

STRUCTURAL NOTES

GENERAL NOTES

- The Governing Code for this project is the Florida Building Code, Sixth Edition (2017). This Code prescribes which edition of each referenced standard applies to this project.
- To the best of our knowledge, the structural drawings and specifications comply with the applicable requirements of the Governing Building Code.
- Construction is to comply with the requirements of the Governing Building Code and all other applicable Federal, State and local Codes, Standards, Regulations and Laws.
- The Structural documents are to be used in conjunction with the Architectural documents. Use these notes in conjunction with the project specifications. If a conflict exists, notify the Architect.
- Details labeled "Typical" apply to all situations that are the same or similar to those specifically referenced, whether or not they are keyed in at each location. Questions regarding the suitability of typical details shall be resolved by the Architect.
- Openings shown on Structural drawings are only pictorial. See the Architectural and M.E.P. drawings for the size and location of openings in the structure.
- Contractors who discover discrepancies, omissions or variations in the contract documents during bidding shall immediately notify the Architect. The Architect will resolve the condition and issue a written clarification.
- The General Contractor shall coordinate all structural documents with field conditions and dimensions and project on a drawings prior to construction. Do not Scale Drawings. Use only printed dimensions. Report any discrepancies in writing to the Architect prior to proceeding with work. Do not change size or location of structural members without written instructions from the Structural Engineer of record.
- The contractor shall protect adjacent property, his own work and the public from harm. The contractor is solely responsible for construction means and methods and jobsite safety including all OSHA requirements.
- The Structure is designed to be structurally sound when completed. Prior to completion, the contractor is responsible for stability and temporary bracing, shoring, but not limited to, masonry walls. Whenever the Contractor is aware of these requirements, the contractor shall retain a Florida Licensed Engineer to design and inspect the temporary bracing and stability of the structure.
- DESIGN WIND LOADS:**

| | |
|-------------------|---------------------------|
| Governing Code | ASCE 7-10 |
| Basic Wind Speed | Min: 100 mph/Max: 118 MPH |
| Risk Category | Open |
| Building Exposure | Kd = 0.85 |
| Mean Roof Height | <15 FEET |

SHALLOW FOUNDATIONS

- Foundation design, soil preparation and compaction are based on geotechnical investigation, data and recommendations in report 20-211 by Andersen Andre Consulting Engineers, Inc dated August 6, 2020.
- Footings sizes and reinforcing are based on an assumed allowable soil bearing capacity of 2,500 psf. All footings shall bear on compacted fill, natural soil or rock prepared per the geotechnical report.
- Subgrade preparation shall be field controlled and tested by a licensed site Engineer in accordance with the geotechnical report. At completion, that Engineer shall prepare and submit to the owner, Architect, contractor and Structural Engineer a signed and sealed letter indicating the recommendations of the geotechnical report have been followed.
- Cover all footings under their respective columns or walls, U.S.A.

SLABS ON GRADE:

- Refer to geotechnical report for subgrade preparation more than 12" below bottom of slab.
- Above subgrade, use fill containing not more than 10% passing #200 sieve and maximum 1 inch diameter. Compact to 98% of maximum dry density as determined by modified proctor ASTM D-1557. Each layer of fill shall not exceed 6" loose thickness. Compact prior to placement of the next layer.
- Fill placement and compaction shall be monitored and accepted by the testing agency. Take a min. of one field density test (ASTM D-1556 or D-2922) for each 2,000 square feet of each layer. The testing agency shall randomly select test locations.
- Place concrete in long-site construction method. Provide crack control joints at 12 feet maximum to limit areas between joints to 144 sq. ft. in all footing areas on grade. Locate to conform to bay spacing whenever possible, and crack control joints at re-entrant corners which tend to invite cracks.

Structural Steel:

- Fabricate and erect structural steel in conformance with AISC "Specification for the design, fabrication and erection of structural steel buildings", with commentary and all OSHA requirements.
- Structural steel angles are to be fabricated from the following materials:
 a. Rolled M, S, C and MC shapes and angles: ASTM A36, Fy=36 ksi.
 b. Plates and Bars: ASTM A36, Fy=36 ksi.
 c. Cut, drill or punch holes perpendicular to metal surfaces. Holes that must be enlarged to admit bolts as permitted by Architect. Do not enlarge unlar holes by burning or using drill pins.

EXPANSION ANCHORS:

- Use wedge-type expansion anchors such as the HEB Hook Bolt 3, ITW Runway Fast Head T-Bracket Wedge, Power's Rammer Power-Set, Simpson Strong-Tie Wedge-All or accepted equivalent. Follow manufacturer's specifications for use and installation.
- Confirm the placement of reinforcing steel by drilling a 7/8" diameter pilot hole for each anchor. Do not cut reinforcing steel without approval of the Structural Engineer.
- Provide anchor embedment, spacing and edge distance as shown on the drawings.

REINFORCED CONCRETE:

- Comply with ACI 301 and 318.
- Provide structural concrete with a minimum ultimate Compressive Design Strength of 4,000 psi (max. w/c=0.50) in 28 days.
- Use normal weight concrete for all structural members, U.S.A.
- Provide ASTM A-615 Grade 60 reinforcing steel. Weldable Rebar shall be ASTM A705, Grade 60 per AWS D.1.1. Reinforcing shall be accurately placed, tightly supported and firmly tied in place with appropriate bar supports and spacers. Lap bottom steel over supports and top steel at midspan (to c.o.s.). Hook discontinuous ends of all top bars and all bars in walls, U.S.A. Provide cover over reinforcing as follows:

| | |
|----------------|--------|
| Element | bottom |
| Slab | 2"ESB |
| Footings | 2" |
| Slabs on Grade | 2" |
| Walls | 2" |
- Tension Development Length and Lap Splice Lengths shall be per schedule.
- Where specified, provide plain, cold-drawn electrically welded wire reinforcement conforming to ASTM A-185. Supply in flat sheets only. Lap splice bars across wire spacing.
- Provide construction joints in accordance with ACI 318, section 8.4. Provide keyways and adequate chairs, submit drawings showing location of construction joints and direction of pour for review.
- Provide 24" chamfer for all exposed corners.

| BAR TYPE | MIN LAP SPLICE LENGTH SCHEDULE | | | | | | | | | | |
|------------------|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|---|---|
| | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #11 | | |
| ALL BAR DIAMETER | 18" | 24" | 30" | 36" | 42" | 48" | 54" | 61" | 68" | | |
| FOOTINGS | 18" | 18" | 23" | 33" | 37" | 42" | 47" | 52" | | | |
| SLABS | 18" | 18" | 26" | 37" | 41" | 44" | - | - | - | - | - |

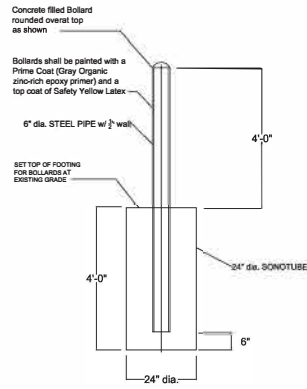
LAP SPLICE LENGTH SCHEDULE

| LENGTH | QTY. |
|--------|------|
| 2'-0" | 1 |
| 4'-8" | 1 |
| 4'-11" | 1 |
| 9'-0" | 6 |
| 9'-3" | 1 |
| 10'-0" | 14 |

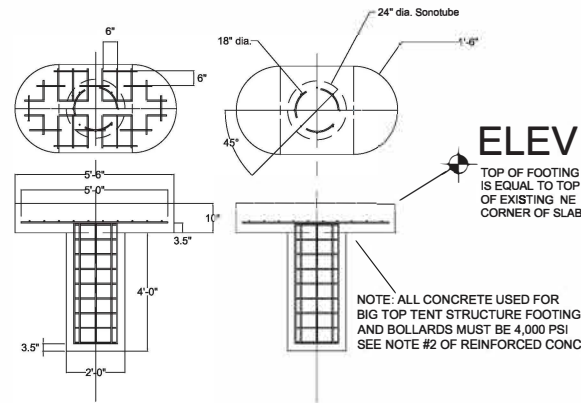
| LENGTH | QTY. |
|--------|------|
| 4'-8" | 1 |
| 10'-0" | 6 |

NOTE: BIG TOP TENT VERTICAL FRAME SUPPORTS SHOWN FOR CONCRETE BLOCK AND 8" ANGLE IRON LAYOUT PURPOSES ONLY

DETAIL "A"



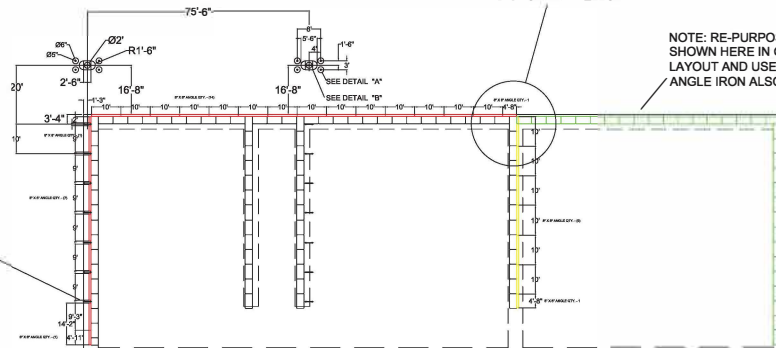
DETAIL "B"



NOTE: ALL CONCRETE USED FOR BIG TOP TENT STRUCTURE FOOTINGS AND BOLLARDS MUST BE 4,000 PSI SEE NOTE #2 OF REINFORCED CONCRETE

NOTE: FUTURE "T" INTERSECTION AND RELOCATION OF NEW 8" X 8" ANGLE IRON TO THE SOUTH SIDE OF PAD SHOWN IN YELLOW

NOTE: RE-PURPOSED CONCRETE BLOCKS SHOWN HERE IN GREEN FOR FUTURE LAYOUT AND USE WITH EXISTING 8" X 8" ANGLE IRON ALSO REUSED



General Notes

GENERAL NOTES, FOUNDATION PLAN, BOLLARDS AND SECTIONS

| | | |
|--|----------------|-------|
| No. | Revision/Issue | Date |
| | | |
| | | |
| | | |
| Project Name and Address: IRC - SWDD 1325 74th Avenue SW Vero Beach, FL 32968 | | |
| Project Name and Address: BIG TOP TENT FOOTING DETAILS 1325 74TH Avenue SW Vero Beach, FL 32968 | | |
| Project | FOOTING LAYOUT | Sheet |
| Date | 1/21/21 | 01 |
| Issue | As Noted | |

SCALE: 1"=20'-0"