

GENERAL STRUCTURAL NOTES

- FOUNDATION DESIGN IS BASED ON A RECOMMENDED ALLOWABLE SOIL BEARING PRESSURE OF 2500 PSF FOR SPOT FOOTING & 2500 PSF CONT. FOOTING FOUNDATIONS BEARING ON APPROVED NATIVE SOIL OR ON COMPACTED ENGINEERED FILL IN ACCORDANCE WITH THE GEO TECHNICAL REPORT. BOTTOM OF FOOTING SHALL BE A MINIMUM OF 1'-6" BELOW FINAL EXTERIOR GRADE.
- ALL FILL MATERIAL BENEATH THE BUILDING SHALL BE NON-EXPANSIVE MATERIAL AS DESCRIBED IN THE GEO TECHNICAL REPORT.
- ALL FOOTINGS SHALL BE POURED ON A BASE FREE OF WATER AND LOOSE MATERIAL AND BEAR ON MATERIAL AS SPECIFIED BY NOTE #1. BASE SHALL BE INSPECTED AND APPROVED BY A GEO-TECHNICAL REPRESENTATIVE BEFORE PLACEMENT OF CONCRETE FOOTINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING AND BRACING OF ALL WALLS AND FOOTINGS DURING BACKFILL EXCAVATION AND COMPACTION PROCESS.
- ALL CONCRETE SHALL CONFORM TO A.C.I. STANDARD 318-05 (BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE) AND SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH, $f_c = 4,500$ PSI FOR SLAB ON GRADE AND POURED IN PLACE WALL, AND $f_c = 3,500$ PSI FOR ALL OTHER POURED IN PLACE CONSTRUCTION. MINIMUM CEMENT CONTENT SHALL BE 470 LBS. PER CU. YD. WITH THE SLUMP SHOWN BELOW.
- SLUMP OF POURED IN PLACE CONCRETE SHALL NOT EXCEED THE FOLLOWING:
 - a. FOOTINGS AND SLABS ON GRADE 6"
- REINFORCING STEEL SHALL BE AS FOLLOWS:
 - a. STIRRUPS, TIES, & #3 BARS ASTM A615 GRADE 40
 - b. ALL OTHER REINFORCING ASTM A615 GRADE 60
- LAP ALL REINFORCING BAR SPLICES 44 BAR DIAMETERS FOR NO. 6 AND SMALLER & 55 BAR DIAMETERS FOR NO. 7 AND LARGER UNLESS NOTED OTHERWISE.
- CLEAR DISTANCES FROM CONCRETE TO MAIN REINFORCING SHALL NOT BE LESS THAN THE FOLLOWING:
 - a. CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH 3" CLEAR
 - b. FORMED CONCRETE EXPOSED TO EARTH OR WEATHER 2" CLEAR
 - c. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH:
 - 1. SLABS, WALLS, JOISTS (#11 BARS & SMALLER) 3/4" CLEAR
 - 2. BEAMS, COLUMNS, (PRIMARY REINF., TIES & STIRRUPS) 1 1/2" CLEAR
 - d. FROM TOP OF SLAB TO REINFORCING IN SLABS ON GRADE 1 1/2" CLEAR
- PROVIDE CORNER BARS IN OUTSIDE FACES OF ALL EXTERIOR FOOTINGS AND WALLS. NUMBER, SIZE, AND SPACING OF HORIZONTAL REINFORCING WITH WHICH THEY LAP AND SHALL EXTEND TO 36 BAR DIAMETERS IN EACH DIRECTION.
- THE SIZE AND LOCATION OF ALL MECHANICAL EQUIPMENT PADS, AND OF ALL DUCT AND PIPE OPENINGS THROUGH SLABS AND WALLS SHALL BE VERIFIED WITH MECHANICAL AND ELECTRICAL CONTRACTOR'S REQUIREMENTS.
- STRUCTURAL STEEL AND CONNECTION BOLTS SHALL MEET ASTM SPECIFICATIONS, LATEST EDITION, AS FOLLOWS:
 - a. ROLLED SHAPES AND PLATES ASTM A-36, 50 KSI
 - b. W SHAPES ASTM A-992, 50 KSI
 - c. STRUCTURAL TUBES ASTM A-500 GRADE B, 48 KSI
 - d. STEEL PIPE ASTM A-53 GRADE B, 35 KSI
 - e. CONNECTION BOLTS ASTM A-325
 - f. ANCHOR BOLTS ASTM F1554-GRADE 105
- FABRICATION AND ERECTION SHALL CONFORM TO CURRENT A.I.S.C. SPECIFICATIONS AND TO SHOP DRAWINGS WHICH SHALL SHOW ALL SHOP/FIELD BOLTS AND WELDS, INCLUDING TYPE, SIZE, AND LOCATION.
- SHOP DRAWINGS SHALL BE ORIGINAL DRAWINGS, PREPARED BY THE CONTRACTOR, SUBCONTRACTOR, SUPPLIER, OR DISTRIBUTOR. REPRODUCTION OF THE STRUCTURAL CONTRACT DOCUMENTS AS ERECTION PLANS OR DETAILS SHALL NOT BE PERMITTED AND WILL BE REJECTED WITHOUT CHECKING.
- SHOP DRAWINGS SHALL CONTAIN THE CONTRACTOR'S STAMP CERTIFYING:
 - a. HIS REVIEW PRIOR TO SUBMITTAL.
 - b. VERIFICATION OF PRODUCTS, FIELD MEASUREMENTS AND FIELD CONSTRUCTION CRITERIA, AND COORDINATION WITH ASSOCIATED AREAS OF WORK.

UTILITY TRENCH NOTES

- A POSITIVE CUTOFF IN UTILITY TRENCHES AT THE BUILDING LINE SHALL BE REQUIRED DURING AND AFTER POURING OF THE BUILDING SLAB. CUTOFF SHALL BE A CLAY PLUG IN THE UTILITY TRENCH A MIN. OF 5'-0" LONG IMMEDIATELY ADJACENT TO THE BUILDING LINE. USE THIS FOR ALL UTILITY AND SERVICE EXCAVATIONS.
- EXCAVATION OF UTILITY TRENCHES SHALL BE PERFORMED IN ACCORDANCE WITH OSHA REGULATIONS AS STATED IN 29 CFR PART 1926.

GENERAL LOADING NOTES

- BUILDING CODE: IBC 2015
 - ROOF LIVE LOAD: 20 PSF
 - ROOF DEAD LOAD: ACTUAL SELF WT. +10 PSF COLLATERAL
 - SNOW LOAD:
 - GROUND SNOW LOAD, P_g: 5 PSF
 - WIND LOAD
 - BASIC WIND SPEED: 115 MPH
 - (3 SECOND GUST)
 - WIND IMPORTANCE FACTOR, I_w: 1.0
 - BUILDING CATEGORY: II
 - EXPOSURE: C
 - EARTHQUAKE LOAD:
 - S_s = 0.337g
 - S₁ = 0.114g
 - SEISMIC USE GROUP: I
 - SEISMIC DESIGN CATEGORY: C
 - SITE CLASS: "D"
 - I_e=1.0 R=3.25
 - FLOOR LIVE LOAD: SLAB ON GRADE
 - FLOOR DEAD LOAD: SLAB ON GRADE
 - GEOTECHNICAL REPORT: PROJECT NO.: 4917-005
TERRACON CONSULTANTS, INC.
ATHENS, GEORGIA
 - REPORT DATE: APR 02, 2017
- * 5 PSF SPRINKLER LOAD INCLUDED IN THE 20 PSF COLLATERAL LOAD

RIGID FRAME NOTES

- RIGID FRAME MANUFACTURER SHALL SUBMIT STRUCTURAL CALCULATIONS, SHOWING RIGID FRAME REACTIONS, PREPARED BY A REGISTERED PROFESSIONAL ENGINEER ALONG WITH SHOP DRAWINGS TO ENGINEER FOR APPROVAL.
- RIGID FRAME MANUFACTURER IS RESPONSIBLE FOR DESIGN OF WIND BEAMS
- DESIGN LOADS FOR RIGID FRAMES SHALL BE AS FOLLOWS:

ROOF	
LIVE LOAD	20 PSF +
DEAD LOAD	ACTUAL WT. +3 PSF
WIND	
AS PER CURRENT LOCAL BUILDING CODE	
* NO LIVE LOAD REDUCTION SHALL BE ALLOWED.	
- STRUCTURAL STEEL SUPPLIER IS RESPONSIBLE FOR COORDINATION OF SECOND FLOOR FRAMING AND CANOPY FRAMING WITH RIGID FRAME SUPPLIER.
- MAXIMUM MEMBER DEFLECTIONS SHALL BE AS FOLLOWS:
 - RIGID OR MAIN FRAME VERTICAL DEFLECTION L/180
 - RIGID OR MAIN FRAME HORIZONTAL DEFLECTION H/100 FOR LATERAL LOADS
 - ROOF PURLINS AND WALL GIRTS VERTICAL DEFLECTION L/180 FOR LIVE AND TOTAL LOAD
 - WALL GIRTS HORIZONTAL DEFLECTION L/180 FOR LATERAL LOADS
- METAL BUILDING SUPPLIER SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY DETAILS AND SHALL COORDINATE ERECTION SEQUENCING W/ STEEL CONTRACTOR.
- METAL BUILDING SUPPLIER SHALL PROVIDE ROOF BRACING AS REQUIRED TO ADEQUATELY TRANSFER WIND LOADS INTO FRAMES.
- METAL BUILDING SUPPLIER SHALL PROVIDE WALL BRACING OR PORTAL FRAMES WHERE REQUIRED TO ADEQUATELY RESIST WIND LOADS.
- RIGID FRAME COLUMNS SHALL BE TAPERED COLUMNS UNLESS NOTED OTHERWISE
- DIMENSIONS ON THE STRUCTURAL PLANS ARE BASED ON 8" WALL GIRT AND 1 1/2" METAL SIDING. IF A METAL BUILDING MANUFACTURER'S SYSTEM VARIES FROM THIS, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENT OF DIMENSIONS.

CONCRETE SLAB PLACEMENT NOTES

- PLACE A HEAVY DUTY VAPOR RETARDER IMMEDIATELY BELOW THE FLOOR SLABS AND EFFECTIVELY SEAL THE VAPOR RETARDER AT ALL LOCATIONS WHERE IT MUST BE PENETRATED.
- ALL VAPOR RETARDERS SHOWN SHALL BE 6 MIL VISQUEEN VAPOR RETARDER OR APPROVED EQUAL UNLESS MORE STRINGENT REQUIREMENTS ARE SHOWN IN SPECIFICATIONS.
- USE A LOW-SLUMP CONCRETE DESIGNED WITH A WATER TO CEMENT (W/C) RATIO OF APPROXIMATELY 0.45 WITH A MINIMUM COMPRESSION STRENGTH $f_c = 4,500$ PSI TO CONSTRUCT THE INTERIOR SLABS
- WATER CURE THE SLABS FOR AT LEAST 7 DAYS TO ACHIEVE EFFECTIVE CURING AND REDUCE THE POTENTIAL FOR SLAB CURLING.
- PERFORM ADEQUATE SLAB MOISTURE EMISSION TESTS PER ASTM F1889-04 TO CONFIRM THAT EMISSION LEVELS MEET THE COVERING MANUFACTURER'S SPECIFICATIONS BEFORE PLACING THE COVERING. THESE TESTS SHOULD NOT BE CONDUCTED UNTIL THE BUILDING IS CLOSED IN AND THE HVAC EQUIPMENT RUN SUFFICIENTLY TO CREATE A TEMPERATURE/HUMIDITY ENVIRONMENT THAT IS REPRESENTATIVE OF THE TYPICAL CONDITIONS THE COVERING WILL EXPERIENCE.

SPOT FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT	REMARKS
F1	3'-0"x3'-0"x1'-6"	#5 @ 9" O.C. EA. WAY @ TOP & BOT.	
F2	4'-0"x4'-0"x1'-6"	#5 @ 9" O.C. EA. WAY @ TOP & BOT.	
F3	5'-0"x5'-0"x1'-6"	#5 @ 9" O.C. EA. WAY @ TOP & BOT.	

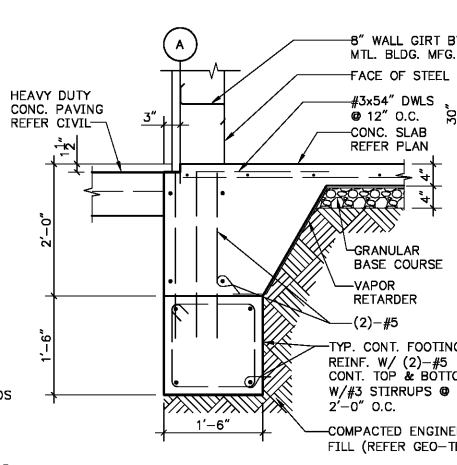
ANCHOR BOLTS

DIAMETER	A	B
3/4"	1'-6"	6"

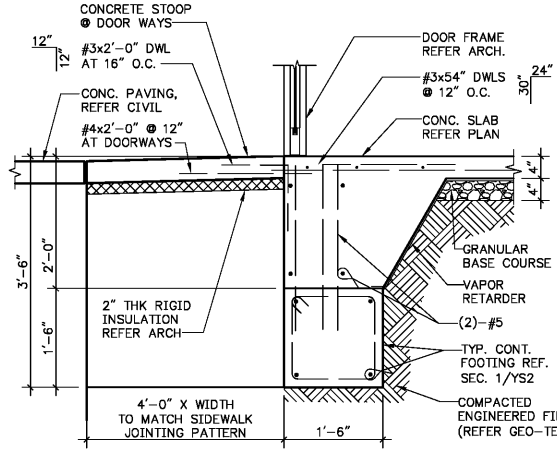
- NOTES:
- ALL ANCHOR BOLTS TO BE SUPPLIED WITH 2 NUTS.
 - ANCHOR BOLTS SHALL BE ASTM F1554-GRADE 105.

TYP. ANCHOR BOLTS

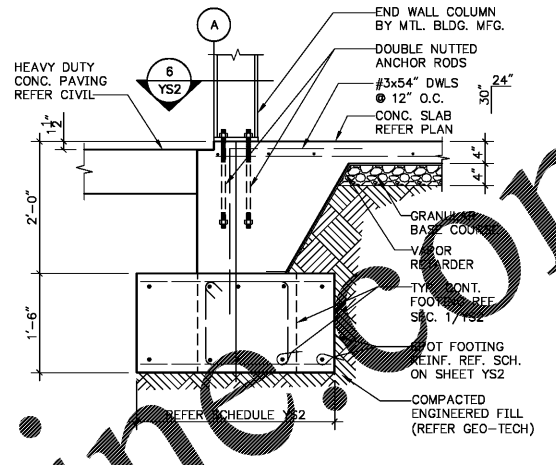
3/4"=1'-0"



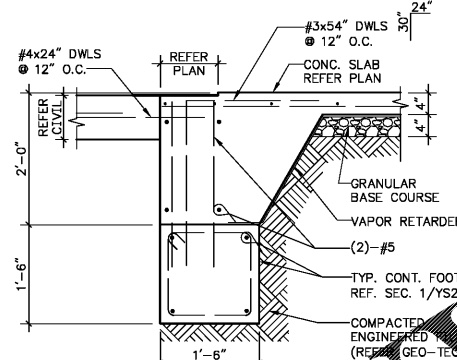
1 TYPICAL CONT. FOOTING 3/4"=1'-0"



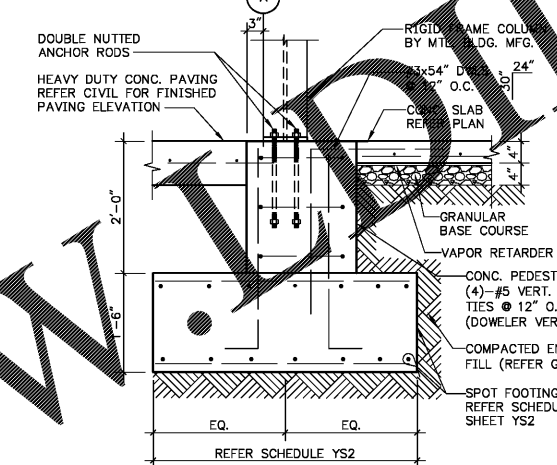
2 SECTION AT DOORWAYS 3/4"=1'-0"



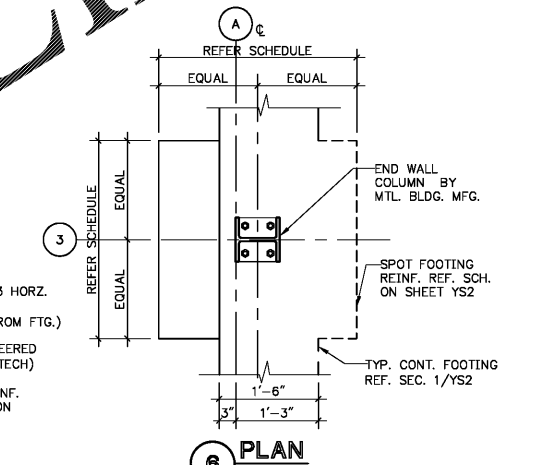
3 SECTION AT EXTERIOR FOOTING 3/4"=1'-0"



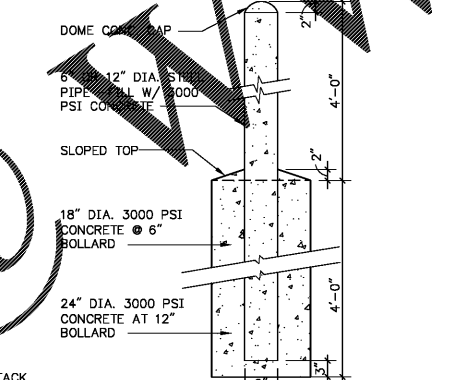
4 SECTION AT O.H. FLOOR 3/4"=1'-0"



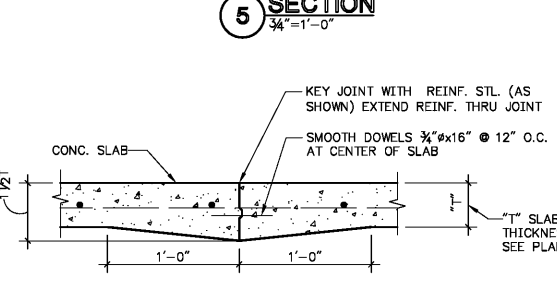
5 SECTION 3/4"=1'-0"



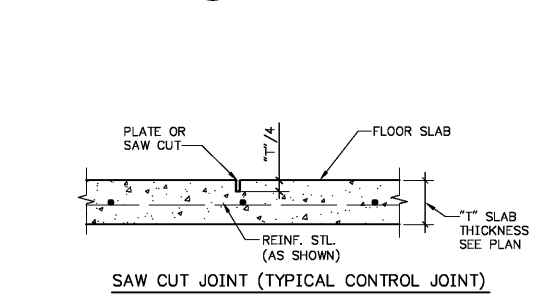
6 PLAN 3/4"=1'-0"



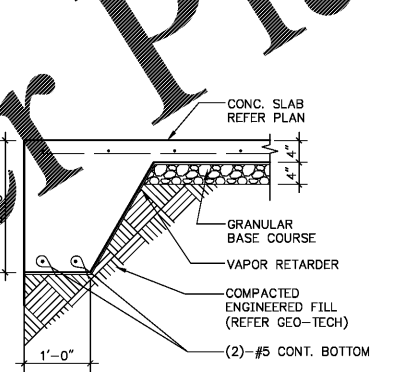
7 PIPE BOLLARD DETAIL 3/4"=1'-0"



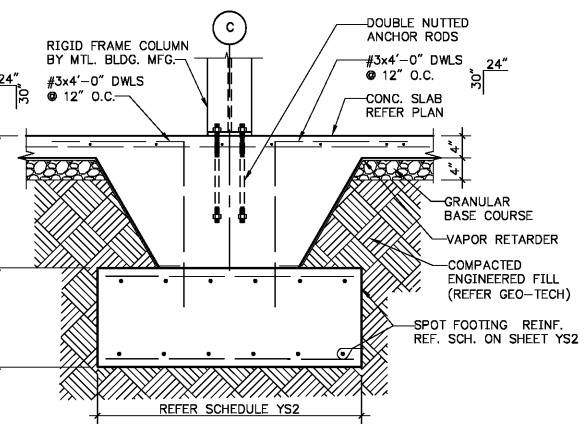
8 CONSTRUCTION JOINT DETAIL 1 1/2"=1'-0"



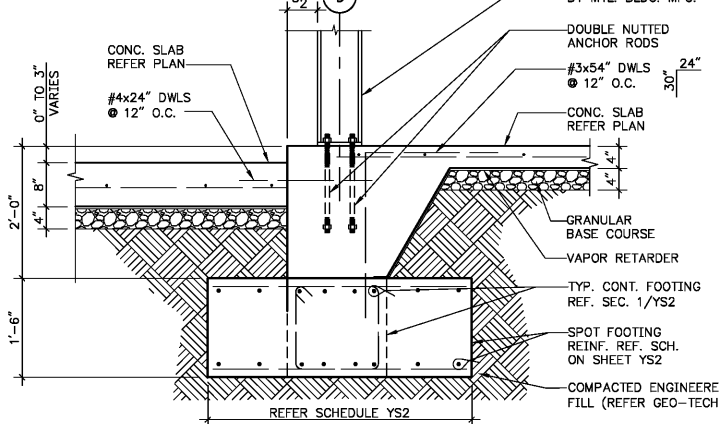
9 SAW CUT CONTROL JOINT DETAIL 1 1/2"=1'-0"



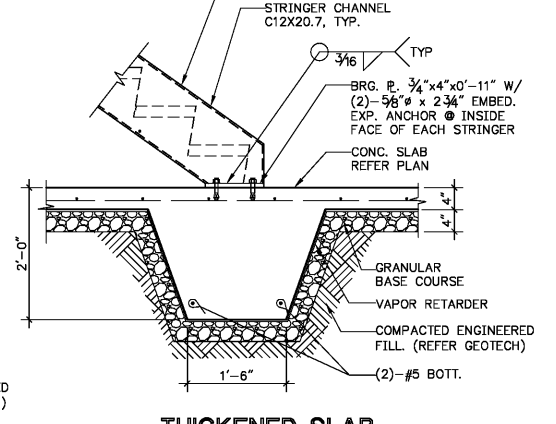
10 TYPICAL SECTION AT THICKENED SLAB 3/4"=1'-0"



11 SECTION AT INTERIOR FOOTING 3/4"=1'-0"

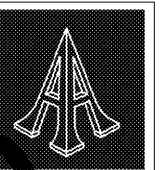


12 SECTION 3/4"=1'-0"



13 THICKENED SLAB AT STAIRS 3/4"=1'-0"

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05/24/2018
SAL JOB #18205

A NEW TIRE SHOP
STORE No. 735
CALHOUN, GA



Revisions:

No.	Date

Project No.: LVS18735
Date: 01/18/2018
Sheet No.: **YS2**
GENERAL NOTES & FOUNDATION NOTES
OF: