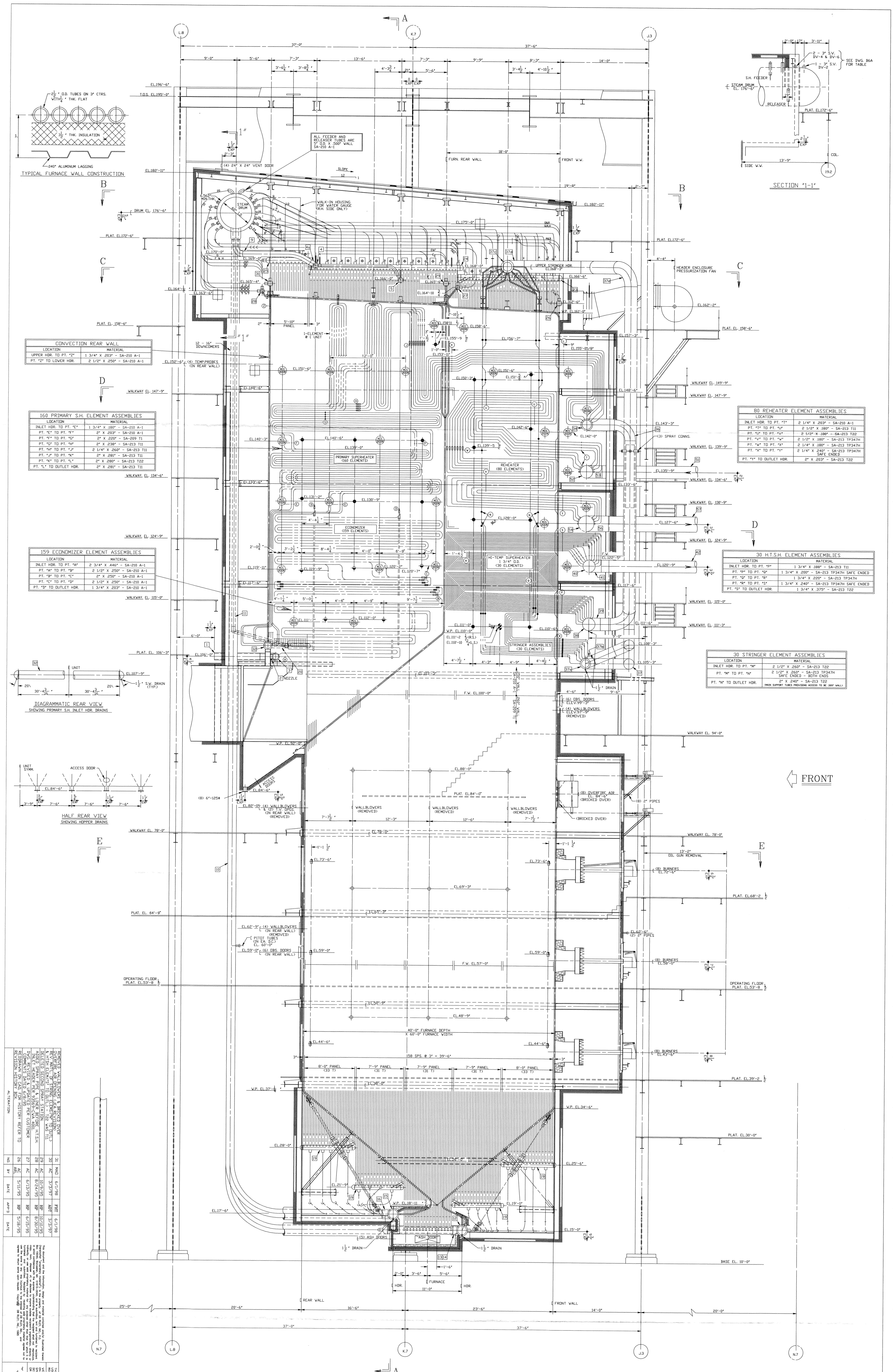

CONVECTION REAR WALL	
LOCATION	MATERIAL
UPPER HDR. TO PT. "Z"	1 3/4" X .203" - SA-210 A-1
PT. "Z" TO LOWER HDR.	2 1/2" X .250" - SA-210 A-1

160 PRIMARY S.H. ELEMENT ASSEMBLIES	
LOCATION	MATERIAL
INLET HDR. TO PT. "E"	1 3/4" X .180" - SA-210 A-1
PT. "E" TO PT. "F"	2" X .203" - SA-210 A-1
PT. "F" TO PT. "G"	2" X .220" - SA-209 T1
PT. "G" TO PT. "H"	2" X .238" - SA-213 T11
PT. "H" TO PT. "J"	2 1/4" X .260" - SA-213 T11
PT. "J" TO PT. "K"	2" X .281" - SA-213 T11
PT. "K" TO PT. "L"	2" X .280" - SA-213 T22
PT. "L" TO OUTLET HDR.	2" X .281" - SA-213 T11

159 ECONOMIZER ELEMENT ASSEMBLIES	
LOCATION	MATERIAL
INLET HDR. TO PT. "A"	2 3/4" X .446" - SA-210 A-1
PT. "A" TO PT. "B"	2 1/2" X .250" - SA-210 A-1
PT. "B" TO PT. "C"	2" X .250" - SA-210 A-1
PT. "C" TO PT. "D"	2 1/2" X .250" - SA-210 A-1
PT. "D" TO OUTLET HDR.	1 3/4" X .203" - SA-210 A-1

80 REHEATER ELEMENT ASSEMBLIES	
LOCATION	MATERIAL
INLET HDR. TO PT. "T"	2 1/4" X .203" - SA-210 A-1
PT. "T" TO PT. "U"	2 1/2" X .180" - SA-213 T11
PT. "U" TO PT. "V"	2 1/2" X .180" - SA-213 T22
PT. "V" TO PT. "W"	2 1/2" X .180" - SA-213 TP347H
PT. "W" TO PT. "X"	2 1/4" X .180" - SA-213 TP347H
PT. "X" TO PT. "Y"	2 1/4" X .240" - SA-213 TP347H SAFE ENDED
PT. "Y" TO OUTLET HDR.	2" X .203" - SA-213 T22

30 H.T.S.H. ELEMENT ASSEMBLIES	
LOCATION	MATERIAL
INLET HDR. TO PT. "P"	1 3/4" X .188" - SA-213 T11
PT. "P" TO PT. "Q"	1 3/4" X .200" - SA-213 TP347H SAFE ENDED
PT. "Q" TO PT. "R"	1 3/4" X .220" - SA-213 TP347H
PT. "R" TO PT. "S"	1 3/4" X .240" - SA-213 TP347H SAFE ENDED
PT. "S" TO OUTLET HDR.	1 3/4" X .375" - SA-213 T22

30 STRINGER ELEMENT ASSEMBLIES	
LOCATION	MATERIAL
INLET HDR. TO PT. "M"	2 1/2" X .260" - SA-213 T22
PT. "M" TO PT. "N"	2 1/2" X .260" - SA-213 TP347H SAFE ENDED - BOTH ENDS
PT. "N" TO OUTLET HDR.	2" X .240" - SA-213 T22 (MAIN SUPPORT TUBES PROVIDING ACCESS TO BE .320" WALL)

SECTIONAL L.H. SIDE ELEVATION

LOOKING EAST

LEGEND

- 16" DIA. ACCESS DOOR
- LONG RETRACT 36'-3" ℄ WALL TO END OF BLOWER
- HALF TRACT 20'-0" ℄ WALL TO END OF BLOWER
- WALLBLOWER 4'-6" ℄ WALL TO END OF BLOWER
- TEMP. PROBE 20'-0" ℄ WALL TO END OF BLOWER
- OBSERVATION DOOR
- 18" SQ. PLATE ACCESS DOOR

PIPING AND HEADER LIST

LOCATION NO.	DRAWING NO.	O.D.	DESCRIPTION
1	71016-2-1802-10	12 3/4"	ECONOMIZER INLET PIPE
2		14"	NOZZLES
3	71016-2-1601-10	14"	ECONOMIZER INLET HEADER
4	71016-2-1603-10	10 3/4"	ECONOMIZER OUTLET HEADER (REAR)
4a		10 3/4"	NOZZLES
5	71016-2-1603-20	10 3/4"	ECONOMIZER OUTLET HEADER (FRONT)
9	71016-2-1803-10	10 3/4"	ECONOMIZER TO DRUM PIPE
10	71016-5-1821-10	16"	DOWNCOMER - TO HOPPER HEADER
11	71016-5-1823-10	6 5/8"	DOWNCOMER - TO CONV. LWR. SIDE HDR.
12	71016-5-1641-10	21 1/2"	FRONT HOPPER HEADER
13		18"	NOZZLE
14		16"	NOZZLE
15	71016-5-1642-10	21 1/2"	REAR HOPPER HEADER
16		18"	NOZZLE
18	71016-5-1639-10	16"	SIDE HOPPER HEADER
19	71016-5-1643-10	8 5/8"	LOWER SIDE W.W. HEADER
20	71016-5-1654-10	8 5/8"	CONVECTION LOWER SIDE HEADER
21		8 5/8"	NOZZLE
23	71016-5-1646-10	10 3/4"	FRONT UPPER SIDE W.W. HEADER
24	71016-5-1646-20	10 3/4"	REAR UPPER SIDE W.W. HEADER
25	71016-5-1655-10	10 3/4"	CONVECTION UPPER SIDE HEADER
26	71016-5-1644-10	10 3/4"	UPPER FRONT W.W. HEADER
27	71016-5-1634-10	8 5/8"	FURNACE ROOF RELEASER HEADER
28	71016-5-1649-10	8 5/8"	CONVECTION ROOF RELEASER HEADER
29	71016-5-1645-10	10 3/4"	UPPER REAR W.W. HEADER
31	71016-3-1663-10	10 3/4"	S.H. CONV. REAR UPPER HEADER
32	71016-3-1605-10	16"	PRIMARY SUPERHEATER INLET HEADER
34	71016-3-1606-10	20 3/4"	PRIMARY SUPERHEATER OUTLET HEADER
36	71016-3-1814-10	20"	SUPERHEATER SPRAY PIPE & LINER
37	93569-3-1811-10	20"	PRIMARY SUPERHEATER CROSSOVER PIPE
37a	93569-3-1611-10	20"	LOWER STRINGER (INLET) HEADER
37b	93569-3-1828-10		"T" FORGING
37c	93569-3-1611-20	24"	UPPER STRINGER (OUTLET) HEADER
37d	93569-3-1828-20		"T" FORGING
37e	93569-3-1818-10	24"	CROSSOVER PIPE - UPPER STRINGER HDR. TO H.T.S.H. INLET HEADER
38	93569-3-1609-10	24"	H.T.S.H. INLET HEADER
39	71016-3-1828-20		"T" FORGING
40	71016-3-1610-10	23 1/4"	H.T.S.H. OUTLET HEADER
41	71016-3-1828-30		"T" FORGING
42	71016-3-1812-10	22 3/4"	SUPERHEATER BRANCH PIPE
43	71016-3-1828-40		"T" FORGING
44	71016-3-1828-50		REDUCER FORGING (S.H.)
51	71016-4-1601-20	24"	REHEAT. INLET HEADER EXTENSION
52	71016-4-1601-10	24"	REHEAT. INLET HEADER
53			NOZZLE
54	71016-4-1603-10	30"	REHEAT. OUTLET HEADER
55		31 3/4"	PIPE
56		31 3/4"	NOZZLE
57	71016-4-1812-10	29 1/4"	REHEAT. BRANCH PIPE
58	71016-4-1828-10		FORGING
59		30"	90\ L.R. ELBOW (R.H.)

GENERAL NOTES:

1. SOOT BLOWERS ON BOTH SIDES OF UNIT. ACCESS DOORS & OBSERVATION DOORS ON BOTH SIDES.
2. LAGGING MANUFACTURED BY REYNOLDS METAL CO. COLOR - DURANAR 200 BLUE IML90141.
3. EXTERNAL BLOWDOWN PIPING CONNECTED TO BOILER & WATER WALL BLOWDOWN VALVES SHALL BE SUSPENDED TO MOVE FREELY WITH EXPANSION MOVEMENT OF BOILER PRESSURE PARTS PLACING NO STRAIN ON BLOWDOWN VALVE.
4. CUSTOMER ARRANGE PIPE & VALVE CONNECTIONS TO BOILER & PARTS SO THAT NO EXCESSIVE EXPANSION STRAINS, PIPE LOADS OR OTHER STRESSES COME AGAINST BOILER CONNECTION. CONSULT WITH DB RILEY ENGINEERING DEPARTMENT ON PERMISSIBLE AMOUNT OF LOADS OR STRESSES.
5. BAFFLE ARRANGEMENT & OPENINGS SHOWN MUST NOT BE CHANGED WITHOUT CONSULTING THE ENGINEERING DEPARTMENT OF DB RILEY, INC.

CONTRACT REVISION HISTORY

CONTRACT	REVISION
77003	PRIMARY S.H. TUBES H.T.S.H. TUBES REHEATER TUBES S.W.W. MODIFICATION FRONT HEADER ENCLOSURE CASING STRUCTURAL STEEL
79512	STRUCTURAL STEEL IN DOWNCOMER ENCLOSURE, FRONT HEADER ENCLOSURE, FURNACE BOTTOM & BURNER WINDBOX
86613	REAR ARCH DEFLECTION TUBES
86620	PENTHOUSE ROOF FRONT HEADER ENCLOSURE HEADER ENCLOSURE PRESSURIZATION SYSTEM BURNER THROAT ASH HOPPER BURNER ROOF DECK ECONOMIZER SUPPORT CLAMPS ECONOMIZER HOPPER TRANSITION ECONOMIZER DEFLECTION BAFFLES WINDBOX STEEL REHEATER TUBE GUIDES EXPANSION JOINTS
88640	BURNER REPLACEMENT CLEANING & COOLING AIR OIL PIPING SUPPLY & RETURN COMMON GAS PIPING & VENT PIPING OVERFIRE AIR PORTS GAS RECIRCULATION DUCTS P & I GAS CONVERSION
93569	H.T.S.H. ELEMENTS REHEATER ELEMENTS PRIMARY S.H. ELEMENTS STRINGER ELEMENTS & HEADERS H.T.S.H. INLET HEADER S.H. PIPING AFTER SPRAY RELEASER TUBES ACCESS DOORS & SOOTBLOWERS CROSSOVER PIPING SEALS AT F.W.W., ROOF & HDR. ENCLOSURE THERMOCOUPLES INSULATION & LAGGING PIPE SUPPORTS
93569 CWA 4001	REVISED SPRAY LINERS FROM 2-2 NOZZLES TO 2-3 NOZZLES

ALTERATION	NO.	BY	DATE	APP'D	DATE
REMOVED WALLBLOWERS & BRICKED OVER OVERFIRE AIR OPENING (JEA REVISION)	31	MAO	6/1/98	FHT	6/1/98
REV. MAT'L. OF STRING. ELEMS.("N" TO OUTL.) & HTSH ELEM.("S" TO OUTL.) - T22 WAS T11.	30	AC	3/3/97	ADT	3/3/97
DELETED SECOND SPRAY STATION.	29	AC	10/9/95	HP	10/10/95
ADDED SPRAY PIPE & LINER BEFORE H.T.S.H. INLET HEADER PER 93569-CWA 4001.	28	AC	8/24/95	HP	8/30/95
DWG. REVISED & UPDATED PER CUSTOMER COMMENTS DATED 6/8/95	27	AC	6/13/95	HP	6/15/95
REDRAWN ON CAD, FOR HISTORY REFER TO REVISION HISTORY BOX.	26	AC ARL	5/11/95	HP	5/18/95

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WORK THIS DWG. WITH DWGS. 71016-B5A, B6 & B6A

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"F" MATERIAL FURNISHED BY
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G.P. 12/30/71
RELEASED & APPROVED DATE

REDRAWN BY: Arthur D. Crowley, Jr. DATE 5/11/95
CHECKED Val DATE 7-6-72
APP'D H.V. DATE 4/17/74

FUNCTIONAL REVIEW / APPROVAL
REVIEWED & APP'D / DATE

SCALE = 1/4" = 1'-0"

DO NOT SCALE — USE DIMENSIONS ONLY

SCALE 1/4 IN. = 1 FT.

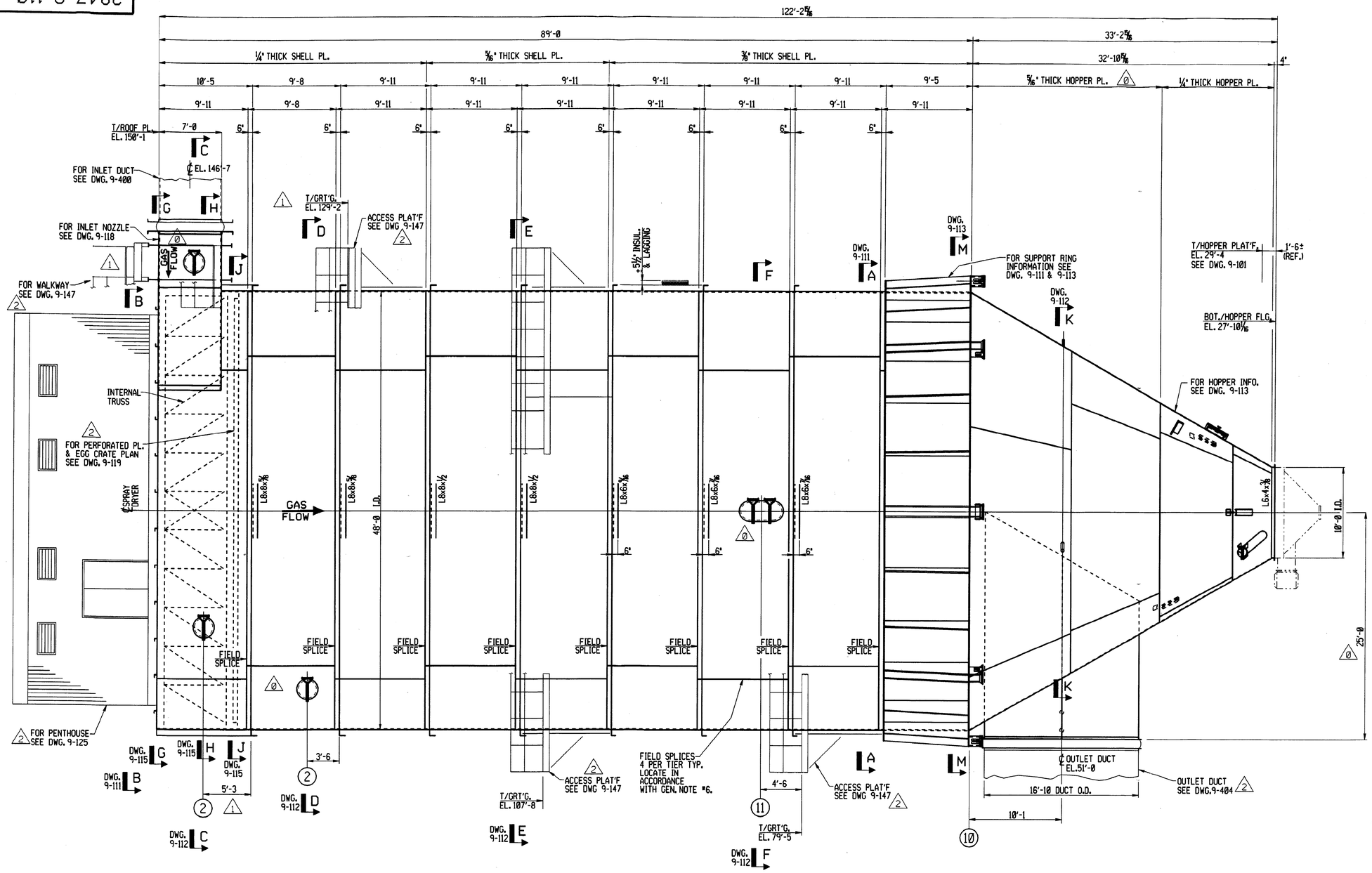
DEUTSCHE BA[...]
DB RI[...]
GENERAL AR[...]
RILEY STE[...]
SECTIO[...]
JACKSON[...]

CONSULTING ENGINEERS
REYNOLDS, SMITH & HILL

013176

SERIES	M-300
CLASS	ISR-40/60.5
WP	2875 DES.
F	
1	
2	1005 / 1005 T.T.
3	
4	
5	
6	
7	
8	
9	
10	3,548 / 3,139
11	
12	

3847-9-110



ELEVATION

LOOKING NORTH @ SDA #1

S.D.A. GENERAL NOTES:

1. ALL FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS, LATEST EDITION, U.N.
2. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE, LATEST EDITION, U.N.
3. THE SPRAY DRYER SHALL BE MADE FROM GRADE A36 STEEL U.N.
4. ALL WELDING SHALL BE DONE USING E-70 ELECTRODES.
5. ALL BUTT AND BEVEL WELDS ARE TO BE FULL PENETRATION WELDS.
6. ALL VERTICAL SPLICES SHALL BE STAGGERED FROM TIER TO TIER. NO VERTICAL SPLICE SHALL OCCUR WITHIN 2'-0 OF ANY SHELL PENETRATION.
7. TIER SEGMENTS TO BE MATCH MARKED FOR ERECTION ALIGNMENT.
8. ELEVATIONS @ TOP OF SPRAY DRYER SUPPORT STL. @ THE EIGHT SUPPORT POINT LOCATIONS SHALL ALL BE LEVEL WITHIN 1/8" OF EACH OTHER.
9. FOR SPRAY DRYER ATTACHMENT ITEM '◯' DESCRIPTIONS SEE DWG. 9-112.
10. FOR STANDARD DUCTWORK DETAILS SEE DWG. 9-915.
11. ALL INTERNAL SDA WELDS ARE TO BE GROUND SMOOTH.

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B&V DWG NO: 62.0200.05-C0126

NO.	REVISION	DWN.	CHK.	DATE
0	DRAWING CHECKED, REVISED TO SUIT & ADDED NOTE 11	RK	DLM	1-24-00
1	REVISED ACCESS & DIMENSION	RK	GL	3-10-00
2	REVISED NOTE 3 AND ADDED DWG'S REF. NO.	RK	WCC	5-25-00

NO.	REVISION	DWN.	CHK.	DATE

ISSUE RECORD

REV.	DATE	TO	FOR

REV.	DATE	TO	FOR
2	8-4-00	INSULATOR	BIDS
2	9-20-00	FOSTER WHEELER	INFORMATION

REV.	DATE	TO	FOR
A	1-14-00	FABRICATOR	BID
0	3-1-00	EXCELETECH	FABRICATION
1	3-14-00	EXCELETECH	FABRICATION
2	6-1-00	EXCELETECH	FABRICATION
2	7-14-00	WAPC & WATKINS	CONSTRUCTION

DRN. BY	RK	DATE	11-13-99
CHKD. BY	DLM	DATE	1-24-00
APPVD. BY	GG	DATE	3-1-00
SCALE	3/16"=1'-0		
CERTIFIED BY:		DATE:	

FOSTER WHEELER
JACKSONVILLE ELECTRIC AUTHORITY
UNIT #1 & #2 REPOWERING PROJECT

48'-0 DIA. SPRAY DRYER VESSEL ELEVATION

Wheelabrator Air Pollution Control
A Waste Management Company

DRAWING NUMBER: 3847-9-110
REV. NO. 2

m:\contract\3847\cad\38479110.dgn

PLOT DATE: 15 SEP 2000 13:39:57
LAST PLOTTED BY: RK

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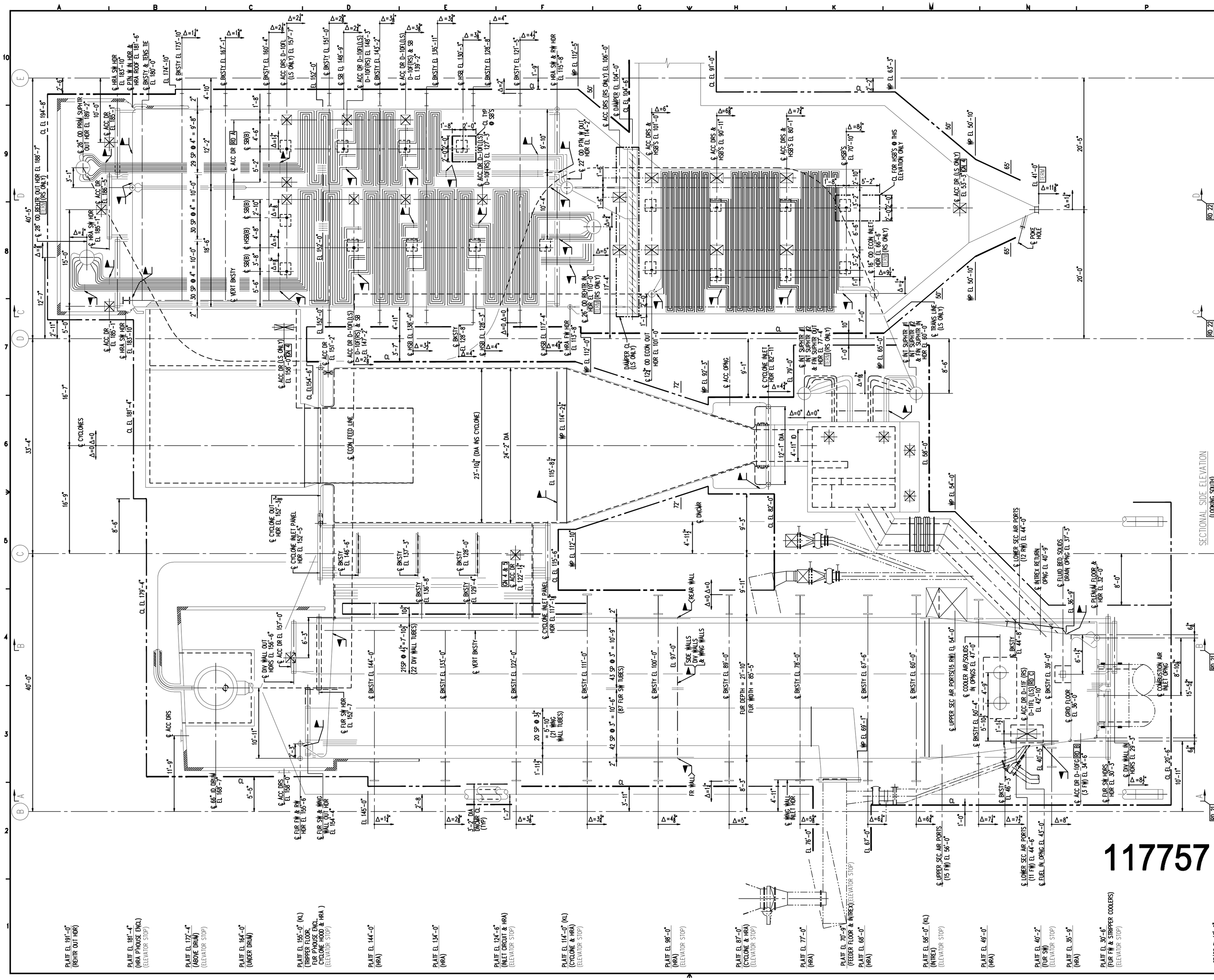

NOTES

1. DO NOT SCALE THIS DRAWING. USE FIGURE DIMENSIONS ONLY.
2. ABBREVIATIONS USED ON THIS DRAWING ARE IN ACCORDANCE WITH AMERICAN STANDARD "ABBREVIATIONS FOR USE ON DRAWING".
3. TERM DENOTES FOSTER WHEELER ENERGY CORP WORK TERMINATES.
4. "STEEP DROP-OFF WARNING" SIGN (L-903-57) TO BE FIELD INSTALLED ABOVE ACCESS DOOR.
5. "HOT MATERIAL WARNING" SIGN (L-903-56) TO BE FIELD INSTALLED ABOVE ACCESS DOOR.

LEGEND

℄ SB(B)	SOOTBLOWER (BALANCED DRAFT) (TYPE 2)
℄ HSB	HALF RETRACTABLE SOOTBLOWER (TYPE 2)
℄ ACC DR	18"X18" ACCESS DOOR
℄ ACC DR	18"X18" ACCESS DOOR W/ SIGHT PORT
℄ ACC DR	24"X18" ACCESS DOOR

REFERENCE DRAWINGS

GENERAL ARRANGEMENT LONGITUDINAL SECTIONS A-A & B-B	43-7587-5-21
GENERAL ARRANGEMENT LONGITUDINAL SECTIONS C-C & D-D	43-7587-5-22
A. 18" x 18" ACCESS DOOR ASSEMBLY WITH QUICK OPENING LATCH D-10F	0-1245-893
B. 18" x 18" ACCESS DOOR ASSEMBLY WITH QUICK OPENING LATCH AND OBSERVATION PORT D-10FG	0-1245-973
C. 36" x 18" ACCESS DOOR ASSEMBLY WITH QUICK OPENING LATCH D-11F	L-895-6 & 7

REV.	DATE	DR. ART.	DESCRIPTION
F	9/8/03	MDC	REVISED PER AS BUILT CONDITION: DELETED FRONT MOST DIV WALL.
E	12-23-99	CCC	DEL ONE ACC DOOR AT EL 108'-0". ADDED (LS) DOOR DESIGNATION FOR ACC DR @ EL 42'-10". DEL DOOR TYPE AND REF DWG FOR ACC DRS AT EL 108'-0", EL 101'-0", EL 90'-11" & EL 80'-1". DEL REF DWG D.
D	8-12-99	CCC	FRONT WALL LINE SEC AIR PORTS @ EL 44'-4" WAS 44'-0". HRA INT CL: 1'-9" TO COL E WAS 9'-0". ABOVE EL 152'-0" DIV WALL PANEL SPCG: 24 @ 31 SP; WERE 22 @ 23 SP. ADDED "ELEVATOR STOP" TO PLATFORMS @ EL 77'-0", EL 114'-0" & EL 172'-4". PLATF @ EL 181'-4" WAS EL 179'-4". "SHE" @ EL 147'-2" WAS NOTED AS "HOR" (TYPOGRAPHICAL ERROR ONLY). WING WALL: 20 SPACES WAS 28 SPACES. MOVEMENT AT FW SUPHTR OUT HDR WAS 12" UP & 4" MOVEMENT TO THE REAR WAS 1". REV LINE FUR BKSTY ARRGT TO AGREE WITH LATEST DESIGN.
C	5-26-99	CCC	ADDED WING WALL FIELD WELD @ EL 97'-0". UPPER SEC AIRPORTS IN FUR @ EL 54'-0" WAS 56'-0". ADDED ACC DR IN CYCLONE @ EL 135'-2". FUR FW FIELD WELD @ EL 42'-5" WAS 40'-2". ADDED DIV WALL FIELD WELD @ EL 97'-0". ACC DR @ EL 122'-1½" WAS EL 128'-9". INT SUPHTR 1,2 FW, SUPHTR HDRS 6'-0" FROM COL D WAS 5'-0". INT & FW IN HDRS @ EL 60'-0" WAS 60'-4". INT & FW OUT HDRS @ EL 77'-4" WAS 77'-0". FUR RH FIELD WELD @ EL 36'-9" WAS EL 46'-0". REVISED PLENUM CHAMBER BELOW GRD FLOOR TO INDICATE SLOPING FRONT AND REAR WALLS. DEL REAR WALL HDR. INTREX RETURN OPNG EL 40'-9" WAS 40'-1". 2'-5" DIM TO CL @ FUR ENCL FW WAS 6'-5". ADDED 8'-10¾" DIM TO COMBUSTION AIR INLET OPNG. PLATFS @ EL 40'-2", 49'-0", 56'-0" & 68'-0" WERE EL 39'-3", 46'-0", 57'-3" & 64'-0" RESP. ADDED PLATF @ EL 35'-0" ONCNR 4'-11" FROM COL C TOWARDS COL D WAS 4'-0" FROM COL C TOWARDS COL B. 1'-11" FROM FUR FW TO WING WALL WAS 2'-10". ADDED REF DWG D. BKSTY & VERS THE @ EL 150'-4" WAS EL 152'-7". 26" OD REHTR IN HDR WAS 22.6 @ & 28" OD REHTR OUT HDR WAS PLACED. REDUCE HSB @ EL 70'-10" & 70'-2" TO 2'-2" FROM ACC DR. ADDED FIELD WELD @ FUR RH UPPER HDR. 1'-11" DIM FROM COL B TO WING WALL IN FUR HDR WAS 2'-2". LRH HRA SH FIELD WELDS @ 10'-0" & 10'-4" WERE 10'-2" & 10'-4" RESP. REV FURNACE DOWNWARD WALLS. COOLER AIR/SOLIDS IN OPNGS @ EL 27'-0" WAS 46'-0". PLATF @ EL 179'-4" WAS EL 179'-0". REMOVED 36" x 52" MANWAY IN CYCLONE HOOD. SH FIELD WELD @ EL 97'-0" WAS EL 98'-0". AND FW & DW FIELD WELD @ EL 97'-0" WAS EL 113'-0". ACC DR WEL 42'-10" WAS 2'-11" FROM FUR FW.
B	3-18-99	CCC	13'-0" ADDED TO ALL ELEVATIONS. REVISED BUCKSTAY SPACING IN FURNACE, GAS INLET CIRCUIT & HRA. ACC DRS @ EL 108'-3" & EL 93'-3" WERE AT EL 106'-3" & 94'-3" RESP. RS'S @ EL 96'-4" & EL 114'-0" WERE AT EL 90'-0" & 114'-0" RESP. DEL KO @ EL 87'-0". PLATFS @ EL 36'-4" & EL 39'-3" WERE AT EL 36'-0" & EL 39'-4" RESP. ECON IN HDR @ EL 66'-5" WAS EL 66'-0". & REHTR IN HDR @ EL 110'-0" WAS EL 101'-0". ADDED UPPER AND LOWER SEC AIRPORTS. 7'-0" DIM TO ECON OUT HDR WAS 1'-9". FUR RH FIELD WELD @ EL 46'-0" WAS 45'-2". 22" OD PIN WALL OUT HDR WAS 18" OD. ACC DRS ON FW @ EL 54'-6" WERE ON RH @ EL 53'-1". CYCLONE INLET HDR EL 117'-1" WAS EL 117'-5". 26" OD PWM SUPHTR OUT HDR WAS 19" ID. PLATF @ EL 155'-0" WAS 154'-0". ACC DR IN FUR ENCL @ EL 151'-2" WAS 150'-4". ACC DR @ EL 46'-10" WAS 2'-7" FROM PLENUM WALL. ADDED ELEVATOR STOP LOCATIONS @ BKSTY @ EL 47'-8". DEL FUR RH BKSTY @ EL 133'-0". ADDED BKSTYS TO FUR BKSTYS @ EL 129'-4" & 136'-8". KL @ EL 57'-9" WAS EL 58'-0".
A	2-1-99	CCC	FIRST ISSUE

REVISIONS

FOSTER WHEELER ENERGY CORP
STEAM GENERATOR
GENERAL ARRANGEMENT
CROSS SECTION

JEA JACKSONVILLE, FLORIDA

NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT
Equipment No.: N01-BB & N02-BB
B&V Drawing No.: 62.3401.05-C0001

DRAWING NUMBER	SCALE:	REVISION
43-7587-5-20	3/16" = 1'-0"	F

DRAWN BY	CCC 1-4-99	200758700 UNIT 2 DOE
CHECKED BY		200761000 UNIT 1 JEA
APPROVED BY		

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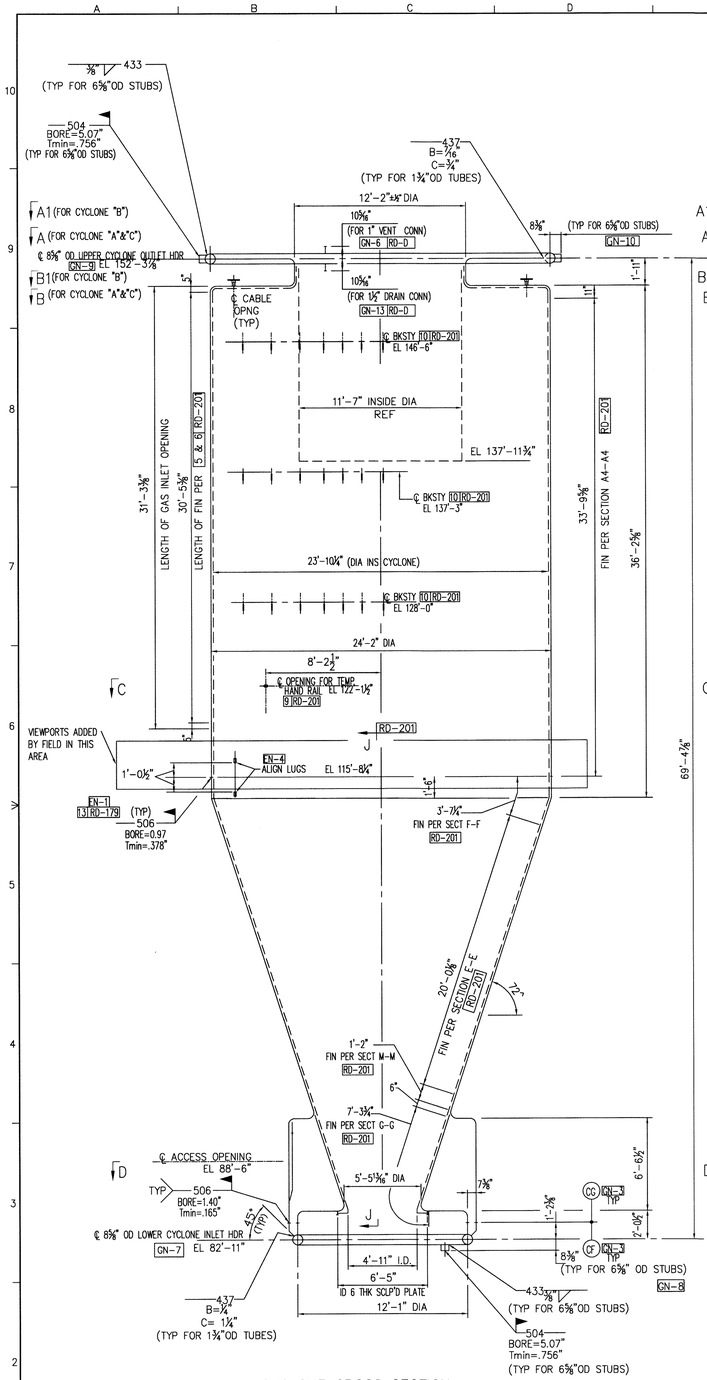
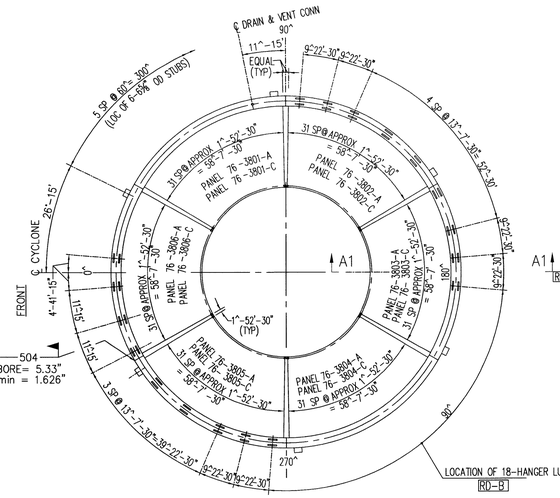
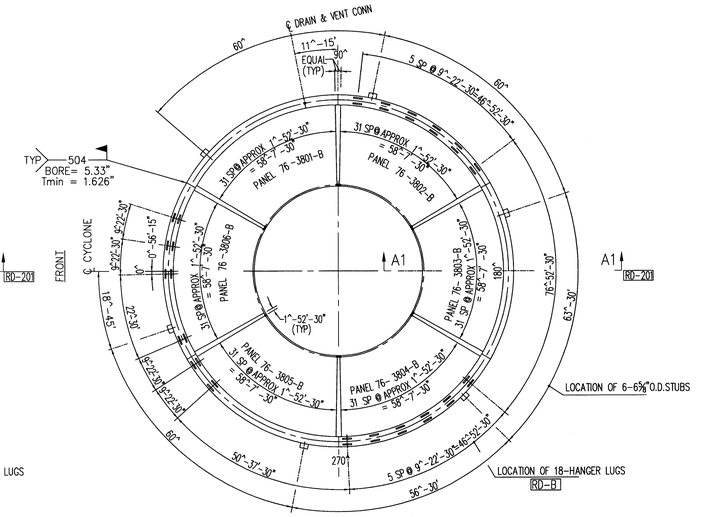
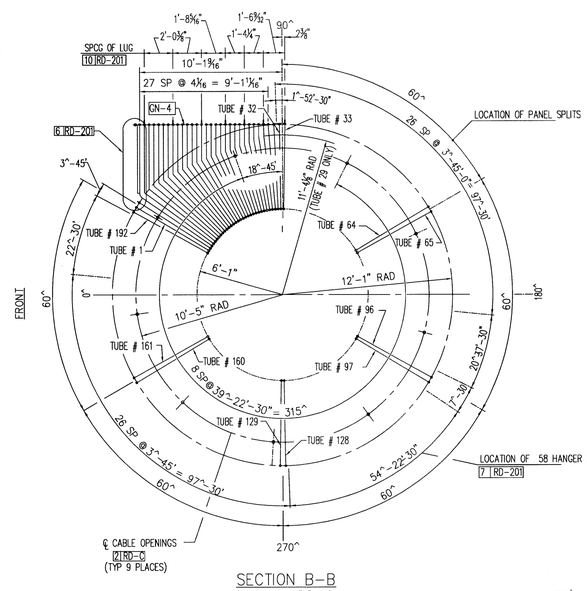
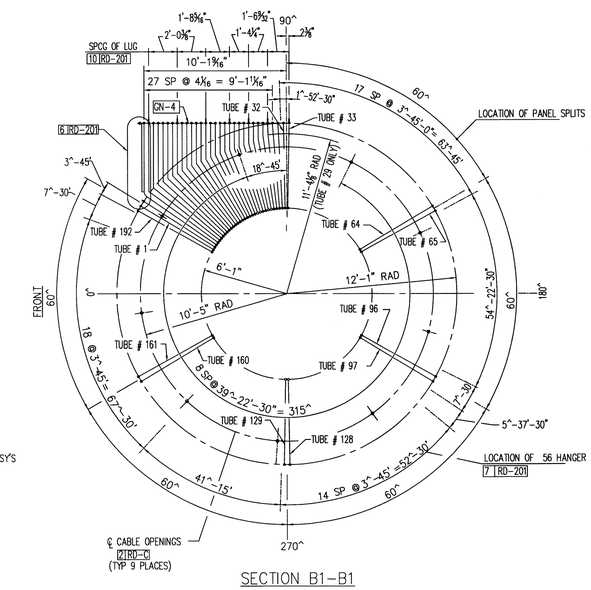
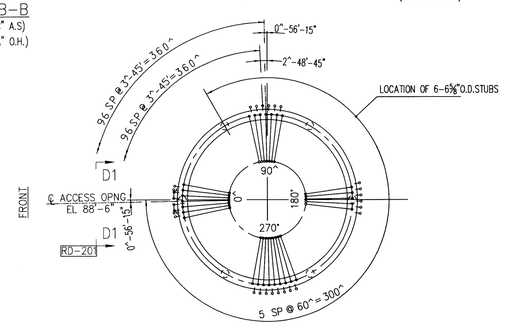








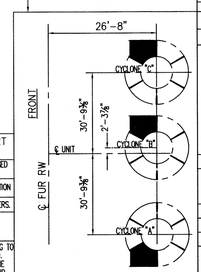




NOTE: CYCLONE DESIGNATIONS REVISED.

117772

REV	DATE	DR. INIT.	DESCRIPTION
G	9/23/03	WDC	ADDED FIELD INSTALLED VIEWPORT NOTE IN CROSS SECTION.
F	7-10-00	CCC	CROSS SECT. SECT A-A, B-B & KEY PLAN: REVERSED CYCLONE "A" & "C" DESIGNATION.
E	12-24-99	PG	REVISED LENGTH OF INNER BARREL & ADDED ELEVATION
D	8-10-99	PG	REVISED CUSTOMER DRAWING AND EQUIPMENT NUMBERS.
C	7-15-99	BAB	REMOVED HOLD FOR VENT CONN & MOVED DRAIN CONN. RD-C WAS 0-1244-568 ADDED THE EQUIPMENT NO. & B&V DWG NO
B	5-5-99	BAB PG	CHANGED TUBE MAT'L FOR LOWER HEADER FROM CC TO CF REVISED THE BORE & Tmin FOR THE 506 WELD. ALSO THE B DIM FOR THE A37 WELD AND ADDED THE C DIM. ADDED BKSTY INF & OPENING FOR TEMP HAND RAIL. IN SECTION A-A REV THE SPCG OF HANGER LUGS NEAR THE FRONT. REV GN-3 ADDED GN-18, EN-6 & RD-203.



NOTES

1. DO NOT SCALE THIS DRAWING. USE FIGURE DIMENSIONS ONLY.
2. ABBREVIATIONS USED ON THIS DRAWING ARE IN ACCORDANCE WITH AMERICAN STANDARD "ABBREVIATIONS FOR USE ON DRAWING".
3. (CC) 1¾"O.D. X .378" M.W. SA-213 T12 SUPER HOT FINISH
   (CF) 1¾"O.D. X .165" M.W. SA-213 T12 SUPER HOT FINISH
   1¾" O.D. TUBES BENT ON 5" RADIUS.
4. CLOSE ALL GAPS AS NOTED BELOW:
   GAPS LESS THAN OR EQUAL TO 2¾" WIDE USE ¼" THK PLATE.
   GAPS GREATER THAN 2¾" UP TO AND INCLUDING 3" WIDE, USE ⅝" THK PLATE.
   GAPS GREATER THAN 3" UP TO AND INCLUDING 3¾" WIDE USE ⅜" THICK PLATE.
   ALL PLATE TO BE A-36 UNLESS NOTED OTHERWISE.
6. VENT CONN TO BE 1" XXHVY PIPE SA-335-P11, PLAIN END FOR SOCKET WELDING.
7. LOWER RING HDR TO BE 6⅝"O.D.X 1.664"MW SA-106-C.
8. LOWER RING STUBS TO BE 6⅝"O.D. X .938"MW SA-106-C.
9. UPPER RING HDR TO BE 6⅝" O.D. X 1.626"MW SA-335-P11.
10. UPPER RING STUBS TO BE 6⅝"O.D. X .938"MW SA-335-P11.
11. FOR APPLICABLE TOLERANCES SEE HEADER RD-E, F & G
    PANEL RD-H
13. DRAIN CONN TO BE 1½" XXHVY PIPE SA-335-P11, PLAIN END FOR SOCKET WELDING.
14. HEADERS IN ACCORDANCE WITH A.S.M.E CODE SECT 1, PAR. PG 27-2-2
15. RADIOGRAPHING OF CIRC JOINTS IN HEADERS IS REQUIRED.
16. STRESS RELIEVING OR PREHEATING OF PANELS IS REQUIRED.
17. PANELS DESIGNATED #-A FOR CYCLONE "A"
    PANELS DESIGNATED #-B FOR CYCLONE "B"
    PANELS DESIGNATED #-C FOR CYCLONE "C"
18. SEE "REFRACTORY SETTING SPECIFICATION" FOR TYPE OF REFRACTORY MATERIAL TO BE USED.

SHOP NOTES

1. SHOP TO CLOSE ALL GAPS LESS THAN ⅜"WITH ¼" DIA BAR. FOR GAPS ⅜" AND OVER CLOSE GAPS PER GN-4 . WELDS ARE TO BE EQUIVALENT TO ¼" NOMINAL WEB THK.
2. SHOP TO INSURE IN THE AREA OF ALIGNMENT LUGS THAT STUD BOLTS CAN BE INSTALLED FROM TOP.
3. SHOP TO INSTALL STUDS PER 43-7587-5-810
4. PRE-TENSION LINKS PRIOR TO WELLDING TO ENSURE THAT ALL LINKS ARE FULLY ENGAGED AND IN TENSION. THIS WELD IS TO BE MADE AFTER ALL WELDING AND POST WELD HEAT TREATMENT OF HEADER.
5. SHOP TO TRIAL FIT PANELS TO INSURE PROPER FIT-UP IN FIELD.

ERECTORS NOTES

1. PERMANENT CYCLONE SUPPORTS SHOULD BE IN PLACE AND THE UPPER RING PANELS WELDED TOGETHER PRIOR TO INSTALLING THE LOWER RING PANELS.
2. ERECTOR TO POSITION THE INNER BARREL TO MAINTAIN 1"MIN CLEAR ALL AROUND FROM FACE OF REFRACTORY.
3. STUDS TO BE REMOVED ON TUBES AND/OR FINS IN THE AREA OF CLEAN-OUT TAPS.
4. FIELD TO INSTALL STUDS AFTER LUGS ARE REMOVED.
5. STUDS AND S BAR ANCHORS TO BE FIELD INSTALLED AT PANEL SPLITS. PATTERN TO BE IN ACCORDANCE WITH RD-810
6. ERECTOR TO INSERT HAND RAIL ACROSS INLET BEFORE MAKING THIS WELD TO ENSURE ALIGNMENT.

REFERENCE DRAWINGS

GENERAL ARRANGEMENT CROSS SECTION	43-7587-5-20
CYCLONE SECTIONS AND DETAILS	43-7587-5-201
TYPICAL DETAILS FOR FIELD WELDING PANEL JOINTS	43-7587-5-179
FURNACE TO CYCLONE TO HRA SECTIONAL ARRANGEMENT	43-7587-5-203
REFRACTORY SETTING FOR CYCLONE	43-7487-5-810
A. PANEL ALIGNMENT ASSEMBLIES	0-1073-15
B. HANGER LUG DETAIL	L-991-30
C. CABLE OPENING DETAILS	L-993-92
D. CONNECTION FORGING	0-1042-42
E. NORMAL FABRICATION TOLERANCE FOR PIPE AND HEADERS 6⅝" O.D. AND LARGER	0-1043-1
F. MEDIUM TOLERANCES ON STUBBED HEADERS	0-1042-31
G. TUBE SEAT TOLERANCE FOR PANEL HEADERS	0-1042-39
H. PANEL TOLERANCES-CLOSE WELDED FINS	0-1072-219

A 4-16-99 BAB DRAWING COMPLETED AND CHECKED

REV.	DATE	DR. INIT.	DESCRIPTION

REVISIONS

CYCLONE SECTIONAL ARRANGEMENT

JEA JACKSONVILLE, FLORIDA

NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT
Equipment No.: NO1-SK, NO2-SK
B&V Drawing No.: 62.3401.05-C0038

DRAWING NUMBER	SCALE:	REVISION
43-7587-5-200	¼"=1'-0"	G

DRAWN BY	BAB	1-18-99	200758700 UNIT 2 DOE
CHECKED BY	PG	4-16-99	200761000 UNIT 1 JEA
APPROVED BY			

FW

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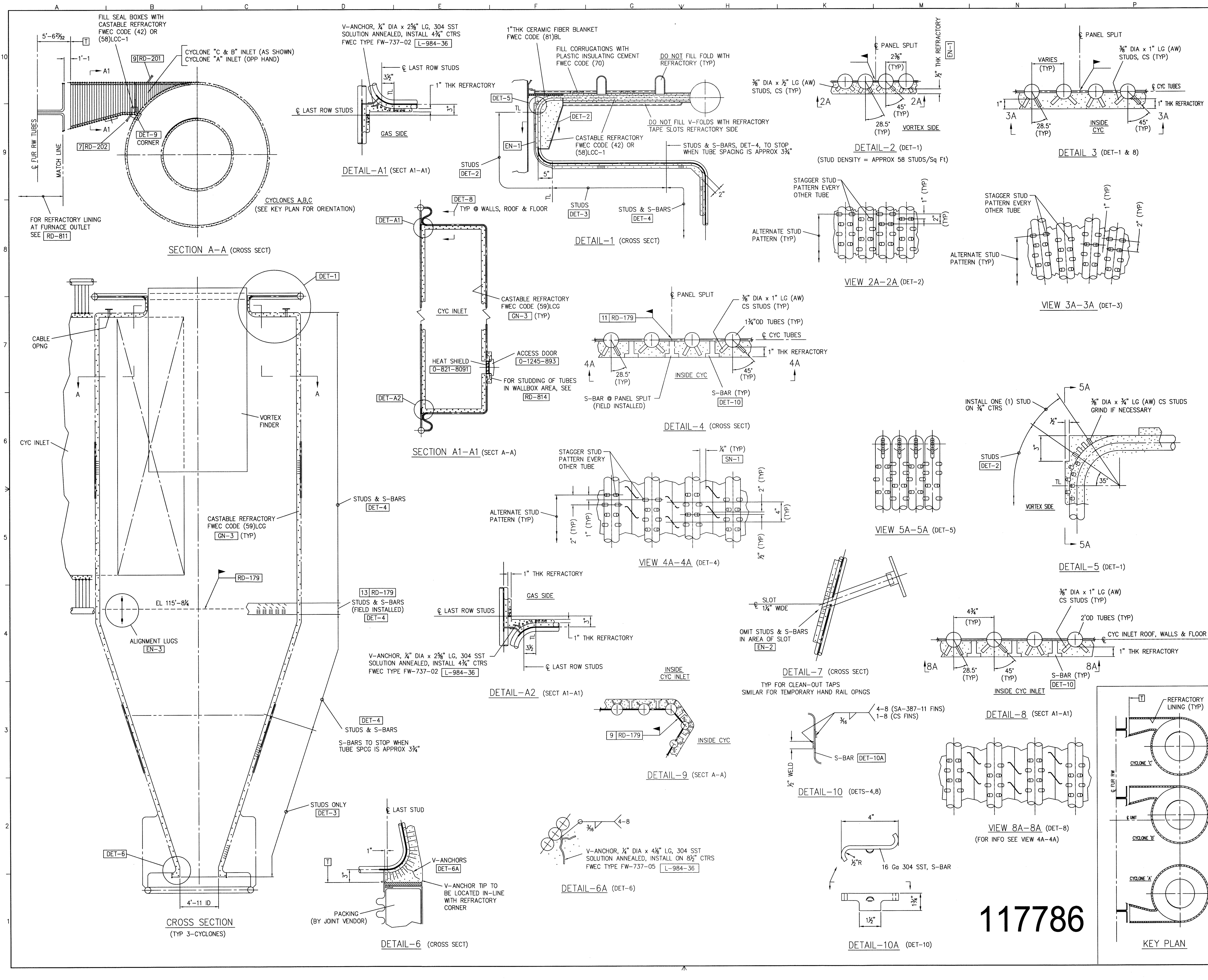

117786

NOTES

1. DO NOT SCALE THIS DRAWING. USE FIGURE DIMENSIONS ONLY.
2. ABBREVIATIONS USED ON THIS DRAWING ARE IN ACCORDANCE WITH AMERICAN STANDARD "ABBREVIATIONS FOR USE ON DRAWING".
3. REFRACTORY MATERIAL TO BE LOW CEMENT CASTABLE GUNMIX, FWEC CODE (59)LCG, WITH 2% BY WEIGHT 304 SST NEEDLES.
4. ALL ANCHORS TO BE SHOP INSTALLED EXCEPT AT PANEL SPLIT LOCATIONS, REF DWG 43-7587-5-179 AND WHERE NOTED.
5. ALL REFRACTORY TO BE FIELD INSTALLED.

REFERENCE DRAWINGS

TYP DETAILS FOR FIELD WELDING AT PANEL SPLITS	43-7587-5-179
CYCLONE ARRANGEMENTS	43-7587-5-200 THRU 203
REFRACTORY SETTING UPPER FUR & CYC ENTRANCE	43-7587-5-811
REFRACTORY SETTING & ANCHORING, WALLBOXES TUBE WALL OPNGS & DOOR PLUGS	43-7587-5-814
FURNACE OUTLET/CYC INLET EXPANSION JOINT	43-7587-5-816
TYPICAL REFRACTORY ANCHORS	L-984-36

SHOP NOTES

1) S-BAR ANCHORS MAY BE ROTATED SLIGHTLY TO CLEAR ADJACENT STUDS IF NECESSARY.

ERECTOR NOTES

1) REFRACTORY ON VERTICAL TUBES, DETAIL-2, TO BE INSTALLED PRIOR TO ERECTING VORTEX FINDER IN PLACE.
2) OMIT REFRACTORY AT CLEAN OUT TAPS, CABLE OPENINGS AND TEMPORARY HANDRAIL OPENINGS APPROXIMATELY 1½" x 1¼."
3) STUDS AND S-BARS TO BE FIELD INSTALLED AT AREAS WHERE ALIGNMENT LUGS WILL BE REMOVED, PATTERN TO BE THE SAME AS ON ADJACENT TUBES.

REV.	DATE	DR. INIT.	DESCRIPTION
D	11-26-02	WDC	REV'D PER 'AS-BUILT' CONDITION, CORRECTED CYCLONE LETTER DESIGNATIONS.
C	12-17-99	WB	ADDED EQUIPMENT NO. IN TITLE BOX.
B	10-15-99	WB	REV'D; DETS-1 & 5 AND SECTION A-A.
A	5-21-99	WB	FIRST ISSUE

REVISIONS

REFRACTORY SETTING FOR CYCLONE & INLET

JEA JACKSONVILLE, FLORIDA

NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT
Equipment No.: NO1-SK, NO2-SK
B&V Drawing No.: 62.3401.05-C0055

DRAWING NUMBER	SCALE: ¼"=1-0"	REVISION
43-7587-5-810		D

DRAWN BY	WB	2-23-99	200758700 UNIT 2 DOE
CHECKED BY			200761000 UNIT 1 JEA
APPROVED BY			

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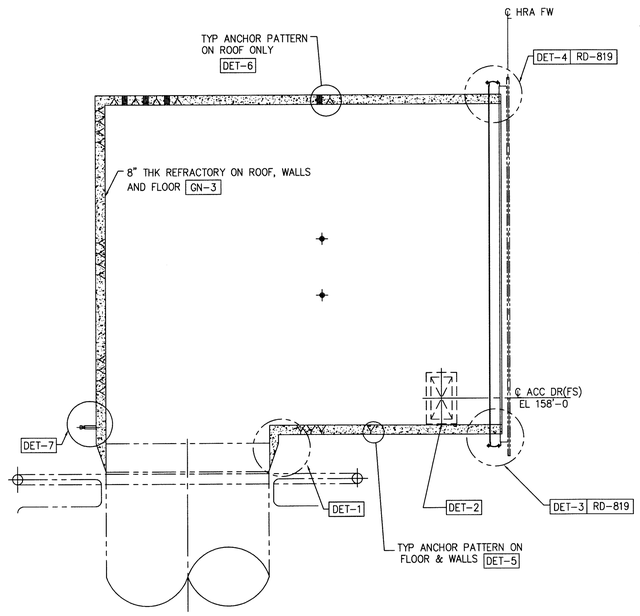
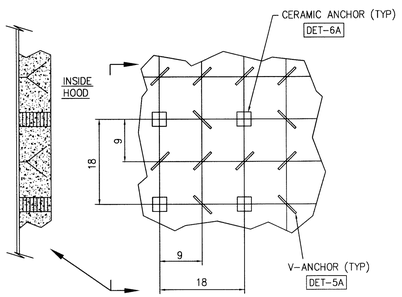
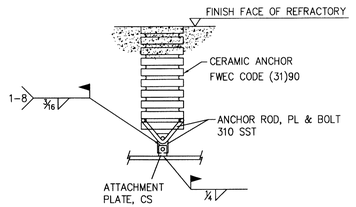


SECT A-A

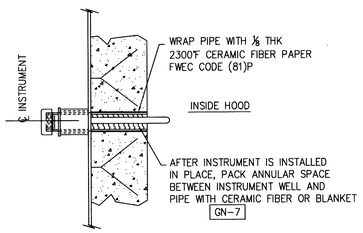


DET-6 SECT A-A

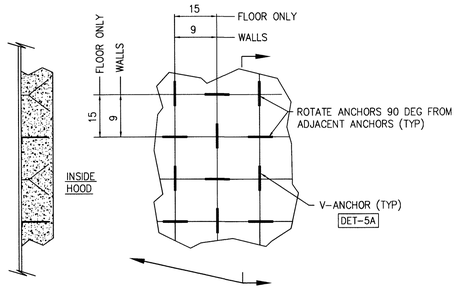
TYP ANCHOR PATTERN & ORIENTATION @ ROOF ONLY



DET-6A DET-6

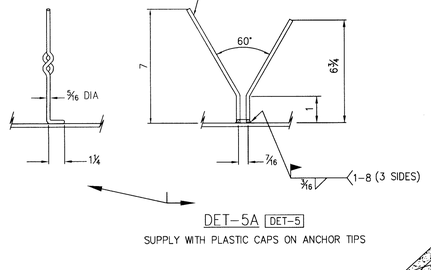


DET-7 SECT A-A



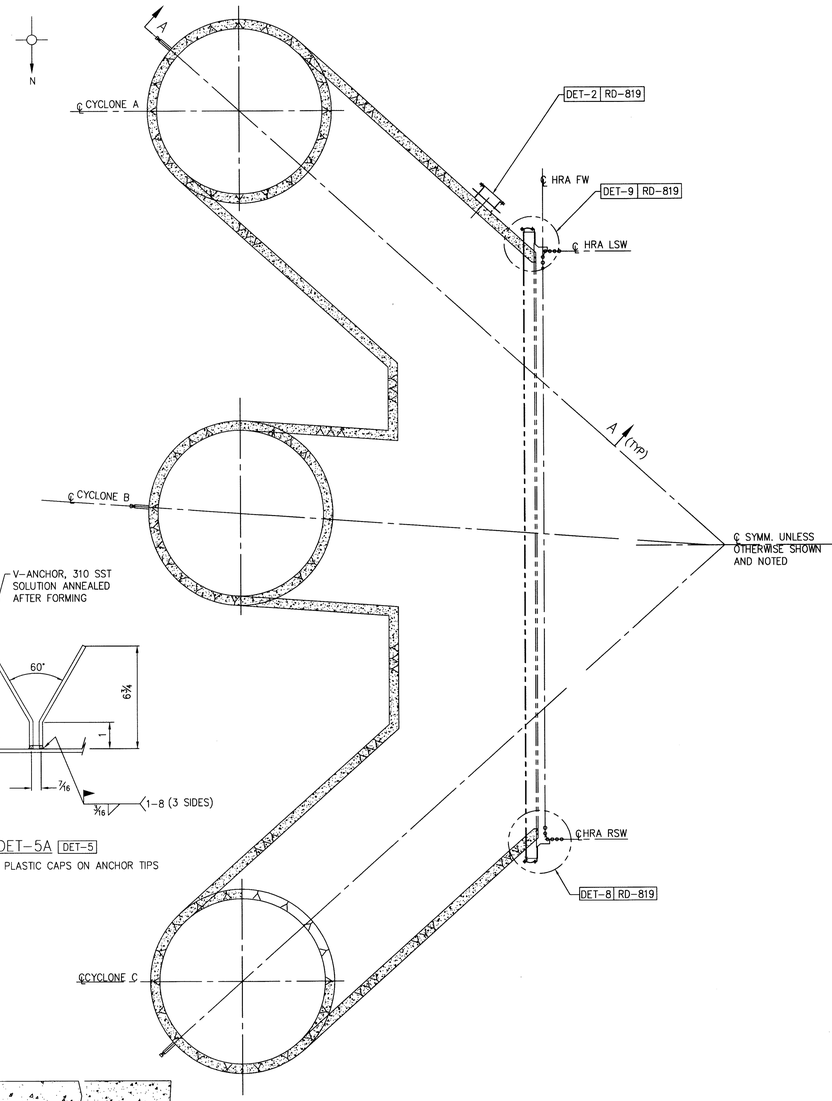
DET-5 SECT A-A

TYP ANCHOR PATTERN & ORIENTATION @ WALLS & FLOOR

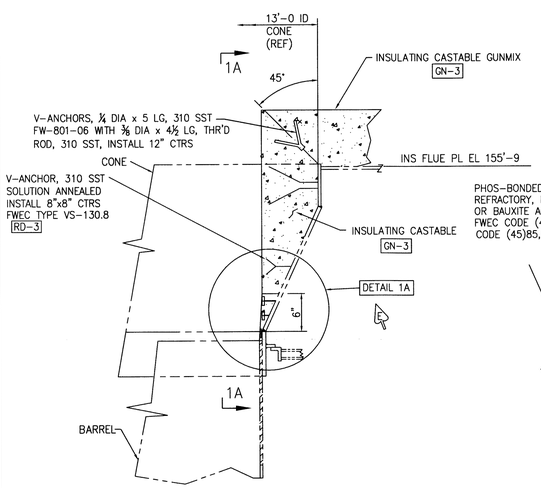


DET-5A DET-5

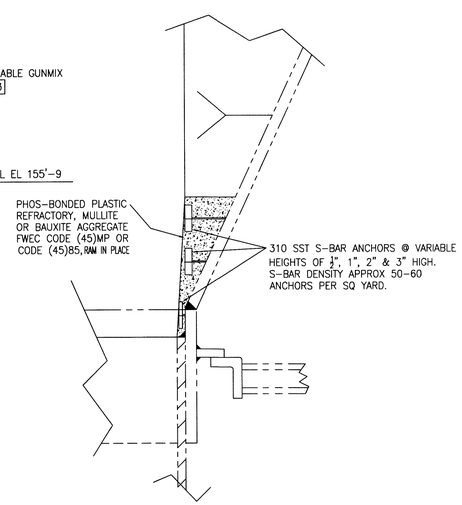
SUPPLY WITH PLASTIC CAPS ON ANCHOR TIPS



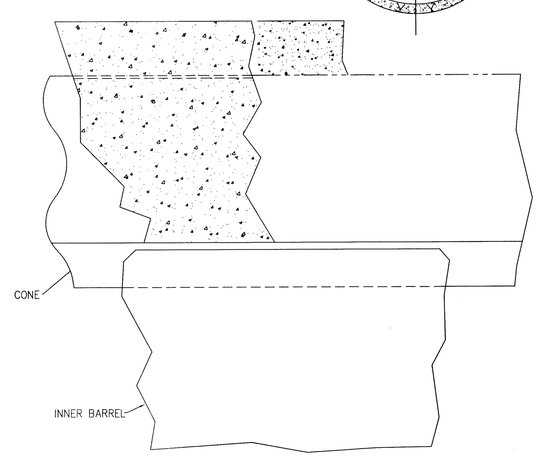
KEY PLAN



DET-1 SECT A-A



DET-1A



SECT 1A-1A DET-1

117905

NOTES

1. DO NOT SCALE THIS DRAWING. USE FIGURE DIMENSIONS ONLY.
2. ABBREVIATIONS USED ON THIS DRAWING ARE IN ACCORDANCE WITH AMERICAN STANDARD "ABBREVIATIONS FOR USE ON DRAWING".
3. FIELD INSTALL 8" THK, SINGLE LAYER, INSULATING CASTABLE GUNMIX, FWEC CODE (40)MWG, TO INSIDE SURFACES OF HOOD PLATEWORK AT WALLS AND ROOF. FLOOR AREAS TO BE CAST WITH FWEC CODE (40) MWC.
4. ALL ANCHORS TO BE FIELD INSTALLED
5. INDICATES MATERIAL FURNISHED BY PRESSURE PARTS.
6. FABRIC SEAL BELT WITH MOUNTING ANGLE, PILLOW, BOLTS, NUTS AND WASHERS SUPPLIED BY FABRIC JOINT VENDOR.
7. CERAMIC FIBER BLANKET, 1" THK, GOOD FOR 2300°F, 8 PCF DENSITY.
8. CERAMIC FIBER PAPER, 1/8" THK, GOOD FOR 2300°F.

REFERANCE DRAWINGS

1. TYPICAL REFRACTORY ANCHORS L-984-36
2. 18"X36" QUICK RELEASE ACCESS DOOR ASSEMBLY L-895-6 & 7
3. REFRACTORY ANCHORS- STRAIGHT V-ANCHOR (US) 0-821-8121

FLUE CYC TO HRA ASSEMBLY & DETAILS 43-7587-5-305,306 &307

REFRACTORY SETTING FOR CYCLONE HOOD SECTIONS & DETAILS 43-7587-5-819

REV.	DATE	DR. INIT.	DESCRIPTION
E	7/23/03	WDC	ADDED DETAIL 1A.
D	7-8-03	WDC	REV'D DET 1 & SECT 1A-1A. ADDED RD-3.
C	7-6-00	MB	ADDED JEA EQUIPMENT NO. IN TITLE BOX.
B	4-17-00	MB	ADDED B&V DRAWING NO. IN TITLE BOX.
A	1-21-00	YB	FIRST ISSUE

REVISIONS

REFRACTORY SETTING CYCLONE HOOD

JEA JACKSONVILLE, FLORIDA

NORTHSIDE UNITS 1 & 2 REPOWERING PROJECT
Equipment No.: N01-B0, N02-B0
B&V Drawing No.: 62.3401.05-C0175

DRAWING NUMBER	SCALE: 1/4 =1'-0"	REVISION
43-7587-5-818		E

DRAWN BY	YB	10-18-99	200758700 UNIT 2 DOE
CHECKED BY			200761000 UNIT 1 JEA
APPROVED BY			

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JEA Scaffold Request Form

Instructions: This form will be completed by the JEA Job Requestor and Scaffold Contractor. All items listed on this form are required to be completed prior to scaffold erection. Details on the scaffold construction process are found in Paragraph 9.2 of the Technical Specifications.

This section is to be completed by the JEA Job Requestor:

JEA Job Requestor _____

Erection Start Date _____

Job Duration (months)_____

Area _____

Scaffold Location (Be Specific)_____

Work Scope Detail:

_____

_____

_____

PWO Number _____ PO Number_____

Estimated Scaffold Size: length_____; width_____; height_____

This section is to be completed by the contractor:

Promised Erection Completion Date _____

Job Size/Number of Pieces _____ Location Adjustment_____

Erection Price _____

Rental Price _____

Removal Price _____

Total Job Price _____

Contractor Signature _____ JEA Job Requestor Signature _____

(Note: the above prices are binding except for the "Rental Price" which will be reflective of the actual time scaffold is in service as outlined in the JEA Technical Specifications)

SAMPLE