DO NOT DISTURB EXISTING/RELOCTED OXYGEN PIPING BELOW GRADE. FIELD VERIFY EXACT LOCATION AS REQUIRED TO PERFORM WORK SHOWN ON PLANS. IF ACTUAL LOCATION INTERFERES WITH EXISTING CONSTRUCTION TO BE DEMOLISHED, NOTIFY ENGINEER OF RECORD FOR DIRECTION PRIOR TO COMMENCEMENT OF WORK.

DO NOT DISTURB EXISTING ELECTRICAL DUCT BANK BELOW GRADE. FIELD VERIFY EXACT LOCATION AS REQUIRED TO PERFORM WORK SHOWN ON PLANS. IF ACTUAL LOCATION INTERFERES WITH EXISTING CONSTRUCTION TO BE DEMOLISHED, NOTIFY ENGINEER OF RECORD FOR DIRECTION PRIOR TO COMMENCEMENT OF WORK.

BUILDING 15

BUILDING 38

BUILDING 2

DEMO WALLS AND FOOTINGS

DEMO COLUMNS AND FOOTINGS

DEMO SLAB ON GRADE

REFEED POWER TO WAREHOUSE PRIOR TO DEMOLITION OF BUILDING 15. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

DO NOT DISTURB EXISTING UNDERSLAB PIPING UNTIL NEW PIPING IS INSTALLED. REFER TO SHEETS 2-PD0 AND 2-P0 FOR ADDITIONAL INFORMATION

NEW UNDERSLAB PIPING TO BE INSTALLED AROUND NEW PIER LOCATIONS. REFER TO SHEET 2-P0 FOR ADDITIONAL INFORMATION

EXISTING STRUCTURE TO REMAIN

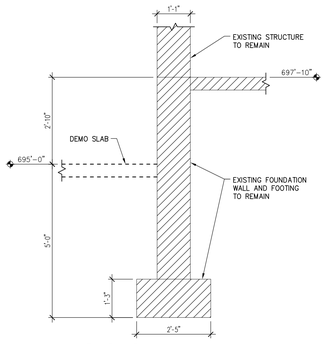
DEMO STEEL FRAMING

DEMO LOADING DOCK WALLS AND FOOTINGS

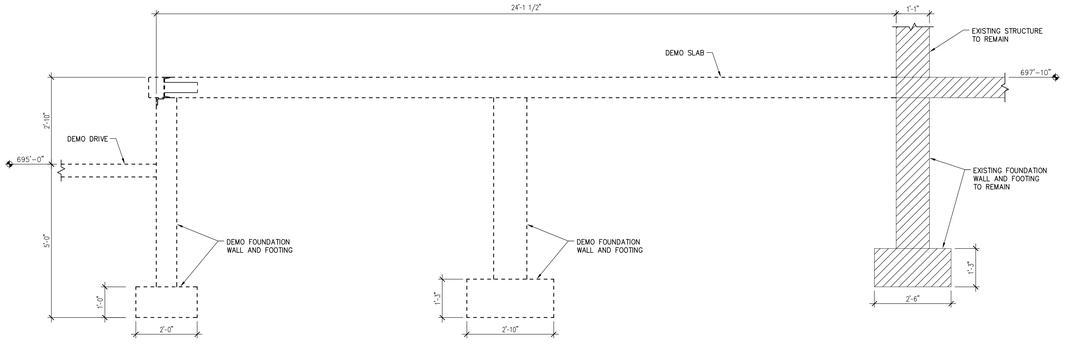
COMPLETE DRAWINGS OF EXISTING BUILDING 2 TO BE DEMOLISHED TO BE USED FOR REFERENCE ONLY ARE AVAILABLE FROM THE OWNER UPON REQUEST. ACTUAL FIELD CONDITIONS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS.

FOUNDATION DEMOLITION PLAN
1/8"=1'-0"

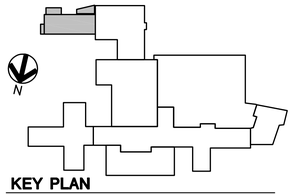
N



1 WALL SECTION
1/2"=1'-0"



2 WALL SECTION
1/2"=1'-0"



KEY PLAN
NOT TO SCALE

2-1

Revisions	Date

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
2834 Northgate Drive | Iowa City, Iowa 52245
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Iowa | Illinois | Missouri

Drawing Title: FOUNDATION DEMOLITION PLAN

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number 2 | Checked MM | Drawn KLH

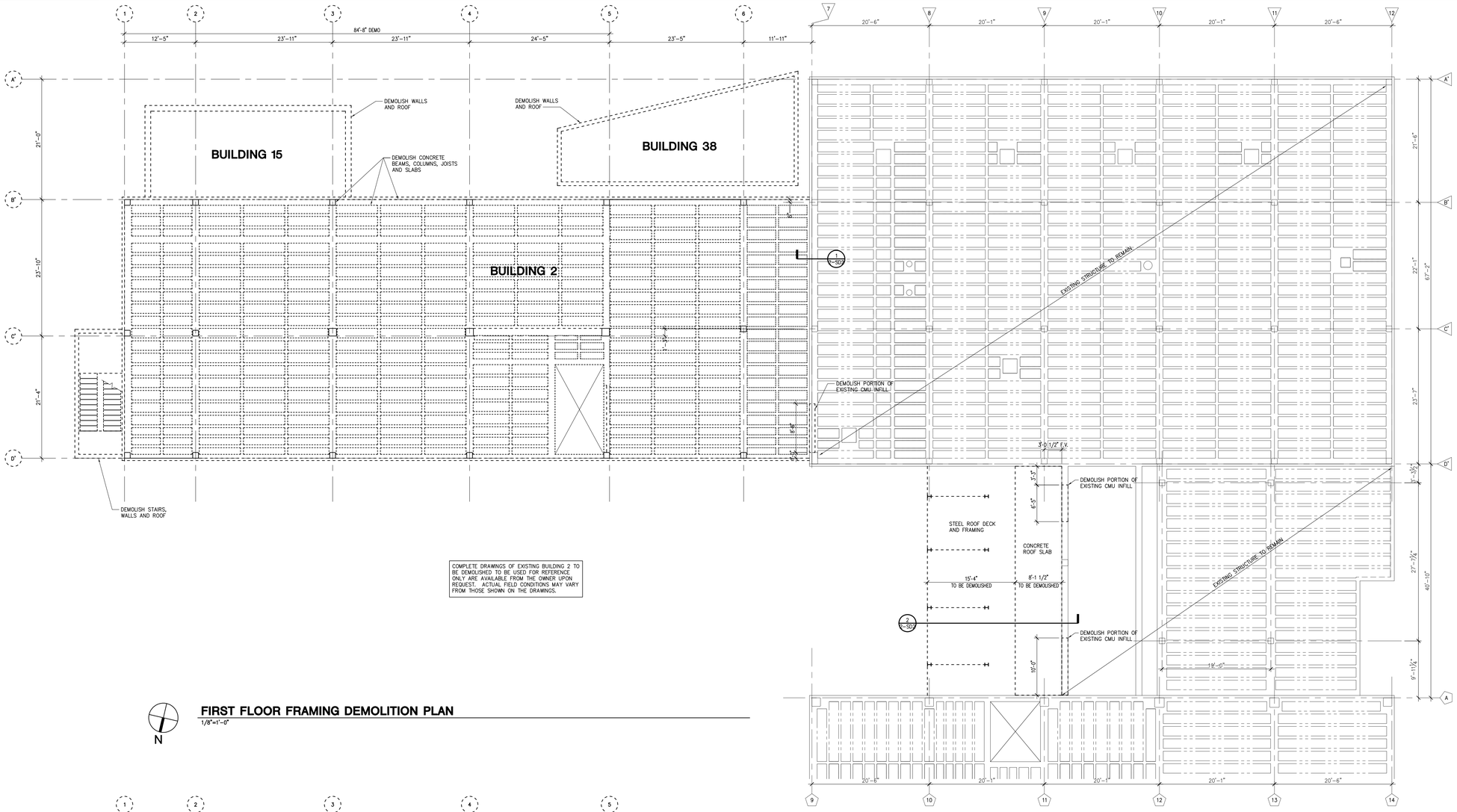
Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-SD1

Dwg. 1 Of 16

Veterans Administration

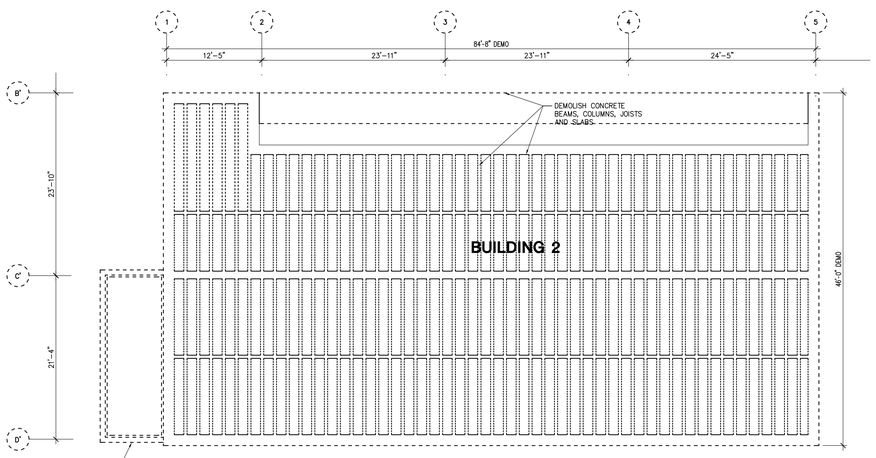


COMPLETE DRAWINGS OF EXISTING BUILDING 2 TO BE DEMOLISHED TO BE USED FOR REFERENCE ONLY ARE AVAILABLE FROM THE OWNER UPON REQUEST. ACTUAL FIELD CONDITIONS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS.

N

FIRST FLOOR FRAMING DEMOLITION PLAN

1/8"=1'-0"



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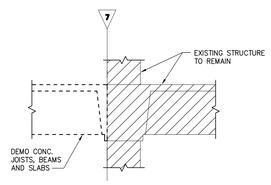
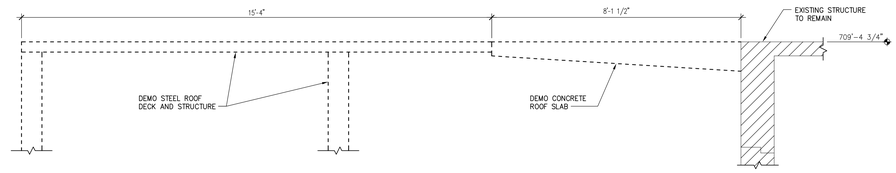
ROOF FRAMING DEMOLITION PLAN

1/8"=1'-0"



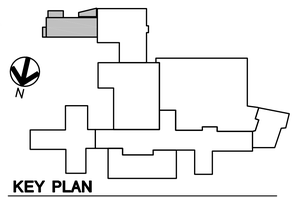
1 WALL SECTION

1/2"=1'-0"



2 WALL SECTION

1/2"=1'-0"



KEY PLAN

NOT TO SCALE

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Revisions	Date

SHIVEHATTERY
ARCHITECTURE + ENGINEERING

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Drawing Title: FLOOR/ROOF FRAMING DEMOLITION PLAN

Approved: Division Chief

Approved: Service Director

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Building Number: 2

Checked: MM

Drawn: KLH

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

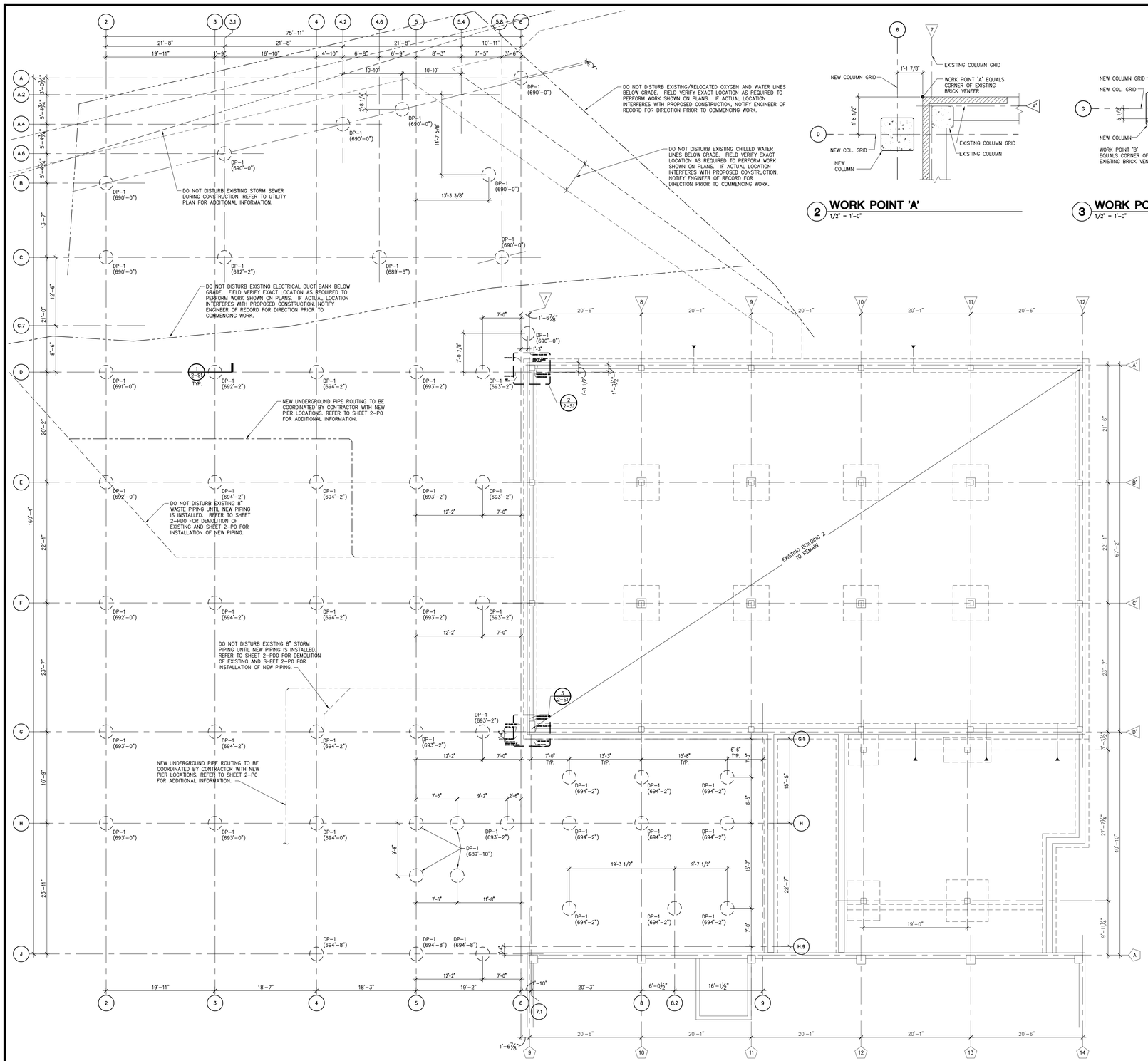
Date 12-17-2012
CONSTRUCTION DOCUMENTS

Project No. DVA#636-311
S-H#110240-0

DRAWING NO. 2-SD2

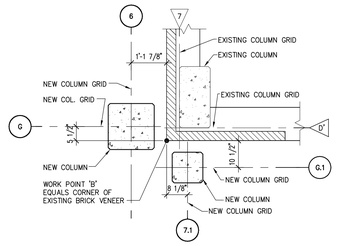
Dwg. 2 Of 16

Veterans Administration



DRILLED PIER PLAN
1/8"=1'-0"

2 WORK POINT 'A'
1/2" = 1'-0"



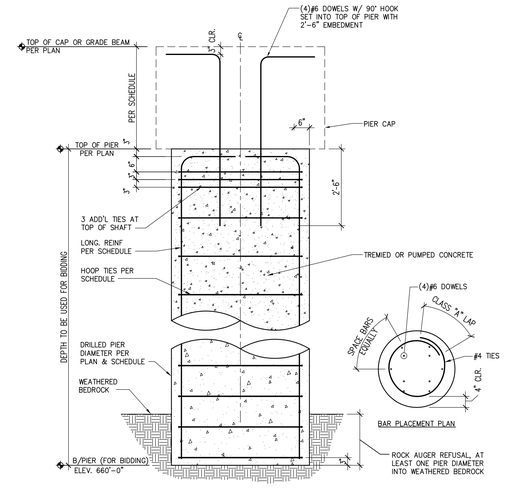
3 WORK POINT 'B'
1/2" = 1'-0"

GENERAL NOTES

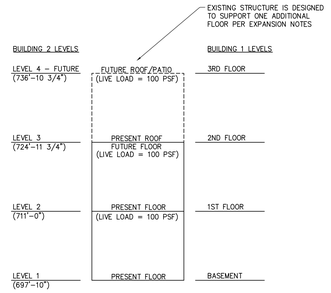
1. GOVERNING BUILDING CODE: 2009 INTERNATIONAL BUILDING CODE (IBC).
2. THE BUILDING HAS FINISH FLOOR ELEVATIONS THAT MATCH EXISTING ELEVATIONS NOTED THUS (XX'-XX"). FINISHED FIRST FLOOR IS (697'-10").
3. LOADS USED IN BUILDING DESIGN:
   A. GRAVITY
      a. FLOOR
         LIVE LOAD . . . . . 100 PSF
      b. ROOF (SOUTH OF GRID D AND WEST OF GRID 7.1)
         LIVE LOAD . . . . . 30 PSF
         MEP AND MISC. ALLOWANCE . . . . . 20 PSF
   B. SNOW
      a. GROUND SNOW LOAD, Pg . . . . . 25 PSF
      b. FLAT ROOF SNOW LOAD, Pf . . . . . 22 PSF
      c. SNOW EXPOSURE FACTOR, Ce 1.0
      d. IMPORTANCE, Is . . . . . 1.1 (OCC CAT III)
      e. THERMAL FACTOR, Ct 1.0
   C. WIND
      a. VELOCITY, V . . . . . 90 MPH (3 SEC GUST)
      b. IMPORTANCE, Iw . . . . . 1.15 (OCC CAT III)
      c. EXPOSURE . . . . . B
      d. INTERNAL PRESSURE COEF. GCpi . . . . . ±0.18
      e. COMPONENT AND CLADDING . . . . . +15 PSF / -18 PSF
   D. SEISMIC
      a. IMPORTANCE, Ie . . . . . 1.25 (OCC CAT III)
      b. Ss 0.100
      c. S1 . . . . . 0.06
      d. SITE CLASS C
      e. Sds 0.08
      f. Sd1 . . . . . 0.07
      g. SEISMIC DESIGN CATEGORY . . . . . B
      h. BFRS . . . . . ORD. CONC. MOMEMT FRAMES
      i. BASE SHEAR . . . . . 125K (INCLUDES VERTICAL EXPANSION)
      j. SEISMIC RESPONSE COEF, Cs 0.033
      k. RESPONSE MODIFICATION FACTOR . . . . . R=3
      l. EQUIVALENT LATERAL FORCE PROCEDURE
4. BUILDING DESIGN APPROACH: THE BUILDING ADDITION HAS BEEN DESIGNED TO BE FULLY SELF SUPPORTING AND INDEPENDENT OF THE EXISTING BUILDING. LATERAL RESISTANCE IS PROVIDED BY A RIGID CONCRETE FRAME IN BOTH PRIMARY DIRECTIONS.
5. CONCRETE
   A. ALL CONCRETE SHALL BE STONE AGGREGATE UNLESS NOTED. MINIMUM CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS:

      CAISSONS . . . . . 4000 PSI (AIR ENTRAINED)
      FOUNDATION WALLS/ GRADE BEAMS . . . . . 4000 PSI (AIR ENTRAINED)
      JOISTS . . . . . 4000 PSI
      COLUMNS . . . . . 4000 PSI
      BEAMS . . . . . 4000 PSI

   B. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF SHORING END RESHORING SYSTEMS.
6. FOUNDATIONS
   A. SOILS INFORMATION IS BASED ON A GEOTECHNICAL REPORT PREPARED BY TERRACON CONSULTANTS, INC., NO. 06115673.02 DATED OCTOBER 11, 2011.
   B. DRILLED PIER FOUNDATIONS ARE DESIGNED FOR A NET ALLOWABLE END BEARING PRESSURE OF 80,000 PSF.



1 TYPICAL DRILLED PIER
NOT TO SCALE



VERTICAL EXPANSION DESIGN
NOT TO SCALE

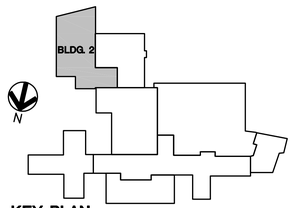
EXPANSION NOTES

1. COLUMNS AND BEAMS BETWEEN GRIDS D-2 AND J-6 ARE DESIGNED TO SUPPORT ONE ADDITIONAL FLOOR FOR A FUTURE VERTICAL EXPANSION.
2. DESIGN LOADS FOR FUTURE EXPANSION MATCH THOSE FOR THE CURRENT EXPANSION.
3. THE RIGID FRAME FOR THE CURRENT EXPANSION IS DESIGNED TO SUPPORT LATERAL EAST/ WEST AND NORTH/ SOUTH DIRECTION LOADS FROM THE CURRENT EXPANSION AND FUTURE VERTICAL EXPANSION. RIGID FRAMES TO CONTINUE UP TO FUTURE SLAB.

DRILLED PIER (CAISSON) SCHEDULE

MARK	DIAMETER	REINFORCING STEEL			DESIGN CAPACITY
		VERTICAL	HOOPS ◯	LENGTH	
DP1	30"	6-#9	#4 @ 18"	FULL DEPTH	185T

NOTES:
1. ALL BEARING SURFACES SHALL BE FIELD APPROVED BY THE GEOTECHNICAL ENGINEER.
2. PIER DEPTHS ARE APPROXIMATE PENDING THE GEOTECHNICAL ENGINEER'S VERIFICATION TO THE DEPTHS OF THE UNDERLYING BEARING SOIL STRATA.
3. TOP OF DRILLED PIER ELEVATIONS SHOWN AS (XXX'-X"), U.N.O.
4. NOTE DEPTH OF CAISSONS EXCEEDS ALLOWABLE DEPTH OF CONCRETE FREE FALL. TREMIE OR PUMPING IS REQUIRED FOR CONCRETE PLACEMENT.



KEY PLAN
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Revisions | Date

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Iowa | Illinois | Missouri

Drawing Title: DRILLED PIER PLAN, DETAILS AND GENERAL NOTES

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number 2 | Checked MM | Drawn KLH

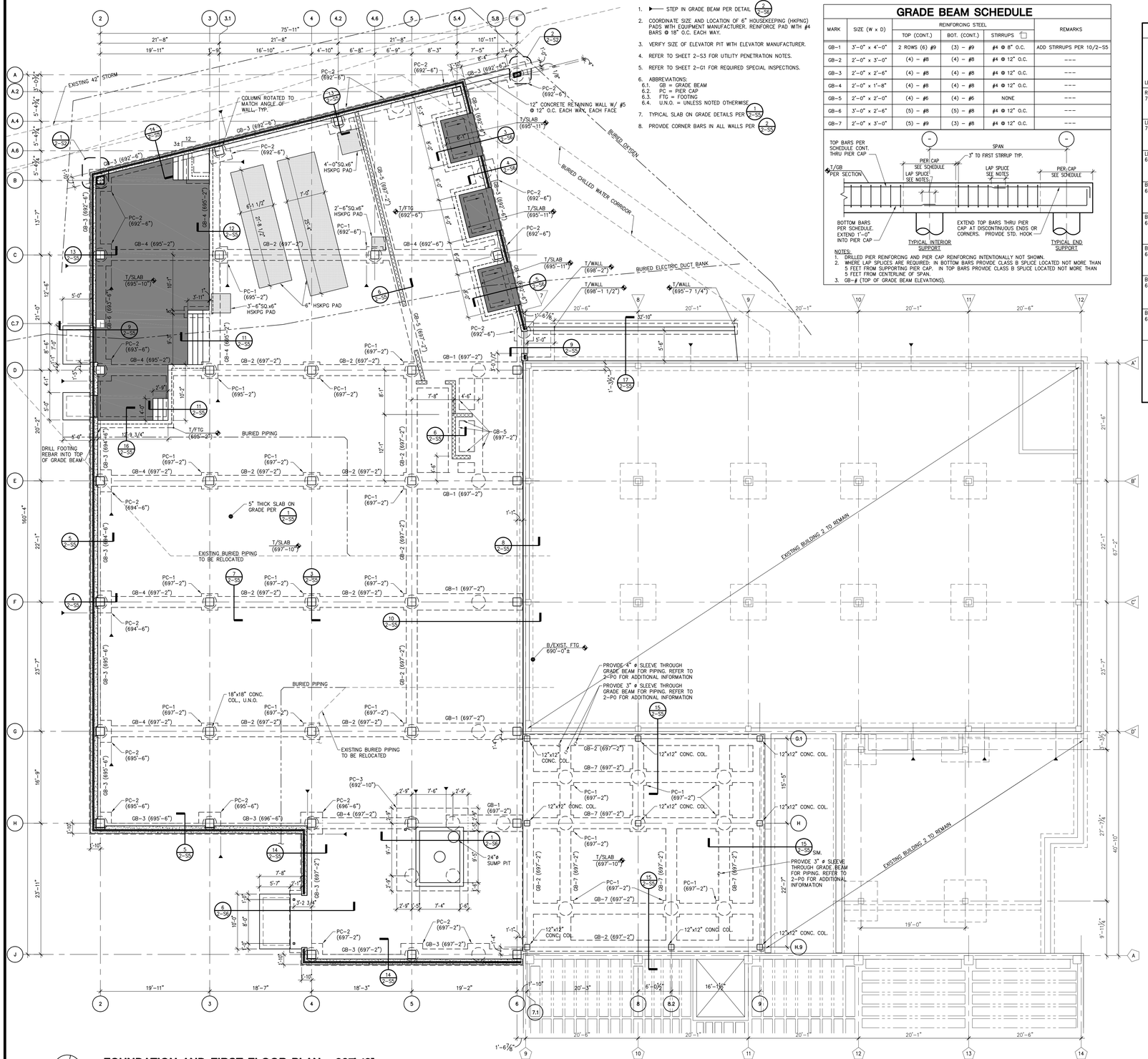
Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-S1

Dwg. 3 Of 16

Veterans Administration



FOUNDATION AND FIRST FLOOR PLAN - 697'-10"

1/8"=1'-0"

GENERAL PLAN NOTES

1. ▶— STEP IN GRADE BEAM PER DETAIL 4/2-S5
2. COORDINATE SIZE AND LOCATION OF 6" HOUSEKEEPING (HKPNG) PADS WITH EQUIPMENT MANUFACTURER. REINFORCE PAD WITH #4 BARS @ 18" O.C. EACH WAY.
3. VERIFY SIZE OF ELEVATOR PIT WITH ELEVATOR MANUFACTURER.
4. REFER TO SHEET 2-S3 FOR UTILITY PENETRATION NOTES.
5. REFER TO SHEET 2-G1 FOR REQUIRED SPECIAL INSPECTIONS.
6. ABBREVIATIONS:
   - 6.1. GB = GRADE BEAM
   - 6.2. PC = PIER CAP
   - 6.3. FTG = FOOTING
   - 6.4. U.N.O. = UNLESS NOTED OTHERWISE
7. TYPICAL SLAB ON GRADE DETAILS PER 1/2-S5
8. PROVIDE CORNER BARS IN ALL WALLS PER 2/2-S5

GRADE BEAM SCHEDULE

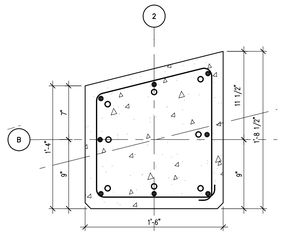
MARK	SIZE (W x D)	REINFORCING STEEL TOP (CONT.)	BOT. (CONT.)	STIRRUPS	REMARKS
GB-1	3'-0" x 4'-0"	2 ROWS (6) #9	(3) - #9	#4 @ 8" O.C.	ADD STIRRUPS PER 10/2-S5
GB-2	2'-0" x 3'-0"	(4) - #8	(4) - #8	#4 @ 12" O.C.	---
GB-3	2'-0" x 2'-6"	(4) - #8	(4) - #8	#4 @ 12" O.C.	---
GB-4	2'-0" x 1'-8"	(4) - #8	(4) - #8	#4 @ 12" O.C.	---
GB-5	2'-0" x 2'-0"	(4) - #6	(4) - #6	NONE	---
GB-6	3'-0" x 2'-6"	(5) - #8	(3) - #8	#4 @ 12" O.C.	---
GB-7	2'-0" x 3'-0"	(5) - #9	(3) - #8	#4 @ 12" O.C.	---

NOTES:
1. DRILLED PIER REINFORCING AND PIER CAP REINFORCING INTENTIONALLY NOT SHOWN.
2. WHERE LAP SPLICES ARE REQUIRED: IN BOTTOM BARS PROVIDE CLASS B SPLICE LOCATED NOT MORE THAN 5 FEET FROM SUPPORTING PIER CAP. IN TOP BARS PROVIDE CLASS B SPLICE LOCATED NOT MORE THAN 5 FEET FROM CENTERLINE OF SPAN.
3. GB-# (TOP OF GRADE BEAM ELEVATIONS).

CONCRETE COLUMN SCHEDULE

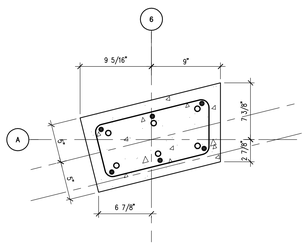
LEVEL	COLUMN LOCATIONS		A-6	B-2	A.2-5.4, A.4-4.2, A.6-3.1, C-2, C-5.8	C-3.1 C-4.6	C.7-2	D-2	G-2, H-2, H-3	D-3, D-4, D-5, D-6, E-3, E-4, E-5, E-6, F-3, F-4, F-5, F-6, G-3, G-4, G-5, G-6, H-4, H-5, H-6, J-4, J-5, J-6	E-2, F-2	G.1-7.1, G.1-8, G.1-9, H-7.1, H-8, H-9, H.9-7.1, H.9-8.2, H.9-9
ROOF 724'-11 3/4"		SIZE										
		VERT. REINF.										
		TIES										
LEVEL 2 711'-0"		SIZE										
		VERT. REINF.										
		TIES										
LEVEL 1 697'-10"		SIZE										
		VERT. REINF.										
		TIES										
B/COL 697'-2"		SIZE				18" x 18"				18" x 18"		12" x 12"
		VERT. REINF.				(8) #7				(8) #7		(4) #6
		TIES				#3 @ 8"O.C.				#3 @ 8"O.C.		#3 @ 12"O.C.
B/COL 695'-6"		SIZE							18" x 18"			
		VERT. REINF.							(8) #7			
		TIES							#3 @ 8"O.C.			
B/COL 694'-6"		SIZE									18" x 18"	
		VERT. REINF.									(8) #7	
		TIES									#3 @ 8"O.C.	
B/COL 693'-6"		SIZE					18" x 18"	18" x 18"				
		VERT. REINF.					(8) #7	(8) #7				
		TIES					#3 @ 8"O.C.	#3 @ 8"O.C.				
B/COL 692'-6"		SIZE	2/2-S2	1/2-S2	18" x 18"							
		VERT. REINF.	(6) #7	(6) #7	(8) #7							
		TIES	#3 @ 8"O.C.	#3 @ 8"O.C.	#3 @ 8"O.C.							

CONCRETE COLUMN SCHEDULE NOTES:
1. COLUMN CONCRETE STRENGTH F'c= 4000 PSI, TYP.
2. REFER TO FOUNDATION DETAILS FOR COLUMN FOUNDATION DOWEL REQUIREMENTS.
3. SEE DETAIL 3/2-S2 FOR COLUMN TIE REQUIREMENTS.
4. SEE DETAIL 4/2-S2 FOR COLUMN REINFORCING LAP SPLICE LENGTHS.
5. SEE DETAIL 1/2-S7 FOR TYPICAL COLUMN SPLICE AT FLOOR LINE.
6. SEE DETAIL 2/2-S7 FOR TYPICAL COLUMN TERMINATION AT ELEVATION 711'-0".
7. SEE DETAIL 13/2-S7 FOR TYPICAL COLUMN TERMINATION AT ELEVATION 724'-11¾".



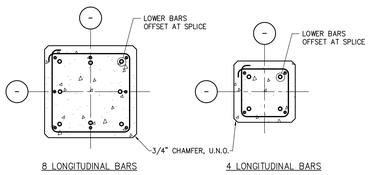
1 COLUMN B-2 DETAIL

1 1/2"=1'-0"



2 COLUMN A-6 DETAIL

1 1/2"=1'-0"



NOTES:
1. ALL HOOKS TO BE FABRICATED AS REQUIRED BY ACI.
2. CONCRETE COVER TO TIES SHALL BE 1 1/2".
3. ALTERNATE HOOKS IN PLACING SUCCESSIVE SETS OF TIES.

3 COLUMN TIE REQUIREMENTS

1"=1'-0"

COLUMN LAP SPLICE LENGTH

FOR GRADE 60 REINFORCING BARS (NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 4000 PSI CLASS B (1.3 Ld)
#5	32
#6	38
#7	55
#8	63
#9	71

NOTES:
1. Ld = TENSION DEVELOPMENT LENGTH
2. ALL SPLICE LENGTH ARE IN INCHES.
3. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE LARGER BAR.
4. LAP SPLICE LENGTH SHOWN IN THIS TABLE ARE VALID FOR COLUMNS ONLY AND SHALL NOT BE USED FOR OTHER STRUCTURAL ELEMENTS.

4 COLUMN LAP SPLICE LENGTH

1"=1'-0"

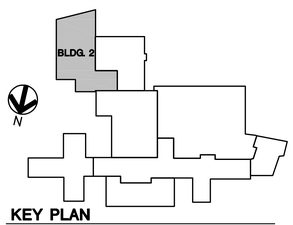
PIER CAP SCHEDULE

MARK	PIER DIA., TYP.	CAP SIZE	DEPTH	REINFORCING
PC-1	30"	3'-0" x 3'-0"	3'-0"	(4) #6 BARS EACH WAY, TOP AND BOTTOM
PC-2	30"	4'-0" x 4'-0"	2'-6"	(5) #6 BARS EACH WAY, TOP AND BOTTOM
PC-3	30"	13'-0" x 15'-2"	3'-0"	#6 BARS @ 12"O.C., EACH WAY, TOP AND BOTTOM

1. PIER CAPS ARE CENTERED OVER PIERS, U.N.O.
2. PC-# (TOP OF CAP ELEVATION)

5 PIER CAP SCHEDULE

1"=1'-0"



KEY PLAN

NOT TO SCALE

2-1

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Drawing Title: FOUNDATION PLAN AND COLUMN SCHEDULE

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Approved: Service Director

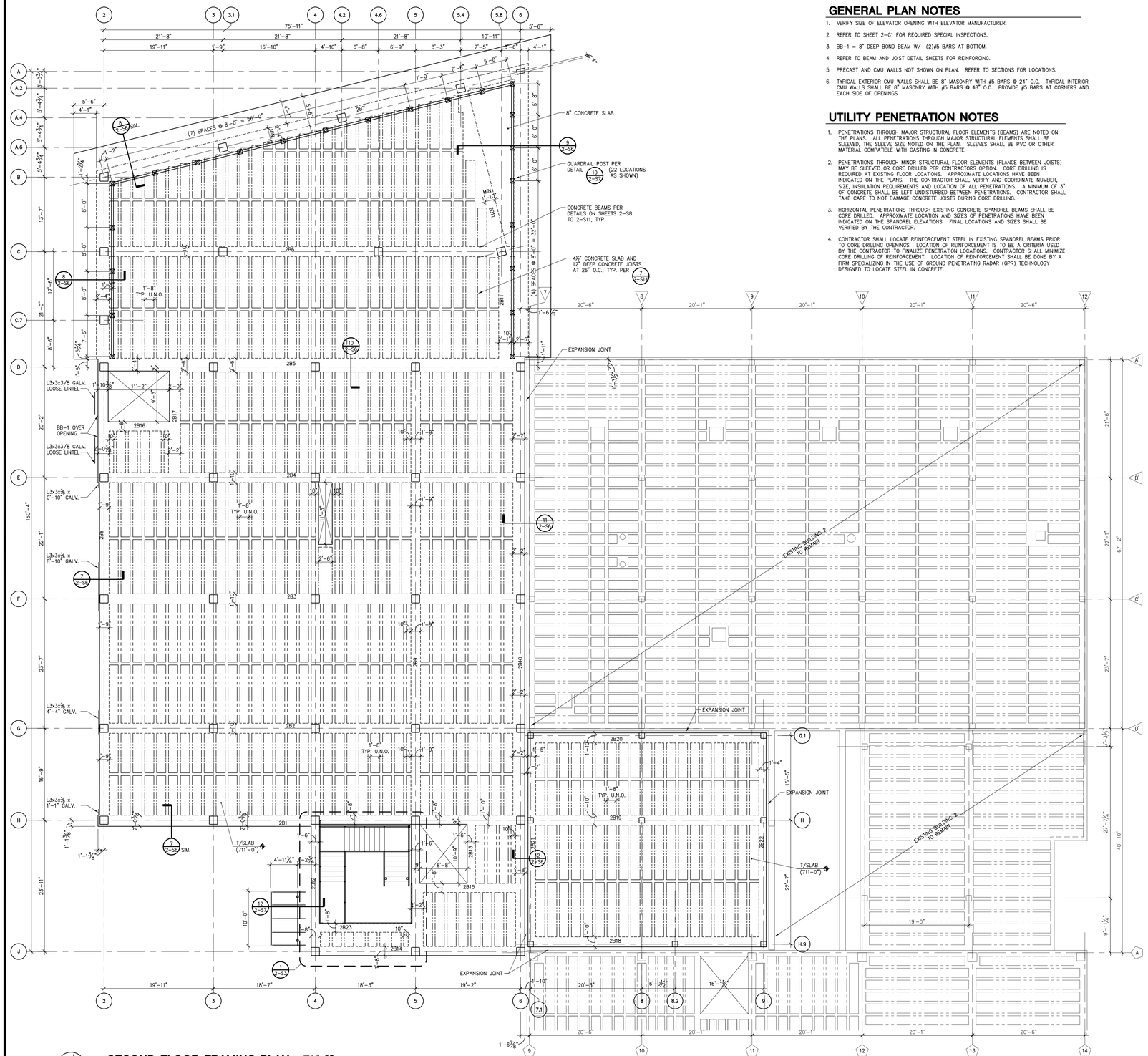
Building Number 2 | Checked MM | Drawn KLH

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-S2

Dwg. 4 Of 16

Veterans Administration



SECOND FLOOR FRAMING PLAN - 711'-0"

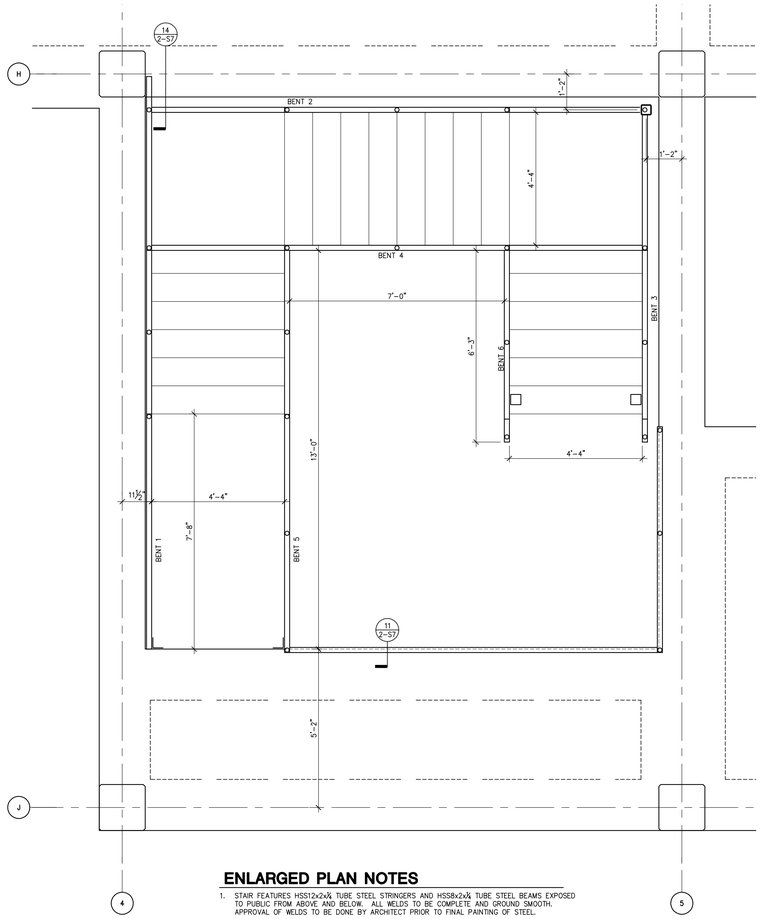
1/8"=1'-0"

GENERAL PLAN NOTES

1. VERIFY SIZE OF ELEVATOR OPENING WITH ELEVATOR MANUFACTURER.
2. REFER TO SHEET 2-G1 FOR REQUIRED SPECIAL INSPECTIONS.
3. BB-1 = 8" DEEP BOND BEAM W/ (2)#5 BARS AT BOTTOM.
4. REFER TO BEAM AND JOIST DETAIL SHEETS FOR REINFORCING.
5. PRECAST AND CMU WALLS NOT SHOWN ON PLAN. REFER TO SECTIONS FOR LOCATIONS.
6. TYPICAL EXTERIOR CMU WALLS SHALL BE 8" MASONRY WITH #5 BARS @ 24" O.C. TYPICAL INTERIOR CMU WALLS SHALL BE 8" MASONRY WITH #5 BARS @ 48" O.C. PROVIDE #5 BARS AT CORNERS AND EACH SIDE OF OPENINGS.

UTILITY PENETRATION NOTES

1. PENETRATIONS THROUGH MAJOR STRUCTURAL FLOOR ELEMENTS (BEAMS) ARE NOTED ON THE PLANS. ALL PENETRATIONS THROUGH MAJOR STRUCTURAL ELEMENTS SHALL BE SLEEVED, THE SLEEVE SIZE NOTED ON THE PLAN. SLEEVES SHALL BE PVC OR OTHER MATERIAL COMPATIBLE WITH CASTING IN CONCRETE.
2. PENETRATIONS THROUGH MINOR STRUCTURAL FLOOR ELEMENTS (FLANGE BETWEEN JOISTS) MAY BE SLEEVED OR CORE DRILLED PER CONTRACTORS OPTION. CORE DRILLING IS REQUIRED AT EXISTING FLOOR LOCATIONS. APPROXIMATE LOCATIONS HAVE BEEN INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY AND COORDINATE NUMBER, SIZE, INSULATION REQUIREMENTS AND LOCATION OF ALL PENETRATIONS. A MINIMUM OF 3" OF CONCRETE SHALL BE LEFT UNDISTURBED BETWEEN PENETRATIONS. CONTRACTOR SHALL TAKE CARE TO NOT DAMAGE CONCRETE JOISTS DURING CORE DRILLING.
3. HORIZONTAL PENETRATIONS THROUGH EXISTING CONCRETE SPANDREL BEAMS SHALL BE CORE DRILLED. APPROXIMATE LOCATION AND SIZES OF PENETRATIONS HAVE BEEN INDICATED ON THE SPANDREL ELEVATIONS. FINAL LOCATIONS AND SIZES SHALL BE VERIFIED BY THE CONTRACTOR.
4. CONTRACTOR SHALL LOCATE REINFORCEMENT STEEL IN EXISTING SPANDREL BEAMS PRIOR TO CORE DRILLING OPENINGS. LOCATION OF REINFORCEMENT IS TO BE A CRITERIA USED BY THE CONTRACTOR TO FINALIZE PENETRATION LOCATIONS. CONTRACTOR SHALL MINIMIZE CORE DRILLING OF REINFORCEMENT. LOCATION OF REINFORCEMENT SHALL BE DONE BY A FIRM SPECIALIZING IN THE USE OF GROUND PENETRATING RADAR (GPR) TECHNOLOGY DESIGNED TO LOCATE STEEL IN CONCRETE.

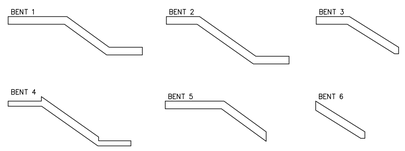


ENLARGED PLAN NOTES

1. STAIR FEATURES HSS12x2x¼ TUBE STEEL STRINGERS AND HSS8x2x¼ TUBE STEEL BEAMS EXPOSED TO PUBLIC FROM ABOVE AND BELOW. ALL WELDS TO BE COMPLETE AND GROUND SMOOTH. APPROVAL OF WELDS TO BE DONE BY ARCHITECT PRIOR TO FINAL PAINTING OF STEEL.
2. ALL CONNECTIONS TO BE WELDED UNLESS NOTED OTHERWISE.
3. LANDINGS PANS AND BEAMS, STAIR TREAD/RISER, POSTS, HANDRAIL, GUARD RAIL, AND CABLE GUARDS TO BE DESIGNED BY STEEL FABRICATOR PER STAIR SPECIFICATIONS.
4. ALL TUBE STEEL SECTIONS SHOULD HAVE END CAPS WHERE EXPOSED.
5. SEE 2/2-S3 FOR SCHEMATIC BENT CONFIGURATIONS.

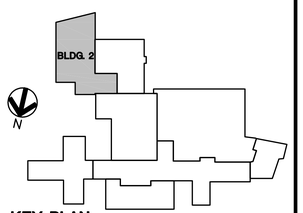
1 ENLARGE STAIR PLAN

1/2" = 1'-0"



2 SCHEMATIC BENT CONFIGURATIONS

NOT TO SCALE



KEY PLAN

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2-2

Revisions	Date

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
2834 Northgate Drive | Iowa City, Iowa 52245
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Iowa | Illinois | Missouri

Drawing Title: SECOND FLOOR FRAMING PLAN

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date: 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number: 2 | Checked: MM | Drawn: KLH

Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

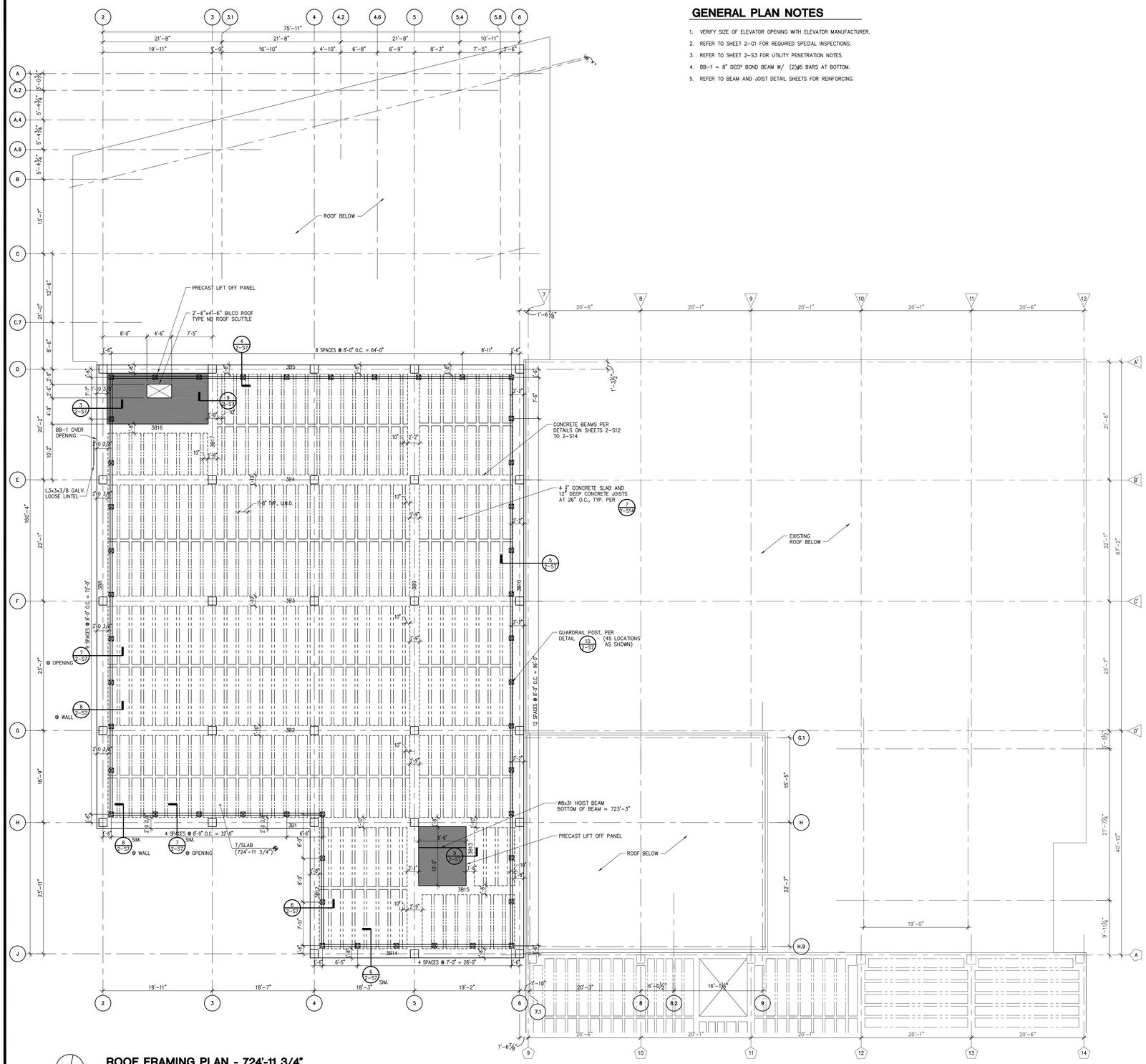
DRAWING NO. 2-S3

Dwg. 5 Of 16

Veterans Administration

GENERAL PLAN NOTES

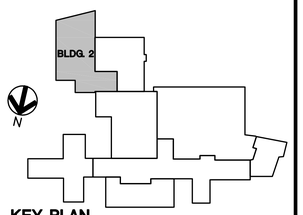
1. VERIFY SIZE OF ELEVATOR OPENING WITH ELEVATOR MANUFACTURER.
2. REFER TO SHEET 2-G1 FOR REQUIRED SPECIAL INSPECTIONS.
3. REFER TO SHEET 2-S3 FOR UTILITY PENETRATION NOTES.
4. BB-1 = 8" DEEP BOND BEAM W/ (2)#5 BARS AT BOTTOM.
5. REFER TO BEAM AND JOIST DETAIL SHEETS FOR REINFORCING.



ROOF FRAMING PLAN - 724'-11 3/4"

1/8"=1'-0"

N



KEY PLAN

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2-2

Revisions	Date

SHIVEHATTERY
ARCHITECTURE + ENGINEERING

2834 Northgate Drive | Iowa City, Iowa 52245
319.354.3040 | fax: 319.354.6921 | shive-hattery.com

Iowa | Illinois | Missouri

Drawing Title: ROOF FRAMING PLAN

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Approved: Division Chief

Approved: Service Director

Building Number: 2

Checked: MM

Drawn: KLH

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

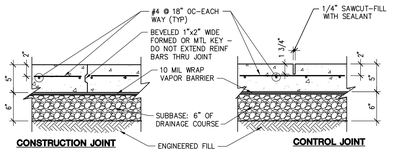
Date 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

DRAWING NO. 2-S4

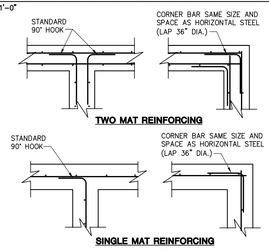
Dwg. 6 Of 16

Veterans Administration

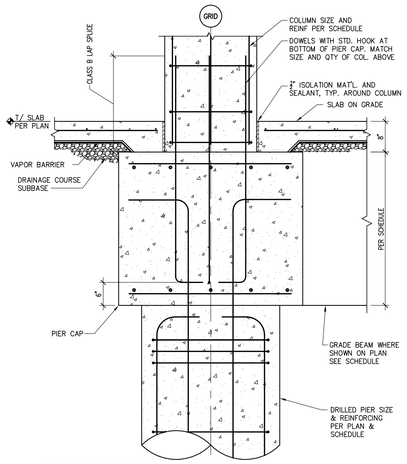


NOTE:
SLAB ON GRADE CONCRETE TO HAVE W/C RATIO OF 0.40 TO 0.45, MINIMUM CEMENTITIOUS MATERIAL OF 600 LB/CY. MAX. SLUMP TO BE 4". LOW AND MID RANGE WATER REDUCERS MAY BE SUBMITTED FOR APPROVAL AS POSSIBLE ADMIXTURES TO MEET CONSTRUCTABILITY REQUIREMENTS.

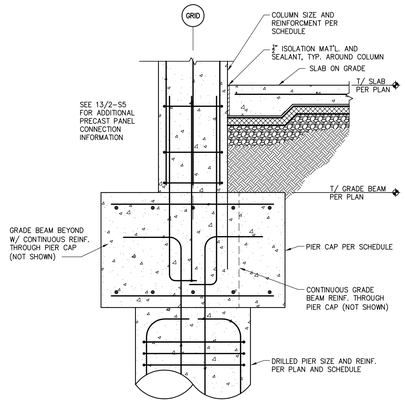
1 TYPICAL SLAB ON GRADE DETAILS
1"=1'-0"



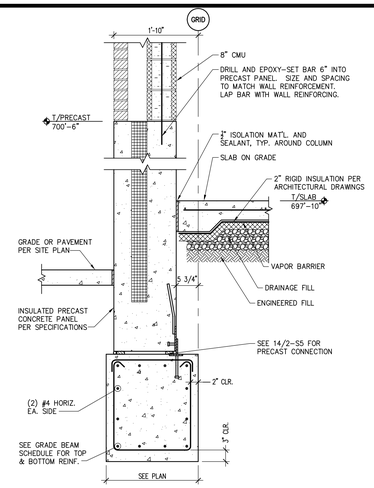
2 TYPICAL WALL CORNER DETAILS
NOT TO SCALE



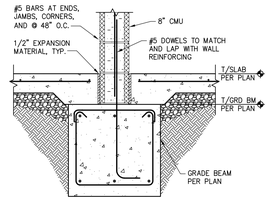
3 PIER CAP DETAIL, TYPICAL
3/4"=1'-0"



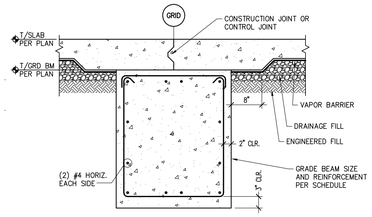
4 EXTERIOR GRADE BEAM AT COLUMN
3/4"=1'-0"



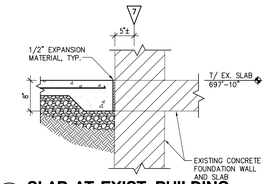
5 EXTERIOR GRADE BEAM AT PRECAST
3/4"=1'-0"



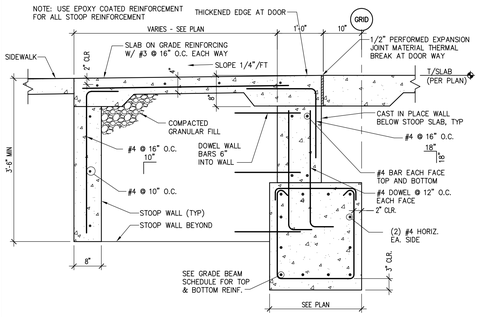
6 INTERIOR GRADE BEAM AT CMU
3/4"=1'-0"



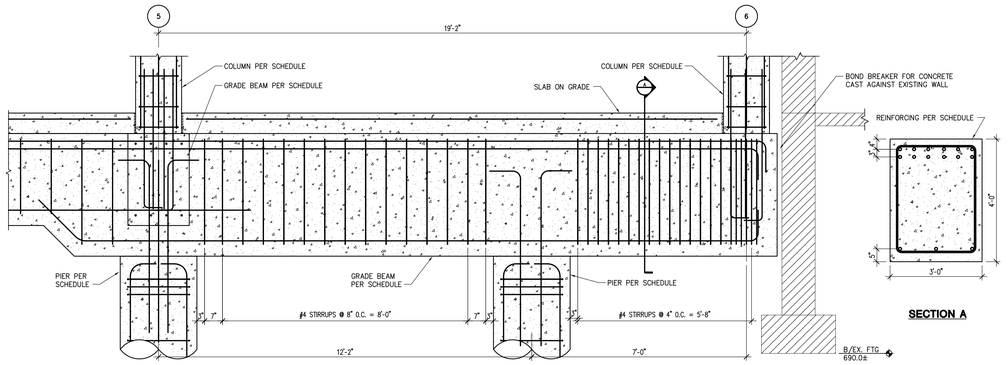
7 TYPICAL INTERIOR GRADE BEAM
3/4"=1'-0"



8 SLAB AT EXIST. BUILDING
3/4"=1'-0"

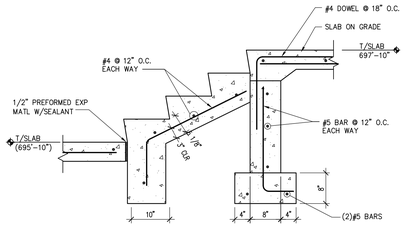


9 TYPICAL CONCRETE STOOP DETAIL
3/4"=1'-0"

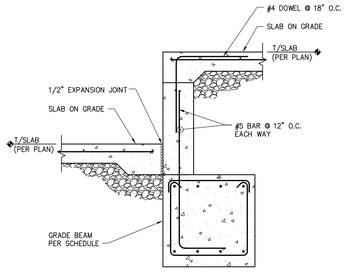


SECTION A

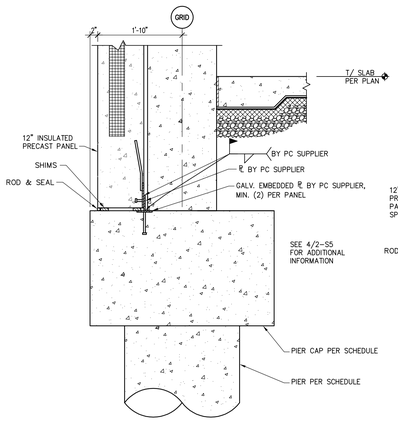
10 GRADE BEAM ELEVATION
1/2"=1'-0"



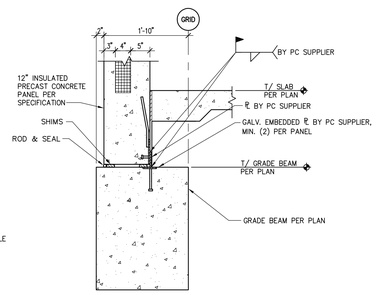
11 STAIR DETAIL
3/4" = 1'-0"



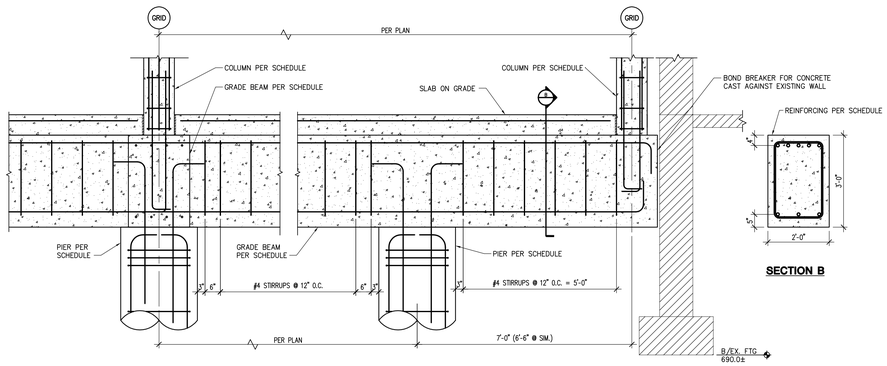
12 WALL SECTION
3/4" = 1'-0"



13 PRECAST AT COLUMN
3/4"=1'-0"

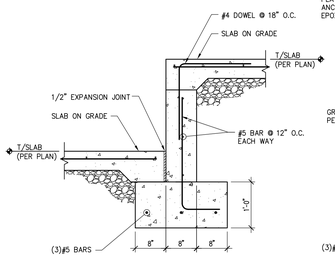


14 EXTERIOR GRADE BEAM AT PRECAST
3/4"=1'-0"

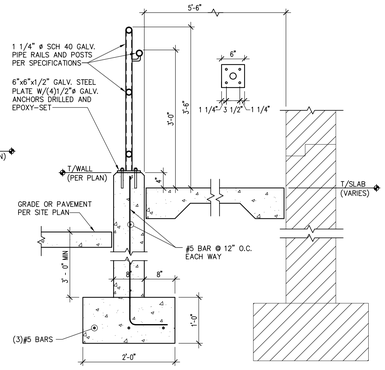


SECTION B

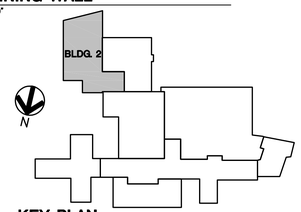
15 GRADE BEAM ELEVATION
1/2"=1'-0"



16 FOOTING DETAIL
3/4" = 1'-0"



17 RETAINING WALL
3/4" = 1'-0"



KEY PLAN
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2-1

Revisions	Date

SHIVEHATTERY
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2834 Northgate Drive | Iowa City, Iowa 52245
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Iowa | Illinois | Missouri

Drawing Title: STRUCTURAL DETAILS

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date: 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number: 2 | Checked: MM | Drawn: KLH

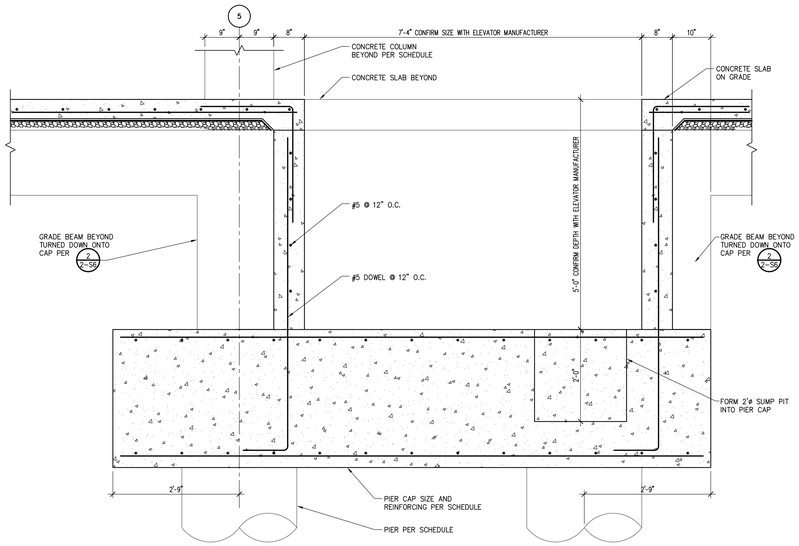
Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

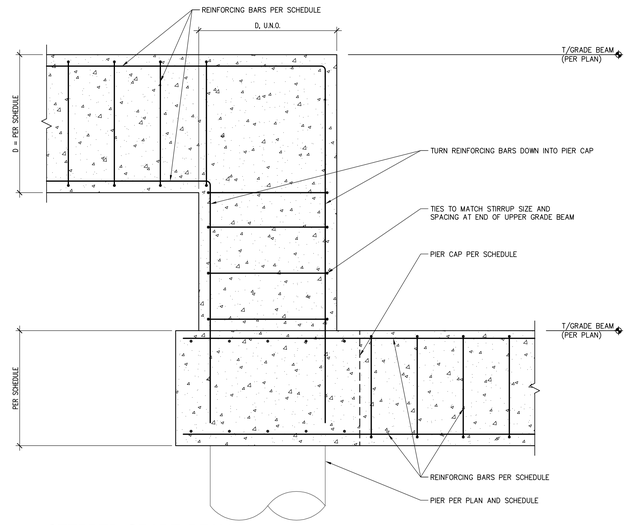
DRAWING NO. 2-S5

Dwg. 7 Of 16

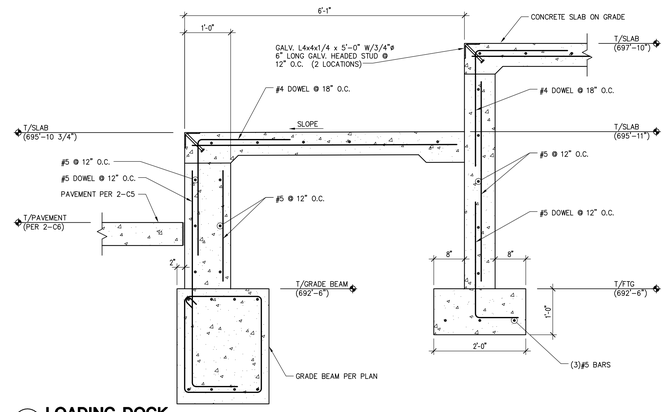
Veterans Administration



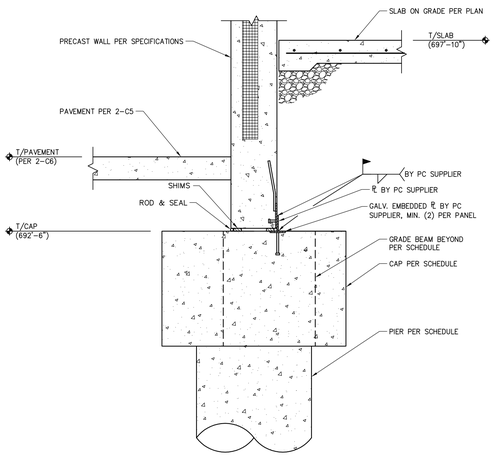
1 ELEVATOR PIT DETAIL
3/4"=1'-0"



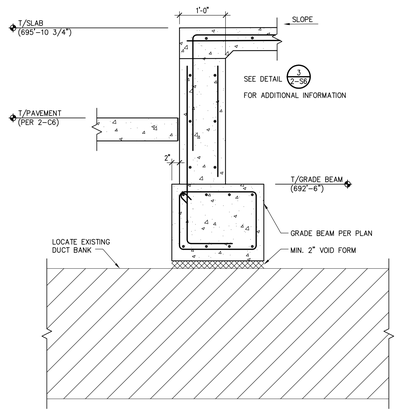
2 STEPPED GRADE BEAM
3/4"=1'-0"



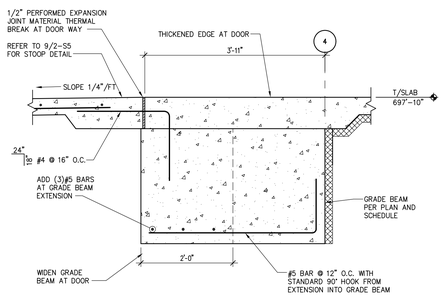
3 LOADING DOCK
3/4"=1'-0"



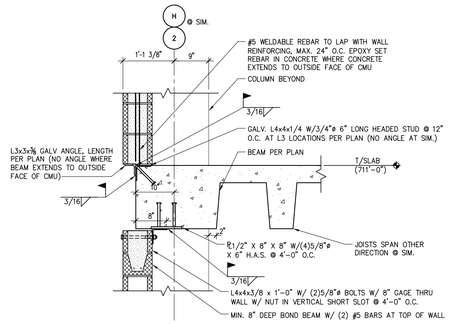
4 PIER AT EXTERIOR WALL
3/4"=1'-0"



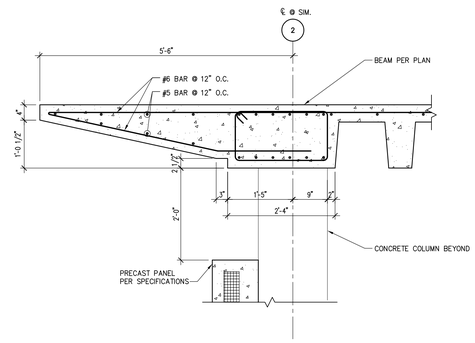
5 GRADE BEAM AT DUCT BANK
3/4"=1'-0"



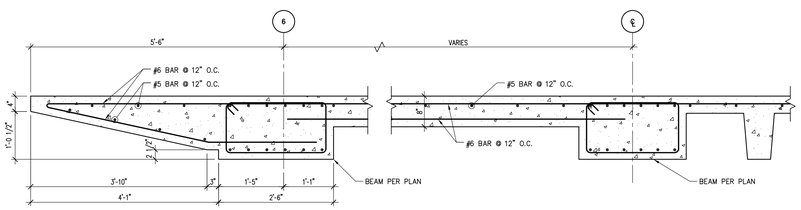
6 VESTIBULE
3/4"=1'-0"



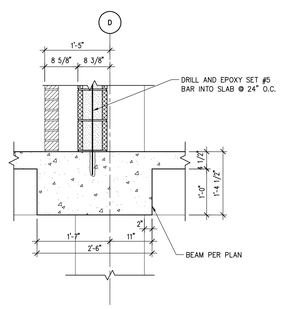
7 DETAIL AT FLOOR
3/4"=1'-0"



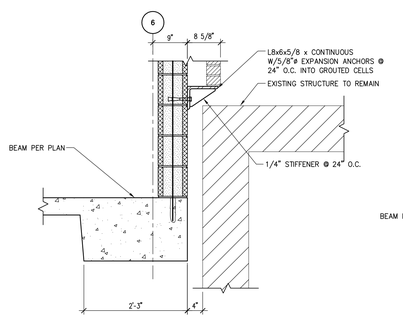
8 DETAIL AT ROOF
3/4"=1'-0"



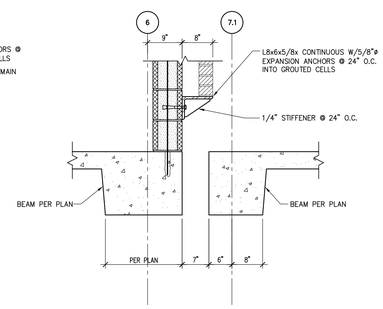
9 DETAIL AT ROOF
3/4"=1'-0"



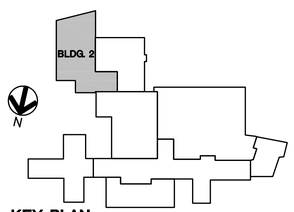
10 DETAIL AT FLOOR/ROOF
3/4"=1'-0"



11 DETAIL AT EXISTING ROOF
3/4"=1'-0"



12 DETAIL @ FLOOR/ROOF
3/4"=1'-0"



KEY PLAN
NOT TO SCALE

2-1

Revisions	Date

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Iowa | Illinois | Missouri

Drawing Title: STRUCTURAL DETAILS

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number 2 | Checked MM | Drawn MPD

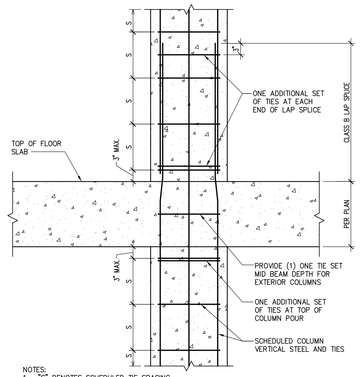
Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-S6

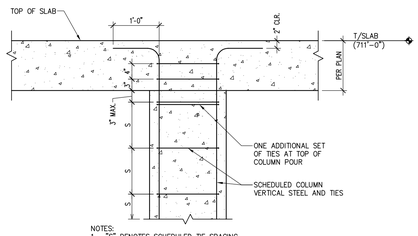
Dwg. 8 Of 16

Veterans Administration



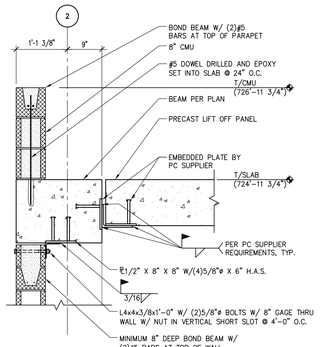
NOTES:
1. "S" DENOTES SCHEDULED TIE SPACING.
2. LOWER COLUMN VERTICAL BARS SHALL BE OFFSET TOWARD THE INTERIOR OF THE COLUMN AS SHOWN. SLOPE OF INCLINED PORTION OF AN OFFSET BAR SHALL NOT EXCEED 1 IN 6.
3. ALL VERTICAL COLUMN BARS THAT REQUIRE BENDING FOR LAP SPLICES SHALL BE BENT IN THE SHOP. NO FIELD BENDING OF VERTICAL COLUMN BARS SHALL BE ALLOWED.

1 COLUMN SPLICE AT FLOOR
3/4"=1'-0"

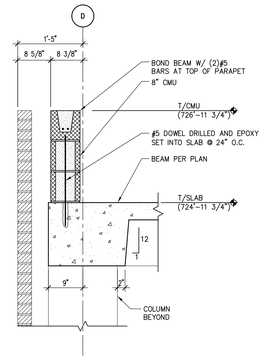


NOTES:
1. "S" DENOTES SCHEDULED TIE SPACING

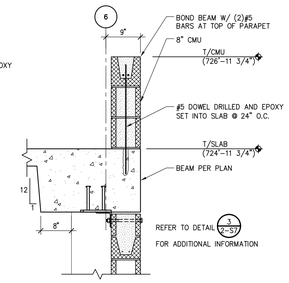
2 COLUMN TERMINATION AT 711'-0"
3/4"=1'-0"



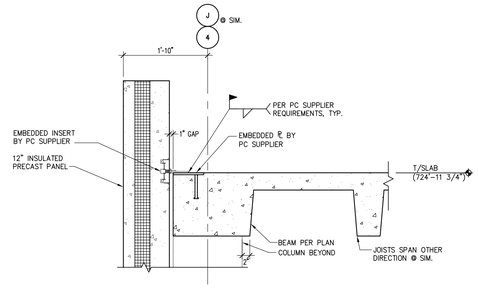
3 DETAIL AT ROOF
3/4"=1'-0"



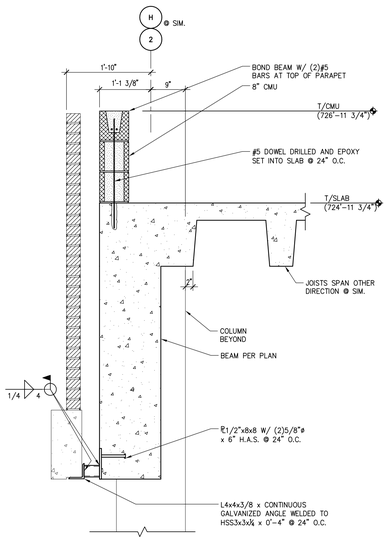
4 DETAIL AT ROOF
3/4"=1'-0"



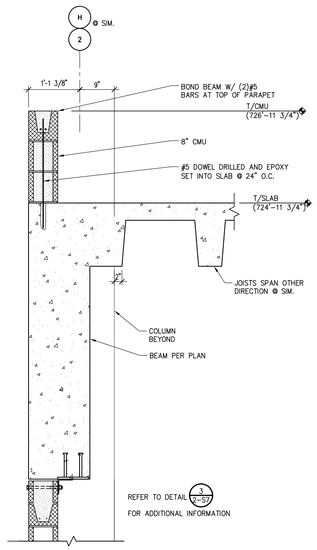
5 DETAIL AT ROOF
3/4"=1'-0"



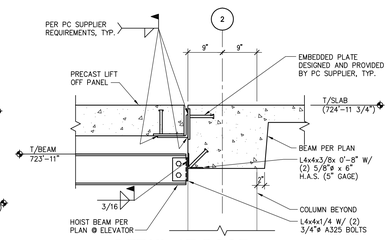
6 DETAIL AT ROOF
3/4"=1'-0"



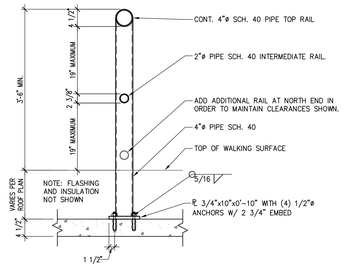
7 SPANDREL AT OPENING
3/4"=1'-0"



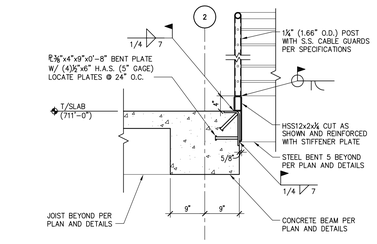
8 SPANDREL AT WALL
3/4"=1'-0"



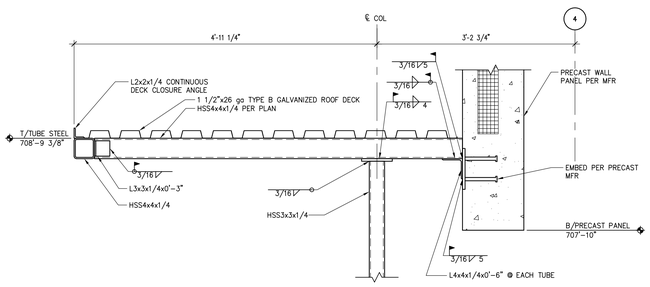
9 DETAIL AT ROOF
3/4"=1'-0"



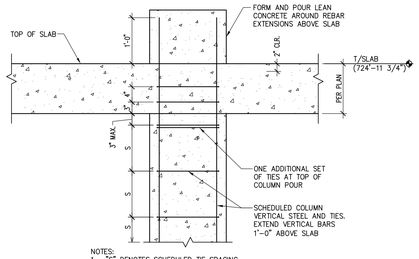
10 ROOF GUARD RAIL DETAIL
3/4"=1'-0"



11 RAILING AT 2ND FLOOR LOBBY
3/4"=1'-0"

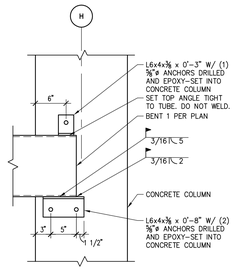


12 ENTRANCE CANOPY
1"=1'-0"

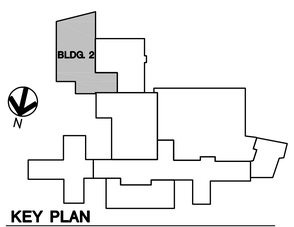


NOTES:
1. "S" DENOTES SCHEDULED TIE SPACING

13 COLUMN TERMINATION AT 724'-11 3/4"
3/4"=1'-0"



14 BENT 1 CONNECTION AT COLUMN
1"=1'-0"



KEY PLAN
NOT TO SCALE

2-1

Revisions	Date

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
2834 Northgate Drive | Iowa City, Iowa 52245
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Drawing Title: STRUCTURAL DETAILS

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

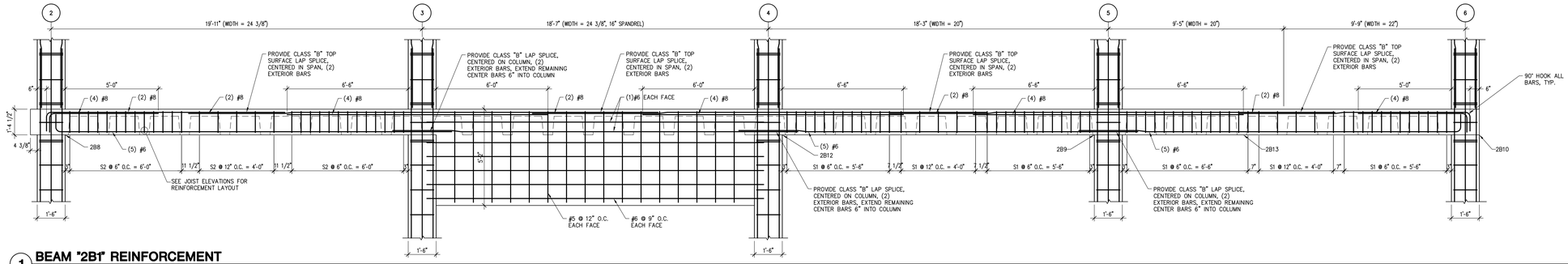
Approved: Service Director

Building Number 2 | Checked MM | Drawn KLH

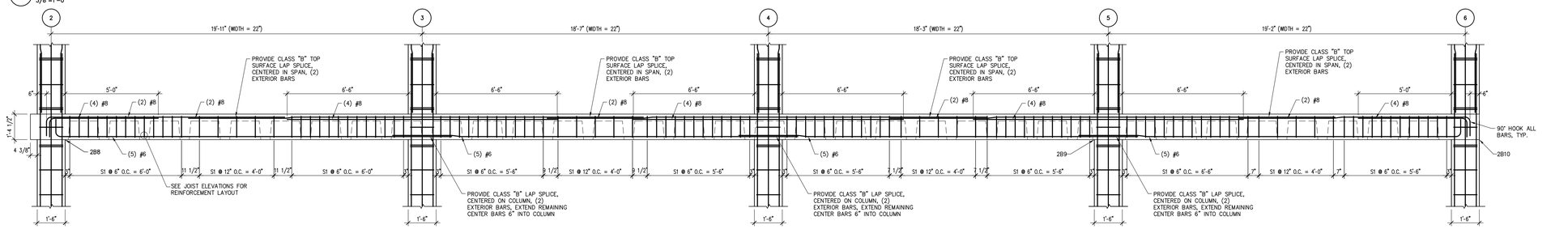
Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-S7
Dwg. 9 Of 16

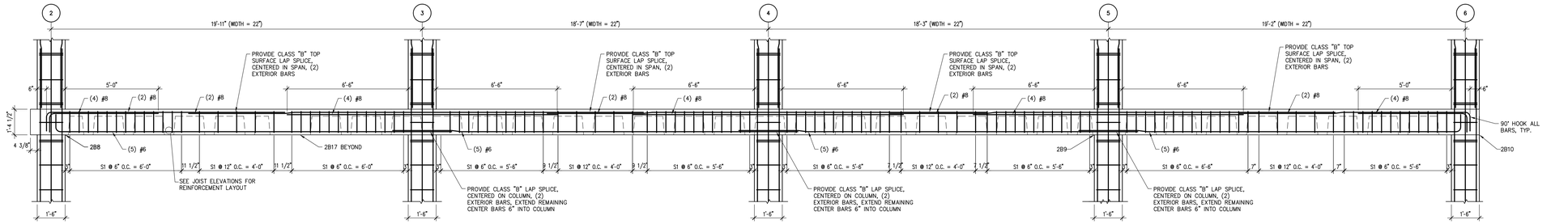
Veterans Administration



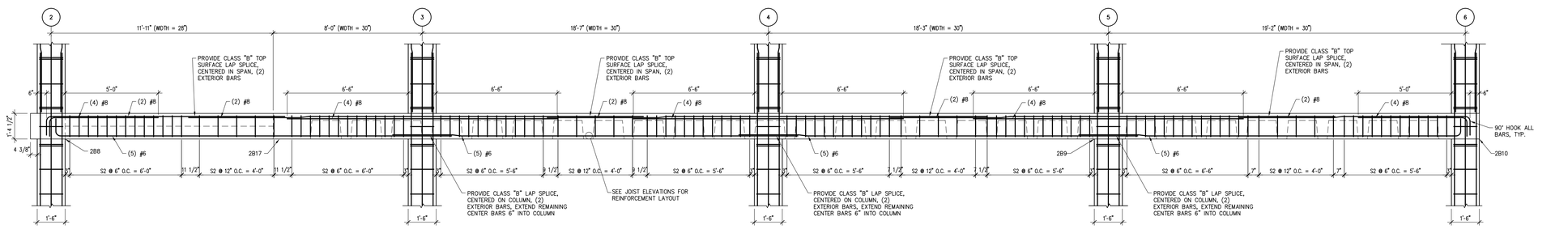
1 BEAM "2B1" REINFORCEMENT
3/8"=1'-0"



2 BEAM "2B2 & 2B3" REINFORCEMENT
3/8"=1'-0"



3 BEAM "2B4" REINFORCEMENT
3/8"=1'-0"

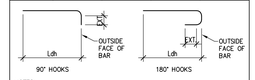


4 BEAM "2B5" REINFORCEMENT
3/8"=1'-0"

STANDARD HOOK

TENSION DEVELOPMENT LENGTHS FOR GRADE 60 REINFORCING BARS (NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 4000 PSI			
	Lhb	0.7 Lhb	EXTENSION 90° HOOK	EXTENSION 180° HOOK
#3	7	6	5	3
#4	9	7	6	3
#5	12	8	8	3
#6	14	10	9	3
#7	17	12	11	4
#8	19	13	12	4
#9	21	15	14	5
#10	24	17	16	6
#11	27	19	17	6



NOTES:
1. Ld = TENSION DEVELOPMENT LENGTH
2. ALL SPLICE LENGTH ARE IN INCHES
3. Ldh = Lhb UNLESS CONDITIONS OF ITEM 4 ARE SATISFIED.
4. Ldh = 0.7 Lhb FOR #11 BARS AND SMALLER WHEN SIDE COVER (NORMAL TO PLANE OF HOOK) IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOKS, COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES.
5. HOOKS ARE NOT CONSIDERED EFFECTIVE FOR DEVELOPING BARS IN COMPRESSION.

1 DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
NOT TO SCALE

BEAM AND JOIST BAR

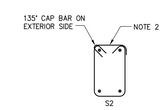
TENSION DEVELOPMENT LENGTHS AND LAP SPLICE LENGTHS FOR GRADE 60 REINFORCING BARS (NORMAL WEIGHT CONCRETE)

BAR SIZE	F'c = 4000 PSI	
	CLASS B (TOP BAR) (1.3 Ld)	CLASS B (OTHER BAR) (1.3 Ld)
#3	25	20
#4	33	25
#5	41	32
#6	49	38
#7	71	55
#8	81	63
#9	91	71
#10	103	80
#11	114	88

NOTES:
1. Ld = TENSION DEVELOPMENT LENGTH
2. ALL SPLICE LENGTH ARE IN INCHES.
3. A TOP BAR IS DEFINED AS HAVING A MINIMUM OF 12" OF FRESH CONCRETE BELOW BAR.
4. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR, BUT MAY NOT BE LESS THAN THE CLASS "B" SPLICE LENGTH OF THE LARGER BAR.
5. LAP SPLICE LENGTH SHOWN IN THIS TABLE ARE VALID FOR BEAMS AND JOISTS ONLY AND SHALL NOT BE USED FOR OTHER STRUCTURAL ELEMENTS.

2 BEAM AND JOIST BAR TENSION DEVELOPMENT AND SPLICE LENGTHS
NOT TO SCALE

INTERIOR BEAM STIRRUPS

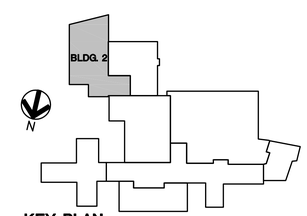


EXTERIOR BEAM STIRRUPS

NOTES:

1. ALL HOOKS TO BE FABRICATED AS REQUIRED BY ACI.
2. THE TOP CAP FOR CLOSED STIRRUPS S2 SHALL BE PLACED SUCH THAT THE 135° HOOK END IS ON THE EXTERIOR BEAM SIDE.
3. ALL STIRRUPS ARE NO. 4 BAR.

3 STIRRUP TYPES
NOT TO SCALE



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Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number 2 | Checked MM | Drawn KLH

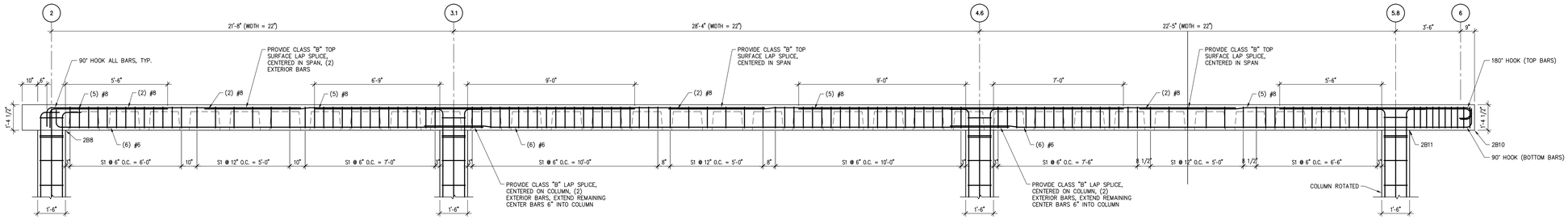
Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-S8

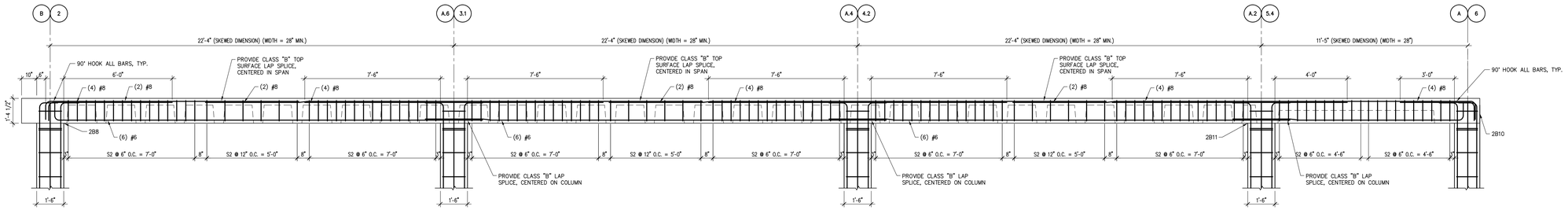
Dwg. 10 Of 16

Veterans Administration



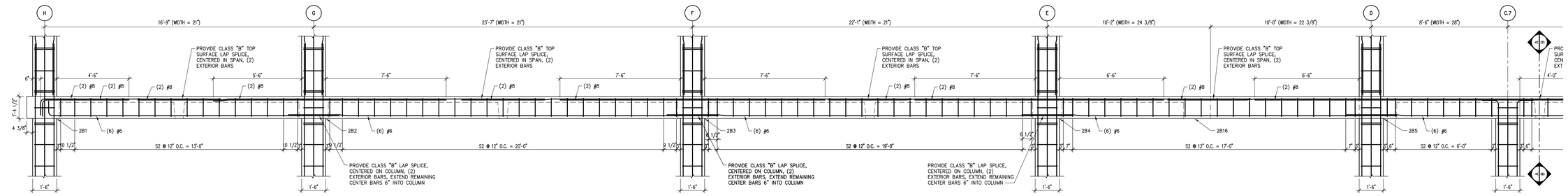
1 BEAM "2B6" REINFORCEMENT

3/8"=1'-0"



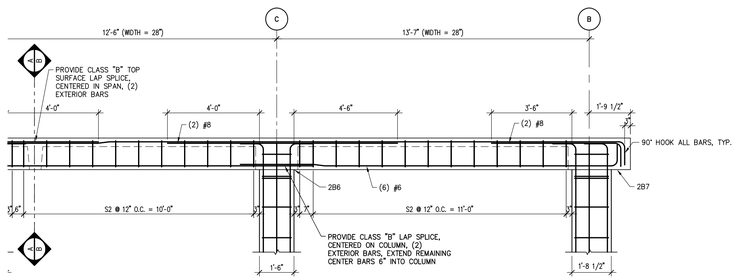
2 BEAM "2B7" REINFORCEMENT

3/8"=1'-0"



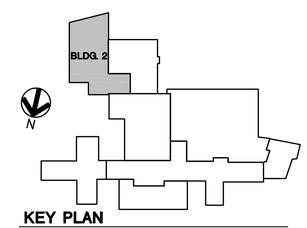
3 BEAM "2B8" REINFORCEMENT

3/8"=1'-0"



BEAM "2B8" REINFORCEMENT (CONTINUED)

3/8"=1'-0"



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Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012
CONSTRUCTION DOCUMENTS

Project No. DVA#636-311
S-H#110240-0

Approved: Division Chief

Approved: Service Director

Building Number: 2

Checked: MM

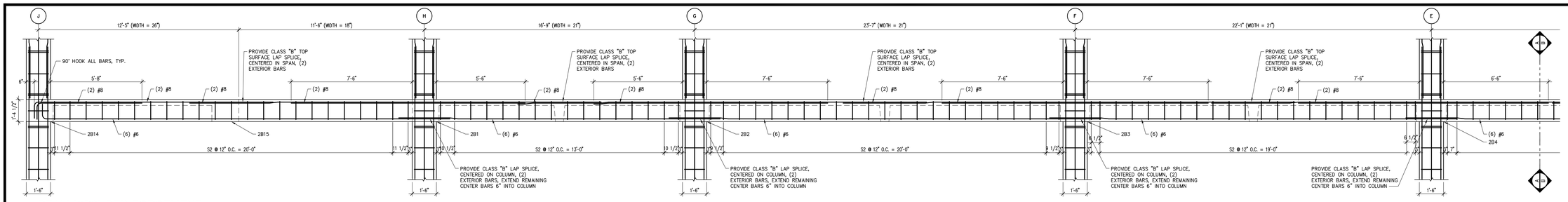
Drawn: KLH

Location: IOWA CITY VA HEALTH CARE SYSTEM
IOWA CITY, IOWA

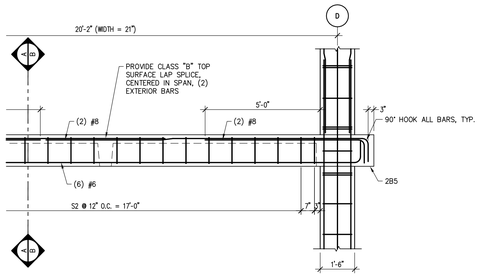
DRAWING NO. 2-S9

Dwg. 11 Of 16

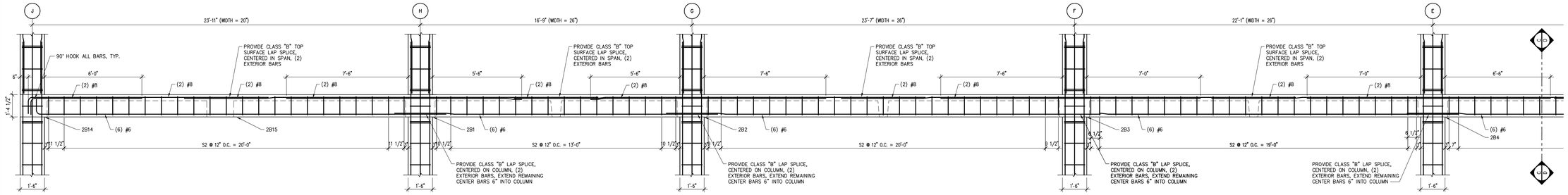
Veterans Administration



1 BEAM "2B9" REINFORCEMENT
3/8"=1'-0"



BEAM "2B9" REINFORCEMENT (CONTINUED)
3/8"=1'-0"



2 BEAM "2B10" REINFORCEMENT
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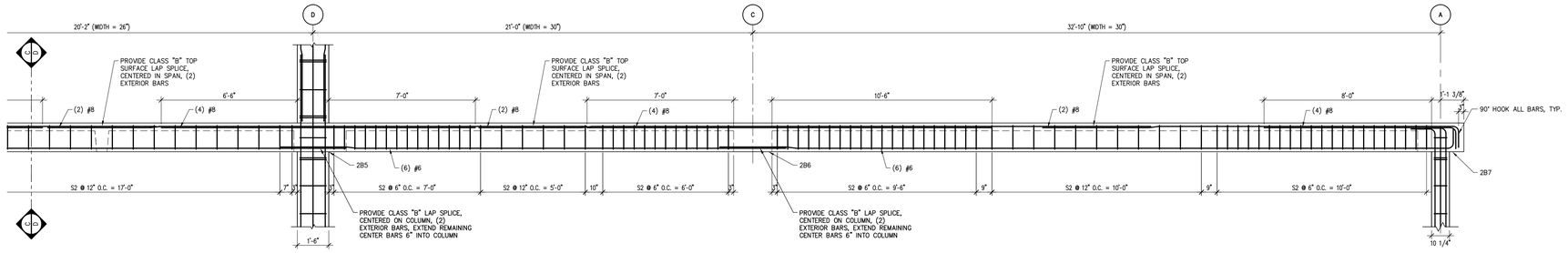
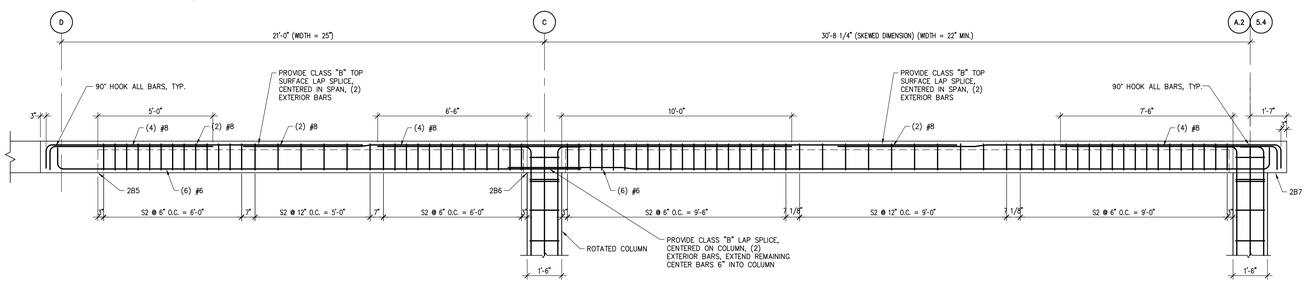
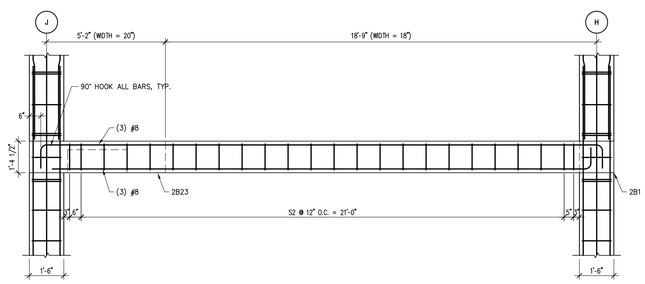


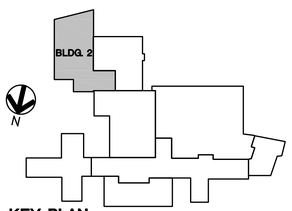
BEAM "2B10" REINFORCEMENT (CONTINUED)
3/8"=1'-0"



3 BEAM "2B11" REINFORCEMENT
3/8"=1'-0"



4 BEAM "2B12" REINFORCEMENT
3/8"=1'-0"



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Approved: Division Chief

Approved: Service Director

Building Number: 2

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Drawn: KLH

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

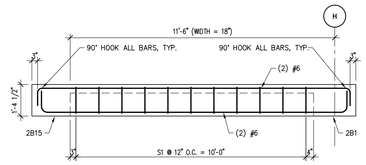
Date: 12-17-2012 CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

DRAWING NO. 2-S10

Dwg. 12 Of 16

Veterans Administration



1 BEAM "2B13" REINFORCEMENT
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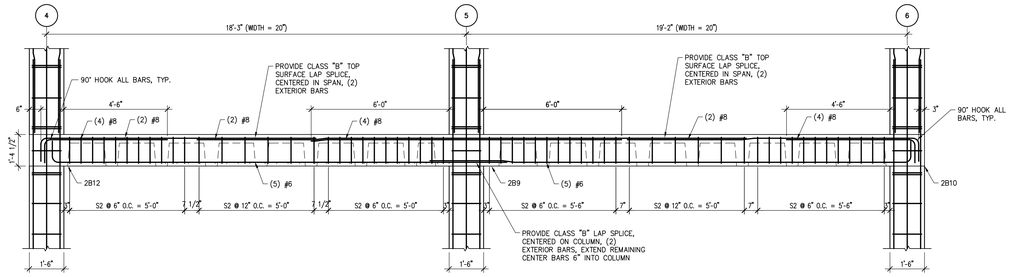

2 BEAM "2B14" REINFORCEMENT
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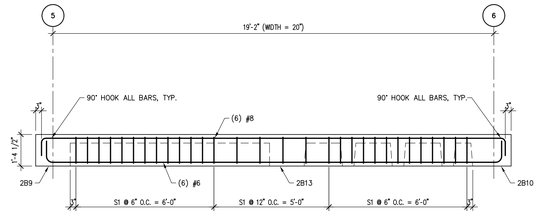

3 BEAM "2B15" REINFORCEMENT
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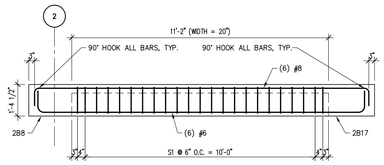
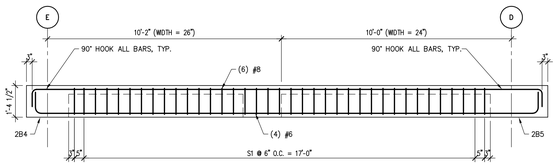
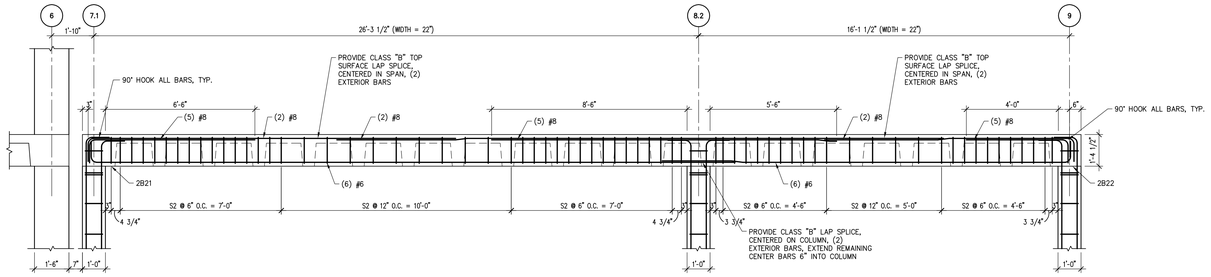


4 BEAM "2B16" REINFORCEMENT
3/8"=1'-0"



5 BEAM "2B17" REINFORCEMENT
3/8"=1'-0"



6 BEAM "2B18" REINFORCEMENT
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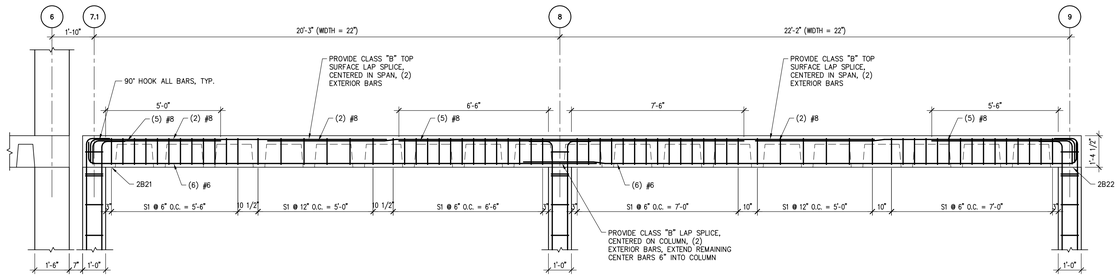

7 BEAM "2B19" REINFORCEMENT
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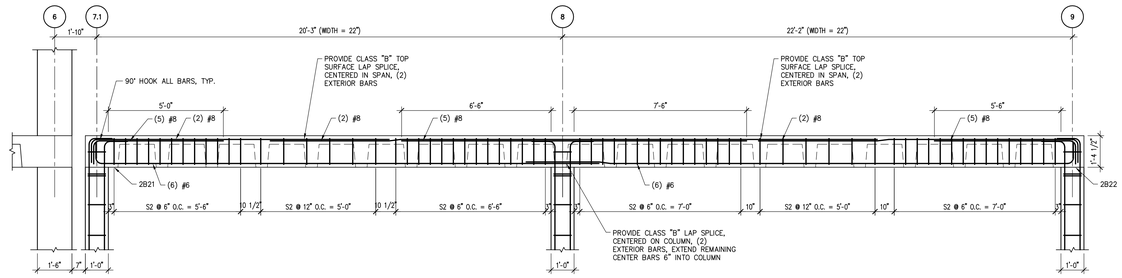

8 BEAM "2B20" REINFORCEMENT
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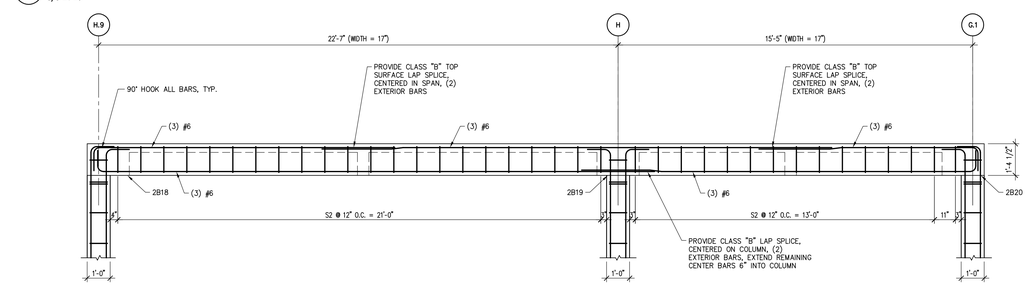

9 BEAM "2B21" REINFORCEMENT
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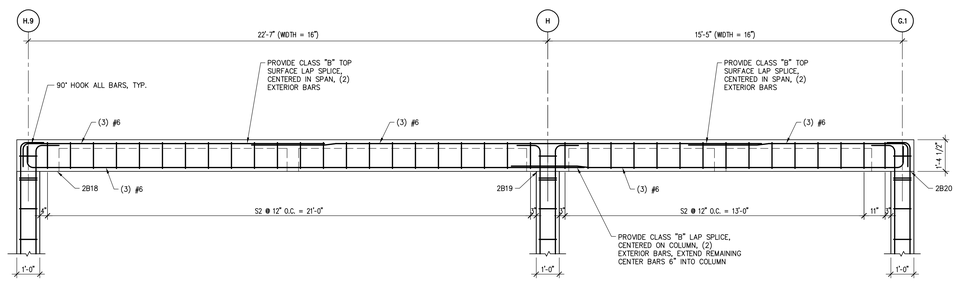

10 BEAM "2B22" REINFORCEMENT
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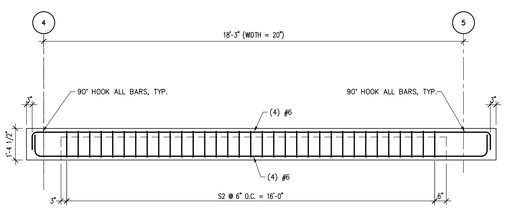

11 BEAM "2B23" REINFORCEMENT
3/8"=1'-0"

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Date 12-17-2012
CONSTRUCTION DOCUMENTS

Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Approved: Service Director

Building Number: 2

Checked: MM

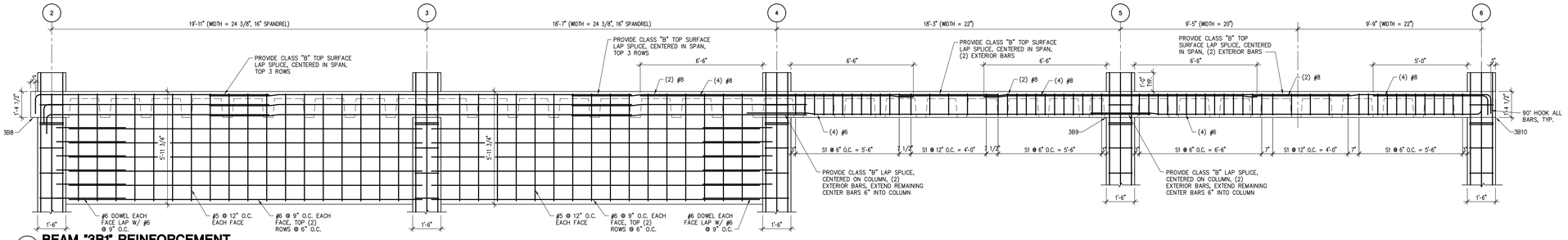
Drawn: KLH

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-S11

Dwg. 13 Of 16

Veterans Administration



1 BEAM "3B1" REINFORCEMENT
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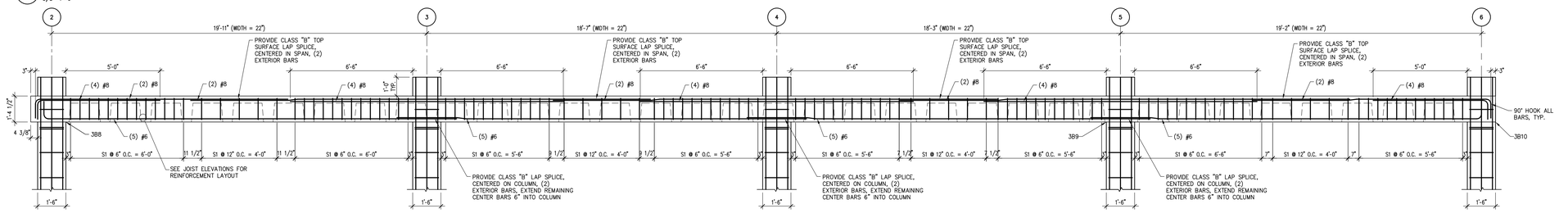

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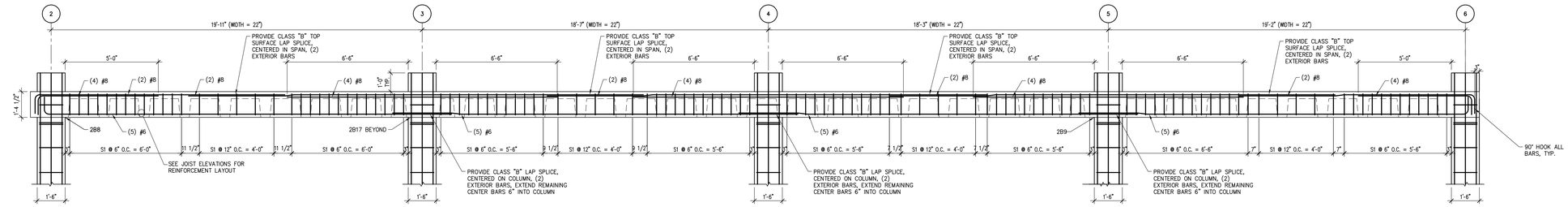

3 BEAM "3B4" REINFORCEMENT
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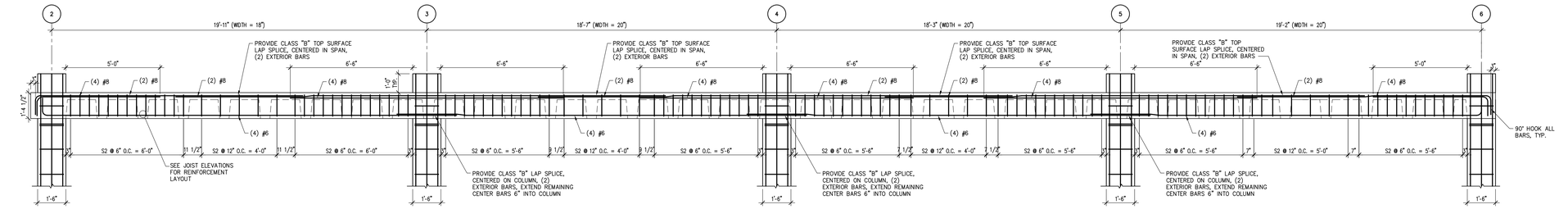

4 BEAM "3B5" REINFORCEMENT
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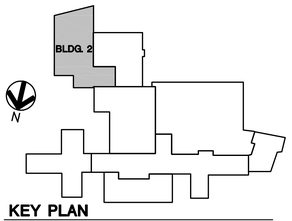

KEY PLAN
NOT TO SCALE

2-1

Revisions	Date

SHIVEHATTERY
ARCHITECTURE + ENGINEERING
2834 Northgate Drive | Iowa City, Iowa 52245
319.354.3040 | fax: 319.354.6921 | shive-hattery.com
Iowa | Illinois | Missouri

Drawing Title: STRUCTURAL BEAM DETAILS

Project Title: RENOVATE AND EXPAND SPACE FOR PATIENT SUPPORT AREAS

Date 12-17-2012 CONSTRUCTION DOCUMENTS

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Approved: Division Chief

Approved: Service Director

Building Number: 2

Checked: MM

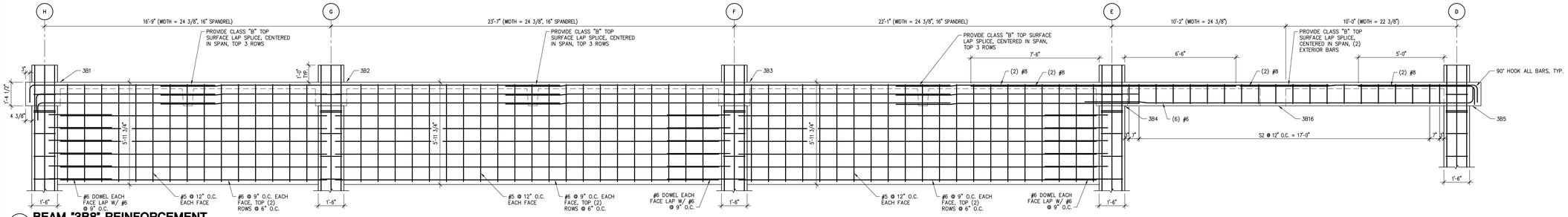
Drawn: KLH

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

DRAWING NO. 2-S12

Dwg. 14 Of 16

Veterans Administration



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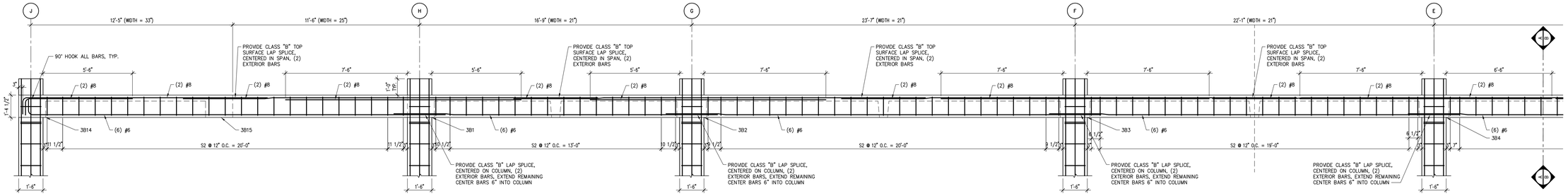

2 BEAM "3B9" REINFORCEMENT
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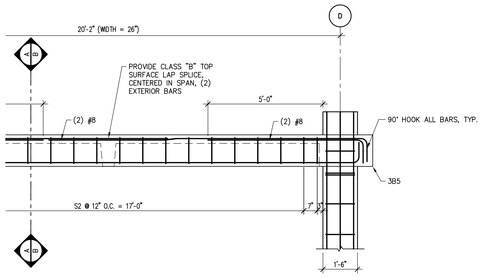

BEAM "3B9" REINFORCEMENT (CONTINUED)
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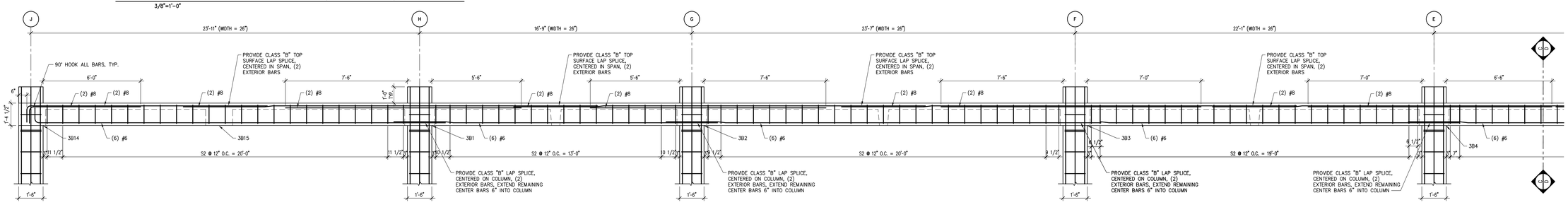

3 BEAM "3B10" REINFORCEMENT
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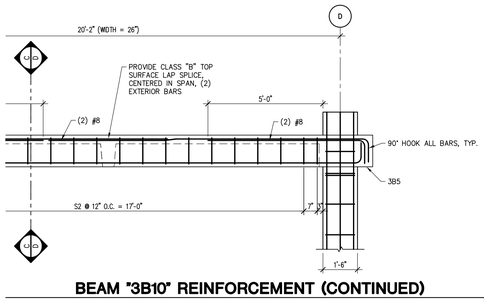

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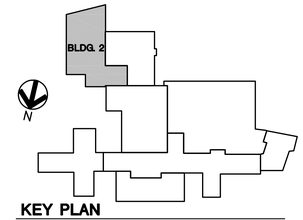

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Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number: 2

Checked: MM

Drawn: MPD

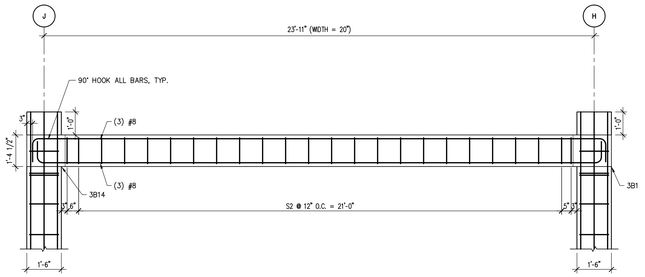
DRAWING NO. 2-S13

Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

Dwg. 15 Of 16

Veterans Administration



1 **BEAM "3B12" REINFORCEMENT**
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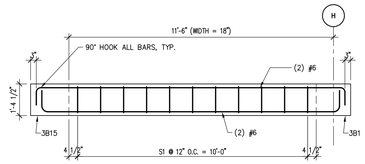

2 **BEAM "3B13" REINFORCEMENT**
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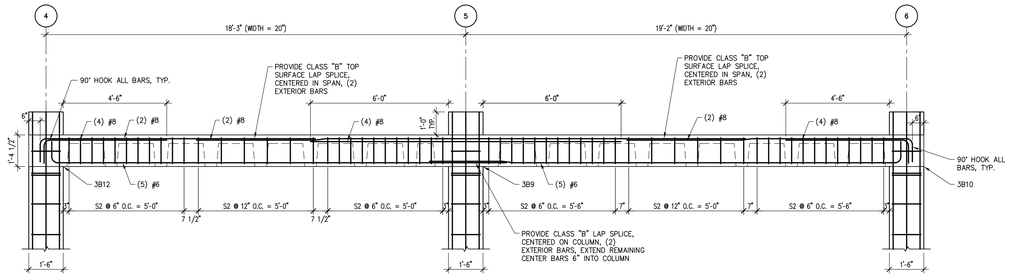

3 **BEAM "3B14" REINFORCEMENT**
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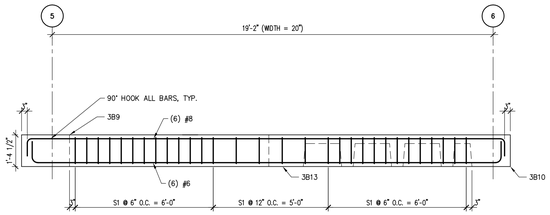

4 **BEAM "3B15" REINFORCEMENT**
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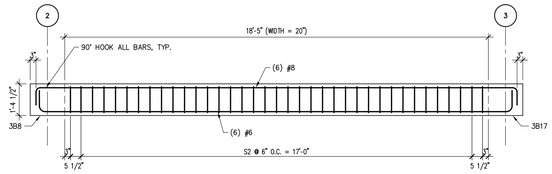

5 **BEAM "3B16" REINFORCEMENT**
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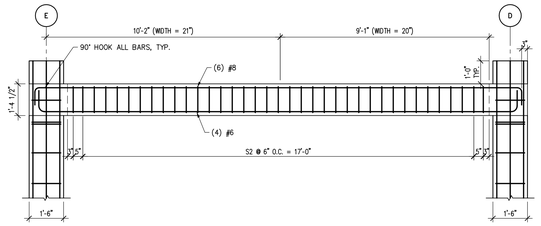

6 **BEAM "3B17" REINFORCEMENT**
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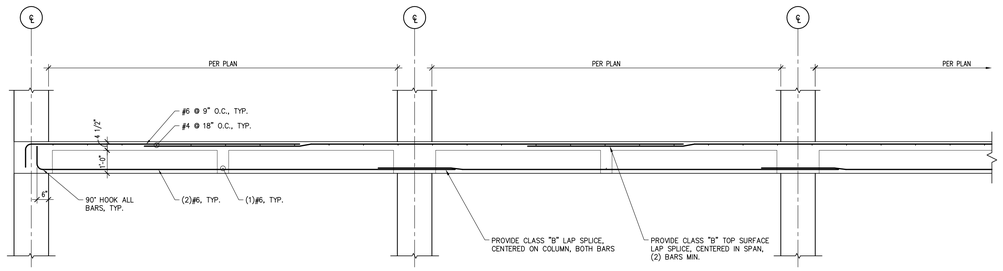
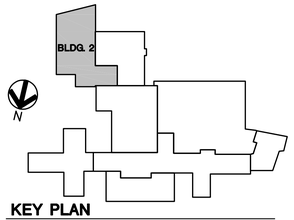


7 **TYPICAL JOIST DETAIL**
3/8"=1'-0"



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Project No. DVA#636-311 S-H#110240-0

Approved: Division Chief

Building Number 2 | Checked MM | Drawn MPD

DRAWING NO. 2-S14

Approved: Service Director

Location: IOWA CITY VA HEALTH CARE SYSTEM, IOWA CITY, IOWA

Dwg. 16 Of 16

Veterans Administration