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STRUCTURAL SPECIFICATIONS CONT.

MASONRY

1. HOLLOW LOAD BEARING UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE II. MINIMUM NET COMPRESSIVE UNIT STRENGTH = 2000 PSI. (NET AREA COMPRESSIVE MASONRY STRENGTH F'M = 1500 PSI).

2. MORTAR SHALL BE TYPE S AND CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATION) WITH A MINIMUM AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1800 PSI (TYPE S).

3. COARSE GROUT SHALL CONFORM TO ASTM C476:
   A) 2500 PSI AT 28 DAYS.
   B) 1/4" MAXIMUM AGGREGATE.
   C) 8" – 11" SLUMP.

4. CODES AND STANDARDS:
   A) SPECIFICATIONS FOR MASONRY STRUCTURES – ACI 530.1/ASCE 6/ TMS 602 IS INCLUDED BY REFERENCE IN ITS ENTIRETY.
   B) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES – ACI 530/ ASCE 5/TMS 402.

5. A REINFORCED TIE BEAM SHALL BE PROVIDED IN ALL WALLS SHOWN ON THE STRUCTURAL DRAWINGS AT EACH FLOOR, THE ROOF, AND AT TOP OF ANY PARAPET WALL. USE GALVANIZED MESH-TYPE CELL CAPS. PROVIDE CORNER BARS AT ALL BEAM CORNERS TO MATCH HORIZONTAL BARS.

6. UNLESS NOTED OTHERWISE, TIE BEAMS SHALL BE AS FOLLOWS:
   A) ROOF LEVEL: DOUBLE COURSE OF KNOCK-OUT BLOCKS WITH (1) #5 IN EACH 8" COURSE OR (2) #5 IN EACH 12" COURSE.

7. VERTICAL BARS SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM OF BAR AND AT 8'_0" O.C. MAXIMUM WITH A MINIMUM CLEARANCE OF 1/2" FROM MASONRY. THE CLEAR DISTANCE BETWEEN BARS SHALL NOT EXCEED ONE BAR DIAMETER, OR MORE THAN 1". CENTER BARS IN WALLS U.N.O.

8. VERTICAL REINFORCING SHALL BE AS SHOWN ON THE DRAWINGS. FILL CELLS WITH COARSE GROUT AS SPECIFIED. PROVIDE ACI 90 DEGREE STANDARD HOOKS INTO FOOTING AND ROOF TIE BEAM. LAP SPLICE VERTICAL REINFORCEMENT ABOVE FOOTING AND ABOVE EACH FLOOR LEVEL UNLESS NOTED OTHERWISE. MAINTAIN VERTICAL REINFORCING SHOWN ON PLANS ABOVE AND BELOW MASONRY OPENINGS. CONTINUE FOUNDATION DOWELS BELOW ALL MASONRY OPENINGS.

9. REINFORCED FILL CELLS ARE TO BE CLEAN AND FREE OF ANY FOREIGN MATERIAL OR DEBRIS. REMOVE ANY INSULATING MATERIAL FROM CELLS, INCLUDING POLYSTYRENE INSULATING INSERTS, PRIOR TO GROUT POUR.

10. REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNERS AND WHERE BENDS OR HOOKS ARE DETAILED ON THE PLANS.

11. REINFORCING BARS SHALL BE LAPPED PER MASONRY LAP SCHEDULE MINIMUM (UNLESS OTHERWISE NOTED) WHERE SPLICED AND SHALL BE WIRED TOGETHER.

12. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICALS. DOWELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCEMENT.

13. PROVIDE HORIZONTAL WALL REINFORCING (9 GA.) HOT DIPPED GALVANIZED LADDER TYPE DUR-O-WALL (OR EQUIVALENT) AT 16" O.C. JOINT REINFORCING SHALL CONFORM TO ASTM A-951.

14. PROVIDE HORIZONTAL JOINT REINFORCEMENT AT DOORS AND WINDOWS FOR FIRST AND SECOND BLOCK COURSE ABOVE AND BELOW APERTURES. RUN REINFORCING CONTINUOUS OR EXTEND TWO FEET FROM APERTURE EDGE.

15. WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AT SPLICES AND SHALL CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT IN THE LAPPED DISTANCE.

16. CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE OF MASONRY IN EACH GROUT POUR WHEN THE POUR HEIGHT EXCEEDS 5'. CLEANOUTS TO BE SAW-CUT 4" X 4".

17. GROUT POUR HEIGHT SHALL NOT EXCEED 24'. PLACE GROUT IN 5' MAX. LIFTS HEIGHTS.

18. CONSOLIDATE GROUT POURS AT THE TIME OF PLACEMENT BY MECHANICAL MEANS AND RECONSOLIDATE AFTER INITIAL WATER LOSS AND SETTLEMENT.

19. ALL MASONRY FOUNDATION STEMWALLS AND RETAINING WALLS SHALL BE FULLY GROUTED.

20. STORE BLOCKS ON PALLETS AND COVER WITH PLASTIC SHEETING.

21. PLACE MASONRY IN RUNNING BOND WITH 3/8" MORTAR JOINTS. PROVIDE COMPLETE COVERAGE FACE SHELL MORTAR BEDDING, HORIZONTAL AND VERTICAL. FULLY MORTAR WEBS IN ALL COURSES OF PIERS, COLUMNS, AND PILASTERS AND ADJACENT TO GROUTED CELLS.

22. SEE DRAWINGS FOR MASONRY CONTROL JOINT LOCATIONS. SPACE AT 26'-0" O.C. AT EXTERIOR WALLS, 32'-0" O.C. AT INTERIOR WALLS UNLESS NOTED OTHERWISE.

23. SUBMITTALS:
   A) SUBMIT PROPOSED GROUT MIX DESIGN PRIOR TO CONSTRUCTION.
   B) SUBMIT PROPOSED MORTAR MIX DESIGN PRIOR TO CONSTRUCTION.
   C) SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS. INCLUDE ALL REQUIRED DIMENSIONS AND ELEVATIONS.
   D) SUBMIT COMPRESSIVE STRENGTH TESTS OF PROPOSED MASONRY UNITS PRIOR TO CONSTRUCTION. MASONRY UNITS ARE TO BE TESTED IN ACCORDANCE WITH ASTM C140.

24. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING TESTS:
   A) SAMPLE AND TEST GROUT IN ACCORDANCE WITH ASTM C1019 FOR EACH 5000 SQ. FT. OF MASONRY.
   B) SLUMP TESTS – ASTM C143.
   C) MASONRY PRISM TEST IN ACCORDANCE WITH ASTM C1314. PROVIDE ONE SET OF 3 PRISMS PRIOR TO CONSTRUCTION AND DURING CONSTRUCTION FOR EACH 5000 SQ. FT. OF WALL.

25. PROVIDE 8" DEEP PRECAST REINFORCED CONCRETE LINTELS OVER ALL MASONRY OPENINGS NOT SHOWN TO HAVE A STRUCTURAL BEAM. MINIMUM END BEARING = 8". LINTEL WIDTH TO MATCH MASONRY WIDTH.

26. TOPS OF PARTIALLY CONSTRUCTED WALLS SHALL BE COVERED WITH VISQUEEN WHENEVER RAIN OCCURS AND AT THE END OF THE WORK DAY.

DRILL-IN BOLTS, SCREWS AND DOWELS

1. EPOXY BOLTS SHALL BE ASTM A307 THREADED BOLTS WITH NUTS AND WASHERS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE "EPOXY-TIE SET" ANCHORS BY SIMPSON STRONG-TIE OR EQUAL.

2. ANCHORING ADHESIVE SHALL BE A TWO-COMPONENT SOLID EPOXY-BASED SYSTEM SUPPLIED IN MANUFACTURER'S STANDARD SIDE-BY-SIDE CARTRIDGE AND DISPENSED THROUGH A STATIC-MIXING NOZZLE SUPPLIED BY THE MANUFACTURER. EPOXY SHALL MEET THE MINIMUM REQUIREMENTS OF ASTM C-881 SPECIFICATION FOR TYPE I, II, IV AND V, GRADE 3, CLASS B, C AND D AND MUST DEVELOP A MINIMUM 12,650 PSI COMPRESSIVE YIELD STRENGTH AFTER 7-DAY CURE.

3. EXPANSION BOLTS SHALL BE "WEDGE-ALL" ANCHORS BY SIMPSON STRONG-TIE OR EQUAL.

4. EXPANSION BOLTS SHALL BE NON-BOTTOM BEARING, WEDGE-STYLE EXPANSION ANCHOR FOR USE IN SOLID CONCRETE OR GROUT FILLED MASONRY WITH A ONE-PIECE NON-CORROSIVE CLIP FOR UNIFORM HOLDING CAPACITY THAT INCREASES AS TENSION IS APPLIED. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

5. MASONRY SCREWS SHALL BE 1/4" DIAMETER WITH 1-1/2" MINIMUM EMBEDMENT INSTALLED IN DRILLED HOLES USING AN APPROPRIATE BIT DIAMETER.

6. SCREWS SHALL BE MADE FROM TEN HUNDRED SERIES COLD-ROLLED STEEL AND SHALL BE FLUOROCARBON COATED. PROVIDE "TITEN" SCREWS BY SIMPSON STRONG-TIE OR EQUAL.

7. DRILL-IN REBAR DOWELS SHALL BE SET USING A TWO-PART EPOXY AS DESCRIBED ABOVE.

8. NAILS, SCREWS, BOLTS AND/OR OTHER FASTENERS OF ANY KIND AND DESCRIPTION SHALL BE OF DOMESTIC (USA) MANUFACTURER; NO FOREIGN MADE FASTENERS, NOR FASTENERS MADE OF FOREIGN MADE MATERIALS WILL BE ALLOWED ON THE PROJECT.

PRE-ENGINEERED WOOD TRUSSES

1. THIS SECTION DEFINES PRE-ENGINEERED, PREFABRICATED, METAL PLATE CONNECTED WOOD ROOF TRUSSES AS "WOOD TRUSSES".

2. WOOD TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", PUBLISHED BY THE AMERICAN FOREST AND PAPER ASSOCIATION, "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION", PUBLISHED BY THE TRUSS PLATE INSTITUTE, TPI 1.

3. THE WOOD TRUSS MANUFACTURER MUST PARTICIPATE IN A CODE APPROVED THIRD PARTY QUALITY ASSURANCE PROGRAM SUCH AS THE TRUSS PLATE INSTITUTE'S "QUALITY CONTROL INSPECTION PROGRAM" OR EQUIVALENT.

4. WOOD TRUSSES SHALL BE DESIGNED FOR THE LOAD CRITERIA PROVIDED ON THE STRUCTURAL DRAWINGS. MINIMUM BOTTOM CHORD DEAD LOAD = 10 PSF.

5. DURATION OF LOAD FACTORS:
   ROOF 0.6DL+WL 1.33
   ROOF DL+LL 1.25
   FLOOR DL+LL 1.00

6. THE WOOD TRUSS SYSTEM SHALL BE DESIGNED BY THE DELEGATED SYSTEM ENGINEER WHO SHALL PREPARE DESIGN CALCULATIONS AND SUPERVISE THE PREPARATION OF SHOP DRAWINGS INCLUDING, BUT NOT LIMITED TO:
   A) TRUSS PLACEMENT PLAN SHOWING ALL TRUSSES, GIRDERS, AND OVER-BUILD TRUSS FRAMING.
   B) TRUSS TO TRUSS METAL CONNECTORS WITH MODEL NUMBER AND MANUFACTURER.
   C) DIMENSIONED LOCATION OF ALL TRUSSES.
   D) TRUSS BRACING.
   E) DESIGNATION OF EACH TRUSS REFERENCED TO THE TRUSS DESIGN CALCULATIONS.

7. INDIVIDUAL TRUSSES SHALL BE DESIGNED BY THE DELEGATED SYSTEM ENGINEER INCLUDING:
   A) DIMENSIONED TRUSS ELEVATION OF EACH INDIVIDUAL TRUSS WITH CHORDS AND WEBS, REFERENCED TO THE TRUSS SYSTEM DRAWINGS.
   B) TRUSS SPACING.
   C) DESIGN LOADS CRITERIA AND LOAD COMBINATIONS.
   D) LOAD DURATION FACTORS, CONDITION OF USE FACTORS AND ANY LIVE LOAD REDUCTIONS TAKEN.
   E) APPLICABLE CODES USED.
   F) WOOD SPECIES, GRADE, AND MOISTURE CONTENT.
   G) METAL CONNECTOR PLATES TYPE, SIZE, GAUGE, ETC.
   H) SUPPORT REACTIONS AND MINIMUM BEARING LENGTH.
   I) DEFLECTIONS.
   J) PERMANENT CONTINUOUS TRUSS TO TRUSS BRACING.
   K) INDIVIDUAL MEMBER STIFFENERS.
   L) TRUSS SPLICE DETAILS, INCLUDING PIGGY BACK TRUSSES.
   M) IDENTIFICATION OF ANY COMPUTER PROGRAM USED.

8. DEFLECTION LIMITATIONS: (UNLESS NOTED OTHERWISE)
   A) ROOF LIVE LOAD = L/360
   B) ROOF TOTAL LOAD = L/240
   C) FLOOR LIVE LOAD = L/480
   D) FLOOR TOTAL LOAD = L/360

9. FIRE RETARDANT WOOD IS NOT ALLOWABLE.

10. SUPPORTS: WOOD TRUSSES SHALL BE DESIGNED WITH AT LEAST ONE HORIZONTAL ROLLER CONNECTION PER SPAN SO THAT NO HORIZONTAL REACTIONS ARE INDUCED ON SUPPORTS UNDER DEAD OR LIVE LOADS.

11. REFER TO THE ARCHITECTURAL DRAWINGS. IF A CEILING OR ADEQUATE FURRING STRIPS ARE NOT PROVIDED, TRUSS BOTTOM CHORDS MUST BE DESIGNED AS LATERALLY UNBRACED.

12. TRUSS ERECTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING OF TRUSS SYSTEM DURING CONSTRUCTION.

13. HANDLING, INSTALLATION, AND BRACING OF WOOD TRUSSES SHALL BE IN ACCORDANCE WITH TPI/WTCA BCSI.

14. ALL TRUSS TO TRUSS AND TRUSS TO SUPPORT CONNECTIONS SHALL BE DESIGNED BY THE DELEGATED ENGINEER.

15. CONNECTION HARDWARE SHALL BE SUPPLIED BY SIMPSON STRONG-TIE CO., INC, OR BY APPROVED EQUIVALENT MANUFACTURER. CONNECTION HARDWARE IS TO BE FULLY FASTENED PER MANUFACTURER'S REQUIREMENTS.

16. MINIMUM COATING REQUIREMENTS FOR METAL CONNECTORS, TRUSS PLATES, AND FASTENERS:
   A) INTERIOR –ZINC GALVANIZED (G90)
   B) EXTERIOR –GALVANIZED (G185) OR HOT DIP GALVANIZED (HDG)
   C) EXTERIOR COASTAL AREAS –STAINLESS STEEL (TYPE 316L)

17. PILING OF PLYWOOD ON WOOD TRUSSES IS NOT ALLOWED.

18. INSTALLATION OF BROKEN, DAMAGED, WARPED, OR IMPROPERLY REPAIRED WOOD TRUSSES IS NOT ALLOWED.

19. IMPROPER OR UNAUTHORIZED FIELD ALTERATIONS OF WOOD TRUSSES IS NOT ALLOWED.

20. CONNECTIONS AND BRACING MUST BE INSTALLED BEFORE LOADING SHEATHING ON THE TRUSSES.

21. GABLE END WALL TRUSSES MUST TRANSFER LATERAL LOADS TO THE SHEAR WALLS AND/OR THE ROOF DIAPHRAGM.

22. WOOD TRUSSES THAT DO NOT MEET INTERIOR LOAD BEARING WALLS MUST BE SHIMMED. DO NOT PULL WOOD TRUSSES DOWN TO INTERIOR BEARINGS.

23. WOOD TRUSS DELEGATED ENGINEER MUST BE PROVIDED WITH A COPY OF THESE DRAWINGS AND SPECIFICATIONS.

24. SUBMITTALS SHALL HAVE A COVER SHEET CONTAINING THE NAME, ADDRESS, AND LICENSE NUMBER OF DELEGATED ENGINEER, PROJECT IDENTIFICATION INFORMATION, AND AN INDEX OF ATTACHED DRAWINGS. ALL SUBMITTED CALCULATIONS AND SHOP DRAWINGS SHALL BEAR THE SEAL OF THE DELEGATED ENGINEER.

15. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO VISUALLY INSPECT ALL DECK WELDS AND FASTENERS.
   A) "NOVOMESH 850, NOVOCON 1050", BY PROPEX OPERATING COMPANY.
   B) "DRAMIX 65/60" BY BEKAERT

4. FIBERS DO NOT REPLACE REBAR OVER GIRDERS, WHICH ARE USED TO CONTROL NEGATIVE MOMENT.

5. FIBERS ARE TO BE ADDED AT THE BATCH PLANT AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR UNIFORM AND COMPLETE DISPERSION.

STRUCTURAL PRECAST CONCRETE

1. MANUFACTURER SHALL HAVE BEEN ENGAGED IN THE DESIGN AND PRODUCTION OF PRECAST PRESTRESSED COMPONENTS FOR AT LEAST FIVE (5) YEARS.

2. PRECAST MANUFACTURER SHALL BE A PARTICIPANT IN THE PCI PLANT CERTIFICATION PROGRAM AND SHALL BE A MEMBER OF PCI.

3. THE STRUCTURAL PRECAST SYSTEM AND ALL ACCESSORIES SHALL BE DESIGNED BY A LICENSED DELEGATED ENGINEER FOR THE DESIGN LOADS AND OTHER CRITERIA INDICATED HEREIN AND ON THE STRUCTURAL DRAWINGS.

4. PRECAST DESIGN LOADS:
   A) PRECAST MEMBERS SHALL BE CAPABLE OF SUPPORTING THE SUPERIMPOSED LOADS AS GIVEN IN THE CONTRACT DOCUMENTS, IN ADDITION TO THE SELF-WEIGHT OF THE PRECAST MEMBER, TOPPINGS, ETC.
   B) EFFECTS TO BE CONSIDERED BY THE PRECAST DESIGN ENGINEER IN THE DESIGN OF THE PRECAST ELEMENTS AND CONNECTIONS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
      1) GRAVITY LOADS
      2) WIND LOADS
      3) SEISMIC LOADS AND DETAILING
      4) DIFFERENTIAL TEMPERATURE BETWEEN PANEL FACES
      5) ECCENTRICITY OF APPLIED LOADS
      6) LATERAL EARTH PRESSURE
      7) LOADS FROM MATERIALS SUPPORTED BY PANELS
      8) VOLUMETRIC CHANGES DUE TO TEMPERATURE, CREEP AND SHRINKAGE
      9) HANDRAILS
      10) IMPACT ON PANELS DESIGNED AS GUARDRAILS
      11) ERECTION LOADS
      12) LOAD COMBINATIONS SHALL BE IN ACCORDANCE WITH THE BUILDING CODE

5. WHERE STRUCTURAL CONCRETE TOPPING IS SHOWN, PRECAST MEMBERS SHALL BE DESIGNED FOR COMPOSITE ACTION. MINIMUM THICKNESS = 2".

6. WHERE TOPPING IS RECESSED OR NOT SPECIFIED, PRECAST MEMBERS SHALL BE DESIGNED FOR NON-COMPOSITE ACTION.

7. PRECAST CONCRETE: 5000 PSI AT 28 DAYS. BATCH PLANT AND MIXING EQUIPMENT SHALL BE AT LEAST EQUAL TO THAT SPECIFIED BY ASTM C94, SPECIFICATION FOR READY MIX CONCRETE.

8. CODES AND STANDARDS: (USE THE VERSION ADOPTED BY THE BUILDING CODE)

ACI 318	BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
ASTM A416	STEEL STRAND, UNCOATED SEVEN-WIRE FOR PRESTRESSED CONCRETE
ASTM C33	CONCRETE AGGREGATES
ASTM C150	PORTLAND CEMENT
ASTM C330	LIGHTWEIGHT AGGREGATES FOR STRUCTURAL CONCRETE
PCI MNL 120	PCI DESIGN HANDBOOK – PRECAST AND PRESTRESSED CONCRETE
PCI MNL 124	DESIGN FOR FIRE RESISTANCE OF PRECAST PRESTRESSED CONCRETE
PCI MNL 116	MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF STRUCTURAL PRECAST CONCRETE PRODUCTS
PCI MNL 135	TOLERANCE MANUAL FOR PRECAST AND PRESTRESSED CONCRETE CONSTRUCTION

9. MANUFACTURER SHALL MAINTAIN RECORDS OF CONCRETE PRODUCTION AND PLACEMENT PER PCI MNL 116.

10. CONTRACTOR IS SOLELY RESPONSIBLE FOR TEMPORARY BRACING AND SHORING UNTIL THE PRECAST SYSTEM IS COMPLETELY INSTALLED.

11. MANUFACTURER SHALL BE LISTED BY THE UNDERWRITERS FIRE RESISTANCE DIRECTORY OR SUBMIT/RATIONAL DESIGN OF STRUCTURAL MEMBERS FOR FIRE RESISTANCE PER MNL-124.

12. FURNISH CERTIFICATION THAT PRESTRESS STRAND COMPLIES WITH SPECIFICATIONS WHEN REQUIRED.

13. MANUFACTURER SHALL NOTIFY ARCHITECTS AND GENERAL CONTRACTOR IN WRITING PRIOR TO CONSTRUCTION WHEN MEMBER CAMBER IS EXPECTED TO EXCEED THE PCI DESIGN HANDBOOK SAFE LOAD AND CAMBER TABLE VALUES.

14. CONCRETE MATERIALS:
   A) PORTLAND CEMENT TYPE – ASTM C 150.
   B) AGGREGATES – ASTM C330 OR C33.
   C) CONCRETE SHALL BE ZERO (0) SLUMP.

15. SAND-CEMENT GROUT: (WHERE REQUIRED)
   A) ONE PART PORTLAND CEMENT
   B) 2-1/2 PARTS SAND
   C) 6" SLUMP

16. STRUCTURAL COMPOSITE CONCRETE TOPPING:
   A) 3000 PSI COMPRESSIVE STRENGTH EXCEPT 5000 PSI AT EXTERIOR EXPOSURES AND PARKING GARAGES.
   B) 6X6 W1.4XW1.4 WWF REINFORCEMENT FURNISHED IN SHEETS AND INSTALLED ON CHAIRS OR RUNNERS AT 3'-0" ON CENTER EACH WAY AT MID-DEPTH OF TOPPING.
   C) POLYPROPOLENE AND NYLON FIBEROUS REINFORCING ARE NOT PERMITTED.

17. PREPARE THE PRECAST CONCRETE SURFACE TO RECEIVE TOPPING IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

18. ALL WELDED CONNECTIONS SHALL BE DONE BY AWS CERTIFIED WELDERS. PROVIDE CERTFICATES UPON REQUEST.

19. VERIFY THE EXACT SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS PRIOR TO DESIGN OF PRECAST.

20. NO OPENINGS MAY BE CUT OR DRILLED THROUGH THE PRECAST MEMBERS WITHOUT PRIOR WRITTEN APPROVAL FROM THE DELEGATED ENGINEER AND PROJECT A/E.

21. SUPPLEMENTARY STEEL HANGERS IF REQURIED, SHALL BE PROVIDED BY THE MANUFACTURER.

22. PRE-STRESSED CONCRETE SLABS SHALL BE FREE OF DEFECT. ANY DEFECTIVE MEMBERS SHALL BE EVALUATED BY THE DELEGATED ENGINEER AND A/E FOR REPAIR OR REPLACEMENT.

23. PRE-STRESSED CONCRETE UNITS SHALL BE ERECTED INTO FINAL POSITION UNDER THE SUPERVISION OF AN EMPLOYEE OF THE MANUFACTURER, OR A COMPETENT ERECTOR.

24. ANY GAPS BETWEEN PLANK AND PARALLEL WALLS OR BEAMS ABOVE AND BELOW CREATED BY CAMBER OR UNEVEN SURFACES ARE TO BE PACKED SOLID WITH GROUT.

25. PRE-STRESSED CONCRETE UNITS SHALL BEAR ON BEARING PADS AT END SUPPORTS AS REQUIRED BY PRECAST MANUFACTURER TO ENSURE PROPER BEARING PER PCI STANDARDS. BEARING PADS SHALL BE MANUFACTURED EXPRESSLY FOR BEARING PURPOSES.

26. IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE SUPPORTING STRUCTURE HAS ATTAINED MINIMUM REQUIRED STRENGTH PRIOR TO ERECTION OF PRECAST MEMBERS.

27. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRUE AND LEVEL BEARING SURFACES FOR THE PRECAST COMPONENTS.

28. SUBMITTALS:
   A) SUBMIT SHOP DRAWINGS OF PRECAST CONCRETE COMPONENTS: ERECTION PLAN, CONNECTION DETAILS, DESIGN LOADS, LOCATIONS OF ALL OPENINGS AND REACTIONS OF ALL PRECAST ELEMENTS SUPPORTED BY STRUCTURAL ELEMENTS SHOWN ON THE DRAWINGS. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE DELEGATED ENGINEER.
   B) SIGNED AND SEALED DESIGN CALCULATIONS, PREPARED BY THE DELEGATED ENGINEER, SHALL BE SUBMITTED WITH SHOP DRAWINGS.
   C) AWS WELDER CERTIFICATIONS, IF REQUIRED.
   D) PRESTRESS STRAND SPECIFICATION, IF REQUIRED.
   E) CERTIFICATION LETTER FOR PCI COMPLIANCE SHALL BE SUBMITTED WITH SHOP DRAWINGS.

29. SUBMITTED SHOP DRAWINGS MUST BE CHECKED AND SIGNED BY THE GENERAL CONTRACTOR.

30. STRUCTURAL REVIEW SHALL BE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS REGARDING ARRANGEMENT AND SIZES OF MEMBERS AND THE CONTRACTOR'S INTERPRETATION OF THE DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY FOR THE DESIGN OF THE PRECAST AND PRECAST CONNECTIONS NOT SPECIFIED IN THE CONTRACT DOCUMENTS.

METAL DECKING

1. METAL DECK WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL DECK INSTITUTE.

2. METAL ROOF DECK SHALL BE 1 1/2" DEEP, 22 GA., WIDE RIB TYPE B AND GALVANIZED. (VULCRAFT 1.5B22 OR EQUIVALENT.)

3. FASTEN ROOF DECK WITH 5/8" DIAMETER PUDDLE WELDS AT EACH SUPPORT PER 36" WIDTH AND #10 TEK SCREWS AT MIDSPAN OF SIDELAPS AS INDICATED ON PLANS.

4. MINIMUM FASTENING AT BUILDING PERIMETER OF DECK SHALL BE 5/8" DIAMETER PUDDLE WELDS AT 6" O.C.

5. METAL DECK AND SHEET METAL COATING DESIGNATION:
   A) WITH STRUCTURAL CONCRETE OR INSULATING CONCRETE TOPPING – G90
   B) WITHOUT STRUCTURAL CONCRETE OR INSULATING CONCRETE TOPPING – G60

6. INSTALL ALL DECKING 3 SPAN CONTINUOUS.

7. DO NOT HANG OR ATTACH DUCTWORK, CONDUIT, PIPING, EQUIPMENT, CEILINGS, ETC. FROM METAL DECKING.

8. ROOF DECK OPENINGS 12" DIAMETER OR LARGER ARE TO HAVE SUPPORT ANGLES PER TYPICAL DECK OPENING DETAIL, INCLUDING OPENINGS FOR ROOF SUMP PANS.

9. PRIME AND PAINT ALL FIELD WELDS AFTER INSPECTION WITH A GALVANIZED TOUCH-UP PAINT. (SEE NOTE BELOW)

10. SUBMITTALS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING LAYOUT OF DECK, TYPE OF DECK, ALL CONNECTIONS INCLUDING END WELDS, SEAM WELDS, INTERMEDIATE WELDS, AND ALL ACCESSORY MATERIAL SUCH AS CLOSURES, SUMPS FOR DRAINS, ETC.

11. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO VISUALLY INSPECT ALL DECK WELDS AND FASTENERS.

STRUCTURAL SPECIFICATIONS
S0.2
1/8"=1'

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Pasco County
Fire & Rescue Station
No. 17
New Port Richey, Florida

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I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THESE DRAWINGS COMPLY W/ ALL RELEVANT BUILDING CODES

FGA PROJECT NUMBER
19039

ISSUE DATE
05-25-20

SHEET NUMBER
S0.2

02-28-20 Gregg Pattee U:\Accounts\FGARC\FGARC19005 - Pasco Fire Station 17\DESIGN\S\S0.2.dwg