

SHORING AND RESHORING:

- 1.-SHORING AND RESHORING DRAWINGS SHALL BE PREPARED BY A STATE OF FLORIDA REGISTERED SPECIALTY ENGINEER WITH A MINIMUM OF TEN YEARS OF EXPERIENCE IN SHORING AND RESHORING DESIGN AND DETAILING.
- 2.-SHORING AND RESHORING DRAWINGS SHALL INCLUDE AT LEAST THE FOLLOWING ITEMS:
 - 2.1.-LOCATION, SIZE, TYPE AND CAPACITY OF ALL SHORING.
 - 2.2.-LOCATION, SIZE, TYPE, AND CAPACITY OF ALL RESHORING.
 - 2.3.-LOCATION, SIZE, AND TYPE OF ALL BLOCKING, MUD SILLS, TEMPORARY LATERAL BRACING AND OTHER ACCESSORIES REQUIRED TO ADEQUATELY AND SAFELY SUPPORT AND BRACE THE STRUCTURE DURING CONSTRUCTION.
 - 2.4.-INSTALLATION PROCEDURE, SEQUENCE OF INSTALLATION, LOAD RELIEF AND REMOVAL OF ALL SHORING AND RESHORING.
- 3.-SHORING AND RESHORING SUBMITTAL FOR APPROVAL SHALL INCLUDE AT LEAST TWO COPIES FOR THE BUILDING DEPARTMENT, ONE FOR THE ENGINEER OF RECORD, ONE FOR THE THRESHOLD INSPECTOR, AND ONE FOR THE ARCHITECT.
- 4.-DESIGN, DETAIL AND ERECT FORMS, SHORING AND RESHORING IN COMPLIANCE WITH ACI 347R-14, PROJECT SPECIFICATIONS, AND THESE NOTES. FORMS, SHORING AND RESHORING SHALL BE DESIGNED FOR THE WEIGHT OF THE FLOOR OR ROOF, A CONSTRUCTION LOAD OF 50 PSF, AND FOR THE CUMULATIVE LOADS OF THE SUPPORTED HORIZONTAL CONCRETE MEMBERS. USE A DESIGN FACTOR OF SAFETY OF 3 FOR WOOD SHORES AND 2 FOR METAL SHORES.
- 5.-THE MAXIMUM SUPERIMPOSED CONSTRUCTION LOAD APPLIED TO FLOORS SUPPORTING SHORES OR RESHORES SHALL NOT EXCEED 75% OF THE DESIGN LIVE LOAD SPECIFIED FOR SLABS (AND JOISTS WHERE APPLICABLE) AND 60% OF THE LIVE LOAD SPECIFIED FOR BEAMS. NO CONSTRUCTION LOAD SHALL BE APPLIED TO ANY MEMBER UNTIL THE CONCRETE IS A MINIMUM OF 14 DAYS OLD AND THE 7 DAY STRENGTH THIS 70% OF THE SPECIFIED 28 DAY STRENGTH.
- 6.-FORMS MAY BE REMOVED 72 HOURS AFTER CONCRETE POUR PROVIDED THAT CONCRETE STRENGTH IS 70% OF THE SPECIFIED 28 DAY STRENGTH AND NOT LESS THAN 3500 PSI. RESHORE EACH BAY IMMEDIATELY AFTER FORMS ARE STRIPPED AND REMOVED. REMOVAL OF FORMS IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. REMOVAL OF FORMS SHALL BE CARRIED OUT IN SUCH A WAY AS TO NOT DAMAGE THE STRUCTURE, INSURE SAFETY AND PREVENT CREEP DEFLECTION OF STRUCTURAL MEMBERS. MINIMUM LIVE LOAD NOT TO BE LESS THAN 50 PSF, FOR COVERED WALKWAYS TO BE 150 PSF.

SPECIAL INSPECTIONS & TESTING NOTES

- 1.-SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE SECTIONS. SIGNED COPIES OF ALL TESTS AND INSPECTIONS REPORTS SHALL BE FILED WITH THE DEPARTMENT OF BUILDINGS THROUGH THE APPLICANT. SPECIAL INSPECTION SHALL FOLLOW GUIDELINE FOR THRESHOLD BUILDING AS DEFINED IN THE CODE.
- 2.-G.C. SHALL PROVIDE THE TESTING AGENCY THE FOLLOWING:
 - 2.1.-A FULL SET OF STRUCTURAL DRAWINGS AND GENERAL NOTES.
 - 2.2.-SUFFICIENT NOTICE, AS AGREED AT THE START OR THE PROJECT, PRIOR TO THE WORK TO PERFORM TESTING WITHOUT DELAYING THE WORK.
 - 2.3.-EASY ACCESS TO ALL MATERIALS AND COMPONENTS TO BE TESTED.
- 3.-THE TESTING AGENCY SHALL SUBMIT RESULTS OF ALL TESTS TO THE OWNER AND ARCHITECT. THE TESTING AGENCY WILL BE RESPONSIBLE FOR CONDUCTING AND INTERPRETING THE TESTS AND WILL PREPARE REPORTS WHICH STATE WHETHER OR NOT THE RESULTS COMPLY WITH THE CONTRACT DOCUMENTS. REPORTS SHALL SUMMARIZE THE TYPE OF TEST, THE LOCATION OR COMPONENT TESTED, AND RECOMMEND ANY REMEDIAL MEASURES REQUIRED. THE REPORT SHALL ALSO NOTE ANY OTHER DEVIATIONS FROM THE CONTRACT DOCUMENTS.
- 4.-MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTOR:
 - 4.1.-THRESHOLD: CURRENTLY REGISTERED AS SPECIAL INSPECTOR BY THE STATE OF FLORIDA FOR ALL ITEMS LISTED BELOW.
 - 4.2.-EXCAVATION, STRUCTURAL FILLS, SOIL BEARING, AND RELATED GEOTECH INSPECTIONS: LICENSED PROFESSIONAL ENGINEER WITH RELEVANT EXPERIENCE.
 - 4.3.-REINFORCED CONCRETE: LICENSED PROFESSIONAL ENGINEER WITH RELEVANT EXPERIENCE.
 - 4.4.-MASONRY: CURRENT ICC STRUCTURAL MASONRY CERTIFICATION AND TWO YEARS OR RELEVANT EXPERIENCE.
 - 4.5.-WELDING: CURRENT AWS CERTIFIED WELDING INSPECTOR.
 - 4.6.-HIGH STRENGTH BOLTING AND STEEL FRAMING: LICENSED PROFESSIONAL ENGINEER WITH RELEVANT EXPERIENCE.
- 5.-THE FOLLOWING ITEMS OF WORK, AS APPROPRIATE, SHALL BE SUBJECT TO SPECIAL INSPECTION:
 - 5.1.-GENERAL
 - 5.1.1.-STRUCTURAL STABILITY DURING CONSTRUCTION
 - 5.2.-FOUNDATIONS
 - 5.2.1.-SUBGRADE
 - 5.2.2.-COMPACTION OF FILL
 - 5.2.3.-PIERS, WALLS, AND FOOTINGS, PILE CAPS IF APPLICABLE.
 - 5.3.-CONCRETE
 - 5.3.1.-CONCRETE MIX QUALITY AND STRENGTH AND PLACEMENT OPERATIONS (SEE ADDITIONAL NOTES BELOW)
 - 5.3.2.-REBAR PLACEMENT.
 - 5.3.2.-FORMWORK.
 - 5.4.-MASONRY.
 - 5.4.1.-MASONRY MATERIALS.
 - 5.4.2.-MASONRY STRENGTH.
 - 5.4.3.-GROUT AND MORTAR MIX QUALITY AND STRENGTH AND CONSTRUCTION OPERATIONS
 - 5.4.4.-REBAR PLACEMENT AND GROUTING
 - 5.5.-THE OWNER WILL RETAIN AN INDEPENDENT TESTING AGENCY TO CARRY OUT THE SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS SEE NOTES BELOW FOR ADDITIONAL TESTS, ETC. REQUIRED FOR WELDING AND CONCRETE.
 - 5.6.-CONCRETE TESTING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING CODE. REPORTS OR ALL CONCRETE POURS AND THE LABORATORY CYLINDER TEST REPORTS CORRESPONDING TO THE PERIOD OR POUR SHALL BE SUBMITTED AT A PERIOD NOT TO EXCEED TEN DAYS FROM CONCRETE POUR. CONCRETE TESTING SHALL BE AS FOLLOWS:
 - 5.6.1.-MIXER TESTING: COMPRESSION TEST SAMPLES WILL BE TAKEN DIRECTLY FROM THE MIXER IN ACCORDANCE WITH ASTM C172, MADE AND CURED IN ACCORDANCE WITH ASTM C31, AND TESTED AT THE AGE OF 28 DAYS IN ACCORDANCE WITH ASTM C039.
 - 5.6.1.1.-FOUR (4) TEST CYLINDERS WILL BE MOULDED FOR EACH 150 CUBIC YARDS OR FRACTION THEREOF FOR EACH TYPE AND STRENGTH OF CONCRETE PLACED IN ANY ONE DAY'S CONCRETING.
 - 5.6.1.2.-ONE (1) CYLINDER WILL BE TESTED AT 7 DAYS AND THREE CYLINDERS TESTED AT 28 DAYS
 - 5.6.1.3.-EACH CYLINDER SHALL BE SUITABLY IDENTIFIED BY A MARK AND THE AREA WHERE THE CONCRETE IS PLACED SHALL BE RECORDED.
 - 5.6.2.-ADDITIONAL TESTS: TEST CYLINDERS WILL BE MADE FROM CONCRETE TAKEN OUT OF THE BUCKET, HOPPER, OR FORMS AS DIRECTED BY THE ENGINEER DESIGNATED FOR INSPECTION WHEN CONCRETE IS PLACED FROM AN INTERMEDIATE CONVEYANCE.
 - 5.6.2.1.-THESE TEST CYLINDERS SHALL BE SEPARATE AND DISTINCT FROM THOSE MADE FROM THE MIXER AND SHALL BE MADE FROM THE SAME BATCH, CURED AND TESTED IN THE SAME MANNER AS DESCRIBED FOR THE SAMPLES TAKEN FROM THE MIXER.
 - 5.6.2.2.-THE NUMBER OR TEST CYLINDERS MADE FROM THE CONCRETE TAKEN OUT OF THE BUCKET, HOPPER OR FORMS MAY BE REDUCED TO A MINIMUM OF ONE (1) SET OF FOUR (4) CYLINDERS FROM EVERY 150 CUBIC YARDS OR FRACTION THEREOF, FOR EACH STRENGTH OF CONCRETE PLACED IN ANY ONE DAY'S CONCRETING.
 - 5.6.3.-WHEN CONCRETE IS PLACED DIRECTLY FROM THE MIXER INTO THE FORMS, WITHOUT ANY INTERMEDIATE CONVEYANCE, THE ABOVE ADDITIONAL CYLINDERS WILL NOT BE REQUIRED.
 - 5.6.4.-SLUMP TESTS IN COMPLIANCE WITH ASTM C143.
 - 5.6.5.-ENTRAINED AIR CONTENT COMPLIANCE WITH ASTM C231 FOR AIR ENTRAINED CONCRETE.
 - 5.6.6.-CONCRETE TEMPERATURE AT POUR AND DENSITY TEST FOR LIGHT WEIGHT CONCRETE.
 - 5.6.7.-IN CONFORMANCE WITH THE BUILDING CODE, THE AUTHORITY WILL ASSIGN A LICENSED PROFESSIONAL ENGINEER, APPROVED BY THE ENGINEER OF RECORD, TO SUPERVISE THE TESTING OF THE MATERIALS AND THE INSPECTION OF CONCRETE CONSTRUCTION AND TO CHECK THAT ALL REQUIRED TESTS ARE MADE AND LABORATORY TESTS ARE SUBMITTED. THE ENGINEER SHALL HAVE THE RIGHT TO ORDER THE CONTRACTOR TO MAKE SUCH CHANGES OF THE MIX OF CONCRETE AS REQUIRED TO PRODUCE CONCRETE OF THE NECESSARY STRENGTH AND TO REPORT TO THE BUILDING DEPARTMENT SUPERINTENDENT ANY DEVIATION FROM THE REQUIREMENTS OF THE CODE AS INDICATED BY RECORDS OR INSPECTION AND REPORTS OR TEST.
 - 5.7.-POST-TENSION CABLE PLACEMENT FOR PT SLAB AND POST-TENSION JACKING FORCE VERIFICATION.
 - 5.8.-STORE FRONT, WINDOWS AND DOORS PER HURRICANE DESIGN REQUIREMENTS.
 - 5.9.-RAILINGS.
 - 6.-A PRE CONSTRUCTION SURVEY OF ALL EXISTING BUILDINGS AND UTILITIES AT PROJECT SITE SHALL BE PERFORMED BY THE CONTRACTOR. THE SURVEY SHALL PROVIDE THE OWNER AND THE FOUNDATION CONTRACTOR WITH DOCUMENTATION OF EXISTING CONDITIONS IN CASE OF FUTURE DAMAGE CLAIM. THE SURVEY SHOULD BE CONDUCTED BY A PROFESSIONAL ENGINEER EXPERIENCED IN SUCH SURVEY WORK. THE SURVEY SHOULD INCLUDE PHOTOGRAPHS, DIMENSIONED SKETCHES, AND MEASUREMENTS OF AMBIENT VIBRATIONS.

RAILINGS

BALCONY, TERRACE, AND STAIR RAILINGS SHALL BE DESIGNED BY THE MANUFACTURER'S REGISTERED ENGINEER IN THE STATE OF FLORIDA TO RESIST A LOAD OF 50 PLF, APPLIED IN ANY DIRECTION AT TOP OF SUCH BARRIER. POSTS SHALL BE DESIGNED TO RESIST THE REACTION FROM THE RAILINGS OR A MINIMUM LOAD OF 200 LBS. HANDRAILS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST A LOAD OF NOT LESS THAN 200 LBS. APPLIED IN ANY DIRECTION AND AT ANY POINT ON THE RAIL. GUARDRAIL SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED FOR A CONCENTRATED LOAD OF 200 LBS. APPLIED AT ANY POINT AND IN ANY DIRECTION AT THE TOP OF THE GUARDRAIL. GUARDRAIL SYSTEMS LOCATED OTHER THAN IN DWELLING UNITS SHALL BE DESIGNED AND CONSTRUCTED FOR A LOAD OF 50 PLF APPLIED HORIZONTALLY AT THE REQUIRED GUARDRAIL HEIGHT AND A SIMULTANEOUS LOAD OF 100 PLF APPLIED VERTICALLY DOWNWARD AT THE TOP OF THE GUARDRAIL. THE GUARDRAIL SYSTEM SHALL ALSO BE DESIGNED AND CONSTRUCTED TO RESIST A 200 LBS. CONCENTRATED HORIZONTAL LOAD APPLIED ON A 1 SQ. FT. AREA AT ANY POINT IN THE SYSTEM INCLUDING INTERMEDIATE RAILS OR OTHER ELEMENTS SERVING THIS PURPOSE. LOADING CONDITIONS ABOVE SHALL NOT BE APPLIED SIMULTANEOUSLY, BUT EACH SHALL BE APPLIED TO PRODUCE MAXIMUM STRESS IN EACH OF THE RESPECTIVE COMPONENTS OR ANY OF THE SUPPORTING COMPONENTS.

SPECIALTY ENGINEERING :

- 1.-RULES ESTABLISHED BY THE FLORIDA STATE BOARD OF PROFESSIONAL ENGINEERS REQUIRE THAT DESIGN RESPONSIBILITIES ASSIGNED TO SPECIALTY ENGINEER BE CLEARLY DEFINED.
- 2.-THE SPECIALTY ENGINEER IS TO BE RETAINED BY THE SUPPLIER OF THE SPECIALTY ITEM OR MAY BE AN EMPLOYEE OF THAT SUPPLIER.
- 3.-ALL COSTS CONNECTED WITH THE USE OF A SPECIALTY ENGINEER SHALL BE INCLUDED IN THE BID PRICE OF THE SUPPLIER FOR THAT ITEM IN QUESTION.
- 4.-THE FOLLOWING DESIGN RESPONSIBILITIES ARE ASSIGNED TO SPECIALTY ENGINEERS - IN ALL CASES CALCULATIONS, WORKING DRAWINGS, ETC. ARE TO BE SENT TO THE ENGINEER OF RECORD. THE SPECIALTY ENGINEER MUST BE REGISTERED AS A PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA AND ALL WORK MUST BE SIGNED AND SEALED.
 - 4.1.-HAND RAIL, GUARD RAIL, STAIR RAIL, CURTAIN WALL & STOREFRONT SYSTEM, TO BE A SPECIALTY ENGINEER.
 - 4.2.-FORM WORK, SHORING, AND BACK SHORING TO BE BY A SPECIALTY ENGINEER.
 - 4.3.-ALL MATERIALS TESTING REQUIRED BY THE SPECIAL INSPECTION PLAN AND BUILDING CODES, SUCH AS CONCRETE CYLINDER TESTS, SLUMP TESTS, MASONRY GROUT TESTS, AND ANY OTHER SPECIAL TESTS REQUIRED BY FIELD CONDITIONS.
 - 5.-HAND RAIL, BALCONY RAIL, STAIR RAIL, ETC.
 - 5.1.-THE SPECIALTY ENGINEER RESPONSIBLE FOR RAILING SHALL SUBMIT SIGNED AND SEALED DRAWING AND CALL CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE FOR THE NOTED WORK. IN ADDITION, WORKING DRAWINGS SHOWING ALL DIMENSIONS, THICKENS, AND ALLOYS SHALL BE SUBMITTED.
 - 5.2.-THE DRAWINGS SHALL INCLUDE ALL PROVISIONS FOR ANCHORAGE OF THE SPECIALTY ITEMS TO THE STRUCTURAL WITH ALL CONNECTIONS IN EACH CONDITION. APPROVAL BY EOR.
 - 6.-FORMING, SHORING AND BACK SHORING THE FORMING, SHORING AND BACK SHORING PLANS SHALL INCLUDE, AT A MINIMUM THE FOLLOWINGS :
 - 6.1.-COMPLETE FORMING PLANS, INCLUDING ALL SLABS, BEAMS, AND COLUMNS FORMS WITH BRACES AS REQUIRED.
 - 6.2.-SHORING AND RESHORING PLAN, TO INCLUDE LEVELS OF SHORING REQUIRED, TYPE AND SPACING OF SHORES AND BACK SHORES, CONCRETE STRENGTHS REQUIRED FOR STRIPPING AND DETAILED PROCEDURES FOR THE ENTIRE OPERATION
 - 6.3.-DESIGN AND DETAILING OF MUD SILLS IF REQUIRED BY THE JOB AND SOIL STRENGTH OF COMPACTION REQUIREMENTS TO CARRY THE MUD SILLS.
 - 6.4.-ANY MULTISTORY FORMING AND SHORING MUST BE COMPLETELY DETAILED WITH ALL LATERAL BRACING SHOWN AND SPLICING REQUIREMENTS IF APPLICABLE.
 - 6.5.-COMPLETE CALCULATIONS OF ALL PARTS OF THE SYSTEM ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD.
 - 6.6.-WHERE WOOD IS USED, MINIMUM TYPE AND GRADE MUST BE SPECIFIED OR IF THE WOOD IS NOT COMPLETELY GRADE MARKED, THE SPECIALTY ENGINEER RESPONSIBLE FOR THE FORMING SHORING AND BACK SHORING DESIGN MUST INSPECT ALL PHASES OF THE FALSE WORK SYSTEMS. THE ENGINEER OF RECORD/THRESHOLD WILL NOT INSPECT OR APPROVE UNGRADED MARKED WOOD USED IN THESE SYSTEMS.
 - 6.7.-IF FILLED SHORES ARE USED, "T" HEADS SHALL BE PROVIDED ON ALL PERIMETER SHORES. THESE SLABS ARE INCLUDED IN ACCORDANCE WITH ACI 318 WITH DEFLECTIONS CHECKED, NOT BY THE ARBITRARY SLAB DEPTH RATIOS. THE SHORING AND BACK SHORING SEQUENCE MUST KEEP THESE SLABS AND CRACKED BY CONSTRUCTION LOADS, OR THE DESIGN DEFLECTIONS WILL BE EXCEEDED.
 - 7.-CRANE AND OTHER HEAVY EQUIPMENT, INCLUDING FOUNDATION AND SHORING :
 - 7.1.-AN ENGINEER SHALL BE EMPLOYED BY THE SHELL CONTRACTOR FOR ALL WORK ASSOCIATED WITH TOWER CRANES, INCLUDING FOUNDATION, BRACING HOLES IN STRUCTURE, SHORING, ETC. THIS ALSO APPLIES TO ANY HEAVY EQUIPMENT THAT IS TO BE ATTACHED TO THE STRUCTURE SUCH AS PUMPS.
 - 7.2.-COMPLETE CALCULATIONS IN ACCORDANCE WITH FLORIDA BUILDING CODE, WIND LOADS OF ALL ELEMENTS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD, AS WELL AS SIGNED AND SEALED DRAWING IF APPLICABLE.
 - 7.3.-THE ENGINEER DOING THIS WORK SHALL INSPECT ALL PHASES OF IT TO ENSURE COMPLIANCE WITH HIS DESIGN.

ANCHORS IN CONCRETE AND MASONRY

- 1.-POST INSTALLED ANCHORS SHALL BE USED ONLY WHERE SPECIFIED ON STRUCTURAL DRAWINGS.
 - 2.-THE INSTALLATION OF POST INSTALLED ANCHORS AS REPAIR FOR MISSING OR MISPLACED CAST IN-PLACE ANCHORS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD (EOR) .
 - 3.-EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
 - 4.-POST-INSTALLED ANCHORS SPECIFIED ON THE DRAWINGS FORM THE BASIS OF DESIGN. SUBSTITUTIONS WITH EQUAL OR BETTER ANCHORS SHALL BE SUBMITTED FOR APPROVAL BY EOR.
 - 5.-SUBMITTAL OF ALL PROPOSED PRODUCTS, WITH TECHNICAL DATA AND CURRENT ICC-ESR REPORTS IS REQUIRED FOR REVIEW AND APPROVAL BY EOR. ADDITIONAL CALCULATIONS FOR SPECIFIC APPLICATIONS MAY BE REQUIRED BY THE EOR.
 - 6.-ALL ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI) IN CONJUNCTION WITH EDGE DISTANCE, SPACING AND EMBEDMENT DEPTH AS INDICATED ON THE DRAWING .
 - 7.-THE CONTRACTOR SHALL ARRANGE FOR A MANUFACTURER'S FIELD REPRESENTATIVE TO PROVIDE INSTALLATION TRAINING FOR ALL PRODUCTS TO BE USED, PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND BE MADE AVAILABLE TO THE EOR AND INSPECTOR AS REQUESTED.
 - 8.-ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AA) AS CERTIFIED THROUGH ACI/CRSI (ACI 318). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF INSTALLATION.
 - 9.-ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS (ACI 318).
 - 10.-POST-INSTALLED ANCHORS UTILIZED IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F SHALL ADDITIONALLY BE QUALIFIED PER THE PROVISIONS FOR EARTHQUAKE LOADING IN THE APPLICABLE ACCEPTANCE CRITERIA.
- CONCRETE ANCHORS:**
- 11.-MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH AC 355.2 AND ICC-ES AC193 FOR CRACKED AND UNCRACKED CONCRETE.
 - 12.-ADHESIVE ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED AND UNCRACKED CONCRETE.
 - 13.-CAST-IN-PLACE INSERTS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC446 FOR CRACKED AND UNCRACKED CONCRETE.
- MASONRY ANCHORS:**
- 14.-MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES OR AC106.
 - 15.-ADHESIVE ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58.
- POWER ACTUATED FASTENERS:**
- 16.-POWER ACTUATED FASTENERS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC70.
- SPECIAL INSPECTION:**
- 17.-SPECIAL INSPECTION REQUIREMENTS:
 - 17.1.-PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE BUILDING CODE AND PER THE CURRENT ICC-ES REPORT.
 - 17.2.-ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY AN INSPECTOR SPECIALLY APPROVED FOR THAT PURPOSE BY THE BUILDING OFFICIAL (ACI 318)

HAMBRO SYSTEM:

- 1.-THE FLOOR DECK CONSIST OF THE "HAMBRO" D-500 COMPOSITE FLOOR SYSTEM WITH A 4 1/2" CONCRETE SLAB ACTING COMPOSITE WITH AN 22" DEEP STEEL JOIST CONTRACTOR TO SUBMIT SHOP DRAWINGS AND DESIGN DATA FOR ENGINEER'S REVIEW.

DIMENSIONS

- 1.-WHILE THE POSITION OF MOST CONCRETE, STEEL, AND DECKING MEMBERS ARE DEFINED DIRECTLY ON THE STRUCTURAL DRAWINGS THERE ARE INSTANCES WHERE REFERENCE MUST BE MADE TO ARCHITECTURAL OR OTHER DRAWINGS TO DEDUCE A DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR SUCH DIMENSIONAL COORDINATION AND CROSS REFERENCING.
- 2.-WITH THE POSITION OF MOST CONCRETE, MASONRY, STEEL, AND DECKING MEMBERS THUS FIXED, THE CONTRACTOR SHALL STILL NEED TO DEDUCE AND COMPUTE OTHER DIMENSIONS THAT ARE DERIVATIVE FROM THE BASIC DIMENSIONS. THESE MAY INCLUDE TRUE DISTANCE BETWEEN WORK POINTS, TRUE LENGTH, AND ORIENTATION OF MEMBERS, AND SO ON. SUCH DERIVATION OR DIMENSIONS IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 3.-TO ENSURE ACCURACY OF THESE DERIVED DIMENSIONS, THE CONTRACTOR IS TO PRODUCE LAYOUT DRAWINGS FOR COORDINATION WITH OTHER TRADES, AS WELL AS DETAILED SHOP DRAWINGS, ALTHOUGH THEY WILL NOT BE CHECKED. THESE LAYOUT DRAWING ARE TO BE SUBMITTED AT THE SAME TIME AS THE RELEVANT SHOP DRAWING.

DEFERRED DESIGNS

- SHOP DRAWINGS BY SPECIALTY ENGINEER FOR POST TENSIONED VEHICULAR IMPACT BARRIER CABLES (SECTION 032.30).
- SHOP DRAWINGS BY SPECIALTY ENGINEER FOR POST TENSIONED CONCRETE SLAB (SECTION 03314).
- SHOP DRAWINGS FOR MECHANICAL EQUIPMENT AND PLUMBING ROOF SUPPORTS (SECTION 15010 & 15140).
- SHOP DRAWINGS BY SPECIALTY ENGINEER FOR ROOF MOUNTED BUILDING MAINTENANCE SYSTEM (SECTION 11014).
- POOL RELATED COORDINATION WITH ANY ATTACHMENT TO THE CONCRETE STRUCTURE.
- SHOP DRAWINGS BY SPECIALTY ENGINEER COLD STUD METAL FRAMING (SECTION 05400) AND PERFORATED METAL GARAGE PANELS (SECTION 05702).
- STEEL STRUCTURES (SECTION 05120) AT THE ENTRY CANOPY.
- ATTACHMENT OF GLASS RAILING AND ALUMINUM RAILING (SECTION 05520 & 05522) TO THE CONCRETE STRUCTURE.
- ATTACHMENT OF STEEL LADDERS TO THE CONCRETE STRUCTURE (SECTION 05500)
- PRE ENGINEERED STRUCTURAL STEEL TRUSS/FRAMES FOR MAINTENANCE BUILDING.

SLAB ON GRADE NOTES:

- 1- PROVIDE 6" SLAB OVER VAPOR BARRIER WITH 6"x6"-W2.9xW2.9 WELDED WIRE FABRIC.(UNLESS OTHERWISE NOTED ON PLAN).
- 2- ALL POROUS FILL MATERIALS SHALL BE A CLEAN GRANULAR MATERIAL WITH 100% PASSING NO.1/2 SIEVE AND NO MORE THAN 5% PASSING A NO. 4 SIEVE. POROUS FILL SHALL BE COMPACTED TO 95% MAX. DRY DENSITY PER ASTM D - 698.
- 3- ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-185. LAP ADJOINING PIECES AT LEAST ONE FULL MESH.
- 4- SAWCUT JOINTS SHALL BE MADE AS SOON AS THE CONCRETE HAS CURED SUCH THAT THE BLADE DOES NOT DISLODGE AGGREGATE AND THE CUT EDGES DO NOT CRUMBLE. DO NOT WAIT MORE THAN 8 HOURS AFTER CONCRETE HAS "SET".
- 5- SLAB JOINTS SHALL BE FILLED WITH APPROVED MATERIAL TO CONFORM WITH ASTM C920-87 AND ASTM C 1193-91. THIS SHOULD TAKE PLACE AS LATE AS POSSIBLE, PREFERABLY 4 TO 6 WEEKS AFTER THE SLAB HAS BEEN CAST. PRIOR TO FILLING, REMOVE ALL DEBRIS FORM THE SLAB JOINTS, THEN FILL WITH EPOXY RESIN IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- 6- SLAB TO BE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+ 1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
- 7- IN ORDER TO AVOID CONCRETE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE (OR CHECKERBOARD) PATTERN. THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET. THE MAXIMUM SPACING OF JOINTS SHALL BE 25 FEET.
- 8- THE ALTERNATE WIRES OF THE WELDED WIRE FABRIC MUST BE PRECUT AT THE SLAB CONTRACTION JOINT LOCATIONS TO CREATE A "WEAKENED PLANE". WITHOUT CUTTING THE ALTERNATE WIRES, THE STRENGTH OF THE WIRE WILL PREVENT THE SLAB FORM CRACKING (SEPARATING) AT THE JOINT AND THE SLAB MAY BEGIN TO CRACK ELSEWHERE.
- 9- THE USE OF POLYPROPYLENE FIBERS (IN LIEU OF WELDED WIRE FABRIC) IS PROHIBITED WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.
- 10- SLAB HAS BEEN DESIGNED ON BASED ON UNIFORM LIVE LOAD OF 50 PSF.
- 11- THE FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 360-10.

THRESHOLD BUILDING:

THIS BUILDING IS A THRESHOLD BUILDING AND SHALL FOLLOW THE REQUIREMENTS OF THE FBC, 2020 7TH EDITION, CHAPTER 11, SECTION 110.8.1. I HAVE BEEN HIRED BY THE OWNER TO ACT AS THE THRESHOLD ENGINEER FOR THIS PROJECT. I HAVE SUBMITTED A THRESHOLD BUILDING PLAN WHICH OUR INSPECTORS WILL FOLLOW WHILE PERFORMING THE THRESHOLD BUILDING INSPECTIONS. THIS PLAN HAS BEEN SUBMITTED TO THE BUILDING DEPARTMENT FOR APPROVAL. THE PURPOSE FOR THIS THRESHOLD INSPECTION PLAN IS TO PROVIDE SPECIFIC INSPECTION PROCEDURES AND SCHEDULES SO THAT THE BUILDING CAN BE ADEQUATELY INSPECTED FOR COMPLIANCE WITH THE PERMITTED DOCUMENTS. THE CONTRACTOR'S CONTRACTUAL OR STATUTORY OBLIGATIONS ARE NOT RELIEVED BY ANY ACTION OF THE THRESHOLD BUILDING INSPECTOR. WE WILL DETERMINE THAT THE SHORING PROFESSIONAL ENGINEER HAS INSPECTED THE SHORING AND RESHORING FOR CONFORMANCE WITH THE SHORING AND RESHORING PLANS SUBMITTED TO THE ENFORCING AGENCY

LETTER OF COMPLIANCE:

I, AS THE THRESHOLD BUILDING INSPECTOR OF THIS BUILDING, UPON COMPLETION OF THE BUILDING AND PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, WILL FILE A SIGNED AND SEALED STATEMENT WITH THE ENFORCEMENT AGENCY THAT STATES THAT "TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE ABOVE DESCRIBED CONSTRUCTION OF ALL LOAD-BEARING STRUCTURAL COMPONENTS COMPLIES WITH THE PERMITTED DOCUMENTS PER SECTION 110.8.4.4 OF 2020 EDITION FBC & CHAPTER 633, FLORIDA STATUTES, AS WELL AS THE SHORING AND RESHORING PLANS SUBMITTED TO THE ENFORCING AGENCY PER SECTION 110.8.4.3 OF THE FBC 2020 7TH EDITION

TEMPORARY WORK NOTES

- 1.-ALL TEMPORARY WORK SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE.
- 2.-IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE PROPER SHEETING, SHORING, AND BRACING WHEREVER NECESSARY. SHOP DRAWINGS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER AND RETAINED BY THE CONTRACTOR. TEMPORARY BRACING OR THE STEEL FRAME REQUIRED TO MAINTAIN PLUMBNESS AND STABILITY DURING CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE STEEL ERECTOR.
- 3.-CONSTRUCTION LOADS SHALL NOT EXCEED THE CODE REDUCED DESIGN LIVE LOAD PER SQUARE FOOT. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING TO SUPPORT ANY LOADS WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
- 4.-THE DRAWINGS INDICATE THE COMPLETED STRUCTURE. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ALL TEMPORARY MEASURES NECESSARY FOR ERECTION.

WELDING:

- 1. ALL WELDING SHOULD BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY A.W.S. BY CERTIFIED WELDERS
- 2. CONTRACTORS TO USE E-70 SERIES LOW HYDROGEN ELECTRODES.

ALUMINUM:

- 1.-ALUMINUM WORK SHALL COMPLY WITH THE ALUMINUM ASSOCIATION, INC. "SPECIFICATIONS FOR ALUMINUM STRUCTURES", "THE COMMENTARY ON SPECIFICATIONS FOR ALUMINUM STRUCTURES", "THE ENGINEERING DATA FOR ALUMINUM STRUCTURES" AND THE ALUMINUM DESIGN MANUAL (ADM1-2015).
- 2.-ALUMINUM WORK SHALL COMPLY WITH THE FLORIDA BUILDING CODE, 2020 7TH EDITION.
- 3.-ALUMINUM TUBING, BARS, AND PLATES SHALL CONFORM TO ALLOY 6061-T6, U.N.O.
- 4.-WELDING OF ALUMINUM PARTS AND MEMBERS SHALL DONE WITH AN INERT-GAS-SHIELDING ARC OR RESISTANCE WELDING PROCESS.
- 5.-ALUMINUM SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEERS

ALLOWANCE

REINFORCING AND CONCRETE ALLOWANCE:
 THE CONTRACTOR SHALL PROVIDE A 5% OF STEEL REINFORCEMENT TOTAL WEIGHT ALLOWANCE.
 THE CONTRACTOR SHALL ALSO PROVIDE A 10% OF TOTAL CONCRETE VOLUME ALLOWANCE TO USE AT HIS DISCRETION DURING CONSTRUCTION.
 THE CONTRACTOR SHALL GIVE CREDIT TO THE OWNER FOR ANY UNUSED PORTION OF THIS ALLOWANCE AT THE END OF THE PROJECT.



RUBEN J. PUJOL
 ARCHITECT
 A.T.A. AR # 0010458 N.A.C.A.
 PHONE : (305) 9 68 - 215 5
 12237 S.W. 204 TERRACE
 MIAMI, FLORIDA 33177



SEAL: Ruben J Pujol
 2022.11.04
 13:14:09
 -04'00"

CONSULTANTS:
 Adonal Design &
 Construction, Inc.
 2307 S. Douglas Rd
 Ste. 501
 Miami, FL 33145

project information:
**NEW MULTIFAMILY UNITS
 (19 UNITS)**
 895 NW 45 VE
 MIAMI, FL 33126

- project history:
- △ REV 10/22/2022 BDC & COORD.
- △ REV
- △ REV
- △ REV
- △ REV

DATE: JUNE, 2022
 JOB NUMBER:
**TITLE: COVER SHEET
 GENERAL NOTES**