPT HIGH-LIFT POURS DEFINED BY ACI 530 TABLE 1.16.1, WHERE FINE GROUT SHALL BE USED.

PROVIDE 9-GAUGE GALVANIZED STEEL WIRE JOINT REINFORCEMENT IN ALL MASONRY CONSTRUCTION. REINFORCEMENT SHALL BE CONTINUOUS AND BE LAPPED EIGHT INCHES AT SPLICES. CUT REINFORCEMENT AT ALL CONTROL AND EXPANSION JOINTS. SPACE REINFORCEMENT AT 8" ON CENTER FOR PARAPETS AND BELOW GROUND FLOOR ELEVATION. ELSEWHERE SPACE REINFORCEMENT AT 16 INCHES ON CENTER.

BEAMS AND LINTELS SHALL BEAR A MINIMUM OF 8 INCHES ONTO SUPPORTING MASONRY, UNLESS NOTED OTHERWISE. BEARING FOR ALL BEAMS, LINTELS, JOISTS, ETC. SHALL BE GROUTED SOLID A MINIMUM OF ONE COURSE (8 INCHES) BELOW BEARING ELEVATION, UNLESS NOTED OTHERWISE.

PROVIDE MASONRY CONTROL JOINTS AT 25'-0" OC MAXIMUM, UNO. LOCATE JOINTS IN ACCORDANCE WITH NCMA TEK 10-2C "CONTROL JOINTS FOR CONCRETE MASONRY WALLS - EMPIRICAL METHOD" AT OFFSETS, SETBACKS, WALL INTERSECTIONS, CORNERS, CHANGES IN THICKNESS, CHANGES IN HEIGHT, OR EDGE OF OPENINGS.

BRICK VENEER MASONRY

PROVIDE EXPANSION JOINTS IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

IF BRICK EXPANSION JOINT LOCATIONS ARE NOT INDICATED ON THE ARCHITECTURAL DRAWINGS OR IN THE SPECIFICATIONS, SUBMIT PROPOSED EXPANSION JOINT LOCATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. UNLESS INDICATED OTHERWISE, PROVIDE EXPANSION JOINTS AT 20'-0" OC MAXIMUM. LOCATE JOINTS IN ACCORDANCE WITH BIA TECHNICAL NOTE 18A "ACCOMMODATING EXPANSION OF BRICKWORK" AT OFFSETS, SETBACKS, WALL INTERSECTIONS, CORNERS, CHANGES IN THICKNESS, CHANGES IN HEIGHT, OR EDGES OF OPENINGS.

EXPANSION ANCHORS

EXPANSION ANCHORS SHALL BE HILTI "KWIK BOLT TZ" OR AN EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

ANCHOR FINISH SHALL BE CARBON STEEL FOR INTERIOR EXPOSURES AND AISI 316 STAINLESS STEEL FOR EXTERIOR AND BELOW GRADE EXPOSURES, UNO.

ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS BY INSTALLERS TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

ANCHORS SHALL NOT BE INSTALLED IN CONCRETE OR MASONRY UNTIL IT HAS ATTAINED ITS SPECIFIED MINIMUM 28 DAY COMPRESSIVE STRENGTH.

ADHESIVE ANCHORS FOR SOLID SUBSTRATES (THREADED ROD AND REBAR)

ADHESIVE ANCHORS FOR SOLID SUBSTRATES SHALL BE HILTI "HIT-HY 200" OR AN EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

THREADED ANCHORS SHALL BE ASTM A36 RODS FOR INTERIOR EXPOSURES AND AISI 316 STAINLESS STEEL FOR EXTERIOR AND BELOW GRADE EXPOSURES, UNO.

ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS BY INSTALLERS TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

ADHESIVE ANCHORS SHALL NOT BE INSTALLED IN CONCRETE OR MASONRY UNTIL IT HAS ATTAINED ITS SPECIFIED MINIMUM 28 DAY COMPRESSIVE STRENGTH. ADDITIONALLY, ADHESIVE ANCHORS SHALL NOT BE INSTALLED IN CONCRETE OR MASONRY WITH AN AGE OF LESS THAN 21 DAYS.

MINIMUM EMBEDMENT DEPTH SHALL BE 8 DIAMETERS UNLESS NOTED OTHERWISE.

ADHESIVE ANCHORS FOR HOLLOW SUBSTRATES

ADHESIVE ANCHORS FOR HOLLOW SUBSTRATES SHALL BE HILTI "HIT-HY 270" WITH HILTI "HIT-SC" SCREEN TUBE OR AN EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

ANCHORS SHALL BE ASTM A36 THREADED RODS FOR INTERIOR EXPOSURES AND AISI 316 STAINLESS STEEL FOR EXTERIOR AND BELOW GRADE EXPOSURES, UNO.

ANCHORS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS BY INSTALLERS TRAINED BY THE MANUFACTURER'S REPRESENTATIVE.

NON-SHRINK GROUT

GROUT SHALL BE A NON-METALLIC, SHRINKAGE RESISTANT (WHEN TESTED IN ACCORDANCE WITH THE LATEST EDITION OF ASTM C827 OR CRD-C621), PREMIXED, NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING PORTLAND CEMENT, SILICA SANDS, SHRINKAGE COMPENSATING AGENTS AND FLUIDITY IMPROVING COMPOUNDS. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'C) OF 5,000 PSI IN 28 DAYS.

MASTIC COATING

MASTIC COATING FOR PROTECTION OF INDICATED ITEMS SHALL BE BITUMASTIC 50 COAL TAR MASTIC BY CARBOLINE OR EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER. INSTALL AT LOCATIONS INDICATED ON DRAWINGS.

UNLESS NOTED OTHERWISE, APPLY MASTIC TO A COATING THICKNESS OF 18 MILS. PROVIDE FULL COVERAGE OVER ITEMS INDICATED TO RECEIVE COATING.

APPLY MASTIC COATING TO ALL STEEL ITEMS THAT WILL BE IN PERMANENT CONTACT WITH SOIL OR FILL MATERIALS IN THE COMPLETED CONSTRUCTION.

STRUCTURAL STEEL - ASD

STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE ANSI/AISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST EDITION WITH AMENDMENTS, AND THE AISC 303 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, LATEST EDITION WITH AMENDMENTS.

STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992.

STRUCTURAL STEEL PLATES AND ROLLED SHAPES OTHER THAN WIDE-FLANGE SHAPES SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE.

HOLLOW STRUCTURAL STEEL SECTIONS (SQUARE, RECTANGULAR, AND ROUND TUBES) SHALL CONFORM TO ASTM A500 GRADE C, UNLESS NOTED OTHERWISE.

STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B.

STRUCTURAL STEEL ROD HANGERS AND BRACING SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE.

ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE.

BOLTS IN STRUCTURAL STEEL JOINTS SHALL CONFORM TO ASTM F3125 AND SHALL BE 3/4" DIAMETER GRADE A325, UNLESS NOTED OTHERWISE. (TWIST-OFF TENSION CONTROL BOLTS, IF USED, SHALL CONFORM TO ASTM F3125 AND SHALL BE 3/4" DIAMETER GRADE F1852, UNLESS NOTED OTHERWISE.)

BOLTED CONNECTIONS SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS, APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS. UNLESS NOTED OTHERWISE, BOLTED CONNECTIONS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION, EXCEPT BOLTED CONNECTIONS IN BRACE ELEMENTS ARE TO BE FULLY PRETENSIONED WITH CLASS A FAYING SURFACES.

BURNING OF HOLES IN STRUCTURAL STEEL IS EXPLICITLY PROHIBITED UNLESS WRITTEN PERMISSION IS GRANTED BY THE STRUCTURAL ENGINEER. DO NOT FLAME-CUT HOLES OR ENLARGE HOLES BY BURNING. DRILL HOLES IN STRUCTURAL STEEL. DO NOT ENLARGE UNFAIR HOLES IN MEMBERS BY BURNING OR BY USING DRIFT PINS. REAM HOLES THAT MUST BE ENLARGED TO ADMIT BOLTS. FIELD MODIFICATIONS TO HOLES IN STRUCTURAL STEEL ARE EXPLICITLY PROHIBITED UNLESS WRITTEN PERMISSION IS GRANTED BY THE STRUCTURAL ENGINEER.

WELDING PROCEDURES SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE FOR STEEL ANSI/AWS D1.1.

WELDED CONNECTIONS USING ASTM A992 STEEL AS A BASE METAL SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRODES. UNLESS OTHERWISE SHOWN OR NOTED ON THE DRAWINGS, OTHER WELDED CONNECTIONS MAY BE MADE WITH STANDARD E70XX ELECTRODES.

STRUCTURAL STEEL SHALL BE PROVIDED WITH THE FOLLOWING SHOP FINISH UNLESS SPECIFICALLY NOTED OTHERWISE:

STRUCTURAL STEEL THAT RECEIVES FINISH PAINT SHALL BE SHOP-PRIMED WITH RUST-INHIBITING PRIMER. VERIFY PRIMER IS COMPATIBLE WITH FINISH COAT SYSTEM SPECIFIED BY THE ARCHITECT. COORDINATE FINISH PAINTING REQUIREMENTS WITH THE ARCHITECT. STRUCTURAL STEEL THAT IS NOT EXPOSED IN THE FINISHED CONSTRUCTION AND DOES NOT RECEIVE FINISH PAINT SHALL NOT BE SHOP-PRIMED.

ALL EXTERIOR STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED, UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL NOTED TO BE GALVANIZED SHALL BE HOT-DIP GALVANIZED IN CONFORMANCE WITH ASTM A123.

DO NOT PAINT OR GALVANIZE THE FOLLOWING SURFACES:
1. SURFACES TO BE WELDED.
2. SURFACES TO RECEIVE BOLTED SLIP-CRITICAL CONNECTIONS.
3. SURFACES TO RECEIVE SHEAR STUD CONNECTIONS.
4. SURFACES TO RECEIVE SPRAYED-ON FIREPROOFING.

ALL ABRASIONS TO GALVANIZED SURFACES OR SURFACES TO RECEIVE AN ARCHITECTURAL FINISH COAT SHALL BE TOUCHED-UP AFTER ERECTION IS COMPLETE. FOR PAINTED STEEL, USE A PRIMER EQUIVALENT TO THE SHOP PAINT. FOR GALVANIZED STEEL, USE A ZINC-RICH COLD-GALVANIZING PAINT.

DESIGN CONNECTIONS NOT SHOWN IN ACCORDANCE WITH THE ASD SPECIFICATION AND MANUAL OF STEEL CONSTRUCTION. UNLESS NOTED OTHERWISE ON THE DRAWINGS, DESIGN BEAM CONNECTIONS NOT SHOWN, TO SUPPORT A MINIMUM SHEAR REACTION OF 16 KIPS ASD. PROVIDE NO LESS THAN 2 BOLTS IN ANY VERTICAL ROW OF BOLTS, UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.

AT STRUCTURAL STEEL AND STEEL JOIST FRAMED ROOFS PROVIDE L4X4X1/4 FRAMED OPENINGS FOR ALL ROOF PENETRATIONS 12 INCHES OR LARGER ALONG ANY SIDE, UNLESS LARGER FRAMING IS INDICATED. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR PENETRATIONS. COORDINATE FRAMED OPENING SIZES AND LOCATIONS WITH THE MECHANICAL AND PLUMBING CONTRACTORS.

DEFORMED BAR ANCHORS AND HEADED ANCHOR STUDS

DEFORMED BAR ANCHORS (DBA) AND HEADED ANCHOR STUDS (HAS) USED TO ANCHOR STEEL ELEMENTS TO CONCRETE SHALL BE SUPPLIED AND INSTALLED BY THE STRUCTURAL STEEL CONTRACTOR, UNLESS NOTED OTHERWISE.

ANCHORS SHALL BE FULL-BASE WELDED USING AUTOMATICALLY TIMED WELDING EQUIPMENT AND APPROPRIATE FERRULE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF AWS D1.5.

DEFORMED BAR ANCHORS SHALL BE TYPE C DEFORMED STEEL BARS MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A496, WITH A YIELD STRENGTH OF 70 KSI.

HEADED ANCHOR STUDS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A108, WITH A YIELD STRENGTH OF 50 KSI.

SEPARATION OF DISSIMILAR METALS

DISSIMILAR METALS INCLUDING STRUCTURAL SHAPES, PLATES, CONNECTORS, ETC. SHALL BE ELECTRICALLY ISOLATED TO PREVENT GALVANIC CORROSION VIA NON-CONDUCTIVE WASHERS, SHOULDER WASHERS, GASKETS, COATINGS, OR EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

STEEL JOISTS

STEEL JOISTS SHALL BE DESIGNED, FABRICATED, ERECTED AND BRACED IN ACCORDANCE WITH THE LATEST STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS.

SPECIAL JOISTS SHALL BE FABRICATED IN ACCORDANCE WITH THE DESIGNATION SHOWN FOR EACH JOIST ON THE DRAWINGS. THE DESIGNATIONS FOLLOW THE FORM:

DD K TL/LL

WHERE DD INDICATES THE MAXIMUM JOIST DEPTH, K INDICATES THE JOIST SERIES, TL/LL INDICATES THE DESIGN TOTAL LOAD AND LIVE LOAD RESPECTIVELY IN POUNDS PER LINEAL FOOT.

DEFLECTION OF STEEL JOISTS SHALL BE LIMITED TO THE FOLLOWING:

	LL DEFLECTION	DL+LL DEFLECTION
ROOF JOISTS	L/240	L/180

WHERE BEARING DEPTH, LENGTH AND END ANCHORAGE FOR STEEL JOISTS ARE NOT SHOWN OR NOTED, PROVIDE ANCHORAGE AS REQUIRED BY THE SJI SPECIFICATIONS.

HORIZONTAL BRIDGING AND DIAGONAL BRIDGING FOR STEEL JOISTS SHALL BE LOCATED AND DESIGNED AS REQUIRED BY THE SJI SPECIFICATIONS. BRIDGING MEMBERS SHALL BE CONNECTED TO THE JOIST CHORDS BY WELDING OR OTHER MECHANICAL MEANS. THE ENDS OF BRIDGING LINES TERMINATING AT CONCRETE WALLS, CONCRETE BLOCK WALLS OR STEEL BEAMS SHALL BE SECURELY ANCHORED THERETO AT TOP AND BOTTOM CHORDS. BRIDGING SHALL RUN THE FULL LENGTH/ WIDTH OF THE BUILDING.

HANGERS AND OTHER SUPPORTS SHALL BE LOCATED AT THE INTERSECTION OF THE CHORD AND WEB MEMBERS (PANEL POINTS). CONCENTRATED LOADS IN EXCESS OF 100 POUNDS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL NOT BE APPLIED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STEEL BEAMS THE JOIST AT OR NEAREST EACH COLUMN LINE SHALL BE BOLTED TO SUPPORTING MEMBERS DURING ERECTION.

STEEL JOISTS SHALL BE SUPPLIED WITH A SHOP COAT OF RUST-INHIBITIVE PRIMER PAINT. COORDINATE PRIMER PAINT WITH THE ARCHITECT FOR JOISTS TO REMAIN EXPOSED OR TO RECEIVE FINISH PAINT.

JOIST MANUFACTURER SHALL TRIM JOIST SEATS IN THE SHOP AS REQUIRED TO FIT BETWEEN COLUMN FLANGES.

STEEL JOIST GIRDERS

STEEL JOIST GIRDERS SHALL BE DESIGNED, FABRICATED, ERECTED AND BRACED IN ACCORDANCE WITH THE LATEST STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS. JOIST GIRDERS THAT ARE PART OF A MOMENT RESISTIVE RIGID FRAME SHALL BE DESIGNED FOR THE INDICATED END MOMENTS.

JOIST GIRDERS SHALL BE FABRICATED IN ACCORDANCE WITH THE DESIGN SPECIFICATION SHOWN FOR EACH JOIST GIRDER ON THE DRAWINGS. THE DESIGN SPECIFICATIONS FOLLOW THE FORM:

DD G XN TLK/LLK

WHERE DD INDICATES THE MAXIMUM JOIST GIRDER DEPTH, G INDICATES JOIST GIRDER TYPE, X INDICATES THE NUMBER OF JOIST SPACES (EQUAL OR UNEQUAL) OCCURRING IN THE JOIST GIRDER SPAN, AND TLK/LLK INDICATES THE TOTAL AND LIVE PANEL POINT DESIGN LOAD RESPECTIVELY (EXCLUDING JOIST GIRDER SELF WEIGHT) IN KIPS. WHERE "VG" REPLACES "G", JOISTS MUST BEAR ONLY AT VERTICAL JOIST GIRDER WEB MEMBERS.

DEFLECTION OF STEEL JOIST GIRDERS SHALL BE LIMITED TO THE FOLLOWING:

	LL DEFLECTION	DL+LL DEFLECTION
ROOF JOIST GIRDERS:	L/240	L/180

STABILIZER PLATES SHALL BE PROVIDED ON THE COLUMNS BETWEEN THE JOIST GIRDER BOTTOM CHORD ANGLES AS REQUIRED BY S.J.I. SPECIFICATIONS. DO NOT WELD BOTTOM CHORD ANGLES TO STABILIZER UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS.

WHERE END ANCHORAGE FOR JOIST GIRDERS ARE NOT SHOWN OR NOTED, PROVIDE ANCHORAGE AS REQUIRED BY THE SJI SPECIFICATIONS.

JOIST GIRDER BRACING SHALL BE AS REQUIRED BY THE JOIST GIRDER MANUFACTURER.

STEEL JOIST GIRDERS SHALL BE SUPPLIED WITH A SHOP COAT OF RUST-INHIBITIVE PRIMER PAINT. COORDINATE PRIMER PAINT WITH THE ARCHITECT FOR JOIST GIRDERS TO REMAIN EXPOSED OR TO RECEIVE FINISH PAINT.

JOIST GIRDER MANUFACTURER SHALL TRIM JOIST SEATS IN THE SHOP AS REQUIRED TO FIT BETWEEN COLUMN FLANGES.

STEEL ROOF DECK

PROVIDE AND ERECT STEEL DECK IN ACCORDANCE WITH THE LATEST EDITION OF THE STEEL DECK INSTITUTE'S SPECIFICATIONS AND CODE OF STANDARD PRACTICE.

DECK MANUFACTURER SHALL PROVIDE ALL ROOF DECK ACCESSORIES, INCLUDING CLOSURES, SUPPLEMENTARY FRAMING, AND SUMP PANS, WHETHER OR NOT SUCH ITEMS ARE DETAILED ON THE CONTRACT DOCUMENTS.

FASTEN ROOF DECK TO STEEL SUPPORTS AS INDICATED ON THE DRAWINGS. PERFORM WELDING IN ACCORDANCE WITH ANSI/AWS D1.3.

ROOF DECK SHALL BE INSTALLED IN A MINIMUM THREE SPAN CONDITION WHEREVER POSSIBLE. WHERE THREE SPAN CONDITION IS NOT POSSIBLE, NOTIFY STRUCTURAL ENGINEER PRIOR TO FABRICATION OF DECK SO THAT EVALUATION OF THE LESSER SPAN CONDITION(S) CAN BE PERFORMED.

PROVIDE STEEL ROOF DECK WITH FINISH AS INDICATED ON THE DRAWINGS.

GLAZING SYSTEMS (CURTAIN WALL AND STOREFRONT)

SUPPLIER OF GLAZING SYSTEM IS RESPONSIBLE FOR THE DESIGN, DETAILING AND INSTALLATION OF THE CURTAIN WALL SYSTEM.

FRAMING AND CONNECTIONS REQUIRED TO TRANSMIT THE GRAVITY AND/OR LATERAL LOADS TO THE STRUCTURE NOT DETAILED ON THE STRUCTURAL DRAWINGS IS THE RESPONSIBILITY OF THE GLAZING SYSTEM SUPPLIER TO DESIGN, DETAIL AND INSTALL.

CONNECTIONS TO TRANSMIT LATERAL LOADS TO THE STRUCTURE SHALL NOT BE MADE TO THE BOTTOM FLANGES OF BEAMS, BOTTOM CHORDS OF JOIST GIRDERS OR BOTTOM CHORDS OF JOISTS WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

WHERE COLD-FORMED STEEL FRAMING KNEE WALLS ARE PRESENT UNDER THE GLAZING SYSTEM THE VERTICAL MULLIONS SHALL BE SUPPORTED BY STRUCTURAL FRAMING (WHERE INDICATED). WHERE STRUCTURAL FRAMING IS NOT INDICATED, VERTICAL MULLIONS SHALL BE SUPPORTED BY COLD-FORMED STEEL KNEE WALL FRAMING DESIGNED BY THE COLD-FORMED STEEL DESIGNER FOR THE APPROPRIATE REACTIONS PROVIDED BY THE GLAZING SYSTEM DESIGNER. COORDINATE LOCATIONS, REACTIONS, AND CONNECTION REQUIREMENTS WITH THE COLD-FORMED STEEL FRAMING DESIGNER PRIOR TO FABRICATION.

COLD-FORMED STEEL FRAMING (STUDS, TRACK, ETC.)

THE SUPPLIER OF THE COLD-FORMED STEEL FRAMING SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL COLD-FORMED STEEL MEMBERS, COMPONENTS, ASSEMBLIES AND CONNECTIONS.

STRUCTURAL PROPERTIES OF FRAMING MEMBERS SHALL BE CALCULATED IN ACCORDANCE WITH REQUIREMENTS OF THE CURRENT AMERICAN IRON AND STEEL INSTITUTE (AISI) SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.

ALL COLD-FORMED STEEL FRAMING MATERIALS SHALL CONFORM TO ASTM A653 WITH ZINC COATING CONFORMING TO ASTM A924. PLATES, GUSSETS AND CLIPS SHALL HAVE A MINIMUM YIELD STRENGTH OF 40 KSI AND SHALL HAVE THICKNESS AS REQUIRED FOR SPECIFIC CONDITIONS. TRACKS, BRACING, FURRING AND BRIDGING SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 KSI.

ALL FASTENERS SHALL CONFORM TO ASTM A90. ALL SCREWS SHALL BE SELF-TAPPING SELF-DRILLING.

COLD-FORMED STEEL FRAMING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND AS REVIEWED BY THE STRUCTURAL ENGINEER.

COLD-FORMED STEEL FRAMING SYSTEM SHALL BE INSTALLED TO ACCOMMODATE CONSTRUCTION TOLERANCES, DEFLECTION OF BUILDING STRUCTURAL MEMBERS, AND CLEARANCES OF INTENDED OPENINGS. PROVIDE DEFLECTION ALLOWANCE IN STUD TRACK, DIRECTLY BELOW BUILDING FRAMING FOR NON-LOAD BEARING FRAMING.

INSTALL WALL STUD BRIDGING PER THE MANUFACTURER'S REQUIREMENTS (4'-0" O.C. MAXIMUM).

DESIGN DATA

NEW STRUCTURES ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2014 INDIANA BUILDING CODE.

SEE LOAD MAPS FOR DESIGN LOADS.

SNOW LOAD DESIGN DATA

GROUND SNOW LOAD (P_G) = 30 PSF
SNOW EXPOSURE FACTOR (C_E) = 1.0
THERMAL FACTOR (C_T) = 1.0
SNOW LOAD IMPORTANCE FACTOR (I_S) = 1.0
LOW-SLOPE ROOF SNOW LOAD (P_F) = 21 PSF
MINIMUM LOW-SLOPE ROOF SNOW LOAD (P_M) = 20 PSF

WIND LOAD DESIGN DATA

BASIC WIND SPEED (3-SECOND GUST) = 115 MPH
WIND EXPOSURE = C
WIND DESIGN PRESSURE (P) = VARIES WITH HEIGHT AND LOCATION

EARTHQUAKE DESIGN DATA

SHORT PERIOD SPECTRAL RESPONSE (S_S) = 0.121
1-SECOND SPECTRAL RESPONSE (S_1) = 0.063
SEISMIC IMPORTANCE FACTOR (I_E) = 1.00
RISK CATEGORY = II
SITE CLASSIFICATION = D
SEISMIC DESIGN CATEGORY = B
SHORT PERIOD SPECTRAL RESPONSE (S_{DS}) = 0.129
1-SECOND SPECTRAL RESPONSE (S_{D1}) = 0.101
BASIC STRUCTURAL SYSTEM / SEISMIC RESISTING SYSTEM:
STEEL NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
ANALYSIS PROCEDURE UTILIZED = EQUIVALENT LATERAL FORCE PROCEDURE
RESPONSE MODIFICATION COEFFICIENT (R) = 3.0
SEISMIC RESPONSE COEFFICIENT (C_S) = 0.043

LATERAL LOAD RESISTING SYSTEM

LATERAL FORCE RESISTANCE IN THE COMPLETED STRUCTURE IS PROVIDED AS FOLLOWS: ELEVATED ROOF DECKS SERVE AS HORIZONTAL DIAPHRAGMS TO TRANSFER LATERAL LOADS TO THE VERTICAL LATERAL LOAD RESISTING ELEMENTS WHICH IN TURN TRANSFER THOSE LOADS TO THE FOUNDATION SYSTEM. VERTICAL LATERAL LOAD RESISTING ELEMENTS ARE INDICATED ON THE DRAWINGS AND CONSIST OF THE FOLLOWING, UNLESS NOTED OTHERWISE:

PLAN NORTH-SOUTH DIRECTION:
STEEL BRACED FRAMES

PLAN EAST-WEST DIRECTION:
STEEL MOMENT FRAMES

PORTER COUNTY Indiana

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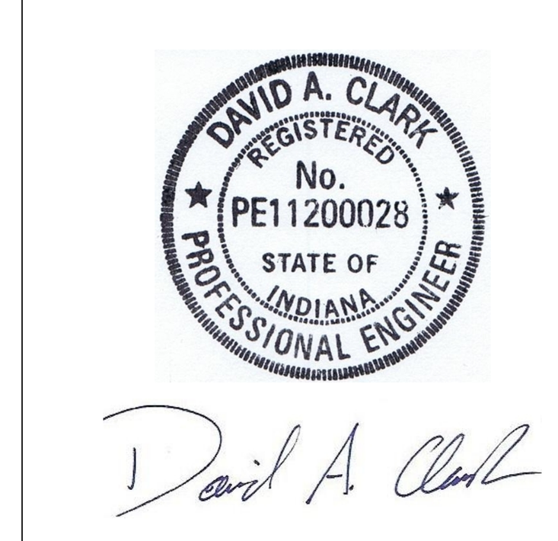
PORTER COUNTY - TRUSTEES OFFICE

PORTAGE, IN



CERTIFIED BY

ISSUANCE INDEX
DATE:
08.20.18
PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

Project Number 2017.01279

GENERAL NOTES

S002

8/17/2018 11:35:44 AM

SPECIAL INSPECTION SERVICES SCHEDULE - STEEL CONSTRUCTION

REFER TO IBC 2012 CHAPTER 17 AND AISC 360-10

ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	PERFORM OR OBSERVE	REFERENCE
WELDED MEMBERS				
PRIOR TO WELDING:				
WELDING PROCEDURE SPECIFICATIONS	VERIFY CONTRACTOR MAINTAINS WELDING PROCEDURE SPECIFICATIONS READILY AVAILABLE FOR ALL WELDERS FOR ALL TYPES OF WELDS PERFORMED ON THE PROJECT	Y	PERFORM	AISC 360 TABLE N5.4-1
WELD MATERIAL CERTIFICATIONS	VERIFY MATERIAL CERTIFICATIONS ARE AVAILABLE FOR ALL CONSUMABLE WELDING MATERIALS	Y	PERFORM	AISC 360 TABLE N5.4-1
WELD MATERIAL IDENTIFICATION	VERIFY ALL WELD MATERIALS ARE PROPERLY MARKED WITH VALID TYPE/GRADE IDENTIFICATION	Y	OBSERVE	AISC 360 TABLE N5.4-1
WELDER IDENTIFICATION SYSTEM	VERIFY FABRICATOR/ERECTOR AS APPLICABLE MAINTAINS RECORDS OF WHO WELDED EVERY JOINT	Y	OBSERVE	AISC 360 TABLE N5.4-1
FIT-UP OF GROOVE WELDS	INSPECT FOR PROPER FIT-UP INCLUDING JOINT PREPARATION, DIMENSIONS, CLEANLINESS, TACKING, AND BACKING (WHERE BACKING IS APPLICABLE)	Y	OBSERVE	AISC 360 TABLE N5.4-1
ACCESS HOLES	INSPECT FOR CONFIGURATION AND FINISH OF ACCESS HOLES	Y	OBSERVE	AISC 360 TABLE N5.4-1
FIT-UP OF FILLET WELDS	INSPECT FOR PROPER FIT-UP INCLUDING DIMENSIONS, CLEANLINESS, AND TACKING	Y	OBSERVE	AISC 360 TABLE N5.4-1
DURING WELDING:				
QUALIFIED WELDERS	VERIFY USE OF QUALIFIED WELDERS	Y	OBSERVE	AISC 360 TABLE N5.4-2
WELDING CONSUMABLES	INSPECT FOR PROPER PACKAGING, STORAGE AND PROTECTION	Y	OBSERVE	AISC 360 TABLE N5.4-2
TACK WELDS	VERIFY NO WELDING OCCURS OVER CRACKED TACK WELDS	Y	OBSERVE	AISC 360 TABLE N5.4-2
FIELD CONDITIONS	VERIFY WIND SPEED WITHIN LIMITS AND PROPER PROTECTION/PREPARATION FOR PRECIPITATION AND TEMPERATURE	Y	OBSERVE	AISC 360 TABLE N5.4-2
WELDING PROCEDURE SPECIFICATION (NOTE 2 - SEE AISC 360)	VERIFY WELDING PROCEDURE SPECIFICATIONS ARE FOLLOWED	Y	OBSERVE	AISC 360 TABLE N5.4-2
WELDING TECHNIQUES	VERIFY EACH PASS MEETS PROFILE LIMITATIONS AND QUALITY REQUIREMENTS, INTERPASS AND FINAL CLEANING	Y	OBSERVE	AISC 360 TABLE N5.4-2
COMPOSITE BEAM HEADED STUD ANCHORS	INSPECT FOR PROPER PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	N	OBSERVE	
AFTER WELDING:				
WELDS CLEANED	VERIFY PROPER CLEANING OF COMPLETED WELDS	Y	OBSERVE	AISC 360 TABLE N5.4-3
SIZE, LENGTH, LOCATION, AND VISUAL ACCEPTANCE CRITERIA (NOTE 3 - SEE AISC 360)	INSPECT WELDS TO CONFIRM PROPER SIZE, LENGTH, LOCATION AND VISUAL ACCEPTANCE CRITERIA (CRACK PROHIBITION, WELD/BASE METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT POROSITY) AS FOLLOWS:			AISC 360 TABLE N5.4-3
	VISUALLY INSPECT AND VERIFY ULTRASONIC TESTING IS PERFORMED FOR 100% OF ALL CJP WELDS	Y	PERFORM	
	VISUALLY INSPECT 100% OF ALL CJP WELDS	Y	PERFORM	
	VISUALLY INSPECT 100% OF WELDS IN LATERAL LOAD RESISTING MOMENT FRAMES AND BRACED FRAMES	Y	PERFORM	
	VISUALLY INSPECT 20% OF ALL FILLET WELDS NOT IN LATERAL LOAD RESISTING MOMENT FRAMES AND BRACED FRAMES	Y	PERFORM	
ARC STRIKES	VISUALLY INSPECT TO CONFIRM NO ARC STRIKES	Y	PERFORM	AISC 360 TABLE N5.4-3
"k"-AREA WELDING	VISUALLY INSPECT ALL DOUBLER PLATES, CONTINUITY PLATES AND STIFFENER PLATES WHERE WELDING OCCURS WITHIN THE k-AREA OF THE STEEL SECTION TO CONFIRM NO CRACKS IN THE MEMBER WEB	Y	PERFORM	AISC 360 TABLE N5.4-3
BACKING AND WELD TABS REMOVED	VISUALLY INSPECT TO CONFIRM PROPER REMOVAL OF ALL BACKING REMOVED. VERIFY ALL WELD TABS REMOVED (IF REQUIRED)	Y	PERFORM	AISC 360 TABLE N5.4-3
REPAIRS	VERIFY APPROVED REPAIRS OF NON-CONFORMING ITEMS (WHEN REQUIRED) ARE PROPERLY COMPLETED	Y	PERFORM	AISC 360 TABLE N5.4-3
DOCUMENTATION	DOCUMENT ACCEPTANCE OR REJECTION OF WELDED CONNECTIONS	Y	PERFORM	AISC 360 TABLE N5.4-3
BOLTED MEMBERS				
PRIOR TO BOLTING:				
MATERIAL CERTIFICATIONS	VERIFY MANUFACTURER'S CERTIFICATIONS ARE AVAILABLE FOR FASTENER MATERIALS	Y	PERFORM	AISC 360 TABLE N5.6-1
FASTENER MARKINGS	VERIFY FASTENERS ARE MARKED PER ASTM STANDARDS	Y	OBSERVE	AISC 360 TABLE N5.6-1
FASTENER SELECTIONS	VERIFY CORRECT GRADE, TYPE, AND SUFFICIENT LENGTH FOR THREADS EXCLUDED FROM THE SHEAR PLANE (ONLY WHERE SPECIFICALLY INDICATED)	Y	OBSERVE	AISC 360 TABLE N5.6-1
BOLTING PROCEDURE	VERIFY PROPER BOLTING PROCEDURE FOR THE JOINT	Y	OBSERVE	AISC 360 TABLE N5.6-1
CONNECTING ELEMENTS	VERIFY CONNECTING ELEMENTS, INCLUDING FAYING SURFACES AND HOLE PREPARATION (IF SPECIFIED) MEET APPLICABLE REQUIREMENTS	Y	OBSERVE	AISC 360 TABLE N5.6-1
PRE-INSTALLATION VERIFICATION	VERIFY PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL IS OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	Y	OBSERVE	AISC 360 TABLE N5.6-1
PROPER STORAGE	VERIFY PROPER STORAGE OF BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	Y	OBSERVE	AISC 360 TABLE N5.6-1
DURING BOLTING:				
PROPER POSITIONING	VERIFY ALL FASTENING ELEMENTS ARE PROPERLY POSITIONED IN THE JOINT PRIOR TO TIGHTENING	Y	OBSERVE	AISC 360 TABLE N5.6-2
BOLT TIGHTENING	VERIFY COMPONENT NOT TURNED BY THE WRENCH IS PREVENTED FROM ROTATING DURING TIGHTENING	Y	OBSERVE	AISC 360 TABLE N5.6-2
PRETENSIONED BOLTS SNUG TIGHTENED	VERIFY ALL BOLTS AT A CONNECTION TO BE PRETENSIONED ARE FIRST BROUGHT INTO SNUG-TIGHT CONDITION PRIOR TO START OF PRE-TENSIONING	Y	OBSERVE	AISC 360 TABLE N5.6-2
PRETENSIONED BOLTS TIGHTENING	VERIFY FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS	Y	OBSERVE	AISC 360 TABLE N5.6-2
AFTER BOLTING:				
DOCUMENTATION	DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	Y	PERFORM	AISC 360 TABLE N5.6-3
STEEL FRAMING (GENERAL)				
COLUMN BASES	INSPECT INSTALLATION OF ALL BASE PLATES FOR PROPER ANCHORAGE (INCLUDING WELDED PLATE WASHERS WHERE INDICATED) AND GROUTING BENEATH BASE PLATE	Y	PERFORM	
COLUMN SPLICES	INSPECT ALL COLUMN SPLICES TO CONFIRM THAT GAPS BETWEEN BEARING ELEMENTS DO NOT EXCEED 1/16-INCH	N	PERFORM	
BEAM, GIRDER AND COLUMN MEMBERS	INSPECT FOR CONFORMANCE WITH REQUIRED SIZE, SPACING AND CONNECTION REQUIREMENTS	Y	PERFORM	
ROOF AND FLOOR DECK/SLAB EDGE SUPPORTS	INSPECT SUPPORT MATERIALS FOR PROPER SIZE, POSITIONING AND CONNECTIONS	Y	PERFORM	
BRACED FRAMES AND MOMENT FRAMES	INSPECT INSTALLATION OF ALL MEMBERS AND CONNECTIONS IN BRACED FRAMES AND MOMENT FRAMES FOR PROPER SIZE, POSITIONING AND CONNECTIONS	Y	PERFORM	
COMPOSITE STEEL FRAMING	INSPECT COMPOSITE STEEL FRAMING PRIOR TO PLACEMENT OF CONCRETE AS FOLLOWS:			
	VERIFY PROPER PLACEMENT AND INSTALLATION OF STEEL DECK	N	PERFORM	AISC 360 TABLE N6.1
	INSPECT DIAMETER, LENGTH, QUANTITY AND POSITIONING OF STEEL HEADED STUD ANCHORS	N	PERFORM	AISC 360 TABLE N6.1
	RING TEST 100% OF HEADED STUD ANCHORS WITH A 3 LB HAMMER	N	PERFORM	
	BEND TEST QUESTIONABLE HEADED STUD ANCHORS TO 15 DEGREES	N	PERFORM	
	DOCUMENT ACCEPTANCE OR REJECTION OF COMPOSITE STEEL FRAMING ELEMENTS	N	PERFORM	
STEEL GRATING	INSPECT STEEL GRATING AS FOLLOWS:			
	VERIFY PROPER SIZE, TYPE AND FINISH	N	PERFORM	
	VERIFY PROPER ATTACHMENTS TO SUPPORTING STRUCTURE(S)	N	PERFORM	

NOTES:

1. SEE CONTRACT DOCUMENTS FOR WELDING REQUIREMENTS. SEE AISC 360 FOR ADDITIONAL INFORMATION.
2. SEE AISC 360 FOR SPECIFIC REQUIRED ELEMENTS OF WELD PROCEDURE SPECIFICATION.
3. SEE AISC 360 FOR SPECIFIC REQUIRED VISUAL ACCEPTANCE CRITERIA.
4. "OBSERVE" REQUIRES OBSERVATION ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
5. "PERFORM" REQUIRES TASKS TO BE PERFORMED FOR EACH OPERATION, JOINT OR MEMBER AS APPLICABLE.

SPECIAL INSPECTIONS BASIC SERVICES - SOILS AND EARTHWORK

REFER TO IBC 2012 CHAPTER 17 TABLE 1705.6

ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE
BEARING SOILS FOR SHALLOW FOUNDATIONS	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	Y	PERIODIC	
EXCAVATIONS	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	Y	PERIODIC	
FILL MATERIALS	VERIFY CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS IS PERFORMED	Y	PERIODIC	
FILL MATERIAL PLACEMENT	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	Y	CONTINUOUS	
SUBGRADE PREPARATION	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	Y	PERIODIC	
BACKFILL AT BELOW-GRADE WALLS	VERIFY THAT BELOW-GRADE WALLS WITH UNEVEN BACKFILL CONDITIONS ARE NOT BACKFILLED UNTIL FLOOR CONSTRUCTION AT TOPS OF WALLS (OR OTHER PERMANENT BRACING WHERE APPLICABLE) IS COMPLETE OR TEMPORARY BRACING IS PROVIDED	Y	PERIODIC	

SPECIAL INSPECTIONS BASIC SERVICES - CONCRETE CONSTRUCTION

REFER TO IBC 2012 CHAPTER 17 TABLE 1705.3 AND ACI 318-11

ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE
REINFORCEMENT	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS (WHERE APPLICABLE) AND VERIFY CORRECT PLACEMENT	Y	PERIODIC	ACI 318 SECTIONS 3.5 AND 7.1 THROUGH 7.7; IBC 1910.4
REINFORCING BAR WELDING	VERIFY WELDABILITY OF BARS OTHER THAN ASTM A706	Y	PERIODIC	AWS D1.4, ACI 318 SECTION 3.5.2
ANCHORS AND EMBEDDED ITEMS CAST IN CONCRETE	INSPECT ALL ANCHORS AND EMBEDDED ITEMS FOR PROPER SIZE, TYPE, QUANTITY, LOCATION, POSITION, PROJECTION AND EMBEDMENT	Y	PERIODIC	ACI 318 SECTIONS 3.8.6, 8.1.3, 21.2.8; IBC 1908.5, 1909.1
ANCHORS POST-INSTALLED IN HARDENED CONCRETE	INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	Y	PERIODIC	ACI 318 SECTIONS 3.8.6, 8.1.3, 21.2.8; IBC 1909.1
CONCRETE MIX	VERIFY USE OF REQUIRED CONCRETE MIX AT EACH APPLICATION	Y	PERIODIC	ACI 318 CHAPTER 4, SECTIONS 5.2 THROUGH 5.4; IBC 1904.2, 1910.2, 1910.3
CONCRETE TESTING	PERFORM CONCRETE SAMPLING AND TESTING IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS	Y	CONTINUOUS	ASTM C172, ASTM C31, ACI 318 5.6, 5.8; IBC 1910.10
CONCRETE PLACEMENT	INSPECT FOR PROPER PLACEMENT TECHNIQUES	Y	CONTINUOUS	ACI 318 SECTIONS 5.9, 5.10; IBC 1910.6, 1910.7, 1910.8
SHOTCRETE PLACEMENT	INSPECT FOR PROPER APPLICATION TECHNIQUES	N	CONTINUOUS	ACI 318 SECTIONS 5.9, 5.10; IBC 1910.6, 1910.7, 1910.8
CONCRETE CURING	VERIFY MAINTENANCE OF PROPER CONCRETE TEMPERATURE AND CURING TECHNIQUES	Y	PERIODIC	ACI 318 SECTIONS 5.11 THROUGH 5.13; IBC 1910.9
PRESTRESSED CONCRETE	INSPECT FOR PROPER APPLICATION OF PRESTRESSING FORCES	N	CONTINUOUS	ACI 318 SECTION 18.20
PRESTRESSED CONCRETE	INSPECT FOR PROPER GROUTING OF BONDED PRESTRESSING TENDONS	N	CONTINUOUS	ACI 318 SECTION 18.18.4
ERECTION OF PRECAST CONCRETE MEMBERS	VERIFY WELDING PROCEDURE SPECIFICATIONS ARE FOLLOWED	N	PERIODIC	ACI CHAPTER 16
ERECTION OF PRECAST CONCRETE MEMBERS	INSPECT ALL CONNECTIONS OF THE PRECAST ELEMENTS TO THE FOUNDATIONS FOR CONFORMANCE TO THE CONTRACT DOCUMENTS	N	PERIODIC	ACI CHAPTER 16
ERECTION OF PRECAST CONCRETE MEMBERS	INSPECT ALL CONNECTIONS OF THE PRECAST ELEMENTS TO THE STRUCTURAL FRAMING FOR CONFORMANCE TO THE CONTRACT DOCUMENTS	N	PERIODIC	ACI CHAPTER 16
IN-SITU CONCRETE STRENGTH - PRE-STRESSING	VERIFY IN-PLACE CONCRETE STRENGTH PRIOR TO STRESSING TENDONS IN POST-TENSIONED CONCRETE	N	PERIODIC	ACI 318 SECTION 6.2
IN-SITU CONCRETE STRENGTH - FORMS AND SHORES	VERIFY IN-PLACE CONCRETE STRENGTH PRIOR TO REMOVAL OF FORMS AND SHORES FROM BEAMS AND STRUCTURAL SLABS	N	PERIODIC	ACI 318 SECTION 6.2
FORMWORK	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	Y	PERIODIC	ACI 318 SECTION 6.1.1
WATER STOPS	VERIFY ALL WATER STOPS ARE PROPERLY INSTALLED AND ANCHORED INTO POSITION PRIOR TO PLACEMENT OF CONCRETE	N	PERIODIC	

SPECIAL INSPECTION SERVICES SCHEDULE - COLD-FORMED STEEL DECK

REFER TO IBC 2012, CHAPTER 17

ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE
PRIOR TO DECK PLACEMENT:				
MATERIAL COMPLIANCE	VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES AND BASE METAL THICKNESS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
MATERIAL ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	Y	PERIODIC	
AFTER DECK PLACEMENT:				
STEEL DECK INSTALLATION	VERIFY PROPER INSTALLATION OF STEEL DECK AND ACCESSORIES	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
MATERIAL MILL CERTIFICATIONS	VERIFY DECK MATERIALS ARE REPRESENTED BY APPROPRIATE MILL CERTIFICATIONS	Y	PERIODIC	
INSTALLATION ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES INSTALLATION	Y	PERIODIC	
PRIOR TO WELDING:				
WELDING PROCEDURE SPECIFICATION(S)	VERIFY WELDING PROCEDURE SPECIFICATION (WPS) AVAILABLE	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING CONSUMABLES MANUFACTURER CERTIFICATIONS	VERIFY MANUFACTURER'S CERTIFICATIONS ARE AVAILABLE FOR WELDING CONSUMABLES	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING MATERIAL TYPE/GRADE	VERIFY WELDING MATERIAL TYPE/GRADE	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELDING EQUIPMENT	VERIFY WELDING EQUIPMENT IN GOOD WORKING ORDER	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
DURING WELDING:				
QUALIFIED WELDERS	VERIFY USE OF QUALIFIED WELDERS	Y	PERIODIC	AWS D1.3
WELDING CONSUMABLES	VERIFY PROPER CONTROL AND HANDLING OF WELDING CONSUMABLES	Y	PERIODIC	AWS D1.3
ENVIRONMENTAL CONDITIONS	DOCUMENT ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE) ARE ACCEPTABLE	Y	PERIODIC	AWS D1.3
WPS FOLLOWED	VERIFY PROPER WPS IS FOLLOWED DURING WELDING	Y	PERIODIC	AWS D1.3
AFTER WELDING:				
FIELD WELDING	INSPECT FIELD WELDS FOR PROPER SIZE, LOCATION, PATTERN, AND SPACING FOR ALL WELDS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
VISUAL ACCEPTANCE	VERIFY WELDS MEET VISUAL ACCEPTANCE CRITERIA	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
REPAIR ACTIVITIES	VERIFY DEFICIENT WELDS ARE PROPERLY REPAIRED	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
WELD ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	Y	PERIODIC	AWS D1.3, SDI C, NC AND R (AS APPLICABLE)
PRIOR TO MECHANICAL FASTENING:				
MANUFACTURER INSTRUCTIONS	VERIFY MANUFACTURER INSTALLATION INSTRUCTIONS ARE AVAILABLE FOR MECHANICAL FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
PROPER TOOLS	VERIFY PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
FASTENER STORAGE	VERIFY PROPER STORAGE FOR MECHANICAL FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
DURING MECHANICAL FASTENING:				
POSITIONING	VERIFY FASTENERS ARE POSITIONED AS REQUIRED (INCLUDING PROPER PATTERN, SPACING, ETC.)	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
INSTALLATION	VERIFY FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
AFTER MECHANICAL FASTENING:				
SUPPORT FASTENERS	VERIFY PROPER PATTERN, SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
PERIMETER FASTENERS	VERIFY PROPER PATTERN, SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
SIDELAP FASTENERS	VERIFY PROPER SPACING, TYPE AND INSTALLATION	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
REPAIR ACTIVITIES	VERIFY DEFICIENT FASTENERS ARE PROPERLY REPAIRED	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)
FASTENER ACCEPTANCE	DOCUMENT ACCEPTANCE OR REJECTION OF FASTENERS	Y	PERIODIC	SDI C, NC AND R (AS APPLICABLE)

NOTES:

1. "PERIODIC" REQUIRES OBSERVATION ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
2. "CONTINUOUS" REQUIRES TASKS TO BE CONTINUOUSLY PERFORMED FOR EACH OPERATION, CONNECTION OR MEMBER AS APPLICABLE.
3. INSPECT FOR CONFORMANCE WITH CONSTRUCTION DOCUMENTS, INSTALLATION DRAWINGS, SHOP DRAWINGS, DESIGN DOCUMENTS, MANUFACTURER'S INSTRUCTIONS, AND APPLICABLE REFERENCED STANDARDS.

SPECIAL INSPECTION

THE OWNER OR OWNER'S AGENT SHALL EMPLOY INDEPENDENT AGENCY(IES) OR INDIVIDUAL(S) TO PROVIDE SPECIAL INSPECTION FOR ITEMS AS INDICATED ON THE DRAWINGS.

SPECIAL INSPECTION IS A MANDATORY REQUIREMENT FOR VERIFYING CONFORMANCE OF THE INDICATED CONSTRUCTION. SPECIAL INSPECTION IS REQUIRED IN ADDITION TO ALL MATERIAL TESTS AND INSPECTIONS IDENTIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON, WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER, FOR INSPECTION OF EACH PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

"PERIODIC" SPECIAL INSPECTION IS DEFINED AS "THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK."

"CONTINUOUS" SPECIAL INSPECTION IS DEFINED AS "THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED."

SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW A MINIMUM OF 14 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION OF ELEMENTS REQUIRING SPECIAL INSPECTION THE FOLLOWING:

1. NAME(S), ADDRESS(ES), TELEPHONE NUMBER(S), EMAIL ADDRESS(ES), AND STATEMENT(S) OF QUALIFICATIONS OF ALL SPECIAL INSPECTOR(S) TO BE ENGAGED ON THE PROJECT.
2. A LISTING OF ALL ITEMS TO RECEIVE SPECIAL INSPECTION, DESIGNATION WHETHER INSPECTIONS WILL BE CONTINUOUS OR PERIODIC AND THE NAME OF THE INDIVIDUAL THAT WILL BE PERFORMING INSPECTION FOR EACH ITEM.

THE CONTRACTOR SHALL COORDINATE WITH THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF WORK REQUIRING SPECIAL INSPECTION AND SHALL PROVIDE ACCESS TO THE SITE AND TO THE CONSTRUCTION DOCUMENTS (CURRENT DRAWINGS AND SPECIFICATIONS) FOR THE SPECIAL INSPECTOR CARRY OUT THE REQUIRED OPERATIONS.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK REQUIRING SPECIAL INSPECTION FOR CONFORMANCE TO THE CONSTRUCTION DOCUMENTS. ALL NON-CONFORMING WORK SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE IMMEDIATE ATTENTION OF THE OWNER OR OWNER'S AGENT AND STRUCTURAL ENGINEER.

THE SPECIAL INSPECTOR SHALL SUBMIT PERIODIC PROGRESS REPORTS TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER IDENTIFYING ALL SPECIAL INSPECTION OPERATIONS PERFORMED. REPORTS SHALL BE SUBMITTED NO MORE THAN 7 DAYS FOLLOWING EACH SPECIAL INSPECTION OPERATION. REPORTS SHALL IDENTIFY THE ITEM(S) INSPECTED AND AN INDICATION OF WHETHER THE INSPECTED ITEMS WERE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

AT THE COMPLETION OF ALL WORK REQUIRING SPECIAL INSPECTION, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

FAILURE TO PERFORM SPECIAL INSPECTION FOR THE INDICATED CONSTRUCTION OR FAILURE TO CORRECT NON-CONFORMING WORK SHALL CONSTITUTE A BASIS FOR REJECTION OF THE WORK AND REMOVAL AND REPLACEMENT BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, INCLUDING, BUT NOT LIMITED TO:

1. THE COST OF REMOVAL AND REPLACEMENT OF ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED, INCLUDING THE COST OF TESTING AND SPECIAL INSPECTION FOR THE REPLACEMENT WORK.
2. THE COST OF ALL RELATED WORK MADE NECESSARY BY THE REMOVAL AND REPLACEMENT OF THE UNINSPECTED WORK PER ITEM 1 ABOVE.
3. THE COST FOR DESIGN PROFESSIONAL'S SERVICES RELATED TO ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED AND SERVICES RELATED TO THE REPLACEMENT WORK.

PROVIDE SPECIAL INSPECTION FOR THE FOLLOWING CONSTRUCTION:

SOILS AND EARTHWORK
CONCRETE CONSTRUCTION
STEEL CONSTRUCTION
COLD-FORMED STEEL DECK

SEE TABLES ON THE DRAWINGS FOR SPECIAL INSPECTION PROGRAM REQUIREMENTS.

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PORTER COUNTY - TRUSTEES OFFICE

PORTAGE, IN

DAVID A. CLARK REGISTERED No. PE11200028 STATE OF INDIANA PROFESSIONAL ENGINEER

David A Clark

CERTIFIED BY

ISSUANCE INDEX
DATE:
08.20.18
PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

Project Number 2017.01279

SPECIAL INSPECTION REQUIREMENTS

S003

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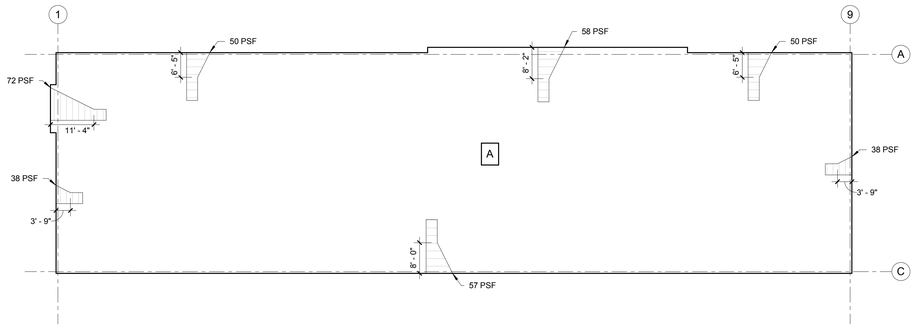


1 S004 ROOF LOAD MAP

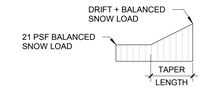
1/16" = 1'-0"

UNIFORM LOAD SCHEDULE

MARK	DESCRIPTION	DESIGN LOADS (PSF)			
		DEAD	SUPERIMPOSED DEAD	LIVE	SNOW
A	TYPICAL ROOF	SEE NOTE 1	10	20	21 PSF MIN -OR- DRIFT PER LOAD MAPS / DIAGRAMS

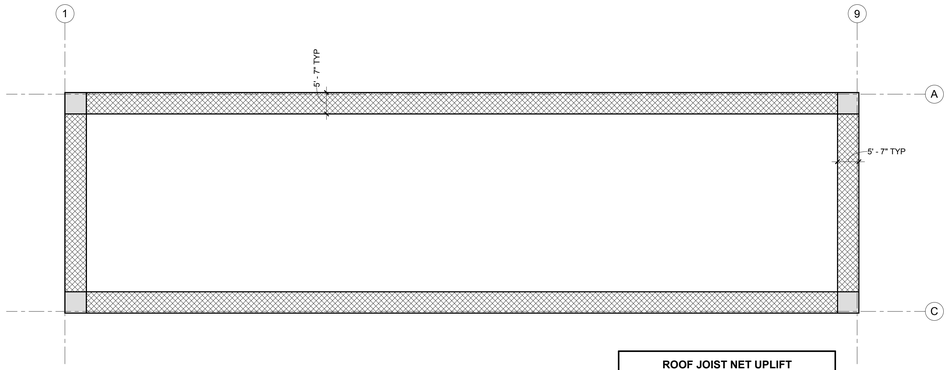
NOTES:

1. DEAD LOAD (WHEN DEFINED) REPRESENTS SELF-WEIGHT ALLOWANCE OF THE PRIMARY STRUCTURAL SYSTEM. WHEN NOT DEFINED, SEE DRAWINGS FOR MEMBER MATERIALS AND SIZES.
2. SUPERIMPOSED DEAD LOAD IS PERMANENT UNIFORM DEAD LOAD ALLOWANCE SUPPORTED BY THE STRUCTURE.
3. FOR SNOW LOADS DESIGN FOR WORST CASE OF UNIFORM SNOW OR SNOW DRIFT CONDITION.
4. "NR" = NON-REDUCIBLE LIVE LOAD.



2 S004 TYPICAL UNIFORM LOAD SCHEDULE

N.T.S.



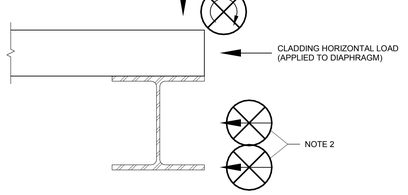
ROOF JOIST NET UPLIFT			
EFFECTIVE WIND AREA (SF)	ZONE 1 (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)
10	6.8	18.6	33.2
20	6.4	15.6	25.9
50	6.1	11.2	15.6
≥100	5.4	8.3	8.3

ZONE 1
ZONE 2
ZONE 3

NOTES:
1. REFERENCE ASCE 7-10, FIGURE 30.4-2B
2. FORCES SHOWN ARE ASD WIND LOADS COMBINATION 0.6D+0.6W

3 S004 ROOF UPLIFT MAP

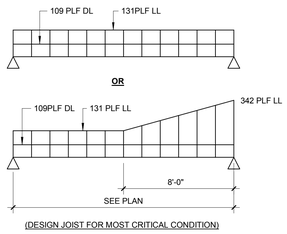
1/16" = 1'-0"



NOTES:
1. DO NOT APPLY MOMENTS TO STRUCTURE.
2. DO NOT APPLY HORIZONTAL LOADS BELOW THE STRUCTURAL DIAPHRAGM UNLESS BOTTOM CHORD BRACING (DESIGNED BY CONTRACTOR) HAS BEEN PROVIDED.
3. VERTICAL LOADS APPLIED AS POINT LOADS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO SHOP DRAWING SUBMISSION.

4 S004 TYPICAL CLADDING LOAD APPLICATION

N.T.S.

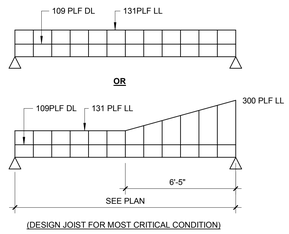


(DESIGN JOIST FOR MOST CRITICAL CONDITION)

20K SP1

5 S004 SPECIAL JOIST LOAD DIAGRAM

N.T.S.

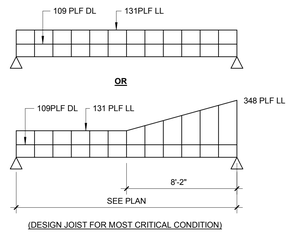


(DESIGN JOIST FOR MOST CRITICAL CONDITION)

20K SP2

6 S004 SPECIAL JOIST LOAD DIAGRAM

N.T.S.



(DESIGN JOIST FOR MOST CRITICAL CONDITION)

20K SP3

7 S004 SPECIAL JOIST LOAD DIAGRAM

N.T.S.

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S004

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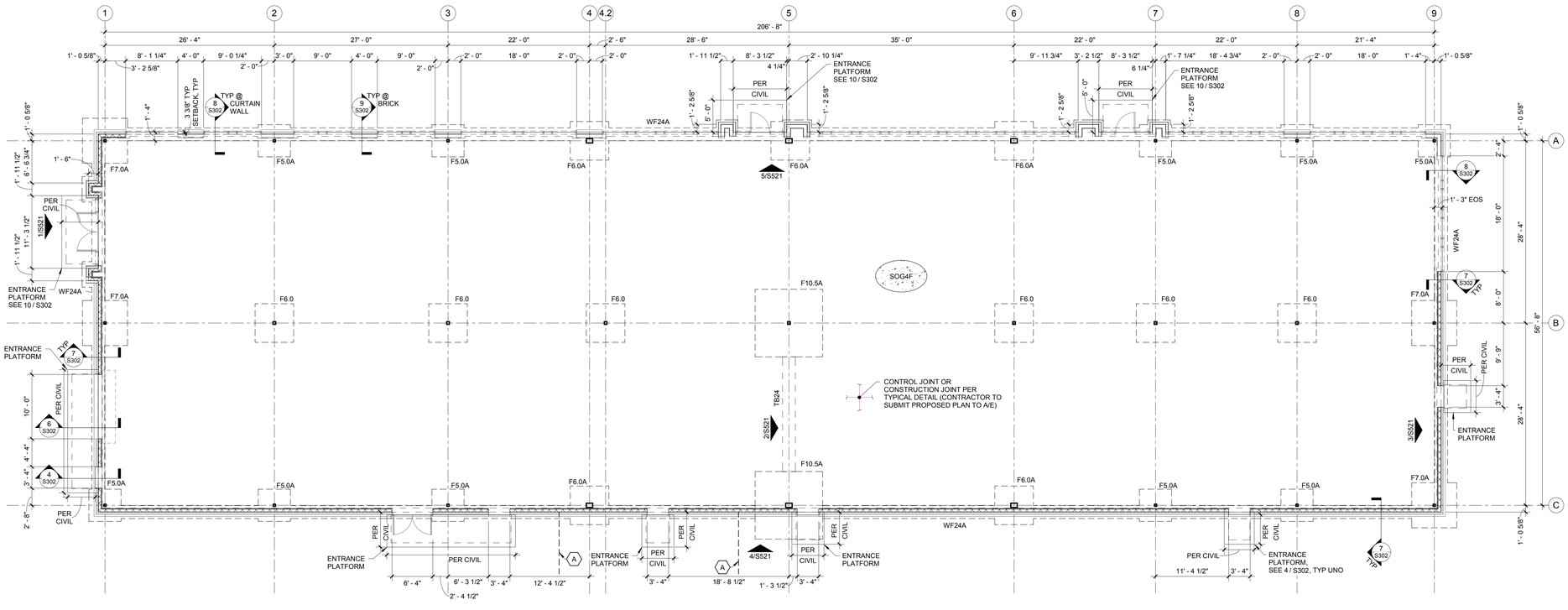

N

1 S101

FOUNDATION PLAN

1/8" = 1'-0"

GENERAL PLAN NOTES:

1. REFERENCE TOP OF SLAB (T/SLAB) = 100'-0" UNO (U.S.G.S. 642.00)
2. TOP OF INTERIOR FOOTING ELEVATION = 99'-4" UNO.
3. TOP OF PERIMETER FOOTING ELEVATION = 98'-8" UNO.
4. REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
5. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
6. PROVIDE ADDITIONAL SLAB ON GRADE REINFORCEMENT AT RE-ENTRANT CORNERS PER THE "TYPICAL ADDITIONAL SLAB ON GRADE REINFORCEMENT AT RE-ENTRANT CORNERS" DETAIL.
7. PERIMETER DIMENSIONS ARE TO OUTSIDE FACE OF TURNDOWN OR CMU, UNO.
8. ALL WALL FOOTINGS ARE TYPE WF24A UNO.

KEYED PLAN NOTES:

A COORDINATE UTILITY ENTRANCE TO BUILDING WITH CIVIL AND MEP DRAWINGS. SEE "TYPICAL WALL FOOTING AT PIPE / CONDUIT PENETRATION DETAIL" FOR ADDITIONAL INFORMATION.

SLAB ON GRADE INFORMATION PROVIDED FOR REFERENCE ONLY. SLAB ON GRADE IS TO BE BID IN FUTURE PACKAGE.

8/17/2018 11:35:47 AM

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PORTER COUNTY - TRUSTEES OFFICE

PORTAGE, IN

DAVID A. CLARK REGISTERED No. PE11200028 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED BY

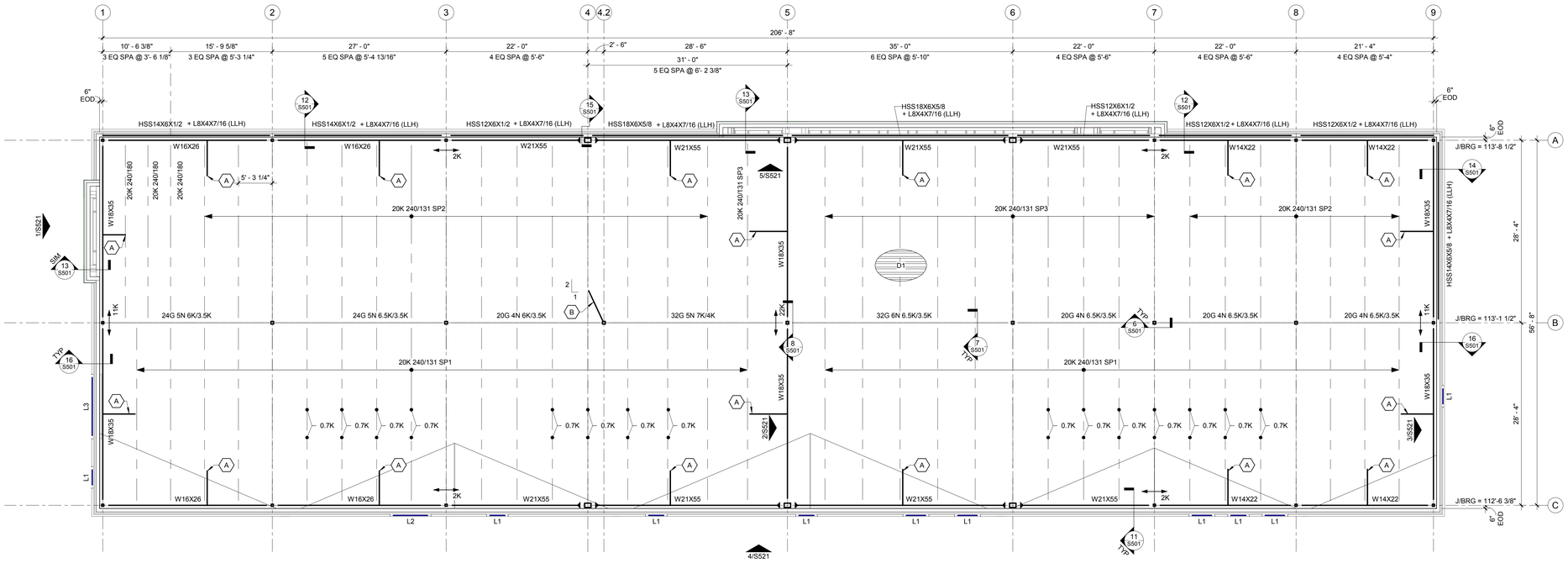
ISSUANCE INDEX	
DATE:	
08.20.18	
PROJECT PHASE:	
100% CONSTRUCTION DOCUMENTS - BP1	

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

Project Number 2017.01279

FOUNDATION PLAN

S101



CONTRACTOR TO INCLUDE 2 TONS OF MISCELLANEOUS STEEL IN BID FOR RTU SUPPORT AND OTHER MISCELLANEOUS FRAMING NEEDED.

ROOF FRAMING PLAN

N 1/S131 — 1/8" = 1'-0"

GENERAL PLAN NOTES:

1. JOIST BEARING (J/BRG) ELEVATION PER PLAN.
2. REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
3. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
4. INSTALL BRIDGING IN ACCORDANCE WITH SJI SPECIFICATIONS. BRIDGING TO RUN FULL LENGTH / WIDTH OF BUILDING.
5. ALL JOIST GIRDER SEATS TO BE 7 1/2" DEEP, UNO.
6. ALL JOIST SEATS TO BE 2 1/2" DEEP, UNO.
7. PROVIDE FRAMED/REINFORCED SUPPORTS FOR ALL ROOF TOP EQUIPMENT, HATCHES, OPENINGS AND ROOF DRAINS PER THE TYPICAL DETAILS. COORDINATE EXACT SIZES AND LOCATIONS OF ALL FRAMING WITH APPLICABLE CONTRACTOR PRIOR TO FABRICATION.

KEYED PLAN NOTES:

(A) BRACE BOTTOM FLANGE OF OF BEAM PER "BOTTOM FLANGE BRACING AT ROOF" DETAILS

(B) BRACE TOP OF COLUMN WITH L3x3x1/4 ANGLE. WELD TO COLUMN FACE AND JOIST TOP CHORD WITH 1/4" WELD 3" MIN.

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ROOF FRAMING PLAN

S131

CONCRETE MIX SCHEDULE

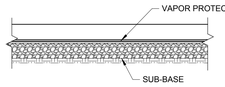
CONCRETE USAGE	28-DAY COMPRESSIVE STRENGTH (PSI)	MAX CEMENT REPLACEMENT (NOTE 3)	MAXIMUM W/CM RATIO	AIR CONTENT (PERCENT)	MAXIMUM AGGREGATE SIZE (INCHES)	NOTES
FOOTINGS, WALL FOOTINGS	3,000	20%	0.55	0-3	1.5	
EXTERIOR RETG WALLS, STOOPS AND PADS	4,000	20%	0.45	6 +/- 1	1	
SLABS ON GRADE (6 INCHES OR LESS)	4,000	20%	0.48	0-3	1	
POLISHED SLABS ON GRADE	4,000	0%	0.45	0-3	1	4.0 LBS/CYD MACRO-FIBER (NOTE 6)

NOTES:
1. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. ALL CONCRETE IS NORMAL WEIGHT AND CEMENT IS ASTM C150 TYPE 1, UNO. DO NOT USE LIGHTWEIGHT CONCRETE UNLESS SPECIFICALLY INDICATED.
3. ACCEPTABLE CEMENT REPLACEMENT MATERIAL, WHERE PERMITTED, SHALL BE FLY ASH, ASTM C618 TYPE C OR F, UNO.
4. TARGET SLUMP SHALL BE DETERMINED BY THE CONTRACTOR AS NEEDED FOR PROPER PLACEMENT.
5. WHERE NOTED, BLENDED AGGREGATE WITH ZONE 2 COARSENESS PER ACI 302 IS MANDATORY.
6. COORDINATE LOCATIONS OF ALL POLISHED CONCRETE SLABS (WHEN USED) AND REVIEW THE CONCRETE MIX REQUIREMENTS WITH THE POLISHED CONCRETE CONTRACTOR PRIOR TO SUBMITTAL OF CONCRETE MIXES. IF THE POLISHED CONCRETE CONTRACTOR REQUESTS TO DEVIATE FROM THE REQUIREMENTS OF THIS SCHEDULE, CONTACT THE STRUCTURAL ENGINEER TO REVIEW THE REQUESTS PRIOR TO SUBMISSION OF THE POLISHED CONCRETE MIX(ES).

1 S301 **CONCRETE MIX SCHEDULE** N.T.S.

SLAB ON GRADE SCHEDULE

MARK	SIZE	REINFORCEMENT	VAPOR PROTECTION	REMARKS
SOG4F	4"	1.5 LBS/CYD MICRO-FIBER	10 MIL VAPOR RETARDER	



VAPOR PROTECTION AND SUB-BASE DETAIL

NOTES:
1. PROVIDE 6" COMPACTED DRAINAGE FILL SUB-BASE, UNO.

2 S301 **SLAB-ON-GRADE SCHEDULE** N.T.S.

COLUMN FOOTING SCHEDULE

MARK	FTG SIZE	REINFORCEMENT	REMARKS
F5.0A	5'-0" x 5'-0" x 2'-2"	(5) #5 EW BOT	
F6.0	6'-0" x 6'-0" x 1'-0"	(6) #5 EW BOT	
F6.0A	6'-0" x 6'-0" x 2'-2"	(9) #6 EW BOT	
F7.0A	7'-0" x 7'-0" x 2'-2"	(10) #6 EW BOT	
F10.5A	10'-6" x 10'-6" x 3'-0"	(11) #5 TOP & (16) #7 EW BOT	

WALL FOOTING SCHEDULE

MARK	SIZE (W x D)	FTG REINF	REMARKS
WF24A	2'-0" x 2'-2"	(2) #5 CONT BOTTOM	

3 S301 **COLUMN AND WALL FOOTING SCHEDULES** N.T.S.

TIE BEAM SCHEDULE

MARK	TIE BEAM SIZE W x D	TIE BEAM REINF	TYPE	REMARKS
TB24	24" x 26"	(6) #6 HORIZ W/ #3 TIES @ 12" OC	A	NOTE 1 AND 2

TYPES:

TYPE A

NOTES:
1. EXTEND HORIZONTAL BARS Ld PAST STEEL COLUMN
2. TOP OF TIE BEAM TO MATCH TOP OF FOOTING

4 S301 **TIE BEAM SCHEDULE** N.T.S.

NON-COATED REINFORCING BAR DEVELOPMENT AND SPLICE LENGTHS

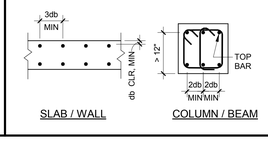
f'c = 3000 PSI

BAR SIZE	Ld	Ldt	Lt	Ltt
#3	17	23	23	29
#4	22	29	29	38
#5	28	37	37	48
#6	33	43	43	56
#7	48	63	63	82
#8	55	72	72	93
#9	62	81	81	105
#10	69	90	90	117
#11	76	99	99	129

f'c = 4000 PSI

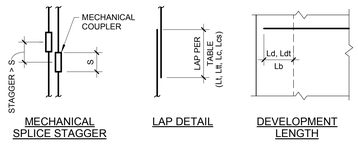
BAR SIZE	Ld	Ldt	Lt	Ltt
#3	15	20	20	26
#4	19	25	25	33
#5	24	32	32	41
#6	29	38	38	50
#7	42	55	55	71
#8	48	63	63	82
#9	54	71	71	92
#10	60	78	78	102
#11	66	86	86	112

TABLE VALUES SHALL BE MULTIPLIED BY 1.5 IF THE FOLLOWING CRITERIA ARE NOT MET:



SLAB / WALL COLUMN / BEAM

NOTES:
1. db = NOMINAL BAR DIAMETER
   Ld = TENSION DEVELOPMENT LENGTH
   Ldt = DEVELOPMENT LENGTH OF TOP BARS IN TENSION
   Lt = TENSION LAP SPLICE LENGTH
   Ltt = TENSION LAP SPLICE LENGTH OF TOP BARS
   Lb = COMPRESSION DEVELOPMENT LENGTH
   Lc = TIED COLUMN LAP SPLICE IN COMPRESSION
   Lcs = SPIRAL COLUMN LAP SPLICE IN COMPRESSION
2. REBAR DEVELOPMENT/SPLICE LENGTHS ARE BASED ON ACI 318. REINFORCEMENT YIELD STRENGTH, Fy = 60 KSI.
3. "TOP BARS" = HORIZONTAL BEAM, MAT, OR SLAB REINFORCING WITH MORE THAN 12" CAST BELOW.
4. ALL SPLICES SHALL BE TENSION SPLICES, UNO.
5. LARGER DIAMETER SPLICE LENGTHS GOVERN AT BAR SIZE TRANSITIONS.
6. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABLE VALUES BY 1.33, UNO.



MECHANICAL SPLICE STAGGER LAP DETAIL DEVELOPMENT LENGTH

TYPICAL REINFORCING BAR DEVELOPMENT / SPLICE DETAILS

5 S301 **CONCRETE REINFORCEMENT DEVELOPMENT AND LAP SPLICE TABLE** N.T.S.

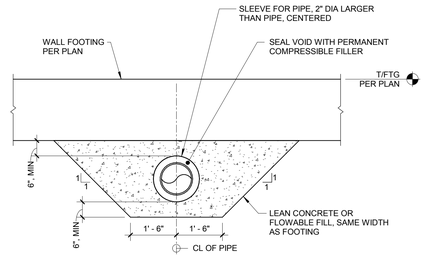
SLAB ON GRADE FLATNESS / LEVELNESS SCHEDULE

CLASSIFICATION	OVERALL FF	OVERALL FL	MIN LOCAL FF	MIN LOCAL FL
CONVENTIONAL	20	15	15	10
MODERATELY FLAT	25	20	20	15
FLAT	35	25	25	15
VERY FLAT	45	30	35	25
SUPER FLAT	60	40	40	25

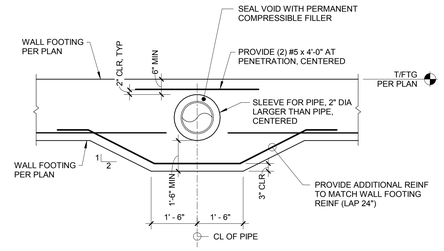
FLOOR TYPE / LOCATION	REQUIRED SLAB
EXPOSED WAREHOUSE, MANUFACTURING AREAS, UNO	FLAT
EXPOSED UTILITY/MECHANICAL AREAS, UNO	MODERATELY FLAT
FLOORS WITH CARPET, VCT FINISH, UNO	MODERATELY FLAT
FLOORS WITH POLISHED CONCRETE FINISH	FLAT
TILE UP TO 16" LONG DIMENSION; >=1/4" GROUT JOINTS	FLAT
TILE UP TO 16" LONG DIMENSION, 3/16" GROUT JOINTS	VERY FLAT
TILE UP TO 16" LONG DIMENSION, 1/8" GROUT JOINTS	SUPER FLAT
TILE >16" TO <36" LONG DIMENSION, >=1/4" GROUT JOINTS	VERY FLAT
TILE >16" TO <36" LONG DIMENSION, <1/4" GROUT JOINTS	SUPER FLAT
TILE >36" LONG DIMENSION	SUPER FLAT

NOTES:
1. GENERAL CONTRACTOR SHALL REVIEW ALL FLOOR FINISH REQUIREMENTS FOR THE PROJECT AND PROVIDE CONCRETE SLAB SURFACE FINISHES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFIED FLOOR FINISH MATERIALS. WHERE TOLERANCES FOR THE FLOOR FINISH MATERIALS DIFFER FROM THIS SCHEDULE, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
2. GENERAL CONTRACTOR SHALL COORDINATE WITH THE FINISH FLOORING SUPPLIER TO PROVIDE ALL NECESSARY REPAIR, GRINDING, AND / OR LEVELING OF THE CONCRETE SLAB TO ACCOMMODATE ALL FLOOR FINISHES PRIOR TO INSTALLATION OF FINISH MATERIALS WITH NO ADDITIONAL COST TO THE PROJECT.

6 S301 **SLAB ON GRADE FLATNESS/LEVELNESS SCHEDULE** N.T.S.



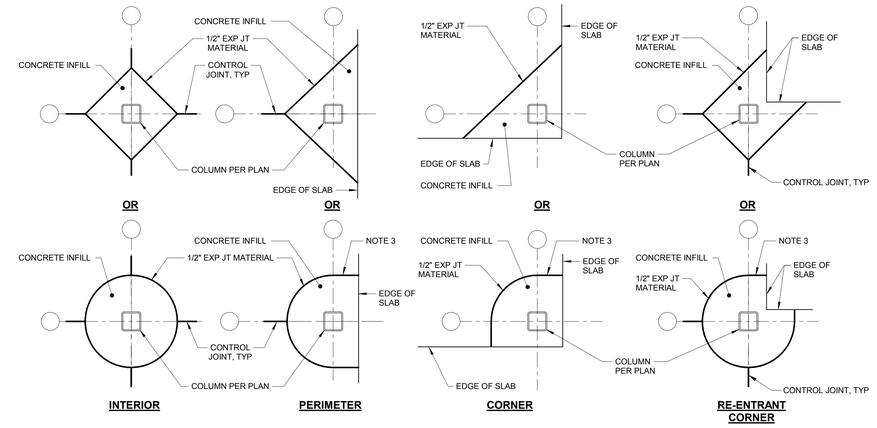
PENETRATION BELOW FOOTING



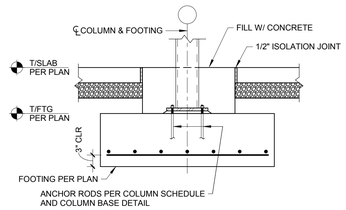
PENETRATION THROUGH FOOTING

NOTES:
1. SEE PLUMBING DRAWINGS FOR LOCATION AND SIZE OF PENETRATIONS.
2. DETAIL SHOWN IS FOR MAXIMUM OF 12" DIA PIPE. FOR LARGER SIZE, CONTACT STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

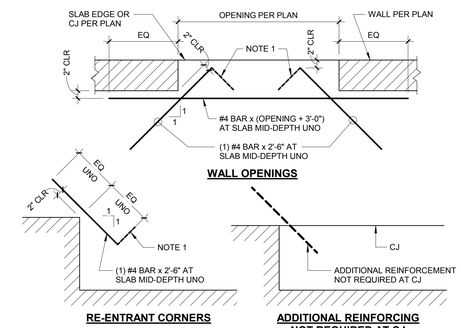
7 S301 **TYPICAL WALL FOOTING AT PIPE / CONDUIT PENETRATION DETAIL** N.T.S.



8 S301 **TYPICAL STEEL COLUMN ISOLATION JOINT DETAILS** N.T.S.

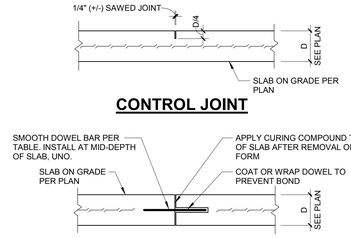


NOTES:
1. FOR COLUMNS PLACED AFTER SLAB-ON-GRADE, SIZE ISOLATION JOINT AS REQUIRED TO ALLOW FOR BASE PLATE INSTALLATION AND TIGHTENING OF ANCHOR RODS AND MAINTAIN NOT LESS THAN 4" MINIMUM CLEAR BETWEEN COLUMN AND ISOLATION JOINT.
2. FOR COLUMNS PLACED BEFORE SLAB-ON-GRADE, SIZE ISOLATION JOINT AS REQUIRED TO KEEP ALL ANCHOR RODS WITHIN THE ISOLATION JOINT AND MAINTAIN NOT LESS THAN 4" MINIMUM CLEAR BETWEEN COLUMN AND ISOLATION JOINT.
3. FOR CIRCULAR ISOLATION JOINTS AT PERIMETER AND CORNERS, ANGLE OF INTERSECTION BETWEEN JOINT AND WALL TO BE A MINIMUM OF 90 DEGREES TO PREVENT RETURN OF SLAB BEHIND CIRCULAR ISOLATION JOINT.



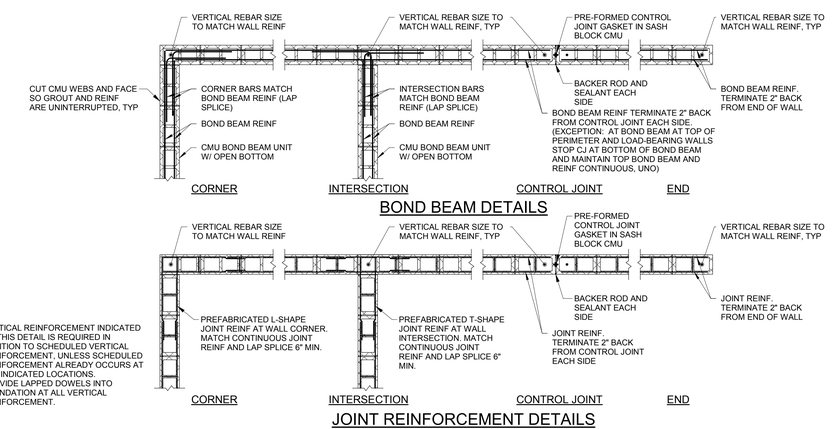
NOTES:
1. WHERE THERE IS INSUFFICIENT ROOM TO INSTALL A STRAIGHT BARAS SHOWN CENTERED WITH EQUAL LENGTH EACH SIDE OF THE RE-ENTRANT CORNER, PROVIDE BAR WITH A 90- OR 180-DEGREE HOOK INSTALLED ON THE SIDE WITH SHORTER EMBEDMENT.
2. FOR SLABS WITH 2 LAYERS OF REINFORCEMENT, INSTALL ADDITIONAL REINFORCEMENT AT ELEVATION OF TOP LAYER ONLY.

9 S301 **TYPICAL ADDITIONAL SLAB ON GRADE REINF AT RE-ENTRANT CORNERS DETAIL** N.T.S.



DOWEL SIZE AND SPACING			
SLAB DEPTH (IN)	DOWEL BAR DIAMETER (IN)	TOTAL BAR LENGTH (IN)	BAR SPACING (CTR - CTR) (IN)
4	3/4	16	24

10 S301 **TYPICAL SLAB ON GRADE JOINTS DETAIL** N.T.S.



NOTES:
1. VERTICAL REINFORCEMENT INDICATED ON THIS DETAIL IS REQUIRED IN ADDITION TO SCHEDULED VERTICAL REINFORCEMENT, UNLESS SCHEDULED REINFORCEMENT ALREADY OCCURS AT THE INDICATED LOCATIONS.
2. PROVIDE LAPPED DOWELS INTO FOUNDATION AT ALL VERTICAL REINFORCEMENT.

11 S301 **TYPICAL CMU WALL JOINT DETAILS** N.T.S.

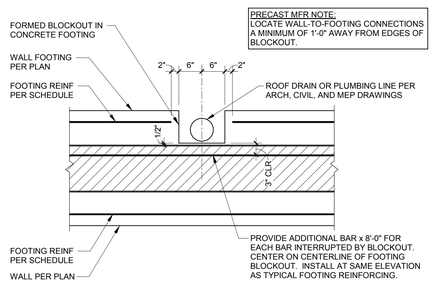
MASONRY REINFORCING STEEL LAP SPLICE CHART

BAR SPLICE LENGTHS

BAR	UNCOATED BARS		EPOXY-COATED BARS	
	TYPE 1.0LD	TYPE 1.5LD	TYPE 1.0LD	TYPE 1.5LD
#3	20"	36"	29"	54"
#4	26"	48"	39"	72"
#5	32"	60"	48"	90"
#6	39"	72"	58"	108"
#7	45"	84"	68"	126"
#8	52"	96"	77"	144"
#9	58"	109"	87"	164"

NOTES:
1. ALL SPLICES ARE TYPE 1.0LD, UNO.
2. BARS LARGER THAN #9 ARE REQUIRED TO BE SPLICED BY MECHANICAL CONNECTORS, UNO.
3. SPLICES BASED ON Fs = 32,000 PSI AND f'm >= 1500 PSI.
4. ALL BARS ARE UNCOATED, UNO.
5. USE EPOXY-COATED BARS ONLY IN PARKING STRUCTURE MASONRY WHERE SPECIFICALLY INDICATED, UNO.

12 S301 **MASONRY LAP SPLICE TABLE** N.T.S.



CONCRETE CONTRACTOR NOTE: COORDINATE BLOCKOUT DEPTH AND SLEEVE REQUIREMENT THROUGH / BELOW FOOTING WITH PLUMBING AND SITE UTILITY CONTRACTORS PRIOR TO CONSTRUCTION. DO NOT INSTALL BLOCKOUTS CLOSER THAN 12'-0" OC WITHOUT PRIOR REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER.

13 S301 **TYPICAL WALL FOOTING BLOCKOUT AT PLUMBING LINE** N.T.S.

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FOUNDATION SCHEDULES, SECTIONS, AND DETAILS

S301

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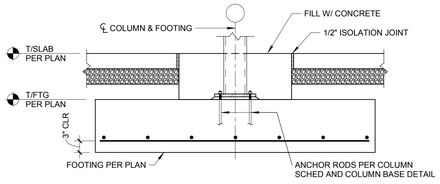

1 S302 TYPICAL HSS COLUMN ON FOOTING DETAIL

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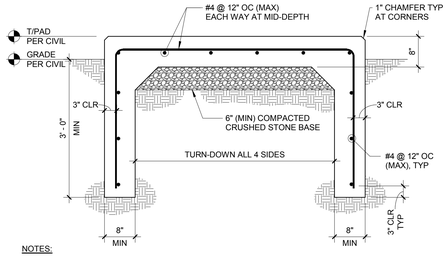
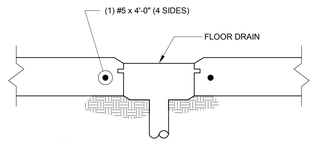


NOTES:

1. CONCRETE 28-DAY COMPRESSIVE STRENGTH = 4000 PSI, MINIMUM.
   AIR ENTRAINMENT = 6% +/- 1%
   MAX W/C RATIO = 0.45
   BROOM FINISH SURFACE
2. PROVIDE SAW-CUT CONTROL JOINTS SPACED NOT MORE THAN 24 TIMES THE SLAB THICKNESS CENTER-TO-CENTER, UNO. SEAL JOINTS WITH WEATHER-RESISTANT SEALANT.
3. SEE PLANS FOR OVERALL PAD DIMENSIONS.
4. COORDINATE EXACT LOCATION WITH CIVIL AND MECHANICAL DRAWINGS, AND EQUIPMENT SUPPLIER.

2 S302 TYPICAL EXTERIOR EQUIPMENT PAD DETAIL

N.T.S.

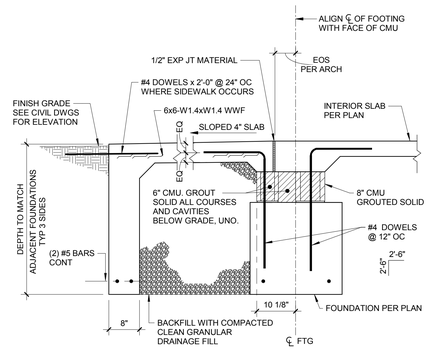


NOTES:

1. SET FLOOR DRAIN PRIOR TO CONCRETE PLACEMENT.
2. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.

3 S302 TYPICAL FLOOR DRAIN (SOG) DETAIL

N.T.S.



4 S302 TYPICAL ENTRANCE PLATFORM SECTION

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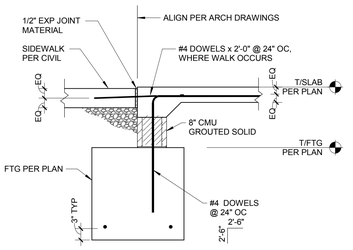

5 S302 SECTION

N.T.S.

6 S302 SECTION

N.T.S.

7 S302 SECTION

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8 S302 SECTION

N.T.S.

9 S302 SECTION

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10 S302 SECTION

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PORTER COUNTY - TRUSTEES OFFICE

PORTAGE, IN

DAVID A. CLARK REGISTERED No. PE11200028 STATE OF INDIANA PROFESSIONAL ENGINEER

CERTIFIED BY

ISSUANCE INDEX
DATE:
08.20.18
PROJECT PHASE:
100% CONSTRUCTION DOCUMENTS - BP1

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

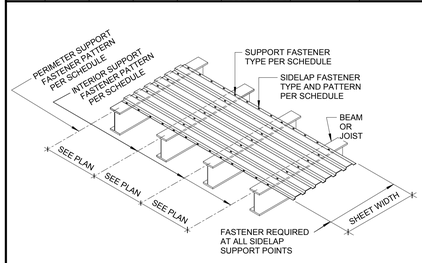
Project Number 2017.01279

FOUNDATION SECTIONS AND DETAILS

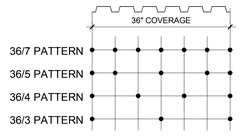
S302

STEEL DECK SCHEDULE

MARK	HEIGHT	GAUGE	TYPE	FINISH	SUPPORT FASTENER TYPE	PERIMETER SUPPORT FASTENER PATTERN	INTERIOR SUPPORT FASTENER PATTERN	SIDELAP FASTENER TYPE	SIDELAP FASTENER PATTERN	NOTES
D1	1-1/2"	22 GA	TYPE B	PAINTED	5/8" DIA PUDDLE WELDS	SEE BELOW	36/4	#10 TEK SCREWS	2 PER SPAN	



1-1/2" DECK FASTENER PATTERN DIAGRAM



SUPPORT FASTENER PATTERN DEFINITION

DECK PERPENDICULAR TO SUPPORT

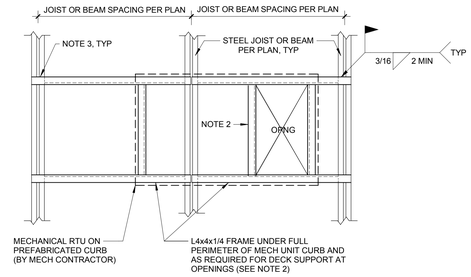
DECK PARALLEL TO SUPPORT

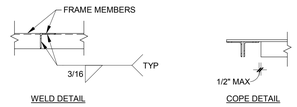
PERIMETER SUPPORT FASTENERS

NOTES:

1. FASTEN THROUGH MULTIPLE SHEETS AT ALL END AND SIDE LAPS.
2. END LAPS SHALL OCCUR ONLY AT SUPPORT POINTS.
3. DECK SHALL BE INSTALLED IN A MINIMUM THREE SPAN CONDITION WHEREVER POSSIBLE. WHERE THREE SPAN CONDITION IS NOT POSSIBLE, NOTIFY STRUCTURAL ENGINEER PRIOR TO FABRICATION OF DECK SO THAT EVALUATION OF THE LESSER SPAN CONDITION(S) CAN BE PERFORMED.

1 S501 **STEEL DECK SCHEDULE** N.T.S.

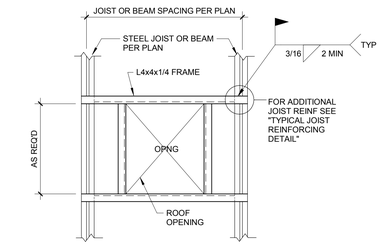




NOTES:

1. COORDINATE UNIT SIZE, LOCATION AND REQUIRED OPENINGS WITH MECHANICAL CONTRACTOR PRIOR TO FABRICATION. FASTEN DECK TO OPENING FRAME @ 6" OC MAX AROUND UNIT PERIMETER AND AROUND PERIMETER OF ALL OPENINGS.
2. PROVIDE SUPPLEMENTAL DECK SUPPORT ANGLE AT OPENINGS IF DECK CANTILEVER SPAN EXCEEDS 1'-0".
3. FOR FRAME ANGLE BEARING LOCATIONS ON STEEL JOISTS THAT DO NOT OCCUR AT PANEL POINTS, SEE "TYPICAL JOIST REINFORCEMENT DETAIL" FOR REINFORCING REQUIREMENTS.

2 S501 **TYPICAL RTU SUPPORT DETAIL** N.T.S.



(FOR OPENINGS 12" AND LARGER)

NOTE: COORDINATE OPENING SIZE AND LOCATION WITH CONTRACTOR REQUIRING THE OPENING. FASTEN DECK TO OPENING FRAME @ 6" OC MAX AROUND FRAME PERIMETER.

3 S501 **TYPICAL ROOF OPENING DETAIL** N.T.S.

STEEL LINTEL SCHEDULE

MARK	SECTION	LENGTH	TYPE	NOTES
L1	L3 1/2 x 3 1/2 x 5/16	PER ARCH	A	
L2	L5 x 3 1/2 x 5/16	PER ARCH	A	
L3	L6 x 3 1/2 x 1/2 (LLV)	PER ARCH	A	

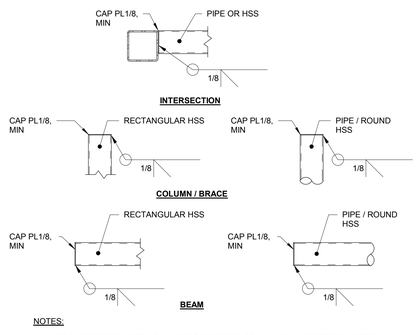
TYPES:

A

STEEL LINTEL SCHEDULE NOTES:

1. ALL LINTELS BEAR 0'-8" ONTO SUPPORTING WALLS, UNO.
2. ALL STEEL LINTELS AND SHELF ANGLES IN EXTERIOR WALLS SHALL BE GALVANIZED.
3. BOTTOM PLATES SHALL EXTEND THE FULL LENGTH OF THE LINTEL, INCLUDING BEARING LENGTH, UNO.
4. AT CMU INFILL (SOAPS) AT STEEL LINTELS, PROVIDE METAL ANCHORAGE AT EVERY COURSE @ 16" OC TO TIE CMU TO STEEL.

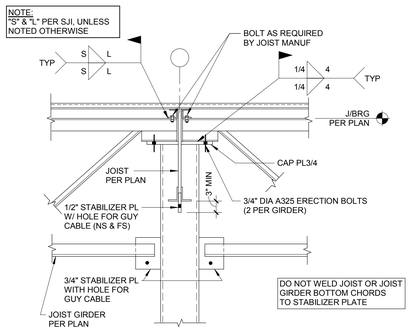
4 S501 **STEEL LINTEL SCHEDULE** N.T.S.



NOTES:

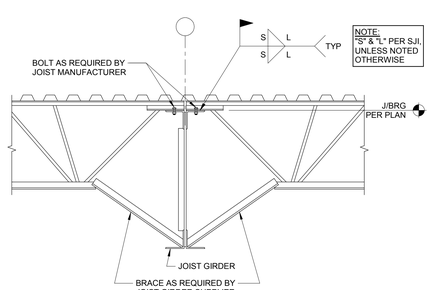
1. PROVIDE CAP PLATES AT ALL EXPOSED ENDS OF ALL HSS AND PIPE MEMBERS.
2. PROVIDE CAP PLATES FOR ALL COLUMNS WHETHER EXPOSED TO VIEW OR NOT.

5 S501 **TYPICAL HSS / PIPE CLOSURE PLATE DETAIL** N.T.S.



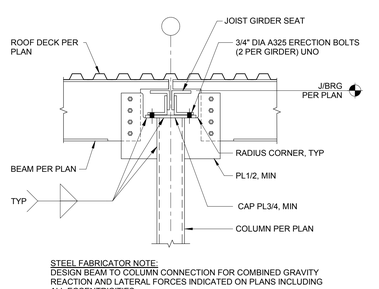
TYPICAL JOIST GIRDER BEARING AT HSS COLUMN

6 S501 N.T.S.



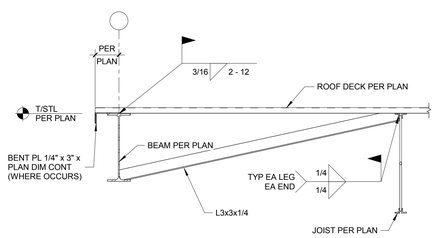
TYPICAL JOIST BEARING AT JOIST GIRDER

7 S501 N.T.S.



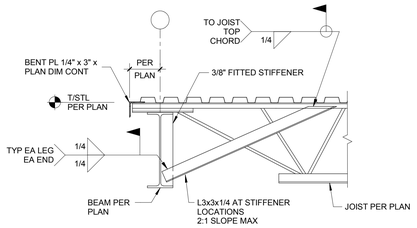
STEEL FABRICATOR NOTE:
DESIGN BEAM TO COLUMN CONNECTION FOR COMBINED GRAVITY REACTION AND LATERAL FORCES INDICATED ON PLANS INCLUDING ALL ECCENTRICITIES.

8 S501 **DETAIL** N.T.S.



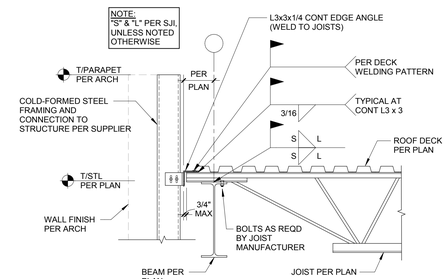
BOTTOM FLANGE BRACING AT ROOF (DECK PARALLEL) DETAIL

9 S501 N.T.S.



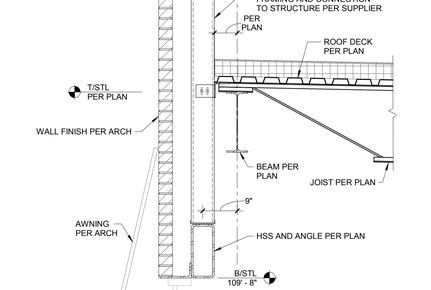
BOTTOM FLANGE BRACING AT ROOF (DECK PERPENDICULAR) DETAIL

10 S501 N.T.S.

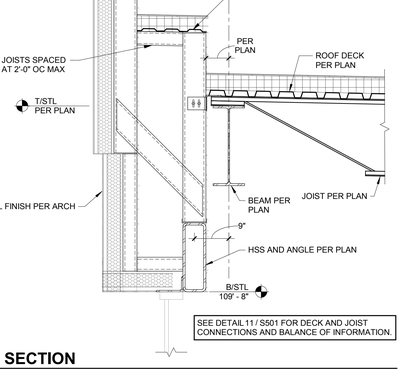


NOTE:
1. IF JOIST IS AT SKEW TO EDGE ANGLE CLIP END OF JOIST SEAT TO MATCH SKEW & MAINTAIN 3/4" SET BACK.
2. EDGE ANGLE SHALL CONTINUE PAST AND BE SUPPORTED AT COLUMNS. SPLICE AT SUPPORT ONLY

11 S501 **SECTION** N.T.S.



12 S501 **SECTION** N.T.S.



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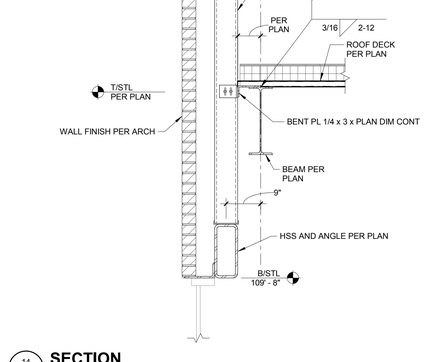

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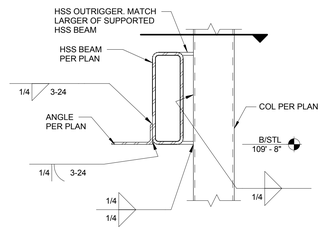
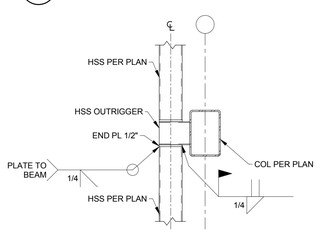
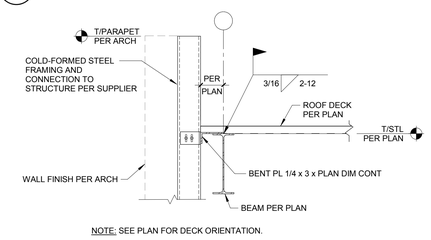


15 S501 **SECTION** N.T.S.



PLAN VIEW



NOTE: SEE PLAN FOR DECK ORIENTATION.

16 S501 **SECTION** N.T.S.

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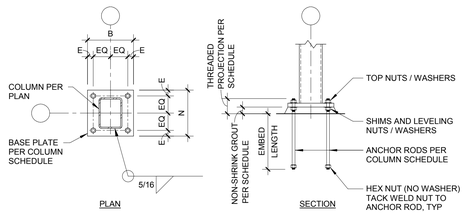
STEEL SCHEDULES, SECTIONS, AND DETAILS

S501

ROOF																													ROOF
114' - 0"	HSS4X4X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS12X8X5/16	HSS12X8X5/16	HSS12X8X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS5X5X5/16	HSS5X5X5/16	HSS5X5X5/16	HSS5X5X5/16	HSS5X5X5/16	HSS5X5X5/16	HSS5X5X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS12X8X5/16	HSS12X8X5/16	HSS12X8X5/16	HSS4X4X5/16	HSS4X4X5/16	HSS4X4X5/16	114' - 0"
FIRST LEVEL																													FIRST LEVEL
100' - 0"	BP1	BP1	BP1	BP3	BP3	BP3	BP1	BP1	BP1	BP1	BP2	BP2	BP2	BP2	BP2	BP2	BP3	BP1	BP1	BP1	BP1	BP3	BP3	BP3	BP1	BP1	BP1		100' - 0"
Column Locations	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	B-1	B-2	B-3	B-4.2	B-5	B-6	B-7	B-8	B-9	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9		

1 S511 COLUMN SCHEDULE

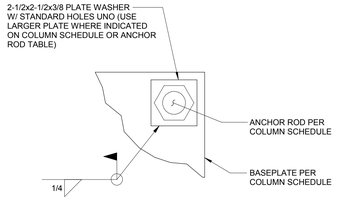
N.T.S.



NOTES:
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT TEMPORARY SUPPORT OF COLUMN BASE PLATES USING LEVELING PLATES, LEVELING NUTS / WASHERS OR STEEL SHIMS (OR COMBINATION THEREOF) PRIOR TO PLACEMENT AND CURING OF NON-SHRINK GROUT.

2 S511 TYPICAL HSS COLUMN BASE DETAIL

N.T.S.



NOTES:
1. THIS DETAIL APPLIES AT ALL COLUMN ANCHOR RODS AT BRACED FRAMES AND MOMENT FRAMES UNO.

3 S511 TYPICAL WELDED PLATE WASHER DETAIL

N.T.S.

COLUMN BASE PLATE SCHEDULE

MARK	PLATE SIZE B" X N" X T"	ANCHOR RODS QTY	ANCHOR RODS DIA	EMBED LENGTH	REMARKS
BP1	10" x 10" x 3/4"	4	3/4"	8"	SEE DETAIL
BP2	11" x 11" x 3/4"	4	3/4"	8"	SEE DETAIL
BP3	18" x 18" x 3/4"	4	3/4"	8"	SEE DETAIL

ANCHOR ROD TABLE

ANCHOR ROD DIA	BASEPLATE HOLE DIA	MINIMUM WASHER SIZE	MINIMUM WASHER THICKNESS	MINIMUM PROJ ABOVE T/CONC	NON-SHRINK GROUT BED THK	MIN EDGE DISTANCE, E
3/4"	1 5/16"	2"	1/4"	8"	2"	1 1/2"
1"	1 13/16"	3"	3/8"	8"	2"	2"
1 1/4"	2 1/16"	3"	1/2"	10"	3"	2"
1 1/2"	2 5/16"	3 1/2"	1/2"	10"	3"	2 1/2"
1 3/4"	2 3/4"	4"	5/8"	10"	3"	3"

NOTES:
1. ANCHOR RODS ARE ASTM F1554 GR. 36 UNO.
2. PROVIDE WELDED PLATE WASHERS PER "TYPICAL WELDED PLATE WASHER DETAIL" AT ALL MOMENT FRAMES AND BRACED FRAMES.

4 S511 COLUMN BASE PLATE SCHEDULE AND ANCHOR ROD TABLE

N.T.S.

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STEEL COLUMN AND BASE PLATE SCHEDULES

S511

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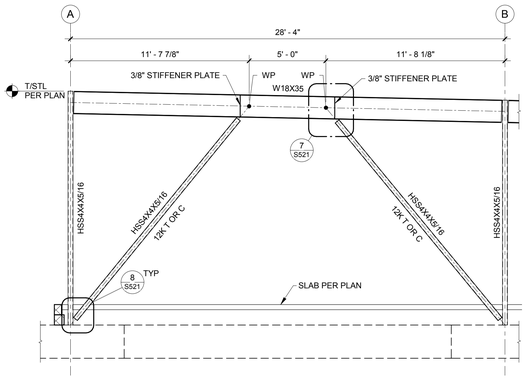
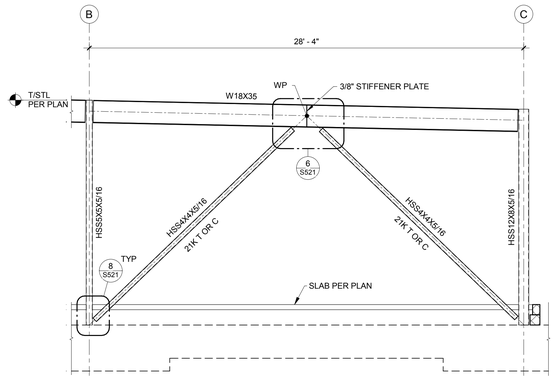
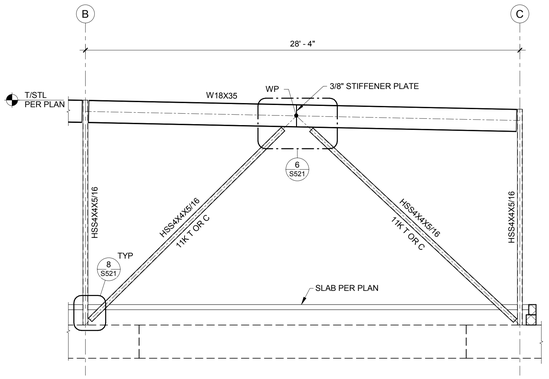


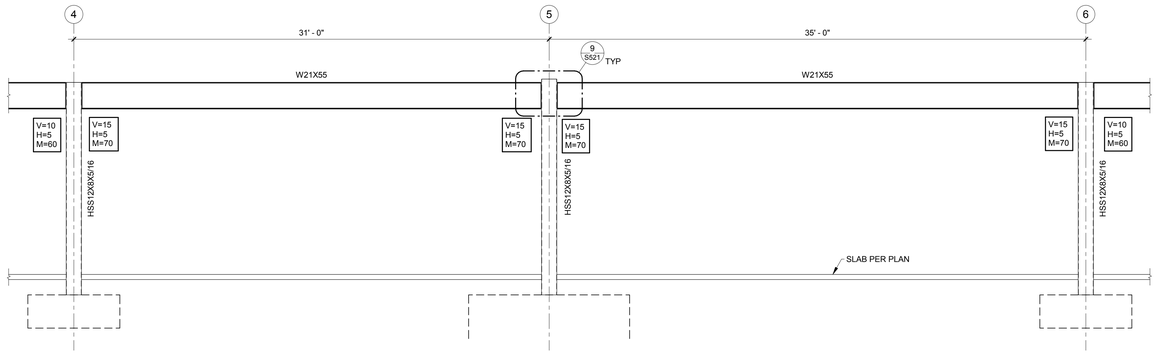
1 S521 **BRACE ELEVATION AT LINE 1**
1/4" = 1'-0"



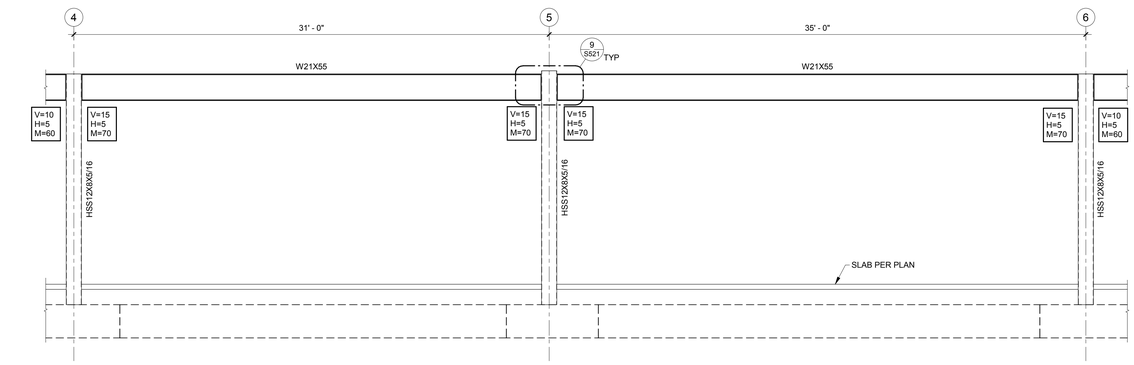
2 S521 **BRACE ELEVATION AT LINE 5**
1/4" = 1'-0"



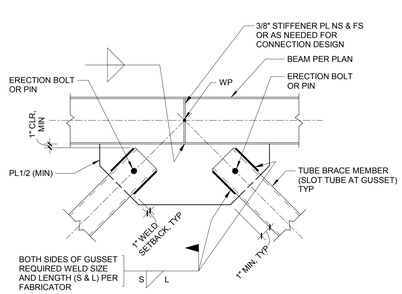
3 S521 **BRACE ELEVATION AT LINE 9**
1/4" = 1'-0"



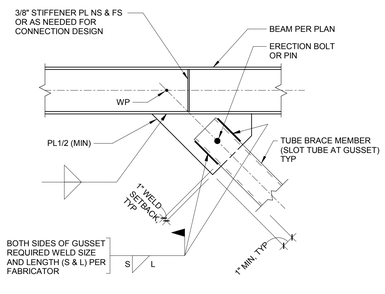
4 S521 **MOMENT FRAME AT LINE C**
1/4" = 1'-0"



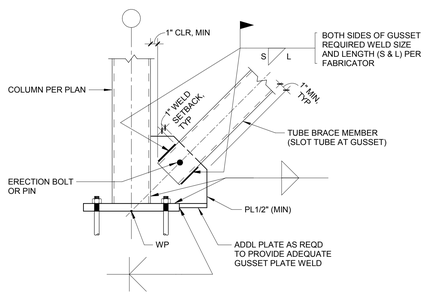
5 S521 **MOMENT FRAME AT LINE A**
1/4" = 1'-0"



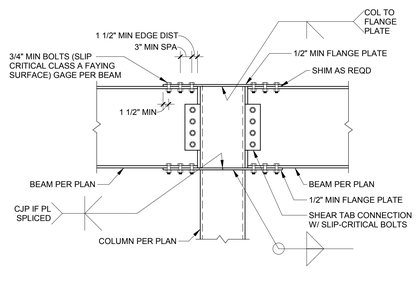
6 S521 **BRACE CONNECTION DETAIL**
N.T.S.



7 S521 **BRACE CONNECTION DETAIL**
N.T.S.



8 S521 **BRACE CONNECTION DETAIL**
N.T.S.



NOTE: SEE PLAN AND FRAME ELEVATIONS FOR CONNECTION FORCES.

9 S521 **TYPICAL WF BEAM TO HSS COLUMN MOMENT CONNECTION DETAIL**
N.T.S.

BRACING GENERAL NOTES

1. FORCES SHOWN ARE THE MORE CRITICAL OF ALL APPLICABLE BUILDING CODE ASD LOAD COMBINATIONS.
2. CONNECTIONS SHALL BE DESIGNED FOR BRACE FORCE INDICATED ON ELEVATION ACTING CONCURRENTLY WITH BEAM REACTION AND ANY INDICATED TRANSFER FORCES. ECCENTRICITY SHALL BE CONSIDERED IN DESIGN OF CONNECTION.
3. EACH MEMBER'S CONNECTION SHALL BE SYMMETRIC ABOUT THE CENTER OF GRAVITY OF THAT MEMBER.
4. ALL BOLTED CONNECTIONS SHALL HAVE FULLY TENSIONED HIGH STRENGTH BOLTS WITH CLASS A FAYING SURFACES.
5. SLOT IN BRACE AT GUSSET NO LARGER THAN GUSSET THICKNESS + 1/16"
6. ABBREVIATIONS:
   T = TENSION
   C = COMPRESSION

GENERAL:
ALL BRACING CONNECTIONS SHALL BE DESIGNED BY THE STEEL FABRICATOR, UNO. BRACE DETAILS INDICATED ON THE STRUCTURAL DRAWINGS ARE PROVIDED TO SHOW CONNECTION CONCEPT ONLY AND ARE NOT TO BE CONSIDERED A FINAL DESIGN. FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER SHALL DESIGN AND DETAIL ALL FINAL CONNECTIONS AS REQUIRED TO SAFELY TRANSFER THE DESIGN FORCES AND ALLOW FOR FIELD FIT-UP AND ERECTION TOLERANCES.

LOAD KEY

V = VERTICAL REACTION (K)
H = HORIZONTAL REACTION (K)
M = IN-PLANCE MOMENT (K-FT)

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STEEL FRAME ELEVATIONS, SECTIONS AND DETAILS

S521

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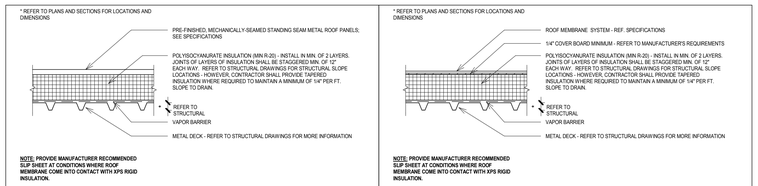
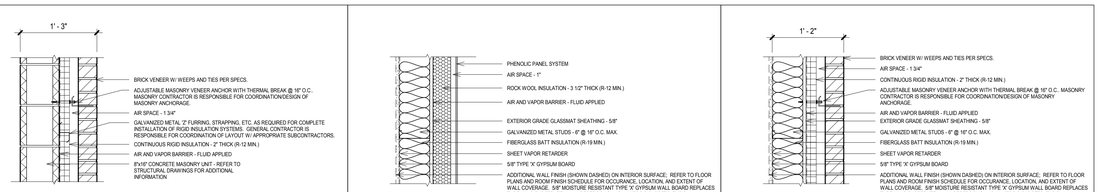


METAL ROOF DECK	METAL ROOF DECK
R7 ROOF SYSTEM - R7	**R1** ROOF SYSTEM - R1

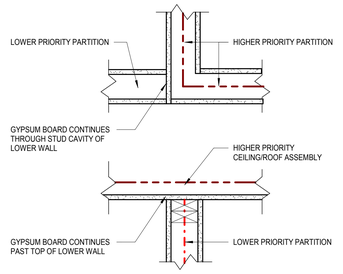


MASONRY ON CMU	PHENOLIC PANEL ON METAL STUD	MASONRY ON METAL STUD
EW11 EXTERIOR WALL SYSTEM	**EW7** EXTERIOR WALL SYSTEM	**EW1** EXTERIOR WALL SYSTEM

WALL TYPE SYMBOL
WALL TYPE DESIGNATION
STRUCTURAL CORE SIZE
ACOUSTICAL ATTENUATION REQ'D
Y6S

REFERENCE A001 FOR WALL TYPE DESCRIPTIONS

INTERIOR PARTITION LEGEND



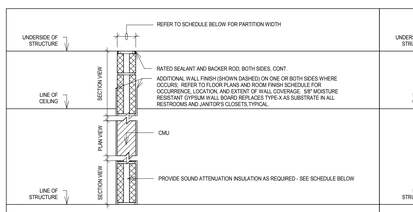
RATING	PRIORITY
3 HOUR ASSEMBLY	1
2 HOUR ASSEMBLY	2
1 HOUR ASSEMBLY	3
SMOKE RATED ASSEMBLY	4
NON RATED ASSEMBLY	5

(LOWER NUMBER, HIGHER PRIORITY)

RATED WALL PRIORITY

GENERAL PARTITION NOTES

A. ALL WALLS ARE TO BE TYPE 'A3' U.N.O.
B. PARTITION SYMBOLS APPEAR ON LARGEST SCALE FLOOR PLAN PROVIDED FOR AREA.
C. REFER TO FINISH PLANS FOR WALL FINISH, BASE, AND CEILING INFORMATION.
D. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
E. PROVIDE WATER-RESISTANT GYPSUM BOARD ON WALLS WITH PLUMBING FIXTURES AND WITHIN 4'-0 OF DRINKING FOUNTAINS / WATER COOLERS, U.N.O.
F. PROVIDE LATERAL BRACING FOR PARTITIONS WHICH EXTEND ABOVE CEILINGS.
G. PROVIDE FIRE RESISTIVE RATED GYPSUM WALL BOARD AT ALL RATED ASSEMBLIES TO MEET ASSEMBLY REQUIREMENTS.
H. PROVIDE FIRE RESISTIVE JOINT SYSTEMS EQUAL TO WALL RATING AT ALL PENETRATIONS AND AT HEADFLOOR INTERSECTIONS WITH RATED ASSEMBLIES.
I. PROVIDE ACOUSTICAL SEALANT AT WALL SILL, HEAD, PENETRATIONS, AND ADDITIONAL SPECIFIED SOUND ATTENUATION COMPONENTS AT SOUND RATED WALLS.
J. PROVIDE SPECIFIED TILE BACKER BOARD AT ALL WALLS SCHEDULED TO HAVE CERAMIC TILE.
K. FRAME DOOR OPENINGS 4" FROM FACE OF PERPENDICULAR WALL ON HINGE SIDE AND 1'-6" MIN. FROM FACE OF PERP. WALL ON LATCH SIDE, UNLESS NOTED OTHERWISE.
L. PROVIDE GYPSUM BOARD CONTROL JOINTS AND MASONRY CONTROL JOINTS AT WALLS OVER 30'-0 IN LENGTH. LOCATE ABOVE EDGE OF OPENING WHEN POSSIBLE.
M. AT FIRE RATED WALLS WHERE OPENINGS ARE GREATER THAN 16 SQUARE INCHES OR WHERE TOTAL AREA OF OPENINGS EXCEEDS 100 SQUARE INCHES IN 100 SQUARE FEET, WRAP 5/8 TYPE 'X' GYPSUM BOARD BEHIND OPENINGS PER U.L. DESIGN #UE10.
N. ISOLATE NON-LOAD-BEARING STUD FRAMING FROM BUILDING STRUCTURE TO PREVENT TRANSFER OF VERTICAL LOADS INTO PARTITION WHILE PROVIDING LATERAL SUPPORT REQUIRED VIA USE OF DOUBLE TRACK TYPE (SECONDARY TRACK SET INSIDE DEEP-LEG TRACK) OR SLOTTED TRACK TYPE, EACH ALLOWING VERTICAL MOVEMENT OF THE STRUCTURE, PREVENTING ROTATION OF STUDS BUT MAINTAINING STRUCTURAL PERFORMANCE OF PARTITION.
O. LINE OF STRUCTURE INDICATED FOR EACH PARTITION IS DIAGRAMMATIC ONLY AND DOES NOT INDICATE EXACT CONSTRUCTION CONDITIONS OR GEOMETRY.
P. FIRE RESISTANCE RATED PARTITIONS SHALL USE RATED FIRE RESISTANT FILL MATERIAL IN CONJUNCTION WITH AN APPROPRIATE RATED FIRESTOPPING SYTEM.
Q. NON-RATED PARTITIONS SHALL USE ACOUSTICAL SEALANT.
R. PROVIDE SHEET METAL OR FIRE RETARDANT WOOD BLOCKING IN WALL CAVITIES FOR ITEMS THAT ARE REQUIRED TO BE SECURED TO THE WALLS. REFERENCE MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY DRAWINGS. COORDINATE WITH FURNITURE SUPPLIER WHERE APPROPRIATE.
S. TAPE AND SPACKLE ALL PENETRATIONS IN GYPSUM BOARD PARTITIONS, INCLUDING, BUT NOT LIMITED TO WATER LINES, DRAINS, CONDUIT, THERMOSTATS, ETC. INSTALL FIRE RETARDANT SEALANT AT PENETRATIONS IN RATED PARTITIONS AS REQUIRED.
T. ALL CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT UNITS LAID IN RUNNING BOND UNLESS NOTED OTHERWISE.
U. ALL CMU WALLS SHALL EXTEND TO 4" MINIMUM ABOVE HIGHEST ADJACENT CEILING U.N.O.
V. FOR PARTITIONS INDICATED TO RECEIVE SOUND ATTENUATION (S), EXTEND ATTENUATION TO FULL HEIGHT OF PARTITION U.N.O. FLOOR TRACK TO BE SET IN A CONTINUOUS BED OF SEALANT.
W. IN AREAS DESIGNATED TO HAVE A RATED CEILING, BUILD WALLS THAT ARE NOT INDICATED TO GO TO DECK TO UNDERSIDE OF RATED CEILING.
X. ALTHOUGH WALL STUD SIZE / SPACING ARE LISTED, CONTRACTOR WILL VERIFY AND PROVIDE APPROPRIATE SIZE / GAGE / SPACING OF STUDS REQUIRED FOR CONDITIONS INDICATED AND NOTIFY ARCHITECT OF ANY DISCREPANCY PRIOR TO FABRICATION / INSTALLATION.

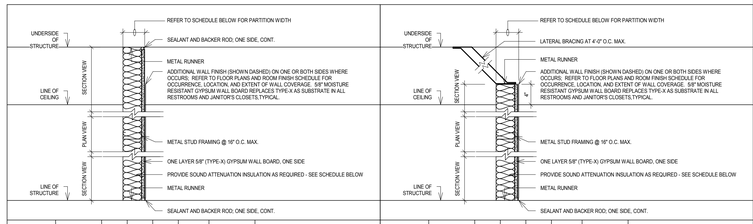


NO SOUND ATTENUATION DESIGNATION	WITH SOUND ATTENUATION DESIGNATION	CMU WIDTH	PART. WIDTH	FIRE RATING	UL LISTING	STC: NO SOUND / WITH SOUND	REMARKS
N4	N4S	3 - 5/8"	3 - 5/8"	ONE HOUR	UL Des U905 or U906		
N6	N6S	5 - 5/8"	5 - 5/8"	ONE HOUR	UL Des U905 or U906		
N8	N8S	7 - 5/8"	7 - 5/8"	ONE HOUR	UL Des U905 or U906		
N12	N12S	11 - 5/8"	11 - 5/8"	ONE HOUR	UL Des U905 or U906		

N WALL PARTITION TYPE

NO SOUND ATTENUATION DESIGNATION	WITH SOUND ATTENUATION DESIGNATION	CMU WIDTH	PART. WIDTH	FIRE RATING	UL LISTING	STC: NO SOUND / WITH SOUND	REMARKS
M4	M4S	3 - 5/8"	3 - 5/8"	NON-RATED	NA		
M6	M6S	5 - 5/8"	5 - 5/8"	NON-RATED	NA		
M8	M8S	7 - 5/8"	7 - 5/8"	NON-RATED	NA		
M12	M12S	11 - 5/8"	11 - 5/8"	NON-RATED	NA		

M WALL PARTITION TYPE

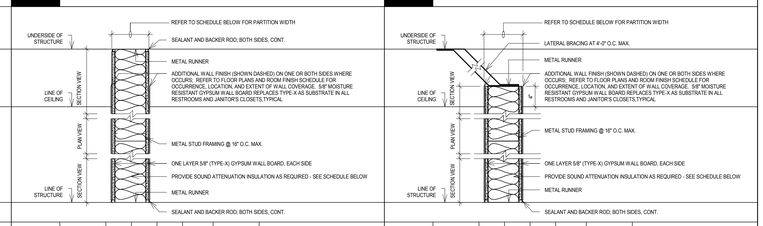


NO SOUND ATTENUATION DESIGNATION	WITH SOUND ATTENUATION DESIGNATION	STUD WIDTH	PART. WIDTH	FIRE RATING	UL LISTING	STC: NO SOUND / WITH SOUND	REMARKS
G1	G1S	1 - 5/8"	2 - 1/4"	NON-RATED	NA		
G2	G2S	2 - 1/2"	3 - 1/8"	NON-RATED	NA		
G3	G3S	3 - 5/8"	4 - 1/4"	NON-RATED	NA		
G6	G6S	6"	6 - 5/8"	NON-RATED	NA		
G8	G8S	8"	8 - 5/8"	NON-RATED	NA		

G WALL PARTITION TYPE

NO SOUND ATTENUATION DESIGNATION	WITH SOUND ATTENUATION DESIGNATION	STUD WIDTH	PART. WIDTH	FIRE RATING	UL LISTING	STC: NO SOUND / WITH SOUND	REMARKS
F1	F1S	1 - 5/8"	2 - 1/4"	NON-RATED	NA		
F2	F2S	2 - 1/2"	3 - 1/8"	NON-RATED	NA		
F3	F3S	3 - 5/8"	4 - 1/4"	NON-RATED	NA		
F6	F6S	6"	6 - 5/8"	NON-RATED	NA		
F8	F8S	8"	8 - 5/8"	NON-RATED	NA		

F WALL PARTITION TYPE



NO SOUND ATTENUATION DESIGNATION	WITH SOUND ATTENUATION DESIGNATION	STUD WIDTH	PART. WIDTH	FIRE RATING	UL LISTING	STC: NO SOUND / WITH SOUND	REMARKS
B1	B1S	1 - 5/8"	2 - 7/8"	NON-RATED	NA		
B2	B2S	2 - 1/2"	3 - 3/4"	NON-RATED	NA		
B3	B3S	3 - 5/8"	4 - 7/8"	NON-RATED	NA		
B6	B6S	6"	7 - 1/4"	NON-RATED	NA		
B8	B8S	8"	9 - 1/4"	NON-RATED	NA		

B WALL PARTITION TYPE

NO SOUND ATTENUATION DESIGNATION	WITH SOUND ATTENUATION DESIGNATION	STUD WIDTH	PART. WIDTH	FIRE RATING	UL LISTING	STC: NO SOUND / WITH SOUND	REMARKS
A1	A1S	1 - 5/8"	2 - 7/8"	NON-RATED	NA		
A2	A2S	2 - 1/2"	3 - 3/4"	NON-RATED	NA		
A3	A3S	3 - 5/8"	4 - 7/8"	NON-RATED	NA		
A6	A6S	6"	7 - 1/4"	NON-RATED	NA		
A8	A8S	8"	9 - 1/4"	NON-RATED	NA		

A WALL PARTITION TYPE

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PORTER COUNTY ANNEX

3560 WILLOWCREEK RD
PORTAGE, IN 46368

DANIEL L. McCLOSKEY REGISTERED No. AR10700109 STATE OF INDIANA ARCHITECT

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WALL TYPES

A001

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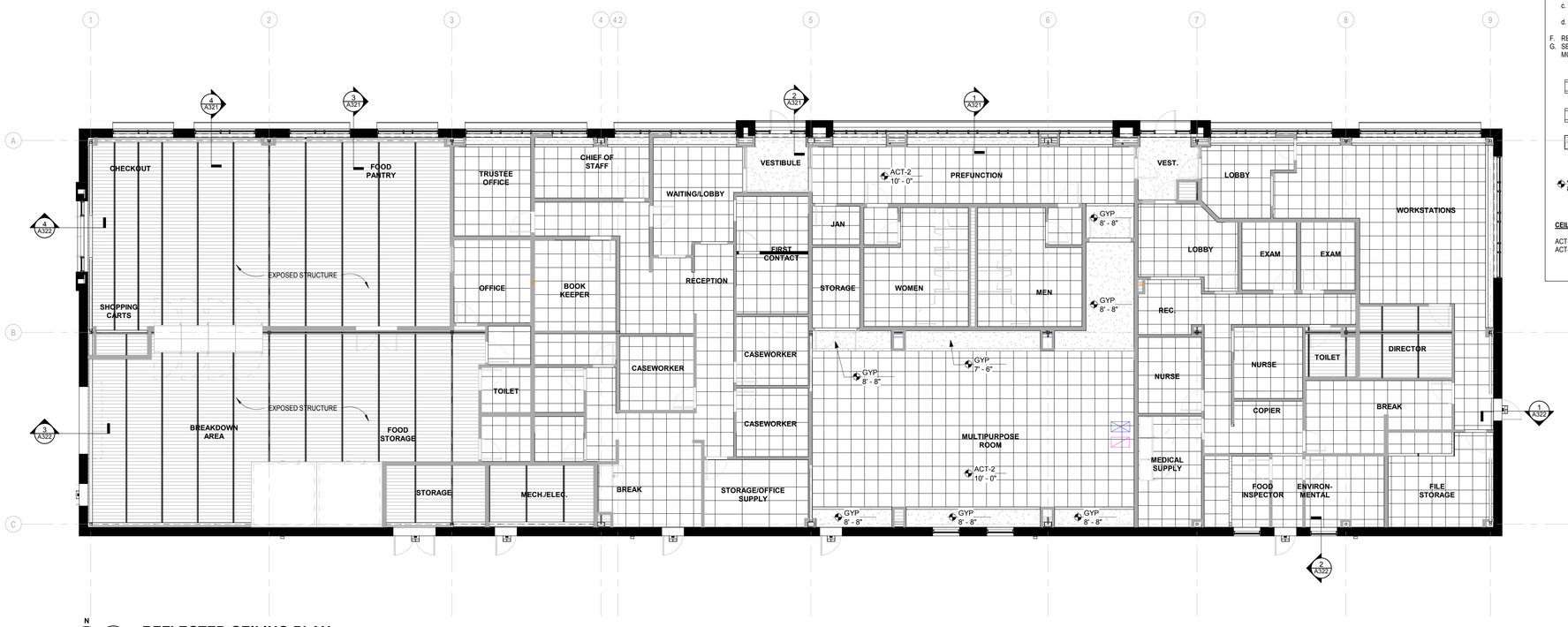

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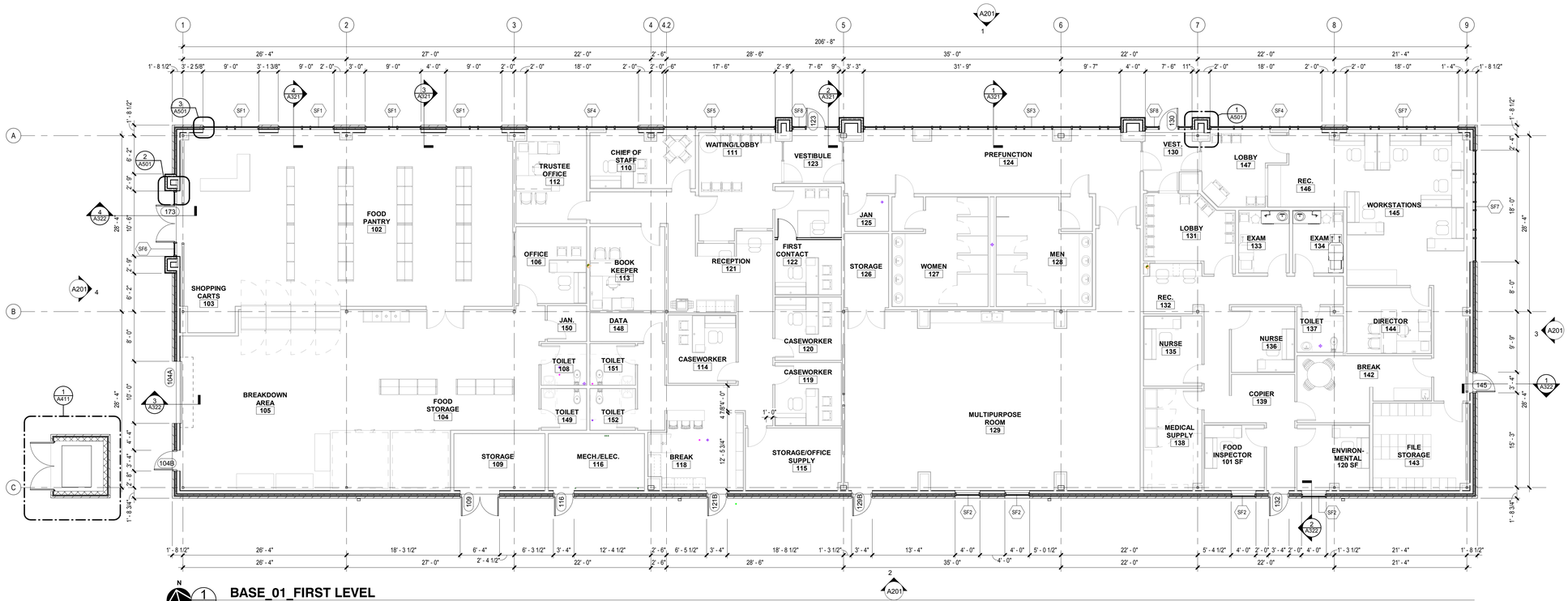
REFLECTED CEILING PLAN

1/8" = 1'-0"



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BASE_01_FIRST LEVEL

1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND

A. ALL CEILINGS TO BE ACT-1 U.N.O.
B. ALL A.C.T. CEILINGS TO BE 9'-0" A.F.F. USING 15/16" WHITE METAL TEE GRID, U.N.O.
C. ALL GYP. BD. CEILINGS TO BE 9'-0" A.F.F. UNLESS NOTED OTHERWISE.
D. AT A.C.T. CEILINGS, EXTEND GYPSUM BOARD TO 4" ABOVE CEILING. AT GYP. BD. CEILINGS, TERMINATE GYP. BD. AT CEILING UNLESS OTHERWISE NOTED.
E. GYPSUM BOARD CONTROL JOINTS:
   a. PROVIDE AT INTERIOR CEILINGS (WITH PERIMETER RELIEF) OVER 50'-0" IN LENGTH IN ANY DIRECTION. TOTAL AREA BETWEEN CONTROL JOINTS SHALL NOT EXCEED 2500 SQFT.
   b. PROVIDE AT INTERIOR CEILINGS (WITHOUT PERIMETER RELIEF) OVER 30'-0" IN LENGTH IN ANY DIRECTION. TOTAL AREA BETWEEN CONTROL JOINTS SHALL NOT EXCEED 900 SQFT.
   c. PROVIDE AT EXTERIOR CEILINGS AND SOFFITS OVER 30'-0" IN LENGTH IN ANY DIRECTION. TOTAL AREA BETWEEN CONTROL JOINTS SHALL NOT EXCEED 900 SQFT.
   d. COORDINATE LOCATIONS WITH ARCHITECTURAL ELEMENTS AND/OR AT THE DIRECTION OF THE ARCHITECT.
F. REFERENCE INTERIOR ELEVATIONS FOR GYPSUM BOARD SOFFITS ABOVE CABINETS.
G. SEE INTERIOR ELEVATION AND/OR SECTIONS FOR MOUNTING HEIGHTS OF ANY WALL MOUNTED LIGHT FIXTURES.

2'x4' SUSPENDED ACOUSTICAL CEILING

2'x2' SUSPENDED ACOUSTICAL CEILING

GYPSUM BOARD CEILING

ACT-1 8' - 0" — CEILING TYPE / FINISH HEIGHT (AFF)

CEILING IDENTIFICATION

CEILING TYPE LEGEND

ACT-1 -- 2x4 ACOUSTICAL PANELS ('CIRRUS' BY ARMSTRONG)
ACT-2 -- 2x2 ACOUSTICAL PANELS ('CIRRUS' BY ARMSTRONG)

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PORTER COUNTY OFFICE BUILDING

PORTAGE, IN

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FIRST FLOOR PLAN/RCP

A101

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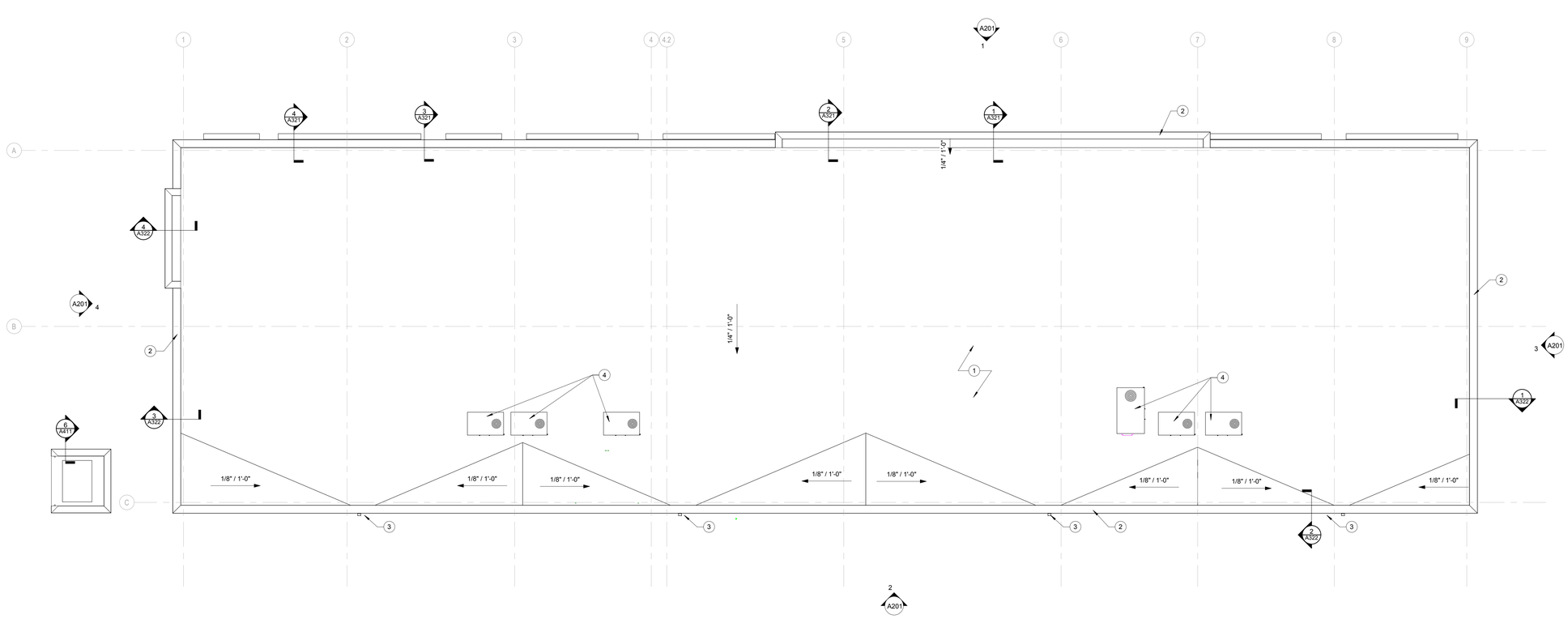
KEYED ROOF PLAN NOTES (NOTED WITH 1)

1 FULLY ADHERED MEMBRANE ROOFING SYSTEM (MEMBRANE OVER POLYISO ROOF INSULATION). INSTALL ROOF INSULATION IN MIN. 2 LAYERS WITH JOINTS OFFSET BY 12" MIN. PROVIDE TAPERED INSULATION TO ACHIEVE MIN. 1/4:12 SLOPE TO ENSURE POSITIVE DRAINAGE TO INTERNAL ROOF DRAIN LOCATIONS

2 PRE-FINISHED METAL COPING OVER PARAPET WALL

3 PRE-FINISHED METAL DOWNSPOUT

4 LOCATION OF ROOFTOP HVAC UNITS SHOWN FOR REFERENCE ONLY. COORDINATE FINAL LOCATIONS WITH MECHANICAL & STRUCTURAL DRAWINGS. CREATE CRICKET AT UNIT HIGH SIDE TO ENSURE POSITIVE DRAINAGE AROUND UNIT. PROVIDE ADDITIONAL CONCRETE WALKWAY PAD AT CONDENSATE DRAIN LINE.



N

1 A131

BASE_ROOF

1/8" = 1'-0"

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ROOF PLAN

A131

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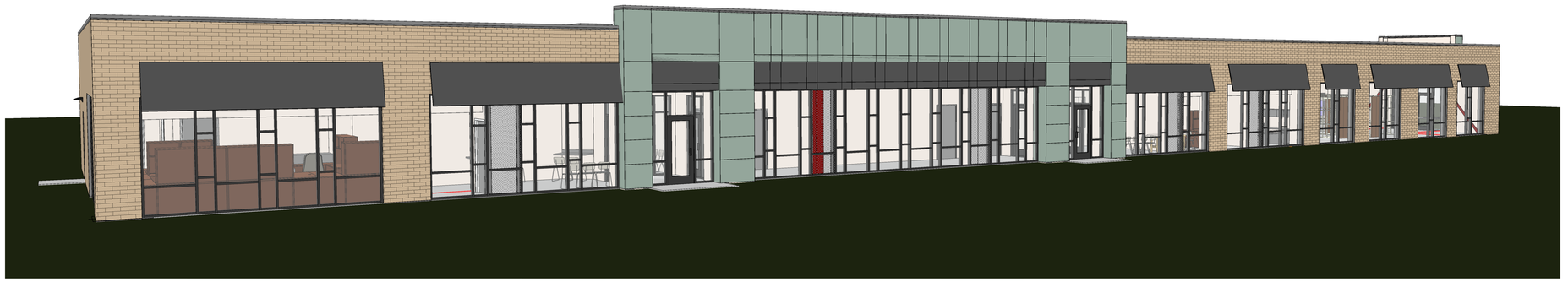
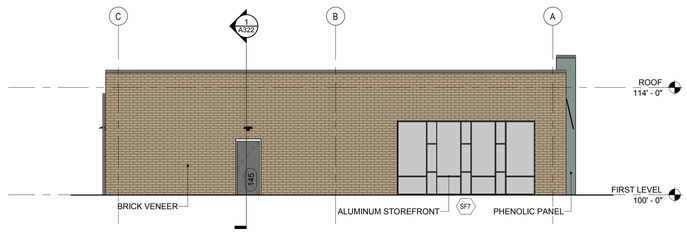
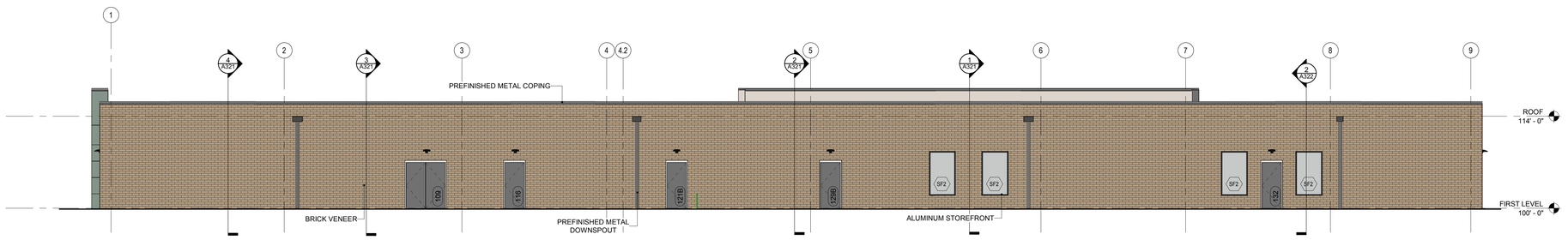


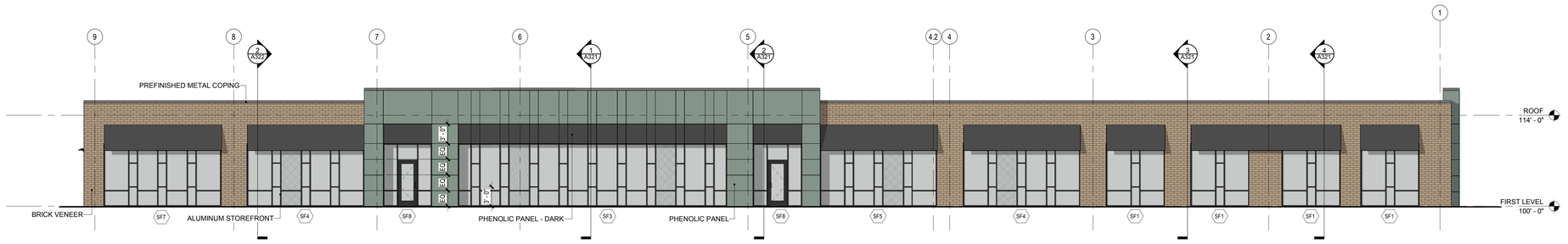


4 ELEVATION - WEST
A201 — 1/8" = 1'-0"

3 ELEVATION - EAST
A201 — 1/8" = 1'-0"



2 ELEVATION - SOUTH
A201 — 1/8" = 1'-0"



1 ELEVATION - NORTH
A201 — 1/8" = 1'-0"

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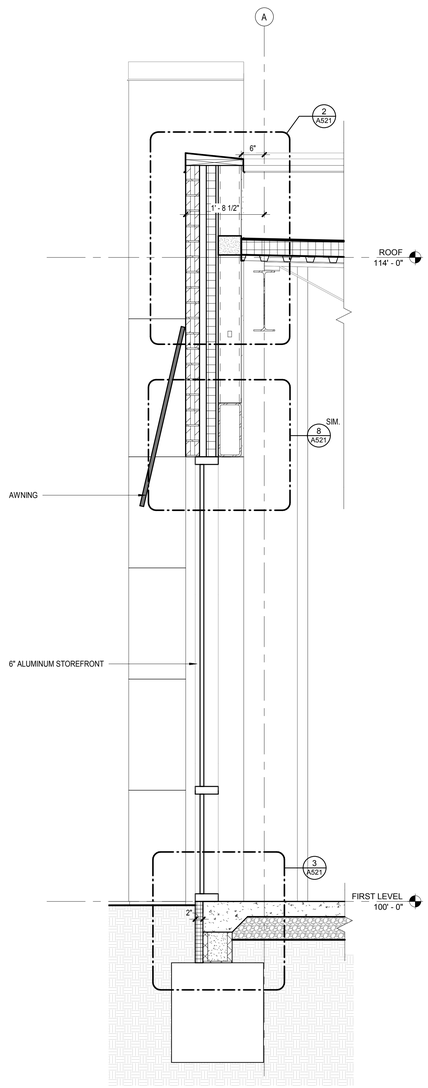
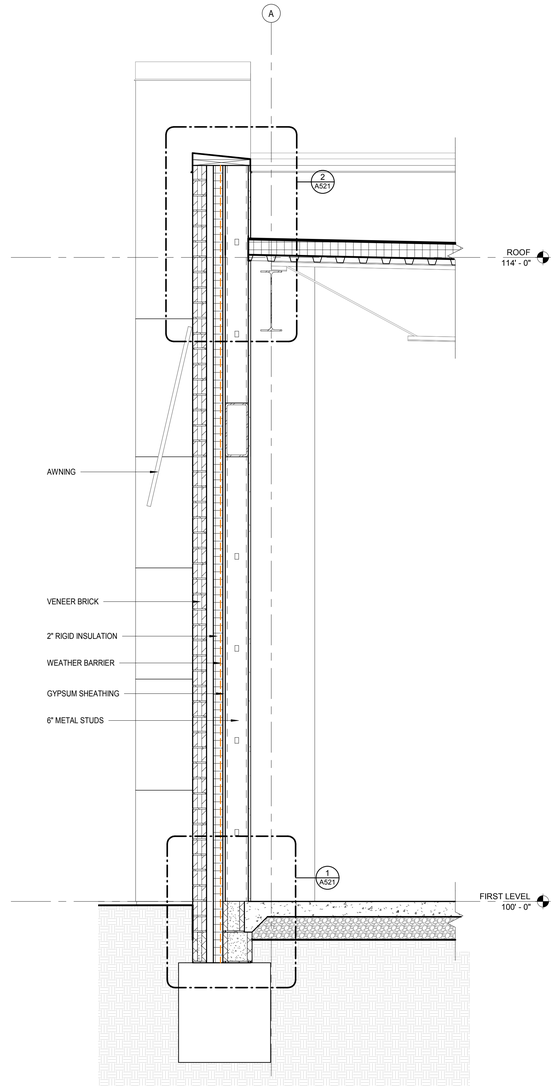
EXTERIOR ELEVATIONS

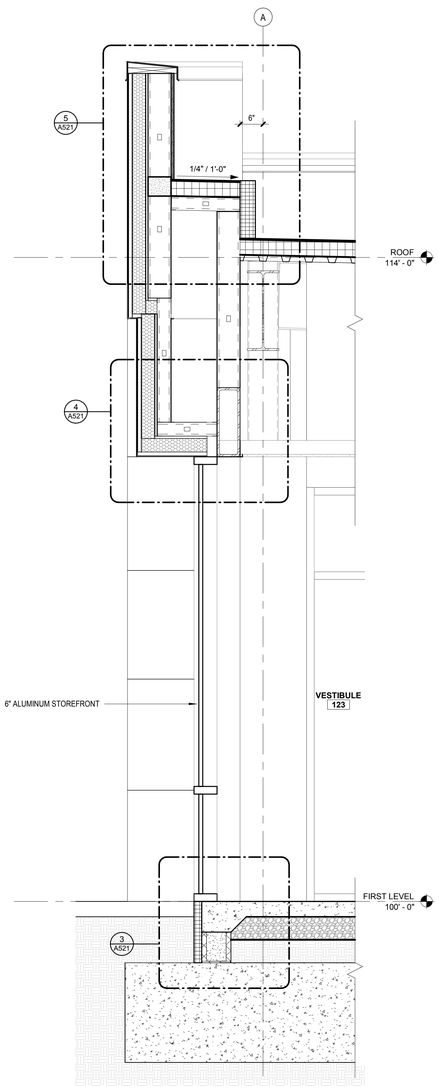
A201



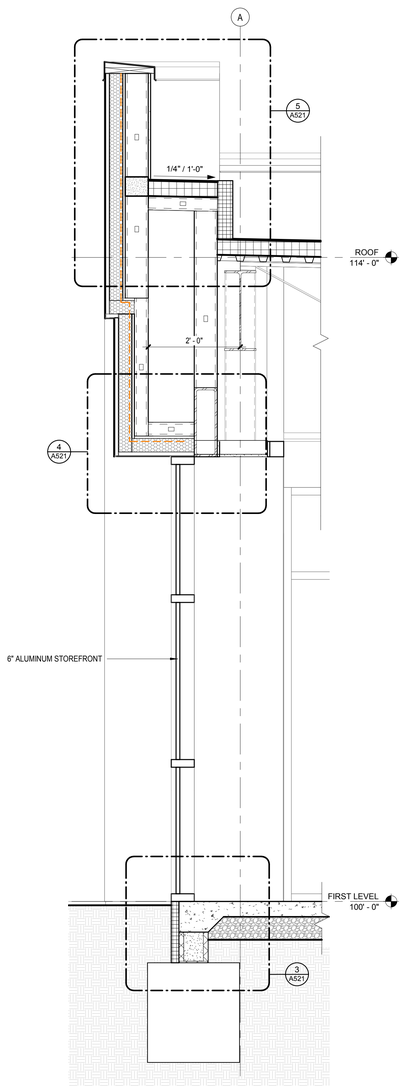
4 A321 **WALL SECTION**
3/4" = 1'-0"



3 A321 **WALL SECTION**
3/4" = 1'-0"



2 A321 **WALL SECTION**
3/4" = 1'-0"



1 A321 **WALL SECTION**
3/4" = 1'-0"

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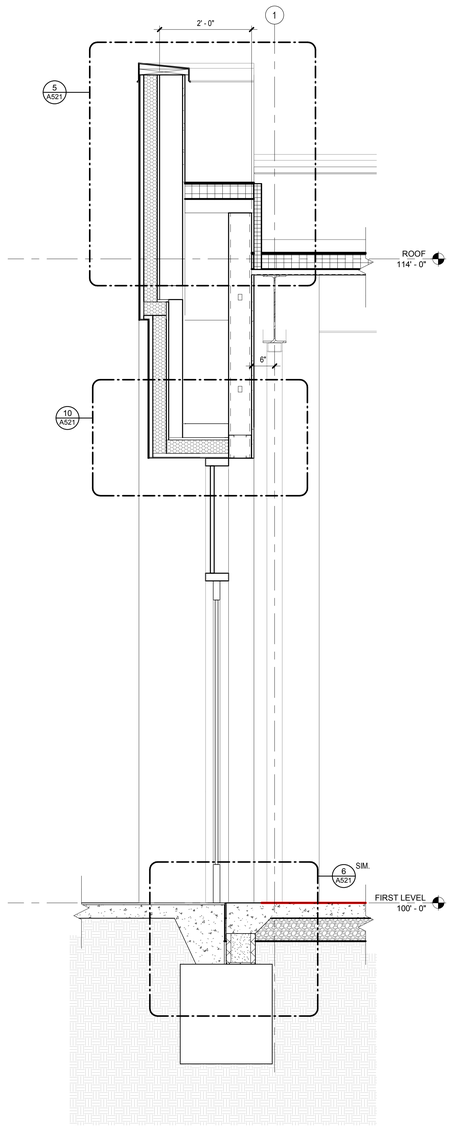
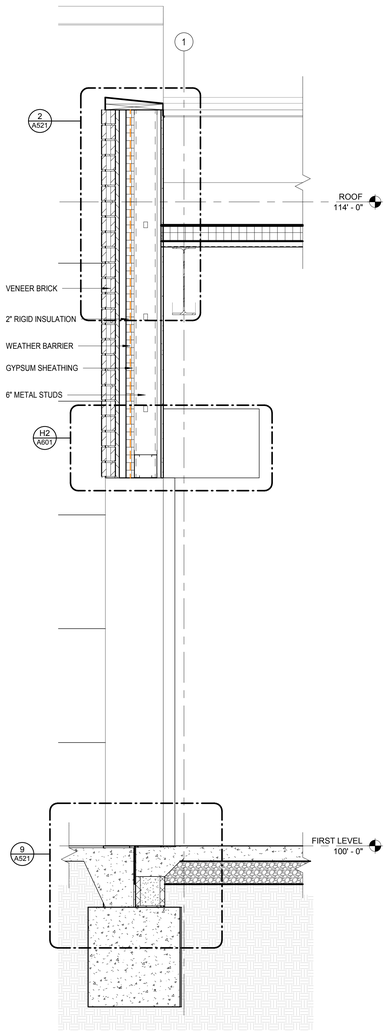
WALL SECTIONS

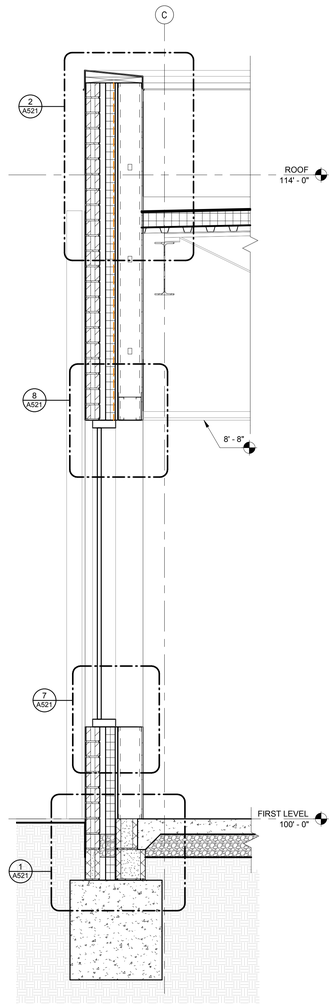
A321



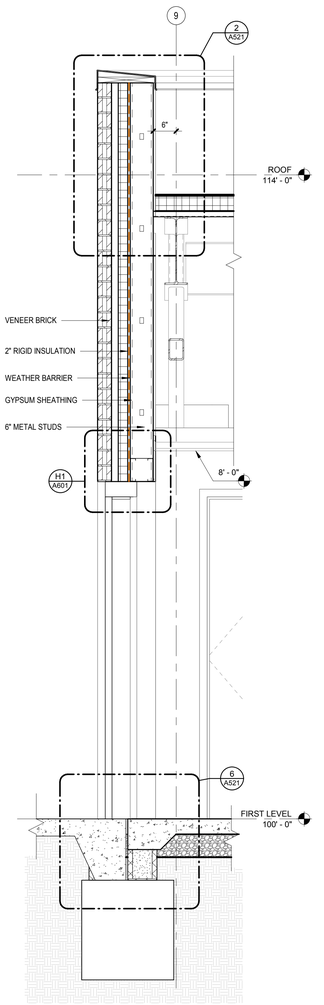
4 A322 **WALL SECTION**
3/4" = 1'-0"



3 A322 **WALL SECTION**
3/4" = 1'-0"



2 A322 **WALL SECTION**
3/4" = 1'-0"



1 A322 **WALL SECTION**
3/4" = 1'-0"

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PORTER COUNTY OFFICE BUILDING

PORTAGE, IN

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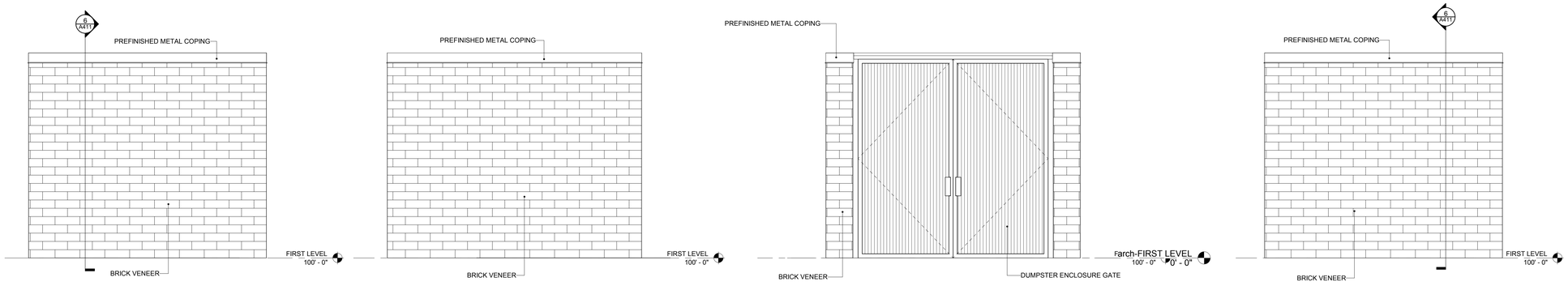
WALL SECTIONS

A322

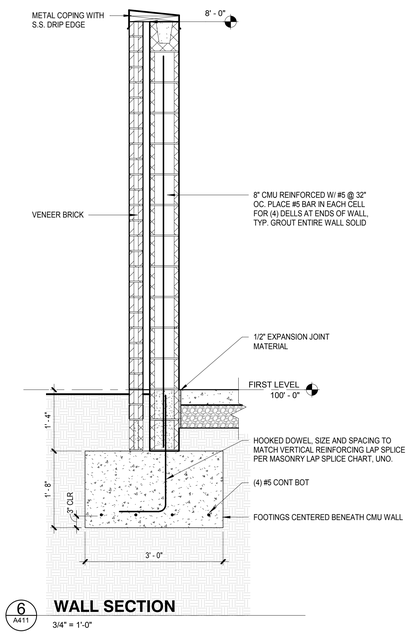


5 A411 **DUMPSTER ELEVATION**
1/2" = 1'-0"

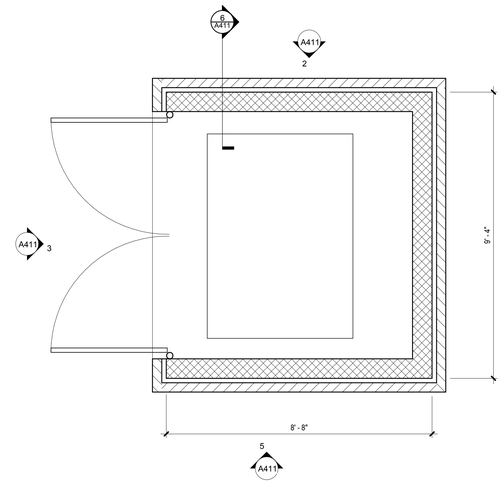
4 A411 **DUMPSTER ELEVATION**
1/2" = 1'-0"

3 A411 **DUMPSTER ELEVATION**
1/2" = 1'-0"

2 A411 **DUMPSTER ELEVATION**
1/2" = 1'-0"



6 A411 **WALL SECTION**
3/4" = 1'-0"



N 1 A411 **ENLARGED DUMPSTER PLAN**
1/2" = 1'-0"

8/20/2018 3:46:58 PM

7260 Shadeland Station
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P: 317.547.5580
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PORTER COUNTY OFFICE BUILDING

PORTAGE, IN

DANIEL L McCLOSKEY
REGISTERED
No. AR10700109
STATE OF INDIANA
ARCHITECT

CERTIFIED BY

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08.17.18
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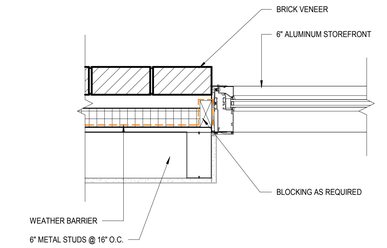
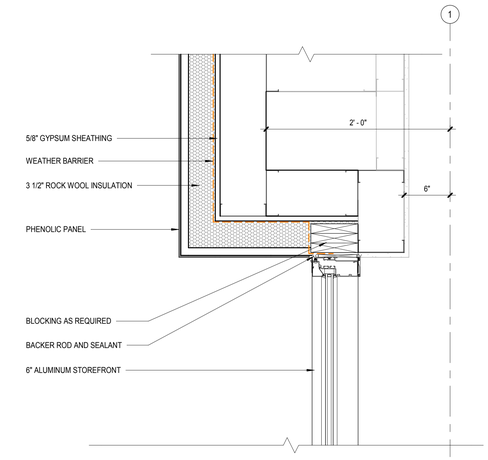
DUMPSTER ENCLOSURE

A411

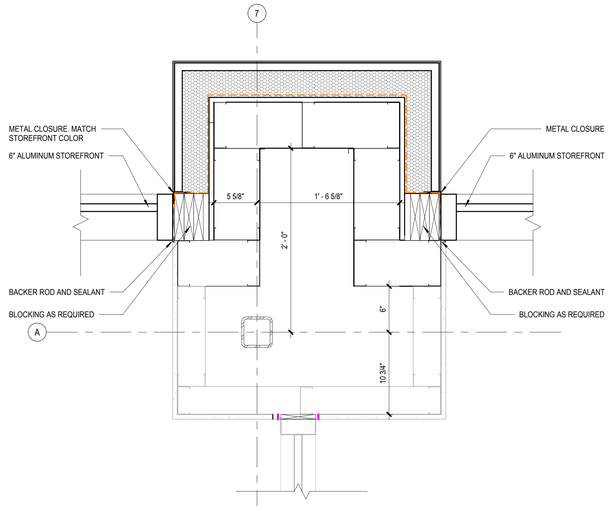
ALL INTERIOR METAL STUDS AND GYPSUM BOARD ARE NOT INCLUDED IN BID PACKAGE 01. THESE ITEMS ARE GREYED OUT AND WILL BE PART OF A LATER BID PACKAGE.



3 A501 **PLAN DETAIL**
1 1/2" = 1'-0"



2 A501 **PLAN DETAIL**
1 1/2" = 1'-0"



1 A501 **PLAN DETAIL**
1 1/2" = 1'-0"

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PLAN DETAILS

A501

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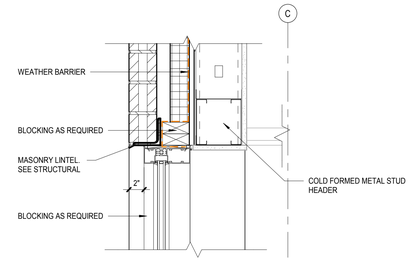
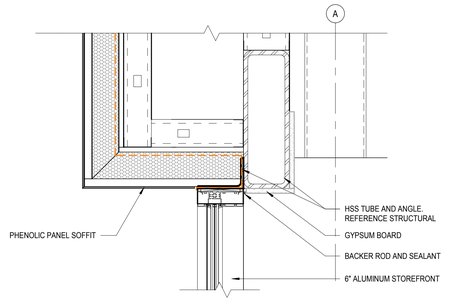
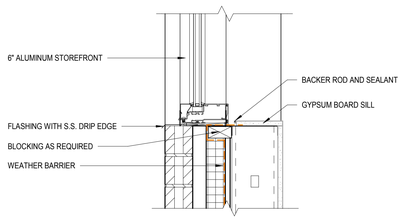
ALL INTERIOR METAL STUDS AND GYPSUM BOARD ARE NOT INCLUDED IN BID PACKAGE 01. THESE ITEMS ARE GREYED OUT AND WILL BE PART OF A LATER BID PACKAGE.



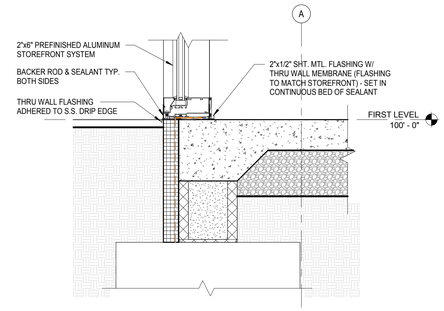
8 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



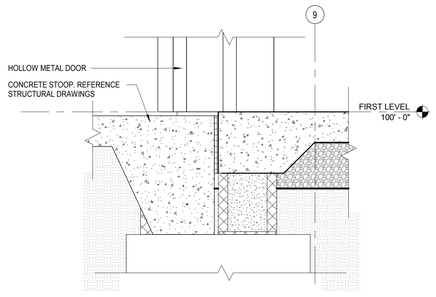
4 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



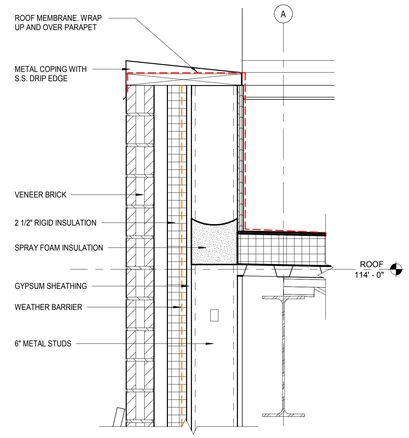
7 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



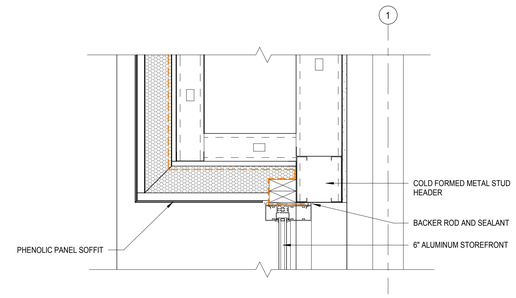
3 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



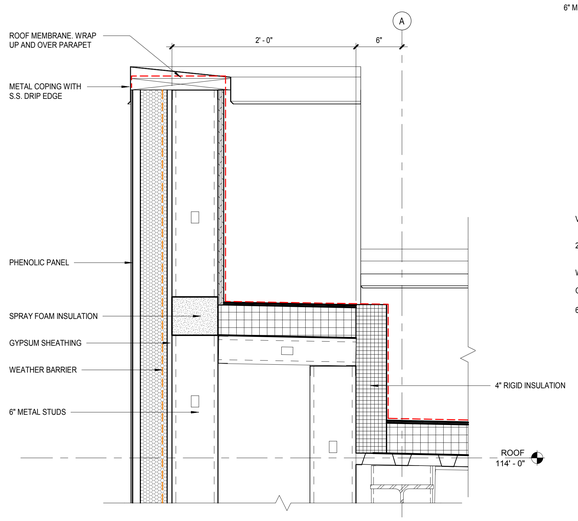
6 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



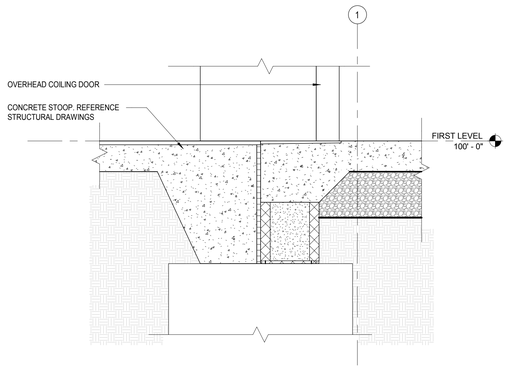
2 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



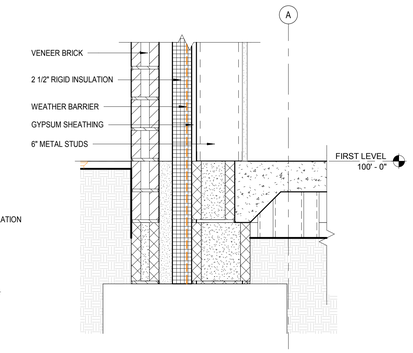
10 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



5 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



9 A521 **SECTION DETAIL**
1 1/2" = 1'-0"



1 A521 **SECTION DETAIL**
1 1/2" = 1'-0"

PORTER COUNTY Indiana

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SECTION DETAILS

A521

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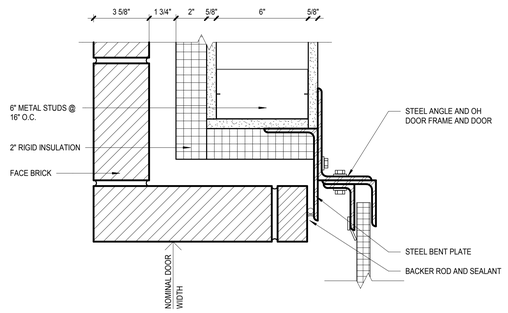
GLAZING LEGEND

TYPE IG-1 CLEAR, INSULATED GLASS

TYPE IG-2 SPANDREL, INSULATED GLASS

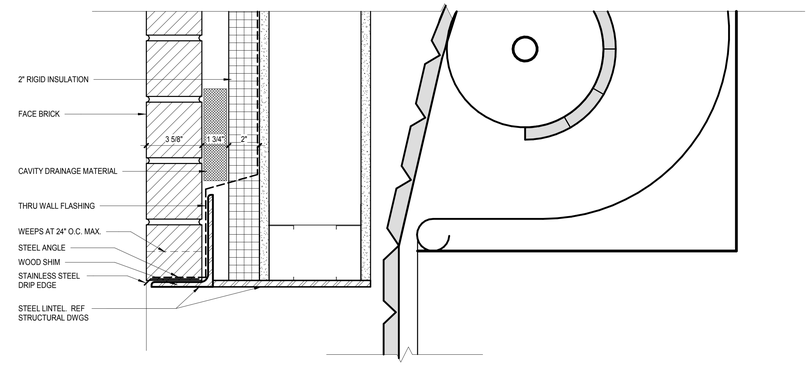
DOOR AND FRAME SCHEDULE

MARK	LOCATION	PAIR	POWER REQUIRED	DOOR			FRAME				FIRE RATING	AAOS Project HW Set	COMMENTS	verified by PA/PM
				Height x Width x Thickness	MATERIAL	TYPE	MATERIAL	TYPE	HEAD	JAMB				
104A	EXTERIOR			8' - 0" x 10' - 0" x 2"	STEEL	D3	STEEL	F2	H2	J2		1.0		
104B	EXTERIOR			7' - 0" x 3' - 0" x 1 3/4"	HOLLOW METAL	D1	HOLLOW METAL	F1	H1	J1		9.0		
109	EXTERIOR	Yes		7' - 0" x 6' - 0" x 1 3/4"	HOLLOW METAL	D1	HOLLOW METAL	F1	H1	J1		3.0		
116	EXTERIOR			7' - 0" x 3' - 0" x 1 3/4"	HOLLOW METAL	D1	HOLLOW METAL	F1	H1	J1		4.0		
121B	EXTERIOR			7' - 0" x 3' - 0" x 1 3/4"	HOLLOW METAL	D1	HOLLOW METAL	F1	H1	J1		9.0		
123	EXTERIOR			7' - 0" x 3' - 0" x 2"	ALUMINUM/GLASS	D2	ALUMINUM	5/A601				7.0		
129B	EXTERIOR			7' - 0" x 3' - 0" x 1 3/4"	HOLLOW METAL	D1	HOLLOW METAL	F1	H1	J1		9.0		
130	EXTERIOR			7' - 0" x 3' - 0" x 2"	ALUMINUM/GLASS	D2	ALUMINUM	5/A601				8.0		
132	EXTERIOR			7' - 0" x 3' - 0" x 1 3/4"	HOLLOW METAL	D1	HOLLOW METAL	F1	H1	J1		9.0		
145	EXTERIOR			7' - 0" x 3' - 0" x 1 3/4"	HOLLOW METAL	D1	HOLLOW METAL	F1	H1	J1		9.0		
173	EXTERIOR			7' - 0" x 6' - 0" x 2"	ALUMINUM/GLASS	D2	ALUMINUM	5/A601				7.0		



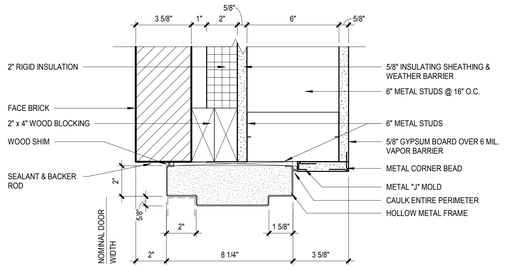
J2 A601 **DOOR JAMB 'J2'**

3" = 1'-0"



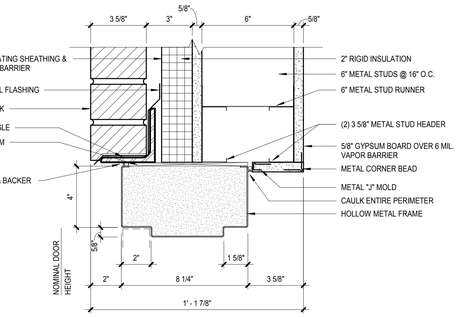
H2 A601 **DOOR HEAD 'H2'**

3" = 1'-0"



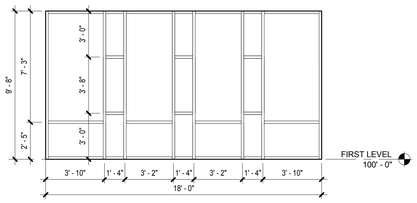
J1 A601 **DOOR JAMB 'J1'**

3" = 1'-0"



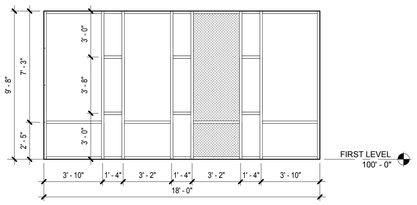
H1 A601 **DOOR HEAD 'H1'**

3" = 1'-0"



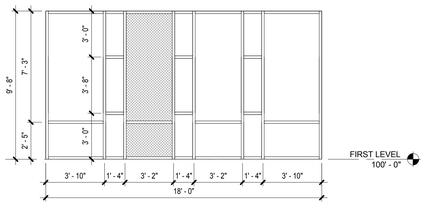
7 A601 **STOREFRONT SF7 ELEVATION**

1/4" = 1'-0"



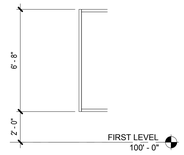
5 A601 **STOREFRONT SF5 ELEVATION**

1/4" = 1'-0"



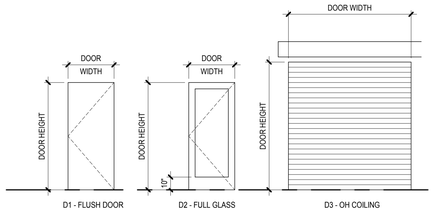
4 A601 **STOREFRONT SF4 ELEVATION**

1/4" = 1'-0"

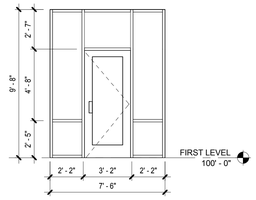


2 A601 **STOREFRONT SF2 ELEVATION**

1/4" = 1'-0"

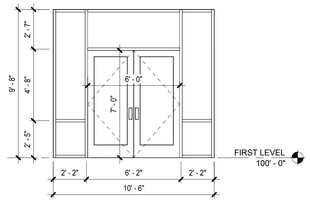


DOOR ELEVATIONS



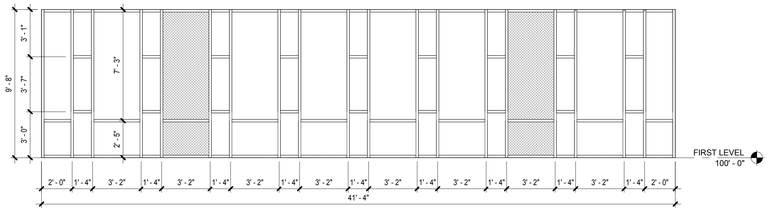
8 A601 **STOREFRONT SF8 ELEVATION**

1/4" = 1'-0"



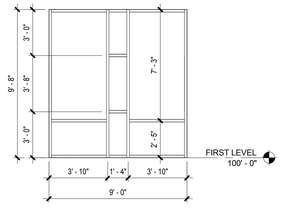
6 A601 **STOREFRONT SF6 ELEVATION**

1/4" = 1'-0"



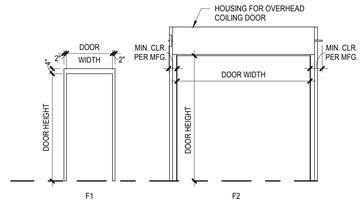
3 A601 **STOREFRONT SF3 ELEVATION**

1/4" = 1'-0"



1 A601 **STOREFRONT SF1 ELEVATION**

1/4" = 1'-0"



DOOR FRAME ELEVATIONS

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DOOR SCHEDULES

A601