APPENDIX VII

CONTAINER STORAGE AREA CONCRETE PAD
ENGINEERING EVALUATION

FOR

SIEMENS WATER TECHNOLOGIES CORP.

PARKER REACTIVATION FACILITY

PARKER, ARIZONA

Revision 0
February 2007

LuMar Engineering

Memorandum

To: Mike Troup
From: J. Dunlea

16 January, 1994

Subject: <u>Westates Carbon Inc.</u>
         <u>Carbon Reactivation Facility, Parker, AZ.</u>
         Part B Certification.

The followings items are statements and notes required for the application. The items numbers reference your "Regulatory completeness checklist".

PART D - PROCESS INFORMATION

Warehouse Storage Area:
========================

D-1a(1):   Basic Design Parameters.

   Base design and materials of construction:

      The warehouse slab-on-grade is designed for secondary containment. The construction is 5" thick reinforced concrete (3000 psi) slab on 2" sand on 6 mil visqueen vapor barrier on 4" compacted gravel base. All construction and control joints in the slab are sealed with a sealant.

   Eng. evaluation of structural integrity of base:

      The slab is designed for warehouse storage use and light forklift traffic.

D-1a(2):   Description of how design promotes drainage.....:

   Grading of base:

      The slab is sloped 1/8"/ft. to trench drains.

   Drainage design and removal system:

      The slab slope is from the perimeter to the interior trench drains (1' X 1' min.). The trench drains slope to a sump (3' X 3' X 3') for removal. Any spills within the containment area will drain to the sump. In addition a 5" high curb is provided continuously around the entire building.

SIEMENS WATER TECHNOLOGIES CORP.
PARKER, AZ

WAREHOUSE CONTAINMENT
INDOORS

5" HIGH WALL (CONTAINMENT WALL & FOUNDATION WALL)

AREAS:	L	W	H	VOLUME CF	VOLUME GALLONS
	73.54	42.17	0.42	1292	9,665
	51.50	9.33	0.42	200	1,498
	51.50	26.00	0.42	558	4,173
	21.54	13.00	0.42	117	873
			TOTAL:	2167	16,208

PYRAMIDAL VOLUMES:

(SEE DRAWING D100601-S-3V, Rev "B")
FLOOR SLOPES TO DRAIN:
FLOOR SLOPE = 1/8" IN 12" OVER APPR. 19.375'
FLOOR DEPTH AT TOP OF TRENCH = 2.375" = 0.2'
TRENCH VOLUME NOT INCLUDED.

CONSIDER EACH SLOPED END AS 1/2 OF A PYRAMID,
(BASE UP) 1 END PARTIALLY COVERED WITH WALL.
PYRAMID 2.375" HIGH, WITH BASES 38.75' ON A SIDE.
ESTIMATE AT 1.5 PYRAMIDAL VOLUMES, V= 1/3 AH

QUAN	1/3	L	H	CF	GALLONS
1.5	0.33	38.75	0.20	150	1,123

BETWEEN PYRAMIDAL ENDS:

40' + 32' (APPROX.) = 72' OF A TRIANGULAR SHAPED VOLUME
2.275" HIGH TRIAGULAR AREA WITH A 38.75' WIDE BASE
V= 1/2 WHL

QUAN (L)	1/2	W	H	CF	GALLONS
72	0.50	38.75	0.20	279	2,087

TOTAL CONTAINMENT VOLUME, GALLONS: 19,418

REQUIRED VOLUME, GALLONS: 10,000

GENERAL NOTES

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND JOB CONDITIONS BEFORE STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES. VERIFY ALL REQUIRED CLEARANCES AND TAKE MEASUREMENTS FOR BUILT-IN ITEMS ON THE JOB SITE.

2. NOTES AND DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THESE GENERAL NOTES AND THE TYPICAL DETAILS.

3. DIMENSIONS TAKE PRECEDENCE OVER SCALES SHOWN ON THE DRAWINGS.

4. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING :
   * BUILDING CODE - UBC 1988 EDITION.
   * REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY ANY PORTION OF THE WORK.
   * CODES AND STANDARDS (LATEST EDITION) LISTED IN THESE NOTES AND SPECIFICATIONS.

5. COORDINATE WITH THE MECHANICAL, PLUMBING, AND ELECTRICAL, METAL BUILDING AND EQUIPMENT DRAWINGS.

6. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROTECT THE STRUCTURE DURING CONSTRUCTION AND PROVIDE BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC.

EQUIPMENT AND OPENING LOCATIONS

1. VERIFY ALL DIMENSIONS LOCATING MECHANICAL EQUIPMENT, OPENINGS AND SUPPORT BEAMS FOR EQUIPMENT. COORDINATE WITH EQUIPMENT SUPPLIERS, MECHANICAL CONTRACTOR AND MECHANICAL DRAWINGS. VERIFY CLEARANCES TO EXISTING AND NEW CONSTRUCTION.

2. COORDINATE SIZE OF EACH OPENING WITH MECHANICAL CONTRACTOR AND MECHANICAL DRAWINGS. VERIFY CLEARANCES TO EXISTING AND NEW CONSTRUCTION.

3. DO NOT FABRICATE STEEL UNTIL ALL NECESSARY VERIFICATION AND COORDINATION IS COMPLETED.

4. VERIFY EQUIPMENT AND METAL BUILDING ANCHOR BOLT LOCATIONS, SIZES AND DIMENSIONS WITH CERTIFIED DRAWINGS.

FOUNDATIONS

1. FOR SUBSURFACE CONDITIONS AND FOUNDATION RECOMMENDATIONS REFER TO REPORT NO. 91-0086 DATED MAY 28, 1991 PREPARED BY GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS INC.

2. FOUNDATION DESIGN BASED ON :
   SOIL BEARING PRESSURE = 2000 PSF.
   MIN. DEPTH TO BOTTOM OF FOOTING = 18 INS.

3. BACKFILL FOR FOOTINGS AND UTILITY TRENCHES WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS TO 95 PERCENT MAXIMUM DRY DENSITY PER ASTM D698 A (STANDARD PROCTOR).

4. REMOVE ALL ABANDONED FOOTINGS, UTILITIES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION. NEW FOOTINGS MUST EXTEND INTO BEARING SOILS AS SPECIFIED IN THE SOILS REPORT.

5. RECOMMENDATIONS CONTAINED IN THE SOILS REPORT ARE PART OF THESE SPECIFICATIONS. ALL EXCAVATIONS FOR FOOTINGS TO BE INSPECTED AND APPROVED BY SOILS ENGINEER PRIOR TO PLACING CONCRETE.

6. COMPLY WITH OSHA REQUIREMENTS AND PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, AND SHORING REQUIRED TO SAFELY RETAIN EXCAVATIONS.

REINFORCING STEEL

1. DETAIL AND PLACE ALL REINFORCING STEEL IN ACCORDANCE WITH THE 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS' (ACI 301) AND THE 'MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED STRUCTURES' (ACI 315)

2. REINFORCING BARS: ASTM A-615 GRADE 60.
   WELDED WIRE FABRIC: ASTM A-185.

3. BEND BARS COLD. SPLICE REINFORCING ONLY WHERE INDICATED ON THE DRAWINGS.

4. MAKE DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS THE SAME GRADE, SIZE AND SPACING (OR NUMBER) AS THE VERTICAL BARS IN THE WALL OR COLUMN.

5. LAP WELDED WIRE FABRIC 6 INCHES OR ONE FULL MESH, WHICHEVER IS LARGER.

6. WELDING OF REINFORCING BARS, WHERE INDICATED, SHALL BE IN ACCORDANCE AWS D1.4.
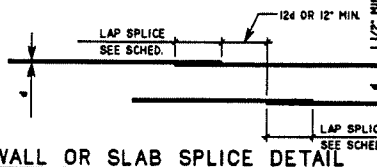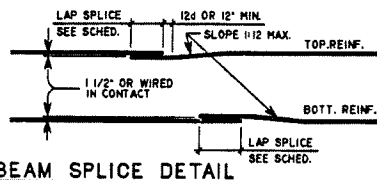
CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE' (ACI 318) AND ACI 301.

2. SCHEDULE OF STRUCTURAL CONCRETE 28-DAY STRENGTHS AND TYPES:

   FOOTINGS .... 3000 PSI (DESIGN Fc=2500 PSI)
   SLABS ON GRADE ...... 3000 PSI

   (NO SPECIAL INSPECTION IS REQUIRED FOR CONCRETE WORK)

3. PORTLAND CEMENT: ASTM C-150. TYPE 1 OR TYPE 11. USE TYPE 11 CEMENT FOR ALL SLABS ON GRADE.

4. AGGREGATE FOR HARDROCK CONCRETE: ASTM C-33. TRANSIT MIX CONCRETE: ASTM C-94.

5. PLACEMENT VIBRATION AND CURING OF CONCRETE: CONFORM TO ACI 301. ROUGHEN ALL CONCRETE SURFACES AGAINST WHICH FRESH CONCRETE IS TO BE PLACED.

6. CLEAR COVERAGE OF CONCRETE OVER OUTER REINFORCING BARS SHALL BE AS FOLLOWS:

   A. CONCRETE CAST AGAINST EARTH.......... 3 INCHES

   B. CONCRETE EXPOSED TO EARTH OR WEATHER
      NO. 6 THROUGH NO. 18 BAR.......... 2 INCHES
      NO. 5 BAR AND SMALLER............ 1 1/2 INCHES

   C. CONCRETE NOT EXPOSED TO EARTH OR WEATHER
      SLABS, WALL AND JOISTS......... 3/4 INCHES
      BEAMS AND COLUMNS............. 1 1/2 INCHES

7. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. VERIFY ANCHOR BOLT SIZES AND LOCATIONS WITH CERTIFIED BUILDING AND EQUIPMENT DRAWINGS.

8. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED UNLESS SHOWN. NOTIFY THE ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.

9. PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4" CHAMFER, UNLESS OTHERWISE NOTED.

10. PROVIDE A LIGHT BROOM, NONSKID, FINISH ON ALL INTERIOR AND EXTERIOR SLABS.

11. EXPANSION JOINT FILLER: APPROVED, ASPHALT IMPREGNATED PREMOLDED FILLER, ASTM D1751.

12. JOINT SEALANT: SUBMIT MANUFACTURERS DATA FOR APPROVAL. USE 2-PART GUN GRADE POLYURETHANE SEALANT FOR EXTERIOR JOINTS. 1-PART ACRYLIC TRYPOLYMER SEALANT MAY BE USED FOR INTERIOR JOINTS. USE PRIMER AND BACKER RODS AS REQUIRED AND INSTALL PER MANUFACTURERS PRINTED INSTRUCTIONS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE THE AISC 'SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS' (LATEST EDITION).

2. STRUCTURAL STEEL SHAPES AND PLATES: ASTM A-36
   PIPES: ASTM A-53 GRADE 'B'.
   STEEL TUBES: ASTM A500 GRADE B.
   BOLTS: ASTM A-325N

3. WELDING: E70XX ELECTRODES, STRUCTURAL WELDING CODE (AWS D1.1-84).

4. BOLT HOLES SHALL BE 1/16 IN. LARGER THAN NOMINAL DIA. OF BOLT USED, EXCEPT AS NOTED.

5. SET COLUMN ANCHOR BOLTS WITH TEMPLATES. GROUT OR DRYPACK BASES WITH MASTER BUILDERS EMBECO 153 OR AS APPROVED.

6. SET DESIGN AND NATURAL CAMBER IN BEAMS UP.

7. CUT ALL OPENINGS AND HOLES, REQUIRED FOR OTHER TRADES, IN THE SHOP. DO NOT FIELD CUT ANY OPENINGS OR HOLES WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

8. FOR WELDS NOT DETAILED USE CONTINUOUS FILLET WELDS AND SIZE PER AISC TABLE 1.17.2A.

9. STRUCTURAL STEEL SURFACES ENCASED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED.

10. PAINT ALL EXPOSED STEEL WITH SHOP PRIMER AND FINISH COAT. HOT DIP GALVANIZE, AFTER FABRICATION, ALL STEEL GRATING AND EMBEDDED TRENCH ANGLES.
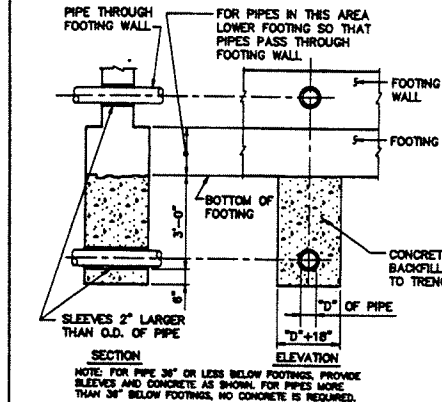
11. SUBMIT SHOP DRAWINGS FOR ENGINEERS REVIEW.

SCHEDULE "A"

LOCATION IN STRUCT.	CONC. f'c	STEEL GRADE	3	4	5	6	7	8	9	10	11
			LAP SPLICE - INCHES								
BOTT. BARS OF BEAMS, JOISTS AND SPANDRELS	3000	40	12	12	15	17	23	30	38	48	58
		60	16	16	20	25	34	45	57	72	89
SLAB BARS & VERT. WALL STEEL	4000	40	12	12	13	16	20	26	33	42	51
		60	16	16	20	24	30	39	49	63	77
	5000	40	12	12	12	15	16	18	23	30	37	45
		60	16	16	20	24	27	35	44	56	69

SCHEDULE "B"

LOCATION IN STRUCT.	CONC. f'c	STEEL GRADE	3	4	5	6	7	8	9	10	11
			LAP SPLICE - INCHES								
TOP BARS OF BEAMS, JOISTS AND SPANDRELS, HORIZ. WALL STEEL	3000	40	12	15	18	23	32	42	53	68	82
		60	16	22	27	35	46	63	80	101	124
	4000	40	12	15	16	20	27	37	46	59	71
		60	16	19	23	31	33	41	55	69	88	108
	5000	40	12	12	15	18	22	33	41	52	64
		60	16	16	20	27	33	38	49	62	78	96

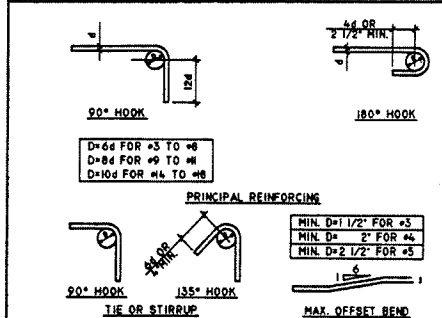### REGULAR WEIGHT CONCRETE REINF. LAP SPLICE SCHEDULE (5)

NOTES:
1. THE SCHEDULE ON THIS SHEET APPLY TO REGULAR WEIGHT CONCRETE, 145-150#/CU. FT.
2. ALL SPLICES SHALL BE STAGGERED AS SHOWN. IF MORE THAN 50% OF THE REINFORCING IS LAP SPLICED WITHIN THE REQUIRED LAP SPLICE LENGTH, THE LAP SPLICE LENGTH SHALL BE INCREASED 33%.
3. LAP SPLICES LISTED IN THE SCHEDULES ARE CLASS 'B' LAPS.
4. SMALLER BAR LAP LENGTH SHALL BE USED WHEN SPLICING DIFFERENT SIZE BARS.
5. LAP LENGTHS SPECIFICALLY DETAILED ON DRAWINGS SHALL GOVERN IN LIEU OF LAP LENGTHS SCHEDULED.
6. CONTRACTOR MAY AT HIS OPTION USE A BUTT WELDED SPLICE IN LIEU OF THE LAP SPLICE SHOWN.
7. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT 12" OR MORE OF CONCRETE IS CAST IN MEMBER BELOW THE BAR. USE SCHEDULE 'B' FOR LAP LENGTHS FOR TOP SLAB BARS WHERE MORE THAN 12" OF CONCRETE CAST BELOW THEM.
8. ALL DETAILING AND PLACING OF REINFORCING SHALL COMPLY WITH THE SPLICE LAP SCHEDULE AND DETAILS UNLESS SPECIFICALLY DETAILED ON THE DRAWINGS.
9. BUNDLED BAR SPLICES:
   A. INDIVIDUAL BAR SPLICES WITHIN THE BUNDLE SHALL NOT OVERLAP EACH OTHER.
   B. INCREASE LAP LENGTH 20% FOR A 3 BAR BUNDLE.
   C. INCREASE LAP LENGTH 33% FOR A 4 BAR BUNDLE.
10. LAP SPLICED BARS SHALL NOT BE SPACED TRANSVERSELY FURTHER APART THAN 20% OF THE REQUIRED LAP LENGTH NOT MORE THAN 6".
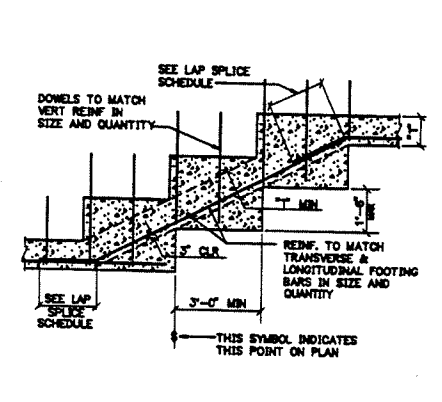

BEAM SPLICE DETAIL

WALL OR SLAB SPLICE DETAIL

PIPE PENETRATION THRU FOOTING (1)

STEPPED FOOTING (2)

BAR BENDS (3)

NOTES:
1. ALL BENDS SHALL BE MADE COLD.
2. #4 & #8 BARS SHALL BE BEND TESTED & LAB APPROVED PRIOR TO BENDING.
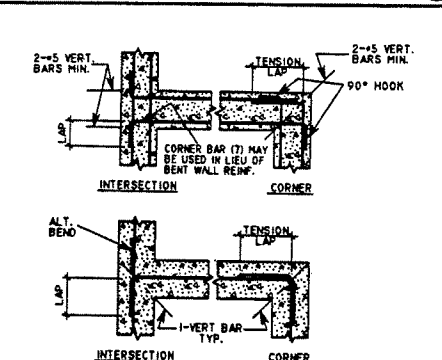
REINFORCING AT WALL INTERSECTION (4)

A	06/24/91	ISSUED FOR PLAN CHECK	GBF	JMP	JMP
REV.	DATE	REVISION DESCRIPTION	DFT.	CHK.	ENG'R

CUSTOMER: WESTATES CARBON ARIZONA, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, ARIZONA 85334

WESTATES CARBON
LOS ANGELES, CA 90040

TITLE: GENERAL NOTES & STANDARD DETAILS

SCALE: NONE

		DATE	
DRWN	GBF	06-24-91	
CHK'D	JMP	06-24-91	CODE
ENG'R	JMP	06-24-91	PROJECT No. 1111 B

DWG No: D-100601   REV. A   SHEET S-2

DO NOT SCALE DRAWING

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R

CUSTOMER: SIEMENS WATER TECHNOLOGIES CORP.

SIEMENS WATER TECHNOLOGIES CORP.
Parker, AZ

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

TITLE: WAREHOUSE BUILDING GENERAL NOTES & STANDARD DETAILS

PLOT SCALE: 1"=40'

DO NOT SCALE DRAWING

PROJECT No.

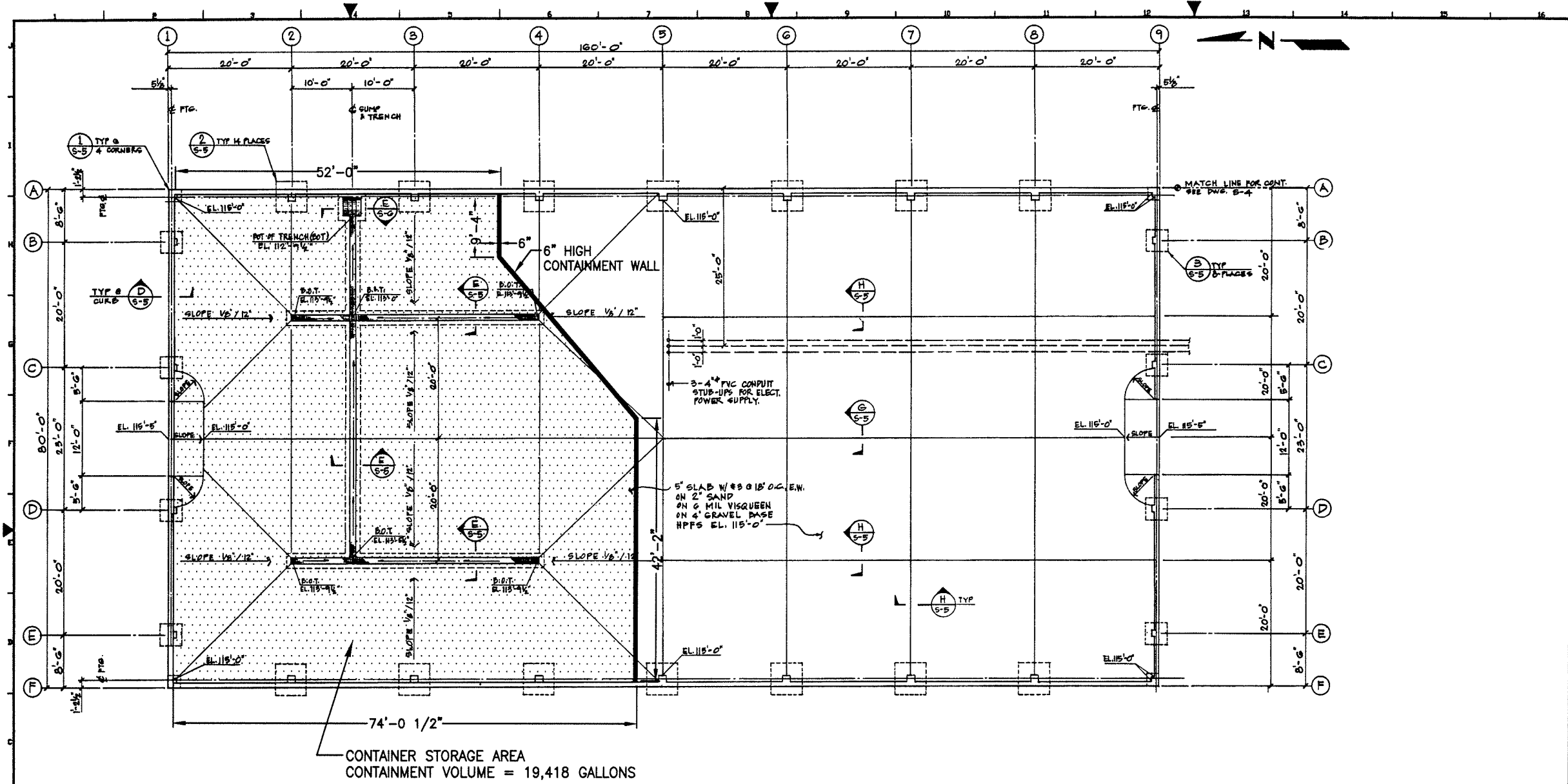|		DATE
DRAWN:	JBE	2/8/07
CHK'D:	KEM	2/8/07
ENG'R:		

PART No.   DWG No. D100601-S-2   REV. A

PRINT DATE: 2/15/07

BUILDING FOUNDATION AND SLAB PLAN

NOTE: FOR ANCHOR BOLT SETTING PLAN SEE VARCO PRUDEN DWG. N° 1 TITLED "ANCHOR BOLT LAYOUT".

160'-0"

20'-0" 20'-0" 20'-0" 20'-0" 20'-0" 20'-0" 20'-0" 20'-0"

10'-0" 10'-0"

5½"   5½"

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

N

TYP @ 4 CORNERS S-5 ①
TYP 14 PLACES S-5 ②
6" SUMP & TRENCH
E FTG.
FTG.
EL. 115'-0"
BOT OF TRENCH (BOT) EL. 112'-9½"
SLOPE ⅛"/12"
6" HIGH CONTAINMENT WALL
EL. 115'-0"
MATCH LINE FOR CONT. SEE DWG. S-4
EL. 115'-0"
TYP 6 PLACES S-5 ⑤

TYP @ CURB S-5 ⓓ
B.O.T. EL. 115'-9½"
B.O.T. EL. 115'-9½"
SLOPE ⅛"/12"
D.O.T. EL. 115'-9½" E S-5
SLOPE ⅛"/12"
3-4"ø PVC CONDUIT STUB-UPS FOR ELECT. POWER SUPPLY.

20'-0" 25'-0" 12'-0" 8'-0"

EL. 115'-5"
EL. 115'-0"
SLOPE
SLOPE ⅛"/12"
SLOPE ⅛"/12"
E S-5
G S-5
H S-5
EL. 115'-0" SLOPE EL. 115'-5"

5" SLAB W/ #3 @ 18" O.C. E.W. ON 2" SAND ON 6 MIL VISQUEEN ON 4" GRAVEL BASE HPFS EL. 115'-0"

B.O.T. EL. 115'-9½"
SLOPE ⅛"/12"
B.O.T. EL. 115'-9½"
E S-5
H S-5
SLOPE ⅛"/12"
SLOPE ⅛"/12"
H S-5 TYP
EL. 115'-0"
EL. 115'-0"
EL. 115'-0"
B.O.T. EL. 115'-9½"
B.O.T. EL. 115'-9½"

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ

REVISION BLOCK (WESTATES)

REV.	DATE	REVISION DESCRIPTION	DFT.	CHK.	ENG'R
A	06/24/91	ISSUED FOR PLAN CHECK	GDF	JMD	JMD

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

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

FRACTIONS DECIMALS ANGLES
± .XX= .XXX=

DO NOT SCALE DRAWING

CUSTOMER: WESTATES CARBON ARIZONA, INC.
LOCATION: 2523 MUTAHAR ST. PARKER, ARIZONA 85334

DRWN	G.B.F.	16-24-91
CHK'D	JMD	16-24-91
ENG'R	JMD	16-24-91

TITLE: BUILDING FOUNDATION AND SLAB PLAN
CODE   DWG No: D-100601   REV. A
PROJECT No: 1111B   SHEET S-3

REVISION BLOCK (SIEMENS)

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
B	2-21-07	ADD CONTAINMENT WALL	JBE	KEM	

PLOT SCALE: 1"=40'
DO NOT SCALE DRAWING

THIS DRAWING IS THE PROPERTY OF SIEMENS AND CANNOT BE REPRODUCED OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIEMENS WATER TECHNOLOGIES CORP.

CUSTOMER: SIEMENS WATER TECHNOLOGIES CORP.
LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344
PROJECT No:

DRAWN	JBE	2/01/07
CHK'D	KEM	2/01/07
ENG'R		

SIEMENS WATER TECHNOLOGIES CORP.
Parker, AZ

TITLE: WAREHOUSE BUILDING
BUILDING FOUNDATION AND SLAB PLAN

PART No.   DWG No. D100601-S-3   REV. B

PLOT DATE: 2/21/07

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

BUILDING FOUNDATION AND SLAB PLAN

NOTE: FOR ANCHOR BOLT SETTING PLAN SEE VARCO PRUDEN DWG. № 1 TITLED "ANCHOR BOLT LAYOUT".

6" HIGH CONTAINMENT WALL
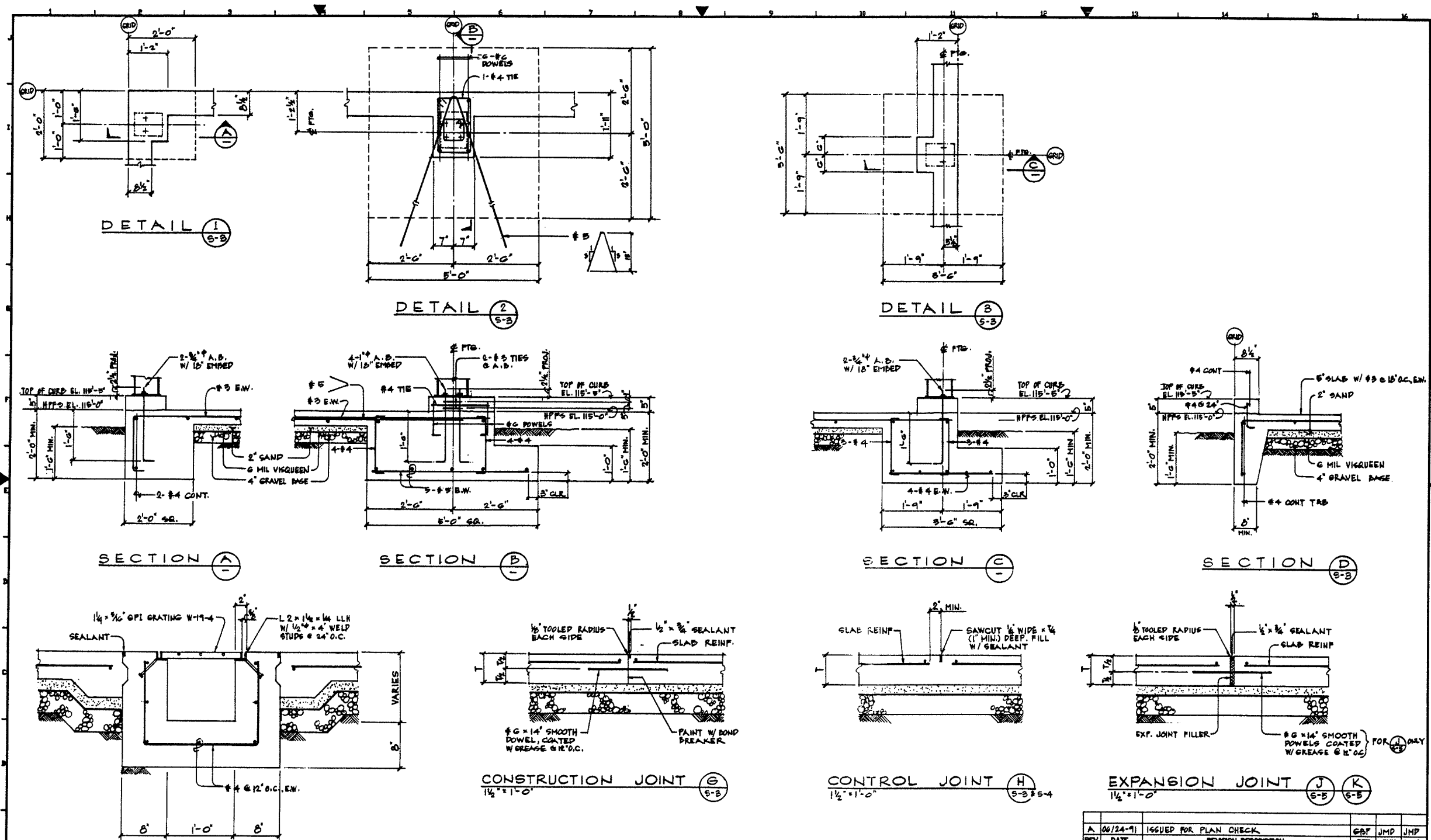
POT OF TRENCH (BOT) EL. 112'-9 5/8"

3-4"Ø PVC CONDUIT STUB-UPS FOR ELECT. POWER SUPPLY.

5" SLAB W/ #3 @ 18" O.C. E.W. ON 2" SAND ON 6 MIL VISQUEEN ON 4" GRAVEL BASE HPFS EL. 115'-0"

MATCH LINE FOR CONT. SEE DWG. S-4

CONTAINER STORAGE AREA
CONTAINMENT VOLUME = 19,418 GALLONS

160'-0"

52'-0"

74'-0 1/2"

42'-2"

SLOPE 1/8"/12"

EL. 115'-0"

CUMP & TRENCH

A	06/24/91	ISSUED FOR PLAN CHECK		GDF	JMP	JMP
REV.	DATE	REVISION DESCRIPTION		DFT.	CHK.	ENG'R

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

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

| CUSTOMER: WESTATES CARBON ARIZONA, INC. |
| LOCATION: 2523 MUTAHAR ST. PARKER, ARIZONA 85334 |

WESTATES CARBON
LOS ANGELES, CA 90040

TITLE: BUILDING FOUNDATION AND SLAB PLAN

| DRWN | G.S.F. | 6-24-91 |
| CHKD | JMP | 6-24-91 |

CODE | DWG No. D-100601 | REV. A

DO NOT SCALE DRAWING | ENG'R | JMP | 6-24-91 | PROJECT No. 11118 | SHEET S-3

B	2-21-07	ADD CONTAINMENT WALL		JBE	KEM	
REV.	DATE	REVISION DESCRIPTION		DRAWN	CHK'D	ENG'R

SIEMENS WATER TECHNOLOGIES CORP.
Parker, AZ

TITLE: WAREHOUSE BUILDING
CONTAINER STORAGE AREA LAYOUT & VOLUME

PROJECT No.		
DRAWN:	JBE	2/01/07
CHK'D:	KEM	2/01/07
ENG'R:		

PART No. | DWG No. D100601-S-3V | REV. B

PRINT DATE: 2/21/07

DETAIL 1 / S-3

DETAIL 2 / S-3

DETAIL 3 / S-3

SECTION A / -

SECTION B / -

SECTION C / -

SECTION D / S-3

SECTION E / S-3
1½"=1'-0"

CONSTRUCTION JOINT G / S-3
1½"=1'-0"

CONTROL JOINT H / S-3 & S-4
1½"=1'-0"

EXPANSION JOINT J / S-5 K / S-5
1½"=1'-0"

A	06/24-91	ISSUED FOR PLAN CHECK		GBF	JMP	JMP
REV.	DATE	REVISION DESCRIPTION		DFT.	CHK.	ENG'R

SCALE: 3/4"=1'-0" U.N.O.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

FRACTIONS   DECIMALS   ANGLES

DO NOT SCALE DRAWING

WESTATES CARBON ARIZONA, INC.

LOCATION:
2523 MUTAHAR ST.
PARKER, ARIZONA 85334

DRWN	GBF	06-24-91
CHK'D	JMP	06-24-91
ENG'R	JMP	06-14-91

PROJECT No: 1111 B

WESTATES CARBON
LOS ANGELES, CA 90040

TITLE: SECTIONS AND DETAILS

CODE   DWG No: D-100601   REV. A

SHEET S-5

NOTES:
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SECTION A (S-4)

TOP OF WALL EL. 117'-0"
#4 @ 18" O.C. VERT C ℄ WALL
#4 @ 18" O.C., E.W.
#4 @ 12" O.C. HORIZ
HPFS EL. 115'-0"
½" EXP. JT.
CONC. PAVING SEE CIVIL DWGS.
1'-0" MIN.

SECTION B (S-4)

#4 E.W.
#6 E.W.
½" EXP. JT.
#4 CONT.
#6 E.W.

SECTION C (S-4)

TOP OF WALL EL. 117'-0"
#4 @ 18" O.C. VERT C ℄ WALL
#6 @ 12" O.C. E.W. T&B STAGG. ALL LAPS (LAP TOP BARS 46" MIN. LAP BOT BARS 55" MIN.)
#4 @ 12" O.C. HORIZ
HPFS EL. 115'-0"
½" EXP. JT.
CONC. PAVING SEE CIVIL DWGS.

SECTION D (S-4)

VERIFY W/ TANK MFG'R.
TANK T9 THRU T12
STRAP ¼" x 2½" (12 PLACES)
4" SLAB W/ 6 x 6 - W1.4 x W1.4 WELDED WIRE FABRIC
EL. 115'-0"
EXP. JT.
SLOPE 1"/10 FT.
2 - #5 CONT.
3 - #5 T&B
#4 @ 18"
L 2½ x 2½ x 3/16 = 12"
2'-0"

DETAIL 1 (S-4)

ANCHOR BOLTS
VESSEL BASE PL.
VESSEL LEG
PLAN
RADIUS "R"
#5 TIES
EL. 115'-0"
VARIES
#6 E.W.
4" ANCHOR BOLTS
#6 E.W.
ELEV.

TANK MARK	A. BOLT SIZE	A. BOLT PROJ.	R	B	G
T1	1"∅	6"	6'-8½"		12"
T2	1"∅	6"	6'-8½"		12"
T3	1"∅	6"	5'-1½"		12"
T4	1"∅	6"	5'-1¼"		12"
T5	¾"∅	5"	4'-4"		9"
T6	¾"∅	5"	4'-4"		9"
T7	¾"∅	5"	4'-4"		9"

NOTE: VERIFY ALL ANCHOR BOLT DETAILS AND DIMENSIONS WITH CERTIFIED VESSEL DWGS.

SECTION F, E (S-4) (S-3 & S-4)

L 3½ x 3½ x ¼ LLV W/ ½" x 6" WELD STUDS @ 24" O.C. FOR SECT E
L 3 x 3½ x 3/16 LLH W/ ½" x 4" WELD STUDS @ 24" O.C. FOR SECT F
GRATING 8" x ¼" GPI W-19-4 FOR SECT E
GRATING ¾" x ⅛" GPI W-19-4 FOR SECT F
SEALANT
#4 @ 12" O.C. E.W.
3'-0" SQ.
5'-0"
8"

SECTION G (S-4)

8'-0" (4'-0" + 4'-0")
W 6 x 15
TOP OF WALL EL. 117'-0"
2'-0"
PL ½ x 4 x 0'-9" W/ 2 - ¾"∅ HILTI KWIK BOLTS W/ 5" EMBED, 6" S.E.
HPFS EL. 115'-0"

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