

**SPECIFICATIONS – SLAB ON GRADE**

This plan is to be only for the location below:  
 613 DEER CROSS, MADISONVILLE  
 ST. TAMMANY PARISH, LOUISIANA

- A. CONCRETE**
- A1. The concrete mix should yield a minimum compressive strength of 3000 p.s.i. at 28 days. Concrete design mix shall be in accordance with ACI-318 (latest version). No chlorides shall be allowed.
  - A2. Concrete shall have a minimum compressive strength of 2000 p.s.i. at time of stressing.
  - A3. Concrete shall be well consolidated especially in the vicinity of the tendon anchors.
  - A4. This slab has been designed to be poured monolithically between slab & grade beams. If this cannot be achieved add #3 hairpins w/ min. 14" legs @ 12" O.C.
- B. MATERIALS; TENDON AND REBAR**
- B1. All conventional reinforcing steel shall meet ASTM-A615 (Grade 60). Reinforcing steel shall be detailed and accessories provided in accordance with the latest "ACI Manual of Standard Practice for Detailing Reinforced Concrete Structures".
  - B2. All Prestressing steel shall consist of seven-wire low relaxation strand conforming to ASTM-A416. Minimum ultimate tensile strength shall be 270 ksi. Strands shall be coated with a permanent rust preventive lubricant and a plastic sheath of at least 0.040 inches thick.
  - B3. Preinstalled tendons and bars shall be securely supported to prevent both vertical and horizontal movement during concrete placing. Wet set dowels are permitted. No tendon will be unsupported for more than 54 inches.
  - B4. If tendon sheathing is damaged or removed from live end anchor more than 2" it SHALL be repaired. "Duck" tape is not allowed to touch actual strand. Replace sheathing prior to taping. If tendon sheathing is damaged or removed along length of the tendon for approximately 4" or more it should be repaired. Sheathing behind a fixed anchor may be removed for 12" to 14".
  - B5. The tendon location at the end of the grade beam is to be a "minimum" of 5" from the top of the slab to the CGS of the tendon.
  - B6. All tendon anchorages may be moved 12" horizontally or 1-1/2" vertically. Anchors shall not be below exterior finish grade.
  - B7. In lieu of actual test cylinder results, tendons are to be stressed no earlier than 6 days and no later than 14 days after concrete placement. Contractor to remove all form work prior to stressing of tendons.
  - B8. All tendons to be 270k and 1/2" in diameter.
  - B9. Stressing: 1/2" strand stress to 33.0 kips - anchor at 28.9 kips.
  - B10. Tendons, pocket formers, plastic chairs, anchors, wedges to be furnished by Tech-Con Systems, Inc. Slidell, LA or approval equal.
  - B11. Liveend and Deadends may be swapped/reversed as needed, u.n.o.
  - B12. Tendon finishing: After written acceptance of the tendon elongation report, tendons shall be cut beyond the face of the slab, if less than 3/4" plastic tendon sleeve may be used. Stressing pocket shall be promptly grouted with non shrink cement based grout.
  - B13. Double live end tendons shall be fully stressed at the initial end. No additional stressing required if proper elongation has been achieved.
- C. INSTALLATION**
- SITE PREPARATION & DRAINAGE SHALL BE AS PER SOIL REPORT.**
- C1. Reinforcement shall have 3" cover in the grade beam bottoms, 2" cover in the beam sides and top, 1 1/2" cover in the slab top and bottoms, unless noted otherwise.
  - C2. 2 layers of 6 mil (min) polyethylene sheeting shall be placed under all concrete for friction reduction, except beam bottom & exterior face. Refer to Architect and local codes for additional requirements.
  - C3. The contractor shall verify all drops, off-sets, brick ledges, and block outs and architectural plans and notify the Engineer of any discrepancies that may exist.
  - C4. Concrete sizes, excluding slab, may vary by -10%, +20%.
  - C5. Dead end anchor: Tendon tail at dead end shall have minimum 1" concrete cover.
  - C6. A minimum of 5" of concrete will be maintained throughout the entire slab. A tolerance of + 3/4" shall not be exceeded.
  - C7. Exterior footings will have a minimum of 12" embedment below finished grade.
  - C8. Contractor to install all floating forms, porch brick ribbon forms, and any brick-ledges greater than 6" deep before P.T. cable placement. Do not install brick-ledges less than 6" deep prior to tendon installation. Refer to site preparation as specified in soil report or remove a minimum of 12" of existing soil and all unstable silt prior to placing any fill.
  - C9. Field verify all dimensions, notes, drops, slopes, and recesses with Architectural drawings.
  - C10. Recess as required for ceramic tile, wood or brick floors, maintaining full slab and grade beam depth.
  - C11. Provide adequate supports for all tendons and rebars to maintain proper position.
  - C12. Slab chairs to be placed at all intersections. Secure tendons to chairs.
  - C13. All subgrade fill shall be select material, clayey sand or silty sands (SC/SM or AASHTO A-2-4) compacted to 95% Standard Proctor density in a maximum of 6" lifts and shall extend 5'-0" beyond the perimeter of the foundation in all directions u.n.o. If unavailable sand (SP / AASHTO A-3) may be used if grade beam shape is maintained. Refer to note C4.
  - C14. Tendons & Anchors may be moved horizontally to avoid conflict with electrical, mechanical or plumbing requirements.
  - C15. Slab tendon placement may vary as much as 12" horizontal and 2" vertical to avoid obstructions.
  - C16. Tendons may be horizontally diverted around plumbing piping or other fixed objects up to 6" over a distance of 12 feet to provide a minimum of 3" clearance.
  - C17. Maximum of 2.0 feet of fill above natural ground may be placed under the building footprint. Maximum differential fill shall not exceed 20%.
  - C18. Installation of brittle floor coverings (tile, brick, stone) shall be installed as per "The Tile Council of North America - Handbook for Ceramic, Glass, and Stone Tile Installation", for structural slabs subjected to deflection and bending.
- D. MISCELLANEOUS**
- D1. The contractor shall be responsible for coordination of the structural drawings with all other drawings.
  - D2. Loading of the slab prior to tensioning shall not be done without the approval and direction of the design Engineer.
  - D3. Alteration to or deviation from the information shown on this sheet without the written advance approval from Acadian Structural Solutions, Inc. will void designer's responsibility.
  - D4. This plan is for grade beam location and tendon layout only. Refer to Architectural plans for setting forms.
  - D5. All runoff water must be carried away from the slab to prevent saturation of the sub-base.
  - D6. All trees within close proximity shall be removed to prevent the roots from extending under the slab.
  - D7. No field supervision provided under this seal unless otherwise noted.
  - D8. Prior to installing any additional hardware attached to the foundation by drilling into the slab. Tendons SHALL be located to avoid tendon damage.
  - D9. This is a PTI 2/BRAB Type III rigid ground supported slab, designed to float on the surface. Differential movement can not be avoided. However the design is meant to minimize its negative effects.
  - D10. This plan is for structural requirements only. Architectural details, surface requirements and compliance with A.D.A. regulations are specifically omitted from this plan. The coordination of, and responsibility for such requirements is the responsibility of others.
  - D11. These drawings have been checked to insure a reasonable and normally acceptable degree of accuracy. However, the contractor is responsible for verifying all dimensions, details and code requirements of these plans and specifications prior to the start of work.
  - D12. It is the responsibility of the builder to provide good drainage away from the foundation from the time forms are set until the construction of the building is complete. Good drainage must be maintained for the duration of the building.
  - D13. Seal is lot specific and for structural design only. Drawing and design valid for one (1) year after latest date in title block.
  - D14. This foundation has been designed to control temperature & shrinkage cracks. Shrinkage & temperature cracks may occur initially during concrete curing. This does not impact the structural integrity of the slab.

- E. INSPECTIONS & OBSERVATIONS**
- E1. Prior to concrete placement an inspection/observation is required by a qualified third party. All discrepancies noted during inspections SHALL be corrected prior to concrete placement.
  - E2. Qualified third party shall have a minimum PTI Level 2 certification or a licensed professional engineer with experience in post tensioning.
  - E3. During the stressing operation continuous observation shall be provided by a third party.
  - E4. Tendon reference mark shall be provided and placed on tendon by tendon stressing company.
  - E5. The offset of the reference marking device shall be noted and included in all stressing logs by the observing party.
  - E6. Tendon elongations that do not achieve the minimum value shall be promptly reported to the post tension designer for resolution.
  - E7. Governing Documents: **Construction and Maintenance Manual For Post-Tensioned Slab-on-Ground Foundations** (latest Edition)

Post Tension Institute  
 38600 Country Club Drive  
 Farmington Hills, MI 48331  
 (248) 848-3180  
 www.post-tensioning.org

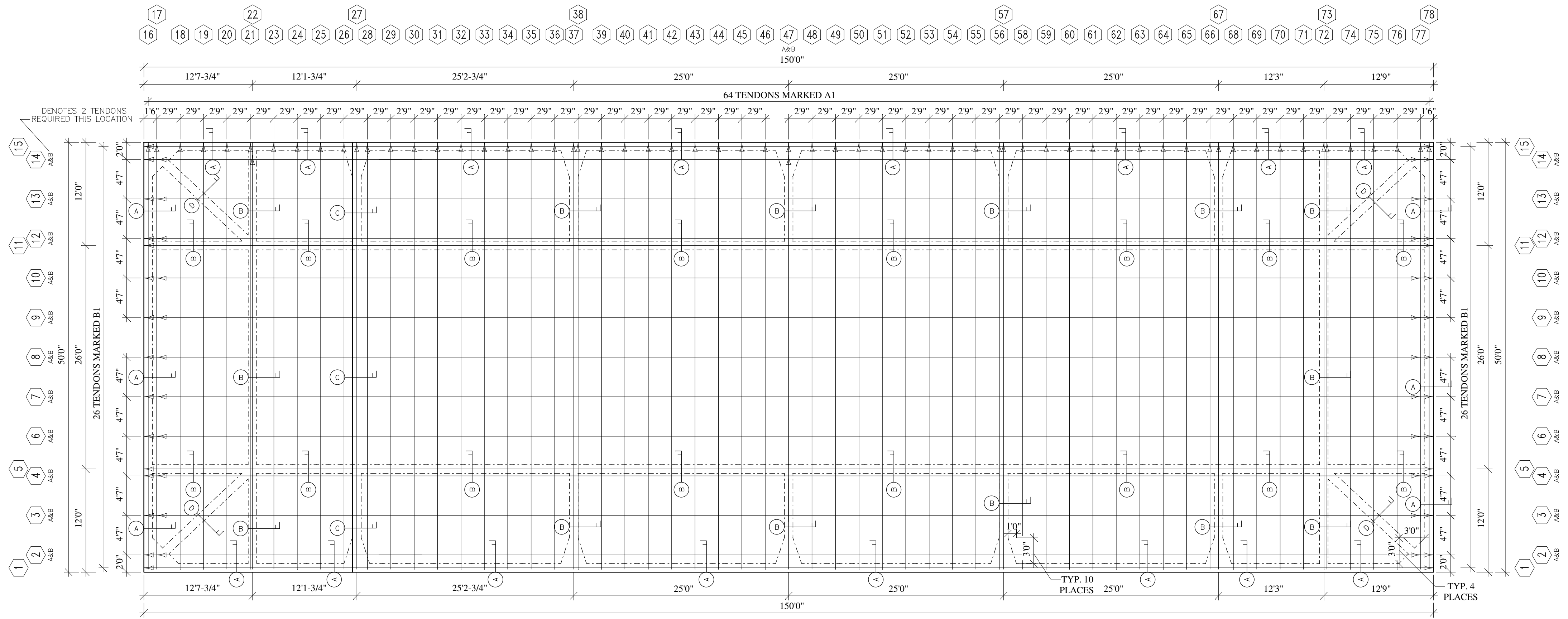
**THIS PLAN IS FOR STRUCTURAL REQUIREMENTS ONLY. ARCHITECTURAL DETAILS, SURFACE REQUIREMENTS, AND COMPLIANCE WITH A.D.A. REGULATIONS ARE SPECIFICALLY OMITTED FROM THIS PLAN. THE COORDINATION OF, AND RESPONSIBILITY FOR SUCH REQUIREMENTS IS THE RESPONSIBILITY OF OTHERS.**

THIS FOUNDATION DESIGN IS BASED ON THE SUBMITTED DRAWINGS BY:  
 DAMMON ENGINEERING INC.  
 DATE: MARCH 24 2022  
 REVISION: N/A

CONTRACTOR SHALL REVIEW THESE DRAWINGS AND DIMENSIONS CONFIRMING THAT THEY MATCH ARCHITECTURAL DRAWINGS PRIOR TO PLACING ORDER FOR TENDONS.

NOTE:  
 IT IS THE RESPONSIBILITY OF THE BUILDER TO PROVIDE GOOD DRAINAGE AWAY FROM THE FOUNDATION FROM THE TIME FORMS ARE SET UNTIL THE CONSTRUCTION OF THE BUILDING IS COMPLETE. GOOD DRAINAGE MUST BE MAINTAINED FOR THE DURATION OF THE BUILDING.

THESE DRAWINGS HAVE BEEN CHECKED TO INSURE A REASONABLE AND NORMALLY ACCEPTABLE DEGREE OF ACCURACY. HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, DETAILS, AND CODE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS PRIOR TO THE START OF WORK.



P.T. SLAB AREA = 7500.00 sq. ft.

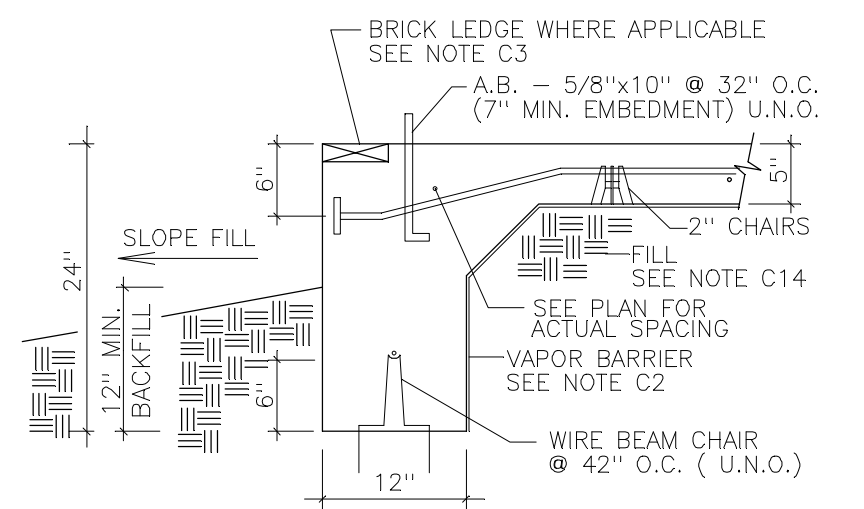
**DO NOT USE THIS PLAN TO SET FORMS!**

**ALL DOUBLE LIVE END TENDONS TO BE STRESSED ON BOTH ENDS UNLESS PROPER ELONGATION HAS BEEN ACHIEVED ON SINGLE END**

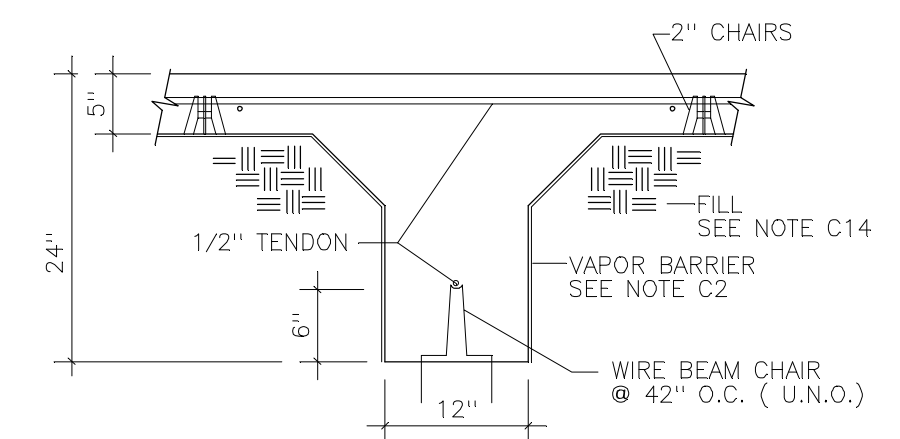
TENDON MARK NO.	No. STRANDS	STRUCTURAL LENGTH	JACK EXTENSION	TOTAL TENDON LENGTH	LIVE END ANCHORS	INTERM ANCHORS	DEAD END ANCHORS	REQUIRED ELONGATION (INCHES)			FORCE (KIPS)	COLOR CODE	
								-X	NOM	+X			
A1	64	50'0"	2'0"	52'0"	64	-	64	3 5/8	4	4 1/4	28.9	33.0	BLUE
B1	26	150'0"	4'0"	154'0"	52	-	0	11 1/8	12	12 3/4	28.9	33.0	GREEN

**THIS SLAB REQUIRES 90 TENDONS TO BE INSTALLED PRIOR TO CONCRETE PLACEMENT**

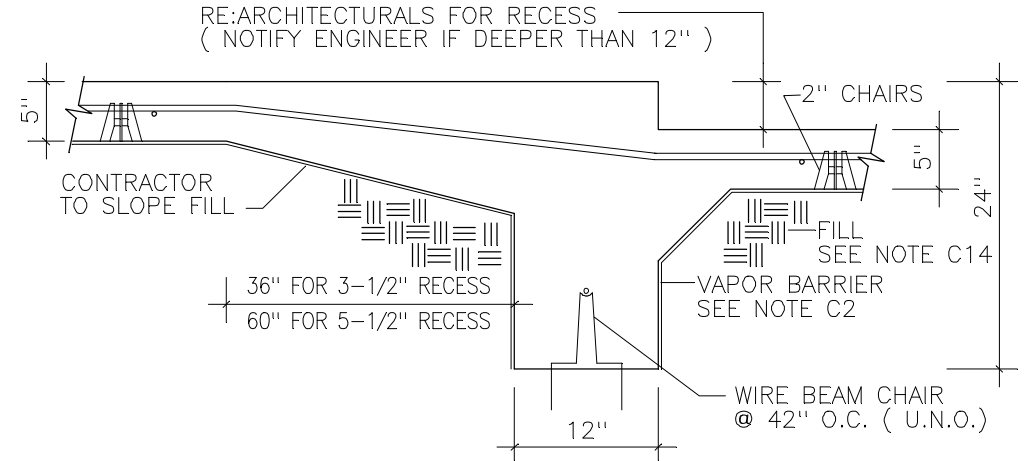
NOTE:  
 THIS BUILDING REQUIRES TENDON GROUPINGS DENOTED ON THE DRAWING AS (2) ARROW HEADS & ID MARK A&B



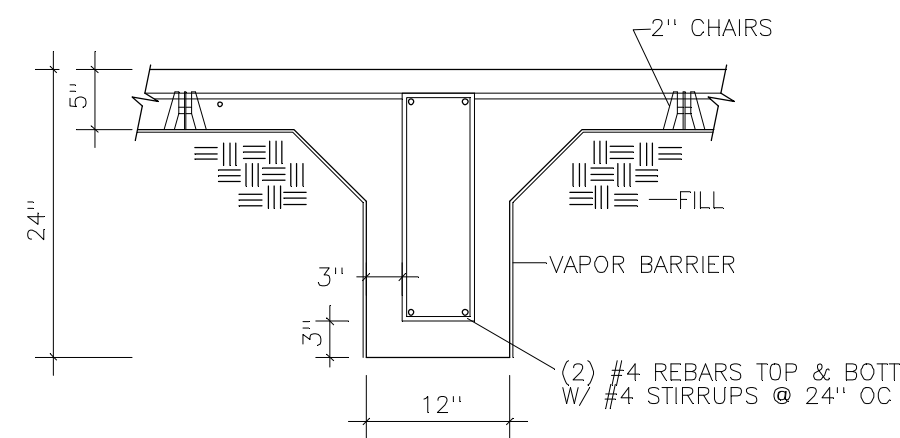
SECTION A



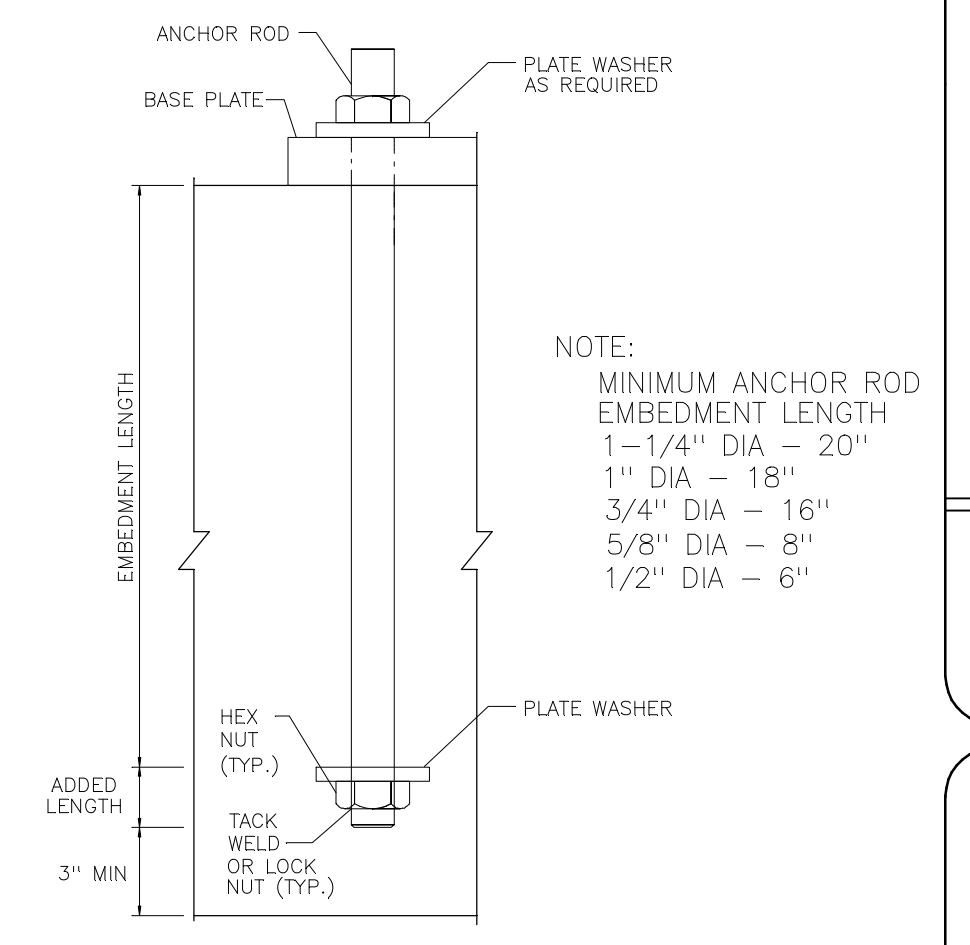
SECTION B



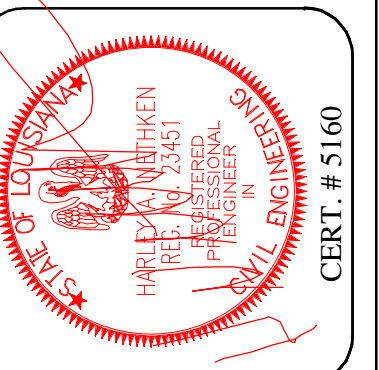
SECTION C



SECTION D



TYPICAL ANCHOR ROD DETAIL  
 REFER TO ANCHOR BOLT PLANS FOR SIZE AND CHART FOR EMBEDMENT LENGTH



THIS PLAN IS ONLY VALID ONE YEAR FROM DATE ON PLAN

**ACADIAN STRUCTURAL SOLUTIONS, INC.**  
 57362 ALLEN RD, SLIDELL, LA. 70461  
 PHONE (985) 641-5794 FAX (985) 641-1239  
 PLANS@ACADIANSS.COM

**PELLIGRINI MARINE ELECTRIC, LLC.**  
 613 DEER CROSS, MADISONVILLE, LA

SCALE: 1/8" = 1'-0"  
 DATE: 28 JUN 22  
 DRAWN BY: CHL  
 CHKD BY: HN  
 ASS PROJECT #: SSS-22

REVISIONS

DATE

SHEET  
**PT-1**  
 OF  
**PT-1**