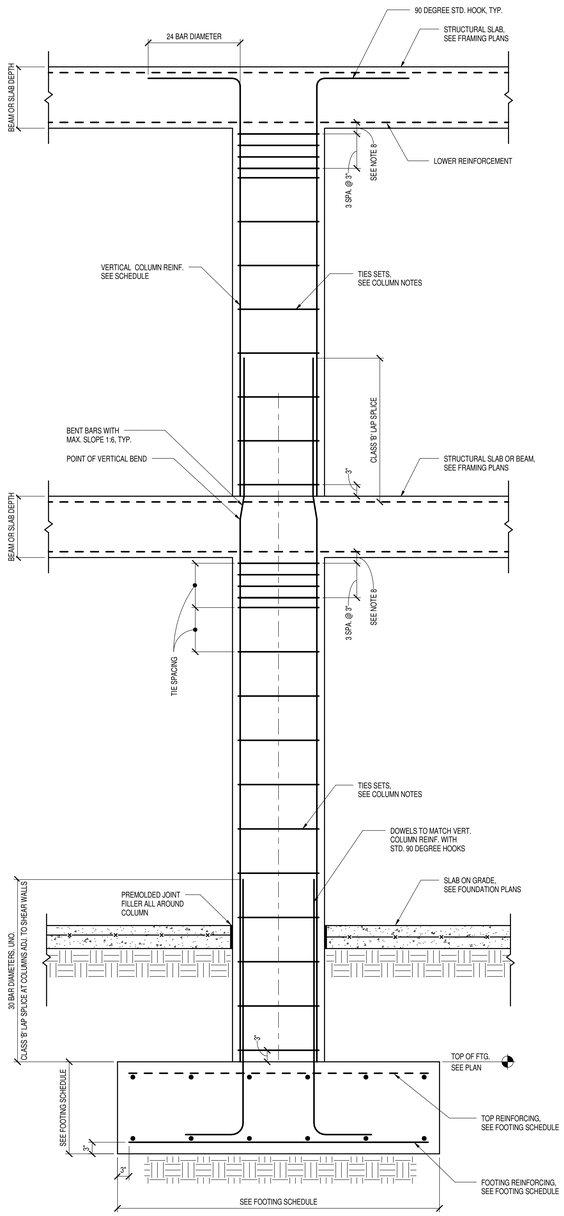
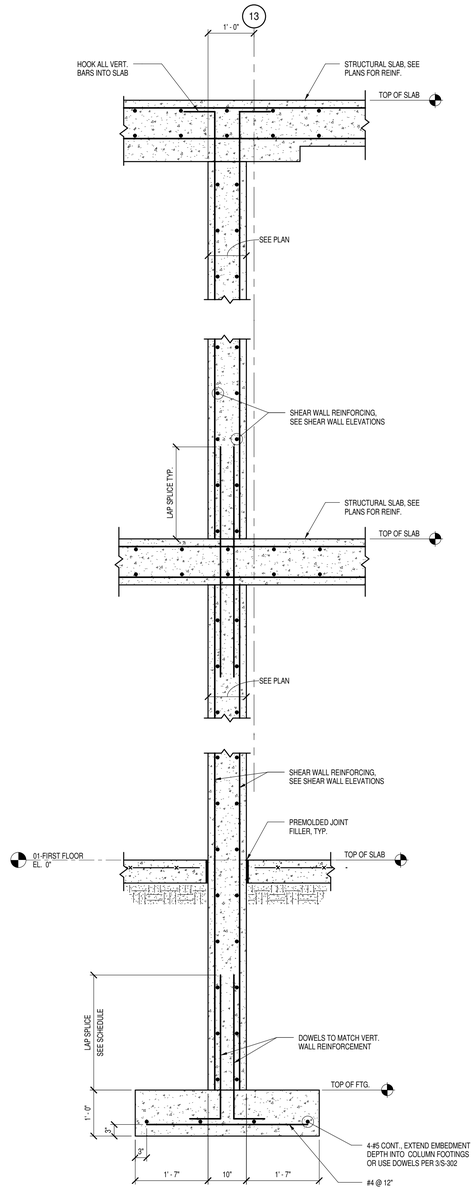
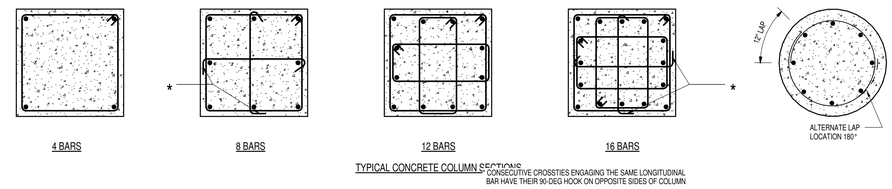


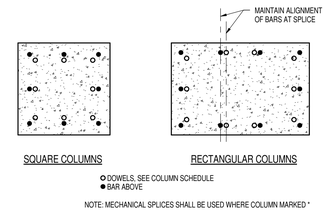
1 TYPICAL CONCRETE COLUMN AND FOOTING DETAIL
3/4" = 1'-0"



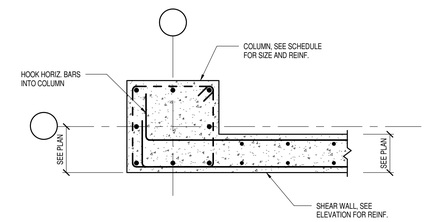
2 TYPICAL SECTION THRU SHEAR WALL
3/4" = 1'-0"



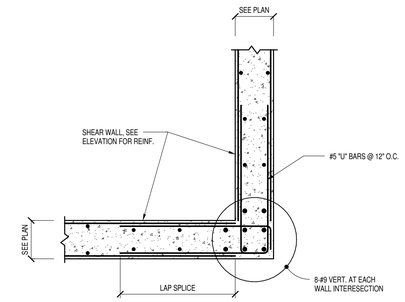
3 TYPICAL CONCRETE COLUMN SECTIONS
3/4" = 1'-0"



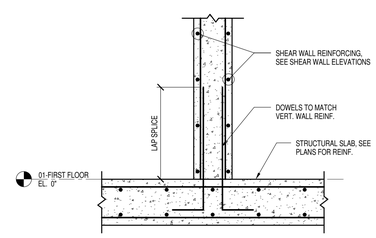
4 TYPICAL COLUMN REINF. SPLICE DETAIL
3/4" = 1'-0"



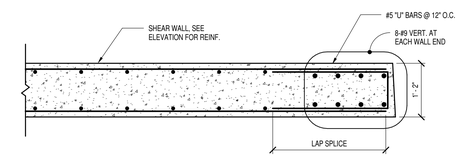
5 TYPICAL SHEAR WALL / COLUMN DETAIL
3/4" = 1'-0"



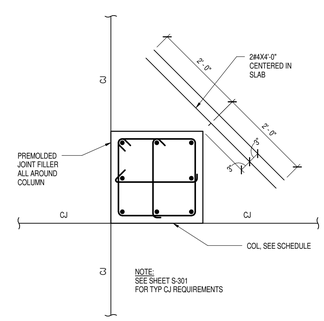
6 TYPICAL SHEAR WALL CORNER DETAIL
3/4" = 1'-0"



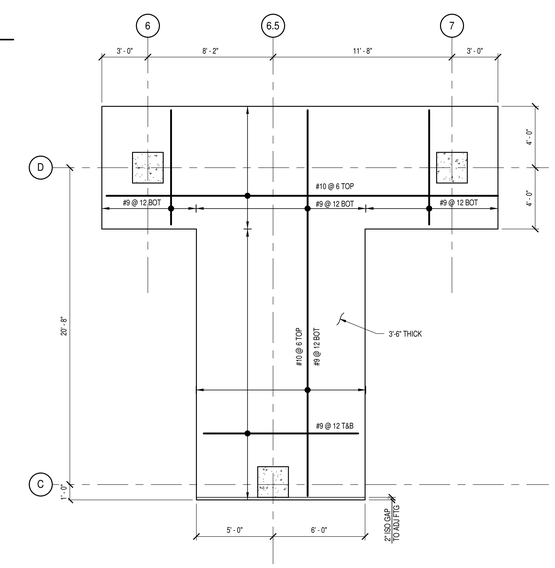
7 SHEAR WALL AT FIRST FLOOR
3/4" = 1'-0"



8 SHEAR WALL #19 END DETAIL
3/4" = 1'-0"



9 CONTRACTION / CONSTRUCTION JOINT DETAIL @ COLUMN.
3/4" = 1'-0"



10 FOOTING F-8 PLAN DETAIL
1/4" = 1'-0"

CONCRETE COLUMN NOTES

1. ALL COLUMNS SHALL BE CENTERED ON COLUMN GRIDS UNLESS OTHERWISE NOTED OR SHOWN.
2. FOR COLUMN SIZE DIMENSIONS, THE FIRST NUMBER IN THE SCHEDULE INDICATES DIMENSION IN THE NORTH-SOUTH DIRECTION.
3. WHERE BARS OF DIFFERENT SIZES ARE TO BE LAP SPLICED, THE SPLICE LENGTH SHALL BE AS REQUIRED FOR THE SMALLER BAR. SEE SCHEDULE, SHEET S-302.
4. VERTICAL COLUMN BARS SHALL BE EQUALLY SPACED ON EACH FACE, EXCEPT WHERE REQUIRED TO BE ADJUSTED SO AS NOT TO INTERFERE WITH INTERSECTING BEAM REINFORCING. VERTICAL COLUMN BARS MAY BE MOVED WITHING THE SPACING LIMITATIONS OF ACI 315-80 (REV. 1986) IN ORDER TO ACCOMODATED INTERSECTING BEAM REINFORCING.
5. PROVIDE CLASS 'B' LAP SPLICES FOR SHEAR WALLS AND COLUMNS MONOLITHIC WITH SHEAR WALLS INCLUDING LAP SPLICE AT TOP OF FOOTING.
6. ALL COLUMN TIES SHALL BE AS SHOWN AND SHALL HAVE STANDARD 135 DEGREE HOOKS. COLUMN TIE ARRANGEMENTS NOT SHOWN SHALL CONFORM TO STANDARD ACI 315-80 (REV. 1986) WITH STANDARD 135 DEGREE HOOK.
7. COLUMN TIES SHALL BE LOCATED VERTICALLY NOT MORE THAN 3 INCHES BELOW HORIZONTAL REINFORCEMENT IN BEAM OR SLAB. WHERE BEAMS FRAME FROM FOUR DIRECTIONS INTO A COLUMN, TIES MAY BE TERMINATED NOT MORE THAN 3 INCHES BELOW LOWEST REINFORCEMENT OF SHALLOWEST BEAM.
8. COLUMN TIES SETS SHALL BE AS FOLLOWS:

#3 @ 12" FOR #6 VERTICAL BARS
#3 @ 12" FOR #7 VERTICAL BARS
#3 @ 16" FOR #8 VERTICAL BARS
#3 @ 16" FOR #9 VERTICAL BARS
#4 @ 18" FOR #10 VERTICAL BARS
#4 @ 18" FOR #11 VERTICAL BARS

TIE SET SPACING SHALL EQUAL THE SMALLER OF THE LEAST COLUMN DIMENSION OR THE SPACING SHOWN ABOVE

FOOTING SCHEDULE

MARK	FOOTING SIZE (L x W x T)	REINFORCING	REMARKS
F-1	6'-0" x 6'-0" x 1'-8"	6-#6 E.W. BOTTOM	
F-2	7'-0" x 7'-0" x 2'-0"	6-#7 E.W. BOTTOM	
F-3	9'-0" x 9'-0" x 3'-0"	7-#8 E.W. BOTTOM	
F-4	10'-0" x 10'-0" x 3'-0"	9-#8 E.W. BOTTOM	
F-5	20'-0" x 20'-0" x 4'-0"	#9 @ 12" E.W., T & B	
F-6	32'-0" x 24'-0" x 4'-0"	#9 @ 12" E.W., T & B	
F-7	32'-0" x 32'-0" x 4'-0"	#9 @ 12" E.W., T & B	
F-8	SEE DETAIL 10/S-203		42" THICK
F-9	14'-0" x 10'-0" x 2'-0"	9-#8 L.W., 13-#8 S.W. BOT / 9-#6 L.W., 13-#8 S.W. TOP	

NOTE:
COORDINATE WITH ELECTRICAL DRAWINGS FOR INSTALLATION OF GROUNDING ELECTRODE SYSTEM IN FOOTINGS.

HDR CUH2A
1101 King Street | Suite 400 | Alexandria, Virginia 22314-2944 | 703.518.8500

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER THESE DOCUMENTS IN ANY WAY UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED ARCHITECT.

JOB NO.	SHEET	NO	REVISION	DATE	DWN.	APP'D.	QA
		1	ADDENDUM #02	05/07/10			
			ISSUE FOR BID	04/09/10			

BROOKHAVEN NATIONAL LABORATORY
UNDER CONTRACT WITH
UNITED STATES DEPARTMENT OF ENERGY
PLANT ENGINEERING DIVISION
UPTON, NEW YORK 11973

JOB TITLE: INTERDISCIPLINARY SCIENCE BUILDING			DWG. TITLE: COLUMN AND SHEAR WALL DETAILS
ILR,GPP,LNI, HEM	DATE: 04/09/10	ACCT. NO.	SHEET OF
SCALE: As indicated	DWN. BY: RAW / REV'D BY: MM	JOB NO.: 079872	DWG. NO. S-203
ESHQ RISK LEVEL	APP'D. BY: Approver	BLDG. NO.	
FILENAME: 079872-S-203			