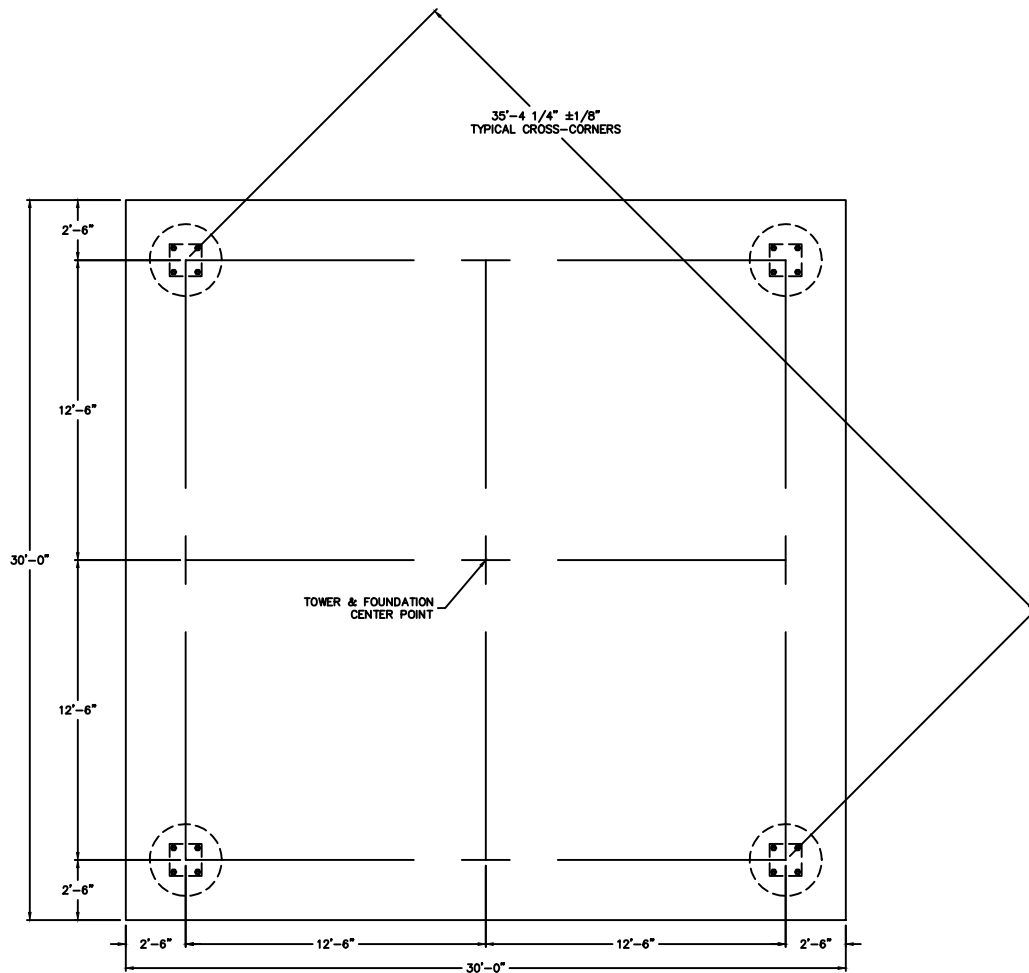
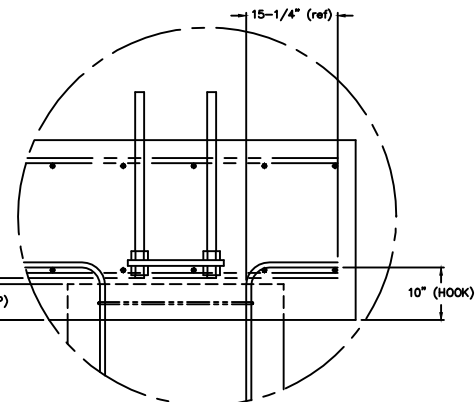


LET	REVISION	DATE	APP'D
-	INITIAL RELEASE	02/24/22	L.S.

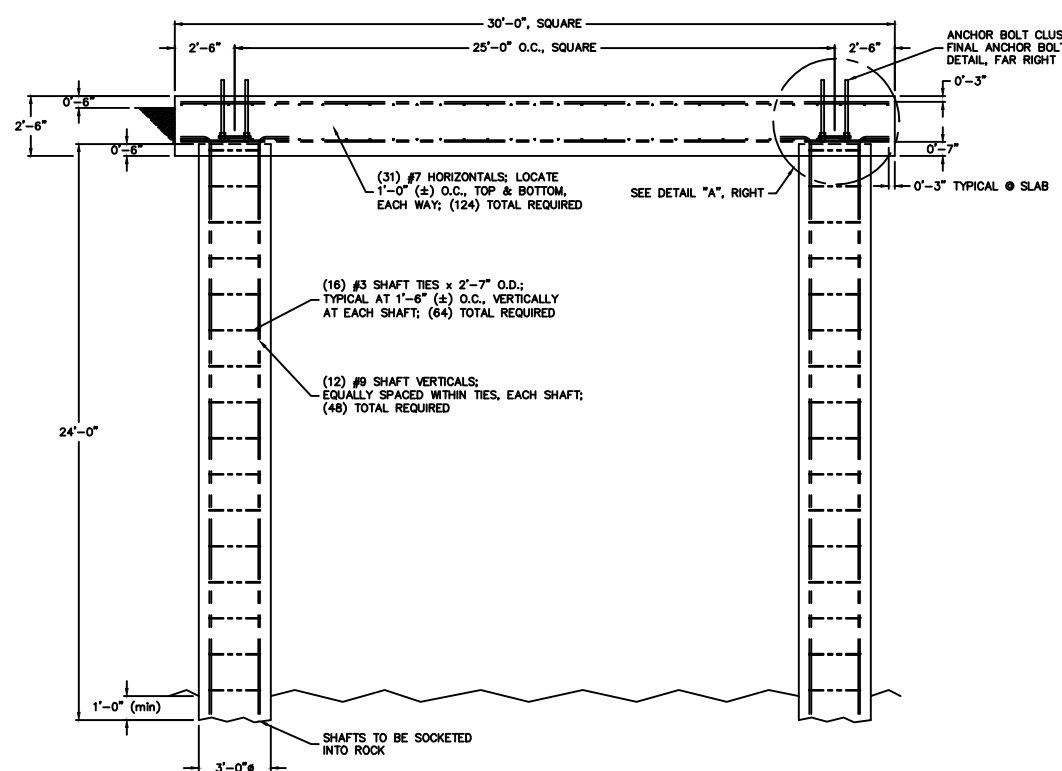
- FOUNDATION NOTES:**
- FOUNDATION DESIGN IS BASED UPON NON-LINEAR SOIL ANALYSIS BY TERRACON.
  - ALL REINFORCING BAR (REBAR) SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM-A615, USING GRADE 60 REBAR. ALL REBAR SHALL HAVE A 3" MINIMUM CONCRETE COVER, UNLESS OTHERWISE NOTE. ALL REBAR SHALL BE EPOXY COATED.
  - ALL CONCRETE WORK INCLUDING FORMING, REINFORCING, MIXING, PLACING, AND CURING SHALL BE IN ACCORDANCE WITH ACI-318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL AND ACI-301 SPECIFICATIONS FOR STRUCTURAL CONCRETE. DRILLED SHAFTS ARE TO BE IN ACCORDANCE WITH ACI-336.1.
  - FOLLOW RECOMMENDATIONS OF ACI-305A WHEN CONCRETING DURING HOT WEATHER.
  - CONCRETE MATERIALS SHALL BE AS FOLLOWS:
    - \*CEMENT: PER ASTM-C150, PORTLAND TYPE 2 OR ASTM-C595 TYPE 1L (MS)
    - \*FINE AND COURSE AGGREGATES: PER ASTM-C33
    - \*FLY ASH: CLASS C OR F, PER ASTM-C618
    - \*WATER: SHALL BE CLEAN AND NON-DETRIMENTAL TO CONCRETE
    - \*ADMIXTURES: OTHER THAN AIR ENTRAINMENT AND WATER REDUCTION, NO OTHER ADMIXTURES ARE ALLOWED WITHOUT PRIOR APPROVAL FROM THE E.O.R.
    - \*AIR ENTRAINMENT ADMIXTURE: PER ASTM-C260.
  - CONCRETE MIX DESIGN: CONCRETE FOR MAT FOUNDATION:
    - \*COMPRESSIVE STRENGTH: WHEN TESTED IN ACCORDANCE WITH ASTM-C39/C39M SHALL BE 4,000psi AT 28 DAYS
    - \*CONCRETE WEIGHT: NORMAL (144lbs./cu. ft.)
    - \*FLY ASH CONTENT: MAX 15% OF CEMENTITIOUS MATERIALS BY WEIGHT
    - \*CEMENT CONTENT: MIN 520lbs./cu. yd.
    - \*WATER-TO-CEMENT RATIO: 0.45
    - \*TOTAL AIR CONTENT: 3% NATURALLY OCCURRING, PER ASTM-C173
    - \*MAXIMUM SLUMP: 3" ±1"
    - \*MAXIMUM COURSE AGGREGATE SIZE: 1"
    - \*WATER REDUCER: TYPE A PER ASTM-C494.
  - TOWER ANCHOR BOLT PLACEMENT SHALL BE ACCOMPLISHED USING MANUFACTURER SUPPLIED ANCHOR BOLT TEMPLATE. "WET SETTING" OF ANY REINFORCEMENT OR ANCHORAGE IS PROHIBITED.
  - CONSTRUCTION SHEAR KEYS/CONSTRUCTION JOINTS ARE TO BE PROVIDED ANYWHERE THAT THERE IS DISCONTINUITY BETWEEN POURS PER ACI-318.
  - FOUNDATION CONCRETE VOLUME = 91 cu. yds. (BASED ON ASSUMED 24ft LONG DRILLED SHAFT).
  - FOUNDATION REBAR WEIGHT = 9,105lbs. (BASED ON ASSUMED 24ft LONG DRILLED SHAFT).
  - PILOT HOLES AT EACH DRILLED SHAFT LOCATION ARE TO BE DRILLED PRIOR TO INSTALLATION OF DRILLED SHAFT BY THE GEOTECHNICAL ENGINEER FOR CONFIRMATION OF ROCK DEPTH AND CONFIRMATION OF DESIGN PARAMETERS.
  - DRILLED SHAFTS ARE ANTICIPATED TO BE CONSTRUCTED USING WET METHODS DUE TO HIGH GROUNDWATER. SLURRY SHALL BE A NATURAL/BENTONITE SLURRY COMPLYING WITH ACI-336.1.
  - SLURRY DISPLACEMENT METHOD: STABILIZE EXCAVATION WITH SLURRY MAINTAINED A MINIMUM OF 60 INCHES (1500mm) ABOVE GROUND-WATER LEVEL AND ABOVE UNSTABLE SOIL STRATA TO PREVENT CAVING OR SLOUGHING OF SHAFT. MAINTAIN SLURRY PROPERTIES BEFORE CONCRETING. EXCAVATE AND COMPLETE CONCRETING OF DRILLED PIER ON SAME DAY, OR REDRILL, CLEAN, AND TEST SLURRY IN EXCAVATION BEFORE CONCRETING.



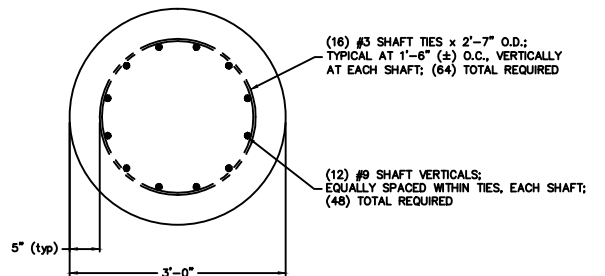
**FOUNDATION PLAN**  
SCALE = 1:48



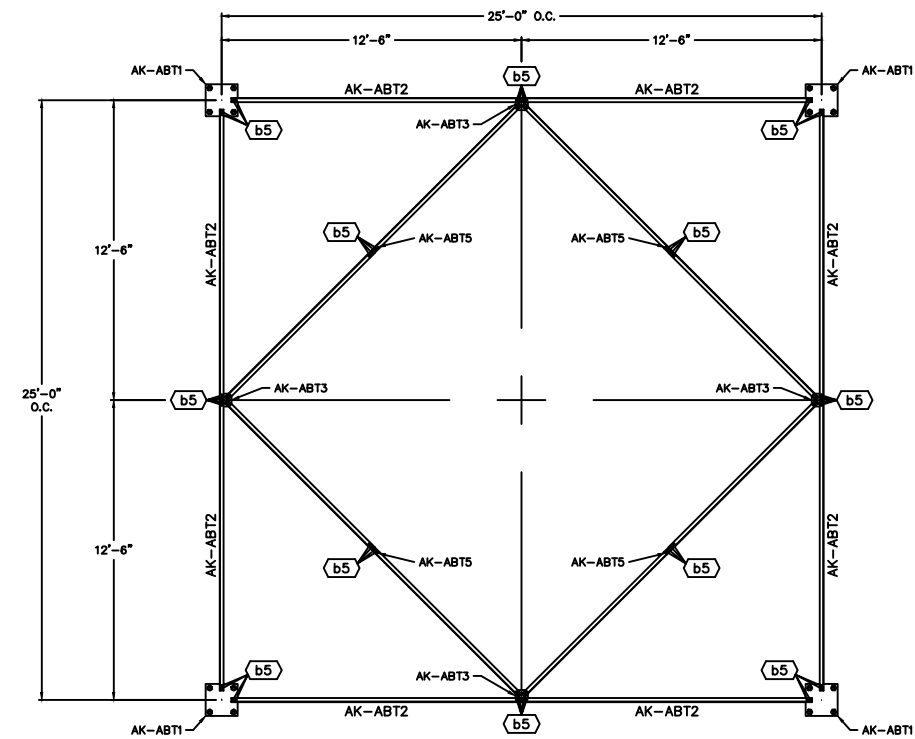
**DETAIL "A"**  
REBAR POSITIONING DETAIL  
SCALE = 1:16



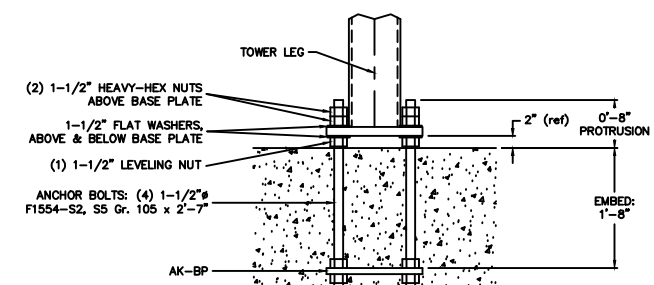
**TYPICAL FOUNDATION FACE**  
SCALE = 1:48



**SHAFT CROSS-SECTION**  
TYPICAL (4) PLACES  
SCALE = 1:16



**ANCHOR BOLT TEMPLATE ASSEMBLY**  
SCALE = 1:48



**FINAL ANCHOR BOLT INSTALLATION**  
TYPICAL AT EACH LEG  
SCALE = 1:8

BILL OF MATERIALS						
QTY	MARK	DESCRIPTION	MATERIAL	UNIT	UNITS	WT-EA
16	-	1-1/2" ANCHOR BOLT	ASTM-F1554-S2, S5 & 10% HDG	2	7	15.53
32	-	1-1/2" FLAT WASHER	H.D.G.; SUPPLIER STOCK	-	---	0.20
80	-	1-1/2" HEAVY-HEX NUT	H.D.G.; SUPPLIER STOCK	-	---	2.08
4	AK-BP	A.B. BEARING PLATE	1 x 16 PL	1	4	72.60
4	AK-ABT1	A.B. TEMPLATE PLATE	1/4 x 16 PL	1	4	18.15
8	AK-ABT2	A.B. TEMPLATE ANGLE	2 x 2 x 3/16 L	12	1-3/16	29.52
4	AK-ABT3	A.B. TEMPLATE PLATE	1/4 x 6 PL	0	6-3/8	2.71
8	AK-ABT4	A.B. TEMPLATE ANGLE	2 x 2 x 3/16 L	8	7-13/16	21.11
4	AK-ABT5	A.B. TEMPLATE PLATE	1/4 x 2 PL	0	6-5/8	0.94
HARDWARE: QUANTITIES REFLECT AN ADDITIONAL 5% (+2, MINIMUM)						
67	( b5 )	1/2" BOLT	A325; H.D.G.	0	1-1/4	0.20
67	-	1/2" HEAVY-HEX NUT	H.D.G.; SUPPLIER STOCK	-	---	0.09
EST. NET GALVANIZED SHIPPING WEIGHT = 1,266 lbs.						

- TEMPLATE NOTES:**
- ANCHOR BOLT TEMPLATE MATERIALS ARE DESIGNATED "CONSUMABLES", AND WILL NOT BE SHIPPED IN A GALVANIZED CONDITION.
  - JAM NUTS SHALL NOT BE UTILIZED IN TEMPLATE ASSEMBLY.

**SWAGER COMMUNICATIONS INC.**  
P.O. BOX 6546, 501 E. SWAGER DR., FREMONT, IN 46737

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SCALE: 1:64  
APP'D: J. NEFF  
MODEL: TRS-35  
**TOWER FOUNDATION DETAILS**  
DATE: 02/24/22  
DRAWING NUMBER: 3986-22-A02