ABBREVIATIONS

AB ANCHOR BOLT
ACI AMERICAN CONCRETE INSTITUTE
ACS ALL COMMON SURFACES
AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI AMERICAN IRON AND STEEL INSTITUTE
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH'L ARCHITECTURAL
ALT ALTERNATE
ASTM AMERICAN SOCIETY FOR TESTING AND MATERIAL
BO BOTTOM OF
BOT BOTTOM
BRG BEARING
C CHANNEL
CJ CONTROL JOINT
CJP COMPLETE JOINT PENETRATION
C CENTER LINE
CLR CLEAR
COL COLUMN
CONC CONCRETE
CONT CONTINOUS
DIA/Ø DIAMETER
DIAG DIAGONAL
DWG DRAWING
EF EACH FACE
EL ELEVATION
EQ EQUAL
EW EACH WAY
FF FINISH FLOOR
FLR FLOOR
FND FOUNDATION
FT FOOT
FTG FOOTING
GA GAUGE
GSN GENERAL STRUCTURAL NOTES
HI HIGH
HORIZ HORIZONTAL
ICBO INTERNATION CONFERANCE OF BUILDING OFFICIALS
ID INSIDE DIAMETER
INFO INFORMATION
JT JOINT
K KIP (1,000 LBS)
KSI KIPS PER SQUARE INCH
L ANGLE
LLH LONG LEG HORIZONTAL
LLV LONG LEG VERTICAL
LO LOW
MFR MANUFACTURER
MAX MAXIMUM
MECH MECHANICAL
MIN MINIMUM
MISC MISCELLANEOUS
NTS NOT TO SCALE
OC ON CENTER
OD OUTSIDE DIAMETER
OPP OPPOSITE
PL PLATE
PLF POUNDS PER LINEAR FOOT
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
REQ'D REQUIRED
SIM SIMILAR
SPEC SPECIFICATION
STD STANDARD
T&B TOP AND BOTTOM
T&G TONGUE AND GROOVE
TO TOP OF
TOC TOP OF CONCRETE
TOD TOP OF DECK
TOF TOP OF FOOTING
TOL TOP OF LEDGER
TOP TOP OF PANEL
TOS TOP OF STEEL
TOW TOP OF WALL
TYP TYPICAL
UNO UNLESS NOTED OTHERWISE
VERT VERTICAL
W WIDE FLANGE
W/ WITH
W/O WITHOUT
WT WEIGHT
WWF WELDED WIRE FABRIC
W.I.B. WALK IN BOX

STRUCTURAL SPECIFICATIONS:

DIVISION 3A: CONCRETE

SECTION 3A: CAST-IN-PLACE CONCRETE

GENERAL PROVISIONS

1. SCOPE: FURNISH AND INSTALL ALL CONCRETE FOR FOOTINGS, SUBSLABS, OUTSIDE SLABS, BASES FOR LIGHT POLES, BASES FOR SIGNS, ALL OTHER CONCRETE ITEMS, ALL NECESSARY FORMS, AND GRAVEL FILL UNDER SLABS. INSTALL PERIMETER FOUNDATION INSULATION WHICH IS FURNISHED UNDER DIVISION 7 AND ANCHOR BOLTS WHICH ARE FURNISHED UNDER DIVISION 5.
2. NOTES: NOTIFY OWNER WHEN FORMS AND REINFORCING ARE IN PLACE PRIOR TO CONCRETE POURING.
3. QUALITY CONTROL: STANDARDS INCLUDE BY REFERENCE: EXCEPT AS OTHERWISE SPECIFIED, THE FOLLOWING PUBLICATIONS OF THE AMERICAN CONCRETE INSTITUTE ARE HEREBY INCORPORATED IN THIS SPECIFICATION:
   - 3.1. "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301).
   - 3.2. "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318).
   - 3.3. "RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR CONCRETE" (ACI 613 AND 613A).
   - 3.4. "RECOMMENDED PRACTICE FOR MEASURING, MIXING, AND PLACING CONCRETE" (ACI 614).
   - 3.5. "RECOMMENDED PRACTICE FOR WINTER CONCRETING METHODS" (ACI 604) .
   - 3.6. "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" (ACI 347)

MATERIALS.

1. CONCRETE: ALL CONCRETE FOR THIS WORK SHALL BE FURNISHED BY A CONCRETE MIXING PLANT. CEMENT SHALL BE ASTM C-175, TYPE IA AIR-ENTRAINED PORTLAND CEMENT. FINE AGGREGATE SHALL BE CRUSHED STONE OR GRAVEL HAVING HARD DURABLE UNCOATED PARTICLES RANGING IN SIZE FROM 1" DOWN TO 1/4". ALL CONCRETE SHALL BE DESIGNED TO DEVELOP A MINIMUM COMPREHENSIVE STRENGTH OF 3000 PSI AT TWENTY EIGHT (28) DAYS. SLUMP SHALL NOT EXCEED 4".
2. REINFORCEMENT: METAL REINFORCEMENT FOR FOOTINGS SHALL BE STANDARD INTERMEDIATE GRADE DEFORMED BARS OF SIZES SHOWN. REINFORCING BARS SHALL BE IN ACCORDANCE WITH ASTM A615 BILLET STEEL, GRADE 60.
   - 2.1. REINFORCEMENT FOR SLABS SHALL BE WELDED WIRE MESH CONFORMING TO ASTM A185 "WELDED STEEL WIRE FABRIC FOR CONCRETE REINFORCEMENT".
3. EXPANSION JOINTS: 1/2" THICK ASPHALT-SATURATED CELOTEX EXPANSION JOINT MATERIAL.
4. METAL ACCESSORIES: SPACERS, CHAIRS, TIES, AND OTHER DEVICES NECESSARY FOR PROPERLY PLACING, SPACING, SUPPORTING AND FASTENING REINFORCING STEEL SHALL BE HICO CORP. OF AMERICA OR EQUAL.
5. GRAVEL FILL: GRAVEL FILL UNDER SLABS SHALL BE GRADED FROM 3/8" MINIMUM TO 1" MAXIMUM.
6. CONSTRUCTION JOINTS: 22 GAUGE FORMED TONGUE AND GROOVE JOINT NO 95 BY HECKMANN, #8165 BY VULCAN OR EQUAL.
7. CONCRETE SEALER: POLYSEAL BY CHEM-MASTERS CORPORATION, CHAGRIN FALLS, OHIO, SEAL TIGHT CS-309 BY W. R. MEADOWS, INC. OR DRESS AND SEAL 18 BY L & M CONSTRUCTION CHEMICALS, INC. OR EQUAL.
8. VAPOR BARRIER UNDER CONCRETE FLOOR: 6 MIL. PLASTIC FILM "MOISTOP-2" BY SISALKRAFT, "NERVASTRAL SEAL PRUF H-D", "VAPOR CHAMP", OR "PLY-BAR PLUS BY GLAS KRAFT, INC., SLATERSVILLE, RI 02876 (401) 767-2470.

PERFORMANCE

1. INSTALLATION
   - 1.1. PREPARATION FOR CONCRETING: CONCRETE SHALL BE HANDLED FROM THE MIXER TRUCK TO PLACE OF FINAL DEPOSIT BY MEANS OF WHEELBARROWS AND SUITABLE RUNWAYS. NO CONCRETE SHALL BE PLACED UNTIL ALL REINFORCEMENT, CONDUIT, PLUMBING PIPES, AND SLEEVES ARE PROPERLY FASTENED IN THEIR CORRECT PLACES, ALL COPPER PIPES ARE WRAPPED WITH BUILDING PAPER, AND ALL CONDUIT PAINTED. COORDINATE WITH OTHER TRADES. CONCRETE SHALL BE DUMPED OR SPOUTED FROM A HEIGHT LESS THAN 3', IT SHALL BE THOROUGHLY SPADED OR VIBRATED TO EMBED ALL REINFORCEMENT AND FIXTURES. ANCHOR BOLTS SHALL BE ACCURATELY PLACED. DO NOT PLACE ANY CONCRETE WHEN THE SOIL IS FROZEN OR THE TEMPERATURE IS BELOW 40 DEGREES F UNLESS PROTECTIVE MEASURES ARE TAKEN TO PREVENT CONCRETE FROM FREEZING. PROTECT ALL CONCRETE FROM FREEZING TEMPERATURES AND FROM WASH BY RAIN FOR SEVENTY TWO (72) HOURS.
   - 1.2. CONCRETE FLOOR SLABS: CONCRETE FLOOR SLABS ON EARTH SHALL BE PLACED OVER WELL COMPACTED SUB-GRADE. PLACE AND COMPACT GRAVEL FILL AND INSTALL MOISTURE BARRIER OVER FILL WITH JOINTS WITH SLAB AFTER COMPLETING CONCRETE WORK. SET CONTINUOUS EXPANSION JOINTS WHERE EDGE OF SLABS ABUT VERTICAL SURFACES. SEAL JOINTS TIGHTLY AROUND OPENINGS AND PIPE PENETRATING FLOORS WITH JOINT SEALING COMPOUND. WHERE CONSTRUCTION JOINTS OCCUR, KEY SLABS WITH FORMED TONGUE AND GROOVE JOINT. WHERE FLOOR DRAINS OCCUR, FINISHED FLOOR SURFACES AND ROUGH SLAB SURFACES SHALL BE SLOPED TO THE FLOOR DRAINS TO INSURE POSITIVE DRAINAGE.
   - 1.3. CONCRETE CURING AND SEALING: ALL EXPOSED CONCRETE SIDEWALKS, CURB AND GUTTERS, CONCRETE DRIVEWAYS, ETC. SHALL BE CURED AND SEALED 1/2 TO 1 HOUR AFTER FINAL TROWELING, AND LATER, WHEN THEY CAN BE WALKED ON WITHOUT HARM. THE SEALING MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
   - 1.4. FINISHES: SUB-SLAB IN BUILDING SHALL BE SCREEDED AND FLOATED TO REASONABLY SMOOTH SURFACE, FREE FROM STONE PROJECTIONS AND VOIDS. EXPOSED SLAB AROUND BUILDING SHALL BE SCREEDED, FLOATED AND STEEL TROWELED TO A UNIFORM SURFACE AND THEN BE LIGHTLY BROOMED BEFORE FINAL SET. EXPOSED EDGE SLAB SHALL HAVE RUBBED FINISH.

PERFORMANCE CONT.

- E. BASES: FORM AND POUR BASES FOR LIGHT POLES AND PRIME SIGN AS SHOWN, SETTING ANCHOR BOLTS AS CALLED FOR. ALL SURFACES TO HAVE RUBBED FINISH. ANCHOR BOLTS FOR LIGHT POLES SHALL BE PROVIDED BY THE PARTY PROVIDING THE LIGHT POLES.
- F. CONCRETE CURBS: RUB, CURE, AND PROTECT CONCRETE CURBS AND/OR CURB AND GUTTER. PROVIDE EXPANSION AND CONTRACTION JOINTS AT A MAXIMUM OF 20' O.C.
- G. EXPANSION JOINTS: JOINTS IN WALKS OR APPROACHES SHALL BE AS SHOWN, WHERE NOT SHOWN, SHALL BE 20' O.C. MAXIMUM. PROVIDE EXPANSION FILLERS WHERE CONCRETE ABUTS VERTICAL FACES OF BUILDING OR OTHER CONCRETE.
- H. CONTROL JOINTS: JOINTS IN SLABS SHALL BE AS SHOWN.
- I. CONCRETE FILL FOR CONCRETE MASONRY UNITS: FILL CONCRETE MASONRY UNITS WHERE INDICATED WITH CONCRETE IN LIFTS OF 2' OR LESS. INSTALL REINFORCEMENT SHOWN.

DIVISION 4: MASONRY

SECTION 4A: MASONRY GENERAL

PROVISIONS

1. SCOPE: FURNISH AND INSTALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE MASONRY WORK AS SHOWN ON DRAWINGS AND ELEVATIONS.
2. NOTES:
   - 2.1. NO MASONRY WORK SHALL BE DONE WHEN THE TEMPERATURE IS 40 DEG F OR BELOW AND FALLING OR FREEZING TEMPERATURES ARE PREDICTED WITHIN TWENTY FOUR (24) HOURS, UNLESS ADEQUATE PROTECTION IS PROVIDED.
3. SUBMISSIONS: SUBMIT FACE BRICK TO OWNER FOR APPROVAL PRIOR TO CONSTRUCTION TO MATCH SAMPLES ON FILE WITH POPEYE'S CONSTRUCTION REPRESENTATIVE.

MATERIALS

1. BRICK:
   - 1.1. FACE BRICK SHALL CONFORM TO ASTM SPECIFICATION C-216. BRICK SHALL BE NORMAL SIZE (2 1/2" X 7 5/8" X 3 5/8"), UNIFORM IN SIZE, SHAPE, AND COLOR. BRICK TEXTURE AND THRU-BODY COLOR SHALL MATCH SAMPLES ON FILE WITH THE POPEYES CONSTRUCTION MANAGER.
   - 1.2. BUILDING BRICK SHALL CONFORM TO ASTM SPECIFICATION C62. USE GRADE SW FOR FOUNDATIONS, WORK BELOW GRADE, AND WORK IN CONTACT WITH EARTH. USE GRADE MW FOR WALLS ABOVE GRADE. BRICK SHALL BE NORMAL SIZE (2 1/2" X 7 5/8" X 3 5/8"), UNIFORM IN SIZE AND SHAPE. USE BUILDING BRICK FOR WORK NOT EXPOSED TO VIEW.
2. CONCRETE MASONRY UNITS: SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATIONS C-90 FOR HOLLOW LOAD-BEARING LIGHTWEIGHT CONCRETE MASONRY UNITS, GRADE N. FACE DIMENSIONS SHALL BE NOMINAL 4" X 16", OR 6" X 16", OR 8" X 16", UNLESS SPECIFICALLY NOTED OTHERWISE. ALL AGGREGATES USED IN THE MANUFACTURE OF THESE MASONRY UNITS SHALL BE SOLITE, ROCKLITE, OR HAYDITE, CONFORMING TO ASTM C-331.
3. JOINT REINFORCEMENT AND ANCHORS:
   - 3.1. BEARING WALLS: MASONRY JOINT REINFORCEMENT FOR EXTERIOR WALLS SHALL BE SIZED FOR APPROPRIATE WALL THICKNESS TO PROVIDE 5/8" MINIMUM MORTAR COVERAGE ON THE FACES OF MASONRY CAVITY WALLS AND COMPOSITION OF 3/16" DEFORMED SIDE RODS AND 3/16" CROSS RODS. ALL REINFORCEMENT SHALL BE HOT DIP GALVANIZED. PRODUCTS SHALL BE AS MANUFACTURED BY DUR-O-WALL, AA WIRE PRODUCTS, OR EQUAL.
   - 3.2. VENEER WALLS WITH WOOD STUDS: 16 GAUGE GALVANIZED STEEL CORRUGATED MASONRY WALL TIES NOT LESS THAN 7/8" WIDE AND 5 1/2" LONG.
   - 3.3. VENEER WALLS WITH METAL STUDS: HOT DIPPED GALVANIZED METAL ANCHOR PLATE AND WIRE TIE #AA 401-S WITH AA 335 1 1/4" SELF TAPPING SCREWS BY AA WIRE PRODUCTS COMPANY (312) 586-6700 OR #D/A 213 WITH DA 807 x 1 1/2" SELF TAPPING SCREW BY DUR-O-WALL, INC. 1 (800) 323-0090.
4. BRICK AND CONCRETE BLOCK MORTAR: TYPE M OR S, CONFORMING TO ASTM C-270, COLOR TO MATCH SAMPLES ON FILE WITH THE POPEYES CONSTRUCTION MANAGER FOR EXPOSED MASONRY AND UNCOLORED MORTAR FOR CONCEALED BACK-UP MATERIALS.
   - 4.1. CEMENT: SHALL BE STANDARD BRAND OF GRAY PORTLAND, CONFORMING TO ASTM C-150, TYPE I OR II.
   - 4.2. SAND: SHALL BE CLEAN, SHARP BUILDERS SAND CONFORMING TO ASTM C-144.
   - 4.3. LIME: SHALL BE CALCIUM, TYPE S, CONFORMING ASTM C-207.
   - 4.4. WATER: SHALL BE POTABLE, FREE FROM INJURIOUS ALKALIES OR ACIDS, CONFORMING TO ASTM C-270.
   - 4.5. PLASTICIZING AGENT: SHALL BE OMICRON, OR APPROVED EQUAL, USED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
   - 4.6. SUBSTITUTION: PREMIXED MIX SHALL CONFORM TO THE LIME-CEMENT MORTAR AND COLORS AS SPECIFIED ABOVE.

PERFORMANCE

1. ALL MASONRY:
   - 1.1. CUTTING TO FIT ELECTRICAL OUTLETS, SWITCHES, PANELS, OTHER DEVICES OR SPECIAL CONDITIONS SHALL BE DONE WITH A MASONRY SAW.
   - 1.2. PROTECTION: ALL MATERIAL AND WALLS SHALL BE COVERED AND PROTECTED AGAINST WEATHER DURING CONSTRUCTION.
   - 1.3. BOND: SHALL BE COMMON BOND UNLESS OTHERWISE INDICATED.
   - 1.4. JOINTS: SHALL BE TOOLED TO FORM A TIGHT-TOOLED CONCAVE JOINT.
   - 1.5. WEEPS: PLACE WICKS IN WEEPS AT 24" ON CENTER MAXIMUM AT THE GROUND LEVEL COURSE OF ALL BRICK WALLS.
2. JOINT REINFORCEMENT:
   - 2.1. BEARING WALLS: SHALL BE INSTALLED CONTINUOUSLY IN HORIZONTAL COURSES AT 16" O.C. VERTICALLY. THE TOP TWO (2) COURSES ABOVE THE REAR DOOR SHALL BE REINFORCED AND EXTEND 24" BEYOND THE OPENING. LAP SPLICES A MINIMUM OF 6" FOR CONTINUITY.
   - 2.2. VENEER WALLS: MASONRY WALL TIES SHALL BE INSTALLED AT 24" O.C. HORIZONTALLY AND 10.5" VERTICALLY ATTACHED DIRECTLY TO STUDS, WITH SCREW SPECIFIED.
3. MORTAR: MORTAR SHALL BE MIXED AND USED IN ACCORDANCE WITH APPLICABLE CODES AND THE DICTATES OF GOOD PRACTICE. COLOR TO MATCH FINISH SCHEDULE.
4. BUILT-IN WORK: BUILT-IN WORK SPECIFIED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS AS THE WORK PROGRESSES.
5. THRU WALL FLASHING: INSTALL WHERE SHOWN ON DRAWINGS, PAN ALL CORNERS. WHERE JOINTS ARE NECESSARY, LAP FLASHING 3" AND CEMENT WITH HIGH GRADE ASPHALTIC CEMENT.

DIVISION 5: METALS

SECTION 5A: STRUCTURAL STEEL GENERAL PROVISIONS
1. SCOPE: FURNISH AND INSTALL STRUCTURAL STEEL AND ALL INCIDENTAL ANCHOR BOLTS, EXPANSION BOLTS, HEX BOLTS, AND WALL TIES.
2. SHOP DRAWINGS: SUBMIT FOUR (4) COPIES OF SEALED ENGINEERING SHOP DRAWINGS TO THE OWNER'S FIELD REPRESENTATIVE.

MATERIALS:
1. STRUCTURAL STEEL: STRUCTURAL STEEL FOR ALL WORK EXCEPT AS OTHERWISE INDICATED OR SPECIFIED SHALL CONFORM AT ASTM A36.
2. BOLTS: ASTM A325, USE HIGH-STRENGTH STEEL BOLTS FOR ALL LOCATIONS. ANCHOR BOLTS FOR BEARING STUD WALLS TO HAVE 1 1/2" O.D. STEEL WASHERS.
3. FILLER METAL FOR WELDING: WELDING ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING SHALL CONFORM TO ASTM A233, E70 SERIES.
4. SHOP COAT: THE STANDARD SHOP PAINT SHALL CONFORM TO ONE (1) OF THE FOLLOWING:
   - 4.1. RUST INHIBITIVE PRIMER #476 RED, SOUTHERN COATINGS AND CHEMICAL CO.
   - 4.2. STEEL STRUCTURES PAINTING COUNCIL SPECIFICATIONS 15-6BT, TYPE I (RED OXIDE).
   - 4.3. FEDERAL SPECIFICATIONS TT-P-636 (RED OXIDE).

PERFORMANCE

1. FABRICATION:
- A. UNLESS OTHERWISE INDICATED OR SPECIFIED, THE FABRICATION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION -"SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS." PUNCH AND DRILL STEEL FOR ATTACHMENT OF WOOD NAILERS AND OTHER MATERIALS INDICATED OR SPECIFIED TO BE ATTACHED TO STEEL.
- B. COMPLETE DESIGN OF MEMBERS AND CONNECTIONS FOR ANY PORTIONS OF THE STRUCTURE NOT INDICATED ON DESIGN DRAWINGS.
- C. PROVIDE BEARING PLATES FOR MEMBERS RESTING ON CONCRETE OR MASONRY, WITH THE EXCEPTION OF LOOSE LINTELS. BEARING STRESS SHALL NOT EXCEED THE FOLLOWING: (1) BRICKWORK - 250 P.S.I., (2) CONCRETE BLOCK - 80 P.S.I., GROSS AREA, AND (3) CONCRETE - 1,000 P.S.I.
- D. WHERE LINTEL ANGLES OCCUR IN PAIRS THEY SHALL BE BOLTED TOGETHER.
- E. SHOP PAINTINGS: APPLY ONE (1) SHOP COAT OF RUST INHIBITIVE PAINT TO ALL STEEL SURFACES, EXCEPT SURFACE AREAS TO BE IMBEDDED IN CONCRETE OR FIELD WELDED.

2. INSTALLATION:
- A. APPLICABLE STANDARDS: ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS, AND BRIDGES", AND WITH MODIFICATIONS AND OTHER SPECIFIC REQUIREMENTS DESCRIBED HEREIN.

INSTALLATION CONT.

- B. HIGH-STRENGTH STEEL BOLTS: WHERE STRUCTURAL JOINTS ARE MADE USING HIGH-STRENGTH BOLTS, HARDENED WASHERS, AND NUTS TIGHTENED TO A HIGH TENSION, MATERIALS, METHOD OF INSTALLATION AND TENSION CONTROL, TYPE OF WRENCHES TO BE USED, AND INSPECTION METHODS SHALL CONFORM TO AISC SPECIFICATIONS FOR "STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."
- C. FIELD WELDS SHALL BE CLEANED AND PAINTED WITH RUST INHIBITIVE PRIMER PAINT. WHERE RUSTING OF STEEL MEMBERS OCCURS PRIOR TO ACCEPTANCE OF THE BUILDING, THE RUST SPOTS SHALL BE REMOVED BY SANDBLASTING TO BARE METAL AND REPAINTED WITH RUST INHIBITIVE PRIMER.
- D. CERTIFIED WELDING IS REQUIRED FOR ALL RIGID FRAME CONDITIONS. (SEE DRAWINGS.)

SECTION 5B: MISCELLANEOUS METAL FABRICATORS

GENERAL PROVISIONS

1. SCOPE: FURNISH AND INSTALL PIPE GUARDS AND METAL GATES FOR TRASH DUMPSTER'S AREA, STEEL ROOF ACCESS LADDER, EXTERIOR HANDRAILS.

MATERIAL

1. PIPE GUARDS: 4" STANDARD STEEL PIPE.
2. ROOF ACCESS LADDER, DUMPSTER GATES AND POSTS, AND EXTERIOR HANDRAILS METAL SHALL CONFORM TO ASTM A-36 OF SIZES SHOWN.
   - 2.1. SHOP PAINTING: APPLY ONE (1) SHOP COAT OF RUST INHIBITIVE PAINT TO ALL STEEL SURFACES, EXCEPT SURFACE AREAS TO BE IMBEDDED IN CONCRETE OR FIELD WELDED.
   - 2.2. WELDS SHALL BE CLEANED AND PAINTED WITH RUST INHIBITIVE PRIMER PAINT. WHERE RUSTING OF STEEL MEMBERS OCCURS PRIOR TO ACCEPTANCE OF THE BUILDING, THE RUST SPOTS SHALL BE REMOVED BY SANDBLASTING OR GRINDING TO BARE METAL AND REPAINTED WITH RUST INHIBITIVE PRIMER.
3. EXTERIOR HANDRAILS: AS SHOWN ON SITE PLAN.

PERFORMANCE

1. INSTALLATION:
   - 1.1. PIPE GUARDS: SET PIPE IN CONCRETE. FILL PIPES WITH CONCRETE AND INSTALL PVC TOP CAP.
   - 1.2. STEEL ROOF ACCESS LADDER: INSTALL AS SHOWN.
   - 1.3. METAL GATES: INSTALL AS SHOWN.
- E. EXTERIOR HANDRAILS: HANDRAILS SHALL BE SET IN CONCRETE WITH POR-ROK EPOXY GROUT. INSTALL AS SHOWN.

DIVISION 6: WOOD

SECTION 6A: ROUGH CARPENTRY

GENERAL PROVISIONS
1. SCOPE: FURNISH AND INSTALL ALL WOOD TRUSSES, ALL ROOF FRAMING, ROOF DECK, EXTERIOR SHEATHING, AND ALL BLOCKING, CLIPS, AND ACCESSORIES.
2. NOTES: FRAMING SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. ROOF TRUSSES SHALL BE DESIGNED TO WITHSTAND A MINIMUM 18 PSF DEAD LOAD PLUS EQUIPMENT LOADS IMPOSED UPON THEM IN ADDITION TO A MINIMUM LIVE LOAD OF 30 LBS. PER SQUARE FOOT EXCEPT WHERE THIS MINIMUM LIVE/SNOW LOAD IS EXCEEDED BY LOCAL REQUIREMENTS. IN THAT CASE, ROOF TRUSSES SHALL BE DESIGNED TO WITHSTAND ALL DEAD LOADS PLUS THE LOCAL REQUIRED LIVE LOADS. REFER TO STRUCTURAL FRAMING DRAWINGS.
3. QUALITY CONTROL: ALL PLYWOOD SHALL BE AMERICAN PLYWOOD ASSOCIATION (APA) GRADE-TRADEMARKED.
4. SHOP DRAWINGS: SUBMIT FOUR (4) COPIES OF SEALED ENGINEERING SHOP DRAWINGS OF THE INTENDED TRUSS DETAILS TO THE OWNER'S REPRESENTATIVE.
5. DELIVERY AND STORAGE: WHEN DELIVERED TO THE SITE, THE MOISTURE CONTENT OF FRAMING LUMBER SHALL BE NOT MORE THAN 19%.

MATERIALS

1. FRAMING, LUMBER FOR STUDS, POSTS, BLOCKING, PLATES, CEILING JOISTS, TRUSSES, FURRING, AND RAFTERS SHALL BE SOUTHERN PINE NO2 OR EQUAL GRADE WITH A MINIMUM EXTREME FIBER BENDING, FB, OF 1200 PSI.
2. TREATED LUMBER: ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE DECAY-RESISTANT PRESSURE-TREATED WITH WATER SOLUTION OF PRESERVATIVE CHEMICALS AND THEN AIR SEASONED OR KILN DRIED. WOLMANZIED BY KOPPERS COMPANY, INC., 1900 KOPPERS BUILDING, PITTSBURGH, PA, OR OSMOSE K-33 BY OSMOSE WOOD PRESERVING CO. OF AMERICA, INC., BUFFALO, NY.
3. WALL SHEATHING: REFER TO STRUCTURAL NOTES ON DRAWINGS.
4. PLYWOOD ROOF SHEATHING: REFER TO STRUCTURAL NOTES ON DRAWINGS.
5. SHEET METAL ANCHORS AS REQUIRED SHALL CONFORM TO ASTM A-93 AND BE SIMPSON DESIGNATIONS SHOWN OR EQUAL TO TECO, SILVER, OR HECKMAN.

MATERIALS CONT.

6. NONCOMBUSTIBLE LUMBER AND PLYWOOD AS NOTED SHALL BE FIRE RETARDANT TREATED WITH PRESSURE-IMPREGNATED FIRE RETARDANT MONOMERIC RESIN SOLUTION AND THEN KILN DRIED TO CURE CHEMICALS IN WOOD. TREATMENT SHALL HAVE U.L. DESIGNATION OF FRS OR FLAME SPREAD RATING NOT GREATER THAN 25. DRICON BY KOPPERS COMPANY, INC., PITTSBURGH, PA, OR OSMOSE FLAME PROOF LHC BY OSMOSE WOOD PRESERVING CO. OF AMERICA, INC., BUFFALO, NY.
7. WOOD SLEEPERS TO BE KILN DRIED REDWOOD OR CYPRESS, GRADE B OR BETTER.
8. BLOCKING SUPPLIED AND INSTALLED BY INDIVIDUAL TRADES AS REQUIRED SHALL BE COORDINATED BY GENERAL CONTRACTOR FOR PROPER LOCATION AND INSTALLATION.
9. FASTENERS:
   - 9.1. NAILS SHALL BE COMMON STEEL WIRE FEDERAL SPECIFICATIONS FF-N-101 EXCEPT AS OTHERWISE NOTED. LENGTH SHALL BE 2 1/2 TIME THICKNESS OF PIECE NAILED MINIMUM. ALL NAILS FOR EXPOSED WORK SHALL BE FINISHING OR CASING NAILS WITH HEADS SET. USE ALUMINUM ALLOY OR STAINLESS STEEL NAILS FOR EXTERIOR WORK.
   - 9.2. SELF-TAPPING SHEET METAL SCREWS SHALL BE USED WHEN ATTACHING WOOD TO METAL FRAMING.
   - 9.3. HARDENED STEEL NAILS SHALL BE USED WHEN ATTACHING WOOD TO CONCRETE OR MASONRY.
10. NAIL STOPPERS SHALL BE NS-16, 16 GAUGE GALVANIZED STEEL TO CONFORM TO NATIONAL ELECTRIC CODE, BY SIMPSON COMPANY OR EQUAL BY TECO OR SILVER.

PERFORMANCE

1. INSTALLATION:
   - 1.1. PROVIDE ALL TEMPORARY GUYING AND BRACING REQUIRED TO ERECT AND HOLD THE WOOD FRAME IN ALIGNMENT UNTIL ALL ROOF TRUSSES, WALL TRUSSES, GIRDERS, ROOF DECKS, FLOOR DECKS, AND WALLS ARE IN PLACE. BRACING RECOMMENDATIONS BY THE WOOD TRUSS COUNCIL OF AMERICA REFER TO MINIMUM BRACING GUIDELINES.
   - 1.2. INSTALL ALL FRAMING PLUMB, LEVEL AND TRUE.
   - 1.3. INSTALL FRAMING ANCHORS AS RECOMMENDED BY MANUFACTURER.
   - 1.4. TRUSSES SHALL BE INSTALLED LEVEL, PLUMB, TRUE, AND SLOPE AS INDICATED AND SPACED IN ACCORDANCE WITH TRUSS LAYOUT PLAN. TRUSSES SHALL BE ANCHORED WITH METAL CLIPS TO WITHSTAND UPLIFT FORCES. ALL PERMANENT BRACING ELEMENTS SHALL BE INSTALLED ACCORDING TO THE TRUSS FABRICATORS DETAILS.
   - 1.5. PROVIDE STUDS OR BLOCKING FOR ALL ACCESSORIES ATTACHED TO WALLS SUCH AS LADDER, TOILET ACCESSORIES, TOILET PARTITIONS, SHELVING, AND COUNTERS.
2. NAILING SCHEDULE FOR PLYWOOD:
   - 2.1. WALL, AND ROOF SHEATHING - NAILING SHALL BE ACCORDING TO SHEATHING NAILING SCHEDULE. REFER TO STRUCTURAL DRAWINGS.
   - 2.2. PANEL END JOINTS TO OCCUR OVER FRAMING. ALLOW 1/16" SPACING AT PANEL ENDS AND 1/8" AT PANEL EDGES.
   - 2.3. POWER NAILING SHALL USE THE SAME NAIL SIZE AS SPECIFIED. THE NAIL HEAD SHALL NOT BE DRIVEN BELOW THE SURFACE OF THE PLYWOOD.
3. NAILING SCHEDULE FOR FRAMING:
   - 3.1. ALL FRAMING SHALL BE NAILED WITH MINIMUM CONNECTIONS MEETING THE REQUIREMENTS OF LOCAL AND/OR NATIONAL BUILDING CODES AND/OR AS INDICATED ON THE STRUCTURAL FRAMING DRAWINGS AND NOTES.
4. INSTALL NAIL STOPPER TO PROTECT WATER, GAS, AND ELECTRIC LINES THAT PENETRATE THE FRAMING MEMBERS.

EMBEDMENT LENGTHS

CONCRETE 28-DAY COMPRESSIVE STRENGTH - 3,000 PSI

BAR SIZE	STRAIGHT BARS "TOP" BAR	STRAIGHT BARS OTHER BAR	HOOKED BARS
3	1'-10"	1'-5"	0'-9"
4	2'-5"	1'-10"	0'-11"
5	3'-0"	2'-4"	1'-2"
6	3'-7"	2'-9"	1'-5"
7	5'-3"	4'-0"	1'-8"
8	6'-0"	4'-7"	1'-10"
9	6'-8"	5'-2"	2'-1"
10	7'-5"	5'-9"	2'-4"
11	8'-2"	6'-4"	2'-6"

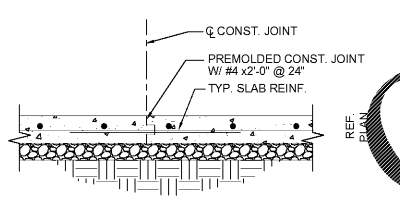
GRADE 60 REINFORCEMENT. MINIMUM LENGTHS SHOWN ABOVE SHALL BE USED UNLESS OTHERWISE NOTED ON THE PLANS. "TOP" BARS ARE HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

LAP SPLICE LENGTHS

CONCRETE 28-DAY COMPRESSIVE STRENGTH - 3,000 PSI

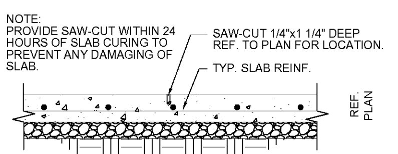
BAR SIZE	SPACING 6" OR GREATER "TOP" BAR	SPACING 6" OR GREATER OTHER BAR	SPACING LESS THAN 6" "TOP" BAR	SPACING LESS THAN 6" OTHER BAR
3	2'-5"	1'-10"	2'-11"	2'-3"
4	3'-2"	2'-5"	3'-10"	2'-11"
5	3'-11"	3'-1"	4'-9"	3'-9"
6	4'-8"	3'-7"	5'-8"	4'-4"
7	6'-10"	5'-3"	8'-3"	6'-4"
8	7'-10"	6'-0"	9'-5"	7'-3"
9	8'-8"	6'-9"	10'-5"	8'-2"
10	9'-8"	7'-6"	11'-8"	9'-0"
11	10'-8"	8'-3"	12'-10"	9'-11"

GRADE 60 REINFORCEMENT. MINIMUM LENGTHS SHOWN ABOVE SHALL BE USED UNLESS OTHERWISE NOTED ON THE PLANS. "TOP" BARS ARE HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.



CONSTRUCTION JOINT

NOTE:
PROVIDE SAW-CUT WITHIN 24 HOURS OF SLAB CURING TO PREVENT ANY DAMAGING OF SLAB.



CONTROL JOINT

1 / S0 SLAB JOINT DETAIL
NTS

IBC FASTENING SCHEDULE (100 MPH)

CONNECTION	FASTENER	NUMBER OR SPACING
1. JOIST TO SILL OR GIRDER	3-8d COMMON	TOENAIL
2. BRIDGING TO JOIST	2-8d COMMON	TOENAIL EA. END
3. 1x6 SUBFLOOR OR LESS TO EA. JOIST	2-8d COMMON	FACE NAIL
4. WIDER THAN 1x6 SUBFLOOR TO EA. JOIST	3-8d COMMON	FACE NAIL
5. 2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON	BLIND & FACE NAIL
6. SOLE PLATE TO JOIST OR BLOCKING	16d @16" O.C.	TYP. FACE NAIL
SOLE PLATE TO JOIST/BLOCKING AT BRACED WALL PANEL	3-16d PER 16" O.C.	BRACED WALL PANELS
7. TOP PLATE TO STUD		
8. STUD TO SOLE PLATE	2-16d COMMON	END NAIL
9. DOUBLE STUDS	4-8d COMMON {2-16d COMMON}	TOENAIL {END NAIL}
10. DOUBLE TOP PLATES	16d @24" O.C.	FACE NAIL
11. BLOCKING BETWEEN JOISTS AND RAFTERS TO TOP PLATE	16d @16" O.C. {8-16d COMMON}	TYP. FACE NAIL {LAP SPLICE}
12. RIM JOIST TO TOP PLATE	3-8d COMMON	TOENAIL
13. TOP PLATES, LAPS & INTERSECTIONS	8d @6" O.C.	TOENAIL
14. CONTINUOUS HEADER, TWO PIECES	2-16d COMMON	FACE NAIL
15. CEILING JOISTS TO PLATE	16d COMMON	16" O.C. ALONG EDGE
16. CONTINUOUS HEADER TO STUD	3-8d COMMON	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (SECTION 2308.10.4.1, TABLE 2308.10.4.1)	4-8d COMMON	TOENAIL
18. CEILING JOISTS TO PARALLEL RAFTERS (SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3-16d COMMON MIN., TABLE 2308.10.4.1	FACE NAIL
19. RAFTER TO PLATE (SECTION 2308.10.1, TABLE 2308.10.1)	3-16d COMMON MIN., TABLE 2308.10.4.1	FACE NAIL
20. 1" DIAGONAL BRACE TO EA. STUD & PLATE	3-8d COMMON	TOENAIL
21. 1x8 OR LESS SHEATHING TO EA. BEARING WALL	2-8d COMMON	FACE NAIL
22. OVER 1x8 SHEATHING TO EA. BEARING	2-8d COMMON	FACE NAIL
23. BUILT-UP CORNER STUDS	3-8d COMMON	FACE NAIL
24. BUILT-UP GIRDERS AND BEAMS	16d COMMON {20d COMMON 32" O.C.}	24" O.C. {FACE NAIL AT TOP AND BOT. STAGGERED ON OPP. SIDES}
25. 2" PLANKS	2-20d COMMON	FACE NAIL @ENDS & @EA. SPLICE
26. COLLAR TIE TO RAFTER	16d COMMON	AT EACH BEARING
27. JACK RAFTER TO HIP	3-10d COMMON	FACE NAIL
28. ROOF RAFTER TO 2-BY RIDGE BEAM	3-10d COMMON {2-16d COMMON}	TOENAIL {FACE NAIL}
29. JOIST TO BAND JOIST	2-16d COMMON {2-16d COMMON}	TOENAIL {FACE NAIL}
30. LEDGER STRIP	3-16d COMMON	FACE NAIL
	3-16d COMMON	FACE NAIL

IBC FASTENING SCHEDULE (120 MPH)

CONNECTION	FASTENER	NUMBER OR SPACING
1. BAND JOIST TO SILL OR TOP PLATE, TOE NAIL	8d	6" O.C.
2. JOIST TO BAND JOIST, FACE NAIL	16d COMMON	3
3. JOIST TO SILL OR GIRDER, TOE NAIL	8d COMMON	3
4. BRIDGING TO JOIST, TOE NAIL EACH END	8d COMMON	2
5. LEDGER STRIP	16d COMMON	3 @EA. JOIST
6. 1x6 OR LESS SUBFLOOR TO EA. JOIST, FACE NAIL	8d COMMON	2
7. OVER 1x6 SUBFLOOR TO EA. JOIST, FACE NAIL	8d COMMON	3
8. 2" SUBFLOOR TO JOIST/GIRDER, BLIND & FACE NAIL	16d COMMON	2
9. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d COMMON	16" O.C.
10. TOP OR SOLE PLATE TO STUD, END NAIL	16d COMMON	2
11. STUD TO SOLE PLATE, TOE NAIL	8d COMMON	4
12. DOUBLED STUDS, FACE NAIL	10d COMMON	24" O.C.
13. DOUBLED TOP PLATES, FACE NAIL	10d COMMON	16" O.C.
14. TOP PLATES, LAP AND INTERSECTIONS FACE NAIL	--	(2)16d/(3)10d COMMON
15. CONTINUOUS HEADER, TWO PIECES	16d COMMON	16" O.C. ALONG EDGE
16. CEILING JOISTS TO PLATE, TOE NAIL	8d COMMON	3
17. CONTINUOUS HEADER TO STUD, TOE NAIL	8d COMMON	3
18. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	--	(3)16d/(4)10d COMMON
19. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	--	(3)16d/(4)10d COMMON
20. RAFTER TO PLATE, TOE NAIL	8d COMMON	3
21. 1" BRACE TO EA. STUD & PLATE, FACE NAIL	8d COMMON	2
22. 1x8 OR LESS SHEATHING TO EA. BEARING, FACE NAIL	8d COMMON	2
23. OVER 1x8 SHEATHING TO EA. BEARING, FACE NAIL	8d COMMON	3
24. BUILT-UP CORNER STUDS	16d COMMON	24" O.C.
25. BUILT-UP GIRDERS/BEAMS, OF THREE MEMBERS	20d COMMON	32" O.C. @TOP & BOT. & STAGGERED 2 ENDS & @EA. SPLICE
26. 2" PLANKS	16d COMMON	2 EA. BEARING
27. STUDS TO SOLE PLATE, END NAIL	16d COMMON	2 EA. END

2 / S0 NAIL SCHEDULE
NTS

FRCH NELSON
A NELSON BRAND
311 Elm Street Suite 600
Cincinnati OH 45202
513 241 3000
www.frchnelson.com

LOUISIANA KITCHEN
POPEYES

BRITT PETERS AND ASSOCIATES INC.
consulting engineers
999 Waterside Drive
Suite 2202
Norfolk, VA 23510
(757) 965-5710
www.brittpeters.com
BPA Job No. 200282

JPL MANAGEMENT

ISSUE INFORMATION

REVISIONS

Nelco Architecture, Inc.

STATE OF KENTUCKY
WILLIAM B UNDERWOOD
32292
LICENSED PROFESSIONAL ENGINEER
05/12/20

PROJECT INFORMATION

BOWLING GREEN, KY

DISHMAN LANE
BOWLING GREEN, KY 42101

PROJECT #:
20.0001760.000

SHEET INFORMATION

STRUCTURAL DATA AND SPECIFICATIONS

DRAWN BY: BS

REVIEWED BY: BU

SCALE: AS NOTED

AUTHORIZED FOR: Permit / Bid

S0

© 2020 This drawing, printed or otherwise, is the copyrighted property of Nelco Architecture, Inc. The drawing may not be used, reproduced or copied without the permission of Nelco Architecture, Inc.

Order Plans @ www.LDIILine.com