GENERAL NOTES

1. REFERENCE ELEVATION - COORDINATE WITH CIVIL SHEETS FOR FINISH FLOOR ELEVATIONS.

2. ALL INTERIOR FLOOR SLABS-ON-GRADE SHALL BE PLACED OVER A 6 MIL VAPOR BARRIER WHICH IS OVER A 4" CRUSHED STONE FILL.

3. THE DRAWINGS SHOWN AS THE STRUCTURAL "S" SHEETS ARE APPLICABLE FOR (1) COMPLETE BUILDING ONLY. REFER TO CIVIL SHEETS AND PROJECT SCOPE FOR TOTAL NUMBER OF BUILDINGS REQUIRED.

4. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH ENTIRE SET OF CONTRACT DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL RELATED ITEMS IN THE WORK.

5. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE CONTRACTING OFFICER'S REPRESENTATIVE OF ANY DISCREPANCIES, INCONSISTENCIES OR DIFFICULTIES AFFECTING THE WORK BEFORE PROCEEDING.

6. SUBSTITUTION OF EXPANSION ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED.

7. NO PIPES, SLEEVES, OR ETC. SHALL PASS THROUGH BEAMS OR COLUMNS UNLESS INDICATED ON PLAN.

8. CONTRACTOR SHALL HAVE GEOTECHNICAL ENGINEER REVIEW SLAB SUBGRADES AND FOOTING EXCAVATIONS PRIOR TO POURING CONCRETE . REPORT No. 02191074 BY SCHNABEL ENGINEERING ASSOCIATES INDICATED POSSIBLE PRESENCE OF EXPANSIVE SOILS. OVER-EXCAVATION MAY BE NECESSARY.

DESIGNER NOTES

1. FOUNDATION INFORMATION:
   A. MAXIMUM NET ALLOWABLE SOIL BEARING PRESSURE:
      (1) CONTINUOUS FOOTINGS: 3000 PSF
      (2) SPREAD FOOTINGS: 3000 PSF

2. STRUCTURE CLASSIFICATION PER ASCE 7-95:
   CATEGORY II

3. DESIGN ROOF LIVE LOAD (CONSTRUCTION AND MAINTENANCE): 20 PSF

4. WIND LOADS: WIND LOADS ARE COMPUTED IN ACCORDANCE WITH ASCE 7-98 USING THE FOLLOWING FACTORS:
   A. BASIC 50-YEAR WIND SPEED: 90 MPH
   B. SITE CLASS: CATEGORY II
   C. EXPOSURE FACTOR: EXPOSURE C SITING
   D. REFER TO WIND UPLIFT DIAGRAM ON SHEET S002

5. SEISMIC LOADS: SEISMIC LOADS ARE COMPUTED IN ACCORDANCE WITH TI 809-04
   A. SEISMIC USE GROUP: I
   B. PERFORMANCE OBJECTIVE: 1A. (LIFE SAFETY)
   C. SITE CLASSIFICATION: D
   D. DESIGN SPECTRAL RESPONSE ACCELERATIONS, Ss=0.59 & S1=0.19.
   E. SEISMIC DESIGN CATEGORY: D

STRUCTURAL STEEL

1, STRUCTURAL STEEL SHALL MEET THE LATEST AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS."
2. STEEL FRAMING MEMBERS SHALL ONLY BE SPLICED AT LOCATIONS SHOWN ON THE DESIGN DRAWINGS OR SHOWN ON AND APPROVED ON THE SHOP DRAWINGS.
3. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER.
4. ALL STRUCTURAL STEEL SHALL MEET ASTM A572 GRADE 50 EXCEPT STRUCTURAL TUBING SHALL MEET ASTM A500, GRADE B, AND STRUCTURAL PIPING SHALL MEET ASTM A53, GRADE B.
5. ALL BEAM AND COLUMN CONNECTIONS SHALL BE MADE WITH A325 OR A490 BOLTS. CONNECTIONS SHALL BE DESIGNED AS BEARING (TYPE N) CONNECTIONS, UNLESS NOTED OTHERWISE.
   CONTRACTORS OPTION FOR BUILDING BRACE CONNECTIONS TO HAVE OVERSIZED HOLES AND BE SLIP CRITICAL. DESIGN CONNECTION AS FRICTION TYPE. PROVIDE LOAD INDICATOR BOLTS. DO NOT PAINT SURFACES OF STEEL IN CONTACT WITH EACH OTHER.
6. ALL ANCHOR BOLTS SHALL BE A307, OR A36 AND SHALL HAVE CUT THREADS.
7. ALL BOLTS SET IN CONCRETE SHALL BE FURNISHED WITH DOUBLE NUTS AND SHALL BE SET WITH A TEMPLATE.
8. PROVIDE ANGLE FRAME TO SUPPORT METAL DECK AT ALL OPENINGS GREATER THAN 9" x 9".
9. WELDING SHALL CONFORM TO AWS D1.1, "STRUCTURAL WELDING CODE". NO UNAUTHORIZED WELDS WILL BE ACCEPTED.
10. E70XX ELECTRODES SHALL BE USED FOR ALL WELDING.
11. ----- NOT USED -----
12. UNLESS OTHERWISE SHOWN, ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED OR SEATED CONNECTIONS AS SHOWN IN PART 4 OF THE AISC MANUAL OF STEEL CONSTRUCTION. UNLESS GREATER REACTIONS ARE INDICATED ON THE PLANS, CONNECTIONS SHALL DEVELOP AT LEAST ONE-HALF OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE TABLES OF THE MANUAL FOR THE GIVEN SHAPE AND SPAN OF THE BEAM IN QUESTION, AND 70% OF THE TOTAL UNIFORM LOAD CAPACITY FOR COMPOSIT BEAMS. IN NO CASE, HOWEVER, SHALL THE LENGTH OF THE FRAMED CONNECTIONS BE LESS THAN ONE-HALF OF THE "T" DISTANCE OF THE BEAM WEB.
13. GUSSET PLATES SHALL BE 3/8" THICK MINIMUM.
14. WHERE PRACTICAL, UNLESS SHOWN DIFFERENTLY ON DRAWINGS, ALL BRACING CONNECTIONS SHALL BE DESIGNED AND BRACING CONNECTIONS SHALL BE DESIGNED AND DETAILED SO THAT ALL FORCE COMPONENTS CAN BE DELIVERED DIRECTLY TO THE CENTERLINE OF INTERSECTING MEMBERS. WHERE THIS IS NOT DONE, CONNECTIONS SHALL BE DESIGNED TO ACCOUNT FOR RESULTING ECCENTRICITIES.
15. (+) INDICATES TENSION IN MEMBER. (-) INDICATES COMPRESSION IN MEMBER.
16. ALL ELEVATIONS ARE REFERENCED FROM FINISHED GROUND FLOOR DATUM ELEVATION 0'-0". SEE CIVIL DRAWINGS FOR BUILDING ORENTATIONS AND GROUND FLOOR ELEVATIONS.
17. CONTRACTOR TO PROVIDE ADEQUATE BRACING FOR STRUCTURE SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE AND FOUNDATIONS ARE DESIGNED FOR A COMPLETED CONDITION ONLY AND THEREFORE REQUIRES ADDITIONAL SUPPORT TO MAINTAIN STABILITY BEFORE COMPLETION.
18. BEAM FRAMING CONNECTIONS MAY BE DESIGNED AS SINGLE SIDED CLIPS. GIRDER CONNECTIONS FRAMING INTO COLUMNS SHALL BE DOUBLE CLIPS.

COLD-FORMED STRUCTURAL METAL FRAMING

1. ALL COLD-FORMED STRUCTURAL METAL FRAMING SHALL HAVE A MINIMUM PROTECTIVE COATING EQUAL TO G-60 GALVANIZED FINISH. APPLY ZINC-RICH PAINT TO ALL AREAS WHERE FINISH IS DAMAGED DUE TO WELDING.
2. ALL STEEL FOR COLD-FORMED STRUCTURAL METAL FRAMING SHALL CONFORM TO ONE OF THE FOLLOWING ASTM STANDARDS: ASTM A653, A875, A792, OR A463.
3. ALL PRODUCTS SHALL BE FORMED FROM STEEL WITH A MINIMUM YIELD OF 33 ksi.
4. ALL STUD AND JOIST SECTIONS SHALL BE "C" TYPE SECTIONS WITH MINIMUM 1½" FLANGES AND A MINIMUM ½" RETURN UNLESS NOTED OTHERWISE.

COLD-FORMED STRUCTURAL METAL FRAMING CONTINUED

5. ALL MEMBERS SHALL BE OF DEPTH AND GAGE AS INDICATED ON PLAN AND SECTIONS.
6. TRACK SECTIONS SHALL MEET OR EXCEED GAGE OF STUD MEMBERS, UNLESS OTHERWISE NOTED.
7. STRUCTURAL FRAMING MEMBERS SHALL CONFORM TO ASTM C955 AND HAVE ENGINEERING PROPERTIES CALCULATED IN ACCORDANCE WITH AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".
8. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR MEMBERS.
9. PROVIDE WEB STIFFENERS, CONNECTION ANGLES, AND MISCELLANEOUS HARDWARE REQUIRED TO COMPLETE ALL CONNECTIONS.
10. PROVIDE WALL STUD BRIDGING SPACED AT 48" MAXIMUM ON CENTERS IN EXTERIOR WALLS.
11. PROVIDE DEFLECTION TRACK AT THE TOP OF ALL NON-LOAD BEARING STUD WALLS WHERE THE TOP OF WALL ABUTS THE BOTTOM OF THE STRUCTURE.
12. FASTENING OF FRAMING COMPONENTS SHALL BE WITH SELF-TAPPING SCREWS OR WELDING OF SUFFICIENT SIZE TO INSURE THE STRENGTH OF THE CONNECTION. WELDS SHALL BE PERFORMED BY OPERATORS QUALIFIED IN ACCORDANCE WITH SECTION 6.0 OF THE AMERICAN WELDING SOCIETY'S "STRUCTURAL WELDING CODE - SHEET METAL" (AWS D1.3-8).
13. ATTACH STUDS TO TRACK WITH A MINIMUM OF ONE SCREW PER STUD FLANGE, UNLESS OTHERWISE NOTED, E.G. DEFLECTION TRACKS.
14. ANCHOR BASE TRACK TO FLOOR/FOUNDATION TO RESIST A MINIMUM OF 360 PLF LATERAL SHEAR FORCE.
15. ROOF TRUSSES SHALL BE ENGINEERED BY COLD FORMED SUPPLIER'S ENGINEER.
16. LOADS TO TRUSSES SHOWN IN DESIGN CRITERIA AND OTHERWISE SHOWN ON DRAWINGS SHALL BE TRANSFERRED TO THE STRUCTURAL STEEL.
17. THE TOP CHORD OF THE ROOF TRUSSES SHALL BE 16 GA. MINIMUM METAL THICKNESS.

CONSTRUCTION

1. CONTRACTOR SHALL DESIGN, PROVIDE, AND MAINTAIN TEMPORARY BRACING, SHORING, GUYING, ETC. AND OTHER METHODS AS REQUIRED TO PREVENT EXCESSIVE LOADING AND TO STABILIZE STRUCTURAL ELEMENTS DURING CONSTRUCTION. THESE METHODS SHALL REMAIN IN PLACE UNTIL ALL MEMBERS AND FINAL CONNECTIONS HAVE BEEN COMPLETED.

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS AS FOLLOWS:
   ELEVATED FLOOR SLABS 4000 PSI
   ALL OTHERS 3000 PSI
2. CONCRETE FOR ELEVATED SLABS SHALL CONTAIN LIGHTWEIGHT AGGREGATE TO ACHIEVE A DENSITY OF 115 PCF.
3. ALL AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL MEET ASTM C33.
4. ALL AGGREGATE FOR STRUCTURAL LIGHTWEIGHT CONCRETE SHALL BE ASTM C330.
5. EXTERIOR EXPOSED CONCRETE SHALL HAVE FROM 4 TO 7% ENTRAINED AIR.
6. CONCRETE SHALL BE IN STRICT CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE".
7. NO ALUMINUM SHALL BE PLACED IN CONCRETE.
8. SLABS ON EARTH SHALL BE 4" THICK WITH 6x6-W2.0xW2.0 WELDED WIRE FABRIC UNLESS OTHERWISE NOTED.
9. (NOT USED)
10. CONTRACTION JOINTS OR CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL BE SPACED TO DIVIDE THE SLAB INTO PANELS NOT TO EXCEED 250 SQUARE FEET UNLESS NOTED OTHERWISE, THE LONGER DIMENSION OF EACH PANEL SHALL NOT EXCEED THE SHORTER DIMENSION BY MORE THAN 20 PERCENT.
11. PROVIDE CONCRETE BASES FOR MECHANICAL EQUIPMENT. ALL SHALL BE 4 INCHES THICK ON TOP OF FLOOR SLABS ON GRADE WITH WELDED WIRE FABRIC, UNLESS OTHERWISE NOTED (SEE TYPICAL DETAIL ON DRAWING S302).
12. NO ELECTRICAL CONDUIT SHALL BE CAST IN A STRUCTURAL CONCRETE SYSTEM WITHOUT ARCHITECT/ENGINEER APPROVAL.

REINFORCING STEEL

1. ALL MESH SHALL MEET ASTM A-185. LAP A MINIMUM OF 6 INCHES.
2. FURNISH MESH FOR SLABS ON METAL DECK IN FLAT SHEETS.
3. ALL REINFORCING SHALL MEET ASTM A615 GRADE 60.
4. UNLESS NOTED OTHERWISE, THE LAP AND EMBEDMENT LENGTHS SHALL BE IN ACCORDANCE WITH THE LENGTHS SHOWN IN THE TABLE.
5. REINFORCING SHALL BE DETAILED ACCORDING TO THE ACI DETAILING MANUAL UNDER THE SUPERVISION OF A LICENSED STRUCTURAL ENGINEER.
6. PROVIDE CORNER LAP BARS TO MATCH IN SIZE AND SPACING OF ALL HORIZONTAL BARS.

TYPICAL CONCRETE COVER FOR REINFORCING STEEL

UNLESS NOTED OTHERWISE, THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL IN ACCORDANCE WITH ACI 318.

PLACEMENT/ EXPOSURE CONDITION	MINIMUM COVER
(a) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH....	3"
(b) CONCRETE EXPOSED TO EARTH OR WEATHER:	
•6 BARS AND LARGER....	2"
•5 BARS AND SMALLER....	1½"
(c) CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
(i) SLABS AND WALLS: •11 BARS AND SMALLER...	¾"
(ii) BEAMS AND COLUMNS: PRIMARY REINFORCEMENT, TIES, AND STIRRUPS...	1½"

MINIMUM LAP SPLICES OF REINFORCING BARS IN TENSION (PER ACI 318-89)

BAR SIZE \ CENTER TO CENTER BAR SPACING	f'c = 4000psi (--TOP BARS--) LESS THAN 4db	4db OR MORE	(--OTHER BARS--) LESS THAN 4db	4db OR MORE	4db	f'c = 3000psi (--TOP BARS--) LESS THAN 4db	4db OR MORE	(--OTHER BARS--) LESS THAN 4db	4db OR MORE	4db
•3	18	18	16	16	1 1/2 "	21	21	16	16	1 1/2 "
•4	26	24	20	19	2"	30	28	23	22	2"
•5	40	30	31	23	2 1/2 "	46	35	36	27	2 1/2 "
•6	57	36	44	28	3"	65	42	50	32	3"
•7	77	42	59	33	3 1/2 "	89	50	69	39	3 1/2 "
•8	102	51	78	39	4"	117	66	90	51	4"
•9	129	64	99	50	4 1/2 "	148	83	114	64	4 1/2 "
•10	163	82	126	63	5"	188	106	145	81	5"
•11	200	100	159	77	5 5/8 "	231	130	178	100	5 5/8 "

NOTES:
1. YIELD STRENGTH OF REINFORCEMENT, fy, IS 60 ksi (LAP SPLICE LENGTH IS IN INCHES).
2. CONCRETE IS NORMAL WEIGHT (150 pcf).
3. TOP BAR INDICATES HORIZONTAL REINFORCEMENT WHICH IS PLACED ABOVE 12" OR MORE OF FRESH CONCRETE.
4. UNLESS NOTED OTHERWISE COLUMNS & PIERS UTILIZE TENSION LAP SPLICES.
5. STRAIGHT DEVELOPMENT LENGTH OF AN UNLAPPED BAR IS EQUAL TO VALUE FROM TABLE DIVIDED BY 1.3.
6. CATEGORY FOR BARS SPACED LESS THAN 4d, ON CENTER CORRESPONDS TO CATEGORY 1 IN THE CRSI HANDBOOK WHEREAS FOR BARS SPACED 4d, OR MORE ON CENTER CORRESPOND TO CRSI CATEGORY 5.

US ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

DESIGNED BY | CHECKED BY | SIZE F
CATEGORY CODE 721-81-06
CONTRACT NO: DACA21-02-C-0046
DATE: 23 APRIL 2003
PLOT SCALE: -

CLARK CONSTRUCTION
CLARK DESIGN/BUILD, LLC

SYMBOL	DESCRIPTION	DATE	BY

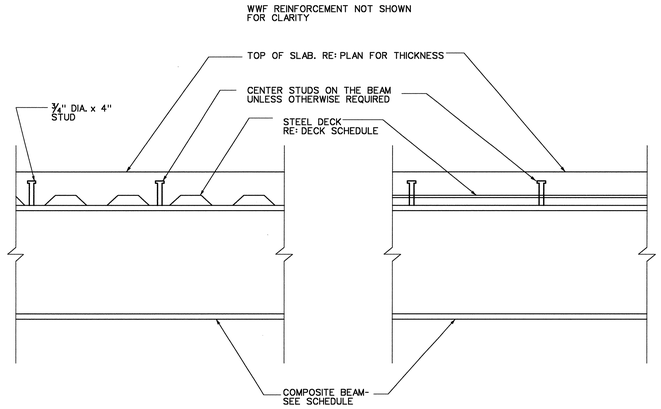
BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

STRUCTURAL GENERAL NOTES

PLATE REFERENCE NUMBER:
S-001
SHEET 53

DESIGN FILE: $$FILE NAME$$
$$DATE$$

CONFORMED DRAWINGS 12 /19 /03



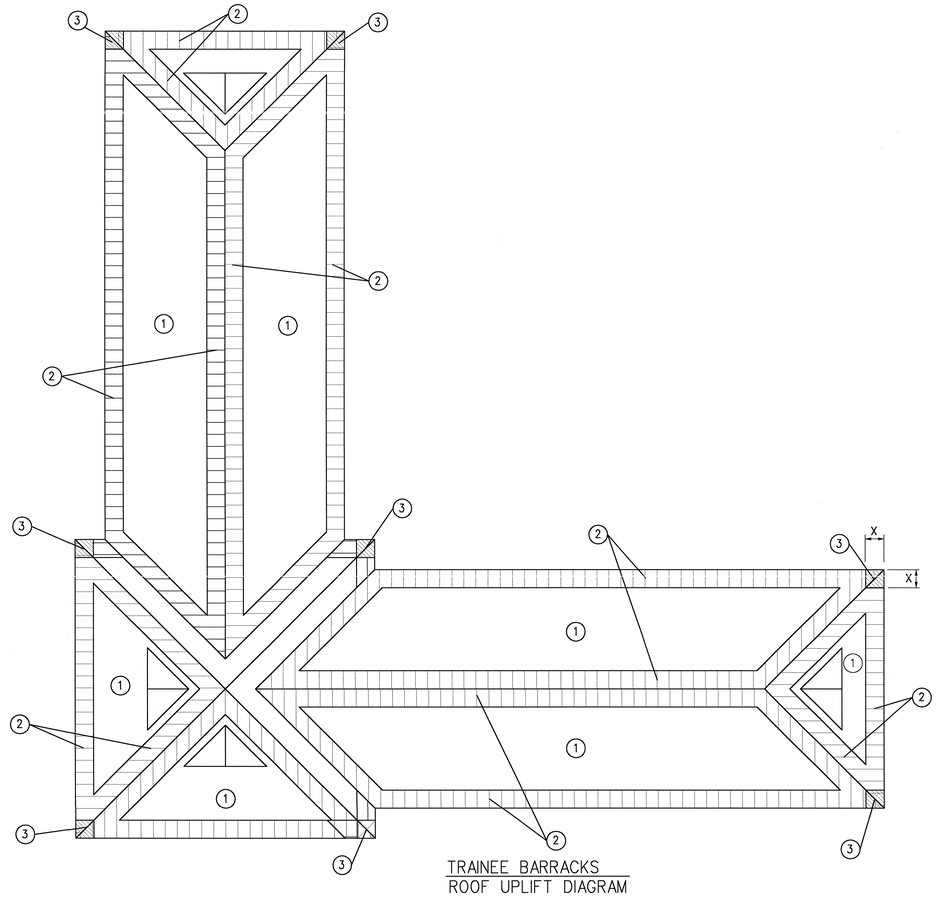
DECK IS PERPENDICULAR OR SKEWED TO BEAM

DECK IS PARALLEL TO BEAM

NOTES:

1. COMPOSITE BEAMS ARE REQUIRED IN AREAS B & D, 2ND AND 3RD FLOOR. IN ADDITION, COMPOSITE BEAMS ARE REQUIRED ON BEAMS OF A BRACED BAY.
2. SPACE STUDS EVENLY AS POSSIBLE IN AVAILABLE DECK FLUTES. WHERE STUD SPACING EXCEEDS THE MAX SPACING ALLOWED, PROVIDE ADDITIONAL STUDS TO SATISFY THE SPACING REQUIREMENTS.
4. WHERE THE NUMBER OF STUDS EXCEEDS THE NUMBER OF FLUTES, PROVIDE TWO STUDS IN EVERY OTHER FLUTE, STARTING AT EACH END OF THE BEAM. THE TRANSVERSE SPACING BETWEEN TWO STUDS IN A SINGLE FLUTE SHALL BE 4x STUD DIAMETERS. (MIN)

A / S002 | S002 **COMPOSITE BEAM DETAILS**
SCALE: NONE



TRAINEE BARRACKS
ROOF UPLIFT DIAGRAM

ROOF MEAN HEIGHT = 49.2'				
LOCATION	UPLIFT PRESSURE (psf)			X
	①	②	③	
BLDG ROOF	24.3	51.5	51.5	6'

DESIGN CRITERIA

1. ENGINEERED IN ACCORDANCE WITH ASCE 7-98 FOR LIVE LOADS AND, WIND LOADS. SEISMIC LOADS ARE PER TI-809-04, DATED 31 DECEMBER 1998.

2. GRAVITY LOADS:

SLEEPING BAY 2nd FLOOR

4 1/2" LW CONC & 2" PMF	= 35 PSF
METAL SOFFITT	= 2 PSF
INSUL	= 1 PSF
MISCELLANEOUS	= 4 PSF
STR STEEL	= 10 PSF
PARTITIONS	= 20 PSF
DEAD LOAD	= 72 PSF

SLEEPING BAY 3rd FLOOR, DRESSING BAY, SUPPORT BAY

4 1/2" LW CONC & 2" PMF	= 35 PSF
CEILING	= 2 PSF
FIREPROOFING	= 3 PSF
MISCELLANEOUS	= 6 PSF
STR STEEL	= 6 PSF
PARTITIONS	= 20 PSF
DEAD LOAD	= 72 PSF

3. LIVE LOADS:

STAIRS	= 100 PSF
ELEVATED MECH ROOM	= 100 PSF
OFFICES	= 80 PSF
OTHER BARRACKS AREAS	= 40 PSF
ROOF	= 20 PSF

4. EXTERIOR WALLS

BRICK & STUD BACK-UP = 40 + 10 = 50 PSF

5. ATTIC & ROOF

STANDING SEAM METAL	= 2 PSF
COLD-FORM TRUSS SYSTEM	= 4 PSF
METAL DECK & INSULATION	= 5 PSF
STRUCT STEEL	= 4 PSF
CEILING (GYP BD & METAL)	= 8 PSF
MISC	= 4 PSF
DEAD LOAD	= 27 PSF

1.0 WIND LOAD (PER ASCE 7-98)

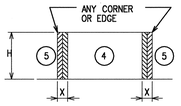
1.0.1 BASIC WIND SPEED = 90 mph
EXPOSURE C: IMPORTANCE FACTOR I= 1.0

1.0.2 DESIGN WIND PRESSURE - MAIN WINDFORCE RESISTING SYSTEM

LOCATION	WINDWARD (@ MEAN ROOF HEIGHT)	LEEWARD (@ MEAN ROOF HEIGHT)	ROOF	
MAIN BUILDING	16.2 PSF	5.6 PSF	11.6 PSF	(UPLIFT)
MAIN BUILDING @ CORNERS 5.4M	22.2 PSF	11.6 PSF	20.2 PSF	(UPLIFT)

1.0.3 DESIGN WIND PRESSURE - WALL COMPONENTS & CLADDING

EXTERIOR WALL SYSTEMS & THEIR ATTACHMENTS TO THE PRIMARY STRUCTURE SHALL BE DESIGNED FOR THE PRESSURES SHOWN IN THE DIAGRAM BELOW:



PRESSURE ON EXTERIOR WALL SYSTEMS FOR BUILDINGS WITH MEAN ROOF HEIGHT (H) = 0 TO 49.2'

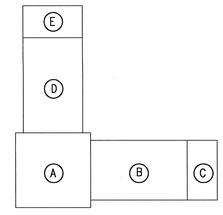
LOCATION	H	WINDWARD PRESSURE PSF (INWARD)		LEEWARD PRESSURE PSF (OUTWARD)		X
		④	⑤	④	⑤	
MAIN BLDG	49.2'	26.8	26.8	28.9	35.8	6'

1.0.4 DESIGN WIND PRESSURE - ROOF UPLIFT

JOIST, ROOF DECK & FASTENERS SHALL BE DESIGNED FOR THE WIND PRESSURES SHOWN ON ROOF UPLIFT DIAGRAM.

2.0 SEISMIC LOAD (PER TI 809-04, DATED 31 DECEMBER 1998)

2.0.1 SEISMIC USE GROUP: I
2.0.2 SPECTRAL RESPONSE COEFFICIENTS: S_S = 0.59, S_1 = 0.19
2.0.3 SITE CLASS: D
2.0.4 BASIC SEISMIC FORCE RESISTING SYSTEM:
BUILDING FRAME SYSTEM, ORDINARY STEEL CONCENTRICALLY BRACED FRAMES
2.0.5 SEISMIC RESPONSE COEFFICIENT: Cs = 0.105
2.0.6 DESIGN BASE SHEAR: AREA A = 164 kips
AREAS B,C,D & E = 247 kips (EACH)
2.0.7 ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
2.0.8 SEISMIC DESIGN CATEGORY: D



DESIGN BASE SHEAR KEY PLAN

US ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

DESIGNED BY	CHECKED BY	SIZE F.
CATEGORY CODE 721-81-06	CONTRACT NO: DACA21-02-C-0046	DATE: 23 APRIL 2003 PLOT SCALE:

CLARK CONSTRUCTION
CLARK DESIGN/BUILD, LLC

SYMBOL	DESCRIPTION	DATE	BY

BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

STRUCTURAL GENERAL NOTES

PLATE REFERENCE NUMBER:
S-002
SHEET 54

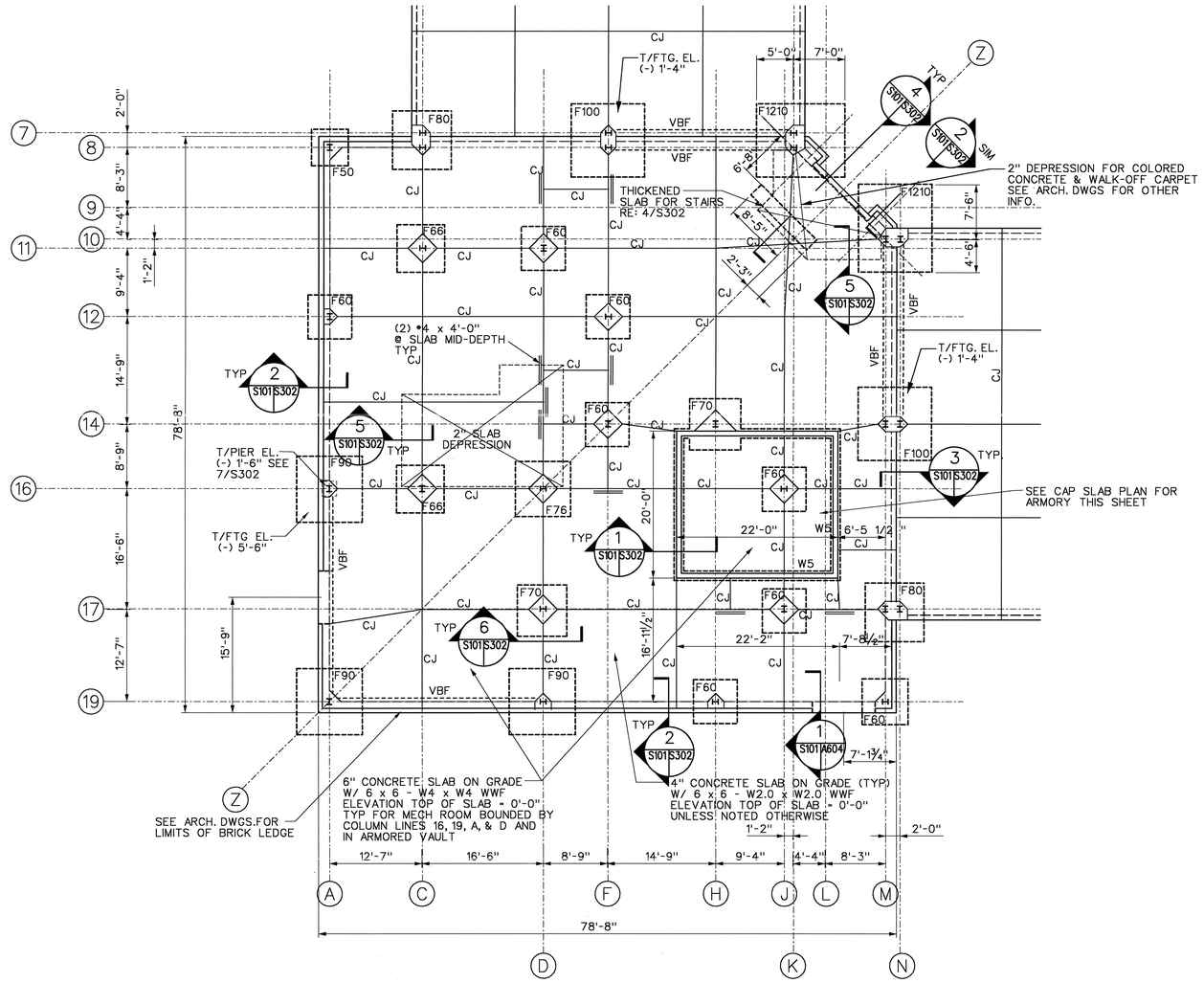
DESIGN FILE: $$FILE NAME$$
$$DATE$$

CONFORMED DRAWINGS 12 /19 /03

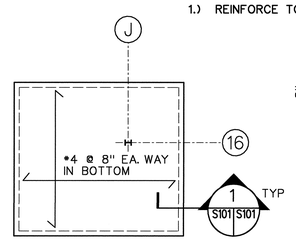
FOOTING SCHEDULE

MARK	FOOTING SIZE	FOOTING THICKNESS	REINFORCING
F50	5'-0" x 5'-0"	1'-0"	6-#5 EACH WAY
F60	6'-0" x 6'-0"	1'-3"	6-#6 EACH WAY
F66	6'-6" x 6'-6"	1'-3"	6-#6 EACH WAY
F70	7'-0" x 7'-0"	1'-6"	8-#6 EACH WAY
F76	7'-6" x 7'-6"	1'-6"	8-#6 EACH WAY
F80	8'-0" x 8'-0"	1'-9"	7-#7 EACH WAY
F90	9'-0" x 9'-0"	1'-9"	8-#8 EACH WAY
F100	10'-0" x 10'-0"	2'-0"	9-#8 EACH WAY
F1080	10'-0" x 8'-0"	2'-0"	#6 @ 12" EACH WAY
F1210	12'-0" x 10'-0"	2'-0"	#6 @ 12" EACH WAY

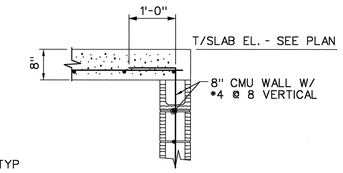
FOOTING SCHEDULE NOTES:
1.) REINFORCE TOP & BOTTOM @ VERT. BRACE FRAME LOCATIONS



1 S101 S101 PARTIAL FOUNDATION PLAN AREA A
SCALE - 1/8" - 1'-0"



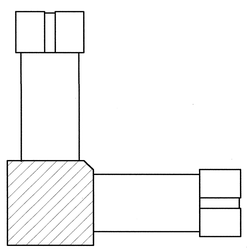
2 S101 S101 CAP SLAB PLAN AT ARMORY
SCALE - 1/8" - 1'-0"
NOTE: COORDINATE OPENINGS WITH MECHANICAL AND ELECTRICAL DRAWINGS.



1 S101 S101 SECTION
SCALE: 3/4" - 1'-0"

NOTES

1. FOOTING MARK, SEE SCHEDULE ON THIS DRAWING → FXX
2. TOP OF EXTERIOR FTGS. SHALL BE (-)1'-4" UNLESS NOTED. TOP ELEV. OF INTERIOR FTGS. SHALL BE (-)1'-0" UNLESS NOTED. → WX
3. DENOTES CONTROL JOINT SEE DETIALS ON S301 → CJ
4. LOCATE SLAB ON GRADE WIRE MESH AT 1/2" FROM TOP OF SLAB
5. PLACE ALL SLAB ON GRADE OVER 6 mil VAPOR BARRIER OVER 4" CRUSHED STONE CAPILLARY WATER BARRIER
6. VBF DENOTES VERTICAL BRACE FRAMING FOR ELEVATIONS SEE SHEETS S201 & S202
7. COLUMN FOOTINGS SHALL NOT BEAR DIRECTLY ON EXPANSIVE KAOLIN CLAY. IF CLAY IS FOUND IN FOOTING EXCAVATION, OVEREXCAVATE TO A LEVEL 30" BELOW FINISHED GRADE. BACKFILL WITH APPROVED MATERIAL COMPACTED AT 95% STANDARD PROCTOR. ALL FOUNDATIONS SHALL BE INSPECTED BY THE PROJECT GEOTECHNICAL ENGINEER.



KEY PLAN
8 6 4 2 0 8 16FT
SCALE:1/8"=1'-0"

US ARMY CORPS OF ENGINEERS SAVANNAH DISTRICT

DESIGNED BY | CHECKED BY | SIZE F
CATEGORY CODE 721-81-06
CONTRACT NO: DACA21-02-C-0046
DATE:23 APRIL 2003
PLOT SCALE: 1

CLARK CONSTRUCTION
CLARK DESIGN/BUILD, LLC

SYMBOL	DESCRIPTION	DATE	BY

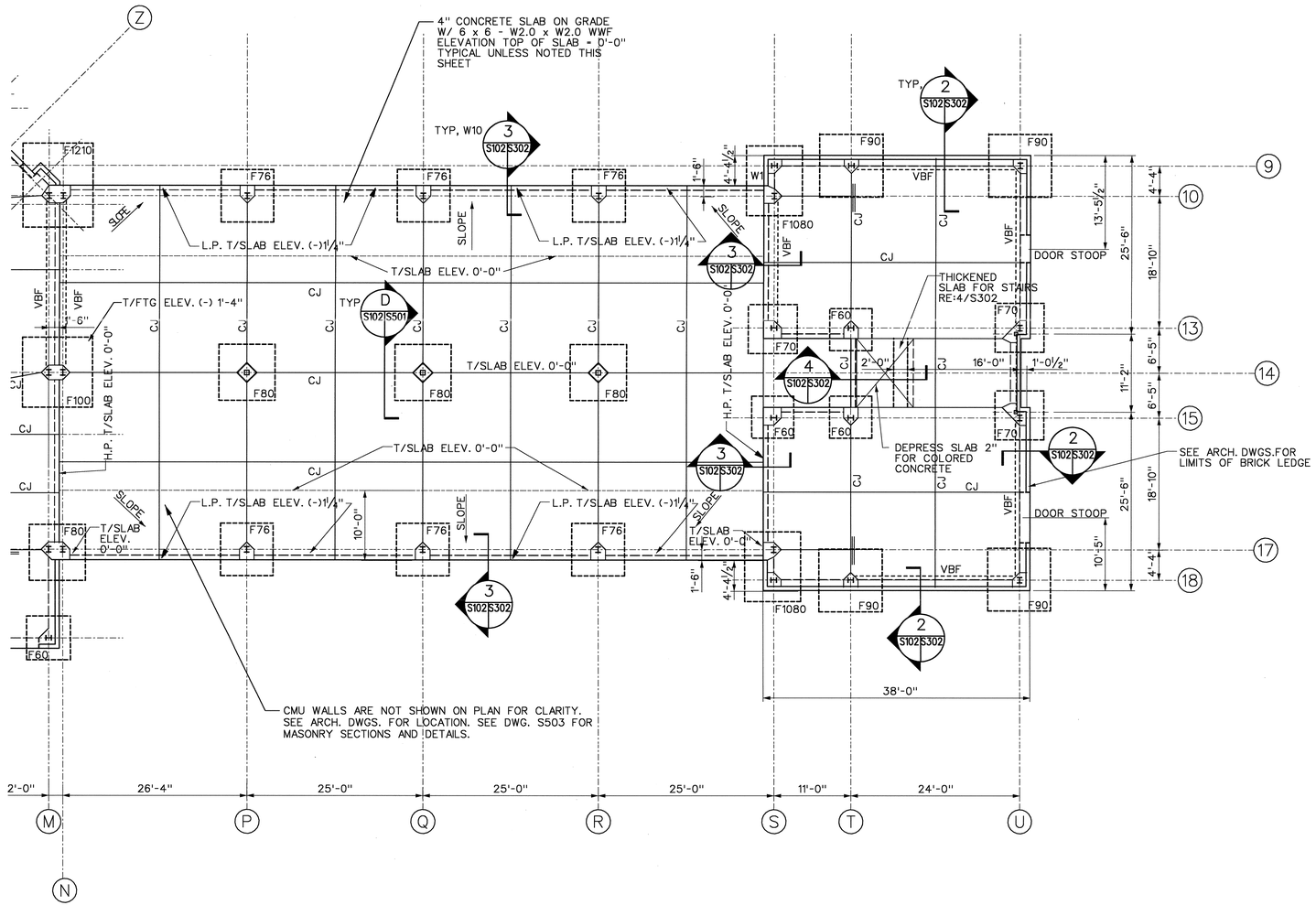
BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

PARTIAL FOUNDATION PLAN AREA A

PLATE REFERENCE NUMBER:
S-101
SHEET 55

DESIGN FILE: $$FILE NAME$$
$$DATE$$

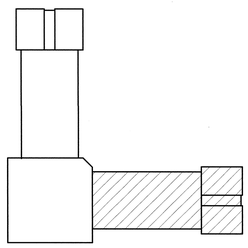
CONFORMED DRAWINGS 12 /19 /03



1 S102 S102 PARTIAL FOUNDATION PLAN AREA B & C
SCALE - 1/8" - 1'-0"

NOTES

1. FOOTING MARK, SEE SCHEDULE ON SHEET S101 → FXX
2. TOP OF EXTERIOR FTGS. SHALL BE (-)1'-4" UNLESS NOTED. TOP ELEV. OF INTERIOR FTGS. SHALL BE (-)1'-0" UNLESS NOTED. → WX
3. DENOTES CONTROL JOINT SEE DETIALS ON S301 → CJ
4. LOCATE SLAB ON GRADE WIRE MESH AT 1½" FROM TOP OF SLAB
5. PLACE ALL SLAB ON GRADE OVER 6 mil VAPOR BARRIER OVER 4" CRUSHED STONE CAPILLARY WATER BARRIER
6. VBF DENOTES VERTICAL BRACE FRAMING FOR ELEVATIONS SEE SHEETS S201 & S202
7. COLUMN FOOTINGS SHALL NOT BEAR DIRECTLY ON EXPANSIVE KAOLIN CLAY. IF CLAY IS FOUND IN FOOTING EXCAVATION, OVEREXCAVATE TO A LEVEL 30" BELOW FINISHED GRADE. BACKFILL WITH APPROVED MATERIAL COMPACTED AT 95% STANDARD PROCTOR. ALL FOUNDATIONS SHALL BE INSPECTED BY THE PROJECT GEOTECHNICAL ENGINEER.



KEY PLAN

8 6 4 2 0 8 16FT
SCALE:1/8"=1'-0"

US ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

DESIGNED BY	CHECKED BY	SIZE F.
CATEGORY CODE 721-81-06		
CONTRACT NO: DACA21-02-C-0046		
DATE:23 APRIL 2003	PLOT SCALE: 1	

CLARK CONSTRUCTION
CLARK DESIGN/BUILD, LLC

SYMBOL	DESCRIPTION	DATE	BY

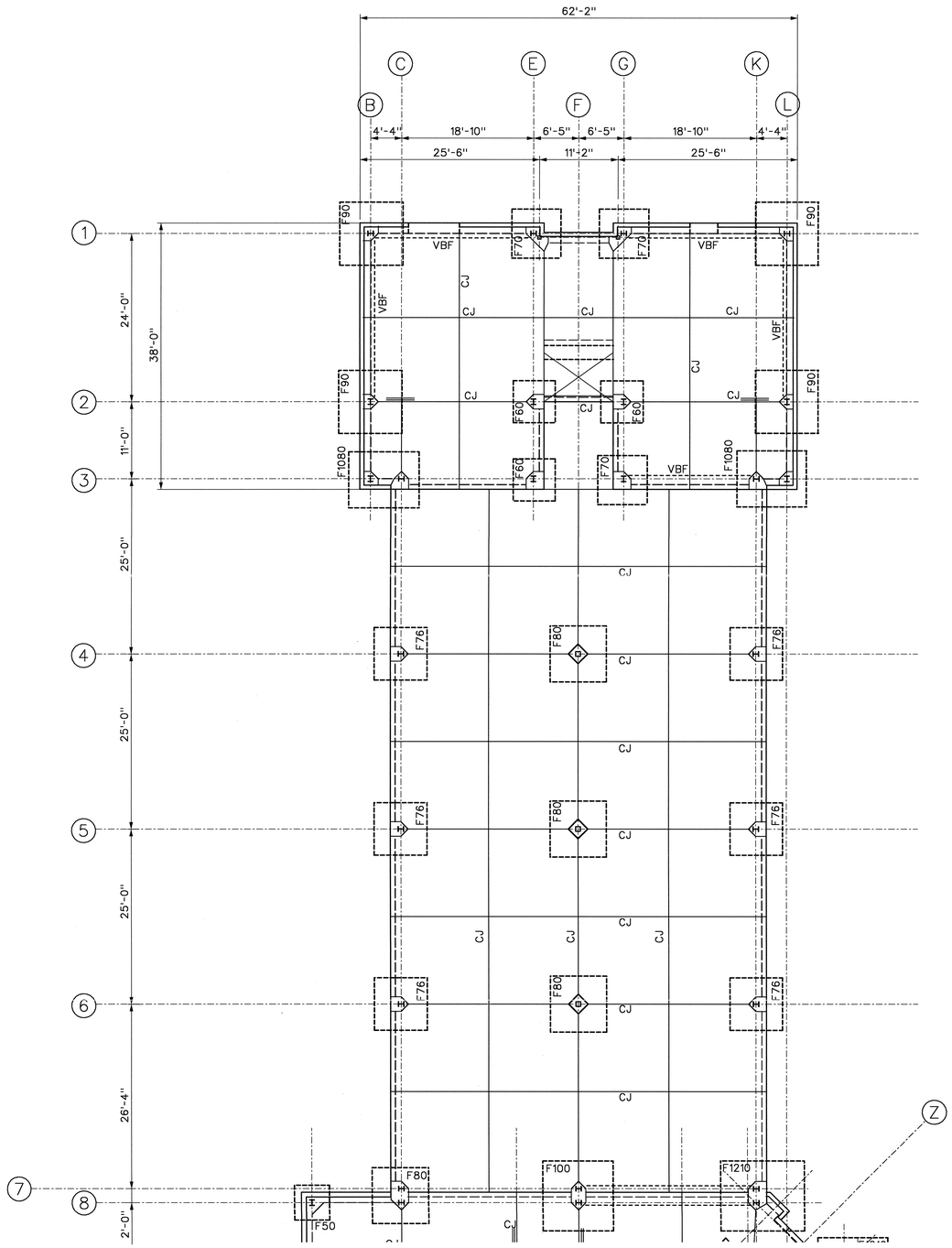
BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

PARTIAL FOUNDATION PLAN AREA B & C

PLATE REFERENCE NUMBER:
S-102
SHEET 56

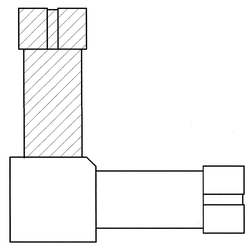
DESIGN FILE: $$FILE NAME$$
$$DATE$$

CONFORMED DRAWINGS 12 /19 /03



1 S103 S103 PARTIAL FOUNDATION PLAN AREA D & E
SCALE = 1/8" = 1'-0"

FOUNDATION PLAN FOR AREA "D&E" IS A MIRROR IMAGE OF THE FOUNDATION PLAN FOR AREA "B&C" ABOUT COLUMN LINE "Z". REFERENCE SHEET S102 FOR FOUNDATION INFORMATION (FOOTING SIZES, DETAILS, JOINTS, ETC.).



KEY PLAN

8 6 4 2 0 8 16FT
SCALE: 1/8"=1'-0"

US ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

DESIGNED BY	CHECKED BY	SIZE F
CATEGORY CODE 721-81-06		
CONTRACT NO: DACA21-02-C-0046		
DATE: 23 APRIL 2003		
PLOT SCALE: 1		

CLARK CONSTRUCTION
CLARK DESIGN/BUILD, LLC

SYMBOL	DESCRIPTION	DATE	BY

BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

PARTIAL FOUNDATION PLAN
AREA D & E

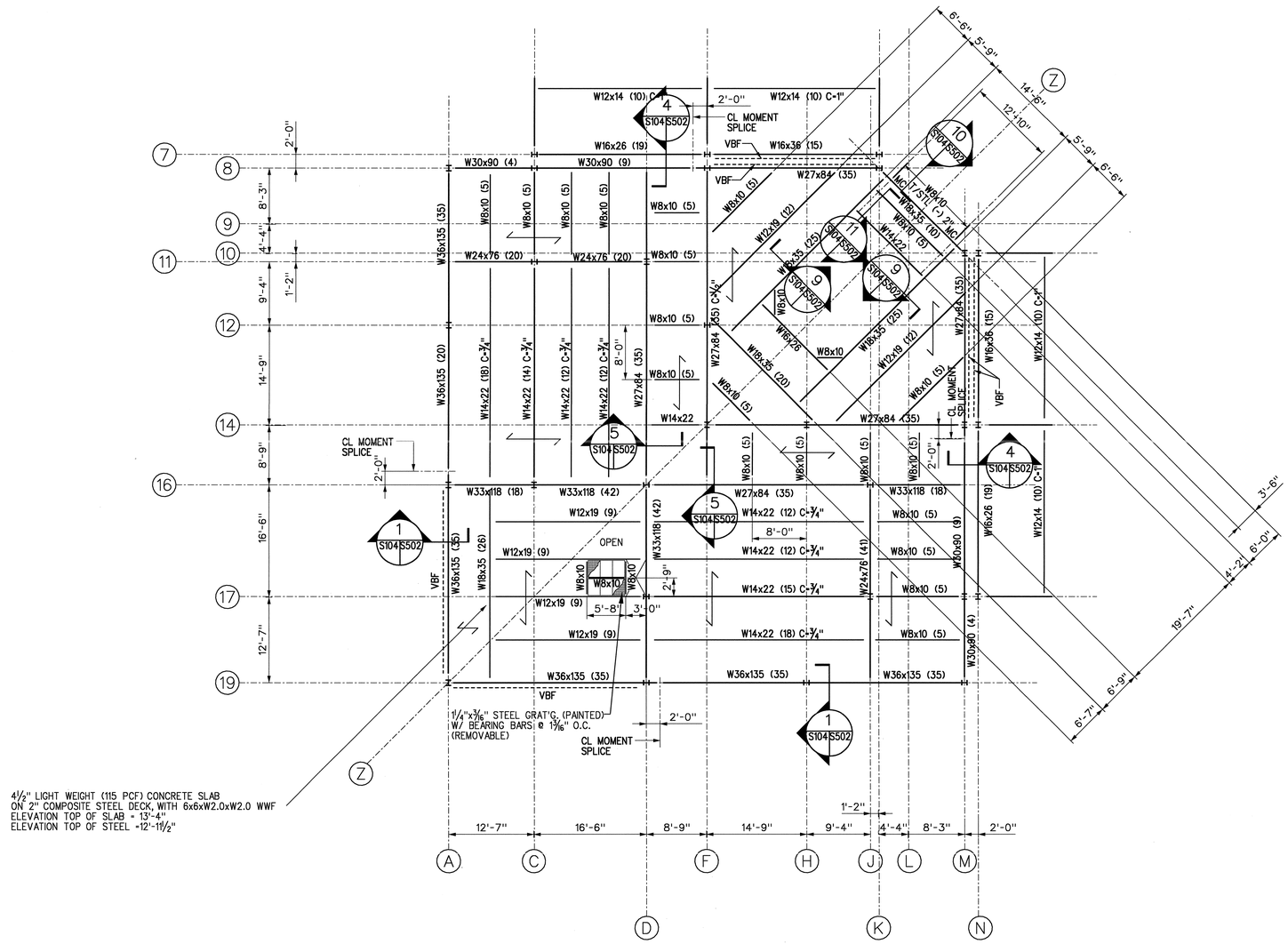
PLATE REFERENCE NUMBER:
S-103
SHEET 57

DESIGN FILE: $$FILE NAME$$
$$DATE$$

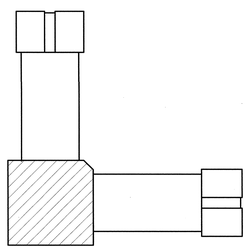
CONFORMED DRAWINGS 12 /19 /03

NOTES

1. DASHED LINE INDICATES LOCATION OF BRACED BAY. SEE DRAWING S201 & S202
2. INDICATES SPAN OF DECK AND SLAB
3. BEAMS ARE LOCATED AT EQUAL SPACING BETWEEN COLUMN GRID LINES, U.N.O.
4. CONTRACTOR SHALL PROVIDE CELL CLOSURES AND POUR STOPS AS REQUIRED FOR CONCRETE DECK PLACEMENT.
5. NUMBER IN PARENTHESES AFTER BEAM MARK IS NUMBER OF FIELD APPLIED HEADED STUDS
6. SEE DWG. S-501 FOR COLUMN & BASE PLATE SCHEDULES.
7. C=3/4" DENOTES AMOUNT OF CAMBER REQUIRED FROM FABRICATOR
8. SEE CIVIL DRAWINGS FOR BUILDING ORIENTATION.



1 S104 S104 PARTIAL 2ND FLOOR FRAMING PLAN AREA A
SCALE = 1/8" = 1'-0"



KEY PLAN

8 6 4 2 0 8 16FT
SCALE:1/8"=1'-0"

US ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

DESIGNED BY	CHECKED BY	SIZE F.
CATEGORY CODE 721-81-06		
CONTRACT NO: DACA21-02-C-0046		
DATE:23 APRIL 2003	PLOT SCALE:	

CLARK CONSTRUCTION

CLARK DESIGN/BUILD, LLC

DESIGN FILE: $$FILE NAME$$
$$DATE$$

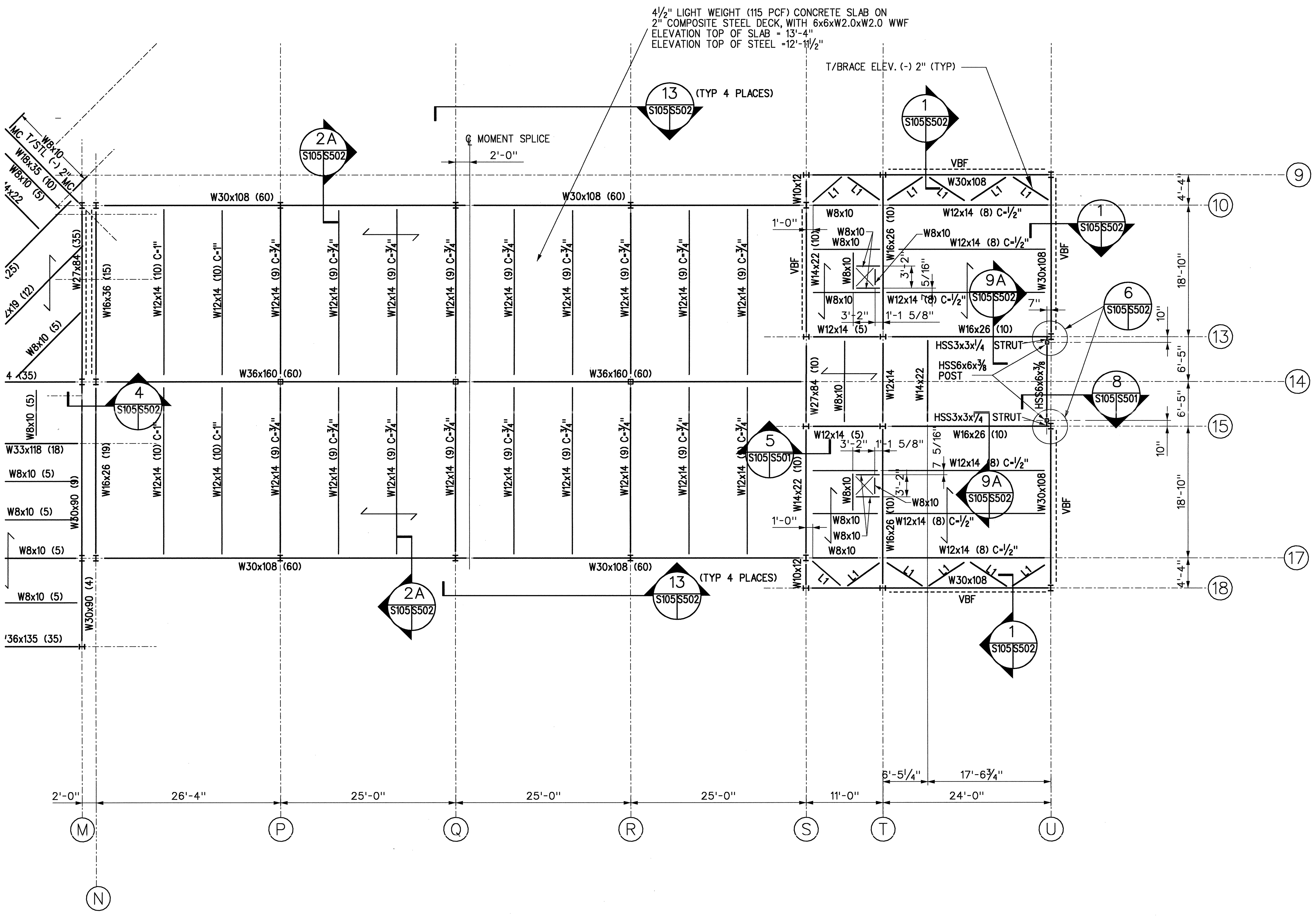
SYMBOL	DESCRIPTION	DATE	BY

BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

PARTIAL 2ND FLOOR FRAMING PLAN AREA A

PLATE REFERENCE NUMBER:
S-104
SHEET 58

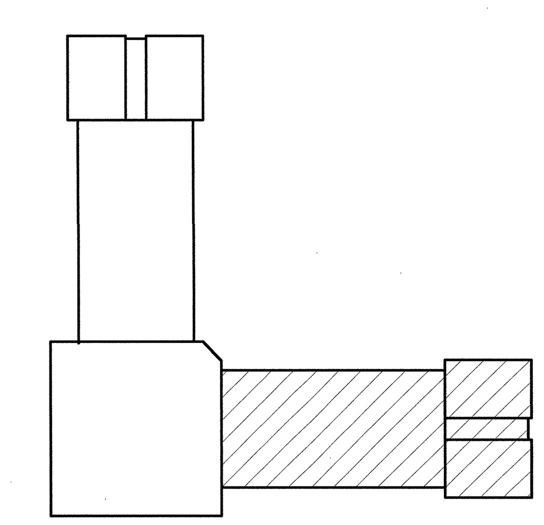
CONFORMED DRAWINGS 12 /19 /03



1 S105 S105 PARTIAL 2ND FLOOR FRAMING PLAN AREA B & C
SCALE = ⅛" = 1'-0"

NOTES

1. DASHED LINE INDICATES LOCATION OF BRACED BAY. SEE DRAWING S201 & S202.
2. INDICATES SPAN OF DECK AND SLAB
3. BEAMS ARE LOCATED AT EQUAL SPACING BETWEEN COLUMN GRID LINES, U.N.O.
4. CONTRACTOR SHALL PROVIDE CELL CLOSURES AND POUR STOPS AS REQUIRED FOR CONCRETE DECK PLACEMENT.
5. NUMBER IN PARENTHESES AFTER BEAM MARK IS NUMBER OF FIELD APPLIED HEADED STUDS
6. SEE DWG. S-501 FOR COLUMN & BASE PLATE SCHEDULES.
7. C=¾" DENOTES AMOUNT OF CAMBER REQUIRED FROM FABRICATOR
8. SEE CIVIL DRAWINGS FOR BUILDING ORIENTATION.
9. L1= (2)-L4x4x½



KEY PLAN

8 6 4 2 0 8 16FT
SCALE:⅛"=1'-0"

US ARMY CORPS
OF ENGINEERS
SAVANNAH DISTRICT

DESIGNED BY	CHECKED BY	SIZE F
CATEGORY CODE 721-81-06	CONTRACT NO: DACA21-02-C-0046	DATE: 23 APRIL 2003 PLOT SCALE:

CLARK CONSTRUCTION
CLARK DESIGN/BUILD, LLC

SYMBOL	DESCRIPTION	DATE	BY

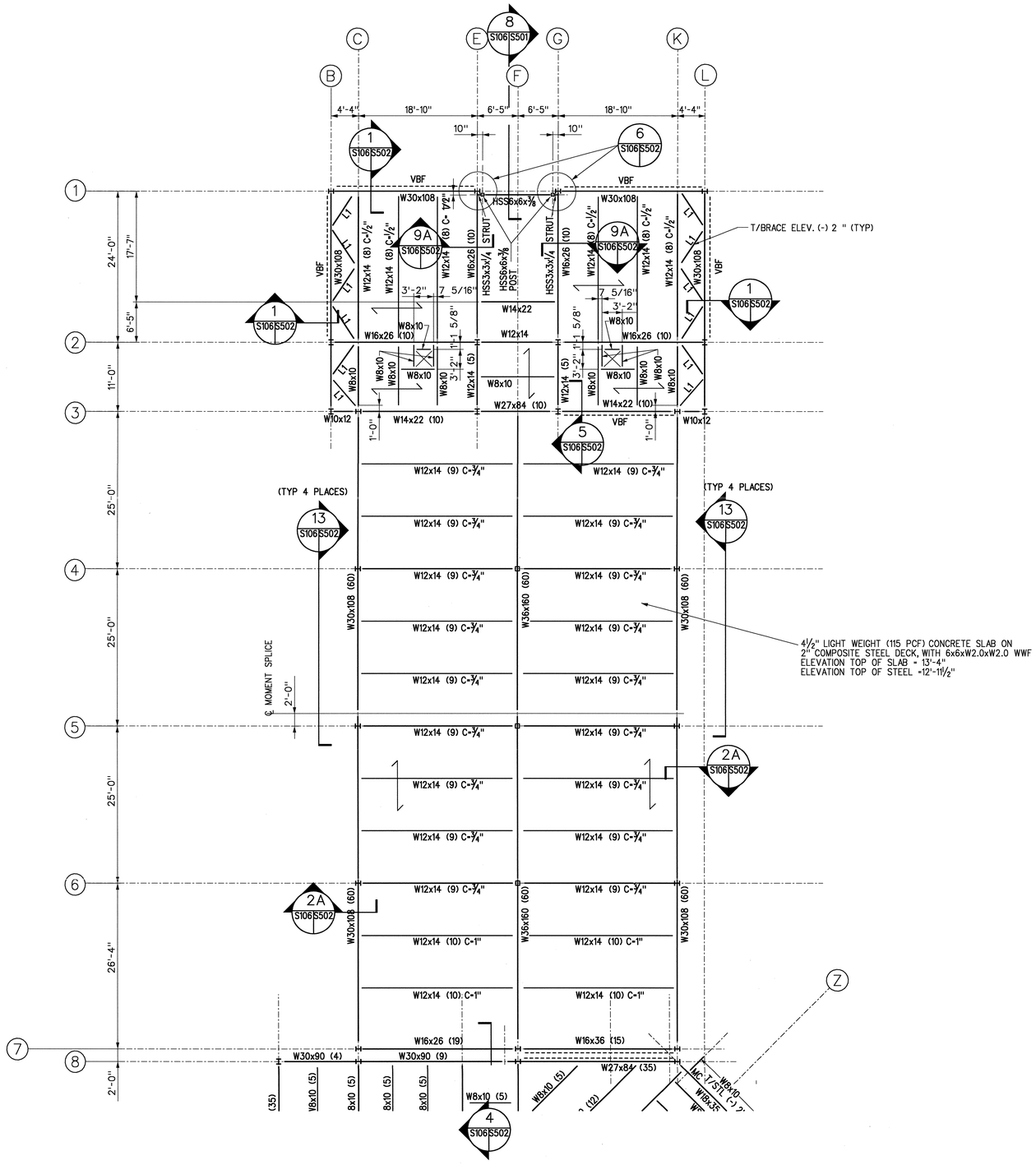
BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

PARTIAL 2ND FLOOR FRAMING PLAN AREA B&C

PLATE REFERENCE NUMBER:
S-105
SHEET 59

DESIGN FILE: $$FILE NAME$$
$$DATE$$

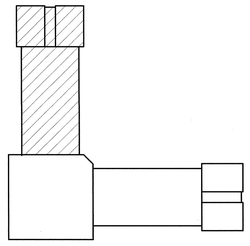
CONFORMED DRAWINGS 12 /19 /03



1 S106 S106 PARTIAL 2ND FLOOR FRAMING PLAN AREA D & E
SCALE = 1/8" = 1'-0"

NOTES

1. DASHED LINE INDICATES LOCATION OF BRACED BAY. SEE DRAWING S201 & S202
2. INDICATES SPAN OF DECK AND SLAB
3. BEAMS ARE LOCATED AT EQUAL SPACING BETWEEN COLUMN GRID LINES, U.N.O.
4. CONTRACTOR SHALL PROVIDE CELL CLOSURES AND POUR STOPS AS REQUIRED FOR CONCRETE DECK PLACEMENT.
5. NUMBER IN PARENTHESES AFTER BEAM MARK IS NUMBER OF FIELD APPLIED HEADED STUDS
6. SEE DWG. S-501 FOR COLUMN & BASE PLATE SCHEDULES.
7. C-3/4" DENOTES AMOUNT OF CAMBER REQUIRED FROM FABRICATOR
8. SEE CIVIL DRAWINGS FOR BUILDING ORIENTATION.
9. L1= (2)-L4x4x1/2



KEY PLAN

8 6 4 2 0 8 16FT
SCALE:1/8"=1'-0"

US ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

DESIGNED BY	CHECKED BY	SIZE F.
CATEGORY CODE 721-81-06		
CONTRACT NO: DACA21-02-C-0046		
DATE: 23 APRIL 2003		
PLOT SCALE:		

CLARK CONSTRUCTION
CLARK DESIGN/BUILD, LLC

SYMBOL	DESCRIPTION	DATE	BY

BASIC COMBAT TRAINEE BARRACKS COMPLEX I
FORT JACKSON, SOUTH CAROLINA
TRAINEE BARRACKS

PARTIAL 2ND FLOOR FRAMING PLAN AREA D & E

PLATE REFERENCE NUMBER:
S-106
SHEET 60

DESIGN FILE: $$FILE NAME$$
$$DATE$$

CONFORMED DRAWINGS 12 /19 /03