### **GENERAL NOTES**

- ALL STRUCTURAL ITEMS FOR THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROPRIATE PROVISIONS OF EACH OF THE FOLLOWING:
- A. BUILDING CODE: VIRGINIA UNIFORM STATEWIDE BUILDING CODE(VUSBC) 2018
- B. STRUCTURAL STEEL:
  - THE A.I.S.C. "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS ANSI/AISC 360."
- C. CONCRETE: A.C.I. "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318.
- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL OTHER DISCIPLINES DRAWINGS (INCLUDING ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL), IF THERE ARE QUESTIONS BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT AND/OR STRUCTURAL ENGINEER IN WRITING PRIOR TO PERFORMING WORK. IN ANY CASE OF QUESTIONS BETWEEN THE NOTES, DETAILS, AND SPECIFICATIONS, THE MOST RIGID
- REQUIREMENTS SHALL GOVERN.
- DETAILS DESIGNATED AS "TYPICAL" APPLY TO ALL AREAS OF SIMILAR CONDITIONS UNLESS OTHERWISE NOTED. MECHANICAL/PLUMBING/ELECTRICAL OPENINGS SHALL BE COORDINATED BY CONTRACTOR. FINAL SIZES AND LOCATIONS TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL
- CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AND COORDINATE ALL DIMENSIONS, DETAILS, AND EXISTING CONDITIONS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT IN WRITING TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER.
- CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT ALL WORK IN PROGRESS UNTIL THE STRUCTURE IS COMPLETED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR CONCRETE AND STRUCTURAL STEEL A MINIMUM OF TWO (2)
- WEEKS PRIOR TO THE START OF FABRICATION. THE OWNER SHALL ENGAGE AN INDEPENDENT TESTING AND INSPECTION AGENCY ACCEPTABLE TO THE ARCHITECT AND/OR STRUCTURAL ENGINEER TO INSPECT THE FOLLOWING:
- A. SOIL
- B. STEEL HIGH STRENGTH BOLTED CONNECTIONS AND WELDED CONNECTIONS IN THE SHOP AND FIELD C. CONCRETE - INSPECT REINFORCING PLACEMENT, INSPECT AND TEST CONCRETE QUALITY
- CONTRACTOR SHALL COORDINATE INSPECTIONS REQUIRED FOR THE ABOVE AGENCIES. 10. ALL REQUESTS FOR SUBSTITUTIONS OF MATERIALS OR DETAILS SHOWN IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL DURING THE BIDDING PERIOD. ONCE BIDS ARE ACCEPTED, PROPOSED SUBSTITUTIONS WILL BE CONSIDERED ONLY WHEN THEY ARE OFFICIALLY SUBMITTED WITH AN IDENTIFIED SAVINGS TO BE DEDUCTED FROM THE CONTRACT.
- THE WORK SHALL BE IN ACCORDANCE WITH APPROVED SUBMITTALS EXCEPT THAT THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECT'S APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES, OR SIMILAR SUBMITTALS, UNLESS THE CONTRACTOR HAS SPECIFICALLY NOTIFIED THE ARCHITECT OF SUCH DEVIATION AT THE TIME OF SUBMITTAL AND (1) THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION AS A MINOR CHANGE WORK. OR (2) A CHANGE ORDER OR CONSTRUCTION CHANGE DIRECTIVE HAS BEEN ISSUED AUTHORIZING THE DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA, SAMPLES, OR SIMILAR SUBMITTALS, BY THE ARCHITECT'S APPROVAL THEREOF

**DESIGN CRITERIA** 

SEE PLANS FOR ROOF DEAD AND LIVE LOADS SNOW LOADS:

GROUND SNOW LOAD, Pg = 35 PSF FLAT ROOF SNOW LOAD, Pf = 27.0 PSF \* MINIMUM SNOW LOAD USED FOR DESIGN = 27.0 PSF SNOW EXPOSURE FACTOR, Ce = 1.0 SNOW LOAD IMPORTANCE FACTOR, I = 1.0

THERMAL FACTOR, Ct = 1.1

\* FLAT ROOF SNOW LOAD TO BE ADJUSTED PER CODE FOR DRIFT, SLIDING, UNBALANCED LOADING, ETC.



ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE PROCEDURE

### FOUNDATION CONSTRUCTION NOTES

- STRUCTURAL COMPACTED FILL PLACED OVER UNDISTURBED VIRGIN SOIL HAVING AN WITH "THE GEOTECNICAL ENGINEERING REPORT" DATED JULY11, 2023 BY TRIAD ENGINEERING, INC. CAPACITY OF FOOTING SUBGRADE SHALL BE INSPECTED AND PLACING CONCRETE
- **REPLACED WITH LEAN CONCRETE**
- DESIGN, FURNISH, AND PLACE ALL TEMPORARY OR PERMANENT SUPPORTS, WHETHER PROJECT SITE
- PAVEMENT AREAS AND EXTENDING TEN (10) FEET BEYOND THEIR PERIMETERS. 5. THE EXISTING FILL MATERIALS BE REMOVED FROM THE NEW BUILDING FOOTPRINT TO A MINIMUM DEPTH OF 3 FEET BELOW THE DESIGN BEARING ELEVATION. EXTENDING AT
- MATERIAL IS MOISTURE CONDITIONED TO ACHIEVE THE REQUIRED COMPACTION. 6. THE REMAINING MATERIAL SHOULD BE HEAVILY PROOF-ROLLED WITH APPROPRIATE
- 7. CONTROL SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SO THAT FOUNDATION WORK WILL BE PERFORMED IN DRY CONDITIONS AND ON UNDISTURBED SOIL
- 8. THE CONTRACTOR SHOULD BE PREPARED TO IMPLEMENT, IF NECESSARY, TEMPORARY CAN INCLUDE SLOPING THE CUT AREAS TO APPROPRIATE SUMP PIT(S) AND PUMPING ACCUMULATED SURFACE RUNOFF FROM PRECIPITATION. ALL CUT AREAS SHOULD BE WILL PERMIT, TO HELP PREVENT INFILTRATION OF PRECIPITATION AND SUBSEQUENT UNSUITABLE SOIL CONDITIONS.
- SPRING MONTHS IS OFTEN FUTILE. THIS WILL BE VERY DEPENDENT UPON SEASONAL CONDITIONS AT THE TIME OF EARTHWORK CONSTRUCTION. ALSO, THE FINE-GRAINED EFFECTIVELY PLACED AND COMPACTED ONLY DURING DRIER SEASONS.
- FROM THE STRUCTURE IS MAINTAINED BOTH DURING AND AFTER CONSTRUCTION.
- TO OBTAIN THE REQUIRED COMPACTION. EACH LAYER SHOULD BE COMPACTED TO THE THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS.
- 12. EXCAVATIONS FOR FOOTINGS SHALL BE FINISHED BY HAND. 13. FOUNDATION CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND. BACKFILLING PROVIDED IT IS INSPECTED BY THE SOILS ENGINEER AND MEETS THE CRITERIA ABOVE.
- 15. ALL STRUCTURAL COMPACTED FILL AND BACKFILL IN BUILDING AND WITHIN 5'-0" OF BUILDING SHALL BE PLACED IN 12" MAXIMUM LOOSE LIFTS AND COMPACTED WITH A AS PER ASTM D-698 UNDER THE SUPERVISION OF A LICENSED SOILS ENGINEER.
- ORGANIC MATERIAL. STRIP ALL TOP SOIL. PRIOR TO PLACING FILL OR BACKFILL, OF THE MAXIMUM STANDARD PROCTOR DENSITY AS PER ASTM D-698 UNDER THE SUPERVISION OF A LICENSED SOILS ENGINEER.
- SHOULD BE OVER EXCAVATED TO AT LEAST 12 INCHES BELOW BEARING LEVELS AND SHOULD BE REPLACED WITH CONTROLLED SOIL FILL.
- CRUSHED STONE SHALL CONTAIN NO CLAY, SILT, OR ORGANIC MATERIAL 19. FOUNDATION ELEMENTS SHALL BE CONSIDERED CENTERED UNDER COLUMN
- CENTERLINES UNLESS OTHERWISE NOTED. FROM THE CLOSEST EDGE OF ANY UNDISTURBED SOIL OR OTHER FOUNDATION STRUCTURE. BOTTOM OF EXTERIOR FOOTINGS SHALL NOT BE LESS THAN 2'-6" BELOW
- FINISHED GRADE. 21. FOUNDATION CONCRETE SHOULD BE PLACED THE SAME DAY THAT EXCAVATIONS ARE RUNOFF.

- 24. WHERE SHALLOW ROCK IS ENCOUNTERED AT FOOTING BEARING ELEVATION, THE ROCK WITH CONTROLLED COMPACTED FILL.

## CONCRETE CONSTRUCTION NOTES

- 1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE A.C.I. "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318).
- 2. CONCRETE DESIGN MIXES SHALL CONFORM WITH ASTM C94, AND HAVE PROPERTIES AS INDICATED BELOW:
  - FOUNDATIONS, WALLS, AND PIERS:

#### SLABS-ON-GRADE:

- 3. SLUMP SHALL BE LIMITED TO 4 INCHES. FOR CONCRETE WITH HRWR (SUPER-P), SLUMP SHALL BE LIMITED TO 2-4 INCHES PRIOR TO ADDITION OF HRWR, AND A MAXIMUM OF 8 INCHES AFTER ADDITION OF HRWR.
- ONLY WITH LABORATORY DESIGN MIX APPROVAL. ALL ADMIXTURES SHALL CONTAIN NO MORE CHLORIDE IONS THAN ARE PRESENT IN MUNICIPAL DRINKING WATER. 5. CONCRETE MATERIALS SHALL BE AS INDICATED BELOW:
- A. PORTLAND CEMENT: ASTM C150, TYPE I/II B. FLY ASH: ASTM C618 - 15% - 25% OF CEMENTITOUS MATERIAL C. NORMAL-WEIGHT AGGREGATES: ASTM C33, 3/4" MAXIMUM D. WATER:
- 6. ADMIXTURES SHALL BE AS INDICATED BELOW: A. AIR-ENTRAINING ADMIXTURE: ASTM C260
- B. WATER REDUCING ADMIXTURE: ASTM C494, TYPE A WATER REDUCING AND RETARDING ADMIXTURE: ASTM C494 TYPE D
- WATER-REDUCING, ACCELERATING ADMIXTURE: ASTM C494 TYPE E
- ASTM D 2240. 8. ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL BARS SHALL BE SECURELY
- SUPPORTED AND WIRED IN PLACE PRIOR TO CONCRETE PLACEMENT 9. ALL WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A-185. 10. FIBER REINFORCING SHALL BE MONOFILAMENT POLYPROPYLENE FIBERS FOR
- SECONDARY REINFORCEMENT, ASTM C1116, TYPE III. 11. VAPOR RETARDER SHALL CONFORM TO ASTM E1745, CLASS C, WITH MINIMUM 10 MIL. THICKNESS



TO BEAR ON APPROVED RESIDUAL MATERIALS OR NEW UNDISTURBED VIRGIN SOIL OR ALLOWABLE BEARING CAPACITY OF 2500 POUNDS PER SQUARE FOOT IN ACCORDANCE VERIFIED BY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF VIRGINIA PRIOR TO

HAVE LOWER BEARING CAPACITIES THAN REQUIRED. MATERIALS SHALL BE REMOVED AND

SHORING, SHEETING, OR BRACING, SO THAT NO HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OCCURS TO EXISTING STRUCTURES, STREETS, OR UTILITIES ADJACENT TO

ANY OTHER DELETERIOUS MATERIALS WITHIN THE NEW STRUCTURE FOOTPRINT AND LEAST 5 FEET BEYOND THE FOOTPRINT AND BE REPLACED WITH NEW CONTROLLED FILL. THE EXISTING FILL CAN BE RE-USED FOR NEW FILL IF ORGANICS ARE EXCLUDED, AND THE EQUIPMENT TO RE-DENSIFY THE FILL AS WELL AS HELP IDENTIFY ANY UNSTABLE AREAS.

DE-WATERING MEASURES IN THESE AREAS DURING CONSTRUCTION. THESE MEASURES SEALED AT THE END OF EACH DAY, TO THE EXTENT WHICH CONSTRUCTION PRACTICALITY 22. PROVIDE SHEAR KEY IN ALL CONSTRUCTION JOINTS IN WALLS.

SOILS ARE RELATIVELY SENSITIVE TO MOISTURE FLUCTUATIONS AND TYPICALLY CAN BE

10. FILL MATERIALS SHOULD NOT CONTAIN ANY DEBRIS, WASTE, OR FROZEN MATERIALS AND BY WEIGHT. ALSO, MATERIALS CLASSIFIED AS OL, OH, OR PT ARE NOT SUITABLE FOR USE AS STRUCTURAL FILL PROVIDED THAT PROPER DRAINAGE, GRADING AND SLOPING AWAY 11. BEFORE COMPACTION, EACH LAYER SHOULD BE MOISTENED OR AERATED AS NECESSARY

REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY. FILL SHOULD NOT BE PLACED ON SURFACES THAT ARE MUDDY OR FROZEN OR HAVE NOT BEEN APPROVED BY TESTING AND/OR PROOF-ROLLING. FREE WATER SHOULD BE PREVENTED FROM APPEARING ON

14. ALL STRUCTURAL COMPACTED FILL SHALL CONSIST OF CLEAN, WELL- GRADED GRANULAR MATERIAL CONTAINING NO MORE THAN 12% NOR LESS THAN 5% BY WEIGHT OF MATERIAL DELETERIOUS MATERIAL. EXISTING ON SITE FILL/EXCAVATED MATERIAL MAY BE USED FOR

HEAVY VIBRATORY COMPACTOR TO AT LEAST 95% OF THE STANDARD PROCTOR DENSITY 16. ALL FILL AND BACKFILL SHALL BE PLACED ON VIRGIN SOIL THAT DOES NOT CONTAIN ANY PROOF-COMPACT SUBGRADE WITH A HEAVY VIBRATORY COMPACTOR TO AT LEAST 95%

17. ANY HARD ROCK WHICH IS ENCOUNTERED ABOVE THE PLANNED BEARING ELEVATION

18. CRUSHED STONE BASE FOR SLAB ON GRADE SHALL BE A CLEAN, FINE-GRADED MATERIAL WITH A MAXIMUM PARTICLE SIZE OF 3/4" AND AT LEAST 10%-30% PASSING A NO. 100 SIEVE.

20. NO FOOTINGS SHALL BE PLACED ABOVE 1 VERTICAL ON 2 HORIZONTAL SLOPE EXTENDED

COMPLETED TO REDUCE THE POTENTIAL FOR SOFTENING DUE TO PRECIPITATION AND/OR

23. WHERE SOFT AREAS ARE ENCOUNTERED, THE AREA SHALL BE UNDERCUT AS DIRECTED

f'c=4,000 psi AT 28 DAYS MAX. W/C RATIO: 0.50 AIR CONTENT: 5% ± 1 1/2%

f'c=4,000 psi AT 28 DAYS MAX. W/C RATIO: 0.50 AIR CONTENT: 3% MAX.

4. ADMIXTURES USED IN CONCRETE SHALL BE AS ALLOWED BY THE SPECIFICATIONS AND

ASTM C94 AND POTABLE

HIGH RANGE WATER REDUCING ADMIXTURE (SUPER-PLASTICIZER): ASTM C494, TYPE F . HIGH RANGE WATER REDUCING AND RETARDING ADMIXTURE: ASTM C494 TYPE G 7. EPOXY JOINT FILLER SHALL BE A TWO-COMPONENT SEMI RIGID RESIN. 100% SOLIDS. AND HAVE A MINIMUM SHORE A HARDNESS OF 80 WHEN MEASURED IN ACCORDANCE WITH

## CONCRETE CONSTRUCTION NOTES (CONT'D)

1. FOUNDATIONS FOR THIS PROJECT CONSIST OF SPREAD AND STRIP FOOTINGS DESIGNED 12. REINFORCING STEEL SHOWN IN SECTIONS ARE SCHEMATIC INDICATIONS THAT REINFORCING EXISTS. SEE SECTION NOTES, SCHEDULES, PLAN NOTES, ETC. FOR ACTUAL REINFORCING REQUIRED

13. UNLESS OTHERWISE NOTED, ALL BARS MARKED CONT, SHALL BE SPLICED AT ALL LAP POINTS AND CORNERS AND DEVELOPED AT NON-CONTINUOUS ENDS AS TYPICAL DETAILS. SPLICE CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND SPLICE CONTINUOUS BOTTOM BARS AT SUPPORTS. WELDED WIRE FABRIC SHALL BE LAPPED 12 INCHES OR TWO SPACES, WHICHEVER IS LONGER. SHEETS SHALL BE WIRED TOGETHER. 2. ELEVATIONS SHOWN ON THE DRAWINGS ARE TO THE BOTTOM OF FOUNDATIONS AND ARE <sup>14</sup>. CONCRETE COVER FOR REINFORCING BARS SHALL BE AS SHOWN IN DETAILS. MINIMUM DEPTHS. IF BEARING MATERIALS AT THE SPECIFIED ELEVATIONS ARE FOUND TO 15. SLAB ON GRADE SHALL BE WET CURED WITH A MOISTURE RETAINING COVER CONFORMING TO ASTM C171 WITH SIDES AND ENDS LAPPED AT LEAST 12", SEALED WITH WATERPROOF TAPE. MOISTURE RETAINING COVER SHALL REMAIN IN PLACE FOR A

MINIMUM OF 7 DAYS. 16. AT OPENINGS IN CONCRETE WALLS, PROVIDE ADDED REINFORCEMENT IN ACCORDANCE WITH THE TYPICAL DETAILS UNLESS OTHERWISE NOTED.

17. REINFORCEMENT SHALL NOT BE WELDED OR HEATED IN ANY WAY. 4. INITIAL SITE CLEARING AND GRUBBING SHOULD INCLUDE REMOVAL OF THE TOPSOIL AND 18. SLEEVES, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND ALL EMBEDDED ITEMS SHALL BE PROVIDED FOR AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND AS REQUIRED BY EQUIPMENT MANUFACTURERS. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6". INSTALLATION OF THESE ITEMS SHALL BE COORDINATED WITH SHOP DRAWINGS OF TRADES REQUIRING THESE ITEMS. 19. SET FORMS TO FOLLOW SLOPES AND GRADES DEFINED ON PLAN, KEEPING MEMBER DEPTHS CONSTANT AS DETAILED OR SCHEDULED, UNLESS NOTED OTHERWISE. SLOPE UNIFORMLY BETWEEN ELEVATIONS GIVEN.

20. REINFORCING, INCLUDING WELDED WIRE FABRIC, FOR SLABS ON GRADE AND FOOTINGS SHALL BE SUPPORTED ON SOLID CONCRETE BLOCKS AT 5'-0" ON CENTER MAXIMUM EACH WAY. REINFORCING, INCLUDING WELDED WIRE FABRIC, FOR OTHER SLABS SHALL BE SUPPORTED ON CHAIRS AND BOLSTERS AT ALL SUPPORTS AND AT 5'-0" ON CENTER MAXIMUM BETWEEN SUPPORTS.

21. VERTICAL CONSTRUCTION JOINTS IN CONCRETE WALLS SHALL BE LOCATED AT MIDPOINT BETWEEN ANY SUPPORTING PIERS OR BUTTRESSES, AND AT LEAST 4'-0" FROM ANY WALL OPENING EXCEPT WHERE SPECIFICALLY SHOWN ON THE DRAWINGS. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED, EXCEPT WHERE SHOWN ON DETAILS.

23. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND TREATED WITH THE SPECIFIED BONDING COMPOUND JUST BEFORE PLACING NEW CONCRETE. 9. DUE TO THE FINE-GRAINED SOILS AT THE SITE, CONSTRUCTION DURING THE WINTER AND 24. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF WEEPHOLES, FLASHING REGLETS, FASCIA DETAILS, ETC.

25. UNDER NO CIRCUMSTANCES SHALL CONCRETE BE PUMPED THROUGH ALUMINUM PIPES. CONCRETE SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM, ALUMINUM MIXING DRUMS, TRUCK MIXERS, BUGGLES, CHUTES, CONVEYORS, TREMIE PIPES, AND OTHER EQUIPMENT MADE OF ALUMINUM SHALL NOT BE USED ON THIS PROJECT.

THEY SHOULD CONTAIN LESS THAN TWO (2) PERCENT VEGETATION-ORGANIC MATERIALS 26. WHERE CONCRETE ABUTS MASONRY, PROVIDE VERTICAL METAL SLOTS TO RECEIVE GALVANIZED METAL DOVETAIL ANCHORS. SLOTS SHALL BE SPACED AT 24" ON CENTER. AS STRUCTURAL FILL. THE ONSITE CLAYEY SOILS ARE GENERALLY SUITABLE FOR RE-USE 27. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING, AND PLACEMENT OF CONCRETE REINFORCEMENT. SHOP DRAWINGS SHALL COMPLY WITH ACI 6. 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".

28. ALL CONCRETE REINFORCING IS SUBJECT TO INSPECTION BY THE DESIGN ENGINEER PRIOR TO CONCRETE PLACEMENT. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCY FROM ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES"

29. COLD OR HOT WEATHER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE CODE REQUIREMENTS. 30. INSTALLATION OF POST-INSTALLED ADHESIVE ANCHORS MUST BE INTO CONCRETE THAT

### PASSING THE #200 SIEVE. MATERIAL SHALL BE FREE FROM CLAY LUMPS, ORGANICS AND STEEL CONSTRUCTION NOTES

HAS A MINIMUM AGE OF 21 DAYS AT THE TIME OF INSTALLATION.

ALL STRUCTURAL STEEL WORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE OF STANDARD PRACTICE. STRUCTURAL STEEL SHALL BE 12. BUILT UP COLUMNS SHALL BE FASTENED TOGETHER AS FOLLOWS, UNLESS OTHERWISE NEW, CLEAN, AND STRAIGHT, AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

- A. WIDE FLANGE ROLLED SHAPES: ASTM A992, GRADE 50 (Fy = 50 KSI)
- PLATES, ANGLES, BARS, CHANNELS, AND S SHAPES: ASTM A36 (Fy = 36 KSI). RECTANGULAR HSS: ASTM A500, GRADE B (Fy = 46 KSI).
- D. ROUND HSS: ASTM A500, GRADE B (Fy = 42 KSI).

E. PIPE: ASTM A53, TYPE E OF S, GRADE B (Fy = 35 KSI). ALL ANCHOR RODS, UNLESS OTHERWISE NOTED, SHALL BE ASTM F1554, GRADE 36. 3. ALL BOLTED CONNECTIONS, UNLESS OTHERWISE NOTED, SHALL BE 3/4"Ø A325 HIGH STRENGTH BOLTS, IN BEARING TYPE CONNECTIONS AND SHALL BE PROVIDED WITH HARDENED WASHERS UNDER THE TURNED ELEMENT (NUT OR BOLT THREAD). 4. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE COAT OF SHOP PRIMER. THE EXCEPTIONS INCLUDE WHERE FIELD WELDING OR SLIP CRITICAL BOLTING IS TO BE DONE, WHERE STEEL IS TO RECEIVE SPRAY-ON FIREPROOFING. WHERE STEEL IS TO BE EMBEDDED IN CONCRETE, AND WHERE STEEL IS TO BE HOT-DIPPED GALVANIZED. STRUCTURAL STEEL EXPOSED TO WEATHER, EXCESSIVE MOISTURE, OR CORROSIVE ENVIRONMENT AND AS INDICATED ON CONSTRUCTION DOCUMENTS, SHALL BE HOT-DIPPED GALVANIZED, MEETING REQUIREMENTS OF ASTM A123 AND A153 AS

APPLICABLE. INSTALLATION AND TIGHTENING OF ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE AISC "SPECIFICATION FOR THE STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." CONNECTIONS MAY BE WELDED OR HIGH STRENGTH BOLTED. ALL CONNECTIONS SHALL CONFORM TO THE TYPICAL CONNECTION DETAILS SHOWN ON THE DRAWINGS 8. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL

WELDING CODE - STEEL (AWS D1.1) AND SHALL BE DONE BY A.W.S. QUALIFIED WELDERS USING E70XX ELECTRODES. BY THE SOILS ENGINEER AND REPLACED WITH COMPACTED FILL OR LEAN CONCRETE. 9. ALL CONTACT SURFACES WITHIN HIGH STRENGTH BOLTED CONNECTIONS AND WELDING AREAS SHALL BE FREE OF OIL, PAINT, AND LACQUER.

SHALL BE REMOVED A MINIMUM OF 12" BELOW THE BOTTOM OF FOOTING AND REPLACED 10. THE CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF ALL ROOF OPENINGS SHOWN ON THE STRUCTURAL, ARCHITECTURAL AND/OR MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS. ANY STEEL WHICH IS NOT SHOWN ON THE CONTRACT DRAWINGS AS FURNISHED BY THE STRUCTURAL STEEL CONTRACTOR AND WHICH IS REQUIRED BY THE MECHANICAL, PLUMBING, AND ELECTRICAL TRADES FOR OPENINGS AND/OR TO SUPPORT THEIR WORK SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR REQUIRING SUCH STEEL, UNLESS OTHERWISE NOTED.

11. CUTS, HOLES, COPING, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE STRUCTURAL STEEL SHOP DRAWINGS AND BE MADE IN THE SHOP. HOLES SHALL BE REINFORCED AND APPROVED BY THE STRUCTURAL ENGINEER

12. BURNING OF HOLES, CUTS, ETC. IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, EXCEPT WITH THE SPECIFIC WRITTEN PERMISSION OF THE ENGINEER. 13. FOR MISCELLANEOUS STEEL, SEE ARCHITECTURAL DRAWINGS

14. SUBMIT ALL STRUCTURAL STEEL SHOP DRAWINGS FOR REVIEW PRIOR TO ANY FABRICATION A MINIMUM OF TWO (2) WEEKS PRIOR TO THE START OF FABRICATION.

#### WOOD TRUSS CONSTRUCTION NOTES

ROOF TRUSSES SHALL BE PRE-MANUFACTURED WOOD TRUSSES DESIGN BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VIRGINIA. TRUSS DESIGN

DRAWINGS SHALL BE SIGNED AND SEALED BY THE DESIGN PROFESSIONAL ENGINEER AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING: a. SLOPE OR DEPTH, SPAN AND SPACING

- b. LOCATIONS OF JOINTS
- REQUIRED BEARING WIDTHS
- d. DESIGN LOADS AS APPLICABLE e. TOP CHORD LIVE LOAD (INCLUDING SNOW LOADS)
- f. TOP CHORD DEAD LOAD
- q. BOTTOM CHORD LIVE LOAD
- BOTTOM CHORD DEAD LOAD CONCENTRATED LOADS AND THEIR POINTS OF APPLICATION AS APPLICABLE
- CONTROLLING WIND AND EARTHQUAKE LOADS AS APPLICABLE ADJUSTMENTS TO LUMBER AND METAL CONNECTOR PLATE DESIGN VALUE FOR
- CONDITIONS OF USE
- I. EACH REACTION FORCE AND DIRECTION
- m. METAL CONNECTOR PLATE TYPE, SIZE, THICKNESS OR GAGE, AND THE
- DIMENSIONED LOCATION OF EACH METAL CONNECTOR PLATE EXCEPT WHERE SYMMETRICALLY LOCATED RELATIVE TO THE JOINT INTERFACE
- n. LUMBER SIZE, SPECIES AND GRADE FOR EACH MEMBER
- o. CONNECTION REQUIREMENTS FOR:
- o.a. TRUSS TO TRUSS
- o.b. TRUSS PLY TO PLY o.c. FIELD SPLICES
- p. CALCULATED DEFLECTION RATIO AND MAXIMUM VERTICAL AND HORIZONTAL
- DEFLECTION FOR LIVE AND TOTAL LOAD AS APPLICABLE
- q. MAXIMUM AXIAL TENSILE AND COMPRESSION FORCES IN THE TRUSS MEMBERS

r. REQUIRE PERMANENT INDIVIDUAL TRUSS MEMBER BRACING DESIGN, MANUFACTURE AND QUALITY ASSURANCE OF METAL-PLATE- CONNECTED WOOD TRUSSES SHALL BE IN ACCORDANCE WITH TPI 1.

# WOOD CONSTRUCTION NOTES

1. STRUCTURAL SAWN LUMBER, STRUCTURAL GLUED LAMINATED TIMBER, STRUCTURAL COMPOSITE LUMBER, AND FASTENERS ARE TO CONFORM TO THE "NATIONAL DESIGNS SPECIFICATION (NDS) FOR WOOD CONSTRUCTION USING ALLOWABLE STRESS DESIGN (ASD). ALL LUMBER SHALL BEAR THE GRADE THE GRADE MARK OF A GRADING RULES AGENCY APPROVED BY THE AMERICAN LUMBER STANDARD COMMITTEE. DIMENSIONAL LUMBER SHALL BE DOUGLAS FIR LARCH (NORTH), CONFORMING TO THE FOLLOWING MINIMUM STRESS REQUIREMENTS:

-4" FRAMING (NO. 1/NO. 2):	5"x5" A
Fb - 850 psi	Fb - 1,2
Ft - 500 psi	Ft - 82
Fv - 180 psi	Fv - 17
Fc <sub>perp</sub> - 625 psi	Fcperp -
Fc <sub>par</sub> - 1,400 psi	FCpar -
E - 1,600,000 psi	E - 1,6

3. STRUCTURAL COMPOSITE LUMBER INDICATED LVL AND PSL ARE LAMINATED VENEER LUMBER AND PARALLEL STRAND LUMBER, RESPECTIVELY, AS MANUFACTURED BY ILEVEL, OR EQUAL, WITH THE FOLLOWING MINIMUM PROPERTIES:

/L :	PSL BEAM:
Fb - 2,600 psi	Fb - 2,90
Ft - 1,555 psi	Ft - 2,02
Fv - 285 psi	Fv - 290
Fc <sub>perp</sub> - 750 psi	FCperp - 7
Fc <sub>par</sub> - 2,510 psi	FCpar - 2
E - 1,900,000 psi	E - 2,00
SL COLUMN:	
Fb - 2.400 psi	
Ft - 1.755 psi	
=	

Fv - 190 ps Fcperp - 425 psi Fcpar - 2,500 psi E - 1,800,000 psi

1

4. GRADE LOSS RESULTING FROM WEATHERING, HANDLING, STORAGE, RESAWING, OR DIVIDING LENGTHS WILL BE CAUSE FOR REJECTION. DO NOT NOTCH OR DRILL JOISTS, BEAMS, OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. ALL SILL PLATES ON EXTERIOR FOUNDATION WALLS AND EXTERIOR WALL SHEATHING LOCATED WITHIN 8" FROM EXPOSED EARTH SHALL BE PRESERVATIVE TREATED USING WATER-BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U1 ROOF SHEATHING SHALL BE 3/4" APA RATED 48/24 C-D EXPOSURE I, AS DESIGNATED ON DRAWINGS.

8. EXTERIOR WALL SHEATHING SHALL BE 5/8" APA RATED 16/0 C-D, EXPOSURE 1 UNLESS OTHERWISE NOTED ON SHEAR WALL ELEVATION SCHEDULE, EXTERIOR WALL SHEATHING SHALL BE FASTENED WITH 10d COMMON NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS, 1 1/2" EMBEDMENT MINIMUM INTO STUD OR BLOCKING. SHEATHING SHALL BE CONTINUOUS OVER THREE OR MORE SUPPORTS AND SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS WITH JOINTS STAGGERED 10. ROOF SHEATHING SHALL BE FASTENED WITH 10d COMMON NAILS AT 6" O.C AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS, 1 1/2" EMBEDMENT MINIMUM IN TRUSS CHORD OR BLOCKING. PROVIDE BLOCKING AT ALL EDGES OF SHEATHING.

11. SHEATHING SHALL NOT BE LESS THAN 4' X 8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING

- NOTED ON THE DRAWINGS: (2) 2x4 -
- (3) 2x6 2 ROWS 30d NAILS @ 8" O.C., 1 1/2" MIN. EDGE DISTANCE 13. NAILS AND STAPLES SHALL CONFORM TO ASTM F 1667. NAILS INDICATED ON PLANS, SECTIONS, AND NOTES ARE COMMON NAILS UNLESS OTHERWISE NOTED.
  - 8d 0.131" x 2 1/2" 10d - 0.148" x 3'
  - 16d 0.162" x 3 1/2"
- 14. FASTENERS IN CONTACT WITH PRESERVATIVE TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER. 15. METAL CONNECTORS CALLED OUT ON THE DRAWINGS ARE AS MANUFACTURED BY
- WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. 16. PROVIDE SOLID BLOCKING AND CONTINUOUS STUDS TO BEARING LEVEL BELOW ALL KING AND JACK STUDS IN BEARING WALLS.
- 17. ALL CONNECTORS TO STRUCTURAL COMPOSITE LUMBER SHALL BE FASTENED TO THE WIDE FACE OF THE MEMBER ONLY AND NOT TO THE EDGES OF THE LUMBER STRANDS/VENEERS.

## SHOP DRAWING SUBMITTALS

GENERAL CONTRACTOR (GC) SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW OF ALL REQUIRED INFORMATION AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS, PRIOR TO ANY FABRICATION. NO PORTION OF THE STRUCTURAL DRAWINGS SHALL BE REPRODUCED FOR USE AS SHOP DRAWINGS.

ALL DIMENSIONS SHALL BE COORDINATED BY THE GC AND/OR THE DETAILER. 4. DETAILER SHALL USE THE SAME GRID IDENTIFICATIONS AS THOSE SHOWN ON THE CONTRACT DRAWINGS.

CORRECTION WITHOUT REVIEWING.

PURCHASED.

AND LARGER (NO. 1) .200 psi 5 psi 70 psi · 625 psi 1,000 psi 600,000 psi

00 psi 25 psi ) psi 750 psi ,900 psi 0,000 psi

1 ROW 10d NAILS @ 6" O.C., STAGGERED, 1" MIN. EDGE DISTANCE (3) 2X4 - 1 ROW 30d NAILS @ 8" O.C., STAGGERED, 1 1/2" MIN. EDGE DISTANCE (2) 2x6 - 2 ROWS 10d NAILS @ 6" O.C., 1" MIN. EDGE DISTANCE

"SIMPSON STRONG-TIE COMPANY, INC." USE MANUFACTURER'S RECOMMENDED NAILING AT ALL METAL CONNECTORS. SUBSTITUTIONS WILL NOT BE ALLOWED WITHOUT PRIOR

ALL SHOP DRAWINGS SHALL BE SUBMITTED PRIOR TO PROCEEDING WITH ANY ASSOCIATED WORK AND SHALL ALLOW FOR SUFFICIENT REVIEW TIME. SUBMIT A MINIMUM OF TWO (2) WEEKS PRIOR TO THE START OF FABRICATION. SHOP DRAWINGS SHALL BE SUBMITTED WITH GC'S STAMP OF APPROVAL, CERTIFYING THE GC HAS COORDINATED AND VERIFIED ALL DIMENSIONS, MATERIALS, AND ANY ADDITIONAL

INFORMATION AFFECTING STRUCTURAL WORK. THE GC'S REVIEW INCLUDES BUT IS NOT LIMITED TO COORDINATION AND VERIFICATION OF ACTUAL FIELD CONDITIONS, DIMENSIONS, ELEVATIONS, AND SUPPORTS AND OPENINGS FOR ACTUAL EQUIPMENT

SHOP DRAWINGS NOT COMPLYING WITH THE ABOVE SHALL BE RETURNED FOR

8. RESUBMITTED SHOP DRAWINGS SHALL INCLUDE ALL CHANGES ON THE DRAWINGS

CLOUDED AND MARKED WITH REVISION TAG NUMBER. 9. GC SHALL NOT PROCEED WITH ANY WORK OR FABRICATION UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.

CONTRACTOR SHALL SUPERVISE AND DIREC THE WORK USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND HAVE CONTROL OVER CONSTRUCTION MEANS METHODS TECHNIQUES, SEQUENCE, AND JOB SITE SAFET 2. GC MUST PROVIDE & INSTALL ALL PRODUCTS PER PLANS. ONLY SUBSTITUTED PRODUCTS NEED TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. UNAPPROVED SUBSTITUTIONS WILL BE <u>REPLACED AT THE EXPENSE OF THE GC</u>. 3. VERBAL REPRESENTATION HAS NO VALUE AND ALL REQUESTS TO CHANGE ANY PRODUCTS OR SPECIFICATIONS PER PLANS, MUST BE SUBMITTED IN WRITING TO THE ARCHITECT & TLI FOR APPROVAL

ARCHITECTS AND ENGINEERS INC 42 OKNER PARKWAY LIVINGSTON, NEW JERSEY 07039 TEL: 973-994-9669 FAX: 973-994-4069 www.jarmelkizel.com Architecture Engineering Interior Design Implementation Services SADEMY Y EDUC  $\Box n \Sigma$ Luz ZNE ISSUE COCL NO. DATE DESCRIPTION INT FOR TLE REVIEW FOR PERMIT 2 12-19-23 REVISION IO. DATE DESCRIPTION **PROFESSIONAL CERTIFICATION** NAME OF LICENSEE: SHANNON CROWNOVER LICENSE NUMBER: 0402 06 6228 Proiect Numbe Scale: TLEVA23-034 AS NOTED Approved By: Drawn Bv: R.E. SC Drawing Name: **GENERAL NOTES** Drawing Number: SHANNON NICOL S-100 CROWNOVER c. No. 04020662

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#### NOTES:

- 1. TOP OF SLAB IS SET AS DATUM 0'-0" AND IS ACTUAL ELEVATION 727.30'.
- 2. SLAB ON GRADE SHALL BE 4" NORMAL WEIGHT CONCRETE PLACED OVER A 10 MIL. VAPOR BARRIER ON 4" CRUSHED STONE. REINFORCE WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC OR 1.5 POUNDS FIBER REINFORCEMENT PER CUBIC YARD OF CONCRETE AT CONTRACTOR'S DISCRETION.
- PROVIDE SUBMITTAL FOR W.W.F. OR CONCRETE MIX DESIGN WITH FIBER REINFORCEMENT INCLUDED. SEE ARCHITECTURAL DRAWINGS FOR SCHEDULE OF FINISHES ON ALL EXPOSED CONCRETE SURFACES. 3. FOOTINGS ARE DESIGNED TO BEAR ON UNDISTURBED VIRGIN SOIL OR STRUCTURAL COMPACTED FILL PLACED OVER UNDISTURBED VIRGIN SOIL HAVING
- A MINIMUM ALLOWABLE BEARING CAPACITY OF 2500 PSF. 4. BOTTOM OF FOOTING ELEVATIONS ARE NOTED THUS (-X'-X") ON PLAN, REFERENCED FROM DATUM. ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM 2'-6"
- BELOW FINISHED GRADE. TOP OF COLUMN FOOTINGS TO ALIGN WITH TOP OF WALL FOOTINGS. 5. PX - INDICATES PIER TYPE, SEE PIER SCHEDULE FOR SIZE AND REINFORCING. TOP OF PIER ELEVATIONS ARE -0'-8" UNLESS NOTED THUS <-X'-X"> ON PLAN, REFERENCED FROM DATUM.
- 6. FX.X INDICATES COLUMN FOOTING TYPE, SEE FOOTING SCHEDULE FOR SIZE AND REINFORCING.
- SW-X INDICATES SHEAR WALL LOCATION, SEE SHEAR WALL SCHEDULE ON S-103.
- INDICATES SHEAR WALL HOLDDOWN LOCATION, SEE SHEAR WALL SCHEDULE ON S-103 FOR SIZE AND ANCHORAGE.
- 9. FOR GENERAL NOTES, SEE DRAWING S-100. 10. FOR TYPICAL DETAILS, SEE DRAWING S-200.
- 11. \* COORDINATE LOCATION OF POSTS WITH APPROVED ROOF TRUSS SHOP DRAWINGS.

PIER SCHEDULE					
	SIZE REINFORCING		DEMADIZ		
WARK	LENGTH	WIDTH	VERT.	TIES	
P1	20"	20"	4 - #7	#4 @ 12"	
P2	18"	18"	4 - #6	#4 @ 12"	

#### COLUMN SCHEDULE

MARK	SIZE AND MATERIAL	BASE CONNECTION REQUIREMENTS
C1	HSS 8x3x3/8	BASE PL - 12"x9"x3/4" W/ (4) 3/4"Ø F1554 ANCHOR RODS, EMBED. 1'-0"
C2	HSS 6x3x1/2	BASE PL - 12"x9"x3/4" W/ (4) 3/4"Ø F1554 ANCHOR RODS, EMBED. 1'-0"
C3	HSS 6x3x1/2	BASE PL - 12"x9"x3/4" W/ (4) 3/4"Ø F1554 ANCHOR RODS, EMBED. 1'-0"
C4	HSS 6x3x1/4	BASE PL - 12"x9"x3/4" W/ (4) 3/4"Ø F1554 ANCHOR RODS, EMBED. 1'-0"
C5	5-1/4 x 5-1/4 PSL	BEAR ON WALL BOTTOM PLATE. ATTACH W/ DTT1Z W/ 3/8"Ø THREADED ROD W/ HILTI HIT HY200 ADHESIVE EMBED 3 3/8" MIN. INTO CONCRETE
C5A	5-1/4 x 5-1/4 PSL	SIMPSON ABU66Z W/ (12) 16d NAILS. ANCHOR TO CONC. W/ 5/8"Ø THREADED ROD IN HILTI HIT-HY200 ADHESIVE EMBED 5 5/8" AT CANOPY POSTS

#### FOOTING SCHEDULE

2500 PSF BEARING CAPACITY					
		SIZE		BOTT. REINF.	TOP REINF.
MARK	LENGTH	WIDTH	DEPTH	L-LONG S-SHORT	L-LONG S-SHORT
F3.0	3'-0"	3'-0"	18"	7 - #4 E.W.	-
F3.5	3'-6"	3'-6"	18"	10 - #5 E.W.	-
F4.0	4'-0"	4'-0"	18"	11 - #5 E.W.	-
F4.5	4'-6"	4'-6"	18"	12 - #5 E.W.	-



- 1. TYPICAL ROOF CONSTRUCTION SHALL BE 3/4" SHEATHING OVER PRE-FABRICATED WOOD TRUSSES.
- 2. WOOD TRUSSES ARE SUPPORTED BY EXTERIOR BEARING WALLS AND INTERIOR STEEL BEAMS AND SHALL BE BOTTOM CHORD BEARING. 3. BOTTOM OF ROOF TRUSS BOTTOM CHORD (TOP OF BEARING PLATES) IS SET AT ELEVATION +11'-1 1/8". TOP OF ROOF TRUSS TOP CHORD SLOPES. WITH H.P. ELEVATION +14'-8 5/8".
- 4. ALL STUD WALLS SHOWN ON FRAMING PLAN ARE 2x6 AT 16" O.C. LOAD BEARING WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND DETAILS ON INTERIOR NON-LOAD BEARING PARTITION WALLS.
- 5. EXTERIOR WALLS ARE TO BE SHEATHED WITH 5/8" SHEATHING ANCHORED WITH 10d NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS, UNLESS OTHERWISE DESIGNATED ON THE SHEAR WALL SCHEDULE ON S-103. 6. ALL TRUSSES SHALL BE DESIGNED AND FABRICATED PER APPLICABLE LOADS BY THE TRUSS FABRICATOR. SUBMIT SHOP DRAWINGS AND CALCULATIONS
- SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VIRGINIA.
- ROOF TRUSSES ARE TO BE A DEFERRED SUBMITTAL. SIGNED AND SEALED COPIES OF THE TRUSS CALCULATIONS AND THE PLACEMENT PLANS, WITH EVIDENCE THAT THE ENGINEER OF RECORD HAS REVIEWED AND APPROVED, SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT. 8. TRUSSES ARE TO BE DESIGNED FOR ALL LOADING AS DESIGNATED IN THE LOAD SCHEDULE AND ALL MECHANICAL UNITS SHOWN. COORDINATED LOCATION
- AND WEIGHTS OF UNITS WITH MECHANICAL DRAWINGS. 9. MECHANICAL EQUIPMENT DIMENSIONS SHOWN ON PLAN ARE TO CENTERLINE OF UNIT. DIMENSIONS TO BE VERIFIED WITH MECHANICAL DRAWINGS AND
- APPROVED HVAC SHOP DRAWINGS.
- 10. ALL TRUSSES/ROOF FRAMING ARE TO BE COORDINATED WITH MECHANICAL DRAWINGS FOR ROOF PENETRATIONS AND DUCTWORK LOCATIONS. 11. BM-X - INDICATES BEAM TYPE, SEE BEAM SCHEDULE FOR SIZE AND CONNECTION REQUIREMENTS. TOP OF BEAM ELEVATION NOTED THUS (+X'-X") ON PLAN, REFERENCED FROM BUILDINGS DATUM.
- 12. H-X INDICATES HEADER TYPE, SEE HEADER SCHEDULE FOR SIZE AND CONNECTION REQUIREMENTS. 13. SW-X - INDICATES SHEAR WALL SEE SHEAR WALL SCHEDULE AND SHEAR WALL ELEVATION ON S-103 FOR MORE INFORMATION.
- 14. ALL BEAMS, HEADERS, AND TRUSSES ARE TO BEAR ON POSTS SHOWN ON PLAN WITH CONNECTIONS AS SPECIFIED IN THE COLUMN SCHEDULE.
- 15. SEE DRAWING S-100 FOR GENERAL NOTES. 16. UNLESS OTHERWISE NOTED ON PLAN, PROVIDE A (2) 2x6 POST AT ALL 2-PLY GIRDER TRUSS AND A (3) 2x6 POST AT ALL 3-PLY GIRDER TRUSS. GC SHALL COORDINATE LOCATION AND SIZE OF POST WITH APPROVED ROOF TRUSS SHOP DRAWINGS.

LOAD SCHEDULE				
ROOF DEAD LOAD:				
WOOD TRUSSES 3/4" PLYWOOD ROOFING/ASPHALT SHINGLES CEILING/INSULATION MEP/MISC. TOTAL DEAD LOAD	5 PSF 3 PSF 3 PSF 3 PSF <u>6 PSF</u> 20 PSF + WEIGHT OF UNITS			
LIVE LOAD	20 PSF			
APPLY 10 PSF OF DL TO TRUSS BOTTON	1 CHORD			
DESIGN FLAT ROOF SNOW LOAD	27 PSF*			

\* GROUND SNOW LOAD TO BE ADJUSTED FOR DRIFT, SLIDING, UNBALANCED LOADING, ETC. PER CODE.

HEADER SCHEDULE					
MARK	LOCATION	HEADER SIZE	JAMB MEMBER	HEADER CONNECTION	
H-1	SINGLE DOOR / WINDOW 4'-0" MAXIMUM OPNG.	3-2x10 W/ 2-1/2" PLYWOOD SPACERS	2-2x6 EACH SIDE	SIMPSON A21 & LSTA9	
H-2	DOUBLE DOOR / WINDOW 8'-0" MAXIMUM OPNG.	3-2x12 W/ 2-1/2" PLYWOOD SPACERS	2-2x6 EACH SIDE	SIMPSON A21 & LSTA9	



. TYPICAL ROOF CONSTRUCTION SHALL BE 3/4" SHEATHING OVER PRE-FABRICATED WOOD TRUSSES 2. WOOD TRUSSES ARE SUPPORTED BY ROOF TRUSSES BELOW AND SHALL BE BOTTOM CHORD BEARING.

- 3. TOP OF ROOF TRUSS HIGH POINT TO BE ELEVATION +23-3 5/8". SLOPE TOP CHORD OF TRUSS
- MINIMUM 1/4" PER FOOT. TOP OF TRUSS LOW POINT TO BE ELEVATION +22-10 5/8".



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EXTERIOR WALL-SHEATHING

BOTTOM OF TRUSS ELEV. +11'-1 1/8"

2X10 BLOCKING

SHEARWALL NAILING

TOP OF TRUSS ELEV. VARIES  $-\mathbf{O}$ 

EXTERIOR WALL, SEE -ARCH. DWGS.

PARAPET INTEGRAL WITH ROOF TRUSS

SIMPSON TSP HURRICANE TIE

STEEL BEAM W/ 1/2"Ø BOLTS \$

WOOD ROOF TRUSS BY TRUSS

TOP OF STEEL ELEV. +12'-10 1/8"

BOTTOM OF TRUSS ELEV. +11'-1 1/8"

- (2) 2x NAILER ATTACHED TO

STAGGERED EACH SIDE OF

WASHER @ 4'-0" OC.,

EA TRUSS

WEB

MANUF.

EXTEND WALL — SHEATHING TO TOP OF PARAPET WALL

TOP OF PARAPET ELEV. +18'-2" AT 2 +19'-8" AT 2A

CONTINUOUS (2) 2X8 — TOP PLATE

FINAL BEARING ELEVATION OF TRUSSES

SHALL BE COORD. W/ APPROVED STEEL

ATTACHMENT PRIOR TO FABRICATION

STL BM. SEE PLAN-

FOR SIZE

SHOP DRAWINGS AND NAILER

ତ୍ୱ BEAM

**SECTION THRU STEEL BEAM** SCALE : 3/4" = 1'-0"





