GENERAL NOTES

GENERAL

1. UNLESS NOTED OTHERWISE, DETAILS DESIGNATED AS "TYPICAL DETAILS," ARE APPLICABLE GENERALLY TO THE DRAWINGS IN ALL AREAS WHERE CONDITIONS ARE SIMILAR TO THOSE DESCRIBED IN THE TYPICAL DETAILS

2. SLEEVES AND BLOCKOUTS REQUIRED FOR PASSAGE OF DUCTWORK, PIPING, DRAINS, CONDUIT, ETC., AND ANCHORS REQUIRED FOR ANCHORING EQUIPMENT AND PIPING ARE NOT GENERALLY INDICATED ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL DETERMINE SUCH REQUIREMENTS FROM OTHER SERIES DRAWINGS, SUBCONTRACTORS, AND SUPPLIERS AND SHALL COORDINATE THE LOCATIONS AND DETAILS FOR THESE ITEMS PRIOR TO FABRICATION OR CONSTRUCTION OF THE STRUCTURE. ANY CONFLICTS BETWEEN THESE ITEMS AND THE BUILDING STRUCTURE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR RESOLUTION.

3. VERIFY, OR ESTABLISH, LOCATIONS AND DIMENSIONS OF ALL FRAMED OPENINGS RELATED TO EQUIPMENT OR DUCTWORK, INCLUDING INSULATION, IF ANY. WHERE SUBSTANTIAL RELOCATION OR RECONFIGURATION IS REQUIRED, SUBMIT A DRAWING TO THE ARCHITECT FOR REVIEW.

SUBSTITUTIONS

1. PROPOSED FOR SUBSTITUTIONS OF MATERIALS, PRODUCTS OR DETAILS SHOWN IN THE CONTRACT DOCUMENTS SHALL BE SUBMITTED FOR APPROVAL DURING THE BIDDING PERIOD. AFTER BIDS ARE ACCEPTED, PROPOSED SUBSTITUTIONS WILL BE CONSIDERED ONLY WHEN THEY ARE OFFICIALLY SUBMITTED WITH AN IDENTIFIED SAVINGS TO BE DEDUCTED FROM THE CONTRACT.

2. SUBSTITUTION MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL SHALL BE ACCOMPANIED BY A CURRENT I.C.B.O. (INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS) REPORT. MATERIALS OR PRODUCTS THAT DO NOT HAVE I.C.B.O. REPORTS INDICATING THE SUBSTITUTED MATERIAL OR PRODUCT TO BE EQUAL TO THAT SPECIFIED, WILL NOT BE CONSIDERED.

CODES & DESIGN SPECIFICATIONS

1. BUILDING CODE: IBC 2003.

2. STRUCTURAL CONCRETE: THE AMERICAN CONCRETE INSTITUTE, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-02)."

DESIGN LOADS

1. DEAD LOADS INCLUDED IN THE DESIGN CONSIST OF THE WEIGHT OF THE STRUCTURAL MEMBERS, PERMANENT FIXTURES (WALLS, CEILINGS ATC.)AS WELL AS FIXED MECHANICAL EQUIPMENTS. LOADINGS FOR MECHANICAL EQUIPMENTS ARE BASED ON THE WEIGHTS OF ASSUMED EQUIPMENT, AS INDICATED ON THE MECHANICAL DRAWINGS. ANY CHANGES SHOULD BE REPORTED TO THE ARCHITECT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.

2. DESIGN LIVE:

SLABS-ON-GRADE .... 100 PSF

3. WHERE ALLOWED BY CODE, LIVE LOAD REDUCTIONS ARE IN ACCORDANCE WITH THE BUILDING CODE WITH MAXIMUM REDUCTION BASED ON 0.08 PERCENT OF THE SUPPORTED AREA IN EXCESS OF 150 SQUARE FEET.

4. DESIGN WIND LOADING:

3 SECOND GUST WIND SPEED .... 90 MPH

EXPOSURE FACTOR C

IMPORTANCE FACTOR 1

BUILDING PAD PREPARATION

BUILDING PAD PREPARATION IS BASED ON SOIL REPORTS RECOMMENDATIONS PREPARED BY CTL THOMPSON TEXAS, LLC. DATED SEP 21 AND OCT 15, 2007. REFER TO SOIL REPORTS FOR MORE DETAIL REQUIREMENTS.

1. REMOVE ALL EXISTING PAVEMENTS, SURFACE VEGETATION, TREES AND ASSOCIATED ROOT MATS, ORGANIC TOPSOIL AND ANY DELETERIOUS MATERIAL.

2. EXCAVATE TO A MINIMUM OF 4'-0" BELOW EXISTING GRADE AND AT LEAST 3 FEET BEYOND THE BUILDING PERIMETER. ANY FILLS REQUIRED TO ESTABLISH THIS GRADE SHALL CONSIST OF MOISTURE CONDITIONED CLAYS AND SELECT FILL AS DESCRIBED BELOW.

3. FILL PAD TO 1 FEET BELOW FINAL GRADE USING SITE EXCAVATED OR SIMILAR CLAY SOILS. COMPACT IN MAXIMUM 8 INCH LOOSE LIFTS AT A MINIMUM OF BETWEEN 3 AND 6 PERCENTAGE POINTS ABOVE OPTIMUM MOISTURE TO 94% STANDARD PROCTOR DENSITY (ASTM D698).

4. COMPLETE PAD FILL USING A MINIMUM OF 1 FEET OF NON-EXPANSIVE SELECT FILL WITH A LIGQUID LIMIT LESS THAN 35% AND A PLASTICITY INDEX (PI) BETWEEN 4 AND 15 AND SHALL CONTAIN AT LEAST 25% PASSING THE 200 SEIVE. THE SELECT FILL SHALL BE COMPACTED IN MAXIMUM 8 INCH LOOSE LIFTS AT MINUS 1% TO PLUS 3% OF THE SOIL'S OPTIMUM MOISTURE CONTENT TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY (ASTM D698).

5. SELECT FILL PLACED OUTSIDE THE GRADE BEAM LINES SHALL BE REMOVED AND REPLACED WITH COMPACTED ON-SITE CLAY BACKFILL TO 93%. STANDARD PROCTOR DENSITY AT 2% ABOVE OPTIMUM MOISTURE CONTENT.

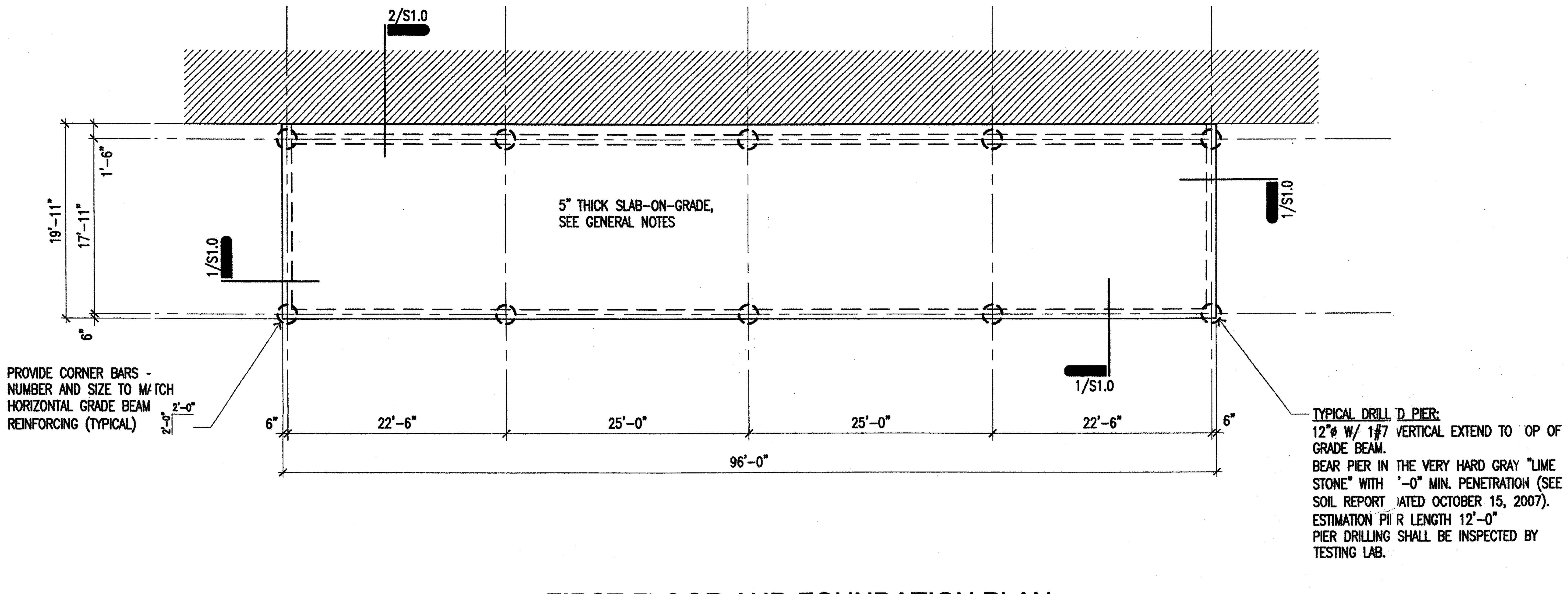
6. SELECT FILL MATERIAL WHICH IS NOT PURCHASED FROM AN APPROVED PLANT, SUCH AS ON-SITE OR PRIVATELY OWNED PIT MATERIAL, MUST BE CONTINUOUSLY MONITORED BY AN APPROVED TESTING LABORATORY HIRED AND PAID BY CONTRACTOR.

7. SELECT FILL MATERIAL MUST PROVIDE A SOLID WORKING PAD FOR OTHER TRADES DURING WET WEATHER. ALL SOFT SPOTS MUST BE RECOMPACTED PRIOR TO CONCRETE PLACEMENT.

CONCRETE MIX

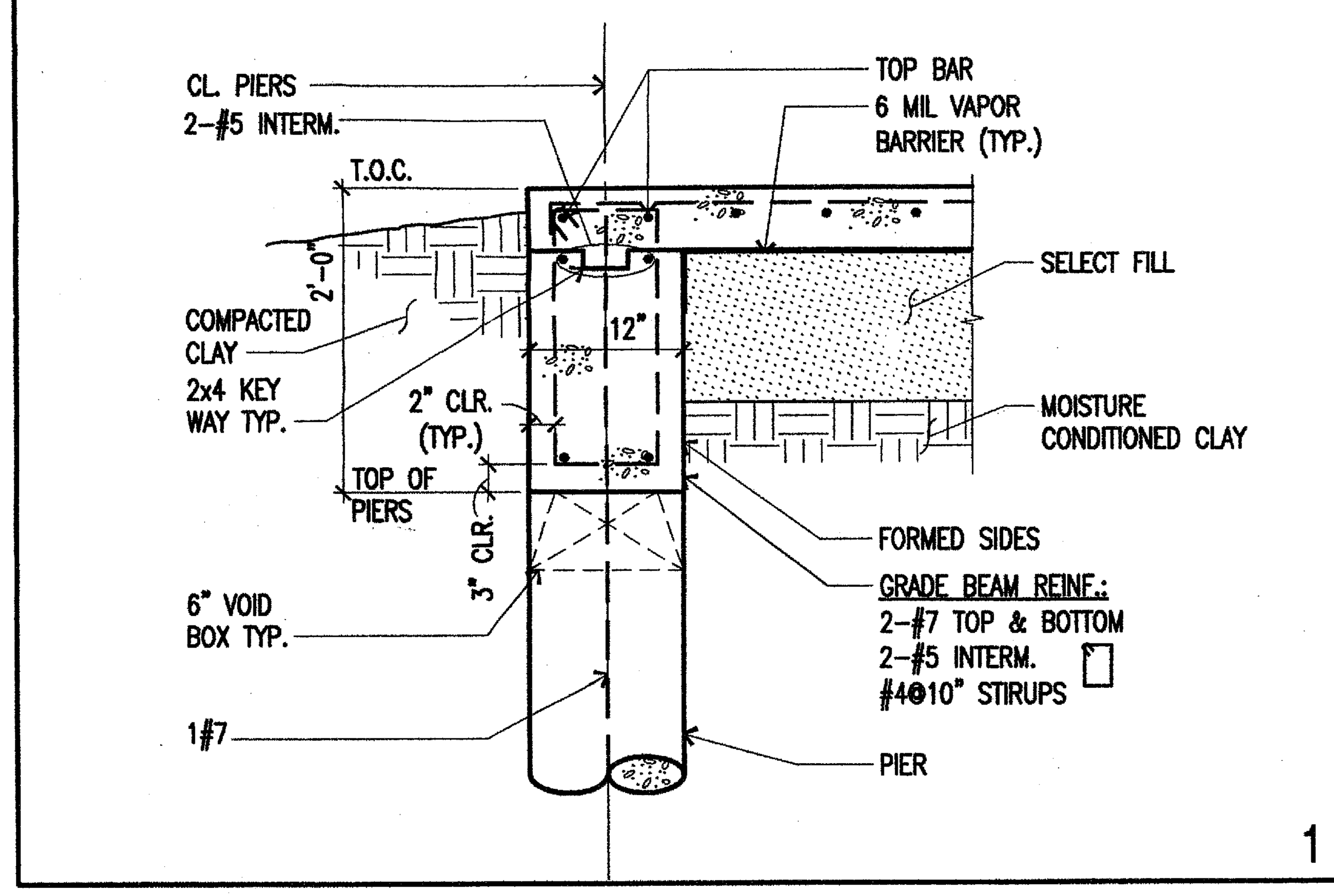
1. PROVIDE CONCRETE SCHEDULE:

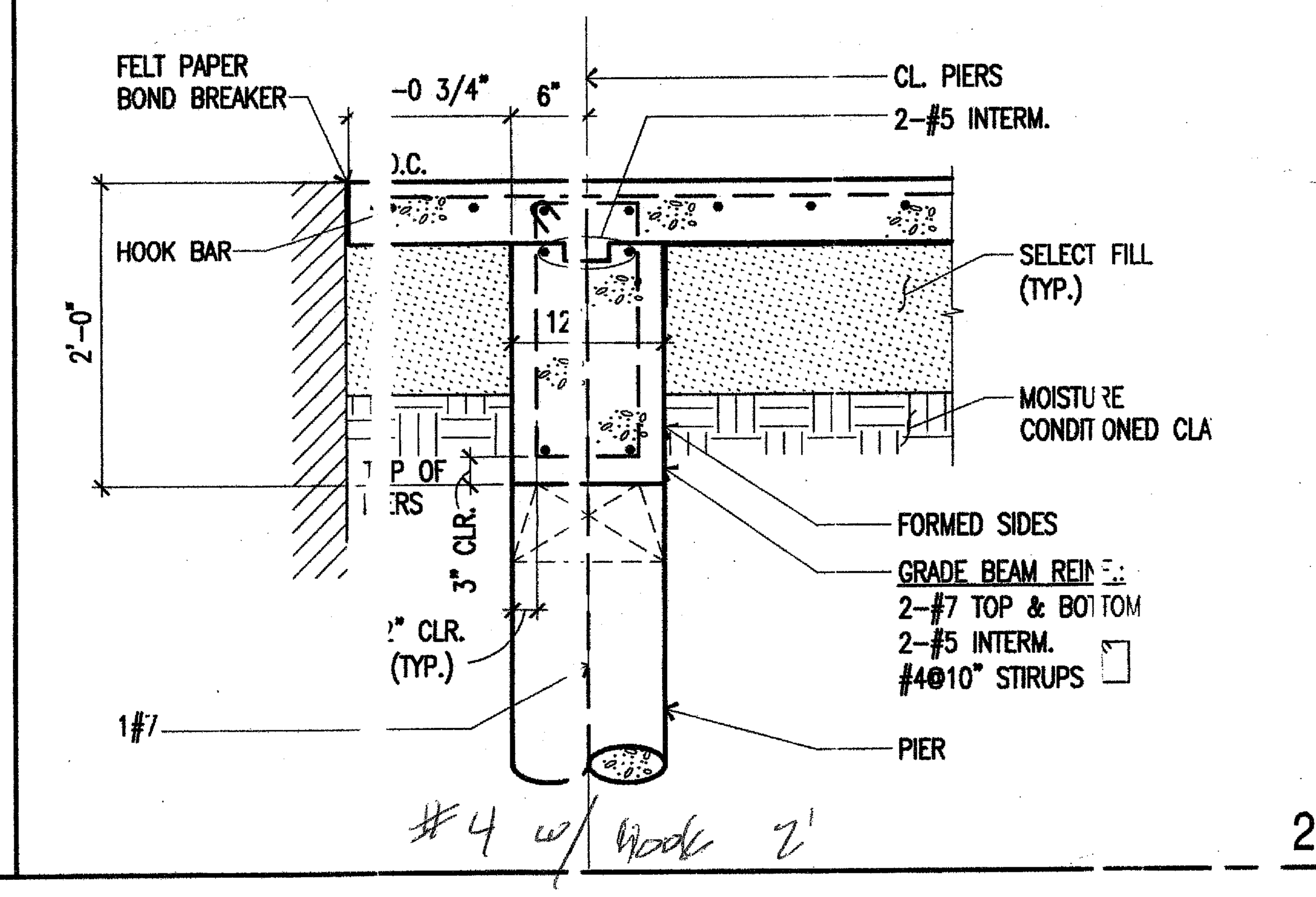
CLASS	28-DAY STRENGTH (PSI)	MAX. SLUMP (IN.)	AGG. TYPE	SIZE (IN.)	USAGE
A	3000	6-8	HDRK	1 1/2	DRILLED PIERS
B	3000	3-5	HDRK	1	SLABS-ON-GRADE, GRADE BEAMS



FIRST FLOOR AND FOUNDATION PLAN

SCALE: 1/8"=1'-0"





CONCRETE MIX (CONTINUED)

SUBMIT CONCRETE MIX DESIGN FOR REVIEW BY ARCHITECT AND ENGINEER.

2. PROVIDE FIVE PERCENT (PLUS OR MINUS 1 1/2 PERCENT) AIR ENTRAINMENT IN CONCRETE PERMANENTLY EXPOSED TO THE WEATHER (AND ELSEWHERE AT THE CONTRACTOR'S OPTION). USE OF AIR ENTRAINMENT MUST BE NOTED ON THE MIX DESIGNS.

3. ADMIXTURES MAY BE USED TO CONTROL THE WORKABILITY OF THE CONCRETE MIX. THEY SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INCLUDED IN THE SUBMITTED CONCRETE MIX DESIGN FOR APPROVAL. IN GENERAL, USE OF CALCIUM CHLORIDE WILL NOT BE PERMITTED.

4. CEMENT SHALL BE TYPE I OR TYPE (ASTM C 150).

5. DO NOT PLACE CONCRETE WITH SLUMP AND TEMPERATURE OUTSIDE THE LIMITS PROVIDED ON THE APPROVED MIX DESIGNS.

6. CHANGING MATERIAL, PROPORTIONS, PROPERTIES, SOURCES OR ANYTHING WHICH IS A CHANGE IN THE APPROVED MIX DESIGN REQUIRES A NEW MIX DESIGN SUBMITTAL.

SLAB-ON-GRADE

1. FLOOR SLAB SHALL BE 5" THICK CONCRETE SLAB-ON-GRADE

2. REINFORCE SLAB AS FOLOWS:

REINFORCE SLAB WITH #4@16" E.W. PLACED 1 1/2" FROM TOP OF SLAB

3. PLACE SPECIFIED VAPOR BARRIER ON PREPARED FILL IMMEDIATELY BENEATH THE CONCRETE SLAB.

4. SLABS-ON-GRADE SHALL BE POURED IN A STRIP PATTERN WITH WIDTHS NOT EXCEEDING 40'-0" WIDE.

5. PROVIDE THE FOLLOWING JOINTS ON THE CENTER LINES OF ALL COLUMNS AND AT A MAXIMUM SPACING AS NOTED BELOW:

a. CONSTRUCTION JOINTS SHALL BE AT 40'-0" ON CENTER MAX., PROVIDE 3/8" DIA. x 2'-0" @18" O.C. SMOOTH DOWELS.

b. SAW-CUT CONTROL JOINTS AT 20'-0" O.C. EACH WAY MAX., DEPTH SHALL BE A MINIMUM OF 1/4 OF THE SLAB THICKNESS.

6. A METAL CONSTRUCTION JOINT FORM MAY BE USED. REMOVE METAL FORMS BEFORE PLACING SECOND POUR.

CONCRETE REINFORCEMENT

1. REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL, CONFORMING TO ASTM A 615, GRADE 60.

2. REINFORCING STEEL SHOWN IN SECTIONS IS SCHEMATIC INDICATION THAT REINFORCING EXISTS. REFER TO SCHEDULES, SECTION NOTES, AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.

3. DETAIL REINFORCING BARS AND PROVIDE ADEQUATE NUMBERS OF BAR SUPPORTS AND SPACERS IN ACCORDANCE TO THE ACI DETAILING MANUAL.

CONCRETE REINFORCEMENT (CONTINUE)

4. WHERE BAR TYPES ARE NOT SPECIFIED ON THE BAR BENDING DIAGRAM, DETAIL BARS ACCORDING TO THE FOLLOWING CRITERIA (UNLESS NOTED OTHERWISE):

a. RUN TOP AND BOTTOM BARS CONTINUOUS, WITH SPLICES AND HOOKS AS DESCRIBED BELOW.

b. PROVIDE STANDARD 90 DEGREE HOOK ON TOP BARS AT CANTILEVER ENDS.

c. SPLICE TOP AND INTERMEDIATE BARS AT THE CENTER LINE BETWEEN MEMBER SUPPORTS.

d. SPLICE BOTTOM BARS DIRECTLY OVER MEMBER SUPPORTS.

e. MINIMUM LAP SPLICE LENGTH IN BEAMS, SLABS, AND WALLS IS 30 BAR DIAMETERS, EXCEPT THAT SPLICES IN HORIZONTAL WALL BARS AND INTERMEDIATE BEAM BARS SHALL BE 60 BAR DIAMETERS.

f. PROVIDE CORNER BARS PER TYPICAL CORNER BAR DETAIL AT THE INSIDE AND OUTSIDE FACES OF INTERSECTING BEAMS OR WALLS.

5. BARS SHOWN IN THE SCHEDULE TO HOOK AT DISCONTINUOUS ENDS SHALL HAVE THE HOOK PLACED HORIZONTALLY AT EXTERIOR CORNERS.

6. CONCRETE PROTECTION FOR REINFORCING STEEL MEASURED TO NEAREST BAR, STIRRUP OR TIE SHALL BE AS FOLLOWED:

a. CONCRETE DEPOSITED AGAINST THE GROUND (WITH OR WITHOUT VAPOR BARRIER): 3".

b. FORMED FACES OF BEAMS, COLUMNS AND WALLS EXPOSED TO RAIN OR IN CONTACT WITH THE GROUND: 2".

c. FORMED FACES OF BEAMS AND COLUMNS NOT EXPOSED TO RAIN OR SOIL: 1 1/2".

CONCRETE REINFORCEMENT (CONTINUE)

d. INTERIOR AND PROTECTED EXTERIOR FACES OF WALLS: 1".

e. BEAM AND SLAB BOTTOMS FORMED WITH FIBERBOARD VOID BOXES: 2".

CAST-IN-PLACE CONCRETE

1. CONCRETE WORK SHALL BE IN COMPLIANCE WITH THE PROVISION OF "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-02).

2. CONSTRUCTION JOINTS IN BEAMS, SLABS AND WALLS SHALL ONLY OCCUR WITHIN 1'-6" OF MIDSPAN BETWEEN SUPPORTS. CONSTRUCTION JOINTS IN SOIL SUPPORTED SLABS-ON-GRADE SHALL BE WHERE SHOWN. SUBMIT A DIAGRAM OF ALL PROPOSED CONSTRUCTION JOINTS WHICH ARE NOT SPECIFICALLY SHOWN ON THESE DRAWINGS

3. COLUMN PILASTERS ON THE SIDES OF GRADE BEAMS AND WALLS SHALL BE CAST MONOLITHICALLY WITH THE GRADE BEAM OR WALL UNLESS SHOWN OTHERWISE.

4. ALL SLEEVES, MECHANICAL OPENINGS, CONDUITS, PIPES, RECESSES, DEPRESSIONS, CURBS AND 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 AND SUBMITTED TO THE ARCHITECT FOR APPROVAL.

5. PROVIDE SHEAR KEYS IN ALL CONSTRUCTION JOINTS IN BEAMS, IN ACCORDANCE WITH THE TYPICAL CONCRETE DETAILS.

SPECIAL INSPECTOR REQUIRED FOR ALL STRUCTURAL ELEMENTS. THE ENGINEER SHALL SUBMIT A LETTER STATING THE STRUCTURE WAS CONSTRUCTED PER THE 2003 IBC AND IS SAFE FOR OCCUPANCY.

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STATE OF TEXAS — HERMAN GUNAWAN — 78866 — REGISTERED PROFESSIONAL ENGINEER — 11/21

REVISION | RVSD | APPD | DATE

DRAWN BY: CV
CHECKED BY: HG/GSO
DATE: 10-18-2007

TRINITY CHRISTIAN ACADEMY

GARY MORGAN WILLIAMS / ARCHITECT

SHEET:

S1.0