

FOUNDATION NOTES -- CONSTRUCTION:

VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD BEFORE COMMENCING ANY WORK.

NOTIFY THE OWNER OR HIS AGENT IMMEDIATELY SHOULD DIMENSIONS OR CONDITIONS VARY FROM THE INTENT OF THE DRAWINGS.

IN AREAS WHERE THERE IS VEGETATION, SCALP COMPLETELY (APPROXIMATELY 4 TO 6 INCHES DEEP). STRIPPED MATERIAL CLASSIFIED AS TOPSOIL SHALL BE STOCKPILED FOR REFUSE. OTHER STRIPPED MATERIAL SHALL BE HAULED OFF OR SPREAD ON SITE AS DIRECTED BY THE OWNER.

THE SUBGRADE SHOULD BE PROOF ROLLED WITH A LOADED DUMP TRUCK, HEAVY SCRAPER OR SIMILAR PNEUMATIC-TIRED EQUIPMENT. THE PROOF-ROLLING SERVES TO COMPACT SURFICIAL SOILS AND DETECT ANY SOFT OR LOOSE ZONES. ANY SOILS DEFECTING EXCESSIVELY UNDER MOVING LOADS SHOULD BE UNDERCUT TO FIRM SOILS AND RE-COMPACTED

SCARIFY TO A DEPTH OF 6 INCHES THE EXPOSED SUBGRADE. MOISTURE CONDITION TO ABOVE OPTIMUM AND RE-COMPACT TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D698).

FILL, WHERE REQUIRED SHALL BE A QUALITY MATERIAL (SANDY CLAY OR SAND) SUITABLE FOR FILL PURPOSES, FREE OF DELETERIOUS MATERIAL, AND WITH PLASTICITY INDEX (P.I. < 20) EQUAL TO OR LESS THAN 20. PLACE IN LOOSE LAYERS NOT TO EXCEED EIGHT (8) INCHES. COMPACT EACH LAYER TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST (ASTM D-698). THE MOISTURE CONTENT SHOULD BE WET OF OPTIMUM.

SAND SHALL BE CLEAN, SHARP GRANULAR TYPE, LOCALLY AVAILABLE, AND EASILY COMPACTED, FREE OF VEGETATION OR OTHER DELETERIOUS MATERIAL.

SET REINFORCING BARS AND POUR CONCRETE IN PIERS IMMEDIATELY AFTER DRILLING AND INSPECTION. UNCLEAN HOLES AT BOTTOM OR SLOUGH-SIDED SHAFTS SHOULD BE CAUSE FOR REJECTION.

ALL FORMS WORK SHALL BE PLACED AND SHORED. ALL REINFORCING BARS SHALL BE SET AND TIED. ALL CONCRETE SHALL BE PLACED, FINISHED AND CURED PER THE AMERICAN CONCRETE INSTITUTE LATEST EDITION AND PER ALL SAFETY PROCEDURES OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

HAND TAMP BOTTOM OF GRADE BEAM EXCAVATION TO HARD SURFACE BEFORE PLACING REINFORCING BARS.

1. REINFORCING BARS AT ALL SPLICES A MINIMUM OF 42 BAR DIAMETERS.  
PROVIDE CORNER BARS AT ALL GRADE BEAM CORNERS A MINIMUM LENGTH OF TEN FEET (10'-0") AND BENT AT 90 DEGREES FIVE FEET (5'-0") EACH LEG.  
PROVIDE COVER FOR REINFORCEMENT AS FOLLOWS (UNLESS NOTED OTHERWISE).  
3" CLEAR - WHERE CONCRETE CONTACTS EARTH.  
2" CLEAR - WHERE CONCRETE CONTACTS FORM.

ALL CONCRETE SURFACES SHALL BE PROPERLY CURED AND SUFFICIENT TIME ALLOWED BEFORE PERMITTING TRAFFIC OR CONSTRUCTION TO PROCEED. A HARD STEEL TROWEL SHALL BE USED TO FINISH ALL INTERIOR CONCRETE. EXTERIOR CONCRETE SHALL RECEIVE A WOOD FLOAT FINISH.

FOUNDATION NOTES -- DESIGN AND MATERIALS:

DRILLED AND BELLED PIERS--THIS FOUNDATION DESIGN IS BASED ON THE ASSUMPTION THAT AN ALLOWABLE SOIL BEARING OF 3800 PSF WILL BE FOUND AT A DEPTH OF TEN FEET (10'-0) BELOW NATURAL GRADE AS RECOMMENDED BY GEOTECHNICAL EXPLORATION (REPORT NO. 0504/1116) INVESTIGATED BY COASTAL TESTING LABORATORIES, INC. THE BELL TO SHAFT DIAMETER RATIO SHALL NOT EXCEED 3 TO 1. ANGLE OF THE BELL SHALL NOT EXCEED 60° AS MEASURED FROM THE HORIZONTAL (U.N.).

CONCRETE IN UNDER REAMED PIERS SHALL HAVE A MIX DESIGNED FOR A MINIMUM OF 2500 PSI AT 7 DAYS AND 3000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C39. THE MINIMUM CEMENT CONTENT SHALL BE 470 POUNDS (5 SACKS) PER CUBIC YARD, WITH 3/4" COURSE AGGREGATE, NARROW GRADED, PLACE BY MEANS OF METAL CHUTE. ALL CEMENT DESIGN SLUMP RANGE IS 4 TO 6 INCHES. POUR BETWEEN THE TEMPERATURES OF 50-90° F MAY BE MADE WITHOUT SPECIAL PROVISIONS.

GRADE BEAMS--THE ALLOWABLE BEARING PRESSURE UNDER GRADE BEAM IS ASSUMED TO BE 1500 PSF. THIS BEARING PRESSURE IS FOR SUSTAINED LOADS AND CONTAINS AN APPLIED SAFETY FACTOR OF 3. THE BOTTOM OF GRADE BEAMS SHALL BE ISOLATED FORM NATURAL SOILS BY 3' OF NON-EXPANSIVE SELECT FILL HAVING A PLASTICITY INDEX BETWEEN 7 AND 20'. BACKFILL AGAINST THE OUTSIDE FACE OF GRADE BEAMS SHALL BE SELECT FILL MATERIALS. DISTURBANCE OF GRADE BEAM BEARING AREA SHALL BE MINIMIZED DURING EXCAVATION OPERATIONS. ANY SOFT AREAS SHOULD BE OVER EXCAVATED TO FIRM SOIL AND LOOSE MATERIAL IN THE TRENCH SHALL BE REMOVED BEFORE CONCRETE PLACEMENT.

CONCRETE IN THE GRADE-BEAMS SHALL HAVE A MIX DESIGNED FOR A MINIMUM OF 2500 PSI AT 7 DAYS AND 3000 PSI AT 28 DAYS WITH 5 SACKS STANDARD TYPE I CEMENT, AND 1/2 INCH COARSE AGGREGATE, NARROW GRADED, PLACED BY MEANS OF METAL CHUTE. ALL CEMENT DESIGN SLUMP RANGE IS 3 TO 5 INCHES. POUR BETWEEN THE TEMPERATURES OF 50-90° F MAY BE MADE WITHOUT SPECIAL PROVISIONS.

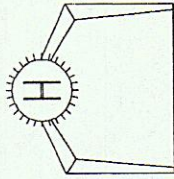
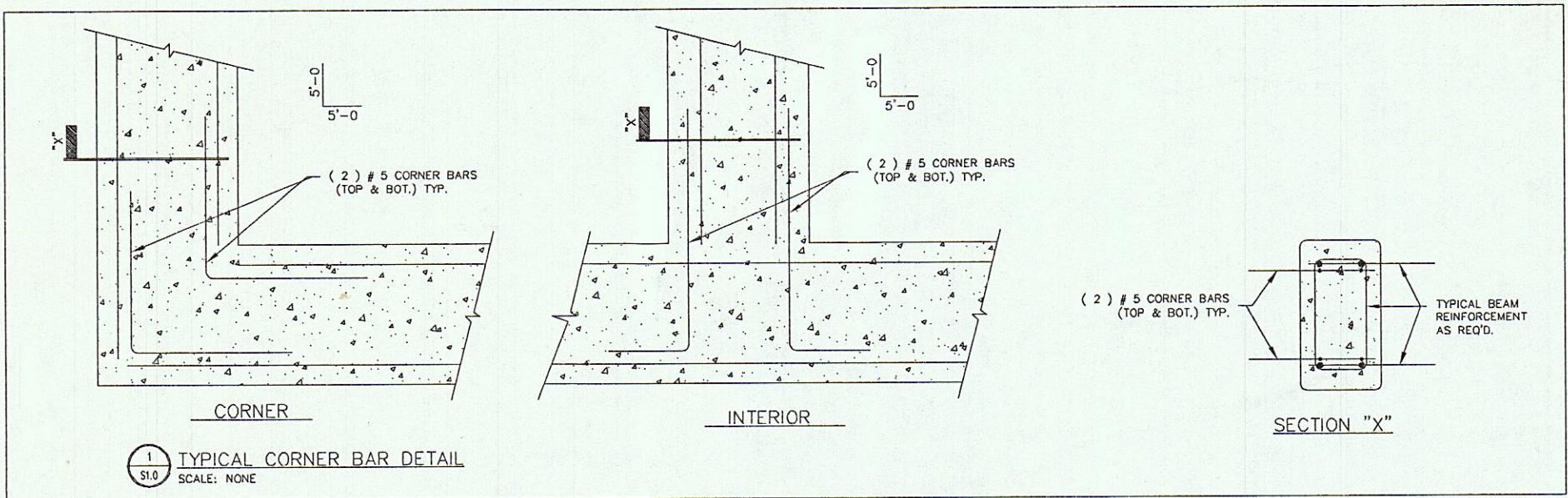
TESTING, AS MENTIONED IN THESE NOTES, IS FOR QUALITY CONTROL AND IS FOR THE OWNER'S BENEFIT. THE FREQUENCY AND TYPES OF TESTING SHALL BE AS DIRECTED BY THE OWNER OR HIS AGENT, IN FULL COOPERATION WITH AND PRIOR ANNOUNCEMENT TO THE CONTRACTOR.

ALL REINFORCING BARS SHALL BE CLEAN, NEW AND FREE OF DIRT, RUST OR OIL AND SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM A-615 GRADE 60 EXCEPT #3 BARS MAY BE GRADED 40.

PLAIN SMOOTH RODS OR DOWELS SHALL CONFORM TO ASTM A-675 GRADE 80.

JOINT FILLER STRIPS FOR EXPANSION JOINTS SHALL CONFORM TO ASTM D-1751 OR D-1752. JOINT FILLER SHALL BE 1/2 INCH THICK MINIMUM UNLESS SHOWN OTHERWISE ON THE DRAWINGS. JOINT SEALANT FOR PORTLAND CEMENT CONCRETE PAVEMENTS SHALL CONFORM TO ASTM D-3405.

ANCHOR BOLTS SHALL BE ASTM A-307 STANDARD BLACK (NOT GALVANIZED). SIZES SPECIFIED BY THE METAL BUILDING SUPPLIER (MBS). COORDINATE THIS PLAN WITH THE METAL BUILDING SUPPLIERS ANCHOR BOLT SETTING PLAN.



HORIZON DESIGN & CONSULTING  
PHONE 281-241-3120

Seal

Firm Name and Address

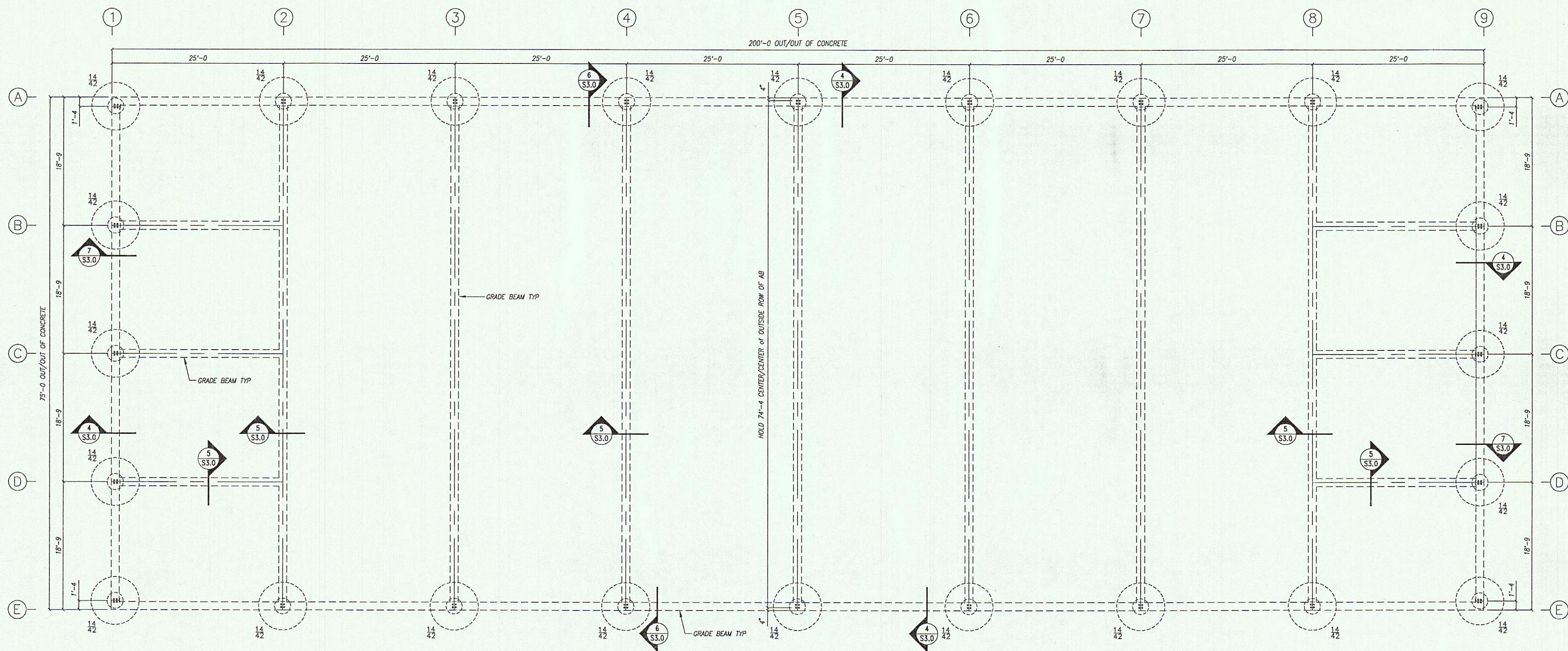
KATHLEEN PETERSEN PROJECT  
618 COUNTRY ROAD 32  
ANGLETON, BRAZORIA COUNTY, TEXAS

FOUNDATION NOTES

No.	Revision/Issue	Date

File Name Peterson-S1.dwg	Sheet S1.0
Date April 26, 2005	
Scale N/A	



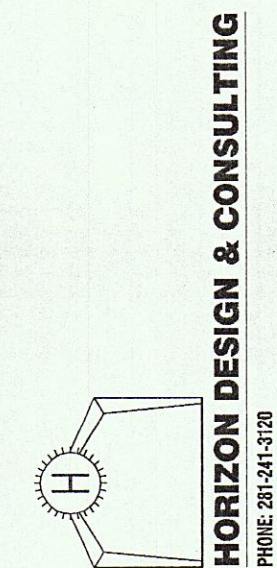


1 FOUNDATION PLAN  
S2.0 SCALE: 1/8" = 1'-0"

#### SITE SURFACE PREPARATION:

APPROXIMATELY 18" FILL SOIL SHALL BE USED BENEATH THE SURFACE SOIL. THE FILL SOIL SHALL BE SANDY MATERIAL WITH A LIQUID LIMIT BELOW 40 AND A PLASTICITY INDEX BETWEEN 7 AND 20 PERCENT. TO PROVIDE PROPER SUPPORT FOR TOP SOIL, IT IS ESSENTIAL THAT THE FILL BE PROPERLY COMPACTED. THE FILL SHOULD BE PLACED IN MAXIMUM LIFTS OF EIGHT INCHES, MEASURED LOOSE, AND COMPACTED TO A MINIMUM OF 95 PERCENT OF THE OPTIMUM DENSITY AS OBTAINED BY THE STANDARD PROCTOR TEST, ASTM D-698.

SURFACE SOIL SHALL BE 6" SELECT FILL STABILIZED WITH LIME. THE LIME SHALL BE THOROUGHLY MIXED WITH A PULVERIZOR INTO TOP SOIL, SEALED WITH A SMOOTH ROLLER, ALLOWED TO CURE FOR A MINIMUM OF 3 DAYS, REMIXED AND THEN COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY OBTAINED BY THE STANDARD COMPACTION TEST (ASTM D-698).



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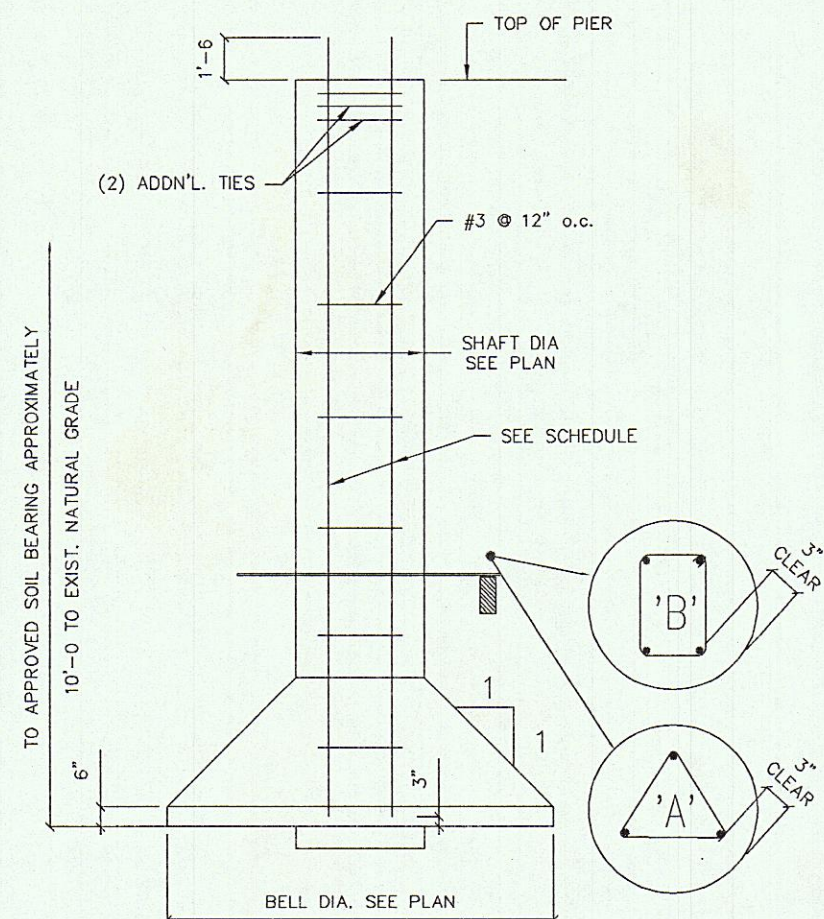
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FOUNDATION PLAN

No.	Revision/Issue	Date

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1 TYPICAL DRILLED PIER DETAIL  
S3.0 SCALE: 1"=1'-0"

REINFORCEMENT SCHEDULE			
PLAN MARK	PIER SIZE	VERTICAL	HORZ. TIES
A	12/36	3 - # 5	#3 @ 12"
B	14/42	4 - # 5	#3 @ 12"
C	16/48	5 - # 5	#3 @ 12"
D	18/54	6 - # 5	#3 @ 12"

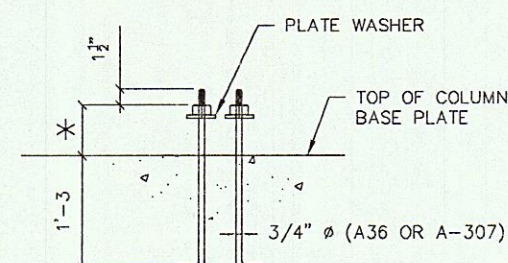
DRILLING NOTE:

IF CAVING IS ENCOUNTERED DURING DRILLING OF 12" SHAFT OR UNDERREAM BELL, INCREASE SHAFT DIAMETER TO 18" AND USE PROPER REINFORCEMENTS.

ANCHOR BOLTS NOTE:

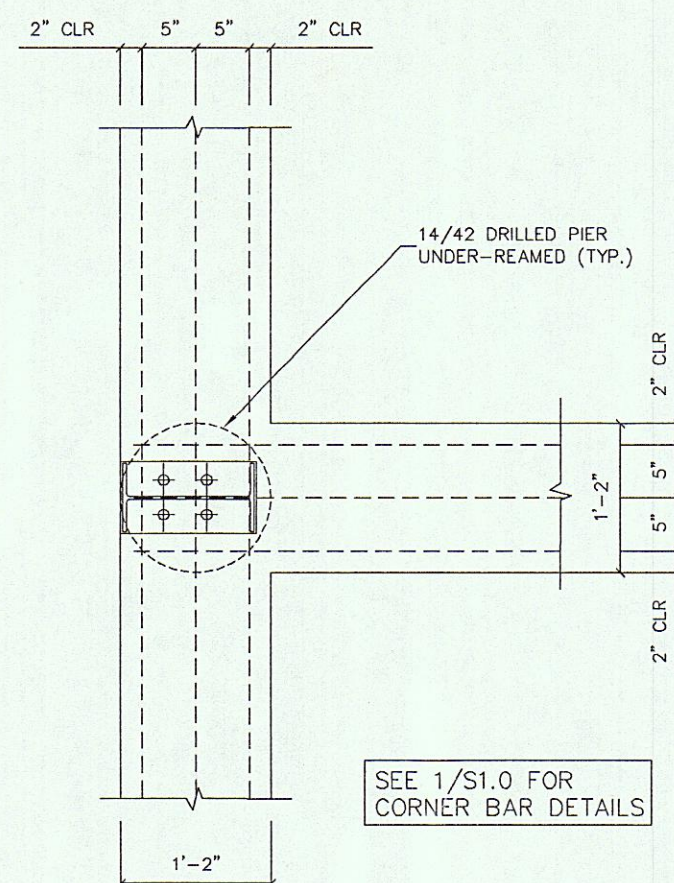
COORDINATE THE FOUNDATION PLAN WITH THE ANCHOR BOLTS SETTING SUPPLIED BY METAL BUILDING MANUFACTURER(M.B.S.).

NOTE:  
DESIGN BASED ON (4) ANCHOR BOLTS PER COLUMN.

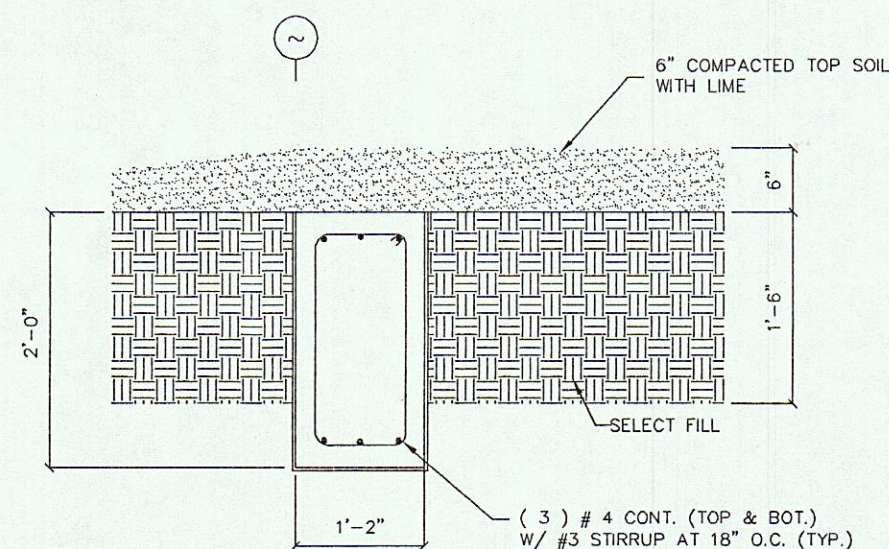


\* MINIMUM LENGTH AS REQ'D. TO ACCOMMODATE GROUT, BASE PLATE, WASHER & NUT.

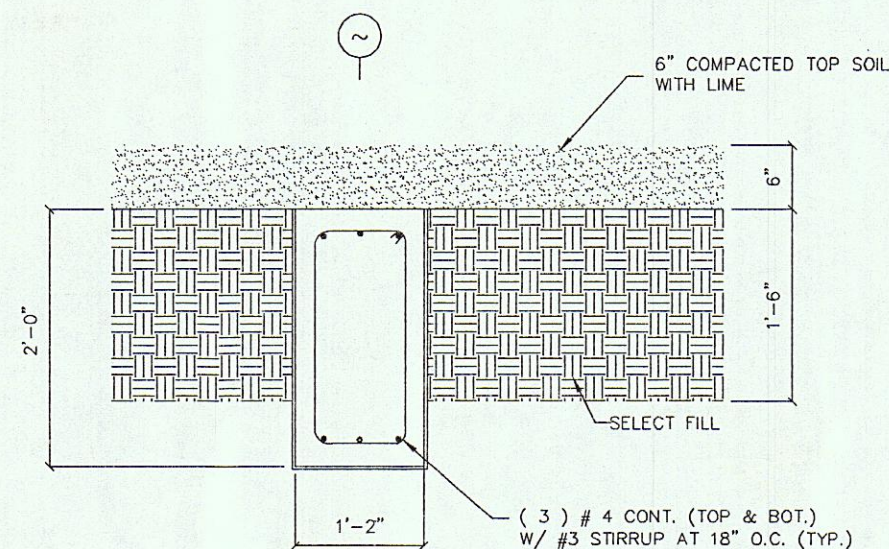
2 ANCHOR BOLTS DETAIL  
S3.0 SCALE: 1"=1'-0"



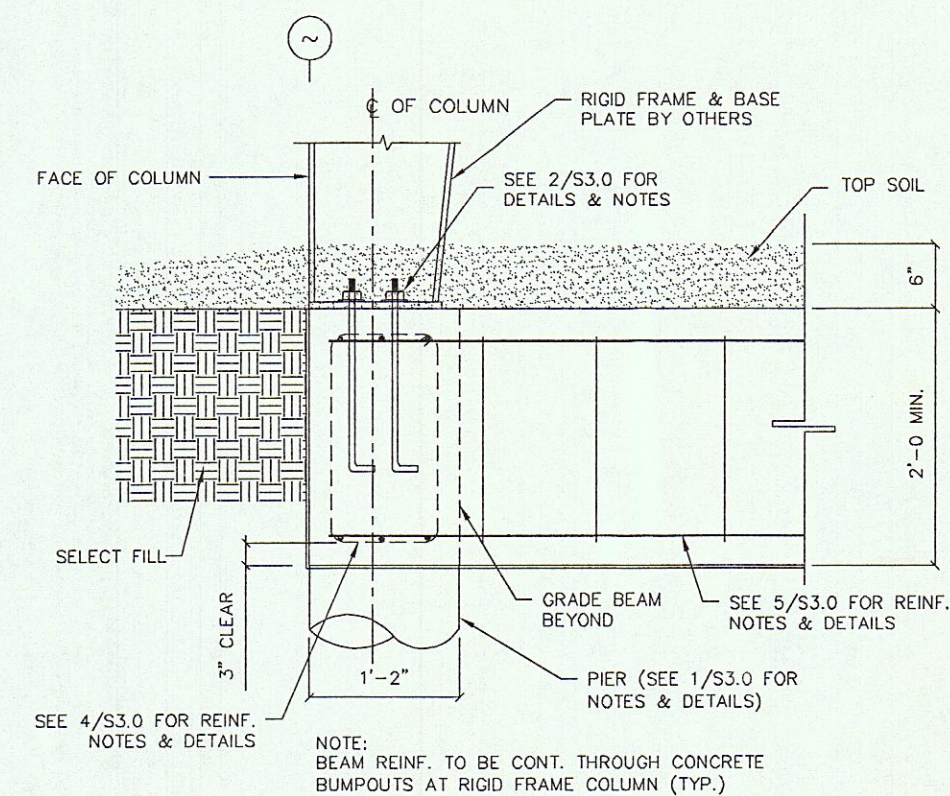
3 FOOTING AT COLUMN  
S3.0 SCALE: NONE



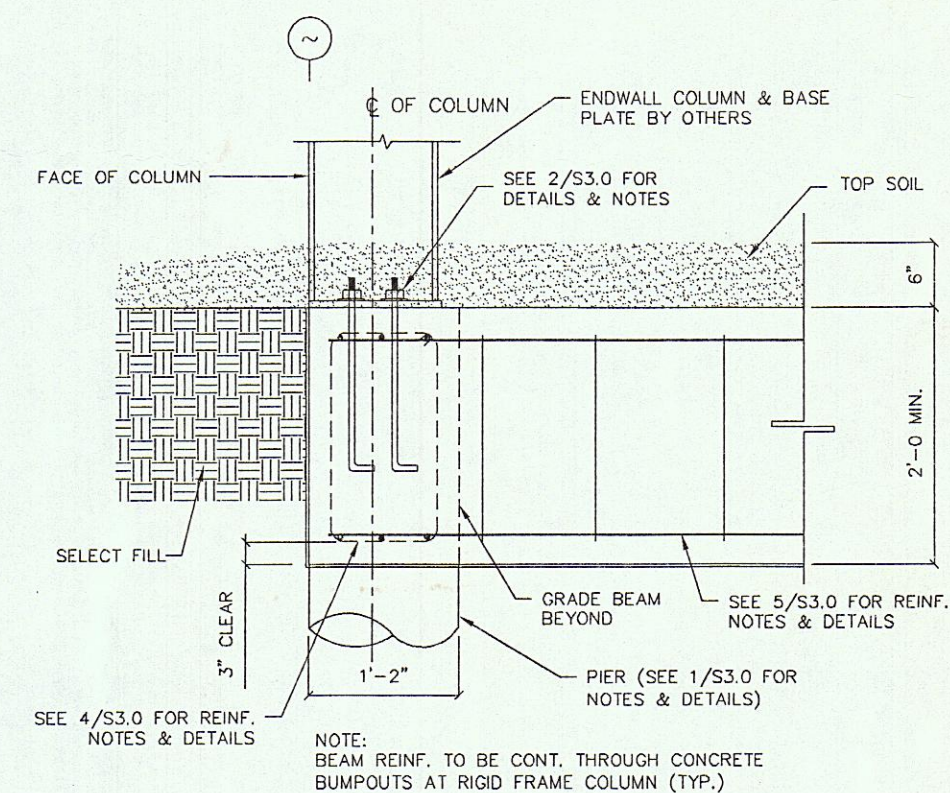
4 TYPICAL EXTERIOR GRADE BEAM  
S3.0 SCALE: NONE



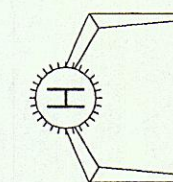
5 TYPICAL INTERIOR GRADE BEAM  
S3.0 SCALE: NONE



6 TYPICAL FOOTING AT RIGID FRAME  
S3.0 SCALE: NONE



7 TYPICAL FOOTING AT ENDWALL COLUMN  
S3.0 SCALE: NONE



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FOUNDATION DETAILS & SECTIONS

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