DESIGN CRITERIA

1. BUILDING CODE - INTERNATIONAL BUILDING CODE 2012 WITH 2014 & 2015 GEORGIA AMENDMENTS

A	٩.	RISK CATEGORY & IMPORTANCE FACTORS:	
Е	3.	RISK CATEGORY	IV
(Э.	WIND FACTOR	1.0
).	SNOW FACTOR	1.2
Е	Ξ.	SEISMIC FACTOR	1.5

2. DESIGN DEAD LOADS: 10 PSF TOP CHORD A. ROOF.. 5 PSF BOTTOM CHORD

DESIGN LIVE LOADS*: A. ROOF. 20 PSF

WIND LOADS: A. ULTIMATE WIND SPEED. 120 MPH B. DIRECTIONALITY FACTOR (Kd).. 0.85 C. EXPOSURE CATEGORY.

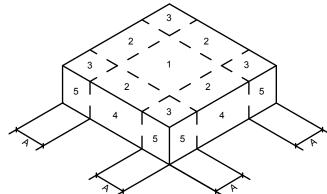
D. ENCLOSURE CLASSIFICATION. ENCLOSED BUILDING

GUST EFFECT FACTOR (G)...

F. COMPONENT AND CLADDING LOADS (100 SQ. FT., ZONES ARE PER ASCE-7)

NEGATIVE ZONE 1.. .. -31.4 PSF NEGATIVE ZONE 2..... -44.2 PSF NEGATIVE ZONE 3...... -69.8 PSF POSITIVE ALL ZONES...... 16.0 PSF OVERHANG ZONE 1&2.... -70.5 PSF OVERHANG ZONE 3...... -80.1 PSF NEGATIVE ZONE 4...... -35.3 PSF NEGATIVE ZONE 5...... -39.3 PSF

POSITIVE ZONES 4 & 5.. 32.1 PSF



 A. SITE CLASS. D (ASSUMED) 0.085 C. S1 =.. 0.177 D. SDS =... 0.136 SD1 =.... F. SEISMIC DESIGN CATEGORY 7. SNOW LOADS: A. GROUND SNOW LOAD.. 5.0 PSF B. FLAT ROOF SNOW LOAD (Pf).. 5.0 PSF

C. THERMAL FACTOR (Ct)... 1.0 D. SNOW EXPOSURE FACTOR (Ce)... 5.0 PSF RAIN ON SNOW SURCHARGE. F. UNIFORM ROOF SNOW LOAD. 8.5 PSF

MISCELLANEOUS:

EARTHQUAKE LOADS:

- 1. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK, AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR OMISSIONS.
- 2. NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN OR TO ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- 3. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- 4. OPENINGS 1'-4" OR LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS.
- 5. DO NOT SCALE THESE DRAWINGS: USE DIMENSIONS. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE ARCHITECTURAL DRAWINGS.
- THE CONTRACTOR SHALL INFORM THE FOUNDATION ENGINEER, IN WRITING, OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD, REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN THE WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
- 7. WHERE A SECTION/DETAIL IS CUT ON THE PLAN, IT IS ASSUMED/UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
- 8. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ENGINEER'S PRESENCE AT THE JOB SITE OR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH OSHA REGULATIONS.
- 9. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES.
- 10. THE CONTRACTOR SHALL NOTIFY, IN WRITING, THE STRUCTURAL ENGINEER OF RECORD OF CONDITIONS ENCOUNTERED IN THE FIELD WHICH ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL
- 11. STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.
- 12. REFERENCE TO STANDARD SPECIFICATIONS OR ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES SHALL MEAN THE LATEST STANDARD, CODE SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AND PUBLISHED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.

13. MINIMUM DEFLECTION REQUIREMENTS: A. RAFTERS AND PURLINS UNDER SNOW LOAD, WIND LOAD OR LIVE LOAD....

B.	RAFTERS AND PURLINS SUPPORTING PLASTER CEILING UNDER SNOW	
	LOAD, WIND LOAD OR LIVE LOAD	L/360
C.	FRAME SIDESWAY UNDER 10-YEAR WIND LOAD	L/240
D.	GIRTS UNDER 10-YEAR WIND LOAD	L/240

SUBMITTALS:

- 1. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTAL DATES AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL. FAILURE TO SUBMIT DRAWINGS ON DESIGNATED DATES MAY IMPACT REVIEW
- 2. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
- A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE ICC-ES, AND THE ICC-ES REPORT IS SUBMITTED WITH THE REQUEST. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE
- 3. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. SEE SPECIFIC PROVISIONS IN THE CONTRACT DOCUMENT DEALING WITH THE APPROPRIATE DESIGN RESPONSIBILITIES OF CONTRACTORS, SUBCONTRACTORS AND CONTRACT SUPPLIERS.
- 4. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREIN AS CORRECT AND OBLIGATES HIM TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING FROM ANY ERRORS THAT MAY OCCUR HEREIN.

FOUNDATIONS:

- SPREAD FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING A NET ALLOWABLE BEARING PRESSURE OF 2.5 KSF (ASSUMED) FOR INDIVIDUAL COLUMN FOOTINGS AND 2.5 KSF (ASSUMED) FOR CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE LIVE AND DEAD LOAD.
- 2. THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARING. HOWEVER, IF ADEQUATE BEARING CAPACITY IS NON-EXISTENT AT THESE ESTIMATED ELEVATIONS, THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESCRIBED SAFE BEARING CAPACITY
- 3. FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
- 4. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZES AND DIMENSIONS, AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.
- 5. IN THE AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED. ANY FILL MATERIAL REQUIRED AT THE SITE SHALL BE OF A SIMILAR TYPE OF SOIL TO THAT WHICH IS PRESENT AT THIS SITE AND APPROVED BY A SOILS ENGINEER. ROCKS OF A DIAMETER GREATER THAN THAT SPECIFIED SHALL BE EXCLUDED FROM STRUCTURAL FILL LIFTS. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS NO GREATER THAN 12 INCHES IN DEPTH AND SHALL BE COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED COMPACTION TEST (ASTM D1557). ADEQUATE FIELD DENSITY AND MOISTURE CONTENT TESTS SHALL BE PERFORMED TO ENSURE COMPLIANCE.
- 6. FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. IF THE BEARING SURFACE IS ALLOWED TO BECOME DISTURBED IN ANY WAY, IT SHALL BE REWORKED TO THE SATISFACTION OF THE TESTING ENGINEER PRIOR TO CASTING THE CONCRETE.
- 7. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.
- 8. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-0" BELOW FINAL GRADE FOR FROST
- 9. WHEN UNSATISFACTORY OR UNCONTROLLED FILL IS ENCOUNTERED, REMOVAL AND REPLACEMENT WILL BE PAID ON THE BASIS OF UNIT PRICES SET FORTH IN THE CONTRACT.
- 10. DRAINAGE FILL SHALL BE AN EVENLY GRADED MIXTURE OF NATURAL OR CRUSHED STONE, CONFORMING TO THE REQUIREMENTS OF ASTM STANDARD C33, AND HAVING A GRADATION AS FOLLOWS:

A 3/4" SIEVE 10-30 % PASSING...... A 1/2" SIEVE 0-10 % PASSING...... A 3/8" SIEVE 0-5 % PASSING..... A #4 SIEVE

- 11. ANY FILL WITHIN 10'-0" OF THE BUILDING LIMIT SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER FOR PREPARATION.
- 12. BACKFILL AROUND AND OVER FOUNDATION ELEMENTS SHALL BE OF SUITABLE MATERIAL, INSPECTED AND PRE-APPROVED BY THE TESTING ENGINEER.
- 13. BACKFILL AGAINST WALLS SHALL BE PLACED IN 8 INCH LIFTS AND SHALL BE DEPOSITED EVENLY AGAINST EACH SIDE OF THE WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDENT UPON TOP AND BOTTOM SLABS/FOUNDATION FOR SUPPORT UNTIL SUCH SLABS HAVE ATTAINED MINIMUM DESIGN COMPRESSIVE STRENGTH. WALLS WITH SLAB-ON-GROUND AT THE TOP OF THE WALL SHALL BE SAFELY SHORED AND BRACED DURING BACKFILLING.
- 14. MAXIMUM SLOPE OF EXCAVATIONS SHALL BE IDENTIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT AND ADHERED TO. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.
- 15. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED.
- 16. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHIC WITH TOPS OF ADJACENT FOOTINGS AT THE SAME ELEVATION.
- 17. THERE SHALL BE NO HORIZONTAL OR VERTICAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
- 18. CONCRETE CAST ON SLOPING SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED POUR IS COMPLETED.
- 19. CONTRACTOR SHALL SUBMIT A QUANTITY AND COST BREAKDOWN FOR EACH OF THE FOOTINGS SUPPORTING THE METAL BUILDING COLUMNS.

CONCRETE:

1. CODE: AMERICAN CONCRETE INSTITUTE (ACI) 318 (LATEST ADDITION)

FOOTINGS & SLABS ON GRADE.

2. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH AND DENSITY IN ACCORDANCE WITH THE FOLLOWING:

> STRENGTH DENSITY PCF PSI

- 3. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR ALL UNIQUE CONCRETE APPLICATIONS FOR REVIEW WELL IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL BE CERTIFIED BY AN ENGINEER REGISTERED IN THE PROJECT STATE. MIX DESIGN TEST DATA SHALL COMPLY WITH ACI 318 5.3 AND SHALL INCLUDE (AT A MINIMUM) AVERAGE 28 DAY STRENGTH, NUMBER OF SAMPLES, AND STANDARD DEVIATION (IF APPLICABLE). TEST RESULTS SHALL NOT BE MORE THAN 24 MONTHS OLD AT TIME OF SUBMITTAL.
- 4. REINFORCING SHALL CONFORM TO ASTM A615, GR60, UNLESS NOTED OTHERWISE.
- 5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, GRADE 60.
- 6. WELDED WIRE FABRIC SHALL BE PLACED 1" BELOW T/SLAB, UNLESS NOTED OTHERWISE. LAP FABRIC 6" ON
- 7. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST ADDITION OF THE ACI DETAILING MANUAL.
- 8. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.
- 9. ALL "CONTINUOUS" REINFORCEMENT SHALL HAVE A MINIMUM LAP OF "B" TYPE (ACI 318) AT SPLICES, UNLESS
- 10. PROVIDE 3" X 6" X 20 GAGE SHEET METAL BAR CHAIRS AT 4'-0" MAXIMUM CENTERS EACH WAY FOR ALL TOP REINFORCING FOR SLABS-ON-GRADE.
- 11. SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.

12. PRODUCTS AND MATERIALS:

A. TYPE 1 PORTLAND CEMENT SHALL CONFORM TO ASTM-C150. B. AGGREGATES SHALL CONFORM TO ASTM C-33.

REINFORCING BARS SHALL CONFORM TO ASTM A-615 (GRADE 60). D. FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.

NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER. F. NON-SHRINK GROUT SHALL BE READY TO USE NON-METALLIC AGGREGATE AND DEVELOP A 7-DAY COMPRESSIVE STRENGTH OF 5000 PSI.

16. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH LATEST ADDITION OF THE CRSI "MANUAL OF STANDARD

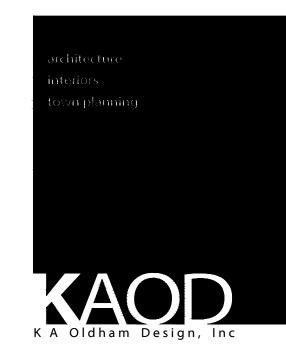
17. MINIMUM CONCRETE COVER (UNLESS NOTED OTHERWISE) SHALL BE:

#11 BARS AND SMALLER.. UNFORMED SURFACE IN CONTACT WITH THE GROUND... 3 INCHES EXTERIOR BASEMENT WALLS.. 2 INCHES INTERIOR BASEMENT WALLS.. 3/4 INCHES FORMED SURFACES EXPOSED TO EARTH OR WEATHER #6 BARS AND LARGER.. #5 BARS AND SMALLER.. 1 1/2 INCHES FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER BEAMS GIRDERS AND COLUMNS... 1 1/2 INCHES SLABS, WALLS, AND JOISTS... 3/4 INCHES

18. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING, UNLESS NOTED OTHERWISE. WHERE CLASSES ARE NOT CALLED OUT ON DRAWINGS, USE CLASS "B" SPLICES.

TENSION SPLICES (INCHES) COMPRESSION SPLICES (INCHES) TOP BARS OTHER BARS SIZE A B 17 22 22 28 29 37 22 29 47 28 36 56 33 42 43 81 48

- 19. SCHEDULED OR DETAILED REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPLICES ARE NOT PERMITTED WITHOUT ENGINEER'S APPROVAL. WHERE WELDING IS APPROVED IT SHALL CONFORM TO AWS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL.
- 20. CORNER BARS SHALL BE OF EQUAL SIZE AND SPACING AS THE MAIN REINFORCING WITH LAP SPLICE LENGTHS EQUAL TO 44 BAR DIAMETERS, MINIMUM.
- 21. SLAB-ON-GRADE SHALL BE SAW CUT IMMEDIATELY AFTER CONCRETE HARDENS. THE CONTRACTOR SHALL SUBMIT LAYOUT AND CONSTRUCTION SCHEDULE ("SOFT CUT" ® INTERNATIONAL OR SIM.)
- 22. CONTROL JOINTS IN SLABS ON GROUND SHALL BE LOCATED AT 15'-0" MAXIMUM SPACING AND SHALL CREATE SECTIONS OF SLAB WITH A MAXIMUM ASPECT RATIO OF 1.5:1. CONTROL JOINTS SHALL BE SAWN AND SHALL BE A MINIMUM OF 1/4 OF THE SLAB THICKNESS DEEP IF CUT WITH A CONVENTIONAL SAW, OR 1" DEEP IF CUT WITH AN EARLY-ENTRY DRY-CUT SAW. THE CONTROL JOINTS SHALL BE SAWN AS SOON AS THE SAW BLADE CAN CUT THE CONCRETE WITHOUT DISPLACING THE AGGREGATE. CUT EVERY OTHER MESH WIRE AT THE CONTROL JOINT LOCATION PRIOR TO PLACING CONCRETE.
- 23. SAWN CONTROL JOINTS SHALL BE PLACED AS SOON AS CONCRETE IS ABLE TO BE SAWN WITHOUT PULLING AGGREGATE FROM FLOOR. SLABS SHALL NOT BE LEFT OVERNIGHT, OR ANY REASONABLE AMOUNT OF TIME WITHOUT SAWING JOINTS. WEATHER IS CRITICAL TO THE SCHEDULE OF SAWN JOINTS. IF LARGE AREAS OF SLAB ARE POURED AT ONE TIME, SEVERAL SAWS MAY BE REQUIRED SO THAT JOINTS ARE PLACED IN TIME TO PREVENT SHRINKAGE CRACKING. PROPER JOINTING OF THE SLAB IS CRITICAL. REFER TO THE ACI MANUAL OF CONCRETE PRACTICE FOR PROPER JOINTING TECHNIQUES.
- 24. THE FLATNESS AND LEVELNESS OF THE SLAB-ON-GRADE SHALL BE DETERMINED ACCORDING TO ASTM E-1155 OR ACI 117, SLAB CLASS 5 (ACI 302) STANDARD TEST METHOD USING F NUMBERS. THE SPECIFIC FLATNESS AND LEVELNESS SHALL BE F/F-35 AND F/L-20.
- 25. WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING, UNLESS NOTED OTHERWISE.
- 26. PLACEMENT OF CONCRETE, COLD WEATHER AND HOT WEATHER PRECAUTIONS, MATERIAL AND PROPORTIONING REQUIREMENTS, REBAR COVER AND DETAILING SHALL CONFORM TO THE REQUIREMENTS OF THE ACI 318.
- 27. ALL CONDUIT, SLEEVES AND PIPES EMBEDDED IN CONCRETE SHALL CONFORM TO SECTION 6.3 OF ACI 318 AND THE FOLLOWING:
- A. SLEEVES AND PIPES SHALL BE PLACED SO THAT REINFORCING STEEL CAN BE PLACED WITH THE SPECIFIED COVER AND CLEAR DISTANCE BETWEEN BARS.
- THE CONCRETE COVERING OF PIPES AND SLEEVES SHALL NOT BE LESS THAN 1". CLEAR DISTANCE BETWEEN SUCH PIPES AND SLEEVES SHALL NOT BE LESS THAN 1-1/2".
- CONDUITS AND PIPES PLACED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN ONE-THIRD THE THICKNESS OF THE SLAB. IF IT IS NECESSARY TO USE LARGER CONDUIT OR PIPES, THE SLAB SHALL BE THICKENED AND REINFORCING SHALL BE ADDED TO SUPPORT THE ADDITIONAL WEIGHT OF THE CONCRETE.



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DATE	COMMENTS	
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FAYETTE CO. FIRE STATION NO. 4

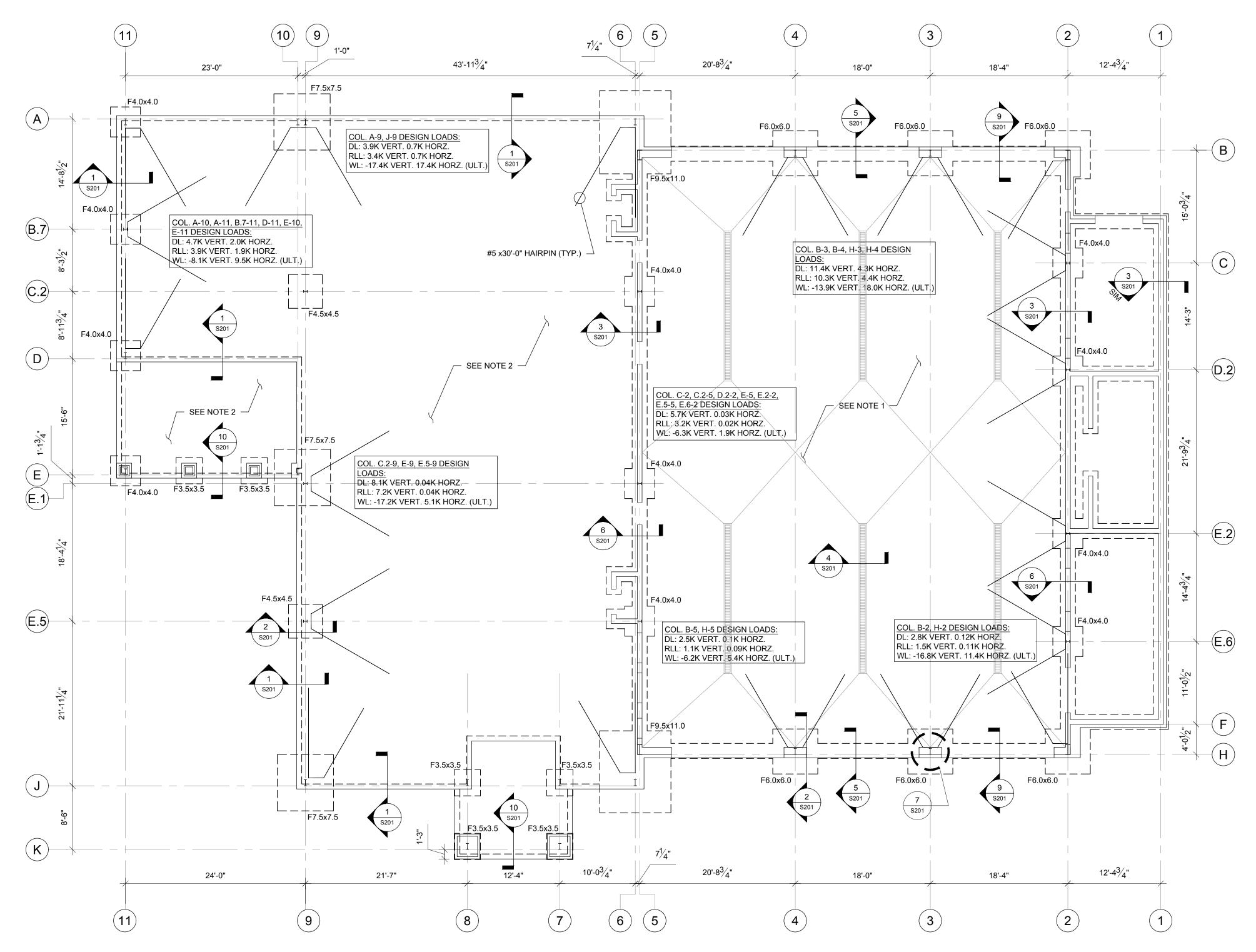
> 278 MCELROY ROAD **FAYETTEVILLE, GEORGIA**

Prepared for **FAYETTE CO.**

COMMISSION NO: 1748.00

SHEET NO:

GENERAL NOTES



FOUNDATION PLAN S101 SCALE: 1/8"=1'-0"

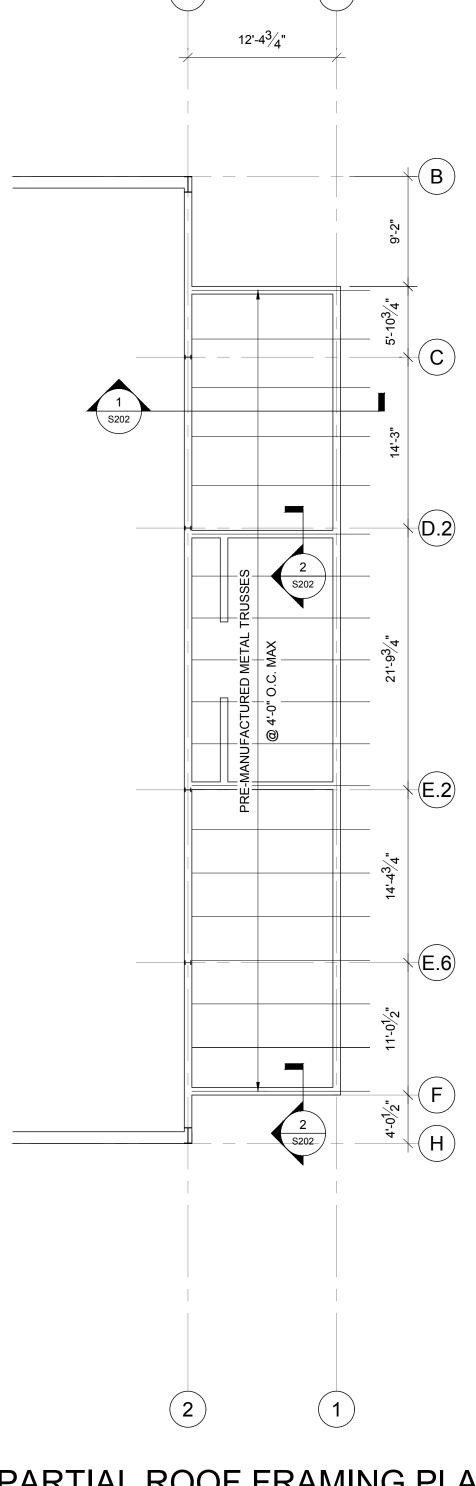
FOUNDATION PLAN NOTES

1. PROVIDE 8" THICK CONCRETE SLAB-ON-GRADE (f'c = 3,000 PSI) ON VAPOR RETARDER OVER 6" MIN. COMPACTED GRADED AGGREGATE BASE W/ #4 @ 12" O.C. EACH WAY TOP & BOTTOM IN SLAB.

- 2. PROVIDE 4" THICK CONCRETE SLAB-ON-GRADE (f'c = 3,000 PSI) ON VAPOR RETARDER OVER 8" MIN. GRANULAR FILL. PROVIDE (1) LAYER 6x6:W1.4xW1.4 W.W.F. 1" FROM TOP OF SLAB.
- 3. FOOTINGS SHALL BE LOCATED ON CENTERLINE OF WALL AND/OR COLUMNS, U.N.O. ALL EXTERIOR COLUMN FOOTINGS ALIGN WITH EDGE OF WALL FOOTING IN BOTH DIRECTIONS.
- 4. T/FOOTING = 1'-4" BELOW T/SLAB ELEVATION, TYP.
- 5. CONTRACTOR SHALL COORDINATE FOOTING ELEVATIONS WITH MECHANICAL DRAWINGS TO AVOID INTERFERENCE WITH UNDERGROUND PIPING. STEP FOOTINGS AS REQUIRED PER TYPICAL DETAILS.
- 6. SEE CIVIL/ARCHITECTURAL DRAWINGS FOR EXTERIOR SLAB ON GRADE.
- 7. REFER TO ARCHITECTURAL AND SPECIALTY ENGINEER DRAWINGS FOR LOCATIONS OF LOADS.
- 8. REACTIONS SHOWN ON PLAN ARE PRELIMINARY. FOUNDATION SIZES ARE SUBJECT TO CHANGE UPON REVIEW OF FINAL METAL BUILDING REACTIONS AND ANCHOR BOLT LAYOUTS FROM PRE-ENGINEERED BUILDING MANUFACTURER.
- 9. COORDINATE COLUMN SIZES, LOCATIONS AND BASE PLATE AND ANCHOR ROD LAYOUT W/ METAL BUILDING MANUFACTURER.
- 10. ALL METAL BUILDING COLUMNS TO BE STRAIGHT MEMBERS.

	FOOTING	SCHEDULE
MARK	FOOTING SIZE	REINFORCEMENT
F3.5x3.5	3'-6"x3'-6"x14"	(4) #5 EA WAY BOTTOM
F4.0x4.0	4'-0"x4'-0"x14"	(4) #5 EA WAY BOTTOM
F4.5x4.5	4'-6"x4'-6"x14"	(5) #5 EA WAY BOTTOM
F6.0x6.0	6'-0"x6'-0"x16"	(5) #6 EA WAY BOTTOM
F7.5x7.5	7'-6"x7'-6"x16"	(8) #6 EA WAY BOTTOM
F9.5x11.0	9'-6"x11'-0"x22"	(11) #6 SHORT BOTTOM & (12) #6 LONG BOTTOM

FOOTING SIZES ARE BASED ON ESTIMATED COLUMN REACTIONS AND ARE SUBJECT TO CHANGE. FINAL FOOTING SIZES ARE CONTINGENT ON "FIELD USE" DRAWINGS, INCLUDING ANCHOR BOLT LAYOUTS AND REACTIONS FROM PRE-ENGINEERED BUILDING MANUFACTURER.



PARTIAL ROOF FRAMING PLAN

ROOF TRUSS NOTES TRUSS LAYOUT AND PROFILES BY ROOF TRUSS MANUFACTURER. 2. SUBMIT FOR RECORD TO THE ARCHITECT DESIGN CALCULATIONS W/ SHOP DRAWINGS SEALED BY A LICENSED STRUCTURAL ENGINEERING REGISTERED FOR THE STATE OF GEORGIA. THE CALCULATIONS

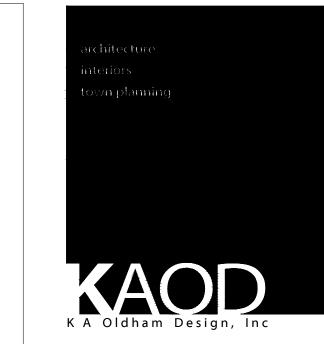
AND SHOP DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO: A. TRUSS SIZE D. BRIDGING REQUIREMENTS AND LOCATIONS B. TRUSS CONNECTIONS E. ATTACHMENT DETAILS C. BRACING REQUIREMENTS AND LOCATIONS

3. REFER TO ARCH DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN

4. TRUSSES TO BE DESIGNED AND BRACED AS REQUIRED TO PROVIDE CONTINUOUS DIAPHRAGM. 5. DESIGN LOADS:

TOP CHORD: 10 PSF DEAD LOAD 20 PSF LIVE LOAD BOTTOM CHORD: 5 PSF DEAD LOAD

SCALE: 1/8"=1'-0"



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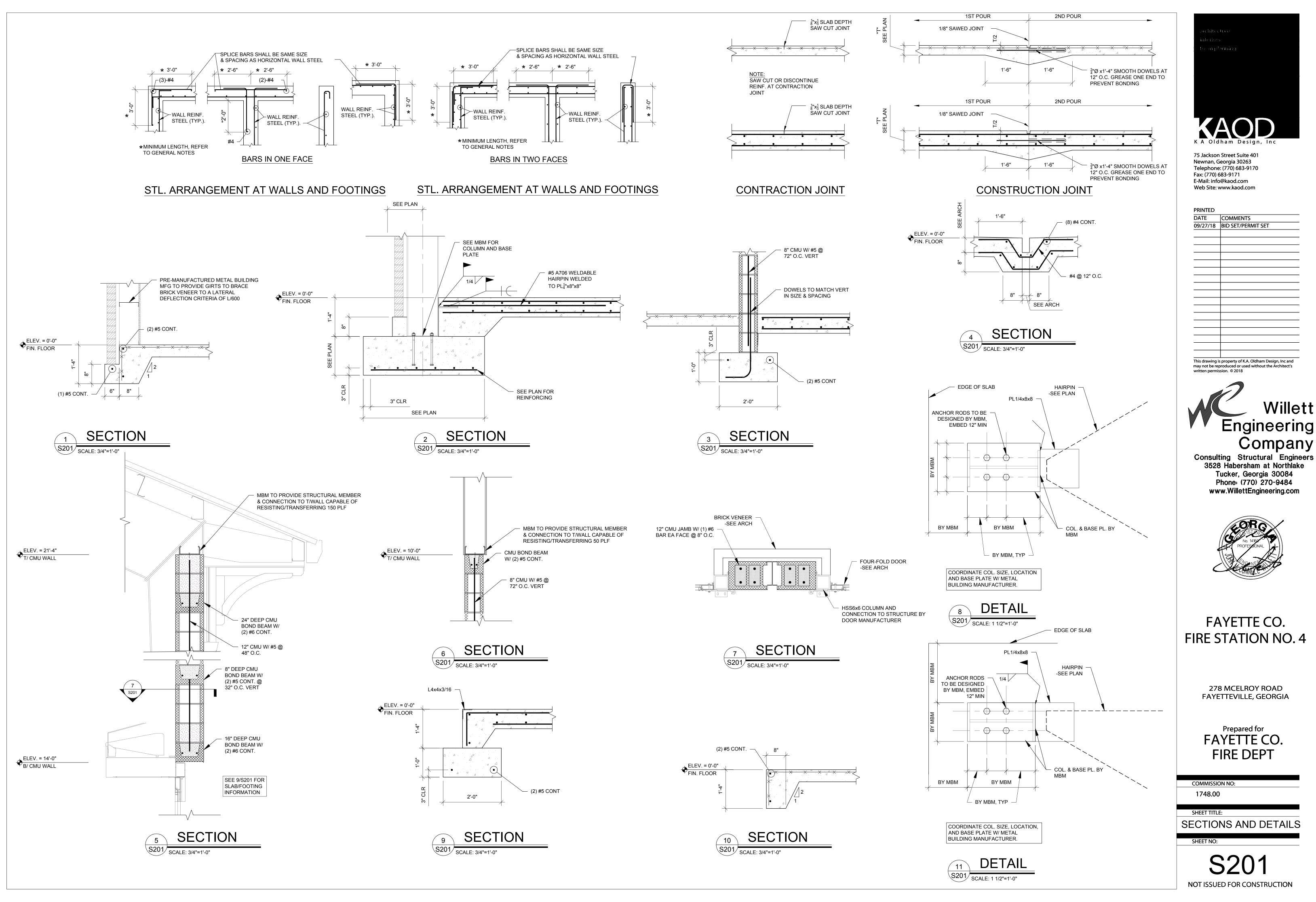
> 278 MCELROY ROAD **FAYETTEVILLE, GEORGIA**

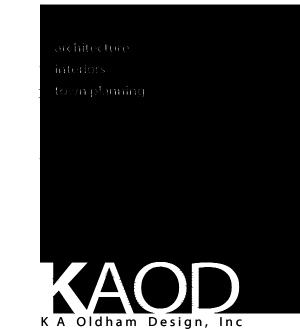
Prepared for FAYETTE CO. FIRE DEPT

COMMISSION NO: 1748.00

FOUNDATION PLAN

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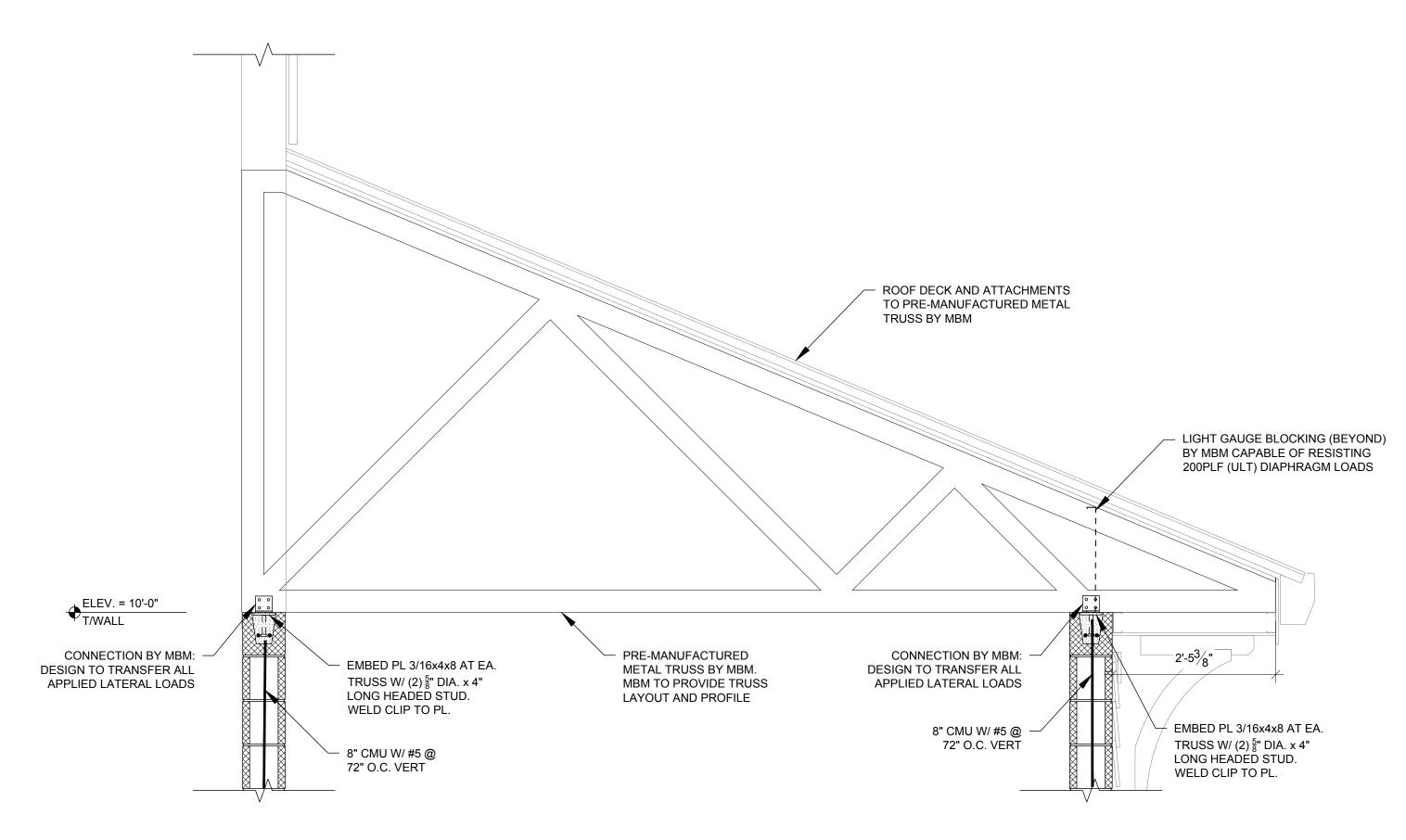




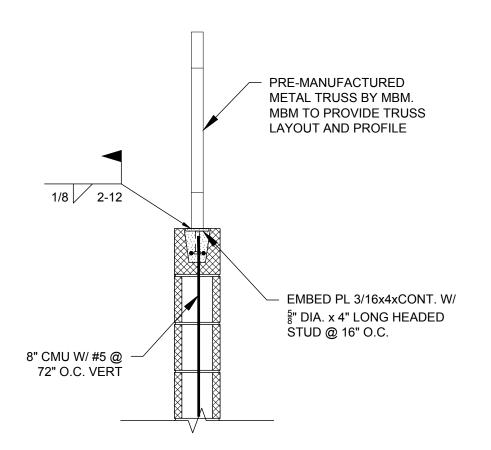
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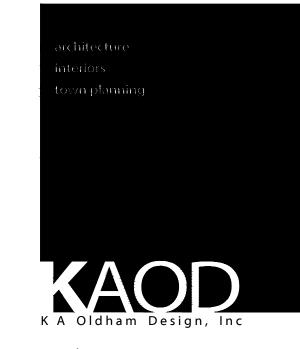
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DATE	COMMENTS	
09/27/18	18 BID SET/PERMIT SET	
	+	

Willett
Engineering
Consulting Structural Engineers

Consulting Structural Engineers 3528 Habersham at Northlake Tucker, Georgia 30084 Phone: (770) 270-9484 www.WillettEngineering.com



FAYETTE CO. FIRE STATION NO. 4

> 278 MCELROY ROAD FAYETTEVILLE, GEORGIA

Prepared for FAYETTE CO. FIRE DEPT

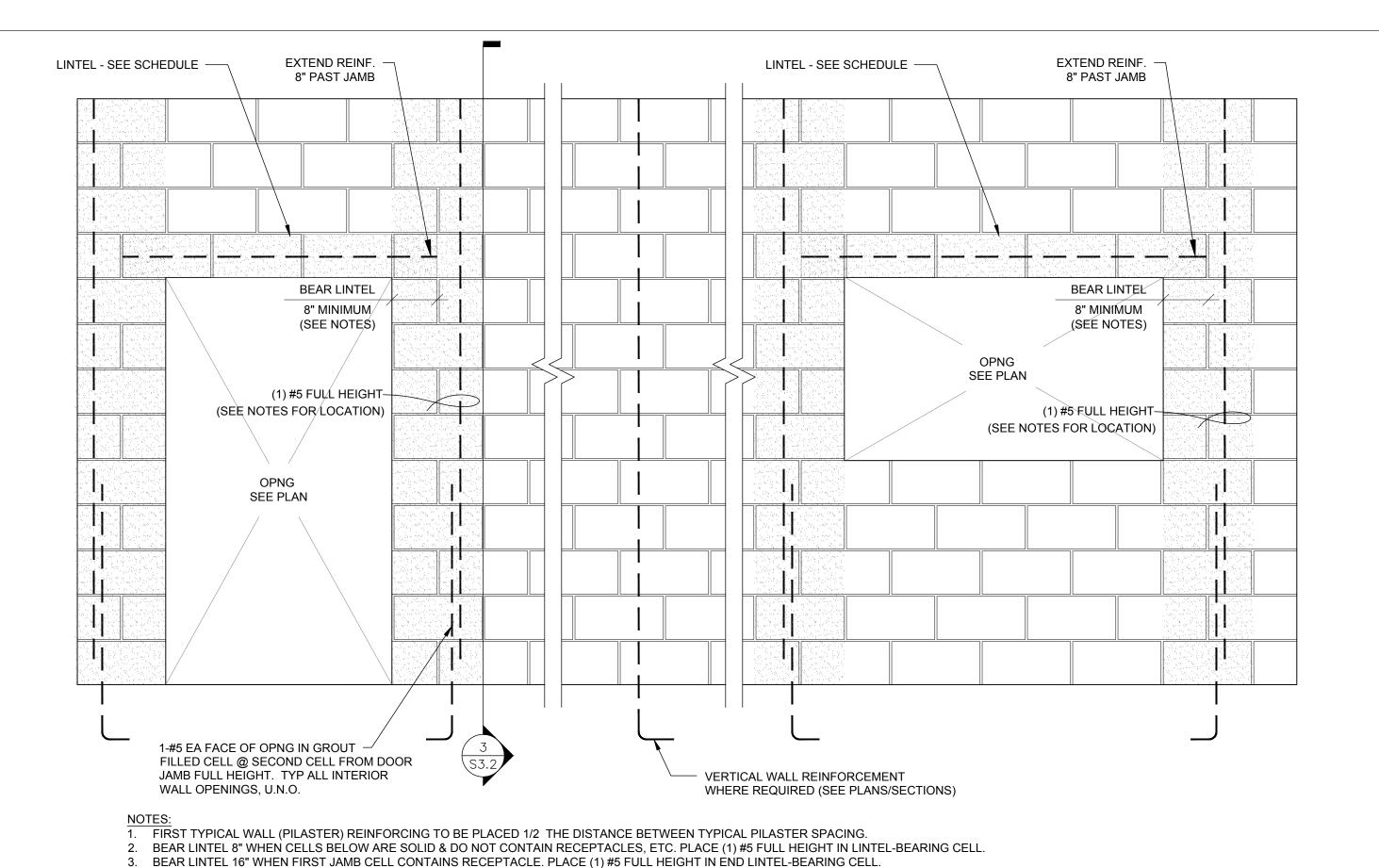
COMMISSION NO: 1748.00

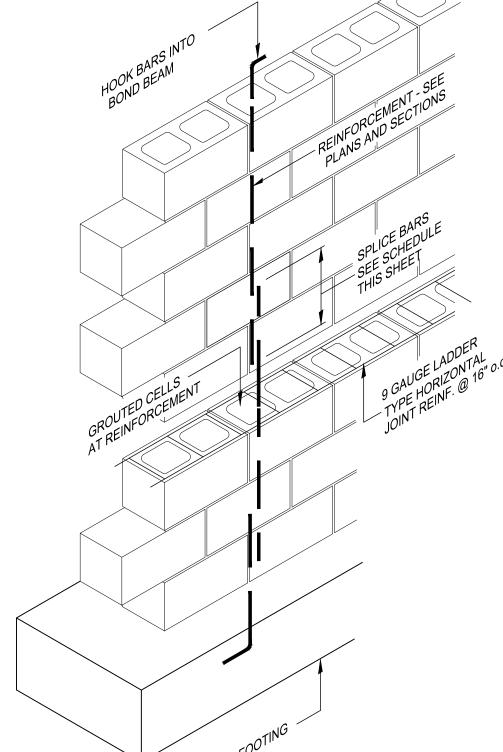
SHEET TITLE:

FOUNDATION PLAN

SHEET NO:

S202





MINIMUM REINFORCING LAP LENGTH SCHEDULE				
BAR TYPF	BAR SIZE AND LAP LENGTH	IGTH		
DANTIFL	#3	#4	#4 #5 #	#6
FILLED 8" CMU CELLS	12"	15"	23"	43"

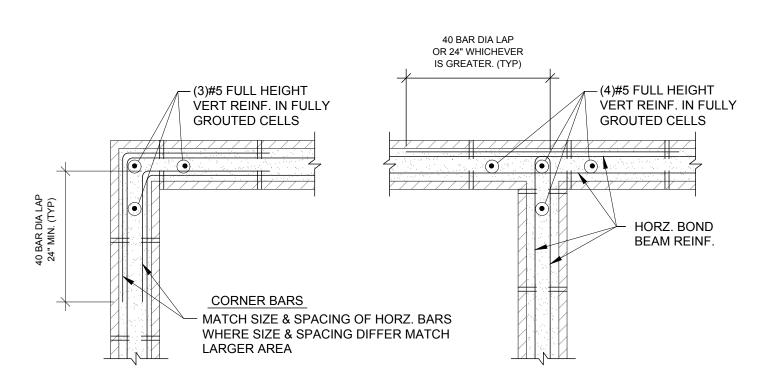
THESE VALUES ARE ADEQUATE FOR REGULAR WEIGHT CONCRETE THEY MAY BE MULTIPLIED BY 1.3 IF LIGHT WEIGHT CONCRETE IS USED.

- 2. THESE VALUES ARE ADEQUATE FOR BARS WITHOUT EPOXY
- 3. THESE VALUES APPLY TO MASONRY w/ f m = 1,500 PSI.
- 4. TMS 402/ACI 530/ASCE 5 BUILDING CODES ALLOW OPTIONAL REINFORCING SPLICES AS FOLLOWS: - A WELDED SPLICE WHEREBY BARS ARE BUTTED AND WELDED TO DEVELOP IN TENSION 125 PERCENT OF THE YIELD STRENGTH OF THE BAR. - MECHANICAL CONNECTIONS THAT ARE CAPABLE OF
 - DEVELOPING 125 PERCENT OF THE YIELD STRENGTH OF

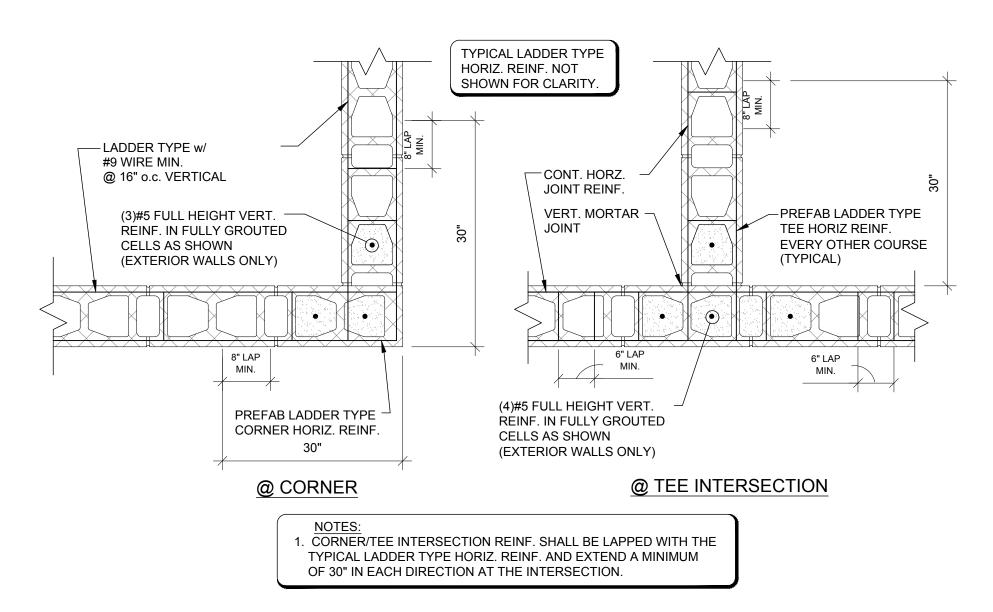
LOW LIFT GROUTING PROCEDURE: A. CONSTRUCT WALL TO HEIGHT OF 5'-0". ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.

- B. INSPECT UNITS FOR ALIGNMENT. CLEAN OUT CELLS TO BE FILLED.
- C. FILL CELLS TO 11/2" BELOW TOP COURSE.
- D. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.
- E. VERTICAL REINFORCING PRE-MANUFACTURED REBAR POSITIONER SHALL BE LOCATED AT THE TOP OF THE FIRST COURSE AT THE COURSE BELOW THE TOP OF THE WALL AND 4'-0" o.c. (MAX.)

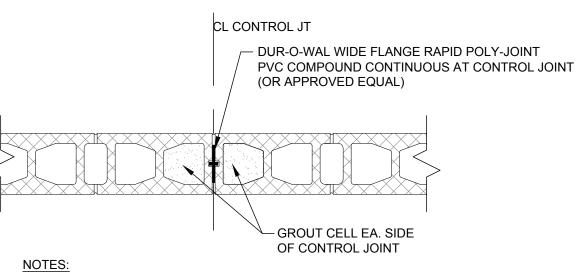
TYP. DETAIL OF REINFORCED MASONRY NON-SHEARWALL OPENING



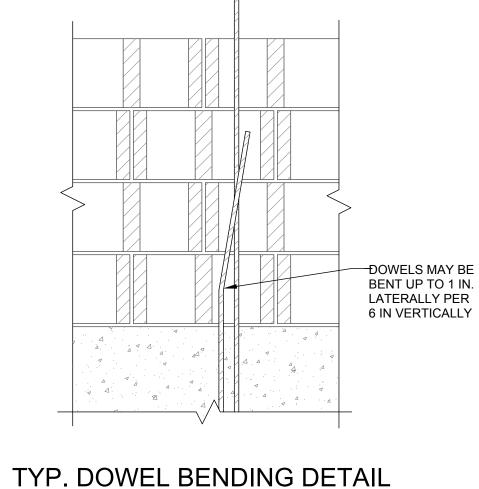
TYP. PLAN OF CORNER & INTERSECTION DETAILS FOR MASONRY BOND BEAMS



TYP. CMU WALL CORNER & INTERSECTION WITH PREFABRICATED CORNERS & TEES



- 1. SPACING OF CONTROL JOINTS IN INTERIOR/EXTERIOR CMU WALL SHALL NOT EXCEED 30'-0".
- 2. SEE ARCH FOR EXACT LOCATIONS OF CONTROL JOINTS
- 3. HORIZ. JOINT REINF. TO STOP AT EA. SIDE OF CONTROL JOINT



TYP. DETAIL OF LOW-LIFT REINFORCED MASONRY CONSTRUCTION

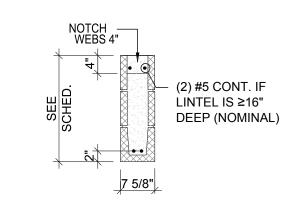
TYP. CMU CONTROL JOINTS

MAS	SONRY	/ WALL LIN	NTEL SCHED.	
OPENING WIDTH		MASONRY LINTELS		
		LINTEL DEPTH AND REINFORCING **		
MIN.	MAX.	DEPTH	8" WALL	
-	4"-6"	7 5/8"	(2)#5 BOTT.	
4'-7"	11'-0"	15 5/8"	(2)#5 BOTT.	
11'-1"	17'-0"	23 5/8"	(2)#5 BOTT.	

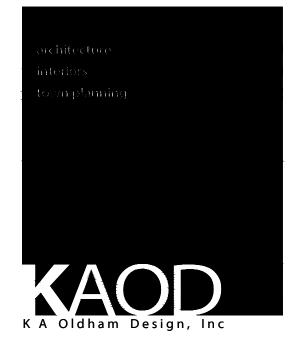
** 8" BEARING EACH END FOR U-BLOCK

- 1. THIS SCHEDULE TO BE USED UNLESS NOTED OTHERWISE. 2. DO NOT USE THIS SCHEDULE IF CONCENTRATED LOAD IS
- APPLIED TO LINTEL. 3. DO NOT USE THIS SCHEDULE IF HEIGHT OF MASONRY ABOVE OPENING IS LESS THAN HALF OF THE OPENING WIDTH.

MASONRY WALL LINTEL SCHEDULE



MASONRY LINTEL REINFORCING CONFIG.



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SECTIONS AND DETAILS

SHEET NO: