## **ABBREVIATIONS**

AFF	ABOVE FINISHED FLOOR
A/C ALT	AIR CONDITIONING ALTERNATE
ALT AL, ALUM	ALIERNAIE Aluminum
AB	ANCHOR BOLT
۷	ANGLE
BD	BOARD
BOT BRG	BOTTOM BEARING
BRG BLDG	BUILDING
BUR	BUILT UP ROOFING
CLG	CEILING
CT	CERAMIC TILE
CCTV CLO	CLOSED CIRCUIT TELEVISION CLOSET
COL	COLUMN
CMU CJ	CONCRETE MASONRY UNIT CONTROL JOINT
DEMO DIA.	DEMOLIGH, DEMOLITION DIAMETER
	DIMENSION
DR DBL	DOOR DOUBLE
DN	DOWN
DS DF	DOUNSPOUT DRINKING FOUNTAIN
DW DWG:	DIGHWAGHER DRAWING:
(E) EA	EXISTING EACH
ELEC	ELECTRIC (AL)
EWC EWH	ELECTRIC WATER COOLER ELECTRIC WATER HEATER
ELEY	ELEVATION
EQ EJ	EQUAL EXPANSION JOINT
FFE FA	FINIGH FLOOR ELEVATION FIRE ALARM
FE	FIRE EXTINGUISHER
FEC FH	FIRE EXTINGUISHER CABINET FIRE HYDRANT
FL	FLOOR (ING)
FD	FLOOR DRAIN
GA	GAGE, GAUGE
GALV GL	GALVANIZED GLASS, GLAZING
GB	GRAB BAR
GWB	GYPSUM WALLBOARD
HVAC	HEATING / VENTILATING / AIR COND.
HT HC	HEIGHT HOLLOW CORE
НM	HOLLOW METAL
HB HR	HOSE BIBB HOUR
IN ID	INCH INSIDE DIAMETER
INV	INVERT
JT	JOINT
LAV LLV	LAVATORY LONG LEG VERTICAL
	LONG LEG HORIZONTAL
MH	MANHOLE
MFR MO	MANUFACTURE (ER) MASONRY OPENING
MAX	MAXIMUM
MECH MTL	MECHANIC (AL) METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
NRC	NOISE REDUCTION COEFFICIENT
NOM N	NOMINAL NORTH
NIC NTS	NOT IN CONTRACT NOT TO SCALE
NO.	NUMBER
0.C.	ON CENTER (S)
0 <u>.</u> 0D	OUTSIDE DIAMETER
PTD PL	PAPER TOWEL DISPENSER PLATE
PVC PSI	POLYVINYL CHLORIDE POUNDS PER SQUARE INCH
PT	
	PRESSURE TREATED
PL	PRESSURE TREATED PROPERTY LINE
PL	PROPERTY LINE
PL QT R REF	PROPERTY LINE QUARRY TILE RADIUS REFERENCE
PL QT R REF REF RCP	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE
PL QT R REF REF	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR
PL QT R REF REF REF REP REQ REQ REY	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (S), REVISED
REF REF REF REP REQ D RA	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR
REF REF REF REF REF REP REA REY RD	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (S), REVISED ROOF DRAIN
REF RCQ REF RCQ REF RCQ REA REA REA REA REA REA REA REA REA REA	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (S), REVISED ROOF DRAIN ROOM
PL QT R REF P Q R REF P Q R REF P Q R R R R R P Q R R P Q R R P M R P M R P M R R P M R P M R P M R R P M R P M R P M	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (S), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR
PL QT R EFFPQ R REFPQ R REFPQ R REFPQ R REFPQ R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT
PL QT R EFFPQ R REFPQ R REFPQ R REFPQ R REPPQ R REPPQ R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE
PL QT R EFFPQ R REFPQ R REFPQ R REFPQ R REFPQ R REFPQ R R REFPQ R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE
PL Q R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER
PL QT R REF P Q R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REFINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL
PL QT R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STANDARD
PL QT R REF P D R REF P D R REF P D R REF P D R R R R R R R R P R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD
PL QT R REF P D R REF P D R REF P Q Q J R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERIGERATOR REFINICED CONCRETE PIPE REQUIRED RETURN AIR REVISION (6), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (6) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE
PL QT R REF P D R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERIGERATOR REFINGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (6), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (6) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER
PL QT R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERIGERATOR REFINGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (6), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (6) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR
PL QT R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERIGERATOR REFINGERATOR REFINICED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT UNDERCUT UNDERCUT
PL QT R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERIGERATOR REFINGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT
PL QT R REF P D R REF P D Q H M C C C R S S S S D L O H P B P U U U R S S S S S S S S S S S S S S S S S S S	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (3), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (3) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT
PL QT R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT UNDERCUT UNDERCUT UNDERWRITER'S LABORATORY URINAL
PL QT R REF P D R REF P D R REF P D R R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (S), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (S) SPRINKLER SQUARE STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT
PL QT R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REFINEORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (6), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (6) SPRINKLER SQUARE STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT
PL QT R REF P D R REF P D R REF P D R R REF P D R A	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFRIGERATOR REFIGERATOR REFIGERATOR REFIGERATOR REFIGERATOR REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (6) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT
PL QT R REF P D R R R R R R R R R R R R R R R R R R R	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERENCE REFERENCE REFINORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (5), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT UND
PL QT R REF P Q AT R REF P Q AT R REF P Q AT R REF P Q AT S S C C E K S S S D L O H P B P U U U K S S C C E K S S S S D L O H P B P U U U K S S C C U E K S S S S S S S S S S S S S S S S S S S	PROPERTY LINE QUARRY TILE RADIUS REFERENCE REFERENCE REFERENCE REFINFORCED CONCRETE PIPE REQUIRED RETURN AIR REVISION (3), REVISED ROOF DRAIN ROOM ROUGH OPENING SHEET SIMILAR SOLID CORE SOUND TRANSMITTANCE COEFFICIENT SPECIFICATION (5) SPRINKLER SQUARE STAINLESS STEEL STANDARD STEEL STORAGE THRESHOLD TOILET PAPER DISPENSER TOWEL BAR TYPICAL UNDERCUT UNDER

YARD

# SUWANNEE COUNTY SCHOOL BOARD DATA AND TRANSPORTATION BUILDING PHASE 1 - BUILDING SHELL







APPROXIMATE LOCATION OF

NEW DATA-TRANSPORTATION BUILDING, SEE CIVIL SITE PLAN FOR EXACT LOCATION.

SITE PLAN SCALE:N.T.S.

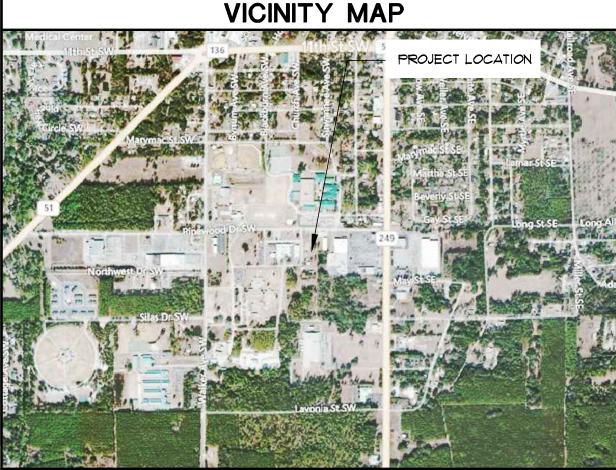
# LIVE OAK, FLORIDA

# **BID AND PERMIT SET** SCSB BID # 14-201

	GENERAL NOTES	S
l. 2. 3.	ALL GRAPHIC SCALES INDICATED ON THE DRAWINGS ARE FOR 24"X36" PAGE SIZE ONLY. TO THE BEST OF OUR KNOWLEDGE THESE DOCUMENTS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE FIRE SAFETY STANDARDS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND 633 FLORIDA STATUTES. DETAILS SHALL APPLY TO ALL SIMILAR CONDITIONS UNLESS A DIFFERENT DETAIL IS SHOWN.	DETAIL DESIGNATION SHEET NUMBER WALL SECTION DETAIL DESIGNATION SPECIFICATION NUMBER
		OG 24 00 SPEC. DETAIL

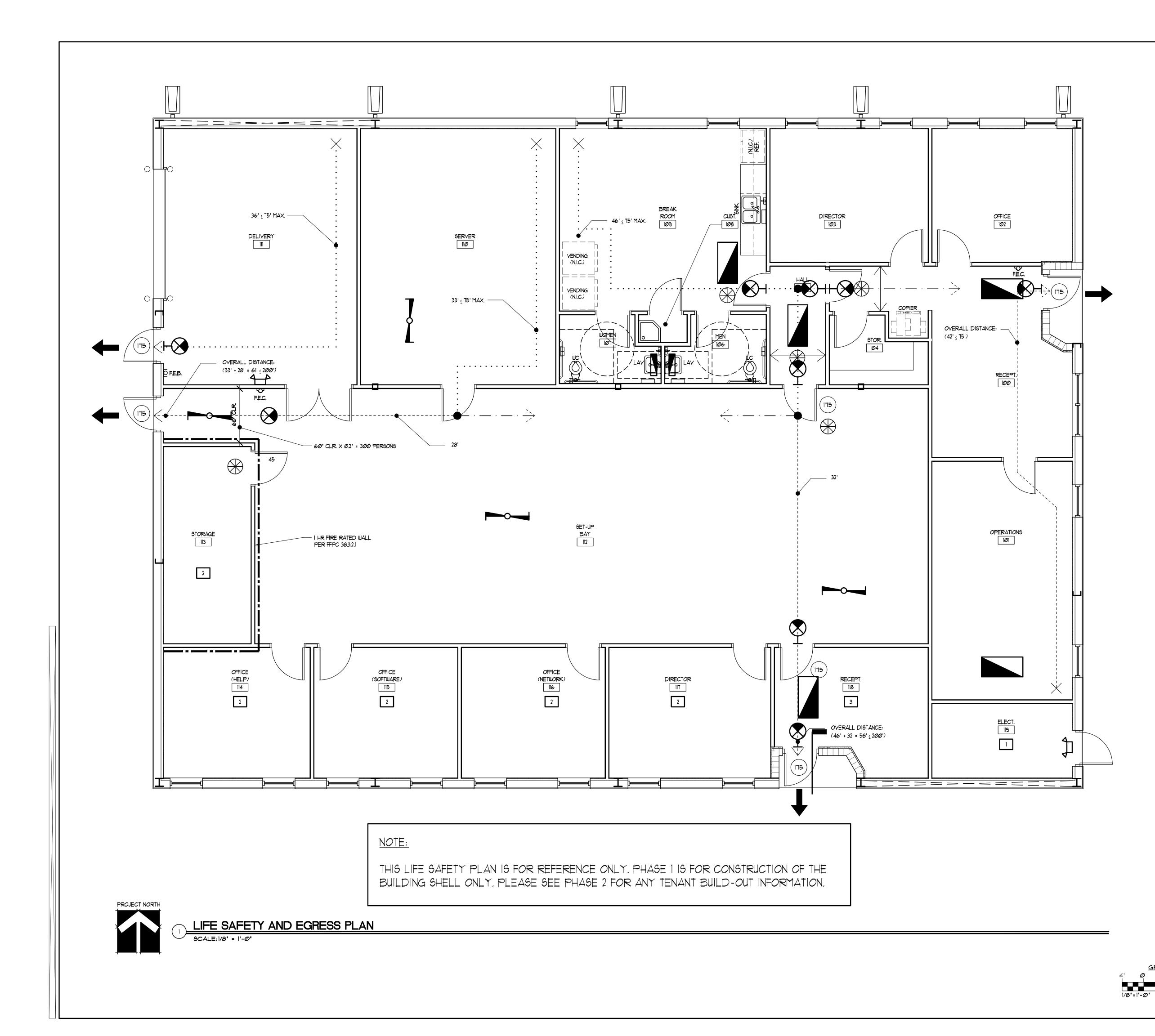


REVISIONS A	DRAWING LIST
	COV COVER SHEET LS-1 LIFE SAFETY PLAN A-10 FLOOR PLAN A-20 NOT USED A-30 ROOF PLAN A-40 EXTERIOR ELEVATIONS A-50 BUILDING AND WALL SECTIONS A-60 WALL SECTIONS AND DETAILS A-10 NOT USED A-80 DOOR AND WINDOW SCHEDULES AND TYPES
	STRUCTURAL         \$-0!       GENERAL NOTES AND DETAILS         \$-02       GENERAL NOTES         \$-03       WIND DIAGRAM         \$-1.1       FOUNDATION PLAN         \$-2.1       ROOF FRAMING PLAN         \$-3.1       DETAILS AND SECTIONS
	PLUMBING P-00 PLUMBING LEGEND AND NOTES
	P-1.0 UNDERGROUND PLUMBING PLAN
	MECHANICAL
	FIRE PROTECTION
	ELECTRICAL E8-0.1 ELECTRICAL LEGEND AND NOTES
	ES-0.1 ELECTRICAL LEGEND AND NOTES ES-0.2 ELECTRICAL SPECIFICATIONS ES-1.0 ELECTRICAL SHELL AND CORE PLAN



SYMBOLS LIST							
TION							
	SHEET NUMBER PLAN DETAIL						
TION 	DOOR MARK (SEE DOOR SCH.) WINDOW MARK (SEE WIN. SCH.) WALL TYPE MARK (SEE WALL TYPES) TOILET ACCESSORIES (SEE ACCESSORY LEGEN	D)					

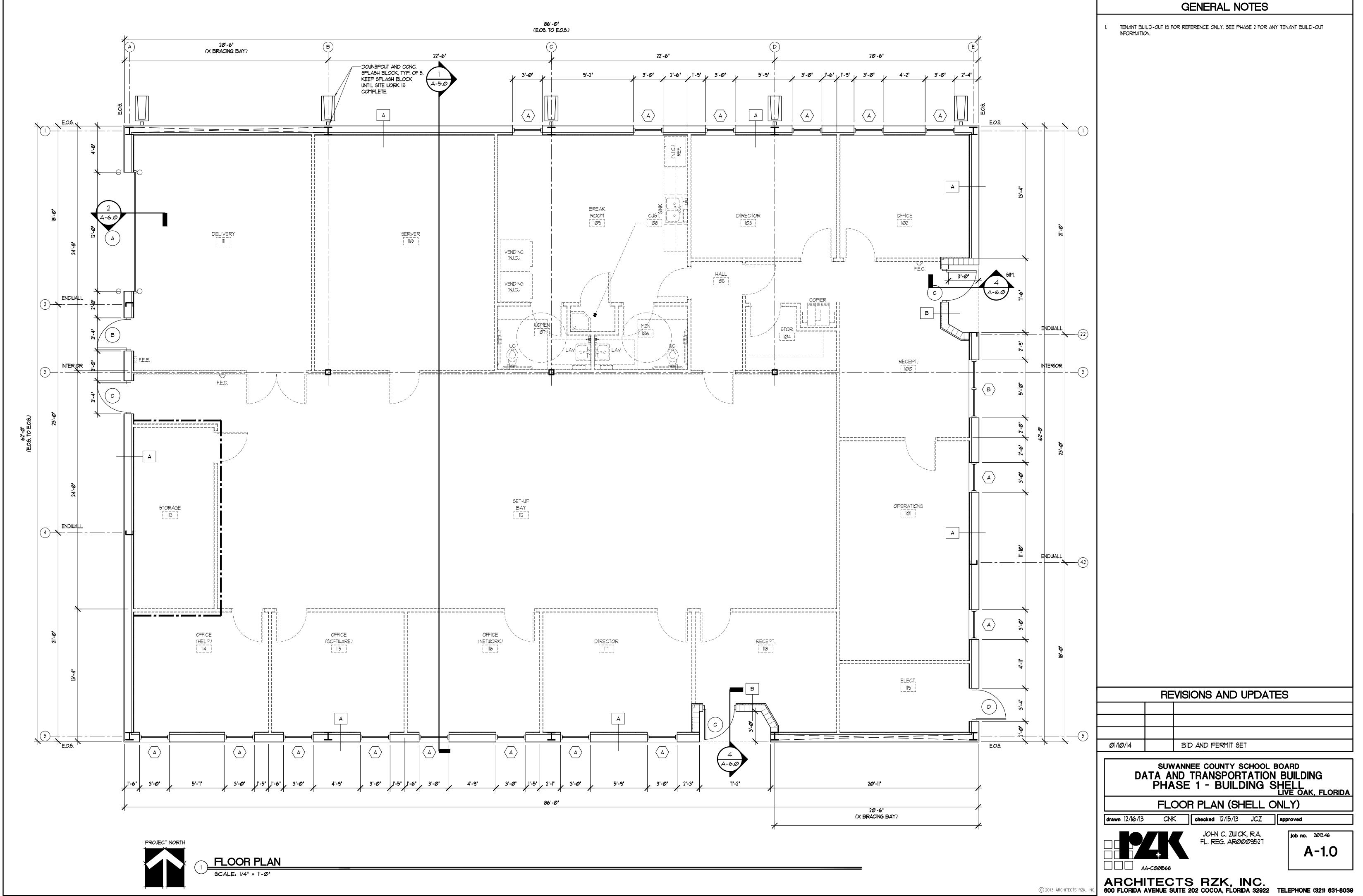
	17 1-26		and the second		
		REVIS	IONS AND (	JPDAT	ES
	@1/1@/14	BI	O AND PERMIT SE	Ť	
NATION	DA	TA AND	IEE COUNTY S TRANSPOR 1 - BUILD	TATION	I BUILDING
R —			COVER SH		LIVE OAK, FLORIDA
1ARK DOR SCH.)	<b>drawn</b> 12/16/13	CNK	<b>checked</b> 12/15/13	JCZ	approved
MARK N. SCH.) (PE MARK ALL TYPES) ACCESSORIES (CESSORY LEGEND)			JOHN C. ZWICH FL. REG. ARØØ		job no. 2013.46 COV
© 2013 ARCHITECTS RZK, INC.			BRZK, I 202 COCOA, FLORI	NC. Da 32922	TELEPHONE (321) 631-8039

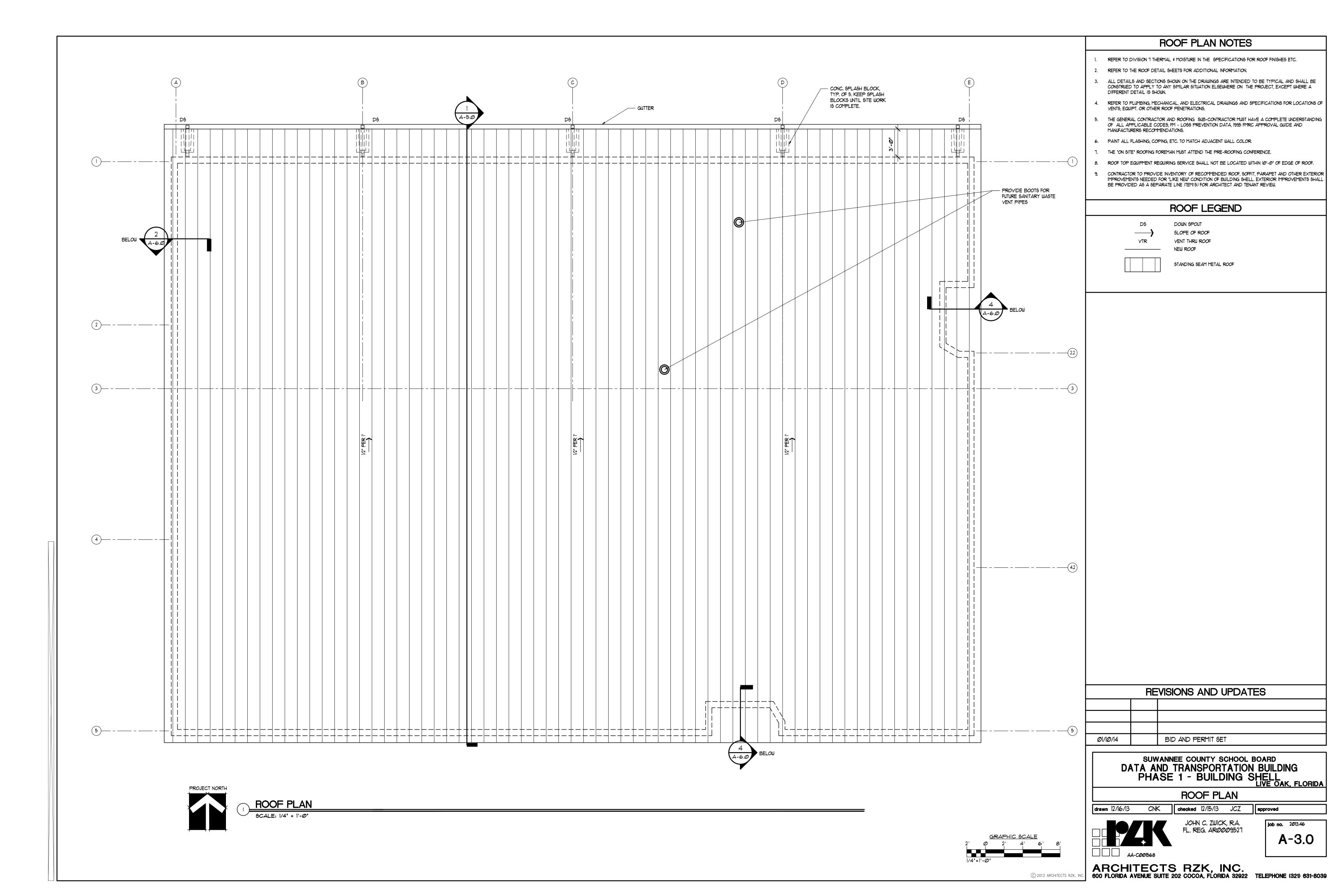


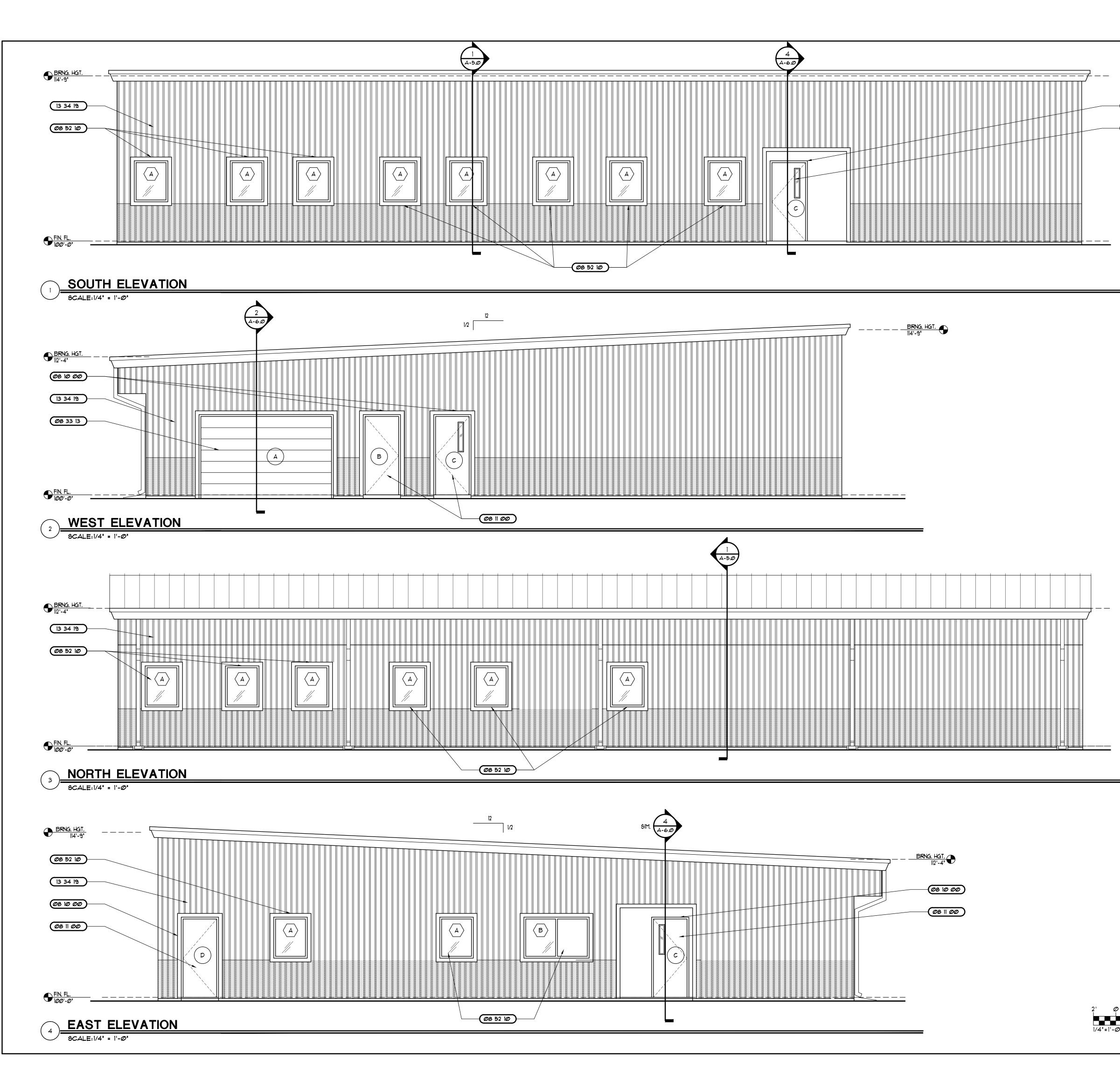
LIFE SAFET	Y / CODE COMPLIANCE NOTES
FLORIDA BUILDING CODE -	
FBC MECHANICAL CODE 201 FBC PLUMBING CODE 2010	
FLORIDA FIRE PREVENTION	
	OCCUPANCY CLASSIFICATION
FLORIDA BUILDING CODE - B FLORIDA FIRE PREVENTION CO	USINESS OCCUPANCY (SECTIONS 303, 304 AND 311) ODE - BUSINESS
	066 AREA WITHIN EXTERIOR WALLS PER FBC 502.1 AND 1002.1
OCCUPANCY TYPES: OFFICES (ETC.): 534	5 SF. 100 S.F./PERSON GROSS: 54 PERSONS
2	
NOTE: EAST PORTION OF BUILD	DING IS SEPARATED FROM WEST PORTION.
BUILDING 15 60' FROM CLOS	JE 15 ADJACENT BUILDING.
	CONSTRUCTION TYPE
FLORIDA BUILDING CODE:	EXISTING (EQUIVALENT TO TYPE II B)
FIRE SPRINKLER SYSTEM:	NONE
	BUILDING HEIGHT AND ALLOWABLE AREA
<u>HEIGHT</u> (FBC TABLE 503) - 1 <u>AREA</u> (FBC TABLE 503) -	MAX. HEIGHT 18 55 FT
	EXITING / EGRESS
	FBC TABLE 1021.1 AND FFPC)
- OCCUPANT LOAD 1 -500 (	
<u>TRAVEL DISTANCES</u> (SEE PL - MAXIMUM COMMON PATH: <sup>-</sup>	LAN FOR PATHS) 15' (PER FBC 1014.3) BUSINESS:
- MAXIMUM TRAVEL DISTANC	CE: (PER FBC TABLE 1016.1) BUSINESS: 200 FT.
- DEAD END CORRIDOR: (P	'ER FBC 1018.4) 20 FT.
	OR WIDTHS) (PER FBC 1005.1)
	60N (MIN, WIDTH TO BE 36 INCHES)
	02" = INCHES (MIN. WIDTH SHALL BE 44 INCHES
PER FBC 10182 AND FFPC :	38232)
	SAFETY SYMBOL LEGEND
	INDICATES PRIMARY EXIT OR EXIT ACCESS
×···· <b>&gt;</b>	INDICATES SECONDARY EXIT ACCESS
•>	INDICATES PRIMARY COMMON PATH OF TRAVEL (DISTANCE FEET)
•> •- ·( <u>)</u> · >	INDICATES PRIMARY PATH OF TRAVEL (DISTANCE FEET) INDICATES SECONDARY PATH OF TRAVEL (DISTANCE FEET)
$60 \longrightarrow 20$	INDICATES SECONDART PATH OF TRAVEL (DISTANCE FEET)
	(IE: 90, 60, 45, OR 20 MINUTE)
	INDICATES MAXIMUM DOOR EXIT CAPACITY (PERSONS)
	INDICATES SMOKE TIGHT WALL/PARTITION
	INDICATES I HR FIRE RATED WALL/PARTITION (SMOKE RESISTANT)
××	INDICATES OCCUPANT LOAD PER FBC FOR SPECIFIC ROOMS W/ ASSEMBLY OCCUPANCY
$\times$	INDICATES MAX. OCCUPANCY SIGN.
	INDICATES FIRE EXTINGUISHER ON BRACKET OR IN CABINET
ት 🗖 ሯ	INDICATES EMERGENCY LIGHTS (SEE ELEC. DRAWINGS)
	NDICATES FIRE ALARM STROBE AND HORN
	(SEE ELEC. DRAWINGS)
<b>(F)</b> —	INDICATES FIRE BELL (SEE ELEC. DRAWINGS)
F	FIRE ALARM PULL STATION (SEE ELEC. DRAWINGS)
Ð	INDICATES HEAT DETECTOR
(E) = EXISTING	INDICATES EXIT SIGN - (SEE ELEC. DWGS. FOR ADDITIONAL DEVICES)
+	CLEAR WIDTH AND MAXIMUM EGRESS CAPACITY (PERSONS)
RF	VISIONS AND UPDATES
RE	VISIONS AND UPDATES
RE	VISIONS AND UPDATES
RE	VISIONS AND UPDATES
@1/1@/14	BID AND PERMIT SET
@1/1@/14	BID AND PERMIT SET
Ø1/10/14 SUW DATA A	BID AND PERMIT SET
Ø1/10/14 SUW DATA A	BID AND PERMIT SET
Ø1/10/14 SUW DATA A	BID AND PERMIT SET ANNEE COUNTY SCHOOL BOARD ND TRANSPORTATION BUILDING SE 1 - BUILDING SHELL LIVE OAK, FLORID
Ø1/10/14 SUM DATA A PHA	BID AND PERMIT SET ANNEE COUNTY SCHOOL BOARD ND TRANSPORTATION BUILDING SE 1 - BUILDING SHELL LIVE OAK, FLORID LIFE SAFETY PLAN
Ø1/10/14 SUW DATA A	BID AND PERMIT SET
Ø1/10/14 SUM DATA A PHA	BID AND PERMIT SET VANNEE COUNTY SCHOOL BOARD ND TRANSPORTATION BUILDING SE 1 - BUILDING SHELL LIVE OAK, FLORID LIFE SAFETY PLAN Checked 12/15/13 JCZ approved JOHN C. ZWICK, R.A. Job no. 2013.46
Ø1/10/14 SUM DATA A PHA	BID AND PERMIT SET

<u>GRAF</u>

© 2013 ARCHITECTS RZK, INC. 600 FLORIDA AVENUE SUITE 202 COCOA, FLORIDA 32922 TELEPHONE (321) 631-8039

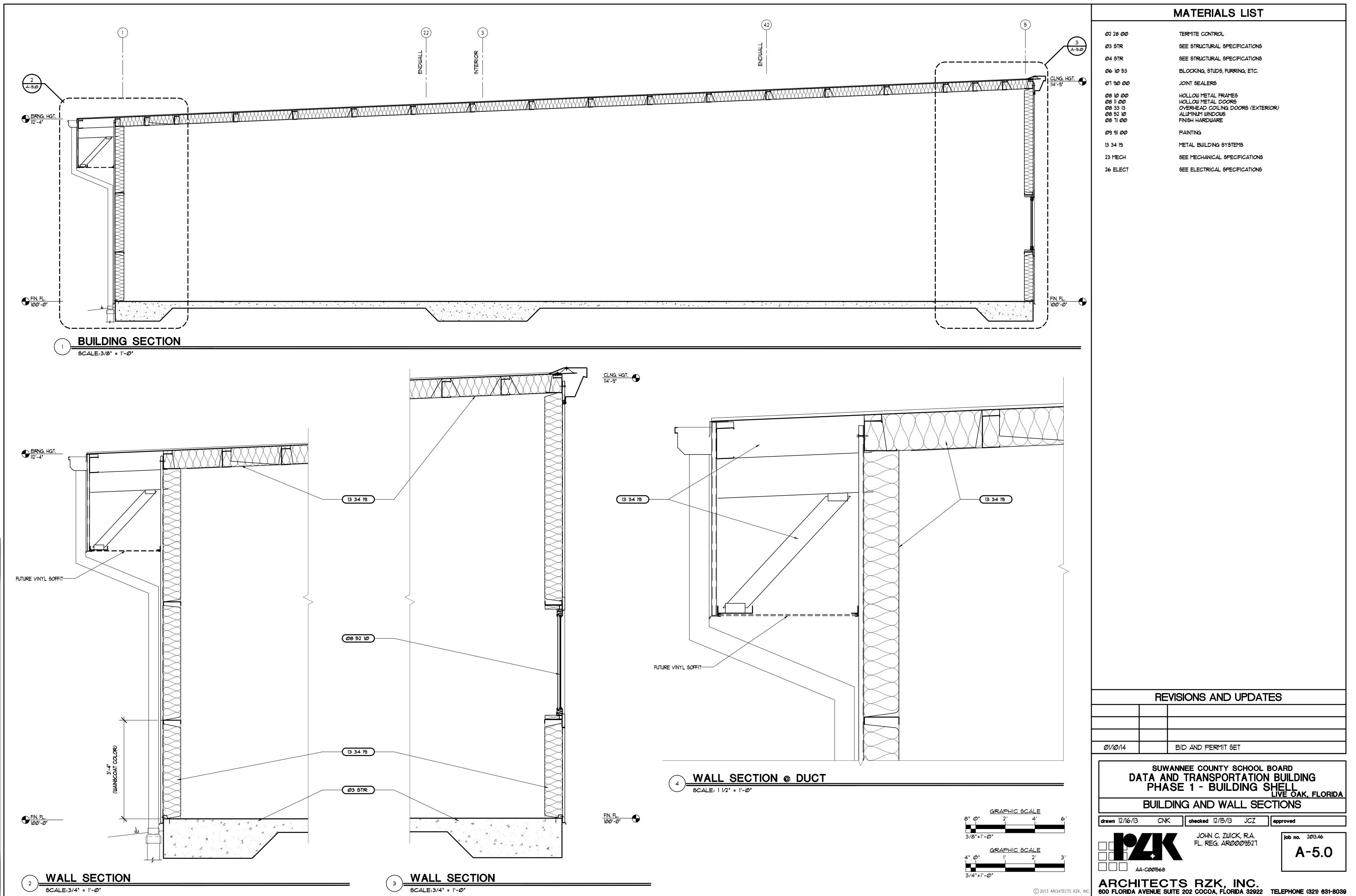


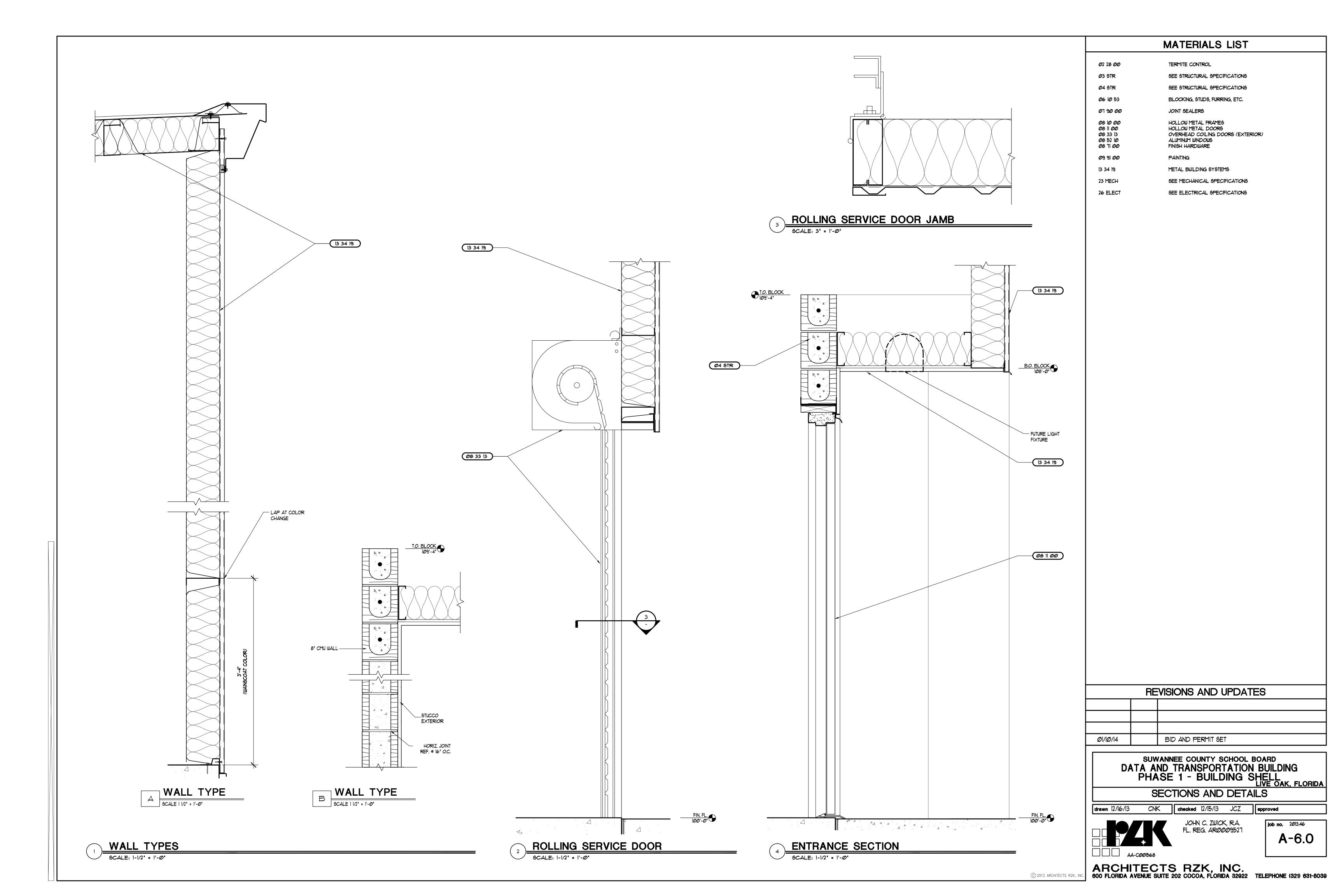




			MATERIALS I	IST	
	Ø2 28 ØØ		TERMITE CONTROL		
	Ø3 STR		SEE STRUCTURAL SPECIFIC	CATIONS	
(08 10 00)	Ø4 STR		SEE STRUCTURAL SPECIFIC	CATIONS	
	Ø6 1Ø 53		BLOCKING, STUDS, FURRING	s, ETC.	
08 11 00	00 00 FD		JOINT SEALERS		
	08 10 00 08 11 00		HOLLOW METAL FRAMES HOLLOW METAL DOORS		
	08 33 13 08 52 10		AULINUM WINDOWS	RS (EXTERIOR)	
	08 92 10 08 71 00		FINISH HARDWARE		
	<i>0</i> 9 91 <i>00</i>		PAINTING		
	13 34 19		METAL BUILDING SYSTEMS		
	23 MECH		SEE MECHANICAL SPECIFIC	CATIONS	
	26 ELECT		SEE ELECTRICAL SPECIFIC	CATIONS	
_					
		RE	VISIONS AND U	PDATES	
	Ø1/1Ø/14		BID AND PERMIT SET		
		<b>A</b> 1			
	יח		ND TRANSPORT		
			SE 1 - BUILDI	NG SHF	
					<u>/E OAK, FLORIDA</u>
		E	EXTERIOR ELEV	AHONS	
	<b>drawn</b> 12/16/13	CN	<b>checked</b> 12/15/13	JCZ app	proved
			JOHN C. ZWICK,	R.A.	job no. 2013.46
<u>GRAPHIC SCALE</u>			FL. REG. AROOO	9527	
0 2' 4' 6' 8'					A-4.0
		A-CØØ1568			

ARCHITECTS RZK, INC. 600 FLORIDA AVENUE SUITE 202 COCOA, FLORIDA 32922 TELEPHONE (321) 631-8039

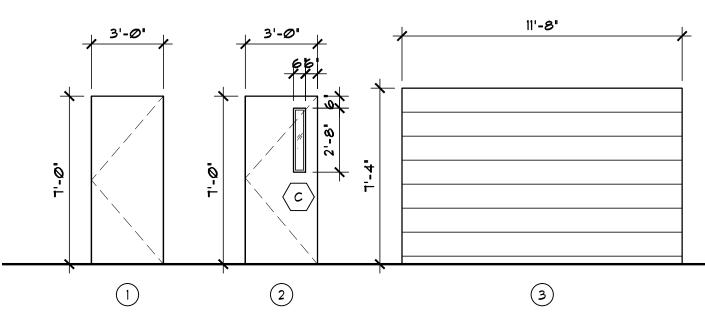




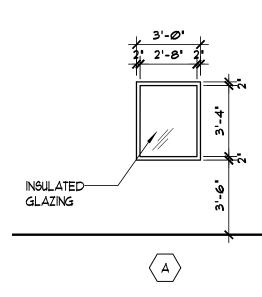
DOOR S	SCHEDULE
--------	----------

					SIZE							HARD	WARE										DETAIL
MARK	ROOM	DOOR TYPE	MAT. CODE	HLCIM	HEIGHT	THICKNESS	HINGES	LOCKSET(S)	DEAD BOLT	CL05ER5(5)	KICKPLATE(8)	THRESHOLD	WEATHER STRIP.	FLUSH BOLT	DOOR STOP	RAIN DRIP				FRAME MATERIAL	FRAME TYPE	HEAD	JAMB
А	DELIVERY	3	*	11'-Ø'	7'-4"	*	-	-	*	-	-	*	*	-	-	-				*		2/A <b>-6.Ø</b>	3/A <b>-6.</b> Ø
В	DELIVERY	1	ΗM	3'-Ø'	ין <b>'0'</b> ו	-3/4'	в	С	-	в	А	А	A	-	*					Ħ	А	4/-	4/-
С	VARIES (SEE PLAN)	2	ΗM	3'-Ø <b>'</b>	ין <b>'0-</b> 'ר	-3/4'	в	А	-	в	А	А	A	-	*					Ħ	А	4/-	4/-
D	ELECTRICAL	1	ΗM	3'-Ø <b>'</b>	ין <b>י</b> @-יד	-3/4'	в	С	I	в	А	А	А	-	*					Ŧ	А	4/-	4/-

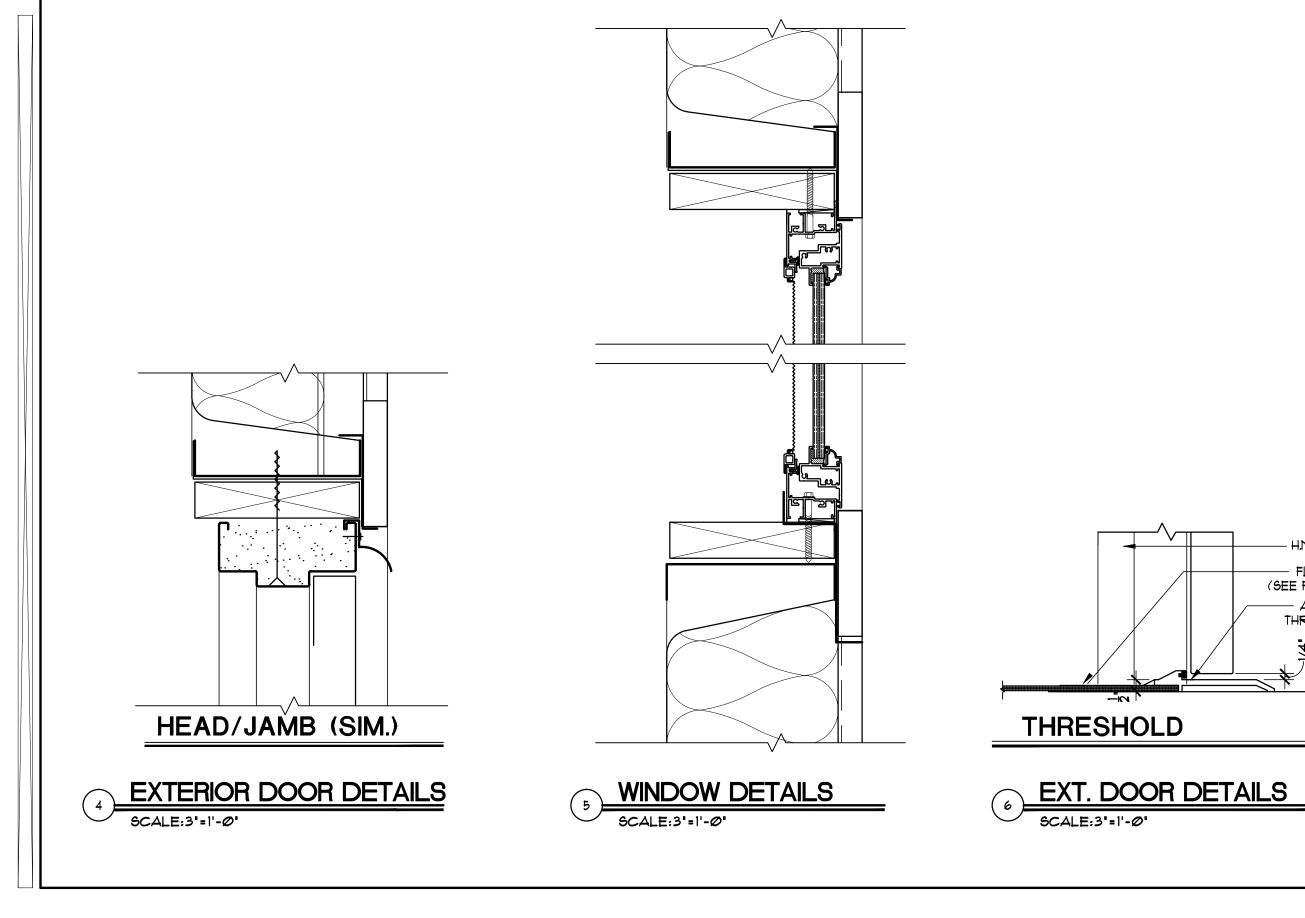
DOOR SCHEDULE LEGEND						
	DOOR MATERIAL					
H HOLL	OW METAL (INSULATED)					
	HARDWARE LEGEND					
HINGES B = BB STAINLESS STEEL						
LOCKSETS	A = ENTRY FUNCTION (SCHLAGE AD200CY-TK RHO 626 LD+4B) INCLUDE PRIMUS CYLINDER					
	C = STOREROOM FUNCTION (SCHLAGE RHODES 'RD' - SERIES)					
CLOSERS	A = LCN 4010/4111 SERIES (PARALLEL ARM, ADA)					
	B = LCN 4010/4111 SERIES (INSIDE MOUNTED ARM)					
KICKPLATE	A = 1/ES 8400 SERIES (U32D)					
DOOR STOPS	A = IVES WS SERIES (W/ ADEQUATE BACK BLOCKING)					
THRESHOLD	A = ADA COMPLIANT PER SPEC					
WEATHERSTRIP	A = PER SPEC					

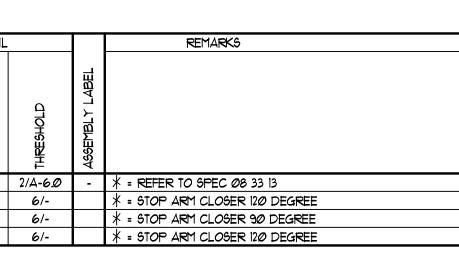










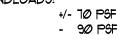


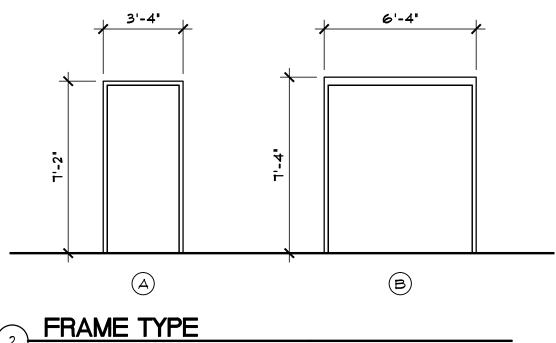
## WINDOW SCHEDULE

A         3'-8' × 3'-0'         ALUMINUM         INS           B         6'-0' × 3'-8'         ALUMINUM         INS				
HARNSIZE ( $W \times H$ )F.R. IT PEGA3'-8' $\times$ 3'-0'ALUMINUMINS	RATED			DOOR LITES
SIZE (W × H) F.R. ITPE G	6ULATED 5/A-8.0 5/	5/A-8.0 5/A-8.0		VARIES (SEE PLAN)
	GULATED 5/A-8.0 5/	5/A-8Ø 5/A-8Ø		VARIES (SEE PLAN)
	SLASS HEAD J.		MULLION	LOCATION
		DETAILS		

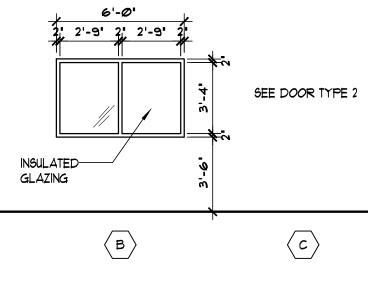
NOTE: 1. ALL INTERIOR GLASS TO BE CLEAR.

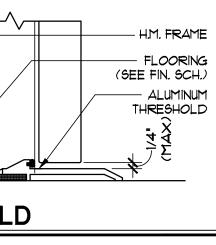
SPECIFIED ALUMINUM STOREFRONT REQUIREMENTS ARE EQUAL TO:
 FLORIDA PRODUCT APPROVAL: 14218.3
 WINDLOADS:





SCALE:1/4"=1'-Ø"







	REMARKS
٧	SEE SPECIFICATIONS
٧	SEE SPECIFICATIONS
	SEE NOTE #1

## 

		MATERIALS LIST	
Ø2 28 ØØ		TERMITE CONTROL	
Ø3 STR		SEE STRUCTURAL SPECIFICATIONS	
Ø4 STR		SEE STRUCTURAL SPECIFICATIONS	
Ø6 1Ø 53		BLOCKING, STUDS, FURRING, ETC.	
00 00 FQ		JOINT SEALERS	
08 10 00 08 11 00		HOLLOW METAL FRAMES HOLLOW METAL DOORS	
08 33 13 08 52 10		OVERHEAD COILING DOORS (EXTERION ALUMINUM WINDOUS	R)
Ø8 TI ØØ		FINISH HARDWARE	
ଡ୨ ୨ା ଡଡ		PAINTING	
13 34 19		METAL BUILDING SYSTEMS	
23 MECH		SEE MECHANICAL SPECIFICATIONS	
26 ELECT		SEE ELECTRICAL SPECIFICATIONS	
			S
	RE	VISIONS AND UPDATE	S
	RE	VISIONS AND UPDATE	S
	RE	VISIONS AND UPDATE	S
	RE		S
Ø1/1Ø/14	RE	VISIONS AND UPDATE	S
Ø1/1Ø/14			
		BID AND PERMIT SET	DARD BUILDING
		BID AND PERMIT SET	DARD BUILDING HELL
D	SUW ATA A PHA	BID AND PERMIT SET VANNEE COUNTY SCHOOL BO ND TRANSPORTATION ASE 1 - BUILDING SH	DARD BUILDING HELL IVE OAK, FLORIDA
	SUM ATA A PHA	BID AND PERMIT SET	DARD BUILDING IELL IVE OAK, FLORIDA AND DETAILS
D	SUM ATA A PHA	BID AND PERMIT SET	DARD BUILDING HELL IVE OAK, FLORIDA
	SUM ATA A PHA	BID AND PERMIT SET	DARD BUILDING IELL IVE OAK, FLORIDA AND DETAILS
	SUM ATA A PHA	BID AND PERMIT SET	DARD BUILDING IELL IVE OAK, FLORIDA AND DETAILS approved
DOOR / drawn 12/16/13	SUM ATA A PHA	BID AND PERMIT SET	DARD BUILDING IELL IVE OAK, FLORIDA AND DETAILS

© 2013 ARCHITECTS RZK, INC. ARCHITECTS BUILE 202 COCOA, FLORIDA 32922 TELEPHONE (321) 631-8039

## STRUCTURAL ABBREVIATIONS

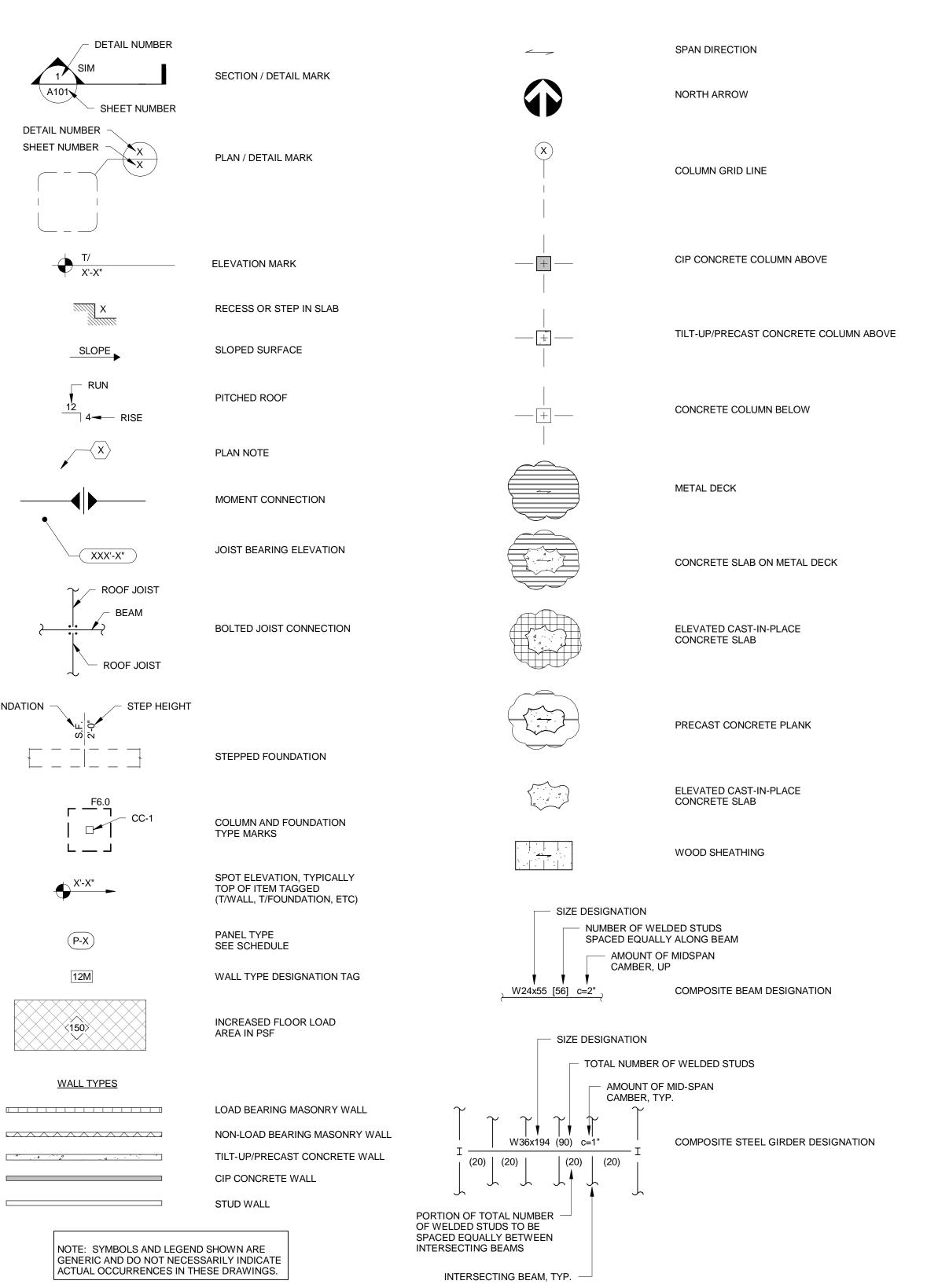
ABBREV ACI ADD ADDL AFF AISC AISI ALT ALUM ARCH ASTM	ABBREVIATION AMERICAN CONCRETE INSTITUTE ADDITIVE ADDITIONAL ABOVE FINISHED FLOOR AMERICAN INSTITUTE OF STEEL CONSTRUCTION AMERICAN IRON AND STEEL INSTITUTE ALTERNATE/ALTERNATIVE ALUMINUM ARCHITECTURE/ARCHITECTURAL AMERICAN SOCIETY OF TESTING MATERIALS	LB LGTH LL LLH LLV LONG. LSL LT WT LVL MATL	POUND LENGTH LIVE LOAD LONG LEG H LONG LEG V LONGITUDIN LAMINATED LIGHT WEIGI LAMINATED
AWS B/ BCX BLDG BLK BM BOT BP BRG BTWN	AMERICAN WELDING SOCIETY BOTTOM OF BOTTOM CHORD EXTENSION BUILDING BLOCK BEAM BOTTOM BASE PLATE/BEARING PLATE BEARING BETWEEN	MAX MB MCCH MET MFR MID MIN MISC MO MPH	MAXIMUM MASONRY B MISCELLANE MECHANICA METAL MANUFACTU MIDDLE MINIMUM MISCELLANE MASONRY O MILES PER F
C CB CC CF CIP	CHANNEL CONCRETE BEAM CONCRETE COLUMN CUBIC FEET (FOOT) CAST IN PLACE	NGVD NIC NO. NS NTS	NATIONAL G NOT IN CON NUMBER NEAR SIDE NOT TO SCA
CJ CL CLR CM CMU CO COL COL	CONTRACTION JOINT CENTERLINE CLEAR/CLEARANCE CONCRETE MASONRY CONCRETE MASONRY UNIT COMPANY COLUMN COLUMN CONCRETE	OC OD O.F. OPNG OPP OSB	ON CENTER OUTSIDE DI/ OUTSIDE FA OPENING OPPOSITE ORIENTED S
CONT CONN CONST COORD CSJ CTR CTRD CY	CONTINUOUS CONNECTION CONSTRUCTION COORDINATE CONSTRUCTION JOINT CENTER CENTERED CUBIC YARD	P/C P/T PCB PCC PCF PEMB PEN P.J.	PRECAST CO POST TENSIO PARALLEL PRECAST CO PRECAST CO POUNDS PEI PRE-ENGINE PENETRATIO PANEL JOIN
DEPT DET DIA DIAG DIM DIST DL DN DWG	DEPARTMENT DETAIL DIAMETER DIAGONAL DIMENSION DISTANCE DEAD LOAD DOWN DRAWING	PL PLF PLMG PLY. PREFAB PSF PSI PSL PT	PLATE POUNDS PEI PLUMBING PLYWOOD PREFABRICA POUNDS PEI POUNDS PEI PARALLEL S PRESSURE 1
EA EE EF EHPA EJ ELEC EL, ELEV ENGR	EACH EACH END EACH FACE EMERGENCY HURRICANE PROTECTION AREA EXPANSION JOINT ELECTRIC/ELECTRICAL ELEVATION ENGINEER	R/W RD REF REINF REQD REV RTU	REINFORCEI ROOF DRAIN REFERENCE REINFORCIN REQUIRED REVISION ROOF TOP U
EOD EOR EQ SP ES EW EXIST EXP EXT	EDGE OF DECK ENGINEER OF RECORD EQUAL SPACED EACH SIDE EACH WAY EXISTING EXPANSION EXTERIOR	SB SCHED S.F. SF SIM SPC SPECS SQ	SOFFIT BEAI SCHEDULE SQUARE FEE STRIP FOUN SIMILAR SPACE/SPAC SPECIFICATI SQUARE
F FD FDN FF FIN FIN GR FLR	FOUNDATION FLOOR DRAIN FOUNDATION FINISHED FLOOR FINISH FINISH GRADE FLOOR	SS STD STIFF STL STRUCT SYM T/	STAINLESS S STANDARD STIFFENER STEEL STRUCTURA SYMMETRIC, TOP OF
FS FT FTG	FAR SIDE FEET/FOOT FOOTING	TB T&B TCX TDS	TIE BEAM TOP AND BO TOP CHORD TURN DOWN
GA GALV GB GC GEN GL GS	GAGE/GAUGE GALVANIZED GRADE BEAM GENERAL CONTRACTOR GENERAL GRID LINE GALVANIZED STEEL	TE TEMP TENS THD THK TOL TRANS	THICKENED TEMPERATU TENSION THREAD/THI THICK TOLERANCE TRANSVERS
HD HDG HORIZ HSA	HOT DIPPED HOT DIPPED GALVANIZED HORIZONTAL HEADED STUD ANCHOR	TS T.S. TWF TYP	TUBE STEEL THICKENED THICKENED TYPICAL
HSS HT	HOLLOW STRUCTURAL SECTION HEIGHT	UNO VERT	UNLESS NOT
I ID I.F. IN.	MOMENT OF INERTIA INSIDE DIAMETER INSIDE FACE INCH	VOL W W/	WIDE FLANG WITH
INT JST	INTERIOR JOIST	W/O WD WF	WITHOUT WOOD WALL FOOTI
JТ К	JOINT KIP (1000 LB)	WP W.P. WS	WATERPROO WORKING PO WELDED STI
KLF KSI KWY	KIPS PER LINEAL FOOT KIPS PER SQUARE INCH KEYWAY	WT WWF	WEIGHT/STF WELDED WII
		@ # +/- L C.L. & Sx	AT DESIGNA POUNDS / RI PLUS OR MIN ANGLE CENTER LINI AND SECTION MC

Sx lх

MOMENT OF INERTIA

HORIZONTAL **VERTICAL** DINAL D STRAND LUMBER GHT D VENEER LUMBER ' BEAM NEOUS CHANNEL/MASONRY COLUMN TURE/MANUFACTURER NEOUS OPENING R HOUR L GEODETIC VERTICAL DATUM CALE RS DIAMETER FACE O STRAND BOARD CONCRETE/PILE CAP ISIONED CONCRETE BEAM CONCRETE COLUMN PER CUBIC FEET NEERED METAL BUILDING TION PER LINEAR FOOT CATED PER SQUARE FOOT PER SQUARE INCH STRAND LUMBER E TREATED ED WITH ING UNIT STEP FOUNDATION -ΔΜ EET JNDATION ACES TIONS S STEEL ICAL BOTTOM RD EXTENSION WN SLAB ED EDGE TURE HREADED ) SLAB D WALL FOUNDATION OTED OTHERWISE NGE SECTION DTING OOF POINT TRUCTURAL TEE SECTION VIRE FABRIC NATION REBAR SIZE NUMBER MINUS INE SECTION MODULUS

# STRUCTURAL SYMBOLS AND LEGEND





874 Dixon Boulevard Cocoa, FL 32922 Phone: 321-636-0274 Fax: 321-639-8986 ENGINEERING WWW.tlc-engineers.com  $^{\odot}$  Copyright 2013 TLC Engineering for Architecture, Inc.

		REVISIONS AND UPDATES				
	01/10/14	BID	AND PERMIT SET			
	SUWANNEE COUNTY SCHOOL BOARD DATA AND TRANSPORTATION BUILDING PHASE 1 - BUILDING SHELL LIVE OAK, FLORIDA					
	GENERAL NOTES AND DETAILS					
Gary C. Krueger, P.E. Florida License #40788	drawn SES		checked GCK	approv	red GCK	
		<b>AA-COOI568</b>			job no. 2013.46 S-0.1	
© 2013 ARCHITECTS RZK, INC.			S RZK, INC. 202 COCOA, FLORIDA 33	2922 TELE	PHONE (321) 631-8039	

Seal

#### 1000 GENERAL NOTES

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH PROJECT SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR OPENINGS DEPRESSIONS, EQUIPMENT WEIGHTS AND LOCATIONS, EMBEDDED ITEMS AND

OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS. DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. NO STRUCTURAL MEMBER OR COMPONENT SHALL BE CUT, NOTCHED, OR OTHERWISE ALTERED UNLESS APPROVED IN WRITING BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL COSTS INCURRED BY THE ENGINEER OF RECORD FOR REVIEW OF ANY SUCH DEVIATIONS.

DO NOT SCALE DRAWINGS.

THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.

6. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. THE APPLICABILITY OF THE DETAIL TO ITS LOCATION ON THE DRAWINGS CAN BE DETERMINED BY THE TITLE OF DETAIL. SUCH DETAILS SHALL APPLY WHETHER OR NOT THEY ARE REFERENCED AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER OF RECORD. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL

MECHANICAL, ELECTRICAL, PLUMBING, CIVIL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS

REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCE AND SAFETY. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR. SUBCONTRACTOR OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE STRUCTURAL ENGINEER'S OBLIGATIONS TO REVIEW SHOP DRAWINGS AND OTHER SUBMITTALS AND TO RETURN THEM IN A TIMELY MANNER ARE CONDITIONED UPON THE PRIOR REVIEW AND APPROVAL OF THE SHOP DRAWINGS OR SUBMITTALS BY THE CONTRACTOR AS REQUIRED IN THE CONSTRUCTION CONTRACT AND THE CONTRACTOR'S SUBMITTAL OF THE SHOP DRAWINGS AND OTHER SUBMITTALS IN ACCORDANCE WITH A WRITTEN SCHEDULE DISTRIBUTED IN ADVANCE TO THE ENGINEER IDENTIFYING THE DATES FOR THE SUBMITTAL OF THE VARIOUS SHOP DRAWINGS AND SUBMITTALS.

10. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF TLC ENGINEERING FOR ARCHITECTURE IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHALL NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK.

11. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXCEED LIFE SPAN AND TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE OWNER. THIS PROGRAM SHALL INCLUDE ITEMS SUCH AS, BUT NOT LIMITED TO, PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATINGS FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO SALT ENVIRONMENT OR OTHER HARSH CHEMICALS. 12. STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR THE DESIGN OF STEEL STAIRS, HANDRAILS, CURTAIN WALL/WINDOW WALL SYSTEMS. COLD-FORMED STEEL FRAMING, OR OTHER SYSTEMS NOT SHOWN IN THE STRUCTURAL DOCUMENTS. SUCH SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT

DOCUMENTS. 13. IN THE PROFESSIONAL OPINION OF TLC ENGINEERING FOR ARCHITECTURE, INC. THE STRUCTURAL CONTRACT DOCUMENTS FOR THIS PROJECT HAVE BEEN PREPARED IN ACCORDANCE WITH THE DESIGN CRITERIA AS SET FORTH IN THE FLORIDA BUILDING CODE, 2010 EDITION.

NO PROVISIONS HAVE BEEN MADE FOR VERTICAL OR HORIZONTAL EXPANSION EXCEPT AS SHOWN ON CONTRACT DOCUMENTS. 15. FINISH FLOOR ELEVATION (FIRST FLOOR) OF 0"-0" (100'-0") IS USED AS A REFERENCE ELEVATION. SEE CIVIL DRAWINGS FOR ACTUAL ELEVATION. 16. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS AND USE OF CAD FILES BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFY HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON. 17. IN THE EVENT THAT THE STRUCTURAL CONTRACTS DRAWINGS AND

SPECIFICATIONS CONFLICT ON INFORMATION, THE STRUCTURAL CONTRACT DRAWINGS SHALL SUPERSEDE THE SPECIFICATIONS.

### 1010 BUILDING MOVEMENTS

THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.

THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORTED BY AND ATTACHED TO THE STRUCTURE.

TYPICAL FLOOR MEMBERS - SPAN/360 BUT NOT LESS THAN 3/8" TYPICAL ROOF MEMBERS - SPAN/360 BUT NOT LESS THAN 3/8"

STORY DRIFT: LATERAL FRAME DEFLECTION OF H/300 IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE TAKEN INTO ACCOUNT IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING.

THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2010 EDITION, AND AS SUPPLEMENTED BY LOCAL AMENDMENTS.

/	SMERTO.	
2.	THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTIL	ZED:
2.1.	DEAD LOADS	
	ROOF STRUCTURE	15 PSF
	M/E/P LOADS	5 PSF
	CEILINGS	5 PSF
	COLLATERAL LOADS	10 PSF
2.2.	LIVE LOADS	
	ROOF	20 PSF
	FLOOR (OFFICE)	50 PSF
	FLOOR (LIGHT STORAGE)	125 PSF
	FLOOR (MECH ROOM)	150 PSF
	FLOOR (ELECTRICAL ROOM)	200 PSF
2.3.	WIND LOADS: PER FLORIDA BUILDING CODE, SECTION 1609.	
	SEE SHEET FOR COMPONENTS AND CLADDING	
	PRESSURES	
	ULTIMATE DESIGN WIND SPEED, Vult = 120 MPH (3 SEC	. GUST)
	NOMINAL DESIGN WIND SPEED, Vasd = 95 MPH (3 SEC.	,
	RISK CATEGORY II	,

EXPOSURE = B

### 1330 SHOP DRAWING REVIEW

SHOP DRAWINGS SHALL ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND MARKED "APPROVED" PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER NON-CONFORMING DRAWING SUBMITTALS WILL BE RETURNED WITHOUT

SHOP DRAWING SUBMITTALS SHALL INCLUDE, AT A MINIMUM, ONE GOOD QUALITY REPRODUCIBLE AND THREE SETS OF BLUEPRINTS. ONE SET OF PRINTS WILL BE RETAINED BY THE ENGINEER OF RECORD. ONE BY THE ARCHITECT, ONE BY THE LOCAL BUILDING DEPARTMENT (WHERE REQUIRED) AND THE CONTRACTOR SHALL MAKE PRINTS FROM THE REPRODUCIBLE AS REQUIRED FOR DISTRIBUTION.

4. THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER OF RECORD. CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER OF RECORD REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR COSTS CAUSED BY MULTIPLE RE-SUBMITTALS (MORE THAN ONE) AT ARCHITECT/ENGINEERS' CURRENT HOURLY RATES.

1331 SHOP DRAWINGS FOR SPECIALTY ENGINEERED PRODUCTS THE FOLLOWING SYSTEMS AND COMPONENTS AS A MINIMUM REQUIRE FABRICATION AND ERECTION DRAWINGS PREPARED BY A DELEGATED ENGINEER: SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND DRAWINGS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCT UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED UNDER THE DIRECT SUPERVISION AND CONTROL OF THE DELEGATED ENGINEER. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA AS AN INDICATION THAT HE/SHE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS.

THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED SET FOR THEIR RECORDS. 5. DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION

AND INSTALLATION (SUCH AS REINFORCING STEEL SHOP DRAWINGS OR STRUCTURAL STEEL ERECTION DRAWINGS) AND REQUIRING NO ENGINEERING, DO NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.

REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING: THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED. THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED

BY THE DELEGATED ENGINEER. THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT

AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. NO DETAILED CHECK OF CALCULATIONS WILL BE MADE. D. THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE. 8. SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED AND WILL BE RETURNED.

ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE FOLLOWING ITEMS:

STRUCTURAL STEEL (\*) **REINFORCING STEEL** 

FORMWORK, SHORING, RESHORING (\*,#) CONCRETE MIX DESIGNS CONSTRUCTION JOINT LOCATIONS IN STRUCTURAL FLOORS PRE-ENGINEERED METAL BUILDINGS (\*) ITEMS MARKED (\*) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL

ENGINEER REGISTERED IN THE STATE OF FLORIDA. ITEMS MARKED (#) SHALL BE SUBMITTED FOR ENGINEERS RECORD ONLY. MANUFACTURER'S LITERATURE. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.

## 1334 REQUEST FOR INTERPRETATION (RFI

RFI SHALL ORIGINATE WITH CONTRACTOR AND SHALL BE SUBMITTED IN THE FORM SPECIFIED WITHIN CONTRACT DOCUMENTS. RFI SHALL BE SUBMITTED IN A PROMPT MANNER AS TO AVOID DELAYS IN CONTRACTORS WORK. RFI SHALL BE SUBMITTED AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS AND SHALL BE FORWARDED TO THE ENGINEER VIA THE ARCHITECT OR DIRECTLY TO THE ENGINEER BY THE CONTRACTOR WHEN APPROVED BY THE ARCHITECT. ENGINEER SHALL TAKE UP TO 5 BUSINESS DAYS TO REVIEW AND

RETURN RFI'S. HOWEVER, THE ENGINEER WILL ATTEMPT TO EXPEDITE THE REVIEW OF ALL RFI'S WITHIN A REASONABLE TIME FRAME. RFI RESPONSES ARE NOT INTENDED TO AUTHORIZE ANY INCREASE IN CONSTRUCTION COST, SCHEDULE OR TIME EXTENSIONS, OR CONSTRUCTION IN CONFLICT WITH ANY APPLICABLE CODES OR SPECIFIED DESIGN STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DESIGN TEAM IMMEDIATELY OF ANY PERCEIVED SCOPE, SCHEDULE, OR COST IMPACTS OR ADJUSTMENTS. IF CONTRACTOR REQUESTS ANY ADDITIONAL COST, INCREASE IN SCHEDULE OR ADJUSTMENT IN SCOPE, THE CONTRACTOR SHALL NOT PROCEED WITH ADDITIONAL WORK UNTIL APPROVED IN WRITING BY THE CONSTRUCTION ADMINISTRATOR.

### STRUCTURAL NOTES

2300 FOUNDATIONS - W/O SOIL REPORTS IN THE ABSENCE OF ANY GEOTECHNICAL RECOMMENDATIONS, THE FOUNDATIONS ARE DESIGNED FOR AN ANTICIPATED ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF ON COMPACTED FILL. FOR PRELIMINARY PRICING PURPOSES ONLY, BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, AS WELL AS FIELD AND LABORATORY TESTS PERFORMED BY A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS

REGARDLESS OF WHETHER OR NOT A GEOTECHNICAL INVESTIGATION IS PERFORMED, NO WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY TLC FOR THE PERFORMANCE OF THE FOUNDATION. 3. AT A MINIMUM, SITE PREPARATION WORK SHALL INCLUDE:

A. STRIPPING AND GRUBBING OF THE BUILDING FOOTPRINT PLUS A MARGIN OF 5 FEET AROUND THE BUILDING, REMOVING ALL ORGANIC MATERIALS

B. PROOF ROLLING THE BUILDING SITE TO LOCATE ANY UNFORESEEN SOFT AREAS. ANY SOFT AREAS SHALL BE\ EXCAVATED AND REPLACED WITH CLEAN FILL. A DENSITY OF AT LEAST 95% FOR A DEPTH OF 2 FEET IS REQUIRED UNDER THE BUILDING FOOTPRINT. C. ALL FILL SHALL BE CLEAN SAND AND FREE OF ORGANIC MATERIALS. COMPACT FILL IN 12 INCH (UNCOMPACTED THICKNESS) LIFTS TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE. EXCAVATIONS FOR FOUNDATIONS SHALL BE COMPACTED TO D.

95% FOR A DEPTH OF AT LEAST 2 FEET BELOW THE BOTTOM OF THE FOUNDATION.

E. DEWATERING MAY BE REQUIRED TO ACHIEVE THE REQUIRED COMPACTION VALUES, AND IF USED, SHOULD DRAW DOWN THE WATER LEVEL TO AT LEAST 2 FEET BELOW THE BOTTOM OF THE EXCAVATION.

SLABS ON GRADE SHALL BE PLACED OVER A 15 MIL, CLASS "A" VAPOR RETARDER. VAPOR RETARDER SHALL BE LAPPED A MINIMUM OF 6", OR AS RECOMMENDED BY THE MANUFACTURER (WHICHEVER IS GREATER) AND TAPED AT ALL JOINTS. ALL PUNCTURES IN THE VAPOR RETARDER SHALL BE REPAIRED PER MANUFACTURER'S WRITTEN INSTRUCTIONS. ALL PENETRATIONS THROUGH THE VAPOR RETARDER (COLUMNS, PLUMBING, CONDUITS, ETC) SHALL BE SEALED PER MANUFACTURER'S WRITTEN INSTRUCTIONS. VAPOR RETARDER SHALL BE CONTINUOUS UNDER WALL FOUNDATIONS OR SEALED TO EXTERIOR WALLS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

#### <u>3302 CONCRETE:</u>

STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKAB	3LE MIX:
COMPRESSIVE MAX MAX	
OCATION STRENGTH SLUMP AGGREGATE W/C RAT	<u> []0</u>

FOUNDATIONS 3000 PSI 4-6" 0.50 SLABS ON GRADE 4000 PSI 4-6" 3/4" 0 46 CONCRETE MIXES SHALL MEET BOTH THE MINIMUM COMPRESSIVE STRENGTH AND MAXIMUM WATER/CEMENT RATIOS LISTED ABOVE. CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI STANDARDS AND SPECIFICATIONS.

SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE.

4. CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. SLABS SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1-CLASS D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY

BE USED ONLY WITH THE APPROVAL OF THE ENGINEER. 8. CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE

CONDUITS, PIPES AND SLEEVES SHALL BE PLACED AND SPACED IN ACCORDANCE WITH ACI 318, 6.3. 10. CONCRETE DESIGN MIX SUBMITTALS SHALL INCLUDE TESTED.

STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318. 11. WHEN TOTAL WIDTH OF PIPES OR DUCTS CAST INTO A SLAB EXCEED 12 IN A 24" WIDTH THEN THE CONTRACTOR SHALL ADD A LAYER OF #4 @ 12" ABOVE AND PERPENDICULAR TO THE DUCT/PIPE RUNS EXTENDING 12" BEYOND THE LAST DUCT/PIPE ON EACH SIDE.

12. WHEN WATER-BASED ADHESIVE ARE BEING USED ON CONCRETE SURFACES, THE CONTRACTOR SHALL VERIFY THAT THE WATER CONTENT OF THE CONCRETE IS WITHIN THE ALLOWABLE RANGE BEFORE INSTALLATION.

SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. PROVIDE CONCRETE COVER OVER PRIMARY REINFORCEMENT, TIES, AND

RUPS, AS FOLLOWS, UNLESS OTHERWISE NOTED:	
LOCATION AND CONDITION	MINIMUM COVER
A. CONCRETE CAST AGAINST AND PERMANENT	ALL BARS 3"
EXPOSED TO EARTH	
B. CONCRETE EXPOSED TO EARTH OR WEATHER	#6 OR GREATER 2"
	#5 OR SMALLER 1 5"

#5 OR SMALLER 1.5 C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND #11 OR SMALLER 3/4" 1. SLABS, WALLS, AND JOISTS ALL BARS 1.5" 2. BEAMS AND COLUMNS

SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION. PROVIDE STANDARD HOOKS AT DISCONTINUOUS ENDS OF ALL TOP BARS. WHERE REINFORCING IS SHOWN CONTINUOUS, SPLICE BOTTOM BARS OVER SUPPORTS AND TOP BARS AT CENTER OF SPAN. ALL OTHER LAP SPLICES SHALL BE IN ACCORDANCE WITH SPLICE TABLES AND DETAILS SHOWN ON DRAWINGS. PROVIDE DOWELS INTO FOOTINGS, PILE CAPS, SUPPORT BEAMS, ETC. TO MATCH VERTICAL BARS WITH CLASS B TENSION LAP SPLICES, U.N.O. LENGTH OF LAP SPLICES AND BAR EMBEDMENT SHALL BE AS SHOWN IN TABLE, UNLESS OTHERWISE NOTED

,	, UNLESS OTHERWISE NOTED:							
		BAR SI	ZE	<u>3000 PS</u>	4000 PS/5000 PSI			
	T < 12"	#6 OR	LESS	57Db	49Db	44Db		
		#7 OR	MORE	71Db	61Db	55Db		
	T > 12"	#6 OR	LESS	74Db	65Db	57Db		
		#7 OR	MORE	81Db	79Db	72Db		
	WHERE	: "T" IS I	DEPTH C	OF CONCF	RETE UNDER BARS	AND "Db" IS BAF	R DIAMETER	
			"B" SPL	ICE FOR	ALL SPLICES LINC			

LIZE CLASS "B" SPLICE FOR ALL SPLICES, U.N.O. ON PLANS OR DETAILS. AT CHANGES IN DIRECTION OF CONCRETE WALLS AND TIE BEAMS, PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL STEEL.

3322 CONSTRUCTION JOINTS

STIRR

ANY DEVIATION OR ADDITION OF CONSTRUCTION JOINTS FROM THAT SHOWN ON THE DRAWINGS MUST BE REVIEWED AND APPROVED IN WRITING BY THE ENGINEER OF RECORD.

ALTERNATE OR ADDED CONSTRUCTION JOINT LOCATIONS ARE ACCEPTABLE ONLY AS A CHANGE ORDER, WHICH WILL INCLUDE ENGINEERING CHARGES BY THE ENGINEER OF RECORD FOR REDESIGN OF THE STRUCTURE, SHORING, ETC.

3400 CONCRETE TESTING

AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE: ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE."

ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED LAB CURED CYLINDER QUANTITIES AND TEST AGE AS FOLLOWS:

#### 2 AT 7 DAYS 2 AT 28 DAYS

ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28-DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.

#### 3601 CHEMICAL (ADHESIVE) ANCHORS SHALL BE A TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS

HILTI HIT HY150, HILTI RE500, OR SIMPSON SET ADHESIVE SYSTEM, OR ENGINEER APPROVED SUBSTITUTION. EPOXY TYPES AND BRANDS VARY IN THEIR BOND STRENGTH AND SUITABILITY OF USE, DEPENDING ON TYPE OF LOADING, ANCHOR SPACING, ETC. WHEN A PARTICULAR TYPE OF EPOXY IS SPECIFIED IN THESE DRAWINGS, A UNIQUE CALCULATION HAS BEEN MADE BASED ON THE PROPERTIES OF THAT SPECIFIC TYPE OF EPOXY FOR THE SPECIFIC CONDITION SHOWN IN THE

DETAIL. SUBSTITUTION OF EPOXY TYPE IS NOT ALLOWED WHERE DETAIL SPECIFIES ONLY ONE TYPE OF EPOXY, WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD. NOT ALL EPOXY BRANDS OR TYPES WILL BE ALLOWED AS SUBSTITUTES. SUBSTITUTION OF EPOXIES IN ONE CONDITION SHALL NOT BE CONSTRUED AS APPROVAL TO MAKE SIMILAR SUBSTITUTION OF EPOXIES IN

OTHER DIFFERING CONDITIONS. EACH SUBSTITUTION MUST RECEIVE PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD. 4. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL HOLE CLEAN-OUT REQUIREMENTS ARE FULLY COMPLETED BY THE INSTALLERS PRIOR TO INJECTING EPOXY INTO THE HOLES.

NO LOAD SHALL BE APPLIED TO THE EPOXY ANCHORS UNTIL THE EPOXY HAS FULLY CURED AND HAS ACHIEVED IT'S SPECIFIED STRENGTH. IF DETAIL SHOWS EPOXY ANCHORS IN SLOTTED HOLES, IT IS IMPERATIVE THAT ANY EXCESS EPOXY IS CLEANED UP FROM AROUND THE ANCHOR ROD, SO THAT IT DOES NOT INTERFERE WITH ADJUSTABILITY OF ANCHOR ROD IN SLOTTED HOLE.

#### 3602 MECHANICAL ANCHORS

SHALL BE EITHER HEAVY DUTY CONCRETE SCREW ANCHOR (SUCH AS POWERS WEDGE-BOLT, SIMPSON TITEN HD, OR HILTI HUS-H) OR WEDGE TYPE EXPANSION ANCHOR (SUCH AS POWERS POWER-STUD, SIMPSON WEDGE-ALL OR HILTI KWIK BOLT 3).

TYPE OF ANCHOR SHALL BE AS SPECIFIED ON THE DRAWINGS, WHILE BRAND AND MODEL OF ANCHOR MAY BE SELECTED FROM THE ABOVE LISTED ANCHORS. SUBSTITUTION ANCHORS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVED IN WRITING BY THE ENGINEER OF RECORD PRIOR

TO USE. IN SOME CASES OF CRITICAL LOADING OR GEOMETRIC CONDITIONS, ONLY SPECIFIC ANCHORS WILL BE ALLOWED, AS NOTED ON THE DRAWINGS. IN THESE CASES, THE SPECIFIED BRAND AND MODEL OF ANCHOR MUST BE USED.

INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS.

#### <u>4810 MASONRY WALLS</u>

ALL MASONRY CONSTRUCTION SHALL CONFORM TO ACI 530/ASCE 5/TMS 402 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND ACI 530.1/ASCE 6/TMS 602 "SPECIFICATION FOR MASONRY STRUCTURES", LATEST EDITION.

MASONRY UNITS SHALL MEET ASTM C-90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH UNIT STRENGTH OF 1900 PSI ON THE NET AREA (f'm = 1500 PSI). MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C-270. 3. GROUT SHALL BE 3000 PSI MINIMUM COMPRESSIVE STRENGTH

AND MEET ASTM C-476 AND HAVE A SLUMP BETWEEN 8" AND 11" WITH WATER CM RATIO OF 0.55 MAXIMUM AND WITH 3/8" MAXIMUM AGGREGATE

PROVIDE HOOKED DOWELS IN FOUNDATIONS FOR VERTICAL REINFORCING ABOVE. LAP SPLICES TO BE 48 BAR DIAMETERS (U.N.O.). BLOCK CELLS SHALL BE GROUT FILLED WITH VERTICAL REINFORCING BARS AT CORNERS, INTERSECTIONS, EACH SIDE OF OPENINGS AND AS SHOWN ON THE DRAWINGS.

DOWELS SHALL BE USED TO PROVIDE CONTINUITY INTO THE STRUCTURE ABOVE AND/OR BELOW, UNLESS NOTED OTHERWISE. USE METAL LATH, MORTAR OR SPECIAL UNITS TO CONFINE CONCRETE AND GROUT TO AREA AS REQUIRED. MASONRY SHALL BE LAID IN RUNNING BOND PATTERN UNLESS NOTED OTHERWISE. AT FILLED CELLS LAY UNITS WITH FULL BED JOINTS

AROUND CELLS. PROVIDE 9 GAGE GALVANIZED HORIZONTAL JOINT REINFORCING (DUR-O-WALL OR ENGINEER APPROVED SUBSTITUTION) AT ALTERNATE BLOCK COURSES. LADDER TYPE IS RECOMMENDED WITH REINFORCED

FILLED CELLS. PROVIDE PREFABRICATED "TEE" OR CORNER SECTIONS AT WALL INTERSECTIONS. 10. SUBMIT PROPOSED GROUT MIX DESIGNS FOR REVIEW PRIOR TO USE. MIX NUMBER OR OTHER POSITIVE IDENTIFICATION SHALL UNIQUELY IDENTIFY MIX.

11. USE OF SUPERPLASTICIZER IS PROHIBITED. 12. CELLS TO BE GROUT FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS VERTICAL GROUT SPACE.

13. CLEANOUT OPENINGS SHALL BE PROVIDED AT THE BOTTOM OF CELLS TO BE GROUT FILLED IN EACH POUR IN EXCESS OF 5 FEET IN HEIGHT. AFTER INSPECTION AND BEFORE GROUTING, THE REBAR SHALL BE TIED AT THE CLEANOUTS AND THE CLEANOUTS SHALL BE SEALED. 14. ANY OVERHANGING MORTAR OR OTHER OBSTRUCTION OR DEBRIS SHALL BE REMOVED FROM THE INSIDES OF SUCH CELL WALLS. 15. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 BAR DIAMETERS. CELLS CONTAINING REINFORCEMENT SHALL BE FILLED SOLIDLY WITH GROUT. SAMPLE AND TEST GROUT PER ASTM C1019. 17. GROUT SHALL BE POURED IN LIFTS OF 4 FEET MAXIMUM HEIGHT GROUT SHALL BE CONSOLIDATED AT TIME OF PLACING BY VIBRATING AND RECONSOLIDATED LATER BY VIBRATING BEFORE PLASTICITY IS LOST 18. WHEN TOTAL GROUT POUR EXCEEDS 5 FEET IN HEIGHT, (HIGH

LIFT GROUTING), THE GROUT SHALL BE PLACED IN 4-FOOT LIFTS WITH A MINIMUM OF A 30 MINUTE DELAY BETWEEN LIFTS. MINIMUM CELL DIMENSION SHALL BE IN ACCORDANCE WITH TABLE 5 OF ACI 530.1 (3" X 3" FOR COARSE GROUT, 12 FT. MAXIMUM POUR HEIGHT). 19. WHEN THE GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE BY STOPPING THE POUR OF GROUT NOT LESS THAN 1-1/2 INCH BELOW THE TOP OF THE UPPERMOST UNIT GROUTED.

20. WHERE CONCRETE BEAMS ARE INSTALLED IN CONCRETE MASONRY WALL, SUPPORT CONCRETE WITH 6" SIDE CONTINUOUS STRIPS OF 1/8 SQUARE MESH SOFFIT SCREENING OR PUR-O-STOP OF EQUAL CENTERED OVER BLOCK WORK. USE OF ROOFING FELT STRIPS WILL NOT BE PERMITTED. 21. PROVIDE DOVETAIL ANCHORS AT 16" C/C, UNLESS NOTED

OTHERWISE, WHERE MASONRY WALLS ABUT CONCRETE SURFACES. 22. SUBMIT WRITTEN CONSTRUCTION SEQUENCES AND PROCEDURES PRIOR TO THE START OF MASONRY CONSTRUCTION.

5500 PRE-ENGINEERED METAL BUILDING: THE PRE-ENGINEERED METAL BUILDING SHALL CONSIST OF A MINIMUM OF ROOF DECK, RIGID FRAMES, METAL WALL PANELS ON FRAMING, CANOPY FRAMING, GUTTERS AND DOWNSPOUTS, AND FLASHING. DEVIATION FROM BAY SPACING SHOWN ON THE DRAWINGS SHALL NOT BE PERMITTED TO SUIT MANUFACTURERS STANDARDS.

THE SYSTEM SHALL BE DESIGNED AND DETAILED BY THE MANUFACTURER TO SUSTAIN THE DESIGN LOADS SPECIFIED. THE DESIGN SHALL BE IN ACCORDANCE TO AISC AND AISI SPECIFICATIONS AND MBMA "METAL BUILDING SYSTEMS MANUAL" DESIGN PRACTICES, LATEST ISSUES.

THE MANUFACTURER SHALL BE REGULARLY ENGAGED IN METAL BUILDING DESIGN AND MANUFACTURING. CURRENT MBMA MEMBERS ARE APPROVED, OTHERS SHALL SUBMIT PRODUCT DATA FOR REVIEW. COLUMNS SHALL BE DESIGNED AS UNBRACED BY THE MASONRY.

LONGITUDINAL WIND BRACING SHALL BE DESIGNED TO TRANSFER LOADS TO THE LOW SIDE MASONRY WALLS. 5. MAXIMUM BUILDING DRIFT AT THE EAVE SHALL NOT EXCEED h/400.

SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED PRIOR TO FABRICATION AND BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. SHOP DRAWINGS SHALL INDICATE THE DESIGN LOADS AND JOB NAME AND NUMBER. THEY SHALL INCLUDE DRAWINGS OF THE FRAMING MEMBERS WITH THE CONNECTIONS, THE ANCHOR BOLT PLAN AND COLUMN BASE REACTIONS. STANDARD CUT SHEETS OF THE ABOVE ARE NOT ACCEPTABLE. STANDARD CUT SHEETS MAY BE SUBMITTED FOR SECONDARY FRAMING CONNECTION DETAILS, FLASHING AND SHEETHING DETAILS, ETC.

5120 STRUCTURAL STEEL:1.STEEL WORK SHALL BE NEW AND CONFORM TO THE ANSI/AISC 360-05 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. MATERIAL SHALL CONFORM TO THE FOLLOWING, EXCEPT AS NOTED:

ASTM A992 (Fy=50 KSI) WIDE FLANGE SHAPES ASTM A36 (Fy=36 KSI) S AND M SHAPES ASTM A572 (Fy=50 KSI) HP SHAPES ANGLES, CHANNELS AND PLATE ASTM A36 (Fy=36 KSI) ASTM A53, GRADE B (Fy=35 KSI) RECTANGULAR HSS ASTM A500, GRADE B (Fy=46 KSI) ASTM A500, GRADE B (Fy=42 KSI) ROUND HSS HIGH STRENGTH BOLTS ASTM A325 OR A490 TWIST-OFF TENSION CONTROL BOLTS ASTM F1852

THREADED RODS HEAVY HEX NUTS HARDENED STEEL WASHERS DIRECT-TENSION-INDICATOR WASHERS ASTM F959

ASTM F1554 GR. 36 (Fy=36 KSI) ANCHOR RODS ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AND ALL FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153.

4. GROUT UNDER BEARING PLATES SHALL BE NON-METALLIC, NON-SHRINK TYPE WITH A COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI IN 28 DAYS. SIZE AND SPACING OF CONDUITS IN COMPOSITE SLABS SHALL COMPLY WITH THE REQUIREMENTS OF ASCE 3-91 UNLESS NOTED OTHERWISE ON DRAWINGS. PAINT CONTRACTOR.

ASTM A36 (Fy=36 KSI)

ASTM A563

ASTM F436

_								
	REVISIONS AND UPDATES							
	01/10/14		BID AND PERMIT SE	Г				
	SUWANNEE COUNTY SCHOOL BOARD DATA AND TRANSPORTATION BUILDING PHASE 1 - BUILDING SHELL LIVE OAK, FLORIDA							
			GENERAL N	IOTES				
	drawn SES	6	checked GCK		approved GCK			
		AA-cooi568			job no. 2013.46 S-0.2			
	ARC	HITEC	TS RZK, IN	С.				

© 2013 ARCHITECTS RZK, INC

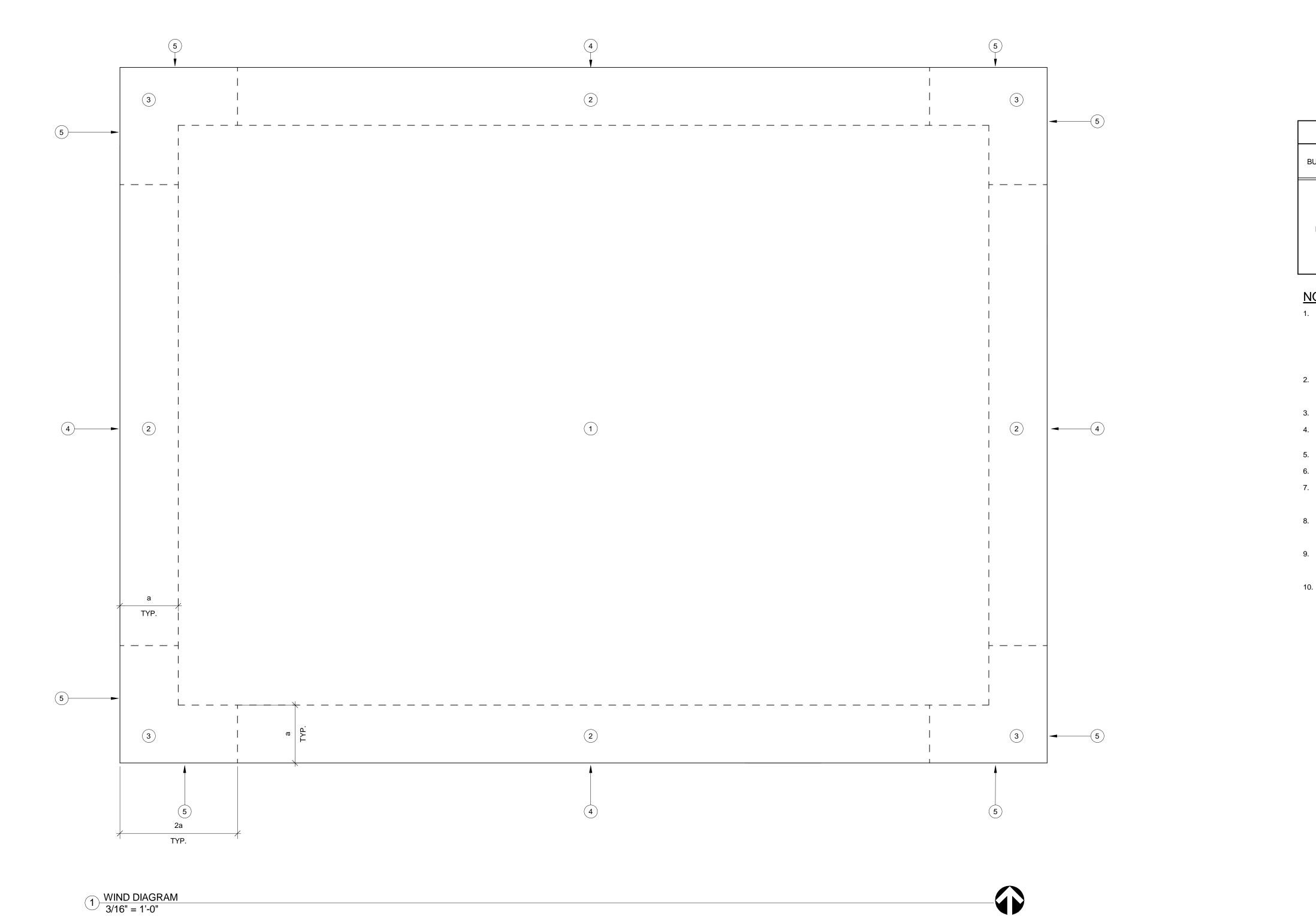
Gary C. Krueger, P.E. Florida License #40788

600 FLORIDA AVENUE SUITE 202 COCOA, FLORIDA 32922 TELEPHONE (321) 631-8039

874 Dixon Boulevard Cocoa, FL 32922

Phone: 321-636-0274 Fax: 321-639-8986 ENGINEERING www.tlc-engineers.com © Copyright 2013 TLC Engineering for Architecture, Inc.

COA #15 TLC NO: 513150



Cocoa, FL 32922 Phone: 321-636-0274 Fax: 321-639-8986 WWW.tlc-engineers.com © Copyright 2013 TLC Engineering for Architecture, Inc. COA #15 TLC NO: 513150

874 Dixon Boulevard

NOMINAL C&C WIND PRESSURES (ASCE 7-10)											
BUILDING	a (FT)	Vult (MPH)	Vasd (MPH)	A (SF)	ZONE 1 (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)	ZONE 4 (PSF)	ZONE 5 (PSF)	ZONE 2H (PSF)	ZONE 3H (PSF)
MAIN	5.5	120	95	<10	+9.6 -15.5	+9.6 -26.1	+9.6 -39.3	+14.2 -15.4	+14.2 -19.0	+9.6 -22.4	+9.6 -36.9
				20	+9.6 15.2	+9.6 -23.3	+9.6 -32.5	+13.6 -14.8	+13.6 -17.1	+9.6 -22.0	+9.6 -29.0
				50	+9.6 -14.6	+9.6 -19.6	+9.6 -23.6	+12.8 -14.0	+12.8 -16.0	+9.6 -21.5	+9.6 -18.5
				100+	+9.6 -14.2	+9.6 -16.9	+9.6 -16.9	+12.1 -13.3	+12.1 -14.8	+9.6 -21.1	+9.6 -10.5

## NOMINAL C&C WIND PRESSURE PLAN NOTES:

PRESSURES SHOWN ABOVE ARE NOMINAL COMPONENTS AND CLADDING PRESSURES, CONVERTED FROM ULTIMATE PRESSURES USING A 0.6 MULTIPLIER FACTOR. NO FURTHER REDUCTION IS ALLOWED.

A - INDICATES TRIBUTARY AREA IN S.F. a - INDICATES END ZONE WIDTH IN FT.

Vult - INDICATES ULTIMATE DESIGN WIND SPEED IN MPH Vasd - INDICATES NOMINAL DESIGN WIND SPEED IN MPH

GROSS PRESSURES ARE FOR JOISTS, WINDOWS, DOORS, VENEER, LIGHT GAGE METAL FRAMING, METAL DECK ATTACHMENTS, ROOFING, ROOFING ACCESSORIES AND OTHER BUILDING COMPONENTS AND CLADDING.

GROSS PRESSURES SHALL BE LINEARLY INTERPOLATED FOR (A) NOT SHOWN IN TABLE.

POSITIVE PRESSURES INDICATE PRESSURES ACTING TOWARD A PROJECTED SURFACE. NEGATIVE PRESSURES INDICATE PRESSURES ACTING AWAY FROM A PROJECTED SURFACE.

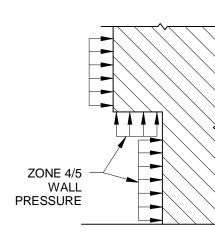
ROOF AND ZONES 1 THRU 3

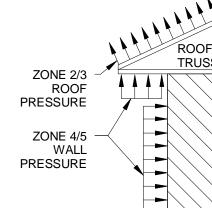
WALL ZONES (4) AND (5)

OVERHANG ZONES (2H) AND (3H) APPLY ONLY TO ROOF OVERHANGS WHERE THE COMPONENT OBLADDING RECEIVES PRESSURE SIMULTANEOUSLY ON BOTH SIDES (UPWARD SUCTION ON TOP AND UPWARD PRESSURE ON BOTTOM, SUCH AS AT OPEN SOFFITS), AND IS CONTINUOUS WITH FIELD OF ROOF.

NET DESIGN ROOF PRESSURES SHALL BE CALCULATED USING THE SELFWEIGHT (DEAD LOAD) OF THE MATERIALS. HOWEVER, THE MAXIMUM REDUCTION OF WIND UPLIFT PRESSURES SHALL BE LIMITED TO THE SELF WEIGHT OF THE ROOF SYSTEM PLUS 5 PSF FOR SUPERIMPOSED DEAD LOADS.

 INTERNAL PRESSURE COEFFICIENT FOR ENCLOSED BUILDING EQUALS +0.18 AND -0.18 INTERNAL PRESSURE COEFFICIENT FOR OPEN STRUCTURE EQUALS +/- 0.00 INTERNAL PRESSURE COEFFICIENT FOR PARTIALLY ENCLOSED STRUCTURE EQUALS +/- 0.55
 AT ALCOVES AND CANOPIES, THE TOTAL UPLIFT PRESSURE ON THE ALCOVE SOFFIT OR CANOPY SHALL EQUAL THE WALL PRESSURE IN THAT AREA.



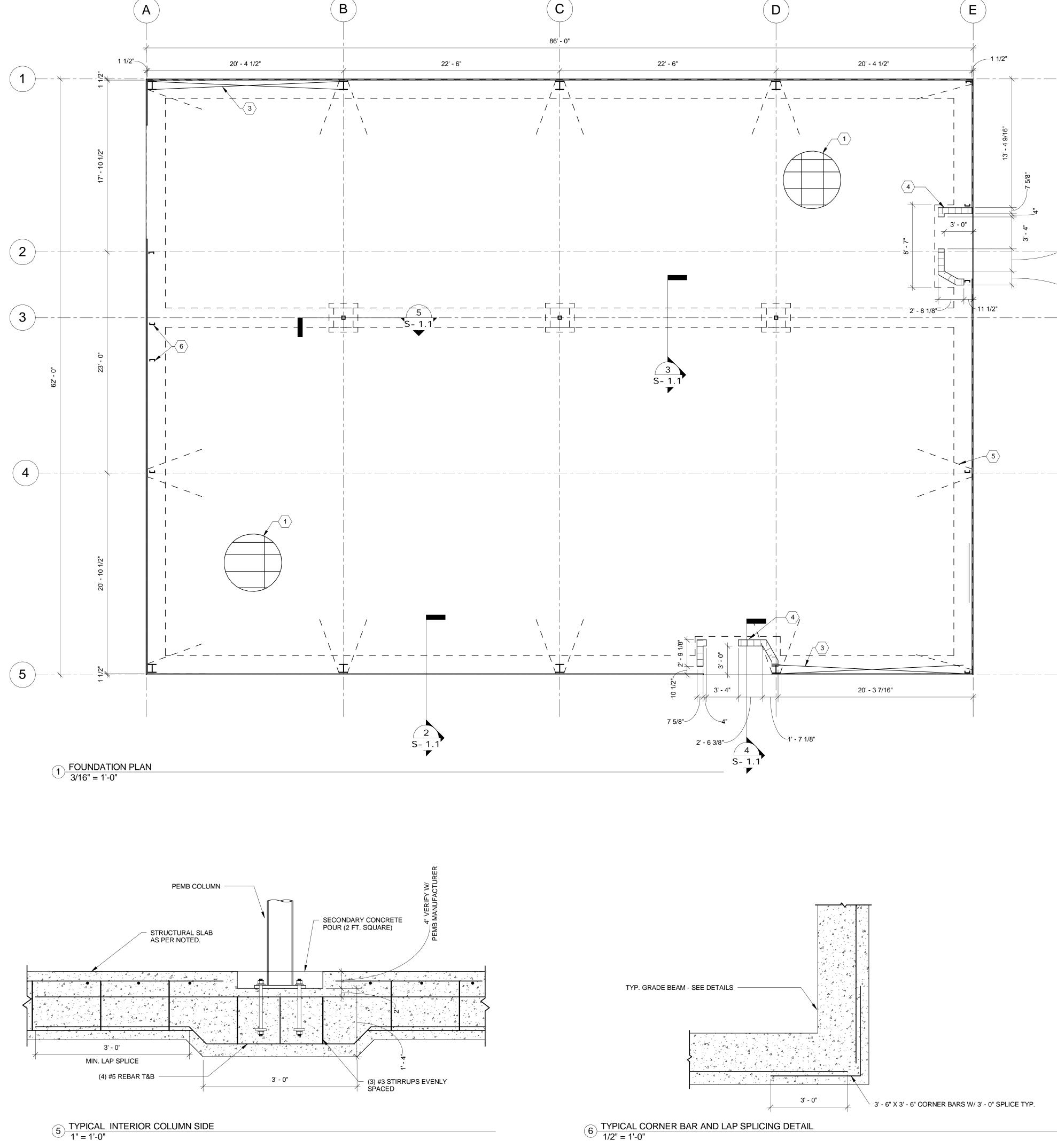


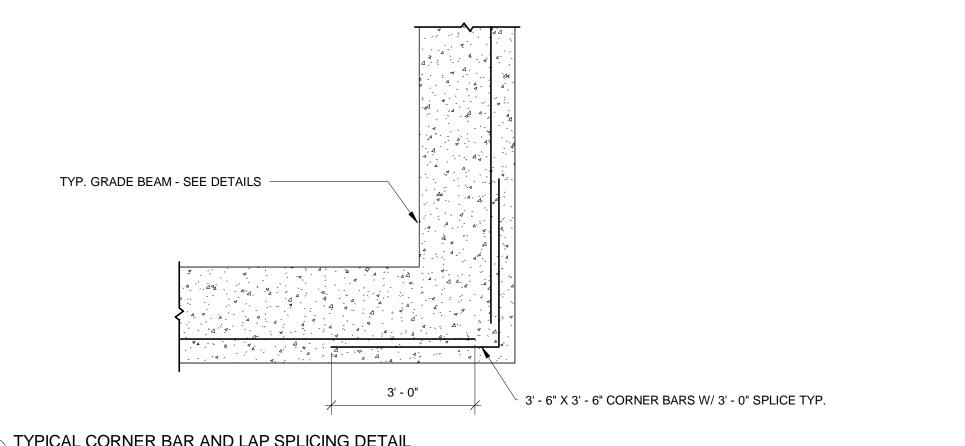
SECTION AT ALCOVE

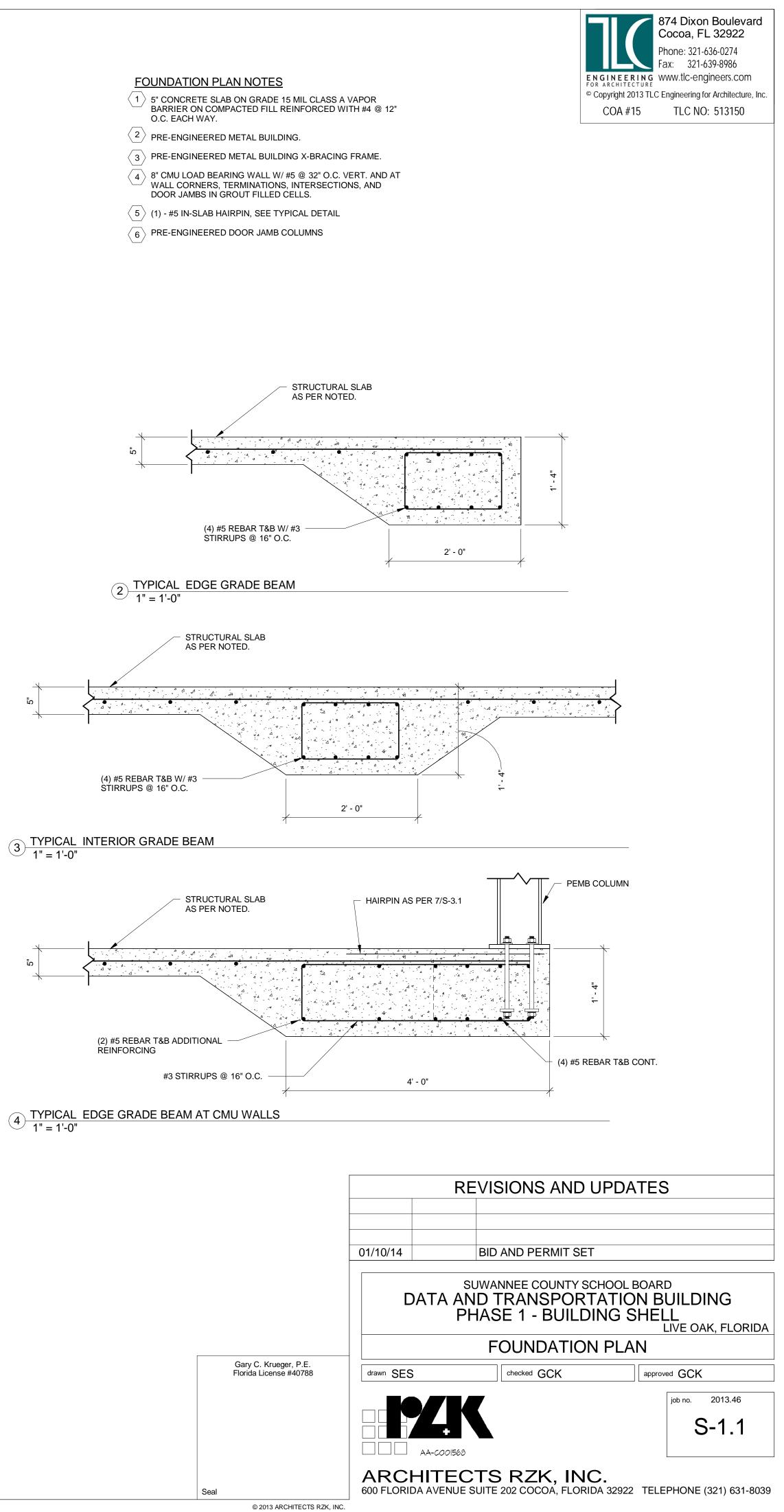
SECTION AT ROOF TRUSS

	REVISIONS AND UPDATES					
	01/10/14		BID AND PERMIT SET	•		
	SUWANNEE COUNTY SCHOOL BOARD DATA AND TRANSPORTATION BUILDING PHASE 1 - BUILDING SHELL LIVE OAK, FLORIDA					
	WIND DIAGRAM					
Gary C. Krueger, P.E. Florida License #40788	drawn SES	8	checked GCK	approved GCK		
		AA-cool568			- <b>0.3</b>	
	ARCI 600 FLORII	HITEC <sup>®</sup> DA AVENUE S	UITE 202 COCOA, FLORI	C. DA 32922 TELEPHONE (3	821) 631-8039	
© 2013 ARCHITECTS RZK, INC.						

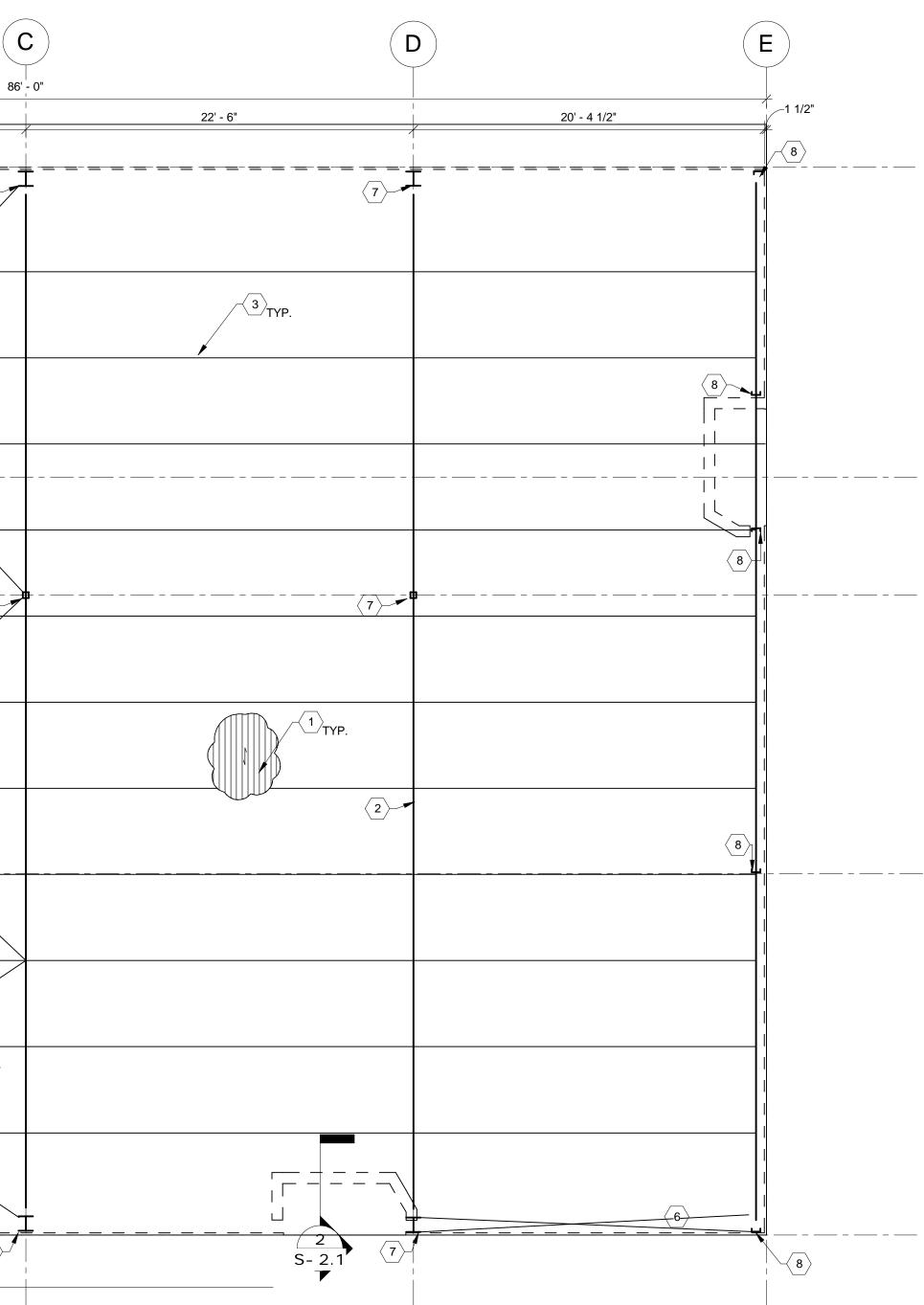








B (A) 1 1/2"〜 20' - 4 1/2" 22' - 6"  $\langle 8 \rangle$ (1) \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_\_\_\_  $\searrow$  $\langle 6 \rangle$  $\langle 7 \rangle$ ζ7` **~5** 8 2  $\frown$ (3)  $\overline{\}$ ~ 5 8  $\frown$ (4)  $\bigcirc$ ∕<mark>3</mark>∕<sub>TYP.</sub> \_\_\_\_\_5 5 \_ \_ \_ \_ \_ \_ \_ 1 ROOF FRAMING PLAN 3/16" = 1'-0" T/LINTEL BLOCK 112'-4" (2) #5 IN A GROUT
 FILLED U BLOCK 2 LINTEL BLOCK TOP OF CMU WALL 1" = 1'-0"



874 Dixon Boulevard Cocoa, FL 32922 Phone: 321-636-0274 Fax: 321-639-8986 ENGINEERING FOR ARCHITECTURE WWW.tlc-engineers.com © Copyright 2013 TLC Engineering for Architecture, Inc.

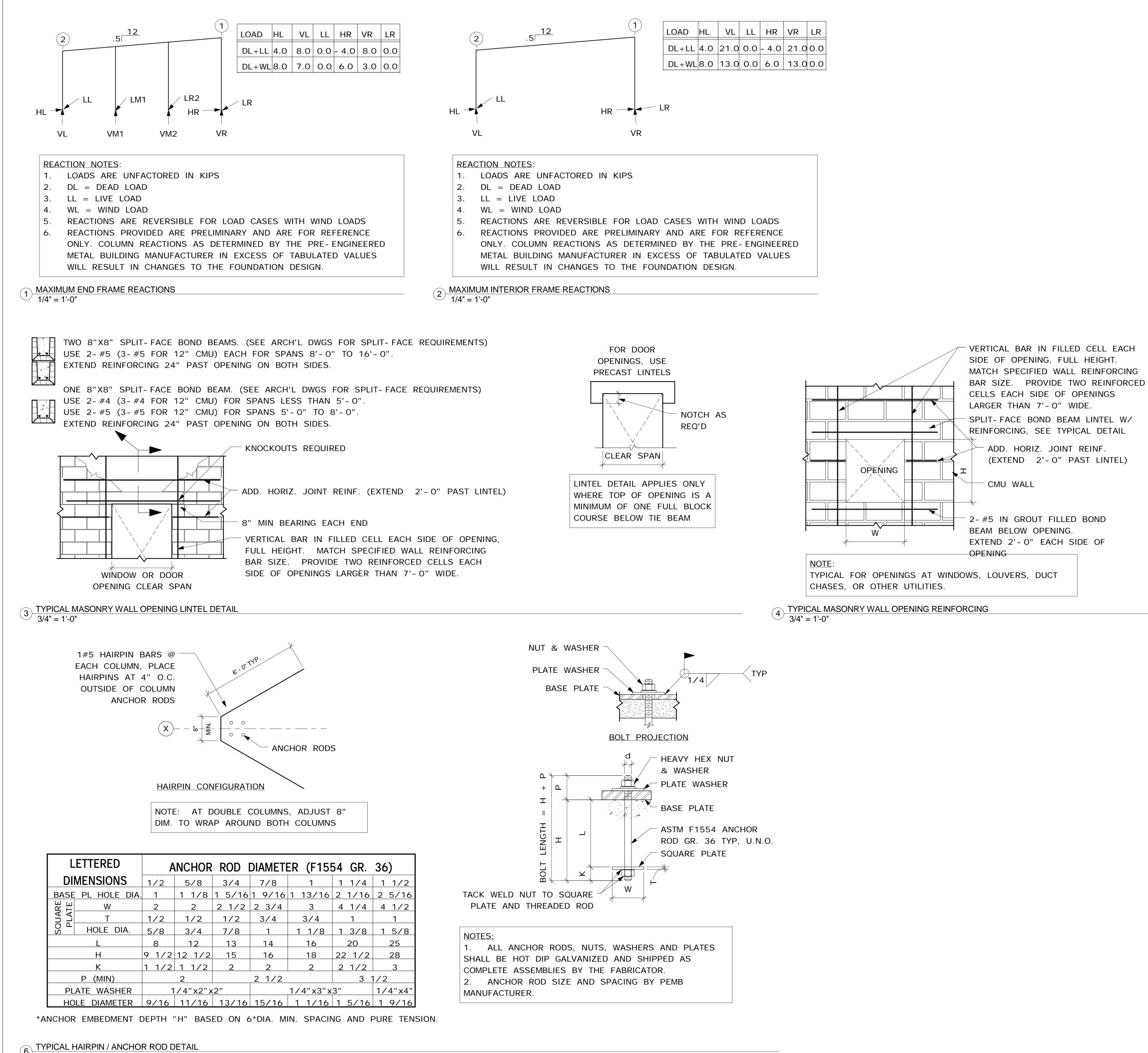
COA #15 TLC NO: 513150

- ROOF FRAMING PLAN NOTES
- 1 PRE-ENGINEERED METAL BUILDING ROOF PANELS PER PEMB MANUFACTURER
- 2 PRE-ENGINEERED METAL BUILDING FRAME PER PEMB MANUFACTURER
- 3 PRE-ENGINEERED METAL BUILDING ROOF PURLINS PER PEMB MANUFACTURER
- 4 PRE-ENGINEERED METAL BUILDING COLUMN PER PEMB MANUFACTURER

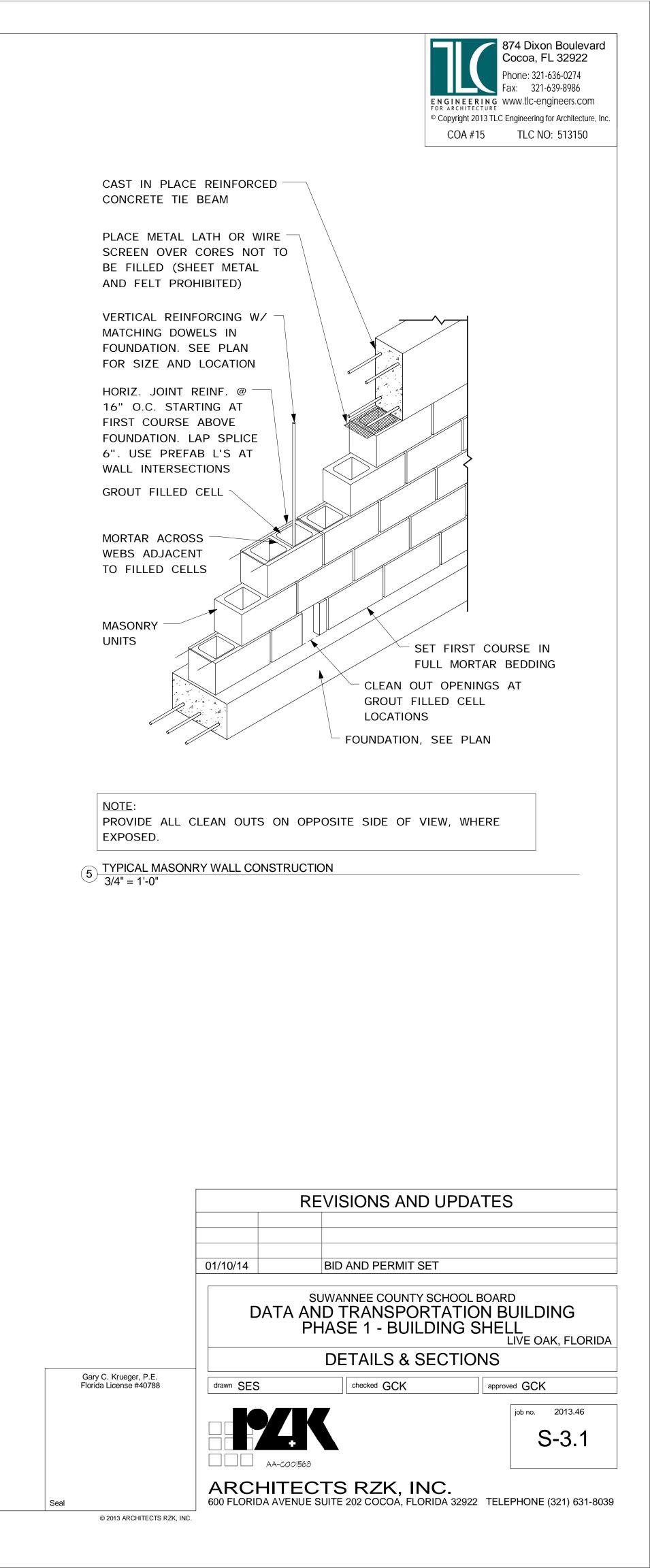
- $\begin{pmatrix} 6 \\ \end{pmatrix}$  pre-engineered metal building wall bracing per pemb manufacturer
- 7 PRE-ENGINEERED METAL BUILDING INTERIOR FRAME COLUMN PER PEMB MANUFACTURER
- 8 PRE-ENGINEERED METAL BUILDING END FRAME COLUMN PER PEMB MANUFACTURER

ſ						
		REVISIONS AND UPDATES				
	0.1.1.0.1.1					
	01/10/14		BID AND PERMIT SET			
	SUWANNEE COUNTY SCHOOL BOARD DATA AND TRANSPORTATION BUILDING PHASE 1 - BUILDING SHELL LIVE OAK, FLO					
			ROOF FRAMING PL	AN		
Gary C. Krueger, P.E. Florida License #40788	drawn SES	8	checked GCK	approved GCK		
		AA-cool568		job no. 2013.46 S-2.1		
© 2013 ARCHITECTS RZK, INC.			TS RZK, INC. UITE 202 COCOA, FLORIDA 32922	2 TELEPHONE (321) 631-8039		

Seal

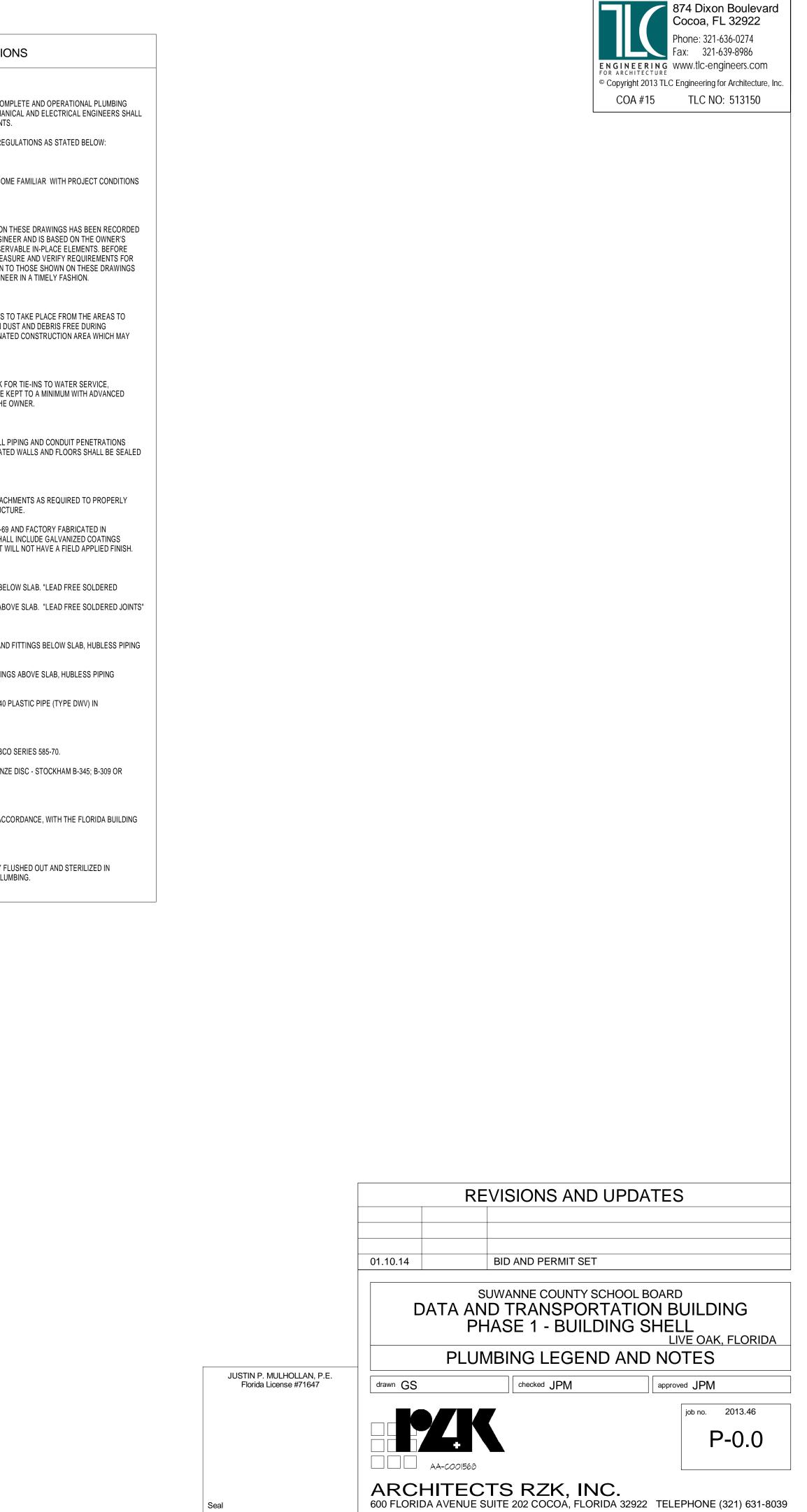


 $6 \frac{\text{TYPICAL HAIRPIN / ANCHOR ROD DETAIL}}{3/4" = 1'-0"}$ 

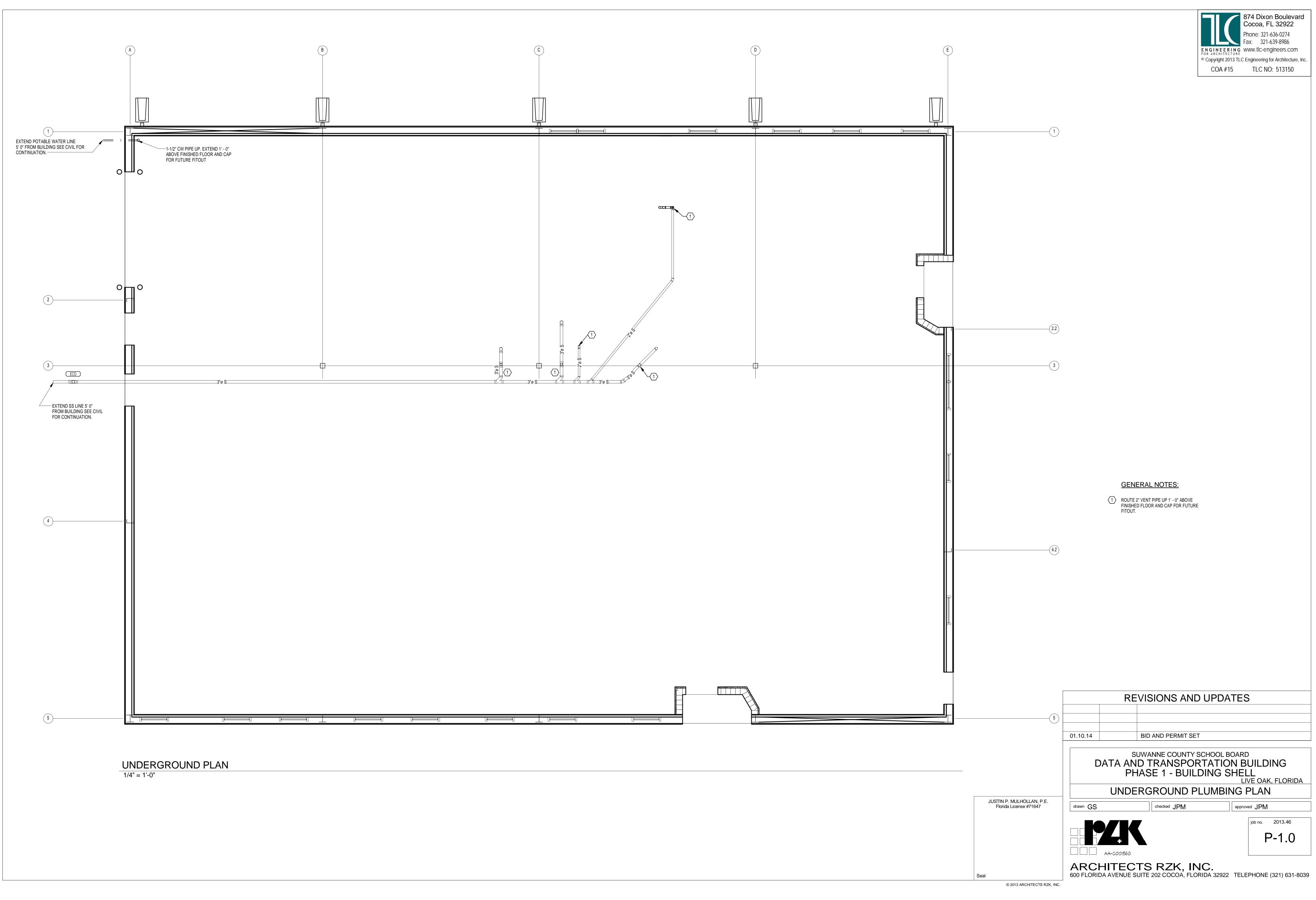


PLUMBING SYMBOL LEGEND		PLUMBING ABBREVIATION	GENERAL NOTES	SPECIFICATIONS	
SYMBOL AV	DESCRIPTION - ACID VENT - ACID WASTE	SYMBOL     DESCRIPTION       AFF     - ABOVE FINISH FLOOR       AW     - ACID WASTE	REFERENCE THE SPECIFICATIONS FOR MATERIAL AND EQUIPMENT INSTALLATION STANDARDS.      THE PLUMBING INSTALLATION SHALL COMPLY WITH ALL STATE AND LOCAL	<ol> <li><u>GENERAL</u></li> <li>A. PROVIDE LABOR AND MATERIALS TO PROVIDE A COMPLETE AND OPERATIONAL PLUMB SYSTEM AS INDICATED. DRAWING PACKAGE BY MECHANICAL AND ELECTRICAL ENGINEER</li> </ol>	
AW AW CD CD CD CA SW  G GR S S S	<ul> <li>ACID WASTE</li> <li>BELOW GROUND ACID WASTE</li> <li>ABOVE GROUND CONDENSATE DRAIN</li> <li>BELOW GROUND CONDENSATE DRAIN</li> <li>COMPRESSED AIR</li> <li>SOFTEN WATER</li> <li>DOMESTIC COLD WATER</li> <li>DOMESTIC HOT WATER</li> <li>DOMESTIC HOT WATER RECIRCULATING</li> <li>GAS</li> <li>KITCHEN WASTE (GREASE)</li> <li>ABOVE GROUND SANITARY</li> <li>BELOW GROUND SANITARY</li> </ul>	AV- ACID WASTEAV- ACID VENTCA- COMPRESSED AIRCD- CONDENSATE DRAINCFH- CUBIC FEET PER HOURCO- CLEANOUTCONT- CONTINUATIONCW- DOMESTIC COLD WATERDN- DOWNDS- DOWNSPOUTDWG- DRAWINGEXIST- EXISTING°F- DEGREE FAHRENHEITFCO- FLOOR CLEANOUTFD- FLOOR DRAINFS- FLOOR SINKG- GAS	<ol> <li>2. THE PLUMBING INSTALLATION SHALL COMPLY WITH ALL STATE AND LOCAL CODES.</li> <li>3. PLANS ARE NOT COMPLETELY TO SCALE. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING. CONTRACTOR SHALL PROVIDE ANY CLEARANCES. VERIFY STRUCTURAL, MECHANICAL AND ELECTRICAL INSTALLATIONS AND OTHER POTENTIAL OBSTRUCTIONS AND ROUTE PIPING TO AVOID INTERFERENCES.</li> <li>4. PROVIDE ALL OFFSETS AND FITTINGS AND MAKE CONNECTION TO SITE UTILITIES.</li> <li>5. CONCEAL PIPING ABOVE CEILINGS, WITHIN WALLS OR CHASES EXCEPT IN MECHANICAL ROOMS OR AS SPECIFICALLY NOTED.</li> <li>6. PROVIDE ACCESS PANELS FOR ALL VALVES CONCEALED IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS.</li> <li>7. FLASH AND COUNTER-FLASH ROOF PENETRATIONS.</li> <li>8. PROVIDE FOUNDATION PAD PENETRATION SLEEVES. ALLOW 1" MINIMUM CLEARANCE BETWEEN SLEEVE INSIDE SURFACE AND PIPE EXTERIOR.</li> </ol>	<ul> <li>SYSTEM AS INDICATED. DRAWING PACKAGE BY MECHANICAL AND ELECTRICAL ENGINEER BE CONSIDERED PART OF THESE PROJECT DOCUMENTS.</li> <li>B. ALL WORK SHALL COMPLY WITH THE RULES AND REGULATIONS AS STATED BELOW: 2010 FLORIDA BUILDING CODE: PLUMBING LOCAL AUTHORITY HAVING JURISDICTION</li> <li>C. VISIT THE SITE PRIOR TO START OF WORK TO BECOME FAMILIAR WITH PROJECT CONTAND EXISTING SERVICES.</li> <li>2. <u>BASIS OF THE DRAWINGS</u> <ul> <li>A. INFORMATION ON EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAS BEEN RECONTH THE NORMAL PROFESSIONAL CARE BY THE ENGINEER AND IS BASED ON THE OWNE AVAILABLE EXISTING DOCUMENTS AND USUALLY OBSERVABLE IN-PLACE ELEMENTS. BEFOR ORDERING OR PLACING NEW COMPONENTS, FIELD MEASURE AND VERIFY REQUIREMENTS EXACT DIMENSIONS. ITEMS REQUIRING MODIFICATION TO THOSE SHOWN ON THESE DRAWINGS HAS DEED RAWINGS.</li> <li>3. <u>DIRT AND DUST CONTROL</u> <ul> <li>A. SCREEN OFF ALL AREAS WHERE CONSTRUCTION IS TO TAKE PLACE FROM THE AREAS REMAIN INHABITED. INHABITED AREAS SHALL REMAIN DUST AND DEBRIS FREE DURING</li> </ul> </li> </ul></li></ul>	
$\begin{array}{c} & ST \\ \hline M \\ \hline \hline M \\ \hline M \\ \hline \hline M \\ \hline \hline M \\ \hline \hline M \\ \hline \hline \hline M \\ \hline \hline \hline \hline$	<ul> <li>SANITARY VENT</li> <li>ABOVE GROUND STORM</li> <li>BELOW GROUND STORM</li> <li>OVERFLOW STORM DRAIN</li> <li>BELOW GROUND OVERFLOW STORM</li> <li>WATER METER</li> <li>HOSE BIBB OR WALL HYDRANT</li> <li>CLEAN OUT PLUG</li> <li>WALL CLEANOUT</li> <li>FLOOR CLEAN OUT</li> <li>FLOOR DRAIN</li> <li>ROOF DRAIN</li> <li>SHUT-OFF VALVE IN VALVE BOX</li> <li>SHUTOFF VALVE</li> <li>BALL VALVE</li> <li>CALIBRATED BALANCING VALVE</li> <li>CHECK VALVE (SWING)</li> </ul>	GPHGALLONS PER HOURGPMGALLONS PER MINUTEGRKITCHEN WASTE (GREASE)HBHOSE BIBBHDHUB DRAINHWDOMESTIC HOT WATERHWRDOMESTIC HOT WATER RECIRCULATINGIEINVERT ELEVATIONIWVINDIRECT WASTEKWKILOWATTLBSPOUNDSMHMANHOLENCNORMALLY CLOSEDNICNOT IN CONTRACTNONORMALLY OPENNTSNOT TO SCALEODOUTSIDE DIAMETERPRVPRESSURE REDUCING VALVEPSIPOUNDS PER SQUARE INCHPVCPOLYVINYL CHLORIDE PIPERDROOF DRAINRPBPREDUCED PRESSUREBACKFLOW PREVENTORSANSANITARYSDSTORM DRAINSTSTORMSTOOVERFLOW STORM DRAINSWSOFTEN WATER	<ol> <li>SEE ARCHITECTURAL DRAWINGS FOR FIXTURE LOCATIONS AND MOUNTING HEIGHTS.</li> <li>PROVIDE AN AIR GAP, WHEN REQUIRED BY CODE, SERVING INDIVIDUAL FIXTURES, DEVICES, APPLIANCES AND APPARATUS.</li> <li>ALL EXPOSED PIPE AND FITTINGS IN FINISHED AREAS SHALL BE CHROME PLATED.</li> <li>MOUNT WALL HYDRANTS 24" ABOVE FINISHED GRADE.</li> <li>COORDINATE PIPING WITH ALL ELECTRICAL EQUIPMENT (PANELS, TRANSFORMERS, ETC.) PRIOR TO ANY INSTALLATION. DO NOT ROUTE ANY PIPING OVER ANY ELECTRICAL PANELS UNDER ANY CIRCUMSTANCES. ANY PIPING RUN OVER PANELS SHALL BE RE-ROUTED AT NO ADDITIONAL COST.</li> <li>CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO RELOCATE ANY EXISTING UTILITIES THAT MAY INTERFERE WITH THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL CALL "FLORIDA ONE CALL" AT 1-800-SUN-SHINE 48 HOURS BEFORE DIGGING.</li> <li>ROOF DRAINAGE FOR BUILDING IS PROVIDED BY GUTTERS AND DOWNSPOUTS. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.</li> </ol>	<ul> <li>REMAIN INFABILED. INFABILED AREAS OUTSIDE DESIGNATED CONSTRUCTION AREA WHICH HAVE BECOME SOILED DUE TO CONSTRUCTION.</li> <li>4. USE OF THE SPACE</li> <li>A. DISRUPTION OF SERVICES FOR NECESSARY WORK FOR TIE-INS TO WATER SERVICE, ELECTRICAL POWER, SANITARY LINES, ETC., SHALL BE KEPT TO A MINIMUM WITH ADVANC SCHEDULES ESTABLISHED AND SATISFACTORY TO THE OWNER.</li> <li>5. INSTALLATION NOTES</li> <li>A. PENETRATIONS, CUTTING AND PATCHING. SEAL ALL PIPING AND CONDUIT PENETRATIC OFWALLS AND FLOORS. PIPING PENETRATIONS OF RATED WALLS AND FLOORS SHALL BE WITH FIRESTOPPING MATERIAL.</li> <li>6. HANGERS AND SUPPORTS</li> <li>A. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPE SUPPORT PIPING AND DUCTWORK TO BUILDING STRUCTURE.</li> <li>B. INSTALL SUPPORTS IN COMPLIANCE WITH MSS SP-69 AND FACTORY FABRICATED IN ACCORDANCE WITH MSS SP-58. ALL COMPONENTS SHALL INCLUDE GALVANIZED COATING WHERE INSTALLED FOR PIPING AND EQUIPMENT THAT WILL NOT HAVE A FIELD APPLIED FOR PIPING AND EQUIPMENT THAT WILL NOT HAVE A FIELD APPLIED FOR WHERE INSTALLED FOR PIPING AND FITTINGS BELOW SLAB. "LEAD FREE SOLDERED JOINTS"</li> <li>B. PROVIDE COPPER TYPE "K" PIPING AND FITTINGS ABOVE SLAB. "LEAD FREE SOLDERED JOINTS"</li> <li>B. PROVIDE COPPER TYPE "L" PIPING AND FITTINGS ABOVE SLAB. "LEAD FREE SOLDERED JOINTS"</li> <li>B. PROVIDE HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS BELOW SLAB, HUBLESS COUPLING AND COUPLED JOINTS.</li> <li>C. PROVIDE HUBLESS CAST IRON SOIL PIPE AND FITTINGS ABOVE SLAB, HUBLESS PIPING COUPLING AND COUPLED JOINTS.</li> <li>C. PROVIDE HUBLESS CAST IRON SOIL PIPE AND FITTINGS ABOVE SLAB, HUBLESS PIPING COUPLING AND COUPLED JOINTS.</li> <li>C. PROVIDE HUBLESS CAST IRON SOIL PIPE AND FITTINGS ABOVE SLAB, HUBLESS PIPING COUPLING AND COUPLED JOINTS.</li> <li>C. PROVIDE HUBLESS CAST IRON SOIL PIPE AND FITTINGS ABOVE SLAB, HUBLESS PIPING COUPLING AND COUPLED JOINTS.</li> <li>C. PROVIDE HUBLESS CAST IRON SOIL PIPE AND FITTINGS ABOVE SLAB, HUBLESS PIPING COUPLING AND COUPLED JOINTS.</li> </ul>	
		- VENT VAC - VACUUM VTR - VENT THRU ROOF WCO - WALL CLEANOUT WTR - WATER		<ul> <li>9. <u>VALVES</u> <ul> <li>A. PROVIDE TWO-PIECE, FULL-PORT BALL VALVES NIBCO SERIES 585-70.</li> <li>B. PROVIDE BALANCING VALVES GRISWOLD F-2989.</li> <li>C. CHECK VALVES, ROUGH BRASS, REGRINDING BRONZE DISC - STOCKHAM B-345; B-309 EQUAL.</li> </ul> </li> <li>10. <u>TESTING, ADJUSTING, AND BALANCING</u> <ul> <li>A. PROVIDE TESTING OF THE PLUMBING SYSTEM IN ACCORDANCE, WITH THE FLORIDA BICODE - PLUMBING.</li> </ul> </li> <li>11. <u>STERILIZATION</u> <ul> <li>A. DOMESTIC WATER PIPING SHALL BE THOROUGHLY FLUSHED OUT AND STERILIZED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE - PLUMBING.</li> </ul> </li> </ul>	

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT



Seal



9/2014 9:27:52 AM C:\Users\george.stewart\Documents\513150 Suwannee Data BLDG - MEP-Central-R13\_george.ste

BASIC MATERIALS				GENERAL		
	BASIC MATERIALS CONT.	FIRE ALARM/DETECTION SYSTEM	1. ALL WORK AND EQUIPMENT UNDER DIVISION 26 AND 27 SHALL BE IN STRICT COMPLIANCE WITH THE CODES, STANDARDS AND PRACTICES LISTED HEREIN, AND THEIR RESPECTIVE DATES ARE	20		
DESCRIPTION	SYMBOL DESCRIPTION	SYMBOL DESCRIPTION	FURNISHED AS THE MINIMUM LATEST REQUIREMENTS.	21		
SINGLE POLE SWITCH	BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, SURFACE MOUNTED	F MANUAL PULL STATION	<ol> <li>STATE OF FLORIDA.</li> <li>LIFE SAFETY CODE - NFPA 101.</li> <li>LINDERWRITERS LABORATORIES, INC. PUBLICATIONS</li> </ol>	22		
THREE-WAY SWITCH	BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS,	CEILING SMOKE DETECTOR, PHOTO-ELECTRIC TYPE UNLESS OTHERWISE NOTED	<ol> <li>AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).</li> </ol>			
FOUR-WAY SWITCH		E = ELEVATOR WITH RECALL CONTACTS I = IONIZATION	<ol> <li>6. NATIONAL ELECTRICAL CODE - NFPA 70.</li> <li>7. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).</li> </ol>	23		
	SURFACE MOUNTED	R SUPERVISED CONTROL RELAY	9. REQUIREMENTS OF LOCAL POWER COMPANY.	24		
SINGLE POLE SWITCH	BRANCH CIRCUIT PANELBOARD, OVER 250 VOLTS, FLUSH MOUNTED	COMBINATION SPEAKER/VISUAL XXCD NOTIFICATION DEVICE	11. THE AMERICANS WITH DISABILITIES ACT (ADA) 12. FLORIDA ACCESSIBILITY CODE.	25		
SINGLE POLE SWITCH WITH SECURITY LOCKING KEY	BRANCH CIRCUIT CONDUIT CONCEALED ABOVE	CD = CANDELA RATING				
LOW VOLTAGE SWITCH FOR OVERRIDE ON	PHASE, NEUTRAL AND GROUND CONDUCTORS AS REQUIRED FOR CIRCUITS (UNLESS OTHERWISE NOTED).	XXCD CD = CANDELA RATING	FOR RELATED INFORMATION AND ADDITIONAL INSTALLATION REQUIREMENTS.	26		
FAN SWITCH	<b>·I</b> → GROUND ROD 3/4" x 20'	-ES WALL MOUNTED SPEAKER WITH STROBE XXCD CD = CANDELA RATING				
MANUAL MOTOR STARTER WITH OVERLOAD HEATERS			WITH WIRING AND CONNECTION OF INTERLOCKING AND CONTROLS OF MECHANICAL UNITS AND			
MANUAL MOTOR STARTER WITH OVERLOAD HEATERS AND PILOT LIGHT	CONDUIT TURNING DOWN	CD = CANDELA RATING	5. COORDINATE OUTLET BOX LOCATIONS WITH MASONRY TO MINIMIZE CUTTING OF BRICK OR			
DUPLEX RECEPTACLE		F FIRE ALARM SPEAKER WITH STROBE - CEILING MOUNTED CD = CANDELA RATING				
FLOOR OUTLET BOX AND DUPLEX RECEPTACLE WITH APPROPRIATE FLANGE.		- (NO AUDIO DEVICE)	6. ALL MOUNTING HEIGHTS TO CENTERLINE OF DEVICE UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON THE JOB PRIOR TO ROUGH-IN.			
FLOOR OUTLET BOX WITH DUPLEX RECEPTACLE AND ONE COMBINATION W/ VOICE/DATA OUTLET		(NO ADDIO DEVICE)	7. WHEN INCREASED CONDUCTOR SIZES ARE SHOWN ON THE PLANS, THE LARGER CONDUCTOR SIZE SHALL BE USED THROUGHOUT THE LENGTH OF THE CIRCUIT, INCLUDING NEUTRAL AND			
FLOOR OUTLET BOX WITH TWO DUPLEX RECEPTACLES		IFSI SPRINKLER WATERFLOW				
			8. EACH DATA, TELEPHONE, VIDEO OR OTHER SYSTEMS OUTLET REQUIRES T.C. WITH POLL STRING STUBBED TO TTB UNLESS OTHERWISE NOTED ON PLANS. PROVIDE INSULATED BUSHINGS ON ALL CONDUITS. LABEL CONDUIT TO IDENTIFY ITS INTENDED USE (IE:	27		
DUPLEX RECEPTACLE WITH TOP HALF SWITCHED	LIGHTING	INDICATED.	TELEPHONE, DATA, ETC.).	28		
GFI RECEPTACLE. WP DENOTES UL LISTED AS WEATHERPROOF IN USE AND UL LISTED WEATHER RESISTANT. MOUNTED AT 48" AFF.			WHERE ISOLATED GROUND CIRCUITS ARE SHOWN ON THE PLANS. PROVIDE AN ISOLATED	29		
GFI RECEPTACLE MOUNTED ABOVE COUNTER	FLUORESCENT STRIP FIXTURE	FACP	NEUTRAL AND EQUIPMENT GROUND CONDUCTORS.			
TWO DUPLEX RECEPTACLES WITH COMMON COVER	FLUORESCENT STRIP FIXTURE DIAGONAL SHADING DENOTES EMERGENCY LIGHT FIXTURE.	FATC	OR REQUIRED TO PASS THRU WALLS. PROVIDE BUSHINGS ON BOTH ENDS. SIZE CONDUIT FOR	30		
TWO DUPLEX RECEPTACLES WITH COMMON COVER	FIXTURE DESIGNATION — A		OF CABLE TRAY. MAXIMUMS SHALL BE. 2"C = 10 CABLES			
ISOLATED GROUND DUPLEX RECEPTACLE, (ORANGE DEVICE)	CIRCUIT NUMBER 2 a LOWER CASE LETTER INDICATES CONTROL CIRCUIT SWITCH LEG	FAAP FIRE ALARM ANNUNCIATOR PLAN - FLUSH MOUNTED	2 1/2"C = 20 CABLES 3"C = 30 CABLES 4"C = 50 CABLES	31		
DUPLEX RECEPTACLE	FLUORESCENT FIXTURE	SECURITY FOUIPMENT	11. ALL BRANCH CIRCUIT HOMERUNS SHALL BE ROUTED IN 3/4"C. MINIMUM.	32		
NOTE: TICK MARKS SHOWN ON ANY DEVICE REPRESENTS			12. LIGHT SWITCHES SHALL BE MOUNTED 48 INCHES ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE, UNLESS NOTED OTHERWISE.			
RECEPTACLE CONNECTED TO THE EMERGENCY CIRCUIT (RED DEVICE) TYPICAL FOR ANY DEVICE IN LEGEND		VANDAL RESISTANT FIXED DOME NETWORK CAMERA, BY OTHERS.	<ol> <li>RECEPTACLES SHALL BE LOCATED 18 INCHES ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE, UNLESS OTHERWISE NOTED. ABOVE-COUNTER RECEPTACLES SHALL BE MOUNTED 6"</li> </ol>	33		
SPECIAL PURPOSE RECEPTACLE, RATING AS NOTED		CR CARD READER, BY OTHERS. MOUNT JUNCTION BOX AT 48" AFF. CONCEAL 1" CONDUIT TO SECURITY ALARM				
			WHICH THEY ARE TO BE INSTALLED, WITH APPROPRIATE NEMA ENCLOSURE RATING.	34		
GROUND BAR	<ul> <li>DIRECTION ARROWS AS SHOWN</li> <li>(SHADED QUADRANT INDICATES FACE(S) OF FIXTURE)</li> </ul>	AFF. CONCEAL 1" CONDUIT TO SECURITY ALARM PANEL.	A. WORKING CLEARANCES AND DEDICATED SPACE FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH NEC 110.			
JUNCTION BOX	WALL MOUNTED EXIT LIGHT FIXTURE	I INTERCOM, BY OTHERS. MOUNT JUNCTION BOX AT 48" AFF. CONCEAL 1" CONDUIT TO SECURITY ALARM PANEL.	15. WHEN ELECTRICAL BOXES ARE LOCATED IN VERTICAL FIRE-RESISTIVE ASSEMBLIES, (CLASSIFIED AS FIRE/SMOKE AND SMOKE PARTITIONS) THEY SHALL BE INSTALLED WITHOUT			
JUNCTION BOX- WALL MOUNTED	BATTERY PACK WITH TWIN HEADS	PE PUSH TO EXIT. MOUNT JUNCTION BOX AT 48" AFF. CONCEAL 1" CONDUIT TO SECURITY ALARM PANEL.	AFFECTING THE FIRE CLASSIFICATION. ALL OF THE FOLLOWING CONDITIONS SHALL BE MET:	35		
	DUAL TECHNOLOGY OCCUPANCY SENSOR					
OTHERWISE NOTED NEMA 3R FOR EXTERIOR LOCATIONS			C. BOX OPENING SHALL NOT EXCEED 16 SQUARE INCHES.	36		
MAGNETIC MOTOR STARTER OR CONTACTOR SIZE AS NOTED	$\smile$		D. ALL CLEARANCES BETWEEN OUTLET BOX AND GYPSUM BOARD SHALL BE COMPLETELY			
MOTOR CONNECTION, NUMBER DENOTES HORSEPOWER	TELEPHONE/COMPUTER RACEWAY SYSTEM					
			OF THE WALL RATING SHALL BE MAINTAINED.	37		
	DATA/COMM OUTLET WITH FLUSH MOUNTED 4" SQUARE SINGLE GANG JUNCTION BOX. PROVIDE		F. THE TOTAL AGGREGATE SURFACE AREA OF THE BOXES SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET.	38		
	AND STUB-OUT WITH PLASTIC BUSHING. INSTALL (4) CAT6 CABLE FROM OUTLET TO PATCH PANEL IN ELECTRICAL ROOM.		G. OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE-RESISTIVE ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.			
			H. OUTLET BOXES SHALL BE SECURELY FASTENED TO WALL FRAMING MEMBERS.			
NON-FUSED DISCONNECT SWITCH, SIZE AS NOTED NF DENOTES NON-FUSED	COVER PLATE. EXTEND 1" CONDUIT TO TELEPHONE TERMINAL BOARD AND STUB-OUT WITH PLASTIC		I. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT NOT TO EXCEED 1/8 INCH BETWEEN THE EDGES OF THE OUTLET BOX AND THE EDGES OF THE OPENING.	39		
FUSED DISCONNECT			16. ALL DEVICES SHALL BE MOUNTED VERTICAL, UNLESS OTHERWISE NOTED.	40		
AF DENOTES AMP FUSE SIZE, * DENOTES SIZE PER			17. ALL RECEPTACLES SHALL BE MOUNTED SUCH THAT THE GROUND PIN IS MOUNTED UP.			
-# OF POLES			18. ALL BRANCH CIRCUIT CONDUITS SHALL CONTAIN A MINIMUM OF (2) #12AWG INSULATED COPPER CONDUCTORS, PLUS A MINIMUM OF (1) #12AWG GROUND WIRE UNLESS OTHERWISE NOTED ALL BRANCH CIRCUITS AND EEEDERS SHALL HAVE INDIVIDUAL NEUTRAL CONDUCTORS			
COMBINATION MAGNETIC MOTOR STARTER, SIZE & # OF POLES 3 POLE UNLESS OTHERWISE NOTED			19. COORDINATE THE LOCATION OF ALL DEVICES AND BOXES WITH WINDOWS, BUILT-INS, AND			
ENCLOSURE NEMA RATING.		CABINETS PRIOR TO INSTALLATION OF CONDUITS OR BOXES. CONTRACTOR SHALL CONSULT ALL CONTRACT DRAWINGS TO VERIFY CONFLICTS PRIOR TO BIDDING.				
– NEMA STARTER SIZE		UICIN ZU UI LUII IUATIUNU, ULYUA & INFFA 100.				
	FOUR-WAY SWITCH SINGLE POLE SWITCH WITH WEATHERPROOF COVER SINGLE POLE SWITCH WITH WEATHERPROOF LOCKING COVER SINGLE POLE SWITCH WITH SECURITY LOCKING KEY LOW VOLTAGE SWITCH FOR OVERRIDE ON FAN SWITCH MANUAL MOTOR STARTER WITH OVERLOAD HEATERS MAND PLOT LIGHT DUPLEX RECEPTACLE FLOOR OUTLET BOX WITH DUPLEX RECEPTACLE FLOOR OUTLET BOX WITH DUPLEX RECEPTACLE AND ONE COMBINATION W VOICEDATA OUTLET FLOOR OUTLET BOX WITH TWO DUPLEX RECEPTACLES AND ONE COMBINATION W VOICEDATA OUTLET FLOOR MOLTED BOX WITH TWO DUPLEX RECEPTACLES AND ONE COMBINATION W VOICEDATA OUTLET FLOOR OUTLET BOX WITH TWO DUPLEX RECEPTACLES AND ONE COMBINATION W VOICEDATA OUTLET FLOOR MOLTED ABOVE COUNTER FLOOR OUTLET BOX WITH TWO DUPLEX RECEPTACLES AND ONE COMBINATION W VOICEDATA OUTLET UPLEX RECEPTACLE MUNTED ABOVE COUNTER TWO DUPLEX RECEPTACLES WITH COMMON COVER MOUNTED ABOVE COUNTER SOLATED GROUND DUPLEX RECEPTACLE, GRANGE DEVICE) DUPLEX RECEPTACLES WITH COMMON COVER MOUNTED ABOVE COUNTER SOLATED GROUND DUPLEX RECEPTACLE, GRANGE DEVICE) DUPLEX RECEPTACLE, RATING AS NOTED LIGHTING CONTROL THE CLOCK PHOTOCELL, MOUNTED ON ROOF FACING NORTH GROUND BAR JUNCTION BOX JUNCTION BOX JUNCTION BOX JUNCTION BOX WITH PLUSH MOUNTED UNLESS OTHERWISE NOTED NEMISER OFTE DIVENTED HEATER OR CONTACTOR SEZ AS NOTED MOTOR CONNECTION NUMBER DENOTES HORSEPOWER ARADENEETION MARGINETIC MOTOR STARTER OR CONTACTOR SEZ AS NOTED MOTOR CONNECTION NUMERD ENOTES HORSEPOWER ARADENEETION PARTER OR CONTACTOR SEZ AS NOTED MOTOR CONNECTION NUMERD ATHORS. FOF DICUES MONTED SONNELTS WITCH SIZE AS NOTED MIND RACTURER RECOMMENDATIONS. FOR THERWISE NOTED NUMERS SITER ALTOMATIC TRANSFER SWITCH AD DENOTES NON-FUSED COMBINATION MAGNETIC MOTOR STARTER, SI	Another metabolises and an and a second sec	Automate the formate the forma			

# ENERAI

	NOTES:						874 Dixon Boulevard Cocoa, FL 32922 Phone: 321-636-0274 Fax: 321-639-8986 www.tlc-engineers.com			
20.	COORDINATE HEIGHTS OF WALL MOUNTED LI	IGHTING FIXTURES TO CLEAR MIRF	RORS, CABI	INETS AND			C Engineering for Architecture, Inc. TLC NO: 513150			
21.	BUILT-INS. PROVIDE A PERMANENT SIGN ON THE MAIN E		BUILDING S	TATING THAT						
22.	THE MAIN SERVICE DISCONNECT(S) ARE LOCA COORDINATE INSTALLATION OF ANY DEVICE I	LOCATED IN MILLWORK WITH ARCI	HITECTURA	AL DRAWINGS						
23.	AND DETAILS PRIOR TO ROUGHING IN BOXES	THER TRADES OR PROVIDED BY OV		-						
24.	COORDINATE EXACT LOCATIONS IN FIELD PRISE									
25.	<ol> <li>SEE ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF LIGHT FIXTURES IN LAY-IN OR DRYWALL CEILINGS, AND ON INTERIOR AND EXTERIOR WALLS.</li> <li>CONTRACTOR SHALL UPSIZE FEEDER AND BRANCH CIRCUIT WIRE SIZE AS REQUIRED TO COMPENSATE</li> </ol>									
	VOLTAGE DROP FROM LENGTHENING OF CIRC MEET FLORIDA BUILDING CODE REQUIREMEN		-							
26.	REFER TO VOLTAGE DROP CHART BELOW FO	OR CONDUCTOR SIZES FOR BRANC	HCIRCUITS	S						
		SIZE FOR VOLTAGE DROP AWG AWG								
	181' AND ABOVE TO BE SUBMITTED BY EC AND	D APPROVED BY ENGINEER.								
		AWG								
	351' AND ABOVE TO BE SUBMITTED BY EC AND	D APPROVED BY ENGINEER.								
27.	EMERGENCY BALLAST BATTERY PACKS AND I CONNECTED AHEAD OF LOCAL SWITCHING.	EMERGENCY EXIT SIGNS, WHERE	USED, SHA	LL BE						
28.	PROVIDE HACR RATED CIRCUIT BREAKERS FO	OR ALL HVAC EQUIPMENT.								
	ELECTRICAL CONTRACTOR SHALL PROVIDE C PROTECTION, AND MECHANICAL DEMONSTRA CLEARANCE PER NEC.	ATING COMPLIANCE WITH DEDICAT	ED SPACE	AND WORKING						
30.	CONTRACTOR SHALL PROVIDE WITHIN 30 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE RECORD DRAWINGS OF THE ACTUAL INSTALLATION INCLUDING: SINGLE LINE DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM AND FLOOR PLANS INDICATING LOCATION AND AREA SERVED FOR ALL DISTRIBUTION.									
	TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THESE PLANS AND SPECIFICATIONS COMPLY WITH THE 2010 FLORIDA BUILDING CODE AND THE FLORIDA FIRE PREVENTION CODE (2010) AND ALL LOCAL CODES AND ORDINANCES.									
32.	CONTRACTOR SHALL PROVIDE TEMPORARY ELECTRICAL SERVICE FOR USE BY ALL TRADES DURING CONSTRUCTION. REMOVE TEMPORARY POWER AT THE COMPLETION OF THE PROJECT. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS TO OBTAIN TEMPORARY ELECTRICAL SERVICE.									
33.	CONTRACTOR SHALL PROVIDE MAIN BREAKER SETTINGS AND ALL ADJUSTABLE BREAKER SETTINGS. PROVIDE AND SUBMIT COORDINATION STUDY SHOWING COORDINATION BETWEEN MAIN BREAKER(S) AND THE REST OF POWER DISTRIBUTION. PROVIDE ADJUSTABLE BREAKER FOR AMAPCITY LARGER THAN 100A.									
34.	THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUITS, BACK BOXES, RACEWAYS, SLEEVES, SITE CONDUIT DUCT BANKS AND MANHOLES FOR THE TELECOMMUNICATIONS SYSTEM. THE STRUCTURED CABLING CONTRACTOR (SCC) SHALL PROVIDE AND INSTALL THE WIRE AND CABLE FOR THE SYSTEMS THEY ARE INSTALLING. THE SCC SUPERVISE THE CONDUIT INSTALLATION AND VERIFY EXACT BACK BOX LOCATIONS AND CONDUIT STUB-UP LOCATIONS IN THE EQUIPMENT ROOMS.									
35.	PROVIDE AN ADDRESSABLE FIRE ALARM SYSTEM PER NFPA AND ALL STATE AND LOCAL CODE REQUIREMENTS. COMPLY WITH NFPA 72 AND ADA REQUIREMENTS. ALL WIRE SHALL BE INSTALLED IN CONDUIT. STATE CERTIFIED AND LICENSED FIRE ALARM CONTRACTOR SHALL PROVIDE ENGINEERED DRAWINGS AS REQUIRED. PREPARE AND SUBMIT SIGNED AND SEALED DRAWINGS FOR LOCAL JURISDICTION PERMITTING AUTHORITY.									
36.	FIELD VERIFY LOCATION OF AREA SMOKE DETECTORS AND HEAT DETECTORS. DO NOT LOCATE WITHIN 36" OF A HVAC DIFFUSER (SUPPLY OR RETURN), IN A DIRECT AIR FLOW PATH OR WITHIN 36" OF A SPRINKLER HEAD. SMOKE DETECTORS FOR DOOR RELEASE SHALL BE LOCATED ON THE CENTER LINE OF THE DOOR AND A MAXIMUM OF 5 FEET FROM THE DOOR. THE MINIMUM DISTANCE FROM THE DOOR IS THE DEPTH OF THE WALL SECTION ABOVE THE DOOR, BUT NOT LESS THAN 12".									
37.	EQUIPMENT SHUTDOWN RELAY SHALL BE LOO THE WIRING TO THE RELAY SHALL BE MONITO		JIPMENT CO	ONTROLS AND						
38.	<ul> <li>COORDINATION DRAWINGS</li> <li>THIS PROJECT REQUIRES SUBMISSION OF COORDINATION DRAWINGS. THE DIVISION 23</li> <li>CONTRACTOR IS RESPONSIBLE FOR THE INITIATION AND PREPARATION OF THE COORDINATION</li> <li>DRAWINGS. THIS CONTRACTOR SHALL PARTICIPATE IN THE COORDINATION DRAWING</li> <li>PREPARATION PROCESS AND PROVIDE ALL NECESSARY INFORMATION REQUIRED TO</li> <li>COORDINATE ALL TRADE INFORMATION.</li> </ul>									
39.	PROVIDE PERMANENT LABEL ON ALL PANELS ENERGIZED, LOCK-OUT TAG-OUT REQUIRED".		PMENT WHI	ILE						
40.	SEAL ALL CONDUIT PENETRATIONS THAT PAS	SS THROUGH EXTERIOR BUILDING	WALLS.							
				RE	/ISIONS	AND UPDATE	S			
01.10.14 BID AND PERMIT SET										
	SUWANNE COUNTY SCHOOL BOARD DATA AND TRANSPORTATION BUILDING PHASE 1 - BUILDING SHELL									
	ELECTRICAL LEGEND AND NOTES									
	drawn CVM checked MMH approved Approver									
				<b>/</b> K	7		job no. 2013.46			
				+ AA-COOI568			ES-0.1			
	Seal			AITECT		<b>K, INC.</b> DA, FLORIDA 32922 TF	LEPHONE (321) 631-8039			
		13 ARCHITECTS RZK, INC.								

<u>GENERAL:</u>

THE INSTALLATION SHALL COMPLY WITH ALL LOCAL LAWS AND ORDINANCES APPLICABLE TO ELECTRICAL INSTALLATIONS, AND WITH THE REGULATIONS OF THE NFPA WHERE SUCH REGULATIONS DO NOT CONFLICT WITH THOSE LAWS. OBTAIN ALL PERMITS REQUIRED.

#### MANUFACTURERS DRAWINGS AND DATA:

SUBMIT TO THE ENGINEER FOR APPROVAL FIVE (5) COPIES OF THE COMPLETE LIST OF ALL ELECTRICAL MATERIALS WHICH ARE PROPOSED TO BE FURNISHED FOR THIS PROJECT. AS A MINIMUM THE SUBMITTAL SHALL INCLUDE PANELBOARDS, A.I.C. OF BREAKERS INSTALLED, AND LIGHT FIXTURES.

#### STANDARD OF MATERIALS AND WORKMANSHIP:

ALL MATERIALS, EQUIPMENT AND APPARATUS COVERED BY THIS SPECIFICATION SHALL BE NEW, OF CURRENT MANUFACTURE AND SHALL BEAR THE SEAL OF APPROVAL OF THE UNDERWRITERS LABORATORIES. ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT A NEAT AND MECHANICAL APPEARANCE WHEN COMPLETED.

#### STORAGE OF MATERIALS:

THE CONTRACTOR SHALL PROVIDE SUITABLE STORAGE FACILITIES FOR ALL MATERIAL FURNISHED BY HIM UNDER THIS CONTRACT. ALL ITEMS TO BE INSTALLED MUST BE FREE OF RUST AND DIRT.

#### FIREPROOFING:

ALL CONDUIT AND BOXES PASSING THROUGH OR INSTALLED WITHIN FIRE WALLS AND SMOKE WALLS SHALL BE INSTALLED SO AS TO MAINTAIN THE INTEGRITY OF THE WALL THROUGH WHICH IT PASSES. BOXES TO BE INSTALLED WITH 1/8" OF WALL SURFACE.

#### TESTING:

AT THE COMPLETION OF THE WORK, A THOROUGH TEST SHALL BE MADE IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE, AND THE ENTIRE SYSTEM SHALL BE SHOWN TO BE IN PERFECT WORKING CONDITION AS INTENDED BY THESE SPECIFICATIONS.

#### GUARANTEE:

THE CONTRACTOR SHALL LEAVE THE ENTIRE ELECTRICAL SYSTEM INSTALLED BY HIM UNDER THIS CONTRACT IN PROPER WORKING ORDER AND SHALL REPLACE, WITHOUT ADDITIONAL CHARGE, ALL WORK OR MATERIAL WHICH MAY DEVELOP DEFECTS, ORDINARY WEAR AND TEAR OR DAMAGE RESULTING FROM IMPROPER HANDLING EXCEPTED, WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF FINAL TESTING AND ACCEPTANCE BY THE ENGINEER. BALLASTS SHALL BE INCLUDED BUT LAMPS SHALL BE EXCLUDED.

#### **IDENTIFICATION:**

EQUIPMENT: EQUIPMENT IDENTIFICATION SHALL BE MADE USING ENGRAVED LAMINATED PHENOLIC OR MICARTA PLATES (INDENTED TAPE LABELS WILL NOT BE PERMITTED). CHARACTERS SHALL BE WHITE ON A BLACK BACKGROUND AND 1/4" HIGH MINIMUM. PLATES SHALL BE SECURED TO THE PANELS BY MEANS OF SCREWS OR METAL PRESSURE PINS. CEMENT, BY ITSELF, WILL NOT ACCEPTABLE. ALL NAMEPLATES SHALL BE MOUNTED ON THE OUTSIDE SURFACE OF THE PIECE OF EQUIPMENT. INDIVIDUALLY ENCLOSED SAFETY SWITCHES, CIRCUIT BREAKERS, AND MOTOR STARTERS, PULL BOXES, CONTROL CABINETS AND OTHER SUCH ITEMS SHALL BE IDENTIFIED INDICATING LOAD, ELECTRICAL CHARACTERISTICS, AND SOURCE.

#### JUNCTION BOX IDENTIFICATION:

EACH JUNCTION BOX COVER SHALL BE LABELED WITH A PERMANENT "MAGIC" MARKER OR OTHER MEANS TO IDENTIFY THE CIRCUITS WITHIN. FOR EXAMPLE, A JUNCTION BOX CONTAINING LIGHTING CIRCUITS 21, 23, 25 FROM PANEL L2A WOULD BE LABELED "L2A-21,23,25". TELEPHONE JUNCTION BOXES SHALL BE LABELED "T". FIRE ALARM AND OTHER SYSTEM JUNCTION BOXES SHALL BE LABELED ACCORDINGLY.

#### GROUNDING:

IN GENERAL A GROUND WIRE SHALL BE INSTALLED IN EVERY CONDUIT. THE CONDUIT INSTALLATION ITSELF SHALL SERVE AS AN ADDITIONAL GROUNDING MEANS

WHERE CONDUITS TERMINATE WITHOUT MECHANICAL CONNECTION (I.E. LOCKNUTS AND BUSHINGS) TO PANELBOARDS, AND FOR ALL TERMINATIONS OF CONDUIT CONTAINING #4 AWG OR LARGER WIRE; AND FOR ALL SIZES OF METALLIC CONDUIT (RIGID OR FLEXIBLE) TERMINATING IN CONCENTRIC KNOCKOUTS, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED: EACH CONDUIT SHALL BE PROVIDED WITH AN INSULATING GROUND BUSHING AND EACH BUSHING CONNECTED WITH A BARE COPPER CONDUCTOR TO THE GROUND BUS IN THE ELECTRICAL EQUIPMENT. THE GROUND CONDUCTOR SHALL BE IN ACCORDANCE WITH THE ARTICLE OF GROUNDING OF NEC.

A BONDING AND SINGLE POINT GROUNDING SYSTEM SHALL BE PROVIDED TO INTERCONNECT THE MAIN ELECTRIC SERVICE GROUND AND ALL SPECIAL ELECTRONIC SYSTEM ISOLATED GROUNDS.

## **ELECTRICAL SPECIFICATIONS**

#### CONDUIT AND FITTINGS:

MC CABLE IS ACCEPTABLE FROM ELECTRICAL PANEL TO EACH DEVICE/LIGHT FIXTURE.

NOT MORE THAN THREE CIRCUITS MAY BE INSTALLED IN ANY ONE CONDUIT UNLESS OTHERWISE INDICATED.

ALL CONDUITS SHALL BE CONCEALED UNLESS OTHERWISE NOTED ON THE DRAWINGS. EXPOSED CONDUIT WILL BE PERMITTED ONLY AS SHOWN ON THE DRAWINGS. EXPOSED CONDUIT SHALL BE RUN PARALLEL WITH OR AT RIGHT ANGLES TO THE BUILDING WALLS. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PLASTIC OR NYLON FISH WIRE.

FLEXIBLE CONDUIT IN ALL AREAS OTHER THAN CEILING PLENUM SUBJECT TO MOISTURE SHALL BE LIQUID-TIGHT FLEXIBLE CONDUIT. ALL ELECTRICAL CONNECTIONS TO VIBRATION ISOLATED EQUIPMENT SHALL BE MADE WITH FLEXIBLE CONDUIT. ALL CONDUITS ENTERING THE BUILDING SHALL BE SUITABLY SEALED TO PREVENT THE ENTRANCE OF MOISTURE.

RACEWAYS CONCEALED IN GROUND OUTSIDE BUILDING SHALL BE A MINIMUM OF 2 FEET BELOW GRADE.

#### CONDUCTORS:

ALL CONDUCTORS SHALL BE COPPER OF NOT LESS THAN NINETY-EIGHT PERCENT (98%) CONDUCTIVITY, WITH NEC TYPE THHN/THWN, 600 VOLT INSULATION. CONDUCTORS NO. 12 THROUGH NO. 10 MAY BE SOLID OR STRANDED AND NO. 8 AND LARGER SHALL BE STRANDED. NO CONDUCTORS SMALLER THAN NO. 12 SHALL BE USED EXCEPT AS OTHERWISE NOTED. CONTROL CONDUCTORS SHALL BE NO. 14.

NEUTRAL WIRES SHALL BE PIGTAILED TO RECEPTACLES SO THAT RECEPTACLE CAN BE REMOVED FOR REPLACEMENT WITHOUT THE NEUTRAL CONNECTION TO OTHER RECEPTACLES ON THE CIRCUIT BEING DISCONNECTED. WHEN STRANDED WIRE IS USED FOR RECEPTACLE AND LIGHTING CIRCUIT, CONNECTIONS TO THE DEVICES SHALL BE MADE USING VINYL INSULATED "STAKON" CONNECTOR TERMINALS.

#### CABLE AND WIRE SPLICES:

THE MATERIALS SHALL BE COMPATIBLE WITH THE CONDUCTORS, INSULATIONS AND PROTECTIVE JACKETS OF THE RESPECTIVE CABLES AND WIRES.

FOR CONDUCTOR SIZED NO. 6 AWG OR LARGER: SPLICES IN CONDUCTORS SHALL BE MADE WITH INDENTER, CRIMP CONNECTORS AND COMPRESSION TOOLS OR WITH BOLTED CLAMP TYPE CONNECTORS TO INSURE A SATISFACTORY MECHANICAL AND ELECTRICAL JOINT.

#### JUNCTION BOXES:

ALL JUNCTION BOXES AND PULL BOXES SHALL BE SIZED PER N.E.C. REQUIREMENTS AND BE OF THE PROPER NEMA CLASSIFICATION FOR THE LOCATIONS WHERE THEY ARE INSTALLED. WHERE BOXES OCCUR ABOVE OTHER THAN LIFT-OUT CEILINGS, ACCESS PANELS MUST BE PROVIDED.

#### OUTLET BOXES:

SWITCH AND RECEPTACLE OUTLET BOXES SHALL BE FOUR INCH (4") SQUARE OR FOUR AND ELEVEN SIXTEENTHS INCH (4-11/16") A MINIMUM OF 1-1/2" DEEP WITH SWITCH RING AS REQUIRE OR GANG BOXES A MINIMUM OF 2" DEEP WHEN MORE THAN TWO DEVICES MOUNT UNDER A COMMON COVER.

WALL TELEPHONE OUTLETS SHALL BE FOUR INCH (4") SQUARE BOXES WITH STANDARD SWITCH COVERS AND TELEPHONE COVER PLATES.

#### LOCATION OF OUTLETS:

THE APPROXIMATE LOCATIONS OF OUTLETS, ETC. ARE SHOWN ON THE DRAWINGS. THE EXACT LOCATIONS SHALL BE DETERMINED AT THE BUILDING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTE THE LOCATIONS AND HEIGHTS OF CABINETS, ETC. BEFORE THE INSTALLATION OF OUTLETS.

#### SAFETY SWITCHES:

SAFETY SWITCHES SHALL BE "HD" (HEAVY DUTY) UNLESS NOTED OTHERWISE, FUSED OR NON-FUSIBLE AS INDICATED WITH NUMBER OF POLES AS SHOWN OR REQUIRED. SAFETY SWITCHES FOR EQUIPMENT MAY BE NON-FUSED ONLY IF EQUIPMENT IS UL TESTED WITH CIRCUIT BREAKER PROTECTION. DISCONNECT SWITCHES SHALL BE PROVIDED FOR ALL MOTORS.

ACCEPTABLE MANUFACTURERS: SQ-D, GE, SIEMENS.

#### MOTORS AND MOTOR CONTROLS:

MOTOR STARTERS SHALL BE ACROSS-THE-LINE MAGNETIC TYPE SIZED FOR MOTOR HORSEPOWER. OVERLOADS SHALL BE PROVIDED IN EACH PHASE. HAND-OFF-AUTO SELECTOR SWITCHES, RUN PILOT LIGHTS AND AUXILIARY CONTACTS SHALL BE INCLUDED. CONTROL SHALL BE 120V. ALL CONTROL, ALARM AND INTERLOCK WIRING SHALL BE IN CONDUIT AND SHALL BE COLOR CODED.

#### WIRING DEVICES:

WALL SWITCHES:

ALL SWITCHES SHALL BE FLUSH ENCLOSED TYPE, SPECIFICATION GRADE, RATED AT 20 AMPERES, 120/277 VOLTS, ALTERNATING CURRENT ONLY, AND QUIET OPERATION.

#### MOTOR SWITCHES:

WITH INHERENT THERMAL OVERLOAD PROTECTION SHALL BE SQUARE D, TYPE F FOR FLUSH OR SURFACE MOUNTING AS REQUIRED BY THE LOCATION OF THE UNIT. UNITS SHALL BE FURNISHED WITH PILOT LIGHTS AS INDICATED.

#### RECEPTACLES:

GROUNDING TYPE DUPLEX RECEPTACLE, SPECIFICATION GRADE, RATED 20 AMPERES, 125 VOLTS, 2 WIRE, 3 POLE WITH GROUNDED SHUNT (YOKE PERMANENTLY GROUNDED TO THIRD CLIP).

DEVICE COLOR SHALL BE SELECTED BY ARCHITECT.

#### DEVICES PLATES:

ALL PLATES FOR SWITCH, RECEPTACLES AND TELEPHONE OUTLETS LOCATED IN FINISHED WALLS SHALL BE SMOOTH THERMOPLASTIC. COLOR TO MATCH DEVICE. ALL PLATES FOR OUTLETS LOCATED ON UNFINISHED WALL OR ON CONDULET TYPE FITTINGS SHALL BE ZINC COATED SHEET METAL WITH ROUNDED OR BEVELED EDGES.

ACCEPTABLE MANUFACTURERS: HUBBELL, LEVITON, P&S.

#### PANELBOARDS:

INTERRUPTING RATINGS SHALL BE COORDINATED WITH THE AVAILABLE SHORT CIRCUIT CURRENT. BRANCH CIRCUIT PROTECTION DEVICES SHALL BE MOLDED CASE CIRCUIT BREAKERS BOLT-ON TYPE. PANELS SHALL BE FULLY RATED.

HARDWARE SHALL CONSIST OF COMBINATION LATCH AND LOCK, ALL KEYED THE SAME.

PANEL ENCLOSURES SHALL BE FURNISHED WITHOUT KNOCKOUTS. ALL KNOCKOUTS TO BE FIELD CUT.

TYPED DIRECTORY CARDS SHALL BE FURNISHED IN EACH PANEL.

ALL PANELS SHALL BE PROVIDED WITH COPPER BUSSING. A COPPER EQUIPMENT GROUNDING BUS SIMILAR TO, BUT ISOLATED FROM THE COPPER SOLID-NEUTRAL BUS.

PANELS SHALL BE CAREFULLY ALIGNED AND RIGIDLY SECURED IN PLACE WITH THE TOP OF THE CABINETS LOCATED 78 INCHES ABOVE THE FINISHED FLOOR. FLUSH MOUNTED PANEL SHALL HAVE EIGHT (8) 1" EMPTY CONDUITS RUN FROM THE PANEL TO AN ACCESSIBLE LOCATION ABOVE THE CEILING. THE EMPTY CONDUITS SHALL BE CAPPED AND MARKED TO INDICATE THEIR ORIGIN.

EACH PANEL SHALL BE FURNISHED WITH AN IDENTIFICATION PLATE AS SPECIFIED IN THE "IDENTIFICATION" SECTION OF THIS SPECIFICATION.

ACCEPTABLE MANUFACTURERS: SQ-D, GE, SIEMENS.

#### LIGHTING FIXTURES:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CATALOG NUMBERS IN THE FIXTURE SCHEDULE TO ENSURE THAT MATCHES THE DESCRIPTION GIVEN AND FOR PROPER CEILING MOUNTING, REQUIRED ACCESSORIES, ETC.

#### SURGE PROTECTION:

SURGE PROTECTION DEVICES SHALL BE PROVIDED FOR ALL NEW DISTRIBUTION EQUIPMENT. IT SHALL BE INSTALLED ON THE MAIN ELECTRICAL SERVICE, ALL DISTRIBUTION PANELS AND SELECTED SUB-PANELS, POWER SUPPLIES OF SPECIAL SYSTEMS, AND ON CIRCUITS FEEDING SELECTED MAJOR ITEMS THAT HAVE A SENSITIVE ELECTRICAL NATURE.

DEVICES SHALL BE UL 1449 3RD EDITION LISTED.

#### FIRE ALARM SYSTEM:

DESCRIPTION: FURNISH, INSTALL, AND PLACE INTO OPERATING CONDITION A COMPLETE CLASS B, ADDRESSABLE FIRE ALARM SYSTEM. THE FIRE ALARM SYSTEM SHALL BE LISTED BY UNDERWRITERS' LABORATORIES INC., BE ADA COMPLIANT, BE CONSTRUCTED AND INSTALLED IN STRICT ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION 70 AND 72 AND COMPLY WITH THE APPLICABLE REQUIREMENTS OF STATE AND LOCAL CODES. THE SYSTEM SHALL USE CLOSED LOOP INITIATING DEVICE CIRCUITS WITH INDIVIDUAL ZONE SUPERVISION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE RELATED WORK WITH ALL TRADES INVOLVED.

#### SHOP DRAWINGS:

SHOP DRAWINGS SHALL BE COMPLETE WITH DETAILED INFORMATION ON ALL SYSTEM COMPONENTS AS WELL AS SYSTEM WIRING DIAGRAMS. PROVIDE BATTERY SIZE AND VOLTAGE DROP CALCULATIONS, PREPARED BY A NICET LEVEL III INSTALLER.

ACCEPTABLE MANUFACTURERS: NOTIFIER, SIEMENS, SIMPLEX, SILENT KNIGHT, HOCHIKI. SYSTEM SHALL BE NON-PROPRIETARY.

PRODUCTS: MANUAL PULL STATIONS:

DOUBLE ACTION, ADDRESSABLE

SMOKE DETECTORS: PHOTOELECTRIC TYPE, PLUG-IN BASE, ADDRESSABLE.

DUCT SMOKE DETECTORS: PHOTOELECTRIC TYPE, PLUG-IN BASE, ADDRESSABLE. PROVIDE WITH REMOTE STATUS INDICATORS.

#### HEAT DETECTORS:

135° FIXED TYPE, PLUG-IN BASE, ADDRESSABLE. ALARM SIGNALS:

ALARM SIGNALS SHALL BE HORNS AND STROBES AS SHOWN ON THE PLAN. STROBES SHALL MEET THE MINIMUM CANDELA RATING REQUIRED BY ADA. HORNS SHALL BE ELECTRONIC TYPE, RECESSED AND HAVE A MINIMUM OUTPUT OF 90 Db AT 10 FEET.

#### WIRING

WIRING SHALL BE STRANDED #14 AWG, COLOR CODED, AND NUMBERED. INSULATION SHALL BE TYPE THHN OR XHHW.

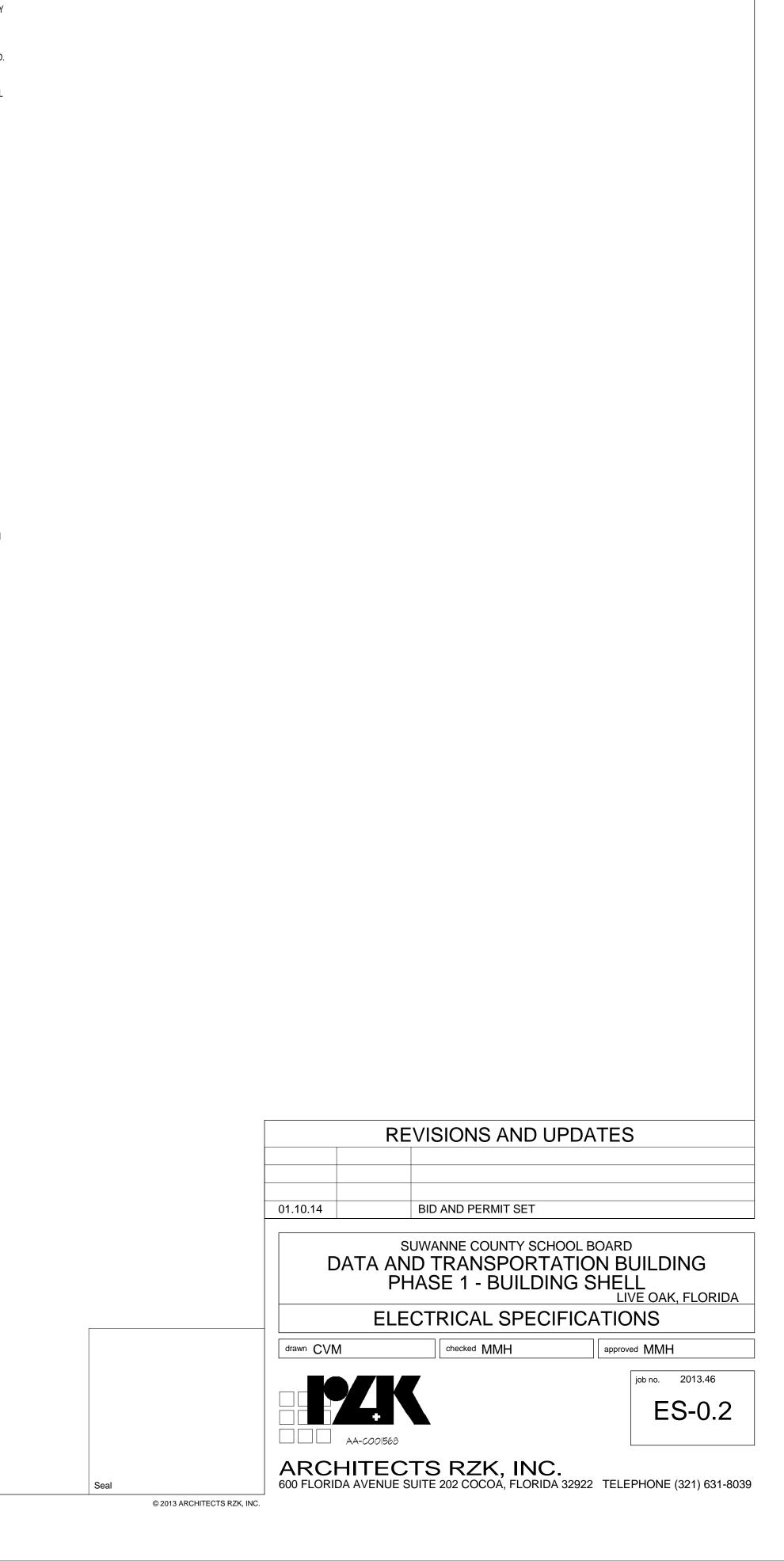
#### INSTALLATION:

ALL FIRE ALARM WIRING SHALL BE INSTALLED IN METAL RACEWAYS. JUNCTION BOXES SHALL BE SIZED IN ACCORDANCE WITH THE NUMBER OF WIRES AND TERMINATIONS TO BE INSTALLED. JUNCTION BOXES HAVING MORE THAN TWELVE TERMINATIONS SHALL HAVE TERMINAL STRIPS. ALL CONNECTIONS SHALL BE MADE BY OR UNDER THE DIRECT SUPERVISION OF A QUALIFIED SYSTEM TRAINED TECHNICIAN.

#### CERTIFICATION:

UPON COMPLETION OF INSTALLATION, THE ENTIRE SYSTEM SHALL BE TESTED BY THE MANUFACTURER 'S TECHNICIAN IN THE PRESENCE OF REPRESENTATIVES OF THE OWNER, THE ENGINEER, AND THE LOCAL AUTHORITY HAVING JURISDICTION. PRIOR TO THE FINAL CLOSE-OUT TEST, A CERTIFICATION SHALL BE FORWARDED TO THE ENGINEER AND THE LOCAL AUTHORITY HAVING JURISDICTION BY THE TECHNICIAN STATING THAT HE HAS PERSONALLY VERIFIED THE FOLLOWING:

THE SYSTEM BEING IN ACCORDANCE WITH THE SPECIFICATIONS THE SYSTEM BEING IN CORRECT OPERATING CONDITION.



874 Dixon Boulevard Cocoa, FL 32922 Phone: 321-636-0274 Fax: 321-639-8986

ENGINEERING www.tlc-engineers.com © Copyright 2013 TLC Engineering for Architecture, Inc.

COA #15 TLC NO: 513150



