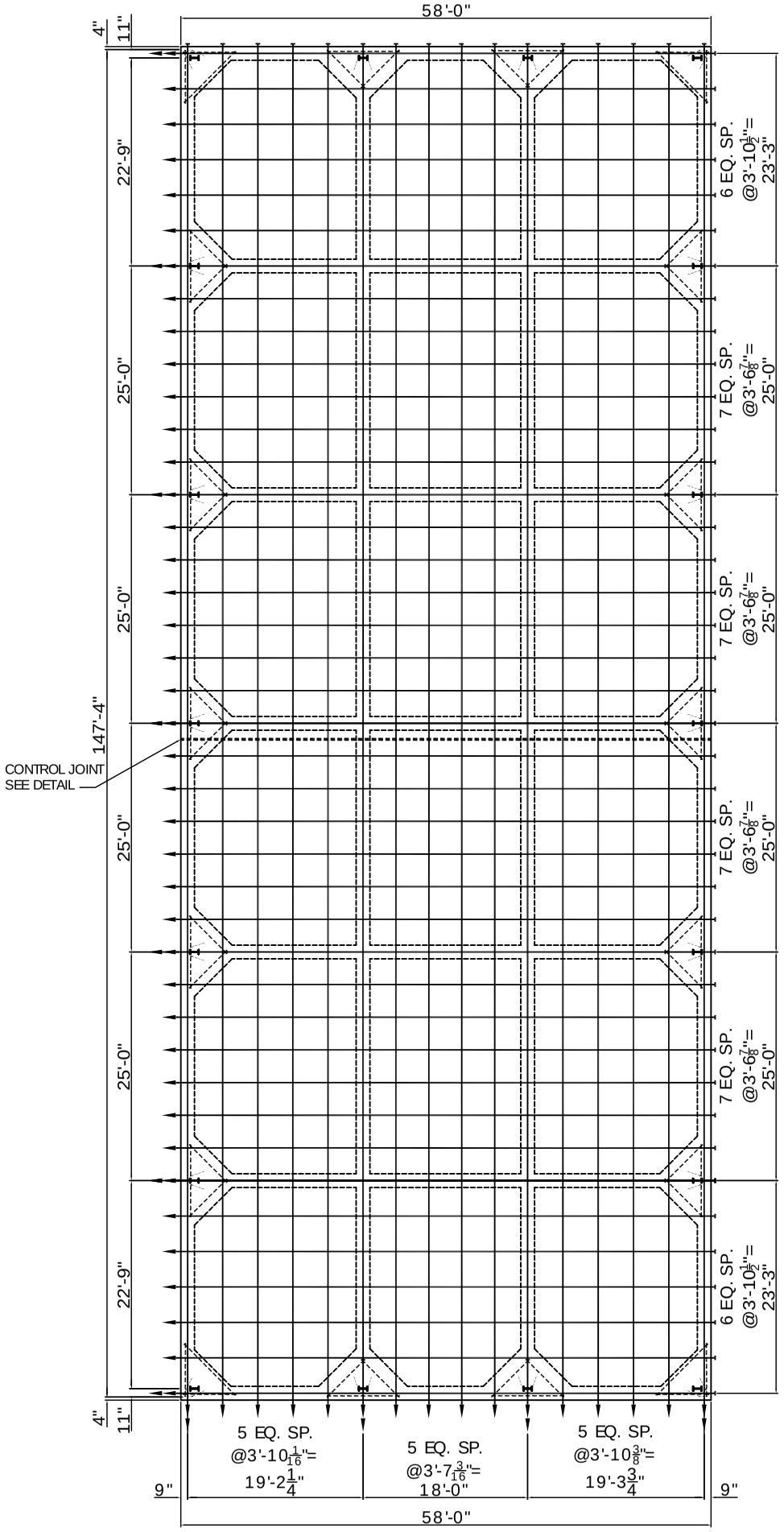
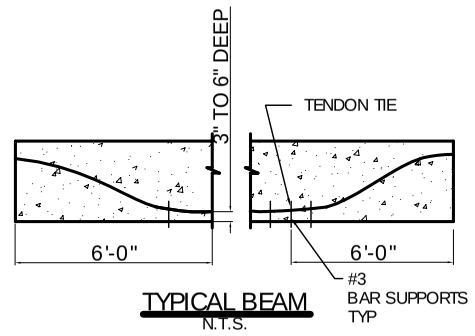
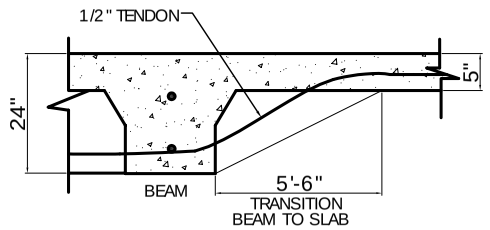


BLDG. 2440 FOUNDATION PLAN

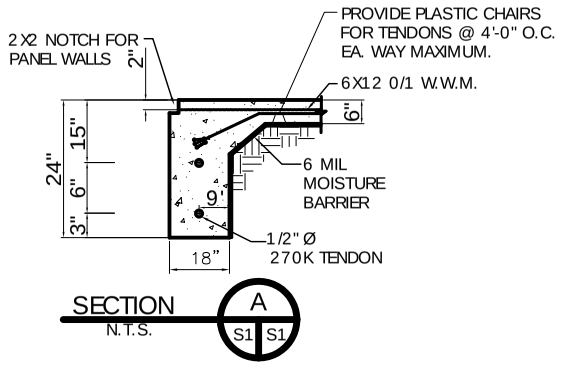
SCALE: 1/8" = 1'-0"



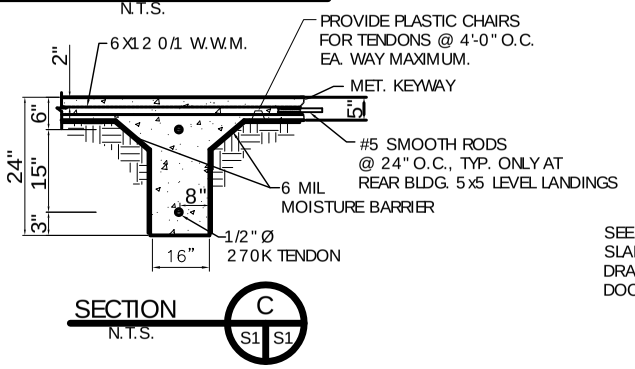
TYPICAL BEAM
N.T.S.



TYPICAL BEAM ENDS INTO SLAB
N.T.S.



SECTION A
N.T.S.
S1 S1



SECTION C
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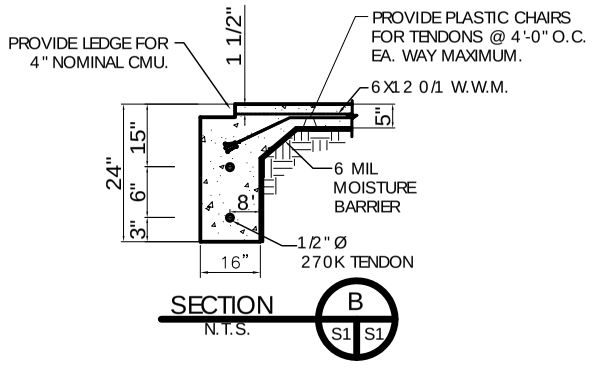
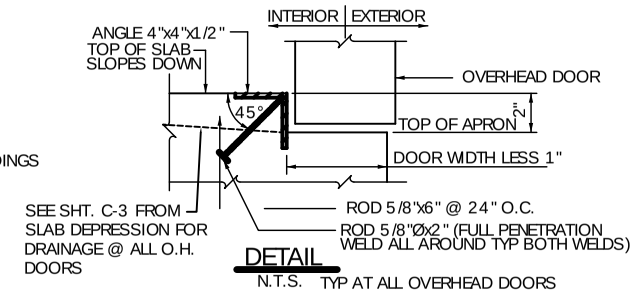
S1 S1



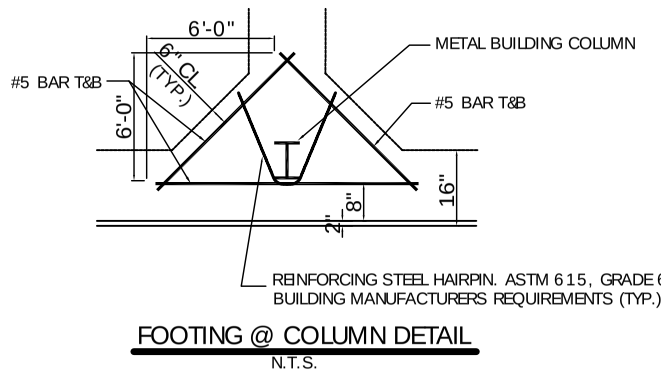
SECTION B
N.T.S.
S1 S1

NOTE:
4000 PSI CONC, TYP.

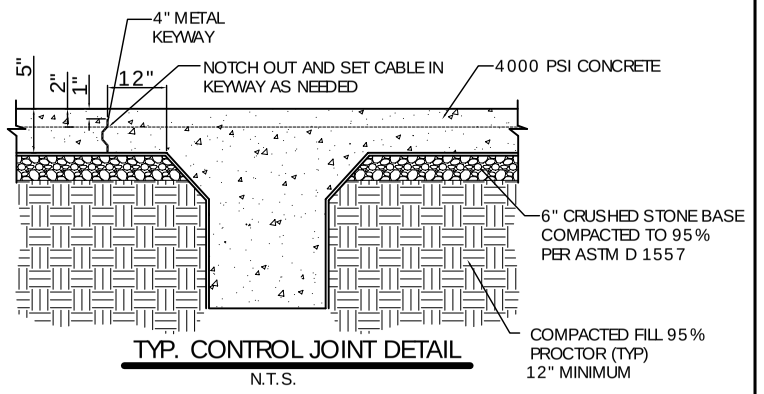
FIELD VERIFY COLUMN LOCATION WITH METAL BUILDING MANUFACTURERS COLUMN LAYOUT PRIOR TO CONSTRUCTION. (TYP)



DETAIL
N.T.S.
TYP AT ALL OVERHEAD DOORS



FOOTING @ COLUMN DETAIL
N.T.S.



TYP. CONTROL JOINT DETAIL
N.T.S.

FOUNDATION GENERAL NOTES:

1. THE INTENT OF THIS PLAN IS TO PROVIDE INFORMATION FOR PLACEMENT OF POST TENSION SYSTEM TENDONS AND (WHERE SHOWN) PILINGS, ONLY. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS, BRICK LEDGES, BLOCK OUTS, OFFSETS, ETC., SHOWN ON THESE PLANS, TO ASSURE AGREEMENT WITH ARCHITECTURAL PLANS.
2. FILL, AS A MINIMUM QUALITY, SHALL BE 40% CLAY AND 60% SANDY MIXTURE, PLACED IN 6" LIFTS AND COMPACTED TO MINIMUM 95% STANDARD PROCTOR. FOOTINGS ARE DESIGNED TO USE WITH SOIL PRESSURE OF 2000 LBS. PER SQUARE FOOT OR MORE. PRIOR TO PILE DRIVING (WHERE PILES ARE REQUIRED) IT IS RECOMMENDED THAT OWNER VERIFY PILE SIZE AND CAPACITY BY CONTRACTING THE SERVICES OF A SOILS ENGINEERING COMPANY, OR AS AN ALTERNATIVE, VERIFY PILE CAPACITY WITH A PILE LOAD TEST. IF NO SOILS ANALYSIS FOR THE PROPERTY HAS BEEN PROVIDED TO ENGINEER, CONTRACTOR MUST ADVISE OWNER THAT PILE LOAD CAPACITIES USED ARE BASED ON LOCAL CODES AND HISTORICAL INFORMATION WHERE AVAILABLE, AND THAT THE SOILS DATA FOR THE SPECIFIC PROJECT AREA MAY NOT BE COMMENSURATE WITH THESE DATA. CONTRACTOR SHALL ARRANGE TO HAVE A VERIFIED COPY OF THE BLOW COUNT FOR DRIVING EACH PILE.
3. ALL WATER (RAIN, RISING WATER, ETC.) SHALL BE DIRECTED AWAY FROM THE SLAB DURING PREPARATION, PLACING AND CURING OF SAME. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES.
4. BEAM SIZES AND LOCATION AND NUMBER OF PILES SHALL NOT BE CHANGED WITHOUT APPROVAL OF THE ENGINEER, EXCEPT THAT BEAM DEPTH MAY BE EXTENDED TO REACH UNDISTURBED SOIL. SPECIAL LOADS NOT INDICATED ON DRAWING I.E., BRICK FIREPLACES, AND OR CHIMNEYS, HOT TUBS ETC., REQUIRE ADDITIONAL REINFORCEMENT.
5. IT IS RECOMMENDED THAT A CURING COMPOUND BE USED TO CONTROL SHRINKAGE.
6. AS A MINIMUM, INSTALLATION OF RIGID FLOOR TILES, BRICK, ETC. SHALL BE OVER AN ELASTIC BOND BREAKER. ANY CRACKS IN CONCRETE FLOOR SHALL BE TREATED PRIOR TO INSTALLATION OF TILES. ELASTOMETIC ADHESIVE IS RECOMMENDED FOR CERAMIC FLOOR TILES. WHERE DECORATIVE CONCRETE IS USED, ADDITIONAL REINFORCEMENT WILL BE REQUIRED.
7. WHERE ADDITIONAL REINFORCEMENT WITH REBAR IS USED IN FOOTINGS, IT SHALL CONFORM TO ASTM A615. WOVEN WIRE FABRICS SHALL CONFORM TO ASTEM A185.
8. TENDONS AND BARS SHALL BE SECURELY SUPPORTED TO BE PREVENT BOTH VERTICAL AND HORIZONTAL MOVEMENT DURING PLACING OF CONCRETE.
9. ALLOW 6" CENTERED CLEARANCE ON TENDON AXIS BY 36" LENGTH FOR STRESSING EQUIPMENT CLEARANCE.
10. CONCRETE SHALL BE WELL CONSOLIDATED ESPECIALLY IN THE VICINITY OF TENDON ANCHORAGES.
11. CONCRETE DESIGN IS BASED UPON A CONCRETE MIX HAVING A MINIMUM OF 5.3 SACKS OF CEMENT PER CUBIC YARD AND A MAXIMUM OF 30 GALLONS OF TREE AND ADDED WATER PER CUBIC YARD. SUCH A MIX SHOULD GIVE A MINIMUM COMPRESSION STRENGTH OF 3,000 P.S.I. AT 28 DAYS. CONCRETE DESIGN MIX SHALL BE IN ACCORDANCE WITH THE A.C.I. BUILDING CODE REQUIREMENTS.
12. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1500 P.S.I. AT THE TIME OF STRESSING.
13. ALL CONVENTIONAL REINFORCING STEEL SHALL BE ASTM DESIGNATION A-615 (GRADE 60) REINFORCING AND SHALL BE DETAILED AND ACCESSORIES PROVIDED IN ACCORDANCE WITH THE LATEST A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.
14. ALL PRESTRESSING STEEL SHALL CONSIST OF SEVEN-WIRE STRESS RELIEVED STRAND CONFORMING TO ASTM A-416. MINIMUM ULTIMATE TENSILE STRENGTH SHALL BE 270,000 P.S.I.. STRANDS SHALL BE COATED WITH A PERMANENT RUST PREVENTIVE LUBRICANT AND A PLASTIC SHEATH.
15. REINFORCEMENT SHALL HAVE 3" COVER IN GRADE BEAM BOTTOMS, 2" COVER IN BEAM SIDES AND TOPS, 1½" COVER IN SLAB TOPS AND BOTTOMS, UNLESS OTHERWISE SHOWN.
16. COORDINATE STRUCTURAL DRAWINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL OPENINGS, INSERTS AND ANY OTHER RELATED ITEMS.
17. PLANS FOR PIPES, CONDUITS, THIMBLES, ETC. TO PASS THROUGH CONCRETE SLAB OR BEAM, MUST NOT CONFLICT WITH REINFORCING. WHERE A CONFLICT OCCURS, PIPES, CONDUIT, ETC. ARE TO TAKE PRECEDENCE.
18. PROVIDE A SINGLE LAYER OF VAPOR BARRIER UNDER CONCRETE SLAB.
19. THE TENDON LOCATION AT THE END OF GRADE BEAM IS TO BE A MINIMUM OF 6" FROM THE TOP OF SLAB TO CENTER OF GRAVITY OF TENDONS.
20. TENDONS TO BE STRESSED NO EARLIER THAN 7 DAYS AND NOT LATER THAN 14 DAYS AFTER PLACEMENT OF CONCRETE.
21. FORMS TO BE STRIPPED NO LATER THAN 6 DAYS AFTER PLACEMENT OF CONCRETE.
22. STRESSING:
    1. ½" TENDON SHALL BE ANCHORED AT 28.9K PER STRAND, BUT SHALL BE INITIALLY STESSED TO 33.0K PER STRAND.
    2. ⅜" TENDON SHALL BE ANCHORED AT 16.1K PER STRAND, BUT SHALL BE INITIALLY STRESSED TO 18.4K PER STRAND.
23. LOADING OF SLAB PRIOR TO TENSIONING SHALL NOT BE DONE WITHOUT THE APPROVAL AND DIRECTION OF THE SUPERVISING ENGINEER.

PRIOR TO PILE DRIVING (WHERE PILES ARE REQUIRED) AND PROJECTS WHERE THE EXISTING FOUNDATION IS BEING MODIFIED TO USE SPREAD FOOTINGS OR SCREW PILES TO SUPPORT NEW LOADS, IT IS RECOMMENDED THAT THE CONTRACTOR OR OWNER VERIFY ALLOWABLE SOIL PRESSURES BY CONTRACTING THE SERVICES OF A SOILS ENGINEERING COMPANY, TO VERIFY SOIL CAPACITIES AND/OR PILE CAPACITIES. LOAD CAPACITIES ARE BASED ON LOCAL CODES AND HISTORICAL INFORMATION WHERE AVAILABLE, AND THE SOILS INFORMATION AVAILABLE FOR GENERAL AREAS MAY NOT BE COMMENSURATE WITH THIS PARTICULAR PROJECT.

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NEW RIVERBINE AND COMBATANT CRAFT OPERATIONS FACILITY

JOHN C. STENNIS SPACE CENTER
MISSISSIPPI

BLDG. 2440
FOUNDATION
PLAN

REV:

SCALE: AS NOTED

JOB#: 1986

DATE: 8-14-08

SHEET

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OF