	CUNDITIONS
GC1.	all work shall comply with the florida building code in force in the
	JURISDICTION, CURRENTLY BASED ON THE 2021 INTERNATIONAL BUILDING CODE, NATIONAL ELECTRICAL SAFETY CODE (NESC) AND ANY OTHER APPLICABLE CODES, RULES AND REGULATIONS BY AGENCIES HAVING JURISDICTIONS. WHERE CODES OVERLAP, COMPLY WITH THE MORE STRINGENT REQUIREMENTS.
gc2.	CONTRACTOR IS TO REVIEW DRAWINGS AND EXISTING SITE CONDITIONS AND DIMENSIONS FOR SCOPE OF WORK INVOLVED. CONTRACTOR IS TO INCLUDE IN HIS PROPOSAL ALL ITEMS, MATERIALS, ETC. TO ACHIEVE THE DESIGN CONCEPTS SHOWN ON THE DRAWINGS. MINOR CHANGES IN THE WORK, DUE TO EXISTING CONDITIONS, WILL BE ALLOWED IF APPROVED BY THE ENGINEER BEFORE PROCEEDING.
GC3.	EXISTING DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS.
GC4.	CONTRACTOR IS TO INCLUDE IN HIS PROPOSAL ALL ADDITIONAL MATERIALS AND LABOR AS REQUIRED TO WORK AROUND EXISTING CONDITIONS, AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED.
gc5.	THERE WILL BE NO SUBSTITUTION OF MATERIALS UNLESS APPROVED IN WRITING BY THE ENGINEER OR OCALA ELECTRIC UTILITY (DEU)
GC6.	CONTRACTOR IS TO DISPOSE OF ALL DEMOLITION AND EXCESS MATERIALS AND LEAVE THE WORK IN A READY TO USE CONDITION.
GC7.	CONTRACTOR IS RESPONSIBLE FOR ALL MEANS, METHODS, LABOR PROCEDURES AND SAFETY PRECAUTIONS FOR COMPLETING THE WORK.
GC8.	CONTRACTOR IS RESPONSIBLE FOR ALL WORK DURING CONSTRUCTION UNTIL FINAL APPROVAL BY ENGINEER, DWNER AND LOCAL OFFICIALS.
GC9.	CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ADJACENT EXISTING STRUCTURES AND UTILITIES.
GC10.	CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ANY EXISTING UTILITIES ON OR ADJACENT TO PROPERTY.
GC11.	WHERE SPECIFIC MANUFACTURER'S PRODUCT IS CALLED OUT, ALL MATERIALS AND WORK MUST COMPLY WITH THE MANUFACTURER'S STRICT RECOMMENDATIONS FOR INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN INSTRUCTIONS AND TO THEN FOLLOW THEM.
GC12.	WHERE A NAME BRAND IS NOT CALLED OUT, THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS AND/OR PRODUCT INFORMATION FOR ENGINEER REVIEW AND APPROVAL. MINOR ITEMS IN THE WORK ARE NOT SPECIFIED. CONTRACTOR IS TO USE QUALITY THAT IS STANDARD TO THE TRADE.
GC13.	FOUNDATIONS AND EMBEDDED ITEMS SHALL BE LOCATED AS INDICATED ON DRAWINGS WITHIN ALLOWABLE TOLERANCES IN ACCORDANCE WITH ACI STANDARD 117, SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS, UNLESS NOTED OTHERWISE.
GC14.	SEE SPECIFICATIONS FOR FINISHED SURFACE FLATNESS AND LEVELNESS REQUIREMENTS FOR FOUNDATIONS SUPPORTING GIS EQUIPMENT.
<u>design c</u>	RITERIA
note: Thi Vind Loa	E DESIGN CRITERIA LISTED BELOW ARE BASED ON ASCE 7-16. \D:
BASIC WI	ND SPEED 111 MPH
SEISMIC	DESIGN CRITERIA:
RISK CAT SITE CLA SS = 0.10 S1 = 0.05 SDS = 0.1 SD1 = 0.0	EGURY = III SS = D - STIFF SDIL 4 6 11 90
	JESIGN CATEGURY = B
C1	ALL CONCRETE WORK SHALL COMPLY WITH ACI 301 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS' AND ACI 318 'BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.'
C2.	ALL CONCRETE SHALL CONTAIN PORTLAND CEMENT CONFORMING TO ASTM C150, TYPE I/II AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4000 PSI.
СЗ.	THE CONTRACTOR SHALL TAKE ONE SET OF FOUR STANDARD TEST CYLINDERS FOR EACH DAYS PLACEMENT EVERY 50 CUBIC YARDS, OR EACH 5,000 SQUARE FEET OF SLAB OR WALL SURFACE AREA. THE OWNER'S TESTING AGENCY WILL PERFORM COMPRESSION TESTS ON TWO CYLINDERS AT 7 DAYS ONE CYLINDER AT 28 DAYS LEAVING ONE CYLINDER IN RESERVE.
C4.	ADD WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494 PER THE MANUFACTURER'S RECOMMENDATIONS.
С5.	ADD AIR ENTRAINING ADMIXTURE CONFORMING TO ASTM C260 TO PRODUCE AIR BY VOLUME DF: 6% +/- 1.5% FOR EXTERIOR CONCRETE
С6.	FINE AGGREGATE SHALL BE WASHED NATURAL SAND CONFORMING TO ASTM C33. COARSE AGGREGATE SHALL BE WELL GRADED CRUSHED STONE OR WASHED GRAVEL CONFORMING TO ASTM C33 WITH A MAXIMUM SIZE OF 3/4" SIZE.
C7.	THE MAXIMUM WATER-CEMENT RATIO SHALL BE: FOUNDATIONS 0.45
C8.	MAXIMUM SLUMP SHALL BE 4" +/- 1". MAXIMUM SLUMP AFTER ADDITION OF HIGH-RANGE WATER REDUCING ADMIXTURE SHALL BE 8".
С9.	CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN TO THE ENGINEER FOR APPROVAL. CONCRETE ACCEPTANCE SHALL BE ON THE BASIS OF FIELD TEST RECORDS OR LABORATORY TEST DATA.
C10.	ALL CONCRETE SHALL BE TRUCK MIXED.
C11.	WALLFORM PANELS SHALL BE PLYWOOD, TEMPERED HARDBOARD FACES OR SMOOTH HIGH STRENGTH FORM SYSTEMS. CONCRETE PROTECTION FOR REINFORCING BARS SHALL BE 3" UNLESS INDICATED OTHERWISE ON THE DRAWINGS

- ALL PLACEMENT OF CONCRETE AND REINFORCEMENT SHALL BE ACCORDING C12. 318 (INCLUDING ACI 305 FOR HOT WEATHER AND ACI 306 FOR COLD WEAT CONDITIONS); AND CRSI RECOMMENDED PRACTICES FOR 'PLACING REINFORCI
- C13. Exterior concrete slabs shall receive a broom finish
- C14. FORM REMOVAL (MINIMUM TIME): 5-DAYS FOR AIR TEMPERATURE BELOW 55 DEGREES F. AND ABOVE 40 DEGREES F. 3-DAYS FOR AIR TEMPERATURE ABOVE 55 DEGREES.
- C15. EXPOSED ABOVE GRADE, EITHER INTERIOR OR EXTERIOR, CONCRETE SHALL HAVE A SMOOTH FINISH AS OBTAINED BY THE USE OF SMOOTH PLYWOOD OR TEMPERED BOARD Forms. Grind off fins, joint marks, bulges and other prominent grain MARKINGS. FILL AND GRIND OFF HONEYCOMBED OR DEPRESSED AREAS AND LEAVE SMOOTH AND WASHED CLEAN.
- C16. ALL PROJECTING CORNERS AND EDGES SHALL BE FORMED WITH A 3/4" CHAMFER, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFICATIONS.

REINFORCING

- ALL BAR REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60. R1.
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS R2. OTHERWISE INDICATED ON DRAWINGS.
- R3. WHERE REINFORCING IS NOT SHOWN ON THE DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATIONS, AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM PERMITTED BY THE APPLICABLE CODES.
- ALL WORKMANSHIP AND MATERIAL SHALL CONFORM TO THE 'MANUAL OF STANDARD R4. PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES' (ACI-315), AND 'BUILDING CIDE REQUIREMENTS FOR STRUCTURAL CONCRETE' (ACI-318).
- R5. WHERE CONTINUOUS BARS ARE CALLED FOR, THEY SHALL BE RUN CONTINUOUSLY ARDUND CORNERS, LAPPED AT NECESSARY SPLICES AND HODKED AT DISCONTINUOUS ENDS.
- ALL REINFORCING SPLICES SHALL CONFORM TO THE TABLE(S) PROVIDED IN THE R6. TYPICAL DETAILS FOR EACH STRENGTH OF CONCRETE BUT IN NO CASE LESS THAN THE REQUIREMENTS OF THE LATEST EDITION OF ACI-318.
- R7. SUBMIT CHECKED SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION OF REINFORCING. DRAWINGS SHALL SHOW REINFORCING DETAILS, INCLUDING SIZE AND SPACING OF BARS AND SUPPORT DETAILS. SHOP DRAWINGS SHALL INDICATE CONSTRUCTION JOINTS, CURBS, DEPRESSIONS, SLEEVES, AND DPENINGS, ETC... WITH ALL ADDITIONAL REINFORCING REQUIRED.

<u>Foundations</u>

- F1. UNLESS OTHERWISE INDICATED, EXTERIOR CONSTRUCTION SHALL BE CARRIED DOWN NDT LESS THAN 1'-O' BELOW FINISHED EXTERIOR GRADE.
- F2. ALL FOOTING EXCAVATIONS ARE TO BE FINISHED BY HAND, COMPACT FOOTING SUBGRADES TO A MINIMUM OF 95% MODIFIED PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT.
- F3. ALL STRUCTURAL FILL UNDER ANY FOUNDATION OR SLAB SHALL BE COMPACTED IN 6-INCH LIFTS. FLOWABLE FILL WITH 2000PSI STRENGTH MAY BE USED AS AN ALTERATIVE.
- AFTER ALL EXISTING BELOW GRADE UTILITIES HAVE BEEN LOCATED AND EXPOSED, F4. PROVIDE UTILITIES WITH POSITIVE PROTECTION AGAINST DAMAGE DUE TO SETTLEMENT AND CONSTRUCTION OPERATIONS.
- USE SIDE FORMS FOR ALL PILECAPS, FOOTINGS, PIERS AND WALLS. F5.
- SURFACE GRADING SHOULD PROVIDE POSITIVE SLOPES AWAY FROM FOUNDATION TO F6. PROMOTE RAPID RUNDFF AND TO AVOID WATER COLLECTING NEAR STRUCTURES OR POUNDING ONSITE WHICH COULD MIGRATE DOWN THE FOUNDATION/SOIL INTERFACE. POSITIVE SLOPES SHOULD BE GREATER THAN ONE PERCENT.
- F7. SUBSURFACE DRAINS MAY NE USED IN LOW AREAS OR AGAINST FOUNDATIONS WHERE POSITIVE SLOPES ARE NOT FEASIBLE. DRAINS TYPICALLY CONSIST OF FOUR-TO-SIX-INCH DIAMETER PERFORATED PIPES PLACED IN A TRENCH, BACKFILLED WITH AGGREGATES AND WRAPPED IN A GEOSYNTHETIC FABRIC. ADDITIONALLY, AN IMPERVIOUS MEMBRANE SHOULD BE PLACED BENEATH THE DRAIN IN THE TRENCH TO PREVENT MIGRATION OF SURFACE MOISTURE INTO DEEPER SOIL. WHEN A MEMBRANE IS ADJACENT TO A FOUNDATION, IT SHOULD BE CEMENTED TO THE FOUNDATION WITH A COMPATIBLE JOINT SEALANT TO PREVENT SEEPAGE THROUGH THE JOINT BETWEEN THE MEMBRANE AND THE FOUNDATION

TO	ACI
HEF	2
NG	BARS'.

		CONCRE				
GRADE 60 BARS						
CLEAR BAR SPACING BAR SIZE		2db (NOTE 3)	3db (NOTE 4)	4db OR MORE (NOTE 2)	2db	
<i>#</i> 7	TOP BARS	24	21	21	3/ "	
#3	OTHER BARS	19	16	16	74	
#4	TOP BARS	32	26	21	1"	
	OTHER BARS	25	20	16		
#5	TOP BARS	40	32	26	11/."	
#5	OTHER BARS	31	24	20	¹⁷ 4	
#6	TOP BARS	48	38	32	11/2"	
	OTHER BARS	37	29	24	¹ /2	
	TOP BARS	70	55	43	13/."	
π'	OTHER BARS	54	42	33	'/4	
#8	TOP BARS	80	61	48	2"	
#°	OTHER BARS	62	47	37	2	
# 9	TOP BARS	91	71	55	2 ¹ /."	
	OTHER BARS	70	54	42	44	
#10	TOP BARS	102	78	61	21/2 "	
	OTHER BARS	79	60	47	42	
#11	TOP BARS	113	87	68	23/."	
<i>#</i> ''	OTHER BARS	87	67	52	²⁷⁴	

LAP SPLICE TABLE

TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THEM. THE USE OF TABULATED VALUES IN THIS COLUMN IS DEPENDENT UPON A MINIMUM CONCRETE COVER OF 2010. IF MINIMUM COVER REQUIREMENTS ARE NOT MET, VALUES IN THE 2016 COLUMN SHALL BE USED.

THE USE OF TABULATED VALUES IN THIS COLUMN IS DEPENDENT UPON A MINIMUM CONCRETE COVER OF 1db. THE USE OF TABULATED VALUES IN THIS COLUMN IS DEPENDENT UPON A MINIMUM CONCRETE COVER OF 1.5db. ALL SPLICES ARE CLASS B TENSION SPLICES.

TENSION SPLICES SHALL BE USED IN ALL BEAMS, SLABS AND WALLS UNLESS NOTED OTHERWISE. WHEN LAPPING LARGER BAR WITH SMALLER BAR, LAP LENGTH FOR SMALLER BAR SHALL GOVERN RESPECTIVE

SPLICE. 8. ALL SPLICE LENGTHS NOTED IN INCHES.

No. 91285								
S/ONAL ENGIN	A	05/10/24	TLR	KTJ	KTJ	ISSUE	FOR RE	
$n \sim n$	NO.	DATE	DWN	снкр	APPVD			(
Airstn . John	_				RI	EVISIONS		

3db	4db
11/8"	11/2"
11/2"	2"
17⁄8"	2 ¹ ⁄2"
2¼"	3"
2 ⁵ ⁄8"	3½"
3"	4"
3 ³ ⁄8"	4 ¹ ⁄2"
3 ³ ⁄4"	5 "
41⁄8"	5 ¹ ⁄2"

A.B. ABV. ADD'L ADJ. A.F.F.A. ALT. APPROX. ARCH.A. B/BOT. BLDG.B. BLW. BM B.P. BRG. BRIDG.A. BTWN CANT.B. CAP. C.I.P. C.J. JOINT CLG. CLR. CMU COL. COMP CONC. CONN. CONST. CONT. CONTR. COORD. CTR. DBL. DEP. DIA. DIAG. DIM. DN. DL D.P. DWG DTL. DWL. EA. E.E. E.F. E.J. EL. ELEC. ELEV. EMBED. ENGR. E.O.P. E.O.S. EQ. EQUIP E.W. EXIST. EXP. FDN. FIN. FJ. JOINT F.F. FLR. F.O.M. FRMG. FT. FTG. GA. GALV. GB H.P. HORIZ. H.S. I.D.

ANCHOR BOLT ABOVE ADDITIONAL ADJACENT ABOVE FINISHED FLOOR ALTERNATE APPROXIMATE ARCHITECT /-URAL BOTTOM BUILDING BELOW BEAM BASE PLATE BEARING BRIDGING BETWEEN CANTILEVER CAPACITY CAST IN PLACE CONTROL /CONSTRUCTION CEILING CLEAR CONCRETE MASONRY UNIT COLUMN COMPOSITE CONCRETE CONNECT /-ED/-ION CONSTRUCT /-ION CONTINUE /-OUS /-ATION CONTRACTOR COORDINATE CENTER DOUBLE DEPRESSION DIAMETER DIAGONAL DIMENSION DOWN DEAD LOAD DRILLED PIER DRAWING DETAIL DOWEL EACH EACH END EACH FACE EXPANSION JOINT ELEVATION ELECTRICAL ELEVATION EMBEDMENT ENGINEER EDGE OF DECK EDGE OF SLAB EQUAL EQUIPMENT EACH WAY EXISTING EXPANSION FOUNDATION FINISH FORMED CONSTRUCTION FAR FACE FLOOR FACE OF MASONRY FRAMING FEET FOOTING GAGE GALVANIZED GRADE BEAM HIGH POINT HORIZONTAL HIGH STRENGTH INSIDE DIAMETER

STRUCTURAL ENGINEERING ABBREVIATIONS

I.F.

IN.

INT.

JST.

JT.

KLF

KSI

KSF

LB.

L.E.

LLBB

LLH

LLV

L.P.

L.W.

MATL.

MAX.

MEZZ.

MFR.

MIN.

MISC.

N.F.

N.I.C.

N.T.S

NO.

0.C.

0.D.

0.F.

OPNG.

OPP.

PAR.

PERP.

PL.

PLF

PSF

PSI

R.E.

REINF.

REM.

RET.

REV.

SECT.

SF

SIM.

SJ.

SP.

SQ.

STD.

STIFF.

STIR.

STL.

S.W.

SYM.

т/-т

TEMP.

TYP.

T&B

V.I.F.

W.F.

W.P.

WT.

W/

W/0

SPEC.

LL

INSIDE FACE INCHES INTERIOR JOIST JOINT KIPS KIPS PER LINEAR FOOT KIPS PER SQUARE INCH KIPS PER SQUARE FOOT POUND LEFT END LIVE LOAD LONG LEG BACK TO BACK LONG LEG HORIZONTAL LONG LEG VERTICAL LOW POINT LONG WAY /LIGHT WEIGHT MATERIAL MAXIMUM M.B.S. METAL BUILDING SYSTEM MECH. MECHANICAL MEZZANINE MANUFACTURER MINIMUM MISCELLANEOUS NEAR FACE NOT IN CONTRACT NUMBER NOT TO SCALE ON CENTER OUTSIDE DIAMETER OUTSIDE FACE OPENING OPPOSITE PARALLEL PERPENDICULAR PLATE POUNDS PER LINEAR FOOT POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH RIGHT END REINFORCE /-ED/-ING/-MENT REMAINDER REQ'D REQUIRED RETAINING REVERSE SCHED. SCHEDULE SECTION SQUARE FOOT SIMILAR SAWCUT CONSTRUCTION JOINT SPACES SPECIFICATIONS SQUARE STANDARD STIFFENERS STIRRUPS STEEL STRUCT. STRUCTURAL SHORT WAY SYMMETRICAL TOP OF - TOP TEMPERATURE T.O.S. TOP OF SLAB TYPICAL TOP AND BOTTOM U.N.O. UNLESS NOTED OTHERWISE VERT. VERTICAL VERIFY IN FIELD WIDE FLANGE WORK POINT WEIGHT W.W.R. WELDED WIRE REINFORCEMENT WITH WITHOUT AND ΔT DIAMETER OR ROUND NUMBER

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

FOUNDATION GENERAL NOTES OCALA, FLORIDA, 34471 SHAW SUBSTATION APPROVED KTJ drawn <u>TLR</u> DATE _____05/02/24 CHECKED KTJ DRAWING NUMBER DEU-SH-F-00 gai consultants SHT. NO. <u>1</u> OF <u>1</u> REV PITTSBURGH OFFICE • 385 EAST WATERFRONT DRIVE, HOMESTEAD, PA 15120-5005 GAI DRAWING FILE NO. OEU-SH-F-00

EVIEW DESCRIPTION