GENERAL

A. THESE GENERAL NOTES PRESENT AND/OR SUMMARIZE KEY PROJECT INFORMATION FOR THE READER'S CONVENIENCE. SEE ALSO INDIVIDUAL PLAN NOTES FOR FURTHER DETAILS AND REQUIREMENTS.
B. ALL REFERENCES TO REFERENCE STANDARDS HEREIN ARE TO THE MOST RECENT ISSUE IN EFFECT AS OF THE DATE OF THESE DOCUMENTS, UNLESS NOTED OTHERWISE ON THE PLANS.
C. ALL ELEVATIONS ARE REFERENCED TO FINISHED FLOOR EL. 100'-0". ALL ELEVATIONS SHOWN ON PLANS ARE REFERENCED TO THE SITE ELEVATION DATUM SHOWN ON FOUNDATION PLANS UNLESS NOTED OTHERWISE.
D. SUBMIT SHOP DRAWINGS, PROJECT DATA, AND SAMPLES FOR ITEMS ON THE PLANS.

1. IDENTIFY PROMINENTLY ON DRAWINGS EACH AND ALL RESUBMITTALS BY NUMBER.
2. IDENTIFY ANY CHANGES WHICH HAVE BEEN MADE OTHER THAN THOSE REQUESTED BY THE ENGINEER.
3. SUBMITTALS FAILING TO CONFORM TO THE ABOVE WILL BE RETURNED FOR RESUBMITTAL.

E. CONTRACTOR SHALL BRACE ENTIRE STRUCTURE(S) AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGN UNIT. IN ACCORDANCE WITH THE GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THE REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

DESIGN CRITERIA

A. GOVERNING CODES, REQUIREMENTS, DESIGN STANDARDS AND SPECIFICATIONS:

DESIGN CODE: 2017 OHIO BUILDING CODE

DESIGN STANDARDS:

ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE

ACI 315 DETAILS AND DETAILING OF CONCRETE REINFORCEMENT

CRSI REINFORCING BAR DETAILING (MANUAL OF STANDARD PRACTICE)

ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY

AWC NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION

AWC SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC

B. STRUCTURAL DESIGN LOADS

1. DEAD LOAD: SELF-WEIGHT
   SUPERIMPOSED DEAD LOAD ON ROOF & FLOOR 25 PSF

2. FLOOR LIVE LOAD:

AREAS NOT LISTED BELOW	150 PSF
MECHNICAL ROOM	125 PSF
SERVER ROOM	125 PSF
GEAR ROOM	125 PSF
WATER ROOM	125 PSF
LOBBIES, EXITS, CORRIDORS, BATHROOM	100 PSF
OFFICE	50 PSF

3. ROOF LIVE LOAD: 20 PSF

4. ROOF SNOW LOADS:

GROUND SNOW LOAD, Pg	30 PSF
SNOW EXPOSURE FACTOR, Ce	1.0
SNOW LOAD IMPORTANCE FACTOR, I	1.1
THERMAL FACTOR, Ct (ROOFS OVER UNHEATED AREAS)	1.2
THERMAL FACTOR, Ct (ROOF OVER CONTINUOUSLY HEATED AREAS)	1.0

5. WIND LOADS:

BASIC WIND SPEED (3 SEC. GUST)	120 MPH
WIND EXPOSURE	C

6. EARTHQUAKE DESIGN DATA

BUILDING OCCUPANCY CATEGORY:	III
SEISMIC IMPORTANCE FACTOR, I	1.5
Ss =	0.207
S1 =	0.060
SITE CLASS:	D
SEISMIC DESIGN CATEGORY:	B

BASIC SEISMIC FORCE RESISTING SYSTEMS:
ORDINARY STEEL MOMENT FRAMES NOT SPECIFICALLY DESIGNED FOR SEISMIC RESISTANCE

RESPONSE MODIFICATION COEFFICIENT, R	3.0
SEISMIC COEFFICIENT, Cs =	0.092

FOUNDATIONS

EXISTING CLAY FILL & LACUSTRINE CLAYS SHALL NOT BE USED FOR FOUNDATION SUPPORT IN THEIR CURRENT CONDITION. SHALLOW FOUNDATIONS SHALL BEAR ONTO STIFF OR BETTER GLACIAL MORAINE TILL CLAY. THE PAVEMENTS SHALL BE SUPPORTED BY A COMBINATION OF EXISTING FILL, LACUSTRINE CLAY, GLACIAL GROUND MORAINE TILL CLAY, AND ENGINEERED FILL.

TOPSOIL, BURIED TOPSOIL, CONSTRUCTION DEBRIS, UNSUITABLE FILL AND OTHER UNDESIRABLE MATERIALS SHALL BE REMOVED TO EXPOSE THE SUITABLE EXISTING SUBGRADE WITHIN CONSTRUCTION AREAS. SITE CLEARING SHALL EXTEND A MINIMUM 5 FEET BEYOND THE LIMITS OF THE PROPOSED IMPROVEMENT AREAS. AREAS OF UNSUITABLY LOOSE/WET SUBGRADE SHALL BE EITHER IMPROVED IN-PLACE (DRIED AND RE-COMPACTED) OR SHALL BE REPLACED WITH ENGINEERED FILL.

ANY FILL PLACED WITHIN THE CONSTRUCTION AREA, INCLUDING UTILITY TRENCH BACKFILL, SHALL BE AN APPROVED MATERIAL, FREE OF FROZEN SOIL, ORGANICS, OR OTHER UNSUITABLE MATERIALS. THE FILL SHALL BE PLACED ON SUITABLY PREPARED SUBGRADE. THE FILL SHALL BE SPREAD IN LEVEL LAYERS WHICH ARE 8 TO 10 INCHES IN LOOSE THICKNESS AND MOISTURE CONDITIONED TO WITHIN 2% OF ITS OPTIMUM CONTENT AND SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH THE STANDARD PROCTOR TEST (ASTM D698). FILLS PLACED BELOW THE FOUNDATION BEARING ELEVATION AND WITHIN 12 INCHES OF THE FLOOR SLAB AND PAVEMENT SUBGRADE SURFACES SHALL BE COMPACTED TO 100 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. VIBRATORY EQUIPMENT (STEEL-DRUM ROLLER, PLATE COMPACTOR) SHALL BE USED TO COMPACT GRANULAR FILL, WHILE COHESIVE FILL SHALL BE COMPACTED WITH A SHEEPSFOOT ROLLER.

COARSE CRUSHED AGGREGATE (OR CRUSHED STONE) USED TO BACKFILL UTLITY TRENCHES SHALL CONSIST OF ODOT #57 CRUSHED LIMESTONE OR ODOT #304 BASE MATERIAL WITH A MODIFIED GRADATION. COARSE CRUSHED MATERIAL SHALL BE WRAPPED WITH AN APPROVED NON-WOVEN GEOTEXTILE.

A MODULUS OF SUBGRADE REACTION, K OF 100 POUNDS PER CUBIC-INCH (PCI) IS USED FOR DESIGN OF FLOOR SLAB SUBGRADES. THE TOP 4 INCHES OF THE SLAB SUBBASE SHALL CONSIST OF AN APPROVED FREE DRAINING, AGGREGATE MATERIAL. SLAG OR SHALE SHALL NOT BE USED AS BASE MATERIAL. CONCRETE SLAB SHALL BE PLACED SOON AFTER THE LEVELING COURSE, ENSURE PROPER PLACEMENT AND COMPACTION OF THE UNDERLYING SUBGRADE. A VAPOR RETARDER SHALL BE INSTALLED BELOW FLOOR SLABS. VAPOR RETARDER SHALL CONSIST OF 10 MIL (MINIMUM) PLASTIC SHEETS THAT COVER THE ENTIRE FLOOR SLAB AREA AND WITH EACH SHEET OVERLAPPED OR SEALED PER THE MANUFACTURER'S SPECIFICATIONS.

FLOOR SLABS SHALL BE SEPARATED BY ISOLATION JOINTS FROM STRUCTURAL WALLS AND COLUMNS BEARING ON THEIR OWN FOUNDATIONS. A MINIMUM OF 6 INCHES OF ENGINEERED FILL SHALL BE PLACED BETWEEN THE BOTTOM OF THE SLAB AND THE TOP OF THE SHALLOW SPREAD FOUNDATION BELOW. ANY FROZEN SOILS SHALL BE THAWED AND COMPACTED, OR REMOVED AND REPLACED PRIOR TO SLAB-ON-GRADE CONSTRUCTION.

ISOLATED SPREAD FOOTINGS ARE USED TO SUPPORT COLUMNS AND CONTINUOUS STRIP FOOTINGS TO SUPPORT WALLS. FOUNDATIONS SHALL BE CONSTRUCTED TO BEAR ON MEDIUM STIFF OR BETTER GLACIAL TILL LEAN CLAY AND SHALL BE PROPORTIONED FOR A NET ALLOWABLE SOIL BEARING PRESSURE NOT EXCEEDING 3,000 PSF.

FOOTING TRENCHES SHALL BE EXCAVATED TO A LEVEL BEARING SURFACE. BEARING SURFACES SHALL BE CLEANED OF MUD AND LOOSE CUTTINGS AND SHALL BE PROTECTED AGAINST WATER ACCUMULATION FROM RAINFALL, SURFACE DRAINAGE, OR EXCAVATION SIDEWALL SEEPAGE PRIOR TO PLACING CONCRETE. BEARING SOILS SHALL BE PROTECTED FROM FREEZING IF THERE IS A DELAY IN PLACING CONCRETE DURING COLD WEATHER. EXTERIOR FOOTINGS SURROUNDING CONTINUOUSLY HEATED AREAS SHALL HAVE AN EMBEDMENT OF AT LEAST 3 FEET BELOW THE LOWEST ADJACENT EXTERIOR GRADE FOR PROTECTION AGAINST FROST-RELATED HEAVE, AND EMBEDMENT OF FOOTINGS IN OR SURROUNDING UNHEATED AREAS SHALL BE INCREASED TO AT LEAST 3.5 FEET.

SUBGRADE PREPARATION FOR ALL PAVEMENT SHALL CONSIST OF COMPLETE REMOVAL OF THE EXISTING TOPSOIL AND TREES/TREE MATS, REMOVAL OF OLD PAVEMENTS, SUBGRADE ASSESSMENT (i.e., A FIELD EVALUATION OF THE CONSITION OF THE EXPOSED SUBGRADE WITH THOROUGH COMPACTION, PROOFROLLING, FINE GRADING, AND OCCASIONAL UNDERCUTTING TO REMOVE AND REPLACE LOW-STRENGTH SUBGRADE), AND PLACEMENT OF NEW PAVEMENT LAYERS. SUBGRADE PREPARATION AND AGGREGATE BASE LAYER SHALL EXTEND OUT TO AT LEAST 12 INCHES BEYOND THE EDGE OF PAVEMENT OR CURBS TO PROVIDE SUPPORT FOR THE OUTER EDGES OF PAVEMENT. UTILITIES, CURBS, AND OTHER EXISTING STRUCTURES SHALL BE PROTECTED. FINE-GRADE THE SUBGRADE TO SLOPE DOWNWARD TOWARD THE STORMWATER DRAINAGE STRUCTURES. A QUALIFIED GEOTECHNICAL ENGINEERING FIRM SHALL BE ON-SITE TO OBSERVE THE PROOFROLL.

ANY LOOSE OR SOFT AREAS IDENTIFIED FROM THE PROOFROLLING SHALL BE RECOMPACTED, OR UNDERCUT AND REPLACED WITH ADDITIONAL ENGINEERED FILL. WHERE NECESSARY, CRUSHED STONE BACKFILL IN COMBINATION WITH HIGH-STRENGTH WOVEN GEOTEXTILE FABRIC OR GEOGRID, SHALL BE USED TO STABILIZE THE SUBGRADE.

TEMPORARY EXCAVATIONS

FOR ANY EXCAVATIONS PERFORMED ADJACENT TO EXISTING STRUCTURES, TAKE MEASURES TO PROTECT THE INTEGRITY OF EXISTING ADJACENT FOUNDATIONS. ALL EXCAVATIONS AND CORRESPONDING CONSTRUCTION FOR THE PROJECT MUST BE PERFORMED WITHOUT ENDANGERING THE CONSTRUCTION WORKERS. THEREFORE, IN ACCORDANCE WITH OHSA TRENCH/EXCAVATION REGULATIONS (OSHA 29 CFR PART 1926), ANY EXCAVATIONS EXCEEDING A DEPTH OF 5 FEET FOR WHICH WORKERS WILL BE ENTERING THE EXCAVATION/TRENCH, THE EXCAVATION SIDES MUST BE BRACED, OR SLOPED TO THE REQUIRED MAXIMUM INCLINATION (OR FLATTER) BASED ON THE SOIL TYPE AND STRENGTH. WHERE SLOPING IS TO BE USED, THE EXCAVATION SLOPE LAYBACK SHALL BE BASED UPON THE SOIL CONDITIONS ENCOUNTERED DURING THE EXCAVATION PROCESS, WHICH ARE EVALUATED BY A "COMPETENT PERSON" IN ACCORDANCE WITH OSHA REGULATIONS. IN AREAS WHERE SLOPING OF EXCAVATIONS DEEPER THAN 20 FEET ARE PLANNED, A REGISTERED PROFESSIONAL ENGINEER SHALL DESIGN THE SLOPED EXCAVATIONS IN ACCORDANCE WITH OSHA REGULATIONS.

THE SITE CONSTRAINTS ARE SUCH THAT IT MAY NOT BE PRACTICAL TO ALLOW FOR EXCAVATIONS TO HAVE THE MINIMUM LAYBACK SLOPES. THE INFLUENCE ZONE OF THE EXCAVATION CAN BE DETERMINED BY EXTENDING AN IMAGINARY LINE FROM THE BASE OF THE EXCAVATION TO THE GROUND SURFACE USING AN INCLINATION OF APPROXIMATELY 45 DEGREES WITH THE HORIZONTAL. THEREFORE, THE LATERAL DISTANCE, DEPTH OF EXISTING UTILITIES OR FOUNDATIONS, AND THE PLANNED EXCAVATION DEPTH MUST BE KNOWN TO DETERMINE WHETHER THE ADJACENT STRUCTURE COULD BE AFFECTED BY THE EXCAVATION. ANY EXCAVATION THAT IS POSITIONED NEAR AN ADJACENT STRUCTURE, SUCH THAT THE EXCAVATION WILL BE WITHIN THE INFLUENCE ZONE OF THE NEARBY STRUCTURE, SHALL INCLUDE AN APPROPRIATELY DESIGNED BRACING SYSTEM.

IF A BRACING SYSTEM IS REQUIRED AND NO LATERAL MOVEMENT OF THE ADJACENT EXISTING STRUCTURES/UTILITIES CAN OCCUR, THE BRACING/SHORING SHALL BE DESIGNED AND INSTALLED AS A RIGID SYSTEM WITHOUT DEFLECTION ALONG THE ENTIRE HEIGHT. FURTHER, THE SYSTEM MUST BE CONSTRUCTED "TIGHT" AGAINST THE RETAINED SOIL TO BE EFFECTIVE. FOR EXAMPLE, THE BRACING SYSTEM CANNOT BE INSTALLED AFTER THE EXCAVATION IS MADE. IN MOST CASES, AN EFFECTIVE BRACING SYSTEM IS COMPRISED OF SHEETING DRIVEN PRIOR TO THE EXCAVATION, POSSIBLY WITH TIE-BACKS, OR DRILLED PIER SUPPORTED H-PILES WITH THE USE OF WOOD LAGGING.

ANY BRACING SYSTEM SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED FOR REVIEW. FOR DESIGN OF A BRACING OR TEMPORARY RETENTION SYSTEM, THE DESIGN LOADS SHALL ACCOUNT FOR "AT-REST" CONDITIONS WHERE LATERAL MOVEMENT OF THE EXCAVATION WALL IS UNACCEPTABLE. THE BRACED OR SHORED RETAINING WALL SHALL BE CONSIDERED NON-YIELDING IF THE ALLOWABLE MOVEMENT AT THE TOP OF THE WALL IS LESS THAN 1.0 PERCENT OF THE HEIGHT. ALSO, ANY SURCHARGE LOADS AS A RESULT OF CONSTRUCTION EQUIPMENT OR STOCKPILING OF SOIL/SUPPLIES OR THE ADJACENT EXCAVATION MUST BE INCLUDED IN THE DESIGN LATERAL LOAD DETERMINATION FOR TEMPORARY OR PERMANENT BRACING. THE DESIGN LATERAL EARTH PRESSURES SHALL BE SELECTED IN ACCORDANCE WITH THE VALUES PROVIDED IN THE GEOTECHNICAL REPORT.

IN FEDERAL REGISTER, VOLUME 54, NO. 209 (OCTOBER 1989), THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AMENDED ITS "CONSTRUCTION STANDARDS FOR EXCAVATIONS, 29 CFR, PART 1926, SUBPART P". THIS DOCUMENT WAS ISSUED TO BETTER ENSURE THE SAFETY OF WORKERS ENTERING TRENCHES OR EXCAVATIONS. IT IS MANDATED BY THIS FEDERAL REGULATION THAT EXCAVATIONS, WHETHER THEY ARE UTILITY TRENCHES, BELOW GRADE STRUCTURES, BASEMENT EXCAVATIONS, EXCAVATIONS REQUIRED FOR UNDERCUTTING, OR FOOTING EXCAVATIONS, BE CONSTRUCTED IN ACCORDANCE WITH THE OSHA GUIDELINES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE, TEMPORARY EXCAVATIONS AND SHOULD SHORE, SHEET, SLOPE, OR BENCH THE SIDES OF THE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF BOTH THE EXCAVATION SIDES AND BOTTOM. THE CONTRACTOR'S "RESPONSIBLE PERSON", AS DEFINED IN 29 CFR PART 1926, SHOULD EVALUATE THE SOIL EXPOSED IN THE EXCAVATIONS AS PART OF THE CONTRACTOR'S SAFETY PROCEDURES. IN NO CASE SHOULD SLOPE HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH, INCLUDING UTILITY TRENCH EXCAVATION DEPTH, EXCEED THOSE SPECIFIED IN LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS. IF AN EXCAVATION (INCLUDING A TRENCH) IS EXTENDED TO A DEPTH OF MORE THAN TWENTY (20) FEET, IT WILL BE NECESSARY TO HAVE THE SIDE SLOPES DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO.

LOW STRENGTH MORTAR BACKFILL

1. SELF-COMPACTING FLOWABLE, CONTROLLED LOW STRENGTH MORTAR BACKFILL SHALL BE USED FOR BACKFILL WHERE INDICATED. ONLY NATURAL AGGREGATE MAY BE USED.

   REFER TO ODOT LS 613 FLOWABLE FILL LSM, WITH A MAXIMUM 28 DAY UNCONFINED COMPRESSIVE STRENGTH OF 100 PSI, SAMPLES SHALL BE FABRICATED AND TESTED IN ACCORDANCE WITH ASTM D 4832, AT 7 AND 28 DAYS.

TESTING AND INSPECTION

A. FOUNDATIONS AND EARTHWORK. GEOTECHNICAL ENGINEER/TESTING LABORATORY TO BE ENGAGED FOR QUALITY CONTROL AND VERIFICATION. ALL OPEN FOUNDATION EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY A LICENSED GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT.

B. MATERIALS AND PROCEDURES. TESTING LABORATORY TO BE ENGAGED FOR MATERIAL TESTING AS REQUIRED BY OBC CHAPTER 17. SEE SHEET S-5.

C. SPECIAL INSPECTOR. A SPECIAL INSPECTOR SHALL BE ENGAGED BY THE CONTRACTOR TO INSPECT ELEMENTS AS REQUIRED BY OBC CHAPTER 17.

MASONRY

MATERIALS:
MORTAR: ASTM 270 TYPE S
CONCRETE BLOCK: TYP. UNIT PER ASTM C90 GRADE N, TYPE NORMAL WEIGHT AGGR. PER ASTM C33
CONCRETE BLOCK UNITS: ASSEMBLY COMPRESSIVE STRENGTH (f'm) SHALL BE NO LESS THAN 1500 PSI. UNIT COMPRESSIVE STRENGTH SHALL BE NO LESS THAN 1900 PSI. SEE ALSO SPECIFICATIONS.
MASONRY GROUT: COMPRESSIVE STRENGTH (f'g) SHALL BE 2000 PSI MIN.

INSPECTION IS REQUIRED DURING PREPARATION AND TAKING OF ANY REQUIRED PRISM OR TEST SPECIMENS AND ON A PERIODIC BASIS DURING THE PLACING OF MASONRY UNITS. PLACEMENT OF REINFORCEMENT, INSPECTION OF GROUT SPACE IMMEDIATELY PRIOR TO CLOSING OF CLEANOUTS AND DURING GROUTING OPERATIONS

VERTICAL SINGLE REINFORCING SHALL BE LOCATED IN EXACT CENTER OF BLOCKS. VERTICAL DOUBLE REINFORCING SHALL BE OFFSET TOWARD CMU FACES. USE VERTICAL BAR POSITIONERS FOR PLACEMENT.

ALL VERTICAL WALL REINFORCEMENT TO HAVE CONTACT SPLICES - WIRED TOGETHER WITH LAP SPLICES OR FULL STRENGTH WELDS OR MECHANICALLY COUPLED. SEE ALSO MASONRY LAP SPLICE SCHEDULE.

PROVIDE GALV. DUR-O-WAL (OR APPROVED EQUAL) JOINT REINF. AT 16" O.C. MEASURED VERTICALLY IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE ON DWGS. JOINT REINF. SHALL CROSS ALL WYTHES.

ALL MASONRY WALLS SHALL HAVE VERTICAL REINFORCEMENT #5 BARS @ 2'-8" O.C. (U.N.O.) CELLS WITH REINFORCING SHALL BE FULLY GROUTED.

VERTICAL #5 BARS SHALL ALSO BE PROVIDED AT CORNERS, WITHIN 8" OF EACH SIDE OF OPENINGS, WITHIN 8" OF EACH SIDE OF MOVEMENT JOINTS, AND WITHIN 8" OF THE ENDS OF WALLS.

ROUTE VERTICAL REINFORCING BARS AROUND BEARING PLATES WHERE NECESSARY FOR CONTINUITY OF REINFORCEMENT.

PROVIDE #5 VERTICAL BARS IN 2 CORES ADJACENT TO MASONRY OPENINGS WIDER THAN 10'

PROVIDE SINGLE-COURSE BOND BEAMS AT BEAM BEARING LOCATIONS, AND AT TOPS OF WALLS.

SINGLE-COURSE BOND BEAMS SHALL HAVE (2) #5 CONTINUOUS, WITH CORNER BARS.
SINGLE-COURSE BOND BEAMS CAN SPAN MASONRY OPENINGS UP TO 4'-8" WIDE.

MULTIPLE COURSE BOND BEAMS SHALL HAVE (2) #5 T&B CONTINUOUS. DOUBLE-COURSE BOND BEAMS CAN SPAN MASONRY OPENINGS UP TO 10' WIDE. TRIPLE-COURSE BOND BEAMS CAN SPAN MASONRY OPENINGS UP TO 14' WIDE.

DOWELS SHALL MATCH VERT REINF. SIZE & SPACING.

AT BEAM BEARING LOCATIONS, EMBED 1/2"X6"X12" BEARING PLATES WITH (2) 5/8" Ø X 6"-LONG HEADED STUDS @ 8" O.C., AT THE CENTER OF THE WALL UNO. WELD BEAMS TO THE BEARING PLATES, MIN 3"-LONG FILLET EACH SIDE. GROUT SOLID UNDER THE BEARING PLATES, DOWN TO THE FOUNDATION.

GALV. STEEL LINTELS FOR BRICK SHALL BE L5X3.5X5/16, WITH 8" MIN BEARING EACH END, OVER MASONRY OPENINGS UP TO 6' WIDE.

GALV. STEEL LINTELS FOR BRICK SHALL BE L6X3.5X5/16, WITH 8" MIN BEARING EACH END, OVER MASONRY OPENINGS UP TO 8' WIDE.

GALV. STEEL LINTELS FOR BRICK SHALL BE L7X4X3/8, WITH 12" MIN BEARING EACH END, OVER MASONRY OPENINGS UP TO 10' WIDE.

FOR MASONRY OPENINGS WIDER THAN 10', AND WHERE INDICATED. USE GALV. STEEL SHELF ANGLES TO SUPPORT THE BRICK, GALV. L6X6X5/16 W/ 1/2" Ø ADHESIVE ANCHORS W/ 6" EMBED @ 16" O.C. (BUT MIN 2 ANCHORS PER ANGLE) & @ MIN 4" ABOVE BOTTOM OF BOND BEAM, UNO. AT WALLS WITHOUT INSULATION PLUS AIR GAP BETWEEN THE BRICK & CMU, SHELF ANGLES SHALL BE L6x4x5/16 LLV.

1

LIGHT GAUGE STEEL

FOR MIL THICKNESSES OF 18 MILS TO 43 MILS (INCLUSIVE) THE MINIMUM STEEL YIELD STRESS IS 33 KSI. THICKNESSES OF 54 MILS AND GREATER SHALL TO HAVE A MINIMUM YIELD STRESS OF 50 KSI.

ALL WELDING OF LIGHT GAUGE STEEL SHALL BE PERFORMED BY A WELDER QUALIFIED TO WELD LIGHT GAUGE STEEL

LIGHT GAUGE STEEL FRAMING SHALL BE MIN 43 MILS WHERE USED AS BACKUP FOR BRICK FACADE

1

STATE OF OHIO
PAUL CHARLES PERRIN
E-65401
REGISTERED
PROFESSIONAL ENGINEER

your trusted advisor
consultants
engineers
architects
planners

NO	DATE	REVISION
1	8/5/19	REBID

CD	
ISSUED FOR:	
ISSUE DATE:	8/5/19
SCALE:	AS SHOWN
DESIGNED BY:	AP
DRAWN BY:	AP
CHECKED BY:	PCP

LAKELAND TRANSFER CENTER
LAKELAND COMMUNITY COLLEGE
7601 CLOCKTOWER DR., KIRTLAND, OH 44094

STRUCTURAL GENERAL NOTES

PROJECT NO.
18050002
DISCIPLINE
STRUCTURAL
SHEET NAME
S-01
SHEET 37 OF 55

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